

Collegamento tra l'A4 (Torino–Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri–Gravellona) in località Ghemme. Lotto 1

PROGETTO DEFINITIVO

COD.

PROGETTAZIONE: ANAS - DIREZIONE PROGETTAZIONE E REALIZZAZIONE LAVORI

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IL COORDINATORE PER LA SICUREZZA IN FASE DI PROGETTAZIONE

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VISTO: IL RESPONSABILE DEL PROCEDIMENTO :

ing. Nicolò Canepa

PROTOCOLLO

DATA

GEOTECNICA

PONTE FIUME SESIA E RELATIVE OPERE PROVVISORIALI - VI06

RELAZIONE GEOTECNICA E DI CALCOLO - TABELLE DI CALCOLO

CODICE PROGETTO

NOME FILE

REVISIONE

SCALA:

PROGETTO LIV. PROG. N. PROG.

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DPT007 D 1701

CODICE ELAB. T00VI06GETRE02

A

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C

B

A

Emissione

18/5/2018

Ing. A. Mangiola

Ing. E. Mittiga

Ing. A. Micheli

REV.

DESCRIZIONE

DATA

REDATTO

VERIFICATO

APPROVATO

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1. VERIFICHE DI STABILITÀ GLOBALE ARGINE PROVVISORIO SPONDA DX

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

Slope Stability

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
Apply Phreatic Correction: No
Side Function
Interslice force function option: Half-Sine
PWP Conditions Source: Piezometric Line
Use Staged Rapid Drawdown: No
Slip Surface
Direction of movement: Left to Right
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
FOS Distribution
FOS Calculation Option: Constant
Advanced
Number of Slices: 30
Optimization Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Gradonatura
Model: Mohr-Coulomb
Unit Weight: 16 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1
Argilla
Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion: 5 kPa
Phi: 28 °
Phi-B: 0 °
Sabbia
Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Cohesion: 0 kPa
Phi: 37 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Slip Surface Entry and Exit

Left Projection: Range
Left-Zone Left Coordinate: (4.7, 4.7) m
Left-Zone Right Coordinate: (6, 5.5) m

Left-Zone Increment: 4
Right Projection: Range
Right-Zone Left Coordinate: (10.972, 2.09) m
Right-Zone Right Coordinate: (13.52, 0) m
Right-Zone Increment: 4
Radius Increments: 4
Slip Surface Limits
Left Coordinate: (-6.5, 0) m
Right Coordinate: (19, 0) m
Piezometric Lines

**Piezometric Line 1
Coordinates**

	X (m)	Y (m)
	11.5	1.5
	19	1.5

Piezometric Line 2
Coordinates

	X (m)	Y (m)
	-6.5	0
	19	0

Regions

	Material	Points	Area (m ²)
Region 1	Sabbia	8,9,10,5,2,1,7	102
Region 2	Argilla	2,1,4,3	31.7625
Region 3	Gradonatura	3,6,5,2	9.7625

Points

	X (m)	Y (m)
Point 1	0	0
Point 2	10.05	0
Point 3	7	5.5
Point 4	5.5	5.5
Point 5	13.1	0
Point 6	7.5	5.5
Point 7	-6.5	0
Point 8	-6.5	-4
Point 9	19	-4
Point 10	19	0

Critical Slip Surfaces

	Slip Surface	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	122	1.186	(19.42, 15.957)	17.013	(6, 5.5)	(12.8172, 0.277709)

Slices of Slip Surface: 122

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	122	6.125	5.343429	0	-1.4769276	-0.78529631	5
2	122	6.375	5.037535	0	2.3351011	1.2415953	5
3	122	6.625	4.7455645	0	5.9538827	3.1657356	5
4	122	6.875	4.466454	0	9.4115549	5.0042125	5
5	122	7.125	4.199287	0	12.447244	6.6183169	5
6	122	7.375	3.943265	0	15.086018	8.0213778	5
7	122	7.609866	3.711989	0	16.360223	8.6988849	5
8	122	7.829598	3.503783	0	16.268578	8.6501563	5
9	122	8.04933	3.302819	0	16.10556	8.5634779	5
10	122	8.2690615	3.1087565	0	15.870643	8.4385704	5
11	122	8.490394	2.919967	0	15.758764	13.223173	0
12	122	8.713328	2.7362595	0	15.673335	13.15149	0
13	122	8.936262	2.5587805	0	15.526204	13.028032	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

14	122	9.1591955	2.387285	0	15.313094	12.849212	0
15	122	9.382129	2.221549	0	15.029283	12.611066	0
16	122	9.605063	2.061366	0	14.670709	12.310186	0
17	122	9.827997	1.9065465	0	14.232869	11.942795	0
18	122	10.050932	1.756915	0	13.711227	11.505086	0
19	122	10.273865	1.6123085	0	13.103076	10.994786	0
20	122	10.496795	1.472577	0	12.405003	10.409034	0
21	122	10.71973	1.3375805	0	11.615514	9.7465731	0
22	122	10.942665	1.207189	0	10.73438	9.0072143	0
23	122	11.1656	1.081281	0	9.7618758	8.1911864	0
24	122	11.388535	0.95974355	0	8.7003974	7.3005003	0
25	122	11.536365	0.8810399	6.0700939	9.1896424	2.617612	0
26	122	11.69718	0.7986253	6.8783438	9.5521416	2.2435827	0
27	122	11.94608	0.67436685	8.0968884	10.445397	1.9706331	0
28	122	12.194985	0.555133	9.2661736	11.144142	1.5758029	0
29	122	12.44389	0.4408079	10.387352	11.636165	1.0478783	0
30	122	12.69279	0.3312838	11.461457	11.914616	0.38024564	0

2. VERIFICHE DI STABILITÀ GLOBALE ARGINE PROVVISORIO SPONDA SX

Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

Slope Stability

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
Apply Phreatic Correction: No
Side Function
Interslice force function option: Half-Sine
PWP Conditions Source: Piezometric Line
Use Staged Rapid Drawdown: No
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
FOS Distribution
FOS Calculation Option: Constant
Advanced
Number of Slices: 30
Optimization Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Gradonatura
Model: Mohr-Coulomb
Unit Weight: 16 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1
Argilla
Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion: 5 kPa
Phi: 28 °
Phi-B: 0 °
Sabbia
Model: Mohr-Coulomb
Unit Weight: 20 kN/m³
Cohesion: 0 kPa
Phi: 37 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1
Slip Surface Entry and Exit
Left Projection: Range
Left-Zone Left Coordinate: (-2.31, 0) m

Left-Zone Right Coordinate: (1.29, 1.29) m
Left-Zone Increment: 4
Right Projection: Range
Right-Zone Left Coordinate: (6.11, 5.5) m
Right-Zone Right Coordinate: (8.182182, 4.83) m
Right-Zone Increment: 4
Radius Increments: 4
Slip Surface Limits
Left Coordinate: (-6.5, 0) m
Right Coordinate: (19, 0) m

Piezometric Lines

Piezometric Line 1

Coordinates

	X (m)	Y (m)
	8.5	4.5
	19	4.5

Piezometric Line 2

Coordinates

	X (m)	Y (m)
	-6.5	0
	19	0

Regions

	Material	Points	Area (m ²)
Region 1	Sabbia	8,9,10,5,2,1,7	102
Region 2	Argilla	2,1,4,3	31.7625
Region 3	Gradonatura	3,6,5,2	9.7625

Points

	X (m)	Y (m)
Point 1	0	0
Point 2	10.05	0
Point 3	7	5.5
Point 4	5.5	5.5
Point 5	13.1	0
Point 6	7.5	5.5
Point 7	-6.5	0
Point 8	-6.5	-4
Point 9	19	-4
Point 10	19	0

Critical Slip Surfaces

	Slip Surface	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	58	1.149	(-2.129, 9.508)	9.693	(6.69654, 5.5)	(0.0666856, 0.0666856)

Slices of Slip Surface: 58

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	58	0.17535189	0.09328729	0	0.67530726	0.35906724	5
2	58	0.39268445	0.14917305	0	3.8336031	2.0383629	5
3	58	0.610017	0.2104743	0	6.9016259	3.6696596	5
4	58	0.8273496	0.277299	0	9.8137766	5.2180776	5
5	58	1.044682	0.3497682	0	12.508733	6.6510114	5
6	58	1.2620145	0.4280171	0	14.933794	7.9404394	5
7	58	1.4793475	0.5121966	0	17.048878	9.0650493	5
8	58	1.69668	0.60247505	0	18.829262	10.011696	5
9	58	1.9140125	0.6990401	0	20.26688	10.776091	5
10	58	2.131345	0.8021011	0	21.367184	11.361133	5
11	58	2.3486775	0.91189195	0	22.150184	11.777462	5
12	58	2.5660105	1.0286744	0	22.643903	12.039977	5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

13	58	2.783343	1.1527415	0	22.882215	12.16669	5
14	58	3.0006755	1.284424	0	22.902274	12.177355	5
15	58	3.218008	1.424094	0	22.740556	12.091368	5
16	58	3.4353405	1.5721735	0	22.431443	11.92701	5
17	58	3.652673	1.7291445	0	22.006298	11.700956	5
18	58	3.8700055	1.895557	0	21.491527	11.427248	5
19	58	4.0873385	2.072046	0	20.90934	11.117693	5
20	58	4.304671	2.2593495	0	20.27782	10.781908	5
21	58	4.5220035	2.4583315	0	19.608184	10.425857	5
22	58	4.739336	2.6700135	0	18.907223	10.053149	5
23	58	4.9566685	2.8956185	0	18.174649	9.6636325	5
24	58	5.174001	3.1366315	0	17.401981	9.2527972	5
25	58	5.3913335	3.394882	0	16.572044	8.8115122	5
26	58	5.6196545	3.6878805	0	14.465127	7.6912445	5
27	58	5.8589635	4.021405	0	11.022376	5.8607014	5
28	58	6.098272	4.3878955	0	7.269039	3.8650166	5
29	58	6.3375805	4.7951395	0	3.02104	1.6063154	5
30	58	6.5768895	5.2550535	0	-1.991125	-1.0587	5

3. VERIFICHE DI STABILITÀ GLOBALE FRONTE DI SBANCAMENTO CON PALANCOLE

Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

Slope Stability

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
Apply Phreatic Correction: No
Side Function
Interslice force function option: Half-Sine
PWP Conditions Source: Piezometric Line
Use Staged Rapid Drawdown: No
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
FOS Distribution
FOS Calculation Option: Constant
Advanced
Number of Slices: 30
Optimization Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Gradonatura
Model: Mohr-Coulomb
Unit Weight: 16 kN/m³
Cohesion: 0 kPa
Phi: 40 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1
Argilla
Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion: 5 kPa
Phi: 28 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Ug5

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion: 0 kPa
Phi: 31.08 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

palancola

Model: Undrained (Phi=0)

Unit Weight: 75 kN/m³

Cohesion: 2.5e+005 kPa

Pore Water Pressure

Piezometric Line: 1

Ug1

Model: Mohr-Coulomb

Unit Weight: 18 kN/m³

Cohesion: 4 kPa

Phi: 21 °

Phi-B: 0 °

Pore Water Pressure

Piezometric Line: 1

Ug3

Model: Mohr-Coulomb

Unit Weight: 18 kN/m³

Cohesion: 0 kPa

Phi: 27 °

Phi-B: 0 °

Pore Water Pressure

Piezometric Line: 1

Slip Surface Entry and Exit

Left Projection: Range

Left-Zone Left Coordinate: (-20.32, -8.8) m

Left-Zone Right Coordinate: (-12.09, -8.8) m

Left-Zone Increment: 4

Right Projection: Range

Right-Zone Left Coordinate: (5.79, 5.5) m

Right-Zone Right Coordinate: (14.86, 0) m

Right-Zone Increment: 4

Radius Increments: 4

Slip Surface Limits

Left Coordinate: (-21, -8.8) m

Right Coordinate: (19, 0) m

Piezometric Lines

Piezometric Line 1

Coordinates

	X (m)	Y (m)
	8.5	4.5
	19	4.5

Piezometric Line 2

Coordinates

	X (m)	Y (m)
	-5	0
	19	0

Piezometric Line 3

Coordinates

	X (m)	Y (m)
	-21	-8.8
	-12	-8.8

Regions

	Material	Points	Area (m ²)
Region 1	GC	21,20,19,18,15,23,12,14,8,13	81.8
Region 2	palancola	11,7,16,22,14,12,23,15	6
Region 3	GC	7,1,2,5,10,9,8,14,22,16	290.4
Region 4	Argilla	1,4,3,2	31.7625
Region 5	Gradonatura	3,6,5,2	9.7625
Region 6	Fm	24,25,9,8,13,21	236
Region 7	Alt	27,26,24,25	240

Points

	X (m)	Y (m)

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Point 1	0	0
Point 2	10.05	0
Point 3	7	5.5
Point 4	5.5	5.5
Point 5	13.1	0
Point 6	7.5	5.5
Point 7	-5	0
Point 8	-5	-12.1
Point 9	19	-12.1
Point 10	19	0
Point 11	-5.5	0
Point 12	-5.5	-12
Point 13	-5.5	-12.1
Point 14	-5	-12
Point 15	-5.5	-2
Point 16	-5	-2
Point 17	-5.5	-8.8
Point 18	-8	-2
Point 19	-12	-8.8
Point 20	-21	-8.8
Point 21	-21	-12.1
Point 22	-5	-8.8
Point 23	-5.5	-9.11
Point 24	-21	-18
Point 25	19	-18
Point 26	-21	-24
Point 27	19	-24

Critical Slip Surfaces

	Slip Surface	FOS	Center (m)	Radius (m)	Entry (m)	Exit (m)
1	19	1.565	(-7.088, 6.564)	20.277	(12.3368, 0.749618)	(-20.32, -8.8)

Slices of Slip Surface: 19

	Slip Surface	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
1	19	-19.789195	-9.226929	0	12.11627	7.303234	0
2	19	-18.727585	-10.026254	0	36.198743	21.819247	0
3	19	-17.665975	-10.72343	0	59.217478	35.694079	0
4	19	-16.604365	-11.33048	0	80.50014	48.522472	0
5	19	-15.54276	-11.856375	0	99.29928	59.85389	0
6	19	-14.509965	-12.297525	0	102.5015	39.346641	4
7	19	-13.50598	-12.66261	0	112.15573	43.052552	4
8	19	-12.501995	-12.969295	0	118.90593	45.643709	4
9	19	-11.5	-13.21992	0	142.4316	54.674367	4
10	19	-10.5	-13.416795	0	181.65097	69.729273	4
11	19	-9.5	-13.562085	0	216.40186	83.068892	4
12	19	-8.5	-13.656905	0	246.51997	94.630151	4
13	19	-7.375	-13.700655	0	253.15868	97.178514	4
14	19	-6.125	-13.679765	0	237.93085	91.333097	4
15	19	-5.25	-13.62727	0	983.01464	377.34397	4
16	19	-4.5	-13.54014	0	252.4168	96.893733	4
17	19	-3.5	-13.38584	0	236.18025	90.661104	4
18	19	-2.5	-13.179715	0	219.83213	84.38565	4
19	19	-1.5	-12.920115	0	203.64966	78.17378	4
20	19	-0.5	-12.604865	0	187.81687	72.096142	4
21	19	0.4177401	-12.26651	0	180.20775	69.175272	4

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

22	19	1.4185451	-11.830355	0	178.63592	107.67505	0
23	19	2.584675	-11.24401	0	175.70551	105.90871	0
24	19	3.750805	-10.55821	0	172.33009	103.87413	0
25	19	4.916935	-9.760322	0	168.55796	101.60043	0
26	19	6.25	-8.6750975	0	154.1338	92.906084	0
27	19	7.25	-7.768567	0	137.81038	83.06694	0
28	19	8	-6.9606805	0	118.59087	71.48214	0
29	19	9.275	-5.3373615	96.473565	114.31711	10.755424	0
30	19	10.561605	-3.3621735	77.103802	86.958563	5.940081	0
31	19	11.58481	-1.226256	56.156436	60.303349	2.4996043	0
32	19	12.21658	0.37480905	40.455815	40.95251	0.41677602	0

4. VERIFICHE PARATIA ARGINE VI06



Report di Calcolo

Nome Progetto: New Project

Autore: Ingegnere

Jobname: Z:\01 COM\2017-010-ANAS-Pedemontana Piemontese\02-Bozze e varie\04_Sottofondazioni\Paratie
provvisionali\paratia argine pali.pplus

Data: 24/05/2018 18:26:20

Design Section: Base Design Section

Descrizione del Software

ParatiePlus è un codice agli elementi finiti che simula il problema di uno scavo sostenuto da diaframmi flessibili e permette di valutare il comportamento della parete di sostegno durante tutte le fasi intermedie e nella configurazione finale.

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 0 m

OCR : 1

Tipo : HORIZONTAL

Quota : -12 m

OCR : 1

Tipo : HORIZONTAL

Quota : -18 m

OCR : 1

Descrizione Pareti

X : 0 m

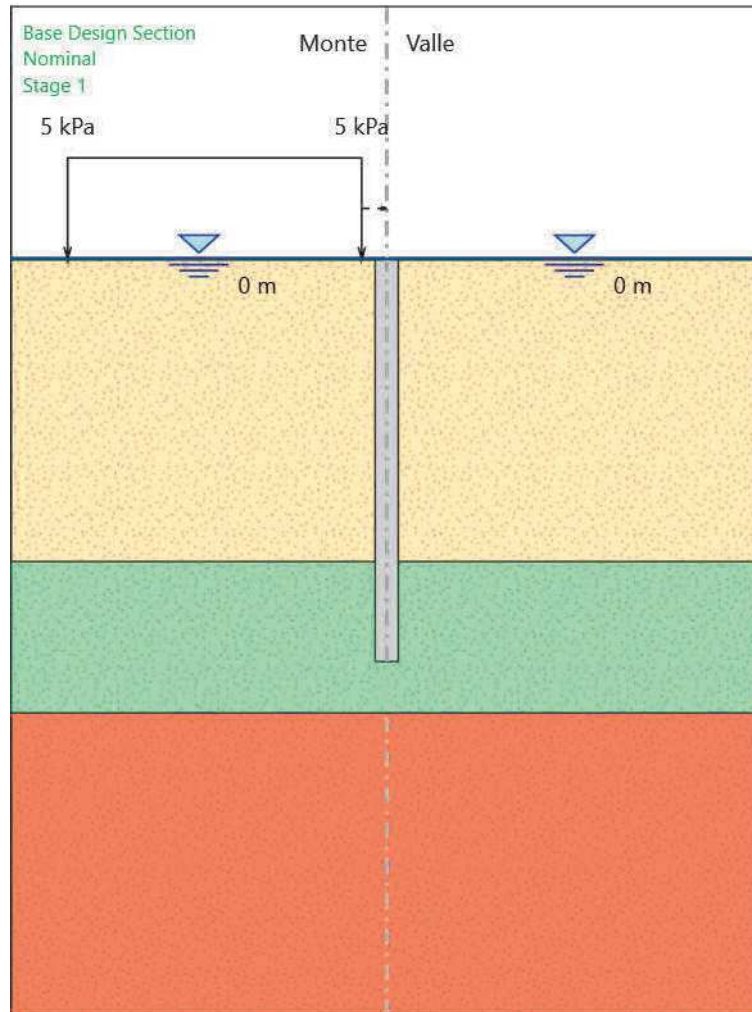
Quota in alto : 0 m

Quota di fondo : -16 m

Muro di sinistra

Fasi di Calcolo

Stage 1



Stage 1

Elementi strutturali

Paratia : WallElement

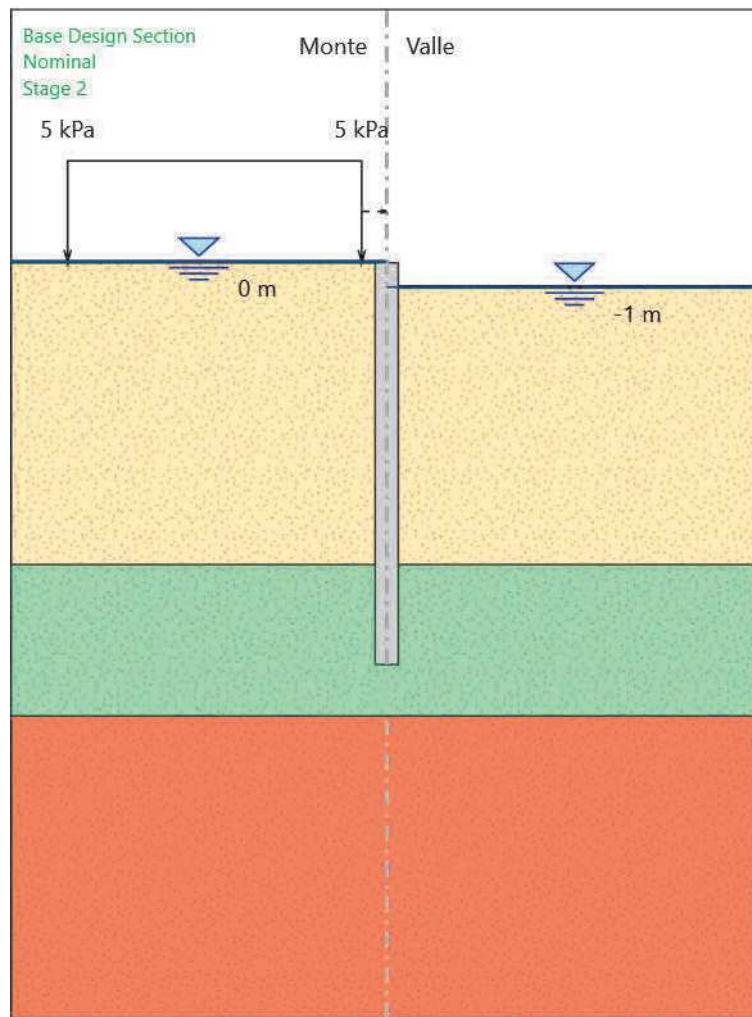
X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m

Sezione : Default Section

Stage 2



Stage 2

Elementi strutturali

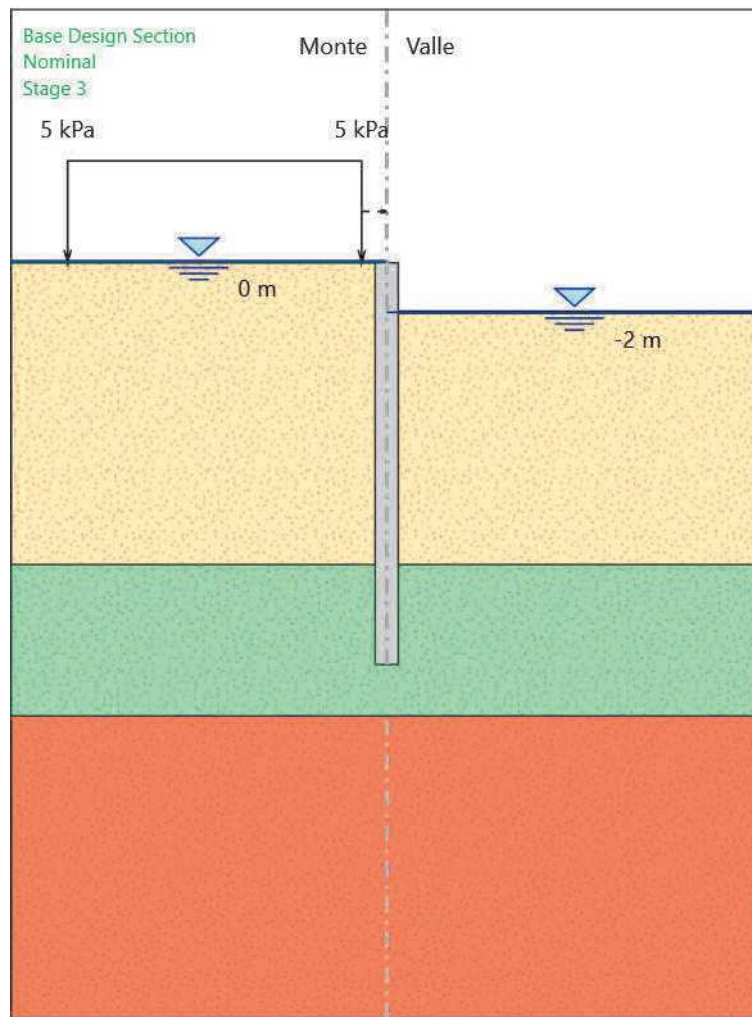
Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m
Sezione : Default Section

Stage 3



Stage 3

Elementi strutturali

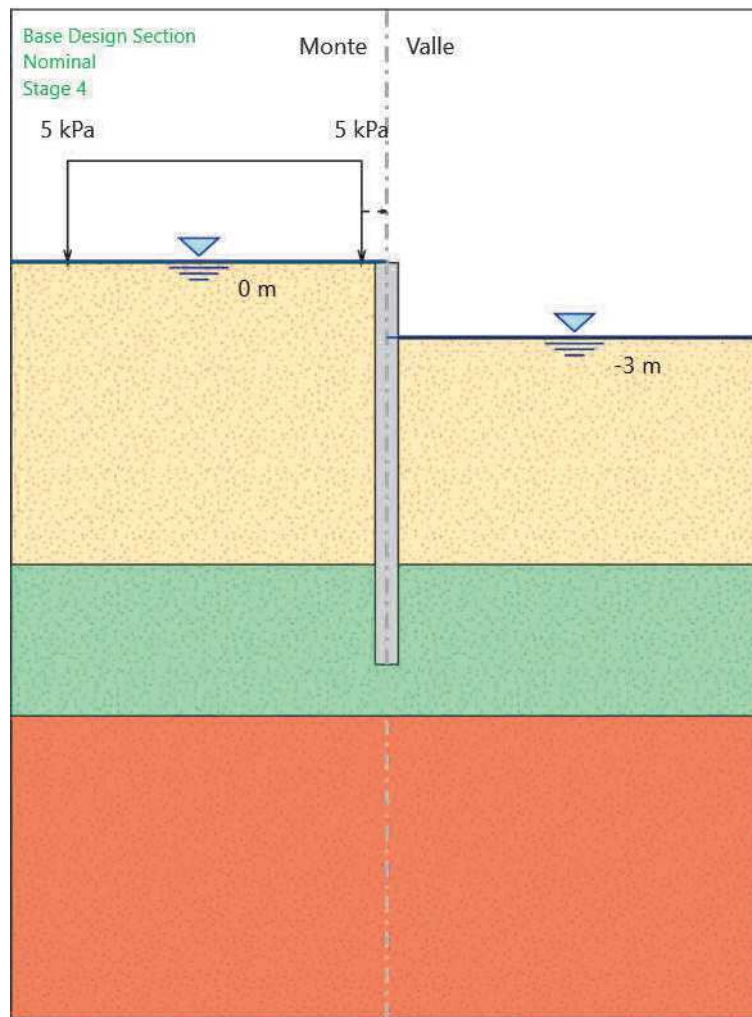
Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m
Sezione : Default Section

Stage 4



Stage 4

Elementi strutturali

Paratia : WallElement

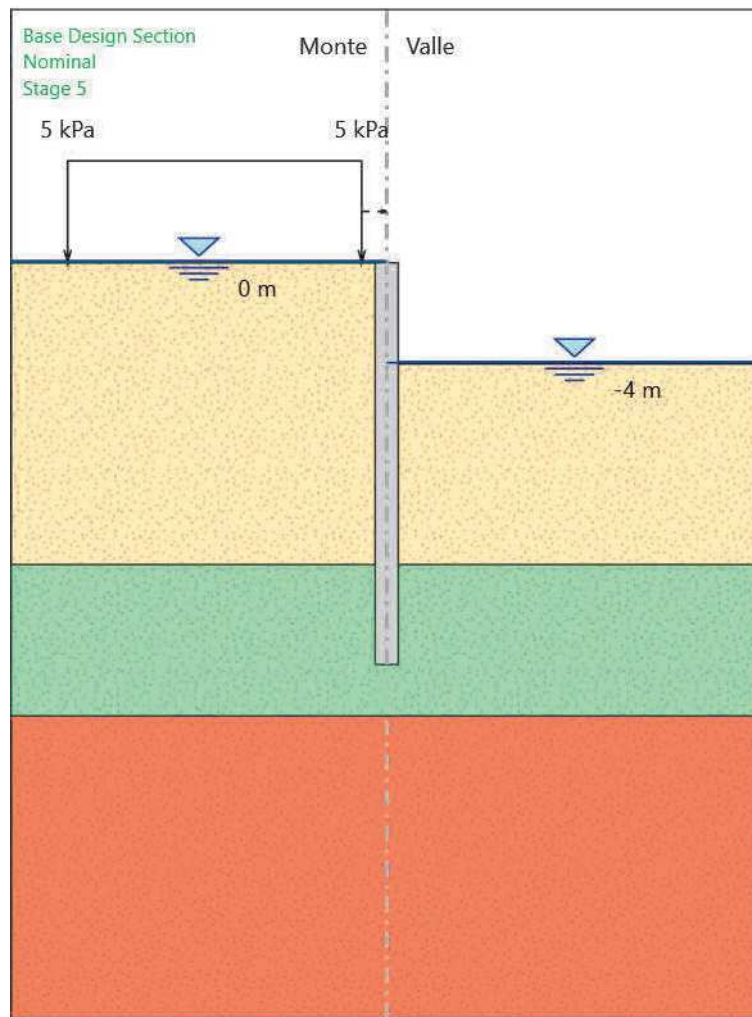
X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m

Sezione : Default Section

Stage 5



Stage 5

Elementi strutturali

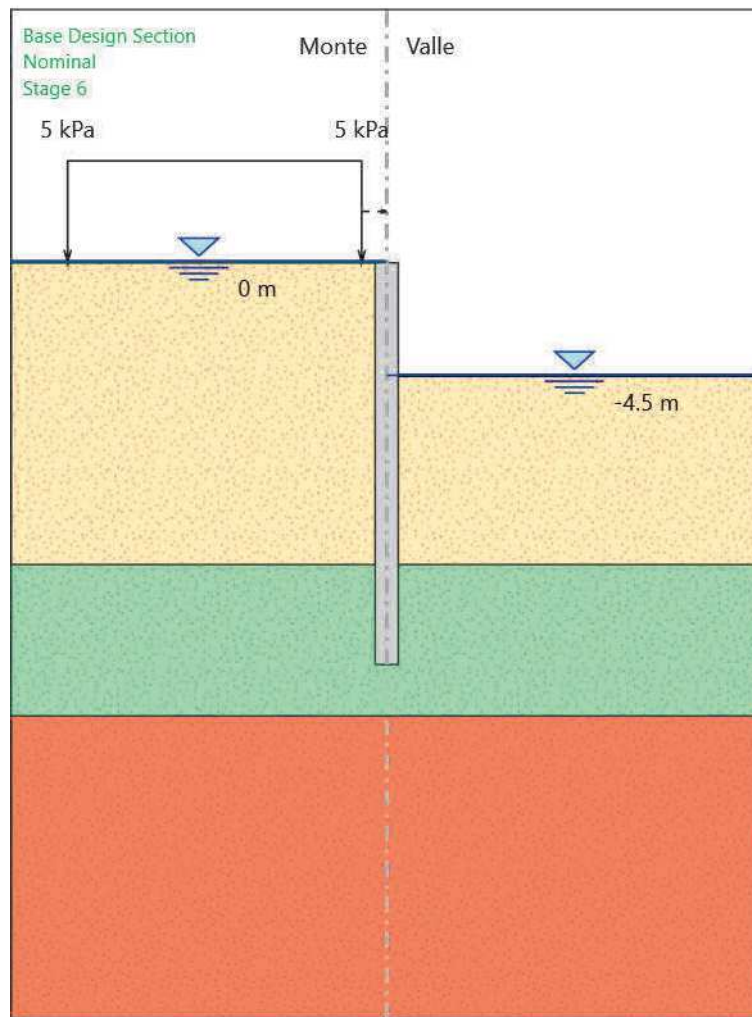
Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m
Sezione : Default Section

Stage 6



Stage 6

Elementi strutturali

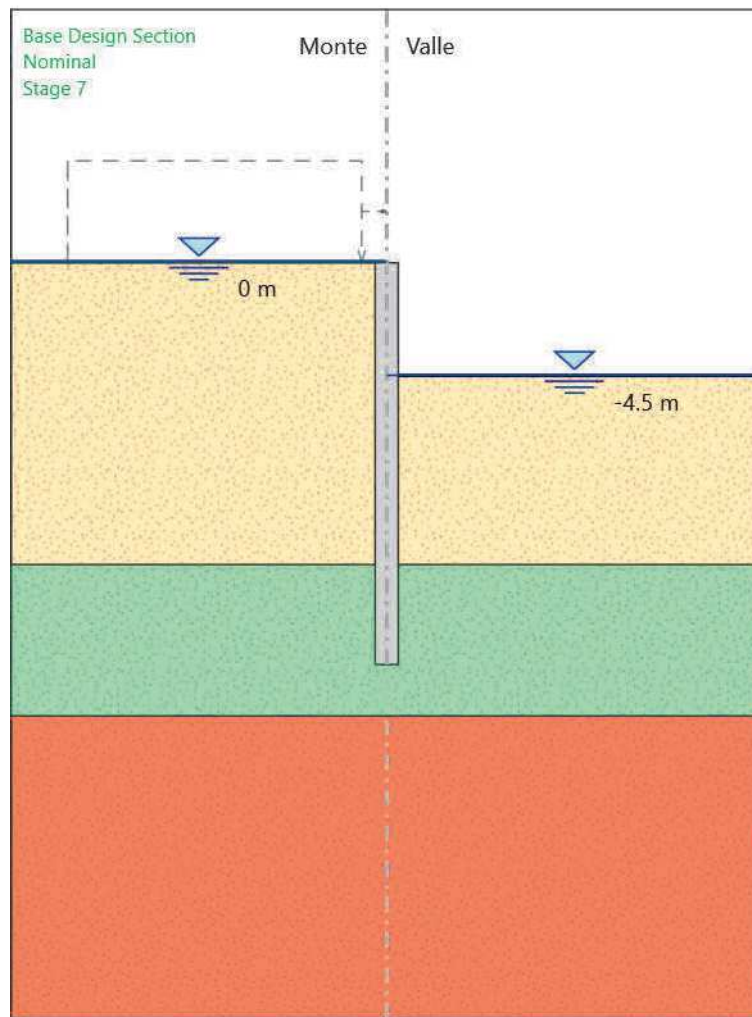
Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m
Sezione : Default Section

Stage 7



Stage 7

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -16 m
Sezione : Default Section

Grafici dei Risultati

Design Assumption : Nominal

Tabella Spostamento Nominal - LEFT Stage: Stage 1

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.6	0
Stage 1	-0.8	0
Stage 1	-1	0
Stage 1	-1.2	0
Stage 1	-1.4	0
Stage 1	-1.6	0
Stage 1	-1.8	0
Stage 1	-2	0
Stage 1	-2.2	0
Stage 1	-2.4	0
Stage 1	-2.6	0
Stage 1	-2.8	0
Stage 1	-3	0
Stage 1	-3.2	0
Stage 1	-3.4	0
Stage 1	-3.6	0
Stage 1	-3.8	0
Stage 1	-4	0
Stage 1	-4.2	0
Stage 1	-4.4	0
Stage 1	-4.6	0
Stage 1	-4.8	0
Stage 1	-5	0
Stage 1	-5.2	0
Stage 1	-5.4	0
Stage 1	-5.6	0
Stage 1	-5.8	0
Stage 1	-6	0
Stage 1	-6.2	0
Stage 1	-6.4	0
Stage 1	-6.6	0
Stage 1	-6.8	0
Stage 1	-7	0
Stage 1	-7.2	0
Stage 1	-7.4	0
Stage 1	-7.6	0
Stage 1	-7.8	0
Stage 1	-8	0
Stage 1	-8.2	0
Stage 1	-8.4	0
Stage 1	-8.6	0
Stage 1	-8.8	0
Stage 1	-9	0
Stage 1	-9.2	0
Stage 1	-9.4	0
Stage 1	-9.6	0
Stage 1	-9.8	0
Stage 1	-10	0
Stage 1	-10.2	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 1	-10.4	0
Stage 1	-10.6	0
Stage 1	-10.8	0
Stage 1	-11	0
Stage 1	-11.2	0
Stage 1	-11.4	0
Stage 1	-11.6	0
Stage 1	-11.8	0
Stage 1	-12	0
Stage 1	-12.2	0
Stage 1	-12.4	0
Stage 1	-12.6	0
Stage 1	-12.8	0
Stage 1	-13	0
Stage 1	-13.2	0
Stage 1	-13.4	0
Stage 1	-13.6	0
Stage 1	-13.8	0
Stage 1	-14	0
Stage 1	-14.2	0
Stage 1	-14.4	0
Stage 1	-14.6	0
Stage 1	-14.8	0
Stage 1	-15	0
Stage 1	-15.2	0
Stage 1	-15.4	0
Stage 1	-15.6	0
Stage 1	-15.8	0
Stage 1	-16	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0	0.34
Stage 2	-0.2	0.32
Stage 2	-0.4	0.31
Stage 2	-0.6	0.3
Stage 2	-0.8	0.28
Stage 2	-1	0.27
Stage 2	-1.2	0.26
Stage 2	-1.4	0.25
Stage 2	-1.6	0.23
Stage 2	-1.8	0.22
Stage 2	-2	0.21
Stage 2	-2.2	0.2
Stage 2	-2.4	0.18
Stage 2	-2.6	0.17
Stage 2	-2.8	0.16
Stage 2	-3	0.15
Stage 2	-3.2	0.14
Stage 2	-3.4	0.13
Stage 2	-3.6	0.12
Stage 2	-3.8	0.11
Stage 2	-4	0.11
Stage 2	-4.2	0.1
Stage 2	-4.4	0.09
Stage 2	-4.6	0.09
Stage 2	-4.8	0.08
Stage 2	-5	0.07
Stage 2	-5.2	0.07
Stage 2	-5.4	0.06
Stage 2	-5.6	0.06
Stage 2	-5.8	0.06
Stage 2	-6	0.05
Stage 2	-6.2	0.05
Stage 2	-6.4	0.05
Stage 2	-6.6	0.05
Stage 2	-6.8	0.04
Stage 2	-7	0.04
Stage 2	-7.2	0.04
Stage 2	-7.4	0.04
Stage 2	-7.6	0.04
Stage 2	-7.8	0.04
Stage 2	-8	0.04
Stage 2	-8.2	0.04
Stage 2	-8.4	0.04
Stage 2	-8.6	0.04
Stage 2	-8.8	0.04
Stage 2	-9	0.04
Stage 2	-9.2	0.04
Stage 2	-9.4	0.04
Stage 2	-9.6	0.04
Stage 2	-9.8	0.04
Stage 2	-10	0.04
Stage 2	-10.2	0.04
Stage 2	-10.4	0.04
Stage 2	-10.6	0.04
Stage 2	-10.8	0.04
Stage 2	-11	0.04
Stage 2	-11.2	0.04
Stage 2	-11.4	0.04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 2	-11.6	0.05
Stage 2	-11.8	0.05
Stage 2	-12	0.05
Stage 2	-12.2	0.05
Stage 2	-12.4	0.05
Stage 2	-12.6	0.05
Stage 2	-12.8	0.05
Stage 2	-13	0.05
Stage 2	-13.2	0.05
Stage 2	-13.4	0.05
Stage 2	-13.6	0.05
Stage 2	-13.8	0.05
Stage 2	-14	0.06
Stage 2	-14.2	0.06
Stage 2	-14.4	0.06
Stage 2	-14.6	0.06
Stage 2	-14.8	0.06
Stage 2	-15	0.06
Stage 2	-15.2	0.06
Stage 2	-15.4	0.06
Stage 2	-15.6	0.06
Stage 2	-15.8	0.06
Stage 2	-16	0.06

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0	2.13
Stage 3	-0.2	2.06
Stage 3	-0.4	1.99
Stage 3	-0.6	1.92
Stage 3	-0.8	1.86
Stage 3	-1	1.79
Stage 3	-1.2	1.72
Stage 3	-1.4	1.65
Stage 3	-1.6	1.59
Stage 3	-1.8	1.52
Stage 3	-2	1.45
Stage 3	-2.2	1.39
Stage 3	-2.4	1.32
Stage 3	-2.6	1.26
Stage 3	-2.8	1.19
Stage 3	-3	1.13
Stage 3	-3.2	1.07
Stage 3	-3.4	1.01
Stage 3	-3.6	0.95
Stage 3	-3.8	0.89
Stage 3	-4	0.84
Stage 3	-4.2	0.78
Stage 3	-4.4	0.73
Stage 3	-4.6	0.68
Stage 3	-4.8	0.63
Stage 3	-5	0.59
Stage 3	-5.2	0.54
Stage 3	-5.4	0.5
Stage 3	-5.6	0.46
Stage 3	-5.8	0.43
Stage 3	-6	0.39
Stage 3	-6.2	0.36
Stage 3	-6.4	0.33
Stage 3	-6.6	0.3
Stage 3	-6.8	0.27
Stage 3	-7	0.24
Stage 3	-7.2	0.22
Stage 3	-7.4	0.2
Stage 3	-7.6	0.18
Stage 3	-7.8	0.17
Stage 3	-8	0.15
Stage 3	-8.2	0.14
Stage 3	-8.4	0.12
Stage 3	-8.6	0.11
Stage 3	-8.8	0.1
Stage 3	-9	0.1
Stage 3	-9.2	0.09
Stage 3	-9.4	0.09
Stage 3	-9.6	0.08
Stage 3	-9.8	0.08
Stage 3	-10	0.08
Stage 3	-10.2	0.07
Stage 3	-10.4	0.07
Stage 3	-10.6	0.07
Stage 3	-10.8	0.07
Stage 3	-11	0.07
Stage 3	-11.2	0.08
Stage 3	-11.4	0.08

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Z (m)	Muro: LEFT Spostamento (mm)
Stage 3	-11.6	0.08
Stage 3	-11.8	0.08
Stage 3	-12	0.08
Stage 3	-12.2	0.09
Stage 3	-12.4	0.09
Stage 3	-12.6	0.09
Stage 3	-12.8	0.1
Stage 3	-13	0.1
Stage 3	-13.2	0.1
Stage 3	-13.4	0.11
Stage 3	-13.6	0.11
Stage 3	-13.8	0.11
Stage 3	-14	0.12
Stage 3	-14.2	0.12
Stage 3	-14.4	0.12
Stage 3	-14.6	0.12
Stage 3	-14.8	0.13
Stage 3	-15	0.13
Stage 3	-15.2	0.13
Stage 3	-15.4	0.14
Stage 3	-15.6	0.14
Stage 3	-15.8	0.14
Stage 3	-16	0.14

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0	7.35
Stage 4	-0.2	7.15
Stage 4	-0.4	6.96
Stage 4	-0.6	6.76
Stage 4	-0.8	6.57
Stage 4	-1	6.37
Stage 4	-1.2	6.18
Stage 4	-1.4	5.98
Stage 4	-1.6	5.79
Stage 4	-1.8	5.59
Stage 4	-2	5.4
Stage 4	-2.2	5.2
Stage 4	-2.4	5.01
Stage 4	-2.6	4.82
Stage 4	-2.8	4.62
Stage 4	-3	4.43
Stage 4	-3.2	4.25
Stage 4	-3.4	4.06
Stage 4	-3.6	3.87
Stage 4	-3.8	3.69
Stage 4	-4	3.51
Stage 4	-4.2	3.34
Stage 4	-4.4	3.16
Stage 4	-4.6	2.99
Stage 4	-4.8	2.83
Stage 4	-5	2.67
Stage 4	-5.2	2.51
Stage 4	-5.4	2.36
Stage 4	-5.6	2.22
Stage 4	-5.8	2.08
Stage 4	-6	1.94
Stage 4	-6.2	1.81
Stage 4	-6.4	1.69
Stage 4	-6.6	1.57
Stage 4	-6.8	1.45
Stage 4	-7	1.34
Stage 4	-7.2	1.24
Stage 4	-7.4	1.14
Stage 4	-7.6	1.05
Stage 4	-7.8	0.96
Stage 4	-8	0.87
Stage 4	-8.2	0.8
Stage 4	-8.4	0.72
Stage 4	-8.6	0.66
Stage 4	-8.8	0.59
Stage 4	-9	0.54
Stage 4	-9.2	0.48
Stage 4	-9.4	0.43
Stage 4	-9.6	0.39
Stage 4	-9.8	0.35
Stage 4	-10	0.31
Stage 4	-10.2	0.28
Stage 4	-10.4	0.25
Stage 4	-10.6	0.23
Stage 4	-10.8	0.21
Stage 4	-11	0.19
Stage 4	-11.2	0.17
Stage 4	-11.4	0.16

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Z (m)	Muro: LEFT Spostamento (mm)
Stage 4	-11.6	0.15
Stage 4	-11.8	0.14
Stage 4	-12	0.13
Stage 4	-12.2	0.12
Stage 4	-12.4	0.12
Stage 4	-12.6	0.12
Stage 4	-12.8	0.12
Stage 4	-13	0.12
Stage 4	-13.2	0.12
Stage 4	-13.4	0.12
Stage 4	-13.6	0.12
Stage 4	-13.8	0.12
Stage 4	-14	0.12
Stage 4	-14.2	0.13
Stage 4	-14.4	0.13
Stage 4	-14.6	0.13
Stage 4	-14.8	0.14
Stage 4	-15	0.14
Stage 4	-15.2	0.15
Stage 4	-15.4	0.15
Stage 4	-15.6	0.15
Stage 4	-15.8	0.16
Stage 4	-16	0.16

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0	19.47
Stage 5	-0.2	19.03
Stage 5	-0.4	18.59
Stage 5	-0.6	18.15
Stage 5	-0.8	17.71
Stage 5	-1	17.27
Stage 5	-1.2	16.83
Stage 5	-1.4	16.38
Stage 5	-1.6	15.94
Stage 5	-1.8	15.5
Stage 5	-2	15.06
Stage 5	-2.2	14.62
Stage 5	-2.4	14.18
Stage 5	-2.6	13.74
Stage 5	-2.8	13.31
Stage 5	-3	12.87
Stage 5	-3.2	12.44
Stage 5	-3.4	12
Stage 5	-3.6	11.57
Stage 5	-3.8	11.14
Stage 5	-4	10.72
Stage 5	-4.2	10.3
Stage 5	-4.4	9.88
Stage 5	-4.6	9.46
Stage 5	-4.8	9.06
Stage 5	-5	8.66
Stage 5	-5.2	8.26
Stage 5	-5.4	7.87
Stage 5	-5.6	7.49
Stage 5	-5.8	7.12
Stage 5	-6	6.75
Stage 5	-6.2	6.4
Stage 5	-6.4	6.06
Stage 5	-6.6	5.72
Stage 5	-6.8	5.4
Stage 5	-7	5.08
Stage 5	-7.2	4.78
Stage 5	-7.4	4.49
Stage 5	-7.6	4.21
Stage 5	-7.8	3.93
Stage 5	-8	3.67
Stage 5	-8.2	3.42
Stage 5	-8.4	3.19
Stage 5	-8.6	2.96
Stage 5	-8.8	2.74
Stage 5	-9	2.54
Stage 5	-9.2	2.34
Stage 5	-9.4	2.15
Stage 5	-9.6	1.98
Stage 5	-9.8	1.81
Stage 5	-10	1.65
Stage 5	-10.2	1.51
Stage 5	-10.4	1.37
Stage 5	-10.6	1.24
Stage 5	-10.8	1.12
Stage 5	-11	1
Stage 5	-11.2	0.9
Stage 5	-11.4	0.8

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 5	-11.6	0.7
Stage 5	-11.8	0.62
Stage 5	-12	0.54
Stage 5	-12.2	0.46
Stage 5	-12.4	0.39
Stage 5	-12.6	0.33
Stage 5	-12.8	0.27
Stage 5	-13	0.21
Stage 5	-13.2	0.16
Stage 5	-13.4	0.11
Stage 5	-13.6	0.06
Stage 5	-13.8	0.01
Stage 5	-14	-0.03
Stage 5	-14.2	-0.07
Stage 5	-14.4	-0.12
Stage 5	-14.6	-0.16
Stage 5	-14.8	-0.2
Stage 5	-15	-0.24
Stage 5	-15.2	-0.27
Stage 5	-15.4	-0.31
Stage 5	-15.6	-0.35
Stage 5	-15.8	-0.39
Stage 5	-16	-0.43

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	0	30.08
Stage 6	-0.2	29.44
Stage 6	-0.4	28.81
Stage 6	-0.6	28.18
Stage 6	-0.8	27.54
Stage 6	-1	26.91
Stage 6	-1.2	26.28
Stage 6	-1.4	25.65
Stage 6	-1.6	25.01
Stage 6	-1.8	24.38
Stage 6	-2	23.75
Stage 6	-2.2	23.12
Stage 6	-2.4	22.49
Stage 6	-2.6	21.86
Stage 6	-2.8	21.23
Stage 6	-3	20.6
Stage 6	-3.2	19.97
Stage 6	-3.4	19.35
Stage 6	-3.6	18.72
Stage 6	-3.8	18.1
Stage 6	-4	17.49
Stage 6	-4.2	16.87
Stage 6	-4.4	16.26
Stage 6	-4.6	15.66
Stage 6	-4.8	15.06
Stage 6	-5	14.46
Stage 6	-5.2	13.88
Stage 6	-5.4	13.3
Stage 6	-5.6	12.72
Stage 6	-5.8	12.16
Stage 6	-6	11.61
Stage 6	-6.2	11.07
Stage 6	-6.4	10.54
Stage 6	-6.6	10.02
Stage 6	-6.8	9.51
Stage 6	-7	9.02
Stage 6	-7.2	8.54
Stage 6	-7.4	8.07
Stage 6	-7.6	7.62
Stage 6	-7.8	7.18
Stage 6	-8	6.76
Stage 6	-8.2	6.35
Stage 6	-8.4	5.96
Stage 6	-8.6	5.58
Stage 6	-8.8	5.22
Stage 6	-9	4.87
Stage 6	-9.2	4.53
Stage 6	-9.4	4.21
Stage 6	-9.6	3.91
Stage 6	-9.8	3.61
Stage 6	-10	3.33
Stage 6	-10.2	3.07
Stage 6	-10.4	2.81
Stage 6	-10.6	2.57
Stage 6	-10.8	2.34
Stage 6	-11	2.12
Stage 6	-11.2	1.92
Stage 6	-11.4	1.72

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 6	-11.6	1.53
Stage 6	-11.8	1.36
Stage 6	-12	1.19
Stage 6	-12.2	1.03
Stage 6	-12.4	0.88
Stage 6	-12.6	0.73
Stage 6	-12.8	0.59
Stage 6	-13	0.46
Stage 6	-13.2	0.33
Stage 6	-13.4	0.21
Stage 6	-13.6	0.09
Stage 6	-13.8	-0.03
Stage 6	-14	-0.14
Stage 6	-14.2	-0.25
Stage 6	-14.4	-0.35
Stage 6	-14.6	-0.46
Stage 6	-14.8	-0.56
Stage 6	-15	-0.67
Stage 6	-15.2	-0.77
Stage 6	-15.4	-0.87
Stage 6	-15.6	-0.97
Stage 6	-15.8	-1.08
Stage 6	-16	-1.18

Tabella Spostamento Nominal - LEFT Stage: Stage 7

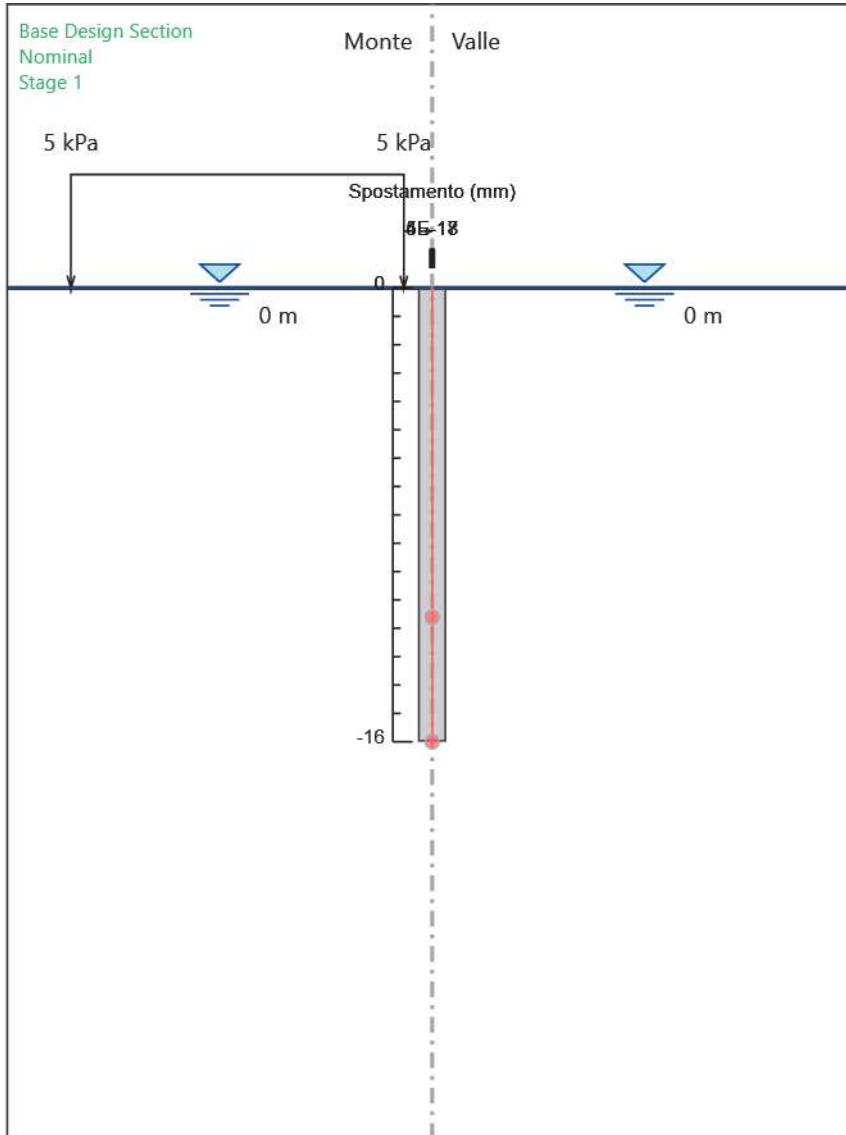
Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 7	0	30.07
Stage 7	-0.2	29.44
Stage 7	-0.4	28.81
Stage 7	-0.6	28.17
Stage 7	-0.8	27.54
Stage 7	-1	26.91
Stage 7	-1.2	26.27
Stage 7	-1.4	25.64
Stage 7	-1.6	25.01
Stage 7	-1.8	24.37
Stage 7	-2	23.74
Stage 7	-2.2	23.11
Stage 7	-2.4	22.48
Stage 7	-2.6	21.85
Stage 7	-2.8	21.22
Stage 7	-3	20.59
Stage 7	-3.2	19.96
Stage 7	-3.4	19.34
Stage 7	-3.6	18.72
Stage 7	-3.8	18.09
Stage 7	-4	17.48
Stage 7	-4.2	16.86
Stage 7	-4.4	16.25
Stage 7	-4.6	15.65
Stage 7	-4.8	15.05
Stage 7	-5	14.45
Stage 7	-5.2	13.87
Stage 7	-5.4	13.29
Stage 7	-5.6	12.71
Stage 7	-5.8	12.15
Stage 7	-6	11.6
Stage 7	-6.2	11.06
Stage 7	-6.4	10.53
Stage 7	-6.6	10.01
Stage 7	-6.8	9.5
Stage 7	-7	9.01
Stage 7	-7.2	8.53
Stage 7	-7.4	8.06
Stage 7	-7.6	7.61
Stage 7	-7.8	7.17
Stage 7	-8	6.75
Stage 7	-8.2	6.34
Stage 7	-8.4	5.95
Stage 7	-8.6	5.57
Stage 7	-8.8	5.21
Stage 7	-9	4.86
Stage 7	-9.2	4.52
Stage 7	-9.4	4.2
Stage 7	-9.6	3.9
Stage 7	-9.8	3.6
Stage 7	-10	3.32
Stage 7	-10.2	3.06
Stage 7	-10.4	2.8
Stage 7	-10.6	2.56
Stage 7	-10.8	2.33
Stage 7	-11	2.11
Stage 7	-11.2	1.91
Stage 7	-11.4	1.71

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

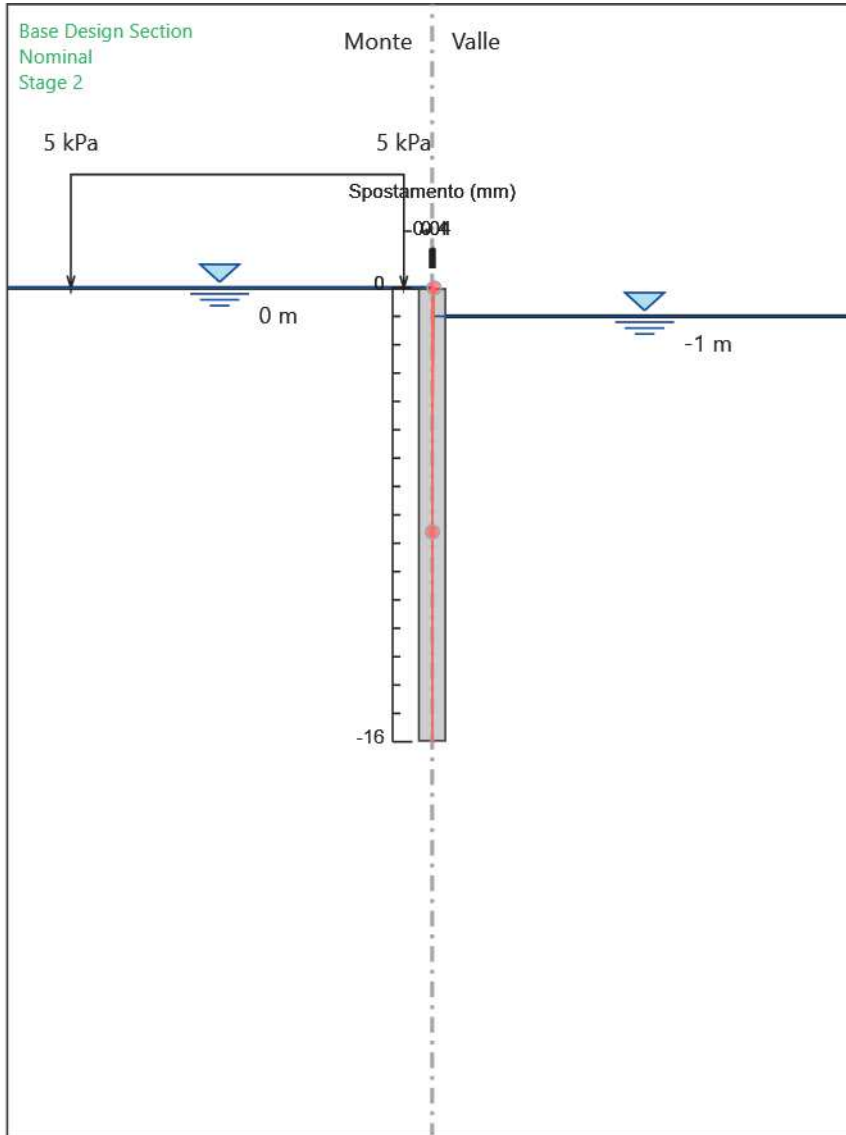
Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 7	-11.6	1.52
Stage 7	-11.8	1.34
Stage 7	-12	1.18
Stage 7	-12.2	1.02
Stage 7	-12.4	0.86
Stage 7	-12.6	0.72
Stage 7	-12.8	0.58
Stage 7	-13	0.45
Stage 7	-13.2	0.32
Stage 7	-13.4	0.19
Stage 7	-13.6	0.08
Stage 7	-13.8	-0.04
Stage 7	-14	-0.15
Stage 7	-14.2	-0.26
Stage 7	-14.4	-0.37
Stage 7	-14.6	-0.48
Stage 7	-14.8	-0.58
Stage 7	-15	-0.68
Stage 7	-15.2	-0.79
Stage 7	-15.4	-0.89
Stage 7	-15.6	-0.99
Stage 7	-15.8	-1.09
Stage 7	-16	-1.2

Grafico Spostamento Nominal - Stage: Stage 1



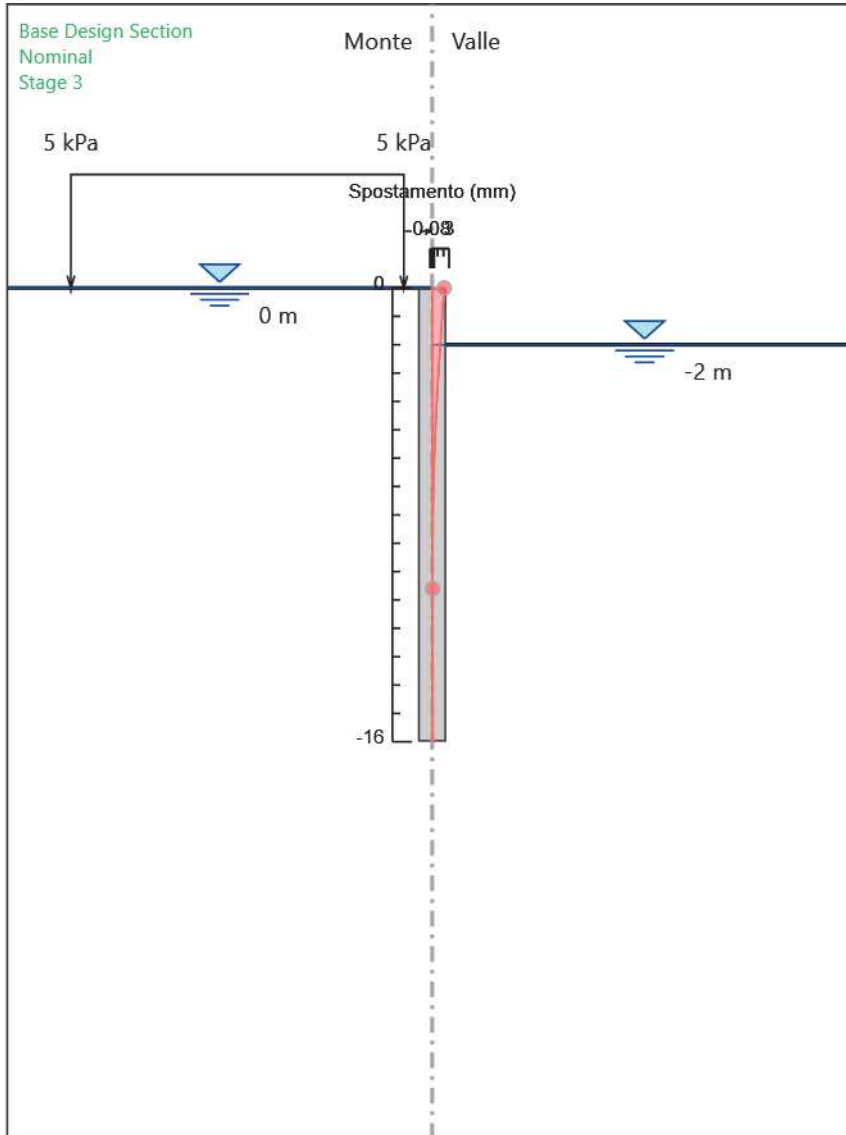
Design Assumption: Nominal
Stage: Stage 1
Spostamento

Grafico Spostamento Nominal - Stage: Stage 2



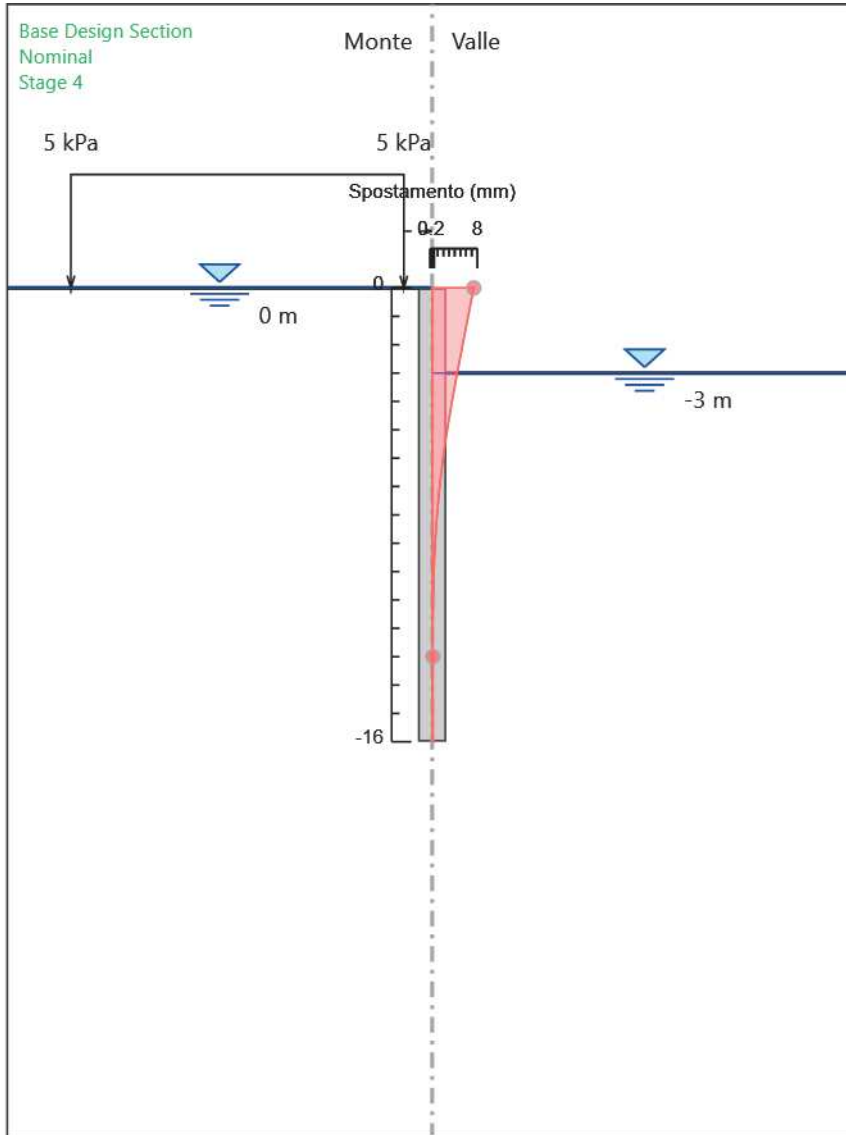
Design Assumption: Nominal
Stage: Stage 2
Spostamento

Grafico Spostamento Nominal - Stage: Stage 3



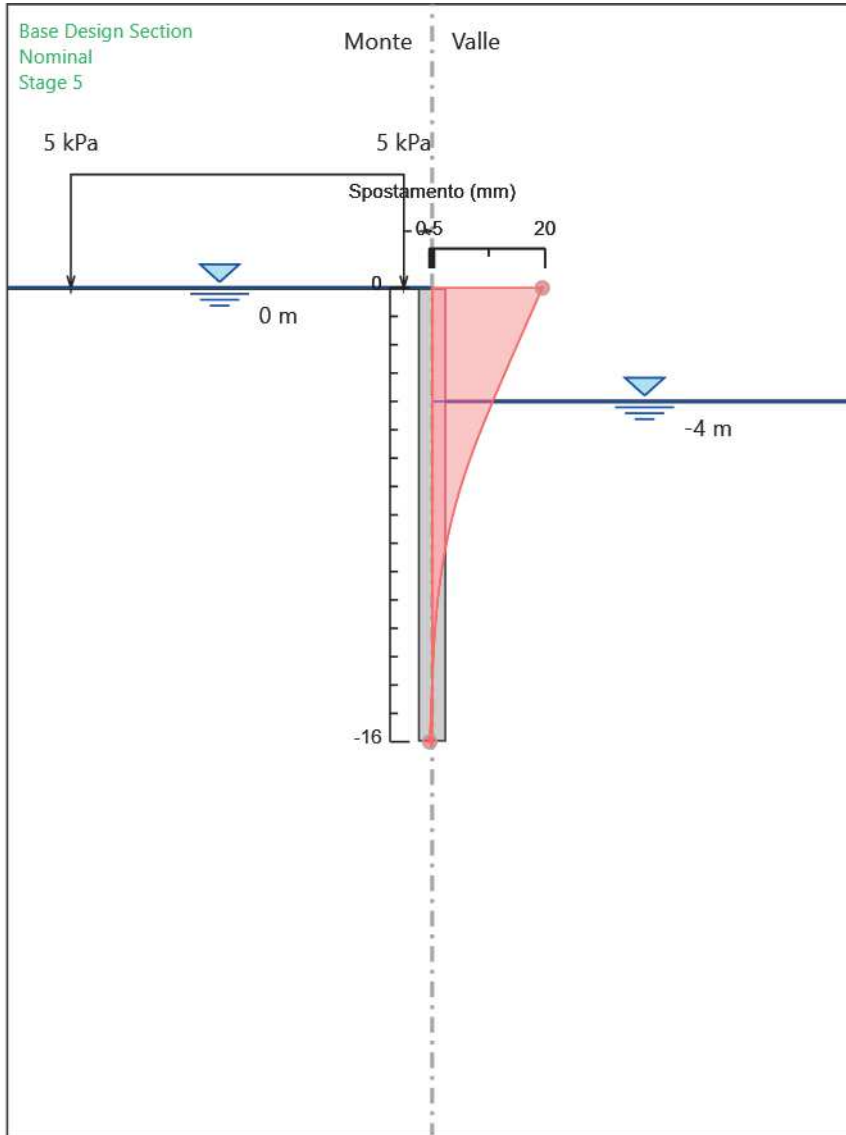
Design Assumption: Nominal
Stage: Stage 3
Spostamento

Grafico Spostamento Nominal - Stage: Stage 4



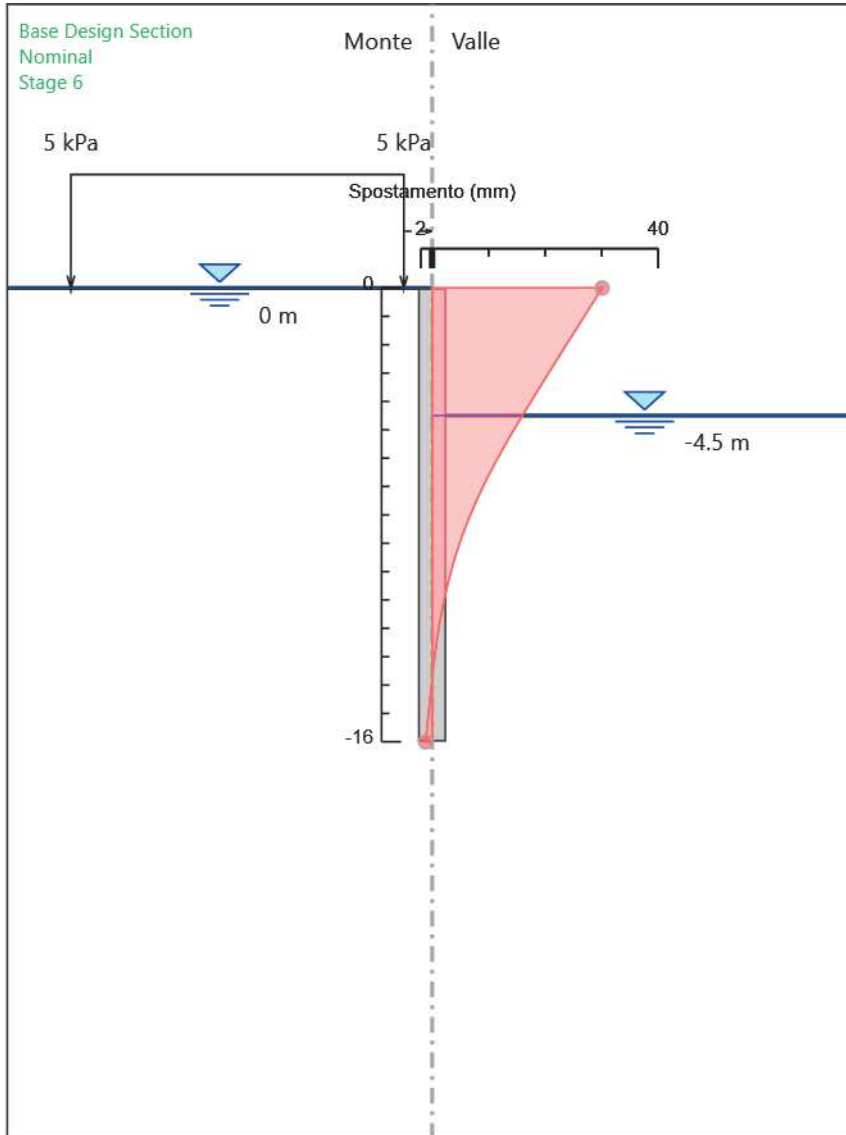
Design Assumption: Nominal
Stage: Stage 4
Spostamento

Grafico Spostamento Nominal - Stage: Stage 5



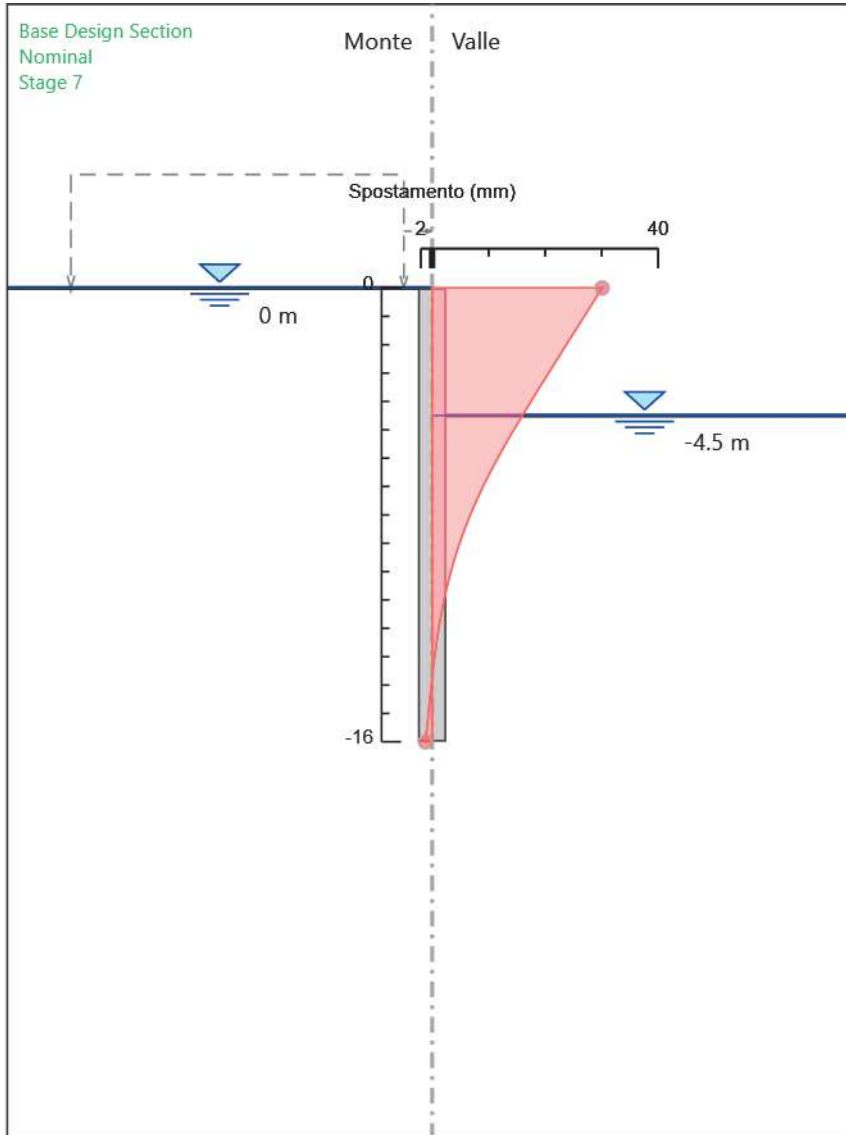
Design Assumption: Nominal
Stage: Stage 5
Spostamento

Grafico Spostamento Nominal - Stage: Stage 6



Design Assumption: Nominal
Stage: Stage 6
Spostamento

Grafico Spostamento Nominal - Stage: Stage 7



Design Assumption: Nominal
Stage: Stage 7
Spostamento

Inviluppi Spostamento Nominal

Risultati Paratia

Tabella Risultati Paratia Nominal - Stage: Stage 1

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	0	0
Stage 1	-4	0	0
Stage 1	-4.2	0	0
Stage 1	-4.4	0	0
Stage 1	-4.6	0	0
Stage 1	-4.8	0	0
Stage 1	-5	0	0
Stage 1	-5.2	0	0
Stage 1	-5.4	0	0
Stage 1	-5.6	0	0
Stage 1	-5.8	0	0
Stage 1	-6	0	0
Stage 1	-6.2	0	0
Stage 1	-6.4	0	0
Stage 1	-6.6	0	0
Stage 1	-6.8	0	0
Stage 1	-7	0	0
Stage 1	-7.2	0	0
Stage 1	-7.4	0	0
Stage 1	-7.6	0	0
Stage 1	-7.8	0	0
Stage 1	-8	0	0
Stage 1	-8.2	0	0
Stage 1	-8.4	0	0
Stage 1	-8.6	0	0
Stage 1	-8.8	0	0
Stage 1	-9	0	0
Stage 1	-9.2	0	0
Stage 1	-9.4	0	0
Stage 1	-9.6	0	0
Stage 1	-9.8	0	0
Stage 1	-10	0	0
Stage 1	-10.2	0	0
Stage 1	-10.4	0	0
Stage 1	-10.6	0	0
Stage 1	-10.8	0	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-11	0	0
Stage 1	-11.2	0	0
Stage 1	-11.4	0	0
Stage 1	-11.6	0	0
Stage 1	-11.8	0	0
Stage 1	-12	0	0
Stage 1	-12.2	0	0
Stage 1	-12.4	0	0
Stage 1	-12.6	0	0
Stage 1	-12.8	0	0
Stage 1	-13	0	0
Stage 1	-13.2	0	0
Stage 1	-13.4	0	0
Stage 1	-13.6	0	0
Stage 1	-13.8	0	0
Stage 1	-14	0	0
Stage 1	-14.2	0	0
Stage 1	-14.4	0	0
Stage 1	-14.6	0	0
Stage 1	-14.8	0	0
Stage 1	-15	0	0
Stage 1	-15.2	0	0
Stage 1	-15.4	0	0
Stage 1	-15.6	0	0
Stage 1	-15.8	0	0
Stage 1	-16	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 2

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	-0.1	-0.49
Stage 2	-0.6	-0.39	-1.47
Stage 2	-0.8	-0.98	-2.95
Stage 2	-1	-1.97	-4.92
Stage 2	-1.2	-3.45	-7.4
Stage 2	-1.4	-4.93	-7.41
Stage 2	-1.6	-6.4	-7.35
Stage 2	-1.8	-7.84	-7.22
Stage 2	-2	-9.25	-7.03
Stage 2	-2.2	-10.61	-6.79
Stage 2	-2.4	-11.91	-6.49
Stage 2	-2.6	-13.13	-6.13
Stage 2	-2.8	-14.27	-5.71
Stage 2	-3	-15.32	-5.23
Stage 2	-3.2	-16.26	-4.69
Stage 2	-3.4	-17.08	-4.09
Stage 2	-3.6	-17.76	-3.42
Stage 2	-3.8	-18.3	-2.68
Stage 2	-4	-18.67	-1.87
Stage 2	-4.2	-18.86	-0.98
Stage 2	-4.4	-18.87	-0.02
Stage 2	-4.6	-18.66	1.03
Stage 2	-4.8	-18.26	2.01
Stage 2	-5	-17.7	2.81
Stage 2	-5.2	-17.01	3.45
Stage 2	-5.4	-16.22	3.95
Stage 2	-5.6	-15.35	4.32
Stage 2	-5.8	-14.44	4.57
Stage 2	-6	-13.5	4.73
Stage 2	-6.2	-12.54	4.79
Stage 2	-6.4	-11.58	4.79
Stage 2	-6.6	-10.63	4.73
Stage 2	-6.8	-9.71	4.6
Stage 2	-7	-8.83	4.41
Stage 2	-7.2	-7.99	4.19
Stage 2	-7.4	-7.21	3.93
Stage 2	-7.6	-6.48	3.65
Stage 2	-7.8	-5.81	3.36
Stage 2	-8	-5.2	3.05
Stage 2	-8.2	-4.65	2.75
Stage 2	-8.4	-4.16	2.45
Stage 2	-8.6	-3.73	2.15
Stage 2	-8.8	-3.35	1.87
Stage 2	-9	-3.03	1.6
Stage 2	-9.2	-2.76	1.36
Stage 2	-9.4	-2.54	1.14
Stage 2	-9.6	-2.35	0.94
Stage 2	-9.8	-2.19	0.78
Stage 2	-10	-2.06	0.65
Stage 2	-10.2	-1.95	0.56
Stage 2	-10.4	-1.84	0.51
Stage 2	-10.6	-1.74	0.5
Stage 2	-10.8	-1.64	0.53
Stage 2	-11	-1.52	0.61
Stage 2	-11.2	-1.37	0.74

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-11.4	-1.18	0.92
Stage 2	-11.6	-0.96	1.14
Stage 2	-11.8	-0.67	1.42
Stage 2	-12	-0.32	1.75
Stage 2	-12.2	0.11	2.14
Stage 2	-12.4	0.45	1.71
Stage 2	-12.6	0.71	1.32
Stage 2	-12.8	0.91	0.96
Stage 2	-13	1.04	0.65
Stage 2	-13.2	1.11	0.36
Stage 2	-13.4	1.13	0.12
Stage 2	-13.6	1.11	-0.09
Stage 2	-13.8	1.06	-0.27
Stage 2	-14	0.98	-0.41
Stage 2	-14.2	0.88	-0.52
Stage 2	-14.4	0.76	-0.59
Stage 2	-14.6	0.63	-0.64
Stage 2	-14.8	0.5	-0.65
Stage 2	-15	0.37	-0.63
Stage 2	-15.2	0.26	-0.59
Stage 2	-15.4	0.15	-0.51
Stage 2	-15.6	0.07	-0.4
Stage 2	-15.8	0.02	-0.27
Stage 2	-16	0	-0.1

Tabella Risultati Paratia Nominal - Stage: Stage 3

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.1	-0.48
Stage 3	-0.6	-0.38	-1.44
Stage 3	-0.8	-0.96	-2.89
Stage 3	-1	-1.93	-4.82
Stage 3	-1.2	-3.37	-7.24
Stage 3	-1.4	-5.4	-10.15
Stage 3	-1.6	-8.11	-13.55
Stage 3	-1.8	-11.6	-17.45
Stage 3	-2	-15.97	-21.82
Stage 3	-2.2	-21.31	-26.69
Stage 3	-2.4	-27.13	-29.11
Stage 3	-2.6	-32.94	-29.07
Stage 3	-2.8	-38.29	-26.75
Stage 3	-3	-43.2	-24.54
Stage 3	-3.2	-47.69	-22.43
Stage 3	-3.4	-51.77	-20.42
Stage 3	-3.6	-55.47	-18.49
Stage 3	-3.8	-58.8	-16.66
Stage 3	-4	-61.78	-14.91
Stage 3	-4.2	-64.43	-13.23
Stage 3	-4.4	-66.76	-11.63
Stage 3	-4.6	-68.77	-10.08
Stage 3	-4.8	-70.49	-8.59
Stage 3	-5	-71.92	-7.15
Stage 3	-5.2	-73.07	-5.74
Stage 3	-5.4	-73.94	-4.37
Stage 3	-5.6	-74.55	-3.02
Stage 3	-5.8	-74.88	-1.68

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-6	-74.95	-0.35
Stage 3	-6.2	-74.76	0.99
Stage 3	-6.4	-74.29	2.33
Stage 3	-6.6	-73.55	3.7
Stage 3	-6.8	-72.53	5.09
Stage 3	-7	-71.23	6.52
Stage 3	-7.2	-69.63	8
Stage 3	-7.4	-67.72	9.53
Stage 3	-7.6	-65.5	11.11
Stage 3	-7.8	-62.95	12.77
Stage 3	-8	-60.1	14.22
Stage 3	-8.2	-57.04	15.31
Stage 3	-8.4	-53.82	16.08
Stage 3	-8.6	-50.51	16.57
Stage 3	-8.8	-47.15	16.82
Stage 3	-9	-43.78	16.84
Stage 3	-9.2	-40.45	16.64
Stage 3	-9.4	-37.2	16.26
Stage 3	-9.6	-34.05	15.73
Stage 3	-9.8	-31.03	15.11
Stage 3	-10	-28.15	14.41
Stage 3	-10.2	-25.41	13.67
Stage 3	-10.4	-22.83	12.91
Stage 3	-10.6	-20.4	12.17
Stage 3	-10.8	-18.1	11.46
Stage 3	-11	-15.94	10.81
Stage 3	-11.2	-13.9	10.22
Stage 3	-11.4	-11.95	9.73
Stage 3	-11.6	-10.09	9.33
Stage 3	-11.8	-8.28	9.05
Stage 3	-12	-6.5	8.89
Stage 3	-12.2	-4.73	8.86
Stage 3	-12.4	-3.23	7.52
Stage 3	-12.6	-1.97	6.27
Stage 3	-12.8	-0.95	5.13
Stage 3	-13	-0.13	4.08
Stage 3	-13.2	0.5	3.13
Stage 3	-13.4	0.95	2.27
Stage 3	-13.6	1.25	1.52
Stage 3	-13.8	1.43	0.86
Stage 3	-14	1.49	0.3
Stage 3	-14.2	1.45	-0.17
Stage 3	-14.4	1.34	-0.54
Stage 3	-14.6	1.18	-0.82
Stage 3	-14.8	0.98	-1.01
Stage 3	-15	0.76	-1.1
Stage 3	-15.2	0.53	-1.11
Stage 3	-15.4	0.33	-1.02
Stage 3	-15.6	0.16	-0.85
Stage 3	-15.8	0.04	-0.58
Stage 3	-16	0	-0.22

Tabella Risultati Paratia Nominal - Stage: Stage 4

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.09	-0.47
Stage 4	-0.4	-0.09	-0.47
Stage 4	-0.6	-0.38	-1.41
Stage 4	-0.8	-0.94	-2.82
Stage 4	-1	-1.88	-4.71
Stage 4	-1.2	-3.3	-7.08
Stage 4	-1.4	-5.28	-9.92
Stage 4	-1.6	-7.93	-13.24
Stage 4	-1.8	-11.34	-17.05
Stage 4	-2	-15.6	-21.33
Stage 4	-2.2	-20.82	-26.09
Stage 4	-2.4	-27.09	-31.32
Stage 4	-2.6	-34.49	-37.03
Stage 4	-2.8	-43.14	-43.21
Stage 4	-3	-53.11	-49.87
Stage 4	-3.2	-64.51	-57
Stage 4	-3.4	-76.86	-61.75
Stage 4	-3.6	-89.68	-64.11
Stage 4	-3.8	-102.5	-64.08
Stage 4	-4	-114.83	-61.67
Stage 4	-4.2	-126.2	-56.87
Stage 4	-4.4	-136.4	-50.98
Stage 4	-4.6	-145.49	-45.42
Stage 4	-4.8	-153.52	-40.19
Stage 4	-5	-160.58	-35.26
Stage 4	-5.2	-166.7	-30.63
Stage 4	-5.4	-171.96	-26.27
Stage 4	-5.6	-176.39	-22.18
Stage 4	-5.8	-180.06	-18.35
Stage 4	-6	-183.01	-14.74
Stage 4	-6.2	-185.28	-11.36
Stage 4	-6.4	-186.92	-8.19
Stage 4	-6.6	-187.96	-5.2
Stage 4	-6.8	-188.43	-2.38
Stage 4	-7	-188.38	0.28
Stage 4	-7.2	-187.82	2.8
Stage 4	-7.4	-186.78	5.2
Stage 4	-7.6	-185.28	7.49
Stage 4	-7.8	-183.34	9.69
Stage 4	-8	-180.98	11.81
Stage 4	-8.2	-178.21	13.87
Stage 4	-8.4	-175.03	15.89
Stage 4	-8.6	-171.46	17.87
Stage 4	-8.8	-167.49	19.84
Stage 4	-9	-163.13	21.81
Stage 4	-9.2	-158.37	23.79
Stage 4	-9.4	-153.21	25.79
Stage 4	-9.6	-147.64	27.83
Stage 4	-9.8	-141.66	29.92
Stage 4	-10	-135.24	32.08
Stage 4	-10.2	-128.39	34.29
Stage 4	-10.4	-121.19	35.99
Stage 4	-10.6	-113.74	37.24
Stage 4	-10.8	-106.12	38.1
Stage 4	-11	-98.42	38.53

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-11.2	-90.7	38.6
Stage 4	-11.4	-83.02	38.39
Stage 4	-11.6	-75.43	37.95
Stage 4	-11.8	-67.96	37.34
Stage 4	-12	-60.64	36.62
Stage 4	-12.2	-53.47	35.82
Stage 4	-12.4	-46.83	33.2
Stage 4	-12.6	-40.71	30.6
Stage 4	-12.8	-35.1	28.05
Stage 4	-13	-29.99	25.56
Stage 4	-13.2	-25.36	23.14
Stage 4	-13.4	-21.2	20.8
Stage 4	-13.6	-17.49	18.55
Stage 4	-13.8	-14.21	16.4
Stage 4	-14	-11.34	14.36
Stage 4	-14.2	-8.86	12.43
Stage 4	-14.4	-6.73	10.61
Stage 4	-14.6	-4.95	8.9
Stage 4	-14.8	-3.49	7.32
Stage 4	-15	-2.32	5.86
Stage 4	-15.2	-1.41	4.51
Stage 4	-15.4	-0.76	3.29
Stage 4	-15.6	-0.32	2.2
Stage 4	-15.8	-0.07	1.22
Stage 4	-16	0	0.37

Tabella Risultati Paratia Nominal - Stage: Stage 5

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.09	-0.46
Stage 5	-0.6	-0.37	-1.37
Stage 5	-0.8	-0.92	-2.75
Stage 5	-1	-1.83	-4.59
Stage 5	-1.2	-3.21	-6.9
Stage 5	-1.4	-5.15	-9.67
Stage 5	-1.6	-7.73	-12.91
Stage 5	-1.8	-11.05	-16.62
Stage 5	-2	-15.21	-20.79
Stage 5	-2.2	-20.3	-25.44
Stage 5	-2.4	-26.41	-30.54
Stage 5	-2.6	-33.63	-36.11
Stage 5	-2.8	-42.06	-42.14
Stage 5	-3	-51.78	-48.63
Stage 5	-3.2	-62.9	-55.58
Stage 5	-3.4	-75.5	-63
Stage 5	-3.6	-89.67	-70.87
Stage 5	-3.8	-105.51	-79.2
Stage 5	-4	-123.11	-87.99
Stage 5	-4.2	-142.56	-97.25
Stage 5	-4.4	-163.4	-104.19
Stage 5	-4.6	-185.17	-108.82
Stage 5	-4.8	-207.4	-111.15
Stage 5	-5	-229.63	-111.17
Stage 5	-5.2	-251.4	-108.88
Stage 5	-5.4	-272.26	-104.27
Stage 5	-5.6	-291.73	-97.36
Stage 5	-5.8	-309.36	-88.15
Stage 5	-6	-324.78	-77.11
Stage 5	-6.2	-338.12	-66.7
Stage 5	-6.4	-349.5	-56.87
Stage 5	-6.6	-359.02	-47.61
Stage 5	-6.8	-366.8	-38.89
Stage 5	-7	-372.94	-30.7
Stage 5	-7.2	-377.54	-22.99
Stage 5	-7.4	-380.69	-15.76
Stage 5	-7.6	-382.48	-8.96
Stage 5	-7.8	-383	-2.58
Stage 5	-8	-382.31	3.41
Stage 5	-8.2	-380.51	9.04
Stage 5	-8.4	-377.64	14.32
Stage 5	-8.6	-373.78	19.3
Stage 5	-8.8	-368.99	23.99
Stage 5	-9	-363.3	28.41
Stage 5	-9.2	-356.78	32.6
Stage 5	-9.4	-349.47	36.57
Stage 5	-9.6	-341.4	40.35
Stage 5	-9.8	-332.61	43.96
Stage 5	-10	-323.12	47.43
Stage 5	-10.2	-312.97	50.77
Stage 5	-10.4	-302.17	54.01
Stage 5	-10.6	-290.74	57.16
Stage 5	-10.8	-278.69	60.25
Stage 5	-11	-266.03	63.29
Stage 5	-11.2	-252.77	66.29

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-11.4	-238.91	69.29
Stage 5	-11.6	-224.45	72.29
Stage 5	-11.8	-209.39	75.31
Stage 5	-12	-193.72	78.36
Stage 5	-12.2	-177.43	81.45
Stage 5	-12.4	-161.38	80.24
Stage 5	-12.6	-145.7	78.44
Stage 5	-12.8	-130.47	76.11
Stage 5	-13	-115.82	73.29
Stage 5	-13.2	-101.81	70.02
Stage 5	-13.4	-88.55	66.32
Stage 5	-13.6	-76.08	62.36
Stage 5	-13.8	-64.44	58.17
Stage 5	-14	-53.68	53.82
Stage 5	-14.2	-43.82	49.31
Stage 5	-14.4	-34.89	44.65
Stage 5	-14.6	-26.91	39.86
Stage 5	-14.8	-19.93	34.95
Stage 5	-15	-13.94	29.91
Stage 5	-15.2	-8.99	24.75
Stage 5	-15.4	-5.1	19.47
Stage 5	-15.6	-2.29	14.07
Stage 5	-15.8	-0.58	8.54
Stage 5	-16	0	2.89

Tabella Risultati Paratia Nominal - Stage: Stage 6

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	0
Stage 6	-0.2	0	0
Stage 6	-0.2	0	0
Stage 6	-0.4	-0.09	-0.45
Stage 6	-0.6	-0.36	-1.35
Stage 6	-0.8	-0.9	-2.71
Stage 6	-1	-1.81	-4.53
Stage 6	-1.2	-3.17	-6.81
Stage 6	-1.4	-5.08	-9.54
Stage 6	-1.6	-7.63	-12.73
Stage 6	-1.8	-10.9	-16.4
Stage 6	-2	-15.01	-20.51
Stage 6	-2.2	-20.03	-25.09
Stage 6	-2.4	-26.05	-30.13
Stage 6	-2.6	-33.18	-35.62
Stage 6	-2.8	-41.49	-41.57
Stage 6	-3	-51.09	-47.97
Stage 6	-3.2	-62.05	-54.84
Stage 6	-3.4	-74.48	-62.15
Stage 6	-3.6	-88.46	-69.91
Stage 6	-3.8	-104.09	-78.14
Stage 6	-4	-121.45	-86.81
Stage 6	-4.2	-140.64	-95.94
Stage 6	-4.4	-161.74	-105.52
Stage 6	-4.6	-184.85	-115.55
Stage 6	-4.8	-209.79	-124.67
Stage 6	-5	-236.09	-131.53
Stage 6	-5.2	-263.32	-136.12
Stage 6	-5.4	-291	-138.44
Stage 6	-5.6	-318.7	-138.49
Stage 6	-5.8	-345.96	-136.28
Stage 6	-6	-372.32	-131.8
Stage 6	-6.2	-397.33	-125.05
Stage 6	-6.4	-420.54	-116.03
Stage 6	-6.6	-441.49	-104.75
Stage 6	-6.8	-459.72	-91.19
Stage 6	-7	-475.15	-77.13
Stage 6	-7.2	-487.92	-63.85
Stage 6	-7.4	-498.18	-51.31
Stage 6	-7.6	-506.08	-39.48
Stage 6	-7.8	-511.75	-28.33
Stage 6	-8	-515.31	-17.84
Stage 6	-8.2	-516.91	-7.96
Stage 6	-8.4	-516.64	1.33
Stage 6	-8.6	-514.63	10.07
Stage 6	-8.8	-510.97	18.28
Stage 6	-9	-505.77	26
Stage 6	-9.2	-499.12	33.26
Stage 6	-9.4	-491.1	40.09
Stage 6	-9.6	-481.8	46.52
Stage 6	-9.8	-471.28	52.58
Stage 6	-10	-459.62	58.29
Stage 6	-10.2	-446.88	63.7
Stage 6	-10.4	-433.12	68.81
Stage 6	-10.6	-418.39	73.66
Stage 6	-10.8	-402.73	78.28
Stage 6	-11	-386.2	82.68
Stage 6	-11.2	-368.82	86.9

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-11.4	-350.63	90.95
Stage 6	-11.6	-331.65	94.86
Stage 6	-11.8	-311.93	98.64
Stage 6	-12	-291.46	102.31
Stage 6	-12.2	-270.29	105.89
Stage 6	-12.4	-249.08	106.02
Stage 6	-12.6	-227.87	106.08
Stage 6	-12.8	-206.65	106.08
Stage 6	-13	-185.63	105.09
Stage 6	-13.2	-165.03	103.02
Stage 6	-13.4	-145.05	99.91
Stage 6	-13.6	-125.86	95.92
Stage 6	-13.8	-107.64	91.12
Stage 6	-14	-90.5	85.69
Stage 6	-14.2	-74.55	79.75
Stage 6	-14.4	-59.89	73.32
Stage 6	-14.6	-46.61	66.41
Stage 6	-14.8	-34.8	59.04
Stage 6	-15	-24.56	51.21
Stage 6	-15.2	-15.97	42.93
Stage 6	-15.4	-9.13	34.2
Stage 6	-15.6	-4.13	25.01
Stage 6	-15.8	-1.05	15.37
Stage 6	-16	0	5.27

Tabella Risultati Paratia Nominal - Stage: Stage 7

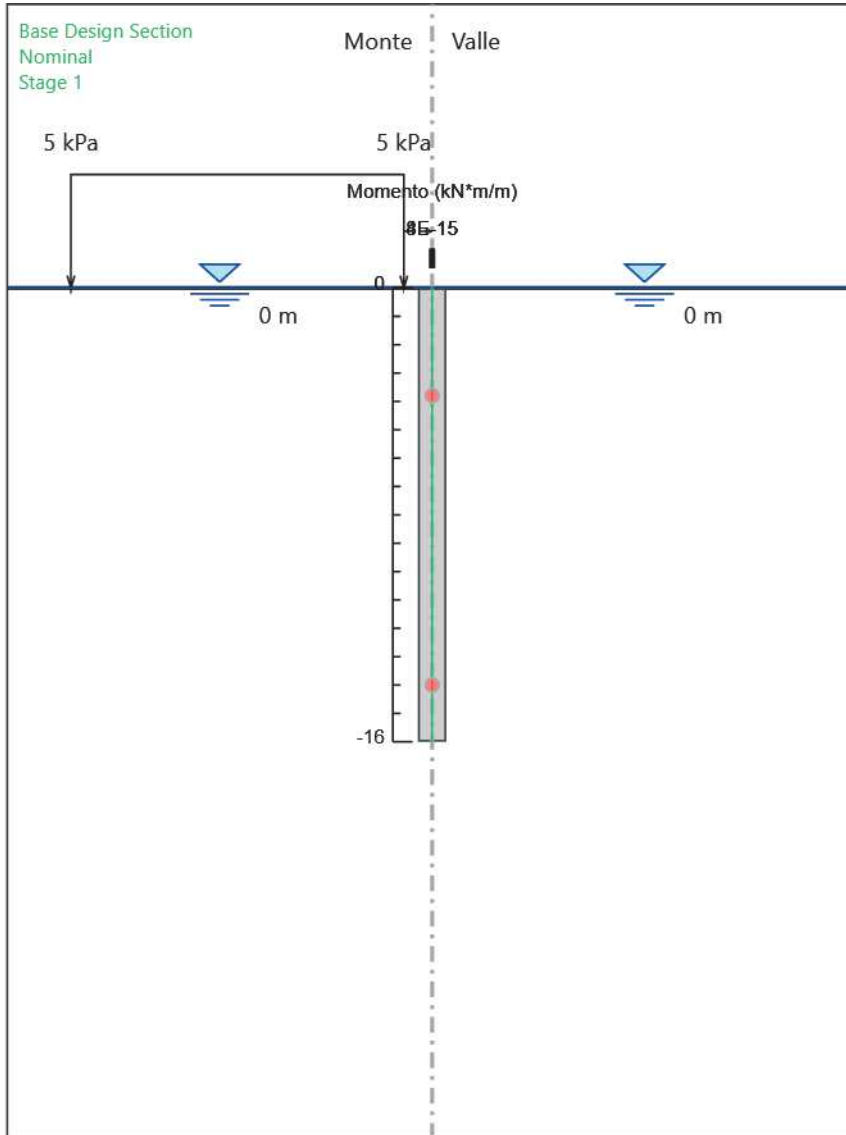
Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	0	0	0
Stage 7	-0.2	0	0
Stage 7	-0.2	0	0
Stage 7	-0.4	-0.1	-0.49
Stage 7	-0.6	-0.38	-1.43
Stage 7	-0.8	-0.95	-2.82
Stage 7	-1	-1.88	-4.67
Stage 7	-1.2	-3.28	-6.97
Stage 7	-1.4	-5.22	-9.73
Stage 7	-1.6	-7.81	-12.93
Stage 7	-1.8	-11.13	-16.6
Stage 7	-2	-15.27	-20.71
Stage 7	-2.2	-20.33	-25.28
Stage 7	-2.4	-26.38	-30.29
Stage 7	-2.6	-33.54	-35.77
Stage 7	-2.8	-41.88	-41.69
Stage 7	-3	-51.49	-48.07
Stage 7	-3.2	-62.47	-54.9
Stage 7	-3.4	-74.91	-62.18
Stage 7	-3.6	-88.89	-69.92
Stage 7	-3.8	-104.51	-78.1
Stage 7	-4	-121.86	-86.74
Stage 7	-4.2	-141.03	-95.83
Stage 7	-4.4	-162.1	-105.38
Stage 7	-4.6	-185.18	-115.37
Stage 7	-4.8	-210.08	-124.5
Stage 7	-5	-236.35	-131.36
Stage 7	-5.2	-263.54	-135.96
Stage 7	-5.4	-291.2	-138.28
Stage 7	-5.6	-318.86	-138.34
Stage 7	-5.8	-346.09	-136.13
Stage 7	-6	-372.42	-131.65
Stage 7	-6.2	-397.4	-124.9
Stage 7	-6.4	-420.58	-115.89
Stage 7	-6.6	-441.5	-104.61
Stage 7	-6.8	-459.71	-91.06
Stage 7	-7	-475.11	-77
Stage 7	-7.2	-487.85	-63.72
Stage 7	-7.4	-498.09	-51.18
Stage 7	-7.6	-505.96	-39.35
Stage 7	-7.8	-511.6	-28.21
Stage 7	-8	-515.14	-17.72
Stage 7	-8.2	-516.71	-7.85
Stage 7	-8.4	-516.43	1.44
Stage 7	-8.6	-514.39	10.17
Stage 7	-8.8	-510.72	18.38
Stage 7	-9	-505.5	26.09
Stage 7	-9.2	-498.83	33.34
Stage 7	-9.4	-490.8	40.16
Stage 7	-9.6	-481.48	46.58
Stage 7	-9.8	-470.95	52.63
Stage 7	-10	-459.29	58.33
Stage 7	-10.2	-446.54	63.72
Stage 7	-10.4	-432.78	68.81
Stage 7	-10.6	-418.05	73.64
Stage 7	-10.8	-402.41	78.24
Stage 7	-11	-385.88	82.62
Stage 7	-11.2	-368.52	86.81

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

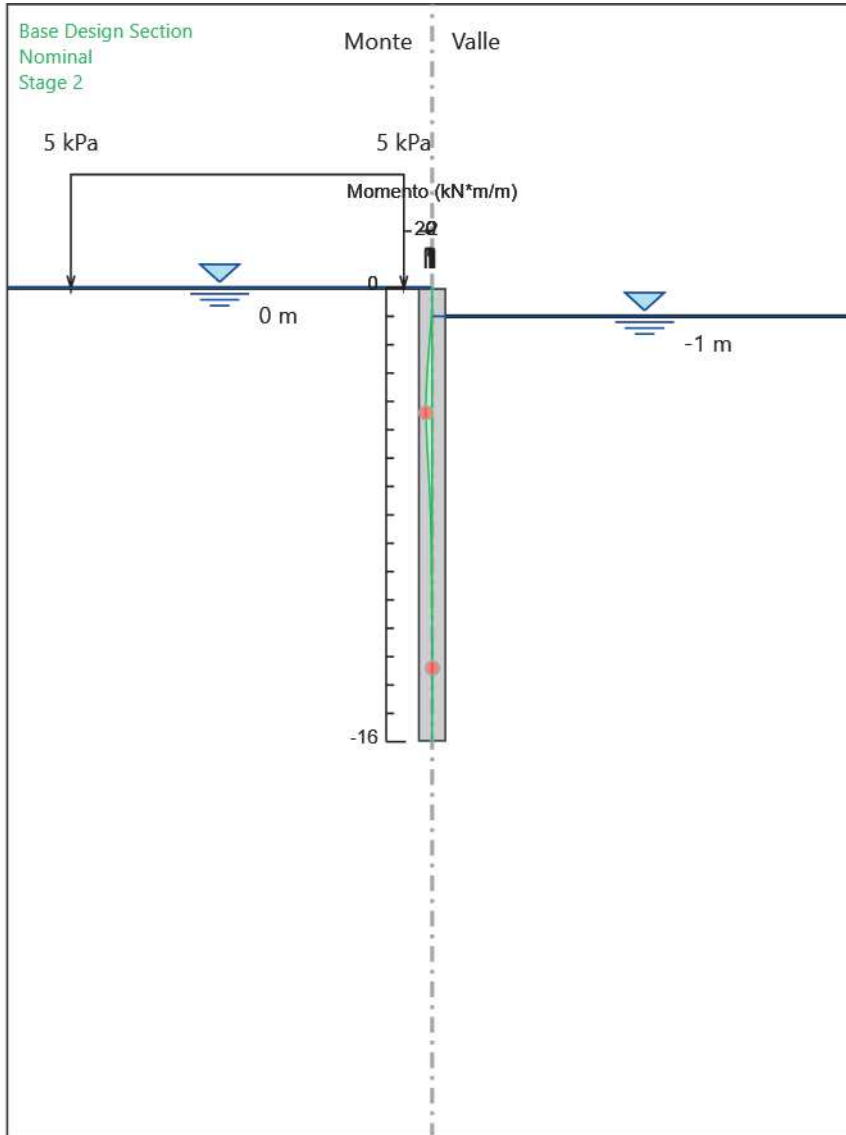
Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	-11.4	-350.36	90.83
Stage 7	-11.6	-331.42	94.7
Stage 7	-11.8	-311.73	98.45
Stage 7	-12	-291.31	102.08
Stage 7	-12.2	-270.19	105.62
Stage 7	-12.4	-249.03	105.8
Stage 7	-12.6	-227.85	105.9
Stage 7	-12.8	-206.66	105.93
Stage 7	-13	-185.67	104.98
Stage 7	-13.2	-165.08	102.94
Stage 7	-13.4	-145.11	99.85
Stage 7	-13.6	-125.93	95.89
Stage 7	-13.8	-107.71	91.1
Stage 7	-14	-90.57	85.69
Stage 7	-14.2	-74.62	79.77
Stage 7	-14.4	-59.95	73.35
Stage 7	-14.6	-46.66	66.46
Stage 7	-14.8	-34.84	59.09
Stage 7	-15	-24.59	51.26
Stage 7	-15.2	-15.99	42.98
Stage 7	-15.4	-9.14	34.24
Stage 7	-15.6	-4.14	25.05
Stage 7	-15.8	-1.06	15.39
Stage 7	-16	0	5.28

Grafico Momento Nominal - Stage: Stage 1



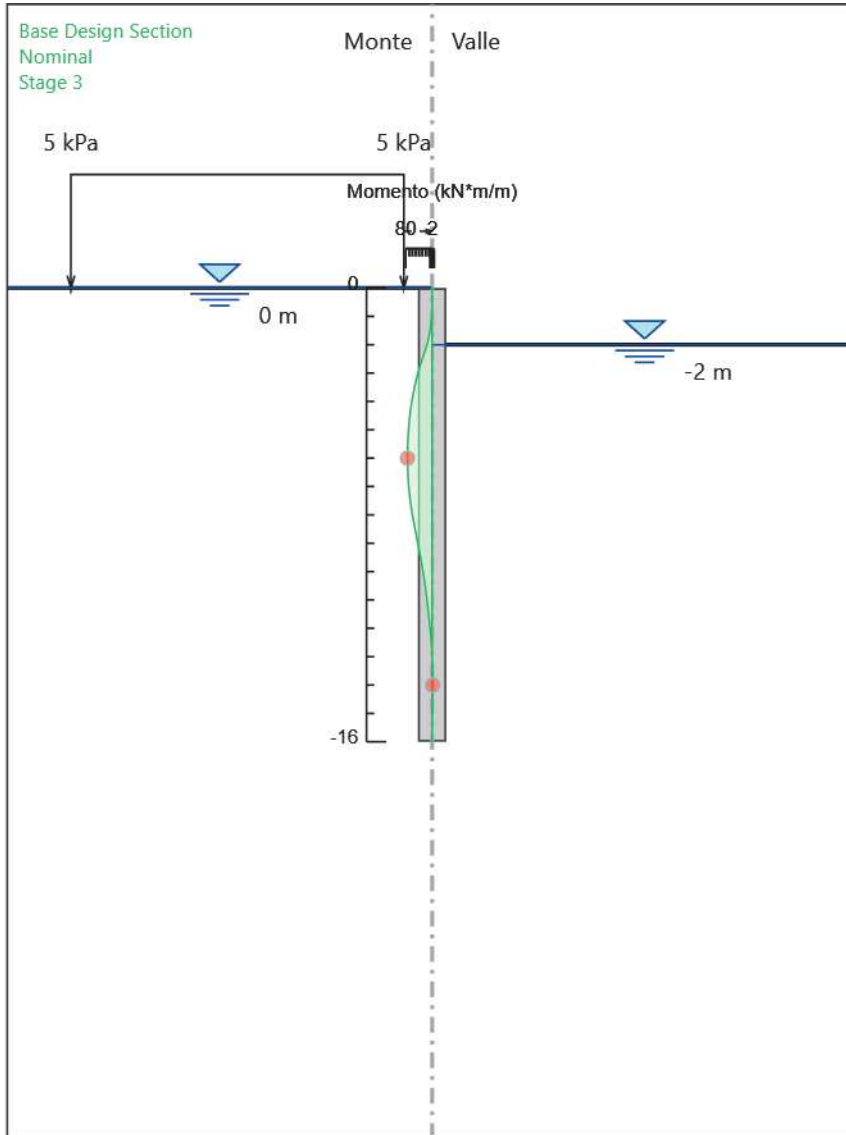
Design Assumption: Nominal
Stage: Stage 1
Momento

Grafico Momento Nominal - Stage: Stage 2



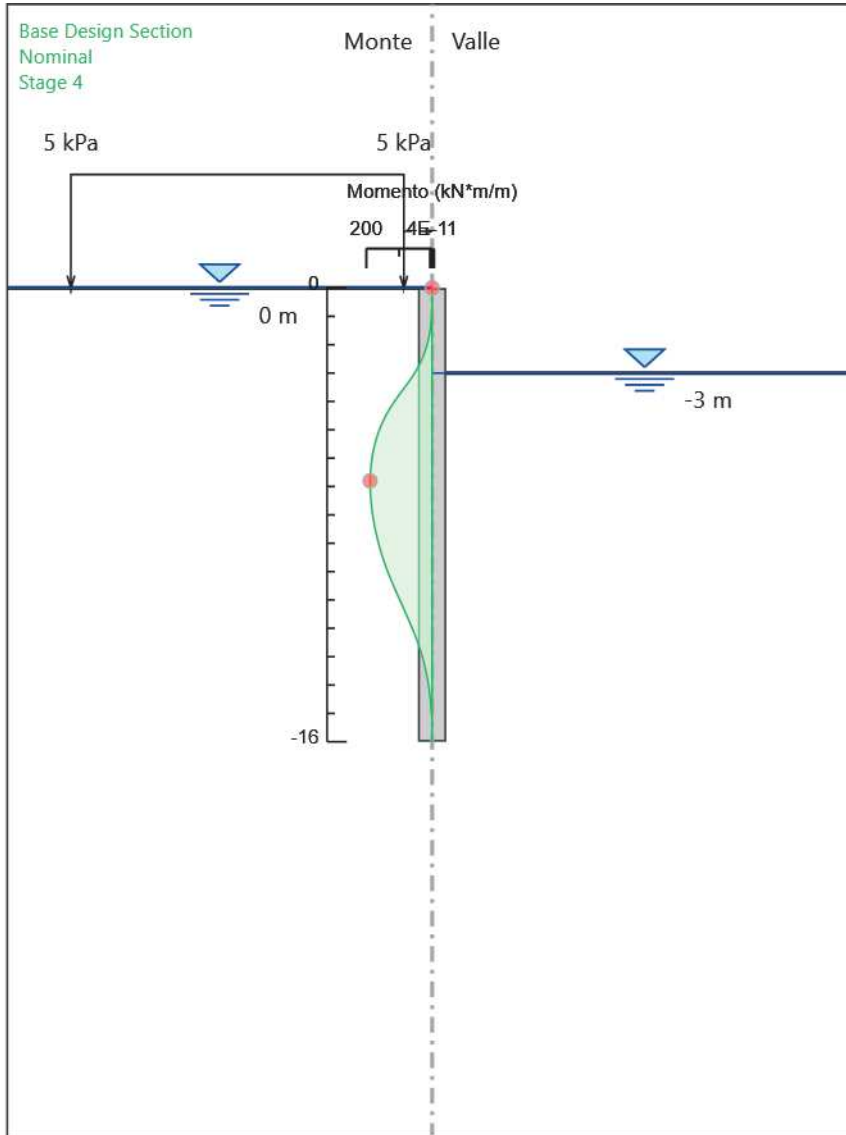
Design Assumption: Nominal
Stage: Stage 2
Momento

Grafico Momento Nominal - Stage: Stage 3



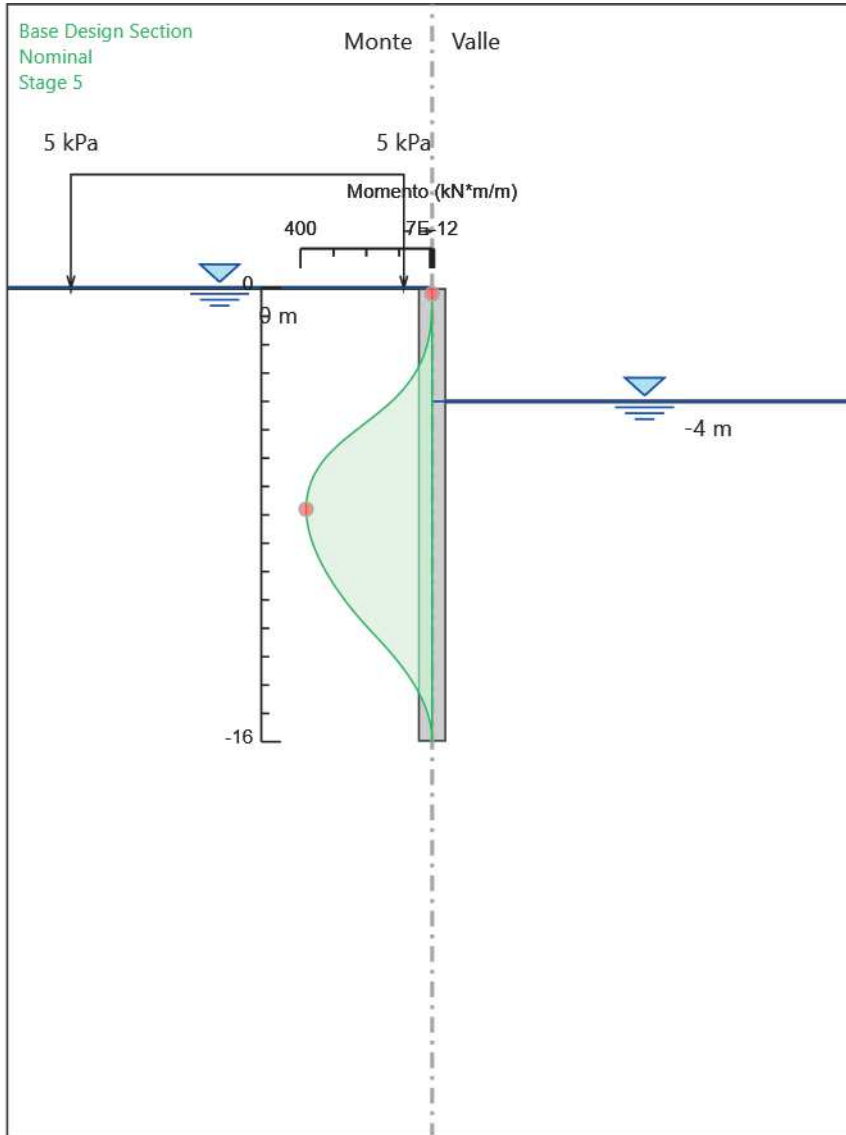
Design Assumption: Nominal
Stage: Stage 3
Momento

Grafico Momento Nominal - Stage: Stage 4



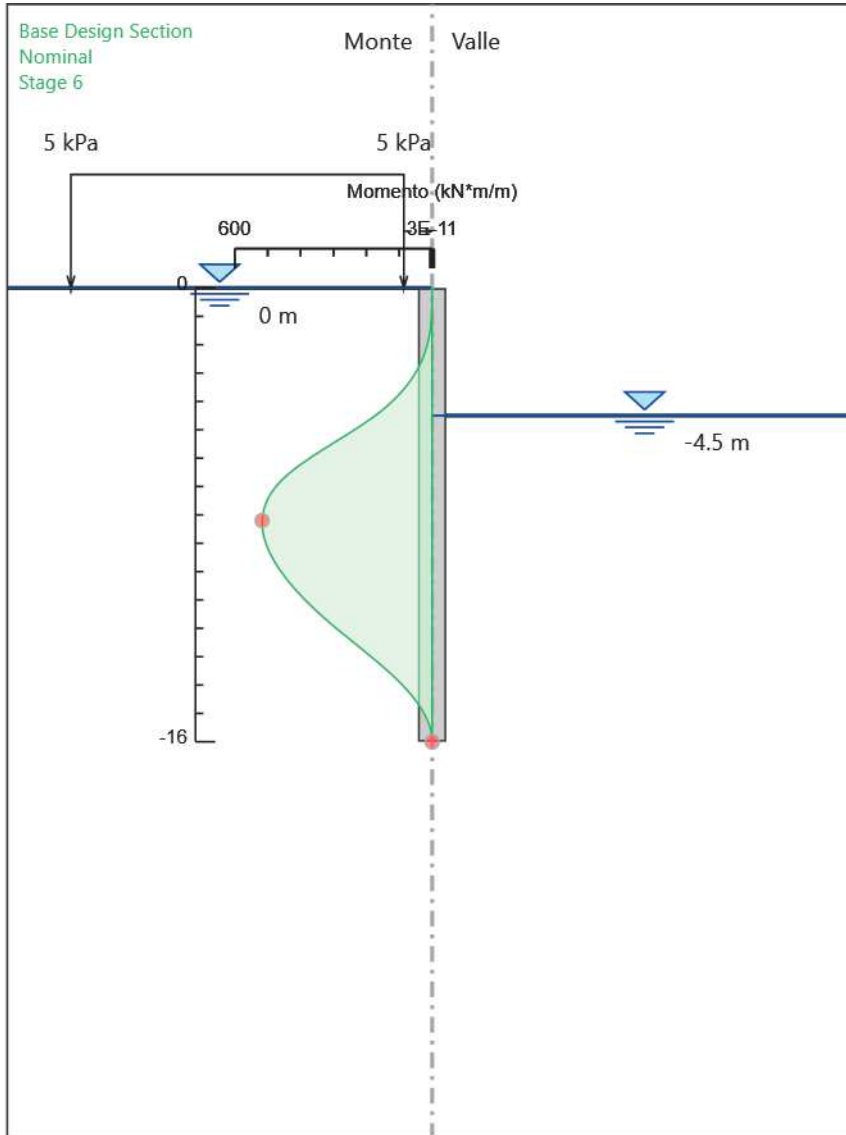
Design Assumption: Nominal
Stage: Stage 4
Momento

Grafico Momento Nominal - Stage: Stage 5



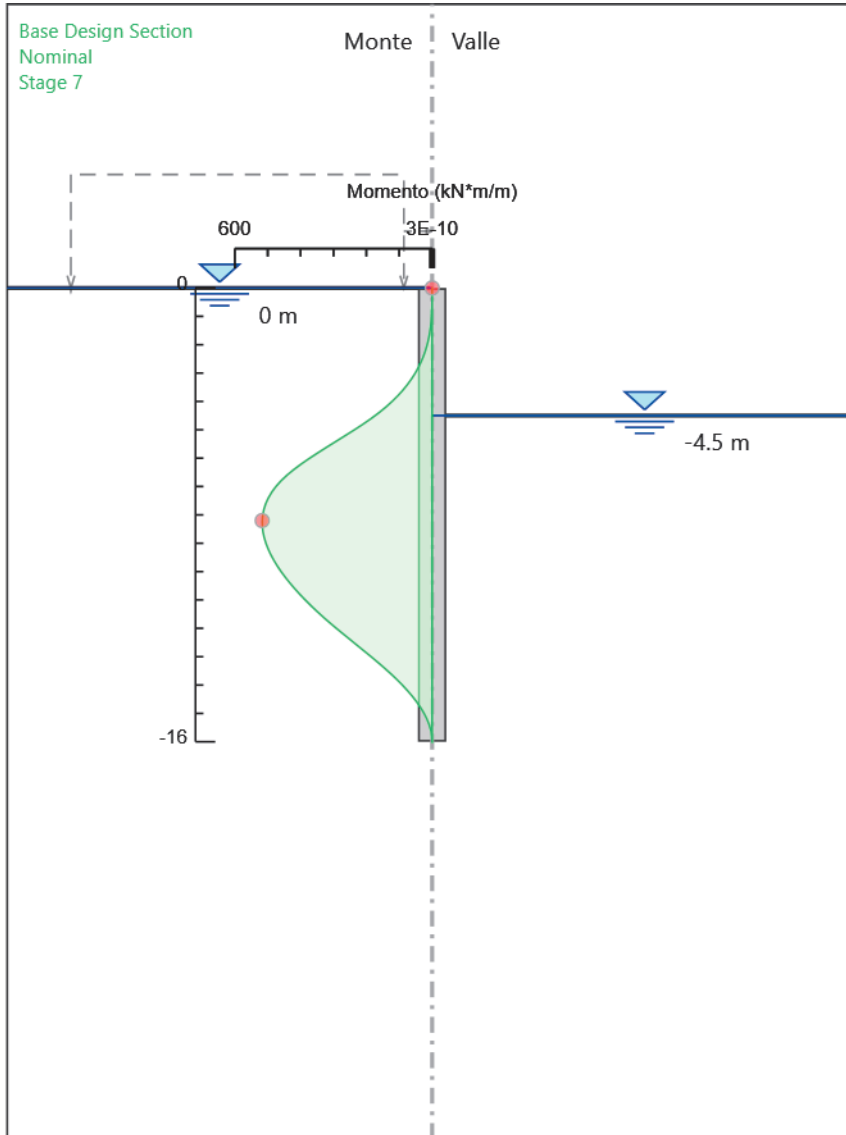
Design Assumption: Nominal
Stage: Stage 5
Momento

Grafico Momento Nominal - Stage: Stage 6



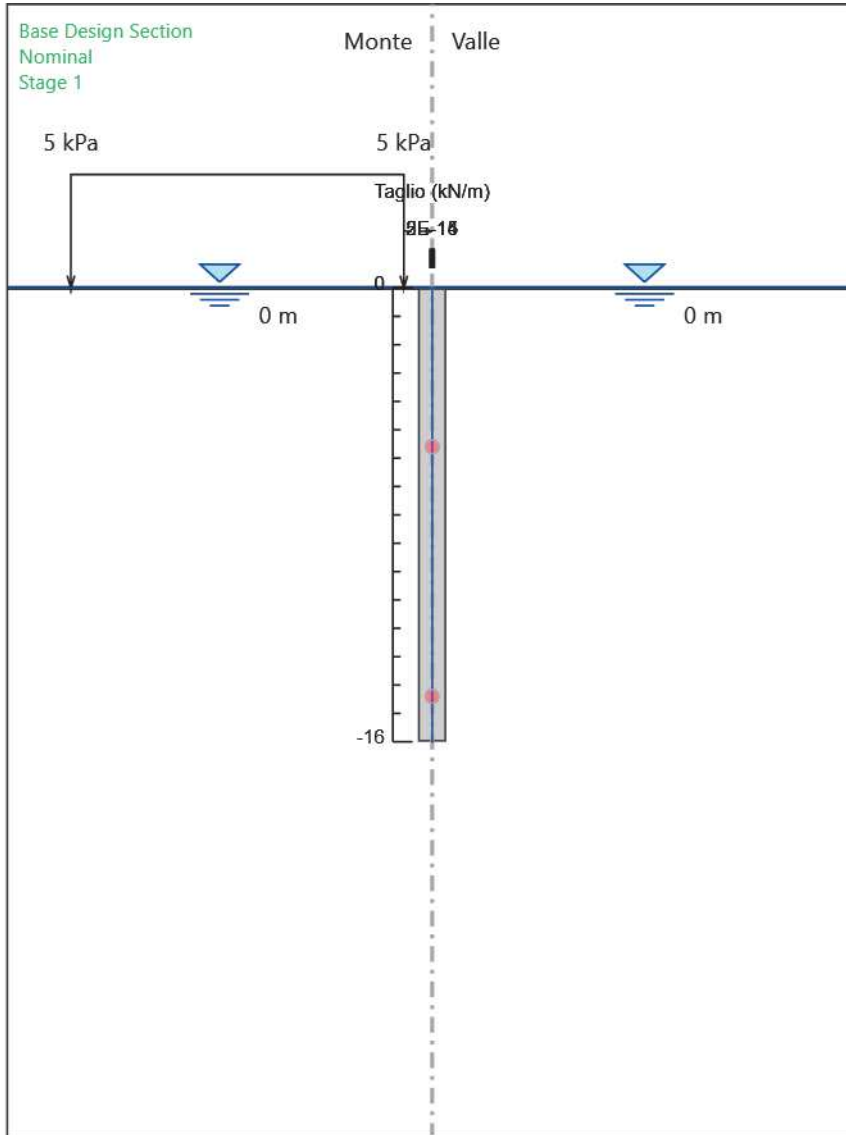
Design Assumption: Nominal
Stage: Stage 6
Momento

Grafico Momento Nominal - Stage: Stage 7



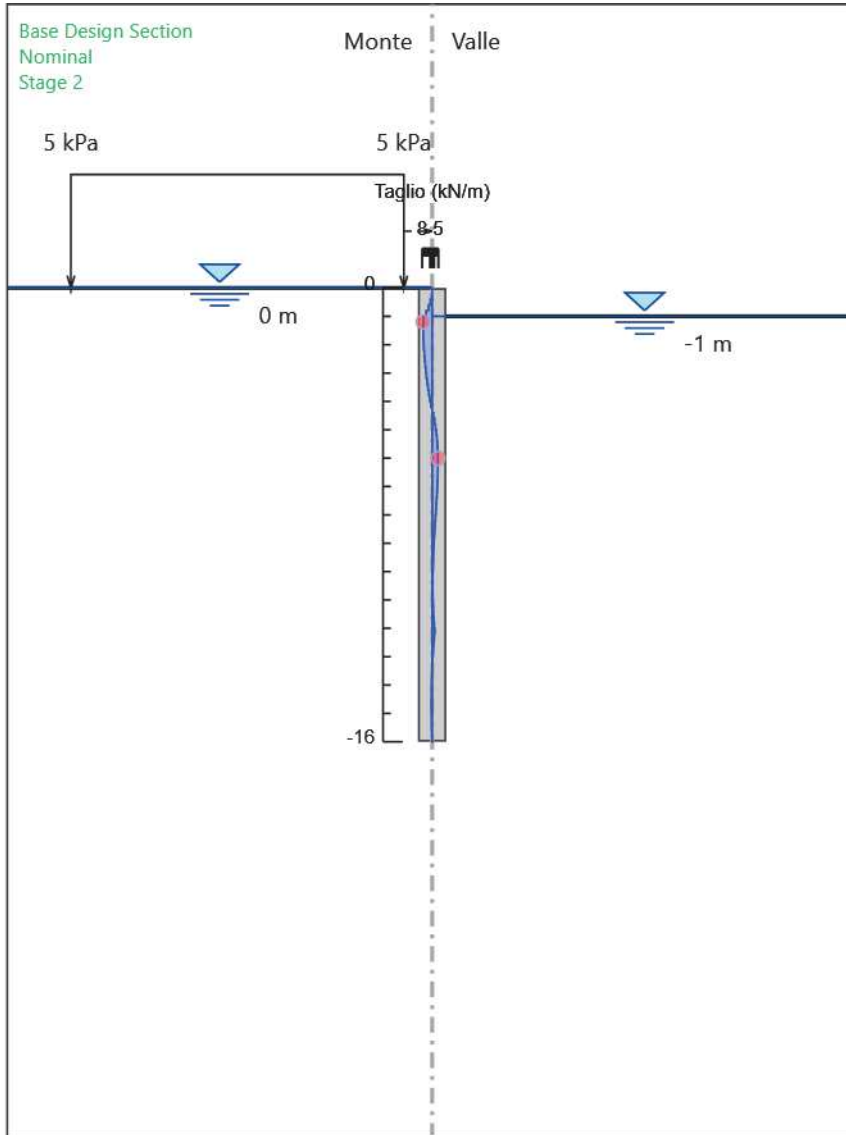
Design Assumption: Nominal
Stage: Stage 7
Momento

Grafico Taglio Nominal - Stage: Stage 1



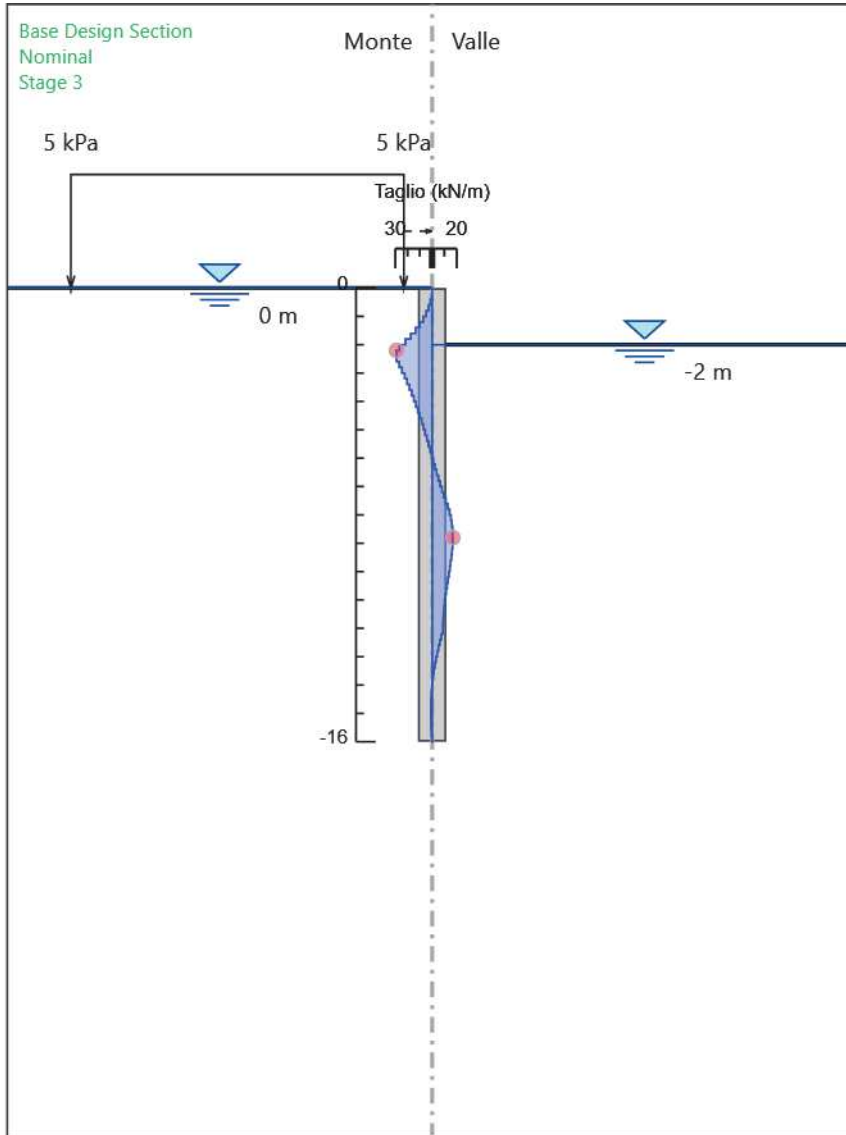
Design Assumption: Nominal
Stage: Stage 1
Taglio

Grafico Taglio Nominal - Stage: Stage 2



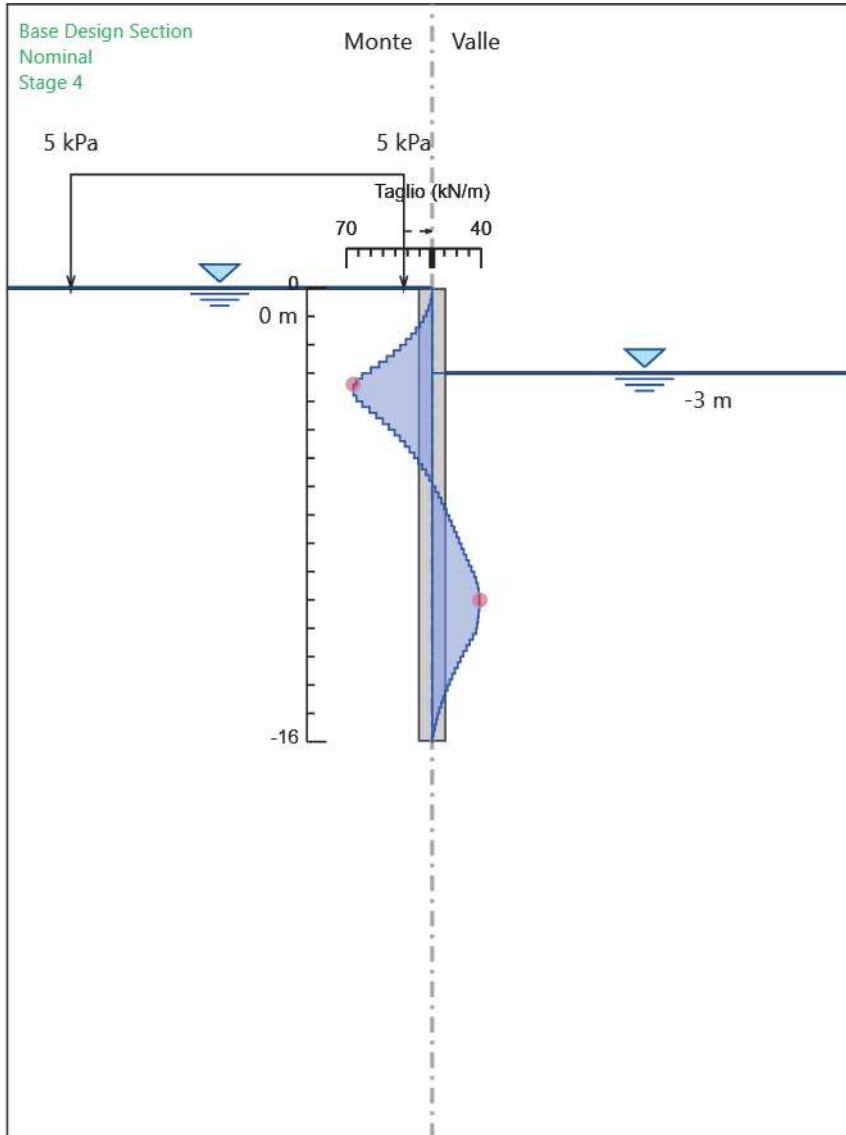
Design Assumption: Nominal
Stage: Stage 2
Taglio

Grafico Taglio Nominal - Stage: Stage 3



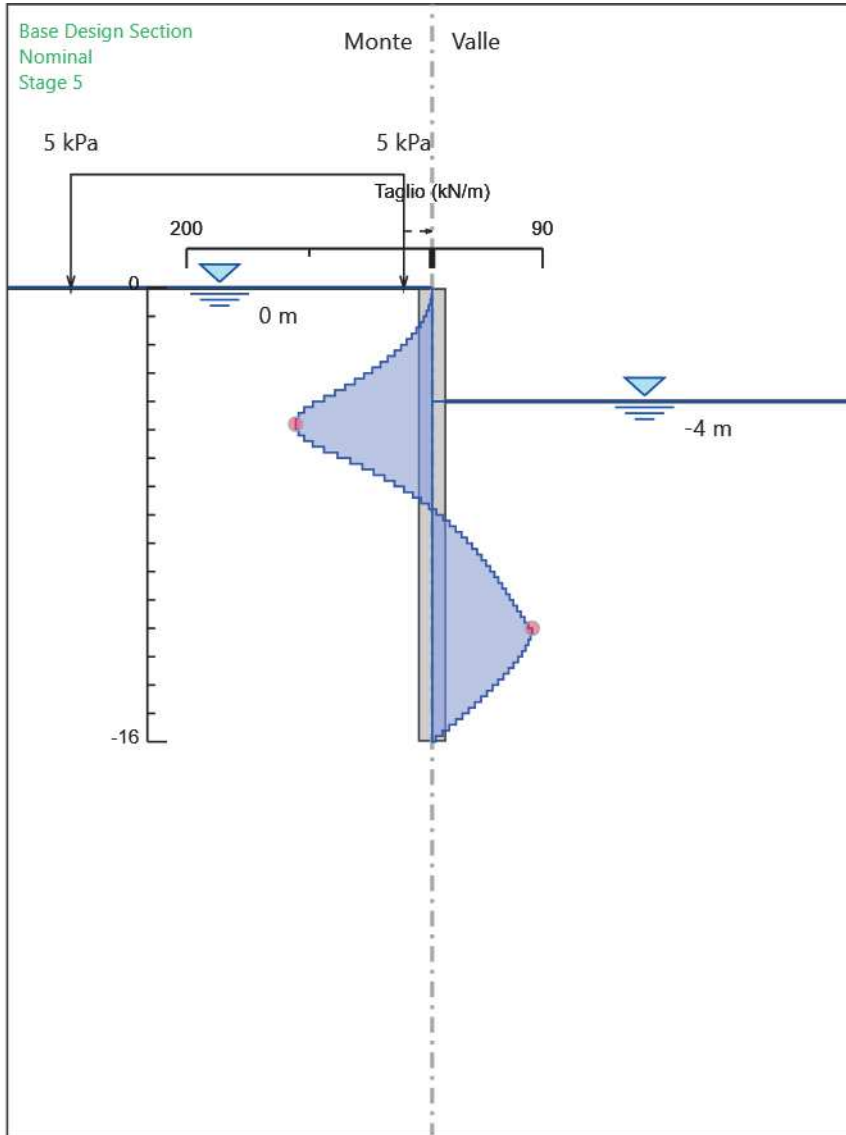
Design Assumption: Nominal
Stage: Stage 3
Taglio

Grafico Taglio Nominal - Stage: Stage 4



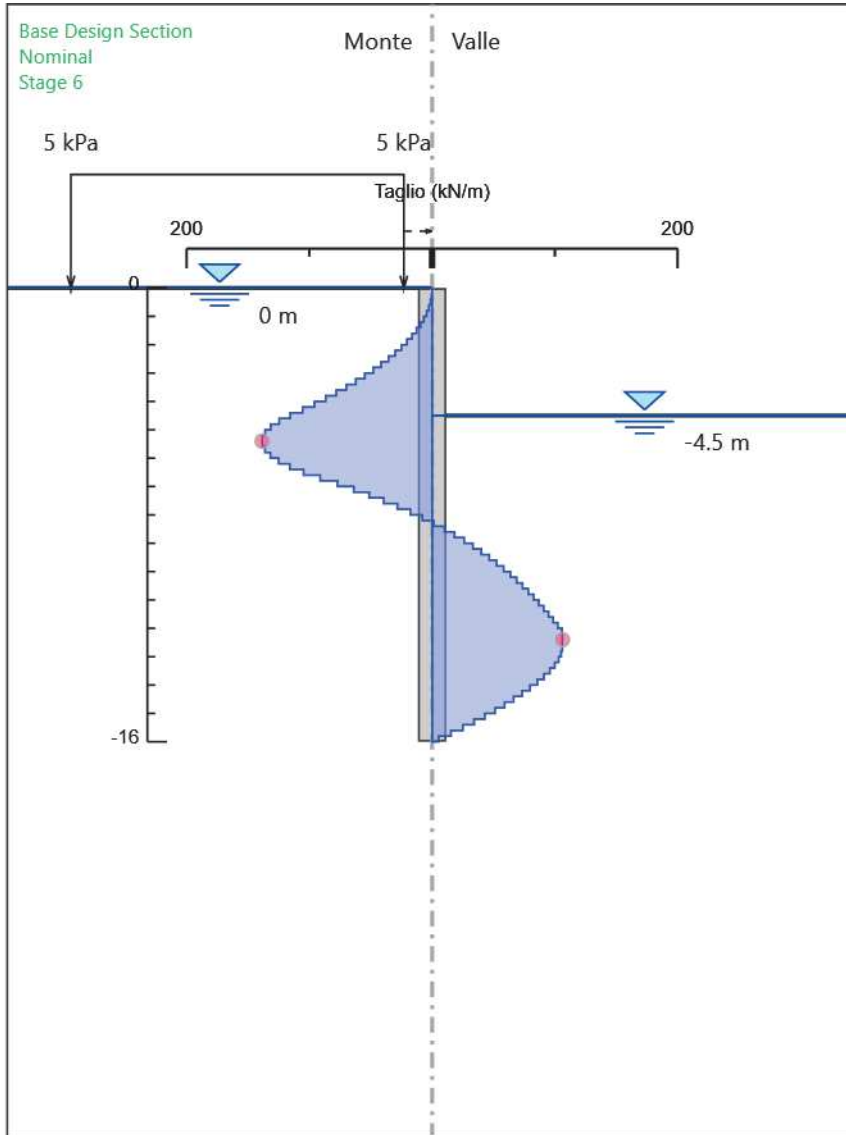
Design Assumption: Nominal
Stage: Stage 4
Taglio

Grafico Taglio Nominal - Stage: Stage 5



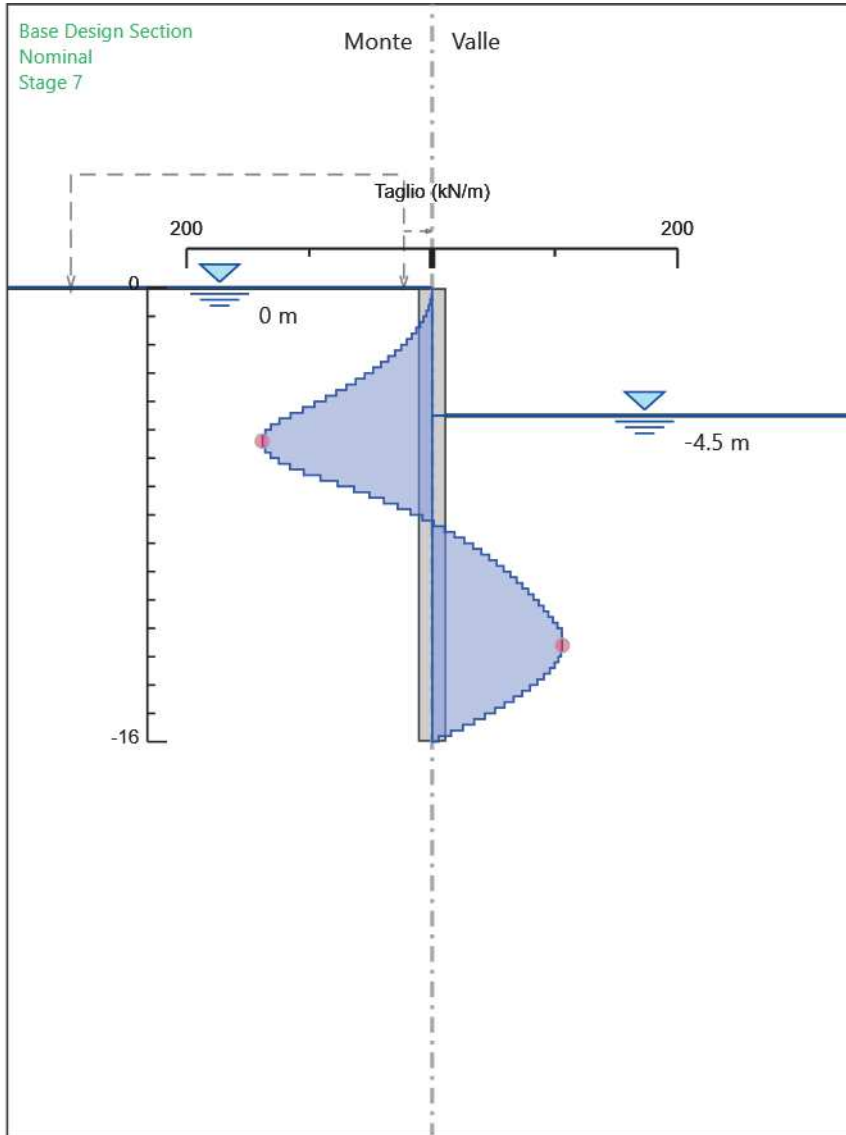
Design Assumption: Nominal
Stage: Stage 5
Taglio

Grafico Taglio Nominal - Stage: Stage 6



Design Assumption: Nominal
Stage: Stage 6
Taglio

Grafico Taglio Nominal - Stage: Stage 7



Design Assumption: Nominal
Stage: Stage 7
Taglio

Inviluppi Risultati Paratia Nominal

Risultati Terreno

Tabella Risultati Terreno Left Wall - Nominal - Stage 1

Design Assumption: Nominal Risultati Terreno										
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Muro: LEFT Stato	Lato Ka	Lato Kp	LEFT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0
Stage 1	-0.2	2.008	1.57	V-C	0.249	6.738	0	2	0	3.57
Stage 1	-0.4	4.057	3.055	V-C	0.249	6.738	0	4	0	7.055
Stage 1	-0.6	6.158	4.413	V-C	0.249	6.738	0	6	0	10.413
Stage 1	-0.8	8.297	5.651	V-C	0.249	6.738	0	8	0	13.651
Stage 1	-1	10.454	6.797	V-C	0.249	6.738	0	10	0	16.797
Stage 1	-1.2	12.611	7.879	V-C	0.249	6.738	0	12	0	19.879
Stage 1	-1.4	14.874	8.919	V-C	0.249	6.738	0	14	0	22.919
Stage 1	-1.6	17.176	9.931	V-C	0.249	6.738	0	16	0	25.931
Stage 1	-1.8	19.264	10.925	V-C	0.249	6.738	0	18	0	28.925
Stage 1	-2	21.485	11.907	V-C	0.249	6.738	0	20	0	31.907
Stage 1	-2.2	23.67	12.882	V-C	0.249	6.738	0	22	0	34.882
Stage 1	-2.4	25.71	13.851	V-C	0.249	6.738	0	24	0	37.851
Stage 1	-2.6	27.856	14.817	V-C	0.249	6.738	0	26	0	40.817
Stage 1	-2.8	29.984	15.781	V-C	0.249	6.738	0	28	0	43.781
Stage 1	-3	32.097	16.743	V-C	0.249	6.738	0	30	0	46.743
Stage 1	-3.2	34.107	17.704	V-C	0.249	6.738	0	32	0	49.704
Stage 1	-3.4	36.202	18.665	V-C	0.249	6.738	0	34	0	52.665
Stage 1	-3.6	38.287	19.625	V-C	0.249	6.738	0	36	0	55.625
Stage 1	-3.8	40.288	20.586	V-C	0.249	6.738	0	38	0	58.586
Stage 1	-4	42.362	21.546	V-C	0.249	6.738	0	40	0	61.546
Stage 1	-4.2	44.429	22.507	V-C	0.249	6.738	0	42	0	64.507
Stage 1	-4.4	46.425	23.469	V-C	0.249	6.738	0	44	0	67.469
Stage 1	-4.6	48.485	24.431	V-C	0.249	6.738	0	46	0	70.431
Stage 1	-4.8	50.54	25.393	V-C	0.249	6.738	0	48	0	73.393
Stage 1	-5	52.59	26.356	V-C	0.249	6.738	0	50	0	76.356
Stage 1	-5.2	54.582	27.32	V-C	0.249	6.738	0	52	0	79.32
Stage 1	-5.4	56.627	28.284	V-C	0.249	6.738	0	54	0	82.284
Stage 1	-5.6	58.67	29.25	V-C	0.249	6.738	0	56	0	85.25
Stage 1	-5.8	60.66	30.215	V-C	0.249	6.738	0	58	0	88.215
Stage 1	-6	62.699	31.182	V-C	0.249	6.738	0	60	0	91.182
Stage 1	-6.2	64.736	32.149	V-C	0.249	6.738	0	62	0	94.149
Stage 1	-6.4	66.725	33.118	V-C	0.249	6.738	0	64	0	97.118
Stage 1	-6.6	68.759	34.086	V-C	0.249	6.738	0	66	0	100.086
Stage 1	-6.8	70.791	35.056	V-C	0.249	6.738	0	68	0	103.056
Stage 1	-7	72.821	36.026	V-C	0.249	6.738	0	70	0	106.026
Stage 1	-7.2	74.81	36.998	V-C	0.249	6.738	0	72	0	108.998
Stage 1	-7.4	76.838	37.97	V-C	0.249	6.738	0	74	0	111.97
Stage 1	-7.6	78.865	38.942	V-C	0.249	6.738	0	76	0	114.942
Stage 1	-7.8	80.853	39.916	V-C	0.249	6.738	0	78	0	117.916
Stage 1	-8	82.878	40.89	V-C	0.249	6.738	0	80	0	120.89
Stage 1	-8.2	84.902	41.864	V-C	0.249	6.738	0	82	0	123.864
Stage 1	-8.4	86.89	42.84	V-C	0.249	6.738	0	84	0	126.84
Stage 1	-8.6	88.913	43.816	V-C	0.249	6.738	0	86	0	129.816
Stage 1	-8.8	90.935	44.793	V-C	0.249	6.738	0	88	0	132.793
Stage 1	-9	92.956	45.77	V-C	0.249	6.738	0	90	0	135.77
Stage 1	-9.2	94.944	46.749	V-C	0.249	6.738	0	92	0	138.749
Stage 1	-9.4	96.964	47.727	V-C	0.249	6.738	0	94	0	141.727
Stage 1	-9.6	98.982	48.707	V-C	0.249	6.738	0	96	0	144.707
Stage 1	-9.8	100.971	49.687	V-C	0.249	6.738	0	98	0	147.687
Stage 1	-10	102.989	50.668	V-C	0.249	6.738	0	100	0	150.668
Stage 1	-10.2	105.006	51.649	V-C	0.249	6.738	0	102	0	153.649
Stage 1	-10.4	106.995	52.63	V-C	0.249	6.738	0	104	0	156.63
Stage 1	-10.6	109.012	53.613	V-C	0.249	6.738	0	106	0	159.613
Stage 1	-10.8	111.028	54.596	V-C	0.249	6.738	0	108	0	162.596

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	LEFT Ka	Lato Kp	LEFT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 1	-11	113.043	55.579	V-C	0.249	6.738	0	110	0	0	165.579
Stage 1	-11.2	115.032	56.563	V-C	0.249	6.738	0	112	0	0	168.563
Stage 1	-11.4	117.047	57.547	V-C	0.249	6.738	0	114	0	0	171.547
Stage 1	-11.6	119.061	58.532	V-C	0.249	6.738	0	116	0	0	174.532
Stage 1	-11.8	121.05	59.517	V-C	0.249	6.738	0	118	0	0	177.517
Stage 1	-12	123.064	60.503	V-C	0.249	6.738	0	120	0	0	180.503
Stage 1	-12.2	124.878	61.389	V-C	0.39	3.404	5	122	0	0	183.389
Stage 1	-12.4	126.691	62.276	V-C	0.39	3.404	5	124	0	0	186.276
Stage 1	-12.6	128.48	63.163	V-C	0.39	3.404	5	126	0	0	189.163
Stage 1	-12.8	130.27	64.051	V-C	0.39	3.404	5	128	0	0	192.05
Stage 1	-13	132.037	64.938	V-C	0.39	3.404	5	130	0	0	194.938
Stage 1	-13.2	133.805	65.827	V-C	0.39	3.404	5	132	0	0	197.826
Stage 1	-13.4	135.574	66.715	V-C	0.39	3.404	5	134	0	0	200.715
Stage 1	-13.6	137.343	67.604	V-C	0.39	3.404	5	136	0	0	203.604
Stage 1	-13.8	139.113	68.493	V-C	0.39	3.404	5	138	0	0	206.493
Stage 1	-14	140.884	69.383	V-C	0.39	3.404	5	140	0	0	209.383
Stage 1	-14.2	142.655	70.273	V-C	0.39	3.404	5	142	0	0	212.273
Stage 1	-14.4	144.427	71.163	V-C	0.39	3.404	5	144	0	0	215.163
Stage 1	-14.6	146.199	72.054	V-C	0.39	3.404	5	146	0	0	218.054
Stage 1	-14.8	147.972	72.944	V-C	0.39	3.404	5	148	0	0	220.944
Stage 1	-15	149.745	73.836	V-C	0.39	3.404	5	150	0	0	223.835
Stage 1	-15.2	151.519	74.727	V-C	0.39	3.404	5	152	0	0	226.727
Stage 1	-15.4	153.294	75.618	V-C	0.39	3.404	5	154	0	0	229.618
Stage 1	-15.6	155.069	76.51	V-C	0.39	3.404	5	156	0	0	232.51
Stage 1	-15.8	156.844	77.402	V-C	0.39	3.404	5	158	0	0	235.402
Stage 1	-16	158.62	78.295	V-C	0.39	3.404	5	160	0	0	238.295

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno										
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Muro: LEFT	Lato	RIGHT				
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0
Stage 1	-0.2	2	1.57	V-C	0.249	6.738	0	2	0	3.57
Stage 1	-0.4	4	3.055	V-C	0.249	6.738	0	4	0	7.055
Stage 1	-0.6	6	4.413	V-C	0.249	6.738	0	6	0	10.413
Stage 1	-0.8	8	5.651	V-C	0.249	6.738	0	8	0	13.651
Stage 1	-1	10	6.797	V-C	0.249	6.738	0	10	0	16.797
Stage 1	-1.2	12	7.879	V-C	0.249	6.738	0	12	0	19.879
Stage 1	-1.4	14	8.919	V-C	0.249	6.738	0	14	0	22.919
Stage 1	-1.6	16	9.931	V-C	0.249	6.738	0	16	0	25.931
Stage 1	-1.8	18	10.925	V-C	0.249	6.738	0	18	0	28.925
Stage 1	-2	20	11.907	V-C	0.249	6.738	0	20	0	31.907
Stage 1	-2.2	22	12.882	V-C	0.249	6.738	0	22	0	34.882
Stage 1	-2.4	24	13.851	V-C	0.249	6.738	0	24	0	37.851
Stage 1	-2.6	26	14.817	V-C	0.249	6.738	0	26	0	40.817
Stage 1	-2.8	28	15.781	V-C	0.249	6.738	0	28	0	43.781
Stage 1	-3	30	16.743	V-C	0.249	6.738	0	30	0	46.743
Stage 1	-3.2	32	17.704	V-C	0.249	6.738	0	32	0	49.704
Stage 1	-3.4	34	18.665	V-C	0.249	6.738	0	34	0	52.665
Stage 1	-3.6	36	19.625	V-C	0.249	6.738	0	36	0	55.625
Stage 1	-3.8	38	20.586	V-C	0.249	6.738	0	38	0	58.586
Stage 1	-4	40	21.546	V-C	0.249	6.738	0	40	0	61.546
Stage 1	-4.2	42	22.507	V-C	0.249	6.738	0	42	0	64.507
Stage 1	-4.4	44	23.469	V-C	0.249	6.738	0	44	0	67.469
Stage 1	-4.6	46	24.431	V-C	0.249	6.738	0	46	0	70.431
Stage 1	-4.8	48	25.393	V-C	0.249	6.738	0	48	0	73.393
Stage 1	-5	50	26.356	V-C	0.249	6.738	0	50	0	76.356
Stage 1	-5.2	52	27.32	V-C	0.249	6.738	0	52	0	79.32
Stage 1	-5.4	54	28.284	V-C	0.249	6.738	0	54	0	82.284
Stage 1	-5.6	56	29.25	V-C	0.249	6.738	0	56	0	85.25
Stage 1	-5.8	58	30.215	V-C	0.249	6.738	0	58	0	88.215
Stage 1	-6	60	31.182	V-C	0.249	6.738	0	60	0	91.182
Stage 1	-6.2	62	32.149	V-C	0.249	6.738	0	62	0	94.149
Stage 1	-6.4	64	33.118	V-C	0.249	6.738	0	64	0	97.118
Stage 1	-6.6	66	34.086	V-C	0.249	6.738	0	66	0	100.086
Stage 1	-6.8	68	35.056	V-C	0.249	6.738	0	68	0	103.056
Stage 1	-7	70	36.026	V-C	0.249	6.738	0	70	0	106.026
Stage 1	-7.2	72	36.998	V-C	0.249	6.738	0	72	0	108.998
Stage 1	-7.4	74	37.97	V-C	0.249	6.738	0	74	0	111.97
Stage 1	-7.6	76	38.942	V-C	0.249	6.738	0	76	0	114.942
Stage 1	-7.8	78	39.916	V-C	0.249	6.738	0	78	0	117.916
Stage 1	-8	80	40.89	V-C	0.249	6.738	0	80	0	120.89
Stage 1	-8.2	82	41.864	V-C	0.249	6.738	0	82	0	123.864
Stage 1	-8.4	84	42.84	V-C	0.249	6.738	0	84	0	126.84
Stage 1	-8.6	86	43.816	V-C	0.249	6.738	0	86	0	129.816
Stage 1	-8.8	88	44.793	V-C	0.249	6.738	0	88	0	132.793
Stage 1	-9	90	45.77	V-C	0.249	6.738	0	90	0	135.77
Stage 1	-9.2	92	46.749	V-C	0.249	6.738	0	92	0	138.749
Stage 1	-9.4	94	47.727	V-C	0.249	6.738	0	94	0	141.727
Stage 1	-9.6	96	48.707	V-C	0.249	6.738	0	96	0	144.707
Stage 1	-9.8	98	49.687	V-C	0.249	6.738	0	98	0	147.687
Stage 1	-10	100	50.668	V-C	0.249	6.738	0	100	0	150.668
Stage 1	-10.2	102	51.649	V-C	0.249	6.738	0	102	0	153.649
Stage 1	-10.4	104	52.63	V-C	0.249	6.738	0	104	0	156.63
Stage 1	-10.6	106	53.613	V-C	0.249	6.738	0	106	0	159.613
Stage 1	-10.8	108	54.596	V-C	0.249	6.738	0	108	0	162.596
Stage 1	-11	110	55.579	V-C	0.249	6.738	0	110	0	165.579
Stage 1	-11.2	112	56.563	V-C	0.249	6.738	0	112	0	168.563
Stage 1	-11.4	114	57.547	V-C	0.249	6.738	0	114	0	171.547
Stage 1	-11.6	116	58.532	V-C	0.249	6.738	0	116	0	174.532
Stage 1	-11.8	118	59.517	V-C	0.249	6.738	0	118	0	177.517
Stage 1	-12	120	60.503	V-C	0.249	6.738	0	120	0	180.503

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro:		LEFT		Lato		RIGHT		
			Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 1	-12.2	121.8	61.389	V-C	0.39	3.404	5	122	0	0	183.389
Stage 1	-12.4	123.6	62.276	V-C	0.39	3.404	5	124	0	0	186.276
Stage 1	-12.6	125.4	63.163	V-C	0.39	3.404	5	126	0	0	189.163
Stage 1	-12.8	127.2	64.051	V-C	0.39	3.404	5	128	0	0	192.05
Stage 1	-13	129	64.938	V-C	0.39	3.404	5	130	0	0	194.938
Stage 1	-13.2	130.8	65.827	V-C	0.39	3.404	5	132	0	0	197.826
Stage 1	-13.4	132.6	66.715	V-C	0.39	3.404	5	134	0	0	200.715
Stage 1	-13.6	134.4	67.604	V-C	0.39	3.404	5	136	0	0	203.604
Stage 1	-13.8	136.2	68.493	V-C	0.39	3.404	5	138	0	0	206.493
Stage 1	-14	138	69.383	V-C	0.39	3.404	5	140	0	0	209.383
Stage 1	-14.2	139.8	70.273	V-C	0.39	3.404	5	142	0	0	212.273
Stage 1	-14.4	141.6	71.163	V-C	0.39	3.404	5	144	0	0	215.163
Stage 1	-14.6	143.4	72.054	V-C	0.39	3.404	5	146	0	0	218.054
Stage 1	-14.8	145.2	72.944	V-C	0.39	3.404	5	148	0	0	220.944
Stage 1	-15	147	73.836	V-C	0.39	3.404	5	150	0	0	223.835
Stage 1	-15.2	148.8	74.727	V-C	0.39	3.404	5	152	0	0	226.727
Stage 1	-15.4	150.6	75.618	V-C	0.39	3.404	5	154	0	0	229.618
Stage 1	-15.6	152.4	76.51	V-C	0.39	3.404	5	156	0	0	232.51
Stage 1	-15.8	154.2	77.402	V-C	0.39	3.404	5	158	0	0	235.402
Stage 1	-16	156	78.295	V-C	0.39	3.404	5	160	0	0	238.295

Tabella Risultati Terreno Left Wall - Nominal - Stage 2

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 2	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 2	-0.2	2.073	0.516	ACTIVE	0.249	6.738	0	1.935	0.032	0 2.452
Stage 2	-0.4	4.186	1.042	ACTIVE	0.249	6.738	0	3.871	0.032	0 4.913
Stage 2	-0.6	6.351	1.581	ACTIVE	0.249	6.738	0	5.806	0.032	0 7.388
Stage 2	-0.8	8.555	2.13	ACTIVE	0.249	6.738	0	7.742	0.032	0 9.872
Stage 2	-1	10.776	2.683	ACTIVE	0.249	6.738	0	9.677	0.032	0 12.361
Stage 2	-1.2	12.998	3.236	ACTIVE	0.249	6.738	0	11.613	0.032	0 14.849
Stage 2	-1.4	15.326	3.816	ACTIVE	0.249	6.738	0	13.548	0.032	0 17.365
Stage 2	-1.6	17.692	4.405	ACTIVE	0.249	6.738	0	15.484	0.032	0 19.889
Stage 2	-1.8	19.845	4.941	ACTIVE	0.249	6.738	0	17.419	0.032	0 22.361
Stage 2	-2	22.13	5.51	ACTIVE	0.249	6.738	0	19.355	0.032	0 24.865
Stage 2	-2.2	24.38	6.071	ACTIVE	0.249	6.738	0	21.29	0.032	0 27.361
Stage 2	-2.4	26.484	6.594	ACTIVE	0.249	6.738	0	23.226	0.032	0 29.82
Stage 2	-2.6	28.695	7.145	ACTIVE	0.249	6.738	0	25.161	0.032	0 32.306
Stage 2	-2.8	30.888	7.691	ACTIVE	0.249	6.738	0	27.097	0.032	0 34.788
Stage 2	-3	33.065	8.233	ACTIVE	0.249	6.738	0	29.032	0.032	0 37.265
Stage 2	-3.2	35.14	8.75	ACTIVE	0.249	6.738	0	30.968	0.032	0 39.718
Stage 2	-3.4	37.299	9.287	ACTIVE	0.249	6.738	0	32.903	0.032	0 42.191
Stage 2	-3.6	39.449	9.823	ACTIVE	0.249	6.738	0	34.839	0.032	0 44.661
Stage 2	-3.8	41.514	10.337	ACTIVE	0.249	6.738	0	36.774	0.032	0 47.111
Stage 2	-4	43.652	10.869	ACTIVE	0.249	6.738	0	38.71	0.032	0 49.579
Stage 2	-4.2	45.784	11.4	ACTIVE	0.249	6.738	0	40.645	0.032	0 52.045
Stage 2	-4.4	47.844	11.913	ACTIVE	0.249	6.738	0	42.581	0.032	0 54.494
Stage 2	-4.6	49.969	13.166	UL-RL	0.249	6.738	0	44.516	0.032	0 57.682
Stage 2	-4.8	52.088	15.006	UL-RL	0.249	6.738	0	46.452	0.032	0 61.457
Stage 2	-5	54.203	16.773	UL-RL	0.249	6.738	0	48.387	0.032	0 65.16
Stage 2	-5.2	56.259	18.47	UL-RL	0.249	6.738	0	50.323	0.032	0 68.793
Stage 2	-5.4	58.369	20.099	UL-RL	0.249	6.738	0	52.258	0.032	0 72.358
Stage 2	-5.6	60.477	21.665	UL-RL	0.249	6.738	0	54.194	0.032	0 75.858
Stage 2	-5.8	62.531	23.169	UL-RL	0.249	6.738	0	56.129	0.032	0 79.298
Stage 2	-6	64.635	24.616	UL-RL	0.249	6.738	0	58.065	0.032	0 82.68
Stage 2	-6.2	66.736	26.009	UL-RL	0.249	6.738	0	60	0.032	0 86.009
Stage 2	-6.4	68.79	27.353	UL-RL	0.249	6.738	0	61.935	0.032	0 89.289
Stage 2	-6.6	70.888	28.651	UL-RL	0.249	6.738	0	63.871	0.032	0 92.522
Stage 2	-6.8	72.985	29.908	UL-RL	0.249	6.738	0	65.806	0.032	0 95.714
Stage 2	-7	75.079	31.126	UL-RL	0.249	6.738	0	67.742	0.032	0 98.868
Stage 2	-7.2	77.132	32.309	UL-RL	0.249	6.738	0	69.677	0.032	0 101.986
Stage 2	-7.4	79.225	33.461	UL-RL	0.249	6.738	0	71.613	0.032	0 105.074
Stage 2	-7.6	81.316	34.585	UL-RL	0.249	6.738	0	73.548	0.032	0 108.133
Stage 2	-7.8	83.369	35.683	UL-RL	0.249	6.738	0	75.484	0.032	0 111.167
Stage 2	-8	85.459	36.759	UL-RL	0.249	6.738	0	77.419	0.032	0 114.178
Stage 2	-8.2	87.547	37.814	UL-RL	0.249	6.738	0	79.355	0.032	0 117.169
Stage 2	-8.4	89.6	38.852	UL-RL	0.249	6.738	0	81.29	0.032	0 120.142
Stage 2	-8.6	91.687	39.873	UL-RL	0.249	6.738	0	83.226	0.032	0 123.099
Stage 2	-8.8	93.774	40.88	UL-RL	0.249	6.738	0	85.161	0.032	0 126.042
Stage 2	-9	95.859	41.875	UL-RL	0.249	6.738	0	87.097	0.032	0 128.971
Stage 2	-9.2	97.911	42.857	UL-RL	0.249	6.738	0	89.032	0.032	0 131.89
Stage 2	-9.4	99.996	43.83	UL-RL	0.249	6.738	0	90.968	0.032	0 134.797
Stage 2	-9.6	102.079	44.792	UL-RL	0.249	6.738	0	92.903	0.032	0 137.695
Stage 2	-9.8	104.132	45.746	UL-RL	0.249	6.738	0	94.839	0.032	0 140.585
Stage 2	-10	106.215	46.692	UL-RL	0.249	6.738	0	96.774	0.032	0 143.466
Stage 2	-10.2	108.297	47.63	UL-RL	0.249	6.738	0	98.71	0.032	0 146.339
Stage 2	-10.4	110.35	48.56	UL-RL	0.249	6.738	0	100.645	0.032	0 149.205
Stage 2	-10.6	112.431	49.484	UL-RL	0.249	6.738	0	102.581	0.032	0 152.064
Stage 2	-10.8	114.512	50.401	UL-RL	0.249	6.738	0	104.516	0.032	0 154.917
Stage 2	-11	116.592	51.313	UL-RL	0.249	6.738	0	106.452	0.032	0 157.764
Stage 2	-11.2	118.645	52.218	UL-RL	0.249	6.738	0	108.387	0.032	0 160.605
Stage 2	-11.4	120.724	53.119	UL-RL	0.249	6.738	0	110.322	0.032	0 163.442

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 2	-11.6	122.803	54.015	UL-RL	0.249	6.738	0	112.258	0.032	0	166.273
Stage 2	-11.8	124.857	54.909	UL-RL	0.249	6.738	0	114.194	0.032	0	169.102
Stage 2	-12	126.935	55.8	UL-RL	0.249	6.738	0	116.129	0.032	0	171.928
Stage 2	-12.2	128.813	60.117	UL-RL	0.39	3.404	5	118.064	0.032	0	178.182
Stage 2	-12.4	130.691	60.975	UL-RL	0.39	3.404	5	120	0.032	0	180.975
Stage 2	-12.6	132.545	61.834	UL-RL	0.39	3.404	5	121.935	0.032	0	183.769
Stage 2	-12.8	134.399	62.695	UL-RL	0.39	3.404	5	123.871	0.032	0	186.565
Stage 2	-13	136.231	63.557	UL-RL	0.39	3.404	5	125.806	0.032	0	189.364
Stage 2	-13.2	138.063	64.422	UL-RL	0.39	3.404	5	127.742	0.032	0	192.164
Stage 2	-13.4	139.896	65.29	UL-RL	0.39	3.404	5	129.677	0.032	0	194.967
Stage 2	-13.6	141.73	66.16	UL-RL	0.39	3.404	5	131.613	0.032	0	197.773
Stage 2	-13.8	143.565	67.033	UL-RL	0.39	3.404	5	133.548	0.032	0	200.581
Stage 2	-14	145.4	67.908	UL-RL	0.39	3.404	5	135.484	0.032	0	203.391
Stage 2	-14.2	147.236	68.785	UL-RL	0.39	3.404	5	137.419	0.032	0	206.204
Stage 2	-14.4	149.072	69.664	UL-RL	0.39	3.404	5	139.355	0.032	0	209.018
Stage 2	-14.6	150.909	70.545	UL-RL	0.39	3.404	5	141.29	0.032	0	211.835
Stage 2	-14.8	152.746	71.427	UL-RL	0.39	3.404	5	143.226	0.032	0	214.653
Stage 2	-15	154.584	72.311	UL-RL	0.39	3.404	5	145.161	0.032	0	217.472
Stage 2	-15.2	156.423	73.195	UL-RL	0.39	3.404	5	147.097	0.032	0	220.292
Stage 2	-15.4	158.262	74.08	UL-RL	0.39	3.404	5	149.032	0.032	0	223.113
Stage 2	-15.6	160.101	74.966	UL-RL	0.39	3.404	5	150.968	0.032	0	225.934
Stage 2	-15.8	161.941	75.853	UL-RL	0.39	3.404	5	152.903	0.032	0	228.756
Stage 2	-16	163.781	76.739	UL-RL	0.39	3.404	5	154.839	0.032	0	231.578

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 2	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 2	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 2	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 2	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 2	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 2	-1	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 2	-1.2	1.935	12.722	V-C	0.2496.738		0	2.065	0.032	0	14.786
Stage 2	-1.4	3.871	13.554	V-C	0.2496.738		0	4.129	0.032	0	17.683
Stage 2	-1.6	5.806	14.317	V-C	0.2496.738		0	6.194	0.032	0	20.51
Stage 2	-1.8	7.742	15.048	V-C	0.2496.738		0	8.258	0.032	0	23.306
Stage 2	-2	9.677	15.763	V-C	0.2496.738		0	10.323	0.032	0	26.085
Stage 2	-2.2	11.613	16.47	V-C	0.2496.738		0	12.387	0.032	0	28.857
Stage 2	-2.4	13.548	17.175	V-C	0.2496.738		0	14.452	0.032	0	31.626
Stage 2	-2.6	15.484	17.882	V-C	0.2496.738		0	16.516	0.032	0	34.398
Stage 2	-2.8	17.419	18.593	V-C	0.2496.738		0	18.581	0.032	0	37.173
Stage 2	-3	19.355	19.311	V-C	0.2496.738		0	20.645	0.032	0	39.956
Stage 2	-3.2	21.29	20.037	V-C	0.2496.738		0	22.71	0.032	0	42.746
Stage 2	-3.4	23.226	20.772	V-C	0.2496.738		0	24.774	0.032	0	45.546
Stage 2	-3.6	25.161	21.518	V-C	0.2496.738		0	26.839	0.032	0	48.357
Stage 2	-3.8	27.097	22.275	V-C	0.2496.738		0	28.903	0.032	0	51.178
Stage 2	-4	29.032	23.044	V-C	0.2496.738		0	30.968	0.032	0	54.012
Stage 2	-4.2	30.968	23.825	V-C	0.2496.738		0	33.032	0.032	0	56.857
Stage 2	-4.4	32.903	24.619	V-C	0.2496.738		0	35.097	0.032	0	59.716
Stage 2	-4.6	34.839	25.426	V-C	0.2496.738		0	37.161	0.032	0	62.587
Stage 2	-4.8	36.774	26.245	V-C	0.2496.738		0	39.226	0.032	0	65.471
Stage 2	-5	38.71	27.077	V-C	0.2496.738		0	41.29	0.032	0	68.367
Stage 2	-5.2	40.645	27.921	V-C	0.2496.738		0	43.355	0.032	0	71.276
Stage 2	-5.4	42.581	28.777	V-C	0.2496.738		0	45.419	0.032	0	74.196
Stage 2	-5.6	44.516	29.644	V-C	0.2496.738		0	47.484	0.032	0	77.128
Stage 2	-5.8	46.452	30.522	V-C	0.2496.738		0	49.548	0.032	0	80.071
Stage 2	-6	48.387	31.411	V-C	0.2496.738		0	51.613	0.032	0	83.024
Stage 2	-6.2	50.323	32.309	V-C	0.2496.738		0	53.677	0.032	0	85.986
Stage 2	-6.4	52.258	33.216	V-C	0.2496.738		0	55.742	0.032	0	88.958
Stage 2	-6.6	54.194	34.066	UL-RL	0.2496.738		0	57.806	0.032	0	91.872
Stage 2	-6.8	56.129	34.925	UL-RL	0.2496.738		0	59.871	0.032	0	94.796
Stage 2	-7	58.064	35.803	UL-RL	0.2496.738		0	61.935	0.032	0	97.739
Stage 2	-7.2	60	36.699	UL-RL	0.2496.738		0	64	0.032	0	100.699
Stage 2	-7.4	61.935	37.611	UL-RL	0.2496.738		0	66.064	0.032	0	103.675
Stage 2	-7.6	63.871	38.536	UL-RL	0.2496.738		0	68.129	0.032	0	106.665
Stage 2	-7.8	65.806	39.467	UL-RL	0.2496.738		0	70.194	0.032	0	109.661
Stage 2	-8	67.742	40.393	UL-RL	0.2496.738		0	72.258	0.032	0	112.651
Stage 2	-8.2	69.677	41.33	UL-RL	0.2496.738		0	74.323	0.032	0	115.652
Stage 2	-8.4	71.613	42.276	UL-RL	0.2496.738		0	76.387	0.032	0	118.663
Stage 2	-8.6	73.548	43.231	UL-RL	0.2496.738		0	78.452	0.032	0	121.683
Stage 2	-8.8	75.484	44.195	UL-RL	0.2496.738		0	80.516	0.032	0	124.711
Stage 2	-9	77.419	45.166	UL-RL	0.2496.738		0	82.581	0.032	0	127.746
Stage 2	-9.2	79.355	46.143	UL-RL	0.2496.738		0	84.645	0.032	0	130.788
Stage 2	-9.4	81.29	47.126	UL-RL	0.2496.738		0	86.71	0.032	0	133.836
Stage 2	-9.6	83.226	48.115	UL-RL	0.2496.738		0	88.774	0.032	0	136.89
Stage 2	-9.8	85.161	49.11	UL-RL	0.2496.738		0	90.839	0.032	0	139.948
Stage 2	-10	87.097	50.109	UL-RL	0.2496.738		0	92.903	0.032	0	143.012
Stage 2	-10.2	89.032	51.113	UL-RL	0.2496.738		0	94.968	0.032	0	146.08
Stage 2	-10.4	90.968	52.121	UL-RL	0.2496.738		0	97.032	0.032	0	149.153
Stage 2	-10.6	92.903	53.133	UL-RL	0.2496.738		0	99.097	0.032	0	152.23
Stage 2	-10.8	94.839	54.15	UL-RL	0.2496.738		0	101.161	0.032	0	155.311
Stage 2	-11	96.774	55.17	UL-RL	0.2496.738		0	103.226	0.032	0	158.396
Stage 2	-11.2	98.71	56.194	UL-RL	0.2496.738		0	105.29	0.032	0	161.484
Stage 2	-11.4	100.645	57.22	UL-RL	0.2496.738		0	107.355	0.032	0	164.575
Stage 2	-11.6	102.581	58.25	UL-RL	0.2496.738		0	109.419	0.032	0	167.669
Stage 2	-11.8	104.516	59.282	UL-RL	0.2496.738		0	111.484	0.032	0	170.766
Stage 2	-12	106.452	60.316	UL-RL	0.2496.738		0	113.548	0.032	0	173.864

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka Kp	RIGHT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)		
Stage 2	-12.2	108.187	60.415	UL-RL	0.39 3.404	5	115.613	0.032	0		176.028
Stage 2	-12.4	109.922	61.334	UL-RL	0.39 3.404	5	117.677	0.032	0		179.012
Stage 2	-12.6	111.658	62.253	UL-RL	0.39 3.404	5	119.742	0.032	0		181.995
Stage 2	-12.8	113.394	63.171	UL-RL	0.39 3.404	5	121.806	0.032	0		184.977
Stage 2	-13	115.129	64.088	UL-RL	0.39 3.404	5	123.871	0.032	0		187.959
Stage 2	-13.2	116.864	65.004	UL-RL	0.39 3.404	5	125.935	0.032	0		190.939
Stage 2	-13.4	118.6	65.918	UL-RL	0.39 3.404	5	128	0.032	0		193.918
Stage 2	-13.6	120.335	66.832	UL-RL	0.39 3.404	5	130.064	0.032	0		196.896
Stage 2	-13.8	122.071	67.743	UL-RL	0.39 3.404	5	132.129	0.032	0		199.872
Stage 2	-14	123.806	68.654	UL-RL	0.39 3.404	5	134.194	0.032	0		202.847
Stage 2	-14.2	125.542	69.563	UL-RL	0.39 3.404	5	136.258	0.032	0		205.821
Stage 2	-14.4	127.277	70.472	UL-RL	0.39 3.404	5	138.322	0.032	0		208.794
Stage 2	-14.6	129.013	71.379	UL-RL	0.39 3.404	5	140.387	0.032	0		211.766
Stage 2	-14.8	130.748	72.286	UL-RL	0.39 3.404	5	142.452	0.032	0		214.738
Stage 2	-15	132.484	73.192	UL-RL	0.39 3.404	5	144.516	0.032	0		217.708
Stage 2	-15.2	134.219	74.098	UL-RL	0.39 3.404	5	146.58	0.032	0		220.679
Stage 2	-15.4	135.955	75.004	UL-RL	0.39 3.404	5	148.645	0.032	0		223.649
Stage 2	-15.6	137.69	75.91	UL-RL	0.39 3.404	5	150.71	0.032	0		226.62
Stage 2	-15.8	139.426	76.816	UL-RL	0.39 3.404	5	152.774	0.032	0		229.59
Stage 2	-16	141.161	77.723	UL-RL	0.39 3.404	5	154.839	0.032	0		232.561

Tabella Risultati Terreno Left Wall - Nominal - Stage 3

Design Assumption: Nominal Risultati Terreno										
Stage	Z (m)	Muro:			LEFT		Lato		LEFT	
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 3	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 3	-0.2	2.141	0.533	ACTIVE	0.249	6.738	0	1.867	0.067	2.4
Stage 3	-0.4	4.323	1.077	ACTIVE	0.249	6.738	0	3.733	0.067	4.81
Stage 3	-0.6	6.558	1.633	ACTIVE	0.249	6.738	0	5.6	0.067	7.233
Stage 3	-0.8	8.831	2.199	ACTIVE	0.249	6.738	0	7.467	0.067	9.665
Stage 3	-1	11.12	2.769	ACTIVE	0.249	6.738	0	9.333	0.067	12.102
Stage 3	-1.2	13.411	3.339	ACTIVE	0.249	6.738	0	11.2	0.067	14.539
Stage 3	-1.4	15.808	3.936	ACTIVE	0.249	6.738	0	13.067	0.067	17.003
Stage 3	-1.6	18.243	4.542	ACTIVE	0.249	6.738	0	14.933	0.067	19.476
Stage 3	-1.8	20.464	5.096	ACTIVE	0.249	6.738	0	16.8	0.067	21.896
Stage 3	-2	22.818	5.682	ACTIVE	0.249	6.738	0	18.667	0.067	24.348
Stage 3	-2.2	25.137	6.259	ACTIVE	0.249	6.738	0	20.533	0.067	26.792
Stage 3	-2.4	27.31	6.8	ACTIVE	0.249	6.738	0	22.4	0.067	29.2
Stage 3	-2.6	29.59	7.368	ACTIVE	0.249	6.738	0	24.267	0.067	31.634
Stage 3	-2.8	31.851	7.931	ACTIVE	0.249	6.738	0	26.133	0.067	34.064
Stage 3	-3	34.097	8.49	ACTIVE	0.249	6.738	0	28	0.067	36.49
Stage 3	-3.2	36.241	9.024	ACTIVE	0.249	6.738	0	29.867	0.067	38.891
Stage 3	-3.4	38.469	9.579	ACTIVE	0.249	6.738	0	31.733	0.067	41.312
Stage 3	-3.6	40.687	10.131	ACTIVE	0.249	6.738	0	33.6	0.067	43.731
Stage 3	-3.8	42.822	10.663	ACTIVE	0.249	6.738	0	35.467	0.067	46.129
Stage 3	-4	45.029	11.212	ACTIVE	0.249	6.738	0	37.333	0.067	48.546
Stage 3	-4.2	47.229	11.76	ACTIVE	0.249	6.738	0	39.2	0.067	50.96
Stage 3	-4.4	49.358	12.29	ACTIVE	0.249	6.738	0	41.067	0.067	53.357
Stage 3	-4.6	51.551	12.836	ACTIVE	0.249	6.738	0	42.933	0.067	55.77
Stage 3	-4.8	53.74	13.381	ACTIVE	0.249	6.738	0	44.8	0.067	58.181
Stage 3	-5	55.924	13.925	ACTIVE	0.249	6.738	0	46.667	0.067	60.592
Stage 3	-5.2	58.048	14.454	ACTIVE	0.249	6.738	0	48.533	0.067	62.987
Stage 3	-5.4	60.227	14.997	ACTIVE	0.249	6.738	0	50.4	0.067	65.397
Stage 3	-5.6	62.404	15.538	ACTIVE	0.249	6.738	0	52.267	0.067	67.805
Stage 3	-5.8	64.527	16.067	ACTIVE	0.249	6.738	0	54.133	0.067	70.2
Stage 3	-6	66.699	16.608	ACTIVE	0.249	6.738	0	56	0.067	72.608
Stage 3	-6.2	68.869	17.148	ACTIVE	0.249	6.738	0	57.867	0.067	75.015
Stage 3	-6.4	70.992	17.677	ACTIVE	0.249	6.738	0	59.733	0.067	77.41
Stage 3	-6.6	73.159	18.217	ACTIVE	0.249	6.738	0	61.6	0.067	79.817
Stage 3	-6.8	75.324	18.756	ACTIVE	0.249	6.738	0	63.467	0.067	82.222
Stage 3	-7	77.488	19.295	ACTIVE	0.249	6.738	0	65.333	0.067	84.628
Stage 3	-7.2	79.61	19.823	ACTIVE	0.249	6.738	0	67.2	0.067	87.023
Stage 3	-7.4	81.771	20.361	ACTIVE	0.249	6.738	0	69.067	0.067	89.428
Stage 3	-7.6	83.931	20.899	ACTIVE	0.249	6.738	0	70.933	0.067	91.832
Stage 3	-7.8	86.053	22.799	UL-RL	0.249	6.738	0	72.8	0.067	95.599
Stage 3	-8	88.211	25.581	UL-RL	0.249	6.738	0	74.667	0.067	100.248
Stage 3	-8.2	90.369	28.167	UL-RL	0.249	6.738	0	76.533	0.067	104.7
Stage 3	-8.4	92.49	30.567	UL-RL	0.249	6.738	0	78.4	0.067	108.966
Stage 3	-8.6	94.646	32.791	UL-RL	0.249	6.738	0	80.267	0.067	113.057
Stage 3	-8.8	96.801	34.851	UL-RL	0.249	6.738	0	82.133	0.067	116.984
Stage 3	-9	98.956	36.757	UL-RL	0.249	6.738	0	84	0.067	120.757
Stage 3	-9.2	101.077	38.521	UL-RL	0.249	6.738	0	85.867	0.067	124.387
Stage 3	-9.4	103.23	40.153	UL-RL	0.249	6.738	0	87.733	0.067	127.886
Stage 3	-9.6	105.382	41.664	UL-RL	0.249	6.738	0	89.6	0.067	131.264
Stage 3	-9.8	107.504	43.065	UL-RL	0.249	6.738	0	91.467	0.067	134.532
Stage 3	-10	109.656	44.365	UL-RL	0.249	6.738	0	93.333	0.067	137.698
Stage 3	-10.2	111.806	45.573	UL-RL	0.249	6.738	0	95.2	0.067	140.773
Stage 3	-10.4	113.928	46.698	UL-RL	0.249	6.738	0	97.067	0.067	143.765
Stage 3	-10.6	116.078	47.749	UL-RL	0.249	6.738	0	98.933	0.067	146.683
Stage 3	-10.8	118.228	48.734	UL-RL	0.249	6.738	0	100.8	0.067	149.534
Stage 3	-11	120.376	49.66	UL-RL	0.249	6.738	0	102.667	0.067	152.326
Stage 3	-11.2	122.499	50.533	UL-RL	0.249	6.738	0	104.533	0.067	155.067
Stage 3	-11.4	124.647	51.362	UL-RL	0.249	6.738	0	106.4	0.067	157.762

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 3	-11.6	126.795	52.151	UL-RL	0.249	6.738	0	108.267	0.067	0	160.418
Stage 3	-11.8	128.917	52.908	UL-RL	0.249	6.738	0	110.133	0.067	0	163.041
Stage 3	-12	131.064	53.638	UL-RL	0.249	6.738	0	112	0.067	0	165.638
Stage 3	-12.2	133.011	60.09	UL-RL	0.39	3.404	5	113.867	0.067	0	173.957
Stage 3	-12.4	134.958	60.872	UL-RL	0.39	3.404	5	115.733	0.067	0	176.605
Stage 3	-12.6	136.88	61.649	UL-RL	0.39	3.404	5	117.6	0.067	0	179.249
Stage 3	-12.8	138.803	62.423	UL-RL	0.39	3.404	5	119.467	0.067	0	181.89
Stage 3	-13	140.704	63.197	UL-RL	0.39	3.404	5	121.333	0.067	0	184.531
Stage 3	-13.2	142.605	63.972	UL-RL	0.39	3.404	5	123.2	0.067	0	187.172
Stage 3	-13.4	144.507	64.748	UL-RL	0.39	3.404	5	125.067	0.067	0	189.814
Stage 3	-13.6	146.41	65.526	UL-RL	0.39	3.404	5	126.933	0.067	0	192.459
Stage 3	-13.8	148.313	66.307	UL-RL	0.39	3.404	5	128.8	0.067	0	195.106
Stage 3	-14	150.217	67.09	UL-RL	0.39	3.404	5	130.667	0.067	0	197.757
Stage 3	-14.2	152.122	67.877	UL-RL	0.39	3.404	5	132.533	0.067	0	200.41
Stage 3	-14.4	154.027	68.666	UL-RL	0.39	3.404	5	134.4	0.067	0	203.066
Stage 3	-14.6	155.932	69.459	UL-RL	0.39	3.404	5	136.267	0.067	0	205.725
Stage 3	-14.8	157.839	70.253	UL-RL	0.39	3.404	5	138.133	0.067	0	208.386
Stage 3	-15	159.745	71.05	UL-RL	0.39	3.404	5	140	0.067	0	211.049
Stage 3	-15.2	161.653	71.848	UL-RL	0.39	3.404	5	141.867	0.067	0	213.714
Stage 3	-15.4	163.56	72.647	UL-RL	0.39	3.404	5	143.733	0.067	0	216.38
Stage 3	-15.6	165.469	73.447	UL-RL	0.39	3.404	5	145.6	0.067	0	219.047
Stage 3	-15.8	167.377	74.247	UL-RL	0.39	3.404	5	147.467	0.067	0	221.714
Stage 3	-16	169.287	75.048	UL-RL	0.39	3.404	5	149.333	0.067	0	224.382

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 3	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 3	-2.2	1.867	12.578	PASSIVE	0.2496.738		0	2.133	0.067	0	14.711
Stage 3	-2.4	3.733	25.155	PASSIVE	0.2496.738		0	4.267	0.067	0	29.422
Stage 3	-2.6	5.6	36.8	V-C	0.2496.738		0	6.4	0.067	0	43.2
Stage 3	-2.8	7.467	36.586	V-C	0.2496.738		0	8.533	0.067	0	45.119
Stage 3	-3	9.333	36.373	V-C	0.2496.738		0	10.667	0.067	0	47.04
Stage 3	-3.2	11.2	36.171	V-C	0.2496.738		0	12.8	0.067	0	48.971
Stage 3	-3.4	13.067	35.988	V-C	0.2496.738		0	14.933	0.067	0	50.921
Stage 3	-3.6	14.933	35.828	V-C	0.2496.738		0	17.067	0.067	0	52.894
Stage 3	-3.8	16.8	35.695	V-C	0.2496.738		0	19.2	0.067	0	54.895
Stage 3	-4	18.667	35.592	V-C	0.2496.738		0	21.333	0.067	0	56.926
Stage 3	-4.2	20.533	35.522	V-C	0.2496.738		0	23.467	0.067	0	58.989
Stage 3	-4.4	22.4	35.487	V-C	0.2496.738		0	25.6	0.067	0	61.087
Stage 3	-4.6	24.267	35.489	V-C	0.2496.738		0	27.733	0.067	0	63.222
Stage 3	-4.8	26.133	35.529	V-C	0.2496.738		0	29.867	0.067	0	65.396
Stage 3	-5	28	35.608	V-C	0.2496.738		0	32	0.067	0	67.608
Stage 3	-5.2	29.867	35.727	V-C	0.2496.738		0	34.133	0.067	0	69.86
Stage 3	-5.4	31.733	35.887	V-C	0.2496.738		0	36.267	0.067	0	72.154
Stage 3	-5.6	33.6	36.088	V-C	0.2496.738		0	38.4	0.067	0	74.488
Stage 3	-5.8	35.467	36.332	V-C	0.2496.738		0	40.533	0.067	0	76.865
Stage 3	-6	37.333	36.616	V-C	0.2496.738		0	42.667	0.067	0	79.283
Stage 3	-6.2	39.2	36.943	V-C	0.2496.738		0	44.8	0.067	0	81.743
Stage 3	-6.4	41.067	37.312	V-C	0.2496.738		0	46.933	0.067	0	84.245
Stage 3	-6.6	42.933	37.722	V-C	0.2496.738		0	49.067	0.067	0	86.788
Stage 3	-6.8	44.8	38.173	V-C	0.2496.738		0	51.2	0.067	0	89.373
Stage 3	-7	46.667	38.664	V-C	0.2496.738		0	53.333	0.067	0	91.997
Stage 3	-7.2	48.533	39.194	V-C	0.2496.738		0	55.467	0.067	0	94.661
Stage 3	-7.4	50.4	39.764	V-C	0.2496.738		0	57.6	0.067	0	97.364
Stage 3	-7.6	52.267	40.37	V-C	0.2496.738		0	59.733	0.067	0	100.104
Stage 3	-7.8	54.133	41.013	V-C	0.2496.738		0	61.867	0.067	0	102.88
Stage 3	-8	56	41.691	V-C	0.2496.738		0	64	0.067	0	105.691
Stage 3	-8.2	57.867	42.401	V-C	0.2496.738		0	66.133	0.067	0	108.535
Stage 3	-8.4	59.733	43.144	V-C	0.2496.738		0	68.267	0.067	0	111.41
Stage 3	-8.6	61.6	43.916	V-C	0.2496.738		0	70.4	0.067	0	114.316
Stage 3	-8.8	63.467	44.561	UL-RL	0.2496.738		0	72.533	0.067	0	117.094
Stage 3	-9	65.333	45.084	UL-RL	0.2496.738		0	74.667	0.067	0	119.75
Stage 3	-9.2	67.2	45.678	UL-RL	0.2496.738		0	76.8	0.067	0	122.478
Stage 3	-9.4	69.067	46.338	UL-RL	0.2496.738		0	78.933	0.067	0	125.272
Stage 3	-9.6	70.933	47.059	UL-RL	0.2496.738		0	81.067	0.067	0	128.126
Stage 3	-9.8	72.8	47.836	UL-RL	0.2496.738		0	83.2	0.067	0	131.036
Stage 3	-10	74.667	48.663	UL-RL	0.2496.738		0	85.333	0.067	0	133.996
Stage 3	-10.2	76.533	49.537	UL-RL	0.2496.738		0	87.467	0.067	0	137.003
Stage 3	-10.4	78.4	50.452	UL-RL	0.2496.738		0	89.6	0.067	0	140.052
Stage 3	-10.6	80.267	51.405	UL-RL	0.2496.738		0	91.733	0.067	0	143.138
Stage 3	-10.8	82.133	52.391	UL-RL	0.2496.738		0	93.867	0.067	0	146.258
Stage 3	-11	84	53.407	UL-RL	0.2496.738		0	96	0.067	0	149.407
Stage 3	-11.2	85.867	54.45	UL-RL	0.2496.738		0	98.133	0.067	0	152.583
Stage 3	-11.4	87.733	55.516	UL-RL	0.2496.738		0	100.267	0.067	0	155.782
Stage 3	-11.6	89.6	56.601	UL-RL	0.2496.738		0	102.4	0.067	0	159.001
Stage 3	-11.8	91.467	57.704	UL-RL	0.2496.738		0	104.533	0.067	0	162.237
Stage 3	-12	93.333	58.82	UL-RL	0.2496.738		0	106.667	0.067	0	165.487

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	RIGHT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)		
Stage 3	-12.2	95	58.464	UL-RL	0.39 3.404	5	108.8	0.067	0	167.264	
Stage 3	-12.4	96.667	59.454	UL-RL	0.39 3.404	5	110.933	0.067	0	170.387	
Stage 3	-12.6	98.333	60.448	UL-RL	0.39 3.404	5	113.067	0.067	0	173.515	
Stage 3	-12.8	100	61.445	UL-RL	0.39 3.404	5	115.2	0.067	0	176.645	
Stage 3	-13	101.667	62.442	UL-RL	0.39 3.404	5	117.333	0.067	0	179.776	
Stage 3	-13.2	103.333	63.44	UL-RL	0.39 3.404	5	119.467	0.067	0	182.907	
Stage 3	-13.4	105	64.438	UL-RL	0.39 3.404	5	121.6	0.067	0	186.038	
Stage 3	-13.6	106.667	65.434	UL-RL	0.39 3.404	5	123.733	0.067	0	189.167	
Stage 3	-13.8	108.333	66.428	UL-RL	0.39 3.404	5	125.867	0.067	0	192.295	
Stage 3	-14	110	67.421	UL-RL	0.39 3.404	5	128	0.067	0	195.421	
Stage 3	-14.2	111.667	68.412	UL-RL	0.39 3.404	5	130.133	0.067	0	198.546	
Stage 3	-14.4	113.333	69.402	UL-RL	0.39 3.404	5	132.267	0.067	0	201.668	
Stage 3	-14.6	115	70.389	UL-RL	0.39 3.404	5	134.4	0.067	0	204.789	
Stage 3	-14.8	116.667	71.376	UL-RL	0.39 3.404	5	136.533	0.067	0	207.909	
Stage 3	-15	118.333	72.361	UL-RL	0.39 3.404	5	138.667	0.067	0	211.027	
Stage 3	-15.2	120	73.345	UL-RL	0.39 3.404	5	140.8	0.067	0	214.145	
Stage 3	-15.4	121.667	74.329	UL-RL	0.39 3.404	5	142.933	0.067	0	217.262	
Stage 3	-15.6	123.333	75.313	UL-RL	0.39 3.404	5	145.067	0.067	0	220.379	
Stage 3	-15.8	125	76.296	UL-RL	0.39 3.404	5	147.2	0.067	0	223.496	
Stage 3	-16	126.667	77.28	UL-RL	0.39 3.404	5	149.333	0.067	0	226.614	

Tabella Risultati Terreno Left Wall - Nominal - Stage 4

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 4	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 4	-0.2	2.215	0.552	ACTIVE	0.249	6.738	0	1.793	0.103	2.345
Stage 4	-0.4	4.471	1.113	ACTIVE	0.249	6.738	0	3.586	0.103	4.699
Stage 4	-0.6	6.779	1.688	ACTIVE	0.249	6.738	0	5.379	0.103	7.067
Stage 4	-0.8	9.125	2.272	ACTIVE	0.249	6.738	0	7.172	0.103	9.444
Stage 4	-1	11.488	2.861	ACTIVE	0.249	6.738	0	8.966	0.103	11.826
Stage 4	-1.2	13.852	3.449	ACTIVE	0.249	6.738	0	10.759	0.103	14.208
Stage 4	-1.4	16.323	4.064	ACTIVE	0.249	6.738	0	12.552	0.103	16.616
Stage 4	-1.6	18.831	4.689	ACTIVE	0.249	6.738	0	14.345	0.103	19.034
Stage 4	-1.8	21.126	5.26	ACTIVE	0.249	6.738	0	16.138	0.103	21.398
Stage 4	-2	23.554	5.865	ACTIVE	0.249	6.738	0	17.931	0.103	23.796
Stage 4	-2.2	25.946	6.461	ACTIVE	0.249	6.738	0	19.724	0.103	26.185
Stage 4	-2.4	28.192	7.02	ACTIVE	0.249	6.738	0	21.517	0.103	28.537
Stage 4	-2.6	30.546	7.606	ACTIVE	0.249	6.738	0	23.31	0.103	30.916
Stage 4	-2.8	32.881	8.187	ACTIVE	0.249	6.738	0	25.103	0.103	33.291
Stage 4	-3	35.2	8.765	ACTIVE	0.249	6.738	0	26.897	0.103	35.661
Stage 4	-3.2	37.418	9.317	ACTIVE	0.249	6.738	0	28.69	0.103	38.007
Stage 4	-3.4	39.719	9.89	ACTIVE	0.249	6.738	0	30.483	0.103	40.373
Stage 4	-3.6	42.011	10.461	ACTIVE	0.249	6.738	0	32.276	0.103	42.737
Stage 4	-3.8	44.219	11.011	ACTIVE	0.249	6.738	0	34.069	0.103	45.08
Stage 4	-4	46.5	11.579	ACTIVE	0.249	6.738	0	35.862	0.103	47.441
Stage 4	-4.2	48.774	12.145	ACTIVE	0.249	6.738	0	37.655	0.103	49.8
Stage 4	-4.4	50.977	12.693	ACTIVE	0.249	6.738	0	39.448	0.103	52.142
Stage 4	-4.6	53.243	13.258	ACTIVE	0.249	6.738	0	41.241	0.103	54.499
Stage 4	-4.8	55.505	13.821	ACTIVE	0.249	6.738	0	43.034	0.103	56.855
Stage 4	-5	57.763	14.383	ACTIVE	0.249	6.738	0	44.828	0.103	59.21
Stage 4	-5.2	59.961	14.93	ACTIVE	0.249	6.738	0	46.621	0.103	61.551
Stage 4	-5.4	62.214	15.491	ACTIVE	0.249	6.738	0	48.414	0.103	63.905
Stage 4	-5.6	64.463	16.051	ACTIVE	0.249	6.738	0	50.207	0.103	66.258
Stage 4	-5.8	66.66	16.598	ACTIVE	0.249	6.738	0	52	0.103	68.598
Stage 4	-6	68.906	17.158	ACTIVE	0.249	6.738	0	53.793	0.103	70.951
Stage 4	-6.2	71.15	17.716	ACTIVE	0.249	6.738	0	55.586	0.103	73.302
Stage 4	-6.4	73.346	18.263	ACTIVE	0.249	6.738	0	57.379	0.103	75.642
Stage 4	-6.6	75.587	18.821	ACTIVE	0.249	6.738	0	59.172	0.103	77.993
Stage 4	-6.8	77.826	19.379	ACTIVE	0.249	6.738	0	60.966	0.103	80.344
Stage 4	-7	80.063	19.936	ACTIVE	0.249	6.738	0	62.759	0.103	82.694
Stage 4	-7.2	82.258	20.482	ACTIVE	0.249	6.738	0	64.552	0.103	85.034
Stage 4	-7.4	84.493	21.039	ACTIVE	0.249	6.738	0	66.345	0.103	87.384
Stage 4	-7.6	86.727	21.595	ACTIVE	0.249	6.738	0	68.138	0.103	89.733
Stage 4	-7.8	88.922	22.142	ACTIVE	0.249	6.738	0	69.931	0.103	92.073
Stage 4	-8	91.154	22.697	ACTIVE	0.249	6.738	0	71.724	0.103	94.421
Stage 4	-8.2	93.385	23.253	ACTIVE	0.249	6.738	0	73.517	0.103	96.77
Stage 4	-8.4	95.58	23.799	ACTIVE	0.249	6.738	0	75.31	0.103	99.11
Stage 4	-8.6	97.81	24.355	ACTIVE	0.249	6.738	0	77.103	0.103	101.458
Stage 4	-8.8	100.038	24.91	ACTIVE	0.249	6.738	0	78.897	0.103	103.806
Stage 4	-9	102.266	25.464	ACTIVE	0.249	6.738	0	80.69	0.103	106.154
Stage 4	-9.2	104.461	26.011	ACTIVE	0.249	6.738	0	82.483	0.103	108.494
Stage 4	-9.4	106.688	26.565	ACTIVE	0.249	6.738	0	84.276	0.103	110.841
Stage 4	-9.6	108.914	27.119	ACTIVE	0.249	6.738	0	86.069	0.103	113.188
Stage 4	-9.8	111.109	27.666	ACTIVE	0.249	6.738	0	87.862	0.103	115.528
Stage 4	-10	113.334	28.287	UL-RL	0.249	6.738	0	89.655	0.103	117.942
Stage 4	-10.2	115.558	31.847	UL-RL	0.249	6.738	0	91.448	0.103	123.295
Stage 4	-10.4	117.754	35.103	UL-RL	0.249	6.738	0	93.241	0.103	128.345
Stage 4	-10.6	119.977	38.075	UL-RL	0.249	6.738	0	95.034	0.103	133.11
Stage 4	-10.8	122.2	40.781	UL-RL	0.249	6.738	0	96.828	0.103	137.608
Stage 4	-11	124.422	43.239	UL-RL	0.249	6.738	0	98.621	0.103	141.86
Stage 4	-11.2	126.618	45.469	UL-RL	0.249	6.738	0	100.414	0.103	145.882
Stage 4	-11.4	128.84	47.489	UL-RL	0.249	6.738	0	102.207	0.103	149.696

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	LEFT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 4	-11.6	131.061	49.318	UL-RL	0.249	6.738	0	104	0.103	0	153.318
Stage 4	-11.8	133.257	50.974	UL-RL	0.249	6.738	0	105.793	0.103	0	156.767
Stage 4	-12	135.478	52.476	UL-RL	0.249	6.738	0	107.586	0.103	0	160.062
Stage 4	-12.2	137.499	61.017	UL-RL	0.39	3.404	5	109.379	0.103	0	170.396
Stage 4	-12.4	139.518	62.082	UL-RL	0.39	3.404	5	111.172	0.103	0	173.254
Stage 4	-12.6	141.515	63.097	UL-RL	0.39	3.404	5	112.965	0.103	0	176.063
Stage 4	-12.8	143.511	64.07	UL-RL	0.39	3.404	5	114.758	0.103	0	178.829
Stage 4	-13	145.486	65.008	UL-RL	0.39	3.404	5	116.552	0.103	0	181.56
Stage 4	-13.2	147.46	65.915	UL-RL	0.39	3.404	5	118.345	0.103	0	184.26
Stage 4	-13.4	149.436	66.797	UL-RL	0.39	3.404	5	120.138	0.103	0	186.935
Stage 4	-13.6	151.412	67.659	UL-RL	0.39	3.404	5	121.931	0.103	0	189.59
Stage 4	-13.8	153.389	68.504	UL-RL	0.39	3.404	5	123.724	0.103	0	192.228
Stage 4	-14	155.366	69.336	UL-RL	0.39	3.404	5	125.517	0.103	0	194.853
Stage 4	-14.2	157.345	70.158	UL-RL	0.39	3.404	5	127.31	0.103	0	197.468
Stage 4	-14.4	159.323	70.972	UL-RL	0.39	3.404	5	129.103	0.103	0	200.075
Stage 4	-14.6	161.302	71.78	UL-RL	0.39	3.404	5	130.896	0.103	0	202.676
Stage 4	-14.8	163.282	72.584	UL-RL	0.39	3.404	5	132.69	0.103	0	205.274
Stage 4	-15	165.263	73.386	UL-RL	0.39	3.404	5	134.483	0.103	0	207.868
Stage 4	-15.2	167.244	74.185	UL-RL	0.39	3.404	5	136.276	0.103	0	210.461
Stage 4	-15.4	169.225	74.984	UL-RL	0.39	3.404	5	138.069	0.103	0	213.053
Stage 4	-15.6	171.207	75.783	UL-RL	0.39	3.404	5	139.862	0.103	0	215.645
Stage 4	-15.8	173.189	76.582	UL-RL	0.39	3.404	5	141.655	0.103	0	218.237
Stage 4	-16	175.172	77.381	UL-RL	0.39	3.404	5	143.448	0.103	0	220.829

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 4	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 4	-3.2	1.793	12.082	PASSIVE	0.2496.738		0	2.207	0.103	0	14.289
Stage 4	-3.4	3.586	24.164	PASSIVE	0.2496.738		0	4.414	0.103	0	28.578
Stage 4	-3.6	5.379	36.246	PASSIVE	0.2496.738		0	6.621	0.103	0	42.867
Stage 4	-3.8	7.172	48.328	PASSIVE	0.2496.738		0	8.828	0.103	0	57.155
Stage 4	-4	8.966	60.41	PASSIVE	0.2496.738		0	11.034	0.103	0	71.444
Stage 4	-4.2	10.759	65.98	V-C	0.2496.738		0	13.241	0.103	0	79.221
Stage 4	-4.4	12.552	64.476	V-C	0.2496.738		0	15.448	0.103	0	79.924
Stage 4	-4.6	14.345	63.026	V-C	0.2496.738		0	17.655	0.103	0	80.681
Stage 4	-4.8	16.138	61.635	V-C	0.2496.738		0	19.862	0.103	0	81.497
Stage 4	-5	17.931	60.309	V-C	0.2496.738		0	22.069	0.103	0	82.378
Stage 4	-5.2	19.724	59.051	V-C	0.2496.738		0	24.276	0.103	0	83.327
Stage 4	-5.4	21.517	57.864	V-C	0.2496.738		0	26.483	0.103	0	84.347
Stage 4	-5.6	23.31	56.752	V-C	0.2496.738		0	28.69	0.103	0	85.441
Stage 4	-5.8	25.103	55.715	V-C	0.2496.738		0	30.897	0.103	0	86.611
Stage 4	-6	26.897	54.756	V-C	0.2496.738		0	33.103	0.103	0	87.859
Stage 4	-6.2	28.69	53.875	V-C	0.2496.738		0	35.31	0.103	0	89.186
Stage 4	-6.4	30.483	53.075	V-C	0.2496.738		0	37.517	0.103	0	90.592
Stage 4	-6.6	32.276	52.355	V-C	0.2496.738		0	39.724	0.103	0	92.079
Stage 4	-6.8	34.069	51.715	V-C	0.2496.738		0	41.931	0.103	0	93.646
Stage 4	-7	35.862	51.156	V-C	0.2496.738		0	44.138	0.103	0	95.294
Stage 4	-7.2	37.655	50.678	V-C	0.2496.738		0	46.345	0.103	0	97.023
Stage 4	-7.4	39.448	50.28	V-C	0.2496.738		0	48.552	0.103	0	98.831
Stage 4	-7.6	41.241	49.96	V-C	0.2496.738		0	50.759	0.103	0	100.719
Stage 4	-7.8	43.034	49.719	V-C	0.2496.738		0	52.965	0.103	0	102.685
Stage 4	-8	44.828	49.555	V-C	0.2496.738		0	55.172	0.103	0	104.728
Stage 4	-8.2	46.621	49.467	V-C	0.2496.738		0	57.379	0.103	0	106.846
Stage 4	-8.4	48.414	49.453	V-C	0.2496.738		0	59.586	0.103	0	109.039
Stage 4	-8.6	50.207	49.511	V-C	0.2496.738		0	61.793	0.103	0	111.304
Stage 4	-8.8	52	49.64	V-C	0.2496.738		0	64	0.103	0	113.64
Stage 4	-9	53.793	49.837	V-C	0.2496.738		0	66.207	0.103	0	116.044
Stage 4	-9.2	55.586	50.101	V-C	0.2496.738		0	68.414	0.103	0	118.514
Stage 4	-9.4	57.379	50.428	V-C	0.2496.738		0	70.621	0.103	0	121.049
Stage 4	-9.6	59.172	50.817	V-C	0.2496.738		0	72.828	0.103	0	123.645
Stage 4	-9.8	60.965	51.266	V-C	0.2496.738		0	75.034	0.103	0	126.3
Stage 4	-10	62.759	51.77	V-C	0.2496.738		0	77.241	0.103	0	129.012
Stage 4	-10.2	64.552	52.329	V-C	0.2496.738		0	79.448	0.103	0	131.777
Stage 4	-10.4	66.345	52.938	V-C	0.2496.738		0	81.655	0.103	0	134.593
Stage 4	-10.6	68.138	53.556	UL-RL	0.2496.738		0	83.862	0.103	0	137.418
Stage 4	-10.8	69.931	53.694	UL-RL	0.2496.738		0	86.069	0.103	0	139.763
Stage 4	-11	71.724	53.955	UL-RL	0.2496.738		0	88.276	0.103	0	142.23
Stage 4	-11.2	73.517	54.329	UL-RL	0.2496.738		0	90.483	0.103	0	144.812
Stage 4	-11.4	75.31	54.808	UL-RL	0.2496.738		0	92.69	0.103	0	147.498
Stage 4	-11.6	77.103	55.383	UL-RL	0.2496.738		0	94.896	0.103	0	150.279
Stage 4	-11.8	78.896	56.043	UL-RL	0.2496.738		0	97.103	0.103	0	153.146
Stage 4	-12	80.69	56.781	UL-RL	0.2496.738		0	99.31	0.103	0	156.091

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Muro:		LEFT	Lato		RIGHT		Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)				
Stage 4	-12.2	82.283	55.763	UL-RL	0.39	3.404	5	101.517	0.103	0	157.28
Stage 4	-12.4	83.876	56.546	UL-RL	0.39	3.404	5	103.724	0.103	0	160.27
Stage 4	-12.6	85.469	57.368	UL-RL	0.39	3.404	5	105.931	0.103	0	163.298
Stage 4	-12.8	87.062	58.223	UL-RL	0.39	3.404	5	108.138	0.103	0	166.36
Stage 4	-13	88.655	59.106	UL-RL	0.39	3.404	5	110.345	0.103	0	169.451
Stage 4	-13.2	90.248	60.013	UL-RL	0.39	3.404	5	112.552	0.103	0	172.565
Stage 4	-13.4	91.841	60.941	UL-RL	0.39	3.404	5	114.758	0.103	0	175.699
Stage 4	-13.6	93.434	61.885	UL-RL	0.39	3.404	5	116.965	0.103	0	178.85
Stage 4	-13.8	95.028	62.842	UL-RL	0.39	3.404	5	119.172	0.103	0	182.014
Stage 4	-14	96.621	63.81	UL-RL	0.39	3.404	5	121.379	0.103	0	185.19
Stage 4	-14.2	98.214	64.787	UL-RL	0.39	3.404	5	123.586	0.103	0	188.373
Stage 4	-14.4	99.807	65.77	UL-RL	0.39	3.404	5	125.793	0.103	0	191.563
Stage 4	-14.6	101.4	66.757	UL-RL	0.39	3.404	5	128	0.103	0	194.757
Stage 4	-14.8	102.993	67.748	UL-RL	0.39	3.404	5	130.207	0.103	0	197.955
Stage 4	-15	104.586	68.742	UL-RL	0.39	3.404	5	132.414	0.103	0	201.156
Stage 4	-15.2	106.179	69.737	UL-RL	0.39	3.404	5	134.621	0.103	0	204.358
Stage 4	-15.4	107.772	70.734	UL-RL	0.39	3.404	5	136.828	0.103	0	207.561
Stage 4	-15.6	109.365	71.73	UL-RL	0.39	3.404	5	139.034	0.103	0	210.765
Stage 4	-15.8	110.958	72.728	UL-RL	0.39	3.404	5	141.241	0.103	0	213.969
Stage 4	-16	112.552	73.725	UL-RL	0.39	3.404	5	143.448	0.103	0	217.173

Tabella Risultati Terreno Left Wall - Nominal - Stage 5

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 5	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 5	-0.2	2.294	0.571	ACTIVE	0.249	6.738	0	1.714	0.143	0
Stage 5	-0.4	4.628	1.152	ACTIVE	0.249	6.738	0	3.429	0.143	0
Stage 5	-0.6	7.015	1.747	ACTIVE	0.249	6.738	0	5.143	0.143	0
Stage 5	-0.8	9.44	2.351	ACTIVE	0.249	6.738	0	6.857	0.143	0
Stage 5	-1	11.882	2.959	ACTIVE	0.249	6.738	0	8.571	0.143	0
Stage 5	-1.2	14.325	3.567	ACTIVE	0.249	6.738	0	10.286	0.143	0
Stage 5	-1.4	16.874	4.202	ACTIVE	0.249	6.738	0	12	0.143	0
Stage 5	-1.6	19.462	4.846	ACTIVE	0.249	6.738	0	13.714	0.143	0
Stage 5	-1.8	21.836	5.437	ACTIVE	0.249	6.738	0	15.429	0.143	0
Stage 5	-2	24.342	6.061	ACTIVE	0.249	6.738	0	17.143	0.143	0
Stage 5	-2.2	26.813	6.676	ACTIVE	0.249	6.738	0	18.857	0.143	0
Stage 5	-2.4	29.138	7.255	ACTIVE	0.249	6.738	0	20.571	0.143	0
Stage 5	-2.6	31.571	7.861	ACTIVE	0.249	6.738	0	22.286	0.143	0
Stage 5	-2.8	33.984	8.462	ACTIVE	0.249	6.738	0	24	0.143	0
Stage 5	-3	36.383	9.059	ACTIVE	0.249	6.738	0	25.714	0.143	0
Stage 5	-3.2	38.679	9.631	ACTIVE	0.249	6.738	0	27.429	0.143	0
Stage 5	-3.4	41.059	10.224	ACTIVE	0.249	6.738	0	29.143	0.143	0
Stage 5	-3.6	43.43	10.814	ACTIVE	0.249	6.738	0	30.857	0.143	0
Stage 5	-3.8	45.717	11.384	ACTIVE	0.249	6.738	0	32.571	0.143	0
Stage 5	-4	48.076	11.971	ACTIVE	0.249	6.738	0	34.286	0.143	0
Stage 5	-4.2	50.429	12.557	ACTIVE	0.249	6.738	0	36	0.143	0
Stage 5	-4.4	52.711	13.125	ACTIVE	0.249	6.738	0	37.714	0.143	0
Stage 5	-4.6	55.056	13.709	ACTIVE	0.249	6.738	0	39.429	0.143	0
Stage 5	-4.8	57.397	14.292	ACTIVE	0.249	6.738	0	41.143	0.143	0
Stage 5	-5	59.733	14.874	ACTIVE	0.249	6.738	0	42.857	0.143	0
Stage 5	-5.2	62.01	15.441	ACTIVE	0.249	6.738	0	44.571	0.143	0
Stage 5	-5.4	64.342	16.021	ACTIVE	0.249	6.738	0	46.286	0.143	0
Stage 5	-5.6	66.67	16.601	ACTIVE	0.249	6.738	0	48	0.143	0
Stage 5	-5.8	68.946	17.168	ACTIVE	0.249	6.738	0	49.714	0.143	0
Stage 5	-6	71.271	17.746	ACTIVE	0.249	6.738	0	51.429	0.143	0
Stage 5	-6.2	73.593	18.325	ACTIVE	0.249	6.738	0	53.143	0.143	0
Stage 5	-6.4	75.868	18.891	ACTIVE	0.249	6.738	0	54.857	0.143	0
Stage 5	-6.6	78.188	19.469	ACTIVE	0.249	6.738	0	56.571	0.143	0
Stage 5	-6.8	80.505	20.046	ACTIVE	0.249	6.738	0	58.286	0.143	0
Stage 5	-7	82.821	20.623	ACTIVE	0.249	6.738	0	60	0.143	0
Stage 5	-7.2	85.095	21.189	ACTIVE	0.249	6.738	0	61.714	0.143	0
Stage 5	-7.4	87.409	21.765	ACTIVE	0.249	6.738	0	63.429	0.143	0
Stage 5	-7.6	89.722	22.341	ACTIVE	0.249	6.738	0	65.143	0.143	0
Stage 5	-7.8	91.996	22.907	ACTIVE	0.249	6.738	0	66.857	0.143	0
Stage 5	-8	94.307	23.482	ACTIVE	0.249	6.738	0	68.571	0.143	0
Stage 5	-8.2	96.616	24.057	ACTIVE	0.249	6.738	0	70.286	0.143	0
Stage 5	-8.4	98.89	24.624	ACTIVE	0.249	6.738	0	72	0.143	0
Stage 5	-8.6	101.199	25.198	ACTIVE	0.249	6.738	0	73.714	0.143	0
Stage 5	-8.8	103.506	25.773	ACTIVE	0.249	6.738	0	75.429	0.143	0
Stage 5	-9	105.813	26.347	ACTIVE	0.249	6.738	0	77.143	0.143	0
Stage 5	-9.2	108.087	26.916	UL-RL	0.249	6.738	0	78.857	0.143	0
Stage 5	-9.4	110.392	27.493	UL-RL	0.249	6.738	0	80.571	0.143	0
Stage 5	-9.6	112.697	28.071	UL-RL	0.249	6.738	0	82.286	0.143	0
Stage 5	-9.8	114.971	28.64	UL-RL	0.249	6.738	0	84	0.143	0
Stage 5	-10	117.275	29.217	UL-RL	0.249	6.738	0	85.714	0.143	0
Stage 5	-10.2	119.578	29.794	UL-RL	0.249	6.738	0	87.429	0.143	0
Stage 5	-10.4	121.852	30.364	UL-RL	0.249	6.738	0	89.143	0.143	0
Stage 5	-10.6	124.154	30.941	UL-RL	0.249	6.738	0	90.857	0.143	0
Stage 5	-10.8	126.456	31.518	UL-RL	0.249	6.738	0	92.571	0.143	0
Stage 5	-11	128.758	32.095	UL-RL	0.249	6.738	0	94.286	0.143	0
Stage 5	-11.2	131.032	32.665	UL-RL	0.249	6.738	0	96	0.143	0
Stage 5	-11.4	133.333	33.242	UL-RL	0.249	6.738	0	97.714	0.143	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 5	-11.6	135.633	33.819	UL-RL	0.249	6.738	0	99.428	0.143	0	133.247
Stage 5	-11.8	137.908	34.389	UL-RL	0.249	6.738	0	101.143	0.143	0	135.532
Stage 5	-12	140.207	34.966	UL-RL	0.249	6.738	0	102.857	0.143	0	137.823
Stage 5	-12.2	142.306	54.26	UL-RL	0.39	3.404	5	104.571	0.143	0	158.832
Stage 5	-12.4	144.405	57.136	UL-RL	0.39	3.404	5	106.286	0.143	0	163.421
Stage 5	-12.6	146.48	59.874	UL-RL	0.39	3.404	5	108	0.143	0	167.874
Stage 5	-12.8	148.556	62.489	UL-RL	0.39	3.404	5	109.714	0.143	0	172.203
Stage 5	-13	150.609	64.995	UL-RL	0.39	3.404	5	111.428	0.143	0	176.423
Stage 5	-13.2	152.662	67.405	UL-RL	0.39	3.404	5	113.143	0.143	0	180.548
Stage 5	-13.4	154.717	69.171	UL-RL	0.39	3.404	5	114.857	0.143	0	184.028
Stage 5	-13.6	156.772	70.712	UL-RL	0.39	3.404	5	116.571	0.143	0	187.283
Stage 5	-13.8	158.827	72.045	UL-RL	0.39	3.404	5	118.286	0.143	0	190.331
Stage 5	-14	160.884	73.353	UL-RL	0.39	3.404	5	120	0.143	0	193.353
Stage 5	-14.2	162.941	74.639	UL-RL	0.39	3.404	5	121.714	0.143	0	196.354
Stage 5	-14.4	164.998	75.909	UL-RL	0.39	3.404	5	123.428	0.143	0	199.338
Stage 5	-14.6	167.056	77.166	UL-RL	0.39	3.404	5	125.143	0.143	0	202.309
Stage 5	-14.8	169.115	78.414	UL-RL	0.39	3.404	5	126.857	0.143	0	205.271
Stage 5	-15	171.174	79.654	UL-RL	0.39	3.404	5	128.571	0.143	0	208.226
Stage 5	-15.2	173.234	80.89	UL-RL	0.39	3.404	5	130.286	0.143	0	211.176
Stage 5	-15.4	175.294	82.179	UL-RL	0.39	3.404	5	132	0.143	0	214.179
Stage 5	-15.6	177.354	83.468	UL-RL	0.39	3.404	5	133.714	0.143	0	217.182
Stage 5	-15.8	179.416	84.756	UL-RL	0.39	3.404	5	135.428	0.143	0	220.185
Stage 5	-16	181.477	86.045	UL-RL	0.39	3.404	5	137.143	0.143	0	223.188

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 5	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 5	-4	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 5	-4.2	1.714	11.551	PASSIVE	0.2496.738		0	2.286	0.143	0	13.837
Stage 5	-4.4	3.429	23.102	PASSIVE	0.2496.738		0	4.571	0.143	0	27.673
Stage 5	-4.6	5.143	34.653	PASSIVE	0.2496.738		0	6.857	0.143	0	41.51
Stage 5	-4.8	6.857	46.203	PASSIVE	0.2496.738		0	9.143	0.143	0	55.346
Stage 5	-5	8.571	57.754	PASSIVE	0.2496.738		0	11.429	0.143	0	69.183
Stage 5	-5.2	10.286	69.305	PASSIVE	0.2496.738		0	13.714	0.143	0	83.019
Stage 5	-5.4	12	80.856	PASSIVE	0.2496.738		0	16	0.143	0	96.856
Stage 5	-5.6	13.714	92.407	PASSIVE	0.2496.738		0	18.286	0.143	0	110.692
Stage 5	-5.8	15.429	101.47	V-C	0.2496.738		0	20.571	0.143	0	122.042
Stage 5	-6	17.143	98.407	V-C	0.2496.738		0	22.857	0.143	0	121.264
Stage 5	-6.2	18.857	95.455	V-C	0.2496.738		0	25.143	0.143	0	120.598
Stage 5	-6.4	20.571	92.621	V-C	0.2496.738		0	27.429	0.143	0	120.05
Stage 5	-6.6	22.286	89.907	V-C	0.2496.738		0	29.714	0.143	0	119.622
Stage 5	-6.8	24	87.318	V-C	0.2496.738		0	32	0.143	0	119.318
Stage 5	-7	25.714	84.854	V-C	0.2496.738		0	34.286	0.143	0	119.14
Stage 5	-7.2	27.429	82.519	V-C	0.2496.738		0	36.571	0.143	0	119.09
Stage 5	-7.4	29.143	80.312	V-C	0.2496.738		0	38.857	0.143	0	119.17
Stage 5	-7.6	30.857	78.235	V-C	0.2496.738		0	41.143	0.143	0	119.378
Stage 5	-7.8	32.571	76.288	V-C	0.2496.738		0	43.429	0.143	0	119.717
Stage 5	-8	34.286	74.47	V-C	0.2496.738		0	45.714	0.143	0	120.184
Stage 5	-8.2	36	72.78	V-C	0.2496.738		0	48	0.143	0	120.78
Stage 5	-8.4	37.714	71.218	V-C	0.2496.738		0	50.286	0.143	0	121.504
Stage 5	-8.6	39.429	69.781	V-C	0.2496.738		0	52.571	0.143	0	122.353
Stage 5	-8.8	41.143	68.468	V-C	0.2496.738		0	54.857	0.143	0	123.325
Stage 5	-9	42.857	67.277	V-C	0.2496.738		0	57.143	0.143	0	124.42
Stage 5	-9.2	44.571	66.204	UL-RL	0.2496.738		0	59.429	0.143	0	125.632
Stage 5	-9.4	46.286	65.247	UL-RL	0.2496.738		0	61.714	0.143	0	126.961
Stage 5	-9.6	48	64.404	UL-RL	0.2496.738		0	64	0.143	0	128.404
Stage 5	-9.8	49.714	63.67	UL-RL	0.2496.738		0	66.286	0.143	0	129.956
Stage 5	-10	51.429	63.044	UL-RL	0.2496.738		0	68.571	0.143	0	131.615
Stage 5	-10.2	53.143	62.521	UL-RL	0.2496.738		0	70.857	0.143	0	133.378
Stage 5	-10.4	54.857	62.097	UL-RL	0.2496.738		0	73.143	0.143	0	135.24
Stage 5	-10.6	56.571	61.769	UL-RL	0.2496.738		0	75.428	0.143	0	137.197
Stage 5	-10.8	58.286	61.532	UL-RL	0.2496.738		0	77.714	0.143	0	139.246
Stage 5	-11	60	61.382	UL-RL	0.2496.738		0	80	0.143	0	141.382
Stage 5	-11.2	61.714	61.315	UL-RL	0.2496.738		0	82.286	0.143	0	143.601
Stage 5	-11.4	63.428	61.326	UL-RL	0.2496.738		0	84.571	0.143	0	145.898
Stage 5	-11.6	65.143	61.411	UL-RL	0.2496.738		0	86.857	0.143	0	148.268
Stage 5	-11.8	66.857	61.564	UL-RL	0.2496.738		0	89.143	0.143	0	150.706
Stage 5	-12	68.571	61.78	UL-RL	0.2496.738		0	91.428	0.143	0	153.208

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Muro:		LEFT	Lato		RIGHT				
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 5	-12.2	70.086	59.058	UL-RL	0.39	3.404	5	93.714	0.143	0	152.772
Stage 5	-12.4	71.6	58.444	UL-RL	0.39	3.404	5	96	0.143	0	154.444
Stage 5	-12.6	73.114	57.936	UL-RL	0.39	3.404	5	98.286	0.143	0	156.222
Stage 5	-12.8	74.628	57.525	UL-RL	0.39	3.404	5	100.571	0.143	0	158.097
Stage 5	-13	76.143	57.2	UL-RL	0.39	3.404	5	102.857	0.143	0	160.057
Stage 5	-13.2	77.657	56.95	UL-RL	0.39	3.404	5	105.143	0.143	0	162.092
Stage 5	-13.4	79.171	56.765	UL-RL	0.39	3.404	5	107.428	0.143	0	164.194
Stage 5	-13.6	80.686	56.637	UL-RL	0.39	3.404	5	109.714	0.143	0	166.351
Stage 5	-13.8	82.2	56.558	UL-RL	0.39	3.404	5	112	0.143	0	168.558
Stage 5	-14	83.714	56.519	UL-RL	0.39	3.404	5	114.286	0.143	0	170.805
Stage 5	-14.2	85.228	56.514	UL-RL	0.39	3.404	5	116.571	0.143	0	173.086
Stage 5	-14.4	86.743	56.537	UL-RL	0.39	3.404	5	118.857	0.143	0	175.394
Stage 5	-14.6	88.257	56.581	UL-RL	0.39	3.404	5	121.143	0.143	0	177.724
Stage 5	-14.8	89.771	56.641	UL-RL	0.39	3.404	5	123.428	0.143	0	180.07
Stage 5	-15	91.286	56.714	UL-RL	0.39	3.404	5	125.714	0.143	0	182.428
Stage 5	-15.2	92.8	56.796	UL-RL	0.39	3.404	5	128	0.143	0	184.796
Stage 5	-15.4	94.314	56.882	UL-RL	0.39	3.404	5	130.286	0.143	0	187.168
Stage 5	-15.6	95.828	56.972	UL-RL	0.39	3.404	5	132.571	0.143	0	189.544
Stage 5	-15.8	97.343	57.064	UL-RL	0.39	3.404	5	134.857	0.143	0	191.921
Stage 5	-16	98.857	57.156	UL-RL	0.39	3.404	5	137.143	0.143	0	194.299

Tabella Risultati Terreno Left Wall - Nominal - Stage 6

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 6	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 6	-0.2	2.335	0.582	ACTIVE	0.249	6.738	0	1.673	0.164	0
Stage 6	-0.4	4.711	1.173	ACTIVE	0.249	6.738	0	3.345	0.164	0
Stage 6	-0.6	7.14	1.778	ACTIVE	0.249	6.738	0	5.018	0.164	0
Stage 6	-0.8	9.606	2.392	ACTIVE	0.249	6.738	0	6.691	0.164	0
Stage 6	-1	12.09	3.01	ACTIVE	0.249	6.738	0	8.364	0.164	0
Stage 6	-1.2	14.574	3.629	ACTIVE	0.249	6.738	0	10.036	0.164	0
Stage 6	-1.4	17.165	4.274	ACTIVE	0.249	6.738	0	11.709	0.164	0
Stage 6	-1.6	19.794	4.929	ACTIVE	0.249	6.738	0	13.382	0.164	0
Stage 6	-1.8	22.21	5.53	ACTIVE	0.249	6.738	0	15.055	0.164	0
Stage 6	-2	24.757	6.165	ACTIVE	0.249	6.738	0	16.727	0.164	0
Stage 6	-2.2	27.27	6.79	ACTIVE	0.249	6.738	0	18.4	0.164	0
Stage 6	-2.4	29.637	7.38	ACTIVE	0.249	6.738	0	20.073	0.164	0
Stage 6	-2.6	32.111	7.996	ACTIVE	0.249	6.738	0	21.745	0.164	0
Stage 6	-2.8	34.566	8.607	ACTIVE	0.249	6.738	0	23.418	0.164	0
Stage 6	-3	37.006	9.215	ACTIVE	0.249	6.738	0	25.091	0.164	0
Stage 6	-3.2	39.344	9.797	ACTIVE	0.249	6.738	0	26.764	0.164	0
Stage 6	-3.4	41.766	10.4	ACTIVE	0.249	6.738	0	28.436	0.164	0
Stage 6	-3.6	44.178	11	ACTIVE	0.249	6.738	0	30.109	0.164	0
Stage 6	-3.8	46.506	11.58	ACTIVE	0.249	6.738	0	31.782	0.164	0
Stage 6	-4	48.908	12.178	ACTIVE	0.249	6.738	0	33.455	0.164	0
Stage 6	-4.2	51.302	12.774	ACTIVE	0.249	6.738	0	35.127	0.164	0
Stage 6	-4.4	53.625	13.353	ACTIVE	0.249	6.738	0	36.8	0.164	0
Stage 6	-4.6	56.012	13.947	ACTIVE	0.249	6.738	0	38.473	0.164	0
Stage 6	-4.8	58.394	14.54	ACTIVE	0.249	6.738	0	40.145	0.164	0
Stage 6	-5	60.772	15.132	ACTIVE	0.249	6.738	0	41.818	0.164	0
Stage 6	-5.2	63.091	15.71	ACTIVE	0.249	6.738	0	43.491	0.164	0
Stage 6	-5.4	65.464	16.3	ACTIVE	0.249	6.738	0	45.164	0.164	0
Stage 6	-5.6	67.834	16.891	ACTIVE	0.249	6.738	0	46.836	0.164	0
Stage 6	-5.8	70.151	17.468	ACTIVE	0.249	6.738	0	48.509	0.164	0
Stage 6	-6	72.517	18.057	ACTIVE	0.249	6.738	0	50.182	0.164	0
Stage 6	-6.2	74.881	18.645	ACTIVE	0.249	6.738	0	51.855	0.164	0
Stage 6	-6.4	77.198	19.222	ACTIVE	0.249	6.738	0	53.527	0.164	0
Stage 6	-6.6	79.559	19.81	ACTIVE	0.249	6.738	0	55.2	0.164	0
Stage 6	-6.8	81.918	20.398	ACTIVE	0.249	6.738	0	56.873	0.164	0
Stage 6	-7	84.276	20.985	ACTIVE	0.249	6.738	0	58.545	0.164	0
Stage 6	-7.2	86.591	21.561	ACTIVE	0.249	6.738	0	60.218	0.164	0
Stage 6	-7.4	88.947	22.148	ACTIVE	0.249	6.738	0	61.891	0.164	0
Stage 6	-7.6	91.301	22.734	ACTIVE	0.249	6.738	0	63.564	0.164	0
Stage 6	-7.8	93.616	23.31	ACTIVE	0.249	6.738	0	65.236	0.164	0
Stage 6	-8	95.969	23.896	ACTIVE	0.249	6.738	0	66.909	0.164	0
Stage 6	-8.2	98.32	24.482	ACTIVE	0.249	6.738	0	68.582	0.164	0
Stage 6	-8.4	100.636	25.058	ACTIVE	0.249	6.738	0	70.255	0.164	0
Stage 6	-8.6	102.986	25.643	ACTIVE	0.249	6.738	0	71.927	0.164	0
Stage 6	-8.8	105.335	26.228	ACTIVE	0.249	6.738	0	73.6	0.164	0
Stage 6	-9	107.683	26.813	ACTIVE	0.249	6.738	0	75.273	0.164	0
Stage 6	-9.2	109.998	27.39	ACTIVE	0.249	6.738	0	76.945	0.164	0
Stage 6	-9.4	112.345	27.974	ACTIVE	0.249	6.738	0	78.618	0.164	0
Stage 6	-9.6	114.692	28.558	ACTIVE	0.249	6.738	0	80.291	0.164	0
Stage 6	-9.8	117.007	29.135	ACTIVE	0.249	6.738	0	81.964	0.164	0
Stage 6	-10	119.353	29.719	ACTIVE	0.249	6.738	0	83.636	0.164	0
Stage 6	-10.2	121.697	30.303	ACTIVE	0.249	6.738	0	85.309	0.164	0
Stage 6	-10.4	124.013	30.879	ACTIVE	0.249	6.738	0	86.982	0.164	0
Stage 6	-10.6	126.357	31.463	ACTIVE	0.249	6.738	0	88.654	0.164	0
Stage 6	-10.8	128.7	32.046	ACTIVE	0.249	6.738	0	90.327	0.164	0
Stage 6	-11	131.043	32.63	ACTIVE	0.249	6.738	0	92	0.164	0
Stage 6	-11.2	133.359	33.206	ACTIVE	0.249	6.738	0	93.673	0.164	0
Stage 6	-11.4	135.702	33.79	ACTIVE	0.249	6.738	0	95.345	0.164	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 6	-11.6	138.043	34.373	ACTIVE	0.249	6.738	0	97.018	0.164	0	131.391
Stage 6	-11.8	140.36	34.95	ACTIVE	0.249	6.738	0	98.691	0.164	0	133.64
Stage 6	-12	142.701	35.569	UL-RL	0.249	6.738	0	100.364	0.164	0	135.933
Stage 6	-12.2	144.842	50.316	UL-RL	0.39	3.404	5	102.036	0.164	0	152.352
Stage 6	-12.4	146.982	51.205	UL-RL	0.39	3.404	5	103.709	0.164	0	154.914
Stage 6	-12.6	149.098	52.084	UL-RL	0.39	3.404	5	105.382	0.164	0	157.466
Stage 6	-12.8	151.215	56.038	UL-RL	0.39	3.404	5	107.054	0.164	0	163.092
Stage 6	-13	153.31	60.386	UL-RL	0.39	3.404	5	108.727	0.164	0	169.113
Stage 6	-13.2	155.405	64.59	UL-RL	0.39	3.404	5	110.4	0.164	0	174.99
Stage 6	-13.4	157.501	68.108	UL-RL	0.39	3.404	5	112.073	0.164	0	180.181
Stage 6	-13.6	159.598	71.362	UL-RL	0.39	3.404	5	113.745	0.164	0	185.107
Stage 6	-13.8	161.695	73.764	UL-RL	0.39	3.404	5	115.418	0.164	0	189.182
Stage 6	-14	163.793	75.636	UL-RL	0.39	3.404	5	117.091	0.164	0	192.726
Stage 6	-14.2	165.891	77.478	UL-RL	0.39	3.404	5	118.764	0.164	0	196.241
Stage 6	-14.4	167.99	79.296	UL-RL	0.39	3.404	5	120.436	0.164	0	199.733
Stage 6	-14.6	170.09	81.096	UL-RL	0.39	3.404	5	122.109	0.164	0	203.205
Stage 6	-14.8	172.19	82.882	UL-RL	0.39	3.404	5	123.782	0.164	0	206.664
Stage 6	-15	174.291	84.658	UL-RL	0.39	3.404	5	125.454	0.164	0	210.112
Stage 6	-15.2	176.392	86.426	UL-RL	0.39	3.404	5	127.127	0.164	0	213.554
Stage 6	-15.4	178.494	88.246	UL-RL	0.39	3.404	5	128.8	0.164	0	217.046
Stage 6	-15.6	180.596	90.065	UL-RL	0.39	3.404	5	130.473	0.164	0	220.538
Stage 6	-15.8	182.699	91.884	UL-RL	0.39	3.404	5	132.145	0.164	0	224.029
Stage 6	-16	184.802	93.702	UL-RL	0.39	3.404	5	133.818	0.164	0	227.52

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 6	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.6	0.836	5.635	PASSIVE	0.2496.738		0	1.164	0.164	0	6.799
Stage 6	-4.8	2.509	16.906	PASSIVE	0.2496.738		0	3.491	0.164	0	20.397
Stage 6	-5	4.182	28.177	PASSIVE	0.2496.738		0	5.818	0.164	0	33.995
Stage 6	-5.2	5.855	39.448	PASSIVE	0.2496.738		0	8.145	0.164	0	47.593
Stage 6	-5.4	7.527	50.719	PASSIVE	0.2496.738		0	10.473	0.164	0	61.191
Stage 6	-5.6	9.2	61.99	PASSIVE	0.2496.738		0	12.8	0.164	0	74.79
Stage 6	-5.8	10.873	73.26	PASSIVE	0.2496.738		0	15.127	0.164	0	88.388
Stage 6	-6	12.545	84.531	PASSIVE	0.2496.738		0	17.455	0.164	0	101.986
Stage 6	-6.2	14.218	95.802	PASSIVE	0.2496.738		0	19.782	0.164	0	115.584
Stage 6	-6.4	15.891	107.073	PASSIVE	0.2496.738		0	22.109	0.164	0	129.182
Stage 6	-6.6	17.564	118.344	PASSIVE	0.2496.738		0	24.436	0.164	0	142.78
Stage 6	-6.8	19.236	120.802	V-C	0.2496.738		0	26.764	0.164	0	147.566
Stage 6	-7	20.909	116.861	V-C	0.2496.738		0	29.091	0.164	0	145.952
Stage 6	-7.2	22.582	113.071	V-C	0.2496.738		0	31.418	0.164	0	144.489
Stage 6	-7.4	24.255	109.434	V-C	0.2496.738		0	33.745	0.164	0	143.179
Stage 6	-7.6	25.927	105.953	V-C	0.2496.738		0	36.073	0.164	0	142.026
Stage 6	-7.8	27.6	102.63	V-C	0.2496.738		0	38.4	0.164	0	141.03
Stage 6	-8	29.273	99.466	V-C	0.2496.738		0	40.727	0.164	0	140.193
Stage 6	-8.2	30.945	96.461	V-C	0.2496.738		0	43.055	0.164	0	139.516
Stage 6	-8.4	32.618	93.615	V-C	0.2496.738		0	45.382	0.164	0	138.997
Stage 6	-8.6	34.291	90.927	V-C	0.2496.738		0	47.709	0.164	0	138.636
Stage 6	-8.8	35.964	88.396	V-C	0.2496.738		0	50.036	0.164	0	138.432
Stage 6	-9	37.636	86.019	V-C	0.2496.738		0	52.364	0.164	0	138.383
Stage 6	-9.2	39.309	83.795	V-C	0.2496.738		0	54.691	0.164	0	138.486
Stage 6	-9.4	40.982	81.72	V-C	0.2496.738		0	57.018	0.164	0	138.738
Stage 6	-9.6	42.655	79.792	V-C	0.2496.738		0	59.345	0.164	0	139.138
Stage 6	-9.8	44.327	78.007	V-C	0.2496.738		0	61.673	0.164	0	139.68
Stage 6	-10	46	76.362	V-C	0.2496.738		0	64	0.164	0	140.362
Stage 6	-10.2	47.673	74.852	V-C	0.2496.738		0	66.327	0.164	0	141.179
Stage 6	-10.4	49.345	73.473	V-C	0.2496.738		0	68.654	0.164	0	142.127
Stage 6	-10.6	51.018	72.22	V-C	0.2496.738		0	70.982	0.164	0	143.202
Stage 6	-10.8	52.691	71.089	V-C	0.2496.738		0	73.309	0.164	0	144.398
Stage 6	-11	54.364	70.074	V-C	0.2496.738		0	75.636	0.164	0	145.71
Stage 6	-11.2	56.036	69.17	V-C	0.2496.738		0	77.964	0.164	0	147.133
Stage 6	-11.4	57.709	68.371	V-C	0.2496.738		0	80.291	0.164	0	148.662
Stage 6	-11.6	59.382	67.672	V-C	0.2496.738		0	82.618	0.164	0	150.29
Stage 6	-11.8	61.054	67.067	V-C	0.2496.738		0	84.945	0.164	0	152.012
Stage 6	-12	62.727	66.537	UL-RL	0.2496.738		0	87.273	0.164	0	153.809

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka Kp	RIGHT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)		
Stage 6	-12.2	64.2	63.447	UL-RL	0.39 3.404	5	89.6	0.164	0	153.047	
Stage 6	-12.4	65.673	63.285	UL-RL	0.39 3.404	5	91.927	0.164	0	155.212	
Stage 6	-12.6	67.145	63.175	UL-RL	0.39 3.404	5	94.254	0.164	0	157.429	
Stage 6	-12.8	68.618	61.599	UL-RL	0.39 3.404	5	96.582	0.164	0	158.181	
Stage 6	-13	70.091	59.844	UL-RL	0.39 3.404	5	98.909	0.164	0	158.753	
Stage 6	-13.2	71.564	58.201	UL-RL	0.39 3.404	5	101.236	0.164	0	159.437	
Stage 6	-13.4	73.036	56.658	UL-RL	0.39 3.404	5	103.564	0.164	0	160.221	
Stage 6	-13.6	74.509	55.201	UL-RL	0.39 3.404	5	105.891	0.164	0	161.092	
Stage 6	-13.8	75.982	53.819	UL-RL	0.39 3.404	5	108.218	0.164	0	162.037	
Stage 6	-14	77.454	52.501	UL-RL	0.39 3.404	5	110.545	0.164	0	163.046	
Stage 6	-14.2	78.927	51.236	UL-RL	0.39 3.404	5	112.873	0.164	0	164.108	
Stage 6	-14.4	80.4	50.015	UL-RL	0.39 3.404	5	115.2	0.164	0	165.214	
Stage 6	-14.6	81.873	48.828	UL-RL	0.39 3.404	5	117.527	0.164	0	166.355	
Stage 6	-14.8	83.345	47.669	UL-RL	0.39 3.404	5	119.854	0.164	0	167.523	
Stage 6	-15	84.818	46.53	UL-RL	0.39 3.404	5	122.182	0.164	0	168.711	
Stage 6	-15.2	86.291	45.405	UL-RL	0.39 3.404	5	124.509	0.164	0	169.914	
Stage 6	-15.4	87.764	44.289	UL-RL	0.39 3.404	5	126.836	0.164	0	171.125	
Stage 6	-15.6	89.236	43.178	UL-RL	0.39 3.404	5	129.164	0.164	0	172.342	
Stage 6	-15.8	90.709	42.07	UL-RL	0.39 3.404	5	131.491	0.164	0	173.561	
Stage 6	-16	92.182	40.962	UL-RL	0.39 3.404	5	133.818	0.164	0	174.781	

Tabella Risultati Terreno Left Wall - Nominal - Stage 7

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 7	0	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 7	-0.2	2.327	0.768	UL-RL	0.2496.738		0	1.673	0.164	0	2.441
Stage 7	-0.4	4.655	1.362	UL-RL	0.2496.738		0	3.345	0.164	0	4.707
Stage 7	-0.6	6.982	1.955	UL-RL	0.2496.738		0	5.018	0.164	0	6.973
Stage 7	-0.8	9.309	2.548	UL-RL	0.2496.738		0	6.691	0.164	0	9.239
Stage 7	-1	11.636	3.142	UL-RL	0.2496.738		0	8.364	0.164	0	11.505
Stage 7	-1.2	13.964	3.735	UL-RL	0.2496.738		0	10.036	0.164	0	13.771
Stage 7	-1.4	16.291	4.328	UL-RL	0.2496.738		0	11.709	0.164	0	16.037
Stage 7	-1.6	18.618	4.921	UL-RL	0.2496.738		0	13.382	0.164	0	18.302
Stage 7	-1.8	20.945	5.513	UL-RL	0.2496.738		0	15.055	0.164	0	20.568
Stage 7	-2	23.273	6.105	UL-RL	0.2496.738		0	16.727	0.164	0	22.833
Stage 7	-2.2	25.6	6.697	UL-RL	0.2496.738		0	18.4	0.164	0	25.097
Stage 7	-2.4	27.927	7.289	UL-RL	0.2496.738		0	20.073	0.164	0	27.361
Stage 7	-2.6	30.255	7.879	UL-RL	0.2496.738		0	21.745	0.164	0	29.625
Stage 7	-2.8	32.582	8.47	UL-RL	0.2496.738		0	23.418	0.164	0	31.888
Stage 7	-3	34.909	9.06	UL-RL	0.2496.738		0	25.091	0.164	0	34.151
Stage 7	-3.2	37.236	9.649	UL-RL	0.2496.738		0	26.764	0.164	0	36.413
Stage 7	-3.4	39.564	10.238	UL-RL	0.2496.738		0	28.436	0.164	0	38.674
Stage 7	-3.6	41.891	10.826	UL-RL	0.2496.738		0	30.109	0.164	0	40.935
Stage 7	-3.8	44.218	11.413	UL-RL	0.2496.738		0	31.782	0.164	0	43.195
Stage 7	-4	46.545	12	UL-RL	0.2496.738		0	33.455	0.164	0	45.455
Stage 7	-4.2	48.873	12.586	UL-RL	0.2496.738		0	35.127	0.164	0	47.714
Stage 7	-4.4	51.2	13.172	UL-RL	0.2496.738		0	36.8	0.164	0	49.972
Stage 7	-4.6	53.527	13.758	UL-RL	0.2496.738		0	38.473	0.164	0	52.23
Stage 7	-4.8	55.855	14.342	UL-RL	0.2496.738		0	40.145	0.164	0	54.488
Stage 7	-5	58.182	14.927	UL-RL	0.2496.738		0	41.818	0.164	0	56.745
Stage 7	-5.2	60.509	15.511	UL-RL	0.2496.738		0	43.491	0.164	0	59.002
Stage 7	-5.4	62.836	16.094	UL-RL	0.2496.738		0	45.164	0.164	0	61.258
Stage 7	-5.6	65.164	16.678	UL-RL	0.2496.738		0	46.836	0.164	0	63.514
Stage 7	-5.8	67.491	17.261	UL-RL	0.2496.738		0	48.509	0.164	0	65.77
Stage 7	-6	69.818	17.844	UL-RL	0.2496.738		0	50.182	0.164	0	68.026
Stage 7	-6.2	72.145	18.427	UL-RL	0.2496.738		0	51.855	0.164	0	70.281
Stage 7	-6.4	74.473	19.01	UL-RL	0.2496.738		0	53.527	0.164	0	72.537
Stage 7	-6.6	76.8	19.592	UL-RL	0.2496.738		0	55.2	0.164	0	74.792
Stage 7	-6.8	79.127	20.175	UL-RL	0.2496.738		0	56.873	0.164	0	77.048
Stage 7	-7	81.455	20.758	UL-RL	0.2496.738		0	58.545	0.164	0	79.303
Stage 7	-7.2	83.782	21.341	UL-RL	0.2496.738		0	60.218	0.164	0	81.559
Stage 7	-7.4	86.109	21.923	UL-RL	0.2496.738		0	61.891	0.164	0	83.814
Stage 7	-7.6	88.436	22.506	UL-RL	0.2496.738		0	63.564	0.164	0	86.07
Stage 7	-7.8	90.764	23.09	UL-RL	0.2496.738		0	65.236	0.164	0	88.326
Stage 7	-8	93.091	23.673	UL-RL	0.2496.738		0	66.909	0.164	0	90.582
Stage 7	-8.2	95.418	24.257	UL-RL	0.2496.738		0	68.582	0.164	0	92.838
Stage 7	-8.4	97.745	24.84	UL-RL	0.2496.738		0	70.255	0.164	0	95.095
Stage 7	-8.6	100.073	25.425	UL-RL	0.2496.738		0	71.927	0.164	0	97.352
Stage 7	-8.8	102.4	26.009	UL-RL	0.2496.738		0	73.6	0.164	0	99.609
Stage 7	-9	104.727	26.594	UL-RL	0.2496.738		0	75.273	0.164	0	101.867
Stage 7	-9.2	107.054	27.179	UL-RL	0.2496.738		0	76.945	0.164	0	104.125
Stage 7	-9.4	109.382	27.765	UL-RL	0.2496.738		0	78.618	0.164	0	106.383
Stage 7	-9.6	111.709	28.351	UL-RL	0.2496.738		0	80.291	0.164	0	108.642
Stage 7	-9.8	114.036	28.938	UL-RL	0.2496.738		0	81.964	0.164	0	110.901
Stage 7	-10	116.364	29.525	UL-RL	0.2496.738		0	83.636	0.164	0	113.161
Stage 7	-10.2	118.691	30.112	UL-RL	0.2496.738		0	85.309	0.164	0	115.421
Stage 7	-10.4	121.018	30.7	UL-RL	0.2496.738		0	86.982	0.164	0	117.682
Stage 7	-10.6	123.345	31.289	UL-RL	0.2496.738		0	88.654	0.164	0	119.943
Stage 7	-10.8	125.673	31.878	UL-RL	0.2496.738		0	90.327	0.164	0	122.205
Stage 7	-11	128	32.467	UL-RL	0.2496.738		0	92	0.164	0	124.467
Stage 7	-11.2	130.327	33.057	UL-RL	0.2496.738		0	93.673	0.164	0	126.73
Stage 7	-11.4	132.654	33.647	UL-RL	0.2496.738		0	95.345	0.164	0	128.993

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 7	-11.6	134.982	34.238	UL-RL	0.249	6.738	0	97.018	0.164	0	131.256
Stage 7	-11.8	137.309	34.829	UL-RL	0.249	6.738	0	98.691	0.164	0	133.52
Stage 7	-12	139.636	35.45	UL-RL	0.249	6.738	0	100.364	0.164	0	135.813
Stage 7	-12.2	141.764	49.859	UL-RL	0.39	3.404	5	102.036	0.164	0	151.896
Stage 7	-12.4	143.891	50.751	UL-RL	0.39	3.404	5	103.709	0.164	0	154.46
Stage 7	-12.6	146.018	51.639	UL-RL	0.39	3.404	5	105.382	0.164	0	157.021
Stage 7	-12.8	148.145	55.601	UL-RL	0.39	3.404	5	107.054	0.164	0	162.655
Stage 7	-13	150.273	59.963	UL-RL	0.39	3.404	5	108.727	0.164	0	168.69
Stage 7	-13.2	152.4	64.182	UL-RL	0.39	3.404	5	110.4	0.164	0	174.582
Stage 7	-13.4	154.527	67.714	UL-RL	0.39	3.404	5	112.073	0.164	0	179.786
Stage 7	-13.6	156.654	70.98	UL-RL	0.39	3.404	5	113.745	0.164	0	184.726
Stage 7	-13.8	158.782	73.396	UL-RL	0.39	3.404	5	115.418	0.164	0	188.814
Stage 7	-14	160.909	75.281	UL-RL	0.39	3.404	5	117.091	0.164	0	192.372
Stage 7	-14.2	163.036	77.136	UL-RL	0.39	3.404	5	118.764	0.164	0	195.9
Stage 7	-14.4	165.164	78.967	UL-RL	0.39	3.404	5	120.436	0.164	0	199.404
Stage 7	-14.6	167.291	80.78	UL-RL	0.39	3.404	5	122.109	0.164	0	202.889
Stage 7	-14.8	169.418	82.578	UL-RL	0.39	3.404	5	123.782	0.164	0	206.36
Stage 7	-15	171.545	84.366	UL-RL	0.39	3.404	5	125.454	0.164	0	209.82
Stage 7	-15.2	173.673	86.147	UL-RL	0.39	3.404	5	127.127	0.164	0	213.274
Stage 7	-15.4	175.8	87.978	UL-RL	0.39	3.404	5	128.8	0.164	0	216.778
Stage 7	-15.6	177.927	89.809	UL-RL	0.39	3.404	5	130.473	0.164	0	220.282
Stage 7	-15.8	180.054	91.639	UL-RL	0.39	3.404	5	132.145	0.164	0	223.784
Stage 7	-16	182.182	93.469	UL-RL	0.39	3.404	5	133.818	0.164	0	227.287

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 7	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 7	-4.6	0.836	5.422	UL-RL	0.2496.738		0	1.164	0.164	0	6.586
Stage 7	-4.8	2.509	16.69	UL-RL	0.2496.738		0	3.491	0.164	0	20.181
Stage 7	-5	4.182	27.959	UL-RL	0.2496.738		0	5.818	0.164	0	33.777
Stage 7	-5.2	5.855	39.227	UL-RL	0.2496.738		0	8.145	0.164	0	47.373
Stage 7	-5.4	7.527	50.496	UL-RL	0.2496.738		0	10.473	0.164	0	60.969
Stage 7	-5.6	9.2	61.765	UL-RL	0.2496.738		0	12.8	0.164	0	74.565
Stage 7	-5.8	10.873	73.034	UL-RL	0.2496.738		0	15.127	0.164	0	88.161
Stage 7	-6	12.545	84.303	UL-RL	0.2496.738		0	17.455	0.164	0	101.757
Stage 7	-6.2	14.218	95.572	UL-RL	0.2496.738		0	19.782	0.164	0	115.354
Stage 7	-6.4	15.891	106.841	UL-RL	0.2496.738		0	22.109	0.164	0	128.95
Stage 7	-6.6	17.564	118.11	UL-RL	0.2496.738		0	24.436	0.164	0	142.547
Stage 7	-6.8	19.236	120.567	UL-RL	0.2496.738		0	26.764	0.164	0	147.331
Stage 7	-7	20.909	116.625	UL-RL	0.2496.738		0	29.091	0.164	0	145.716
Stage 7	-7.2	22.582	112.833	UL-RL	0.2496.738		0	31.418	0.164	0	144.251
Stage 7	-7.4	24.255	109.194	UL-RL	0.2496.738		0	33.745	0.164	0	142.94
Stage 7	-7.6	25.927	105.712	UL-RL	0.2496.738		0	36.073	0.164	0	141.784
Stage 7	-7.8	27.6	102.387	UL-RL	0.2496.738		0	38.4	0.164	0	140.787
Stage 7	-8	29.273	99.221	UL-RL	0.2496.738		0	40.727	0.164	0	139.948
Stage 7	-8.2	30.945	96.214	UL-RL	0.2496.738		0	43.055	0.164	0	139.268
Stage 7	-8.4	32.618	93.366	UL-RL	0.2496.738		0	45.382	0.164	0	138.748
Stage 7	-8.6	34.291	90.675	UL-RL	0.2496.738		0	47.709	0.164	0	138.384
Stage 7	-8.8	35.964	88.141	UL-RL	0.2496.738		0	50.036	0.164	0	138.178
Stage 7	-9	37.636	85.762	UL-RL	0.2496.738		0	52.364	0.164	0	138.126
Stage 7	-9.2	39.309	83.535	UL-RL	0.2496.738		0	54.691	0.164	0	138.226
Stage 7	-9.4	40.982	81.457	UL-RL	0.2496.738		0	57.018	0.164	0	138.475
Stage 7	-9.6	42.655	79.526	UL-RL	0.2496.738		0	59.345	0.164	0	138.871
Stage 7	-9.8	44.327	77.738	UL-RL	0.2496.738		0	61.673	0.164	0	139.41
Stage 7	-10	46	76.088	UL-RL	0.2496.738		0	64	0.164	0	140.088
Stage 7	-10.2	47.673	74.574	UL-RL	0.2496.738		0	66.327	0.164	0	140.902
Stage 7	-10.4	49.345	73.191	UL-RL	0.2496.738		0	68.654	0.164	0	141.846
Stage 7	-10.6	51.018	71.934	UL-RL	0.2496.738		0	70.982	0.164	0	142.916
Stage 7	-10.8	52.691	70.798	UL-RL	0.2496.738		0	73.309	0.164	0	144.107
Stage 7	-11	54.364	69.778	UL-RL	0.2496.738		0	75.636	0.164	0	145.414
Stage 7	-11.2	56.036	68.869	UL-RL	0.2496.738		0	77.964	0.164	0	146.832
Stage 7	-11.4	57.709	68.064	UL-RL	0.2496.738		0	80.291	0.164	0	148.355
Stage 7	-11.6	59.382	67.36	UL-RL	0.2496.738		0	82.618	0.164	0	149.978
Stage 7	-11.8	61.054	66.749	UL-RL	0.2496.738		0	84.945	0.164	0	151.694
Stage 7	-12	62.727	66.213	UL-RL	0.2496.738		0	87.273	0.164	0	153.486

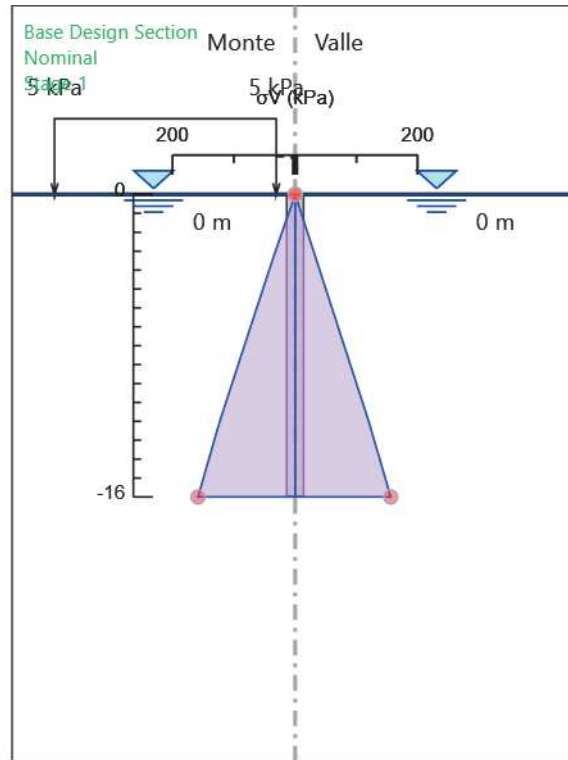
Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

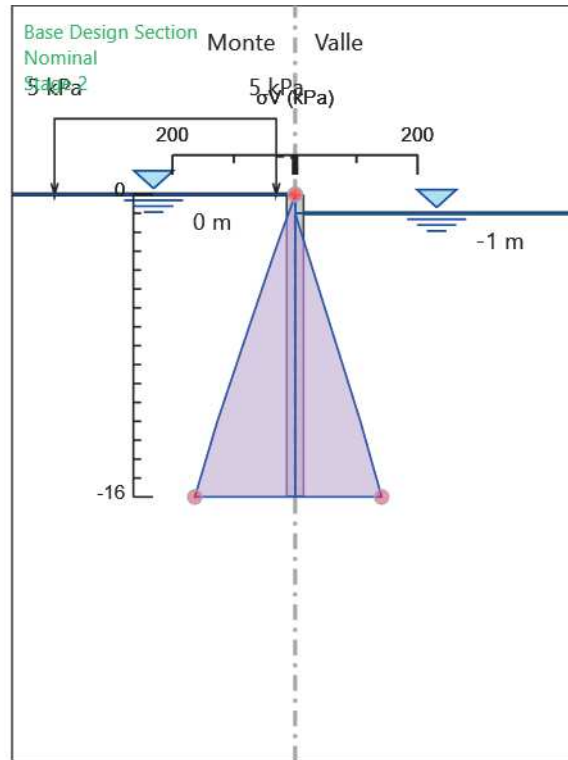
Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	RIGHT Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 7	-12.2	64.2	63.199	UL-RL	0.39	3.404	5	89.6	0.164	0	152.799
Stage 7	-12.4	65.673	63.033	UL-RL	0.39	3.404	5	91.927	0.164	0	154.96
Stage 7	-12.6	67.145	62.918	UL-RL	0.39	3.404	5	94.254	0.164	0	157.172
Stage 7	-12.8	68.618	61.338	UL-RL	0.39	3.404	5	96.582	0.164	0	157.919
Stage 7	-13	70.091	59.578	UL-RL	0.39	3.404	5	98.909	0.164	0	158.487
Stage 7	-13.2	71.564	57.93	UL-RL	0.39	3.404	5	101.236	0.164	0	159.167
Stage 7	-13.4	73.036	56.382	UL-RL	0.39	3.404	5	103.564	0.164	0	159.946
Stage 7	-13.6	74.509	54.921	UL-RL	0.39	3.404	5	105.891	0.164	0	160.812
Stage 7	-13.8	75.982	53.535	UL-RL	0.39	3.404	5	108.218	0.164	0	161.753
Stage 7	-14	77.454	52.212	UL-RL	0.39	3.404	5	110.545	0.164	0	162.758
Stage 7	-14.2	78.927	50.943	UL-RL	0.39	3.404	5	112.873	0.164	0	163.816
Stage 7	-14.4	80.4	49.717	UL-RL	0.39	3.404	5	115.2	0.164	0	164.917
Stage 7	-14.6	81.873	48.527	UL-RL	0.39	3.404	5	117.527	0.164	0	166.054
Stage 7	-14.8	83.345	47.363	UL-RL	0.39	3.404	5	119.854	0.164	0	167.217
Stage 7	-15	84.818	46.22	UL-RL	0.39	3.404	5	122.182	0.164	0	168.401
Stage 7	-15.2	86.291	45.09	UL-RL	0.39	3.404	5	124.509	0.164	0	169.599
Stage 7	-15.4	87.764	43.97	UL-RL	0.39	3.404	5	126.836	0.164	0	170.806
Stage 7	-15.6	89.236	42.855	UL-RL	0.39	3.404	5	129.164	0.164	0	172.019
Stage 7	-15.8	90.709	41.743	UL-RL	0.39	3.404	5	131.491	0.164	0	173.234
Stage 7	-16	92.182	40.631	UL-RL	0.39	3.404	5	133.818	0.164	0	174.449

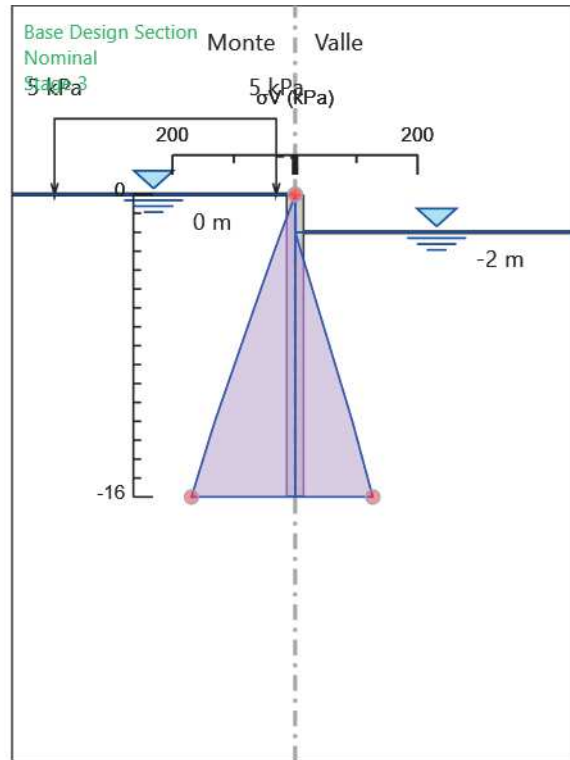
Grafico Risultati Terreno Sigma V



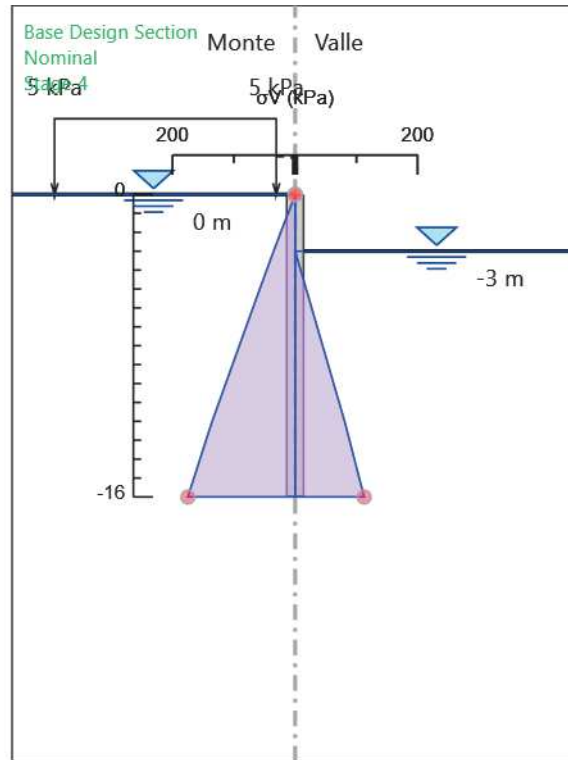
Design Assumption: Nominal
Stage: Stage 1
Sigma V



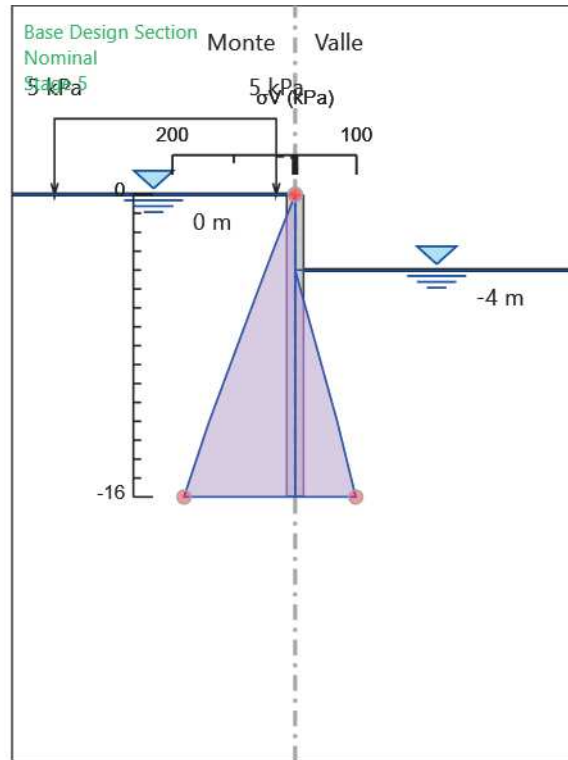
Design Assumption: Nominal
Stage: Stage 2
Sigma V



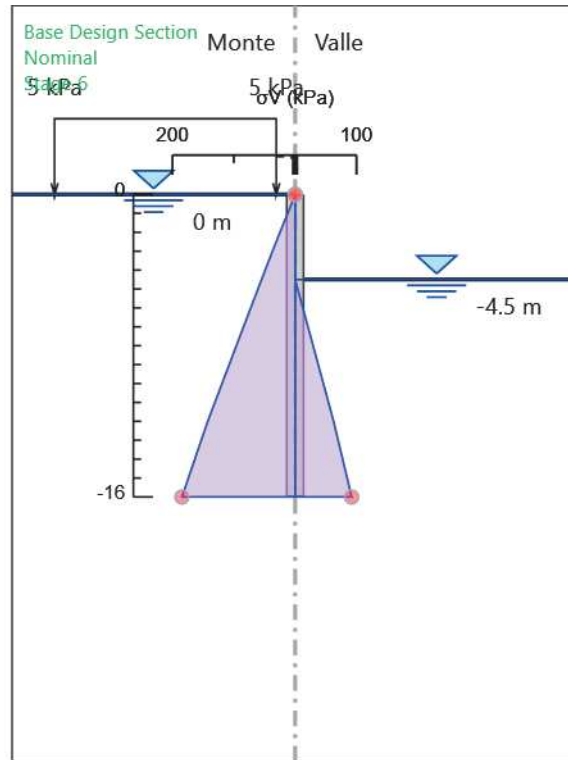
Design Assumption: Nominal
Stage: Stage 3
Sigma V



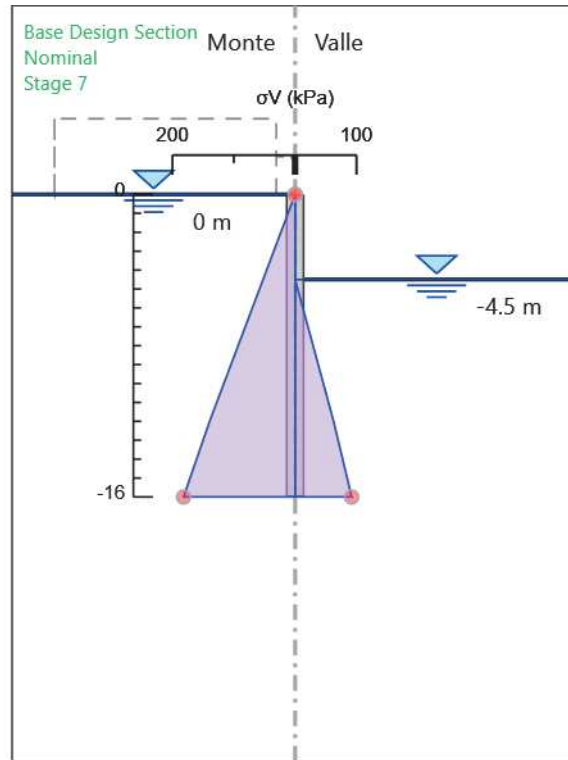
Design Assumption: Nominal
Stage: Stage 4
Sigma V



Design Assumption: Nominal
Stage: Stage 5
Sigma V

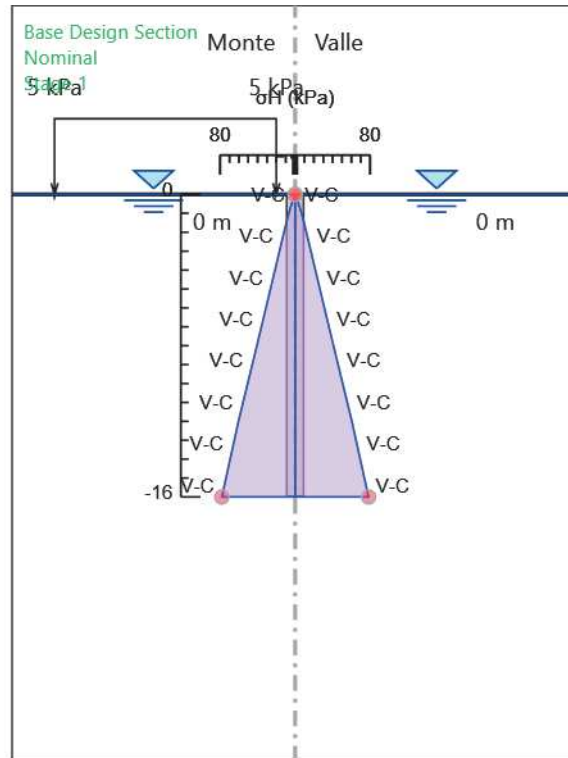


Design Assumption: Nominal
Stage: Stage 6
Sigma V

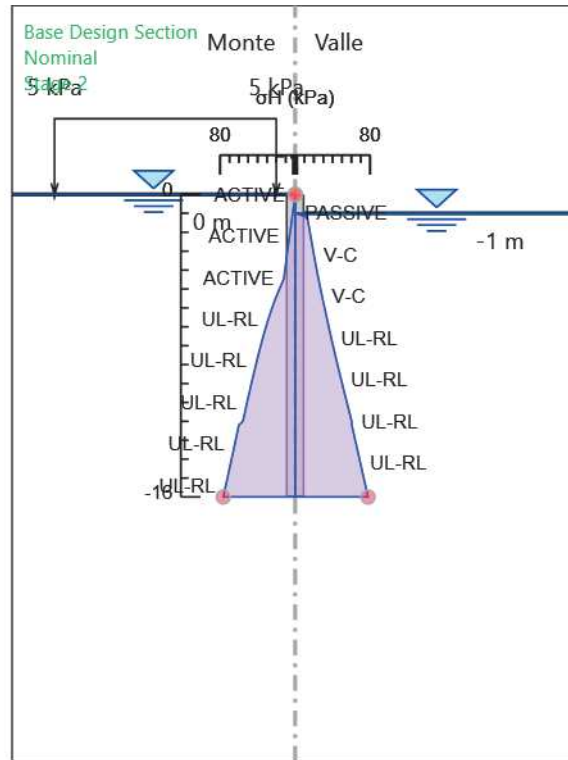


Design Assumption: Nominal
Stage: Stage 7
Sigma V

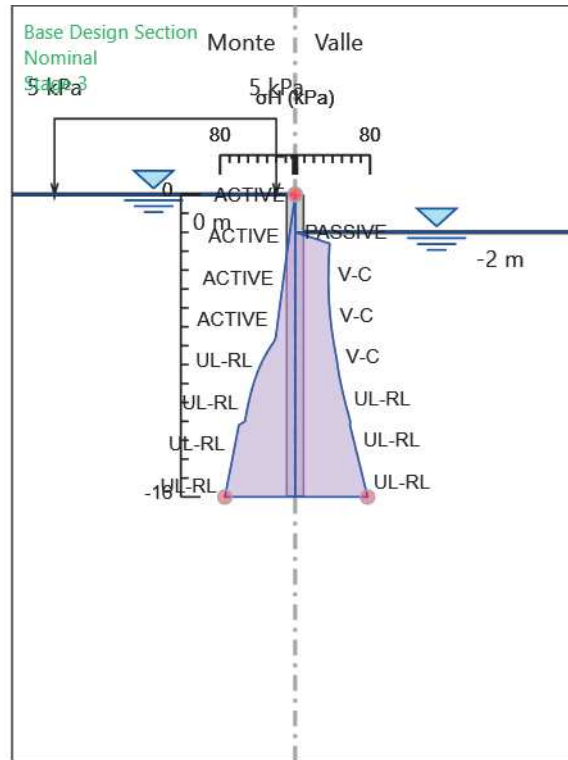
Grafico Risultati Terreno Sigma H



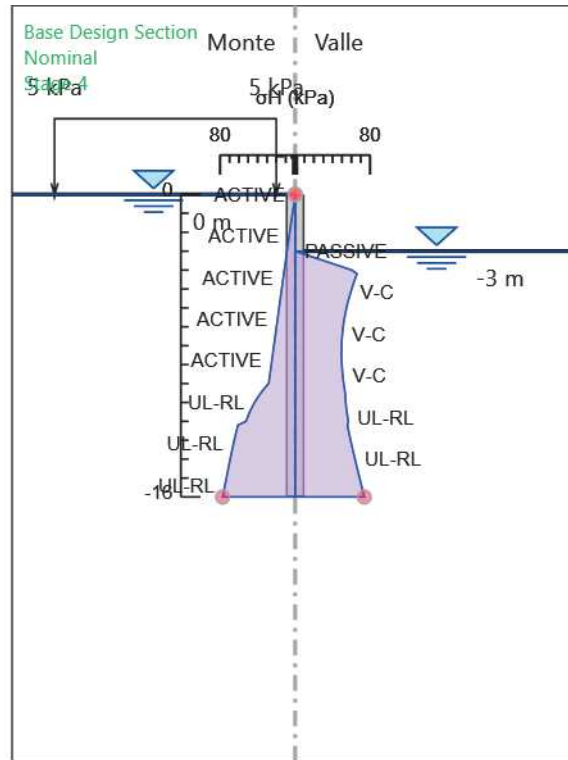
Design Assumption: Nominal
Stage: Stage 1
Sigma H



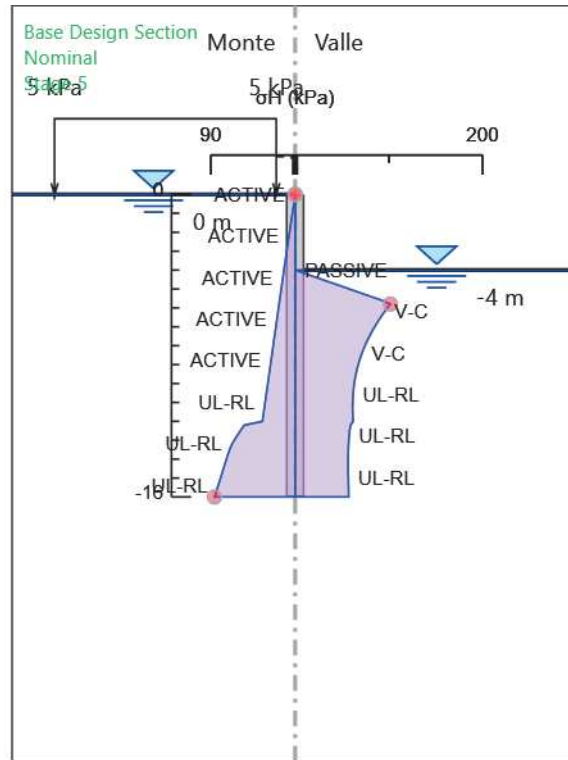
Design Assumption: Nominal
Stage: Stage 2
Sigma H



Design Assumption: Nominal
Stage: Stage 3
Sigma H

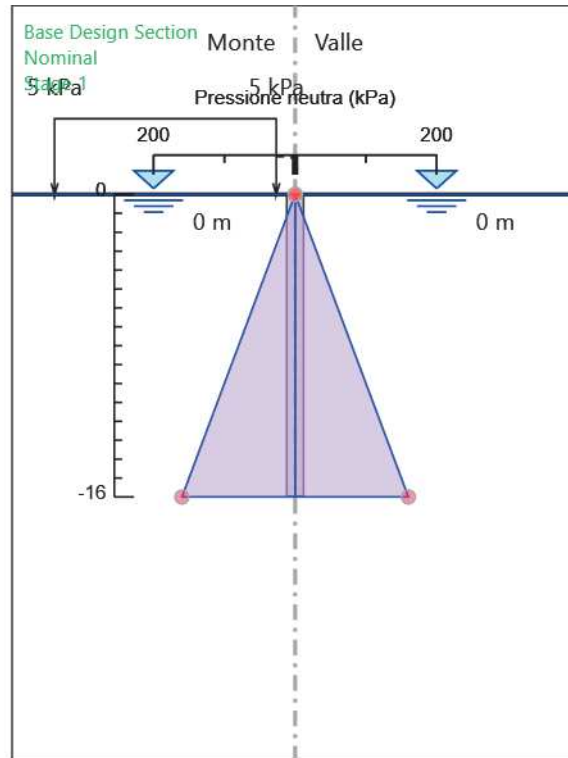


Design Assumption: Nominal
Stage: Stage 4
Sigma H

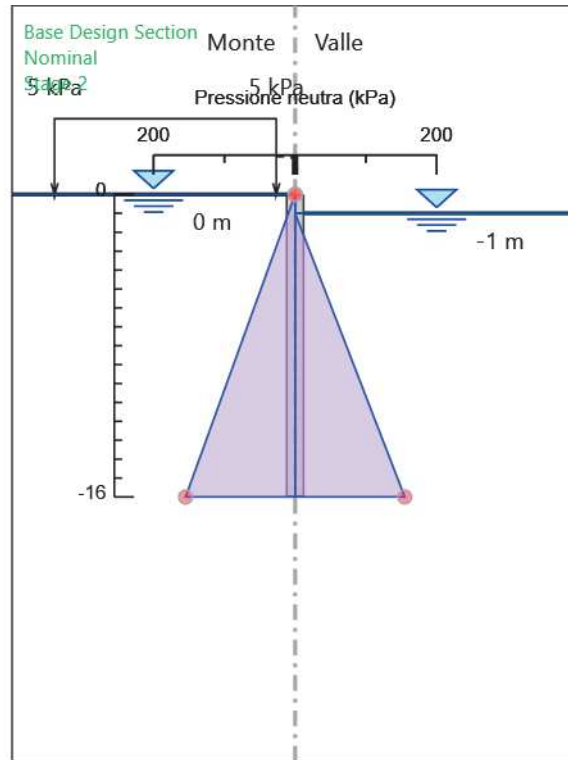


Design Assumption: Nominal
Stage: Stage 5
Sigma H

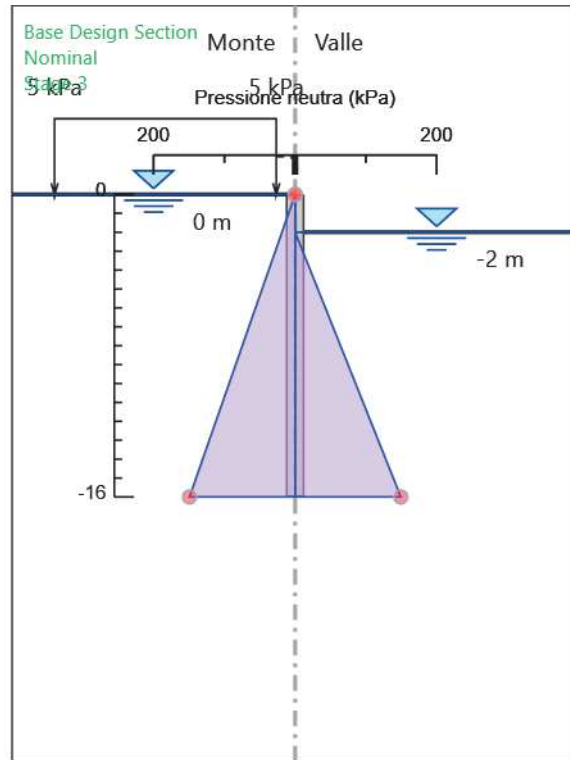
Grafico Risultati Terreno Pressione neutra



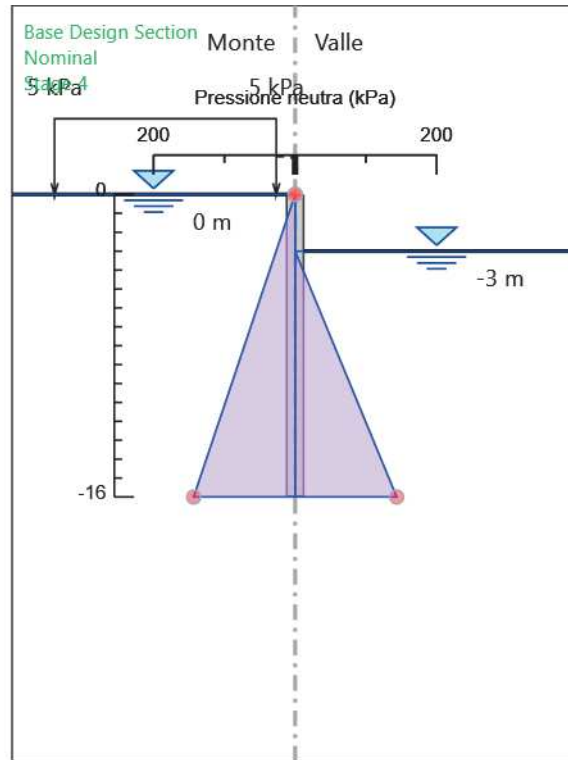
Design Assumption: Nominal
Stage: Stage 1
Pressione neutra



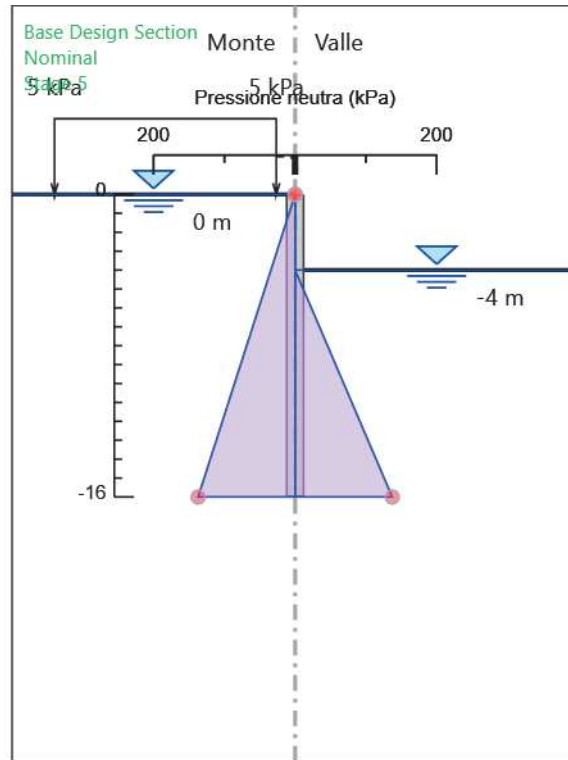
Design Assumption: Nominal
Stage: Stage 2
Pressione neutra



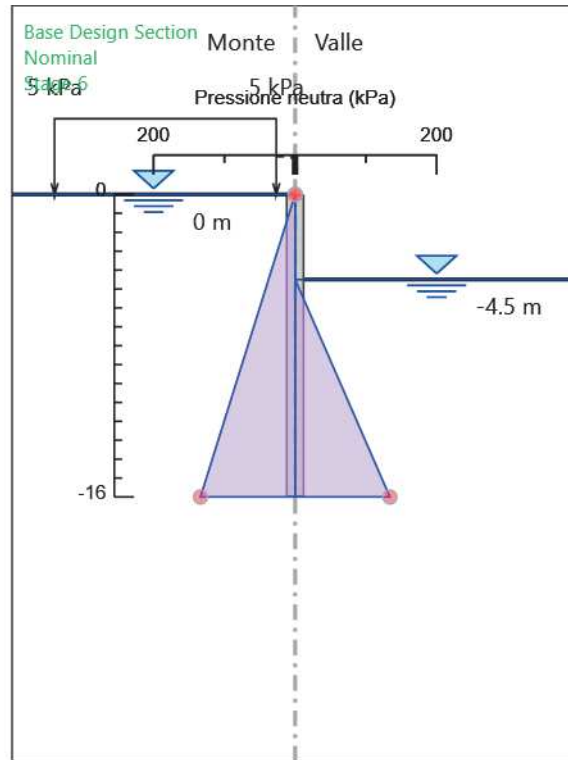
Design Assumption: Nominal
Stage: Stage 3
Pressione neutra



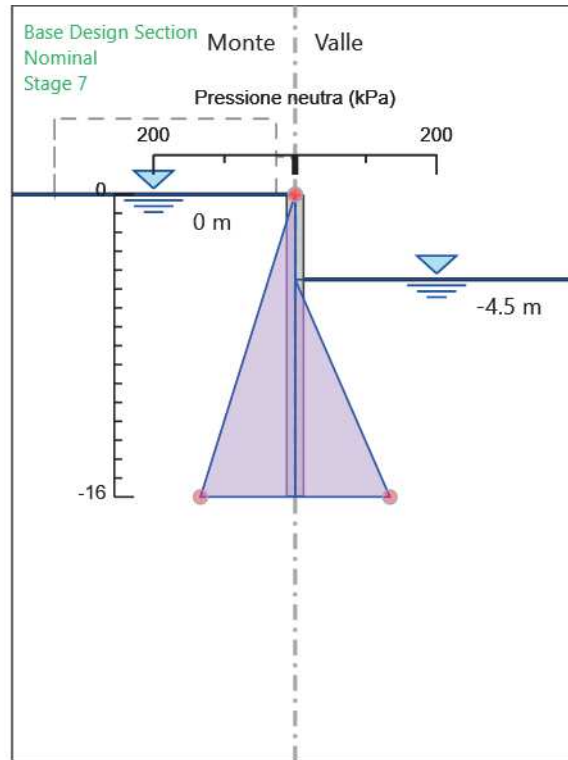
Design Assumption: Nominal
Stage: Stage 4
Pressione neutra



Design Assumption: Nominal
Stage: Stage 5
Pressione neutra

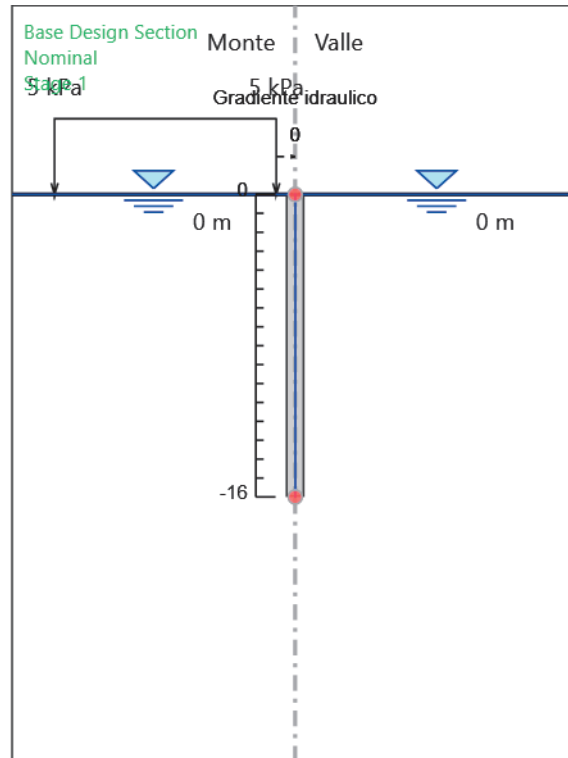


Design Assumption: Nominal
Stage: Stage 6
Pressione neutra

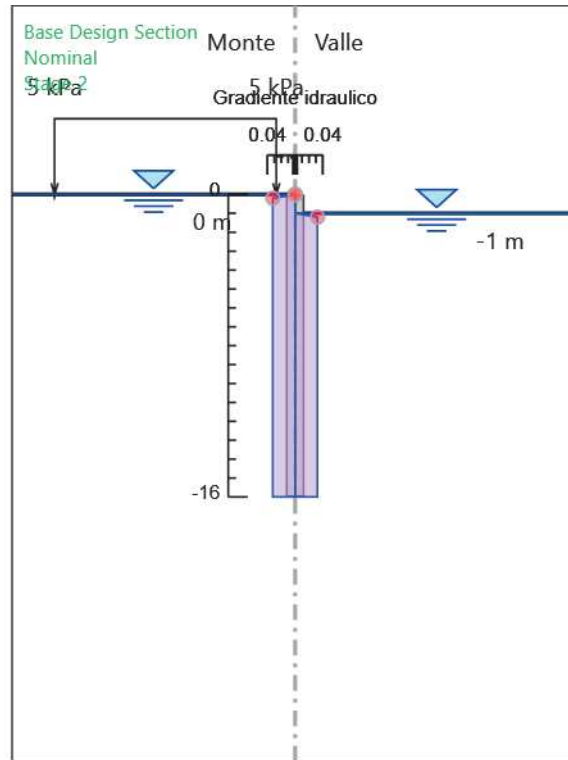


Design Assumption: Nominal
Stage: Stage 7
Pressione neutra

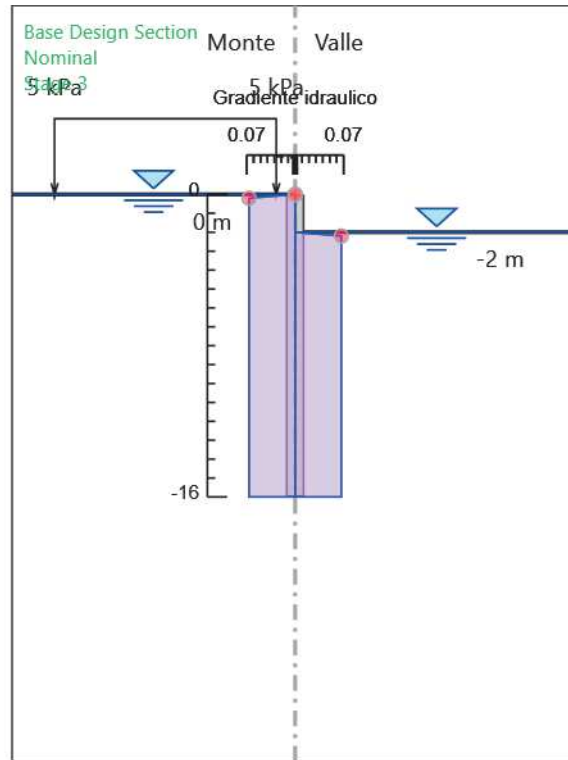
Grafico Risultati Terreno Gradiente idraulico



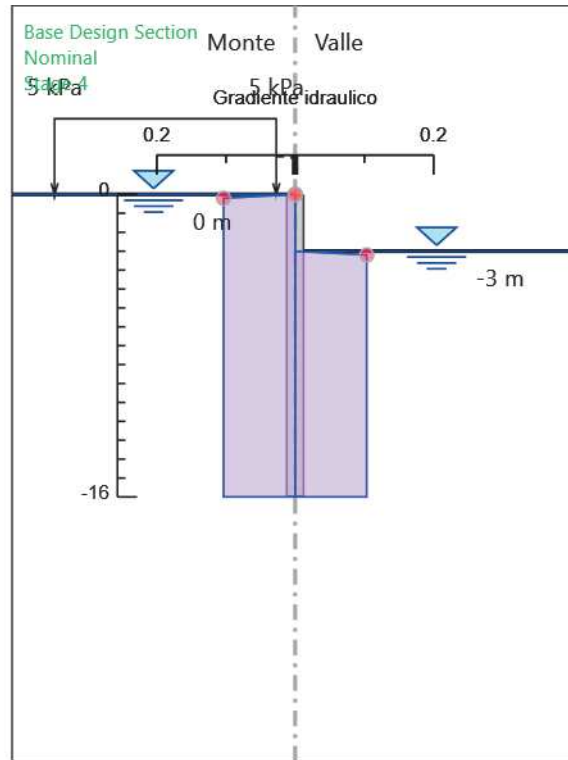
Design Assumption: Nominal
Stage: Stage 1
Gradiente idraulico



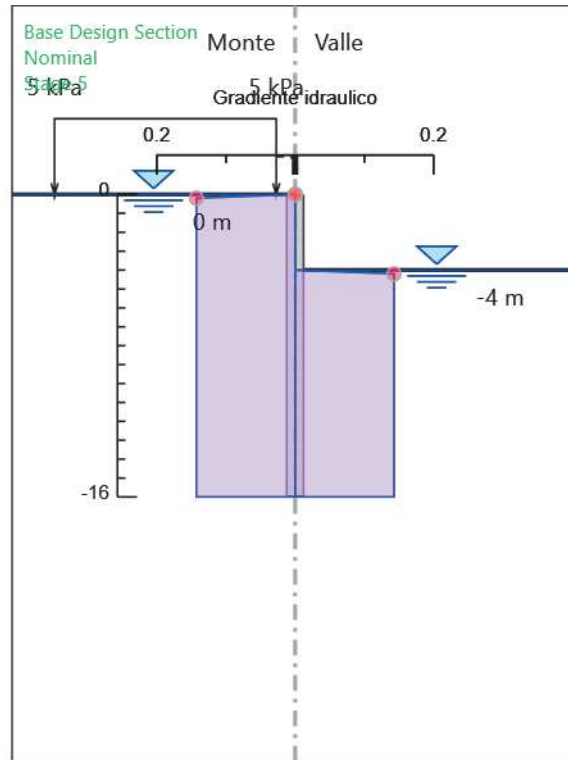
Design Assumption: Nominal
Stage: Stage 2
Gradiente idraulico



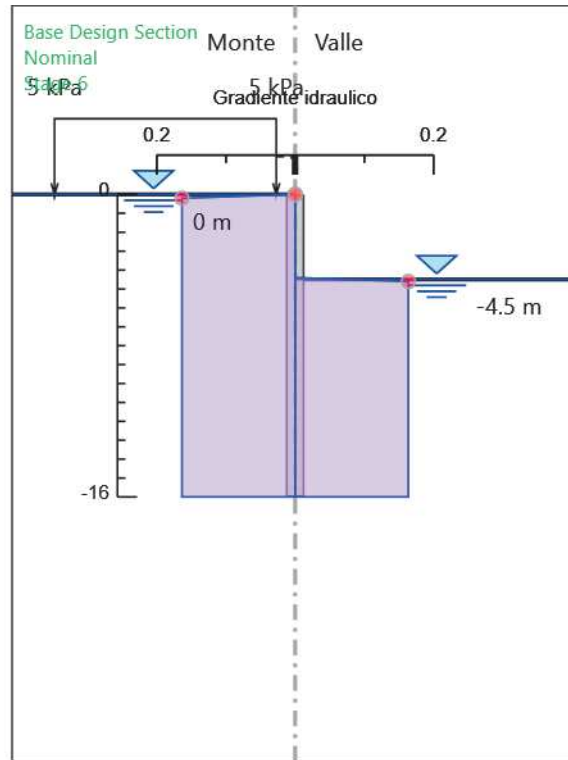
Design Assumption: Nominal
Stage: Stage 3
Gradiente idraulico



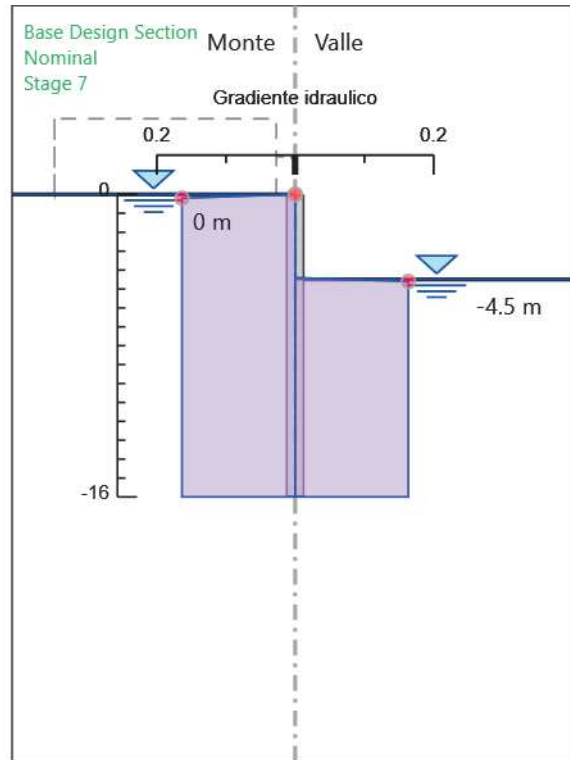
Design Assumption: Nominal
Stage: Stage 4
Gradiente idraulico



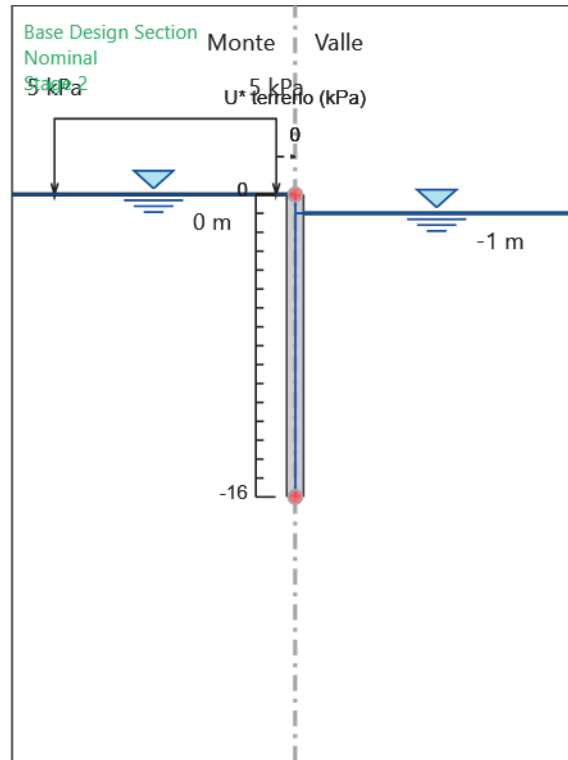
Design Assumption: Nominal
Stage: Stage 5
Gradiente idraulico



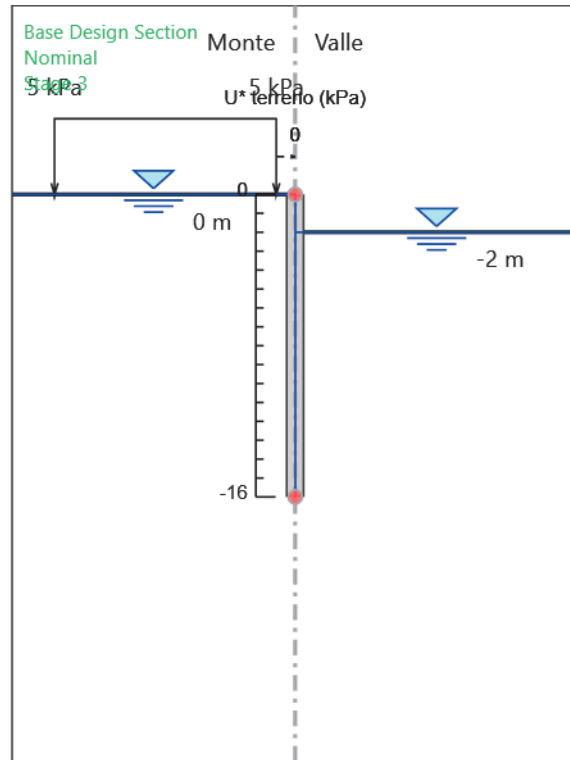
Design Assumption: Nominal
Stage: Stage 6
Gradiente idraulico



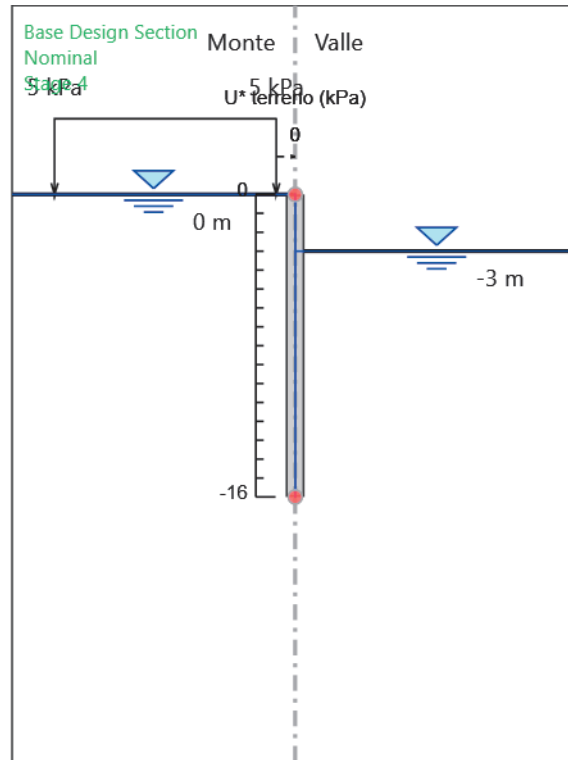
Design Assumption: Nominal
Stage: Stage 7
Gradiente idraulico



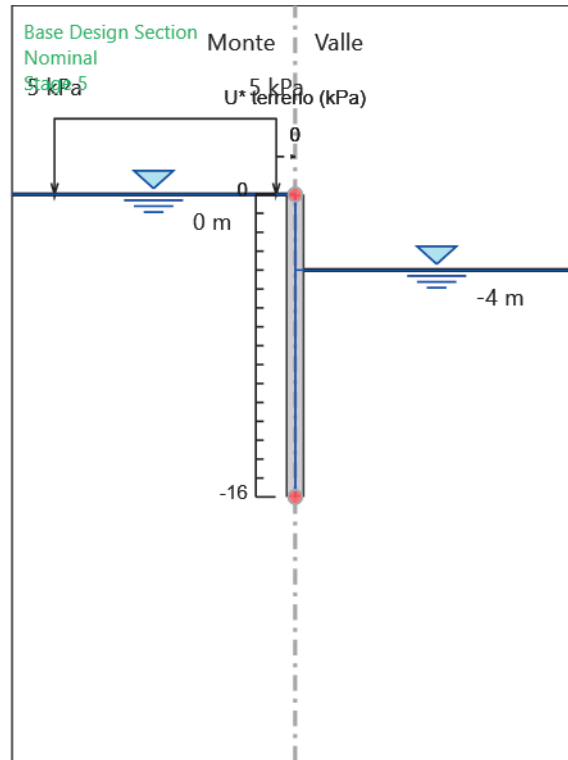
Design Assumption: Nominal
Stage: Stage 2
U* terreno



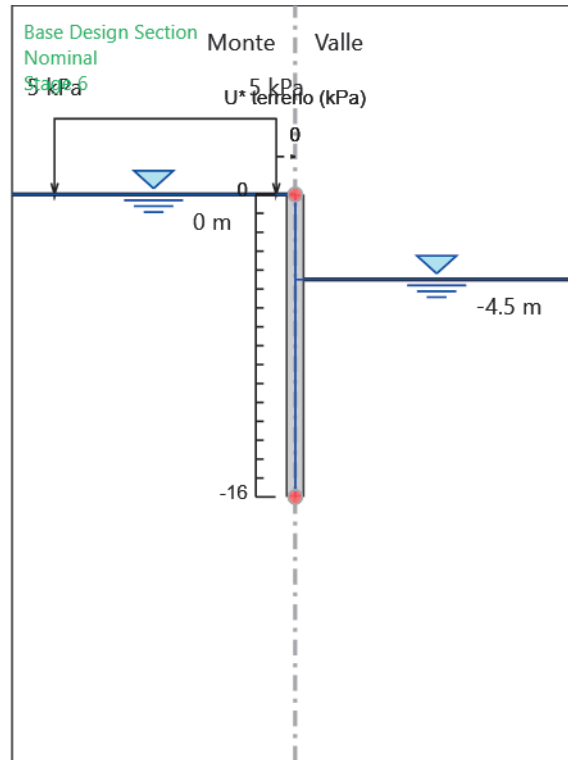
Design Assumption: Nominal
Stage: Stage 3
U* terreno



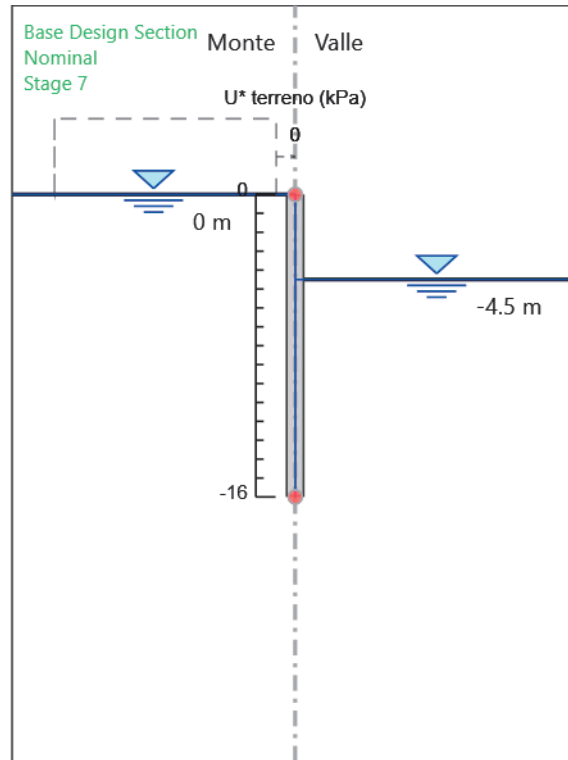
Design Assumption: Nominal
Stage: Stage 4
U* terreno



Design Assumption: Nominal
Stage: Stage 5
U* terreno



Design Assumption: Nominal
Stage: Stage 6
U* terreno



Design Assumption: Nominal
Stage: Stage 7
U* terreno

Riepilogo spinte

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	LEFT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva	Pressione neutra	Vera Totale	Min ammissibile	Max ammissibile	Percentuale di resistenza massima	Vera / Attiva
	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)		
Stage 1	651.5	1280	1931.5	379.9	7069.9	9.22%	1.71
Stage 2	575.3	1238.7	1814	392.7	7289.2	7.89%	1.46
Stage 3	528.7	1194.7	1723.4	406.3	7523.1	7.03%	1.3
Stage 4	503.1	1147.6	1650.7	420.9	7773.1	6.47%	1.2
Stage 5	497.7	1097.1	1594.8	436.5	8041	6.19%	1.14
Stage 6	505.6	1070.5	1576.1	444.7	8182.2	6.18%	1.14
Stage 7	502.5	1070.5	1573.1	433.3	7954.7	6.32%	1.16

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	RIGHT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva	Pressione neutra	Vera Totale	Min ammissibile	Max ammissibile	Percentuale di resistenza massima	Vera / Attiva
	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)		
Stage 1	651.5	1280	1931.5	368.5	6842.3	9.52%	1.77
Stage 2	652.7	1161.3	1814	313.1	5738.2	11.37%	2.08
Stage 3	678	1045.3	1723.4	262.1	4745.2	14.29%	2.59
Stage 4	718.3	932.4	1650.7	215.6	3861	18.6%	3.33
Stage 5	771.9	822.9	1594.7	173.6	3082.8	25.04%	4.45
Stage 6	806.6	769.5	1576.1	154.2	2732.7	29.52%	5.23
Stage 7	803.6	769.5	1573.1	154.2	2732.7	29.41%	5.21

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018           18:25:47     |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

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NO. OF NODAL POINTS (NUMNP) ..... 81
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 162
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 102
NO. OF LONG NAMES (LASTNAME) ..... 22
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES      kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS   kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS     kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
+-----+
```

P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 102

```
1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5E+04 1.5E+05
15 : ENDL
16 : LDATA Ug6_741_743_L_0 -12 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 18.5 9 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 5 26
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S355_114 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.8121 00 00 0
26 : STRIP LeftWall_32 1 6 1 11.75 0 5 45
27 : STEP Stage1_31
28 : CHANGE Ug5_2_8_L_0 U-FRICT=37 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
30 : CHANGE Ug5_2_8_L_0 U-KA=0.249 LeftWall_32
31 : CHANGE Ug5_2_8_L_0 U-KP=6.738 LeftWall_32
32 : CHANGE Ug5_2_8_L_0 D-KA=0.249 LeftWall_32
33 : CHANGE Ug5_2_8_L_0 D-KP=6.738 LeftWall_32
34 : CHANGE Ug6_741_743_L_0 U-FRICT=26 LeftWall_32
35 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
36 : CHANGE Ug6_741_743_L_0 U-KA=0.39 LeftWall_32
37 : CHANGE Ug6_741_743_L_0 U-KP=3.404 LeftWall_32
38 : CHANGE Ug6_741_743_L_0 D-KA=0.39 LeftWall_32
39 : CHANGE Ug6_741_743_L_0 D-KP=3.404 LeftWall_32
40 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
41 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
42 : CHANGE Ug6_741_743_L_0 U-COHE=5 LeftWall_32
43 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
44 : SETWALL LeftWall_32
45 : GEOM 0 0
46 : WATER 0 0 -16 0 0
47 : ADD WallElement_33
48 : ENDSTEP
49 : STEP Stage2_158
50 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
51 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
52 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
53 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
54 : SETWALL LeftWall_32
55 : GEOM 0 -1
56 : WATER 0 1 -16 0 0
57 : ENDSTEP
58 : STEP Stage3_255
59 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
60 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
61 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
62 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
63 : SETWALL LeftWall_32
64 : GEOM 0 -2
65 : WATER 0 2 -16 0 0
66 : ENDSTEP
67 : STEP Stage4_352
68 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
72 : SETWALL LeftWall_32
73 : GEOM 0 -3
74 : WATER 0 3 -16 0 0
75 : ENDSTEP
76 : STEP Stage5_449
77 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
78 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
79 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
80 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -4
83 : WATER 0 4 -16 0 0
84 : ENDSTEP
85 : STEP Stage6_546
86 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
87 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
88 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
89 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
90 : SETWALL LeftWall_32
91 : GEOM 0 -4.5
92 : WATER 0 4.5 -16 0 0
93 : ENDSTEP
94 : STEP Stage7_643
95 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
96 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
97 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
98 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
99 : SETWALL LeftWall_32
100 : GEOM 0 -4.5
101 : WATER 0 4.5 -16 0 0
102 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018           18:25:47       |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /	4	0.0000	-0.60000 /
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /	8	0.0000	-1.4000 /
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /	12	0.0000	-2.2000 /
13	0.0000	-2.4000 /	14	0.0000	-2.6000 /	15	0.0000	-2.8000 /	16	0.0000	-3.0000 /
17	0.0000	-3.2000 /	18	0.0000	-3.4000 /	19	0.0000	-3.6000 /	20	0.0000	-3.8000 /
21	0.0000	-4.0000 /	22	0.0000	-4.2000 /	23	0.0000	-4.4000 /	24	0.0000	-4.6000 /
25	0.0000	-4.8000 /	26	0.0000	-5.0000 /	27	0.0000	-5.2000 /	28	0.0000	-5.4000 /
29	0.0000	-5.6000 /	30	0.0000	-5.8000 /	31	0.0000	-6.0000 /	32	0.0000	-6.2000 /
33	0.0000	-6.4000 /	34	0.0000	-6.6000 /	35	0.0000	-6.8000 /	36	0.0000	-7.0000 /
37	0.0000	-7.2000 /	38	0.0000	-7.4000 /	39	0.0000	-7.6000 /	40	0.0000	-7.8000 /
41	0.0000	-8.0000 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /
61	0.0000	-12.000 /	62	0.0000	-12.200 /	63	0.0000	-12.400 /	64	0.0000	-12.600 /
65	0.0000	-12.800 /	66	0.0000	-13.000 /	67	0.0000	-13.200 /	68	0.0000	-13.400 /
69	0.0000	-13.600 /	70	0.0000	-13.800 /	71	0.0000	-14.000 /	72	0.0000	-14.200 /
73	0.0000	-14.400 /	74	0.0000	-14.600 /	75	0.0000	-14.800 /	76	0.0000	-15.000 /
77	0.0000	-15.200 /	78	0.0000	-15.400 /	79	0.0000	-15.600 /	80	0.0000	-15.800 /
81	0.0000	-16.000 /									

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018           18:25:47     |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000
42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018 18:25:47                               |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018  18:25:47                               |
+-----+
ELEMENT GROUP NO.  3

WallElement_33
  2 80  0  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active
  6  active
  7  active

material set no.  1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000
  6  1.000
  7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
  1  1  2  1  0.000  0.000  0.8121  0.000  0.000
  2  2  3  1  0.000  0.000  0.8121  0.000  0.000
  3  3  4  1  0.000  0.000  0.8121  0.000  0.000
  4  4  5  1  0.000  0.000  0.8121  0.000  0.000
  5  5  6  1  0.000  0.000  0.8121  0.000  0.000
  6  6  7  1  0.000  0.000  0.8121  0.000  0.000
  7  7  8  1  0.000  0.000  0.8121  0.000  0.000
  8  8  9  1  0.000  0.000  0.8121  0.000  0.000
  9  9 10  1  0.000  0.000  0.8121  0.000  0.000
 10 10 11  1  0.000  0.000  0.8121  0.000  0.000
 11 11 12  1  0.000  0.000  0.8121  0.000  0.000
 12 12 13  1  0.000  0.000  0.8121  0.000  0.000
 13 13 14  1  0.000  0.000  0.8121  0.000  0.000
 14 14 15  1  0.000  0.000  0.8121  0.000  0.000
 15 15 16  1  0.000  0.000  0.8121  0.000  0.000
 16 16 17  1  0.000  0.000  0.8121  0.000  0.000
 17 17 18  1  0.000  0.000  0.8121  0.000  0.000
 18 18 19  1  0.000  0.000  0.8121  0.000  0.000
 19 19 20  1  0.000  0.000  0.8121  0.000  0.000
 20 20 21  1  0.000  0.000  0.8121  0.000  0.000
 21 21 22  1  0.000  0.000  0.8121  0.000  0.000
 22 22 23  1  0.000  0.000  0.8121  0.000  0.000
 23 23 24  1  0.000  0.000  0.8121  0.000  0.000
 24 24 25  1  0.000  0.000  0.8121  0.000  0.000
 25 25 26  1  0.000  0.000  0.8121  0.000  0.000
 26 26 27  1  0.000  0.000  0.8121  0.000  0.000
 27 27 28  1  0.000  0.000  0.8121  0.000  0.000
 28 28 29  1  0.000  0.000  0.8121  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.8121	0.000	0.000
30	30	31	1	0.000	0.000	0.8121	0.000	0.000
31	31	32	1	0.000	0.000	0.8121	0.000	0.000
32	32	33	1	0.000	0.000	0.8121	0.000	0.000
33	33	34	1	0.000	0.000	0.8121	0.000	0.000
34	34	35	1	0.000	0.000	0.8121	0.000	0.000
35	35	36	1	0.000	0.000	0.8121	0.000	0.000
36	36	37	1	0.000	0.000	0.8121	0.000	0.000
37	37	38	1	0.000	0.000	0.8121	0.000	0.000
38	38	39	1	0.000	0.000	0.8121	0.000	0.000
39	39	40	1	0.000	0.000	0.8121	0.000	0.000
40	40	41	1	0.000	0.000	0.8121	0.000	0.000
41	41	42	1	0.000	0.000	0.8121	0.000	0.000
42	42	43	1	0.000	0.000	0.8121	0.000	0.000
43	43	44	1	0.000	0.000	0.8121	0.000	0.000
44	44	45	1	0.000	0.000	0.8121	0.000	0.000
45	45	46	1	0.000	0.000	0.8121	0.000	0.000
46	46	47	1	0.000	0.000	0.8121	0.000	0.000
47	47	48	1	0.000	0.000	0.8121	0.000	0.000
48	48	49	1	0.000	0.000	0.8121	0.000	0.000
49	49	50	1	0.000	0.000	0.8121	0.000	0.000
50	50	51	1	0.000	0.000	0.8121	0.000	0.000
51	51	52	1	0.000	0.000	0.8121	0.000	0.000
52	52	53	1	0.000	0.000	0.8121	0.000	0.000
53	53	54	1	0.000	0.000	0.8121	0.000	0.000
54	54	55	1	0.000	0.000	0.8121	0.000	0.000
55	55	56	1	0.000	0.000	0.8121	0.000	0.000
56	56	57	1	0.000	0.000	0.8121	0.000	0.000
57	57	58	1	0.000	0.000	0.8121	0.000	0.000
58	58	59	1	0.000	0.000	0.8121	0.000	0.000
59	59	60	1	0.000	0.000	0.8121	0.000	0.000
60	60	61	1	0.000	0.000	0.8121	0.000	0.000
61	61	62	1	0.000	0.000	0.8121	0.000	0.000
62	62	63	1	0.000	0.000	0.8121	0.000	0.000
63	63	64	1	0.000	0.000	0.8121	0.000	0.000
64	64	65	1	0.000	0.000	0.8121	0.000	0.000
65	65	66	1	0.000	0.000	0.8121	0.000	0.000
66	66	67	1	0.000	0.000	0.8121	0.000	0.000
67	67	68	1	0.000	0.000	0.8121	0.000	0.000
68	68	69	1	0.000	0.000	0.8121	0.000	0.000
69	69	70	1	0.000	0.000	0.8121	0.000	0.000
70	70	71	1	0.000	0.000	0.8121	0.000	0.000
71	71	72	1	0.000	0.000	0.8121	0.000	0.000
72	72	73	1	0.000	0.000	0.8121	0.000	0.000
73	73	74	1	0.000	0.000	0.8121	0.000	0.000
74	74	75	1	0.000	0.000	0.8121	0.000	0.000
75	75	76	1	0.000	0.000	0.8121	0.000	0.000
76	76	77	1	0.000	0.000	0.8121	0.000	0.000
77	77	78	1	0.000	0.000	0.8121	0.000	0.000
78	78	79	1	0.000	0.000	0.8121	0.000	0.000
79	79	80	1	0.000	0.000	0.8121	0.000	0.000
80	80	81	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.Nominal_63  |  
|                               Exe Time :24 May 2018      18:25:47  |  
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0  
NO. OF LOAD CURVES (NLCUR) ..... 14  
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:25:47                                          |
+-----+
L O A D      B A L A N C E

STEP  1  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  1  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  2  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  2  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  3  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  3  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  4  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  4  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  5  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  5  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  6  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  6  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000

STEP  7  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F          0.0000000
STEP  7  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F           0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.Nominal_63                               |
|                               Exe Time :24 May 2018      18:25:47                               |
+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	8<U-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>=	18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO.	1<NAME	>=	19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	-12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 60<D-KA >= 0.39000 WALL NO. 1
ITEM NO. 61<D-KP >= 3.4040 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:25:47  |
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PHASE DESCRIPTORS

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STEP NO.      1
              LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000        0.000
Z-EXCAVATION   0.000        0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000        0.000
ZQ             0.000        0.000
DZW_OF_THE_WATER_TABLE  0.000        0.000
QS_ON_THE_EXCAVATION_SIDE  0.000        0.000
ZQS            -0.9990E+30  -0.9990E+30
ZCUT           0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000        0.000
PORE_UPDATE_FLAG  0.000        0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000        0.000
lateral thrusts reduction elevatio  0.000        0.000
Downhill reduction factor for effe  0.000        0.000
Downhill reduction factor for pore  0.000        0.000
Uphill reduction factor for effect  0.000        0.000
Uphill reduction factor for pore p  0.000        0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000        0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000        0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000        0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000        0.000
UPHILL DELTA/PHI RATIO               0.000        0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000        0.000
DOWNHILL DELTA/PHI RATIO             0.000        0.000
DYN.WATER BEHAVIOUR                 0.000        0.000
Excess pore pressure RATIO Ru       0.000        0.000
SEISMIC PRESSURE LOWER VALUE        0.000        0.000
SEISMIC PRESSURE UPPER VALUE        0.000        0.000
SEISMIC PRESSURE LOWER LEVEL        0.000        0.000
SEISMIC PRESSURE UPPER LEVEL        0.000        0.000

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=====end of step 1

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STEP NO.      2
              LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000        0.000
Z-EXCAVATION   -1.000        0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000        0.000
ZQ             0.000        0.000
DZW_OF_THE_WATER_TABLE  1.000        0.000
QS_ON_THE_EXCAVATION_SIDE  0.000        0.000
ZQS            -0.9990E+30  -0.9990E+30
ZCUT           0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000        0.000
PORE_UPDATE_FLAG  0.000        0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000        0.000
lateral thrusts reduction elevatio  0.000        0.000
Downhill reduction factor for effe  0.000        0.000
Downhill reduction factor for pore  0.000        0.000
Uphill reduction factor for effect  0.000        0.000
Uphill reduction factor for pore p  0.000        0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000        0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000        0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000        0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000        0.000
UPHILL DELTA/PHI RATIO               0.000        0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000        0.000
DOWNHILL DELTA/PHI RATIO             0.000        0.000
DYN.WATER BEHAVIOUR                 0.000        0.000
Excess pore pressure RATIO Ru       0.000        0.000

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====
=====end of step 4

STEP NO.	5	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 5

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.500	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.500	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 6

STEP NO.	7	LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-4.500	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	4.500	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 7

LEFT-HAND WALL

LOWER LEVEL -16.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -16.00000
UPPER LEVEL 0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.Nominal_63  |
|                Exe Time :24 May 2018  18:25:47  |
+-----+

```

I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 6.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 1.0000000000000000
FOUNDATION WIDTH (B) 11.7500000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4763

NO. OF D.P.W FOR THIS AREA 9554
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.2753E-27 REMNOR= 0.000        RATIO =0.4748E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.4748E-16 RATIOOR= 0.000
          MAX UN=0.7105E-14 IEQ=    143 NODE        72 DOF    1    Y-DISPL.F
          MIN UN=-.7105E-14 IEQ=    147 NODE        74 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

```

ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.1697E-29 REMNOR=0.1582E-52 RATIO =0.3727E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.3727E-17 RATIOOR= 0.000
          MAX UN=0.5014E-17 IEQ=    119 NODE        60 DOF    1    Y-DISPL.F
          MIN UN=-.2372E-15 IEQ=    35 NODE        18 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

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ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.1468E-29 REMNOR=0.6218E-52 RATIO =0.3467E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.3467E-17 RATIOOR= 0.000
          MAX UN=0.2676E-26 IEQ=    158 NODE        79 DOF    2    X-ROT. F
          MIN UN=-.2058E-15 IEQ=    17 NODE        9 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:25:47                             |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME  1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47           |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FACTOR	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1 D	0.000	2.4162E-20	0.000	0.000	0.000	0.000	V-C	4.7008E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	2.4777E-20	2.008	1.570	2.008	1.570	V-C	4.7008E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	2.5391E-20	4.057	3.055	4.057	3.055	V-C	4.7008E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	2.6003E-20	6.158	4.413	6.158	4.413	V-C	4.7008E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	2.6609E-20	8.297	5.651	8.297	5.651	V-C	4.7008E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	2.7206E-20	10.45	6.797	10.45	6.797	V-C	4.7008E+04	-1.0000	10.000	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	2.7788E-20	12.61	7.879	12.61	7.879	V-C	4.7008E+04	-1.2000	12.000	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	2.8348E-20	14.87	8.919	14.87	8.919	V-C	4.7008E+04	-1.4000	14.000	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	2.8881E-20	17.18	9.931	17.18	9.931	V-C	4.7008E+04	-1.6000	16.000	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	2.9375E-20	19.26	10.93	19.26	10.93	V-C	4.7008E+04	-1.8000	18.000	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	2.9823E-20	21.48	11.91	21.48	11.91	V-C	4.7008E+04	-2.0000	20.000	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	3.0212E-20	23.67	12.88	23.67	12.88	V-C	4.7008E+04	-2.2000	22.000	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	3.0536E-20	25.71	13.85	25.71	13.85	V-C	4.7008E+04	-2.4000	24.000	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	3.0786E-20	27.86	14.82	27.86	14.82	V-C	4.7008E+04	-2.6000	26.000	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	3.0954E-20	29.98	15.78	29.98	15.78	V-C	4.7008E+04	-2.8000	28.000	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	3.1038E-20	32.10	16.74	32.10	16.74	V-C	4.7008E+04	-3.0000	30.000	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	3.1035E-20	34.11	17.70	34.11	17.70	V-C	4.7008E+04	-3.2000	32.000	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	3.0944E-20	36.20	18.66	36.20	18.66	V-C	4.7008E+04	-3.4000	34.000	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	3.0761E-20	38.29	19.63	38.29	19.63	V-C	4.7008E+04	-3.6000	36.000	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	3.0479E-20	40.29	20.59	40.29	20.59	V-C	4.7008E+04	-3.8000	38.000	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	3.0094E-20	42.36	21.55	42.36	21.55	V-C	4.7008E+04	-4.0000	40.000	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	2.9610E-20	44.43	22.51	44.43	22.51	V-C	4.7008E+04	-4.2000	42.000	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	2.9036E-20	46.43	23.47	46.43	23.47	V-C	4.7008E+04	-4.4000	44.000	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	2.8383E-20	48.48	24.43	48.48	24.43	V-C	4.7008E+04	-4.6000	46.000	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	2.7660E-20	50.54	25.39	50.54	25.39	V-C	4.7008E+04	-4.8000	48.000	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	2.6876E-20	52.59	26.36	52.59	26.36	V-C	4.7008E+04	-5.0000	50.000	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	2.6040E-20	54.58	27.32	54.58	27.32	V-C	4.7008E+04	-5.2000	52.000	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	2.5156E-20	56.63	28.28	56.63	28.28	V-C	4.7008E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	2.4232E-20	58.67	29.25	58.67	29.25	V-C	4.7008E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	2.3274E-20	60.66	30.22	60.66	30.22	V-C	4.7008E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	2.2304E-20	62.70	31.18	62.70	31.18	V-C	4.7008E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	2.1345E-20	64.74	32.15	64.74	32.15	V-C	4.7008E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	2.0416E-20	66.73	33.12	66.73	33.12	V-C	4.7008E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	1.9521E-20	68.76	34.09	68.76	34.09	V-C	4.7008E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	1.8661E-20	70.79	35.06	70.79	35.06	V-C	4.7008E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	1.7835E-20	72.82	36.03	72.82	36.03	V-C	4.7008E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	1.7042E-20	74.81	37.00	74.81	37.00	V-C	4.7008E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	1.6281E-20	76.84	37.97	76.84	37.97	V-C	4.7008E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	1.5549E-20	78.86	38.94	78.86	38.94	V-C	4.7008E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	1.4839E-20	80.85	39.92	80.85	39.92	V-C	4.7008E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	1.4135E-20	82.88	40.89	82.88	40.89	V-C	4.7008E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	1.3428E-20	84.90	41.86	84.90	41.86	V-C	4.7008E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	1.2714E-20	86.89	42.84	86.89	42.84	V-C	4.7008E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	1.1987E-20	88.91	43.82	88.91	43.82	V-C	4.7008E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	1.1242E-20	90.93	44.79	90.93	44.79	V-C	4.7008E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	1.0475E-20	92.96	45.77	92.96	45.77	V-C	4.7008E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	9.6966E-21	94.94	46.75	94.94	46.75	V-C	4.7008E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	8.9200E-21	96.96	47.73	96.96	47.73	V-C	4.7008E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	8.1574E-21	98.98	48.71	98.98	48.71	V-C	4.7008E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	7.4213E-21	101.0	49.69	101.0	49.69	V-C	4.7008E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	6.7233E-21	103.0	50.67	103.0	50.67	V-C	4.7008E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	6.0750E-21	105.0	51.65	105.0	51.65	V-C	4.7008E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	5.4877E-21	107.0	52.63	107.0	52.63	V-C	4.7008E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	4.9720E-21	109.0	53.61	109.0	53.61	V-C	4.7008E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	4.5386E-21	111.0	54.60	111.0	54.60	V-C	4.7008E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	4.1976E-21	113.0	55.58	113.0	55.58	V-C	4.7008E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	3.9590E-21	115.0	56.56	115.0	56.56	V-C	4.7008E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	3.8323E-21	117.0	57.55	117.0	57.55	V-C	4.7008E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	3.8269E-21	119.1	58.53	119.1	58.53	V-C	4.7008E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	3.9516E-21	121.1	59.52	121.1	59.52	V-C	4.7008E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	4.2151E-21	123.1	60.50	123.1	60.50	V-C	4.7008E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	4.6256E-21	124.9	61.39	124.9	61.39	V-C	2.2505E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	5.1912E-21	126.7	62.28	126.7	62.28	V-C	2.2505E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	5.9194E-21	128.5	63.16	128.5	63.16	V-C	2.2505E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	6.8179E-21	130.3	64.05	130.3	64.05	V-C	2.2505E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	7.8937E-21	132.0	64.94	132.0	64.94	V-C	2.2505E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	9.1538E-21	133.8	65.83	133.8	65.83	V-C	2.2505E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	1.0605E-20	135.6	66.72	135.6	66.72	V-C	2.2505E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	1.2254E-20	137.3	67.60	137.3	67.60	V-C	2.2505E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	1.4106E-20	139.1	68.49	139.1	68.49	V-C	2.2505E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	1.6167E-20	140.9	69.38	140.9	69.38	V-C	2.2505E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	1.8436E-20	142.7	70.27	142.7	70.27	V-C	2.2505E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	2.0877E-20	144.4	71.16	144.4	71.16	V-C	2.2505E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	2.3421E-20	146.2	72.05	146.2	72.05	V-C	2.2505E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	2.5998E-20	148.0	72.94	148.0	72.94	V-C	2.2505E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	2.8571E-20	149.7	73.84	149.7	73.84	V-C	2.2505E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	3.1136E-20	151.5	74.73	151.5	74.73	V-C	2.2505E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	3.3696E-20	153.3	75.62	153.3	75.62	V-C	2.2505E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	3.6253E-20	155.1	76.51	155.1	76.51	V-C	2.2505E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	3.8808E-20	156.8	77.40	156.8	77.40	V-C	2.2505E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	4.1364E-20	158.6	78.29	158.6	78.29	V-C	2.2505E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.4162E-20	0.000	0.000	0.000	0.000	V-C	2.3371E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	-2.4777E-20	2.000	1.570	2.000	1.570	V-C	2.3371E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	-2.5391E-20	4.000	3.055	4.000	3.055	V-C	2.3371E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	-2.6003E-20	6.000	4.413	6.000	4.413	V-C	2.3371E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	-2.6609E-20	8.000	5.651	8.000	5.651	V-C	2.3371E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	-2.7206E-20	10.00	6.797	10.00	6.797	V-C	2.3371E+04	-1.0000	10.00	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	-2.7788E-20	12.00	7.879	12.00	7.879	V-C	2.3371E+04	-1.2000	12.00	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	-2.8348E-20	14.00	8.919	14.00	8.919	V-C	2.3371E+04	-1.4000	14.00	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	-2.8881E-20	16.00	9.931	16.00	9.931	V-C	2.3371E+04	-1.6000	16.00	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	-2.9375E-20	18.00	10.93	18.00	10.93	V-C	2.3371E+04	-1.8000	18.00	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	-2.9823E-20	20.00	11.91	20.00	11.91	V-C	2.3371E+04	-2.0000	20.00	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	-3.0212E-20	22.00	12.88	22.00	12.88	V-C	2.3371E+04	-2.2000	22.00	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	-3.0536E-20	24.00	13.85	24.00	13.85	V-C	2.3371E+04	-2.4000	24.00	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	-3.0786E-20	26.00	14.82	26.00	14.82	V-C	2.3371E+04	-2.6000	26.00	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	-3.0954E-20	28.00	15.78	28.00	15.78	V-C	2.3371E+04	-2.8000	28.00	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	-3.1038E-20	30.00	16.74	30.00	16.74	V-C	2.3371E+04	-3.0000	30.00	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	-3.1035E-20	32.00	17.70	32.00	17.70	V-C	2.3371E+04	-3.2000	32.00	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	-3.0944E-20	34.00	18.66	34.00	18.66	V-C	2.3371E+04	-3.4000	34.00	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	-3.0761E-20	36.00	19.63	36.00	19.63	V-C	2.3371E+04	-3.6000	36.00	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	-3.0479E-20	38.00	20.59	38.00	20.59	V-C	2.3371E+04	-3.8000	38.00	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	-3.0094E-20	40.00	21.55	40.00	21.55	V-C	2.3371E+04	-4.0000	40.00	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	-2.9610E-20	42.00	22.51	42.00	22.51	V-C	2.3371E+04	-4.2000	42.00	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	-2.9036E-20	44.00	23.47	44.00	23.47	V-C	2.3371E+04	-4.4000	44.00	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	-2.8383E-20	46.00	24.43	46.00	24.43	V-C	2.3371E+04	-4.6000	46.00	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	-2.7660E-20	48.00	25.39	48.00	25.39	V-C	2.3371E+04	-4.8000	48.00	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	-2.6876E-20	50.00	26.36	50.00	26.36	V-C	2.3371E+04	-5.0000	50.00	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	-2.6040E-20	52.00	27.32	52.00	27.32	V-C	2.3371E+04	-5.2000	52.00	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	-2.5156E-20	54.00	28.28	54.00	28.28	V-C	2.3371E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	-2.4232E-20	56.00	29.25	56.00	29.25	V-C	2.3371E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	-2.3274E-20	58.00	30.22	58.00	30.22	V-C	2.3371E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	-2.2304E-20	60.00	31.18	60.00	31.18	V-C	2.3371E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	-2.1345E-20	62.00	32.15	62.00	32.15	V-C	2.3371E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	-2.0416E-20	64.00	33.12	64.00	33.12	V-C	2.3371E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	-1.9521E-20	66.00	34.09	66.00	34.09	V-C	2.3371E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	-1.8661E-20	68.00	35.06	68.00	35.06	V-C	2.3371E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	-1.7835E-20	70.00	36.03	70.00	36.03	V-C	2.3371E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	-1.7042E-20	72.00	37.00	72.00	37.00	V-C	2.3371E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	-1.6281E-20	74.00	37.97	74.00	37.97	V-C	2.3371E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	-1.5549E-20	76.00	38.94	76.00	38.94	V-C	2.3371E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	-1.4839E-20	78.00	39.92	78.00	39.92	V-C	2.3371E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	-1.4135E-20	80.00	40.89	80.00	40.89	V-C	2.3371E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	-1.3428E-20	82.00	41.86	82.00	41.86	V-C	2.3371E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	-1.2714E-20	84.00	42.84	84.00	42.84	V-C	2.3371E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	-1.1987E-20	86.00	43.82	86.00	43.82	V-C	2.3371E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	-1.1242E-20	88.00	44.79	88.00	44.79	V-C	2.3371E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	-1.0475E-20	90.00	45.77	90.00	45.77	V-C	2.3371E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	-9.6966E-21	92.00	46.75	92.00	46.75	V-C	2.3371E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	-8.9200E-21	94.00	47.73	94.00	47.73	V-C	2.3371E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	-8.1574E-21	96.00	48.71	96.00	48.71	V-C	2.3371E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	-7.4213E-21	98.00	49.69	98.00	49.69	V-C	2.3371E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	-6.7233E-21	100.00	50.67	100.00	50.67	V-C	2.3371E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	-6.0750E-21	102.0	51.65	102.0	51.65	V-C	2.3371E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	-5.4877E-21	104.0	52.63	104.0	52.63	V-C	2.3371E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	-4.9720E-21	106.0	53.61	106.0	53.61	V-C	2.3371E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	-4.5386E-21	108.0	54.60	108.0	54.60	V-C	2.3371E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	-4.1976E-21	110.0	55.58	110.0	55.58	V-C	2.3371E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	-3.9590E-21	112.0	56.56	112.0	56.56	V-C	2.3371E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	-3.8323E-21	114.0	57.55	114.0	57.55	V-C	2.3371E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	-3.8269E-21	116.0	58.53	116.0	58.53	V-C	2.3371E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	-3.9516E-21	118.0	59.52	118.0	59.52	V-C	2.3371E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	-4.2151E-21	120.0	60.50	120.0	60.50	V-C	2.3371E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	-4.6256E-21	121.8	61.39	121.8	61.39	V-C	1.7574E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	-5.1912E-21	123.6	62.28	123.6	62.28	V-C	1.7574E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	-5.9194E-21	125.4	63.16	125.4	63.16	V-C	1.7574E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	-6.8179E-21	127.2	64.05	127.2	64.05	V-C	1.7574E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	-7.8937E-21	129.0	64.94	129.0	64.94	V-C	1.7574E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	-9.1538E-21	130.8	65.83	130.8	65.83	V-C	1.7574E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	-1.0605E-20	132.6	66.72	132.6	66.72	V-C	1.7574E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	-1.2254E-20	134.4	67.60	134.4	67.60	V-C	1.7574E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	-1.4106E-20	136.2	68.49	136.2	68.49	V-C	1.7574E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	-1.6167E-20	138.0	69.38	138.0	69.38	V-C	1.7574E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	-1.8436E-20	139.8	70.27	139.8	70.27	V-C	1.7574E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	-2.0877E-20	141.6	71.16	141.6	71.16	V-C	1.7574E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	-2.3421E-20	143.4	72.05	143.4	72.05	V-C	1.7574E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	-2.5998E-20	145.2	72.94	145.2	72.94	V-C	1.7574E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	-2.8571E-20	147.0	73.84	147.0	73.84	V-C	1.7574E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	-3.1136E-20	148.8	74.73	148.8	74.73	V-C	1.7574E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	-3.3696E-20	150.6	75.62	150.6	75.62	V-C	1.7574E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	-3.6253E-20	152.4	76.51	152.4	76.51	V-C	1.7574E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	-3.8808E-20	154.2	77.40	154.2	77.40	V-C	1.7574E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	-4.1364E-20	156.0	78.29	156.0	78.29	V-C	1.7574E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

+-----+
| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
+-----+
New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.01855E-16	-1.01855E-16	-9.97120E-28	2.03710E-17
2	3.05921E-16	-3.05921E-16	-2.03710E-17	8.15552E-17
3	5.10341E-16	-5.10341E-16	-8.15552E-17	1.83623E-16
4	7.15104E-16	-7.15104E-16	-1.83623E-16	3.26644E-16
5	9.20187E-16	-9.20187E-16	-3.26644E-16	5.10682E-16
6	1.12555E-15	-1.12555E-15	-5.10682E-16	7.35792E-16
7	1.33115E-15	-1.33115E-15	-7.35792E-16	1.00202E-15
8	1.53689E-15	-1.53689E-15	-1.00202E-15	1.30940E-15
9	1.74270E-15	-1.74270E-15	-1.30940E-15	1.65794E-15
10	1.94844E-15	-1.94844E-15	-1.65794E-15	2.04763E-15
11	1.26579E-15	-1.26579E-15	-2.04763E-15	2.30079E-15
12	1.47095E-15	-1.47095E-15	-2.30079E-15	2.59498E-15
13	1.67556E-15	-1.67556E-15	-2.59498E-15	2.93009E-15
14	1.03035E-16	-1.03035E-16	-2.93009E-15	2.95069E-15
15	3.05875E-16	-3.05875E-16	-2.95069E-15	3.01187E-15
16	5.07473E-16	-5.07473E-16	-3.01187E-15	3.11336E-15
17	7.07570E-16	-7.07570E-16	-3.11336E-15	3.25488E-15
18	9.05893E-16	-9.05893E-16	-3.25488E-15	3.43606E-15
19	1.10216E-15	-1.10216E-15	-3.43606E-15	3.65649E-15
20	-4.80275E-16	4.80275E-16	-3.65649E-15	3.56043E-15
21	-2.06534E-15	2.06534E-15	-3.56043E-15	3.14737E-15
22	-1.87698E-15	1.87698E-15	-3.14737E-15	2.77197E-15
23	-1.69184E-15	1.69184E-15	-2.77197E-15	2.43360E-15
24	-1.51018E-15	1.51018E-15	-2.43360E-15	2.13157E-15
25	-1.33229E-15	1.33229E-15	-2.13157E-15	1.86511E-15
26	-1.15843E-15	1.15843E-15	-1.86511E-15	1.63342E-15
27	-9.88823E-16	9.88823E-16	-1.63342E-15	1.43566E-15
28	-8.23710E-16	8.23710E-16	-1.43566E-15	1.27092E-15
29	-4.21600E-15	4.21600E-15	-1.27092E-15	4.27716E-16
30	-4.06046E-15	4.06046E-15	-4.27716E-16	3.84376E-16
31	-3.90995E-15	3.90995E-15	3.84376E-16	-1.16636E-15
32	-2.11898E-16	2.11898E-16	1.16636E-15	-1.20874E-15
33	-7.18352E-17	7.18352E-17	1.20874E-15	-1.22311E-15
34	6.28696E-17	-6.28696E-17	1.22311E-15	-1.21054E-15
35	1.92162E-16	-1.92162E-16	1.21054E-15	-1.17210E-15
36	3.16017E-16	-3.16017E-16	1.17210E-15	-1.10890E-15
37	4.34436E-16	-4.34436E-16	1.10890E-15	-1.02201E-15
38	5.47450E-16	-5.47450E-16	1.02201E-15	-9.12522E-16
39	4.20783E-15	-4.20783E-15	9.12522E-16	-7.09562E-17
40	7.57526E-16	-7.57526E-16	7.09562E-17	8.05489E-17
41	8.54793E-16	-8.54793E-16	8.05489E-17	2.51508E-16
42	9.47066E-16	-9.47066E-16	2.51508E-16	4.40921E-16
43	1.03452E-15	-1.03452E-15	4.40921E-16	6.47825E-16
44	1.11737E-15	-1.11737E-15	6.47825E-16	8.71297E-16
45	-2.35688E-15	2.35688E-15	-8.71297E-16	3.99922E-16
46	-2.28251E-15	2.28251E-15	-3.99922E-16	-5.65810E-17
47	-2.21196E-15	2.21196E-15	-5.65810E-17	-4.98972E-16
48	-2.14487E-15	2.14487E-15	-4.98972E-16	-9.27947E-16
49	-2.08091E-15	2.08091E-15	-9.27947E-16	-1.34413E-15
50	-2.01968E-15	2.01968E-15	-1.34413E-15	-1.74806E-15
51	-1.96075E-15	1.96075E-15	-1.74806E-15	-2.14022E-15
52	-1.90368E-15	1.90368E-15	-2.14022E-15	-2.52094E-15
53	-1.84801E-15	1.84801E-15	-2.52094E-15	-2.89054E-15
54	-1.79324E-15	1.79324E-15	-2.89054E-15	-3.24919E-15
55	-1.73886E-15	1.73886E-15	-3.24919E-15	-3.59696E-15
56	-1.68433E-15	1.68433E-15	-3.59696E-15	-3.93383E-15
57	-1.62910E-15	1.62910E-15	-3.93383E-15	-4.25965E-15
58	-1.57264E-15	1.57264E-15	-4.25965E-15	-4.57418E-15
59	-1.51436E-15	1.51436E-15	-4.57418E-15	-4.87705E-15

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-1.45373E-15 1.45373E-15 4.87705E-15-5.16779E-15
61-1.39017E-15 1.39017E-15 5.16779E-15-5.44583E-15
62-1.35201E-15 1.35201E-15 5.44583E-15-5.71623E-15
63-1.31157E-15 1.31157E-15 5.71623E-15-5.97854E-15
64-1.26856E-15 1.26856E-15 5.97854E-15-6.23226E-15
65-1.22271E-15 1.22271E-15 6.23226E-15-6.47680E-15
66-1.17375E-15 1.17375E-15 6.47680E-15-6.71155E-15
67-1.12143E-15 1.12143E-15 6.71155E-15-6.93584E-15
68-1.06551E-15 1.06551E-15 6.93584E-15-7.14894E-15
69-1.00579E-15 1.00579E-15 7.14894E-15-7.35010E-15
70-9.42073E-16 9.42073E-16 7.35010E-15-7.53851E-15
71 6.23125E-15-6.23125E-15 7.53851E-15-6.29226E-15
72 1.34089E-14-1.34089E-14 6.29226E-15-3.61048E-15
73 1.34856E-14-1.34856E-14 3.61048E-15-9.13372E-16
74 6.46137E-15-6.46137E-15 9.13372E-16 3.78901E-16
75-5.58183E-16 5.58183E-16-3.78901E-16 2.67264E-16
76-4.67589E-16 4.67589E-16-2.67264E-16 1.73747E-16
77-3.72232E-16 3.72232E-16-1.73747E-16 9.93002E-17
78-2.72078E-16 2.72078E-16-9.93002E-17 4.48846E-17
79-1.67108E-16 1.67108E-16-4.48846E-17 1.14630E-17
80-5.73122E-17 5.73122E-17-1.14630E-17 1.81754E-27

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 302.6 REMNOR=0.6218E-52 RATIO =0.5168E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.5168E-01 RATIO= 0.000
MAX UN= 3.327 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.1019E-15 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 12.00 REMNOR=0.2777E-21 RATIO =0.1029E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1029E-01 RATIO= 0.000
MAX UN= 1.661 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.2766E-10 IEQ= 101 NODE 51 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 8.122 REMNOR=0.8119E-21 RATIO =0.8467E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.8467E-02 RATIO= 0.000
MAX UN= 1.821 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-.1256E-09 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM=0.1593 REMNOR=0.3171E-21 RATIO =0.1186E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1186E-02 RATIO= 0.000
MAX UN=0.3826 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
MIN UN=-.1306E-09 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM=0.5649E-05 REMNOR=0.1304E-21 RATIO =0.7061E-05 TOLER =0.1000E-03 CONVERGED !
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.7061E-05 RATIO= 0.000
MAX UN=0.2377E-02 IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
MIN UN=-.7402E-10 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63      |
|          Exe Time :24 May 2018      18:25:47             |
+-----+

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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.3603417E-04	-6.4828788E-05	
2	3.2306842E-04	-6.4828788E-05	
3	3.1010312E-04	-6.4821809E-05	
4	2.9714156E-04	-6.4786883E-05	
5	2.8419257E-04	-6.4688990E-05	
6	2.7127343E-04	-6.4478991E-05	
7	2.5841267E-04	-6.4093590E-05	
8	2.4565005E-04	-6.3497418E-05	
9	2.3302770E-04	-6.2691200E-05	
10	2.2058739E-04	-6.1677611E-05	
11	2.0837018E-04	-6.0461110E-05	
12	1.9641607E-04	-5.9047861E-05	
13	1.8476364E-04	-5.7445597E-05	
14	1.7344980E-04	-5.5663717E-05	
15	1.6250939E-04	-5.3713318E-05	
16	1.5197486E-04	-5.1607145E-05	
17	1.4187590E-04	-4.9359639E-05	
18	1.3223929E-04	-4.6987104E-05	
19	1.2308819E-04	-4.4507704E-05	
20	1.1444199E-04	-4.1941514E-05	
21	1.0631593E-04	-3.9310643E-05	
22	9.8720477E-05	-3.6639264E-05	
23	9.1661172E-05	-3.3953706E-05	
24	8.5138036E-05	-3.1282537E-05	
25	7.9145276E-05	-2.8654586E-05	
26	7.3671627E-05	-2.6095243E-05	
27	6.8701258E-05	-2.3625078E-05	
28	6.4214598E-05	-2.1260266E-05	
29	6.0189307E-05	-1.9013124E-05	
30	5.6600914E-05	-1.6892504E-05	
31	5.3423483E-05	-1.4904224E-05	
32	5.0630203E-05	-1.3051469E-05	
33	4.8193815E-05	-1.1335136E-05	
34	4.6087118E-05	-9.7542585E-06	
35	4.4283265E-05	-8.3060776E-06	
36	4.2756138E-05	-6.9861261E-06	
37	4.1480660E-05	-5.7885802E-06	
38	4.0433012E-05	-4.7065480E-06	
39	3.9590850E-05	-3.7323882E-06	
40	3.8933409E-05	-2.8579408E-06	
41	3.8441590E-05	-2.0747404E-06	
42	3.8098005E-05	-1.3741525E-06	
43	3.7886999E-05	-7.4751132E-07	
44	3.7794640E-05	-1.8628801E-07	
45	3.7808672E-05	3.1775652E-07	
46	3.7918452E-05	7.7244676E-07	
47	3.8114846E-05	1.1850564E-06	
48	3.8390111E-05	1.5622098E-06	
49	3.8737757E-05	1.9097797E-06	
50	3.9152384E-05	2.2327960E-06	
51	3.9629511E-05	2.5353679E-06	
52	4.0165389E-05	2.8206044E-06	
53	4.0756713E-05	3.0905064E-06	
54	4.1400601E-05	3.3459933E-06	
55	4.2094127E-05	3.5867281E-06	
56	4.2834203E-05	3.8111186E-06	
57	4.3617290E-05	4.0162457E-06	
58	4.4439130E-05	4.1978099E-06	
59	4.5294461E-05	4.3500826E-06	
60	4.6176730E-05	4.4658626E-06	
61	4.7077793E-05	4.5364400E-06	
62	4.7987610E-05	4.5515692E-06	
63	4.8894766E-05	4.5118715E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	4.9789485E-05	4.4290668E-06
65	5.0664228E-05	4.3137956E-06
66	5.1513477E-05	4.1756306E-06
67	5.2333522E-05	4.0230920E-06
68	5.3122254E-05	3.8636666E-06
69	5.3878961E-05	3.7038283E-06
70	5.4604124E-05	3.5490604E-06
71	5.5299224E-05	3.4038770E-06
72	5.5966551E-05	3.2718441E-06
73	5.6609014E-05	3.1556001E-06
74	5.7229959E-05	3.0568734E-06
75	5.7832987E-05	2.9764983E-06
76	5.8421779E-05	2.9144290E-06
77	5.8999918E-05	2.8697502E-06
78	5.9570720E-05	2.8406863E-06
79	6.0137058E-05	2.8246070E-06
80	6.0701196E-05	2.8180317E-06
81	6.1264644E-05	2.8166319E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47          |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.3603E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4903	-3.2307E-04	2.073	0.5161	2.073	1.603	ACTIVE	0.000	-0.2000	1.935	
1.000	1.000	2.452	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9826	-3.1010E-04	4.186	1.042	4.186	3.119	ACTIVE	0.000	-0.4000	3.871	
1.000	1.000	4.913	0.000	0.000	Ug5_2_8_L_0						
4 D	1.478	-2.9714E-04	6.351	1.581	6.351	4.509	ACTIVE	0.000	-0.6000	5.806	
1.000	1.000	7.388	0.000	0.000	Ug5_2_8_L_0						
5 D	1.974	-2.8419E-04	8.555	2.130	8.555	5.780	ACTIVE	0.000	-0.8000	7.742	
1.000	1.000	9.872	0.000	0.000	Ug5_2_8_L_0						
6 D	2.472	-2.7127E-04	10.78	2.683	10.78	6.958	ACTIVE	0.000	-1.000	9.677	
1.000	1.000	12.36	0.000	0.000	Ug5_2_8_L_0						
7 D	2.970	-2.5841E-04	13.00	3.236	13.00	8.073	ACTIVE	0.000	-1.200	11.61	
1.000	1.000	14.85	0.000	0.000	Ug5_2_8_L_0						
8 D	3.473	-2.4565E-04	15.33	3.816	15.33	9.145	ACTIVE	0.000	-1.400	13.55	
1.000	1.000	17.36	0.000	0.000	Ug5_2_8_L_0						
9 D	3.978	-2.3303E-04	17.69	4.405	17.69	10.19	ACTIVE	0.000	-1.600	15.48	
1.000	1.000	19.89	0.000	0.000	Ug5_2_8_L_0						
10 D	4.472	-2.2059E-04	19.84	4.941	19.84	11.22	ACTIVE	0.000	-1.800	17.42	
1.000	1.000	22.36	0.000	0.000	Ug5_2_8_L_0						
11 D	4.973	-2.0837E-04	22.13	5.510	22.13	12.23	ACTIVE	0.000	-2.000	19.35	
1.000	1.000	24.87	0.000	0.000	Ug5_2_8_L_0						
12 D	5.472	-1.9642E-04	24.38	6.071	24.38	13.24	ACTIVE	0.000	-2.200	21.29	
1.000	1.000	27.36	0.000	0.000	Ug5_2_8_L_0						
13 D	5.964	-1.8476E-04	26.48	6.594	26.48	14.24	ACTIVE	0.000	-2.400	23.23	
1.000	1.000	29.82	0.000	0.000	Ug5_2_8_L_0						
14 D	6.461	-1.7345E-04	28.70	7.145	28.70	15.24	ACTIVE	0.000	-2.600	25.16	
1.000	1.000	32.31	0.000	0.000	Ug5_2_8_L_0						
15 D	6.958	-1.6251E-04	30.89	7.691	30.89	16.23	ACTIVE	0.000	-2.800	27.10	
1.000	1.000	34.79	0.000	0.000	Ug5_2_8_L_0						
16 D	7.453	-1.5197E-04	33.06	8.233	33.06	17.23	ACTIVE	0.000	-3.000	29.03	
1.000	1.000	37.27	0.000	0.000	Ug5_2_8_L_0						
17 D	7.944	-1.4188E-04	35.14	8.750	35.14	18.22	ACTIVE	0.000	-3.200	30.97	
1.000	1.000	39.72	0.000	0.000	Ug5_2_8_L_0						
18 D	8.438	-1.3224E-04	37.30	9.287	37.30	19.21	ACTIVE	0.000	-3.400	32.90	
1.000	1.000	42.19	0.000	0.000	Ug5_2_8_L_0						
19 D	8.932	-1.2309E-04	39.45	9.823	39.45	20.21	ACTIVE	0.000	-3.600	34.84	
1.000	1.000	44.66	0.000	0.000	Ug5_2_8_L_0						
20 D	9.422	-1.1444E-04	41.51	10.34	41.51	21.20	ACTIVE	0.000	-3.800	36.77	
1.000	1.000	47.11	0.000	0.000	Ug5_2_8_L_0						
21 D	9.916	-1.0632E-04	43.65	10.87	43.65	22.19	ACTIVE	0.000	-4.000	38.71	
1.000	1.000	49.58	0.000	0.000	Ug5_2_8_L_0						
22 D	10.41	-9.8720E-05	45.78	11.40	45.78	23.18	ACTIVE	0.000	-4.200	40.65	
1.000	1.000	52.05	0.000	0.000	Ug5_2_8_L_0						
23 D	10.90	-9.1661E-05	47.84	11.91	47.84	24.18	ACTIVE	0.000	-4.400	42.58	
1.000	1.000	54.49	0.000	0.000	Ug5_2_8_L_0						
24 D	11.54	-8.5138E-05	49.97	13.17	49.97	25.17	UL-RL	1.4103E+05	-4.600	44.52	
1.000	1.000	57.68	0.000	0.000	Ug5_2_8_L_0						
25 D	12.29	-7.9145E-05	52.09	15.01	52.09	26.17	UL-RL	1.4103E+05	-4.800	46.45	
1.000	1.000	61.46	0.000	0.000	Ug5_2_8_L_0						
26 D	13.03	-7.3672E-05	54.20	16.77	54.20	27.16	UL-RL	1.4103E+05	-5.000	48.39	
1.000	1.000	65.16	0.000	0.000	Ug5_2_8_L_0						
27 D	13.76	-6.8701E-05	56.26	18.47	56.26	28.16	UL-RL	1.4103E+05	-5.200	50.32	
1.000	1.000	68.79	0.000	0.000	Ug5_2_8_L_0						
28 D	14.47	-6.4215E-05	58.37	20.10	58.37	29.16	UL-RL	1.4103E+05	-5.400	52.26	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.36	0.000	0.000	Ug5_2_8_L_0					
29 D	15.17	-6.0189E-05	60.48	21.66	60.48	30.15	UL-RL	1.4103E+05	-5.600	54.19
1.000	1.000	75.86	0.000	0.000	Ug5_2_8_L_0					
30 D	15.86	-5.6601E-05	62.53	23.17	62.53	31.15	UL-RL	1.4103E+05	-5.800	56.13
1.000	1.000	79.30	0.000	0.000	Ug5_2_8_L_0					
31 D	16.54	-5.3423E-05	64.63	24.62	64.63	32.15	UL-RL	1.4103E+05	-6.000	58.06
1.000	1.000	82.68	0.000	0.000	Ug5_2_8_L_0					
32 D	17.20	-5.0630E-05	66.74	26.01	66.74	33.15	UL-RL	1.4103E+05	-6.200	60.00
1.000	1.000	86.01	0.000	0.000	Ug5_2_8_L_0					
33 D	17.86	-4.8194E-05	68.79	27.35	68.79	34.15	UL-RL	1.4103E+05	-6.400	61.94
1.000	1.000	89.29	0.000	0.000	Ug5_2_8_L_0					
34 D	18.50	-4.6087E-05	70.89	28.65	70.89	35.15	UL-RL	1.4103E+05	-6.600	63.87
1.000	1.000	92.52	0.000	0.000	Ug5_2_8_L_0					
35 D	19.14	-4.4283E-05	72.98	29.91	72.98	36.15	UL-RL	1.4103E+05	-6.800	65.81
1.000	1.000	95.71	0.000	0.000	Ug5_2_8_L_0					
36 D	19.77	-4.2756E-05	75.08	31.13	75.08	37.16	UL-RL	1.4103E+05	-7.000	67.74
1.000	1.000	98.87	0.000	0.000	Ug5_2_8_L_0					
37 D	20.40	-4.1481E-05	77.13	32.31	77.13	38.16	UL-RL	1.4103E+05	-7.200	69.68
1.000	1.000	102.0	0.000	0.000	Ug5_2_8_L_0					
38 D	21.01	-4.0433E-05	79.22	33.46	79.22	39.16	UL-RL	1.4103E+05	-7.400	71.61
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
39 D	21.63	-3.9591E-05	81.32	34.58	81.32	40.17	UL-RL	1.4103E+05	-7.600	73.55
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
40 D	22.23	-3.8933E-05	83.37	35.68	83.37	41.17	UL-RL	1.4103E+05	-7.800	75.48
1.000	1.000	111.2	0.000	0.000	Ug5_2_8_L_0					
41 D	22.84	-3.8442E-05	85.46	36.76	85.46	42.18	UL-RL	1.4103E+05	-8.000	77.42
1.000	1.000	114.2	0.000	0.000	Ug5_2_8_L_0					
42 D	23.43	-3.8098E-05	87.55	37.81	87.55	43.19	UL-RL	1.4103E+05	-8.200	79.35
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
43 D	24.03	-3.7887E-05	89.60	38.85	89.60	44.19	UL-RL	1.4103E+05	-8.400	81.29
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
44 D	24.62	-3.7795E-05	91.69	39.87	91.69	45.20	UL-RL	1.4103E+05	-8.600	83.23
1.000	1.000	123.1	0.000	0.000	Ug5_2_8_L_0					
45 D	25.21	-3.7809E-05	93.77	40.88	93.77	46.21	UL-RL	1.4103E+05	-8.800	85.16
1.000	1.000	126.0	0.000	0.000	Ug5_2_8_L_0					
46 D	25.79	-3.7918E-05	95.86	41.87	95.86	47.22	UL-RL	1.4103E+05	-9.000	87.10
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
47 D	26.38	-3.8115E-05	97.91	42.86	97.91	48.23	UL-RL	1.4103E+05	-9.200	89.03
1.000	1.000	131.9	0.000	0.000	Ug5_2_8_L_0					
48 D	26.96	-3.8390E-05	100.00	43.83	100.00	49.24	UL-RL	1.4103E+05	-9.400	90.97
1.000	1.000	134.8	0.000	0.000	Ug5_2_8_L_0					
49 D	27.54	-3.8738E-05	102.1	44.79	102.1	50.26	UL-RL	1.4103E+05	-9.600	92.90
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
50 D	28.12	-3.9152E-05	104.1	45.75	104.1	51.27	UL-RL	1.4103E+05	-9.800	94.84
1.000	1.000	140.6	0.000	0.000	Ug5_2_8_L_0					
51 D	28.69	-3.9630E-05	106.2	46.69	106.2	52.28	UL-RL	1.4103E+05	-10.000	96.77
1.000	1.000	143.5	0.000	0.000	Ug5_2_8_L_0					
52 D	29.27	-4.0165E-05	108.3	47.63	108.3	53.29	UL-RL	1.4103E+05	-10.200	98.71
1.000	1.000	146.3	0.000	0.000	Ug5_2_8_L_0					
53 D	29.84	-4.0757E-05	110.3	48.56	110.3	54.31	UL-RL	1.4103E+05	-10.400	100.6
1.000	1.000	149.2	0.000	0.000	Ug5_2_8_L_0					
54 D	30.41	-4.1401E-05	112.4	49.48	112.4	55.32	UL-RL	1.4103E+05	-10.600	102.6
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
55 D	30.98	-4.2094E-05	114.5	50.40	114.5	56.34	UL-RL	1.4103E+05	-10.800	104.5
1.000	1.000	154.9	0.000	0.000	Ug5_2_8_L_0					
56 D	31.55	-4.2834E-05	116.6	51.31	116.6	57.35	UL-RL	1.4103E+05	-11.000	106.5
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.12	-4.3617E-05	118.6	52.22	118.6	58.37	UL-RL	1.4103E+05	-11.200	108.4
1.000	1.000	160.6	0.000	0.000	Ug5_2_8_L_0					
58 D	32.69	-4.4439E-05	120.7	53.12	120.7	59.39	UL-RL	1.4103E+05	-11.400	110.3
1.000	1.000	163.4	0.000	0.000	Ug5_2_8_L_0					
59 D	33.25	-4.5294E-05	122.8	54.02	122.8	60.40	UL-RL	1.4103E+05	-11.600	112.3
1.000	1.000	166.3	0.000	0.000	Ug5_2_8_L_0					
60 D	33.82	-4.6177E-05	124.9	54.91	124.9	61.42	UL-RL	1.4103E+05	-11.800	114.2
1.000	1.000	169.1	0.000	0.000	Ug5_2_8_L_0					
61 D	34.39	-4.7078E-05	126.9	55.80	126.9	62.44	UL-RL	1.4103E+05	-12.000	116.1
1.000	1.000	171.9	0.000	0.000	Ug5_2_8_L_0					
62 D	35.64	-4.7988E-05	128.8	60.12	128.8	63.36	UL-RL	6.7514E+04	-12.200	118.1
1.000	1.000	178.2	0.000	0.000	Ug6_741_743_L_0					
63 D	36.19	-4.8895E-05	130.7	60.97	130.7	64.28	UL-RL	6.7514E+04	-12.400	120.0
1.000	1.000	181.0	0.000	0.000	Ug6_741_743_L_0					
64 D	36.75	-4.9789E-05	132.5	61.83	132.5	65.20	UL-RL	6.7514E+04	-12.600	121.9
1.000	1.000	183.8	0.000	0.000	Ug6_741_743_L_0					
65 D	37.31	-5.0664E-05	134.4	62.69	134.4	66.12	UL-RL	6.7514E+04	-12.800	123.9
1.000	1.000	186.6	0.000	0.000	Ug6_741_743_L_0					
66 D	37.87	-5.1513E-05	136.2	63.56	136.2	67.04	UL-RL	6.7514E+04	-13.000	125.8
1.000	1.000	189.4	0.000	0.000	Ug6_741_743_L_0					
67 D	38.43	-5.2334E-05	138.1	64.42	138.1	67.96	UL-RL	6.7514E+04	-13.200	127.7
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
68 D	38.99	-5.3122E-05	139.9	65.29	139.9	68.88	UL-RL	6.7514E+04	-13.400	129.7
1.000	1.000	195.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.55	-5.3879E-05	141.7	66.16	141.7	69.80	UL-RL	6.7514E+04	-13.60	131.6
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
70 D	40.12	-5.4604E-05	143.6	67.03	143.6	70.72	UL-RL	6.7514E+04	-13.80	133.5
1.000	1.000	200.6	0.000	0.000	Ug6_741_743_L_0					
71 D	40.68	-5.5299E-05	145.4	67.91	145.4	71.64	UL-RL	6.7514E+04	-14.00	135.5
1.000	1.000	203.4	0.000	0.000	Ug6_741_743_L_0					
72 D	41.24	-5.5967E-05	147.2	68.78	147.2	72.56	UL-RL	6.7514E+04	-14.20	137.4
1.000	1.000	206.2	0.000	0.000	Ug6_741_743_L_0					
73 D	41.80	-5.6609E-05	149.1	69.66	149.1	73.49	UL-RL	6.7514E+04	-14.40	139.4
1.000	1.000	209.0	0.000	0.000	Ug6_741_743_L_0					
74 D	42.37	-5.7230E-05	150.9	70.54	150.9	74.41	UL-RL	6.7514E+04	-14.60	141.3
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	42.93	-5.7833E-05	152.7	71.43	152.7	75.33	UL-RL	6.7514E+04	-14.80	143.2
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
76 D	43.49	-5.8422E-05	154.6	72.31	154.6	76.25	UL-RL	6.7514E+04	-15.00	145.2
1.000	1.000	217.5	0.000	0.000	Ug6_741_743_L_0					
77 D	44.06	-5.9000E-05	156.4	73.20	156.4	77.18	UL-RL	6.7514E+04	-15.20	147.1
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
78 D	44.62	-5.9571E-05	158.3	74.08	158.3	78.10	UL-RL	6.7514E+04	-15.40	149.0
1.000	1.000	223.1	0.000	0.000	Ug6_741_743_L_0					
79 D	45.19	-6.0137E-05	160.1	74.97	160.1	79.03	UL-RL	6.7514E+04	-15.60	151.0
1.000	1.000	225.9	0.000	0.000	Ug6_741_743_L_0					
80 D	45.75	-6.0701E-05	161.9	75.85	161.9	79.95	UL-RL	6.7514E+04	-15.80	152.9
1.000	1.000	228.8	0.000	0.000	Ug6_741_743_L_0					
81 D	23.16	-6.1265E-05	163.8	76.74	163.8	80.88	UL-RL	6.7514E+04	-16.00	154.8
1.000	1.000	231.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:25:47                                          |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	2.7127E-04	0.000	0.000	10.00	6.797	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.957	2.5841E-04	1.935	12.72	12.00	12.72	V-C	2.3371E+04	-1.200	2.065	
1.000	1.000	14.79	0.000	0.000	Ug5_2_8_L_0						
8 D	3.537	2.4565E-04	3.871	13.55	14.00	13.55	V-C	2.3371E+04	-1.400	4.129	
1.000	1.000	17.68	0.000	0.000	Ug5_2_8_L_0						
9 D	4.102	2.3303E-04	5.806	14.32	16.00	14.32	V-C	2.3371E+04	-1.600	6.194	
1.000	1.000	20.51	0.000	0.000	Ug5_2_8_L_0						
10 D	4.661	2.2059E-04	7.742	15.05	18.00	15.05	V-C	2.3371E+04	-1.800	8.258	
1.000	1.000	23.31	0.000	0.000	Ug5_2_8_L_0						
11 D	5.217	2.0837E-04	9.677	15.76	20.00	15.76	V-C	2.3371E+04	-2.000	10.32	
1.000	1.000	26.09	0.000	0.000	Ug5_2_8_L_0						
12 D	5.771	1.9642E-04	11.61	16.47	22.00	16.47	V-C	2.3371E+04	-2.200	12.39	
1.000	1.000	28.86	0.000	0.000	Ug5_2_8_L_0						
13 D	6.325	1.8476E-04	13.55	17.17	24.00	17.17	V-C	2.3371E+04	-2.400	14.45	
1.000	1.000	31.63	0.000	0.000	Ug5_2_8_L_0						
14 D	6.880	1.7345E-04	15.48	17.88	26.00	17.88	V-C	2.3371E+04	-2.600	16.52	
1.000	1.000	34.40	0.000	0.000	Ug5_2_8_L_0						
15 D	7.435	1.6251E-04	17.42	18.59	28.00	18.59	V-C	2.3371E+04	-2.800	18.58	
1.000	1.000	37.17	0.000	0.000	Ug5_2_8_L_0						
16 D	7.991	1.5197E-04	19.35	19.31	30.00	19.31	V-C	2.3371E+04	-3.000	20.65	
1.000	1.000	39.96	0.000	0.000	Ug5_2_8_L_0						
17 D	8.549	1.4188E-04	21.29	20.04	32.00	20.04	V-C	2.3371E+04	-3.200	22.71	
1.000	1.000	42.75	0.000	0.000	Ug5_2_8_L_0						
18 D	9.109	1.3224E-04	23.23	20.77	34.00	20.77	V-C	2.3371E+04	-3.400	24.77	
1.000	1.000	45.55	0.000	0.000	Ug5_2_8_L_0						
19 D	9.671	1.2309E-04	25.16	21.52	36.00	21.52	V-C	2.3371E+04	-3.600	26.84	
1.000	1.000	48.36	0.000	0.000	Ug5_2_8_L_0						
20 D	10.24	1.1444E-04	27.10	22.27	38.00	22.27	V-C	2.3371E+04	-3.800	28.90	
1.000	1.000	51.18	0.000	0.000	Ug5_2_8_L_0						
21 D	10.80	1.0632E-04	29.03	23.04	40.00	23.04	V-C	2.3371E+04	-4.000	30.97	
1.000	1.000	54.01	0.000	0.000	Ug5_2_8_L_0						
22 D	11.37	9.8720E-05	30.97	23.83	42.00	23.83	V-C	2.3371E+04	-4.200	33.03	
1.000	1.000	56.86	0.000	0.000	Ug5_2_8_L_0						
23 D	11.94	9.1661E-05	32.90	24.62	44.00	24.62	V-C	2.3371E+04	-4.400	35.10	
1.000	1.000	59.72	0.000	0.000	Ug5_2_8_L_0						
24 D	12.52	8.5138E-05	34.84	25.43	46.00	25.43	V-C	2.3371E+04	-4.600	37.16	
1.000	1.000	62.59	0.000	0.000	Ug5_2_8_L_0						
25 D	13.09	7.9145E-05	36.77	26.25	48.00	26.25	V-C	2.3371E+04	-4.800	39.23	
1.000	1.000	65.47	0.000	0.000	Ug5_2_8_L_0						
26 D	13.67	7.3672E-05	38.71	27.08	50.00	27.08	V-C	2.3371E+04	-5.000	41.29	
1.000	1.000	68.37	0.000	0.000	Ug5_2_8_L_0						
27 D	14.26	6.8701E-05	40.65	27.92	52.00	27.92	V-C	2.3371E+04	-5.200	43.35	
1.000	1.000	71.28	0.000	0.000	Ug5_2_8_L_0						
28 D	14.84	6.4215E-05	42.58	28.78	54.00	28.78	V-C	2.3371E+04	-5.400	45.42	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.20	0.000	0.000	Ug5_2_8_L_0					
29 D	15.43	6.0189E-05	44.52	29.64	56.00	29.64	V-C	2.3371E+04	-5.600	47.48
1.000	1.000	77.13	0.000	0.000	Ug5_2_8_L_0					
30 D	16.01	5.6601E-05	46.45	30.52	58.00	30.52	V-C	2.3371E+04	-5.800	49.55
1.000	1.000	80.07	0.000	0.000	Ug5_2_8_L_0					
31 D	16.60	5.3423E-05	48.39	31.41	60.00	31.41	V-C	2.3371E+04	-6.000	51.61
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0					
32 D	17.20	5.0630E-05	50.32	32.31	62.00	32.31	V-C	2.3371E+04	-6.200	53.68
1.000	1.000	85.99	0.000	0.000	Ug5_2_8_L_0					
33 D	17.79	4.8194E-05	52.26	33.22	64.00	33.22	V-C	2.3371E+04	-6.400	55.74
1.000	1.000	88.96	0.000	0.000	Ug5_2_8_L_0					
34 D	18.37	4.6087E-05	54.19	34.07	66.00	34.16	UL-RL	7.0113E+04	-6.600	57.81
1.000	1.000	91.87	0.000	0.000	Ug5_2_8_L_0					
35 D	18.96	4.4283E-05	56.13	34.92	68.00	35.12	UL-RL	7.0113E+04	-6.800	59.87
1.000	1.000	94.80	0.000	0.000	Ug5_2_8_L_0					
36 D	19.55	4.2756E-05	58.06	35.80	70.00	36.08	UL-RL	7.0113E+04	-7.000	61.94
1.000	1.000	97.74	0.000	0.000	Ug5_2_8_L_0					
37 D	20.14	4.1481E-05	60.00	36.70	72.00	37.03	UL-RL	7.0113E+04	-7.200	64.00
1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
38 D	20.74	4.0433E-05	61.94	37.61	74.00	37.99	UL-RL	7.0113E+04	-7.400	66.06
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
39 D	21.33	3.9591E-05	63.87	38.54	76.00	38.95	UL-RL	7.0113E+04	-7.600	68.13
1.000	1.000	106.7	0.000	0.000	Ug5_2_8_L_0					
40 D	21.93	3.8933E-05	65.81	39.47	78.00	39.92	UL-RL	7.0113E+04	-7.800	70.19
1.000	1.000	109.7	0.000	0.000	Ug5_2_8_L_0					
41 D	22.53	3.8442E-05	67.74	40.39	80.00	40.89	UL-RL	7.0113E+04	-8.000	72.26
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
42 D	23.13	3.8098E-05	69.68	41.33	82.00	41.86	UL-RL	7.0113E+04	-8.200	74.32
1.000	1.000	115.7	0.000	0.000	Ug5_2_8_L_0					
43 D	23.73	3.7887E-05	71.61	42.28	84.00	42.84	UL-RL	7.0113E+04	-8.400	76.39
1.000	1.000	118.7	0.000	0.000	Ug5_2_8_L_0					
44 D	24.34	3.7795E-05	73.55	43.23	86.00	43.82	UL-RL	7.0113E+04	-8.600	78.45
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
45 D	24.94	3.7809E-05	75.48	44.19	88.00	44.79	UL-RL	7.0113E+04	-8.800	80.52
1.000	1.000	124.7	0.000	0.000	Ug5_2_8_L_0					
46 D	25.55	3.7918E-05	77.42	45.17	90.00	45.77	UL-RL	7.0113E+04	-9.000	82.58
1.000	1.000	127.7	0.000	0.000	Ug5_2_8_L_0					
47 D	26.16	3.8115E-05	79.35	46.14	92.00	46.75	UL-RL	7.0113E+04	-9.200	84.65
1.000	1.000	130.8	0.000	0.000	Ug5_2_8_L_0					
48 D	26.77	3.8390E-05	81.29	47.13	94.00	47.73	UL-RL	7.0113E+04	-9.400	86.71
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
49 D	27.38	3.8738E-05	83.23	48.12	96.00	48.71	UL-RL	7.0113E+04	-9.600	88.77
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
50 D	27.99	3.9152E-05	85.16	49.11	98.00	49.69	UL-RL	7.0113E+04	-9.800	90.84
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
51 D	28.60	3.9630E-05	87.10	50.11	100.00	50.67	UL-RL	7.0113E+04	-10.000	92.90
1.000	1.000	143.0	0.000	0.000	Ug5_2_8_L_0					
52 D	29.22	4.0165E-05	89.03	51.11	102.0	51.65	UL-RL	7.0113E+04	-10.200	94.97
1.000	1.000	146.1	0.000	0.000	Ug5_2_8_L_0					
53 D	29.83	4.0757E-05	90.97	52.12	104.0	52.63	UL-RL	7.0113E+04	-10.400	97.03
1.000	1.000	149.2	0.000	0.000	Ug5_2_8_L_0					
54 D	30.45	4.1401E-05	92.90	53.13	106.0	53.61	UL-RL	7.0113E+04	-10.600	99.10
1.000	1.000	152.2	0.000	0.000	Ug5_2_8_L_0					
55 D	31.06	4.2094E-05	94.84	54.15	108.0	54.60	UL-RL	7.0113E+04	-10.800	101.2
1.000	1.000	155.3	0.000	0.000	Ug5_2_8_L_0					
56 D	31.68	4.2834E-05	96.77	55.17	110.0	55.58	UL-RL	7.0113E+04	-11.000	103.2
1.000	1.000	158.4	0.000	0.000	Ug5_2_8_L_0					
57 D	32.30	4.3617E-05	98.71	56.19	112.0	56.56	UL-RL	7.0113E+04	-11.200	105.3
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
58 D	32.92	4.4439E-05	100.6	57.22	114.0	57.55	UL-RL	7.0113E+04	-11.400	107.4
1.000	1.000	164.6	0.000	0.000	Ug5_2_8_L_0					
59 D	33.53	4.5294E-05	102.6	58.25	116.0	58.53	UL-RL	7.0113E+04	-11.600	109.4
1.000	1.000	167.7	0.000	0.000	Ug5_2_8_L_0					
60 D	34.15	4.6177E-05	104.5	59.28	118.0	59.52	UL-RL	7.0113E+04	-11.800	111.5
1.000	1.000	170.8	0.000	0.000	Ug5_2_8_L_0					
61 D	34.77	4.7078E-05	106.5	60.32	120.0	60.50	UL-RL	7.0113E+04	-12.000	113.5
1.000	1.000	173.9	0.000	0.000	Ug5_2_8_L_0					
62 D	35.21	4.7988E-05	108.2	60.42	121.8	61.39	UL-RL	5.2723E+04	-12.200	115.6
1.000	1.000	176.0	0.000	0.000	Ug6_741_743_L_0					
63 D	35.80	4.8895E-05	109.9	61.33	123.6	62.28	UL-RL	5.2723E+04	-12.400	117.7
1.000	1.000	179.0	0.000	0.000	Ug6_741_743_L_0					
64 D	36.40	4.9789E-05	111.7	62.25	125.4	63.16	UL-RL	5.2723E+04	-12.600	119.7
1.000	1.000	182.0	0.000	0.000	Ug6_741_743_L_0					
65 D	37.00	5.0664E-05	113.4	63.17	127.2	64.05	UL-RL	5.2723E+04	-12.800	121.8
1.000	1.000	185.0	0.000	0.000	Ug6_741_743_L_0					
66 D	37.59	5.1513E-05	115.1	64.09	129.0	64.94	UL-RL	5.2723E+04	-13.000	123.9
1.000	1.000	188.0	0.000	0.000	Ug6_741_743_L_0					
67 D	38.19	5.2334E-05	116.9	65.00	130.8	65.83	UL-RL	5.2723E+04	-13.200	125.9
1.000	1.000	190.9	0.000	0.000	Ug6_741_743_L_0					
68 D	38.78	5.3122E-05	118.6	65.92	132.6	66.72	UL-RL	5.2723E+04	-13.400	128.0
1.000	1.000	193.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.38	5.3879E-05	120.3	66.83	134.4	67.60	UL-RL	5.2723E+04	-13.60	130.1
1.000	1.000	196.9	0.000	0.000	Ug6_741_743_L_0					
70 D	39.97	5.4604E-05	122.1	67.74	136.2	68.49	UL-RL	5.2723E+04	-13.80	132.1
1.000	1.000	199.9	0.000	0.000	Ug6_741_743_L_0					
71 D	40.57	5.5299E-05	123.8	68.65	138.0	69.38	UL-RL	5.2723E+04	-14.00	134.2
1.000	1.000	202.8	0.000	0.000	Ug6_741_743_L_0					
72 D	41.16	5.5967E-05	125.5	69.56	139.8	70.27	UL-RL	5.2723E+04	-14.20	136.3
1.000	1.000	205.8	0.000	0.000	Ug6_741_743_L_0					
73 D	41.76	5.6609E-05	127.3	70.47	141.6	71.16	UL-RL	5.2723E+04	-14.40	138.3
1.000	1.000	208.8	0.000	0.000	Ug6_741_743_L_0					
74 D	42.35	5.7230E-05	129.0	71.38	143.4	72.05	UL-RL	5.2723E+04	-14.60	140.4
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	42.95	5.7833E-05	130.7	72.29	145.2	72.94	UL-RL	5.2723E+04	-14.80	142.5
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
76 D	43.54	5.8422E-05	132.5	73.19	147.0	73.84	UL-RL	5.2723E+04	-15.00	144.5
1.000	1.000	217.7	0.000	0.000	Ug6_741_743_L_0					
77 D	44.14	5.9000E-05	134.2	74.10	148.8	74.73	UL-RL	5.2723E+04	-15.20	146.6
1.000	1.000	220.7	0.000	0.000	Ug6_741_743_L_0					
78 D	44.73	5.9571E-05	136.0	75.00	150.6	75.62	UL-RL	5.2723E+04	-15.40	148.6
1.000	1.000	223.6	0.000	0.000	Ug6_741_743_L_0					
79 D	45.32	6.0137E-05	137.7	75.91	152.4	76.51	UL-RL	5.2723E+04	-15.60	150.7
1.000	1.000	226.6	0.000	0.000	Ug6_741_743_L_0					
80 D	45.92	6.0701E-05	139.4	76.82	154.2	77.40	UL-RL	5.2723E+04	-15.80	152.8
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
81 D	23.26	6.1265E-05	141.2	77.72	156.0	78.29	UL-RL	5.2723E+04	-16.00	154.8
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.23893E-11	-2.23893E-11	2.25064E-12	1.20439E-12
2	0.49031	-0.49031	-2.30307E-12	9.80625E-02
3	1.4730	-1.4730	-9.80625E-02	0.39265
4	2.9505	-2.9505	-0.39265	0.98276
5	4.9250	-4.9250	-0.98276	1.9678
6	7.3971	-7.3971	-1.9678	3.4472
7	7.4097	-7.4097	-3.4472	4.9291
8	7.3461	-7.3461	-4.9291	6.3984
9	7.2219	-7.2219	-6.3984	7.8427
10	7.0329	-7.0329	-7.8427	9.2493
11	6.7888	-6.7888	-9.2493	10.607
12	6.4897	-6.4897	-10.607	11.905
13	6.1285	-6.1285	-11.905	13.131
14	5.7102	-5.7102	-13.131	14.273
15	5.2330	-5.2330	-14.273	15.319
16	4.6950	-4.6950	-15.319	16.258
17	4.0892	-4.0892	-16.258	17.076
18	3.4181	-3.4181	-17.076	17.760
19	2.6791	-2.6791	-17.760	18.296
20	1.8657	-1.8657	-18.296	18.669
21	0.97920	-0.97920	-18.669	18.865
22	1.68070E-02	-1.68070E-02	-18.865	18.868
23	-1.0276	1.0276	-18.868	18.662
24	-2.0086	2.0086	-18.662	18.261
25	-2.8113	2.8113	-18.261	17.698
26	-3.4527	3.4527	-17.698	17.008
27	-3.9493	3.9493	-17.008	16.218
28	-4.3171	4.3171	-16.218	15.355
29	-4.5712	4.5712	-15.355	14.440
30	-4.7258	4.7258	-14.440	13.495
31	-4.7945	4.7945	-13.495	12.536
32	-4.7899	4.7899	-12.536	11.578
33	-4.7261	4.7261	-11.578	10.633
34	-4.5960	4.5960	-10.633	9.7140
35	-4.4123	4.4123	-9.7140	8.8316
36	-4.1864	4.1864	-8.8316	7.9943
37	-3.9289	3.9289	-7.9943	7.2085
38	-3.6492	3.6492	-7.2085	6.4786
39	-3.3557	3.3557	-6.4786	5.8075
40	-3.0545	3.0545	-5.8075	5.1966
41	-2.7491	2.7491	-5.1966	4.6468
42	-2.4457	2.4457	-4.6468	4.1576
43	-2.1499	2.1499	-4.1576	3.7277
44	-1.8668	1.8668	-3.7277	3.3543
45	-1.6006	1.6006	-3.3543	3.0342
46	-1.3556	1.3556	-3.0342	2.7631
47	-1.1353	1.1353	-2.7631	2.5360
48	-0.94300	0.94300	-2.5360	2.3474
49	-0.78181	0.78181	-2.3474	2.1910
50	-0.65454	0.65454	-2.1910	2.0601
51	-0.56379	0.56379	-2.0601	1.9474
52	-0.51204	0.51204	-1.9474	1.8450
53	-0.50161	0.50161	-1.8450	1.7447
54	-0.53473	0.53473	-1.7447	1.6377
55	-0.61347	0.61347	-1.6377	1.5150
56	-0.73980	0.73980	-1.5150	1.3671
57	-0.91551	0.91551	-1.3671	1.1840
58	-1.1422	1.1422	-1.1840	0.95551
59	-1.4214	1.4214	-0.95551	0.67122

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 -1.7541 1.7541 -0.67122 0.32040
 61 -2.1412 2.1412 -0.32040 -0.10783
 62 -1.7105 1.7105 0.10783 -0.44993
 63 -1.3178 1.3178 0.44993 -0.71349
 64 -0.96296 0.96296 0.71349 -0.90609
 65 -0.64535 0.64535 0.90609 -1.0352
 66 -0.36440 0.36440 1.0352 -1.1080
 67 -0.11940 0.11940 1.1080 -1.1319
 68 9.04039E-02-9.04039E-02 1.1319 -1.1138
 69 0.26579 -0.26579 1.1138 -1.0607
 70 0.40752 -0.40752 1.0607 -0.97918
 71 0.51632 -0.51632 0.97918 -0.87591
 72 0.59286 -0.59286 0.87591 -0.75734
 73 0.63774 -0.63774 0.75734 -0.62979
 74 0.65148 -0.65148 0.62979 -0.49949
 75 0.63452 -0.63452 0.49949 -0.37259
 76 0.58719 -0.58719 0.37259 -0.25515
 77 0.50976 -0.50976 0.25515 -0.15320
 78 0.40241 -0.40241 0.15320 -7.27173E-02
 79 0.26525 -0.26525 7.27173E-02-1.96671E-02
 80 9.83304E-02-9.83304E-02 1.96671E-02-1.32638E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.1292E+05
 RENORM= 367.3 REMNOR=0.1304E-21 RATIO =0.5929E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.21 RMMAX = 18.87
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.1292E+05
 RATIO=0.5929E-01 RATIO= 0.000
 MAX UN= 5.148 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
 MIN UN=-.3441E-01 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.1292E+05
 RENORM= 83.97 REMNOR=0.1582E-20 RATIO =0.2835E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.21 RMMAX = 18.87
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.1292E+05
 RATIO=0.2835E-01 RATIO= 0.000
 MAX UN= 2.654 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
 MIN UN=-.3455E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.1292E+05
 RENORM= 55.84 REMNOR=0.3330E-19 RATIO =0.2312E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.21 RMMAX = 18.87
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.1292E+05
 RATIO=0.2312E-01 RATIO= 0.000
 MAX UN= 4.539 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
 MIN UN=-.1222E-08 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.1292E+05
 RENORM= 1.837 REMNOR=0.9476E-20 RATIO =0.4193E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.21 RMMAX = 18.87
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.1292E+05
 RATIO=0.4193E-02 RATIO= 0.000
 MAX UN= 1.168 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
 MIN UN=-.3879E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1045E+06 RIMNOR=0.1292E+05
 RENORM=0.3424E-17 REMNOR=0.1057E-19 RATIO =0.5725E-11 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 45.21 RMMAX = 18.87
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1045E+06 RDR =0.1292E+05
 RATIO=0.5725E-11 RATIO= 0.000
 MAX UN=0.7462E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
 MIN UN=-.6707E-09 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
+-----+
NewProject.BaseDesignSection_28.Nominal_63
Exe Time :24 May 2018   18:25:47

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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.1251918E-03	-3.3729961E-04	
2	2.0577319E-03	-3.3729961E-04	
3	1.9902724E-03	-3.3729278E-04	
4	1.9228166E-03	-3.3725859E-04	
5	1.8553731E-03	-3.3716276E-04	
6	1.7879588E-03	-3.3695717E-04	
7	1.7206016E-03	-3.3657987E-04	
8	1.6533433E-03	-3.3595499E-04	
9	1.5862421E-03	-3.3499274E-04	
10	1.5193757E-03	-3.3358927E-04	
11	1.4528437E-03	-3.3162680E-04	
12	1.3867710E-03	-3.2897368E-04	
13	1.3213072E-03	-3.2552618E-04	
14	1.2566157E-03	-3.2125056E-04	
15	1.1928599E-03	-3.1618036E-04	
16	1.1301923E-03	-3.1037998E-04	
17	1.0687522E-03	-3.0391091E-04	
18	1.0086682E-03	-2.9683193E-04	
19	9.5005637E-04	-2.8919908E-04	
20	8.9302198E-04	-2.8106579E-04	
21	8.3766029E-04	-2.7248315E-04	
22	7.8405570E-04	-2.6349989E-04	
23	7.3228392E-04	-2.5416277E-04	
24	6.8241119E-04	-2.4451665E-04	
25	6.3449498E-04	-2.3460476E-04	
26	5.8858422E-04	-2.2446886E-04	
27	5.4471988E-04	-2.1414951E-04	
28	5.0293424E-04	-2.0368615E-04	
29	4.6325243E-04	-1.9311764E-04	
30	4.2569165E-04	-1.8248223E-04	
31	3.9026146E-04	-1.7181794E-04	
32	3.5696403E-04	-1.6116278E-04	
33	3.2579337E-04	-1.5055482E-04	
34	2.9673637E-04	-1.4003272E-04	
35	2.6977194E-04	-1.2963578E-04	
36	2.4487104E-04	-1.1940421E-04	
37	2.2199659E-04	-1.0937939E-04	
38	2.0110277E-04	-9.9603957E-05	
39	1.8213542E-04	-9.0122291E-05	
40	1.6503119E-04	-8.0980535E-05	
41	1.4971759E-04	-7.2222966E-05	
42	1.3611398E-04	-6.3885809E-05	
43	1.2413348E-04	-5.5995476E-05	
44	1.1368481E-04	-4.8569843E-05	
45	1.0467390E-04	-4.1619483E-05	
46	9.7005123E-05	-3.5148222E-05	
47	9.0582842E-05	-2.9153546E-05	
48	8.5312486E-05	-2.3627154E-05	
49	8.1101620E-05	-1.8556166E-05	
50	7.7860765E-05	-1.3924225E-05	
51	7.5503939E-05	-9.7123977E-06	
52	7.3949134E-05	-5.9001271E-06	
53	7.3118640E-05	-2.4664968E-06	
54	7.2938789E-05	6.1023970E-07	
55	7.3340308E-05	3.3505644E-06	
56	7.4257882E-05	5.7738970E-06	
57	7.5629910E-05	7.8978762E-06	
58	7.7398101E-05	9.7378829E-06	
59	7.9506979E-05	1.1306623E-05	
60	8.1903310E-05	1.2613764E-05	
61	8.4535466E-05	1.3665630E-05	
62	8.7352725E-05	1.4464940E-05	
63	9.0305904E-05	1.5031179E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	9.3352109E-05	1.5401102E-05
65	9.6455525E-05	1.5608734E-05
66	9.9586867E-05	1.5685333E-05
67	1.0272282E-04	1.5659369E-05
68	1.0584549E-04	1.5556521E-05
69	1.0894183E-04	1.5399683E-05
70	1.1200310E-04	1.5208978E-05
71	1.1502432E-04	1.5001784E-05
72	1.1800370E-04	1.4792755E-05
73	1.2094210E-04	1.4593849E-05
74	1.2384253E-04	1.4414356E-05
75	1.2670958E-04	1.4260922E-05
76	1.2954890E-04	1.4137571E-05
77	1.3236671E-04	1.4045726E-05
78	1.3516922E-04	1.3984221E-05
79	1.3796217E-04	1.3949319E-05
80	1.4075030E-04	1.3934714E-05
81	1.4353696E-04	1.3931536E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-2.1252E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4800	-2.0577E-03	2.141	0.5332	2.141	1.603	ACTIVE	0.000	-0.2000	1.867	
1.000	1.000	2.400	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9620	-1.9903E-03	4.323	1.077	4.323	3.119	ACTIVE	0.000	-0.4000	3.733	
1.000	1.000	4.810	0.000	0.000	Ug5_2_8_L_0						
4 D	1.447	-1.9228E-03	6.558	1.633	6.558	4.509	ACTIVE	0.000	-0.6000	5.600	
1.000	1.000	7.233	0.000	0.000	Ug5_2_8_L_0						
5 D	1.933	-1.8554E-03	8.831	2.199	8.831	5.780	ACTIVE	0.000	-0.8000	7.467	
1.000	1.000	9.665	0.000	0.000	Ug5_2_8_L_0						
6 D	2.420	-1.7880E-03	11.12	2.769	11.12	6.958	ACTIVE	0.000	-1.000	9.333	
1.000	1.000	12.10	0.000	0.000	Ug5_2_8_L_0						
7 D	2.908	-1.7206E-03	13.41	3.339	13.41	8.073	ACTIVE	0.000	-1.200	11.20	
1.000	1.000	14.54	0.000	0.000	Ug5_2_8_L_0						
8 D	3.401	-1.6533E-03	15.81	3.936	15.81	9.145	ACTIVE	0.000	-1.400	13.07	
1.000	1.000	17.00	0.000	0.000	Ug5_2_8_L_0						
9 D	3.895	-1.5862E-03	18.24	4.542	18.24	10.19	ACTIVE	0.000	-1.600	14.93	
1.000	1.000	19.48	0.000	0.000	Ug5_2_8_L_0						
10 D	4.379	-1.5194E-03	20.46	5.096	20.46	11.22	ACTIVE	0.000	-1.800	16.80	
1.000	1.000	21.90	0.000	0.000	Ug5_2_8_L_0						
11 D	4.870	-1.4528E-03	22.82	5.682	22.82	12.23	ACTIVE	0.000	-2.000	18.67	
1.000	1.000	24.35	0.000	0.000	Ug5_2_8_L_0						
12 D	5.358	-1.3868E-03	25.14	6.259	25.14	13.24	ACTIVE	0.000	-2.200	20.53	
1.000	1.000	26.79	0.000	0.000	Ug5_2_8_L_0						
13 D	5.840	-1.3213E-03	27.31	6.800	27.31	14.24	ACTIVE	0.000	-2.400	22.40	
1.000	1.000	29.20	0.000	0.000	Ug5_2_8_L_0						
14 D	6.327	-1.2566E-03	29.59	7.368	29.59	15.24	ACTIVE	0.000	-2.600	24.27	
1.000	1.000	31.63	0.000	0.000	Ug5_2_8_L_0						
15 D	6.813	-1.1929E-03	31.85	7.931	31.85	16.23	ACTIVE	0.000	-2.800	26.13	
1.000	1.000	34.06	0.000	0.000	Ug5_2_8_L_0						
16 D	7.298	-1.1302E-03	34.10	8.490	34.10	17.23	ACTIVE	0.000	-3.000	28.00	
1.000	1.000	36.49	0.000	0.000	Ug5_2_8_L_0						
17 D	7.778	-1.0688E-03	36.24	9.024	36.24	18.22	ACTIVE	0.000	-3.200	29.87	
1.000	1.000	38.89	0.000	0.000	Ug5_2_8_L_0						
18 D	8.262	-1.0087E-03	38.47	9.579	38.47	19.21	ACTIVE	0.000	-3.400	31.73	
1.000	1.000	41.31	0.000	0.000	Ug5_2_8_L_0						
19 D	8.746	-9.5006E-04	40.69	10.13	40.69	20.21	ACTIVE	0.000	-3.600	33.60	
1.000	1.000	43.73	0.000	0.000	Ug5_2_8_L_0						
20 D	9.226	-8.9302E-04	42.82	10.66	42.82	21.20	ACTIVE	0.000	-3.800	35.47	
1.000	1.000	46.13	0.000	0.000	Ug5_2_8_L_0						
21 D	9.709	-8.3766E-04	45.03	11.21	45.03	22.19	ACTIVE	0.000	-4.000	37.33	
1.000	1.000	48.55	0.000	0.000	Ug5_2_8_L_0						
22 D	10.19	-7.8406E-04	47.23	11.76	47.23	23.18	ACTIVE	0.000	-4.200	39.20	
1.000	1.000	50.96	0.000	0.000	Ug5_2_8_L_0						
23 D	10.67	-7.3228E-04	49.36	12.29	49.36	24.18	ACTIVE	0.000	-4.400	41.07	
1.000	1.000	53.36	0.000	0.000	Ug5_2_8_L_0						
24 D	11.15	-6.8241E-04	51.55	12.84	51.55	25.17	ACTIVE	0.000	-4.600	42.93	
1.000	1.000	55.77	0.000	0.000	Ug5_2_8_L_0						
25 D	11.64	-6.3449E-04	53.74	13.38	53.74	26.17	ACTIVE	0.000	-4.800	44.80	
1.000	1.000	58.18	0.000	0.000	Ug5_2_8_L_0						
26 D	12.12	-5.8858E-04	55.92	13.92	55.92	27.16	ACTIVE	0.000	-5.000	46.67	
1.000	1.000	60.59	0.000	0.000	Ug5_2_8_L_0						
27 D	12.60	-5.4472E-04	58.05	14.45	58.05	28.16	ACTIVE	0.000	-5.200	48.53	
1.000	1.000	62.99	0.000	0.000	Ug5_2_8_L_0						
28 D	13.08	-5.0293E-04	60.23	15.00	60.23	29.16	ACTIVE	0.000	-5.400	50.40	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.40	0.000	0.000	Ug5_2_8_L_0					
29 D	13.56	-4.6325E-04	62.40	15.54	62.40	30.15	ACTIVE	0.000	-5.600	52.27
1.000	1.000	67.81	0.000	0.000	Ug5_2_8_L_0					
30 D	14.04	-4.2569E-04	64.53	16.07	64.53	31.15	ACTIVE	0.000	-5.800	54.13
1.000	1.000	70.20	0.000	0.000	Ug5_2_8_L_0					
31 D	14.52	-3.9026E-04	66.70	16.61	66.70	32.15	ACTIVE	0.000	-6.000	56.00
1.000	1.000	72.61	0.000	0.000	Ug5_2_8_L_0					
32 D	15.00	-3.5696E-04	68.87	17.15	68.87	33.15	ACTIVE	0.000	-6.200	57.87
1.000	1.000	75.02	0.000	0.000	Ug5_2_8_L_0					
33 D	15.48	-3.2579E-04	70.99	17.68	70.99	34.15	ACTIVE	0.000	-6.400	59.73
1.000	1.000	77.41	0.000	0.000	Ug5_2_8_L_0					
34 D	15.96	-2.9674E-04	73.16	18.22	73.16	35.15	ACTIVE	0.000	-6.600	61.60
1.000	1.000	79.82	0.000	0.000	Ug5_2_8_L_0					
35 D	16.44	-2.6977E-04	75.32	18.76	75.32	36.15	ACTIVE	0.000	-6.800	63.47
1.000	1.000	82.22	0.000	0.000	Ug5_2_8_L_0					
36 D	16.93	-2.4487E-04	77.49	19.29	77.49	37.16	ACTIVE	0.000	-7.000	65.33
1.000	1.000	84.63	0.000	0.000	Ug5_2_8_L_0					
37 D	17.40	-2.2200E-04	79.61	19.82	79.61	38.16	ACTIVE	0.000	-7.200	67.20
1.000	1.000	87.02	0.000	0.000	Ug5_2_8_L_0					
38 D	17.89	-2.0110E-04	81.77	20.36	81.77	39.16	ACTIVE	0.000	-7.400	69.07
1.000	1.000	89.43	0.000	0.000	Ug5_2_8_L_0					
39 D	18.37	-1.8214E-04	83.93	20.90	83.93	40.17	ACTIVE	0.000	-7.600	70.93
1.000	1.000	91.83	0.000	0.000	Ug5_2_8_L_0					
40 D	19.12	-1.6503E-04	86.05	22.80	86.05	41.17	UL-RL	1.1282E+05	-7.800	72.80
1.000	1.000	95.60	0.000	0.000	Ug5_2_8_L_0					
41 D	20.05	-1.4972E-04	88.21	25.58	88.21	42.18	UL-RL	1.1282E+05	-8.000	74.67
1.000	1.000	100.2	0.000	0.000	Ug5_2_8_L_0					
42 D	20.94	-1.3611E-04	90.37	28.17	90.37	43.19	UL-RL	1.1282E+05	-8.200	76.53
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
43 D	21.79	-1.2413E-04	92.49	30.57	92.49	44.19	UL-RL	1.1282E+05	-8.400	78.40
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
44 D	22.61	-1.1368E-04	94.65	32.79	94.65	45.20	UL-RL	1.1282E+05	-8.600	80.27
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
45 D	23.40	-1.0467E-04	96.80	34.85	96.80	46.21	UL-RL	1.1282E+05	-8.800	82.13
1.000	1.000	117.0	0.000	0.000	Ug5_2_8_L_0					
46 D	24.15	-9.7005E-05	98.96	36.76	98.96	47.22	UL-RL	1.1282E+05	-9.000	84.00
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.88	-9.0583E-05	101.1	38.52	101.1	48.23	UL-RL	1.1282E+05	-9.200	85.87
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
48 D	25.58	-8.5312E-05	103.2	40.15	103.2	49.24	UL-RL	1.1282E+05	-9.400	87.73
1.000	1.000	127.9	0.000	0.000	Ug5_2_8_L_0					
49 D	26.25	-8.1102E-05	105.4	41.66	105.4	50.26	UL-RL	1.1282E+05	-9.600	89.60
1.000	1.000	131.3	0.000	0.000	Ug5_2_8_L_0					
50 D	26.91	-7.7861E-05	107.5	43.07	107.5	51.27	UL-RL	1.1282E+05	-9.800	91.47
1.000	1.000	134.5	0.000	0.000	Ug5_2_8_L_0					
51 D	27.54	-7.5504E-05	109.7	44.36	109.7	52.28	UL-RL	1.1282E+05	-10.000	93.33
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
52 D	28.15	-7.3949E-05	111.8	45.57	111.8	53.29	UL-RL	1.1282E+05	-10.200	95.20
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
53 D	28.75	-7.3119E-05	113.9	46.70	113.9	54.31	UL-RL	1.1282E+05	-10.400	97.07
1.000	1.000	143.8	0.000	0.000	Ug5_2_8_L_0					
54 D	29.34	-7.2939E-05	116.1	47.75	116.1	55.32	UL-RL	1.1282E+05	-10.600	98.93
1.000	1.000	146.7	0.000	0.000	Ug5_2_8_L_0					
55 D	29.91	-7.3340E-05	118.2	48.73	118.2	56.34	UL-RL	1.1282E+05	-10.800	100.8
1.000	1.000	149.5	0.000	0.000	Ug5_2_8_L_0					
56 D	30.47	-7.4258E-05	120.4	49.66	120.4	57.35	UL-RL	1.1282E+05	-11.000	102.7
1.000	1.000	152.3	0.000	0.000	Ug5_2_8_L_0					
57 D	31.01	-7.5630E-05	122.5	50.53	122.5	58.37	UL-RL	1.1282E+05	-11.200	104.5
1.000	1.000	155.1	0.000	0.000	Ug5_2_8_L_0					
58 D	31.55	-7.7398E-05	124.6	51.36	124.6	59.39	UL-RL	1.1282E+05	-11.400	106.4
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
59 D	32.08	-7.9507E-05	126.8	52.15	126.8	60.40	UL-RL	1.1282E+05	-11.600	108.3
1.000	1.000	160.4	0.000	0.000	Ug5_2_8_L_0					
60 D	32.61	-8.1903E-05	128.9	52.91	128.9	61.42	UL-RL	1.1282E+05	-11.800	110.1
1.000	1.000	163.0	0.000	0.000	Ug5_2_8_L_0					
61 D	33.13	-8.4535E-05	131.1	53.64	131.1	62.44	UL-RL	1.1282E+05	-12.000	112.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
62 D	34.79	-8.7353E-05	133.0	60.09	133.0	63.36	UL-RL	5.4011E+04	-12.200	113.9
1.000	1.000	174.0	0.000	0.000	Ug6_741_743_L_0					
63 D	35.32	-9.0306E-05	135.0	60.87	135.0	64.28	UL-RL	5.4011E+04	-12.400	115.7
1.000	1.000	176.6	0.000	0.000	Ug6_741_743_L_0					
64 D	35.85	-9.3352E-05	136.9	61.65	136.9	65.20	UL-RL	5.4011E+04	-12.600	117.6
1.000	1.000	179.2	0.000	0.000	Ug6_741_743_L_0					
65 D	36.38	-9.6456E-05	138.8	62.42	138.8	66.12	UL-RL	5.4011E+04	-12.800	119.5
1.000	1.000	181.9	0.000	0.000	Ug6_741_743_L_0					
66 D	36.91	-9.9587E-05	140.7	63.20	140.7	67.04	UL-RL	5.4011E+04	-13.000	121.3
1.000	1.000	184.5	0.000	0.000	Ug6_741_743_L_0					
67 D	37.43	-1.0272E-04	142.6	63.97	142.6	67.96	UL-RL	5.4011E+04	-13.200	123.2
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
68 D	37.96	-1.0585E-04	144.5	64.75	144.5	68.88	UL-RL	5.4011E+04	-13.400	125.1
1.000	1.000	189.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.49	-1.0894E-04	146.4	65.53	146.4	69.80	UL-RL	5.4011E+04	-13.60	126.9
1.000	1.000	192.5	0.000	0.000	Ug6_741_743_L_0					
70 D	39.02	-1.1200E-04	148.3	66.31	148.3	70.72	UL-RL	5.4011E+04	-13.80	128.8
1.000	1.000	195.1	0.000	0.000	Ug6_741_743_L_0					
71 D	39.55	-1.1502E-04	150.2	67.09	150.2	71.64	UL-RL	5.4011E+04	-14.00	130.7
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
72 D	40.08	-1.1800E-04	152.1	67.88	152.1	72.56	UL-RL	5.4011E+04	-14.20	132.5
1.000	1.000	200.4	0.000	0.000	Ug6_741_743_L_0					
73 D	40.61	-1.2094E-04	154.0	68.67	154.0	73.49	UL-RL	5.4011E+04	-14.40	134.4
1.000	1.000	203.1	0.000	0.000	Ug6_741_743_L_0					
74 D	41.15	-1.2384E-04	155.9	69.46	155.9	74.41	UL-RL	5.4011E+04	-14.60	136.3
1.000	1.000	205.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.68	-1.2671E-04	157.8	70.25	157.8	75.33	UL-RL	5.4011E+04	-14.80	138.1
1.000	1.000	208.4	0.000	0.000	Ug6_741_743_L_0					
76 D	42.21	-1.2955E-04	159.7	71.05	159.7	76.25	UL-RL	5.4011E+04	-15.00	140.0
1.000	1.000	211.0	0.000	0.000	Ug6_741_743_L_0					
77 D	42.74	-1.3237E-04	161.7	71.85	161.7	77.18	UL-RL	5.4011E+04	-15.20	141.9
1.000	1.000	213.7	0.000	0.000	Ug6_741_743_L_0					
78 D	43.28	-1.3517E-04	163.6	72.65	163.6	78.10	UL-RL	5.4011E+04	-15.40	143.7
1.000	1.000	216.4	0.000	0.000	Ug6_741_743_L_0					
79 D	43.81	-1.3796E-04	165.5	73.45	165.5	79.03	UL-RL	5.4011E+04	-15.60	145.6
1.000	1.000	219.0	0.000	0.000	Ug6_741_743_L_0					
80 D	44.34	-1.4075E-04	167.4	74.25	167.4	79.95	UL-RL	5.4011E+04	-15.80	147.5
1.000	1.000	221.7	0.000	0.000	Ug6_741_743_L_0					
81 D	22.44	-1.4354E-04	169.3	75.05	169.3	80.88	UL-RL	5.4011E+04	-16.00	149.3
1.000	1.000	224.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                                                                       |
|          Exe Time :24 May 2018          18:25:47                                                                                           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FACTOR	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.4528E-03	0.000	0.000	20.00	15.76	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.942	1.3868E-03	1.867	12.58	22.00	16.47	PASSIVE	0.000	-2.200	2.133	
1.000	1.000	14.71	0.000	0.000	Ug5_2_8_L_0						
13 D	5.884	1.3213E-03	3.733	25.16	24.00	25.16	PASSIVE	0.000	-2.400	4.267	
1.000	1.000	29.42	0.000	0.000	Ug5_2_8_L_0						
14 D	8.640	1.2566E-03	5.600	36.80	26.00	36.80	V-C	1.8697E+04	-2.600	6.400	
1.000	1.000	43.20	0.000	0.000	Ug5_2_8_L_0						
15 D	9.024	1.1929E-03	7.467	36.59	28.00	36.59	V-C	1.8697E+04	-2.800	8.533	
1.000	1.000	45.12	0.000	0.000	Ug5_2_8_L_0						
16 D	9.408	1.1302E-03	9.333	36.37	30.00	36.37	V-C	1.8697E+04	-3.000	10.67	
1.000	1.000	47.04	0.000	0.000	Ug5_2_8_L_0						
17 D	9.794	1.0688E-03	11.20	36.17	32.00	36.17	V-C	1.8697E+04	-3.200	12.80	
1.000	1.000	48.97	0.000	0.000	Ug5_2_8_L_0						
18 D	10.18	1.0087E-03	13.07	35.99	34.00	35.99	V-C	1.8697E+04	-3.400	14.93	
1.000	1.000	50.92	0.000	0.000	Ug5_2_8_L_0						
19 D	10.58	9.5006E-04	14.93	35.83	36.00	35.83	V-C	1.8697E+04	-3.600	17.07	
1.000	1.000	52.89	0.000	0.000	Ug5_2_8_L_0						
20 D	10.98	8.9302E-04	16.80	35.69	38.00	35.69	V-C	1.8697E+04	-3.800	19.20	
1.000	1.000	54.89	0.000	0.000	Ug5_2_8_L_0						
21 D	11.39	8.3766E-04	18.67	35.59	40.00	35.59	V-C	1.8697E+04	-4.000	21.33	
1.000	1.000	56.93	0.000	0.000	Ug5_2_8_L_0						
22 D	11.80	7.8406E-04	20.53	35.52	42.00	35.52	V-C	1.8697E+04	-4.200	23.47	
1.000	1.000	58.99	0.000	0.000	Ug5_2_8_L_0						
23 D	12.22	7.3228E-04	22.40	35.49	44.00	35.49	V-C	1.8697E+04	-4.400	25.60	
1.000	1.000	61.09	0.000	0.000	Ug5_2_8_L_0						
24 D	12.64	6.8241E-04	24.27	35.49	46.00	35.49	V-C	1.8697E+04	-4.600	27.73	
1.000	1.000	63.22	0.000	0.000	Ug5_2_8_L_0						
25 D	13.08	6.3449E-04	26.13	35.53	48.00	35.53	V-C	1.8697E+04	-4.800	29.87	
1.000	1.000	65.40	0.000	0.000	Ug5_2_8_L_0						
26 D	13.52	5.8858E-04	28.00	35.61	50.00	35.61	V-C	1.8697E+04	-5.000	32.00	
1.000	1.000	67.61	0.000	0.000	Ug5_2_8_L_0						
27 D	13.97	5.4472E-04	29.87	35.73	52.00	35.73	V-C	1.8697E+04	-5.200	34.13	
1.000	1.000	69.86	0.000	0.000	Ug5_2_8_L_0						
28 D	14.43	5.0293E-04	31.73	35.89	54.00	35.89	V-C	1.8697E+04	-5.400	36.27	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.15	0.000	0.000	Ug5_2_8_L_0					
29 D	14.90	4.6325E-04	33.60	36.09	56.00	36.09	V-C	1.8697E+04	-5.600	38.40
1.000	1.000	74.49	0.000	0.000	Ug5_2_8_L_0					
30 D	15.37	4.2569E-04	35.47	36.33	58.00	36.33	V-C	1.8697E+04	-5.800	40.53
1.000	1.000	76.86	0.000	0.000	Ug5_2_8_L_0					
31 D	15.86	3.9026E-04	37.33	36.62	60.00	36.62	V-C	1.8697E+04	-6.000	42.67
1.000	1.000	79.28	0.000	0.000	Ug5_2_8_L_0					
32 D	16.35	3.5696E-04	39.20	36.94	62.00	36.94	V-C	1.8697E+04	-6.200	44.80
1.000	1.000	81.74	0.000	0.000	Ug5_2_8_L_0					
33 D	16.85	3.2579E-04	41.07	37.31	64.00	37.31	V-C	1.8697E+04	-6.400	46.93
1.000	1.000	84.25	0.000	0.000	Ug5_2_8_L_0					
34 D	17.36	2.9674E-04	42.93	37.72	66.00	37.72	V-C	1.8697E+04	-6.600	49.07
1.000	1.000	86.79	0.000	0.000	Ug5_2_8_L_0					
35 D	17.87	2.6977E-04	44.80	38.17	68.00	38.17	V-C	1.8697E+04	-6.800	51.20
1.000	1.000	89.37	0.000	0.000	Ug5_2_8_L_0					
36 D	18.40	2.4487E-04	46.67	38.66	70.00	38.66	V-C	1.8697E+04	-7.000	53.33
1.000	1.000	92.00	0.000	0.000	Ug5_2_8_L_0					
37 D	18.93	2.2200E-04	48.53	39.19	72.00	39.19	V-C	1.8697E+04	-7.200	55.47
1.000	1.000	94.66	0.000	0.000	Ug5_2_8_L_0					
38 D	19.47	2.0110E-04	50.40	39.76	74.00	39.76	V-C	1.8697E+04	-7.400	57.60
1.000	1.000	97.36	0.000	0.000	Ug5_2_8_L_0					
39 D	20.02	1.8214E-04	52.27	40.37	76.00	40.37	V-C	1.8697E+04	-7.600	59.73
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
40 D	20.58	1.6503E-04	54.13	41.01	78.00	41.01	V-C	1.8697E+04	-7.800	61.87
1.000	1.000	102.9	0.000	0.000	Ug5_2_8_L_0					
41 D	21.14	1.4972E-04	56.00	41.69	80.00	41.69	V-C	1.8697E+04	-8.000	64.00
1.000	1.000	105.7	0.000	0.000	Ug5_2_8_L_0					
42 D	21.71	1.3611E-04	57.87	42.40	82.00	42.40	V-C	1.8697E+04	-8.200	66.13
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
43 D	22.28	1.2413E-04	59.73	43.14	84.00	43.14	V-C	1.8697E+04	-8.400	68.27
1.000	1.000	111.4	0.000	0.000	Ug5_2_8_L_0					
44 D	22.86	1.1368E-04	61.60	43.92	86.00	43.92	V-C	1.8697E+04	-8.600	70.40
1.000	1.000	114.3	0.000	0.000	Ug5_2_8_L_0					
45 D	23.42	1.0467E-04	63.47	44.56	88.00	44.79	UL-RL	5.6090E+04	-8.800	72.53
1.000	1.000	117.1	0.000	0.000	Ug5_2_8_L_0					
46 D	23.95	9.7005E-05	65.33	45.08	90.00	45.77	UL-RL	5.6090E+04	-9.000	74.67
1.000	1.000	119.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.50	9.0583E-05	67.20	45.68	92.00	46.75	UL-RL	5.6090E+04	-9.200	76.80
1.000	1.000	122.5	0.000	0.000	Ug5_2_8_L_0					
48 D	25.05	8.5312E-05	69.07	46.34	94.00	47.73	UL-RL	5.6090E+04	-9.400	78.93
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
49 D	25.63	8.1102E-05	70.93	47.06	96.00	48.71	UL-RL	5.6090E+04	-9.600	81.07
1.000	1.000	128.1	0.000	0.000	Ug5_2_8_L_0					
50 D	26.21	7.7861E-05	72.80	47.84	98.00	49.69	UL-RL	5.6090E+04	-9.800	83.20
1.000	1.000	131.0	0.000	0.000	Ug5_2_8_L_0					
51 D	26.80	7.5504E-05	74.67	48.66	100.00	50.67	UL-RL	5.6090E+04	-10.000	85.33
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
52 D	27.40	7.3949E-05	76.53	49.54	102.0	51.65	UL-RL	5.6090E+04	-10.200	87.47
1.000	1.000	137.0	0.000	0.000	Ug5_2_8_L_0					
53 D	28.01	7.3119E-05	78.40	50.45	104.0	52.63	UL-RL	5.6090E+04	-10.400	89.60
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.63	7.2939E-05	80.27	51.40	106.0	53.61	UL-RL	5.6090E+04	-10.600	91.73
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
55 D	29.25	7.3340E-05	82.13	52.39	108.0	54.60	UL-RL	5.6090E+04	-10.800	93.87
1.000	1.000	146.3	0.000	0.000	Ug5_2_8_L_0					
56 D	29.88	7.4258E-05	84.00	53.41	110.0	55.58	UL-RL	5.6090E+04	-11.000	96.00
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
57 D	30.52	7.5630E-05	85.87	54.45	112.0	56.56	UL-RL	5.6090E+04	-11.200	98.13
1.000	1.000	152.6	0.000	0.000	Ug5_2_8_L_0					
58 D	31.16	7.7398E-05	87.73	55.52	114.0	57.55	UL-RL	5.6090E+04	-11.400	100.3
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
59 D	31.80	7.9507E-05	89.60	56.60	116.0	58.53	UL-RL	5.6090E+04	-11.600	102.4
1.000	1.000	159.0	0.000	0.000	Ug5_2_8_L_0					
60 D	32.45	8.1903E-05	91.47	57.70	118.0	59.52	UL-RL	5.6090E+04	-11.800	104.5
1.000	1.000	162.2	0.000	0.000	Ug5_2_8_L_0					
61 D	33.10	8.4535E-05	93.33	58.82	120.0	60.50	UL-RL	5.6090E+04	-12.000	106.7
1.000	1.000	165.5	0.000	0.000	Ug5_2_8_L_0					
62 D	33.45	8.7353E-05	95.00	58.46	121.8	61.39	UL-RL	4.2179E+04	-12.200	108.8
1.000	1.000	167.3	0.000	0.000	Ug6_741_743_L_0					
63 D	34.08	9.0306E-05	96.67	59.45	123.6	62.28	UL-RL	4.2179E+04	-12.400	110.9
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
64 D	34.70	9.3352E-05	98.33	60.45	125.4	63.16	UL-RL	4.2179E+04	-12.600	113.1
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
65 D	35.33	9.6456E-05	100.00	61.44	127.2	64.05	UL-RL	4.2179E+04	-12.800	115.2
1.000	1.000	176.6	0.000	0.000	Ug6_741_743_L_0					
66 D	35.96	9.9587E-05	101.7	62.44	129.0	64.94	UL-RL	4.2179E+04	-13.000	117.3
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					
67 D	36.58	1.0272E-04	103.3	63.44	130.8	65.83	UL-RL	4.2179E+04	-13.200	119.5
1.000	1.000	182.9	0.000	0.000	Ug6_741_743_L_0					
68 D	37.21	1.0585E-04	105.0	64.44	132.6	66.72	UL-RL	4.2179E+04	-13.400	121.6
1.000	1.000	186.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.83	1.0894E-04	106.7	65.43	134.4	67.60	UL-RL	4.2179E+04	-13.60	123.7
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
70 D	38.46	1.1200E-04	108.3	66.43	136.2	68.49	UL-RL	4.2179E+04	-13.80	125.9
1.000	1.000	192.3	0.000	0.000	Ug6_741_743_L_0					
71 D	39.08	1.1502E-04	110.0	67.42	138.0	69.38	UL-RL	4.2179E+04	-14.00	128.0
1.000	1.000	195.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.71	1.1800E-04	111.7	68.41	139.8	70.27	UL-RL	4.2179E+04	-14.20	130.1
1.000	1.000	198.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.33	1.2094E-04	113.3	69.40	141.6	71.16	UL-RL	4.2179E+04	-14.40	132.3
1.000	1.000	201.7	0.000	0.000	Ug6_741_743_L_0					
74 D	40.96	1.2384E-04	115.0	70.39	143.4	72.05	UL-RL	4.2179E+04	-14.60	134.4
1.000	1.000	204.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.58	1.2671E-04	116.7	71.38	145.2	72.94	UL-RL	4.2179E+04	-14.80	136.5
1.000	1.000	207.9	0.000	0.000	Ug6_741_743_L_0					
76 D	42.21	1.2955E-04	118.3	72.36	147.0	73.84	UL-RL	4.2179E+04	-15.00	138.7
1.000	1.000	211.0	0.000	0.000	Ug6_741_743_L_0					
77 D	42.83	1.3237E-04	120.0	73.35	148.8	74.73	UL-RL	4.2179E+04	-15.20	140.8
1.000	1.000	214.1	0.000	0.000	Ug6_741_743_L_0					
78 D	43.45	1.3517E-04	121.7	74.33	150.6	75.62	UL-RL	4.2179E+04	-15.40	142.9
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
79 D	44.08	1.3796E-04	123.3	75.31	152.4	76.51	UL-RL	4.2179E+04	-15.60	145.1
1.000	1.000	220.4	0.000	0.000	Ug6_741_743_L_0					
80 D	44.70	1.4075E-04	125.0	76.30	154.2	77.40	UL-RL	4.2179E+04	-15.80	147.2
1.000	1.000	223.5	0.000	0.000	Ug6_741_743_L_0					
81 D	22.66	1.4354E-04	126.7	77.28	156.0	78.29	UL-RL	4.2179E+04	-16.00	149.3
1.000	1.000	226.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-4.29914E-10	4.29914E-10	-4.31832E-11	-1.89935E-10
2	0.47998	-0.47998	1.61177E-10	9.59953E-02
3	1.4419	-1.4419	-9.59953E-02	0.38439
4	2.8885	-2.8885	-0.38439	0.96209
5	4.8216	-4.8216	-0.96209	1.9264
6	7.2421	-7.2421	-1.9264	3.3748
7	10.150	-10.150	-3.3748	5.4048
8	13.551	-13.551	-5.4048	8.1149
9	17.446	-17.446	-8.1149	11.604
10	21.825	-21.825	-11.604	15.969
11	26.694	-26.694	-15.969	21.308
12	29.111	-29.111	-21.308	27.130
13	29.066	-29.066	-27.130	32.943
14	26.753	-26.753	-32.943	38.294
15	24.542	-24.542	-38.294	43.202
16	22.432	-22.432	-43.202	47.689
17	20.416	-20.416	-47.689	51.772
18	18.494	-18.494	-51.772	55.471
19	16.662	-16.662	-55.471	58.803
20	14.909	-14.909	-58.803	61.785
21	13.233	-13.233	-61.785	64.431
22	11.627	-11.627	-64.431	66.757
23	10.081	-10.081	-66.757	68.773
24	8.5900	-8.5900	-68.773	70.491
25	7.1471	-7.1471	-70.491	71.920
26	5.7439	-5.7439	-71.920	73.069
27	4.3693	-4.3693	-73.069	73.943
28	3.0179	-3.0179	-73.943	74.547
29	1.6812	-1.6812	-74.547	74.883
30	0.34834	-0.34834	-74.883	74.952
31	-0.98667	0.98667	-74.952	74.755
32	-2.3323	2.3323	-74.755	74.289
33	-3.6993	3.6993	-74.289	73.549
34	-5.0937	5.0937	-73.549	72.530
35	-6.5237	6.5237	-72.530	71.225
36	-7.9975	7.9975	-71.225	69.626
37	-9.5252	9.5252	-69.626	67.721
38	-11.112	11.112	-67.721	65.498
39	-12.767	12.767	-65.498	62.945
40	-14.223	14.223	-62.945	60.100
41	-15.311	15.311	-60.100	57.038
42	-16.078	16.078	-57.038	53.822
43	-16.567	16.567	-53.822	50.509
44	-16.819	16.819	-50.509	47.145
45	-16.841	16.841	-47.145	43.777
46	-16.640	16.640	-43.777	40.449
47	-16.258	16.258	-40.449	37.198
48	-15.735	15.735	-37.198	34.051
49	-15.107	15.107	-34.051	31.029
50	-14.408	14.408	-31.029	28.148
51	-13.668	13.668	-28.148	25.414
52	-12.914	12.914	-25.414	22.831
53	-12.171	12.171	-22.831	20.397
54	-11.462	11.462	-20.397	18.105
55	-10.807	10.807	-18.105	15.943
56	-10.223	10.223	-15.943	13.899
57	-9.7263	9.7263	-13.899	11.954
58	-9.3304	9.3304	-11.954	10.087
59	-9.0471	9.0471	-10.087	8.2781

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-8.8863	8.8863	-8.2781	6.5008
61	-8.8560	8.8560	-6.5008	4.7296
62	-7.5175	7.5175	-4.7296	3.2261
63	-6.2739	6.2739	-3.2261	1.9713
64	-5.1271	5.1271	-1.9713	0.94592
65	-4.0781	4.0781	-0.94592	0.13031
66	-3.1271	3.1271	-0.13031	-0.49511
67	-2.2741	2.2741	0.49511	-0.94993
68	-1.5188	1.5188	0.94993	-1.2537
69	-0.86036	0.86036	1.2537	-1.4258
70	-0.29804	0.29804	1.4258	-1.4854
71	0.16912	-0.16912	1.4854	-1.4515
72	0.54206	-0.54206	1.4515	-1.3431
73	0.82172	-0.82172	1.3431	-1.1788
74	1.0089	-1.0089	1.1788	-0.97700
75	1.1044	-1.1044	0.97700	-0.75611
76	1.1089	-1.1089	0.75611	-0.53434
77	1.0227	-1.0227	0.53434	-0.32981
78	0.84619	-0.84619	0.32981	-0.16057
79	0.57966	-0.57966	0.16057	-4.46398E-02
80	0.22319	-0.22319	4.46398E-02	2.75346E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 612.1 REMNOR=0.1057E-19 RATIO =0.7230E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.7230E-01 RATIO= 0.000
MAX UN= 9.298 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7356E-01 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 165.6 REMNOR=0.1129E-19 RATIO =0.3761E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.3761E-01 RATIO= 0.000
MAX UN= 2.504 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
MIN UN=-.3693E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 91.11 REMNOR=0.9564E-18 RATIO =0.2789E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.2789E-01 RATIO= 0.000
MAX UN= 5.206 IEQ= 85 NODE 43 DOF 1 Y-DISPL.F
MIN UN=-.4107E-08 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 1.926 REMNOR=0.1805E-18 RATIO =0.4056E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.4056E-02 RATIO= 0.000
MAX UN= 1.259 IEQ= 97 NODE 49 DOF 1 Y-DISPL.F
MIN UN=-.2725E-08 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM=0.4394E-16 REMNOR=0.1376E-18 RATIO =0.1937E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.1937E-10 RATIO= 0.000
MAX UN=0.2200E-08 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.2567E-08 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|              PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|              NewProject.BaseDesignSection_28.Nominal_63                                         |
|              Exe Time :24 May 2018  18:25:47                                                    |
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	7.3475448E-03	-9.7666762E-04
2	7.1522113E-03	-9.7666762E-04
3	6.9568782E-03	-9.7666094E-04
4	6.7615487E-03	-9.7662754E-04
5	6.5662312E-03	-9.7653391E-04
6	6.3709423E-03	-9.7633304E-04
7	6.1757092E-03	-9.7596438E-04
8	5.9805727E-03	-9.7535382E-04
9	5.7855896E-03	-9.7441359E-04
10	5.5908360E-03	-9.7304221E-04
11	5.3964092E-03	-9.7112456E-04
12	5.2024311E-03	-9.6853199E-04
13	5.0090508E-03	-9.6512220E-04
14	4.8164471E-03	-9.6073940E-04
15	4.6248312E-03	-9.5521433E-04
16	4.4344497E-03	-9.4836420E-04
17	4.2455860E-03	-9.3999266E-04
18	4.0585644E-03	-9.2993074E-04
19	3.8737332E-03	-9.1807731E-04
20	3.6914551E-03	-9.0439915E-04
21	3.5120937E-03	-8.8893109E-04
22	3.3359961E-03	-8.7177569E-04
23	3.1634858E-03	-8.5308512E-04
24	2.9948535E-03	-8.3302225E-04
25	2.8303582E-03	-8.1174069E-04
26	2.6702288E-03	-7.8938515E-04
27	2.5146674E-03	-7.6609184E-04
28	2.3638469E-03	-7.4198850E-04
29	2.2179180E-03	-7.1719542E-04
30	2.0770072E-03	-6.9182542E-04
31	1.9412192E-03	-6.6598438E-04
32	1.8106388E-03	-6.3977187E-04
33	1.6853297E-03	-6.1328098E-04
34	1.5653392E-03	-5.8659961E-04
35	1.4506970E-03	-5.5981043E-04
36	1.3414170E-03	-5.3299141E-04
37	1.2374980E-03	-5.0621642E-04
38	1.1389233E-03	-4.7955520E-04
39	1.0456639E-03	-4.5307461E-04
40	9.5767720E-04	-4.2683851E-04
41	8.7490811E-04	-4.0090839E-04
42	7.9728947E-04	-3.7534381E-04
43	7.2474235E-04	-3.5020279E-04
44	6.5717632E-04	-3.2554228E-04
45	5.9448995E-04	-3.0141871E-04
46	5.3656964E-04	-2.7788786E-04
47	4.8329154E-04	-2.5500600E-04
48	4.3452019E-04	-2.3282981E-04
49	3.9010873E-04	-2.1141690E-04
50	3.4989882E-04	-1.9082618E-04
51	3.1371963E-04	-1.7111789E-04
52	2.8138792E-04	-1.5235387E-04
53	2.5271188E-04	-1.3459157E-04
54	2.2748333E-04	-1.1787067E-04
55	2.0549212E-04	-1.0222214E-04
56	1.8652175E-04	-8.7664381E-05
57	1.7035317E-04	-7.4204588E-05
58	1.5676685E-04	-6.1840764E-05
59	1.4554442E-04	-5.0563605E-05
60	1.3646996E-04	-4.0358204E-05
61	1.2933096E-04	-3.1205602E-05
62	1.2391898E-04	-2.3084186E-05
63	1.2003178E-04	-1.5945310E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.1748030E-04	-9.7146687E-06
65	1.1609025E-04	-4.3189574E-06
66	1.1570185E-04	3.1365992E-07
67	1.1616951E-04	4.2531537E-06
68	1.1736142E-04	7.5672914E-06
69	1.1915908E-04	1.0321355E-05
70	1.2145679E-04	1.2577907E-05
71	1.2416106E-04	1.4396601E-05
72	1.2719001E-04	1.5834026E-05
73	1.3047281E-04	1.6943588E-05
74	1.3394893E-04	1.7775413E-05
75	1.3756758E-04	1.8376280E-05
76	1.4128694E-04	1.8789570E-05
77	1.4507356E-04	1.9055226E-05
78	1.4890162E-04	1.9209734E-05
79	1.5275225E-04	1.9286105E-05
80	1.5661282E-04	1.9313870E-05
81	1.6047648E-04	1.9319074E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-7.3475E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4689	-7.1522E-03	2.215	0.5515	2.215	1.603	ACTIVE	0.000	-0.2000	1.793	
1.000	1.000	2.345	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9399	-6.9569E-03	4.471	1.113	4.471	3.119	ACTIVE	0.000	-0.4000	3.586	
1.000	1.000	4.699	0.000	0.000	Ug5_2_8_L_0						
4 D	1.413	-6.7615E-03	6.779	1.688	6.779	4.509	ACTIVE	0.000	-0.6000	5.379	
1.000	1.000	7.067	0.000	0.000	Ug5_2_8_L_0						
5 D	1.889	-6.5662E-03	9.125	2.272	9.125	5.780	ACTIVE	0.000	-0.8000	7.172	
1.000	1.000	9.444	0.000	0.000	Ug5_2_8_L_0						
6 D	2.365	-6.3709E-03	11.49	2.861	11.49	6.958	ACTIVE	0.000	-1.000	8.966	
1.000	1.000	11.83	0.000	0.000	Ug5_2_8_L_0						
7 D	2.842	-6.1757E-03	13.85	3.449	13.85	8.073	ACTIVE	0.000	-1.200	10.76	
1.000	1.000	14.21	0.000	0.000	Ug5_2_8_L_0						
8 D	3.323	-5.9806E-03	16.32	4.064	16.32	9.145	ACTIVE	0.000	-1.400	12.55	
1.000	1.000	16.62	0.000	0.000	Ug5_2_8_L_0						
9 D	3.807	-5.7856E-03	18.83	4.689	18.83	10.19	ACTIVE	0.000	-1.600	14.34	
1.000	1.000	19.03	0.000	0.000	Ug5_2_8_L_0						
10 D	4.280	-5.5908E-03	21.13	5.260	21.13	11.22	ACTIVE	0.000	-1.800	16.14	
1.000	1.000	21.40	0.000	0.000	Ug5_2_8_L_0						
11 D	4.759	-5.3964E-03	23.55	5.865	23.55	12.23	ACTIVE	0.000	-2.000	17.93	
1.000	1.000	23.80	0.000	0.000	Ug5_2_8_L_0						
12 D	5.237	-5.2024E-03	25.95	6.461	25.95	13.24	ACTIVE	0.000	-2.200	19.72	
1.000	1.000	26.18	0.000	0.000	Ug5_2_8_L_0						
13 D	5.707	-5.0091E-03	28.19	7.020	28.19	14.24	ACTIVE	0.000	-2.400	21.52	
1.000	1.000	28.54	0.000	0.000	Ug5_2_8_L_0						
14 D	6.183	-4.8164E-03	30.55	7.606	30.55	15.24	ACTIVE	0.000	-2.600	23.31	
1.000	1.000	30.92	0.000	0.000	Ug5_2_8_L_0						
15 D	6.658	-4.6248E-03	32.88	8.187	32.88	16.23	ACTIVE	0.000	-2.800	25.10	
1.000	1.000	33.29	0.000	0.000	Ug5_2_8_L_0						
16 D	7.132	-4.4344E-03	35.20	8.765	35.20	17.23	ACTIVE	0.000	-3.000	26.90	
1.000	1.000	35.66	0.000	0.000	Ug5_2_8_L_0						
17 D	7.601	-4.2456E-03	37.42	9.317	37.42	18.22	ACTIVE	0.000	-3.200	28.69	
1.000	1.000	38.01	0.000	0.000	Ug5_2_8_L_0						
18 D	8.075	-4.0586E-03	39.72	9.890	39.72	19.21	ACTIVE	0.000	-3.400	30.48	
1.000	1.000	40.37	0.000	0.000	Ug5_2_8_L_0						
19 D	8.547	-3.8737E-03	42.01	10.46	42.01	20.21	ACTIVE	0.000	-3.600	32.28	
1.000	1.000	42.74	0.000	0.000	Ug5_2_8_L_0						
20 D	9.016	-3.6915E-03	44.22	11.01	44.22	21.20	ACTIVE	0.000	-3.800	34.07	
1.000	1.000	45.08	0.000	0.000	Ug5_2_8_L_0						
21 D	9.488	-3.5121E-03	46.50	11.58	46.50	22.19	ACTIVE	0.000	-4.000	35.86	
1.000	1.000	47.44	0.000	0.000	Ug5_2_8_L_0						
22 D	9.960	-3.3360E-03	48.77	12.14	48.77	23.18	ACTIVE	0.000	-4.200	37.66	
1.000	1.000	49.80	0.000	0.000	Ug5_2_8_L_0						
23 D	10.43	-3.1635E-03	50.98	12.69	50.98	24.18	ACTIVE	0.000	-4.400	39.45	
1.000	1.000	52.14	0.000	0.000	Ug5_2_8_L_0						
24 D	10.90	-2.9949E-03	53.24	13.26	53.24	25.17	ACTIVE	0.000	-4.600	41.24	
1.000	1.000	54.50	0.000	0.000	Ug5_2_8_L_0						
25 D	11.37	-2.8304E-03	55.51	13.82	55.51	26.17	ACTIVE	0.000	-4.800	43.03	
1.000	1.000	56.86	0.000	0.000	Ug5_2_8_L_0						
26 D	11.84	-2.6702E-03	57.76	14.38	57.76	27.16	ACTIVE	0.000	-5.000	44.83	
1.000	1.000	59.21	0.000	0.000	Ug5_2_8_L_0						
27 D	12.31	-2.5147E-03	59.96	14.93	59.96	28.16	ACTIVE	0.000	-5.200	46.62	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
28 D	12.78	-2.3638E-03	62.21	15.49	62.21	29.16	ACTIVE	0.000	-5.400	48.41	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	63.90	0.000	0.000	Ug5_2_8_L_0					
29 D	13.25	-2.2179E-03	64.46	16.05	64.46	30.15	ACTIVE	0.000	-5.600	50.21
1.000	1.000	66.26	0.000	0.000	Ug5_2_8_L_0					
30 D	13.72	-2.0770E-03	66.66	16.60	66.66	31.15	ACTIVE	0.000	-5.800	52.00
1.000	1.000	68.60	0.000	0.000	Ug5_2_8_L_0					
31 D	14.19	-1.9412E-03	68.91	17.16	68.91	32.15	ACTIVE	0.000	-6.000	53.79
1.000	1.000	70.95	0.000	0.000	Ug5_2_8_L_0					
32 D	14.66	-1.8106E-03	71.15	17.72	71.15	33.15	ACTIVE	0.000	-6.200	55.59
1.000	1.000	73.30	0.000	0.000	Ug5_2_8_L_0					
33 D	15.13	-1.6853E-03	73.35	18.26	73.35	34.15	ACTIVE	0.000	-6.400	57.38
1.000	1.000	75.64	0.000	0.000	Ug5_2_8_L_0					
34 D	15.60	-1.5653E-03	75.59	18.82	75.59	35.15	ACTIVE	0.000	-6.600	59.17
1.000	1.000	77.99	0.000	0.000	Ug5_2_8_L_0					
35 D	16.07	-1.4507E-03	77.83	19.38	77.83	36.15	ACTIVE	0.000	-6.800	60.97
1.000	1.000	80.34	0.000	0.000	Ug5_2_8_L_0					
36 D	16.54	-1.3414E-03	80.06	19.94	80.06	37.16	ACTIVE	0.000	-7.000	62.76
1.000	1.000	82.69	0.000	0.000	Ug5_2_8_L_0					
37 D	17.01	-1.2375E-03	82.26	20.48	82.26	38.16	ACTIVE	0.000	-7.200	64.55
1.000	1.000	85.03	0.000	0.000	Ug5_2_8_L_0					
38 D	17.48	-1.1389E-03	84.49	21.04	84.49	39.16	ACTIVE	0.000	-7.400	66.34
1.000	1.000	87.38	0.000	0.000	Ug5_2_8_L_0					
39 D	17.95	-1.0457E-03	86.73	21.59	86.73	40.17	ACTIVE	0.000	-7.600	68.14
1.000	1.000	89.73	0.000	0.000	Ug5_2_8_L_0					
40 D	18.41	-9.5768E-04	88.92	22.14	88.92	41.17	ACTIVE	0.000	-7.800	69.93
1.000	1.000	92.07	0.000	0.000	Ug5_2_8_L_0					
41 D	18.88	-8.7491E-04	91.15	22.70	91.15	42.18	ACTIVE	0.000	-8.000	71.72
1.000	1.000	94.42	0.000	0.000	Ug5_2_8_L_0					
42 D	19.35	-7.9729E-04	93.38	23.25	93.38	43.19	ACTIVE	0.000	-8.200	73.52
1.000	1.000	96.77	0.000	0.000	Ug5_2_8_L_0					
43 D	19.82	-7.2474E-04	95.58	23.80	95.58	44.19	ACTIVE	0.000	-8.400	75.31
1.000	1.000	99.11	0.000	0.000	Ug5_2_8_L_0					
44 D	20.29	-6.5718E-04	97.81	24.35	97.81	45.20	ACTIVE	0.000	-8.600	77.10
1.000	1.000	101.5	0.000	0.000	Ug5_2_8_L_0					
45 D	20.76	-5.9449E-04	100.0	24.91	100.0	46.21	ACTIVE	0.000	-8.800	78.90
1.000	1.000	103.8	0.000	0.000	Ug5_2_8_L_0					
46 D	21.23	-5.3657E-04	102.3	25.46	102.3	47.22	ACTIVE	0.000	-9.000	80.69
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
47 D	21.70	-4.8329E-04	104.5	26.01	104.5	48.23	ACTIVE	0.000	-9.200	82.48
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
48 D	22.17	-4.3452E-04	106.7	26.57	106.7	49.24	ACTIVE	0.000	-9.400	84.28
1.000	1.000	110.8	0.000	0.000	Ug5_2_8_L_0					
49 D	22.64	-3.9011E-04	108.9	27.12	108.9	50.26	ACTIVE	0.000	-9.600	86.07
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
50 D	23.11	-3.4990E-04	111.1	27.67	111.1	51.27	ACTIVE	0.000	-9.800	87.86
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
51 D	23.59	-3.1372E-04	113.3	28.29	113.3	52.28	UL-RL	7.5213E+04	-10.00	89.66
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
52 D	24.66	-2.8139E-04	115.6	31.85	115.6	53.29	UL-RL	7.5213E+04	-10.20	91.45
1.000	1.000	123.3	0.000	0.000	Ug5_2_8_L_0					
53 D	25.67	-2.5271E-04	117.8	35.10	117.8	54.31	UL-RL	7.5213E+04	-10.40	93.24
1.000	1.000	128.3	0.000	0.000	Ug5_2_8_L_0					
54 D	26.62	-2.2748E-04	120.0	38.08	120.0	55.32	UL-RL	7.5213E+04	-10.60	95.03
1.000	1.000	133.1	0.000	0.000	Ug5_2_8_L_0					
55 D	27.52	-2.0549E-04	122.2	40.78	122.2	56.34	UL-RL	7.5213E+04	-10.80	96.83
1.000	1.000	137.6	0.000	0.000	Ug5_2_8_L_0					
56 D	28.37	-1.8652E-04	124.4	43.24	124.4	57.35	UL-RL	7.5213E+04	-11.00	98.62
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
57 D	29.18	-1.7035E-04	126.6	45.47	126.6	58.37	UL-RL	7.5213E+04	-11.20	100.4
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
58 D	29.94	-1.5677E-04	128.8	47.49	128.8	59.39	UL-RL	7.5213E+04	-11.40	102.2
1.000	1.000	149.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.66	-1.4554E-04	131.1	49.32	131.1	60.40	UL-RL	7.5213E+04	-11.60	104.0
1.000	1.000	153.3	0.000	0.000	Ug5_2_8_L_0					
60 D	31.35	-1.3647E-04	133.3	50.97	133.3	61.42	UL-RL	7.5213E+04	-11.80	105.8
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
61 D	32.01	-1.2933E-04	135.5	52.48	135.5	62.44	UL-RL	7.5213E+04	-12.00	107.6
1.000	1.000	160.1	0.000	0.000	Ug5_2_8_L_0					
62 D	34.08	-1.2392E-04	137.5	61.02	137.5	63.36	UL-RL	3.6008E+04	-12.20	109.4
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
63 D	34.65	-1.2003E-04	139.5	62.08	139.5	64.28	UL-RL	3.6008E+04	-12.40	111.2
1.000	1.000	173.3	0.000	0.000	Ug6_741_743_L_0					
64 D	35.21	-1.1748E-04	141.5	63.10	141.5	65.20	UL-RL	3.6008E+04	-12.60	113.0
1.000	1.000	176.1	0.000	0.000	Ug6_741_743_L_0					
65 D	35.77	-1.1609E-04	143.5	64.07	143.5	66.12	UL-RL	3.6008E+04	-12.80	114.8
1.000	1.000	178.8	0.000	0.000	Ug6_741_743_L_0					
66 D	36.31	-1.1570E-04	145.5	65.01	145.5	67.04	UL-RL	3.6008E+04	-13.00	116.6
1.000	1.000	181.6	0.000	0.000	Ug6_741_743_L_0					
67 D	36.85	-1.1617E-04	147.5	65.92	147.5	67.96	UL-RL	3.6008E+04	-13.20	118.3
1.000	1.000	184.3	0.000	0.000	Ug6_741_743_L_0					
68 D	37.39	-1.1736E-04	149.4	66.80	149.4	68.88	UL-RL	3.6008E+04	-13.40	120.1
1.000	1.000	186.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.92	-1.1916E-04	151.4	67.66	151.4	69.80	UL-RL	3.6008E+04	-13.60	121.9
1.000	1.000	189.6	0.000	0.000	Ug6_741_743_L_0					
70 D	38.45	-1.2146E-04	153.4	68.50	153.4	70.72	UL-RL	3.6008E+04	-13.80	123.7
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
71 D	38.97	-1.2416E-04	155.4	69.34	155.4	71.64	UL-RL	3.6008E+04	-14.00	125.5
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
72 D	39.49	-1.2719E-04	157.3	70.16	157.3	72.56	UL-RL	3.6008E+04	-14.20	127.3
1.000	1.000	197.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.01	-1.3047E-04	159.3	70.97	159.3	73.49	UL-RL	3.6008E+04	-14.40	129.1
1.000	1.000	200.1	0.000	0.000	Ug6_741_743_L_0					
74 D	40.54	-1.3395E-04	161.3	71.78	161.3	74.41	UL-RL	3.6008E+04	-14.60	130.9
1.000	1.000	202.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.05	-1.3757E-04	163.3	72.58	163.3	75.33	UL-RL	3.6008E+04	-14.80	132.7
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.57	-1.4129E-04	165.3	73.39	165.3	76.25	UL-RL	3.6008E+04	-15.00	134.5
1.000	1.000	207.9	0.000	0.000	Ug6_741_743_L_0					
77 D	42.09	-1.4507E-04	167.2	74.19	167.2	77.18	UL-RL	3.6008E+04	-15.20	136.3
1.000	1.000	210.5	0.000	0.000	Ug6_741_743_L_0					
78 D	42.61	-1.4890E-04	169.2	74.98	169.2	78.10	UL-RL	3.6008E+04	-15.40	138.1
1.000	1.000	213.1	0.000	0.000	Ug6_741_743_L_0					
79 D	43.13	-1.5275E-04	171.2	75.78	171.2	79.03	UL-RL	3.6008E+04	-15.60	139.9
1.000	1.000	215.6	0.000	0.000	Ug6_741_743_L_0					
80 D	43.65	-1.5661E-04	173.2	76.58	173.2	79.95	UL-RL	3.6008E+04	-15.80	141.7
1.000	1.000	218.2	0.000	0.000	Ug6_741_743_L_0					
81 D	22.08	-1.6048E-04	175.2	77.38	175.2	80.88	UL-RL	3.6008E+04	-16.00	143.4
1.000	1.000	220.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	4.4344E-03	0.000	0.000	30.00	36.37	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.858	4.2456E-03	1.793	12.08	32.00	36.17	PASSIVE	0.000	-3.200	2.207	
1.000	1.000	14.29	0.000	0.000	Ug5_2_8_L_0						
18 D	5.716	4.0586E-03	3.586	24.16	34.00	35.99	PASSIVE	0.000	-3.400	4.414	
1.000	1.000	28.58	0.000	0.000	Ug5_2_8_L_0						
19 D	8.573	3.8737E-03	5.379	36.25	36.00	36.25	PASSIVE	0.000	-3.600	6.621	
1.000	1.000	42.87	0.000	0.000	Ug5_2_8_L_0						
20 D	11.43	3.6915E-03	7.172	48.33	38.00	48.33	PASSIVE	0.000	-3.800	8.828	
1.000	1.000	57.16	0.000	0.000	Ug5_2_8_L_0						
21 D	14.29	3.5121E-03	8.966	60.41	40.00	60.41	PASSIVE	0.000	-4.000	11.03	
1.000	1.000	71.44	0.000	0.000	Ug5_2_8_L_0						
22 D	15.84	3.3360E-03	10.76	65.98	42.00	65.98	V-C	1.2465E+04	-4.200	13.24	
1.000	1.000	79.22	0.000	0.000	Ug5_2_8_L_0						
23 D	15.98	3.1635E-03	12.55	64.48	44.00	64.48	V-C	1.2465E+04	-4.400	15.45	
1.000	1.000	79.92	0.000	0.000	Ug5_2_8_L_0						
24 D	16.14	2.9949E-03	14.34	63.03	46.00	63.03	V-C	1.2465E+04	-4.600	17.66	
1.000	1.000	80.68	0.000	0.000	Ug5_2_8_L_0						
25 D	16.30	2.8304E-03	16.14	61.64	48.00	61.64	V-C	1.2465E+04	-4.800	19.86	
1.000	1.000	81.50	0.000	0.000	Ug5_2_8_L_0						
26 D	16.48	2.6702E-03	17.93	60.31	50.00	60.31	V-C	1.2465E+04	-5.000	22.07	
1.000	1.000	82.38	0.000	0.000	Ug5_2_8_L_0						
27 D	16.67	2.5147E-03	19.72	59.05	52.00	59.05	V-C	1.2465E+04	-5.200	24.28	
1.000	1.000	83.33	0.000	0.000	Ug5_2_8_L_0						
28 D	16.87	2.3638E-03	21.52	57.86	54.00	57.86	V-C	1.2465E+04	-5.400	26.48	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	84.35	0.000	0.000	Ug5_2_8_L_0					
29 D	17.09	2.2179E-03	23.31	56.75	56.00	56.75	V-C	1.2465E+04	-5.600	28.69
1.000	1.000	85.44	0.000	0.000	Ug5_2_8_L_0					
30 D	17.32	2.0770E-03	25.10	55.71	58.00	55.71	V-C	1.2465E+04	-5.800	30.90
1.000	1.000	86.61	0.000	0.000	Ug5_2_8_L_0					
31 D	17.57	1.9412E-03	26.90	54.76	60.00	54.76	V-C	1.2465E+04	-6.000	33.10
1.000	1.000	87.86	0.000	0.000	Ug5_2_8_L_0					
32 D	17.84	1.8106E-03	28.69	53.88	62.00	53.88	V-C	1.2465E+04	-6.200	35.31
1.000	1.000	89.19	0.000	0.000	Ug5_2_8_L_0					
33 D	18.12	1.6853E-03	30.48	53.07	64.00	53.07	V-C	1.2465E+04	-6.400	37.52
1.000	1.000	90.59	0.000	0.000	Ug5_2_8_L_0					
34 D	18.42	1.5653E-03	32.28	52.35	66.00	52.35	V-C	1.2465E+04	-6.600	39.72
1.000	1.000	92.08	0.000	0.000	Ug5_2_8_L_0					
35 D	18.73	1.4507E-03	34.07	51.72	68.00	51.72	V-C	1.2465E+04	-6.800	41.93
1.000	1.000	93.65	0.000	0.000	Ug5_2_8_L_0					
36 D	19.06	1.3414E-03	35.86	51.16	70.00	51.16	V-C	1.2465E+04	-7.000	44.14
1.000	1.000	95.29	0.000	0.000	Ug5_2_8_L_0					
37 D	19.40	1.2375E-03	37.66	50.68	72.00	50.68	V-C	1.2465E+04	-7.200	46.34
1.000	1.000	97.02	0.000	0.000	Ug5_2_8_L_0					
38 D	19.77	1.1389E-03	39.45	50.28	74.00	50.28	V-C	1.2465E+04	-7.400	48.55
1.000	1.000	98.83	0.000	0.000	Ug5_2_8_L_0					
39 D	20.14	1.0457E-03	41.24	49.96	76.00	49.96	V-C	1.2465E+04	-7.600	50.76
1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
40 D	20.54	9.5768E-04	43.03	49.72	78.00	49.72	V-C	1.2465E+04	-7.800	52.97
1.000	1.000	102.7	0.000	0.000	Ug5_2_8_L_0					
41 D	20.95	8.7491E-04	44.83	49.56	80.00	49.56	V-C	1.2465E+04	-8.000	55.17
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
42 D	21.37	7.9729E-04	46.62	49.47	82.00	49.47	V-C	1.2465E+04	-8.200	57.38
1.000	1.000	106.8	0.000	0.000	Ug5_2_8_L_0					
43 D	21.81	7.2474E-04	48.41	49.45	84.00	49.45	V-C	1.2465E+04	-8.400	59.59
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
44 D	22.26	6.5718E-04	50.21	49.51	86.00	49.51	V-C	1.2465E+04	-8.600	61.79
1.000	1.000	111.3	0.000	0.000	Ug5_2_8_L_0					
45 D	22.73	5.9449E-04	52.00	49.64	88.00	49.64	V-C	1.2465E+04	-8.800	64.00
1.000	1.000	113.6	0.000	0.000	Ug5_2_8_L_0					
46 D	23.21	5.3657E-04	53.79	49.84	90.00	49.84	V-C	1.2465E+04	-9.000	66.21
1.000	1.000	116.0	0.000	0.000	Ug5_2_8_L_0					
47 D	23.70	4.8329E-04	55.59	50.10	92.00	50.10	V-C	1.2465E+04	-9.200	68.41
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
48 D	24.21	4.3452E-04	57.38	50.43	94.00	50.43	V-C	1.2465E+04	-9.400	70.62
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
49 D	24.73	3.9011E-04	59.17	50.82	96.00	50.82	V-C	1.2465E+04	-9.600	72.83
1.000	1.000	123.6	0.000	0.000	Ug5_2_8_L_0					
50 D	25.26	3.4990E-04	60.97	51.27	98.00	51.27	V-C	1.2465E+04	-9.800	75.03
1.000	1.000	126.3	0.000	0.000	Ug5_2_8_L_0					
51 D	25.80	3.1372E-04	62.76	51.77	100.00	51.77	V-C	1.2465E+04	-10.000	77.24
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
52 D	26.36	2.8139E-04	64.55	52.33	102.0	52.33	V-C	1.2465E+04	-10.200	79.45
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
53 D	26.92	2.5271E-04	66.34	52.94	104.0	52.94	V-C	1.2465E+04	-10.400	81.66
1.000	1.000	134.6	0.000	0.000	Ug5_2_8_L_0					
54 D	27.48	2.2748E-04	68.14	53.56	106.0	53.61	UL-RL	3.7394E+04	-10.600	83.86
1.000	1.000	137.4	0.000	0.000	Ug5_2_8_L_0					
55 D	27.95	2.0549E-04	69.93	53.69	108.0	54.60	UL-RL	3.7394E+04	-10.800	86.07
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
56 D	28.45	1.8652E-04	71.72	53.95	110.0	55.58	UL-RL	3.7394E+04	-11.000	88.28
1.000	1.000	142.2	0.000	0.000	Ug5_2_8_L_0					
57 D	28.96	1.7035E-04	73.52	54.33	112.0	56.56	UL-RL	3.7394E+04	-11.200	90.48
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
58 D	29.50	1.5677E-04	75.31	54.81	114.0	57.55	UL-RL	3.7394E+04	-11.400	92.69
1.000	1.000	147.5	0.000	0.000	Ug5_2_8_L_0					
59 D	30.06	1.4554E-04	77.10	55.38	116.0	58.53	UL-RL	3.7394E+04	-11.600	94.90
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.63	1.3647E-04	78.90	56.04	118.0	59.52	UL-RL	3.7394E+04	-11.800	97.10
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
61 D	31.22	1.2933E-04	80.69	56.78	120.0	60.50	UL-RL	3.7394E+04	-12.000	99.31
1.000	1.000	156.1	0.000	0.000	Ug5_2_8_L_0					
62 D	31.46	1.2392E-04	82.28	55.76	121.8	61.39	UL-RL	2.8119E+04	-12.200	101.5
1.000	1.000	157.3	0.000	0.000	Ug6_741_743_L_0					
63 D	32.05	1.2003E-04	83.88	56.55	123.6	62.28	UL-RL	2.8119E+04	-12.400	103.7
1.000	1.000	160.3	0.000	0.000	Ug6_741_743_L_0					
64 D	32.66	1.1748E-04	85.47	57.37	125.4	63.16	UL-RL	2.8119E+04	-12.600	105.9
1.000	1.000	163.3	0.000	0.000	Ug6_741_743_L_0					
65 D	33.27	1.1609E-04	87.06	58.22	127.2	64.05	UL-RL	2.8119E+04	-12.800	108.1
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
66 D	33.89	1.1570E-04	88.66	59.11	129.0	64.94	UL-RL	2.8119E+04	-13.000	110.3
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
67 D	34.51	1.1617E-04	90.25	60.01	130.8	65.83	UL-RL	2.8119E+04	-13.200	112.6
1.000	1.000	172.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.14	1.1736E-04	91.84	60.94	132.6	66.72	UL-RL	2.8119E+04	-13.400	114.8
1.000	1.000	175.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	35.77	1.1916E-04	93.43	61.88	134.4	67.60	UL-RL	2.8119E+04	-13.60	117.0
1.000	1.000	178.9	0.000	0.000	Ug6_741_743_L_0					
70 D	36.40	1.2146E-04	95.03	62.84	136.2	68.49	UL-RL	2.8119E+04	-13.80	119.2
1.000	1.000	182.0	0.000	0.000	Ug6_741_743_L_0					
71 D	37.04	1.2416E-04	96.62	63.81	138.0	69.38	UL-RL	2.8119E+04	-14.00	121.4
1.000	1.000	185.2	0.000	0.000	Ug6_741_743_L_0					
72 D	37.67	1.2719E-04	98.21	64.79	139.8	70.27	UL-RL	2.8119E+04	-14.20	123.6
1.000	1.000	188.4	0.000	0.000	Ug6_741_743_L_0					
73 D	38.31	1.3047E-04	99.81	65.77	141.6	71.16	UL-RL	2.8119E+04	-14.40	125.8
1.000	1.000	191.6	0.000	0.000	Ug6_741_743_L_0					
74 D	38.95	1.3395E-04	101.4	66.76	143.4	72.05	UL-RL	2.8119E+04	-14.60	128.0
1.000	1.000	194.8	0.000	0.000	Ug6_741_743_L_0					
75 D	39.59	1.3757E-04	103.0	67.75	145.2	72.94	UL-RL	2.8119E+04	-14.80	130.2
1.000	1.000	198.0	0.000	0.000	Ug6_741_743_L_0					
76 D	40.23	1.4129E-04	104.6	68.74	147.0	73.84	UL-RL	2.8119E+04	-15.00	132.4
1.000	1.000	201.2	0.000	0.000	Ug6_741_743_L_0					
77 D	40.87	1.4507E-04	106.2	69.74	148.8	74.73	UL-RL	2.8119E+04	-15.20	134.6
1.000	1.000	204.4	0.000	0.000	Ug6_741_743_L_0					
78 D	41.51	1.4890E-04	107.8	70.73	150.6	75.62	UL-RL	2.8119E+04	-15.40	136.8
1.000	1.000	207.6	0.000	0.000	Ug6_741_743_L_0					
79 D	42.15	1.5275E-04	109.4	71.73	152.4	76.51	UL-RL	2.8119E+04	-15.60	139.0
1.000	1.000	210.8	0.000	0.000	Ug6_741_743_L_0					
80 D	42.79	1.5661E-04	111.0	72.73	154.2	77.40	UL-RL	2.8119E+04	-15.80	141.2
1.000	1.000	214.0	0.000	0.000	Ug6_741_743_L_0					
81 D	21.72	1.6048E-04	112.6	73.72	156.0	78.29	UL-RL	2.8119E+04	-16.00	143.4
1.000	1.000	217.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.36677E-10	-3.36677E-10	3.40954E-11	1.28445E-10
2	0.46893	-0.46893	-2.42859E-10	9.37854E-02
3	1.4088	-1.4088	-9.37854E-02	0.37555
4	2.8222	-2.8222	-0.37555	0.93999
5	4.7111	-4.7111	-0.93999	1.8822
6	7.0764	-7.0764	-1.8822	3.2975
7	9.9179	-9.9179	-3.2975	5.2811
8	13.241	-13.241	-5.2811	7.9293
9	17.048	-17.048	-7.9293	11.339
10	21.328	-21.328	-11.339	15.604
11	26.087	-26.087	-15.604	20.822
12	31.324	-31.324	-20.822	27.086
13	37.031	-37.031	-27.086	34.493
14	43.214	-43.214	-34.493	43.136
15	49.873	-49.873	-43.136	53.110
16	57.005	-57.005	-53.110	64.511
17	61.748	-61.748	-64.511	76.861
18	64.107	-64.107	-76.861	89.682
19	64.081	-64.081	-89.682	102.50
20	61.666	-61.666	-102.50	114.83
21	56.866	-56.866	-114.83	126.20
22	50.981	-50.981	-126.20	136.40
23	45.425	-45.425	-136.40	145.49
24	40.189	-40.189	-145.49	153.52
25	35.260	-35.260	-153.52	160.58
26	30.627	-30.627	-160.58	166.70
27	26.271	-26.271	-166.70	171.96
28	22.183	-22.183	-171.96	176.39
29	18.346	-18.346	-176.39	180.06
30	14.744	-14.744	-180.06	183.01
31	11.362	-11.362	-183.01	185.28
32	8.1855	-8.1855	-185.28	186.92
33	5.1955	-5.1955	-186.92	187.96
34	2.3784	-2.3784	-187.96	188.43
35	-0.28201	0.28201	-188.43	188.38
36	-2.8020	2.8020	-188.38	187.82
37	-5.1998	5.1998	-187.82	186.78
38	-7.4894	7.4894	-186.78	185.28
39	-9.6865	9.6865	-185.28	183.34
40	-11.809	11.809	-183.34	180.98
41	-13.870	13.870	-180.98	178.21
42	-15.885	15.885	-178.21	175.03
43	-17.871	17.871	-175.03	171.46
44	-19.840	19.840	-171.46	167.49
45	-21.807	21.807	-167.49	163.13
46	-23.785	23.785	-163.13	158.37
47	-25.789	25.789	-158.37	153.21
48	-27.831	27.831	-153.21	147.64
49	-29.922	29.922	-147.64	141.66
50	-32.077	32.077	-141.66	135.24
51	-34.291	34.291	-135.24	128.39
52	-35.987	35.987	-128.39	121.19
53	-37.237	37.237	-121.19	113.74
54	-38.098	38.098	-113.74	106.12
55	-38.529	38.529	-106.12	98.417
56	-38.604	38.604	-98.417	90.696
57	-38.389	38.389	-90.696	83.018
58	-37.950	37.950	-83.018	75.428
59	-37.342	37.342	-75.428	67.960

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-36.618	36.618	-67.960	60.636
61	-35.824	35.824	-60.636	53.471
62	-33.201	33.201	-53.471	46.831
63	-30.604	30.604	-46.831	40.710
64	-28.051	28.051	-40.710	35.100
65	-25.557	25.557	-35.100	29.989
66	-23.135	23.135	-29.989	25.362
67	-20.796	20.796	-25.362	21.202
68	-18.549	18.549	-21.202	17.493
69	-16.401	16.401	-17.493	14.212
70	-14.359	14.359	-14.212	11.341
71	-12.426	12.426	-11.341	8.8555
72	-10.607	10.607	-8.8555	6.7341
73	-8.9044	8.9044	-6.7341	4.9532
74	-7.3206	7.3206	-4.9532	3.4891
75	-5.8569	5.8569	-3.4891	2.3177
76	-4.5145	4.5145	-2.3177	1.4148
77	-3.2938	3.2938	-1.4148	0.75605
78	-2.1954	2.1954	-0.75605	0.31698
79	-1.2193	1.2193	-0.31698	7.31252E-02
80	-0.36561	0.36561	-7.31252E-02	1.07692E-14

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 1039. REMNOR=0.1376E-18 RATIO =0.6851E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.6851E-01 RATIO= 0.000
MAX UN= 14.13 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1182 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 284.1 REMNOR=0.2236E-18 RATIO =0.3583E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.3583E-01 RATIO= 0.000
MAX UN= 3.995 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.3957E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 190.7 REMNOR=0.2830E-17 RATIO =0.2935E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.2935E-01 RATIO= 0.000
MAX UN= 6.776 IEQ= 53 NODE 27 DOF 1 Y-DISPL.F
MIN UN=-1.130 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 3.002 REMNOR=0.1185E-17 RATIO =0.3683E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.3683E-02 RATIO= 0.000
MAX UN= 1.468 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
MIN UN=-.3519E-01 IEQ= 135 NODE 68 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM=0.1012E-01 REMNOR=0.1172E-17 RATIO =0.2139E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.2139E-03 RATIO= 0.000
MAX UN=0.1009E-07 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.4091E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.2213E+06  RIMNOR=0.2031E+07
           RENORM=0.1067E-02  REMNOR=0.1549E-17  RATIO =0.6943E-04  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 64.11      RMMAX = 188.4
           RTSMAL=0.1000E-03  RMSMAL=0.1000E-02
           RDT   =0.2213E+06  RDR   =0.2031E+07
           RATIO=0.6943E-04  RATIO= 0.000
           MAX UN=0.1451E-01  IEQ=   121  NODE    61  DOF   1  Y-DISPL.F
           MIN UN=-.8356E-08  IEQ=    7  NODE    4  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*      |
|                                                                              |
|                                                                              |
|                               NewProject.BaseDesignSection_28.Nominal_63      |
|                                                                              |
|                               Exe Time :24 May 2018      18:25:47          |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	1.9473034E-02	-2.2062447E-03	
2	1.9031785E-02	-2.2062447E-03	
3	1.8590537E-02	-2.2062382E-03	
4	1.8149291E-02	-2.2062056E-03	
5	1.7708058E-02	-2.2061144E-03	
6	1.7266853E-02	-2.2059186E-03	
7	1.6825702E-02	-2.2055592E-03	
8	1.6384645E-02	-2.2049639E-03	
9	1.5943737E-02	-2.2040473E-03	
10	1.5503054E-02	-2.2027103E-03	
11	1.5062689E-02	-2.2008407E-03	
12	1.4622761E-02	-2.1983130E-03	
13	1.4183417E-02	-2.1949885E-03	
14	1.3744829E-02	-2.1907152E-03	
15	1.3307205E-02	-2.1853282E-03	
16	1.2870784E-02	-2.1786491E-03	
17	1.2435842E-02	-2.1704865E-03	
18	1.2002700E-02	-2.1606360E-03	
19	1.1571715E-02	-2.1488800E-03	
20	1.1143290E-02	-2.1349877E-03	
21	1.0717880E-02	-2.1187155E-03	
22	1.0295982E-02	-2.0998064E-03	
23	9.8781490E-03	-2.0780299E-03	
24	9.4649723E-03	-2.0532212E-03	
25	9.0570693E-03	-2.0252813E-03	
26	8.6550708E-03	-1.9941767E-03	
27	8.2596094E-03	-1.9599402E-03	
28	7.8712990E-03	-1.9226693E-03	
29	7.4907330E-03	-1.8825282E-03	
30	7.1184638E-03	-1.8397463E-03	
31	6.7549913E-03	-1.7946120E-03	
32	6.4007572E-03	-1.7474309E-03	
33	6.0561380E-03	-1.6984906E-03	
34	5.7214601E-03	-1.6480630E-03	
35	5.3969949E-03	-1.5964041E-03	
36	5.0829645E-03	-1.5437545E-03	
37	4.7795455E-03	-1.4903410E-03	
38	4.4868664E-03	-1.4363756E-03	
39	4.2050187E-03	-1.3820584E-03	
40	3.9340540E-03	-1.3275769E-03	
41	3.6739872E-03	-1.2731072E-03	
42	3.4247993E-03	-1.2188146E-03	
43	3.1864392E-03	-1.1648545E-03	
44	2.9588256E-03	-1.1113730E-03	
45	2.7418499E-03	-1.0585079E-03	
46	2.5353738E-03	-1.0063884E-03	
47	2.3392367E-03	-9.5513732E-04	
48	2.1532532E-03	-9.0487081E-04	
49	1.9772154E-03	-8.5569923E-04	
50	1.8108943E-03	-8.0772805E-04	
51	1.6540383E-03	-7.6105755E-04	
52	1.5063745E-03	-7.1578377E-04	
53	1.3676282E-03	-6.7200473E-04	
54	1.2374743E-03	-6.2980586E-04	
55	1.1155945E-03	-5.8927820E-04	
56	1.0016458E-03	-5.5050896E-04	
57	8.9526794E-04	-5.1358425E-04	
58	7.9608343E-04	-4.7858956E-04	
59	7.0369775E-04	-4.4561027E-04	
60	6.1769926E-04	-4.1473201E-04	
61	5.3765912E-04	-3.8604111E-04	
62	4.6313116E-04	-3.5962496E-04	
63	3.9365571E-04	-3.3551033E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	3.2877645E-04	-3.1365440E-04
65	2.6804728E-04	-2.9399844E-04
66	2.1103530E-04	-2.7646912E-04
67	1.5732364E-04	-2.6097970E-04
68	1.0651404E-04	-2.4743102E-04
69	5.8229117E-05	-2.3571408E-04
70	1.2114029E-05	-2.2571282E-04
71	-3.2162283E-05	-2.1730566E-04
72	-7.4906095E-05	-2.1036642E-04
73	-1.1639802E-04	-2.0476467E-04
74	-1.5689217E-04	-2.0036599E-04
75	-1.9661541E-04	-1.9703223E-04
76	-2.3576660E-04	-1.9462165E-04
77	-2.7451593E-04	-1.9298906E-04
78	-3.1300419E-04	-1.9198592E-04
79	-3.5134213E-04	-1.9146022E-04
80	-3.8960974E-04	-1.9125638E-04
81	-4.2785744E-04	-1.9121525E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-1.9473E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4571	-1.9032E-02	2.294	0.5712	2.294	1.603	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	2.285	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9162	-1.8591E-02	4.628	1.152	4.628	3.119	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	4.581	0.000	0.000	Ug5_2_8_L_0						
4 D	1.378	-1.8149E-02	7.015	1.747	7.015	4.509	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	6.890	0.000	0.000	Ug5_2_8_L_0						
5 D	1.842	-1.7708E-02	9.440	2.351	9.440	5.780	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	9.208	0.000	0.000	Ug5_2_8_L_0						
6 D	2.306	-1.7267E-02	11.88	2.959	11.88	6.958	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	11.53	0.000	0.000	Ug5_2_8_L_0						
7 D	2.771	-1.6826E-02	14.32	3.567	14.32	8.073	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	13.85	0.000	0.000	Ug5_2_8_L_0						
8 D	3.240	-1.6385E-02	16.87	4.202	16.87	9.145	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	16.20	0.000	0.000	Ug5_2_8_L_0						
9 D	3.712	-1.5944E-02	19.46	4.846	19.46	10.19	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	18.56	0.000	0.000	Ug5_2_8_L_0						
10 D	4.173	-1.5503E-02	21.84	5.437	21.84	11.22	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	20.87	0.000	0.000	Ug5_2_8_L_0						
11 D	4.641	-1.5063E-02	24.34	6.061	24.34	12.23	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	23.20	0.000	0.000	Ug5_2_8_L_0						
12 D	5.107	-1.4623E-02	26.81	6.676	26.81	13.24	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	25.53	0.000	0.000	Ug5_2_8_L_0						
13 D	5.565	-1.4183E-02	29.14	7.255	29.14	14.24	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	27.83	0.000	0.000	Ug5_2_8_L_0						
14 D	6.029	-1.3745E-02	31.57	7.861	31.57	15.24	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	30.15	0.000	0.000	Ug5_2_8_L_0						
15 D	6.492	-1.3307E-02	33.98	8.462	33.98	16.23	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	32.46	0.000	0.000	Ug5_2_8_L_0						
16 D	6.955	-1.2871E-02	36.38	9.059	36.38	17.23	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	34.77	0.000	0.000	Ug5_2_8_L_0						
17 D	7.412	-1.2436E-02	38.68	9.631	38.68	18.22	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	37.06	0.000	0.000	Ug5_2_8_L_0						
18 D	7.873	-1.2003E-02	41.06	10.22	41.06	19.21	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	39.37	0.000	0.000	Ug5_2_8_L_0						
19 D	8.334	-1.1572E-02	43.43	10.81	43.43	20.21	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	41.67	0.000	0.000	Ug5_2_8_L_0						
20 D	8.791	-1.1143E-02	45.72	11.38	45.72	21.20	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	43.95	0.000	0.000	Ug5_2_8_L_0						
21 D	9.251	-1.0718E-02	48.08	11.97	48.08	22.19	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	46.26	0.000	0.000	Ug5_2_8_L_0						
22 D	9.711	-1.0296E-02	50.43	12.56	50.43	23.18	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	48.56	0.000	0.000	Ug5_2_8_L_0						
23 D	10.17	-9.8781E-03	52.71	13.12	52.71	24.18	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	50.84	0.000	0.000	Ug5_2_8_L_0						
24 D	10.63	-9.4650E-03	55.06	13.71	55.06	25.17	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	53.14	0.000	0.000	Ug5_2_8_L_0						
25 D	11.09	-9.0571E-03	57.40	14.29	57.40	26.17	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	55.43	0.000	0.000	Ug5_2_8_L_0						
26 D	11.55	-8.6551E-03	59.73	14.87	59.73	27.16	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	57.73	0.000	0.000	Ug5_2_8_L_0						
27 D	12.00	-8.2596E-03	62.01	15.44	62.01	28.16	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	60.01	0.000	0.000	Ug5_2_8_L_0						
28 D	12.46	-7.8713E-03	64.34	16.02	64.34	29.16	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	62.31	0.000	0.000	Ug5_2_8_L_0					
29 D	12.92	-7.4907E-03	66.67	16.60	66.67	30.15	ACTIVE	0.000	-5.600	48.00
1.000	1.000	64.60	0.000	0.000	Ug5_2_8_L_0					
30 D	13.38	-7.1185E-03	68.95	17.17	68.95	31.15	ACTIVE	0.000	-5.800	49.71
1.000	1.000	66.88	0.000	0.000	Ug5_2_8_L_0					
31 D	13.83	-6.7550E-03	71.27	17.75	71.27	32.15	ACTIVE	0.000	-6.000	51.43
1.000	1.000	69.17	0.000	0.000	Ug5_2_8_L_0					
32 D	14.29	-6.4008E-03	73.59	18.32	73.59	33.15	ACTIVE	0.000	-6.200	53.14
1.000	1.000	71.47	0.000	0.000	Ug5_2_8_L_0					
33 D	14.75	-6.0561E-03	75.87	18.89	75.87	34.15	ACTIVE	0.000	-6.400	54.86
1.000	1.000	73.75	0.000	0.000	Ug5_2_8_L_0					
34 D	15.21	-5.7215E-03	78.19	19.47	78.19	35.15	ACTIVE	0.000	-6.600	56.57
1.000	1.000	76.04	0.000	0.000	Ug5_2_8_L_0					
35 D	15.67	-5.3970E-03	80.51	20.05	80.51	36.15	ACTIVE	0.000	-6.800	58.29
1.000	1.000	78.33	0.000	0.000	Ug5_2_8_L_0					
36 D	16.12	-5.0830E-03	82.82	20.62	82.82	37.16	ACTIVE	0.000	-7.000	60.00
1.000	1.000	80.62	0.000	0.000	Ug5_2_8_L_0					
37 D	16.58	-4.7795E-03	85.10	21.19	85.10	38.16	ACTIVE	0.000	-7.200	61.71
1.000	1.000	82.90	0.000	0.000	Ug5_2_8_L_0					
38 D	17.04	-4.4869E-03	87.41	21.76	87.41	39.16	ACTIVE	0.000	-7.400	63.43
1.000	1.000	85.19	0.000	0.000	Ug5_2_8_L_0					
39 D	17.50	-4.2050E-03	89.72	22.34	89.72	40.17	ACTIVE	0.000	-7.600	65.14
1.000	1.000	87.48	0.000	0.000	Ug5_2_8_L_0					
40 D	17.95	-3.9341E-03	92.00	22.91	92.00	41.17	ACTIVE	0.000	-7.800	66.86
1.000	1.000	89.76	0.000	0.000	Ug5_2_8_L_0					
41 D	18.41	-3.6740E-03	94.31	23.48	94.31	42.18	ACTIVE	0.000	-8.000	68.57
1.000	1.000	92.05	0.000	0.000	Ug5_2_8_L_0					
42 D	18.87	-3.4248E-03	96.62	24.06	96.62	43.19	ACTIVE	0.000	-8.200	70.29
1.000	1.000	94.34	0.000	0.000	Ug5_2_8_L_0					
43 D	19.32	-3.1864E-03	98.89	24.62	98.89	44.19	ACTIVE	0.000	-8.400	72.00
1.000	1.000	96.62	0.000	0.000	Ug5_2_8_L_0					
44 D	19.78	-2.9588E-03	101.2	25.20	101.2	45.20	ACTIVE	0.000	-8.600	73.71
1.000	1.000	98.91	0.000	0.000	Ug5_2_8_L_0					
45 D	20.24	-2.7418E-03	103.5	25.77	103.5	46.21	ACTIVE	0.000	-8.800	75.43
1.000	1.000	101.2	0.000	0.000	Ug5_2_8_L_0					
46 D	20.70	-2.5354E-03	105.8	26.35	105.8	47.22	ACTIVE	0.000	-9.000	77.14
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
47 D	21.15	-2.3392E-03	108.1	26.92	108.1	48.23	UL-RL	5.6410E+04	-9.200	78.86
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
48 D	21.61	-2.1533E-03	110.4	27.49	110.4	49.24	UL-RL	5.6410E+04	-9.400	80.57
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
49 D	22.07	-1.9772E-03	112.7	28.07	112.7	50.26	UL-RL	5.6410E+04	-9.600	82.29
1.000	1.000	110.4	0.000	0.000	Ug5_2_8_L_0					
50 D	22.53	-1.8109E-03	115.0	28.64	115.0	51.27	UL-RL	5.6410E+04	-9.800	84.00
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
51 D	22.99	-1.6540E-03	117.3	29.22	117.3	52.28	UL-RL	5.6410E+04	-10.000	85.71
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
52 D	23.44	-1.5064E-03	119.6	29.79	119.6	53.29	UL-RL	5.6410E+04	-10.200	87.43
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
53 D	23.90	-1.3676E-03	121.9	30.36	121.9	54.31	UL-RL	5.6410E+04	-10.400	89.14
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
54 D	24.36	-1.2375E-03	124.2	30.94	124.2	55.32	UL-RL	5.6410E+04	-10.600	90.86
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
55 D	24.82	-1.1156E-03	126.5	31.52	126.5	56.34	UL-RL	5.6410E+04	-10.800	92.57
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
56 D	25.28	-1.0016E-03	128.8	32.09	128.8	57.35	UL-RL	5.6410E+04	-11.000	94.29
1.000	1.000	126.4	0.000	0.000	Ug5_2_8_L_0					
57 D	25.73	-8.9527E-04	131.0	32.66	131.0	58.37	UL-RL	5.6410E+04	-11.200	96.00
1.000	1.000	128.7	0.000	0.000	Ug5_2_8_L_0					
58 D	26.19	-7.9608E-04	133.3	33.24	133.3	59.39	UL-RL	5.6410E+04	-11.400	97.71
1.000	1.000	131.0	0.000	0.000	Ug5_2_8_L_0					
59 D	26.65	-7.0370E-04	135.6	33.82	135.6	60.40	UL-RL	5.6410E+04	-11.600	99.43
1.000	1.000	133.2	0.000	0.000	Ug5_2_8_L_0					
60 D	27.11	-6.1770E-04	137.9	34.39	137.9	61.42	UL-RL	5.6410E+04	-11.800	101.1
1.000	1.000	135.5	0.000	0.000	Ug5_2_8_L_0					
61 D	27.56	-5.3766E-04	140.2	34.97	140.2	62.44	UL-RL	5.6410E+04	-12.000	102.9
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
62 D	31.77	-4.6313E-04	142.3	54.26	142.3	63.42	UL-RL	2.7006E+04	-12.200	104.6
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
63 D	32.68	-3.9366E-04	144.4	57.14	144.4	64.53	UL-RL	2.7006E+04	-12.400	106.3
1.000	1.000	163.4	0.000	0.000	Ug6_741_743_L_0					
64 D	33.57	-3.2878E-04	146.5	59.87	146.5	65.58	UL-RL	2.7006E+04	-12.600	108.0
1.000	1.000	167.9	0.000	0.000	Ug6_741_743_L_0					
65 D	34.44	-2.6805E-04	148.6	62.49	148.6	66.59	UL-RL	2.7006E+04	-12.800	109.7
1.000	1.000	172.2	0.000	0.000	Ug6_741_743_L_0					
66 D	35.28	-2.1104E-04	150.6	64.99	150.6	67.57	UL-RL	2.7006E+04	-13.000	111.4
1.000	1.000	176.4	0.000	0.000	Ug6_741_743_L_0					
67 D	36.11	-1.5732E-04	152.7	67.40	152.7	68.52	UL-RL	2.7006E+04	-13.200	113.1
1.000	1.000	180.5	0.000	0.000	Ug6_741_743_L_0					
68 D	36.81	-1.0651E-04	154.7	69.17	154.7	69.72	UL-RL	2.7006E+04	-13.400	114.9
1.000	1.000	184.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.46	-5.8229E-05	156.8	70.71	156.8	70.98	UL-RL	2.7006E+04	-13.60	116.6
1.000	1.000	187.3	0.000	0.000	Ug6_741_743_L_0					
70 D	38.07	-1.2114E-05	158.8	72.05	158.8	72.29	UL-RL	2.7006E+04	-13.80	118.3
1.000	1.000	190.3	0.000	0.000	Ug6_741_743_L_0					
71 D	38.67	3.2162E-05	160.9	73.35	160.9	73.58	UL-RL	2.7006E+04	-14.00	120.0
1.000	1.000	193.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.27	7.4906E-05	162.9	74.64	162.9	74.84	UL-RL	2.7006E+04	-14.20	121.7
1.000	1.000	196.4	0.000	0.000	Ug6_741_743_L_0					
73 D	39.87	1.1640E-04	165.0	75.91	165.0	76.09	UL-RL	2.7006E+04	-14.40	123.4
1.000	1.000	199.3	0.000	0.000	Ug6_741_743_L_0					
74 D	40.46	1.5689E-04	167.1	77.17	167.1	77.33	UL-RL	2.7006E+04	-14.60	125.1
1.000	1.000	202.3	0.000	0.000	Ug6_741_743_L_0					
75 D	41.05	1.9662E-04	169.1	78.41	169.1	78.56	UL-RL	2.7006E+04	-14.80	126.9
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.65	2.3577E-04	171.2	79.65	171.2	79.78	UL-RL	2.7006E+04	-15.00	128.6
1.000	1.000	208.2	0.000	0.000	Ug6_741_743_L_0					
77 D	42.24	2.7452E-04	173.2	80.89	173.2	80.99	UL-RL	2.7006E+04	-15.20	130.3
1.000	1.000	211.2	0.000	0.000	Ug6_741_743_L_0					
78 D	42.84	3.1300E-04	175.3	82.18	175.3	82.26	UL-RL	2.7006E+04	-15.40	132.0
1.000	1.000	214.2	0.000	0.000	Ug6_741_743_L_0					
79 D	43.44	3.5134E-04	177.4	83.47	177.4	83.53	UL-RL	2.7006E+04	-15.60	133.7
1.000	1.000	217.2	0.000	0.000	Ug6_741_743_L_0					
80 D	44.04	3.8961E-04	179.4	84.76	179.4	84.80	UL-RL	2.7006E+04	-15.80	135.4
1.000	1.000	220.2	0.000	0.000	Ug6_741_743_L_0					
81 D	22.32	4.2786E-04	181.5	86.05	181.5	86.06	UL-RL	2.7006E+04	-16.00	137.1
1.000	1.000	223.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018 18:25:47 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FACTOR	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	1.0718E-02	0.000	0.000	40.00	60.41	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.767	1.0296E-02	1.714	11.55	42.00	65.98	PASSIVE	0.000	-4.200	2.286	
1.000	1.000	13.84	0.000	0.000	Ug5_2_8_L_0						
23 D	5.535	9.8781E-03	3.429	23.10	44.00	64.48	PASSIVE	0.000	-4.400	4.571	
1.000	1.000	27.67	0.000	0.000	Ug5_2_8_L_0						
24 D	8.302	9.4650E-03	5.143	34.65	46.00	63.03	PASSIVE	0.000	-4.600	6.857	
1.000	1.000	41.51	0.000	0.000	Ug5_2_8_L_0						
25 D	11.07	9.0571E-03	6.857	46.20	48.00	61.64	PASSIVE	0.000	-4.800	9.143	
1.000	1.000	55.35	0.000	0.000	Ug5_2_8_L_0						
26 D	13.84	8.6551E-03	8.571	57.75	50.00	60.31	PASSIVE	0.000	-5.000	11.43	
1.000	1.000	69.18	0.000	0.000	Ug5_2_8_L_0						
27 D	16.60	8.2596E-03	10.29	69.31	52.00	69.31	PASSIVE	0.000	-5.200	13.71	
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0						
28 D	19.37	7.8713E-03	12.00	80.86	54.00	80.86	PASSIVE	0.000	-5.400	16.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	96.86	0.000	0.000	Ug5_2_8_L_0					
29 D	22.14	7.4907E-03	13.71	92.41	56.00	92.41	PASSIVE	0.000	-5.600	18.29
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
30 D	24.41	7.1185E-03	15.43	101.5	58.00	101.5	V-C	9348.	-5.800	20.57
1.000	1.000	122.0	0.000	0.000	Ug5_2_8_L_0					
31 D	24.25	6.7550E-03	17.14	98.41	60.00	98.41	V-C	9348.	-6.000	22.86
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
32 D	24.12	6.4008E-03	18.86	95.46	62.00	95.46	V-C	9348.	-6.200	25.14
1.000	1.000	120.6	0.000	0.000	Ug5_2_8_L_0					
33 D	24.01	6.0561E-03	20.57	92.62	64.00	92.62	V-C	9348.	-6.400	27.43
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
34 D	23.92	5.7215E-03	22.29	89.91	66.00	89.91	V-C	9348.	-6.600	29.71
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
35 D	23.86	5.3970E-03	24.00	87.32	68.00	87.32	V-C	9348.	-6.800	32.00
1.000	1.000	119.3	0.000	0.000	Ug5_2_8_L_0					
36 D	23.83	5.0830E-03	25.71	84.85	70.00	84.85	V-C	9348.	-7.000	34.29
1.000	1.000	119.1	0.000	0.000	Ug5_2_8_L_0					
37 D	23.82	4.7795E-03	27.43	82.52	72.00	82.52	V-C	9348.	-7.200	36.57
1.000	1.000	119.1	0.000	0.000	Ug5_2_8_L_0					
38 D	23.83	4.4869E-03	29.14	80.31	74.00	80.31	V-C	9348.	-7.400	38.86
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
39 D	23.88	4.2050E-03	30.86	78.24	76.00	78.24	V-C	9348.	-7.600	41.14
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
40 D	23.94	3.9341E-03	32.57	76.29	78.00	76.29	V-C	9348.	-7.800	43.43
1.000	1.000	119.7	0.000	0.000	Ug5_2_8_L_0					
41 D	24.04	3.6740E-03	34.29	74.47	80.00	74.47	V-C	9348.	-8.000	45.71
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
42 D	24.16	3.4248E-03	36.00	72.78	82.00	72.78	V-C	9348.	-8.200	48.00
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
43 D	24.30	3.1864E-03	37.71	71.22	84.00	71.22	V-C	9348.	-8.400	50.29
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
44 D	24.47	2.9588E-03	39.43	69.78	86.00	69.78	V-C	9348.	-8.600	52.57
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
45 D	24.67	2.7418E-03	41.14	68.47	88.00	68.47	V-C	9348.	-8.800	54.86
1.000	1.000	123.3	0.000	0.000	Ug5_2_8_L_0					
46 D	24.88	2.5354E-03	42.86	67.28	90.00	67.28	V-C	9348.	-9.000	57.14
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
47 D	25.13	2.3392E-03	44.57	66.20	92.00	66.21	UL-RL	2.8045E+04	-9.200	59.43
1.000	1.000	125.6	0.000	0.000	Ug5_2_8_L_0					
48 D	25.39	2.1533E-03	46.29	65.25	94.00	65.25	UL-RL	2.8045E+04	-9.400	61.71
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
49 D	25.68	1.9772E-03	48.00	64.40	96.00	64.41	UL-RL	2.8045E+04	-9.600	64.00
1.000	1.000	128.4	0.000	0.000	Ug5_2_8_L_0					
50 D	25.99	1.8109E-03	49.71	63.67	98.00	63.68	UL-RL	2.8045E+04	-9.800	66.29
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
51 D	26.32	1.6540E-03	51.43	63.04	100.00	63.05	UL-RL	2.8045E+04	-10.000	68.57
1.000	1.000	131.6	0.000	0.000	Ug5_2_8_L_0					
52 D	26.68	1.5064E-03	53.14	62.52	102.0	62.53	UL-RL	2.8045E+04	-10.200	70.86
1.000	1.000	133.4	0.000	0.000	Ug5_2_8_L_0					
53 D	27.05	1.3676E-03	54.86	62.10	104.0	62.11	UL-RL	2.8045E+04	-10.400	73.14
1.000	1.000	135.2	0.000	0.000	Ug5_2_8_L_0					
54 D	27.44	1.2375E-03	56.57	61.77	106.0	61.78	UL-RL	2.8045E+04	-10.600	75.43
1.000	1.000	137.2	0.000	0.000	Ug5_2_8_L_0					
55 D	27.85	1.1156E-03	58.29	61.53	108.0	61.55	UL-RL	2.8045E+04	-10.800	77.71
1.000	1.000	139.2	0.000	0.000	Ug5_2_8_L_0					
56 D	28.28	1.0016E-03	60.00	61.38	110.0	61.40	UL-RL	2.8045E+04	-11.000	80.00
1.000	1.000	141.4	0.000	0.000	Ug5_2_8_L_0					
57 D	28.72	8.9527E-04	61.71	61.32	112.0	61.33	UL-RL	2.8045E+04	-11.200	82.29
1.000	1.000	143.6	0.000	0.000	Ug5_2_8_L_0					
58 D	29.18	7.9608E-04	63.43	61.33	114.0	61.35	UL-RL	2.8045E+04	-11.400	84.57
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
59 D	29.65	7.0370E-04	65.14	61.41	116.0	61.43	UL-RL	2.8045E+04	-11.600	86.86
1.000	1.000	148.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.14	6.1770E-04	66.86	61.56	118.0	61.59	UL-RL	2.8045E+04	-11.800	89.14
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
61 D	30.64	5.3766E-04	68.57	61.78	120.0	61.81	UL-RL	2.8045E+04	-12.000	91.43
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
62 D	30.55	4.6313E-04	70.09	59.06	121.8	61.39	UL-RL	2.1089E+04	-12.200	93.71
1.000	1.000	152.8	0.000	0.000	Ug6_741_743_L_0					
63 D	30.89	3.9366E-04	71.60	58.44	123.6	62.28	UL-RL	2.1089E+04	-12.400	96.00
1.000	1.000	154.4	0.000	0.000	Ug6_741_743_L_0					
64 D	31.24	3.2878E-04	73.11	57.94	125.4	63.16	UL-RL	2.1089E+04	-12.600	98.29
1.000	1.000	156.2	0.000	0.000	Ug6_741_743_L_0					
65 D	31.62	2.6805E-04	74.63	57.53	127.2	64.05	UL-RL	2.1089E+04	-12.800	100.6
1.000	1.000	158.1	0.000	0.000	Ug6_741_743_L_0					
66 D	32.01	2.1104E-04	76.14	57.20	129.0	64.94	UL-RL	2.1089E+04	-13.000	102.9
1.000	1.000	160.1	0.000	0.000	Ug6_741_743_L_0					
67 D	32.42	1.5732E-04	77.66	56.95	130.8	65.83	UL-RL	2.1089E+04	-13.200	105.1
1.000	1.000	162.1	0.000	0.000	Ug6_741_743_L_0					
68 D	32.84	1.0651E-04	79.17	56.77	132.6	66.72	UL-RL	2.1089E+04	-13.400	107.4
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	33.27	5.8229E-05	80.69	56.64	134.4	67.60	UL-RL	2.1089E+04	-13.60	109.7
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
70 D	33.71	1.2114E-05	82.20	56.56	136.2	68.49	UL-RL	2.1089E+04	-13.80	112.0
1.000	1.000	168.6	0.000	0.000	Ug6_741_743_L_0					
71 D	34.16	-3.2162E-05	83.71	56.52	138.0	69.38	UL-RL	2.1089E+04	-14.00	114.3
1.000	1.000	170.8	0.000	0.000	Ug6_741_743_L_0					
72 D	34.62	-7.4906E-05	85.23	56.51	139.8	70.27	UL-RL	2.1089E+04	-14.20	116.6
1.000	1.000	173.1	0.000	0.000	Ug6_741_743_L_0					
73 D	35.08	-1.1640E-04	86.74	56.54	141.6	71.16	UL-RL	2.1089E+04	-14.40	118.9
1.000	1.000	175.4	0.000	0.000	Ug6_741_743_L_0					
74 D	35.54	-1.5689E-04	88.26	56.58	143.4	72.05	UL-RL	2.1089E+04	-14.60	121.1
1.000	1.000	177.7	0.000	0.000	Ug6_741_743_L_0					
75 D	36.01	-1.9662E-04	89.77	56.64	145.2	72.94	UL-RL	2.1089E+04	-14.80	123.4
1.000	1.000	180.1	0.000	0.000	Ug6_741_743_L_0					
76 D	36.49	-2.3577E-04	91.29	56.71	147.0	73.84	UL-RL	2.1089E+04	-15.00	125.7
1.000	1.000	182.4	0.000	0.000	Ug6_741_743_L_0					
77 D	36.96	-2.7452E-04	92.80	56.80	148.8	74.73	UL-RL	2.1089E+04	-15.20	128.0
1.000	1.000	184.8	0.000	0.000	Ug6_741_743_L_0					
78 D	37.43	-3.1300E-04	94.31	56.88	150.6	75.62	UL-RL	2.1089E+04	-15.40	130.3
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
79 D	37.91	-3.5134E-04	95.83	56.97	152.4	76.51	UL-RL	2.1089E+04	-15.60	132.6
1.000	1.000	189.5	0.000	0.000	Ug6_741_743_L_0					
80 D	38.38	-3.8961E-04	97.34	57.06	154.2	77.40	UL-RL	2.1089E+04	-15.80	134.9
1.000	1.000	191.9	0.000	0.000	Ug6_741_743_L_0					
81 D	19.43	-4.2786E-04	98.86	57.16	156.0	78.29	UL-RL	2.1089E+04	-16.00	137.1
1.000	1.000	194.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-4.81261E-09	4.81261E-09	-4.83055E-10	6.83633E-12
2	0.45709	-0.45709	-1.60067E-10	9.14178E-02
3	1.3733	-1.3733	-9.14178E-02	0.36608
4	2.7512	-2.7512	-0.36608	0.91632
5	4.5928	-4.5928	-0.91632	1.8349
6	6.8988	-6.8988	-1.8349	3.2146
7	9.6693	-9.6693	-3.2146	5.1485
8	12.910	-12.910	-5.1485	7.7304
9	16.622	-16.622	-7.7304	11.055
10	20.795	-20.795	-11.055	15.214
11	25.436	-25.436	-15.214	20.301
12	30.542	-30.542	-20.301	26.409
13	36.108	-36.108	-26.409	33.631
14	42.137	-42.137	-33.631	42.058
15	48.629	-48.629	-42.058	51.784
16	55.584	-55.584	-51.784	62.901
17	62.996	-62.996	-62.901	75.500
18	70.869	-70.869	-75.500	89.674
19	79.204	-79.204	-89.674	105.51
20	87.995	-87.995	-105.51	123.11
21	97.246	-97.246	-123.11	142.56
22	104.19	-104.19	-142.56	163.40
23	108.82	-108.82	-163.40	185.17
24	111.15	-111.15	-185.17	207.40
25	111.17	-111.17	-207.40	229.63
26	108.88	-108.88	-229.63	251.40
27	104.27	-104.27	-251.40	272.26
28	97.365	-97.365	-272.26	291.73
29	88.146	-88.146	-291.73	309.36
30	77.114	-77.114	-309.36	324.78
31	66.697	-66.697	-324.78	338.12
32	56.871	-56.871	-338.12	349.50
33	47.610	-47.610	-349.50	359.02
34	38.894	-38.894	-359.02	366.80
35	30.697	-30.697	-366.80	372.94
36	22.993	-22.993	-372.94	377.54
37	15.756	-15.756	-377.54	380.69
38	8.9605	-8.9605	-380.69	382.48
39	2.5816	-2.5816	-382.48	383.00
40	-3.4089	3.4089	-383.00	382.31
41	-9.0350	9.0350	-382.31	380.51
42	-14.322	14.322	-380.51	377.64
43	-19.298	19.298	-377.64	373.78
44	-23.986	23.986	-373.78	368.99
45	-28.411	28.411	-368.99	363.30
46	-32.597	32.597	-363.30	356.78
47	-36.570	36.570	-356.78	349.47
48	-40.350	40.350	-349.47	341.40
49	-43.962	43.962	-341.40	332.61
50	-47.429	47.429	-332.61	323.12
51	-50.770	50.770	-323.12	312.97
52	-54.006	54.006	-312.97	302.17
53	-57.159	57.159	-302.17	290.74
54	-60.246	60.246	-290.74	278.69
55	-63.285	63.285	-278.69	266.03
56	-66.295	66.295	-266.03	252.77
57	-69.292	69.292	-252.77	238.91
58	-72.291	72.291	-238.91	224.45
59	-75.308	75.308	-224.45	209.39

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-78.356	78.356	-209.39	193.72
61	-81.448	81.448	-193.72	177.43
62	-80.236	80.236	-177.43	161.38
63	-78.440	78.440	-161.38	145.70
64	-76.110	76.110	-145.70	130.47
65	-73.289	73.289	-130.47	115.82
66	-70.015	70.015	-115.82	101.81
67	-66.324	66.324	-101.81	88.548
68	-62.357	62.357	-88.548	76.077
69	-58.171	58.171	-76.077	64.443
70	-53.816	53.816	-64.443	53.679
71	-49.307	49.307	-53.679	43.818
72	-44.653	44.653	-43.818	34.888
73	-39.864	39.864	-34.888	26.915
74	-34.947	34.947	-26.915	19.925
75	-29.907	29.907	-19.925	13.944
76	-24.748	24.748	-13.944	8.9943
77	-19.472	19.472	-8.9943	5.1000
78	-14.069	14.069	-5.1000	2.2862
79	-8.5417	8.5417	-2.2862	0.57781
80	-2.8889	2.8889	-0.57781	9.05243E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 440.5 REMNOR=0.1549E-17 RATIO =0.2689E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2689E-01 RATIO= 0.000
MAX UN= 7.064 IEQ= 57 NODE 29 DOF 1 Y-DISPL.F
MIN UN=-.8312E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 126.0 REMNOR=0.1559E-17 RATIO =0.1438E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.1438E-01 RATIO= 0.000
MAX UN= 2.378 IEQ= 63 NODE 32 DOF 1 Y-DISPL.F
MIN UN=-.4778E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 461.4 REMNOR=0.1752E-17 RATIO =0.2752E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2752E-01 RATIO= 0.000
MAX UN= 21.36 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.5779 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 2.925 REMNOR=0.3190E-17 RATIO =0.2191E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2191E-02 RATIO= 0.000
MAX UN= 1.185 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.8780 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM=0.7400E-02 REMNOR=0.2724E-17 RATIO =0.1102E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.1102E-03 RATIO= 0.000
MAX UN=0.6220E-01 IEQ= 127 NODE 64 DOF 1 Y-DISPL.F
MIN UN=-.9613E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
RINORM=0.6092E+06  RIMNOR=0.8227E+07
RENORM=0.5120E-04  REMNOR=0.3272E-17  RATIO =0.9167E-05  TOLER =0.1000E-03  CONVERGED !
RFMAX = 111.2      RMMAX = 383.0
RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
RDT   =0.6092E+06  RDR    =0.8227E+07
RATIOT=0.9167E-05  RATIO= 0.000
MAX UN=0.9793E-08  IEQ=   45 NODE    23 DOF   1  Y-DISPL.F
MIN UN=-.2648E-02  IEQ=  139 NODE    70 DOF   1  Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS      0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                     |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
+-----+

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0075695E-02	-3.1648037E-03	
2	2.9442734E-02	-3.1648037E-03	
3	2.8809774E-02	-3.1647973E-03	
4	2.8176817E-02	-3.1647652E-03	
5	2.7543871E-02	-3.1646752E-03	
6	2.6910953E-02	-3.1644820E-03	
7	2.6278089E-02	-3.1641275E-03	
8	2.5645318E-02	-3.1635404E-03	
9	2.5012694E-02	-3.1626362E-03	
10	2.4380291E-02	-3.1613173E-03	
11	2.3748202E-02	-3.1594730E-03	
12	2.3116545E-02	-3.1569795E-03	
13	2.2485463E-02	-3.1537000E-03	
14	2.1855128E-02	-3.1494845E-03	
15	2.1225742E-02	-3.1441702E-03	
16	2.0597545E-02	-3.1375813E-03	
17	1.9970804E-02	-3.1295289E-03	
18	1.9345841E-02	-3.1198113E-03	
19	1.8723005E-02	-3.1082139E-03	
20	1.8102696E-02	-3.0945090E-03	
21	1.7485361E-02	-3.0784563E-03	
22	1.6871490E-02	-3.0598021E-03	
23	1.6261631E-02	-3.0382804E-03	
24	1.5656387E-02	-3.0136120E-03	
25	1.5056415E-02	-2.9855242E-03	
26	1.4462421E-02	-2.9537894E-03	
27	1.3875156E-02	-2.9182450E-03	
28	1.3295386E-02	-2.8787921E-03	
29	1.2723902E-02	-2.8353972E-03	
30	1.2161488E-02	-2.7880909E-03	
31	1.1608920E-02	-2.7369685E-03	
32	1.1066947E-02	-2.6821902E-03	
33	1.0536275E-02	-2.6239799E-03	
34	1.0017565E-02	-2.5626268E-03	
35	9.5114104E-03	-2.4984846E-03	
36	9.0183307E-03	-2.4319463E-03	
37	8.5387681E-03	-2.3634014E-03	
38	8.0730819E-03	-2.2932170E-03	
39	7.6215674E-03	-2.2217402E-03	
40	7.1844501E-03	-2.1492981E-03	
41	6.7618920E-03	-2.0761988E-03	
42	6.3539951E-03	-2.0027322E-03	
43	5.9608054E-03	-1.9291713E-03	
44	5.5823158E-03	-1.855726E-03	
45	5.2184712E-03	-1.7827778E-03	
46	4.8691645E-03	-1.7104130E-03	
47	4.5342498E-03	-1.6388917E-03	
48	4.2135381E-03	-1.5684146E-03	
49	3.9068017E-03	-1.4991704E-03	
50	3.6137774E-03	-1.4313371E-03	
51	3.3341632E-03	-1.3650817E-03	
52	3.0676225E-03	-1.3005611E-03	
53	2.8138185E-03	-1.2379315E-03	
54	2.5723277E-03	-1.1773267E-03	
55	2.3427437E-03	-1.1188847E-03	
56	2.1246210E-03	-1.0627340E-03	
57	1.9174891E-03	-1.0089973E-03	
58	1.7208534E-03	-9.5779218E-04	
59	1.5341959E-03	-9.0923199E-04	
60	1.3569769E-03	-8.6342611E-04	
61	1.1886348E-03	-8.2048062E-04	
62	1.0285871E-03	-7.8049874E-04	
63	8.7623421E-04	-7.4353333E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.3097249E-04	-7.0958722E-04
65	5.9219799E-04	-6.7866115E-04
66	4.5930764E-04	-6.5074104E-04
67	3.3170408E-04	-6.2578340E-04
68	2.0880169E-04	-6.0371448E-04
69	9.0032444E-05	-5.8443316E-04
70	-2.5149062E-05	-5.6781424E-04
71	-1.3726103E-04	-5.5371205E-04
72	-2.4679087E-04	-5.4196473E-04
73	-3.5419218E-04	-5.3239623E-04
74	-4.5988196E-04	-5.2481672E-04
75	-5.6423792E-04	-5.1902297E-04
76	-6.6759578E-04	-5.1479858E-04
77	-7.7024668E-04	-5.1191417E-04
78	-8.7243463E-04	-5.1012760E-04
79	-9.7435391E-04	-5.0918384E-04
80	-1.0761465E-03	-5.0881488E-04
81	-1.1779045E-03	-5.0873979E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0076E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4508	-2.9443E-02	2.335	0.5815	2.335	1.603	ACTIVE	0.000	-0.2000	1.673	
1.000	1.000	2.254	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9037	-2.8810E-02	4.711	1.173	4.711	3.119	ACTIVE	0.000	-0.4000	3.345	
1.000	1.000	4.519	0.000	0.000	Ug5_2_8_L_0						
4 D	1.359	-2.8177E-02	7.140	1.778	7.140	4.509	ACTIVE	0.000	-0.6000	5.018	
1.000	1.000	6.796	0.000	0.000	Ug5_2_8_L_0						
5 D	1.817	-2.7544E-02	9.606	2.392	9.606	5.780	ACTIVE	0.000	-0.8000	6.691	
1.000	1.000	9.083	0.000	0.000	Ug5_2_8_L_0						
6 D	2.275	-2.6911E-02	12.09	3.010	12.09	6.958	ACTIVE	0.000	-1.000	8.364	
1.000	1.000	11.37	0.000	0.000	Ug5_2_8_L_0						
7 D	2.733	-2.6278E-02	14.57	3.629	14.57	8.073	ACTIVE	0.000	-1.200	10.04	
1.000	1.000	13.67	0.000	0.000	Ug5_2_8_L_0						
8 D	3.197	-2.5645E-02	17.17	4.274	17.17	9.145	ACTIVE	0.000	-1.400	11.71	
1.000	1.000	15.98	0.000	0.000	Ug5_2_8_L_0						
9 D	3.662	-2.5013E-02	19.79	4.929	19.79	10.19	ACTIVE	0.000	-1.600	13.38	
1.000	1.000	18.31	0.000	0.000	Ug5_2_8_L_0						
10 D	4.117	-2.4380E-02	22.21	5.530	22.21	11.22	ACTIVE	0.000	-1.800	15.05	
1.000	1.000	20.58	0.000	0.000	Ug5_2_8_L_0						
11 D	4.578	-2.3748E-02	24.76	6.165	24.76	12.23	ACTIVE	0.000	-2.000	16.73	
1.000	1.000	22.89	0.000	0.000	Ug5_2_8_L_0						
12 D	5.038	-2.3117E-02	27.27	6.790	27.27	13.24	ACTIVE	0.000	-2.200	18.40	
1.000	1.000	25.19	0.000	0.000	Ug5_2_8_L_0						
13 D	5.490	-2.2485E-02	29.64	7.380	29.64	14.24	ACTIVE	0.000	-2.400	20.07	
1.000	1.000	27.45	0.000	0.000	Ug5_2_8_L_0						
14 D	5.948	-2.1855E-02	32.11	7.996	32.11	15.24	ACTIVE	0.000	-2.600	21.75	
1.000	1.000	29.74	0.000	0.000	Ug5_2_8_L_0						
15 D	6.405	-2.1226E-02	34.57	8.607	34.57	16.23	ACTIVE	0.000	-2.800	23.42	
1.000	1.000	32.03	0.000	0.000	Ug5_2_8_L_0						
16 D	6.861	-2.0598E-02	37.01	9.215	37.01	17.23	ACTIVE	0.000	-3.000	25.09	
1.000	1.000	34.31	0.000	0.000	Ug5_2_8_L_0						
17 D	7.312	-1.9971E-02	39.34	9.797	39.34	18.22	ACTIVE	0.000	-3.200	26.76	
1.000	1.000	36.56	0.000	0.000	Ug5_2_8_L_0						
18 D	7.767	-1.9346E-02	41.77	10.40	41.77	19.21	ACTIVE	0.000	-3.400	28.44	
1.000	1.000	38.84	0.000	0.000	Ug5_2_8_L_0						
19 D	8.222	-1.8723E-02	44.18	11.00	44.18	20.21	ACTIVE	0.000	-3.600	30.11	
1.000	1.000	41.11	0.000	0.000	Ug5_2_8_L_0						
20 D	8.672	-1.8103E-02	46.51	11.58	46.51	21.20	ACTIVE	0.000	-3.800	31.78	
1.000	1.000	43.36	0.000	0.000	Ug5_2_8_L_0						
21 D	9.127	-1.7485E-02	48.91	12.18	48.91	22.19	ACTIVE	0.000	-4.000	33.45	
1.000	1.000	45.63	0.000	0.000	Ug5_2_8_L_0						
22 D	9.580	-1.6871E-02	51.30	12.77	51.30	23.18	ACTIVE	0.000	-4.200	35.13	
1.000	1.000	47.90	0.000	0.000	Ug5_2_8_L_0						
23 D	10.03	-1.6262E-02	53.63	13.35	53.63	24.18	ACTIVE	0.000	-4.400	36.80	
1.000	1.000	50.15	0.000	0.000	Ug5_2_8_L_0						
24 D	10.48	-1.5656E-02	56.01	13.95	56.01	25.17	ACTIVE	0.000	-4.600	38.47	
1.000	1.000	52.42	0.000	0.000	Ug5_2_8_L_0						
25 D	10.94	-1.5056E-02	58.39	14.54	58.39	26.17	ACTIVE	0.000	-4.800	40.15	
1.000	1.000	54.69	0.000	0.000	Ug5_2_8_L_0						
26 D	11.39	-1.4462E-02	60.77	15.13	60.77	27.16	ACTIVE	0.000	-5.000	41.82	
1.000	1.000	56.95	0.000	0.000	Ug5_2_8_L_0						
27 D	11.84	-1.3875E-02	63.09	15.71	63.09	28.16	ACTIVE	0.000	-5.200	43.49	
1.000	1.000	59.20	0.000	0.000	Ug5_2_8_L_0						
28 D	12.29	-1.3295E-02	65.46	16.30	65.46	29.16	ACTIVE	0.000	-5.400	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.46	0.000	0.000	Ug5_2_8_L_0					
29 D	12.75	-1.2724E-02	67.83	16.89	67.83	30.15	ACTIVE	0.000	-5.600	46.84
1.000	1.000	63.73	0.000	0.000	Ug5_2_8_L_0					
30 D	13.20	-1.2161E-02	70.15	17.47	70.15	31.15	ACTIVE	0.000	-5.800	48.51
1.000	1.000	65.98	0.000	0.000	Ug5_2_8_L_0					
31 D	13.65	-1.1609E-02	72.52	18.06	72.52	32.15	ACTIVE	0.000	-6.000	50.18
1.000	1.000	68.24	0.000	0.000	Ug5_2_8_L_0					
32 D	14.10	-1.1067E-02	74.88	18.65	74.88	33.15	ACTIVE	0.000	-6.200	51.85
1.000	1.000	70.50	0.000	0.000	Ug5_2_8_L_0					
33 D	14.55	-1.0536E-02	77.20	19.22	77.20	34.15	ACTIVE	0.000	-6.400	53.53
1.000	1.000	72.75	0.000	0.000	Ug5_2_8_L_0					
34 D	15.00	-1.0018E-02	79.56	19.81	79.56	35.15	ACTIVE	0.000	-6.600	55.20
1.000	1.000	75.01	0.000	0.000	Ug5_2_8_L_0					
35 D	15.45	-9.5114E-03	81.92	20.40	81.92	36.15	ACTIVE	0.000	-6.800	56.87
1.000	1.000	77.27	0.000	0.000	Ug5_2_8_L_0					
36 D	15.91	-9.0183E-03	84.28	20.98	84.28	37.16	ACTIVE	0.000	-7.000	58.55
1.000	1.000	79.53	0.000	0.000	Ug5_2_8_L_0					
37 D	16.36	-8.5388E-03	86.59	21.56	86.59	38.16	ACTIVE	0.000	-7.200	60.22
1.000	1.000	81.78	0.000	0.000	Ug5_2_8_L_0					
38 D	16.81	-8.0731E-03	88.95	22.15	88.95	39.16	ACTIVE	0.000	-7.400	61.89
1.000	1.000	84.04	0.000	0.000	Ug5_2_8_L_0					
39 D	17.26	-7.6216E-03	91.30	22.73	91.30	40.17	ACTIVE	0.000	-7.600	63.56
1.000	1.000	86.30	0.000	0.000	Ug5_2_8_L_0					
40 D	17.71	-7.1845E-03	93.62	23.31	93.62	41.17	ACTIVE	0.000	-7.800	65.24
1.000	1.000	88.55	0.000	0.000	Ug5_2_8_L_0					
41 D	18.16	-6.7619E-03	95.97	23.90	95.97	42.18	ACTIVE	0.000	-8.000	66.91
1.000	1.000	90.81	0.000	0.000	Ug5_2_8_L_0					
42 D	18.61	-6.3540E-03	98.32	24.48	98.32	43.19	ACTIVE	0.000	-8.200	68.58
1.000	1.000	93.06	0.000	0.000	Ug5_2_8_L_0					
43 D	19.06	-5.9608E-03	100.6	25.06	100.6	44.19	ACTIVE	0.000	-8.400	70.25
1.000	1.000	95.31	0.000	0.000	Ug5_2_8_L_0					
44 D	19.51	-5.5823E-03	103.0	25.64	103.0	45.20	ACTIVE	0.000	-8.600	71.93
1.000	1.000	97.57	0.000	0.000	Ug5_2_8_L_0					
45 D	19.97	-5.2185E-03	105.3	26.23	105.3	46.21	ACTIVE	0.000	-8.800	73.60
1.000	1.000	99.83	0.000	0.000	Ug5_2_8_L_0					
46 D	20.42	-4.8692E-03	107.7	26.81	107.7	47.22	ACTIVE	0.000	-9.000	75.27
1.000	1.000	102.1	0.000	0.000	Ug5_2_8_L_0					
47 D	20.87	-4.5342E-03	110.0	27.39	110.0	48.23	ACTIVE	0.000	-9.200	76.95
1.000	1.000	104.3	0.000	0.000	Ug5_2_8_L_0					
48 D	21.32	-4.2135E-03	112.3	27.97	112.3	49.24	ACTIVE	0.000	-9.400	78.62
1.000	1.000	106.6	0.000	0.000	Ug5_2_8_L_0					
49 D	21.77	-3.9068E-03	114.7	28.56	114.7	50.26	ACTIVE	0.000	-9.600	80.29
1.000	1.000	108.8	0.000	0.000	Ug5_2_8_L_0					
50 D	22.22	-3.6138E-03	117.0	29.13	117.0	51.27	ACTIVE	0.000	-9.800	81.96
1.000	1.000	111.1	0.000	0.000	Ug5_2_8_L_0					
51 D	22.67	-3.3342E-03	119.4	29.72	119.4	52.28	ACTIVE	0.000	-10.000	83.64
1.000	1.000	113.4	0.000	0.000	Ug5_2_8_L_0					
52 D	23.12	-3.0676E-03	121.7	30.30	121.7	53.29	ACTIVE	0.000	-10.200	85.31
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
53 D	23.57	-2.8138E-03	124.0	30.88	124.0	54.31	ACTIVE	0.000	-10.400	86.98
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
54 D	24.02	-2.5723E-03	126.4	31.46	126.4	55.32	ACTIVE	0.000	-10.600	88.65
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
55 D	24.47	-2.3427E-03	128.7	32.05	128.7	56.34	ACTIVE	0.000	-10.800	90.33
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
56 D	24.93	-2.1246E-03	131.0	32.63	131.0	57.35	ACTIVE	0.000	-11.000	92.00
1.000	1.000	124.6	0.000	0.000	Ug5_2_8_L_0					
57 D	25.38	-1.9175E-03	133.4	33.21	133.4	58.37	ACTIVE	0.000	-11.200	93.67
1.000	1.000	126.9	0.000	0.000	Ug5_2_8_L_0					
58 D	25.83	-1.7209E-03	135.7	33.79	135.7	59.39	ACTIVE	0.000	-11.400	95.35
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
59 D	26.28	-1.5342E-03	138.0	34.37	138.0	60.40	ACTIVE	0.000	-11.600	97.02
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
60 D	26.73	-1.3570E-03	140.4	34.95	140.4	61.42	ACTIVE	0.000	-11.800	98.69
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
61 D	27.19	-1.1886E-03	142.7	35.57	142.7	62.44	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
62 D	30.47	-1.0286E-03	144.8	50.32	144.8	63.42	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	152.4	0.000	0.000	Ug6_741_743_L_0					
63 D	30.98	-8.7623E-04	147.0	51.20	147.0	64.53	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	154.9	0.000	0.000	Ug6_741_743_L_0					
64 D	31.49	-7.3097E-04	149.1	52.08	149.1	65.58	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.5	0.000	0.000	Ug6_741_743_L_0					
65 D	32.62	-5.9220E-04	151.2	56.04	151.2	66.59	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	163.1	0.000	0.000	Ug6_741_743_L_0					
66 D	33.82	-4.5931E-04	153.3	60.39	153.3	67.57	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	169.1	0.000	0.000	Ug6_741_743_L_0					
67 D	35.00	-3.3170E-04	155.4	64.59	155.4	68.78	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	175.0	0.000	0.000	Ug6_741_743_L_0					
68 D	36.04	-2.0880E-04	157.5	68.11	157.5	70.56	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	180.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.02	-9.0032E-05	159.6	71.36	159.6	72.13	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	185.1	0.000	0.000	Ug6_741_743_L_0					
70 D	37.84	2.5149E-05	161.7	73.76	161.7	73.78	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
71 D	38.55	1.3726E-04	163.8	75.64	163.8	75.65	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.7	0.000	0.000	Ug6_741_743_L_0					
72 D	39.25	2.4679E-04	165.9	77.48	165.9	77.50	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	196.2	0.000	0.000	Ug6_741_743_L_0					
73 D	39.95	3.5419E-04	168.0	79.30	168.0	79.31	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.7	0.000	0.000	Ug6_741_743_L_0					
74 D	40.64	4.5988E-04	170.1	81.10	170.1	81.11	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	203.2	0.000	0.000	Ug6_741_743_L_0					
75 D	41.33	5.6424E-04	172.2	82.88	172.2	82.90	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.7	0.000	0.000	Ug6_741_743_L_0					
76 D	42.02	6.6760E-04	174.3	84.66	174.3	84.67	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	210.1	0.000	0.000	Ug6_741_743_L_0					
77 D	42.71	7.7025E-04	176.4	86.43	176.4	86.44	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.6	0.000	0.000	Ug6_741_743_L_0					
78 D	43.41	8.7243E-04	178.5	88.25	178.5	88.26	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	217.0	0.000	0.000	Ug6_741_743_L_0					
79 D	44.11	9.7435E-04	180.6	90.07	180.6	90.08	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.5	0.000	0.000	Ug6_741_743_L_0					
80 D	44.81	1.0761E-03	182.7	91.88	182.7	91.90	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	224.0	0.000	0.000	Ug6_741_743_L_0					
81 D	22.75	1.1779E-03	184.8	93.70	184.8	93.71	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:25:47                                          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.360	1.5656E-02	0.8364	5.635	46.00	63.03	PASSIVE	0.000	-4.600	1.164	
1.000	1.000	6.799	0.000	0.000	Ug5_2_8_L_0						
25 D	4.079	1.5056E-02	2.509	16.91	48.00	61.64	PASSIVE	0.000	-4.800	3.491	
1.000	1.000	20.40	0.000	0.000	Ug5_2_8_L_0						
26 D	6.799	1.4462E-02	4.182	28.18	50.00	60.31	PASSIVE	0.000	-5.000	5.818	
1.000	1.000	34.00	0.000	0.000	Ug5_2_8_L_0						
27 D	9.519	1.3875E-02	5.855	39.45	52.00	69.31	PASSIVE	0.000	-5.200	8.145	
1.000	1.000	47.59	0.000	0.000	Ug5_2_8_L_0						
28 D	12.24	1.3295E-02	7.527	50.72	54.00	80.86	PASSIVE	0.000	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.19	0.000	0.000	Ug5_2_8_L_0					
29 D	14.96	1.2724E-02	9.200	61.99	56.00	92.41	PASSIVE	0.000	-5.600	12.80
1.000	1.000	74.79	0.000	0.000	Ug5_2_8_L_0					
30 D	17.68	1.2161E-02	10.87	73.26	58.00	101.5	PASSIVE	0.000	-5.800	15.13
1.000	1.000	88.39	0.000	0.000	Ug5_2_8_L_0					
31 D	20.40	1.1609E-02	12.55	84.53	60.00	98.41	PASSIVE	0.000	-6.000	17.45
1.000	1.000	102.0	0.000	0.000	Ug5_2_8_L_0					
32 D	23.12	1.1067E-02	14.22	95.80	62.00	95.80	PASSIVE	0.000	-6.200	19.78
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
33 D	25.84	1.0536E-02	15.89	107.1	64.00	107.1	PASSIVE	0.000	-6.400	22.11
1.000	1.000	129.2	0.000	0.000	Ug5_2_8_L_0					
34 D	28.56	1.0018E-02	17.56	118.3	66.00	118.3	PASSIVE	0.000	-6.600	24.44
1.000	1.000	142.8	0.000	0.000	Ug5_2_8_L_0					
35 D	29.51	9.5114E-03	19.24	120.8	68.00	120.8	V-C	8310.	-6.800	26.76
1.000	1.000	147.6	0.000	0.000	Ug5_2_8_L_0					
36 D	29.19	9.0183E-03	20.91	116.9	70.00	116.9	V-C	8310.	-7.000	29.09
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
37 D	28.90	8.5388E-03	22.58	113.1	72.00	113.1	V-C	8310.	-7.200	31.42
1.000	1.000	144.5	0.000	0.000	Ug5_2_8_L_0					
38 D	28.64	8.0731E-03	24.25	109.4	74.00	109.4	V-C	8310.	-7.400	33.75
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
39 D	28.41	7.6216E-03	25.93	106.0	76.00	106.0	V-C	8310.	-7.600	36.07
1.000	1.000	142.0	0.000	0.000	Ug5_2_8_L_0					
40 D	28.21	7.1845E-03	27.60	102.6	78.00	102.6	V-C	8310.	-7.800	38.40
1.000	1.000	141.0	0.000	0.000	Ug5_2_8_L_0					
41 D	28.04	6.7619E-03	29.27	99.47	80.00	99.47	V-C	8310.	-8.000	40.73
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
42 D	27.90	6.3540E-03	30.95	96.46	82.00	96.46	V-C	8310.	-8.200	43.05
1.000	1.000	139.5	0.000	0.000	Ug5_2_8_L_0					
43 D	27.80	5.9608E-03	32.62	93.62	84.00	93.62	V-C	8310.	-8.400	45.38
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
44 D	27.73	5.5823E-03	34.29	90.93	86.00	90.93	V-C	8310.	-8.600	47.71
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
45 D	27.69	5.2185E-03	35.96	88.40	88.00	88.40	V-C	8310.	-8.800	50.04
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
46 D	27.68	4.8692E-03	37.64	86.02	90.00	86.02	V-C	8310.	-9.000	52.36
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
47 D	27.70	4.5342E-03	39.31	83.79	92.00	83.79	V-C	8310.	-9.200	54.69
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
48 D	27.75	4.2135E-03	40.98	81.72	94.00	81.72	V-C	8310.	-9.400	57.02
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
49 D	27.83	3.9068E-03	42.65	79.79	96.00	79.79	V-C	8310.	-9.600	59.35
1.000	1.000	139.1	0.000	0.000	Ug5_2_8_L_0					
50 D	27.94	3.6138E-03	44.33	78.01	98.00	78.01	V-C	8310.	-9.800	61.67
1.000	1.000	139.7	0.000	0.000	Ug5_2_8_L_0					
51 D	28.07	3.3342E-03	46.00	76.36	100.00	76.36	V-C	8310.	-10.000	64.00
1.000	1.000	140.4	0.000	0.000	Ug5_2_8_L_0					
52 D	28.24	3.0676E-03	47.67	74.85	102.0	74.85	V-C	8310.	-10.200	66.33
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.43	2.8138E-03	49.35	73.47	104.0	73.47	V-C	8310.	-10.400	68.65
1.000	1.000	142.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.64	2.5723E-03	51.02	72.22	106.0	72.22	V-C	8310.	-10.600	70.98
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
55 D	28.88	2.3427E-03	52.69	71.09	108.0	71.09	V-C	8310.	-10.800	73.31
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
56 D	29.14	2.1246E-03	54.36	70.07	110.0	70.07	V-C	8310.	-11.000	75.64
1.000	1.000	145.7	0.000	0.000	Ug5_2_8_L_0					
57 D	29.43	1.9175E-03	56.04	69.17	112.0	69.17	V-C	8310.	-11.200	77.96
1.000	1.000	147.1	0.000	0.000	Ug5_2_8_L_0					
58 D	29.73	1.7209E-03	57.71	68.37	114.0	68.37	V-C	8310.	-11.400	80.29
1.000	1.000	148.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.06	1.5342E-03	59.38	67.67	116.0	67.67	V-C	8310.	-11.600	82.62
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.40	1.3570E-03	61.05	67.07	118.0	67.07	V-C	8310.	-11.800	84.95
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
61 D	30.76	1.1886E-03	62.73	66.54	120.0	66.55	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.8	0.000	0.000	Ug5_2_8_L_0					
62 D	30.61	1.0286E-03	64.20	63.45	121.8	63.50	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	153.0	0.000	0.000	Ug6_741_743_L_0					
63 D	31.04	8.7623E-04	65.67	63.28	123.6	63.38	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.2	0.000	0.000	Ug6_741_743_L_0					
64 D	31.49	7.3097E-04	67.15	63.17	125.4	63.32	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.4	0.000	0.000	Ug6_741_743_L_0					
65 D	31.64	5.9220E-04	68.62	61.60	127.2	64.05	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	158.2	0.000	0.000	Ug6_741_743_L_0					
66 D	31.75	4.5931E-04	70.09	59.84	129.0	64.94	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
67 D	31.89	3.3170E-04	71.56	58.20	130.8	65.83	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.4	0.000	0.000	Ug6_741_743_L_0					
68 D	32.04	2.0880E-04	73.04	56.66	132.6	66.72	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	160.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.22	9.0032E-05	74.51	55.20	134.4	67.60	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	161.1	0.000	0.000	Ug6_741_743_L_0					
70 D	32.41	-2.5149E-05	75.98	53.82	136.2	68.49	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	162.0	0.000	0.000	Ug6_741_743_L_0					
71 D	32.61	-1.3726E-04	77.45	52.50	138.0	69.38	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	163.0	0.000	0.000	Ug6_741_743_L_0					
72 D	32.82	-2.4679E-04	78.93	51.24	139.8	70.27	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0					
73 D	33.04	-3.5419E-04	80.40	50.01	141.6	71.16	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	165.2	0.000	0.000	Ug6_741_743_L_0					
74 D	33.27	-4.5988E-04	81.87	48.83	143.4	72.05	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
75 D	33.50	-5.6424E-04	83.35	47.67	145.2	72.94	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.5	0.000	0.000	Ug6_741_743_L_0					
76 D	33.74	-6.6760E-04	84.82	46.53	147.0	73.84	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
77 D	33.98	-7.7025E-04	86.29	45.40	148.8	74.73	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.9	0.000	0.000	Ug6_741_743_L_0					
78 D	34.22	-8.7243E-04	87.76	44.29	150.6	75.62	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	171.1	0.000	0.000	Ug6_741_743_L_0					
79 D	34.47	-9.7435E-04	89.24	43.18	152.4	76.51	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	172.3	0.000	0.000	Ug6_741_743_L_0					
80 D	34.71	-1.0761E-03	90.71	42.07	154.2	77.40	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.6	0.000	0.000	Ug6_741_743_L_0					
81 D	17.48	-1.1779E-03	92.18	40.96	156.0	78.29	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:25:47             |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-3.99537E-11	3.99537E-11	-1.50990E-12	6.74817E-10
2	0.45085	-0.45085	-5.10296E-10	9.01693E-02
3	1.3546	-1.3546	-9.01693E-02	0.36108
4	2.7138	-2.7138	-0.36108	0.90383
5	4.5303	-4.5303	-0.90383	1.8099
6	6.8051	-6.8051	-1.8099	3.1709
7	9.5382	-9.5382	-3.1709	5.0786
8	12.735	-12.735	-5.0786	7.6255
9	16.397	-16.397	-7.6255	10.905
10	20.514	-20.514	-10.905	15.008
11	25.092	-25.092	-15.008	20.026
12	30.130	-30.130	-20.026	26.052
13	35.621	-35.621	-26.052	33.176
14	41.569	-41.569	-33.176	41.490
15	47.974	-47.974	-41.490	51.085
16	54.835	-54.835	-51.085	62.052
17	62.147	-62.147	-62.052	74.482
18	69.914	-69.914	-74.482	88.464
19	78.136	-78.136	-88.464	104.09
20	86.809	-86.809	-104.09	121.45
21	95.935	-95.935	-121.45	140.64
22	105.52	-105.52	-140.64	161.74
23	115.55	-115.55	-161.74	184.85
24	124.67	-124.67	-184.85	209.79
25	131.53	-131.53	-209.79	236.09
26	136.12	-136.12	-236.09	263.32
27	138.44	-138.44	-263.32	291.00
28	138.49	-138.49	-291.00	318.70
29	136.28	-136.28	-318.70	345.96
30	131.80	-131.80	-345.96	372.32
31	125.05	-125.05	-372.32	397.33
32	116.03	-116.03	-397.33	420.54
33	104.75	-104.75	-420.54	441.49
34	91.194	-91.194	-441.49	459.72
35	77.134	-77.134	-459.72	475.15
36	63.850	-63.850	-475.15	487.92
37	51.308	-51.308	-487.92	498.18
38	39.480	-39.480	-498.18	506.08
39	28.334	-28.334	-506.08	511.75
40	17.838	-17.838	-511.75	515.31
41	7.9601	-7.9601	-515.31	516.91
42	-1.3304	1.3304	-516.91	516.64
43	-10.067	10.067	-516.64	514.63
44	-18.280	18.280	-514.63	510.97
45	-26.001	26.001	-510.97	505.77
46	-33.261	33.261	-505.77	499.12
47	-40.091	40.091	-499.12	491.10
48	-46.520	46.520	-491.10	481.80
49	-52.578	52.578	-481.80	471.28
50	-58.294	58.294	-471.28	459.62
51	-63.695	63.695	-459.62	446.88
52	-68.809	68.809	-446.88	433.12
53	-73.662	73.662	-433.12	418.39
54	-78.279	78.279	-418.39	402.73
55	-82.684	82.684	-402.73	386.20
56	-86.900	86.900	-386.20	368.82
57	-90.951	90.951	-368.82	350.63
58	-94.856	94.856	-350.63	331.65
59	-98.636	98.636	-331.65	311.93

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.31	102.31	-311.93	291.46
61	-105.89	105.89	-291.46	270.29
62	-106.02	106.02	-270.29	249.08
63	-106.08	106.08	-249.08	227.87
64	-106.08	106.08	-227.87	206.65
65	-105.09	105.09	-206.65	185.63
66	-103.02	103.02	-185.63	165.03
67	-99.912	99.912	-165.03	145.05
68	-95.920	95.920	-145.05	125.86
69	-91.117	91.117	-125.86	107.64
70	-85.685	85.685	-107.64	90.501
71	-79.747	79.747	-90.501	74.551
72	-73.318	73.318	-74.551	59.888
73	-66.412	66.412	-59.888	46.606
74	-59.039	59.039	-46.606	34.798
75	-51.209	51.209	-34.798	24.556
76	-42.927	42.927	-24.556	15.971
77	-34.197	34.197	-15.971	9.1311
78	-25.011	25.011	-9.1311	4.1290
79	-15.370	15.370	-4.1290	1.0550
80	-5.2747	5.2747	-1.0550	-2.45971E-11

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1026E+07  RIMNOR=0.1448E+08
           RENORM= 1.337     REMNOR=0.3272E-17  RATIO =0.1142E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 138.5     RMMAX = 516.9
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1026E+07   RDR =0.1448E+08
           RATIO=0.1142E-02  RATIO= 0.000
           MAX UN=0.5985E-09  IEQ=      8  NODE      4  DOF   2  X-ROT. F
           MIN UN=-.1554     IEQ=     125  NODE     63  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

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ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1026E+07  RIMNOR=0.1448E+08
           RENORM=0.6379E-15  REMNOR=0.3314E-17  RATIO =0.2494E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 138.5     RMMAX = 516.9
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1026E+07   RDR =0.1448E+08
           RATIO=0.2494E-10  RATIO= 0.000
           MAX UN=0.8051E-08  IEQ=     29  NODE     15  DOF   1  Y-DISPL.F
           MIN UN=-.6871E-08  IEQ=     19  NODE     10  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.1726875E-04	-7.1080910E-04
65	5.7824977E-04	-6.7988333E-04
66	4.4511528E-04	-6.5195971E-04
67	3.1726858E-04	-6.2699572E-04
68	1.9412454E-04	-6.0491843E-04
69	7.5115450E-05	-5.8562746E-04
70	-4.0303895E-05	-5.6899826E-04
71	-1.5265163E-04	-5.5488569E-04
72	-2.6241519E-04	-5.4312840E-04
73	-3.7004830E-04	-5.3355075E-04
74	-4.7596816E-04	-5.2596321E-04
75	-5.8055272E-04	-5.2016274E-04
76	-6.8413797E-04	-5.1593303E-04
77	-7.8701536E-04	-5.1304473E-04
78	-8.8942914E-04	-5.1125558E-04
79	-9.9157385E-04	-5.1031036E-04
80	-1.0935917E-03	-5.0994080E-04
81	-1.1955749E-03	-5.0986558E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:25:47           |
+-----+

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New Project

STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0072E-02	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4882	-2.9439E-02	2.327	0.7683	2.335	1.603	UL-RL	5.0142E+04	-0.2000	1.673	
1.000	1.000	2.441	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9414	-2.8806E-02	4.655	1.362	4.711	3.119	UL-RL	5.0142E+04	-0.4000	3.345	
1.000	1.000	4.707	0.000	0.000	Ug5_2_8_L_0						
4 D	1.395	-2.8172E-02	6.982	1.955	7.140	4.509	UL-RL	5.0142E+04	-0.6000	5.018	
1.000	1.000	6.973	0.000	0.000	Ug5_2_8_L_0						
5 D	1.848	-2.7539E-02	9.309	2.548	9.606	5.780	UL-RL	5.0142E+04	-0.8000	6.691	
1.000	1.000	9.239	0.000	0.000	Ug5_2_8_L_0						
6 D	2.301	-2.6906E-02	11.64	3.142	12.09	6.958	UL-RL	5.0142E+04	-1.0000	8.364	
1.000	1.000	11.51	0.000	0.000	Ug5_2_8_L_0						
7 D	2.754	-2.6273E-02	13.96	3.735	14.57	8.073	UL-RL	5.0142E+04	-1.2000	10.04	
1.000	1.000	13.77	0.000	0.000	Ug5_2_8_L_0						
8 D	3.207	-2.5640E-02	16.29	4.328	17.17	9.145	UL-RL	5.0142E+04	-1.4000	11.71	
1.000	1.000	16.04	0.000	0.000	Ug5_2_8_L_0						
9 D	3.660	-2.5007E-02	18.62	4.921	19.79	10.19	UL-RL	5.0142E+04	-1.6000	13.38	
1.000	1.000	18.30	0.000	0.000	Ug5_2_8_L_0						
10 D	4.114	-2.4374E-02	20.95	5.513	22.21	11.22	UL-RL	5.0142E+04	-1.8000	15.05	
1.000	1.000	20.57	0.000	0.000	Ug5_2_8_L_0						
11 D	4.567	-2.3742E-02	23.27	6.105	24.76	12.23	UL-RL	5.0142E+04	-2.0000	16.73	
1.000	1.000	22.83	0.000	0.000	Ug5_2_8_L_0						
12 D	5.019	-2.3110E-02	25.60	6.697	27.27	13.24	UL-RL	5.0142E+04	-2.2000	18.40	
1.000	1.000	25.10	0.000	0.000	Ug5_2_8_L_0						
13 D	5.472	-2.2479E-02	27.93	7.289	29.64	14.24	UL-RL	5.0142E+04	-2.4000	20.07	
1.000	1.000	27.36	0.000	0.000	Ug5_2_8_L_0						
14 D	5.925	-2.1848E-02	30.25	7.879	32.11	15.24	UL-RL	5.0142E+04	-2.6000	21.75	
1.000	1.000	29.62	0.000	0.000	Ug5_2_8_L_0						
15 D	6.378	-2.1219E-02	32.58	8.470	34.57	16.23	UL-RL	5.0142E+04	-2.8000	23.42	
1.000	1.000	31.89	0.000	0.000	Ug5_2_8_L_0						
16 D	6.830	-2.0590E-02	34.91	9.060	37.01	17.23	UL-RL	5.0142E+04	-3.0000	25.09	
1.000	1.000	34.15	0.000	0.000	Ug5_2_8_L_0						
17 D	7.283	-1.9963E-02	37.24	9.649	39.34	18.22	UL-RL	5.0142E+04	-3.2000	26.76	
1.000	1.000	36.41	0.000	0.000	Ug5_2_8_L_0						
18 D	7.735	-1.9338E-02	39.56	10.24	41.77	19.21	UL-RL	5.0142E+04	-3.4000	28.44	
1.000	1.000	38.67	0.000	0.000	Ug5_2_8_L_0						
19 D	8.187	-1.8715E-02	41.89	10.83	44.18	20.21	UL-RL	5.0142E+04	-3.6000	30.11	
1.000	1.000	40.93	0.000	0.000	Ug5_2_8_L_0						
20 D	8.639	-1.8095E-02	44.22	11.41	46.51	21.20	UL-RL	5.0142E+04	-3.8000	31.78	
1.000	1.000	43.20	0.000	0.000	Ug5_2_8_L_0						
21 D	9.091	-1.7477E-02	46.55	12.00	48.91	22.19	UL-RL	5.0142E+04	-4.0000	33.45	
1.000	1.000	45.45	0.000	0.000	Ug5_2_8_L_0						
22 D	9.543	-1.6863E-02	48.87	12.59	51.30	23.18	UL-RL	5.0142E+04	-4.2000	35.13	
1.000	1.000	47.71	0.000	0.000	Ug5_2_8_L_0						
23 D	9.994	-1.6253E-02	51.20	13.17	53.63	24.18	UL-RL	5.0142E+04	-4.4000	36.80	
1.000	1.000	49.97	0.000	0.000	Ug5_2_8_L_0						
24 D	10.45	-1.5648E-02	53.53	13.76	56.01	25.17	UL-RL	5.0142E+04	-4.6000	38.47	
1.000	1.000	52.23	0.000	0.000	Ug5_2_8_L_0						
25 D	10.90	-1.5048E-02	55.85	14.34	58.39	26.17	UL-RL	5.0142E+04	-4.8000	40.15	
1.000	1.000	54.49	0.000	0.000	Ug5_2_8_L_0						
26 D	11.35	-1.4454E-02	58.18	14.93	60.77	27.16	UL-RL	5.0142E+04	-5.0000	41.82	
1.000	1.000	56.74	0.000	0.000	Ug5_2_8_L_0						
27 D	11.80	-1.3866E-02	60.51	15.51	63.09	28.16	UL-RL	5.0142E+04	-5.2000	43.49	
1.000	1.000	59.00	0.000	0.000	Ug5_2_8_L_0						
28 D	12.25	-1.3286E-02	62.84	16.09	65.46	29.16	UL-RL	5.0142E+04	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.26	0.000	0.000	Ug5_2_8_L_0					
29 D	12.70	-1.2715E-02	65.16	16.68	67.83	30.15	UL-RL	5.0142E+04	-5.600	46.84
1.000	1.000	63.51	0.000	0.000	Ug5_2_8_L_0					
30 D	13.15	-1.2152E-02	67.49	17.26	70.15	31.15	UL-RL	5.0142E+04	-5.800	48.51
1.000	1.000	65.77	0.000	0.000	Ug5_2_8_L_0					
31 D	13.61	-1.1600E-02	69.82	17.84	72.52	32.15	UL-RL	5.0142E+04	-6.000	50.18
1.000	1.000	68.03	0.000	0.000	Ug5_2_8_L_0					
32 D	14.06	-1.1058E-02	72.15	18.43	74.88	33.15	UL-RL	5.0142E+04	-6.200	51.85
1.000	1.000	70.28	0.000	0.000	Ug5_2_8_L_0					
33 D	14.51	-1.0527E-02	74.47	19.01	77.20	34.15	UL-RL	5.0142E+04	-6.400	53.53
1.000	1.000	72.54	0.000	0.000	Ug5_2_8_L_0					
34 D	14.96	-1.0008E-02	76.80	19.59	79.56	35.15	UL-RL	5.0142E+04	-6.600	55.20
1.000	1.000	74.79	0.000	0.000	Ug5_2_8_L_0					
35 D	15.41	-9.5020E-03	79.13	20.18	81.92	36.15	UL-RL	5.0142E+04	-6.800	56.87
1.000	1.000	77.05	0.000	0.000	Ug5_2_8_L_0					
36 D	15.86	-9.0088E-03	81.45	20.76	84.28	37.16	UL-RL	5.0142E+04	-7.000	58.55
1.000	1.000	79.30	0.000	0.000	Ug5_2_8_L_0					
37 D	16.31	-8.5292E-03	83.78	21.34	86.59	38.16	UL-RL	5.0142E+04	-7.200	60.22
1.000	1.000	81.56	0.000	0.000	Ug5_2_8_L_0					
38 D	16.76	-8.0635E-03	86.11	21.92	88.95	39.16	UL-RL	5.0142E+04	-7.400	61.89
1.000	1.000	83.81	0.000	0.000	Ug5_2_8_L_0					
39 D	17.21	-7.6119E-03	88.44	22.51	91.30	40.17	UL-RL	5.0142E+04	-7.600	63.56
1.000	1.000	86.07	0.000	0.000	Ug5_2_8_L_0					
40 D	17.67	-7.1747E-03	90.76	23.09	93.62	41.17	UL-RL	5.0142E+04	-7.800	65.24
1.000	1.000	88.33	0.000	0.000	Ug5_2_8_L_0					
41 D	18.12	-6.7521E-03	93.09	23.67	95.97	42.18	UL-RL	5.0142E+04	-8.000	66.91
1.000	1.000	90.58	0.000	0.000	Ug5_2_8_L_0					
42 D	18.57	-6.3441E-03	95.42	24.26	98.32	43.19	UL-RL	5.0142E+04	-8.200	68.58
1.000	1.000	92.84	0.000	0.000	Ug5_2_8_L_0					
43 D	19.02	-5.9508E-03	97.75	24.84	100.6	44.19	UL-RL	5.0142E+04	-8.400	70.25
1.000	1.000	95.09	0.000	0.000	Ug5_2_8_L_0					
44 D	19.47	-5.5722E-03	100.1	25.42	103.0	45.20	UL-RL	5.0142E+04	-8.600	71.93
1.000	1.000	97.35	0.000	0.000	Ug5_2_8_L_0					
45 D	19.92	-5.2083E-03	102.4	26.01	105.3	46.21	UL-RL	5.0142E+04	-8.800	73.60
1.000	1.000	99.61	0.000	0.000	Ug5_2_8_L_0					
46 D	20.37	-4.8589E-03	104.7	26.59	107.7	47.22	UL-RL	5.0142E+04	-9.000	75.27
1.000	1.000	101.9	0.000	0.000	Ug5_2_8_L_0					
47 D	20.82	-4.5238E-03	107.1	27.18	110.0	48.23	UL-RL	5.0142E+04	-9.200	76.95
1.000	1.000	104.1	0.000	0.000	Ug5_2_8_L_0					
48 D	21.28	-4.2030E-03	109.4	27.77	112.3	49.24	UL-RL	5.0142E+04	-9.400	78.62
1.000	1.000	106.4	0.000	0.000	Ug5_2_8_L_0					
49 D	21.73	-3.8961E-03	111.7	28.35	114.7	50.26	UL-RL	5.0142E+04	-9.600	80.29
1.000	1.000	108.6	0.000	0.000	Ug5_2_8_L_0					
50 D	22.18	-3.6030E-03	114.0	28.94	117.0	51.27	UL-RL	5.0142E+04	-9.800	81.96
1.000	1.000	110.9	0.000	0.000	Ug5_2_8_L_0					
51 D	22.63	-3.3232E-03	116.4	29.52	119.4	52.28	UL-RL	5.0142E+04	-10.000	83.64
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
52 D	23.08	-3.0565E-03	118.7	30.11	121.7	53.29	UL-RL	5.0142E+04	-10.200	85.31
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
53 D	23.54	-2.8025E-03	121.0	30.70	124.0	54.31	UL-RL	5.0142E+04	-10.400	86.98
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
54 D	23.99	-2.5608E-03	123.3	31.29	126.4	55.32	UL-RL	5.0142E+04	-10.600	88.65
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
55 D	24.44	-2.3311E-03	125.7	31.88	128.7	56.34	UL-RL	5.0142E+04	-10.800	90.33
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
56 D	24.89	-2.1128E-03	128.0	32.47	131.0	57.35	UL-RL	5.0142E+04	-11.000	92.00
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0					
57 D	25.35	-1.9054E-03	130.3	33.06	133.4	58.37	UL-RL	5.0142E+04	-11.200	93.67
1.000	1.000	126.7	0.000	0.000	Ug5_2_8_L_0					
58 D	25.80	-1.7086E-03	132.7	33.65	135.7	59.39	UL-RL	5.0142E+04	-11.400	95.35
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
59 D	26.25	-1.5217E-03	135.0	34.24	138.0	60.40	UL-RL	5.0142E+04	-11.600	97.02
1.000	1.000	131.3	0.000	0.000	Ug5_2_8_L_0					
60 D	26.70	-1.3442E-03	137.3	34.83	140.4	61.42	UL-RL	5.0142E+04	-11.800	98.69
1.000	1.000	133.5	0.000	0.000	Ug5_2_8_L_0					
61 D	27.16	-1.1757E-03	139.6	35.45	142.7	62.44	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
62 D	30.38	-1.0154E-03	141.8	49.86	144.8	63.42	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	151.9	0.000	0.000	Ug6_741_743_L_0					
63 D	30.89	-8.6277E-04	143.9	50.75	147.0	64.53	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	154.5	0.000	0.000	Ug6_741_743_L_0					
64 D	31.40	-7.1727E-04	146.0	51.64	149.1	65.58	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.0	0.000	0.000	Ug6_741_743_L_0					
65 D	32.53	-5.7825E-04	148.1	55.60	151.2	66.59	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	162.7	0.000	0.000	Ug6_741_743_L_0					
66 D	33.74	-4.4512E-04	150.3	59.96	153.3	67.57	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
67 D	34.92	-3.1727E-04	152.4	64.18	155.4	68.78	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	174.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.96	-1.9412E-04	154.5	67.71	157.5	70.56	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	36.95	-7.5115E-05	156.7	70.98	159.6	72.13	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	184.7	0.000	0.000	Ug6_741_743_L_0					
70 D	37.76	4.0304E-05	158.8	73.40	161.7	73.78	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	188.8	0.000	0.000	Ug6_741_743_L_0					
71 D	38.47	1.5265E-04	160.9	75.28	163.8	75.65	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.18	2.6242E-04	163.0	77.14	165.9	77.50	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	195.9	0.000	0.000	Ug6_741_743_L_0					
73 D	39.88	3.7005E-04	165.2	78.97	168.0	79.31	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.4	0.000	0.000	Ug6_741_743_L_0					
74 D	40.58	4.7597E-04	167.3	80.78	170.1	81.11	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	202.9	0.000	0.000	Ug6_741_743_L_0					
75 D	41.27	5.8055E-04	169.4	82.58	172.2	82.90	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.4	0.000	0.000	Ug6_741_743_L_0					
76 D	41.96	6.8414E-04	171.5	84.37	174.3	84.67	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	209.8	0.000	0.000	Ug6_741_743_L_0					
77 D	42.65	7.8702E-04	173.7	86.15	176.4	86.44	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.3	0.000	0.000	Ug6_741_743_L_0					
78 D	43.36	8.8943E-04	175.8	87.98	178.5	88.26	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	216.8	0.000	0.000	Ug6_741_743_L_0					
79 D	44.06	9.9157E-04	177.9	89.81	180.6	90.08	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
80 D	44.76	1.0936E-03	180.1	91.64	182.7	91.90	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
81 D	22.73	1.1956E-03	182.2	93.47	184.8	93.71	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:25:47                                          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.317	1.5648E-02	0.8364	5.422	46.00	63.03	UL-RL	2.4929E+04	-4.600	1.164	
1.000	1.000	6.586	0.000	0.000	Ug5_2_8_L_0						
25 D	4.036	1.5048E-02	2.509	16.69	48.00	61.64	UL-RL	2.4929E+04	-4.800	3.491	
1.000	1.000	20.18	0.000	0.000	Ug5_2_8_L_0						
26 D	6.755	1.4454E-02	4.182	27.96	50.00	60.31	UL-RL	2.4929E+04	-5.000	5.818	
1.000	1.000	33.78	0.000	0.000	Ug5_2_8_L_0						
27 D	9.475	1.3866E-02	5.855	39.23	52.00	69.31	UL-RL	2.4929E+04	-5.200	8.145	
1.000	1.000	47.37	0.000	0.000	Ug5_2_8_L_0						
28 D	12.19	1.3286E-02	7.527	50.50	54.00	80.86	UL-RL	2.4929E+04	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.97	0.000	0.000	Ug5_2_8_L_0					
29 D	14.91	1.2715E-02	9.200	61.76	56.00	92.41	UL-RL	2.4929E+04	-5.600	12.80
1.000	1.000	74.56	0.000	0.000	Ug5_2_8_L_0					
30 D	17.63	1.2152E-02	10.87	73.03	58.00	101.5	UL-RL	2.4929E+04	-5.800	15.13
1.000	1.000	88.16	0.000	0.000	Ug5_2_8_L_0					
31 D	20.35	1.1600E-02	12.55	84.30	60.00	98.41	UL-RL	2.4929E+04	-6.000	17.45
1.000	1.000	101.8	0.000	0.000	Ug5_2_8_L_0					
32 D	23.07	1.1058E-02	14.22	95.57	62.00	95.80	UL-RL	2.4929E+04	-6.200	19.78
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
33 D	25.79	1.0527E-02	15.89	106.8	64.00	107.1	UL-RL	2.4929E+04	-6.400	22.11
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
34 D	28.51	1.0008E-02	17.56	118.1	66.00	118.3	UL-RL	2.4929E+04	-6.600	24.44
1.000	1.000	142.5	0.000	0.000	Ug5_2_8_L_0					
35 D	29.47	9.5020E-03	19.24	120.6	68.00	120.8	UL-RL	2.4929E+04	-6.800	26.76
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
36 D	29.14	9.0088E-03	20.91	116.6	70.00	116.9	UL-RL	2.4929E+04	-7.000	29.09
1.000	1.000	145.7	0.000	0.000	Ug5_2_8_L_0					
37 D	28.85	8.5292E-03	22.58	112.8	72.00	113.1	UL-RL	2.4929E+04	-7.200	31.42
1.000	1.000	144.3	0.000	0.000	Ug5_2_8_L_0					
38 D	28.59	8.0635E-03	24.25	109.2	74.00	109.4	UL-RL	2.4929E+04	-7.400	33.75
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
39 D	28.36	7.6119E-03	25.93	105.7	76.00	106.0	UL-RL	2.4929E+04	-7.600	36.07
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
40 D	28.16	7.1747E-03	27.60	102.4	78.00	102.6	UL-RL	2.4929E+04	-7.800	38.40
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.99	6.7521E-03	29.27	99.22	80.00	99.47	UL-RL	2.4929E+04	-8.000	40.73
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
42 D	27.85	6.3441E-03	30.95	96.21	82.00	96.46	UL-RL	2.4929E+04	-8.200	43.05
1.000	1.000	139.3	0.000	0.000	Ug5_2_8_L_0					
43 D	27.75	5.9508E-03	32.62	93.37	84.00	93.62	UL-RL	2.4929E+04	-8.400	45.38
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
44 D	27.68	5.5722E-03	34.29	90.68	86.00	90.93	UL-RL	2.4929E+04	-8.600	47.71
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
45 D	27.64	5.2083E-03	35.96	88.14	88.00	88.40	UL-RL	2.4929E+04	-8.800	50.04
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
46 D	27.63	4.8589E-03	37.64	85.76	90.00	86.02	UL-RL	2.4929E+04	-9.000	52.36
1.000	1.000	138.1	0.000	0.000	Ug5_2_8_L_0					
47 D	27.65	4.5238E-03	39.31	83.53	92.00	83.79	UL-RL	2.4929E+04	-9.200	54.69
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
48 D	27.70	4.2030E-03	40.98	81.46	94.00	81.72	UL-RL	2.4929E+04	-9.400	57.02
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
49 D	27.77	3.8961E-03	42.65	79.53	96.00	79.79	UL-RL	2.4929E+04	-9.600	59.35
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
50 D	27.88	3.6030E-03	44.33	77.74	98.00	78.01	UL-RL	2.4929E+04	-9.800	61.67
1.000	1.000	139.4	0.000	0.000	Ug5_2_8_L_0					
51 D	28.02	3.3232E-03	46.00	76.09	100.00	76.36	UL-RL	2.4929E+04	-10.000	64.00
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
52 D	28.18	3.0565E-03	47.67	74.57	102.0	74.85	UL-RL	2.4929E+04	-10.200	66.33
1.000	1.000	140.9	0.000	0.000	Ug5_2_8_L_0					
53 D	28.37	2.8025E-03	49.35	73.19	104.0	73.47	UL-RL	2.4929E+04	-10.400	68.65
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
54 D	28.58	2.5608E-03	51.02	71.93	106.0	72.22	UL-RL	2.4929E+04	-10.600	70.98
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
55 D	28.82	2.3311E-03	52.69	70.80	108.0	71.09	UL-RL	2.4929E+04	-10.800	73.31
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
56 D	29.08	2.1128E-03	54.36	69.78	110.0	70.07	UL-RL	2.4929E+04	-11.000	75.64
1.000	1.000	145.4	0.000	0.000	Ug5_2_8_L_0					
57 D	29.37	1.9054E-03	56.04	68.87	112.0	69.17	UL-RL	2.4929E+04	-11.200	77.96
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
58 D	29.67	1.7086E-03	57.71	68.06	114.0	68.37	UL-RL	2.4929E+04	-11.400	80.29
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
59 D	30.00	1.5217E-03	59.38	67.36	116.0	67.67	UL-RL	2.4929E+04	-11.600	82.62
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
60 D	30.34	1.3442E-03	61.05	66.75	118.0	67.07	UL-RL	2.4929E+04	-11.800	84.95
1.000	1.000	151.7	0.000	0.000	Ug5_2_8_L_0					
61 D	30.70	1.1757E-03	62.73	66.21	120.0	66.55	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.5	0.000	0.000	Ug5_2_8_L_0					
62 D	30.56	1.0154E-03	64.20	63.20	121.8	63.50	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	152.8	0.000	0.000	Ug6_741_743_L_0					
63 D	30.99	8.6277E-04	65.67	63.03	123.6	63.38	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.0	0.000	0.000	Ug6_741_743_L_0					
64 D	31.43	7.1727E-04	67.15	62.92	125.4	63.32	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.2	0.000	0.000	Ug6_741_743_L_0					
65 D	31.58	5.7825E-04	68.62	61.34	127.2	64.05	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	157.9	0.000	0.000	Ug6_741_743_L_0					
66 D	31.70	4.4512E-04	70.09	59.58	129.0	64.94	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.5	0.000	0.000	Ug6_741_743_L_0					
67 D	31.83	3.1727E-04	71.56	57.93	130.8	65.83	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.2	0.000	0.000	Ug6_741_743_L_0					
68 D	31.99	1.9412E-04	73.04	56.38	132.6	66.72	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	159.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.16	7.5115E-05	74.51	54.92	134.4	67.60	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	160.8	0.000	0.000	Ug6_741_743_L_0					
70 D	32.35	-4.0304E-05	75.98	53.53	136.2	68.49	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	161.8	0.000	0.000	Ug6_741_743_L_0					
71 D	32.55	-1.5265E-04	77.45	52.21	138.0	69.38	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	162.8	0.000	0.000	Ug6_741_743_L_0					
72 D	32.76	-2.6242E-04	78.93	50.94	139.8	70.27	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	163.8	0.000	0.000	Ug6_741_743_L_0					
73 D	32.98	-3.7005E-04	80.40	49.72	141.6	71.16	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	164.9	0.000	0.000	Ug6_741_743_L_0					
74 D	33.21	-4.7597E-04	81.87	48.53	143.4	72.05	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.1	0.000	0.000	Ug6_741_743_L_0					
75 D	33.44	-5.8055E-04	83.35	47.36	145.2	72.94	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.2	0.000	0.000	Ug6_741_743_L_0					
76 D	33.68	-6.8414E-04	84.82	46.22	147.0	73.84	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
77 D	33.92	-7.8702E-04	86.29	45.09	148.8	74.73	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.6	0.000	0.000	Ug6_741_743_L_0					
78 D	34.16	-8.8943E-04	87.76	43.97	150.6	75.62	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	170.8	0.000	0.000	Ug6_741_743_L_0					
79 D	34.40	-9.9157E-04	89.24	42.86	152.4	76.51	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	172.0	0.000	0.000	Ug6_741_743_L_0					
80 D	34.65	-1.0936E-03	90.71	41.74	154.2	77.40	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.2	0.000	0.000	Ug6_741_743_L_0					
81 D	17.44	-1.1956E-03	92.18	40.63	156.0	78.29	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:25:47  |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.06160E-09	-2.06160E-09	2.05642E-10	8.88122E-10
2	0.48820	-0.48820	-8.94242E-10	9.76400E-02
3	1.4296	-1.4296	-9.76400E-02	0.38356
4	2.8243	-2.8243	-0.38356	0.94842
5	4.6721	-4.6721	-0.94842	1.8828
6	6.9731	-6.9731	-1.8828	3.2775
7	9.7274	-9.7274	-3.2775	5.2229
8	12.935	-12.935	-5.2229	7.8099
9	16.595	-16.595	-7.8099	11.129
10	20.709	-20.709	-11.129	15.271
11	25.275	-25.275	-15.271	20.326
12	30.295	-30.295	-20.326	26.385
13	35.767	-35.767	-26.385	33.538
14	41.692	-41.692	-33.538	41.876
15	48.069	-48.069	-41.876	51.490
16	54.900	-54.900	-51.490	62.470
17	62.182	-62.182	-62.470	74.907
18	69.917	-69.917	-74.907	88.890
19	78.104	-78.104	-88.890	104.51
20	86.743	-86.743	-104.51	121.86
21	95.834	-95.834	-121.86	141.03
22	105.38	-105.38	-141.03	162.10
23	115.37	-115.37	-162.10	185.18
24	124.50	-124.50	-185.18	210.08
25	131.36	-131.36	-210.08	236.35
26	135.95	-135.95	-236.35	263.54
27	138.28	-138.28	-263.54	291.20
28	138.34	-138.34	-291.20	318.86
29	136.13	-136.13	-318.86	346.09
30	131.65	-131.65	-346.09	372.42
31	124.90	-124.90	-372.42	397.40
32	115.89	-115.89	-397.40	420.58
33	104.61	-104.61	-420.58	441.50
34	91.056	-91.056	-441.50	459.71
35	76.999	-76.999	-459.71	475.11
36	63.717	-63.717	-475.11	487.85
37	51.178	-51.178	-487.85	498.09
38	39.353	-39.353	-498.09	505.96
39	28.211	-28.211	-505.96	511.60
40	17.718	-17.718	-511.60	515.15
41	7.8451	-7.8451	-515.15	516.71
42	-1.4409	1.4409	-516.71	516.43
43	-10.171	10.171	-516.43	514.39
44	-18.378	18.378	-514.39	510.72
45	-26.092	26.092	-510.72	505.50
46	-33.343	33.343	-505.50	498.83
47	-40.164	40.164	-498.83	490.80
48	-46.582	46.582	-490.80	481.48
49	-52.628	52.628	-481.48	470.95
50	-58.330	58.330	-470.95	459.29
51	-63.715	63.715	-459.29	446.55
52	-68.811	68.811	-446.55	432.78
53	-73.644	73.644	-432.78	418.05
54	-78.238	78.238	-418.05	402.41
55	-82.619	82.619	-402.41	385.88
56	-86.808	86.808	-385.88	368.52
57	-90.829	90.829	-368.52	350.36
58	-94.701	94.701	-350.36	331.42
59	-98.446	98.446	-331.42	311.73

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.08	102.08	-311.73	291.31
61	-105.62	105.62	-291.31	270.19
62	-105.80	105.80	-270.19	249.03
63	-105.90	105.90	-249.03	227.85
64	-105.93	105.93	-227.85	206.66
65	-104.98	104.98	-206.66	185.67
66	-102.94	102.94	-185.67	165.08
67	-99.855	99.855	-165.08	145.11
68	-95.887	95.887	-145.11	125.93
69	-91.104	91.104	-125.93	107.71
70	-85.692	85.692	-107.71	90.573
71	-79.769	79.769	-90.573	74.619
72	-73.352	73.352	-74.619	59.949
73	-66.455	66.455	-59.949	46.658
74	-59.088	59.088	-46.658	34.840
75	-51.260	51.260	-34.840	24.588
76	-42.976	42.976	-24.588	15.993
77	-34.241	34.241	-15.993	9.1449
78	-25.046	25.046	-9.1449	4.1356
79	-15.394	15.394	-4.1356	1.0568
80	-5.2837	5.2837	-1.0568	-7.56184E-12

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:25:47                             |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	5
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	6
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	2

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.08 [sec]

DATABASE CREATION CPU TIME..... 0.28 [sec]

Design Assumption : A1+M1+R1 - File di Paratie - File di output (.out)

```
-----+-----  
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*  |  
|                |  
|                NewProject.BaseDesignSection_28.A1M1R1_1757  |  
|                Exe Time :24 May 2018          18:25:47      |  
|                |  
+-----+-----
```

```
*****  
*  
* PARATIE PLUS Non-Linear Spring Engine *  
*  
* AN ELASTOPLASTIC FINITE ELEMENT PROGRAM *  
* FOR FLEXIBLE EARTH-RETAINING STRUCTURES *  
*  
* Written by Ce.A.S. s.r.l. (ITALY) *  
* with the scientific supervision of *  
* Roberto Nova - full professor SOIL MECHANICS *  
* at Politecnico di Milano (ITALY) *  
*  
*****  
*  
* RELEASE  2017.1    *Build date:Jul 11, 2017* *  
*  
*  
* Ce.A.S.    S.R.L  CENTRO DI ANALISI STRUTTURALE *  
*          VIALE  GIUSTINIANO 10 *  
*          20129  M I L A N O (ITALIA) *  
* TEL.      +39 02 2020221  (+39 035 23 67 19) *  
* FAX      +39 02 29512533  (+39 035 42285 49) *  
* email    bruno.becci@ceas.it *  
* Web Page www.ceas.it *  
*****
```

```
JOB : NewProject.BaseDesignSection_28.A1M1R1_1757  
STARTING  
ACCEPTED <FILE,GENW >  
ACCEPTED <FILE,PLOTTER,BINARY >  
ACCEPTED <SOLVE TOTAL STRESS >  
ACCEPTED <PARAM ITEMAX 40 >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****  
*  
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *  
* BY THE PROGRAM. *  
*****
```

```
PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:25:47      |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 81
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 162
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 102
NO. OF LONG NAMES (LASTNAME) ..... 22
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES      kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+

P R E P R O C E S S O R   D A T A

N O .   O F   C O M M A N D S   102

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5E+04 1.5E+05
15 : ENDL
16 : LDATA Ug6_741_743_L_0 -12 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 18.5 9 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 5 26
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S355_114 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.8121 00 00 0
26 : STRIP LeftWall_32 1 6 1 11.75 0 5.769 45
27 : STEP Stage1_31
28 : CHANGE Ug5_2_8_L_0 U-FRICT=37 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
30 : CHANGE Ug5_2_8_L_0 U-KA=0.249 LeftWall_32
31 : CHANGE Ug5_2_8_L_0 U-KP=6.738 LeftWall_32
32 : CHANGE Ug5_2_8_L_0 D-KA=0.249 LeftWall_32
33 : CHANGE Ug5_2_8_L_0 D-KP=6.738 LeftWall_32
34 : CHANGE Ug6_741_743_L_0 U-FRICT=26 LeftWall_32
35 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
36 : CHANGE Ug6_741_743_L_0 U-KA=0.39 LeftWall_32
37 : CHANGE Ug6_741_743_L_0 U-KP=3.404 LeftWall_32
38 : CHANGE Ug6_741_743_L_0 D-KA=0.39 LeftWall_32
39 : CHANGE Ug6_741_743_L_0 D-KP=3.404 LeftWall_32
40 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
41 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
42 : CHANGE Ug6_741_743_L_0 U-COHE=5 LeftWall_32
43 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
44 : SETWALL LeftWall_32
45 : GEOM 0 0
46 : WATER 0 0 -16 0 0
47 : ADD WallElement_33
48 : ENDSTEP
49 : STEP Stage2_158
50 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
51 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
52 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
53 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
54 : SETWALL LeftWall_32
55 : GEOM 0 -1
56 : WATER 0 1 -16 0 0
57 : ENDSTEP
58 : STEP Stage3_255
59 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
60 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
61 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
62 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
63 : SETWALL LeftWall_32
64 : GEOM 0 -2
65 : WATER 0 2 -16 0 0
66 : ENDSTEP
67 : STEP Stage4_352
68 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
72 : SETWALL LeftWall_32
73 : GEOM 0 -3
74 : WATER 0 3 -16 0 0
75 : ENDSTEP
76 : STEP Stage5_449
77 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
78 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
79 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
80 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -4
83 : WATER 0 4 -16 0 0
84 : ENDSTEP
85 : STEP Stage6_546
86 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
87 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
88 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
89 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
90 : SETWALL LeftWall_32
91 : GEOM 0 -4.5
92 : WATER 0 4.5 -16 0 0
93 : ENDSTEP
94 : STEP Stage7_643
95 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
96 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
97 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
98 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
99 : SETWALL LeftWall_32
100 : GEOM 0 -4.5
101 : WATER 0 4.5 -16 0 0
102 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:25:47       |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /	4	0.0000	-0.60000 /
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /	8	0.0000	-1.4000 /
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /	12	0.0000	-2.2000 /
13	0.0000	-2.4000 /	14	0.0000	-2.6000 /	15	0.0000	-2.8000 /	16	0.0000	-3.0000 /
17	0.0000	-3.2000 /	18	0.0000	-3.4000 /	19	0.0000	-3.6000 /	20	0.0000	-3.8000 /
21	0.0000	-4.0000 /	22	0.0000	-4.2000 /	23	0.0000	-4.4000 /	24	0.0000	-4.6000 /
25	0.0000	-4.8000 /	26	0.0000	-5.0000 /	27	0.0000	-5.2000 /	28	0.0000	-5.4000 /
29	0.0000	-5.6000 /	30	0.0000	-5.8000 /	31	0.0000	-6.0000 /	32	0.0000	-6.2000 /
33	0.0000	-6.4000 /	34	0.0000	-6.6000 /	35	0.0000	-6.8000 /	36	0.0000	-7.0000 /
37	0.0000	-7.2000 /	38	0.0000	-7.4000 /	39	0.0000	-7.6000 /	40	0.0000	-7.8000 /
41	0.0000	-8.0000 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /
61	0.0000	-12.000 /	62	0.0000	-12.200 /	63	0.0000	-12.400 /	64	0.0000	-12.600 /
65	0.0000	-12.800 /	66	0.0000	-13.000 /	67	0.0000	-13.200 /	68	0.0000	-13.400 /
69	0.0000	-13.600 /	70	0.0000	-13.800 /	71	0.0000	-14.000 /	72	0.0000	-14.200 /
73	0.0000	-14.400 /	74	0.0000	-14.600 /	75	0.0000	-14.800 /	76	0.0000	-15.000 /
77	0.0000	-15.200 /	78	0.0000	-15.400 /	79	0.0000	-15.600 /	80	0.0000	-15.800 /
81	0.0000	-16.000 /									

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000
42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:25:47       |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:25:47                             |
+-----+

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
 2 80 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

```

no. of step variable items: 1
step inertia multiplier

```

-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

```

element data

e1	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8121	0.000	0.000
2	2	3	1	0.000	0.000	0.8121	0.000	0.000
3	3	4	1	0.000	0.000	0.8121	0.000	0.000
4	4	5	1	0.000	0.000	0.8121	0.000	0.000
5	5	6	1	0.000	0.000	0.8121	0.000	0.000
6	6	7	1	0.000	0.000	0.8121	0.000	0.000
7	7	8	1	0.000	0.000	0.8121	0.000	0.000
8	8	9	1	0.000	0.000	0.8121	0.000	0.000
9	9	10	1	0.000	0.000	0.8121	0.000	0.000
10	10	11	1	0.000	0.000	0.8121	0.000	0.000
11	11	12	1	0.000	0.000	0.8121	0.000	0.000
12	12	13	1	0.000	0.000	0.8121	0.000	0.000
13	13	14	1	0.000	0.000	0.8121	0.000	0.000
14	14	15	1	0.000	0.000	0.8121	0.000	0.000
15	15	16	1	0.000	0.000	0.8121	0.000	0.000
16	16	17	1	0.000	0.000	0.8121	0.000	0.000
17	17	18	1	0.000	0.000	0.8121	0.000	0.000
18	18	19	1	0.000	0.000	0.8121	0.000	0.000
19	19	20	1	0.000	0.000	0.8121	0.000	0.000
20	20	21	1	0.000	0.000	0.8121	0.000	0.000
21	21	22	1	0.000	0.000	0.8121	0.000	0.000
22	22	23	1	0.000	0.000	0.8121	0.000	0.000
23	23	24	1	0.000	0.000	0.8121	0.000	0.000
24	24	25	1	0.000	0.000	0.8121	0.000	0.000
25	25	26	1	0.000	0.000	0.8121	0.000	0.000
26	26	27	1	0.000	0.000	0.8121	0.000	0.000
27	27	28	1	0.000	0.000	0.8121	0.000	0.000
28	28	29	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.8121	0.000	0.000
30	30	31	1	0.000	0.000	0.8121	0.000	0.000
31	31	32	1	0.000	0.000	0.8121	0.000	0.000
32	32	33	1	0.000	0.000	0.8121	0.000	0.000
33	33	34	1	0.000	0.000	0.8121	0.000	0.000
34	34	35	1	0.000	0.000	0.8121	0.000	0.000
35	35	36	1	0.000	0.000	0.8121	0.000	0.000
36	36	37	1	0.000	0.000	0.8121	0.000	0.000
37	37	38	1	0.000	0.000	0.8121	0.000	0.000
38	38	39	1	0.000	0.000	0.8121	0.000	0.000
39	39	40	1	0.000	0.000	0.8121	0.000	0.000
40	40	41	1	0.000	0.000	0.8121	0.000	0.000
41	41	42	1	0.000	0.000	0.8121	0.000	0.000
42	42	43	1	0.000	0.000	0.8121	0.000	0.000
43	43	44	1	0.000	0.000	0.8121	0.000	0.000
44	44	45	1	0.000	0.000	0.8121	0.000	0.000
45	45	46	1	0.000	0.000	0.8121	0.000	0.000
46	46	47	1	0.000	0.000	0.8121	0.000	0.000
47	47	48	1	0.000	0.000	0.8121	0.000	0.000
48	48	49	1	0.000	0.000	0.8121	0.000	0.000
49	49	50	1	0.000	0.000	0.8121	0.000	0.000
50	50	51	1	0.000	0.000	0.8121	0.000	0.000
51	51	52	1	0.000	0.000	0.8121	0.000	0.000
52	52	53	1	0.000	0.000	0.8121	0.000	0.000
53	53	54	1	0.000	0.000	0.8121	0.000	0.000
54	54	55	1	0.000	0.000	0.8121	0.000	0.000
55	55	56	1	0.000	0.000	0.8121	0.000	0.000
56	56	57	1	0.000	0.000	0.8121	0.000	0.000
57	57	58	1	0.000	0.000	0.8121	0.000	0.000
58	58	59	1	0.000	0.000	0.8121	0.000	0.000
59	59	60	1	0.000	0.000	0.8121	0.000	0.000
60	60	61	1	0.000	0.000	0.8121	0.000	0.000
61	61	62	1	0.000	0.000	0.8121	0.000	0.000
62	62	63	1	0.000	0.000	0.8121	0.000	0.000
63	63	64	1	0.000	0.000	0.8121	0.000	0.000
64	64	65	1	0.000	0.000	0.8121	0.000	0.000
65	65	66	1	0.000	0.000	0.8121	0.000	0.000
66	66	67	1	0.000	0.000	0.8121	0.000	0.000
67	67	68	1	0.000	0.000	0.8121	0.000	0.000
68	68	69	1	0.000	0.000	0.8121	0.000	0.000
69	69	70	1	0.000	0.000	0.8121	0.000	0.000
70	70	71	1	0.000	0.000	0.8121	0.000	0.000
71	71	72	1	0.000	0.000	0.8121	0.000	0.000
72	72	73	1	0.000	0.000	0.8121	0.000	0.000
73	73	74	1	0.000	0.000	0.8121	0.000	0.000
74	74	75	1	0.000	0.000	0.8121	0.000	0.000
75	75	76	1	0.000	0.000	0.8121	0.000	0.000
76	76	77	1	0.000	0.000	0.8121	0.000	0.000
77	77	78	1	0.000	0.000	0.8121	0.000	0.000
78	78	79	1	0.000	0.000	0.8121	0.000	0.000
79	79	80	1	0.000	0.000	0.8121	0.000	0.000
80	80	81	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.A1M1R1_1757 |  
|                               Exe Time :24 May 2018      18:25:47 |  
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0  
NO. OF LOAD CURVES (NLCUR) ..... 14  
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018      18:25:47  |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018   18:25:47   |
+-----+
```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.A1M1R1_1757  |  
|                               Exe Time :24 May 2018      18:25:47  |  
+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	8<U-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>=	18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO.	1<NAME	>=	19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	-12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>=	3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=		1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>=	5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>=	3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 60<D-KA >= 0.39000 WALL NO. 1
ITEM NO. 61<D-KP >= 3.4040 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+

```

PHASE DESCRIPTORS

```

STEP NO.      1

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   0.000         0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  0.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru  0.000         0.000
SEISMIC PRESSURE LOWER VALUE  0.000         0.000
SEISMIC PRESSURE UPPER VALUE  0.000         0.000
SEISMIC PRESSURE LOWER LEVEL  0.000         0.000
SEISMIC PRESSURE UPPER LEVEL  0.000         0.000

```

=====end of step 1

```

STEP NO.      2

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   -1.000         0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  1.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru  0.000         0.000

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A1M1R1_1757  |
|                Exe Time :24 May 2018  18:25:47  |
+-----+

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I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 6.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 1.0000000000000000
FOUNDATION WIDTH (B) 11.7500000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.7690000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4763

NO. OF D.P.W FOR THIS AREA 9554
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1223E+06 RIMNOR= 0.000
          RENORM=0.2842E-27 REMNOR= 0.000        RATIO =0.4820E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.09        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1223E+06 RDR    = 0.000
          RATIOI=0.4820E-16 RATIOOR= 0.000
          MAX UN=0.7105E-14 IEQ=    149 NODE        75 DOF    1  Y-DISPL.F
          MIN UN=-.7105E-14 IEQ=    135 NODE        68 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

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ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1223E+06 RIMNOR= 0.000
          RENORM=0.1901E-29 REMNOR=0.1400E-52 RATIO =0.3943E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.09        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1223E+06 RDR    = 0.000
          RATIOI=0.3943E-17 RATIOOR= 0.000
          MAX UN=0.2381E-15 IEQ=     63 NODE        32 DOF    1  Y-DISPL.F
          MIN UN=-.3500E-16 IEQ=     3 NODE        2 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

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ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1223E+06 RIMNOR= 0.000
          RENORM=0.1742E-29 REMNOR=0.3776E-52 RATIO =0.3774E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.09        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1223E+06 RDR    = 0.000
          RATIOI=0.3774E-17 RATIOOR= 0.000
          MAX UN=0.2185E-15 IEQ=     69 NODE        35 DOF    1  Y-DISPL.F
          MIN UN=-.4160E-18 IEQ=    161 NODE        81 DOF    1  Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:25:47                             |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME  1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:25:47 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	3.1789E-21	0.000	0.000	0.000	0.000	V-C	4.7008E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7316	1.5282E-21	2.009	1.658	2.009	1.658	V-C	4.7008E+04	-0.2000	2.000	
1.000	1.000	3.658	0.000	0.000	Ug5_2_8_L_0						
3 D	1.443	-1.2238E-22	4.065	3.217	4.065	3.217	V-C	4.7008E+04	-0.4000	4.000	
1.000	1.000	7.217	0.000	0.000	Ug5_2_8_L_0						
4 D	2.126	-1.7729E-21	6.182	4.630	6.182	4.630	V-C	4.7008E+04	-0.6000	6.000	
1.000	1.000	10.63	0.000	0.000	Ug5_2_8_L_0						
5 D	2.781	-3.4230E-21	8.343	5.905	8.343	5.905	V-C	4.7008E+04	-0.8000	8.000	
1.000	1.000	13.90	0.000	0.000	Ug5_2_8_L_0						
6 D	3.415	-5.0720E-21	10.52	7.074	10.52	7.074	V-C	4.7008E+04	-1.0000	10.000	
1.000	1.000	17.07	0.000	0.000	Ug5_2_8_L_0						
7 D	4.034	-6.7170E-21	12.70	8.168	12.70	8.168	V-C	4.7008E+04	-1.2000	12.000	
1.000	1.000	20.17	0.000	0.000	Ug5_2_8_L_0						
8 D	4.643	-8.3546E-21	15.01	9.214	15.01	9.214	V-C	4.7008E+04	-1.4000	14.000	
1.000	1.000	23.21	0.000	0.000	Ug5_2_8_L_0						
9 D	5.246	-9.9810E-21	17.36	10.23	17.36	10.23	V-C	4.7008E+04	-1.6000	16.000	
1.000	1.000	26.23	0.000	0.000	Ug5_2_8_L_0						
10 D	5.844	-1.1592E-20	19.46	11.22	19.46	11.22	V-C	4.7008E+04	-1.8000	18.000	
1.000	1.000	29.22	0.000	0.000	Ug5_2_8_L_0						
11 D	6.440	-1.3183E-20	21.71	12.20	21.71	12.20	V-C	4.7008E+04	-2.0000	20.000	
1.000	1.000	32.20	0.000	0.000	Ug5_2_8_L_0						
12 D	7.034	-1.4748E-20	23.93	13.17	23.93	13.17	V-C	4.7008E+04	-2.2000	22.000	
1.000	1.000	35.17	0.000	0.000	Ug5_2_8_L_0						
13 D	7.627	-1.6283E-20	25.97	14.14	25.97	14.14	V-C	4.7008E+04	-2.4000	24.000	
1.000	1.000	38.14	0.000	0.000	Ug5_2_8_L_0						
14 D	8.219	-1.7780E-20	28.14	15.10	28.14	15.10	V-C	4.7008E+04	-2.6000	26.000	
1.000	1.000	41.10	0.000	0.000	Ug5_2_8_L_0						
15 D	8.811	-1.9233E-20	30.29	16.05	30.29	16.05	V-C	4.7008E+04	-2.8000	28.000	
1.000	1.000	44.05	0.000	0.000	Ug5_2_8_L_0						
16 D	9.402	-2.0634E-20	32.42	17.01	32.42	17.01	V-C	4.7008E+04	-3.0000	30.000	
1.000	1.000	47.01	0.000	0.000	Ug5_2_8_L_0						
17 D	9.993	-2.1974E-20	34.43	17.97	34.43	17.97	V-C	4.7008E+04	-3.2000	32.000	
1.000	1.000	49.97	0.000	0.000	Ug5_2_8_L_0						
18 D	10.58	-2.3245E-20	36.54	18.92	36.54	18.92	V-C	4.7008E+04	-3.4000	34.000	
1.000	1.000	52.92	0.000	0.000	Ug5_2_8_L_0						
19 D	11.17	-2.4437E-20	38.64	19.87	38.64	19.87	V-C	4.7008E+04	-3.6000	36.000	
1.000	1.000	55.87	0.000	0.000	Ug5_2_8_L_0						
20 D	11.77	-2.5539E-20	40.64	20.83	40.64	20.83	V-C	4.7008E+04	-3.8000	38.000	
1.000	1.000	58.83	0.000	0.000	Ug5_2_8_L_0						
21 D	12.36	-2.6549E-20	42.73	21.78	42.73	21.78	V-C	4.7008E+04	-4.0000	40.000	
1.000	1.000	61.78	0.000	0.000	Ug5_2_8_L_0						
22 D	12.95	-2.7465E-20	44.80	22.74	44.80	22.74	V-C	4.7008E+04	-4.2000	42.000	
1.000	1.000	64.74	0.000	0.000	Ug5_2_8_L_0						
23 D	13.54	-2.8293E-20	46.80	23.69	46.80	23.69	V-C	4.7008E+04	-4.4000	44.000	
1.000	1.000	67.69	0.000	0.000	Ug5_2_8_L_0						
24 D	14.13	-2.9038E-20	48.87	24.65	48.87	24.65	V-C	4.7008E+04	-4.6000	46.000	
1.000	1.000	70.65	0.000	0.000	Ug5_2_8_L_0						
25 D	14.72	-2.9704E-20	50.93	25.61	50.93	25.61	V-C	4.7008E+04	-4.8000	48.000	
1.000	1.000	73.61	0.000	0.000	Ug5_2_8_L_0						
26 D	15.31	-3.0294E-20	52.99	26.56	52.99	26.56	V-C	4.7008E+04	-5.0000	50.000	
1.000	1.000	76.56	0.000	0.000	Ug5_2_8_L_0						
27 D	15.90	-3.0810E-20	54.98	27.52	54.98	27.52	V-C	4.7008E+04	-5.2000	52.000	
1.000	1.000	79.52	0.000	0.000	Ug5_2_8_L_0						
28 D	16.50	-3.1254E-20	57.03	28.48	57.03	28.48	V-C	4.7008E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.48	0.000	0.000	Ug5_2_8_L_0					
29 D	17.09	-3.1626E-20	59.08	29.44	59.08	29.44	V-C	4.7008E+04	-5.600	56.00
1.000	1.000	85.44	0.000	0.000	Ug5_2_8_L_0					
30 D	17.68	-3.1923E-20	61.07	30.40	61.07	30.40	V-C	4.7008E+04	-5.800	58.00
1.000	1.000	88.40	0.000	0.000	Ug5_2_8_L_0					
31 D	18.27	-3.2144E-20	63.11	31.36	63.11	31.36	V-C	4.7008E+04	-6.000	60.00
1.000	1.000	91.36	0.000	0.000	Ug5_2_8_L_0					
32 D	18.87	-3.2285E-20	65.16	32.33	65.16	32.33	V-C	4.7008E+04	-6.200	62.00
1.000	1.000	94.33	0.000	0.000	Ug5_2_8_L_0					
33 D	19.46	-3.2340E-20	67.14	33.29	67.14	33.29	V-C	4.7008E+04	-6.400	64.00
1.000	1.000	97.29	0.000	0.000	Ug5_2_8_L_0					
34 D	20.05	-3.2307E-20	69.18	34.25	69.18	34.25	V-C	4.7008E+04	-6.600	66.00
1.000	1.000	100.3	0.000	0.000	Ug5_2_8_L_0					
35 D	20.64	-3.2196E-20	71.22	35.22	71.22	35.22	V-C	4.7008E+04	-6.800	68.00
1.000	1.000	103.2	0.000	0.000	Ug5_2_8_L_0					
36 D	21.24	-3.2017E-20	73.26	36.18	73.26	36.18	V-C	4.7008E+04	-7.000	70.00
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
37 D	21.83	-3.1781E-20	75.24	37.15	75.24	37.15	V-C	4.7008E+04	-7.200	72.00
1.000	1.000	109.2	0.000	0.000	Ug5_2_8_L_0					
38 D	22.42	-3.1498E-20	77.27	38.12	77.27	38.12	V-C	4.7008E+04	-7.400	74.00
1.000	1.000	112.1	0.000	0.000	Ug5_2_8_L_0					
39 D	23.02	-3.1175E-20	79.31	39.09	79.31	39.09	V-C	4.7008E+04	-7.600	76.00
1.000	1.000	115.1	0.000	0.000	Ug5_2_8_L_0					
40 D	23.61	-3.0818E-20	81.29	40.06	81.29	40.06	V-C	4.7008E+04	-7.800	78.00
1.000	1.000	118.1	0.000	0.000	Ug5_2_8_L_0					
41 D	24.21	-3.0430E-20	83.32	41.03	83.32	41.03	V-C	4.7008E+04	-8.000	80.00
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
42 D	24.80	-3.0002E-20	85.35	42.00	85.35	42.00	V-C	4.7008E+04	-8.200	82.00
1.000	1.000	124.0	0.000	0.000	Ug5_2_8_L_0					
43 D	25.39	-2.9532E-20	87.33	42.97	87.33	42.97	V-C	4.7008E+04	-8.400	84.00
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
44 D	25.99	-2.9026E-20	89.36	43.94	89.36	43.94	V-C	4.7008E+04	-8.600	86.00
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
45 D	26.58	-2.8498E-20	91.39	44.91	91.39	44.91	V-C	4.7008E+04	-8.800	88.00
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
46 D	27.18	-2.7951E-20	93.41	45.89	93.41	45.89	V-C	4.7008E+04	-9.000	90.00
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
47 D	27.77	-2.7383E-20	95.40	46.86	95.40	46.86	V-C	4.7008E+04	-9.200	92.00
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
48 D	28.37	-2.6791E-20	97.42	47.84	97.42	47.84	V-C	4.7008E+04	-9.400	94.00
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
49 D	28.96	-2.6171E-20	99.44	48.82	99.44	48.82	V-C	4.7008E+04	-9.600	96.00
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
50 D	29.56	-2.5518E-20	101.4	49.79	101.4	49.79	V-C	4.7008E+04	-9.800	98.00
1.000	1.000	147.8	0.000	0.000	Ug5_2_8_L_0					
51 D	30.15	-2.4826E-20	103.4	50.77	103.4	50.77	V-C	4.7008E+04	-10.000	100.00
1.000	1.000	150.8	0.000	0.000	Ug5_2_8_L_0					
52 D	30.75	-2.4089E-20	105.5	51.75	105.5	51.75	V-C	4.7008E+04	-10.200	102.0
1.000	1.000	153.7	0.000	0.000	Ug5_2_8_L_0					
53 D	31.35	-2.3300E-20	107.5	52.73	107.5	52.73	V-C	4.7008E+04	-10.400	104.0
1.000	1.000	156.7	0.000	0.000	Ug5_2_8_L_0					
54 D	31.94	-2.2469E-20	109.5	53.71	109.5	53.71	V-C	4.7008E+04	-10.600	106.0
1.000	1.000	159.7	0.000	0.000	Ug5_2_8_L_0					
55 D	32.54	-2.1604E-20	111.5	54.69	111.5	54.69	V-C	4.7008E+04	-10.800	108.0
1.000	1.000	162.7	0.000	0.000	Ug5_2_8_L_0					
56 D	33.13	-2.0716E-20	113.5	55.67	113.5	55.67	V-C	4.7008E+04	-11.000	110.0
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
57 D	33.73	-1.9812E-20	115.5	56.65	115.5	56.65	V-C	4.7008E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.33	-1.8901E-20	117.5	57.63	117.5	57.63	V-C	4.7008E+04	-11.400	114.0
1.000	1.000	171.6	0.000	0.000	Ug5_2_8_L_0					
59 D	34.92	-1.7989E-20	119.5	58.61	119.5	58.61	V-C	4.7008E+04	-11.600	116.0
1.000	1.000	174.6	0.000	0.000	Ug5_2_8_L_0					
60 D	35.52	-1.7082E-20	121.5	59.60	121.5	59.60	V-C	4.7008E+04	-11.800	118.0
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
61 D	36.12	-1.6185E-20	123.5	60.58	123.5	60.58	V-C	4.7008E+04	-12.000	120.0
1.000	1.000	180.6	0.000	0.000	Ug5_2_8_L_0					
62 D	36.69	-1.5302E-20	125.4	61.46	125.4	61.46	V-C	2.2505E+04	-12.200	122.0
1.000	1.000	183.5	0.000	0.000	Ug6_741_743_L_0					
63 D	37.27	-1.4438E-20	127.2	62.35	127.2	62.35	V-C	2.2505E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.85	-1.3595E-20	129.0	63.23	129.0	63.23	V-C	2.2505E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.42	-1.2776E-20	130.7	64.12	130.7	64.12	V-C	2.2505E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	39.00	-1.1985E-20	132.5	65.01	132.5	65.01	V-C	2.2505E+04	-13.000	130.0
1.000	1.000	195.0	0.000	0.000	Ug6_741_743_L_0					
67 D	39.58	-1.1224E-20	134.3	65.89	134.3	65.89	V-C	2.2505E+04	-13.200	132.0
1.000	1.000	197.9	0.000	0.000	Ug6_741_743_L_0					
68 D	40.16	-1.0494E-20	136.0	66.78	136.0	66.78	V-C	2.2505E+04	-13.400	134.0
1.000	1.000	200.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.73	-9.7915E-21	137.8	67.67	137.8	67.67	V-C	2.2505E+04	-13.60	136.0
1.000	1.000	203.7	0.000	0.000	Ug6_741_743_L_0					
70 D	41.31	-9.0831E-21	139.6	68.55	139.6	68.55	V-C	2.2505E+04	-13.80	138.0
1.000	1.000	206.6	0.000	0.000	Ug6_741_743_L_0					
71 D	41.89	-8.3367E-21	141.3	69.44	141.3	69.44	V-C	2.2505E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.47	-7.5468E-21	143.1	70.33	143.1	70.33	V-C	2.2505E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.04	-6.7142E-21	144.9	71.22	144.9	71.22	V-C	2.2505E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.62	-5.8395E-21	146.6	72.11	146.6	72.11	V-C	2.2505E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.20	-4.9233E-21	148.4	73.00	148.4	73.00	V-C	2.2505E+04	-14.80	148.0
1.000	1.000	221.0	0.000	0.000	Ug6_741_743_L_0					
76 D	44.78	-3.9728E-21	150.2	73.89	150.2	73.89	V-C	2.2505E+04	-15.00	150.0
1.000	1.000	223.9	0.000	0.000	Ug6_741_743_L_0					
77 D	45.36	-3.0152E-21	151.9	74.78	151.9	74.78	V-C	2.2505E+04	-15.20	152.0
1.000	1.000	226.8	0.000	0.000	Ug6_741_743_L_0					
78 D	45.93	-2.0574E-21	153.7	75.67	153.7	75.67	V-C	2.2505E+04	-15.40	154.0
1.000	1.000	229.7	0.000	0.000	Ug6_741_743_L_0					
79 D	46.51	-1.0995E-21	155.5	76.56	155.5	76.56	V-C	2.2505E+04	-15.60	156.0
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					
80 D	47.09	-1.4164E-22	157.3	77.45	157.3	77.45	V-C	2.2505E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	8.1630E-22	159.0	78.34	159.0	78.34	V-C	2.2505E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:25:47 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.1789E-21	0.000	0.000	0.000	0.000	V-C	2.3371E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7316	-1.5282E-21	2.000	1.658	2.000	1.658	V-C	2.3371E+04	-0.2000	2.000	
1.000	1.000	3.658	0.000	0.000	Ug5_2_8_L_0						
3 D	1.443	1.2238E-22	4.000	3.217	4.000	3.217	V-C	2.3371E+04	-0.4000	4.000	
1.000	1.000	7.217	0.000	0.000	Ug5_2_8_L_0						
4 D	2.126	1.7729E-21	6.000	4.630	6.000	4.630	V-C	2.3371E+04	-0.6000	6.000	
1.000	1.000	10.63	0.000	0.000	Ug5_2_8_L_0						
5 D	2.781	3.4230E-21	8.000	5.905	8.000	5.905	V-C	2.3371E+04	-0.8000	8.000	
1.000	1.000	13.90	0.000	0.000	Ug5_2_8_L_0						
6 D	3.415	5.0720E-21	10.00	7.074	10.00	7.074	V-C	2.3371E+04	-1.0000	10.00	
1.000	1.000	17.07	0.000	0.000	Ug5_2_8_L_0						
7 D	4.034	6.7170E-21	12.00	8.168	12.00	8.168	V-C	2.3371E+04	-1.2000	12.00	
1.000	1.000	20.17	0.000	0.000	Ug5_2_8_L_0						
8 D	4.643	8.3546E-21	14.00	9.214	14.00	9.214	V-C	2.3371E+04	-1.4000	14.00	
1.000	1.000	23.21	0.000	0.000	Ug5_2_8_L_0						
9 D	5.246	9.9810E-21	16.00	10.23	16.00	10.23	V-C	2.3371E+04	-1.6000	16.00	
1.000	1.000	26.23	0.000	0.000	Ug5_2_8_L_0						
10 D	5.844	1.1592E-20	18.00	11.22	18.00	11.22	V-C	2.3371E+04	-1.8000	18.00	
1.000	1.000	29.22	0.000	0.000	Ug5_2_8_L_0						
11 D	6.440	1.3183E-20	20.00	12.20	20.00	12.20	V-C	2.3371E+04	-2.0000	20.00	
1.000	1.000	32.20	0.000	0.000	Ug5_2_8_L_0						
12 D	7.034	1.4748E-20	22.00	13.17	22.00	13.17	V-C	2.3371E+04	-2.2000	22.00	
1.000	1.000	35.17	0.000	0.000	Ug5_2_8_L_0						
13 D	7.627	1.6283E-20	24.00	14.14	24.00	14.14	V-C	2.3371E+04	-2.4000	24.00	
1.000	1.000	38.14	0.000	0.000	Ug5_2_8_L_0						
14 D	8.219	1.7780E-20	26.00	15.10	26.00	15.10	V-C	2.3371E+04	-2.6000	26.00	
1.000	1.000	41.10	0.000	0.000	Ug5_2_8_L_0						
15 D	8.811	1.9233E-20	28.00	16.05	28.00	16.05	V-C	2.3371E+04	-2.8000	28.00	
1.000	1.000	44.05	0.000	0.000	Ug5_2_8_L_0						
16 D	9.402	2.0634E-20	30.00	17.01	30.00	17.01	V-C	2.3371E+04	-3.0000	30.00	
1.000	1.000	47.01	0.000	0.000	Ug5_2_8_L_0						
17 D	9.993	2.1974E-20	32.00	17.97	32.00	17.97	V-C	2.3371E+04	-3.2000	32.00	
1.000	1.000	49.97	0.000	0.000	Ug5_2_8_L_0						
18 D	10.58	2.3245E-20	34.00	18.92	34.00	18.92	V-C	2.3371E+04	-3.4000	34.00	
1.000	1.000	52.92	0.000	0.000	Ug5_2_8_L_0						
19 D	11.17	2.4437E-20	36.00	19.87	36.00	19.87	V-C	2.3371E+04	-3.6000	36.00	
1.000	1.000	55.87	0.000	0.000	Ug5_2_8_L_0						
20 D	11.77	2.5539E-20	38.00	20.83	38.00	20.83	V-C	2.3371E+04	-3.8000	38.00	
1.000	1.000	58.83	0.000	0.000	Ug5_2_8_L_0						
21 D	12.36	2.6549E-20	40.00	21.78	40.00	21.78	V-C	2.3371E+04	-4.0000	40.00	
1.000	1.000	61.78	0.000	0.000	Ug5_2_8_L_0						
22 D	12.95	2.7465E-20	42.00	22.74	42.00	22.74	V-C	2.3371E+04	-4.2000	42.00	
1.000	1.000	64.74	0.000	0.000	Ug5_2_8_L_0						
23 D	13.54	2.8293E-20	44.00	23.69	44.00	23.69	V-C	2.3371E+04	-4.4000	44.00	
1.000	1.000	67.69	0.000	0.000	Ug5_2_8_L_0						
24 D	14.13	2.9038E-20	46.00	24.65	46.00	24.65	V-C	2.3371E+04	-4.6000	46.00	
1.000	1.000	70.65	0.000	0.000	Ug5_2_8_L_0						
25 D	14.72	2.9704E-20	48.00	25.61	48.00	25.61	V-C	2.3371E+04	-4.8000	48.00	
1.000	1.000	73.61	0.000	0.000	Ug5_2_8_L_0						
26 D	15.31	3.0294E-20	50.00	26.56	50.00	26.56	V-C	2.3371E+04	-5.0000	50.00	
1.000	1.000	76.56	0.000	0.000	Ug5_2_8_L_0						
27 D	15.90	3.0810E-20	52.00	27.52	52.00	27.52	V-C	2.3371E+04	-5.2000	52.00	
1.000	1.000	79.52	0.000	0.000	Ug5_2_8_L_0						
28 D	16.50	3.1254E-20	54.00	28.48	54.00	28.48	V-C	2.3371E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.48	0.000	0.000	Ug5_2_8_L_0					
29 D	17.09	3.1626E-20	56.00	29.44	56.00	29.44	V-C	2.3371E+04	-5.600	56.00
1.000	1.000	85.44	0.000	0.000	Ug5_2_8_L_0					
30 D	17.68	3.1923E-20	58.00	30.40	58.00	30.40	V-C	2.3371E+04	-5.800	58.00
1.000	1.000	88.40	0.000	0.000	Ug5_2_8_L_0					
31 D	18.27	3.2144E-20	60.00	31.36	60.00	31.36	V-C	2.3371E+04	-6.000	60.00
1.000	1.000	91.36	0.000	0.000	Ug5_2_8_L_0					
32 D	18.87	3.2285E-20	62.00	32.33	62.00	32.33	V-C	2.3371E+04	-6.200	62.00
1.000	1.000	94.33	0.000	0.000	Ug5_2_8_L_0					
33 D	19.46	3.2340E-20	64.00	33.29	64.00	33.29	V-C	2.3371E+04	-6.400	64.00
1.000	1.000	97.29	0.000	0.000	Ug5_2_8_L_0					
34 D	20.05	3.2307E-20	66.00	34.25	66.00	34.25	V-C	2.3371E+04	-6.600	66.00
1.000	1.000	100.3	0.000	0.000	Ug5_2_8_L_0					
35 D	20.64	3.2196E-20	68.00	35.22	68.00	35.22	V-C	2.3371E+04	-6.800	68.00
1.000	1.000	103.2	0.000	0.000	Ug5_2_8_L_0					
36 D	21.24	3.2017E-20	70.00	36.18	70.00	36.18	V-C	2.3371E+04	-7.000	70.00
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
37 D	21.83	3.1781E-20	72.00	37.15	72.00	37.15	V-C	2.3371E+04	-7.200	72.00
1.000	1.000	109.2	0.000	0.000	Ug5_2_8_L_0					
38 D	22.42	3.1498E-20	74.00	38.12	74.00	38.12	V-C	2.3371E+04	-7.400	74.00
1.000	1.000	112.1	0.000	0.000	Ug5_2_8_L_0					
39 D	23.02	3.1175E-20	76.00	39.09	76.00	39.09	V-C	2.3371E+04	-7.600	76.00
1.000	1.000	115.1	0.000	0.000	Ug5_2_8_L_0					
40 D	23.61	3.0818E-20	78.00	40.06	78.00	40.06	V-C	2.3371E+04	-7.800	78.00
1.000	1.000	118.1	0.000	0.000	Ug5_2_8_L_0					
41 D	24.21	3.0430E-20	80.00	41.03	80.00	41.03	V-C	2.3371E+04	-8.000	80.00
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
42 D	24.80	3.0002E-20	82.00	42.00	82.00	42.00	V-C	2.3371E+04	-8.200	82.00
1.000	1.000	124.0	0.000	0.000	Ug5_2_8_L_0					
43 D	25.39	2.9532E-20	84.00	42.97	84.00	42.97	V-C	2.3371E+04	-8.400	84.00
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
44 D	25.99	2.9026E-20	86.00	43.94	86.00	43.94	V-C	2.3371E+04	-8.600	86.00
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
45 D	26.58	2.8498E-20	88.00	44.91	88.00	44.91	V-C	2.3371E+04	-8.800	88.00
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
46 D	27.18	2.7951E-20	90.00	45.89	90.00	45.89	V-C	2.3371E+04	-9.000	90.00
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
47 D	27.77	2.7383E-20	92.00	46.86	92.00	46.86	V-C	2.3371E+04	-9.200	92.00
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
48 D	28.37	2.6791E-20	94.00	47.84	94.00	47.84	V-C	2.3371E+04	-9.400	94.00
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
49 D	28.96	2.6171E-20	96.00	48.82	96.00	48.82	V-C	2.3371E+04	-9.600	96.00
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
50 D	29.56	2.5518E-20	98.00	49.79	98.00	49.79	V-C	2.3371E+04	-9.800	98.00
1.000	1.000	147.8	0.000	0.000	Ug5_2_8_L_0					
51 D	30.15	2.4826E-20	100.00	50.77	100.00	50.77	V-C	2.3371E+04	-10.000	100.00
1.000	1.000	150.8	0.000	0.000	Ug5_2_8_L_0					
52 D	30.75	2.4089E-20	102.0	51.75	102.0	51.75	V-C	2.3371E+04	-10.200	102.0
1.000	1.000	153.7	0.000	0.000	Ug5_2_8_L_0					
53 D	31.35	2.3300E-20	104.0	52.73	104.0	52.73	V-C	2.3371E+04	-10.400	104.0
1.000	1.000	156.7	0.000	0.000	Ug5_2_8_L_0					
54 D	31.94	2.2469E-20	106.0	53.71	106.0	53.71	V-C	2.3371E+04	-10.600	106.0
1.000	1.000	159.7	0.000	0.000	Ug5_2_8_L_0					
55 D	32.54	2.1604E-20	108.0	54.69	108.0	54.69	V-C	2.3371E+04	-10.800	108.0
1.000	1.000	162.7	0.000	0.000	Ug5_2_8_L_0					
56 D	33.13	2.0716E-20	110.0	55.67	110.0	55.67	V-C	2.3371E+04	-11.000	110.0
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
57 D	33.73	1.9812E-20	112.0	56.65	112.0	56.65	V-C	2.3371E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.33	1.8901E-20	114.0	57.63	114.0	57.63	V-C	2.3371E+04	-11.400	114.0
1.000	1.000	171.6	0.000	0.000	Ug5_2_8_L_0					
59 D	34.92	1.7989E-20	116.0	58.61	116.0	58.61	V-C	2.3371E+04	-11.600	116.0
1.000	1.000	174.6	0.000	0.000	Ug5_2_8_L_0					
60 D	35.52	1.7082E-20	118.0	59.60	118.0	59.60	V-C	2.3371E+04	-11.800	118.0
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
61 D	36.12	1.6185E-20	120.0	60.58	120.0	60.58	V-C	2.3371E+04	-12.000	120.0
1.000	1.000	180.6	0.000	0.000	Ug5_2_8_L_0					
62 D	36.69	1.5302E-20	121.8	61.46	121.8	61.46	V-C	1.7574E+04	-12.200	122.0
1.000	1.000	183.5	0.000	0.000	Ug6_741_743_L_0					
63 D	37.27	1.4438E-20	123.6	62.35	123.6	62.35	V-C	1.7574E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.85	1.3595E-20	125.4	63.23	125.4	63.23	V-C	1.7574E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.42	1.2776E-20	127.2	64.12	127.2	64.12	V-C	1.7574E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	39.00	1.1985E-20	129.0	65.01	129.0	65.01	V-C	1.7574E+04	-13.000	130.0
1.000	1.000	195.0	0.000	0.000	Ug6_741_743_L_0					
67 D	39.58	1.1224E-20	130.8	65.89	130.8	65.89	V-C	1.7574E+04	-13.200	132.0
1.000	1.000	197.9	0.000	0.000	Ug6_741_743_L_0					
68 D	40.16	1.0494E-20	132.6	66.78	132.6	66.78	V-C	1.7574E+04	-13.400	134.0
1.000	1.000	200.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.73	9.7915E-21	134.4	67.67	134.4	67.67	V-C	1.7574E+04	-13.60	136.0
1.000	1.000	203.7	0.000	0.000	Ug6_741_743_L_0					
70 D	41.31	9.0831E-21	136.2	68.55	136.2	68.55	V-C	1.7574E+04	-13.80	138.0
1.000	1.000	206.6	0.000	0.000	Ug6_741_743_L_0					
71 D	41.89	8.3367E-21	138.0	69.44	138.0	69.44	V-C	1.7574E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.47	7.5468E-21	139.8	70.33	139.8	70.33	V-C	1.7574E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.04	6.7142E-21	141.6	71.22	141.6	71.22	V-C	1.7574E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.62	5.8395E-21	143.4	72.11	143.4	72.11	V-C	1.7574E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.20	4.9233E-21	145.2	73.00	145.2	73.00	V-C	1.7574E+04	-14.80	148.0
1.000	1.000	221.0	0.000	0.000	Ug6_741_743_L_0					
76 D	44.78	3.9728E-21	147.0	73.89	147.0	73.89	V-C	1.7574E+04	-15.00	150.0
1.000	1.000	223.9	0.000	0.000	Ug6_741_743_L_0					
77 D	45.36	3.0152E-21	148.8	74.78	148.8	74.78	V-C	1.7574E+04	-15.20	152.0
1.000	1.000	226.8	0.000	0.000	Ug6_741_743_L_0					
78 D	45.93	2.0574E-21	150.6	75.67	150.6	75.67	V-C	1.7574E+04	-15.40	154.0
1.000	1.000	229.7	0.000	0.000	Ug6_741_743_L_0					
79 D	46.51	1.0995E-21	152.4	76.56	152.4	76.56	V-C	1.7574E+04	-15.60	156.0
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					
80 D	47.09	1.4164E-22	154.2	77.45	154.2	77.45	V-C	1.7574E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	-8.1630E-22	156.0	78.34	156.0	78.34	V-C	1.7574E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                           |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757   |
|                               Exe Time :24 May 2018   18:25:47   |
+-----+

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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-2.00776E-18	2.00776E-18	0.0000	-4.01553E-19
2	-1.54965E-17	1.54965E-17	4.01553E-19	-3.50085E-18
3	-3.84557E-17	3.84557E-17	3.50085E-18	-1.11920E-17
4	-7.08767E-17	7.08767E-17	1.11920E-17	-2.53673E-17
5	-5.56830E-16	5.56830E-16	2.53673E-17	-1.36733E-16
6	-6.08108E-16	6.08108E-16	1.36733E-16	-2.58355E-16
7	-6.68751E-16	6.68751E-16	2.58355E-16	-3.92105E-16
8	-7.38696E-16	7.38696E-16	3.92105E-16	-5.39844E-16
9	-8.17859E-16	8.17859E-16	5.39844E-16	-7.03416E-16
10	-9.06132E-16	9.06132E-16	7.03416E-16	-8.84643E-16
11	-1.00339E-15	1.00339E-15	8.84643E-16	-1.08532E-15
12	-1.10947E-15	1.10947E-15	1.08532E-15	-1.30721E-15
13	-1.22419E-15	1.22419E-15	1.30721E-15	-1.55205E-15
14	-1.34736E-15	1.34736E-15	1.55205E-15	-1.82152E-15
15	-1.47874E-15	1.47874E-15	1.82152E-15	-2.11727E-15
16	-1.61808E-15	1.61808E-15	2.11727E-15	-2.44089E-15
17	-1.76509E-15	1.76509E-15	2.44089E-15	-2.79391E-15
18	-1.91946E-15	1.91946E-15	2.79391E-15	-3.17780E-15
19	-3.04531E-16	3.04531E-16	3.17780E-15	-3.23871E-15
20	-4.72650E-16	4.72650E-16	3.23871E-15	-3.33324E-15
21	-1.12926E-15	1.12926E-15	3.33324E-15	-3.10738E-15
22	9.48868E-16	-9.48868E-16	3.10738E-15	-2.91761E-15
23	7.62931E-16	-7.62931E-16	2.91761E-15	-2.76502E-15
24	5.71864E-16	-5.71864E-16	2.76502E-15	-2.65065E-15
25	3.76089E-16	-3.76089E-16	2.65065E-15	-2.57543E-15
26	1.76042E-16	-1.76042E-16	2.57543E-15	-2.54022E-15
27	-2.78376E-17	2.78376E-17	2.54022E-15	-2.54579E-15
28	-2.35103E-16	2.35103E-16	2.54579E-15	-2.59281E-15
29	-4.45307E-16	4.45307E-16	2.59281E-15	-2.68187E-15
30	-6.57999E-16	6.57999E-16	2.68187E-15	-2.81347E-15
31	-8.72732E-16	8.72732E-16	2.81347E-15	-2.98802E-15
32	-1.08906E-15	1.08906E-15	2.98802E-15	-3.20583E-15
33	2.24617E-15	-2.24617E-15	3.20583E-15	-2.75660E-15
34	2.02797E-15	-2.02797E-15	2.75660E-15	-2.35100E-15
35	1.80947E-15	-1.80947E-15	2.35100E-15	-1.98911E-15
36	1.59109E-15	-1.59109E-15	1.98911E-15	-1.67089E-15
37	1.37323E-15	-1.37323E-15	1.67089E-15	-1.39625E-15
38	1.15629E-15	-1.15629E-15	1.39625E-15	-1.16499E-15
39	9.40648E-16	-9.40648E-16	1.16499E-15	-9.76860E-16
40	-2.82605E-15	2.82605E-15	9.76860E-16	-1.54207E-15
41	5.14693E-16	-5.14693E-16	1.54207E-15	-1.43913E-15
42	3.05070E-16	-3.05070E-16	1.43913E-15	-1.37812E-15
43	3.65083E-15	-3.65083E-15	1.37812E-15	-6.47951E-16
44	-1.05865E-16	1.05865E-16	6.47951E-16	-6.69124E-16
45	-3.06582E-16	3.06582E-16	6.69124E-16	-7.30440E-16
46	-5.03762E-16	5.03762E-16	7.30440E-16	-8.31193E-16
47	-6.97147E-16	6.97147E-16	8.31193E-16	-9.70622E-16
48	-8.86493E-16	8.86493E-16	9.70622E-16	-1.14792E-15
49	-1.07158E-15	1.07158E-15	1.14792E-15	-1.36223E-15
50	-1.25218E-15	1.25218E-15	1.36223E-15	-1.61267E-15
51	-1.42811E-15	1.42811E-15	1.61267E-15	-1.89830E-15
52	1.95352E-15	-1.95352E-15	1.89830E-15	-1.50762E-15
53	1.78746E-15	-1.78746E-15	1.50762E-15	-1.15012E-15
54	1.62657E-15	-1.62657E-15	1.15012E-15	-8.24809E-16
55	1.47100E-15	-1.47100E-15	8.24809E-16	-5.30610E-16
56	1.32085E-15	-1.32085E-15	5.30610E-16	-2.66440E-16
57	1.17625E-15	-1.17625E-15	2.66440E-16	-3.11907E-17
58	1.03728E-15	-1.03728E-15	3.11907E-17	-1.76266E-16
59	9.04047E-16	-9.04047E-16	1.76266E-16	-3.57075E-16

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 7.76611E-16-7.76611E-16-3.57075E-16 5.12398E-16
61 6.55042E-16-6.55042E-16-5.12398E-16 6.43406E-16
62 5.89185E-16-5.89185E-16-6.43406E-16 7.61243E-16
63 5.26728E-16-5.26728E-16-7.61243E-16 8.66589E-16
64 4.67697E-16-4.67697E-16-8.66589E-16 9.60128E-16
65 4.12112E-16-4.12112E-16-9.60128E-16 1.04255E-15
66 3.59990E-16-3.59990E-16-1.04255E-15 1.11455E-15
67 3.11348E-16-3.11348E-16-1.11455E-15 1.17682E-15
68-6.83923E-15 6.83923E-15-1.17682E-15-1.91028E-16
69-6.88088E-15 6.88088E-15 1.91028E-16-1.56720E-15
70 1.86417E-16-1.86417E-16 1.56720E-15-1.52992E-15
71 1.51804E-16-1.51804E-16 1.52992E-15-1.49956E-15
72 1.20720E-16-1.20720E-16 1.49956E-15-1.47542E-15
73 9.31696E-17-9.31696E-17 1.47542E-15-1.45678E-15
74 6.91589E-17-6.91589E-17 1.45678E-15-1.44295E-15
75 7.15412E-15-7.15412E-15 1.44295E-15-1.21261E-17
76 3.17702E-17-3.17702E-17 1.21261E-17-5.77212E-18
77 1.83976E-17-1.83976E-17 5.77212E-18-2.09260E-18
78 8.57518E-18-8.57518E-18 2.09260E-18-3.77560E-19
79 2.30383E-18-2.30383E-18 3.77560E-19 8.32051E-20
80-4.16004E-19 4.16004E-19-8.32051E-20 2.52435E-29

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1135E+06 RIMNOR=0.4432E-27
RENORM= 303.6 REMNOR=0.3776E-52 RATIO =0.5173E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.58 RMMAX =0.3333E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1135E+06 RDR =0.1000E-19
RATIOT=0.5173E-01 RATIO= 0.000
MAX UN= 3.382 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.2505E-26 IEQ= 94 NODE 47 DOF 2 X-ROT.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1135E+06 RIMNOR=0.4432E-27
RENORM= 11.46 REMNOR=0.3102E-21 RATIO =0.1005E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.58 RMMAX =0.3333E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1135E+06 RDR =0.1000E-19
RATIOT=0.1005E-01 RATIO= 0.000
MAX UN= 1.665 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.2488E-10 IEQ= 79 NODE 40 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1135E+06 RIMNOR=0.4432E-27
RENORM= 7.179 REMNOR=0.6349E-21 RATIO =0.7955E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.58 RMMAX =0.3333E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1135E+06 RDR =0.1000E-19
RATIOT=0.7955E-02 RATIO= 0.000
MAX UN= 1.732 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-.9500E-10 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1135E+06 RIMNOR=0.4432E-27
RENORM=0.3602 REMNOR=0.3022E-21 RATIO =0.1782E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.58 RMMAX =0.3333E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1135E+06 RDR =0.1000E-19
RATIOT=0.1782E-02 RATIO= 0.000
MAX UN=0.5428 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1196E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1135E+06 RIMNOR=0.4432E-27
RENORM=0.1134E-02 REMNOR=0.4747E-21 RATIO =0.9996E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 46.58 RMMAX =0.3333E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1135E+06 RDR =0.1000E-19
RATIOT=0.9996E-04 RATIO= 0.000
MAX UN=0.3367E-01 IEQ= 45 NODE 23 DOF 1 Y-DISPL.F
MIN UN=-.1009E-09 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:25:47 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.2608626E-04	-6.3090580E-05	
2	3.1346814E-04	-6.3090580E-05	
3	3.0085049E-04	-6.3083600E-05	
4	2.8823656E-04	-6.3048665E-05	
5	2.7563522E-04	-6.2950732E-05	
6	2.6306375E-04	-6.2740611E-05	
7	2.5055068E-04	-6.2354927E-05	
8	2.3813583E-04	-6.1758492E-05	
9	2.2586126E-04	-6.0952510E-05	
10	2.1376858E-04	-5.9940140E-05	
11	2.0189863E-04	-5.8726335E-05	
12	1.9029104E-04	-5.7317752E-05	
13	1.7898397E-04	-5.5722601E-05	
14	1.6801377E-04	-5.3950756E-05	
15	1.5741467E-04	-5.2013784E-05	
16	1.4721839E-04	-4.9924887E-05	
17	1.3745380E-04	-4.7698947E-05	
18	1.2814678E-04	-4.5352709E-05	
19	1.1931950E-04	-4.2904777E-05	
20	1.1099028E-04	-4.0375650E-05	
21	1.0317319E-04	-3.7787867E-05	
22	9.5877447E-05	-3.5166024E-05	
23	8.9107267E-05	-3.2536869E-05	
24	8.2861223E-05	-2.9929861E-05	
25	7.7131950E-05	-2.7373453E-05	
26	7.1906909E-05	-2.4891027E-05	
27	6.7169377E-05	-2.2501384E-05	
28	6.2899219E-05	-2.0219157E-05	
29	5.9073821E-05	-1.8055330E-05	
30	5.5668679E-05	-1.6017618E-05	
31	5.2658042E-05	-1.4110878E-05	
32	5.0015450E-05	-1.2337505E-05	
33	4.7714146E-05	-1.0697745E-05	
34	4.5727546E-05	-9.1900651E-06	
35	4.4029531E-05	-7.8112093E-06	
36	4.2594796E-05	-6.5563526E-06	
37	4.1399134E-05	-5.4194308E-06	
38	4.0419636E-05	-4.3934157E-06	
39	3.9634886E-05	-3.4706174E-06	
40	3.9025050E-05	-2.6429024E-06	
41	3.8571945E-05	-1.9018906E-06	
42	3.8259080E-05	-1.2390811E-06	
43	3.8071665E-05	-6.4598311E-07	
44	3.7996594E-05	-1.1427579E-07	
45	3.8022396E-05	3.6404776E-07	
46	3.8139159E-05	7.9656189E-07	
47	3.8338434E-05	1.1902793E-06	
48	3.8613109E-05	1.5515572E-06	
49	3.8957268E-05	1.8860001E-06	
50	3.9366035E-05	2.1983718E-06	
51	3.9835400E-05	2.4925210E-06	
52	4.0362032E-05	2.7713045E-06	
53	4.0942998E-05	3.0364818E-06	
54	4.1575735E-05	3.2887413E-06	
55	4.2257597E-05	3.5275292E-06	
56	4.2985729E-05	3.7510497E-06	
57	4.3756791E-05	3.9561943E-06	
58	4.4566684E-05	4.1384887E-06	
59	4.5410271E-05	4.2920437E-06	
60	4.6281095E-05	4.4095117E-06	
61	4.7171080E-05	4.4820507E-06	
62	4.8070229E-05	4.4992961E-06	
63	4.8967148E-05	4.4617849E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	4.9852071E-05	4.3811839E-06
65	5.0717456E-05	4.2680875E-06
66	5.1557775E-05	4.1320287E-06
67	5.2369302E-05	3.9814943E-06
68	5.3149905E-05	3.8239437E-06
69	5.3898842E-05	3.6658291E-06
70	5.4616563E-05	3.5126175E-06
71	5.5304516E-05	3.3688119E-06
72	5.5964952E-05	3.2379724E-06
73	5.6600745E-05	3.1227360E-06
74	5.7215203E-05	3.0248344E-06
75	5.7811891E-05	2.9451100E-06
76	5.8394456E-05	2.8835291E-06
77	5.8966452E-05	2.8391931E-06
78	5.9531166E-05	2.8103471E-06
79	6.0091450E-05	2.7943858E-06
80	6.0649549E-05	2.7878578E-06
81	6.1206963E-05	2.7864678E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.2609E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4904	-3.1347E-04	2.074	0.5164	2.074	1.690	ACTIVE	0.000	-0.2000	1.935	
1.000	1.000	2.452	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9831	-3.0085E-04	4.195	1.044	4.195	3.281	ACTIVE	0.000	-0.4000	3.871	
1.000	1.000	4.915	0.000	0.000	Ug5_2_8_L_0						
4 D	1.479	-2.8824E-04	6.376	1.588	6.376	4.727	ACTIVE	0.000	-0.6000	5.806	
1.000	1.000	7.394	0.000	0.000	Ug5_2_8_L_0						
5 D	1.977	-2.7564E-04	8.601	2.142	8.601	6.034	ACTIVE	0.000	-0.8000	7.742	
1.000	1.000	9.884	0.000	0.000	Ug5_2_8_L_0						
6 D	2.476	-2.6306E-04	10.85	2.701	10.85	7.235	ACTIVE	0.000	-1.000	9.677	
1.000	1.000	12.38	0.000	0.000	Ug5_2_8_L_0						
7 D	2.975	-2.5055E-04	13.09	3.260	13.09	8.362	ACTIVE	0.000	-1.200	11.61	
1.000	1.000	14.87	0.000	0.000	Ug5_2_8_L_0						
8 D	3.480	-2.3814E-04	15.46	3.850	15.46	9.440	ACTIVE	0.000	-1.400	13.55	
1.000	1.000	17.40	0.000	0.000	Ug5_2_8_L_0						
9 D	3.987	-2.2586E-04	17.87	4.450	17.87	10.49	ACTIVE	0.000	-1.600	15.48	
1.000	1.000	19.93	0.000	0.000	Ug5_2_8_L_0						
10 D	4.482	-2.1377E-04	20.04	4.990	20.04	11.51	ACTIVE	0.000	-1.800	17.42	
1.000	1.000	22.41	0.000	0.000	Ug5_2_8_L_0						
11 D	4.984	-2.0190E-04	22.36	5.567	22.36	12.52	ACTIVE	0.000	-2.000	19.35	
1.000	1.000	24.92	0.000	0.000	Ug5_2_8_L_0						
12 D	5.485	-1.9029E-04	24.64	6.135	24.64	13.53	ACTIVE	0.000	-2.200	21.29	
1.000	1.000	27.42	0.000	0.000	Ug5_2_8_L_0						
13 D	5.977	-1.7898E-04	26.75	6.660	26.75	14.52	ACTIVE	0.000	-2.400	23.23	
1.000	1.000	29.89	0.000	0.000	Ug5_2_8_L_0						
14 D	6.475	-1.6801E-04	28.98	7.216	28.98	15.52	ACTIVE	0.000	-2.600	25.16	
1.000	1.000	32.38	0.000	0.000	Ug5_2_8_L_0						
15 D	6.973	-1.5741E-04	31.19	7.767	31.19	16.51	ACTIVE	0.000	-2.800	27.10	
1.000	1.000	34.86	0.000	0.000	Ug5_2_8_L_0						
16 D	7.469	-1.4722E-04	33.39	8.313	33.39	17.49	ACTIVE	0.000	-3.000	29.03	
1.000	1.000	37.35	0.000	0.000	Ug5_2_8_L_0						
17 D	7.960	-1.3745E-04	35.46	8.830	35.46	18.48	ACTIVE	0.000	-3.200	30.97	
1.000	1.000	39.80	0.000	0.000	Ug5_2_8_L_0						
18 D	8.455	-1.2815E-04	37.64	9.372	37.64	19.47	ACTIVE	0.000	-3.400	32.90	
1.000	1.000	42.28	0.000	0.000	Ug5_2_8_L_0						
19 D	8.950	-1.1932E-04	39.80	9.910	39.80	20.46	ACTIVE	0.000	-3.600	34.84	
1.000	1.000	44.75	0.000	0.000	Ug5_2_8_L_0						
20 D	9.440	-1.1099E-04	41.87	10.42	41.87	21.44	ACTIVE	0.000	-3.800	36.77	
1.000	1.000	47.20	0.000	0.000	Ug5_2_8_L_0						
21 D	9.934	-1.0317E-04	44.02	10.96	44.02	22.43	ACTIVE	0.000	-4.000	38.71	
1.000	1.000	49.67	0.000	0.000	Ug5_2_8_L_0						
22 D	10.43	-9.5877E-05	46.16	11.49	46.16	23.42	ACTIVE	0.000	-4.200	40.65	
1.000	1.000	52.14	0.000	0.000	Ug5_2_8_L_0						
23 D	10.92	-8.9107E-05	48.22	12.01	48.22	24.40	ACTIVE	0.000	-4.400	42.58	
1.000	1.000	54.59	0.000	0.000	Ug5_2_8_L_0						
24 D	11.64	-8.2861E-05	50.35	13.71	50.35	25.39	UL-RL	1.4103E+05	-4.600	44.52	
1.000	1.000	58.22	0.000	0.000	Ug5_2_8_L_0						
25 D	12.39	-7.7132E-05	52.48	15.50	52.48	26.38	UL-RL	1.4103E+05	-4.800	46.45	
1.000	1.000	61.96	0.000	0.000	Ug5_2_8_L_0						
26 D	13.12	-7.1907E-05	54.60	17.23	54.60	27.37	UL-RL	1.4103E+05	-5.000	48.39	
1.000	1.000	65.62	0.000	0.000	Ug5_2_8_L_0						
27 D	13.84	-6.7169E-05	56.66	18.89	56.66	28.36	UL-RL	1.4103E+05	-5.200	50.32	
1.000	1.000	69.21	0.000	0.000	Ug5_2_8_L_0						
28 D	14.55	-6.2899E-05	58.77	20.48	58.77	29.35	UL-RL	1.4103E+05	-5.400	52.26	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.74	0.000	0.000	Ug5_2_8_L_0					
29 D	15.24	-5.9074E-05	60.89	22.01	60.89	30.34	UL-RL	1.4103E+05	-5.600	54.19
1.000	1.000	76.21	0.000	0.000	Ug5_2_8_L_0					
30 D	15.92	-5.5669E-05	62.94	23.49	62.94	31.34	UL-RL	1.4103E+05	-5.800	56.13
1.000	1.000	79.62	0.000	0.000	Ug5_2_8_L_0					
31 D	16.59	-5.2658E-05	65.05	24.91	65.05	32.33	UL-RL	1.4103E+05	-6.000	58.06
1.000	1.000	82.97	0.000	0.000	Ug5_2_8_L_0					
32 D	17.25	-5.0015E-05	67.16	26.27	67.16	33.33	UL-RL	1.4103E+05	-6.200	60.00
1.000	1.000	86.27	0.000	0.000	Ug5_2_8_L_0					
33 D	17.91	-4.7714E-05	69.21	27.59	69.21	34.32	UL-RL	1.4103E+05	-6.400	61.94
1.000	1.000	89.53	0.000	0.000	Ug5_2_8_L_0					
34 D	18.55	-4.5728E-05	71.31	28.87	71.31	35.32	UL-RL	1.4103E+05	-6.600	63.87
1.000	1.000	92.74	0.000	0.000	Ug5_2_8_L_0					
35 D	19.18	-4.4030E-05	73.41	30.11	73.41	36.32	UL-RL	1.4103E+05	-6.800	65.81
1.000	1.000	95.91	0.000	0.000	Ug5_2_8_L_0					
36 D	19.81	-4.2595E-05	75.51	31.31	75.51	37.31	UL-RL	1.4103E+05	-7.000	67.74
1.000	1.000	99.05	0.000	0.000	Ug5_2_8_L_0					
37 D	20.43	-4.1399E-05	77.56	32.47	77.56	38.31	UL-RL	1.4103E+05	-7.200	69.68
1.000	1.000	102.2	0.000	0.000	Ug5_2_8_L_0					
38 D	21.04	-4.0420E-05	79.66	33.61	79.66	39.31	UL-RL	1.4103E+05	-7.400	71.61
1.000	1.000	105.2	0.000	0.000	Ug5_2_8_L_0					
39 D	21.65	-3.9635E-05	81.76	34.72	81.76	40.31	UL-RL	1.4103E+05	-7.600	73.55
1.000	1.000	108.3	0.000	0.000	Ug5_2_8_L_0					
40 D	22.26	-3.9025E-05	83.81	35.81	83.81	41.31	UL-RL	1.4103E+05	-7.800	75.48
1.000	1.000	111.3	0.000	0.000	Ug5_2_8_L_0					
41 D	22.86	-3.8572E-05	85.90	36.88	85.90	42.32	UL-RL	1.4103E+05	-8.000	77.42
1.000	1.000	114.3	0.000	0.000	Ug5_2_8_L_0					
42 D	23.46	-3.8259E-05	87.99	37.92	87.99	43.32	UL-RL	1.4103E+05	-8.200	79.35
1.000	1.000	117.3	0.000	0.000	Ug5_2_8_L_0					
43 D	24.05	-3.8072E-05	90.04	38.95	90.04	44.32	UL-RL	1.4103E+05	-8.400	81.29
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
44 D	24.64	-3.7997E-05	92.14	39.97	92.14	45.33	UL-RL	1.4103E+05	-8.600	83.23
1.000	1.000	123.2	0.000	0.000	Ug5_2_8_L_0					
45 D	25.23	-3.8022E-05	94.22	40.97	94.22	46.33	UL-RL	1.4103E+05	-8.800	85.16
1.000	1.000	126.1	0.000	0.000	Ug5_2_8_L_0					
46 D	25.81	-3.8139E-05	96.31	41.96	96.31	47.34	UL-RL	1.4103E+05	-9.000	87.10
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
47 D	26.39	-3.8338E-05	98.36	42.94	98.36	48.35	UL-RL	1.4103E+05	-9.200	89.03
1.000	1.000	132.0	0.000	0.000	Ug5_2_8_L_0					
48 D	26.98	-3.8613E-05	100.5	43.91	100.5	49.36	UL-RL	1.4103E+05	-9.400	90.97
1.000	1.000	134.9	0.000	0.000	Ug5_2_8_L_0					
49 D	27.55	-3.8957E-05	102.5	44.87	102.5	50.36	UL-RL	1.4103E+05	-9.600	92.90
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
50 D	28.13	-3.9366E-05	104.6	45.82	104.6	51.37	UL-RL	1.4103E+05	-9.800	94.84
1.000	1.000	140.7	0.000	0.000	Ug5_2_8_L_0					
51 D	28.71	-3.9835E-05	106.7	46.77	106.7	52.38	UL-RL	1.4103E+05	-10.000	96.77
1.000	1.000	143.5	0.000	0.000	Ug5_2_8_L_0					
52 D	29.28	-4.0362E-05	108.8	47.70	108.8	53.39	UL-RL	1.4103E+05	-10.200	98.71
1.000	1.000	146.4	0.000	0.000	Ug5_2_8_L_0					
53 D	29.86	-4.0943E-05	110.8	48.63	110.8	54.40	UL-RL	1.4103E+05	-10.400	100.6
1.000	1.000	149.3	0.000	0.000	Ug5_2_8_L_0					
54 D	30.43	-4.1576E-05	112.9	49.55	112.9	55.42	UL-RL	1.4103E+05	-10.600	102.6
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
55 D	31.00	-4.2258E-05	115.0	50.47	115.0	56.43	UL-RL	1.4103E+05	-10.800	104.5
1.000	1.000	155.0	0.000	0.000	Ug5_2_8_L_0					
56 D	31.57	-4.2986E-05	117.1	51.38	117.1	57.44	UL-RL	1.4103E+05	-11.000	106.5
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.13	-4.3757E-05	119.1	52.29	119.1	58.46	UL-RL	1.4103E+05	-11.200	108.4
1.000	1.000	160.7	0.000	0.000	Ug5_2_8_L_0					
58 D	32.70	-4.4567E-05	121.2	53.19	121.2	59.47	UL-RL	1.4103E+05	-11.400	110.3
1.000	1.000	163.5	0.000	0.000	Ug5_2_8_L_0					
59 D	33.27	-4.5410E-05	123.3	54.08	123.3	60.48	UL-RL	1.4103E+05	-11.600	112.3
1.000	1.000	166.3	0.000	0.000	Ug5_2_8_L_0					
60 D	33.83	-4.6281E-05	125.3	54.97	125.3	61.50	UL-RL	1.4103E+05	-11.800	114.2
1.000	1.000	169.2	0.000	0.000	Ug5_2_8_L_0					
61 D	34.40	-4.7171E-05	127.4	55.86	127.4	62.52	UL-RL	1.4103E+05	-12.000	116.1
1.000	1.000	172.0	0.000	0.000	Ug5_2_8_L_0					
62 D	35.65	-4.8070E-05	129.3	60.19	129.3	63.43	UL-RL	6.7514E+04	-12.200	118.1
1.000	1.000	178.3	0.000	0.000	Ug6_741_743_L_0					
63 D	36.21	-4.8967E-05	131.2	61.04	131.2	64.35	UL-RL	6.7514E+04	-12.400	120.0
1.000	1.000	181.0	0.000	0.000	Ug6_741_743_L_0					
64 D	36.77	-4.9852E-05	133.0	61.90	133.0	65.27	UL-RL	6.7514E+04	-12.600	121.9
1.000	1.000	183.8	0.000	0.000	Ug6_741_743_L_0					
65 D	37.33	-5.0717E-05	134.9	62.76	134.9	66.18	UL-RL	6.7514E+04	-12.800	123.9
1.000	1.000	186.6	0.000	0.000	Ug6_741_743_L_0					
66 D	37.89	-5.1558E-05	136.7	63.62	136.7	67.10	UL-RL	6.7514E+04	-13.000	125.8
1.000	1.000	189.4	0.000	0.000	Ug6_741_743_L_0					
67 D	38.45	-5.2369E-05	138.5	64.49	138.5	68.02	UL-RL	6.7514E+04	-13.200	127.7
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
68 D	39.01	-5.3150E-05	140.4	65.35	140.4	68.94	UL-RL	6.7514E+04	-13.400	129.7
1.000	1.000	195.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.57	-5.3899E-05	142.2	66.22	142.2	69.86	UL-RL	6.7514E+04	-13.60	131.6
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
70 D	40.13	-5.4617E-05	144.0	67.09	144.0	70.78	UL-RL	6.7514E+04	-13.80	133.5
1.000	1.000	200.6	0.000	0.000	Ug6_741_743_L_0					
71 D	40.69	-5.5305E-05	145.8	67.97	145.8	71.70	UL-RL	6.7514E+04	-14.00	135.5
1.000	1.000	203.4	0.000	0.000	Ug6_741_743_L_0					
72 D	41.25	-5.5965E-05	147.7	68.84	147.7	72.62	UL-RL	6.7514E+04	-14.20	137.4
1.000	1.000	206.3	0.000	0.000	Ug6_741_743_L_0					
73 D	41.81	-5.6601E-05	149.5	69.72	149.5	73.54	UL-RL	6.7514E+04	-14.40	139.4
1.000	1.000	209.1	0.000	0.000	Ug6_741_743_L_0					
74 D	42.38	-5.7215E-05	151.3	70.60	151.3	74.46	UL-RL	6.7514E+04	-14.60	141.3
1.000	1.000	211.9	0.000	0.000	Ug6_741_743_L_0					
75 D	42.94	-5.7812E-05	153.2	71.48	153.2	75.38	UL-RL	6.7514E+04	-14.80	143.2
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
76 D	43.51	-5.8394E-05	155.0	72.36	155.0	76.31	UL-RL	6.7514E+04	-15.00	145.2
1.000	1.000	217.5	0.000	0.000	Ug6_741_743_L_0					
77 D	44.07	-5.8966E-05	156.8	73.25	156.8	77.23	UL-RL	6.7514E+04	-15.20	147.1
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
78 D	44.63	-5.9531E-05	158.7	74.13	158.7	78.15	UL-RL	6.7514E+04	-15.40	149.0
1.000	1.000	223.2	0.000	0.000	Ug6_741_743_L_0					
79 D	45.20	-6.0091E-05	160.5	75.02	160.5	79.07	UL-RL	6.7514E+04	-15.60	151.0
1.000	1.000	226.0	0.000	0.000	Ug6_741_743_L_0					
80 D	45.76	-6.0650E-05	162.3	75.90	162.3	80.00	UL-RL	6.7514E+04	-15.80	152.9
1.000	1.000	228.8	0.000	0.000	Ug6_741_743_L_0					
81 D	23.16	-6.1207E-05	164.2	76.79	164.2	80.92	UL-RL	6.7514E+04	-16.00	154.8
1.000	1.000	231.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
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|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:25:47          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	2.6306E-04	0.000	0.000	10.00	7.074	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.978	2.5055E-04	1.935	12.83	12.00	12.83	V-C	2.3371E+04	-1.200	2.065	
1.000	1.000	14.89	0.000	0.000	Ug5_2_8_L_0						
8 D	3.560	2.3814E-04	3.871	13.67	14.00	13.67	V-C	2.3371E+04	-1.400	4.129	
1.000	1.000	17.80	0.000	0.000	Ug5_2_8_L_0						
9 D	4.128	2.2586E-04	5.806	14.45	16.00	14.45	V-C	2.3371E+04	-1.600	6.194	
1.000	1.000	20.64	0.000	0.000	Ug5_2_8_L_0						
10 D	4.689	2.1377E-04	7.742	15.18	18.00	15.18	V-C	2.3371E+04	-1.800	8.258	
1.000	1.000	23.44	0.000	0.000	Ug5_2_8_L_0						
11 D	5.245	2.0190E-04	9.677	15.90	20.00	15.90	V-C	2.3371E+04	-2.000	10.32	
1.000	1.000	26.23	0.000	0.000	Ug5_2_8_L_0						
12 D	5.801	1.9029E-04	11.61	16.62	22.00	16.62	V-C	2.3371E+04	-2.200	12.39	
1.000	1.000	29.00	0.000	0.000	Ug5_2_8_L_0						
13 D	6.355	1.7898E-04	13.55	17.32	24.00	17.32	V-C	2.3371E+04	-2.400	14.45	
1.000	1.000	31.78	0.000	0.000	Ug5_2_8_L_0						
14 D	6.910	1.6801E-04	15.48	18.03	26.00	18.03	V-C	2.3371E+04	-2.600	16.52	
1.000	1.000	34.55	0.000	0.000	Ug5_2_8_L_0						
15 D	7.466	1.5741E-04	17.42	18.75	28.00	18.75	V-C	2.3371E+04	-2.800	18.58	
1.000	1.000	37.33	0.000	0.000	Ug5_2_8_L_0						
16 D	8.023	1.4722E-04	19.35	19.47	30.00	19.47	V-C	2.3371E+04	-3.000	20.65	
1.000	1.000	40.11	0.000	0.000	Ug5_2_8_L_0						
17 D	8.581	1.3745E-04	21.29	20.20	32.00	20.20	V-C	2.3371E+04	-3.200	22.71	
1.000	1.000	42.91	0.000	0.000	Ug5_2_8_L_0						
18 D	9.141	1.2815E-04	23.23	20.93	34.00	20.93	V-C	2.3371E+04	-3.400	24.77	
1.000	1.000	45.71	0.000	0.000	Ug5_2_8_L_0						
19 D	9.704	1.1932E-04	25.16	21.68	36.00	21.68	V-C	2.3371E+04	-3.600	26.84	
1.000	1.000	48.52	0.000	0.000	Ug5_2_8_L_0						
20 D	10.27	1.1099E-04	27.10	22.44	38.00	22.44	V-C	2.3371E+04	-3.800	28.90	
1.000	1.000	51.34	0.000	0.000	Ug5_2_8_L_0						
21 D	10.84	1.0317E-04	29.03	23.21	40.00	23.21	V-C	2.3371E+04	-4.000	30.97	
1.000	1.000	54.18	0.000	0.000	Ug5_2_8_L_0						
22 D	11.40	9.5877E-05	30.97	23.99	42.00	23.99	V-C	2.3371E+04	-4.200	33.03	
1.000	1.000	57.02	0.000	0.000	Ug5_2_8_L_0						
23 D	11.98	8.9107E-05	32.90	24.79	44.00	24.79	V-C	2.3371E+04	-4.400	35.10	
1.000	1.000	59.88	0.000	0.000	Ug5_2_8_L_0						
24 D	12.55	8.2861E-05	34.84	25.59	46.00	25.59	V-C	2.3371E+04	-4.600	37.16	
1.000	1.000	62.75	0.000	0.000	Ug5_2_8_L_0						
25 D	13.13	7.7132E-05	36.77	26.41	48.00	26.41	V-C	2.3371E+04	-4.800	39.23	
1.000	1.000	65.64	0.000	0.000	Ug5_2_8_L_0						
26 D	13.71	7.1907E-05	38.71	27.24	50.00	27.24	V-C	2.3371E+04	-5.000	41.29	
1.000	1.000	68.53	0.000	0.000	Ug5_2_8_L_0						
27 D	14.29	6.7169E-05	40.65	28.09	52.00	28.09	V-C	2.3371E+04	-5.200	43.35	
1.000	1.000	71.44	0.000	0.000	Ug5_2_8_L_0						
28 D	14.87	6.2899E-05	42.58	28.94	54.00	28.94	V-C	2.3371E+04	-5.400	45.42	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.36	0.000	0.000	Ug5_2_8_L_0					
29 D	15.46	5.9074E-05	44.52	29.81	56.00	29.81	V-C	2.3371E+04	-5.600	47.48
1.000	1.000	77.29	0.000	0.000	Ug5_2_8_L_0					
30 D	16.05	5.5669E-05	46.45	30.69	58.00	30.69	V-C	2.3371E+04	-5.800	49.55
1.000	1.000	80.24	0.000	0.000	Ug5_2_8_L_0					
31 D	16.64	5.2658E-05	48.39	31.57	60.00	31.57	V-C	2.3371E+04	-6.000	51.61
1.000	1.000	83.19	0.000	0.000	Ug5_2_8_L_0					
32 D	17.23	5.0015E-05	50.32	32.47	62.00	32.47	V-C	2.3371E+04	-6.200	53.68
1.000	1.000	86.15	0.000	0.000	Ug5_2_8_L_0					
33 D	17.82	4.7714E-05	52.26	33.37	64.00	33.38	UL-RL	7.0113E+04	-6.400	55.74
1.000	1.000	89.11	0.000	0.000	Ug5_2_8_L_0					
34 D	18.40	4.5728E-05	54.19	34.21	66.00	34.33	UL-RL	7.0113E+04	-6.600	57.81
1.000	1.000	92.02	0.000	0.000	Ug5_2_8_L_0					
35 D	18.99	4.4030E-05	56.13	35.07	68.00	35.28	UL-RL	7.0113E+04	-6.800	59.87
1.000	1.000	94.94	0.000	0.000	Ug5_2_8_L_0					
36 D	19.58	4.2595E-05	58.06	35.95	70.00	36.23	UL-RL	7.0113E+04	-7.000	61.94
1.000	1.000	97.89	0.000	0.000	Ug5_2_8_L_0					
37 D	20.17	4.1399E-05	60.00	36.85	72.00	37.19	UL-RL	7.0113E+04	-7.200	64.00
1.000	1.000	100.8	0.000	0.000	Ug5_2_8_L_0					
38 D	20.76	4.0420E-05	61.94	37.76	74.00	38.14	UL-RL	7.0113E+04	-7.400	66.06
1.000	1.000	103.8	0.000	0.000	Ug5_2_8_L_0					
39 D	21.36	3.9635E-05	63.87	38.69	76.00	39.10	UL-RL	7.0113E+04	-7.600	68.13
1.000	1.000	106.8	0.000	0.000	Ug5_2_8_L_0					
40 D	21.96	3.9025E-05	65.81	39.61	78.00	40.06	UL-RL	7.0113E+04	-7.800	70.19
1.000	1.000	109.8	0.000	0.000	Ug5_2_8_L_0					
41 D	22.56	3.8572E-05	67.74	40.54	80.00	41.03	UL-RL	7.0113E+04	-8.000	72.26
1.000	1.000	112.8	0.000	0.000	Ug5_2_8_L_0					
42 D	23.16	3.8259E-05	69.68	41.47	82.00	42.00	UL-RL	7.0113E+04	-8.200	74.32
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
43 D	23.76	3.8072E-05	71.61	42.42	84.00	42.97	UL-RL	7.0113E+04	-8.400	76.39
1.000	1.000	118.8	0.000	0.000	Ug5_2_8_L_0					
44 D	24.36	3.7997E-05	73.55	43.37	86.00	43.94	UL-RL	7.0113E+04	-8.600	78.45
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
45 D	24.97	3.8022E-05	75.48	44.33	88.00	44.91	UL-RL	7.0113E+04	-8.800	80.52
1.000	1.000	124.8	0.000	0.000	Ug5_2_8_L_0					
46 D	25.58	3.8139E-05	77.42	45.30	90.00	45.89	UL-RL	7.0113E+04	-9.000	82.58
1.000	1.000	127.9	0.000	0.000	Ug5_2_8_L_0					
47 D	26.18	3.8338E-05	79.35	46.27	92.00	46.86	UL-RL	7.0113E+04	-9.200	84.65
1.000	1.000	130.9	0.000	0.000	Ug5_2_8_L_0					
48 D	26.79	3.8613E-05	81.29	47.25	94.00	47.84	UL-RL	7.0113E+04	-9.400	86.71
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
49 D	27.40	3.8957E-05	83.23	48.24	96.00	48.82	UL-RL	7.0113E+04	-9.600	88.77
1.000	1.000	137.0	0.000	0.000	Ug5_2_8_L_0					
50 D	28.01	3.9366E-05	85.16	49.23	98.00	49.79	UL-RL	7.0113E+04	-9.800	90.84
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
51 D	28.63	3.9835E-05	87.10	50.23	100.00	50.77	UL-RL	7.0113E+04	-10.000	92.90
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
52 D	29.24	4.0362E-05	89.03	51.23	102.0	51.75	UL-RL	7.0113E+04	-10.200	94.97
1.000	1.000	146.2	0.000	0.000	Ug5_2_8_L_0					
53 D	29.85	4.0943E-05	90.97	52.23	104.0	52.73	UL-RL	7.0113E+04	-10.400	97.03
1.000	1.000	149.3	0.000	0.000	Ug5_2_8_L_0					
54 D	30.47	4.1576E-05	92.90	53.24	106.0	53.71	UL-RL	7.0113E+04	-10.600	99.10
1.000	1.000	152.3	0.000	0.000	Ug5_2_8_L_0					
55 D	31.08	4.2258E-05	94.84	54.25	108.0	54.69	UL-RL	7.0113E+04	-10.800	101.2
1.000	1.000	155.4	0.000	0.000	Ug5_2_8_L_0					
56 D	31.70	4.2986E-05	96.77	55.27	110.0	55.67	UL-RL	7.0113E+04	-11.000	103.2
1.000	1.000	158.5	0.000	0.000	Ug5_2_8_L_0					
57 D	32.32	4.3757E-05	98.71	56.29	112.0	56.65	UL-RL	7.0113E+04	-11.200	105.3
1.000	1.000	161.6	0.000	0.000	Ug5_2_8_L_0					
58 D	32.93	4.4567E-05	100.6	57.31	114.0	57.63	UL-RL	7.0113E+04	-11.400	107.4
1.000	1.000	164.7	0.000	0.000	Ug5_2_8_L_0					
59 D	33.55	4.5410E-05	102.6	58.34	116.0	58.61	UL-RL	7.0113E+04	-11.600	109.4
1.000	1.000	167.8	0.000	0.000	Ug5_2_8_L_0					
60 D	34.17	4.6281E-05	104.5	59.37	118.0	59.60	UL-RL	7.0113E+04	-11.800	111.5
1.000	1.000	170.9	0.000	0.000	Ug5_2_8_L_0					
61 D	34.79	4.7171E-05	106.5	60.40	120.0	60.58	UL-RL	7.0113E+04	-12.000	113.5
1.000	1.000	173.9	0.000	0.000	Ug5_2_8_L_0					
62 D	35.22	4.8070E-05	108.2	60.50	121.8	61.46	UL-RL	5.2723E+04	-12.200	115.6
1.000	1.000	176.1	0.000	0.000	Ug6_741_743_L_0					
63 D	35.82	4.8967E-05	109.9	61.41	123.6	62.35	UL-RL	5.2723E+04	-12.400	117.7
1.000	1.000	179.1	0.000	0.000	Ug6_741_743_L_0					
64 D	36.41	4.9852E-05	111.7	62.33	125.4	63.23	UL-RL	5.2723E+04	-12.600	119.7
1.000	1.000	182.1	0.000	0.000	Ug6_741_743_L_0					
65 D	37.01	5.0717E-05	113.4	63.24	127.2	64.12	UL-RL	5.2723E+04	-12.800	121.8
1.000	1.000	185.0	0.000	0.000	Ug6_741_743_L_0					
66 D	37.61	5.1558E-05	115.1	64.16	129.0	65.01	UL-RL	5.2723E+04	-13.000	123.9
1.000	1.000	188.0	0.000	0.000	Ug6_741_743_L_0					
67 D	38.20	5.2369E-05	116.9	65.07	130.8	65.89	UL-RL	5.2723E+04	-13.200	125.9
1.000	1.000	191.0	0.000	0.000	Ug6_741_743_L_0					
68 D	38.80	5.3150E-05	118.6	65.98	132.6	66.78	UL-RL	5.2723E+04	-13.400	128.0
1.000	1.000	194.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.39	5.3899E-05	120.3	66.89	134.4	67.67	UL-RL	5.2723E+04	-13.60	130.1
1.000	1.000	197.0	0.000	0.000	Ug6_741_743_L_0					
70 D	39.99	5.4617E-05	122.1	67.80	136.2	68.55	UL-RL	5.2723E+04	-13.80	132.1
1.000	1.000	199.9	0.000	0.000	Ug6_741_743_L_0					
71 D	40.58	5.5305E-05	123.8	68.71	138.0	69.44	UL-RL	5.2723E+04	-14.00	134.2
1.000	1.000	202.9	0.000	0.000	Ug6_741_743_L_0					
72 D	41.18	5.5965E-05	125.5	69.62	139.8	70.33	UL-RL	5.2723E+04	-14.20	136.3
1.000	1.000	205.9	0.000	0.000	Ug6_741_743_L_0					
73 D	41.77	5.6601E-05	127.3	70.53	141.6	71.22	UL-RL	5.2723E+04	-14.40	138.3
1.000	1.000	208.8	0.000	0.000	Ug6_741_743_L_0					
74 D	42.36	5.7215E-05	129.0	71.43	143.4	72.11	UL-RL	5.2723E+04	-14.60	140.4
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	42.96	5.7812E-05	130.7	72.34	145.2	73.00	UL-RL	5.2723E+04	-14.80	142.5
1.000	1.000	214.8	0.000	0.000	Ug6_741_743_L_0					
76 D	43.55	5.8394E-05	132.5	73.24	147.0	73.89	UL-RL	5.2723E+04	-15.00	144.5
1.000	1.000	217.8	0.000	0.000	Ug6_741_743_L_0					
77 D	44.15	5.8966E-05	134.2	74.15	148.8	74.78	UL-RL	5.2723E+04	-15.20	146.6
1.000	1.000	220.7	0.000	0.000	Ug6_741_743_L_0					
78 D	44.74	5.9531E-05	136.0	75.05	150.6	75.67	UL-RL	5.2723E+04	-15.40	148.6
1.000	1.000	223.7	0.000	0.000	Ug6_741_743_L_0					
79 D	45.33	6.0091E-05	137.7	75.96	152.4	76.56	UL-RL	5.2723E+04	-15.60	150.7
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
80 D	45.93	6.0650E-05	139.4	76.86	154.2	77.45	UL-RL	5.2723E+04	-15.80	152.8
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
81 D	23.26	6.1207E-05	141.2	77.76	156.0	78.34	UL-RL	5.2723E+04	-16.00	154.8
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|                                                                     |
|               NewProject.BaseDesignSection_28.A1M1R1_1757 |
|               Exe Time :24 May 2018           18:25:47 |
+-----+
New Project
    
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S T R E S S R E S U L T S F O R G R O U P N O . 3

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WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 2.0000
    
```

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.37135E-11	1.37135E-11	-1.52589E-12	-8.84981E-12
2	0.49037	-0.49037	1.06493E-12	9.80749E-02
3	1.4735	-1.4735	-9.80749E-02	0.39277
4	2.9523	-2.9523	-0.39277	0.98322
5	4.9290	-4.9290	-0.98322	1.9690
6	7.4046	-7.4046	-1.9690	3.4499
7	7.4008	-7.4008	-3.4499	4.9301
8	7.3200	-7.3200	-4.9301	6.3941
9	7.1789	-7.1789	-6.3941	7.8299
10	6.9722	-6.9722	-7.8299	9.2243
11	6.7111	-6.7111	-9.2243	10.567
12	6.3955	-6.3955	-10.567	11.846
13	6.0174	-6.0174	-11.846	13.049
14	5.5829	-5.5829	-13.049	14.166
15	5.0900	-5.0900	-14.166	15.184
16	4.5366	-4.5366	-15.184	16.091
17	3.9152	-3.9152	-16.091	16.874
18	3.2289	-3.2289	-16.874	17.520
19	2.4750	-2.4750	-17.520	18.015
20	1.6465	-1.6465	-18.015	18.344
21	0.74528	-0.74528	-18.344	18.493
22	-0.23158	0.23158	-18.493	18.447
23	-1.3243	1.3243	-18.447	18.182
24	-2.2304	2.2304	-18.182	17.736
25	-2.9669	2.9669	-17.736	17.143
26	-3.5503	3.5503	-17.143	16.433
27	-3.9966	3.9966	-16.433	15.633
28	-4.3211	4.3211	-15.633	14.769
29	-4.5385	4.5385	-14.769	13.861
30	-4.6625	4.6625	-13.861	12.929
31	-4.7060	4.7060	-12.929	11.988
32	-4.6812	4.6812	-11.988	11.051
33	-4.5975	4.5975	-11.051	10.132
34	-4.4526	4.4526	-10.132	9.2413
35	-4.2585	4.2585	-9.2413	8.3896
36	-4.0262	4.0262	-8.3896	7.5844
37	-3.7655	3.7655	-7.5844	6.8313
38	-3.4855	3.4855	-6.8313	6.1342
39	-3.1942	3.1942	-6.1342	5.4954
40	-2.8968	2.8968	-5.4954	4.9160
41	-2.5969	2.5969	-4.9160	4.3966
42	-2.3004	2.3004	-4.3966	3.9365
43	-2.0124	2.0124	-3.9365	3.5341
44	-1.7377	1.7377	-3.5341	3.1865
45	-1.4806	1.4806	-3.1865	2.8904
46	-1.2449	1.2449	-2.8904	2.6414
47	-1.0340	1.0340	-2.6414	2.4346
48	-0.85117	0.85117	-2.4346	2.2644
49	-0.69925	0.69925	-2.2644	2.1245
50	-0.58100	0.58100	-2.1245	2.0083
51	-0.49894	0.49894	-2.0083	1.9085
52	-0.45550	0.45550	-1.9085	1.8174
53	-0.45294	0.45294	-1.8174	1.7269
54	-0.49345	0.49345	-1.7269	1.6282
55	-0.57910	0.57910	-1.6282	1.5123
56	-0.71182	0.71182	-1.5123	1.3700
57	-0.89343	0.89343	-1.3700	1.1913
58	-1.1255	1.1255	-1.1913	0.96618
59	-1.4096	1.4096	-0.96618	0.68426

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 -1.7467 1.7467 -0.68426 0.33492
61 -2.1377 2.1377 -0.33492 -9.26198E-02
62 -1.7090 1.7090 9.26198E-02-0.43442
63 -1.3181 1.3181 0.43442 -0.69804
64-0.96473 0.96473 0.69804 -0.89099
65-0.64840 0.64840 0.89099 -1.0207
66-0.36852 0.36852 1.0207 -1.0944
67-0.12438 0.12438 1.0944 -1.1192
68 8.47636E-02-8.47636E-02 1.1192 -1.1023
69 0.25967 -0.25967 1.1023 -1.0504
70 0.40110 -0.40110 1.0504 -0.97014
71 0.50978 -0.50978 0.97014 -0.86818
72 0.58635 -0.58635 0.86818 -0.75091
73 0.63143 -0.63143 0.75091 -0.62462
74 0.64553 -0.64553 0.62462 -0.49552
75 0.62907 -0.62907 0.49552 -0.36970
76 0.58240 -0.58240 0.36970 -0.25322
77 0.50578 -0.50578 0.25322 -0.15207
78 0.39938 -0.39938 0.15207 -7.21915E-02
79 0.26332 -0.26332 7.21915E-02-1.95283E-02
80 9.76369E-02-9.76369E-02 1.95283E-02 1.21592E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1230E+05
RENORM= 368.5 REMNOR=0.4747E-21 RATIO =0.5937E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.22 RMMAX = 18.49
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1230E+05
RATIOT=0.5937E-01 RATIO= 0.000
MAX UN= 5.177 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
MIN UN=-.3441E-01 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1230E+05
RENORM= 83.90 REMNOR=0.1198E-20 RATIO =0.2833E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.22 RMMAX = 18.49
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1230E+05
RATIOT=0.2833E-01 RATIO= 0.000
MAX UN= 2.693 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
MIN UN=-.3455E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1230E+05
RENORM= 54.43 REMNOR=0.5024E-19 RATIO =0.2282E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.22 RMMAX = 18.49
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1230E+05
RATIOT=0.2282E-01 RATIO= 0.000
MAX UN= 4.483 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.1667E-08 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1230E+05
RENORM= 1.698 REMNOR=0.1578E-19 RATIO =0.4030E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.22 RMMAX = 18.49
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1230E+05
RATIOT=0.4030E-02 RATIO= 0.000
MAX UN= 1.129 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.6174E-09 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1230E+05
RENORM=0.2846E-17 REMNOR=0.1138E-19 RATIO =0.5218E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 45.22 RMMAX = 18.49
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1230E+05
RATIOT=0.5218E-11 RATIO= 0.000
MAX UN=0.7024E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.7165E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:25:47 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	2.1178149E-03	-3.3657996E-04
2	2.0504989E-03	-3.3657996E-04
3	1.9831834E-03	-3.3657313E-04
4	1.9158715E-03	-3.3653893E-04
5	1.8485719E-03	-3.3644306E-04
6	1.7813016E-03	-3.3623735E-04
7	1.7140885E-03	-3.3585976E-04
8	1.6469742E-03	-3.3523432E-04
9	1.5800173E-03	-3.3427107E-04
10	1.5132953E-03	-3.3286593E-04
11	1.4469082E-03	-3.3090086E-04
12	1.3809810E-03	-3.2824391E-04
13	1.3156637E-03	-3.2479101E-04
14	1.2511200E-03	-3.2050804E-04
15	1.1875136E-03	-3.1542859E-04
16	1.1249973E-03	-3.0961751E-04
17	1.0637109E-03	-3.0313668E-04
18	1.0037830E-03	-2.9604527E-04
19	9.4532977E-04	-2.8839967E-04
20	8.8845653E-04	-2.8025366E-04
21	8.3325851E-04	-2.7165865E-04
22	7.7982002E-04	-2.6266366E-04
23	7.2821658E-04	-2.5331573E-04
24	6.7851425E-04	-2.4365997E-04
25	6.3077021E-04	-2.3373986E-04
26	5.8503312E-04	-2.2359739E-04
27	5.4134358E-04	-2.1327333E-04
28	4.9973348E-04	-2.0280731E-04
29	4.6022752E-04	-1.9223837E-04
30	4.2284243E-04	-1.8160494E-04
31	3.8758730E-04	-1.7094518E-04
32	3.5446373E-04	-1.6029728E-04
33	3.2346522E-04	-1.4969941E-04
34	2.9457805E-04	-1.3919036E-04
35	2.6778052E-04	-1.2880957E-04
36	2.4304298E-04	-1.1859734E-04
37	2.2032769E-04	-1.0859515E-04
38	1.9958818E-04	-9.8845707E-05
39	1.8076960E-04	-8.9393471E-05
40	1.6380790E-04	-8.0284647E-05
41	1.4862992E-04	-7.1563091E-05
42	1.3515449E-04	-6.3264183E-05
43	1.2329436E-04	-5.5413599E-05
44	1.1295801E-04	-4.8028570E-05
45	1.0405127E-04	-4.1119120E-05
46	9.6478484E-05	-3.4688549E-05
47	9.0144124E-05	-2.8733842E-05
48	8.4953803E-05	-2.3246287E-05
49	8.0815346E-05	-1.8212675E-05
50	7.7639593E-05	-1.3616391E-05
51	7.5340927E-05	-9.4383101E-06
52	7.3837734E-05	-5.6577423E-06
53	7.3052722E-05	-2.2536840E-06
54	7.2912657E-05	7.9564637E-07
55	7.3348697E-05	3.5107333E-06
56	7.4295960E-05	5.9109645E-06
57	7.5693265E-05	8.0139181E-06
58	7.7482728E-05	9.8348916E-06
59	7.9609263E-05	1.1386487E-05
60	8.2020001E-05	1.2678254E-05
61	8.4663655E-05	1.3716383E-05
62	8.7489817E-05	1.4503453E-05
63	9.0449590E-05	1.5058833E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	9.3500349E-05	1.5419190E-05
65	9.6606527E-05	1.5618459E-05
66	9.9739071E-05	1.5687809E-05
67	1.0287488E-04	1.5655621E-05
68	1.0599626E-04	1.5547483E-05
69	1.0909033E-04	1.5386204E-05
70	1.1214853E-04	1.5191821E-05
71	1.1516601E-04	1.4981629E-05
72	1.1814110E-04	1.4770202E-05
73	1.2107480E-04	1.4569423E-05
74	1.2397019E-04	1.4388507E-05
75	1.2683196E-04	1.4234030E-05
76	1.2966583E-04	1.4109950E-05
77	1.3247806E-04	1.4017629E-05
78	1.3527492E-04	1.3955843E-05
79	1.3806218E-04	1.3920799E-05
80	1.4084460E-04	1.3906141E-05
81	1.4362554E-04	1.3902953E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47    |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.1178E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4800	-2.0505E-03	2.143	0.5335	2.143	1.690	ACTIVE	0.000	-0.2000	1.867	
1.000	1.000	2.400	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9624	-1.9832E-03	4.332	1.079	4.332	3.281	ACTIVE	0.000	-0.4000	3.733	
1.000	1.000	4.812	0.000	0.000	Ug5_2_8_L_0						
4 D	1.448	-1.9159E-03	6.582	1.639	6.582	4.727	ACTIVE	0.000	-0.6000	5.600	
1.000	1.000	7.239	0.000	0.000	Ug5_2_8_L_0						
5 D	1.935	-1.8486E-03	8.876	2.210	8.876	6.034	ACTIVE	0.000	-0.8000	7.467	
1.000	1.000	9.677	0.000	0.000	Ug5_2_8_L_0						
6 D	2.424	-1.7813E-03	11.19	2.786	11.19	7.235	ACTIVE	0.000	-1.000	9.333	
1.000	1.000	12.12	0.000	0.000	Ug5_2_8_L_0						
7 D	2.913	-1.7141E-03	13.50	3.363	13.50	8.362	ACTIVE	0.000	-1.200	11.20	
1.000	1.000	14.56	0.000	0.000	Ug5_2_8_L_0						
8 D	3.407	-1.6470E-03	15.94	3.970	15.94	9.440	ACTIVE	0.000	-1.400	13.07	
1.000	1.000	17.04	0.000	0.000	Ug5_2_8_L_0						
9 D	3.904	-1.5800E-03	18.42	4.587	18.42	10.49	ACTIVE	0.000	-1.600	14.93	
1.000	1.000	19.52	0.000	0.000	Ug5_2_8_L_0						
10 D	4.389	-1.5133E-03	20.66	5.144	20.66	11.51	ACTIVE	0.000	-1.800	16.80	
1.000	1.000	21.94	0.000	0.000	Ug5_2_8_L_0						
11 D	4.881	-1.4469E-03	23.05	5.739	23.05	12.52	ACTIVE	0.000	-2.000	18.67	
1.000	1.000	24.41	0.000	0.000	Ug5_2_8_L_0						
12 D	5.371	-1.3810E-03	25.39	6.323	25.39	13.53	ACTIVE	0.000	-2.200	20.53	
1.000	1.000	26.86	0.000	0.000	Ug5_2_8_L_0						
13 D	5.853	-1.3157E-03	27.57	6.866	27.57	14.52	ACTIVE	0.000	-2.400	22.40	
1.000	1.000	29.27	0.000	0.000	Ug5_2_8_L_0						
14 D	6.341	-1.2511E-03	29.88	7.439	29.88	15.52	ACTIVE	0.000	-2.600	24.27	
1.000	1.000	31.71	0.000	0.000	Ug5_2_8_L_0						
15 D	6.828	-1.1875E-03	32.16	8.007	32.16	16.51	ACTIVE	0.000	-2.800	26.13	
1.000	1.000	34.14	0.000	0.000	Ug5_2_8_L_0						
16 D	7.314	-1.1250E-03	34.42	8.570	34.42	17.49	ACTIVE	0.000	-3.000	28.00	
1.000	1.000	36.57	0.000	0.000	Ug5_2_8_L_0						
17 D	7.794	-1.0637E-03	36.56	9.105	36.56	18.48	ACTIVE	0.000	-3.200	29.87	
1.000	1.000	38.97	0.000	0.000	Ug5_2_8_L_0						
18 D	8.279	-1.0038E-03	38.81	9.663	38.81	19.47	ACTIVE	0.000	-3.400	31.73	
1.000	1.000	41.40	0.000	0.000	Ug5_2_8_L_0						
19 D	8.764	-9.4533E-04	41.04	10.22	41.04	20.46	ACTIVE	0.000	-3.600	33.60	
1.000	1.000	43.82	0.000	0.000	Ug5_2_8_L_0						
20 D	9.243	-8.8846E-04	43.17	10.75	43.17	21.44	ACTIVE	0.000	-3.800	35.47	
1.000	1.000	46.22	0.000	0.000	Ug5_2_8_L_0						
21 D	9.727	-8.3326E-04	45.39	11.30	45.39	22.43	ACTIVE	0.000	-4.000	37.33	
1.000	1.000	48.64	0.000	0.000	Ug5_2_8_L_0						
22 D	10.21	-7.7982E-04	47.60	11.85	47.60	23.42	ACTIVE	0.000	-4.200	39.20	
1.000	1.000	51.05	0.000	0.000	Ug5_2_8_L_0						
23 D	10.69	-7.2822E-04	49.73	12.38	49.73	24.40	ACTIVE	0.000	-4.400	41.07	
1.000	1.000	53.45	0.000	0.000	Ug5_2_8_L_0						
24 D	11.17	-6.7851E-04	51.93	12.93	51.93	25.39	ACTIVE	0.000	-4.600	42.93	
1.000	1.000	55.86	0.000	0.000	Ug5_2_8_L_0						
25 D	11.66	-6.3077E-04	54.13	13.48	54.13	26.38	ACTIVE	0.000	-4.800	44.80	
1.000	1.000	58.28	0.000	0.000	Ug5_2_8_L_0						
26 D	12.14	-5.8503E-04	56.32	14.02	56.32	27.37	ACTIVE	0.000	-5.000	46.67	
1.000	1.000	60.69	0.000	0.000	Ug5_2_8_L_0						
27 D	12.62	-5.4134E-04	58.45	14.55	58.45	28.36	ACTIVE	0.000	-5.200	48.53	
1.000	1.000	63.09	0.000	0.000	Ug5_2_8_L_0						
28 D	13.10	-4.9973E-04	60.63	15.10	60.63	29.35	ACTIVE	0.000	-5.400	50.40	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.50	0.000	0.000	Ug5_2_8_L_0					
29 D	13.58	-4.6023E-04	62.81	15.64	62.81	30.34	ACTIVE	0.000	-5.600	52.27
1.000	1.000	67.91	0.000	0.000	Ug5_2_8_L_0					
30 D	14.06	-4.2284E-04	64.94	16.17	64.94	31.34	ACTIVE	0.000	-5.800	54.13
1.000	1.000	70.30	0.000	0.000	Ug5_2_8_L_0					
31 D	14.54	-3.8759E-04	67.11	16.71	67.11	32.33	ACTIVE	0.000	-6.000	56.00
1.000	1.000	72.71	0.000	0.000	Ug5_2_8_L_0					
32 D	15.02	-3.5446E-04	69.29	17.25	69.29	33.33	ACTIVE	0.000	-6.200	57.87
1.000	1.000	75.12	0.000	0.000	Ug5_2_8_L_0					
33 D	15.50	-3.2347E-04	71.41	17.78	71.41	34.32	ACTIVE	0.000	-6.400	59.73
1.000	1.000	77.51	0.000	0.000	Ug5_2_8_L_0					
34 D	15.98	-2.9458E-04	73.58	18.32	73.58	35.32	ACTIVE	0.000	-6.600	61.60
1.000	1.000	79.92	0.000	0.000	Ug5_2_8_L_0					
35 D	16.47	-2.6778E-04	75.75	18.86	75.75	36.32	ACTIVE	0.000	-6.800	63.47
1.000	1.000	82.33	0.000	0.000	Ug5_2_8_L_0					
36 D	16.95	-2.4304E-04	77.92	19.40	77.92	37.31	ACTIVE	0.000	-7.000	65.33
1.000	1.000	84.74	0.000	0.000	Ug5_2_8_L_0					
37 D	17.43	-2.2033E-04	80.04	19.93	80.04	38.31	ACTIVE	0.000	-7.200	67.20
1.000	1.000	87.13	0.000	0.000	Ug5_2_8_L_0					
38 D	17.91	-1.9959E-04	82.21	20.47	82.21	39.31	ACTIVE	0.000	-7.400	69.07
1.000	1.000	89.54	0.000	0.000	Ug5_2_8_L_0					
39 D	18.39	-1.8077E-04	84.37	21.01	84.37	40.31	ACTIVE	0.000	-7.600	70.93
1.000	1.000	91.94	0.000	0.000	Ug5_2_8_L_0					
40 D	19.17	-1.6381E-04	86.49	23.07	86.49	41.31	UL-RL	1.1282E+05	-7.800	72.80
1.000	1.000	95.87	0.000	0.000	Ug5_2_8_L_0					
41 D	20.10	-1.4863E-04	88.65	25.84	88.65	42.32	UL-RL	1.1282E+05	-8.000	74.67
1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
42 D	20.99	-1.3515E-04	90.82	28.40	90.82	43.32	UL-RL	1.1282E+05	-8.200	76.53
1.000	1.000	104.9	0.000	0.000	Ug5_2_8_L_0					
43 D	21.84	-1.2329E-04	92.93	30.79	92.93	44.32	UL-RL	1.1282E+05	-8.400	78.40
1.000	1.000	109.2	0.000	0.000	Ug5_2_8_L_0					
44 D	22.65	-1.1296E-04	95.09	32.99	95.09	45.33	UL-RL	1.1282E+05	-8.600	80.27
1.000	1.000	113.3	0.000	0.000	Ug5_2_8_L_0					
45 D	23.43	-1.0405E-04	97.25	35.04	97.25	46.33	UL-RL	1.1282E+05	-8.800	82.13
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
46 D	24.19	-9.6478E-05	99.41	36.93	99.41	47.34	UL-RL	1.1282E+05	-9.000	84.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
47 D	24.91	-9.0144E-05	101.5	38.68	101.5	48.35	UL-RL	1.1282E+05	-9.200	85.87
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0					
48 D	25.61	-8.4954E-05	103.7	40.30	103.7	49.36	UL-RL	1.1282E+05	-9.400	87.73
1.000	1.000	128.0	0.000	0.000	Ug5_2_8_L_0					
49 D	26.28	-8.0815E-05	105.8	41.80	105.8	50.36	UL-RL	1.1282E+05	-9.600	89.60
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
50 D	26.93	-7.7640E-05	108.0	43.19	108.0	51.37	UL-RL	1.1282E+05	-9.800	91.47
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
51 D	27.56	-7.5341E-05	110.1	44.48	110.1	52.38	UL-RL	1.1282E+05	-10.000	93.33
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
52 D	28.18	-7.3838E-05	112.3	45.68	112.3	53.39	UL-RL	1.1282E+05	-10.200	95.20
1.000	1.000	140.9	0.000	0.000	Ug5_2_8_L_0					
53 D	28.77	-7.3053E-05	114.4	46.80	114.4	54.40	UL-RL	1.1282E+05	-10.400	97.07
1.000	1.000	143.9	0.000	0.000	Ug5_2_8_L_0					
54 D	29.35	-7.2913E-05	116.5	47.84	116.5	55.42	UL-RL	1.1282E+05	-10.600	98.93
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
55 D	29.92	-7.3349E-05	118.7	48.82	118.7	56.43	UL-RL	1.1282E+05	-10.800	100.8
1.000	1.000	149.6	0.000	0.000	Ug5_2_8_L_0					
56 D	30.48	-7.4296E-05	120.8	49.74	120.8	57.44	UL-RL	1.1282E+05	-11.000	102.7
1.000	1.000	152.4	0.000	0.000	Ug5_2_8_L_0					
57 D	31.03	-7.5693E-05	123.0	50.61	123.0	58.46	UL-RL	1.1282E+05	-11.200	104.5
1.000	1.000	155.1	0.000	0.000	Ug5_2_8_L_0					
58 D	31.57	-7.7483E-05	125.1	51.43	125.1	59.47	UL-RL	1.1282E+05	-11.400	106.4
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
59 D	32.10	-7.9609E-05	127.3	52.22	127.3	60.48	UL-RL	1.1282E+05	-11.600	108.3
1.000	1.000	160.5	0.000	0.000	Ug5_2_8_L_0					
60 D	32.62	-8.2020E-05	129.4	52.97	129.4	61.50	UL-RL	1.1282E+05	-11.800	110.1
1.000	1.000	163.1	0.000	0.000	Ug5_2_8_L_0					
61 D	33.14	-8.4664E-05	131.5	53.70	131.5	62.52	UL-RL	1.1282E+05	-12.000	112.0
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
62 D	34.80	-8.7490E-05	133.5	60.16	133.5	63.43	UL-RL	5.4011E+04	-12.200	113.9
1.000	1.000	174.0	0.000	0.000	Ug6_741_743_L_0					
63 D	35.33	-9.0450E-05	135.4	60.94	135.4	64.35	UL-RL	5.4011E+04	-12.400	115.7
1.000	1.000	176.7	0.000	0.000	Ug6_741_743_L_0					
64 D	35.86	-9.3500E-05	137.4	61.71	137.4	65.27	UL-RL	5.4011E+04	-12.600	117.6
1.000	1.000	179.3	0.000	0.000	Ug6_741_743_L_0					
65 D	36.39	-9.6607E-05	139.3	62.48	139.3	66.18	UL-RL	5.4011E+04	-12.800	119.5
1.000	1.000	182.0	0.000	0.000	Ug6_741_743_L_0					
66 D	36.92	-9.9739E-05	141.2	63.26	141.2	67.10	UL-RL	5.4011E+04	-13.000	121.3
1.000	1.000	184.6	0.000	0.000	Ug6_741_743_L_0					
67 D	37.45	-1.0287E-04	143.1	64.03	143.1	68.02	UL-RL	5.4011E+04	-13.200	123.2
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
68 D	37.97	-1.0600E-04	145.0	64.80	145.0	68.94	UL-RL	5.4011E+04	-13.400	125.1
1.000	1.000	189.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.50	-1.0909E-04	146.9	65.58	146.9	69.86	UL-RL	5.4011E+04	-13.60	126.9
1.000	1.000	192.5	0.000	0.000	Ug6_741_743_L_0					
70 D	39.03	-1.1215E-04	148.8	66.36	148.8	70.78	UL-RL	5.4011E+04	-13.80	128.8
1.000	1.000	195.2	0.000	0.000	Ug6_741_743_L_0					
71 D	39.56	-1.1517E-04	150.7	67.14	150.7	71.70	UL-RL	5.4011E+04	-14.00	130.7
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
72 D	40.09	-1.1814E-04	152.6	67.93	152.6	72.62	UL-RL	5.4011E+04	-14.20	132.5
1.000	1.000	200.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.62	-1.2107E-04	154.5	68.72	154.5	73.54	UL-RL	5.4011E+04	-14.40	134.4
1.000	1.000	203.1	0.000	0.000	Ug6_741_743_L_0					
74 D	41.15	-1.2397E-04	156.4	69.51	156.4	74.46	UL-RL	5.4011E+04	-14.60	136.3
1.000	1.000	205.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.69	-1.2683E-04	158.3	70.30	158.3	75.38	UL-RL	5.4011E+04	-14.80	138.1
1.000	1.000	208.4	0.000	0.000	Ug6_741_743_L_0					
76 D	42.22	-1.2967E-04	160.2	71.10	160.2	76.31	UL-RL	5.4011E+04	-15.00	140.0
1.000	1.000	211.1	0.000	0.000	Ug6_741_743_L_0					
77 D	42.75	-1.3248E-04	162.1	71.89	162.1	77.23	UL-RL	5.4011E+04	-15.20	141.9
1.000	1.000	213.8	0.000	0.000	Ug6_741_743_L_0					
78 D	43.28	-1.3527E-04	164.0	72.69	164.0	78.15	UL-RL	5.4011E+04	-15.40	143.7
1.000	1.000	216.4	0.000	0.000	Ug6_741_743_L_0					
79 D	43.82	-1.3806E-04	165.9	73.49	165.9	79.07	UL-RL	5.4011E+04	-15.60	145.6
1.000	1.000	219.1	0.000	0.000	Ug6_741_743_L_0					
80 D	44.35	-1.4084E-04	167.8	74.29	167.8	80.00	UL-RL	5.4011E+04	-15.80	147.5
1.000	1.000	221.8	0.000	0.000	Ug6_741_743_L_0					
81 D	22.44	-1.4363E-04	169.7	75.09	169.7	80.92	UL-RL	5.4011E+04	-16.00	149.3
1.000	1.000	224.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.4469E-03	0.000	0.000	20.00	15.90	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.942	1.3810E-03	1.867	12.58	22.00	16.62	PASSIVE	0.000	-2.200	2.133	
1.000	1.000	14.71	0.000	0.000	Ug5_2_8_L_0						
13 D	5.884	1.3157E-03	3.733	25.16	24.00	25.16	PASSIVE	0.000	-2.400	4.267	
1.000	1.000	29.42	0.000	0.000	Ug5_2_8_L_0						
14 D	8.670	1.2511E-03	5.600	36.95	26.00	36.95	V-C	1.8697E+04	-2.600	6.400	
1.000	1.000	43.35	0.000	0.000	Ug5_2_8_L_0						
15 D	9.054	1.1875E-03	7.467	36.74	28.00	36.74	V-C	1.8697E+04	-2.800	8.533	
1.000	1.000	45.27	0.000	0.000	Ug5_2_8_L_0						
16 D	9.438	1.1250E-03	9.333	36.52	30.00	36.52	V-C	1.8697E+04	-3.000	10.67	
1.000	1.000	47.19	0.000	0.000	Ug5_2_8_L_0						
17 D	9.824	1.0637E-03	11.20	36.32	32.00	36.32	V-C	1.8697E+04	-3.200	12.80	
1.000	1.000	49.12	0.000	0.000	Ug5_2_8_L_0						
18 D	10.21	1.0038E-03	13.07	36.13	34.00	36.13	V-C	1.8697E+04	-3.400	14.93	
1.000	1.000	51.07	0.000	0.000	Ug5_2_8_L_0						
19 D	10.61	9.4533E-04	14.93	35.97	36.00	35.97	V-C	1.8697E+04	-3.600	17.07	
1.000	1.000	53.04	0.000	0.000	Ug5_2_8_L_0						
20 D	11.01	8.8846E-04	16.80	35.84	38.00	35.84	V-C	1.8697E+04	-3.800	19.20	
1.000	1.000	55.04	0.000	0.000	Ug5_2_8_L_0						
21 D	11.41	8.3326E-04	18.67	35.73	40.00	35.73	V-C	1.8697E+04	-4.000	21.33	
1.000	1.000	57.07	0.000	0.000	Ug5_2_8_L_0						
22 D	11.83	7.7982E-04	20.53	35.66	42.00	35.66	V-C	1.8697E+04	-4.200	23.47	
1.000	1.000	59.13	0.000	0.000	Ug5_2_8_L_0						
23 D	12.25	7.2822E-04	22.40	35.63	44.00	35.63	V-C	1.8697E+04	-4.400	25.60	
1.000	1.000	61.23	0.000	0.000	Ug5_2_8_L_0						
24 D	12.67	6.7851E-04	24.27	35.63	46.00	35.63	V-C	1.8697E+04	-4.600	27.73	
1.000	1.000	63.36	0.000	0.000	Ug5_2_8_L_0						
25 D	13.11	6.3077E-04	26.13	35.66	48.00	35.66	V-C	1.8697E+04	-4.800	29.87	
1.000	1.000	65.53	0.000	0.000	Ug5_2_8_L_0						
26 D	13.55	5.8503E-04	28.00	35.74	50.00	35.74	V-C	1.8697E+04	-5.000	32.00	
1.000	1.000	67.74	0.000	0.000	Ug5_2_8_L_0						
27 D	14.00	5.4134E-04	29.87	35.86	52.00	35.86	V-C	1.8697E+04	-5.200	34.13	
1.000	1.000	69.99	0.000	0.000	Ug5_2_8_L_0						
28 D	14.46	4.9973E-04	31.73	36.02	54.00	36.02	V-C	1.8697E+04	-5.400	36.27	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.29	0.000	0.000	Ug5_2_8_L_0					
29 D	14.92	4.6023E-04	33.60	36.22	56.00	36.22	V-C	1.8697E+04	-5.600	38.40
1.000	1.000	74.62	0.000	0.000	Ug5_2_8_L_0					
30 D	15.40	4.2284E-04	35.47	36.46	58.00	36.46	V-C	1.8697E+04	-5.800	40.53
1.000	1.000	76.99	0.000	0.000	Ug5_2_8_L_0					
31 D	15.88	3.8759E-04	37.33	36.74	60.00	36.74	V-C	1.8697E+04	-6.000	42.67
1.000	1.000	79.41	0.000	0.000	Ug5_2_8_L_0					
32 D	16.37	3.5446E-04	39.20	37.07	62.00	37.07	V-C	1.8697E+04	-6.200	44.80
1.000	1.000	81.87	0.000	0.000	Ug5_2_8_L_0					
33 D	16.87	3.2347E-04	41.07	37.44	64.00	37.44	V-C	1.8697E+04	-6.400	46.93
1.000	1.000	84.37	0.000	0.000	Ug5_2_8_L_0					
34 D	17.38	2.9458E-04	42.93	37.85	66.00	37.85	V-C	1.8697E+04	-6.600	49.07
1.000	1.000	86.91	0.000	0.000	Ug5_2_8_L_0					
35 D	17.90	2.6778E-04	44.80	38.30	68.00	38.30	V-C	1.8697E+04	-6.800	51.20
1.000	1.000	89.50	0.000	0.000	Ug5_2_8_L_0					
36 D	18.42	2.4304E-04	46.67	38.79	70.00	38.79	V-C	1.8697E+04	-7.000	53.33
1.000	1.000	92.12	0.000	0.000	Ug5_2_8_L_0					
37 D	18.96	2.2033E-04	48.53	39.32	72.00	39.32	V-C	1.8697E+04	-7.200	55.47
1.000	1.000	94.78	0.000	0.000	Ug5_2_8_L_0					
38 D	19.50	1.9959E-04	50.40	39.88	74.00	39.88	V-C	1.8697E+04	-7.400	57.60
1.000	1.000	97.48	0.000	0.000	Ug5_2_8_L_0					
39 D	20.04	1.8077E-04	52.27	40.49	76.00	40.49	V-C	1.8697E+04	-7.600	59.73
1.000	1.000	100.2	0.000	0.000	Ug5_2_8_L_0					
40 D	20.60	1.6381E-04	54.13	41.13	78.00	41.13	V-C	1.8697E+04	-7.800	61.87
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
41 D	21.16	1.4863E-04	56.00	41.81	80.00	41.81	V-C	1.8697E+04	-8.000	64.00
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
42 D	21.73	1.3515E-04	57.87	42.52	82.00	42.52	V-C	1.8697E+04	-8.200	66.13
1.000	1.000	108.7	0.000	0.000	Ug5_2_8_L_0					
43 D	22.30	1.2329E-04	59.73	43.26	84.00	43.26	V-C	1.8697E+04	-8.400	68.27
1.000	1.000	111.5	0.000	0.000	Ug5_2_8_L_0					
44 D	22.89	1.1296E-04	61.60	44.03	86.00	44.03	V-C	1.8697E+04	-8.600	70.40
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
45 D	23.44	1.0405E-04	63.47	44.65	88.00	44.91	UL-RL	5.6090E+04	-8.800	72.53
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
46 D	23.97	9.6478E-05	65.33	45.18	90.00	45.89	UL-RL	5.6090E+04	-9.000	74.67
1.000	1.000	119.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.51	9.0144E-05	67.20	45.77	92.00	46.86	UL-RL	5.6090E+04	-9.200	76.80
1.000	1.000	122.6	0.000	0.000	Ug5_2_8_L_0					
48 D	25.07	8.4954E-05	69.07	46.43	94.00	47.84	UL-RL	5.6090E+04	-9.400	78.93
1.000	1.000	125.4	0.000	0.000	Ug5_2_8_L_0					
49 D	25.64	8.0815E-05	70.93	47.15	96.00	48.82	UL-RL	5.6090E+04	-9.600	81.07
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
50 D	26.23	7.7640E-05	72.80	47.93	98.00	49.79	UL-RL	5.6090E+04	-9.800	83.20
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
51 D	26.82	7.5341E-05	74.67	48.76	100.00	50.77	UL-RL	5.6090E+04	-10.000	85.33
1.000	1.000	134.1	0.000	0.000	Ug5_2_8_L_0					
52 D	27.42	7.3838E-05	76.53	49.63	102.0	51.75	UL-RL	5.6090E+04	-10.200	87.47
1.000	1.000	137.1	0.000	0.000	Ug5_2_8_L_0					
53 D	28.03	7.3053E-05	78.40	50.55	104.0	52.73	UL-RL	5.6090E+04	-10.400	89.60
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.65	7.2913E-05	80.27	51.50	106.0	53.71	UL-RL	5.6090E+04	-10.600	91.73
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
55 D	29.27	7.3349E-05	82.13	52.49	108.0	54.69	UL-RL	5.6090E+04	-10.800	93.87
1.000	1.000	146.4	0.000	0.000	Ug5_2_8_L_0					
56 D	29.90	7.4296E-05	84.00	53.50	110.0	55.67	UL-RL	5.6090E+04	-11.000	96.00
1.000	1.000	149.5	0.000	0.000	Ug5_2_8_L_0					
57 D	30.54	7.5693E-05	85.87	54.54	112.0	56.65	UL-RL	5.6090E+04	-11.200	98.13
1.000	1.000	152.7	0.000	0.000	Ug5_2_8_L_0					
58 D	31.17	7.7483E-05	87.73	55.61	114.0	57.63	UL-RL	5.6090E+04	-11.400	100.3
1.000	1.000	155.9	0.000	0.000	Ug5_2_8_L_0					
59 D	31.82	7.9609E-05	89.60	56.69	116.0	58.61	UL-RL	5.6090E+04	-11.600	102.4
1.000	1.000	159.1	0.000	0.000	Ug5_2_8_L_0					
60 D	32.46	8.2020E-05	91.47	57.79	118.0	59.60	UL-RL	5.6090E+04	-11.800	104.5
1.000	1.000	162.3	0.000	0.000	Ug5_2_8_L_0					
61 D	33.11	8.4664E-05	93.33	58.91	120.0	60.58	UL-RL	5.6090E+04	-12.000	106.7
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
62 D	33.47	8.7490E-05	95.00	58.55	121.8	61.46	UL-RL	4.2179E+04	-12.200	108.8
1.000	1.000	167.3	0.000	0.000	Ug6_741_743_L_0					
63 D	34.09	9.0450E-05	96.67	59.53	123.6	62.35	UL-RL	4.2179E+04	-12.400	110.9
1.000	1.000	170.5	0.000	0.000	Ug6_741_743_L_0					
64 D	34.72	9.3500E-05	98.33	60.53	125.4	63.23	UL-RL	4.2179E+04	-12.600	113.1
1.000	1.000	173.6	0.000	0.000	Ug6_741_743_L_0					
65 D	35.34	9.6607E-05	100.00	61.52	127.2	64.12	UL-RL	4.2179E+04	-12.800	115.2
1.000	1.000	176.7	0.000	0.000	Ug6_741_743_L_0					
66 D	35.97	9.9739E-05	101.7	62.52	129.0	65.01	UL-RL	4.2179E+04	-13.000	117.3
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					
67 D	36.60	1.0287E-04	103.3	63.51	130.8	65.89	UL-RL	4.2179E+04	-13.200	119.5
1.000	1.000	183.0	0.000	0.000	Ug6_741_743_L_0					
68 D	37.22	1.0600E-04	105.0	64.51	132.6	66.78	UL-RL	4.2179E+04	-13.400	121.6
1.000	1.000	186.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.85	1.0909E-04	106.7	65.50	134.4	67.67	UL-RL	4.2179E+04	-13.60	123.7
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
70 D	38.47	1.1215E-04	108.3	66.50	136.2	68.55	UL-RL	4.2179E+04	-13.80	125.9
1.000	1.000	192.4	0.000	0.000	Ug6_741_743_L_0					
71 D	39.10	1.1517E-04	110.0	67.49	138.0	69.44	UL-RL	4.2179E+04	-14.00	128.0
1.000	1.000	195.5	0.000	0.000	Ug6_741_743_L_0					
72 D	39.72	1.1814E-04	111.7	68.48	139.8	70.33	UL-RL	4.2179E+04	-14.20	130.1
1.000	1.000	198.6	0.000	0.000	Ug6_741_743_L_0					
73 D	40.35	1.2107E-04	113.3	69.46	141.6	71.22	UL-RL	4.2179E+04	-14.40	132.3
1.000	1.000	201.7	0.000	0.000	Ug6_741_743_L_0					
74 D	40.97	1.2397E-04	115.0	70.45	143.4	72.11	UL-RL	4.2179E+04	-14.60	134.4
1.000	1.000	204.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.59	1.2683E-04	116.7	71.43	145.2	73.00	UL-RL	4.2179E+04	-14.80	136.5
1.000	1.000	208.0	0.000	0.000	Ug6_741_743_L_0					
76 D	42.22	1.2967E-04	118.3	72.42	147.0	73.89	UL-RL	4.2179E+04	-15.00	138.7
1.000	1.000	211.1	0.000	0.000	Ug6_741_743_L_0					
77 D	42.84	1.3248E-04	120.0	73.40	148.8	74.78	UL-RL	4.2179E+04	-15.20	140.8
1.000	1.000	214.2	0.000	0.000	Ug6_741_743_L_0					
78 D	43.46	1.3527E-04	121.7	74.38	150.6	75.67	UL-RL	4.2179E+04	-15.40	142.9
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
79 D	44.09	1.3806E-04	123.3	75.36	152.4	76.56	UL-RL	4.2179E+04	-15.60	145.1
1.000	1.000	220.4	0.000	0.000	Ug6_741_743_L_0					
80 D	44.71	1.4084E-04	125.0	76.35	154.2	77.45	UL-RL	4.2179E+04	-15.80	147.2
1.000	1.000	223.5	0.000	0.000	Ug6_741_743_L_0					
81 D	22.67	1.4363E-04	126.7	77.33	156.0	78.34	UL-RL	4.2179E+04	-16.00	149.3
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-8.8311	8.8311	-8.1761	6.4098
61	-8.8060	8.8060	-6.4098	4.6486
62	-7.4705	7.4705	-4.6486	3.1545
63	-6.2301	6.2301	-3.1545	1.9085
64	-5.0864	5.0864	-1.9085	0.89124
65	-4.0405	4.0405	-0.89124	8.31392E-02
66	-3.0927	3.0927	-8.31392E-02	-0.53539
67	-2.2428	2.2428	0.53539	-0.98395
68	-1.4905	1.4905	0.98395	-1.2821
69	-0.83503	0.83503	1.2821	-1.4491
70	-0.27557	0.27557	1.4491	-1.5042
71	0.18883	-0.18883	1.5042	-1.4664
72	0.55914	-0.55914	1.4664	-1.3546
73	0.83628	-0.83628	1.3546	-1.1873
74	1.0211	-1.0211	1.1873	-0.98310
75	1.1144	-1.1144	0.98310	-0.76023
76	1.1167	-1.1167	0.76023	-0.53690
77	1.0285	-1.0285	0.53690	-0.33120
78	0.85017	-0.85017	0.33120	-0.16117
79	0.58194	-0.58194	0.16117	-4.47825E-02
80	0.22390	-0.22390	4.47825E-02	-1.69953E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1172E+06 RIMNOR=0.2836E+06
RENORM= 614.3 REMNOR=0.1138E-19 RATIO =0.7239E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.77 RMMAX = 74.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1172E+06 RDR =0.2836E+06
RATIOT=0.7239E-01 RATIOOR= 0.000
MAX UN= 9.327 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7356E-01 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1172E+06 RIMNOR=0.2836E+06
RENORM= 166.3 REMNOR=0.1121E-19 RATIO =0.3766E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.77 RMMAX = 74.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1172E+06 RDR =0.2836E+06
RATIOT=0.3766E-01 RATIOOR= 0.000
MAX UN= 2.531 IEQ= 37 NODE 19 DOF 1 Y-DISPL.F
MIN UN=-.3693E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1172E+06 RIMNOR=0.2836E+06
RENORM= 90.97 REMNOR=0.5497E-18 RATIO =0.2786E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.77 RMMAX = 74.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1172E+06 RDR =0.2836E+06
RATIOT=0.2786E-01 RATIOOR= 0.000
MAX UN= 5.192 IEQ= 85 NODE 43 DOF 1 Y-DISPL.F
MIN UN=-.2764E-08 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1172E+06 RIMNOR=0.2836E+06
RENORM= 1.910 REMNOR=0.1317E-18 RATIO =0.4036E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.77 RMMAX = 74.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1172E+06 RDR =0.2836E+06
RATIOT=0.4036E-02 RATIOOR= 0.000
MAX UN= 1.254 IEQ= 97 NODE 49 DOF 1 Y-DISPL.F
MIN UN=-.2460E-08 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1172E+06 RIMNOR=0.2836E+06
RENORM=0.2673E-16 REMNOR=0.1331E-18 RATIO =0.1510E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 43.77 RMMAX = 74.91
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1172E+06 RDR =0.2836E+06
RATIOT=0.1510E-10 RATIOOR= 0.000
MAX UN=0.2045E-08 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
MIN UN=-.2433E-08 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:25:47 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.3578806E-03	-9.7833506E-04	
2	7.1622136E-03	-9.7833506E-04	
3	6.9665471E-03	-9.7832838E-04	
4	6.7708841E-03	-9.7829497E-04	
5	6.5752331E-03	-9.7820130E-04	
6	6.3796107E-03	-9.7800031E-04	
7	6.1840442E-03	-9.7763137E-04	
8	5.9885743E-03	-9.7702024E-04	
9	5.7932581E-03	-9.7607901E-04	
10	5.5981715E-03	-9.7470596E-04	
11	5.4034122E-03	-9.7278571E-04	
12	5.2091023E-03	-9.7018931E-04	
13	5.0153910E-03	-9.6677412E-04	
14	4.8224576E-03	-9.6238398E-04	
15	4.6305138E-03	-9.5684923E-04	
16	4.4398064E-03	-9.4998668E-04	
17	4.2506198E-03	-9.4159951E-04	
18	4.0632786E-03	-9.3151832E-04	
19	3.8781322E-03	-9.1964149E-04	
20	3.6955440E-03	-9.0593532E-04	
21	3.5158786E-03	-8.9043413E-04	
22	3.3394841E-03	-8.7323999E-04	
23	3.1666853E-03	-8.5450522E-04	
24	2.9977738E-03	-8.3439345E-04	
25	2.8330094E-03	-8.1305907E-04	
26	2.6726220E-03	-7.9064747E-04	
27	2.5168139E-03	-7.6729551E-04	
28	2.3657587E-03	-7.4313152E-04	
29	2.2196074E-03	-7.1827636E-04	
30	2.0784867E-03	-6.9284336E-04	
31	1.9425015E-03	-6.6693890E-04	
32	1.8117365E-03	-6.4066298E-04	
33	1.6862555E-03	-6.1410907E-04	
34	1.5661056E-03	-5.8736548E-04	
35	1.4513164E-03	-5.6051518E-04	
36	1.3419014E-03	-5.3363646E-04	
37	1.2378593E-03	-5.0680346E-04	
38	1.1391728E-03	-4.8008615E-04	
39	1.0458126E-03	-4.5355159E-04	
40	9.5773573E-04	-4.2726383E-04	
41	8.7488654E-04	-4.0128451E-04	
42	7.9719738E-04	-3.7567332E-04	
43	7.2458879E-04	-3.5048838E-04	
44	6.5696981E-04	-3.2578673E-04	
45	5.9423843E-04	-3.0162483E-04	
46	5.3628049E-04	-2.7805851E-04	
47	4.8297156E-04	-2.5514405E-04	
48	4.3417563E-04	-2.3293813E-04	
49	3.8974524E-04	-2.1149830E-04	
50	3.4952151E-04	-1.9088345E-04	
51	3.1333306E-04	-1.7115373E-04	
52	2.8099610E-04	-1.5237084E-04	
53	2.5231836E-04	-1.3459207E-04	
54	2.2709117E-04	-1.1785689E-04	
55	2.0510398E-04	-1.0219608E-04	
56	1.8613989E-04	-8.7627840E-05	
57	1.6997954E-04	-7.4159147E-05	
58	1.5640308E-04	-6.1787820E-05	
59	1.4519188E-04	-5.0504374E-05	
60	1.3612981E-04	-4.0293731E-05	
61	1.2900415E-04	-3.1136773E-05	
62	1.2360630E-04	-2.3011734E-05	
63	1.1973391E-04	-1.5869858E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.1719778E-04	-9.6367636E-06
65	1.1582351E-04	-4.2390763E-06
66	1.1545125E-04	3.9510500E-07
67	1.1593532E-04	4.3358109E-06
68	1.1714386E-04	7.6508640E-06
69	1.1895831E-04	1.0405597E-05
70	1.2127292E-04	1.2662618E-05
71	1.2399416E-04	1.4481622E-05
72	1.2704014E-04	1.5919234E-05
73	1.3033999E-04	1.7028892E-05
74	1.3383318E-04	1.7860751E-05
75	1.3746889E-04	1.8461613E-05
76	1.4120532E-04	1.8874876E-05
77	1.4500900E-04	1.9140499E-05
78	1.4885411E-04	1.9294977E-05
79	1.5272178E-04	1.9371328E-05
80	1.5659940E-04	1.9399083E-05
81	1.6048010E-04	1.9404286E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:25:47 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-7.3579E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4690	-7.1622E-03	2.216	0.5518	2.216	1.690	ACTIVE	0.000	-0.2000	1.793	
1.000	1.000	2.345	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9403	-6.9665E-03	4.479	1.115	4.479	3.281	ACTIVE	0.000	-0.4000	3.586	
1.000	1.000	4.702	0.000	0.000	Ug5_2_8_L_0						
4 D	1.415	-6.7709E-03	6.803	1.694	6.803	4.727	ACTIVE	0.000	-0.6000	5.379	
1.000	1.000	7.073	0.000	0.000	Ug5_2_8_L_0						
5 D	1.891	-6.5752E-03	9.171	2.283	9.171	6.034	ACTIVE	0.000	-0.8000	7.172	
1.000	1.000	9.456	0.000	0.000	Ug5_2_8_L_0						
6 D	2.369	-6.3796E-03	11.56	2.878	11.56	7.235	ACTIVE	0.000	-1.000	8.966	
1.000	1.000	11.84	0.000	0.000	Ug5_2_8_L_0						
7 D	2.846	-6.1840E-03	13.95	3.473	13.95	8.362	ACTIVE	0.000	-1.200	10.76	
1.000	1.000	14.23	0.000	0.000	Ug5_2_8_L_0						
8 D	3.330	-5.9886E-03	16.46	4.098	16.46	9.440	ACTIVE	0.000	-1.400	12.55	
1.000	1.000	16.65	0.000	0.000	Ug5_2_8_L_0						
9 D	3.816	-5.7933E-03	19.01	4.734	19.01	10.49	ACTIVE	0.000	-1.600	14.34	
1.000	1.000	19.08	0.000	0.000	Ug5_2_8_L_0						
10 D	4.289	-5.5982E-03	21.32	5.309	21.32	11.51	ACTIVE	0.000	-1.800	16.14	
1.000	1.000	21.45	0.000	0.000	Ug5_2_8_L_0						
11 D	4.771	-5.4034E-03	23.78	5.922	23.78	12.52	ACTIVE	0.000	-2.000	17.93	
1.000	1.000	23.85	0.000	0.000	Ug5_2_8_L_0						
12 D	5.250	-5.2091E-03	26.20	6.525	26.20	13.53	ACTIVE	0.000	-2.200	19.72	
1.000	1.000	26.25	0.000	0.000	Ug5_2_8_L_0						
13 D	5.721	-5.0154E-03	28.46	7.085	28.46	14.52	ACTIVE	0.000	-2.400	21.52	
1.000	1.000	28.60	0.000	0.000	Ug5_2_8_L_0						
14 D	6.197	-4.8225E-03	30.83	7.677	30.83	15.52	ACTIVE	0.000	-2.600	23.31	
1.000	1.000	30.99	0.000	0.000	Ug5_2_8_L_0						
15 D	6.673	-4.6305E-03	33.19	8.263	33.19	16.51	ACTIVE	0.000	-2.800	25.10	
1.000	1.000	33.37	0.000	0.000	Ug5_2_8_L_0						
16 D	7.148	-4.4398E-03	35.52	8.845	35.52	17.49	ACTIVE	0.000	-3.000	26.90	
1.000	1.000	35.74	0.000	0.000	Ug5_2_8_L_0						
17 D	7.617	-4.2506E-03	37.74	9.398	37.74	18.48	ACTIVE	0.000	-3.200	28.69	
1.000	1.000	38.09	0.000	0.000	Ug5_2_8_L_0						
18 D	8.091	-4.0633E-03	40.06	9.974	40.06	19.47	ACTIVE	0.000	-3.400	30.48	
1.000	1.000	40.46	0.000	0.000	Ug5_2_8_L_0						
19 D	8.565	-3.8781E-03	42.36	10.55	42.36	20.46	ACTIVE	0.000	-3.600	32.28	
1.000	1.000	42.82	0.000	0.000	Ug5_2_8_L_0						
20 D	9.033	-3.6955E-03	44.57	11.10	44.57	21.44	ACTIVE	0.000	-3.800	34.07	
1.000	1.000	45.17	0.000	0.000	Ug5_2_8_L_0						
21 D	9.506	-3.5159E-03	46.86	11.67	46.86	22.43	ACTIVE	0.000	-4.000	35.86	
1.000	1.000	47.53	0.000	0.000	Ug5_2_8_L_0						
22 D	9.979	-3.3395E-03	49.15	12.24	49.15	23.42	ACTIVE	0.000	-4.200	37.66	
1.000	1.000	49.89	0.000	0.000	Ug5_2_8_L_0						
23 D	10.45	-3.1667E-03	51.35	12.79	51.35	24.40	ACTIVE	0.000	-4.400	39.45	
1.000	1.000	52.23	0.000	0.000	Ug5_2_8_L_0						
24 D	10.92	-2.9978E-03	53.63	13.35	53.63	25.39	ACTIVE	0.000	-4.600	41.24	
1.000	1.000	54.59	0.000	0.000	Ug5_2_8_L_0						
25 D	11.39	-2.8330E-03	55.90	13.92	55.90	26.38	ACTIVE	0.000	-4.800	43.03	
1.000	1.000	56.95	0.000	0.000	Ug5_2_8_L_0						
26 D	11.86	-2.6726E-03	58.16	14.48	58.16	27.37	ACTIVE	0.000	-5.000	44.83	
1.000	1.000	59.31	0.000	0.000	Ug5_2_8_L_0						
27 D	12.33	-2.5168E-03	60.36	15.03	60.36	28.36	ACTIVE	0.000	-5.200	46.62	
1.000	1.000	61.65	0.000	0.000	Ug5_2_8_L_0						
28 D	12.80	-2.3658E-03	62.62	15.59	62.62	29.35	ACTIVE	0.000	-5.400	48.41	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	64.01	0.000	0.000	Ug5_2_8_L_0					
29 D	13.27	-2.2196E-03	64.87	16.15	64.87	30.34	ACTIVE	0.000	-5.600	50.21
1.000	1.000	66.36	0.000	0.000	Ug5_2_8_L_0					
30 D	13.74	-2.0785E-03	67.07	16.70	67.07	31.34	ACTIVE	0.000	-5.800	52.00
1.000	1.000	68.70	0.000	0.000	Ug5_2_8_L_0					
31 D	14.21	-1.9425E-03	69.32	17.26	69.32	32.33	ACTIVE	0.000	-6.000	53.79
1.000	1.000	71.05	0.000	0.000	Ug5_2_8_L_0					
32 D	14.68	-1.8117E-03	71.57	17.82	71.57	33.33	ACTIVE	0.000	-6.200	55.59
1.000	1.000	73.41	0.000	0.000	Ug5_2_8_L_0					
33 D	15.15	-1.6863E-03	73.76	18.37	73.76	34.32	ACTIVE	0.000	-6.400	57.38
1.000	1.000	75.75	0.000	0.000	Ug5_2_8_L_0					
34 D	15.62	-1.5661E-03	76.01	18.93	76.01	35.32	ACTIVE	0.000	-6.600	59.17
1.000	1.000	78.10	0.000	0.000	Ug5_2_8_L_0					
35 D	16.09	-1.4513E-03	78.25	19.49	78.25	36.32	ACTIVE	0.000	-6.800	60.97
1.000	1.000	80.45	0.000	0.000	Ug5_2_8_L_0					
36 D	16.56	-1.3419E-03	80.50	20.04	80.50	37.31	ACTIVE	0.000	-7.000	62.76
1.000	1.000	82.80	0.000	0.000	Ug5_2_8_L_0					
37 D	17.03	-1.2379E-03	82.69	20.59	82.69	38.31	ACTIVE	0.000	-7.200	64.55
1.000	1.000	85.14	0.000	0.000	Ug5_2_8_L_0					
38 D	17.50	-1.1392E-03	84.93	21.15	84.93	39.31	ACTIVE	0.000	-7.400	66.34
1.000	1.000	87.49	0.000	0.000	Ug5_2_8_L_0					
39 D	17.97	-1.0458E-03	87.17	21.70	87.17	40.31	ACTIVE	0.000	-7.600	68.14
1.000	1.000	89.84	0.000	0.000	Ug5_2_8_L_0					
40 D	18.44	-9.5774E-04	89.36	22.25	89.36	41.31	ACTIVE	0.000	-7.800	69.93
1.000	1.000	92.18	0.000	0.000	Ug5_2_8_L_0					
41 D	18.91	-8.7489E-04	91.60	22.81	91.60	42.32	ACTIVE	0.000	-8.000	71.72
1.000	1.000	94.53	0.000	0.000	Ug5_2_8_L_0					
42 D	19.38	-7.9720E-04	93.83	23.36	93.83	43.32	ACTIVE	0.000	-8.200	73.52
1.000	1.000	96.88	0.000	0.000	Ug5_2_8_L_0					
43 D	19.84	-7.2459E-04	96.02	23.91	96.02	44.32	ACTIVE	0.000	-8.400	75.31
1.000	1.000	99.22	0.000	0.000	Ug5_2_8_L_0					
44 D	20.31	-6.5697E-04	98.26	24.47	98.26	45.33	ACTIVE	0.000	-8.600	77.10
1.000	1.000	101.6	0.000	0.000	Ug5_2_8_L_0					
45 D	20.78	-5.9424E-04	100.5	25.02	100.5	46.33	ACTIVE	0.000	-8.800	78.90
1.000	1.000	103.9	0.000	0.000	Ug5_2_8_L_0					
46 D	21.25	-5.3628E-04	102.7	25.58	102.7	47.34	ACTIVE	0.000	-9.000	80.69
1.000	1.000	106.3	0.000	0.000	Ug5_2_8_L_0					
47 D	21.72	-4.8297E-04	104.9	26.12	104.9	48.35	ACTIVE	0.000	-9.200	82.48
1.000	1.000	108.6	0.000	0.000	Ug5_2_8_L_0					
48 D	22.19	-4.3418E-04	107.1	26.68	107.1	49.36	ACTIVE	0.000	-9.400	84.28
1.000	1.000	111.0	0.000	0.000	Ug5_2_8_L_0					
49 D	22.66	-3.8975E-04	109.4	27.23	109.4	50.36	ACTIVE	0.000	-9.600	86.07
1.000	1.000	113.3	0.000	0.000	Ug5_2_8_L_0					
50 D	23.13	-3.4952E-04	111.6	27.78	111.6	51.37	ACTIVE	0.000	-9.800	87.86
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
51 D	23.61	-3.1333E-04	113.8	28.42	113.8	52.38	UL-RL	7.5213E+04	-10.00	89.66
1.000	1.000	118.1	0.000	0.000	Ug5_2_8_L_0					
52 D	24.68	-2.8100E-04	116.0	31.97	116.0	53.39	UL-RL	7.5213E+04	-10.20	91.45
1.000	1.000	123.4	0.000	0.000	Ug5_2_8_L_0					
53 D	25.69	-2.5232E-04	118.2	35.23	118.2	54.40	UL-RL	7.5213E+04	-10.40	93.24
1.000	1.000	128.5	0.000	0.000	Ug5_2_8_L_0					
54 D	26.65	-2.2709E-04	120.4	38.19	120.4	55.42	UL-RL	7.5213E+04	-10.60	95.03
1.000	1.000	133.2	0.000	0.000	Ug5_2_8_L_0					
55 D	27.54	-2.0510E-04	122.7	40.90	122.7	56.43	UL-RL	7.5213E+04	-10.80	96.83
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
56 D	28.39	-1.8614E-04	124.9	43.35	124.9	57.44	UL-RL	7.5213E+04	-11.00	98.62
1.000	1.000	142.0	0.000	0.000	Ug5_2_8_L_0					
57 D	29.20	-1.6998E-04	127.1	45.58	127.1	58.46	UL-RL	7.5213E+04	-11.20	100.4
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
58 D	29.96	-1.5640E-04	129.3	47.59	129.3	59.47	UL-RL	7.5213E+04	-11.40	102.2
1.000	1.000	149.8	0.000	0.000	Ug5_2_8_L_0					
59 D	30.68	-1.4519E-04	131.5	49.42	131.5	60.48	UL-RL	7.5213E+04	-11.60	104.0
1.000	1.000	153.4	0.000	0.000	Ug5_2_8_L_0					
60 D	31.37	-1.3613E-04	133.7	51.07	133.7	61.50	UL-RL	7.5213E+04	-11.80	105.8
1.000	1.000	156.9	0.000	0.000	Ug5_2_8_L_0					
61 D	32.03	-1.2900E-04	135.9	52.57	135.9	62.52	UL-RL	7.5213E+04	-12.00	107.6
1.000	1.000	160.2	0.000	0.000	Ug5_2_8_L_0					
62 D	34.10	-1.2361E-04	138.0	61.10	138.0	63.43	UL-RL	3.6008E+04	-12.20	109.4
1.000	1.000	170.5	0.000	0.000	Ug6_741_743_L_0					
63 D	34.67	-1.1973E-04	140.0	62.16	140.0	64.35	UL-RL	3.6008E+04	-12.40	111.2
1.000	1.000	173.3	0.000	0.000	Ug6_741_743_L_0					
64 D	35.23	-1.1720E-04	142.0	63.18	142.0	65.27	UL-RL	3.6008E+04	-12.60	113.0
1.000	1.000	176.1	0.000	0.000	Ug6_741_743_L_0					
65 D	35.78	-1.1582E-04	144.0	64.15	144.0	66.18	UL-RL	3.6008E+04	-12.80	114.8
1.000	1.000	178.9	0.000	0.000	Ug6_741_743_L_0					
66 D	36.33	-1.1545E-04	146.0	65.08	146.0	67.10	UL-RL	3.6008E+04	-13.00	116.6
1.000	1.000	181.6	0.000	0.000	Ug6_741_743_L_0					
67 D	36.87	-1.1594E-04	147.9	65.99	147.9	68.02	UL-RL	3.6008E+04	-13.20	118.3
1.000	1.000	184.3	0.000	0.000	Ug6_741_743_L_0					
68 D	37.40	-1.1714E-04	149.9	66.87	149.9	68.94	UL-RL	3.6008E+04	-13.40	120.1
1.000	1.000	187.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.93	-1.1896E-04	151.9	67.73	151.9	69.86	UL-RL	3.6008E+04	-13.60	121.9
1.000	1.000	189.7	0.000	0.000	Ug6_741_743_L_0					
70 D	38.46	-1.2127E-04	153.8	68.57	153.8	70.78	UL-RL	3.6008E+04	-13.80	123.7
1.000	1.000	192.3	0.000	0.000	Ug6_741_743_L_0					
71 D	38.98	-1.2399E-04	155.8	69.40	155.8	71.70	UL-RL	3.6008E+04	-14.00	125.5
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
72 D	39.51	-1.2704E-04	157.8	70.22	157.8	72.62	UL-RL	3.6008E+04	-14.20	127.3
1.000	1.000	197.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.03	-1.3034E-04	159.8	71.03	159.8	73.54	UL-RL	3.6008E+04	-14.40	129.1
1.000	1.000	200.1	0.000	0.000	Ug6_741_743_L_0					
74 D	40.55	-1.3383E-04	161.7	71.84	161.7	74.46	UL-RL	3.6008E+04	-14.60	130.9
1.000	1.000	202.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.07	-1.3747E-04	163.7	72.64	163.7	75.38	UL-RL	3.6008E+04	-14.80	132.7
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.58	-1.4121E-04	165.7	73.44	165.7	76.31	UL-RL	3.6008E+04	-15.00	134.5
1.000	1.000	207.9	0.000	0.000	Ug6_741_743_L_0					
77 D	42.10	-1.4501E-04	167.7	74.24	167.7	77.23	UL-RL	3.6008E+04	-15.20	136.3
1.000	1.000	210.5	0.000	0.000	Ug6_741_743_L_0					
78 D	42.62	-1.4885E-04	169.6	75.03	169.6	78.15	UL-RL	3.6008E+04	-15.40	138.1
1.000	1.000	213.1	0.000	0.000	Ug6_741_743_L_0					
79 D	43.14	-1.5272E-04	171.6	75.83	171.6	79.07	UL-RL	3.6008E+04	-15.60	139.9
1.000	1.000	215.7	0.000	0.000	Ug6_741_743_L_0					
80 D	43.66	-1.5660E-04	173.6	76.63	173.6	80.00	UL-RL	3.6008E+04	-15.80	141.7
1.000	1.000	218.3	0.000	0.000	Ug6_741_743_L_0					
81 D	22.09	-1.6048E-04	175.6	77.43	175.6	80.92	UL-RL	3.6008E+04	-16.00	143.4
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	4.4398E-03	0.000	0.000	30.00	36.52	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.858	4.2506E-03	1.793	12.08	32.00	36.32	PASSIVE	0.000	-3.200	2.207	
1.000	1.000	14.29	0.000	0.000	Ug5_2_8_L_0						
18 D	5.716	4.0633E-03	3.586	24.16	34.00	36.13	PASSIVE	0.000	-3.400	4.414	
1.000	1.000	28.58	0.000	0.000	Ug5_2_8_L_0						
19 D	8.573	3.8781E-03	5.379	36.25	36.00	36.25	PASSIVE	0.000	-3.600	6.621	
1.000	1.000	42.87	0.000	0.000	Ug5_2_8_L_0						
20 D	11.43	3.6955E-03	7.172	48.33	38.00	48.33	PASSIVE	0.000	-3.800	8.828	
1.000	1.000	57.16	0.000	0.000	Ug5_2_8_L_0						
21 D	14.29	3.5159E-03	8.966	60.41	40.00	60.41	PASSIVE	0.000	-4.000	11.03	
1.000	1.000	71.44	0.000	0.000	Ug5_2_8_L_0						
22 D	15.89	3.3395E-03	10.76	66.22	42.00	66.22	V-C	1.2465E+04	-4.200	13.24	
1.000	1.000	79.46	0.000	0.000	Ug5_2_8_L_0						
23 D	16.03	3.1667E-03	12.55	64.70	44.00	64.70	V-C	1.2465E+04	-4.400	15.45	
1.000	1.000	80.15	0.000	0.000	Ug5_2_8_L_0						
24 D	16.18	2.9978E-03	14.34	63.25	46.00	63.25	V-C	1.2465E+04	-4.600	17.66	
1.000	1.000	80.90	0.000	0.000	Ug5_2_8_L_0						
25 D	16.34	2.8330E-03	16.14	61.85	48.00	61.85	V-C	1.2465E+04	-4.800	19.86	
1.000	1.000	81.71	0.000	0.000	Ug5_2_8_L_0						
26 D	16.52	2.6726E-03	17.93	60.52	50.00	60.52	V-C	1.2465E+04	-5.000	22.07	
1.000	1.000	82.59	0.000	0.000	Ug5_2_8_L_0						
27 D	16.71	2.5168E-03	19.72	59.25	52.00	59.25	V-C	1.2465E+04	-5.200	24.28	
1.000	1.000	83.53	0.000	0.000	Ug5_2_8_L_0						
28 D	16.91	2.3658E-03	21.52	58.06	54.00	58.06	V-C	1.2465E+04	-5.400	26.48	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	84.54	0.000	0.000	Ug5_2_8_L_0					
29 D	17.13	2.2196E-03	23.31	56.94	56.00	56.94	V-C	1.2465E+04	-5.600	28.69
1.000	1.000	85.63	0.000	0.000	Ug5_2_8_L_0					
30 D	17.36	2.0785E-03	25.10	55.90	58.00	55.90	V-C	1.2465E+04	-5.800	30.90
1.000	1.000	86.79	0.000	0.000	Ug5_2_8_L_0					
31 D	17.61	1.9425E-03	26.90	54.93	60.00	54.93	V-C	1.2465E+04	-6.000	33.10
1.000	1.000	88.04	0.000	0.000	Ug5_2_8_L_0					
32 D	17.87	1.8117E-03	28.69	54.05	62.00	54.05	V-C	1.2465E+04	-6.200	35.31
1.000	1.000	89.36	0.000	0.000	Ug5_2_8_L_0					
33 D	18.15	1.6863E-03	30.48	53.24	64.00	53.24	V-C	1.2465E+04	-6.400	37.52
1.000	1.000	90.76	0.000	0.000	Ug5_2_8_L_0					
34 D	18.45	1.5661E-03	32.28	52.52	66.00	52.52	V-C	1.2465E+04	-6.600	39.72
1.000	1.000	92.24	0.000	0.000	Ug5_2_8_L_0					
35 D	18.76	1.4513E-03	34.07	51.87	68.00	51.87	V-C	1.2465E+04	-6.800	41.93
1.000	1.000	93.80	0.000	0.000	Ug5_2_8_L_0					
36 D	19.09	1.3419E-03	35.86	51.31	70.00	51.31	V-C	1.2465E+04	-7.000	44.14
1.000	1.000	95.45	0.000	0.000	Ug5_2_8_L_0					
37 D	19.43	1.2379E-03	37.66	50.83	72.00	50.83	V-C	1.2465E+04	-7.200	46.34
1.000	1.000	97.17	0.000	0.000	Ug5_2_8_L_0					
38 D	19.79	1.1392E-03	39.45	50.42	74.00	50.42	V-C	1.2465E+04	-7.400	48.55
1.000	1.000	98.97	0.000	0.000	Ug5_2_8_L_0					
39 D	20.17	1.0458E-03	41.24	50.10	76.00	50.10	V-C	1.2465E+04	-7.600	50.76
1.000	1.000	100.9	0.000	0.000	Ug5_2_8_L_0					
40 D	20.56	9.5774E-04	43.03	49.85	78.00	49.85	V-C	1.2465E+04	-7.800	52.97
1.000	1.000	102.8	0.000	0.000	Ug5_2_8_L_0					
41 D	20.97	8.7489E-04	44.83	49.69	80.00	49.69	V-C	1.2465E+04	-8.000	55.17
1.000	1.000	104.9	0.000	0.000	Ug5_2_8_L_0					
42 D	21.39	7.9720E-04	46.62	49.59	82.00	49.59	V-C	1.2465E+04	-8.200	57.38
1.000	1.000	107.0	0.000	0.000	Ug5_2_8_L_0					
43 D	21.83	7.2459E-04	48.41	49.58	84.00	49.58	V-C	1.2465E+04	-8.400	59.59
1.000	1.000	109.2	0.000	0.000	Ug5_2_8_L_0					
44 D	22.28	6.5697E-04	50.21	49.63	86.00	49.63	V-C	1.2465E+04	-8.600	61.79
1.000	1.000	111.4	0.000	0.000	Ug5_2_8_L_0					
45 D	22.75	5.9424E-04	52.00	49.76	88.00	49.76	V-C	1.2465E+04	-8.800	64.00
1.000	1.000	113.8	0.000	0.000	Ug5_2_8_L_0					
46 D	23.23	5.3628E-04	53.79	49.95	90.00	49.95	V-C	1.2465E+04	-9.000	66.21
1.000	1.000	116.2	0.000	0.000	Ug5_2_8_L_0					
47 D	23.72	4.8297E-04	55.59	50.21	92.00	50.21	V-C	1.2465E+04	-9.200	68.41
1.000	1.000	118.6	0.000	0.000	Ug5_2_8_L_0					
48 D	24.23	4.3418E-04	57.38	50.53	94.00	50.53	V-C	1.2465E+04	-9.400	70.62
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
49 D	24.75	3.8975E-04	59.17	50.92	96.00	50.92	V-C	1.2465E+04	-9.600	72.83
1.000	1.000	123.7	0.000	0.000	Ug5_2_8_L_0					
50 D	25.28	3.4952E-04	60.97	51.37	98.00	51.37	V-C	1.2465E+04	-9.800	75.03
1.000	1.000	126.4	0.000	0.000	Ug5_2_8_L_0					
51 D	25.82	3.1333E-04	62.76	51.87	100.00	51.87	V-C	1.2465E+04	-10.000	77.24
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
52 D	26.37	2.8100E-04	64.55	52.42	102.0	52.42	V-C	1.2465E+04	-10.200	79.45
1.000	1.000	131.9	0.000	0.000	Ug5_2_8_L_0					
53 D	26.94	2.5232E-04	66.34	53.03	104.0	53.03	V-C	1.2465E+04	-10.400	81.66
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
54 D	27.50	2.2709E-04	68.14	53.64	106.0	53.71	UL-RL	3.7394E+04	-10.600	83.86
1.000	1.000	137.5	0.000	0.000	Ug5_2_8_L_0					
55 D	27.97	2.0510E-04	69.93	53.77	108.0	54.69	UL-RL	3.7394E+04	-10.800	86.07
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
56 D	28.46	1.8614E-04	71.72	54.03	110.0	55.67	UL-RL	3.7394E+04	-11.000	88.28
1.000	1.000	142.3	0.000	0.000	Ug5_2_8_L_0					
57 D	28.98	1.6998E-04	73.52	54.40	112.0	56.65	UL-RL	3.7394E+04	-11.200	90.48
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
58 D	29.51	1.5640E-04	75.31	54.88	114.0	57.63	UL-RL	3.7394E+04	-11.400	92.69
1.000	1.000	147.6	0.000	0.000	Ug5_2_8_L_0					
59 D	30.07	1.4519E-04	77.10	55.45	116.0	58.61	UL-RL	3.7394E+04	-11.600	94.90
1.000	1.000	150.4	0.000	0.000	Ug5_2_8_L_0					
60 D	30.64	1.3613E-04	78.90	56.11	118.0	59.60	UL-RL	3.7394E+04	-11.800	97.10
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
61 D	31.23	1.2900E-04	80.69	56.85	120.0	60.58	UL-RL	3.7394E+04	-12.000	99.31
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					
62 D	31.47	1.2361E-04	82.28	55.83	121.8	61.46	UL-RL	2.8119E+04	-12.200	101.5
1.000	1.000	157.3	0.000	0.000	Ug6_741_743_L_0					
63 D	32.07	1.1973E-04	83.88	56.61	123.6	62.35	UL-RL	2.8119E+04	-12.400	103.7
1.000	1.000	160.3	0.000	0.000	Ug6_741_743_L_0					
64 D	32.67	1.1720E-04	85.47	57.43	125.4	63.23	UL-RL	2.8119E+04	-12.600	105.9
1.000	1.000	163.4	0.000	0.000	Ug6_741_743_L_0					
65 D	33.28	1.1582E-04	87.06	58.29	127.2	64.12	UL-RL	2.8119E+04	-12.800	108.1
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
66 D	33.90	1.1545E-04	88.66	59.17	129.0	65.01	UL-RL	2.8119E+04	-13.000	110.3
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
67 D	34.53	1.1594E-04	90.25	60.08	130.8	65.89	UL-RL	2.8119E+04	-13.200	112.6
1.000	1.000	172.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.15	1.1714E-04	91.84	61.00	132.6	66.78	UL-RL	2.8119E+04	-13.400	114.8
1.000	1.000	175.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	35.78	1.1896E-04	93.43	61.94	134.4	67.67	UL-RL	2.8119E+04	-13.60	117.0
1.000	1.000	178.9	0.000	0.000	Ug6_741_743_L_0					
70 D	36.41	1.2127E-04	95.03	62.90	136.2	68.55	UL-RL	2.8119E+04	-13.80	119.2
1.000	1.000	182.1	0.000	0.000	Ug6_741_743_L_0					
71 D	37.05	1.2399E-04	96.62	63.87	138.0	69.44	UL-RL	2.8119E+04	-14.00	121.4
1.000	1.000	185.2	0.000	0.000	Ug6_741_743_L_0					
72 D	37.69	1.2704E-04	98.21	64.84	139.8	70.33	UL-RL	2.8119E+04	-14.20	123.6
1.000	1.000	188.4	0.000	0.000	Ug6_741_743_L_0					
73 D	38.32	1.3034E-04	99.81	65.82	141.6	71.22	UL-RL	2.8119E+04	-14.40	125.8
1.000	1.000	191.6	0.000	0.000	Ug6_741_743_L_0					
74 D	38.96	1.3383E-04	101.4	66.81	143.4	72.11	UL-RL	2.8119E+04	-14.60	128.0
1.000	1.000	194.8	0.000	0.000	Ug6_741_743_L_0					
75 D	39.60	1.3747E-04	103.0	67.80	145.2	73.00	UL-RL	2.8119E+04	-14.80	130.2
1.000	1.000	198.0	0.000	0.000	Ug6_741_743_L_0					
76 D	40.24	1.4121E-04	104.6	68.79	147.0	73.89	UL-RL	2.8119E+04	-15.00	132.4
1.000	1.000	201.2	0.000	0.000	Ug6_741_743_L_0					
77 D	40.88	1.4501E-04	106.2	69.79	148.8	74.78	UL-RL	2.8119E+04	-15.20	134.6
1.000	1.000	204.4	0.000	0.000	Ug6_741_743_L_0					
78 D	41.52	1.4885E-04	107.8	70.78	150.6	75.67	UL-RL	2.8119E+04	-15.40	136.8
1.000	1.000	207.6	0.000	0.000	Ug6_741_743_L_0					
79 D	42.16	1.5272E-04	109.4	71.78	152.4	76.56	UL-RL	2.8119E+04	-15.60	139.0
1.000	1.000	210.8	0.000	0.000	Ug6_741_743_L_0					
80 D	42.80	1.5660E-04	111.0	72.77	154.2	77.45	UL-RL	2.8119E+04	-15.80	141.2
1.000	1.000	214.0	0.000	0.000	Ug6_741_743_L_0					
81 D	21.72	1.6048E-04	112.6	73.77	156.0	78.34	UL-RL	2.8119E+04	-16.00	143.4
1.000	1.000	217.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|               PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1   FULL VERSION  *Build date:Jul 11, 2017*           |
|                                                                 |
|               NewProject.BaseDesignSection_28.A1M1R1_1757    |
|               Exe Time :24 May 2018                        18:25:47 |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33
ELEMEN T TYPE 2 NO.OF ELEMEN T S . IN THIS GROUP 80
C U R R E N T T I M E I S 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.20281E-10	1.20281E-10	-1.18447E-11	3.61368E-10
2	0.46899	-0.46899	-2.46424E-10	9.37978E-02
3	1.4093	-1.4093	-9.37978E-02	0.37566
4	2.8239	-2.8239	-0.37566	0.94045
5	4.7151	-4.7151	-0.94045	1.8835
6	7.0838	-7.0838	-1.8835	3.3002
7	9.9300	-9.9300	-3.3002	5.2862
8	13.260	-13.260	-5.2862	7.9382
9	17.076	-17.076	-7.9382	11.353
10	21.365	-21.365	-11.353	15.626
11	26.136	-26.136	-15.626	20.854
12	31.385	-31.385	-20.854	27.131
13	37.106	-37.106	-27.131	34.552
14	43.303	-43.303	-34.552	43.212
15	49.977	-49.977	-43.212	53.208
16	57.125	-57.125	-53.208	64.633
17	61.885	-61.885	-64.633	77.010
18	64.261	-64.261	-77.010	89.862
19	64.252	-64.252	-89.862	102.71
20	61.855	-61.855	-102.71	115.08
21	57.072	-57.072	-115.08	126.50
22	51.159	-51.159	-126.50	136.73
23	45.576	-45.576	-136.73	145.84
24	40.314	-40.314	-145.84	153.91
25	35.362	-35.362	-153.91	160.98
26	30.707	-30.707	-160.98	167.12
27	26.331	-26.331	-167.12	172.39
28	22.224	-22.224	-172.39	176.83
29	18.370	-18.370	-176.83	180.51
30	14.751	-14.751	-180.51	183.46
31	11.354	-11.354	-183.46	185.73
32	8.1643	-8.1643	-185.73	187.36
33	5.1619	-5.1619	-187.36	188.39
34	2.3337	-2.3337	-188.39	188.86
35	-0.33672	0.33672	-188.86	188.79
36	-2.8655	2.8655	-188.79	188.22
37	-5.2712	5.2712	-188.22	187.16
38	-7.5675	7.5675	-187.16	185.65
39	-9.7705	9.7705	-185.65	183.70
40	-11.898	11.898	-183.70	181.32
41	-13.963	13.963	-181.32	178.52
42	-15.981	15.981	-178.52	175.33
43	-17.970	17.970	-175.33	171.73
44	-19.940	19.940	-171.73	167.75
45	-21.908	21.908	-167.75	163.36
46	-23.886	23.886	-163.36	158.59
47	-25.889	25.889	-158.59	153.41
48	-27.929	27.929	-153.41	147.82
49	-30.019	30.019	-147.82	141.82
50	-32.170	32.170	-141.82	135.39
51	-34.378	34.378	-135.39	128.51
52	-36.067	36.067	-128.51	121.30
53	-37.311	37.311	-121.30	113.84
54	-38.165	38.165	-113.84	106.20
55	-38.589	38.589	-106.20	98.484
56	-38.656	38.656	-98.484	90.753
57	-38.435	38.435	-90.753	83.066
58	-37.989	37.989	-83.066	75.468
59	-37.376	37.376	-75.468	67.993

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-36.646	36.646	-67.993	60.664
61	-35.847	35.847	-60.664	53.494
62	-33.221	33.221	-53.494	46.850
63	-30.622	30.622	-46.850	40.726
64	-28.066	28.066	-40.726	35.113
65	-25.571	25.571	-35.113	29.998
66	-23.147	23.147	-29.998	25.369
67	-20.806	20.806	-25.369	21.208
68	-18.557	18.557	-21.208	17.497
69	-16.408	16.408	-17.497	14.215
70	-14.364	14.364	-14.215	11.342
71	-12.430	12.430	-11.342	8.8564
72	-10.610	10.610	-8.8564	6.7345
73	-8.9061	8.9061	-6.7345	4.9533
74	-7.3216	7.3216	-4.9533	3.4889
75	-5.8574	5.8574	-3.4889	2.3175
76	-4.5145	4.5145	-2.3175	1.4146
77	-3.2936	3.2936	-1.4146	0.75587
78	-2.1950	2.1950	-0.75587	0.31687
79	-1.2189	1.2189	-0.31687	7.30915E-02
80	-0.36544	0.36544	-7.30915E-02	3.08242E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2220E+06 RIMNOR=0.2038E+07
RENORM= 1042. REMNOR=0.1331E-18 RATIO =0.6850E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.26 RMMAX = 188.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2220E+06 RDR =0.2038E+07
RATIOT=0.6850E-01 RATIO= 0.000
MAX UN= 14.13 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1182 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2220E+06 RIMNOR=0.2038E+07
RENORM= 285.4 REMNOR=0.1959E-18 RATIO =0.3585E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.26 RMMAX = 188.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2220E+06 RDR =0.2038E+07
RATIOT=0.3585E-01 RATIO= 0.000
MAX UN= 4.044 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.3957E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2220E+06 RIMNOR=0.2038E+07
RENORM= 192.6 REMNOR=0.3325E-17 RATIO =0.2945E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.26 RMMAX = 188.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2220E+06 RDR =0.2038E+07
RATIOT=0.2945E-01 RATIO= 0.000
MAX UN= 6.835 IEQ= 53 NODE 27 DOF 1 Y-DISPL.F
MIN UN=-1.134 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2220E+06 RIMNOR=0.2038E+07
RENORM= 3.078 REMNOR=0.1642E-17 RATIO =0.3723E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.26 RMMAX = 188.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2220E+06 RDR =0.2038E+07
RATIOT=0.3723E-02 RATIO= 0.000
MAX UN= 1.484 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
MIN UN=-.3411E-01 IEQ= 135 NODE 68 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2220E+06 RIMNOR=0.2038E+07
RENORM=0.1042E-01 REMNOR=0.1175E-17 RATIO =0.2166E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.26 RMMAX = 188.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2220E+06 RDR =0.2038E+07
RATIOT=0.2166E-03 RATIO= 0.000
MAX UN=0.7849E-08 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
MIN UN=-.4148E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.2220E+06  RIMNOR=0.2038E+07
           RENORM=0.1097E-02  REMNOR=0.1295E-17  RATIO =0.7030E-04  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 64.26      RMMAX = 188.9
           RTSMAL=0.1000E-03  RMSMAL=0.1000E-02
           RDT   =0.2220E+06  RDR    =0.2038E+07
           RATIO=0.7030E-04  RATIO= 0.000
           MAX UN=0.1472E-01  IEQ=   121 NODE    61 DOF   1  Y-DISPL.F
           MIN UN=-.9094E-08  IEQ=    13 NODE     7 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	1.9524372E-02	-2.2119939E-03
2	1.9081974E-02	-2.2119939E-03
3	1.8639575E-02	-2.2119874E-03
4	1.8197180E-02	-2.2119549E-03
5	1.7754797E-02	-2.2118635E-03
6	1.7312442E-02	-2.2116676E-03
7	1.6870141E-02	-2.2113079E-03
8	1.6427935E-02	-2.2107121E-03
9	1.5985878E-02	-2.2097945E-03
10	1.5544045E-02	-2.2084558E-03
11	1.5102531E-02	-2.2065836E-03
12	1.4661455E-02	-2.2040521E-03
13	1.4220963E-02	-2.2007222E-03
14	1.3781230E-02	-2.1964416E-03
15	1.3342461E-02	-2.1910448E-03
16	1.2904898E-02	-2.1843533E-03
17	1.2468817E-02	-2.1761751E-03
18	1.2034539E-02	-2.1663053E-03
19	1.1602422E-02	-2.1545259E-03
20	1.1172871E-02	-2.1406056E-03
21	1.0746341E-02	-2.1243003E-03
22	1.0323329E-02	-2.1053524E-03
23	9.9043915E-03	-2.0835311E-03
24	9.4901195E-03	-2.0586708E-03
25	9.0811324E-03	-2.0306721E-03
26	8.6780622E-03	-1.9995011E-03
27	8.2815433E-03	-1.9651897E-03
28	7.8921911E-03	-1.9278352E-03
29	7.5106012E-03	-1.8876009E-03
30	7.1373275E-03	-1.8447159E-03
31	6.7728723E-03	-1.7994688E-03
32	6.4176788E-03	-1.7521666E-03
33	6.0721252E-03	-1.7030982E-03
34	5.7365390E-03	-1.6525368E-03
35	5.4111929E-03	-1.6007393E-03
36	5.0963096E-03	-1.5479475E-03
37	4.7920665E-03	-1.4943890E-03
38	4.4985924E-03	-1.4402770E-03
39	4.2159793E-03	-1.3858121E-03
40	3.9442785E-03	-1.3311828E-03
41	3.6835053E-03	-1.2765658E-03
42	3.4336403E-03	-1.2221272E-03
43	3.1946322E-03	-1.1680228E-03
44	2.9663991E-03	-1.1143993E-03
45	2.7488322E-03	-1.0613950E-03
46	2.5417923E-03	-1.0091396E-03
47	2.3451182E-03	-9.5775624E-04
48	2.1586239E-03	-9.0736139E-04
49	1.9821004E-03	-8.5806572E-04
50	1.8153181E-03	-8.0997493E-04
51	1.6580243E-03	-7.6318951E-04
52	1.5099452E-03	-7.1780563E-04
53	1.3708052E-03	-6.7392147E-04
54	1.2402780E-03	-6.3162252E-04
55	1.1180444E-03	-5.9099985E-04
56	1.0037605E-03	-5.5214070E-04
57	8.9706482E-04	-5.1513114E-04
58	7.9757901E-04	-4.8005662E-04
59	7.0490749E-04	-4.4700240E-04
60	6.1863766E-04	-4.1605401E-04
61	5.3833975E-04	-3.8729762E-04
62	4.6356666E-04	-3.6082046E-04
63	3.9385783E-04	-3.3664926E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	3.2875608E-04	-3.1474129E-04
65	2.6781435E-04	-2.9503786E-04
66	2.1059885E-04	-2.7746561E-04
67	1.5669182E-04	-2.6193772E-04
68	1.0569409E-04	-2.4835490E-04
69	5.7227461E-05	-2.3660799E-04
70	1.0936253E-05	-2.2658076E-04
71	-3.3511369E-05	-2.1815144E-04
72	-7.6422423E-05	-2.1119364E-04
73	-1.1807822E-04	-2.0557670E-04
74	-1.5873351E-04	-2.0116593E-04
75	-1.9861577E-04	-1.9782289E-04
76	-2.3792438E-04	-1.9540551E-04
77	-2.7682998E-04	-1.9376825E-04
78	-3.1547376E-04	-1.9276220E-04
79	-3.5396678E-04	-1.9223496E-04
80	-3.9238927E-04	-1.9203052E-04
81	-4.3079179E-04	-1.9198927E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-1.9524E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4572	-1.9082E-02	2.295	0.5715	2.295	1.690	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	2.286	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9166	-1.8640E-02	4.637	1.155	4.637	3.281	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	4.583	0.000	0.000	Ug5_2_8_L_0						
4 D	1.379	-1.8197E-02	7.039	1.753	7.039	4.727	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	6.896	0.000	0.000	Ug5_2_8_L_0						
5 D	1.844	-1.7755E-02	9.486	2.362	9.486	6.034	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	9.219	0.000	0.000	Ug5_2_8_L_0						
6 D	2.309	-1.7312E-02	11.95	2.976	11.95	7.235	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	11.55	0.000	0.000	Ug5_2_8_L_0						
7 D	2.775	-1.6870E-02	14.42	3.590	14.42	8.362	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	13.88	0.000	0.000	Ug5_2_8_L_0						
8 D	3.247	-1.6428E-02	17.01	4.235	17.01	9.440	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	16.24	0.000	0.000	Ug5_2_8_L_0						
9 D	3.721	-1.5986E-02	19.64	4.891	19.64	10.49	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	18.61	0.000	0.000	Ug5_2_8_L_0						
10 D	4.183	-1.5544E-02	22.03	5.485	22.03	11.51	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	20.91	0.000	0.000	Ug5_2_8_L_0						
11 D	4.652	-1.5103E-02	24.57	6.118	24.57	12.52	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	23.26	0.000	0.000	Ug5_2_8_L_0						
12 D	5.120	-1.4661E-02	27.07	6.740	27.07	13.53	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	25.60	0.000	0.000	Ug5_2_8_L_0						
13 D	5.578	-1.4221E-02	29.40	7.321	29.40	14.52	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	27.89	0.000	0.000	Ug5_2_8_L_0						
14 D	6.044	-1.3781E-02	31.86	7.932	31.86	15.52	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	30.22	0.000	0.000	Ug5_2_8_L_0						
15 D	6.508	-1.3342E-02	34.29	8.538	34.29	16.51	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	32.54	0.000	0.000	Ug5_2_8_L_0						
16 D	6.971	-1.2905E-02	36.71	9.140	36.71	17.49	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	34.85	0.000	0.000	Ug5_2_8_L_0						
17 D	7.428	-1.2469E-02	39.00	9.712	39.00	18.48	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	37.14	0.000	0.000	Ug5_2_8_L_0						
18 D	7.890	-1.2035E-02	41.40	10.31	41.40	19.47	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	39.45	0.000	0.000	Ug5_2_8_L_0						
19 D	8.352	-1.1602E-02	43.78	10.90	43.78	20.46	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	41.76	0.000	0.000	Ug5_2_8_L_0						
20 D	8.809	-1.1173E-02	46.07	11.47	46.07	21.44	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	44.04	0.000	0.000	Ug5_2_8_L_0						
21 D	9.269	-1.0746E-02	48.44	12.06	48.44	22.43	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	46.35	0.000	0.000	Ug5_2_8_L_0						
22 D	9.730	-1.0323E-02	50.80	12.65	50.80	23.42	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	48.65	0.000	0.000	Ug5_2_8_L_0						
23 D	10.19	-9.9044E-03	53.08	13.22	53.08	24.40	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	50.93	0.000	0.000	Ug5_2_8_L_0						
24 D	10.65	-9.4901E-03	55.44	13.80	55.44	25.39	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	53.23	0.000	0.000	Ug5_2_8_L_0						
25 D	11.11	-9.0811E-03	57.79	14.39	57.79	26.38	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	55.53	0.000	0.000	Ug5_2_8_L_0						
26 D	11.57	-8.6781E-03	60.13	14.97	60.13	27.37	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	57.83	0.000	0.000	Ug5_2_8_L_0						
27 D	12.02	-8.2815E-03	62.41	15.54	62.41	28.36	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	60.11	0.000	0.000	Ug5_2_8_L_0						
28 D	12.48	-7.8922E-03	64.75	16.12	64.75	29.35	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	62.41	0.000	0.000	Ug5_2_8_L_0					
29 D	12.94	-7.5106E-03	67.08	16.70	67.08	30.34	ACTIVE	0.000	-5.600	48.00
1.000	1.000	64.70	0.000	0.000	Ug5_2_8_L_0					
30 D	13.40	-7.1373E-03	69.35	17.27	69.35	31.34	ACTIVE	0.000	-5.800	49.71
1.000	1.000	66.98	0.000	0.000	Ug5_2_8_L_0					
31 D	13.86	-6.7729E-03	71.69	17.85	71.69	32.33	ACTIVE	0.000	-6.000	51.43
1.000	1.000	69.28	0.000	0.000	Ug5_2_8_L_0					
32 D	14.31	-6.4177E-03	74.01	18.43	74.01	33.33	ACTIVE	0.000	-6.200	53.14
1.000	1.000	71.57	0.000	0.000	Ug5_2_8_L_0					
33 D	14.77	-6.0721E-03	76.29	19.00	76.29	34.32	ACTIVE	0.000	-6.400	54.86
1.000	1.000	73.85	0.000	0.000	Ug5_2_8_L_0					
34 D	15.23	-5.7365E-03	78.61	19.57	78.61	35.32	ACTIVE	0.000	-6.600	56.57
1.000	1.000	76.15	0.000	0.000	Ug5_2_8_L_0					
35 D	15.69	-5.4112E-03	80.93	20.15	80.93	36.32	ACTIVE	0.000	-6.800	58.29
1.000	1.000	78.44	0.000	0.000	Ug5_2_8_L_0					
36 D	16.15	-5.0963E-03	83.26	20.73	83.26	37.31	ACTIVE	0.000	-7.000	60.00
1.000	1.000	80.73	0.000	0.000	Ug5_2_8_L_0					
37 D	16.60	-4.7921E-03	85.53	21.30	85.53	38.31	ACTIVE	0.000	-7.200	61.71
1.000	1.000	83.01	0.000	0.000	Ug5_2_8_L_0					
38 D	17.06	-4.4986E-03	87.85	21.87	87.85	39.31	ACTIVE	0.000	-7.400	63.43
1.000	1.000	85.30	0.000	0.000	Ug5_2_8_L_0					
39 D	17.52	-4.2160E-03	90.16	22.45	90.16	40.31	ACTIVE	0.000	-7.600	65.14
1.000	1.000	87.59	0.000	0.000	Ug5_2_8_L_0					
40 D	17.97	-3.9443E-03	92.43	23.02	92.43	41.31	ACTIVE	0.000	-7.800	66.86
1.000	1.000	89.87	0.000	0.000	Ug5_2_8_L_0					
41 D	18.43	-3.6835E-03	94.75	23.59	94.75	42.32	ACTIVE	0.000	-8.000	68.57
1.000	1.000	92.16	0.000	0.000	Ug5_2_8_L_0					
42 D	18.89	-3.4336E-03	97.06	24.17	97.06	43.32	ACTIVE	0.000	-8.200	70.29
1.000	1.000	94.45	0.000	0.000	Ug5_2_8_L_0					
43 D	19.35	-3.1946E-03	99.33	24.73	99.33	44.32	ACTIVE	0.000	-8.400	72.00
1.000	1.000	96.73	0.000	0.000	Ug5_2_8_L_0					
44 D	19.80	-2.9664E-03	101.6	25.31	101.6	45.33	ACTIVE	0.000	-8.600	73.71
1.000	1.000	99.02	0.000	0.000	Ug5_2_8_L_0					
45 D	20.26	-2.7488E-03	104.0	25.89	104.0	46.33	ACTIVE	0.000	-8.800	75.43
1.000	1.000	101.3	0.000	0.000	Ug5_2_8_L_0					
46 D	20.72	-2.5418E-03	106.3	26.46	106.3	47.34	ACTIVE	0.000	-9.000	77.14
1.000	1.000	103.6	0.000	0.000	Ug5_2_8_L_0					
47 D	21.18	-2.3451E-03	108.5	27.03	108.5	48.35	UL-RL	5.6410E+04	-9.200	78.86
1.000	1.000	105.9	0.000	0.000	Ug5_2_8_L_0					
48 D	21.64	-2.1586E-03	110.8	27.61	110.8	49.36	UL-RL	5.6410E+04	-9.400	80.57
1.000	1.000	108.2	0.000	0.000	Ug5_2_8_L_0					
49 D	22.09	-1.9821E-03	113.2	28.18	113.2	50.36	UL-RL	5.6410E+04	-9.600	82.29
1.000	1.000	110.5	0.000	0.000	Ug5_2_8_L_0					
50 D	22.55	-1.8153E-03	115.4	28.75	115.4	51.37	UL-RL	5.6410E+04	-9.800	84.00
1.000	1.000	112.8	0.000	0.000	Ug5_2_8_L_0					
51 D	23.01	-1.6580E-03	117.7	29.33	117.7	52.38	UL-RL	5.6410E+04	-10.000	85.71
1.000	1.000	115.0	0.000	0.000	Ug5_2_8_L_0					
52 D	23.47	-1.5099E-03	120.0	29.91	120.0	53.39	UL-RL	5.6410E+04	-10.200	87.43
1.000	1.000	117.3	0.000	0.000	Ug5_2_8_L_0					
53 D	23.92	-1.3708E-03	122.3	30.48	122.3	54.40	UL-RL	5.6410E+04	-10.400	89.14
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
54 D	24.38	-1.2403E-03	124.6	31.06	124.6	55.42	UL-RL	5.6410E+04	-10.600	90.86
1.000	1.000	121.9	0.000	0.000	Ug5_2_8_L_0					
55 D	24.84	-1.1180E-03	126.9	31.63	126.9	56.43	UL-RL	5.6410E+04	-10.800	92.57
1.000	1.000	124.2	0.000	0.000	Ug5_2_8_L_0					
56 D	25.30	-1.0038E-03	129.2	32.21	129.2	57.44	UL-RL	5.6410E+04	-11.000	94.29
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
57 D	25.76	-8.9706E-04	131.5	32.78	131.5	58.46	UL-RL	5.6410E+04	-11.200	96.00
1.000	1.000	128.8	0.000	0.000	Ug5_2_8_L_0					
58 D	26.21	-7.9758E-04	133.8	33.36	133.8	59.47	UL-RL	5.6410E+04	-11.400	97.71
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
59 D	26.67	-7.0491E-04	136.1	33.94	136.1	60.48	UL-RL	5.6410E+04	-11.600	99.43
1.000	1.000	133.4	0.000	0.000	Ug5_2_8_L_0					
60 D	27.13	-6.1864E-04	138.4	34.51	138.4	61.50	UL-RL	5.6410E+04	-11.800	101.1
1.000	1.000	135.6	0.000	0.000	Ug5_2_8_L_0					
61 D	27.59	-5.3834E-04	140.7	35.08	140.7	62.52	UL-RL	5.6410E+04	-12.000	102.9
1.000	1.000	137.9	0.000	0.000	Ug5_2_8_L_0					
62 D	31.78	-4.6357E-04	142.8	54.32	142.8	63.50	UL-RL	2.7006E+04	-12.200	104.6
1.000	1.000	158.9	0.000	0.000	Ug6_741_743_L_0					
63 D	32.70	-3.9386E-04	144.9	57.20	144.9	64.61	UL-RL	2.7006E+04	-12.400	106.3
1.000	1.000	163.5	0.000	0.000	Ug6_741_743_L_0					
64 D	33.59	-3.2876E-04	147.0	59.94	147.0	65.66	UL-RL	2.7006E+04	-12.600	108.0
1.000	1.000	167.9	0.000	0.000	Ug6_741_743_L_0					
65 D	34.46	-2.6781E-04	149.0	62.56	149.0	66.67	UL-RL	2.7006E+04	-12.800	109.7
1.000	1.000	172.3	0.000	0.000	Ug6_741_743_L_0					
66 D	35.30	-2.1060E-04	151.1	65.07	151.1	67.64	UL-RL	2.7006E+04	-13.000	111.4
1.000	1.000	176.5	0.000	0.000	Ug6_741_743_L_0					
67 D	36.13	-1.5669E-04	153.1	67.49	153.1	68.59	UL-RL	2.7006E+04	-13.200	113.1
1.000	1.000	180.6	0.000	0.000	Ug6_741_743_L_0					
68 D	36.82	-1.0569E-04	155.2	69.25	155.2	69.79	UL-RL	2.7006E+04	-13.400	114.9
1.000	1.000	184.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.47	-5.7227E-05	157.2	70.78	157.2	71.05	UL-RL	2.7006E+04	-13.60	116.6
1.000	1.000	187.4	0.000	0.000	Ug6_741_743_L_0					
70 D	38.08	-1.0936E-05	159.3	72.12	159.3	72.36	UL-RL	2.7006E+04	-13.80	118.3
1.000	1.000	190.4	0.000	0.000	Ug6_741_743_L_0					
71 D	38.68	3.3511E-05	161.3	73.42	161.3	73.65	UL-RL	2.7006E+04	-14.00	120.0
1.000	1.000	193.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.28	7.6422E-05	163.4	74.71	163.4	74.92	UL-RL	2.7006E+04	-14.20	121.7
1.000	1.000	196.4	0.000	0.000	Ug6_741_743_L_0					
73 D	39.88	1.1808E-04	165.4	75.98	165.4	76.17	UL-RL	2.7006E+04	-14.40	123.4
1.000	1.000	199.4	0.000	0.000	Ug6_741_743_L_0					
74 D	40.48	1.5873E-04	167.5	77.24	167.5	77.40	UL-RL	2.7006E+04	-14.60	125.1
1.000	1.000	202.4	0.000	0.000	Ug6_741_743_L_0					
75 D	41.07	1.9862E-04	169.5	78.48	169.5	78.63	UL-RL	2.7006E+04	-14.80	126.9
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.66	2.3792E-04	171.6	79.72	171.6	79.85	UL-RL	2.7006E+04	-15.00	128.6
1.000	1.000	208.3	0.000	0.000	Ug6_741_743_L_0					
77 D	42.25	2.7683E-04	173.7	80.96	173.7	81.06	UL-RL	2.7006E+04	-15.20	130.3
1.000	1.000	211.2	0.000	0.000	Ug6_741_743_L_0					
78 D	42.85	3.1547E-04	175.7	82.25	175.7	82.33	UL-RL	2.7006E+04	-15.40	132.0
1.000	1.000	214.2	0.000	0.000	Ug6_741_743_L_0					
79 D	43.45	3.5397E-04	177.8	83.54	177.8	83.60	UL-RL	2.7006E+04	-15.60	133.7
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
80 D	44.05	3.9239E-04	179.8	84.83	179.8	84.87	UL-RL	2.7006E+04	-15.80	135.4
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
81 D	22.33	4.3079E-04	181.9	86.12	181.9	86.14	UL-RL	2.7006E+04	-16.00	137.1
1.000	1.000	223.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:25:47                             |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	1.0746E-02	0.000	0.000	40.00	60.41	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.767	1.0323E-02	1.714	11.55	42.00	66.22	PASSIVE	0.000	-4.200	2.286	
1.000	1.000	13.84	0.000	0.000	Ug5_2_8_L_0						
23 D	5.535	9.9044E-03	3.429	23.10	44.00	64.70	PASSIVE	0.000	-4.400	4.571	
1.000	1.000	27.67	0.000	0.000	Ug5_2_8_L_0						
24 D	8.302	9.4901E-03	5.143	34.65	46.00	63.25	PASSIVE	0.000	-4.600	6.857	
1.000	1.000	41.51	0.000	0.000	Ug5_2_8_L_0						
25 D	11.07	9.0811E-03	6.857	46.20	48.00	61.85	PASSIVE	0.000	-4.800	9.143	
1.000	1.000	55.35	0.000	0.000	Ug5_2_8_L_0						
26 D	13.84	8.6781E-03	8.571	57.75	50.00	60.52	PASSIVE	0.000	-5.000	11.43	
1.000	1.000	69.18	0.000	0.000	Ug5_2_8_L_0						
27 D	16.60	8.2815E-03	10.29	69.31	52.00	69.31	PASSIVE	0.000	-5.200	13.71	
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0						
28 D	19.37	7.8922E-03	12.00	80.86	54.00	80.86	PASSIVE	0.000	-5.400	16.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	96.86	0.000	0.000	Ug5_2_8_L_0					
29 D	22.14	7.5106E-03	13.71	92.41	56.00	92.41	PASSIVE	0.000	-5.600	18.29
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
30 D	24.48	7.1373E-03	15.43	101.8	58.00	101.8	V-C	9348.	-5.800	20.57
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
31 D	24.32	6.7729E-03	17.14	98.74	60.00	98.74	V-C	9348.	-6.000	22.86
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
32 D	24.18	6.4177E-03	18.86	95.78	62.00	95.78	V-C	9348.	-6.200	25.14
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
33 D	24.07	6.0721E-03	20.57	92.93	64.00	92.93	V-C	9348.	-6.400	27.43
1.000	1.000	120.4	0.000	0.000	Ug5_2_8_L_0					
34 D	23.98	5.7365E-03	22.29	90.20	66.00	90.20	V-C	9348.	-6.600	29.71
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
35 D	23.92	5.4112E-03	24.00	87.60	68.00	87.60	V-C	9348.	-6.800	32.00
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
36 D	23.88	5.0963E-03	25.71	85.13	70.00	85.13	V-C	9348.	-7.000	34.29
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
37 D	23.87	4.7921E-03	27.43	82.78	72.00	82.78	V-C	9348.	-7.200	36.57
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
38 D	23.88	4.4986E-03	29.14	80.56	74.00	80.56	V-C	9348.	-7.400	38.86
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
39 D	23.92	4.2160E-03	30.86	78.47	76.00	78.47	V-C	9348.	-7.600	41.14
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
40 D	23.99	3.9443E-03	32.57	76.52	78.00	76.52	V-C	9348.	-7.800	43.43
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.08	3.6835E-03	34.29	74.69	80.00	74.69	V-C	9348.	-8.000	45.71
1.000	1.000	120.4	0.000	0.000	Ug5_2_8_L_0					
42 D	24.20	3.4336E-03	36.00	72.99	82.00	72.99	V-C	9348.	-8.200	48.00
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
43 D	24.34	3.1946E-03	37.71	71.42	84.00	71.42	V-C	9348.	-8.400	50.29
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
44 D	24.51	2.9664E-03	39.43	69.97	86.00	69.97	V-C	9348.	-8.600	52.57
1.000	1.000	122.5	0.000	0.000	Ug5_2_8_L_0					
45 D	24.70	2.7488E-03	41.14	68.65	88.00	68.65	V-C	9348.	-8.800	54.86
1.000	1.000	123.5	0.000	0.000	Ug5_2_8_L_0					
46 D	24.92	2.5418E-03	42.86	67.45	90.00	67.45	V-C	9348.	-9.000	57.14
1.000	1.000	124.6	0.000	0.000	Ug5_2_8_L_0					
47 D	25.16	2.3451E-03	44.57	66.37	92.00	66.37	UL-RL	2.8045E+04	-9.200	59.43
1.000	1.000	125.8	0.000	0.000	Ug5_2_8_L_0					
48 D	25.42	2.1586E-03	46.29	65.41	94.00	65.41	UL-RL	2.8045E+04	-9.400	61.71
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
49 D	25.71	1.9821E-03	48.00	64.56	96.00	64.56	UL-RL	2.8045E+04	-9.600	64.00
1.000	1.000	128.6	0.000	0.000	Ug5_2_8_L_0					
50 D	26.02	1.8153E-03	49.71	63.82	98.00	63.82	UL-RL	2.8045E+04	-9.800	66.29
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
51 D	26.35	1.6580E-03	51.43	63.18	100.00	63.19	UL-RL	2.8045E+04	-10.000	68.57
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
52 D	26.70	1.5099E-03	53.14	62.65	102.0	62.66	UL-RL	2.8045E+04	-10.200	70.86
1.000	1.000	133.5	0.000	0.000	Ug5_2_8_L_0					
53 D	27.07	1.3708E-03	54.86	62.22	104.0	62.23	UL-RL	2.8045E+04	-10.400	73.14
1.000	1.000	135.4	0.000	0.000	Ug5_2_8_L_0					
54 D	27.46	1.2403E-03	56.57	61.89	106.0	61.90	UL-RL	2.8045E+04	-10.600	75.43
1.000	1.000	137.3	0.000	0.000	Ug5_2_8_L_0					
55 D	27.87	1.1180E-03	58.29	61.65	108.0	61.66	UL-RL	2.8045E+04	-10.800	77.71
1.000	1.000	139.4	0.000	0.000	Ug5_2_8_L_0					
56 D	28.30	1.0038E-03	60.00	61.49	110.0	61.51	UL-RL	2.8045E+04	-11.000	80.00
1.000	1.000	141.5	0.000	0.000	Ug5_2_8_L_0					
57 D	28.74	8.9706E-04	61.71	61.42	112.0	61.44	UL-RL	2.8045E+04	-11.200	82.29
1.000	1.000	143.7	0.000	0.000	Ug5_2_8_L_0					
58 D	29.20	7.9758E-04	63.43	61.42	114.0	61.45	UL-RL	2.8045E+04	-11.400	84.57
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
59 D	29.67	7.0491E-04	65.14	61.50	116.0	61.53	UL-RL	2.8045E+04	-11.600	86.86
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
60 D	30.16	6.1864E-04	66.86	61.65	118.0	61.68	UL-RL	2.8045E+04	-11.800	89.14
1.000	1.000	150.8	0.000	0.000	Ug5_2_8_L_0					
61 D	30.66	5.3834E-04	68.57	61.86	120.0	61.89	UL-RL	2.8045E+04	-12.000	91.43
1.000	1.000	153.3	0.000	0.000	Ug5_2_8_L_0					
62 D	30.57	4.6357E-04	70.09	59.14	121.8	61.46	UL-RL	2.1089E+04	-12.200	93.71
1.000	1.000	152.9	0.000	0.000	Ug6_741_743_L_0					
63 D	30.90	3.9386E-04	71.60	58.52	123.6	62.35	UL-RL	2.1089E+04	-12.400	96.00
1.000	1.000	154.5	0.000	0.000	Ug6_741_743_L_0					
64 D	31.26	3.2876E-04	73.11	58.01	125.4	63.23	UL-RL	2.1089E+04	-12.600	98.29
1.000	1.000	156.3	0.000	0.000	Ug6_741_743_L_0					
65 D	31.63	2.6781E-04	74.63	57.59	127.2	64.12	UL-RL	2.1089E+04	-12.800	100.6
1.000	1.000	158.2	0.000	0.000	Ug6_741_743_L_0					
66 D	32.02	2.1060E-04	76.14	57.26	129.0	65.01	UL-RL	2.1089E+04	-13.000	102.9
1.000	1.000	160.1	0.000	0.000	Ug6_741_743_L_0					
67 D	32.43	1.5669E-04	77.66	57.00	130.8	65.89	UL-RL	2.1089E+04	-13.200	105.1
1.000	1.000	162.1	0.000	0.000	Ug6_741_743_L_0					
68 D	32.85	1.0569E-04	79.17	56.81	132.6	66.78	UL-RL	2.1089E+04	-13.400	107.4
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	33.28	5.7227E-05	80.69	56.68	134.4	67.67	UL-RL	2.1089E+04	-13.60	109.7
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
70 D	33.72	1.0936E-05	82.20	56.59	136.2	68.55	UL-RL	2.1089E+04	-13.80	112.0
1.000	1.000	168.6	0.000	0.000	Ug6_741_743_L_0					
71 D	34.17	-3.3511E-05	83.71	56.55	138.0	69.44	UL-RL	2.1089E+04	-14.00	114.3
1.000	1.000	170.8	0.000	0.000	Ug6_741_743_L_0					
72 D	34.62	-7.6422E-05	85.23	56.54	139.8	70.33	UL-RL	2.1089E+04	-14.20	116.6
1.000	1.000	173.1	0.000	0.000	Ug6_741_743_L_0					
73 D	35.08	-1.1808E-04	86.74	56.56	141.6	71.22	UL-RL	2.1089E+04	-14.40	118.9
1.000	1.000	175.4	0.000	0.000	Ug6_741_743_L_0					
74 D	35.55	-1.5873E-04	88.26	56.60	143.4	72.11	UL-RL	2.1089E+04	-14.60	121.1
1.000	1.000	177.7	0.000	0.000	Ug6_741_743_L_0					
75 D	36.02	-1.9862E-04	89.77	56.65	145.2	73.00	UL-RL	2.1089E+04	-14.80	123.4
1.000	1.000	180.1	0.000	0.000	Ug6_741_743_L_0					
76 D	36.49	-2.3792E-04	91.29	56.72	147.0	73.89	UL-RL	2.1089E+04	-15.00	125.7
1.000	1.000	182.4	0.000	0.000	Ug6_741_743_L_0					
77 D	36.96	-2.7683E-04	92.80	56.80	148.8	74.78	UL-RL	2.1089E+04	-15.20	128.0
1.000	1.000	184.8	0.000	0.000	Ug6_741_743_L_0					
78 D	37.43	-3.1547E-04	94.31	56.88	150.6	75.67	UL-RL	2.1089E+04	-15.40	130.3
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
79 D	37.91	-3.5397E-04	95.83	56.97	152.4	76.56	UL-RL	2.1089E+04	-15.60	132.6
1.000	1.000	189.5	0.000	0.000	Ug6_741_743_L_0					
80 D	38.38	-3.9239E-04	97.34	57.05	154.2	77.45	UL-RL	2.1089E+04	-15.80	134.9
1.000	1.000	191.9	0.000	0.000	Ug6_741_743_L_0					
81 D	19.43	-4.3079E-04	98.86	57.14	156.0	78.34	UL-RL	2.1089E+04	-16.00	137.1
1.000	1.000	194.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.17780E-09	-3.17780E-09	3.15935E-10	3.64109E-10
2	0.45715	-0.45715	-2.61674E-10	9.14302E-02
3	1.3738	-1.3738	-9.14302E-02	0.36619
4	2.7529	-2.7529	-0.36619	0.91677
5	4.5967	-4.5967	-0.91677	1.8361
6	6.9062	-6.9062	-1.8361	3.2174
7	9.6814	-9.6814	-3.2174	5.1536
8	12.928	-12.928	-5.1536	7.7393
9	16.650	-16.650	-7.7393	11.069
10	20.832	-20.832	-11.069	15.236
11	25.485	-25.485	-15.236	20.333
12	30.604	-30.604	-20.333	26.453
13	36.182	-36.182	-26.453	33.690
14	42.226	-42.226	-33.690	42.135
15	48.734	-48.734	-42.135	51.882
16	55.704	-55.704	-51.882	63.023
17	63.133	-63.133	-63.023	75.649
18	71.023	-71.023	-75.649	89.854
19	79.374	-79.374	-89.854	105.73
20	88.183	-88.183	-105.73	123.37
21	97.452	-97.452	-123.37	142.86
22	104.42	-104.42	-142.86	163.74
23	109.07	-109.07	-163.74	185.55
24	111.41	-111.41	-185.55	207.83
25	111.45	-111.45	-207.83	230.12
26	109.18	-109.18	-230.12	251.96
27	104.60	-104.60	-251.96	272.88
28	97.707	-97.707	-272.88	292.42
29	88.509	-88.509	-292.42	310.12
30	77.428	-77.428	-310.12	325.61
31	66.964	-66.964	-325.61	339.00
32	57.095	-57.095	-339.00	350.42
33	47.794	-47.794	-350.42	359.98
34	39.040	-39.040	-359.98	367.79
35	30.807	-30.807	-367.79	373.95
36	23.071	-23.071	-373.95	378.56
37	15.803	-15.803	-378.56	381.72
38	8.9795	-8.9795	-381.72	383.52
39	2.5746	-2.5746	-383.52	384.03
40	-3.4399	3.4399	-384.03	383.35
41	-9.0879	9.0879	-383.35	381.53
42	-14.395	14.395	-381.53	378.65
43	-19.389	19.389	-378.65	374.77
44	-24.093	24.093	-374.77	369.95
45	-28.532	28.532	-369.95	364.25
46	-32.731	32.731	-364.25	357.70
47	-36.714	36.714	-357.70	350.36
48	-40.504	40.504	-350.36	342.26
49	-44.124	44.124	-342.26	333.43
50	-47.596	47.596	-333.43	323.91
51	-50.942	50.942	-323.91	313.72
52	-54.182	54.182	-313.72	302.89
53	-57.337	57.337	-302.89	291.42
54	-60.425	60.425	-291.42	279.34
55	-63.464	63.464	-279.34	266.64
56	-66.472	66.472	-266.64	253.35
57	-69.466	69.466	-253.35	239.46
58	-72.462	72.462	-239.46	224.96
59	-75.474	75.474	-224.96	209.87

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-78.516	78.516	-209.87	194.16
61	-81.601	81.601	-194.16	177.84
62	-80.394	80.394	-177.84	161.77
63	-78.601	78.601	-161.77	146.05
64	-76.270	76.270	-146.05	130.79
65	-73.447	73.447	-130.79	116.10
66	-70.170	70.170	-116.10	102.07
67	-66.473	66.473	-102.07	88.773
68	-62.501	62.501	-88.773	76.273
69	-58.308	58.308	-76.273	64.611
70	-53.947	53.947	-64.611	53.822
71	-49.429	49.429	-53.822	43.936
72	-44.767	44.767	-43.936	34.983
73	-39.968	39.968	-34.983	26.989
74	-35.040	35.040	-26.989	19.981
75	-29.988	29.988	-19.981	13.983
76	-24.816	24.816	-13.983	9.0202
77	-19.527	19.527	-9.0202	5.1149
78	-14.110	14.110	-5.1149	2.2929
79	-8.5669	8.5669	-2.2929	0.57956
80	-2.8976	2.8976	-0.57956	-1.74749E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6121E+06 RIMNOR=0.8268E+07
RENORM= 441.9 REMNOR=0.1295E-17 RATIO =0.2687E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.4 RMMAX = 384.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6121E+06 RDR =0.8268E+07
RATIOT=0.2687E-01 RATIO= 0.000
MAX UN= 7.064 IEQ= 57 NODE 29 DOF 1 Y-DISPL.F
MIN UN=-.8312E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6121E+06 RIMNOR=0.8268E+07
RENORM= 126.8 REMNOR=0.1872E-17 RATIO =0.1439E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.4 RMMAX = 384.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6121E+06 RDR =0.8268E+07
RATIOT=0.1439E-01 RATIO= 0.000
MAX UN= 2.447 IEQ= 63 NODE 32 DOF 1 Y-DISPL.F
MIN UN=-.6929E-08 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6121E+06 RIMNOR=0.8268E+07
RENORM= 463.8 REMNOR=0.2041E-17 RATIO =0.2753E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.4 RMMAX = 384.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6121E+06 RDR =0.8268E+07
RATIOT=0.2753E-01 RATIO= 0.000
MAX UN= 21.42 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.5804 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6121E+06 RIMNOR=0.8268E+07
RENORM= 3.140 REMNOR=0.3408E-17 RATIO =0.2265E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.4 RMMAX = 384.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6121E+06 RDR =0.8268E+07
RATIOT=0.2265E-02 RATIO= 0.000
MAX UN= 1.268 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.8810 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6121E+06 RIMNOR=0.8268E+07
RENORM=0.6185E-02 REMNOR=0.2148E-17 RATIO =0.1005E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.4 RMMAX = 384.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6121E+06 RDR =0.8268E+07
RATIOT=0.1005E-03 RATIO= 0.000
MAX UN=0.5944E-01 IEQ= 127 NODE 64 DOF 1 Y-DISPL.F
MIN UN=-.9262E-08 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.6121E+06  RIMNOR=0.8268E+07
           RENORM=0.4069E-04  REMNOR=0.1375E-17  RATIO =0.8154E-05  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 111.4      RMMAX = 384.0
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT   =0.6121E+06  RDR   =0.8268E+07
           RATIOT=0.8154E-05  RATIOR= 0.000
           MAX UN=0.8335E-08  IEQ=   33 NODE   17 DOF   1  Y-DISPL.F
           MIN UN=-.2343E-02  IEQ=  139 NODE   70 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757      |
|          Exe Time :24 May 2018          18:25:47          |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	3.0171579E-02	-3.1743850E-03
2	2.9536702E-02	-3.1743850E-03
3	2.8901825E-02	-3.1743786E-03
4	2.8266952E-02	-3.1743465E-03
5	2.7632091E-02	-3.1742564E-03
6	2.6997257E-02	-3.1740632E-03
7	2.6362476E-02	-3.1737084E-03
8	2.5727789E-02	-3.1731207E-03
9	2.5093249E-02	-3.1722155E-03
10	2.4458930E-02	-3.1708949E-03
11	2.3824926E-02	-3.1690480E-03
12	2.3191354E-02	-3.1665507E-03
13	2.2558358E-02	-3.1632658E-03
14	2.1926111E-02	-3.1590429E-03
15	2.1294815E-02	-3.1537190E-03
16	2.0664708E-02	-3.1471176E-03
17	2.0036062E-02	-3.1390496E-03
18	1.9409197E-02	-3.1293128E-03
19	1.8784463E-02	-3.1176919E-03
20	1.8162261E-02	-3.1039590E-03
21	1.7543039E-02	-3.0878732E-03
22	1.6927288E-02	-3.0691803E-03
23	1.6315559E-02	-3.0476137E-03
24	1.5708453E-02	-3.0228938E-03
25	1.5106630E-02	-2.9947471E-03
26	1.4510798E-02	-2.9629459E-03
27	1.3921709E-02	-2.9273266E-03
28	1.3340131E-02	-2.8877901E-03
29	1.2766856E-02	-2.8443020E-03
30	1.2202672E-02	-2.7968925E-03
31	1.1648354E-02	-2.7456564E-03
32	1.1104656E-02	-2.6907531E-03
33	1.0572285E-02	-2.6324061E-03
34	1.0051904E-02	-2.5709039E-03
35	9.5441105E-03	-2.5065996E-03
36	9.0494250E-03	-2.4398868E-03
37	8.5682926E-03	-2.3711570E-03
38	8.1010745E-03	-2.3007789E-03
39	7.6480677E-03	-2.2291013E-03
40	7.2094988E-03	-2.1564527E-03
41	6.7855307E-03	-2.0831427E-03
42	6.3762664E-03	-2.0094626E-03
43	5.9817521E-03	-1.9356864E-03
44	5.6019810E-03	-1.8620721E-03
45	5.2368981E-03	-1.7888623E-03
46	4.8863958E-03	-1.7162840E-03
47	4.5503280E-03	-1.6445519E-03
48	4.2285052E-03	-1.5738672E-03
49	3.9206987E-03	-1.5044194E-03
50	3.6266445E-03	-1.4363874E-03
51	3.3460397E-03	-1.3699387E-03
52	3.0785464E-03	-1.3052307E-03
53	2.8238268E-03	-1.2424201E-03
54	2.5814557E-03	-1.1816412E-03
55	2.3510257E-03	-1.1230322E-03
56	2.1320896E-03	-1.0667220E-03
57	1.9241754E-03	-1.0128335E-03
58	1.7267869E-03	-9.6148451E-04
59	1.5394048E-03	-9.1278846E-04
60	1.3614874E-03	-8.6685482E-04
61	1.1924716E-03	-8.2378973E-04
62	1.0317734E-03	-7.8369645E-04
63	8.7879137E-04	-7.4662776E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.3292045E-04	-7.1258602E-04
65	5.9355514E-04	-6.8157150E-04
66	4.6009098E-04	-6.5356999E-04
67	3.3192916E-04	-6.2853830E-04
68	2.0848258E-04	-6.0640276E-04
69	8.9181717E-05	-5.8706228E-04
70	-2.6520312E-05	-5.7039157E-04
71	-1.3914317E-04	-5.5624476E-04
72	-2.4917567E-04	-5.4445974E-04
73	-3.5707276E-04	-5.3486011E-04
74	-4.6325272E-04	-5.2725563E-04
75	-5.6809443E-04	-5.2144255E-04
76	-6.7193470E-04	-5.1720388E-04
77	-7.7506561E-04	-5.1430963E-04
78	-8.7773198E-04	-5.1251688E-04
79	-9.8012875E-04	-5.1156982E-04
80	-1.0823984E-03	-5.1119956E-04
81	-1.1846333E-03	-5.1112420E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:25:47 |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0172E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4509	-2.9537E-02	2.337	0.5818	2.337	1.690	ACTIVE	0.000	-0.2000	1.673	
1.000	1.000	2.255	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9041	-2.8902E-02	4.720	1.175	4.720	3.281	ACTIVE	0.000	-0.4000	3.345	
1.000	1.000	4.521	0.000	0.000	Ug5_2_8_L_0						
4 D	1.360	-2.8267E-02	7.164	1.784	7.164	4.727	ACTIVE	0.000	-0.6000	5.018	
1.000	1.000	6.802	0.000	0.000	Ug5_2_8_L_0						
5 D	1.819	-2.7632E-02	9.652	2.403	9.652	6.034	ACTIVE	0.000	-0.8000	6.691	
1.000	1.000	9.094	0.000	0.000	Ug5_2_8_L_0						
6 D	2.278	-2.6997E-02	12.16	3.028	12.16	7.235	ACTIVE	0.000	-1.0000	8.364	
1.000	1.000	11.39	0.000	0.000	Ug5_2_8_L_0						
7 D	2.738	-2.6362E-02	14.67	3.652	14.67	8.362	ACTIVE	0.000	-1.2000	10.04	
1.000	1.000	13.69	0.000	0.000	Ug5_2_8_L_0						
8 D	3.203	-2.5728E-02	17.30	4.308	17.30	9.440	ACTIVE	0.000	-1.4000	11.71	
1.000	1.000	16.02	0.000	0.000	Ug5_2_8_L_0						
9 D	3.671	-2.5093E-02	19.97	4.974	19.97	10.49	ACTIVE	0.000	-1.6000	13.38	
1.000	1.000	18.36	0.000	0.000	Ug5_2_8_L_0						
10 D	4.127	-2.4459E-02	22.40	5.579	22.40	11.51	ACTIVE	0.000	-1.8000	15.05	
1.000	1.000	20.63	0.000	0.000	Ug5_2_8_L_0						
11 D	4.590	-2.3825E-02	24.99	6.221	24.99	12.52	ACTIVE	0.000	-2.0000	16.73	
1.000	1.000	22.95	0.000	0.000	Ug5_2_8_L_0						
12 D	5.051	-2.3191E-02	27.53	6.854	27.53	13.53	ACTIVE	0.000	-2.2000	18.40	
1.000	1.000	25.25	0.000	0.000	Ug5_2_8_L_0						
13 D	5.504	-2.2558E-02	29.90	7.445	29.90	14.52	ACTIVE	0.000	-2.4000	20.07	
1.000	1.000	27.52	0.000	0.000	Ug5_2_8_L_0						
14 D	5.962	-2.1926E-02	32.40	8.067	32.40	15.52	ACTIVE	0.000	-2.6000	21.75	
1.000	1.000	29.81	0.000	0.000	Ug5_2_8_L_0						
15 D	6.420	-2.1295E-02	34.87	8.683	34.87	16.51	ACTIVE	0.000	-2.8000	23.42	
1.000	1.000	32.10	0.000	0.000	Ug5_2_8_L_0						
16 D	6.877	-2.0665E-02	37.33	9.295	37.33	17.49	ACTIVE	0.000	-3.0000	25.09	
1.000	1.000	34.39	0.000	0.000	Ug5_2_8_L_0						
17 D	7.328	-2.0036E-02	39.67	9.877	39.67	18.48	ACTIVE	0.000	-3.2000	26.76	
1.000	1.000	36.64	0.000	0.000	Ug5_2_8_L_0						
18 D	7.784	-1.9409E-02	42.10	10.48	42.10	19.47	ACTIVE	0.000	-3.4000	28.44	
1.000	1.000	38.92	0.000	0.000	Ug5_2_8_L_0						
19 D	8.239	-1.8784E-02	44.53	11.09	44.53	20.46	ACTIVE	0.000	-3.6000	30.11	
1.000	1.000	41.20	0.000	0.000	Ug5_2_8_L_0						
20 D	8.690	-1.8162E-02	46.86	11.67	46.86	21.44	ACTIVE	0.000	-3.8000	31.78	
1.000	1.000	43.45	0.000	0.000	Ug5_2_8_L_0						
21 D	9.145	-1.7543E-02	49.27	12.27	49.27	22.43	ACTIVE	0.000	-4.0000	33.45	
1.000	1.000	45.72	0.000	0.000	Ug5_2_8_L_0						
22 D	9.599	-1.6927E-02	51.68	12.87	51.68	23.42	ACTIVE	0.000	-4.2000	35.13	
1.000	1.000	47.99	0.000	0.000	Ug5_2_8_L_0						
23 D	10.05	-1.6316E-02	54.00	13.45	54.00	24.40	ACTIVE	0.000	-4.4000	36.80	
1.000	1.000	50.25	0.000	0.000	Ug5_2_8_L_0						
24 D	10.50	-1.5708E-02	56.39	14.04	56.39	25.39	ACTIVE	0.000	-4.6000	38.47	
1.000	1.000	52.51	0.000	0.000	Ug5_2_8_L_0						
25 D	10.96	-1.5107E-02	58.78	14.64	58.78	26.38	ACTIVE	0.000	-4.8000	40.15	
1.000	1.000	54.78	0.000	0.000	Ug5_2_8_L_0						
26 D	11.41	-1.4511E-02	61.17	15.23	61.17	27.37	ACTIVE	0.000	-5.0000	41.82	
1.000	1.000	57.05	0.000	0.000	Ug5_2_8_L_0						
27 D	11.86	-1.3922E-02	63.49	15.81	63.49	28.36	ACTIVE	0.000	-5.2000	43.49	
1.000	1.000	59.30	0.000	0.000	Ug5_2_8_L_0						
28 D	12.31	-1.3340E-02	65.87	16.40	65.87	29.35	ACTIVE	0.000	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.56	0.000	0.000	Ug5_2_8_L_0					
29 D	12.77	-1.2767E-02	68.24	16.99	68.24	30.34	ACTIVE	0.000	-5.600	46.84
1.000	1.000	63.83	0.000	0.000	Ug5_2_8_L_0					
30 D	13.22	-1.2203E-02	70.56	17.57	70.56	31.34	ACTIVE	0.000	-5.800	48.51
1.000	1.000	66.08	0.000	0.000	Ug5_2_8_L_0					
31 D	13.67	-1.1648E-02	72.93	18.16	72.93	32.33	ACTIVE	0.000	-6.000	50.18
1.000	1.000	68.34	0.000	0.000	Ug5_2_8_L_0					
32 D	14.12	-1.1105E-02	75.30	18.75	75.30	33.33	ACTIVE	0.000	-6.200	51.85
1.000	1.000	70.60	0.000	0.000	Ug5_2_8_L_0					
33 D	14.57	-1.0572E-02	77.62	19.33	77.62	34.32	ACTIVE	0.000	-6.400	53.53
1.000	1.000	72.85	0.000	0.000	Ug5_2_8_L_0					
34 D	15.02	-1.0052E-02	79.98	19.92	79.98	35.32	ACTIVE	0.000	-6.600	55.20
1.000	1.000	75.12	0.000	0.000	Ug5_2_8_L_0					
35 D	15.48	-9.5441E-03	82.35	20.50	82.35	36.32	ACTIVE	0.000	-6.800	56.87
1.000	1.000	77.38	0.000	0.000	Ug5_2_8_L_0					
36 D	15.93	-9.0494E-03	84.71	21.09	84.71	37.31	ACTIVE	0.000	-7.000	58.55
1.000	1.000	79.64	0.000	0.000	Ug5_2_8_L_0					
37 D	16.38	-8.5683E-03	87.02	21.67	87.02	38.31	ACTIVE	0.000	-7.200	60.22
1.000	1.000	81.89	0.000	0.000	Ug5_2_8_L_0					
38 D	16.83	-8.1011E-03	89.38	22.26	89.38	39.31	ACTIVE	0.000	-7.400	61.89
1.000	1.000	84.15	0.000	0.000	Ug5_2_8_L_0					
39 D	17.28	-7.6481E-03	91.74	22.84	91.74	40.31	ACTIVE	0.000	-7.600	63.56
1.000	1.000	86.41	0.000	0.000	Ug5_2_8_L_0					
40 D	17.73	-7.2095E-03	94.06	23.42	94.06	41.31	ACTIVE	0.000	-7.800	65.24
1.000	1.000	88.66	0.000	0.000	Ug5_2_8_L_0					
41 D	18.18	-6.7855E-03	96.41	24.01	96.41	42.32	ACTIVE	0.000	-8.000	66.91
1.000	1.000	90.92	0.000	0.000	Ug5_2_8_L_0					
42 D	18.63	-6.3763E-03	98.77	24.59	98.77	43.32	ACTIVE	0.000	-8.200	68.58
1.000	1.000	93.17	0.000	0.000	Ug5_2_8_L_0					
43 D	19.08	-5.9818E-03	101.1	25.17	101.1	44.32	ACTIVE	0.000	-8.400	70.25
1.000	1.000	95.42	0.000	0.000	Ug5_2_8_L_0					
44 D	19.54	-5.6020E-03	103.4	25.76	103.4	45.33	ACTIVE	0.000	-8.600	71.93
1.000	1.000	97.68	0.000	0.000	Ug5_2_8_L_0					
45 D	19.99	-5.2369E-03	105.8	26.34	105.8	46.33	ACTIVE	0.000	-8.800	73.60
1.000	1.000	99.94	0.000	0.000	Ug5_2_8_L_0					
46 D	20.44	-4.8864E-03	108.1	26.93	108.1	47.34	ACTIVE	0.000	-9.000	75.27
1.000	1.000	102.2	0.000	0.000	Ug5_2_8_L_0					
47 D	20.89	-4.5503E-03	110.5	27.50	110.5	48.35	ACTIVE	0.000	-9.200	76.95
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
48 D	21.34	-4.2285E-03	112.8	28.09	112.8	49.36	ACTIVE	0.000	-9.400	78.62
1.000	1.000	106.7	0.000	0.000	Ug5_2_8_L_0					
49 D	21.79	-3.9207E-03	115.2	28.67	115.2	50.36	ACTIVE	0.000	-9.600	80.29
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
50 D	22.24	-3.6266E-03	117.5	29.25	117.5	51.37	ACTIVE	0.000	-9.800	81.96
1.000	1.000	111.2	0.000	0.000	Ug5_2_8_L_0					
51 D	22.69	-3.3460E-03	119.8	29.83	119.8	52.38	ACTIVE	0.000	-10.000	83.64
1.000	1.000	113.5	0.000	0.000	Ug5_2_8_L_0					
52 D	23.15	-3.0785E-03	122.2	30.42	122.2	53.39	ACTIVE	0.000	-10.200	85.31
1.000	1.000	115.7	0.000	0.000	Ug5_2_8_L_0					
53 D	23.60	-2.8238E-03	124.5	30.99	124.5	54.40	ACTIVE	0.000	-10.400	86.98
1.000	1.000	118.0	0.000	0.000	Ug5_2_8_L_0					
54 D	24.05	-2.5815E-03	126.8	31.58	126.8	55.42	ACTIVE	0.000	-10.600	88.65
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
55 D	24.50	-2.3510E-03	129.2	32.16	129.2	56.43	ACTIVE	0.000	-10.800	90.33
1.000	1.000	122.5	0.000	0.000	Ug5_2_8_L_0					
56 D	24.95	-2.1321E-03	131.5	32.75	131.5	57.44	ACTIVE	0.000	-11.000	92.00
1.000	1.000	124.7	0.000	0.000	Ug5_2_8_L_0					
57 D	25.40	-1.9242E-03	133.8	33.32	133.8	58.46	ACTIVE	0.000	-11.200	93.67
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
58 D	25.85	-1.7268E-03	136.2	33.91	136.2	59.47	ACTIVE	0.000	-11.400	95.35
1.000	1.000	129.3	0.000	0.000	Ug5_2_8_L_0					
59 D	26.30	-1.5394E-03	138.5	34.49	138.5	60.48	ACTIVE	0.000	-11.600	97.02
1.000	1.000	131.5	0.000	0.000	Ug5_2_8_L_0					
60 D	26.75	-1.3615E-03	140.8	35.07	140.8	61.50	ACTIVE	0.000	-11.800	98.69
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
61 D	27.20	-1.1925E-03	143.2	35.66	143.2	62.52	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	136.0	0.000	0.000	Ug5_2_8_L_0					
62 D	30.51	-1.0318E-03	145.3	50.49	145.3	63.50	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	152.5	0.000	0.000	Ug6_741_743_L_0					
63 D	31.02	-8.7879E-04	147.5	51.38	147.5	64.61	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	155.1	0.000	0.000	Ug6_741_743_L_0					
64 D	31.53	-7.3292E-04	149.6	52.26	149.6	65.66	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.6	0.000	0.000	Ug6_741_743_L_0					
65 D	32.63	-5.9356E-04	151.7	56.07	151.7	66.67	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	163.1	0.000	0.000	Ug6_741_743_L_0					
66 D	33.83	-4.6009E-04	153.8	60.43	153.8	67.64	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	169.2	0.000	0.000	Ug6_741_743_L_0					
67 D	35.01	-3.3193E-04	155.9	64.65	155.9	68.86	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	175.1	0.000	0.000	Ug6_741_743_L_0					
68 D	36.05	-2.0848E-04	158.0	68.17	158.0	70.64	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	180.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

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69 D	37.03	-8.9182E-05	160.1	71.43	160.1	72.20	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	185.2	0.000	0.000	Ug6_741_743_L_0					
70 D	37.85	2.6520E-05	162.1	73.84	162.1	73.86	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	189.3	0.000	0.000	Ug6_741_743_L_0					
71 D	38.56	1.3914E-04	164.2	75.71	164.2	75.73	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.8	0.000	0.000	Ug6_741_743_L_0					
72 D	39.26	2.4918E-04	166.3	77.56	166.3	77.57	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	196.3	0.000	0.000	Ug6_741_743_L_0					
73 D	39.96	3.5707E-04	168.4	79.38	168.4	79.39	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.8	0.000	0.000	Ug6_741_743_L_0					
74 D	40.66	4.6325E-04	170.5	81.18	170.5	81.20	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	203.3	0.000	0.000	Ug6_741_743_L_0					
75 D	41.35	5.6809E-04	172.6	82.97	172.6	82.98	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.8	0.000	0.000	Ug6_741_743_L_0					
76 D	42.04	6.7193E-04	174.7	84.75	174.7	84.76	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	210.2	0.000	0.000	Ug6_741_743_L_0					
77 D	42.73	7.7507E-04	176.8	86.52	176.8	86.53	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.6	0.000	0.000	Ug6_741_743_L_0					
78 D	43.43	8.7773E-04	178.9	88.34	178.9	88.35	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	217.1	0.000	0.000	Ug6_741_743_L_0					
79 D	44.13	9.8013E-04	181.0	90.16	181.0	90.17	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.6	0.000	0.000	Ug6_741_743_L_0					
80 D	44.83	1.0824E-03	183.1	91.98	183.1	91.99	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	224.1	0.000	0.000	Ug6_741_743_L_0					
81 D	22.76	1.1846E-03	185.2	93.80	185.2	93.81	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
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|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:25:47          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.360	1.5708E-02	0.8364	5.635	46.00	63.25	PASSIVE	0.000	-4.600	1.164	
1.000	1.000	6.799	0.000	0.000	Ug5_2_8_L_0						
25 D	4.079	1.5107E-02	2.509	16.91	48.00	61.85	PASSIVE	0.000	-4.800	3.491	
1.000	1.000	20.40	0.000	0.000	Ug5_2_8_L_0						
26 D	6.799	1.4511E-02	4.182	28.18	50.00	60.52	PASSIVE	0.000	-5.000	5.818	
1.000	1.000	34.00	0.000	0.000	Ug5_2_8_L_0						
27 D	9.519	1.3922E-02	5.855	39.45	52.00	69.31	PASSIVE	0.000	-5.200	8.145	
1.000	1.000	47.59	0.000	0.000	Ug5_2_8_L_0						
28 D	12.24	1.3340E-02	7.527	50.72	54.00	80.86	PASSIVE	0.000	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.19	0.000	0.000	Ug5_2_8_L_0					
29 D	14.96	1.2767E-02	9.200	61.99	56.00	92.41	PASSIVE	0.000	-5.600	12.80
1.000	1.000	74.79	0.000	0.000	Ug5_2_8_L_0					
30 D	17.68	1.2203E-02	10.87	73.26	58.00	101.8	PASSIVE	0.000	-5.800	15.13
1.000	1.000	88.39	0.000	0.000	Ug5_2_8_L_0					
31 D	20.40	1.1648E-02	12.55	84.53	60.00	98.74	PASSIVE	0.000	-6.000	17.45
1.000	1.000	102.0	0.000	0.000	Ug5_2_8_L_0					
32 D	23.12	1.1105E-02	14.22	95.80	62.00	95.80	PASSIVE	0.000	-6.200	19.78
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
33 D	25.84	1.0572E-02	15.89	107.1	64.00	107.1	PASSIVE	0.000	-6.400	22.11
1.000	1.000	129.2	0.000	0.000	Ug5_2_8_L_0					
34 D	28.56	1.0052E-02	17.56	118.3	66.00	118.3	PASSIVE	0.000	-6.600	24.44
1.000	1.000	142.8	0.000	0.000	Ug5_2_8_L_0					
35 D	29.60	9.5441E-03	19.24	121.2	68.00	121.2	V-C	8310.	-6.800	26.76
1.000	1.000	148.0	0.000	0.000	Ug5_2_8_L_0					
36 D	29.27	9.0494E-03	20.91	117.3	70.00	117.3	V-C	8310.	-7.000	29.09
1.000	1.000	146.4	0.000	0.000	Ug5_2_8_L_0					
37 D	28.98	8.5683E-03	22.58	113.5	72.00	113.5	V-C	8310.	-7.200	31.42
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
38 D	28.71	8.1011E-03	24.25	109.8	74.00	109.8	V-C	8310.	-7.400	33.75
1.000	1.000	143.6	0.000	0.000	Ug5_2_8_L_0					
39 D	28.48	7.6481E-03	25.93	106.3	76.00	106.3	V-C	8310.	-7.600	36.07
1.000	1.000	142.4	0.000	0.000	Ug5_2_8_L_0					
40 D	28.28	7.2095E-03	27.60	103.0	78.00	103.0	V-C	8310.	-7.800	38.40
1.000	1.000	141.4	0.000	0.000	Ug5_2_8_L_0					
41 D	28.11	6.7855E-03	29.27	99.80	80.00	99.80	V-C	8310.	-8.000	40.73
1.000	1.000	140.5	0.000	0.000	Ug5_2_8_L_0					
42 D	27.97	6.3763E-03	30.95	96.78	82.00	96.78	V-C	8310.	-8.200	43.05
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
43 D	27.86	5.9818E-03	32.62	93.92	84.00	93.92	V-C	8310.	-8.400	45.38
1.000	1.000	139.3	0.000	0.000	Ug5_2_8_L_0					
44 D	27.79	5.6020E-03	34.29	91.22	86.00	91.22	V-C	8310.	-8.600	47.71
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
45 D	27.74	5.2369E-03	35.96	88.67	88.00	88.67	V-C	8310.	-8.800	50.04
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
46 D	27.73	4.8864E-03	37.64	86.28	90.00	86.28	V-C	8310.	-9.000	52.36
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	4.5503E-03	39.31	84.05	92.00	84.05	V-C	8310.	-9.200	54.69
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	27.80	4.2285E-03	40.98	81.96	94.00	81.96	V-C	8310.	-9.400	57.02
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
49 D	27.87	3.9207E-03	42.65	80.02	96.00	80.02	V-C	8310.	-9.600	59.35
1.000	1.000	139.4	0.000	0.000	Ug5_2_8_L_0					
50 D	27.98	3.6266E-03	44.33	78.22	98.00	78.22	V-C	8310.	-9.800	61.67
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
51 D	28.11	3.3460E-03	46.00	76.57	100.00	76.57	V-C	8310.	-10.000	64.00
1.000	1.000	140.6	0.000	0.000	Ug5_2_8_L_0					
52 D	28.27	3.0785E-03	47.67	75.05	102.0	75.05	V-C	8310.	-10.200	66.33
1.000	1.000	141.4	0.000	0.000	Ug5_2_8_L_0					
53 D	28.46	2.8238E-03	49.35	73.66	104.0	73.66	V-C	8310.	-10.400	68.65
1.000	1.000	142.3	0.000	0.000	Ug5_2_8_L_0					
54 D	28.67	2.5815E-03	51.02	72.39	106.0	72.39	V-C	8310.	-10.600	70.98
1.000	1.000	143.4	0.000	0.000	Ug5_2_8_L_0					
55 D	28.91	2.3510E-03	52.69	71.25	108.0	71.25	V-C	8310.	-10.800	73.31
1.000	1.000	144.6	0.000	0.000	Ug5_2_8_L_0					
56 D	29.17	2.1321E-03	54.36	70.23	110.0	70.23	V-C	8310.	-11.000	75.64
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
57 D	29.46	1.9242E-03	56.04	69.31	112.0	69.31	V-C	8310.	-11.200	77.96
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
58 D	29.76	1.7268E-03	57.71	68.51	114.0	68.51	V-C	8310.	-11.400	80.29
1.000	1.000	148.8	0.000	0.000	Ug5_2_8_L_0					
59 D	30.08	1.5394E-03	59.38	67.80	116.0	67.80	V-C	8310.	-11.600	82.62
1.000	1.000	150.4	0.000	0.000	Ug5_2_8_L_0					
60 D	30.43	1.3615E-03	61.05	67.18	118.0	67.18	V-C	8310.	-11.800	84.95
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
61 D	30.79	1.1925E-03	62.73	66.66	120.0	66.66	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.9	0.000	0.000	Ug5_2_8_L_0					
62 D	30.63	1.0318E-03	64.20	63.55	121.8	63.60	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	153.1	0.000	0.000	Ug6_741_743_L_0					
63 D	31.06	8.7879E-04	65.67	63.38	123.6	63.47	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.3	0.000	0.000	Ug6_741_743_L_0					
64 D	31.50	7.3292E-04	67.15	63.26	125.4	63.40	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.5	0.000	0.000	Ug6_741_743_L_0					
65 D	31.66	5.9356E-04	68.62	61.69	127.2	64.12	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	158.3	0.000	0.000	Ug6_741_743_L_0					
66 D	31.77	4.6009E-04	70.09	59.93	129.0	65.01	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
67 D	31.90	3.3193E-04	71.56	58.27	130.8	65.89	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.5	0.000	0.000	Ug6_741_743_L_0					
68 D	32.06	2.0848E-04	73.04	56.71	132.6	66.78	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	160.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.23	8.9182E-05	74.51	55.25	134.4	67.67	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	161.1	0.000	0.000	Ug6_741_743_L_0					
70 D	32.41	-2.6520E-05	75.98	53.85	136.2	68.55	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	162.1	0.000	0.000	Ug6_741_743_L_0					
71 D	32.61	-1.3914E-04	77.45	52.52	138.0	69.44	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	163.1	0.000	0.000	Ug6_741_743_L_0					
72 D	32.82	-2.4918E-04	78.93	51.25	139.8	70.33	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0					
73 D	33.04	-3.5707E-04	80.40	50.01	141.6	71.22	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	165.2	0.000	0.000	Ug6_741_743_L_0					
74 D	33.27	-4.6325E-04	81.87	48.82	143.4	72.11	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.3	0.000	0.000	Ug6_741_743_L_0					
75 D	33.50	-5.6809E-04	83.35	47.65	145.2	73.00	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.5	0.000	0.000	Ug6_741_743_L_0					
76 D	33.74	-6.7193E-04	84.82	46.50	147.0	73.89	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
77 D	33.97	-7.7507E-04	86.29	45.36	148.8	74.78	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.9	0.000	0.000	Ug6_741_743_L_0					
78 D	34.21	-8.7773E-04	87.76	44.23	150.6	75.67	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	171.1	0.000	0.000	Ug6_741_743_L_0					
79 D	34.46	-9.8013E-04	89.24	43.11	152.4	76.56	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	172.3	0.000	0.000	Ug6_741_743_L_0					
80 D	34.70	-1.0824E-03	90.71	41.99	154.2	77.45	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
81 D	17.47	-1.1846E-03	92.18	40.88	156.0	78.34	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:25:47 |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	9.65315E-10	-9.65315E-10	9.60900E-11	-7.71441E-11
2	0.45091	-0.45091	2.10405E-10	9.01817E-02
3	1.3551	-1.3551	-9.01817E-02	0.36119
4	2.7155	-2.7155	-0.36119	0.90428
5	4.5343	-4.5343	-0.90428	1.8111
6	6.8126	-6.8126	-1.8111	3.1737
7	9.5504	-9.5504	-3.1737	5.0837
8	12.754	-12.754	-5.0837	7.6345
9	16.425	-16.425	-7.6345	10.919
10	20.551	-20.551	-10.919	15.030
11	25.141	-25.141	-15.030	20.058
12	30.192	-30.192	-20.058	26.096
13	35.696	-35.696	-26.096	33.235
14	41.658	-41.658	-33.235	41.567
15	48.078	-48.078	-41.567	51.183
16	54.955	-54.955	-51.183	62.174
17	62.284	-62.284	-62.174	74.631
18	70.068	-70.068	-74.631	88.644
19	78.307	-78.307	-88.644	104.31
20	86.997	-86.997	-104.31	121.70
21	96.142	-96.142	-121.70	140.93
22	105.74	-105.74	-140.93	162.08
23	115.79	-115.79	-162.08	185.24
24	124.93	-124.93	-185.24	210.23
25	131.81	-131.81	-210.23	236.59
26	136.42	-136.42	-236.59	263.87
27	138.76	-138.76	-263.87	291.62
28	138.84	-138.84	-291.62	319.39
29	136.64	-136.64	-319.39	346.72
30	132.18	-132.18	-346.72	373.16
31	125.45	-125.45	-373.16	398.25
32	116.46	-116.46	-398.25	421.54
33	105.19	-105.19	-421.54	442.58
34	91.660	-91.660	-442.58	460.91
35	77.535	-77.535	-460.91	476.42
36	64.188	-64.188	-476.42	489.25
37	51.587	-51.587	-489.25	499.57
38	39.704	-39.704	-499.57	507.51
39	28.506	-28.506	-507.51	513.21
40	17.961	-17.961	-513.21	516.81
41	8.0380	-8.0380	-516.81	518.41
42	-1.2946	1.2946	-518.41	518.15
43	-10.071	10.071	-518.15	516.14
44	-18.320	18.320	-516.14	512.48
45	-26.074	26.074	-512.48	507.26
46	-33.364	33.364	-507.26	500.59
47	-40.222	40.222	-500.59	492.54
48	-46.676	46.676	-492.54	483.21
49	-52.757	52.757	-483.21	472.66
50	-58.493	58.493	-472.66	460.96
51	-63.913	63.913	-460.96	448.18
52	-69.042	69.042	-448.18	434.37
53	-73.909	73.909	-434.37	419.59
54	-78.537	78.537	-419.59	403.88
55	-82.951	82.951	-403.88	387.29
56	-87.175	87.175	-387.29	369.85
57	-91.231	91.231	-369.85	351.61
58	-95.140	95.140	-351.61	332.58
59	-98.922	98.922	-332.58	312.80

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.60	102.60	-312.80	292.28
61	-106.18	106.18	-292.28	271.04
62	-106.30	106.30	-271.04	249.78
63	-106.34	106.34	-249.78	228.51
64	-106.32	106.32	-228.51	207.25
65	-105.35	105.35	-207.25	186.18
66	-103.28	103.28	-186.18	165.52
67	-100.17	100.17	-165.52	145.49
68	-96.181	96.181	-145.49	126.25
69	-91.373	91.373	-126.25	107.98
70	-85.934	85.934	-107.98	90.789
71	-79.984	79.984	-90.789	74.792
72	-73.542	73.542	-74.792	60.084
73	-66.619	66.619	-60.084	46.760
74	-59.228	59.228	-46.760	34.915
75	-51.376	51.376	-34.915	24.639
76	-43.070	43.070	-24.639	16.025
77	-34.313	34.313	-16.025	9.1629
78	-25.097	25.097	-9.1629	4.1435
79	-15.424	15.424	-4.1435	1.0588
80	-5.2935	5.2935	-1.0588	4.54259E-12

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1031E+07  RIMNOR=0.1456E+08
            RENORM= 1.779      REMNOR=0.1375E-17  RATIO =0.1313E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 138.8      RMMAX = 518.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1031E+07    RDR =0.1456E+08
            RATIO=0.1313E-02  RATIO= 0.000
            MAX UN=0.3839E-09  IEQ= 48 NODE      24 DOF  2  X-ROT. F
            MIN UN=-.1794    IEQ= 125 NODE     63 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.1031E+07  RIMNOR=0.1456E+08
            RENORM=0.1098E-14  REMNOR=0.2178E-17  RATIO =0.3263E-10  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 138.8      RMMAX = 518.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1031E+07    RDR =0.1456E+08
            RATIO=0.3263E-10  RATIO= 0.000
            MAX UN=0.9912E-08  IEQ= 23 NODE      12 DOF  1  Y-DISPL.F
            MIN UN=-.1305E-07  IEQ= 3 NODE       2 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                      |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:25:47 |
+-----+

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New Project
SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0167555E-02	-3.1759823E-03	
2	2.9532359E-02	-3.1759823E-03	
3	2.8897163E-02	-3.1759753E-03	
4	2.8261970E-02	-3.1759407E-03	
5	2.7626790E-02	-3.1758451E-03	
6	2.6991639E-02	-3.1756422E-03	
7	2.6356545E-02	-3.1752727E-03	
8	2.5721546E-02	-3.1746644E-03	
9	2.5086700E-02	-3.1737322E-03	
10	2.4452082E-02	-3.1723781E-03	
11	2.3817785E-02	-3.1704912E-03	
12	2.3183929E-02	-3.1679477E-03	
13	2.2550659E-02	-3.1646109E-03	
14	2.1918147E-02	-3.1603310E-03	
15	2.1286600E-02	-3.1549457E-03	
16	2.0656254E-02	-3.1482794E-03	
17	2.0027383E-02	-3.1401437E-03	
18	1.9400305E-02	-3.1303376E-03	
19	1.8775373E-02	-3.1186470E-03	
20	1.8152987E-02	-3.1048447E-03	
21	1.7533595E-02	-3.0886911E-03	
22	1.6917687E-02	-3.0699332E-03	
23	1.6305814E-02	-3.0483055E-03	
24	1.5698575E-02	-3.0235296E-03	
25	1.5096630E-02	-2.9953328E-03	
26	1.4500685E-02	-2.9634868E-03	
27	1.3911492E-02	-2.9278282E-03	
28	1.3329818E-02	-2.8882576E-03	
29	1.2756452E-02	-2.8447407E-03	
30	1.2192183E-02	-2.7973075E-03	
31	1.1637784E-02	-2.7460526E-03	
32	1.1094008E-02	-2.6911355E-03	
33	1.0561562E-02	-2.6327793E-03	
34	1.0041107E-02	-2.5712727E-03	
35	9.5332392E-03	-2.5069685E-03	
36	9.0384796E-03	-2.4402603E-03	
37	8.5572716E-03	-2.3715395E-03	
38	8.0899758E-03	-2.3011747E-03	
39	7.6368881E-03	-2.2295145E-03	
40	7.1982344E-03	-2.1568875E-03	
41	6.7741769E-03	-2.0836031E-03	
42	6.3648176E-03	-2.0099524E-03	
43	5.9702021E-03	-1.9362094E-03	
44	5.5903228E-03	-1.8626316E-03	
45	5.2251241E-03	-1.7894617E-03	
46	4.8744977E-03	-1.7169264E-03	
47	4.5382969E-03	-1.6452401E-03	
48	4.2163317E-03	-1.5746037E-03	
49	3.9083728E-03	-1.5052065E-03	
50	3.6141560E-03	-1.4372269E-03	
51	3.3333779E-03	-1.3708319E-03	
52	3.0657005E-03	-1.3061786E-03	
53	2.8107859E-03	-1.2434230E-03	
54	2.5682087E-03	-1.1826988E-03	
55	2.3375617E-03	-1.1241436E-03	
56	2.1183982E-03	-1.0678854E-03	
57	1.9102463E-03	-1.0140463E-03	
58	1.7126106E-03	-9.6274320E-04	
59	1.5249725E-03	-9.1408848E-04	
60	1.3467914E-03	-8.6819049E-04	
61	1.1775055E-03	-8.2515414E-04	
62	1.0165322E-03	-7.8508141E-04	
63	8.6327183E-04	-7.4802505E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.1712080E-04	-7.1398882E-04
65	5.7747486E-04	-6.8297424E-04
66	4.4373053E-04	-6.5496833E-04
67	3.1528976E-04	-6.2992898E-04
68	1.9156601E-04	-6.0778351E-04
69	7.1990115E-05	-5.8843165E-04
70	-4.3984588E-05	-5.7174888E-04
71	-1.5687769E-04	-5.5758996E-04
72	-2.6717806E-04	-5.4579336E-04
73	-3.7534080E-04	-5.3618312E-04
74	-4.8178441E-04	-5.2856934E-04
75	-5.8688806E-04	-5.2274849E-04
76	-6.9098887E-04	-5.1850369E-04
77	-7.9437927E-04	-5.1560494E-04
78	-8.9730439E-04	-5.1380923E-04
79	-9.9995943E-04	-5.1286050E-04
80	-1.1024871E-03	-5.1248954E-04
81	-1.2049801E-03	-5.1241404E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:25:47  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0168E-02	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4940	-2.9532E-02	2.327	0.7973	2.337	1.690	UL-RL	5.0142E+04	-0.2000	1.673	
1.000	1.000	2.470	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9476	-2.8897E-02	4.655	1.393	4.720	3.281	UL-RL	5.0142E+04	-0.4000	3.345	
1.000	1.000	4.738	0.000	0.000	Ug5_2_8_L_0						
4 D	1.401	-2.8262E-02	6.982	1.988	7.164	4.727	UL-RL	5.0142E+04	-0.6000	5.018	
1.000	1.000	7.006	0.000	0.000	Ug5_2_8_L_0						
5 D	1.855	-2.7627E-02	9.309	2.584	9.652	6.034	UL-RL	5.0142E+04	-0.8000	6.691	
1.000	1.000	9.275	0.000	0.000	Ug5_2_8_L_0						
6 D	2.309	-2.6992E-02	11.64	3.179	12.16	7.235	UL-RL	5.0142E+04	-1.0000	8.364	
1.000	1.000	11.54	0.000	0.000	Ug5_2_8_L_0						
7 D	2.762	-2.6357E-02	13.96	3.774	14.67	8.362	UL-RL	5.0142E+04	-1.2000	10.04	
1.000	1.000	13.81	0.000	0.000	Ug5_2_8_L_0						
8 D	3.216	-2.5722E-02	16.29	4.369	17.30	9.440	UL-RL	5.0142E+04	-1.4000	11.71	
1.000	1.000	16.08	0.000	0.000	Ug5_2_8_L_0						
9 D	3.669	-2.5087E-02	18.62	4.964	19.97	10.49	UL-RL	5.0142E+04	-1.6000	13.38	
1.000	1.000	18.35	0.000	0.000	Ug5_2_8_L_0						
10 D	4.123	-2.4452E-02	20.95	5.559	22.40	11.51	UL-RL	5.0142E+04	-1.8000	15.05	
1.000	1.000	20.61	0.000	0.000	Ug5_2_8_L_0						
11 D	4.576	-2.3818E-02	23.27	6.153	24.99	12.52	UL-RL	5.0142E+04	-2.0000	16.73	
1.000	1.000	22.88	0.000	0.000	Ug5_2_8_L_0						
12 D	5.029	-2.3184E-02	25.60	6.747	27.53	13.53	UL-RL	5.0142E+04	-2.2000	18.40	
1.000	1.000	25.15	0.000	0.000	Ug5_2_8_L_0						
13 D	5.483	-2.2551E-02	27.93	7.340	29.90	14.52	UL-RL	5.0142E+04	-2.4000	20.07	
1.000	1.000	27.41	0.000	0.000	Ug5_2_8_L_0						
14 D	5.936	-2.1918E-02	30.25	7.933	32.40	15.52	UL-RL	5.0142E+04	-2.6000	21.75	
1.000	1.000	29.68	0.000	0.000	Ug5_2_8_L_0						
15 D	6.389	-2.1287E-02	32.58	8.525	34.87	16.51	UL-RL	5.0142E+04	-2.8000	23.42	
1.000	1.000	31.94	0.000	0.000	Ug5_2_8_L_0						
16 D	6.841	-2.0656E-02	34.91	9.116	37.33	17.49	UL-RL	5.0142E+04	-3.0000	25.09	
1.000	1.000	34.21	0.000	0.000	Ug5_2_8_L_0						
17 D	7.294	-2.0027E-02	37.24	9.707	39.67	18.48	UL-RL	5.0142E+04	-3.2000	26.76	
1.000	1.000	36.47	0.000	0.000	Ug5_2_8_L_0						
18 D	7.747	-1.9400E-02	39.56	10.30	42.10	19.47	UL-RL	5.0142E+04	-3.4000	28.44	
1.000	1.000	38.73	0.000	0.000	Ug5_2_8_L_0						
19 D	8.199	-1.8775E-02	41.89	10.89	44.53	20.46	UL-RL	5.0142E+04	-3.6000	30.11	
1.000	1.000	41.00	0.000	0.000	Ug5_2_8_L_0						
20 D	8.651	-1.8153E-02	44.22	11.48	46.86	21.44	UL-RL	5.0142E+04	-3.8000	31.78	
1.000	1.000	43.26	0.000	0.000	Ug5_2_8_L_0						
21 D	9.104	-1.7534E-02	46.55	12.06	49.27	22.43	UL-RL	5.0142E+04	-4.0000	33.45	
1.000	1.000	45.52	0.000	0.000	Ug5_2_8_L_0						
22 D	9.556	-1.6918E-02	48.87	12.65	51.68	23.42	UL-RL	5.0142E+04	-4.2000	35.13	
1.000	1.000	47.78	0.000	0.000	Ug5_2_8_L_0						
23 D	10.01	-1.6306E-02	51.20	13.24	54.00	24.40	UL-RL	5.0142E+04	-4.4000	36.80	
1.000	1.000	50.04	0.000	0.000	Ug5_2_8_L_0						
24 D	10.46	-1.5699E-02	53.53	13.82	56.39	25.39	UL-RL	5.0142E+04	-4.6000	38.47	
1.000	1.000	52.30	0.000	0.000	Ug5_2_8_L_0						
25 D	10.91	-1.5097E-02	55.85	14.41	58.78	26.38	UL-RL	5.0142E+04	-4.8000	40.15	
1.000	1.000	54.55	0.000	0.000	Ug5_2_8_L_0						
26 D	11.36	-1.4501E-02	58.18	14.99	61.17	27.37	UL-RL	5.0142E+04	-5.0000	41.82	
1.000	1.000	56.81	0.000	0.000	Ug5_2_8_L_0						
27 D	11.81	-1.3911E-02	60.51	15.58	63.49	28.36	UL-RL	5.0142E+04	-5.2000	43.49	
1.000	1.000	59.07	0.000	0.000	Ug5_2_8_L_0						
28 D	12.27	-1.3330E-02	62.84	16.16	65.87	29.35	UL-RL	5.0142E+04	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.33	0.000	0.000	Ug5_2_8_L_0					
29 D	12.72	-1.2756E-02	65.16	16.75	68.24	30.34	UL-RL	5.0142E+04	-5.600	46.84
1.000	1.000	63.58	0.000	0.000	Ug5_2_8_L_0					
30 D	13.17	-1.2192E-02	67.49	17.33	70.56	31.34	UL-RL	5.0142E+04	-5.800	48.51
1.000	1.000	65.84	0.000	0.000	Ug5_2_8_L_0					
31 D	13.62	-1.1638E-02	69.82	17.91	72.93	32.33	UL-RL	5.0142E+04	-6.000	50.18
1.000	1.000	68.10	0.000	0.000	Ug5_2_8_L_0					
32 D	14.07	-1.1094E-02	72.15	18.50	75.30	33.33	UL-RL	5.0142E+04	-6.200	51.85
1.000	1.000	70.35	0.000	0.000	Ug5_2_8_L_0					
33 D	14.52	-1.0562E-02	74.47	19.08	77.62	34.32	UL-RL	5.0142E+04	-6.400	53.53
1.000	1.000	72.61	0.000	0.000	Ug5_2_8_L_0					
34 D	14.97	-1.0041E-02	76.80	19.66	79.98	35.32	UL-RL	5.0142E+04	-6.600	55.20
1.000	1.000	74.86	0.000	0.000	Ug5_2_8_L_0					
35 D	15.42	-9.5332E-03	79.13	20.25	82.35	36.32	UL-RL	5.0142E+04	-6.800	56.87
1.000	1.000	77.12	0.000	0.000	Ug5_2_8_L_0					
36 D	15.88	-9.0385E-03	81.45	20.83	84.71	37.31	UL-RL	5.0142E+04	-7.000	58.55
1.000	1.000	79.38	0.000	0.000	Ug5_2_8_L_0					
37 D	16.33	-8.5573E-03	83.78	21.41	87.02	38.31	UL-RL	5.0142E+04	-7.200	60.22
1.000	1.000	81.63	0.000	0.000	Ug5_2_8_L_0					
38 D	16.78	-8.0900E-03	86.11	22.00	89.38	39.31	UL-RL	5.0142E+04	-7.400	61.89
1.000	1.000	83.89	0.000	0.000	Ug5_2_8_L_0					
39 D	17.23	-7.6369E-03	88.44	22.58	91.74	40.31	UL-RL	5.0142E+04	-7.600	63.56
1.000	1.000	86.14	0.000	0.000	Ug5_2_8_L_0					
40 D	17.68	-7.1982E-03	90.76	23.16	94.06	41.31	UL-RL	5.0142E+04	-7.800	65.24
1.000	1.000	88.40	0.000	0.000	Ug5_2_8_L_0					
41 D	18.13	-6.7742E-03	93.09	23.75	96.41	42.32	UL-RL	5.0142E+04	-8.000	66.91
1.000	1.000	90.66	0.000	0.000	Ug5_2_8_L_0					
42 D	18.58	-6.3648E-03	95.42	24.33	98.77	43.32	UL-RL	5.0142E+04	-8.200	68.58
1.000	1.000	92.91	0.000	0.000	Ug5_2_8_L_0					
43 D	19.03	-5.9702E-03	97.75	24.92	101.1	44.32	UL-RL	5.0142E+04	-8.400	70.25
1.000	1.000	95.17	0.000	0.000	Ug5_2_8_L_0					
44 D	19.49	-5.5903E-03	100.1	25.50	103.4	45.33	UL-RL	5.0142E+04	-8.600	71.93
1.000	1.000	97.43	0.000	0.000	Ug5_2_8_L_0					
45 D	19.94	-5.2251E-03	102.4	26.09	105.8	46.33	UL-RL	5.0142E+04	-8.800	73.60
1.000	1.000	99.69	0.000	0.000	Ug5_2_8_L_0					
46 D	20.39	-4.8745E-03	104.7	26.67	108.1	47.34	UL-RL	5.0142E+04	-9.000	75.27
1.000	1.000	101.9	0.000	0.000	Ug5_2_8_L_0					
47 D	20.84	-4.5383E-03	107.1	27.26	110.5	48.35	UL-RL	5.0142E+04	-9.200	76.95
1.000	1.000	104.2	0.000	0.000	Ug5_2_8_L_0					
48 D	21.29	-4.2163E-03	109.4	27.85	112.8	49.36	UL-RL	5.0142E+04	-9.400	78.62
1.000	1.000	106.5	0.000	0.000	Ug5_2_8_L_0					
49 D	21.74	-3.9084E-03	111.7	28.43	115.2	50.36	UL-RL	5.0142E+04	-9.600	80.29
1.000	1.000	108.7	0.000	0.000	Ug5_2_8_L_0					
50 D	22.20	-3.6142E-03	114.0	29.02	117.5	51.37	UL-RL	5.0142E+04	-9.800	81.96
1.000	1.000	111.0	0.000	0.000	Ug5_2_8_L_0					
51 D	22.65	-3.3334E-03	116.4	29.61	119.8	52.38	UL-RL	5.0142E+04	-10.000	83.64
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
52 D	23.10	-3.0657E-03	118.7	30.20	122.2	53.39	UL-RL	5.0142E+04	-10.200	85.31
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
53 D	23.55	-2.8108E-03	121.0	30.79	124.5	54.40	UL-RL	5.0142E+04	-10.400	86.98
1.000	1.000	117.8	0.000	0.000	Ug5_2_8_L_0					
54 D	24.01	-2.5682E-03	123.3	31.38	126.8	55.42	UL-RL	5.0142E+04	-10.600	88.65
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
55 D	24.46	-2.3376E-03	125.7	31.97	129.2	56.43	UL-RL	5.0142E+04	-10.800	90.33
1.000	1.000	122.3	0.000	0.000	Ug5_2_8_L_0					
56 D	24.91	-2.1184E-03	128.0	32.56	131.5	57.44	UL-RL	5.0142E+04	-11.000	92.00
1.000	1.000	124.6	0.000	0.000	Ug5_2_8_L_0					
57 D	25.36	-1.9102E-03	130.3	33.15	133.8	58.46	UL-RL	5.0142E+04	-11.200	93.67
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
58 D	25.82	-1.7126E-03	132.7	33.74	136.2	59.47	UL-RL	5.0142E+04	-11.400	95.35
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
59 D	26.27	-1.5250E-03	135.0	34.33	138.5	60.48	UL-RL	5.0142E+04	-11.600	97.02
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
60 D	26.72	-1.3468E-03	137.3	34.93	140.8	61.50	UL-RL	5.0142E+04	-11.800	98.69
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
61 D	27.18	-1.1775E-03	139.6	35.52	143.2	62.52	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
62 D	30.40	-1.0165E-03	141.8	49.96	145.3	63.50	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	152.0	0.000	0.000	Ug6_741_743_L_0					
63 D	30.91	-8.6327E-04	143.9	50.86	147.5	64.61	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	154.6	0.000	0.000	Ug6_741_743_L_0					
64 D	31.43	-7.1712E-04	146.0	51.75	149.6	65.66	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.1	0.000	0.000	Ug6_741_743_L_0					
65 D	32.52	-5.7747E-04	148.1	55.57	151.7	66.67	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	162.6	0.000	0.000	Ug6_741_743_L_0					
66 D	33.73	-4.4373E-04	150.3	59.95	153.8	67.64	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
67 D	34.92	-3.1529E-04	152.4	64.18	155.9	68.86	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	174.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.96	-1.9157E-04	154.5	67.72	158.0	70.64	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	36.95	-7.1990E-05	156.7	70.99	160.1	72.20	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	184.7	0.000	0.000	Ug6_741_743_L_0					
70 D	37.77	4.3985E-05	158.8	73.41	162.1	73.86	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	188.8	0.000	0.000	Ug6_741_743_L_0					
71 D	38.48	1.5688E-04	160.9	75.30	164.2	75.73	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.18	2.6718E-04	163.0	77.16	166.3	77.57	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	195.9	0.000	0.000	Ug6_741_743_L_0					
73 D	39.89	3.7534E-04	165.2	79.00	168.4	79.39	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.4	0.000	0.000	Ug6_741_743_L_0					
74 D	40.58	4.8178E-04	167.3	80.81	170.5	81.20	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	202.9	0.000	0.000	Ug6_741_743_L_0					
75 D	41.28	5.8689E-04	169.4	82.62	172.6	82.98	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.4	0.000	0.000	Ug6_741_743_L_0					
76 D	41.97	6.9099E-04	171.5	84.41	174.7	84.76	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	209.9	0.000	0.000	Ug6_741_743_L_0					
77 D	42.66	7.9438E-04	173.7	86.19	176.8	86.53	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.3	0.000	0.000	Ug6_741_743_L_0					
78 D	43.37	8.9730E-04	175.8	88.03	178.9	88.35	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	216.8	0.000	0.000	Ug6_741_743_L_0					
79 D	44.07	9.9996E-04	177.9	89.86	181.0	90.17	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
80 D	44.77	1.1025E-03	180.1	91.70	183.1	91.99	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
81 D	22.74	1.2050E-03	182.2	93.53	185.2	93.81	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:25:47          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.311	1.5699E-02	0.8364	5.389	46.00	63.25	UL-RL	2.4929E+04	-4.600	1.164	
1.000	1.000	6.553	0.000	0.000	Ug5_2_8_L_0						
25 D	4.030	1.5097E-02	2.509	16.66	48.00	61.85	UL-RL	2.4929E+04	-4.800	3.491	
1.000	1.000	20.15	0.000	0.000	Ug5_2_8_L_0						
26 D	6.749	1.4501E-02	4.182	27.92	50.00	60.52	UL-RL	2.4929E+04	-5.000	5.818	
1.000	1.000	33.74	0.000	0.000	Ug5_2_8_L_0						
27 D	9.468	1.3911E-02	5.855	39.19	52.00	69.31	UL-RL	2.4929E+04	-5.200	8.145	
1.000	1.000	47.34	0.000	0.000	Ug5_2_8_L_0						
28 D	12.19	1.3330E-02	7.527	50.46	54.00	80.86	UL-RL	2.4929E+04	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.93	0.000	0.000	Ug5_2_8_L_0					
29 D	14.91	1.2756E-02	9.200	61.73	56.00	92.41	UL-RL	2.4929E+04	-5.600	12.80
1.000	1.000	74.53	0.000	0.000	Ug5_2_8_L_0					
30 D	17.63	1.2192E-02	10.87	73.00	58.00	101.8	UL-RL	2.4929E+04	-5.800	15.13
1.000	1.000	88.13	0.000	0.000	Ug5_2_8_L_0					
31 D	20.34	1.1638E-02	12.55	84.27	60.00	98.74	UL-RL	2.4929E+04	-6.000	17.45
1.000	1.000	101.7	0.000	0.000	Ug5_2_8_L_0					
32 D	23.06	1.1094E-02	14.22	95.54	62.00	95.80	UL-RL	2.4929E+04	-6.200	19.78
1.000	1.000	115.3	0.000	0.000	Ug5_2_8_L_0					
33 D	25.78	1.0562E-02	15.89	106.8	64.00	107.1	UL-RL	2.4929E+04	-6.400	22.11
1.000	1.000	128.9	0.000	0.000	Ug5_2_8_L_0					
34 D	28.50	1.0041E-02	17.56	118.1	66.00	118.3	UL-RL	2.4929E+04	-6.600	24.44
1.000	1.000	142.5	0.000	0.000	Ug5_2_8_L_0					
35 D	29.55	9.5332E-03	19.24	121.0	68.00	121.2	UL-RL	2.4929E+04	-6.800	26.76
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
36 D	29.22	9.0385E-03	20.91	117.0	70.00	117.3	UL-RL	2.4929E+04	-7.000	29.09
1.000	1.000	146.1	0.000	0.000	Ug5_2_8_L_0					
37 D	28.92	8.5573E-03	22.58	113.2	72.00	113.5	UL-RL	2.4929E+04	-7.200	31.42
1.000	1.000	144.6	0.000	0.000	Ug5_2_8_L_0					
38 D	28.66	8.0900E-03	24.25	109.5	74.00	109.8	UL-RL	2.4929E+04	-7.400	33.75
1.000	1.000	143.3	0.000	0.000	Ug5_2_8_L_0					
39 D	28.42	7.6369E-03	25.93	106.0	76.00	106.3	UL-RL	2.4929E+04	-7.600	36.07
1.000	1.000	142.1	0.000	0.000	Ug5_2_8_L_0					
40 D	28.22	7.1982E-03	27.60	102.7	78.00	103.0	UL-RL	2.4929E+04	-7.800	38.40
1.000	1.000	141.1	0.000	0.000	Ug5_2_8_L_0					
41 D	28.05	6.7742E-03	29.27	99.52	80.00	99.80	UL-RL	2.4929E+04	-8.000	40.73
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
42 D	27.91	6.3648E-03	30.95	96.50	82.00	96.78	UL-RL	2.4929E+04	-8.200	43.05
1.000	1.000	139.6	0.000	0.000	Ug5_2_8_L_0					
43 D	27.80	5.9702E-03	32.62	93.63	84.00	93.92	UL-RL	2.4929E+04	-8.400	45.38
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
44 D	27.73	5.5903E-03	34.29	90.93	86.00	91.22	UL-RL	2.4929E+04	-8.600	47.71
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
45 D	27.68	5.2251E-03	35.96	88.38	88.00	88.67	UL-RL	2.4929E+04	-8.800	50.04
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
46 D	27.67	4.8745E-03	37.64	85.99	90.00	86.28	UL-RL	2.4929E+04	-9.000	52.36
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
47 D	27.69	4.5383E-03	39.31	83.75	92.00	84.05	UL-RL	2.4929E+04	-9.200	54.69
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
48 D	27.73	4.2163E-03	40.98	81.66	94.00	81.96	UL-RL	2.4929E+04	-9.400	57.02
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
49 D	27.81	3.9084E-03	42.65	79.71	96.00	80.02	UL-RL	2.4929E+04	-9.600	59.35
1.000	1.000	139.1	0.000	0.000	Ug5_2_8_L_0					
50 D	27.92	3.6142E-03	44.33	77.91	98.00	78.22	UL-RL	2.4929E+04	-9.800	61.67
1.000	1.000	139.6	0.000	0.000	Ug5_2_8_L_0					
51 D	28.05	3.3334E-03	46.00	76.25	100.00	76.57	UL-RL	2.4929E+04	-10.000	64.00
1.000	1.000	140.3	0.000	0.000	Ug5_2_8_L_0					
52 D	28.21	3.0657E-03	47.67	74.73	102.0	75.05	UL-RL	2.4929E+04	-10.200	66.33
1.000	1.000	141.1	0.000	0.000	Ug5_2_8_L_0					
53 D	28.40	2.8108E-03	49.35	73.33	104.0	73.66	UL-RL	2.4929E+04	-10.400	68.65
1.000	1.000	142.0	0.000	0.000	Ug5_2_8_L_0					
54 D	28.61	2.5682E-03	51.02	72.06	106.0	72.39	UL-RL	2.4929E+04	-10.600	70.98
1.000	1.000	143.0	0.000	0.000	Ug5_2_8_L_0					
55 D	28.84	2.3376E-03	52.69	70.92	108.0	71.25	UL-RL	2.4929E+04	-10.800	73.31
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
56 D	29.10	2.1184E-03	54.36	69.89	110.0	70.23	UL-RL	2.4929E+04	-11.000	75.64
1.000	1.000	145.5	0.000	0.000	Ug5_2_8_L_0					
57 D	29.39	1.9102E-03	56.04	68.97	112.0	69.31	UL-RL	2.4929E+04	-11.200	77.96
1.000	1.000	146.9	0.000	0.000	Ug5_2_8_L_0					
58 D	29.69	1.7126E-03	57.71	68.15	114.0	68.51	UL-RL	2.4929E+04	-11.400	80.29
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
59 D	30.01	1.5250E-03	59.38	67.44	116.0	67.80	UL-RL	2.4929E+04	-11.600	82.62
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
60 D	30.35	1.3468E-03	61.05	66.82	118.0	67.18	UL-RL	2.4929E+04	-11.800	84.95
1.000	1.000	151.8	0.000	0.000	Ug5_2_8_L_0					
61 D	30.71	1.1775E-03	62.73	66.28	120.0	66.66	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
62 D	30.57	1.0165E-03	64.20	63.26	121.8	63.60	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	152.9	0.000	0.000	Ug6_741_743_L_0					
63 D	31.00	8.6327E-04	65.67	63.09	123.6	63.47	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.0	0.000	0.000	Ug6_741_743_L_0					
64 D	31.44	7.1712E-04	67.15	62.97	125.4	63.40	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.2	0.000	0.000	Ug6_741_743_L_0					
65 D	31.59	5.7747E-04	68.62	61.39	127.2	64.12	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	158.0	0.000	0.000	Ug6_741_743_L_0					
66 D	31.71	4.4373E-04	70.09	59.62	129.0	65.01	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.5	0.000	0.000	Ug6_741_743_L_0					
67 D	31.84	3.1529E-04	71.56	57.96	130.8	65.89	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.2	0.000	0.000	Ug6_741_743_L_0					
68 D	31.99	1.9157E-04	73.04	56.40	132.6	66.78	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	160.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.16	7.1990E-05	74.51	54.92	134.4	67.67	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	160.8	0.000	0.000	Ug6_741_743_L_0					
70 D	32.35	-4.3985E-05	75.98	53.52	136.2	68.55	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	161.7	0.000	0.000	Ug6_741_743_L_0					
71 D	32.55	-1.5688E-04	77.45	52.19	138.0	69.44	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	162.7	0.000	0.000	Ug6_741_743_L_0					
72 D	32.76	-2.6718E-04	78.93	50.91	139.8	70.33	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	163.8	0.000	0.000	Ug6_741_743_L_0					
73 D	32.97	-3.7534E-04	80.40	49.67	141.6	71.22	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	164.9	0.000	0.000	Ug6_741_743_L_0					
74 D	33.20	-4.8178E-04	81.87	48.47	143.4	72.11	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.0	0.000	0.000	Ug6_741_743_L_0					
75 D	33.43	-5.8689E-04	83.35	47.29	145.2	73.00	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.1	0.000	0.000	Ug6_741_743_L_0					
76 D	33.66	-6.9099E-04	84.82	46.14	147.0	73.89	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.3	0.000	0.000	Ug6_741_743_L_0					
77 D	33.90	-7.9438E-04	86.29	45.00	148.8	74.78	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
78 D	34.14	-8.9730E-04	87.76	43.87	150.6	75.67	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	170.7	0.000	0.000	Ug6_741_743_L_0					
79 D	34.38	-9.9996E-04	89.24	42.74	152.4	76.56	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	171.9	0.000	0.000	Ug6_741_743_L_0					
80 D	34.62	-1.1025E-03	90.71	41.62	154.2	77.45	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.1	0.000	0.000	Ug6_741_743_L_0					
81 D	17.43	-1.2050E-03	92.18	40.49	156.0	78.34	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018   18:25:47   |
+-----+
New Project

```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-6.16336E-09	6.16336E-09	-6.16744E-10	-7.89996E-10
2	0.49400	-0.49400	8.62317E-10	9.88004E-02
3	1.4417	-1.4417	-9.88004E-02	0.38713
4	2.8429	-2.8429	-0.38713	0.95572
5	4.6979	-4.6979	-0.95572	1.8953
6	7.0064	-7.0064	-1.8953	3.2966
7	9.7686	-9.7686	-3.2966	5.2503
8	12.984	-12.984	-5.2503	7.8471
9	16.653	-16.653	-7.8471	11.178
10	20.776	-20.776	-11.178	15.333
11	25.352	-25.352	-15.333	20.404
12	30.382	-30.382	-20.404	26.480
13	35.864	-35.864	-26.480	33.653
14	41.800	-41.800	-33.653	42.013
15	48.188	-48.188	-42.013	51.650
16	55.030	-55.030	-51.650	62.656
17	62.324	-62.324	-62.656	75.121
18	70.071	-70.071	-75.121	89.135
19	78.270	-78.270	-89.135	104.79
20	86.921	-86.921	-104.79	122.17
21	96.025	-96.025	-122.17	141.38
22	105.58	-105.58	-141.38	162.49
23	115.59	-115.59	-162.49	185.61
24	124.74	-124.74	-185.61	210.56
25	131.62	-131.62	-210.56	236.88
26	136.23	-136.23	-236.88	264.13
27	138.58	-138.58	-264.13	291.84
28	138.66	-138.66	-291.84	319.58
29	136.47	-136.47	-319.58	346.87
30	132.01	-132.01	-346.87	373.27
31	125.28	-125.28	-373.27	398.33
32	116.29	-116.29	-398.33	421.59
33	105.03	-105.03	-421.59	442.59
34	91.501	-91.501	-442.59	460.89
35	77.379	-77.379	-460.89	476.37
36	64.035	-64.035	-476.37	489.18
37	51.438	-51.438	-489.18	499.46
38	39.558	-39.558	-499.46	507.37
39	28.364	-28.364	-507.37	513.05
40	17.824	-17.824	-513.05	516.61
41	7.9058	-7.9058	-516.61	518.19
42	-1.4216	1.4216	-518.19	517.91
43	-10.190	10.190	-517.91	515.87
44	-18.432	18.432	-515.87	512.18
45	-26.178	26.178	-512.18	506.95
46	-33.459	33.459	-506.95	500.26
47	-40.305	40.305	-500.26	492.20
48	-46.747	46.747	-492.20	482.85
49	-52.814	52.814	-482.85	472.28
50	-58.534	58.534	-472.28	460.58
51	-63.935	63.935	-460.58	447.79
52	-69.044	69.044	-447.79	433.98
53	-73.887	73.887	-433.98	419.20
54	-78.490	78.490	-419.20	403.51
55	-82.876	82.876	-403.51	386.93
56	-87.068	87.068	-386.93	369.52
57	-91.090	91.090	-369.52	351.30
58	-94.961	94.961	-351.30	332.31
59	-98.702	98.702	-332.31	312.57

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.33	102.33	-312.57	292.10
61	-105.87	105.87	-292.10	270.93
62	-106.04	106.04	-270.93	249.72
63	-106.13	106.13	-249.72	228.49
64	-106.15	106.15	-228.49	207.27
65	-105.22	105.22	-207.27	186.22
66	-103.19	103.19	-186.22	165.59
67	-100.11	100.11	-165.59	145.56
68	-96.145	96.145	-145.56	126.33
69	-91.361	91.361	-126.33	108.06
70	-85.943	85.943	-108.06	90.873
71	-80.011	80.011	-90.873	74.871
72	-73.583	73.583	-74.871	60.155
73	-66.670	66.670	-60.155	46.821
74	-59.285	59.285	-46.821	34.964
75	-51.435	51.435	-34.964	24.677
76	-43.126	43.126	-24.677	16.051
77	-34.363	34.363	-16.051	9.1787
78	-25.138	25.138	-9.1787	4.1511
79	-15.451	15.451	-4.1511	1.0608
80	-5.3040	5.3040	-1.0608	-1.77471E-11

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A1M1R1_1757  |
|                Exe Time :24 May 2018  18:25:47  |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	5
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	6
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	2

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.28 [sec]

Design Assumption : A2+M2+R1 - File di Paratie - File di output (.out)

```

+-----+
|           PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                           |
|                                     NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                                     Exe Time :24 May 2018      18:25:48          |
|                                                                           |
+-----+
  
```

```

*****
*                                                                 *
*  PARATIE PLUS Non-Linear Spring Engine                          *
*                                                                 *
*      AN ELASTOPLASTIC FINITE ELEMENT PROGRAM                   *
*      FOR FLEXIBLE EARTH-RETAINING STRUCTURES                   *
*                                                                 *
*      Written by Ce.A.S. s.r.l. (ITALY)                          *
*      with the scientific supervision of                         *
*      Roberto Nova - full professor SOIL MECHANICS             *
*      at Politecnico di Milano (ITALY)                          *
*                                                                 *
*****
*                                                                 *
*  RELEASE  2017.1      *Build date:Jul 11, 2017*                *
*                                                                 *
*  Ce.A.S.    S.R.L  CENTRO DI ANALISI STRUTTURALE                *
*      VIALE  GIUSTINIANO 10                                     *
*      20129  M I L A N O (ITALIA)                               *
*  TEL.      +39 02 2020221  (+39 035 23 67 19)                *
*  FAX       +39 02 29512533  (+39 035 42285 49)               *
*  email     bruno.becci@ceas.it                                *
*  Web Page  www.ceas.it                                        *
*****
  
```

```

JOB : NewProject.BaseDesignSection_28.A2M2R1_1787
STARTING
ACCEPTED <FILE,GENW >
ACCEPTED <FILE,PLOTTER,BINARY >
ACCEPTED <SOLVE TOTAL STRESS >
ACCEPTED <PARAM ITEMEX 40 >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
  
```

```

*****
*                                                                 *
*  WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED          *
*      BY THE PROGRAM.                                          *
*****
  
```

```

PRELIMINARY OPERATIONS CPU TIME    0.00 [sec]
  
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:25:48       |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 81
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 162
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 102
NO. OF LONG NAMES (LASTNAME) ..... 22
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)    NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*          |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:25:48          |
+-----+
          P R E P R O C E S S O R      D A T A

          N O .   O F   C O M M A N D S      102

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5E+04 1.5E+05
15 : ENDL
16 : LDATA Ug6_741_743_L_0 -12 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 18.5 9 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 5 26
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S355_114 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.8121 00 00 0
26 : STRIP LeftWall_32 1 6 1 11.75 0 6.5 45
27 : STEP Stage1_31
28 : CHANGE Ug5_2_8_L_0 U-FRICT=31.08 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
30 : CHANGE Ug5_2_8_L_0 U-KA=0.319 LeftWall_32
31 : CHANGE Ug5_2_8_L_0 U-KP=4.578 LeftWall_32
32 : CHANGE Ug5_2_8_L_0 D-KA=0.319 LeftWall_32
33 : CHANGE Ug5_2_8_L_0 D-KP=4.578 LeftWall_32
34 : CHANGE Ug6_741_743_L_0 U-FRICT=21.32 LeftWall_32
35 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
36 : CHANGE Ug6_741_743_L_0 U-KA=0.467 LeftWall_32
37 : CHANGE Ug6_741_743_L_0 U-KP=2.649 LeftWall_32
38 : CHANGE Ug6_741_743_L_0 D-KA=0.467 LeftWall_32
39 : CHANGE Ug6_741_743_L_0 D-KP=2.649 LeftWall_32
40 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
41 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
42 : CHANGE Ug6_741_743_L_0 U-COHE=4 LeftWall_32
43 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
44 : SETWALL LeftWall_32
45 : GEOM 0 0
46 : WATER 0 0 -16 0 0
47 : ADD WallElement_33
48 : ENDSTEP
49 : STEP Stage2_158
50 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
51 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
52 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
53 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
54 : SETWALL LeftWall_32
55 : GEOM 0 -1
56 : WATER 0 1 -16 0 0
57 : ENDSTEP
58 : STEP Stage3_255
59 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
60 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
61 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
62 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
63 : SETWALL LeftWall_32
64 : GEOM 0 -2
65 : WATER 0 2 -16 0 0
66 : ENDSTEP
67 : STEP Stage4_352
68 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
72 : SETWALL LeftWall_32
73 : GEOM 0 -3
74 : WATER 0 3 -16 0 0
75 : ENDSTEP
76 : STEP Stage5_449
77 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
78 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
79 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
80 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -4
83 : WATER 0 4 -16 0 0
84 : ENDSTEP
85 : STEP Stage6_546
86 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
87 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
88 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
89 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
90 : SETWALL LeftWall_32
91 : GEOM 0 -4.5
92 : WATER 0 4.5 -16 0 0
93 : ENDSTEP
94 : STEP Stage7_643
95 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
96 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
97 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
98 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
99 : SETWALL LeftWall_32
100 : GEOM 0 -4.5
101 : WATER 0 4.5 -16 0 0
102 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018   18:25:48   |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/	NODE	Y-COORD	Z-COORD	/
1	0.0000	0.0000	/	2	0.0000	-0.20000	/	3	0.0000	-0.40000	/	4	0.0000	-0.60000	/
5	0.0000	-0.80000	/	6	0.0000	-1.0000	/	7	0.0000	-1.2000	/	8	0.0000	-1.4000	/
9	0.0000	-1.6000	/	10	0.0000	-1.8000	/	11	0.0000	-2.0000	/	12	0.0000	-2.2000	/
13	0.0000	-2.4000	/	14	0.0000	-2.6000	/	15	0.0000	-2.8000	/	16	0.0000	-3.0000	/
17	0.0000	-3.2000	/	18	0.0000	-3.4000	/	19	0.0000	-3.6000	/	20	0.0000	-3.8000	/
21	0.0000	-4.0000	/	22	0.0000	-4.2000	/	23	0.0000	-4.4000	/	24	0.0000	-4.6000	/
25	0.0000	-4.8000	/	26	0.0000	-5.0000	/	27	0.0000	-5.2000	/	28	0.0000	-5.4000	/
29	0.0000	-5.6000	/	30	0.0000	-5.8000	/	31	0.0000	-6.0000	/	32	0.0000	-6.2000	/
33	0.0000	-6.4000	/	34	0.0000	-6.6000	/	35	0.0000	-6.8000	/	36	0.0000	-7.0000	/
37	0.0000	-7.2000	/	38	0.0000	-7.4000	/	39	0.0000	-7.6000	/	40	0.0000	-7.8000	/
41	0.0000	-8.0000	/	42	0.0000	-8.2000	/	43	0.0000	-8.4000	/	44	0.0000	-8.6000	/
45	0.0000	-8.8000	/	46	0.0000	-9.0000	/	47	0.0000	-9.2000	/	48	0.0000	-9.4000	/
49	0.0000	-9.6000	/	50	0.0000	-9.8000	/	51	0.0000	-10.000	/	52	0.0000	-10.200	/
53	0.0000	-10.400	/	54	0.0000	-10.600	/	55	0.0000	-10.800	/	56	0.0000	-11.000	/
57	0.0000	-11.200	/	58	0.0000	-11.400	/	59	0.0000	-11.600	/	60	0.0000	-11.800	/
61	0.0000	-12.000	/	62	0.0000	-12.200	/	63	0.0000	-12.400	/	64	0.0000	-12.600	/
65	0.0000	-12.800	/	66	0.0000	-13.000	/	67	0.0000	-13.200	/	68	0.0000	-13.400	/
69	0.0000	-13.600	/	70	0.0000	-13.800	/	71	0.0000	-14.000	/	72	0.0000	-14.200	/
73	0.0000	-14.400	/	74	0.0000	-14.600	/	75	0.0000	-14.800	/	76	0.0000	-15.000	/
77	0.0000	-15.200	/	78	0.0000	-15.400	/	79	0.0000	-15.600	/	80	0.0000	-15.800	/
81	0.0000	-16.000	/												

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

```

-----
1 active
2 active
3 active
4 active
5 active
6 active
7 active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000
42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:25:48                             |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

stage status

```

-----
1 active
2 active
3 active
4 active
5 active
6 active
7 active

```

material set no. 1

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:25:48       |
+-----+

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
 2 80 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

```

no. of step variable items: 1

```

step  inertia multiplier
-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

```

element data

e1	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.8121	0.000	0.000
2	2	3	1	0.000	0.000	0.8121	0.000	0.000
3	3	4	1	0.000	0.000	0.8121	0.000	0.000
4	4	5	1	0.000	0.000	0.8121	0.000	0.000
5	5	6	1	0.000	0.000	0.8121	0.000	0.000
6	6	7	1	0.000	0.000	0.8121	0.000	0.000
7	7	8	1	0.000	0.000	0.8121	0.000	0.000
8	8	9	1	0.000	0.000	0.8121	0.000	0.000
9	9	10	1	0.000	0.000	0.8121	0.000	0.000
10	10	11	1	0.000	0.000	0.8121	0.000	0.000
11	11	12	1	0.000	0.000	0.8121	0.000	0.000
12	12	13	1	0.000	0.000	0.8121	0.000	0.000
13	13	14	1	0.000	0.000	0.8121	0.000	0.000
14	14	15	1	0.000	0.000	0.8121	0.000	0.000
15	15	16	1	0.000	0.000	0.8121	0.000	0.000
16	16	17	1	0.000	0.000	0.8121	0.000	0.000
17	17	18	1	0.000	0.000	0.8121	0.000	0.000
18	18	19	1	0.000	0.000	0.8121	0.000	0.000
19	19	20	1	0.000	0.000	0.8121	0.000	0.000
20	20	21	1	0.000	0.000	0.8121	0.000	0.000
21	21	22	1	0.000	0.000	0.8121	0.000	0.000
22	22	23	1	0.000	0.000	0.8121	0.000	0.000
23	23	24	1	0.000	0.000	0.8121	0.000	0.000
24	24	25	1	0.000	0.000	0.8121	0.000	0.000
25	25	26	1	0.000	0.000	0.8121	0.000	0.000
26	26	27	1	0.000	0.000	0.8121	0.000	0.000
27	27	28	1	0.000	0.000	0.8121	0.000	0.000
28	28	29	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.8121	0.000	0.000
30	30	31	1	0.000	0.000	0.8121	0.000	0.000
31	31	32	1	0.000	0.000	0.8121	0.000	0.000
32	32	33	1	0.000	0.000	0.8121	0.000	0.000
33	33	34	1	0.000	0.000	0.8121	0.000	0.000
34	34	35	1	0.000	0.000	0.8121	0.000	0.000
35	35	36	1	0.000	0.000	0.8121	0.000	0.000
36	36	37	1	0.000	0.000	0.8121	0.000	0.000
37	37	38	1	0.000	0.000	0.8121	0.000	0.000
38	38	39	1	0.000	0.000	0.8121	0.000	0.000
39	39	40	1	0.000	0.000	0.8121	0.000	0.000
40	40	41	1	0.000	0.000	0.8121	0.000	0.000
41	41	42	1	0.000	0.000	0.8121	0.000	0.000
42	42	43	1	0.000	0.000	0.8121	0.000	0.000
43	43	44	1	0.000	0.000	0.8121	0.000	0.000
44	44	45	1	0.000	0.000	0.8121	0.000	0.000
45	45	46	1	0.000	0.000	0.8121	0.000	0.000
46	46	47	1	0.000	0.000	0.8121	0.000	0.000
47	47	48	1	0.000	0.000	0.8121	0.000	0.000
48	48	49	1	0.000	0.000	0.8121	0.000	0.000
49	49	50	1	0.000	0.000	0.8121	0.000	0.000
50	50	51	1	0.000	0.000	0.8121	0.000	0.000
51	51	52	1	0.000	0.000	0.8121	0.000	0.000
52	52	53	1	0.000	0.000	0.8121	0.000	0.000
53	53	54	1	0.000	0.000	0.8121	0.000	0.000
54	54	55	1	0.000	0.000	0.8121	0.000	0.000
55	55	56	1	0.000	0.000	0.8121	0.000	0.000
56	56	57	1	0.000	0.000	0.8121	0.000	0.000
57	57	58	1	0.000	0.000	0.8121	0.000	0.000
58	58	59	1	0.000	0.000	0.8121	0.000	0.000
59	59	60	1	0.000	0.000	0.8121	0.000	0.000
60	60	61	1	0.000	0.000	0.8121	0.000	0.000
61	61	62	1	0.000	0.000	0.8121	0.000	0.000
62	62	63	1	0.000	0.000	0.8121	0.000	0.000
63	63	64	1	0.000	0.000	0.8121	0.000	0.000
64	64	65	1	0.000	0.000	0.8121	0.000	0.000
65	65	66	1	0.000	0.000	0.8121	0.000	0.000
66	66	67	1	0.000	0.000	0.8121	0.000	0.000
67	67	68	1	0.000	0.000	0.8121	0.000	0.000
68	68	69	1	0.000	0.000	0.8121	0.000	0.000
69	69	70	1	0.000	0.000	0.8121	0.000	0.000
70	70	71	1	0.000	0.000	0.8121	0.000	0.000
71	71	72	1	0.000	0.000	0.8121	0.000	0.000
72	72	73	1	0.000	0.000	0.8121	0.000	0.000
73	73	74	1	0.000	0.000	0.8121	0.000	0.000
74	74	75	1	0.000	0.000	0.8121	0.000	0.000
75	75	76	1	0.000	0.000	0.8121	0.000	0.000
76	76	77	1	0.000	0.000	0.8121	0.000	0.000
77	77	78	1	0.000	0.000	0.8121	0.000	0.000
78	78	79	1	0.000	0.000	0.8121	0.000	0.000
79	79	80	1	0.000	0.000	0.8121	0.000	0.000
80	80	81	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.A2M2R1_1787 |  
|                               Exe Time :24 May 2018      18:25:48 |  
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0  
NO. OF LOAD CURVES (NLCUR) ..... 14  
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:25:48                             |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018      18:25:48                                                  |
+-----+
```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787  |
|                               Exe Time :24 May 2018      18:25:48  |
+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A2M2R1_1787  |
|                Exe Time :24 May 2018  18:25:48  |
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO.  1<NAME    >= 18.000  (BOTH WALLS)
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)
ITEM NO.  3<LEVEL  >= 0.0000  (BOTH WALLS)
ITEM NO.  4<WALL   >= 1.0000  (BOTH WALLS)
ITEM NO.  5<GAMMAD >= 19.000  (BOTH WALLS)
ITEM NO.  6<GAMMAB >= 10.000  (BOTH WALLS)
ITEM NO.  7<GAMMAW >= 10.000  (BOTH WALLS)
ITEM NO.  9<U-FRICT >= 31.080  WALL NO.  1
ITEM NO.  9<U-FRICT >= 37.000  WALL NO.  2
ITEM NO. 10<U-KA   >= 0.31900  WALL NO.  1
ITEM NO. 11<U-KP   >= 4.5780  WALL NO.  1
ITEM NO. 12<K0-NC >= 0.50000  (BOTH WALLS)
ITEM NO. 13<NEXP  >= 0.50000  (BOTH WALLS)
ITEM NO. 14<OCR   >= 1.0000  (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000  (BOTH WALLS)
ITEM NO. 17<EVC   >= 50000.  (BOTH WALLS)
ITEM NO. 18<EUR   >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000  (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000  (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080  WALL NO.  1
ITEM NO. 59<D-FRICT >= 37.000  WALL NO.  2
ITEM NO. 60<D-KA  >= 0.31900  WALL NO.  1
ITEM NO. 61<D-KP  >= 4.5780  WALL NO.  1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

```

ITEM NO.  1<NAME    >= 19.000  (BOTH WALLS)
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)
ITEM NO.  3<LEVEL  >= -12.000  (BOTH WALLS)
ITEM NO.  4<WALL   >= 1.0000  (BOTH WALLS)
ITEM NO.  5<GAMMAD >= 18.500  (BOTH WALLS)
ITEM NO.  6<GAMMAB >= 9.0000  (BOTH WALLS)
ITEM NO.  7<GAMMAW >= 10.000  (BOTH WALLS)
ITEM NO.  8<U-COHE >= 4.0000  WALL NO.  1
ITEM NO.  8<U-COHE >= 5.0000  WALL NO.  2
ITEM NO.  9<U-FRICT >= 21.320  WALL NO.  1
ITEM NO.  9<U-FRICT >= 26.000  WALL NO.  2
ITEM NO. 10<U-KA   >= 0.46700  WALL NO.  1
ITEM NO. 11<U-KP   >= 2.6490  WALL NO.  1
ITEM NO. 12<K0-NC >= 0.50000  (BOTH WALLS)
ITEM NO. 13<NEXP  >= 0.50000  (BOTH WALLS)
ITEM NO. 14<OCR   >= 1.0000  (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000  (BOTH WALLS)
ITEM NO. 17<EVC   >= 30000.  (BOTH WALLS)
ITEM NO. 18<EUR   >= 90000.  (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000  (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000  (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000  WALL NO.  1
ITEM NO. 58<D-COHE >= 5.0000  WALL NO.  2
ITEM NO. 59<D-FRICT >= 21.320  WALL NO.  1
ITEM NO. 59<D-FRICT >= 26.000  WALL NO.  2
ITEM NO. 60<D-KA  >= 0.46700  WALL NO.  1
ITEM NO. 61<D-KP  >= 2.6490  WALL NO.  1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```

ITEM NO.  1<NAME    >= 18.000  (BOTH WALLS)
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)
ITEM NO.  3<LEVEL  >= 0.0000  (BOTH WALLS)

```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
+-----+

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PHASE DESCRIPTORS

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STEP NO.      1

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   0.000         0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  0.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru  0.000         0.000
SEISMIC PRESSURE LOWER VALUE  0.000         0.000
SEISMIC PRESSURE UPPER VALUE  0.000         0.000
SEISMIC PRESSURE LOWER LEVEL  0.000         0.000
SEISMIC PRESSURE UPPER LEVEL  0.000         0.000

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=====end of step 1

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STEP NO.      2

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   -1.000         0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  1.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00      -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000         0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru  0.000         0.000

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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SEISMIC PRESSURE LOWER VALUE      0.000      0.000
SEISMIC PRESSURE UPPER VALUE      0.000      0.000
SEISMIC PRESSURE LOWER LEVEL      0.000      0.000
SEISMIC PRESSURE UPPER LEVEL      0.000      0.000
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=====end of step 2

```
STEP NO.      3
LEFT WALL      RIGHT WALL
Y              0.000     -0.9990E+30
Z-PC          0.000      0.000
Z-EXCAVATION  -2.000      0.000
Z-WATER_TABLE 0.000     -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000      0.000
ZQ            0.000      0.000
DZW_OF_THE_WATER_TABLE 2.000      0.000
QS_ON_THE_EXCAVATION_SIDE 0.000      0.000
ZQS          -0.9990E+30 -0.9990E+30
ZCUT         0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00     -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO 0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO 0.000      0.000
DYN.WATER BEHAVIOUR 0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000
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=====end of step 3

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STEP NO.      4
LEFT WALL      RIGHT WALL
Y              0.000     -0.9990E+30
Z-PC          0.000      0.000
Z-EXCAVATION  -3.000      0.000
Z-WATER_TABLE 0.000     -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000      0.000
ZQ            0.000      0.000
DZW_OF_THE_WATER_TABLE 3.000      0.000
QS_ON_THE_EXCAVATION_SIDE 0.000      0.000
ZQS          -0.9990E+30 -0.9990E+30
ZCUT         0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00     -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000      0.000
PORE_UPDATE_FLAG 0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs) 0.000      0.000
lateral thrusts reduction elevatio 0.000      0.000
Downhill reduction factor for effe 0.000      0.000
Downhill reduction factor for pore 0.000      0.000
Uphill reduction factor for effect 0.000      0.000
Uphill reduction factor for pore p 0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
UPHILL DELTA/PHI RATIO 0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000      0.000
DOWNHILL DELTA/PHI RATIO 0.000      0.000
DYN.WATER BEHAVIOUR 0.000      0.000
Excess pore pressure RATIO Ru 0.000      0.000
SEISMIC PRESSURE LOWER VALUE 0.000      0.000
SEISMIC PRESSURE UPPER VALUE 0.000      0.000
SEISMIC PRESSURE LOWER LEVEL 0.000      0.000
SEISMIC PRESSURE UPPER LEVEL 0.000      0.000
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====end of step 4

STEP NO.	5		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			-4.000	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			4.000	0.000
QS_ON_THE_EXCAVATION_SIDE			0.000	0.000
ZQS			-0.9990E+30	-0.9990E+30
ZCUT			0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES			-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)			0.000	0.000
PORE_UPDATE_FLAG			0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)			0.000	0.000
lateral thrusts reduction elevatio			0.000	0.000
Downhill reduction factor for effe			0.000	0.000
Downhill reduction factor for pore			0.000	0.000
Uphill reduction factor for effect			0.000	0.000
Uphill reduction factor for pore p			0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]			0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]			0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]			0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
UPHILL DELTA/PHI RATIO			0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
DOWNHILL DELTA/PHI RATIO			0.000	0.000
DYN.WATER BEHAVIOUR			0.000	0.000
Excess pore pressure RATIO Ru			0.000	0.000
SEISMIC PRESSURE LOWER VALUE			0.000	0.000
SEISMIC PRESSURE UPPER VALUE			0.000	0.000
SEISMIC PRESSURE LOWER LEVEL			0.000	0.000
SEISMIC PRESSURE UPPER LEVEL			0.000	0.000

=====end of step 5

STEP NO.	6		LEFT WALL	RIGHT WALL
Y			0.000	-0.9990E+30
Z-PC			0.000	0.000
Z-EXCAVATION			-4.500	0.000
Z-WATER_TABLE			0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL			0.000	0.000
ZQ			0.000	0.000
DZW_OF_THE_WATER_TABLE			4.500	0.000
QS_ON_THE_EXCAVATION_SIDE			0.000	0.000
ZQS			-0.9990E+30	-0.9990E+30
ZCUT			0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES			-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)			0.000	0.000
PORE_UPDATE_FLAG			0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)			0.000	0.000
lateral thrusts reduction elevatio			0.000	0.000
Downhill reduction factor for effe			0.000	0.000
Downhill reduction factor for pore			0.000	0.000
Uphill reduction factor for effect			0.000	0.000
Uphill reduction factor for pore p			0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]			0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]			0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]			0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
UPHILL DELTA/PHI RATIO			0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]			0.000	0.000
DOWNHILL DELTA/PHI RATIO			0.000	0.000
DYN.WATER BEHAVIOUR			0.000	0.000
Excess pore pressure RATIO Ru			0.000	0.000
SEISMIC PRESSURE LOWER VALUE			0.000	0.000
SEISMIC PRESSURE UPPER VALUE			0.000	0.000
SEISMIC PRESSURE LOWER LEVEL			0.000	0.000
SEISMIC PRESSURE UPPER LEVEL			0.000	0.000

=====end of step 6

STEP NO.	7		LEFT WALL	RIGHT WALL

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-4.500	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	4.500	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 7

LEFT-HAND WALL

LOWER LEVEL -16.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -16.00000
UPPER LEVEL 0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.A2M2R1_1787  |
|                Exe Time :24 May 2018  18:25:48  |
+-----+

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I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 6.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 1.0000000000000000
FOUNDATION WIDTH (B) 11.7500000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 6.5000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4763

NO. OF D.P.W FOR THIS AREA 9554
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1225E+06 RIMNOR= 0.000
          RENORM=0.2495E-27 REMNOR= 0.000        RATIO =0.4514E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.10        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1225E+06 RDR    = 0.000
          RATIOI=0.4514E-16 RATIOOR= 0.000
          MAX UN=0.7105E-14 IEQ= 153 NODE        77 DOF    1    Y-DISPL.F
          MIN UN=-.7105E-14 IEQ= 133 NODE        67 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

```

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ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1225E+06 RIMNOR= 0.000
          RENORM=0.1162E-28 REMNOR=0.1150E-51 RATIO =0.9740E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.10        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1225E+06 RDR    = 0.000
          RATIOI=0.9740E-17 RATIOOR= 0.000
          MAX UN=0.5840E-15 IEQ= 159 NODE        80 DOF    1    Y-DISPL.F
          MIN UN=-.6210E-15 IEQ= 73 NODE        37 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

```

```

ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1225E+06 RIMNOR= 0.000
          RENORM=0.9154E-29 REMNOR=0.2362E-51 RATIO =0.8646E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.10        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1225E+06 RDR    = 0.000
          RATIOI=0.8646E-17 RATIOOR= 0.000
          MAX UN=0.4950E-15 IEQ= 159 NODE        80 DOF    1    Y-DISPL.F
          MIN UN=-.5268E-15 IEQ= 71 NODE        36 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS    0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018      18:25:48                                                  |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME 1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0850E-20	0.000	0.000	0.000	0.000	V-C	4.1493E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7483	-2.6844E-20	2.011	1.741	2.011	1.741	V-C	4.1493E+04	-0.2000	2.000	
1.000	1.000	3.741	0.000	0.000	Ug5_2_8_L_0						
3 D	1.474	-2.2838E-20	4.074	3.371	4.074	3.371	V-C	4.1493E+04	-0.4000	4.000	
1.000	1.000	7.371	0.000	0.000	Ug5_2_8_L_0						
4 D	2.167	-1.8829E-20	6.205	4.836	6.205	4.836	V-C	4.1493E+04	-0.6000	6.000	
1.000	1.000	10.84	0.000	0.000	Ug5_2_8_L_0						
5 D	2.829	-1.4817E-20	8.386	6.146	8.386	6.146	V-C	4.1493E+04	-0.8000	8.000	
1.000	1.000	14.15	0.000	0.000	Ug5_2_8_L_0						
6 D	3.467	-1.0798E-20	10.59	7.336	10.59	7.336	V-C	4.1493E+04	-1.0000	10.000	
1.000	1.000	17.34	0.000	0.000	Ug5_2_8_L_0						
7 D	4.089	-6.7688E-21	12.79	8.443	12.79	8.443	V-C	4.1493E+04	-1.2000	12.000	
1.000	1.000	20.44	0.000	0.000	Ug5_2_8_L_0						
8 D	4.699	-2.7296E-21	15.14	9.495	15.14	9.495	V-C	4.1493E+04	-1.4000	14.000	
1.000	1.000	23.49	0.000	0.000	Ug5_2_8_L_0						
9 D	5.302	1.3210E-21	17.53	10.51	17.53	10.51	V-C	4.1493E+04	-1.6000	16.000	
1.000	1.000	26.51	0.000	0.000	Ug5_2_8_L_0						
10 D	5.901	5.3838E-21	19.64	11.50	19.64	11.50	V-C	4.1493E+04	-1.8000	18.000	
1.000	1.000	29.50	0.000	0.000	Ug5_2_8_L_0						
11 D	6.496	9.4593E-21	21.93	12.48	21.93	12.48	V-C	4.1493E+04	-2.0000	20.000	
1.000	1.000	32.48	0.000	0.000	Ug5_2_8_L_0						
12 D	7.089	1.3548E-20	24.17	13.45	24.17	13.45	V-C	4.1493E+04	-2.2000	22.000	
1.000	1.000	35.45	0.000	0.000	Ug5_2_8_L_0						
13 D	7.681	1.7648E-20	26.22	14.41	26.22	14.41	V-C	4.1493E+04	-2.4000	24.000	
1.000	1.000	38.41	0.000	0.000	Ug5_2_8_L_0						
14 D	8.272	2.1760E-20	28.41	15.36	28.41	15.36	V-C	4.1493E+04	-2.6000	26.000	
1.000	1.000	41.36	0.000	0.000	Ug5_2_8_L_0						
15 D	8.863	2.5880E-20	30.58	16.31	30.58	16.31	V-C	4.1493E+04	-2.8000	28.000	
1.000	1.000	44.31	0.000	0.000	Ug5_2_8_L_0						
16 D	9.453	2.9996E-20	32.73	17.27	32.73	17.27	V-C	4.1493E+04	-3.0000	30.000	
1.000	1.000	47.27	0.000	0.000	Ug5_2_8_L_0						
17 D	10.04	3.4094E-20	34.74	18.22	34.74	18.22	V-C	4.1493E+04	-3.2000	32.000	
1.000	1.000	50.22	0.000	0.000	Ug5_2_8_L_0						
18 D	10.63	3.8159E-20	36.86	19.16	36.86	19.16	V-C	4.1493E+04	-3.4000	34.000	
1.000	1.000	53.16	0.000	0.000	Ug5_2_8_L_0						
19 D	11.22	4.2174E-20	38.97	20.11	38.97	20.11	V-C	4.1493E+04	-3.6000	36.000	
1.000	1.000	56.11	0.000	0.000	Ug5_2_8_L_0						
20 D	11.81	4.6119E-20	40.97	21.06	40.97	21.06	V-C	4.1493E+04	-3.8000	38.000	
1.000	1.000	59.06	0.000	0.000	Ug5_2_8_L_0						
21 D	12.40	4.9975E-20	43.07	22.01	43.07	22.01	V-C	4.1493E+04	-4.0000	40.000	
1.000	1.000	62.01	0.000	0.000	Ug5_2_8_L_0						
22 D	12.99	5.3722E-20	45.16	22.96	45.16	22.96	V-C	4.1493E+04	-4.2000	42.000	
1.000	1.000	64.96	0.000	0.000	Ug5_2_8_L_0						
23 D	13.58	5.7344E-20	47.15	23.91	47.15	23.91	V-C	4.1493E+04	-4.4000	44.000	
1.000	1.000	67.91	0.000	0.000	Ug5_2_8_L_0						
24 D	14.17	6.0825E-20	49.23	24.86	49.23	24.86	V-C	4.1493E+04	-4.6000	46.000	
1.000	1.000	70.86	0.000	0.000	Ug5_2_8_L_0						
25 D	14.76	6.4146E-20	51.30	25.81	51.30	25.81	V-C	4.1493E+04	-4.8000	48.000	
1.000	1.000	73.81	0.000	0.000	Ug5_2_8_L_0						
26 D	15.35	6.7287E-20	53.37	26.76	53.37	26.76	V-C	4.1493E+04	-5.0000	50.000	
1.000	1.000	76.76	0.000	0.000	Ug5_2_8_L_0						
27 D	15.94	7.0226E-20	55.36	27.72	55.36	27.72	V-C	4.1493E+04	-5.2000	52.000	
1.000	1.000	79.72	0.000	0.000	Ug5_2_8_L_0						
28 D	16.53	7.2938E-20	57.42	28.67	57.42	28.67	V-C	4.1493E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.67	0.000	0.000	Ug5_2_8_L_0					
29 D	17.12	7.5403E-20	59.47	29.62	59.47	29.62	V-C	4.1493E+04	-5.600	56.00
1.000	1.000	85.62	0.000	0.000	Ug5_2_8_L_0					
30 D	17.72	7.7602E-20	61.46	30.58	61.46	30.58	V-C	4.1493E+04	-5.800	58.00
1.000	1.000	88.58	0.000	0.000	Ug5_2_8_L_0					
31 D	18.31	7.9513E-20	63.51	31.54	63.51	31.54	V-C	4.1493E+04	-6.000	60.00
1.000	1.000	91.54	0.000	0.000	Ug5_2_8_L_0					
32 D	18.90	8.1129E-20	65.56	32.49	65.56	32.49	V-C	4.1493E+04	-6.200	62.00
1.000	1.000	94.49	0.000	0.000	Ug5_2_8_L_0					
33 D	19.49	8.2439E-20	67.54	33.45	67.54	33.45	V-C	4.1493E+04	-6.400	64.00
1.000	1.000	97.45	0.000	0.000	Ug5_2_8_L_0					
34 D	20.08	8.3432E-20	69.59	34.41	69.59	34.41	V-C	4.1493E+04	-6.600	66.00
1.000	1.000	100.4	0.000	0.000	Ug5_2_8_L_0					
35 D	20.67	8.4094E-20	71.63	35.37	71.63	35.37	V-C	4.1493E+04	-6.800	68.00
1.000	1.000	103.4	0.000	0.000	Ug5_2_8_L_0					
36 D	21.27	8.4406E-20	73.67	36.33	73.67	36.33	V-C	4.1493E+04	-7.000	70.00
1.000	1.000	106.3	0.000	0.000	Ug5_2_8_L_0					
37 D	21.86	8.4351E-20	75.65	37.30	75.65	37.30	V-C	4.1493E+04	-7.200	72.00
1.000	1.000	109.3	0.000	0.000	Ug5_2_8_L_0					
38 D	22.45	8.3926E-20	77.69	38.26	77.69	38.26	V-C	4.1493E+04	-7.400	74.00
1.000	1.000	112.3	0.000	0.000	Ug5_2_8_L_0					
39 D	23.04	8.3142E-20	79.72	39.22	79.72	39.22	V-C	4.1493E+04	-7.600	76.00
1.000	1.000	115.2	0.000	0.000	Ug5_2_8_L_0					
40 D	23.64	8.2008E-20	81.71	40.19	81.71	40.19	V-C	4.1493E+04	-7.800	78.00
1.000	1.000	118.2	0.000	0.000	Ug5_2_8_L_0					
41 D	24.23	8.0533E-20	83.74	41.16	83.74	41.16	V-C	4.1493E+04	-8.000	80.00
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
42 D	24.82	7.8722E-20	85.77	42.12	85.77	42.12	V-C	4.1493E+04	-8.200	82.00
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
43 D	25.42	7.6577E-20	87.76	43.09	87.76	43.09	V-C	4.1493E+04	-8.400	84.00
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
44 D	26.01	7.4097E-20	89.79	44.06	89.79	44.06	V-C	4.1493E+04	-8.600	86.00
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
45 D	26.61	7.1282E-20	91.82	45.03	91.82	45.03	V-C	4.1493E+04	-8.800	88.00
1.000	1.000	133.0	0.000	0.000	Ug5_2_8_L_0					
46 D	27.20	6.8146E-20	93.84	46.00	93.84	46.00	V-C	4.1493E+04	-9.000	90.00
1.000	1.000	136.0	0.000	0.000	Ug5_2_8_L_0					
47 D	27.79	6.4718E-20	95.83	46.97	95.83	46.97	V-C	4.1493E+04	-9.200	92.00
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
48 D	28.39	6.1027E-20	97.85	47.95	97.85	47.95	V-C	4.1493E+04	-9.400	94.00
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
49 D	28.98	5.7099E-20	99.88	48.92	99.88	48.92	V-C	4.1493E+04	-9.600	96.00
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
50 D	29.58	5.2961E-20	101.9	49.89	101.9	49.89	V-C	4.1493E+04	-9.800	98.00
1.000	1.000	147.9	0.000	0.000	Ug5_2_8_L_0					
51 D	30.17	4.8631E-20	103.9	50.87	103.9	50.87	V-C	4.1493E+04	-10.000	100.00
1.000	1.000	150.9	0.000	0.000	Ug5_2_8_L_0					
52 D	30.77	4.4112E-20	105.9	51.84	105.9	51.84	V-C	4.1493E+04	-10.200	102.0
1.000	1.000	153.8	0.000	0.000	Ug5_2_8_L_0					
53 D	31.36	3.9405E-20	107.9	52.82	107.9	52.82	V-C	4.1493E+04	-10.400	104.0
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
54 D	31.96	3.4508E-20	109.9	53.80	109.9	53.80	V-C	4.1493E+04	-10.600	106.0
1.000	1.000	159.8	0.000	0.000	Ug5_2_8_L_0					
55 D	32.55	2.9436E-20	111.9	54.77	111.9	54.77	V-C	4.1493E+04	-10.800	108.0
1.000	1.000	162.8	0.000	0.000	Ug5_2_8_L_0					
56 D	33.15	2.4201E-20	114.0	55.75	114.0	55.75	V-C	4.1493E+04	-11.000	110.0
1.000	1.000	165.8	0.000	0.000	Ug5_2_8_L_0					
57 D	33.75	1.8819E-20	115.9	56.73	115.9	56.73	V-C	4.1493E+04	-11.200	112.0
1.000	1.000	168.7	0.000	0.000	Ug5_2_8_L_0					
58 D	34.34	1.3300E-20	118.0	57.71	118.0	57.71	V-C	4.1493E+04	-11.400	114.0
1.000	1.000	171.7	0.000	0.000	Ug5_2_8_L_0					
59 D	34.94	7.6573E-21	120.0	58.69	120.0	58.69	V-C	4.1493E+04	-11.600	116.0
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0					
60 D	35.53	1.9018E-21	122.0	59.67	122.0	59.67	V-C	4.1493E+04	-11.800	118.0
1.000	1.000	177.7	0.000	0.000	Ug5_2_8_L_0					
61 D	36.13	-3.9556E-21	124.0	60.65	124.0	60.65	V-C	4.1493E+04	-12.000	120.0
1.000	1.000	180.7	0.000	0.000	Ug5_2_8_L_0					
62 D	36.71	-9.9041E-21	125.8	61.54	125.8	61.54	V-C	2.0584E+04	-12.200	122.0
1.000	1.000	183.5	0.000	0.000	Ug6_741_743_L_0					
63 D	37.28	-1.5933E-20	127.6	62.42	127.6	62.42	V-C	2.0584E+04	-12.400	124.0
1.000	1.000	186.4	0.000	0.000	Ug6_741_743_L_0					
64 D	37.86	-2.2038E-20	129.4	63.30	129.4	63.30	V-C	2.0584E+04	-12.600	126.0
1.000	1.000	189.3	0.000	0.000	Ug6_741_743_L_0					
65 D	38.44	-2.8240E-20	131.2	64.19	131.2	64.19	V-C	2.0584E+04	-12.800	128.0
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
66 D	39.01	-3.4570E-20	132.9	65.07	132.9	65.07	V-C	2.0584E+04	-13.000	130.0
1.000	1.000	195.1	0.000	0.000	Ug6_741_743_L_0					
67 D	39.59	-4.1055E-20	134.7	65.95	134.7	65.95	V-C	2.0584E+04	-13.200	132.0
1.000	1.000	198.0	0.000	0.000	Ug6_741_743_L_0					
68 D	40.17	-4.7714E-20	136.5	66.84	136.5	66.84	V-C	2.0584E+04	-13.400	134.0
1.000	1.000	200.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.75	-5.4542E-20	138.2	67.73	138.2	67.73	V-C	2.0584E+04	-13.60	136.0
1.000	1.000	203.7	0.000	0.000	Ug6_741_743_L_0					
70 D	41.32	-6.1523E-20	140.0	68.61	140.0	68.61	V-C	2.0584E+04	-13.80	138.0
1.000	1.000	206.6	0.000	0.000	Ug6_741_743_L_0					
71 D	41.90	-6.8640E-20	141.7	69.50	141.7	69.50	V-C	2.0584E+04	-14.00	140.0
1.000	1.000	209.5	0.000	0.000	Ug6_741_743_L_0					
72 D	42.48	-7.5876E-20	143.5	70.38	143.5	70.38	V-C	2.0584E+04	-14.20	142.0
1.000	1.000	212.4	0.000	0.000	Ug6_741_743_L_0					
73 D	43.05	-8.3212E-20	145.3	71.27	145.3	71.27	V-C	2.0584E+04	-14.40	144.0
1.000	1.000	215.3	0.000	0.000	Ug6_741_743_L_0					
74 D	43.63	-9.0627E-20	147.0	72.16	147.0	72.16	V-C	2.0584E+04	-14.60	146.0
1.000	1.000	218.2	0.000	0.000	Ug6_741_743_L_0					
75 D	44.21	-9.8099E-20	148.8	73.05	148.8	73.05	V-C	2.0584E+04	-14.80	148.0
1.000	1.000	221.0	0.000	0.000	Ug6_741_743_L_0					
76 D	44.79	-1.0560E-19	150.6	73.94	150.6	73.94	V-C	2.0584E+04	-15.00	150.0
1.000	1.000	223.9	0.000	0.000	Ug6_741_743_L_0					
77 D	45.36	-1.1311E-19	152.3	74.82	152.3	74.82	V-C	2.0584E+04	-15.20	152.0
1.000	1.000	226.8	0.000	0.000	Ug6_741_743_L_0					
78 D	45.94	-1.2061E-19	154.1	75.71	154.1	75.71	V-C	2.0584E+04	-15.40	154.0
1.000	1.000	229.7	0.000	0.000	Ug6_741_743_L_0					
79 D	46.52	-1.2809E-19	155.9	76.60	155.9	76.60	V-C	2.0584E+04	-15.60	156.0
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					
80 D	47.10	-1.3556E-19	157.6	77.49	157.6	77.49	V-C	2.0584E+04	-15.80	158.0
1.000	1.000	235.5	0.000	0.000	Ug6_741_743_L_0					
81 D	23.84	-1.4304E-19	159.4	78.38	159.4	78.38	V-C	2.0584E+04	-16.00	160.0
1.000	1.000	238.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	3.0850E-20	0.000	0.000	0.000	0.000	V-C	2.6477E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7483	2.6844E-20	2.000	1.741	2.000	1.741	V-C	2.6477E+04	-0.2000	2.000	
1.000	1.000	3.741	0.000	0.000	Ug5_2_8_L_0						
3 D	1.474	2.2838E-20	4.000	3.371	4.000	3.371	V-C	2.6477E+04	-0.4000	4.000	
1.000	1.000	7.371	0.000	0.000	Ug5_2_8_L_0						
4 D	2.167	1.8829E-20	6.000	4.836	6.000	4.836	V-C	2.6477E+04	-0.6000	6.000	
1.000	1.000	10.84	0.000	0.000	Ug5_2_8_L_0						
5 D	2.829	1.4817E-20	8.000	6.146	8.000	6.146	V-C	2.6477E+04	-0.8000	8.000	
1.000	1.000	14.15	0.000	0.000	Ug5_2_8_L_0						
6 D	3.467	1.0798E-20	10.00	7.336	10.00	7.336	V-C	2.6477E+04	-1.0000	10.00	
1.000	1.000	17.34	0.000	0.000	Ug5_2_8_L_0						
7 D	4.089	6.7688E-21	12.00	8.443	12.00	8.443	V-C	2.6477E+04	-1.2000	12.00	
1.000	1.000	20.44	0.000	0.000	Ug5_2_8_L_0						
8 D	4.699	2.7296E-21	14.00	9.495	14.00	9.495	V-C	2.6477E+04	-1.4000	14.00	
1.000	1.000	23.49	0.000	0.000	Ug5_2_8_L_0						
9 D	5.302	-1.3210E-21	16.00	10.51	16.00	10.51	V-C	2.6477E+04	-1.6000	16.00	
1.000	1.000	26.51	0.000	0.000	Ug5_2_8_L_0						
10 D	5.901	-5.3838E-21	18.00	11.50	18.00	11.50	V-C	2.6477E+04	-1.8000	18.00	
1.000	1.000	29.50	0.000	0.000	Ug5_2_8_L_0						
11 D	6.496	-9.4593E-21	20.00	12.48	20.00	12.48	V-C	2.6477E+04	-2.0000	20.00	
1.000	1.000	32.48	0.000	0.000	Ug5_2_8_L_0						
12 D	7.089	-1.3548E-20	22.00	13.45	22.00	13.45	V-C	2.6477E+04	-2.2000	22.00	
1.000	1.000	35.45	0.000	0.000	Ug5_2_8_L_0						
13 D	7.681	-1.7648E-20	24.00	14.41	24.00	14.41	V-C	2.6477E+04	-2.4000	24.00	
1.000	1.000	38.41	0.000	0.000	Ug5_2_8_L_0						
14 D	8.272	-2.1760E-20	26.00	15.36	26.00	15.36	V-C	2.6477E+04	-2.6000	26.00	
1.000	1.000	41.36	0.000	0.000	Ug5_2_8_L_0						
15 D	8.863	-2.5880E-20	28.00	16.31	28.00	16.31	V-C	2.6477E+04	-2.8000	28.00	
1.000	1.000	44.31	0.000	0.000	Ug5_2_8_L_0						
16 D	9.453	-2.9996E-20	30.00	17.27	30.00	17.27	V-C	2.6477E+04	-3.0000	30.00	
1.000	1.000	47.27	0.000	0.000	Ug5_2_8_L_0						
17 D	10.04	-3.4094E-20	32.00	18.22	32.00	18.22	V-C	2.6477E+04	-3.2000	32.00	
1.000	1.000	50.22	0.000	0.000	Ug5_2_8_L_0						
18 D	10.63	-3.8159E-20	34.00	19.16	34.00	19.16	V-C	2.6477E+04	-3.4000	34.00	
1.000	1.000	53.16	0.000	0.000	Ug5_2_8_L_0						
19 D	11.22	-4.2174E-20	36.00	20.11	36.00	20.11	V-C	2.6477E+04	-3.6000	36.00	
1.000	1.000	56.11	0.000	0.000	Ug5_2_8_L_0						
20 D	11.81	-4.6119E-20	38.00	21.06	38.00	21.06	V-C	2.6477E+04	-3.8000	38.00	
1.000	1.000	59.06	0.000	0.000	Ug5_2_8_L_0						
21 D	12.40	-4.9975E-20	40.00	22.01	40.00	22.01	V-C	2.6477E+04	-4.0000	40.00	
1.000	1.000	62.01	0.000	0.000	Ug5_2_8_L_0						
22 D	12.99	-5.3722E-20	42.00	22.96	42.00	22.96	V-C	2.6477E+04	-4.2000	42.00	
1.000	1.000	64.96	0.000	0.000	Ug5_2_8_L_0						
23 D	13.58	-5.7344E-20	44.00	23.91	44.00	23.91	V-C	2.6477E+04	-4.4000	44.00	
1.000	1.000	67.91	0.000	0.000	Ug5_2_8_L_0						
24 D	14.17	-6.0825E-20	46.00	24.86	46.00	24.86	V-C	2.6477E+04	-4.6000	46.00	
1.000	1.000	70.86	0.000	0.000	Ug5_2_8_L_0						
25 D	14.76	-6.4146E-20	48.00	25.81	48.00	25.81	V-C	2.6477E+04	-4.8000	48.00	
1.000	1.000	73.81	0.000	0.000	Ug5_2_8_L_0						
26 D	15.35	-6.7287E-20	50.00	26.76	50.00	26.76	V-C	2.6477E+04	-5.0000	50.00	
1.000	1.000	76.76	0.000	0.000	Ug5_2_8_L_0						
27 D	15.94	-7.0226E-20	52.00	27.72	52.00	27.72	V-C	2.6477E+04	-5.2000	52.00	
1.000	1.000	79.72	0.000	0.000	Ug5_2_8_L_0						
28 D	16.53	-7.2938E-20	54.00	28.67	54.00	28.67	V-C	2.6477E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.67	0.000	0.000	Ug5_2_8_L_0					
29 D	17.12	-7.5403E-20	56.00	29.62	56.00	29.62	V-C	2.6477E+04	-5.600	56.00
1.000	1.000	85.62	0.000	0.000	Ug5_2_8_L_0					
30 D	17.72	-7.7602E-20	58.00	30.58	58.00	30.58	V-C	2.6477E+04	-5.800	58.00
1.000	1.000	88.58	0.000	0.000	Ug5_2_8_L_0					
31 D	18.31	-7.9513E-20	60.00	31.54	60.00	31.54	V-C	2.6477E+04	-6.000	60.00
1.000	1.000	91.54	0.000	0.000	Ug5_2_8_L_0					
32 D	18.90	-8.1129E-20	62.00	32.49	62.00	32.49	V-C	2.6477E+04	-6.200	62.00
1.000	1.000	94.49	0.000	0.000	Ug5_2_8_L_0					
33 D	19.49	-8.2439E-20	64.00	33.45	64.00	33.45	V-C	2.6477E+04	-6.400	64.00
1.000	1.000	97.45	0.000	0.000	Ug5_2_8_L_0					
34 D	20.08	-8.3432E-20	66.00	34.41	66.00	34.41	V-C	2.6477E+04	-6.600	66.00
1.000	1.000	100.4	0.000	0.000	Ug5_2_8_L_0					
35 D	20.67	-8.4094E-20	68.00	35.37	68.00	35.37	V-C	2.6477E+04	-6.800	68.00
1.000	1.000	103.4	0.000	0.000	Ug5_2_8_L_0					
36 D	21.27	-8.4406E-20	70.00	36.33	70.00	36.33	V-C	2.6477E+04	-7.000	70.00
1.000	1.000	106.3	0.000	0.000	Ug5_2_8_L_0					
37 D	21.86	-8.4351E-20	72.00	37.30	72.00	37.30	V-C	2.6477E+04	-7.200	72.00
1.000	1.000	109.3	0.000	0.000	Ug5_2_8_L_0					
38 D	22.45	-8.3926E-20	74.00	38.26	74.00	38.26	V-C	2.6477E+04	-7.400	74.00
1.000	1.000	112.3	0.000	0.000	Ug5_2_8_L_0					
39 D	23.04	-8.3142E-20	76.00	39.22	76.00	39.22	V-C	2.6477E+04	-7.600	76.00
1.000	1.000	115.2	0.000	0.000	Ug5_2_8_L_0					
40 D	23.64	-8.2008E-20	78.00	40.19	78.00	40.19	V-C	2.6477E+04	-7.800	78.00
1.000	1.000	118.2	0.000	0.000	Ug5_2_8_L_0					
41 D	24.23	-8.0533E-20	80.00	41.16	80.00	41.16	V-C	2.6477E+04	-8.000	80.00
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
42 D	24.82	-7.8722E-20	82.00	42.12	82.00	42.12	V-C	2.6477E+04	-8.200	82.00
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
43 D	25.42	-7.6577E-20	84.00	43.09	84.00	43.09	V-C	2.6477E+04	-8.400	84.00
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
44 D	26.01	-7.4097E-20	86.00	44.06	86.00	44.06	V-C	2.6477E+04	-8.600	86.00
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
45 D	26.61	-7.1282E-20	88.00	45.03	88.00	45.03	V-C	2.6477E+04	-8.800	88.00
1.000	1.000	133.0	0.000	0.000	Ug5_2_8_L_0					
46 D	27.20	-6.8146E-20	90.00	46.00	90.00	46.00	V-C	2.6477E+04	-9.000	90.00
1.000	1.000	136.0	0.000	0.000	Ug5_2_8_L_0					
47 D	27.79	-6.4718E-20	92.00	46.97	92.00	46.97	V-C	2.6477E+04	-9.200	92.00
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
48 D	28.39	-6.1027E-20	94.00	47.95	94.00	47.95	V-C	2.6477E+04	-9.400	94.00
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
49 D	28.98	-5.7099E-20	96.00	48.92	96.00	48.92	V-C	2.6477E+04	-9.600	96.00
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
50 D	29.58	-5.2961E-20	98.00	49.89	98.00	49.89	V-C	2.6477E+04	-9.800	98.00
1.000	1.000	147.9	0.000	0.000	Ug5_2_8_L_0					
51 D	30.17	-4.8631E-20	100.00	50.87	100.00	50.87	V-C	2.6477E+04	-10.000	100.00
1.000	1.000	150.9	0.000	0.000	Ug5_2_8_L_0					
52 D	30.77	-4.4112E-20	102.0	51.84	102.0	51.84	V-C	2.6477E+04	-10.200	102.0
1.000	1.000	153.8	0.000	0.000	Ug5_2_8_L_0					
53 D	31.36	-3.9405E-20	104.0	52.82	104.0	52.82	V-C	2.6477E+04	-10.400	104.0
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
54 D	31.96	-3.4508E-20	106.0	53.80	106.0	53.80	V-C	2.6477E+04	-10.600	106.0
1.000	1.000	159.8	0.000	0.000	Ug5_2_8_L_0					
55 D	32.55	-2.9436E-20	108.0	54.77	108.0	54.77	V-C	2.6477E+04	-10.800	108.0
1.000	1.000	162.8	0.000	0.000	Ug5_2_8_L_0					
56 D	33.15	-2.4201E-20	110.0	55.75	110.0	55.75	V-C	2.6477E+04	-11.000	110.0
1.000	1.000	165.8	0.000	0.000	Ug5_2_8_L_0					
57 D	33.75	-1.8819E-20	112.0	56.73	112.0	56.73	V-C	2.6477E+04	-11.200	112.0
1.000	1.000	168.7	0.000	0.000	Ug5_2_8_L_0					
58 D	34.34	-1.3300E-20	114.0	57.71	114.0	57.71	V-C	2.6477E+04	-11.400	114.0
1.000	1.000	171.7	0.000	0.000	Ug5_2_8_L_0					
59 D	34.94	-7.6573E-21	116.0	58.69	116.0	58.69	V-C	2.6477E+04	-11.600	116.0
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0					
60 D	35.53	-1.9018E-21	118.0	59.67	118.0	59.67	V-C	2.6477E+04	-11.800	118.0
1.000	1.000	177.7	0.000	0.000	Ug5_2_8_L_0					
61 D	36.13	3.9556E-21	120.0	60.65	120.0	60.65	V-C	2.6477E+04	-12.000	120.0
1.000	1.000	180.7	0.000	0.000	Ug5_2_8_L_0					
62 D	36.71	9.9041E-21	121.8	61.54	121.8	61.54	V-C	1.9214E+04	-12.200	122.0
1.000	1.000	183.5	0.000	0.000	Ug6_741_743_L_0					
63 D	37.28	1.5933E-20	123.6	62.42	123.6	62.42	V-C	1.9214E+04	-12.400	124.0
1.000	1.000	186.4	0.000	0.000	Ug6_741_743_L_0					
64 D	37.86	2.2038E-20	125.4	63.30	125.4	63.30	V-C	1.9214E+04	-12.600	126.0
1.000	1.000	189.3	0.000	0.000	Ug6_741_743_L_0					
65 D	38.44	2.8240E-20	127.2	64.19	127.2	64.19	V-C	1.9214E+04	-12.800	128.0
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
66 D	39.01	3.4570E-20	129.0	65.07	129.0	65.07	V-C	1.9214E+04	-13.000	130.0
1.000	1.000	195.1	0.000	0.000	Ug6_741_743_L_0					
67 D	39.59	4.1055E-20	130.8	65.95	130.8	65.95	V-C	1.9214E+04	-13.200	132.0
1.000	1.000	198.0	0.000	0.000	Ug6_741_743_L_0					
68 D	40.17	4.7714E-20	132.6	66.84	132.6	66.84	V-C	1.9214E+04	-13.400	134.0
1.000	1.000	200.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.75	5.4542E-20	134.4	67.73	134.4	67.73	V-C	1.9214E+04	-13.60	136.0
1.000	1.000	203.7	0.000	0.000	Ug6_741_743_L_0					
70 D	41.32	6.1523E-20	136.2	68.61	136.2	68.61	V-C	1.9214E+04	-13.80	138.0
1.000	1.000	206.6	0.000	0.000	Ug6_741_743_L_0					
71 D	41.90	6.8640E-20	138.0	69.50	138.0	69.50	V-C	1.9214E+04	-14.00	140.0
1.000	1.000	209.5	0.000	0.000	Ug6_741_743_L_0					
72 D	42.48	7.5876E-20	139.8	70.38	139.8	70.38	V-C	1.9214E+04	-14.20	142.0
1.000	1.000	212.4	0.000	0.000	Ug6_741_743_L_0					
73 D	43.05	8.3212E-20	141.6	71.27	141.6	71.27	V-C	1.9214E+04	-14.40	144.0
1.000	1.000	215.3	0.000	0.000	Ug6_741_743_L_0					
74 D	43.63	9.0627E-20	143.4	72.16	143.4	72.16	V-C	1.9214E+04	-14.60	146.0
1.000	1.000	218.2	0.000	0.000	Ug6_741_743_L_0					
75 D	44.21	9.8099E-20	145.2	73.05	145.2	73.05	V-C	1.9214E+04	-14.80	148.0
1.000	1.000	221.0	0.000	0.000	Ug6_741_743_L_0					
76 D	44.79	1.0560E-19	147.0	73.94	147.0	73.94	V-C	1.9214E+04	-15.00	150.0
1.000	1.000	223.9	0.000	0.000	Ug6_741_743_L_0					
77 D	45.36	1.1311E-19	148.8	74.82	148.8	74.82	V-C	1.9214E+04	-15.20	152.0
1.000	1.000	226.8	0.000	0.000	Ug6_741_743_L_0					
78 D	45.94	1.2061E-19	150.6	75.71	150.6	75.71	V-C	1.9214E+04	-15.40	154.0
1.000	1.000	229.7	0.000	0.000	Ug6_741_743_L_0					
79 D	46.52	1.2809E-19	152.4	76.60	152.4	76.60	V-C	1.9214E+04	-15.60	156.0
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					
80 D	47.10	1.3556E-19	154.2	77.49	154.2	77.49	V-C	1.9214E+04	-15.80	158.0
1.000	1.000	235.5	0.000	0.000	Ug6_741_743_L_0					
81 D	23.84	1.4304E-19	156.0	78.38	156.0	78.38	V-C	1.9214E+04	-16.00	160.0
1.000	1.000	238.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:25:48       |
|                                                                    |
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New Project

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1-9.09245E-17	9.09245E-17	4.54384E-28	1.81849E-17	6.71531E-17
2-2.44841E-16	2.44841E-16	6.71531E-17	1.41319E-16	4.68895E-16
3-3.70828E-16	3.70828E-16	4.68895E-16	2.35098E-16	3.42910E-16
4-4.68895E-16	4.68895E-16	2.35098E-16	3.42910E-16	3.70366E-16
5-5.39063E-16	5.39063E-16	3.42910E-16	3.70366E-16	4.00721E-16
6-1.37278E-16	1.37278E-16	4.00721E-16	4.28431E-16	4.47974E-16
7-1.51776E-16	1.51776E-16	4.28431E-16	4.53856E-16	4.40622E-16
8-1.38550E-16	1.38550E-16	4.40622E-16	4.02863E-16	3.35227E-16
9-9.77124E-17	9.77124E-17	4.02863E-16	3.35227E-16	1.22844E-16
10-2.94100E-17	2.94100E-17	3.35227E-16	1.22844E-16	6.21284E-16
11 6.61695E-17	6.61695E-17	1.22844E-16	6.21284E-16	2.71962E-15
12 1.88794E-16	1.88794E-16	6.21284E-16	1.16521E-15	2.97208E-15
13 3.38182E-16	3.38182E-16	1.16521E-15	1.75963E-15	3.24899E-15
14 2.29035E-15	2.29035E-15	1.75963E-15	2.40942E-15	3.54969E-15
15 2.49220E-15	2.49220E-15	2.40942E-15	3.11936E-15	3.89404E-15
16 2.71962E-15	2.71962E-15	3.11936E-15	3.89404E-15	4.38263E-15
17 2.97208E-15	2.97208E-15	3.89404E-15	4.38263E-15	4.94467E-15
18 3.24899E-15	3.24899E-15	4.38263E-15	5.58422E-15	6.30512E-15
19 3.54969E-15	3.54969E-15	4.94467E-15	6.30512E-15	7.11098E-15
20 3.87341E-15	3.87341E-15	5.58422E-15	7.11098E-15	8.00518E-15
21 2.44298E-15	2.44298E-15	6.30512E-15	8.00518E-15	8.63557E-15
22 2.81020E-15	2.81020E-15	7.11098E-15	8.63557E-15	9.36022E-15
23 3.19772E-15	3.19772E-15	8.00518E-15	9.36022E-15	1.01817E-14
24 3.60449E-15	3.60449E-15	8.63557E-15	1.01817E-14	1.03917E-14
25 4.02933E-15	4.02933E-15	9.36022E-15	1.03917E-14	1.07026E-14
26 4.47103E-15	4.47103E-15	1.01817E-14	1.07026E-14	1.11161E-14
27 3.15191E-15	3.15191E-15	1.03917E-14	1.11161E-14	1.16333E-14
28 3.62329E-15	3.62329E-15	1.07026E-14	1.16333E-14	1.22553E-14
29 4.10737E-15	4.10737E-15	1.11161E-14	1.22553E-14	1.29824E-14
30 1.04988E-15	1.04988E-15	1.16333E-14	1.29824E-14	1.31043E-14
31 1.55468E-15	1.55468E-15	1.22553E-14	1.31043E-14	1.26208E-14
32 2.06737E-15	2.06737E-15	1.29824E-14	1.31043E-14	1.26208E-14
33 2.58627E-15	2.58627E-15	1.31043E-14	1.26208E-14	1.22419E-14
34 3.10960E-15	3.10960E-15	1.26208E-14	1.22419E-14	1.19665E-14
35 3.63556E-15	3.63556E-15	1.22419E-14	1.19665E-14	1.17934E-14
36 6.09613E-16	6.09613E-16	1.19665E-14	1.17934E-14	1.17934E-14
37-2.41740E-15	2.41740E-15	1.17934E-14	1.17208E-14	1.17208E-14
38-1.89466E-15	1.89466E-15	1.17208E-14	1.17465E-14	1.17465E-14
39-1.37677E-15	1.37677E-15	1.17465E-14	1.18681E-14	1.18681E-14
40-8.65641E-16	8.65641E-16	1.18681E-14	1.13723E-14	1.13723E-14
41-3.63176E-16	3.63176E-16	1.13723E-14	1.02557E-14	1.02557E-14
42 1.28727E-16	1.28727E-16	1.17208E-14	9.22525E-15	9.22525E-15
43 6.08185E-16	6.08185E-16	1.17465E-14	8.27713E-15	8.27713E-15
44-2.47938E-15	2.47938E-15	1.18681E-14	7.40700E-15	7.40700E-15
45-5.58308E-15	5.58308E-15	1.13723E-14	6.61025E-15	6.61025E-15
46-5.15200E-15	5.15200E-15	1.02557E-14	6.59248E-15	6.59248E-15
47-4.74062E-15	4.74062E-15	9.22525E-15	6.63791E-15	6.63791E-15
48-4.35065E-15	4.35065E-15	8.27713E-15	6.74097E-15	6.74097E-15
49-3.98376E-15	3.98376E-15	7.40700E-15	6.18529E-15	6.18529E-15
50-8.88412E-17	8.88412E-17	6.61025E-15	5.67531E-15	5.67531E-15
51 2.27113E-16	2.27113E-16	6.59248E-15	5.20465E-15	5.20465E-15
52 5.15321E-16	5.15321E-16	6.63791E-15	4.76669E-15	4.76669E-15
53-2.77837E-15	2.77837E-15	6.74097E-15	4.35456E-15	4.35456E-15
54-2.54990E-15	2.54990E-15	6.18529E-15	3.96119E-15	3.96119E-15
55-2.35331E-15	2.35331E-15	5.67531E-15	3.96119E-15	3.96119E-15
56-2.18982E-15	2.18982E-15	5.20465E-15	3.57928E-15	3.57928E-15
57-2.06064E-15	2.06064E-15	4.76669E-15		
58-1.96686E-15	1.96686E-15	4.35456E-15		
59-1.90954E-15	1.90954E-15	3.96119E-15		

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-1.88966E-15 1.88966E-15-3.57928E-15 3.20135E-15
61-1.90814E-15 1.90814E-15-3.20135E-15 2.81972E-15
62-1.94192E-15 1.94192E-15-2.81972E-15 2.43134E-15
63 5.10630E-15-5.10630E-15-2.43134E-15 3.45259E-15
64 5.02523E-15-5.02523E-15-3.45259E-15 4.45764E-15
65 4.91992E-15-4.91992E-15-4.45764E-15 5.44162E-15
66 4.79000E-15-4.79000E-15-5.44162E-15 6.39962E-15
67-2.47029E-15 2.47029E-15-6.39962E-15 5.90557E-15
68-2.65037E-15 2.65037E-15-5.90557E-15 5.37549E-15
69-2.85594E-15 2.85594E-15-5.37549E-15 4.80430E-15
70-3.08722E-15 3.08722E-15-4.80430E-15 4.18686E-15
71-3.34441E-15 3.34441E-15-4.18686E-15 3.51798E-15
72-3.62768E-15 3.62768E-15-3.51798E-15 2.79244E-15
73-3.93717E-15 3.93717E-15-2.79244E-15 2.00501E-15
74-4.27300E-15 4.27300E-15-2.00501E-15 1.15041E-15
75-4.63524E-15 4.63524E-15-1.15041E-15 2.23360E-16
76-5.02398E-15 5.02398E-15-2.23360E-16 7.81436E-16
77 1.66616E-15-1.66616E-15 7.81436E-16-4.48204E-16
78 1.22431E-15-1.22431E-15 4.48204E-16-2.03341E-16
79 7.55868E-16-7.55868E-16 2.03341E-16-5.21675E-17
80 2.60824E-16-2.60824E-16 5.21675E-17-2.01948E-27

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1136E+06 RIMNOR=0.7113E-26
RENORM= 304.5 REMNOR=0.2362E-51 RATIO =0.5177E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.59 RMMAX =0.1310E-13
RTSMAL=0.1000E-03 RMSMAL=0.1000E-18
RDT =0.1136E+06 RDR =0.1000E-18
RATIOT=0.5177E-01 RATIO= 0.000
MAX UN= 3.435 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.4443E-26 IEQ= 142 NODE 71 DOF 2 X-ROT.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1136E+06 RIMNOR=0.7113E-26
RENORM= 14.72 REMNOR=0.4094E-21 RATIO =0.1138E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.59 RMMAX =0.1310E-13
RTSMAL=0.1000E-03 RMSMAL=0.1000E-18
RDT =0.1136E+06 RDR =0.1000E-18
RATIOT=0.1138E-01 RATIO= 0.000
MAX UN= 1.616 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.3449E-10 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1136E+06 RIMNOR=0.7113E-26
RENORM= 9.817 REMNOR=0.1077E-20 RATIO =0.9296E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.59 RMMAX =0.1310E-13
RTSMAL=0.1000E-03 RMSMAL=0.1000E-18
RDT =0.1136E+06 RDR =0.1000E-18
RATIOT=0.9296E-02 RATIO= 0.000
MAX UN= 1.896 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
MIN UN=-.2447E-09 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1136E+06 RIMNOR=0.7113E-26
RENORM=0.1806 REMNOR=0.3299E-21 RATIO =0.1261E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.59 RMMAX =0.1310E-13
RTSMAL=0.1000E-03 RMSMAL=0.1000E-18
RDT =0.1136E+06 RDR =0.1000E-18
RATIOT=0.1261E-02 RATIO= 0.000
MAX UN=0.3817 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.1656E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1136E+06 RIMNOR=0.7113E-26
RENORM=0.2560E-04 REMNOR=0.3148E-21 RATIO =0.1501E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 46.59 RMMAX =0.1310E-13
RTSMAL=0.1000E-03 RMSMAL=0.1000E-18
RDT =0.1136E+06 RDR =0.1000E-18
RATIOT=0.1501E-04 RATIO= 0.000
MAX UN=0.5060E-02 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.1349E-09 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                               Exe Time :24 May 2018      18:25:48 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	4.2370625E-04	-7.8480341E-05	
2	4.0801018E-04	-7.8480341E-05	
3	3.9231461E-04	-7.8472946E-05	
4	3.7662298E-04	-7.8435925E-05	
5	3.6094469E-04	-7.8332098E-05	
6	3.4529808E-04	-7.8109232E-05	
7	3.2971343E-04	-7.7699974E-05	
8	3.1423394E-04	-7.7052934E-05	
9	2.9890859E-04	-7.6160778E-05	
10	2.8378509E-04	-7.5036698E-05	
11	2.6890849E-04	-7.3694042E-05	
12	2.5432115E-04	-7.2146257E-05	
13	2.4006277E-04	-7.0406690E-05	
14	2.2617036E-04	-6.8488776E-05	
15	2.1267824E-04	-6.6406089E-05	
16	1.9961800E-04	-6.4172252E-05	
17	1.8701844E-04	-6.1801011E-05	
18	1.7490576E-04	-5.9306472E-05	
19	1.6330311E-04	-5.6703110E-05	
20	1.5223078E-04	-5.4005793E-05	
21	1.4170607E-04	-5.1229976E-05	
22	1.3174300E-04	-4.8391731E-05	
23	1.2235243E-04	-4.5507840E-05	
24	1.1354173E-04	-4.2595915E-05	
25	1.0531469E-04	-3.9674510E-05	
26	9.7671260E-05	-3.6763144E-05	
27	9.0607427E-05	-3.3882411E-05	
28	8.4114837E-05	-3.1054097E-05	
29	7.8180788E-05	-2.8300788E-05	
30	7.2788163E-05	-2.5642861E-05	
31	6.7916215E-05	-2.3096354E-05	
32	6.3541404E-05	-2.0673432E-05	
33	5.9638047E-05	-1.8382780E-05	
34	5.6179095E-05	-1.6230089E-05	
35	5.3136611E-05	-1.4218400E-05	
36	5.0482283E-05	-1.2348487E-05	
37	4.8187852E-05	-1.0619209E-05	
38	4.6225415E-05	-9.0278713E-06	
39	4.4567783E-05	-7.5703340E-06	
40	4.3188736E-05	-6.2409825E-06	
41	4.2063294E-05	-5.0330678E-06	
42	4.1167918E-05	-3.9390071E-06	
43	4.0480644E-05	-2.9506567E-06	
44	3.9981172E-05	-2.0595569E-06	
45	3.9650910E-05	-1.2571559E-06	
46	3.9472963E-05	-5.3499053E-07	
47	3.9432109E-05	1.1511431E-07	
48	3.9514721E-05	7.0090676E-07	
49	3.9708663E-05	1.2295657E-06	
50	4.0003169E-05	1.7075763E-06	
51	4.0388695E-05	2.1406315E-06	
52	4.0856757E-05	2.5335314E-06	
53	4.1399666E-05	2.8900535E-06	
54	4.2010513E-05	3.2130045E-06	
55	4.2682738E-05	3.5040074E-06	
56	4.3410017E-05	3.7635272E-06	
57	4.4185999E-05	3.9908027E-06	
58	4.5004053E-05	4.1838029E-06	
59	4.5857013E-05	4.3391909E-06	
60	4.6736911E-05	4.4522948E-06	
61	4.7634710E-05	4.5170852E-06	
62	4.8540031E-05	4.5261609E-06	
63	4.9441594E-05	4.4815352E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	5.0329837E-05	4.3947868E-06
65	5.1197401E-05	4.2764234E-06
66	5.2038928E-05	4.1358936E-06
67	5.2850841E-05	3.9816031E-06
68	5.3631144E-05	3.8209330E-06
69	5.4379215E-05	3.6602617E-06
70	5.5095608E-05	3.5049857E-06
71	5.5781864E-05	3.3595424E-06
72	5.6440314E-05	3.2274303E-06
73	5.7073897E-05	3.1112296E-06
74	5.7685979E-05	3.0126195E-06
75	5.8280171E-05	2.9323944E-06
76	5.8860157E-05	2.8704776E-06
77	5.9429520E-05	2.8259315E-06
78	5.9991568E-05	2.7969671E-06
79	6.0549170E-05	2.7809493E-06
80	6.1104579E-05	2.7744017E-06
81	6.1659302E-05	2.7730082E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-4.2371E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5195	-4.0801E-04	2.075	0.6619	2.075	1.774	ACTIVE	0.000	-0.2000	1.935	
1.000	1.000	2.597	0.000	0.000	Ug5_2_8_L_0						
3 D	1.042	-3.9231E-04	4.203	1.341	4.203	3.436	ACTIVE	0.000	-0.4000	3.871	
1.000	1.000	5.212	0.000	0.000	Ug5_2_8_L_0						
4 D	1.570	-3.7662E-04	6.399	2.041	6.399	4.933	ACTIVE	0.000	-0.6000	5.806	
1.000	1.000	7.848	0.000	0.000	Ug5_2_8_L_0						
5 D	2.100	-3.6094E-04	8.644	2.758	8.644	6.275	ACTIVE	0.000	-0.8000	7.742	
1.000	1.000	10.50	0.000	0.000	Ug5_2_8_L_0						
6 D	2.632	-3.4530E-04	10.91	3.481	10.91	7.498	ACTIVE	0.000	-1.000	9.677	
1.000	1.000	13.16	0.000	0.000	Ug5_2_8_L_0						
7 D	3.164	-3.2971E-04	13.18	4.205	13.18	8.636	ACTIVE	0.000	-1.200	11.61	
1.000	1.000	15.82	0.000	0.000	Ug5_2_8_L_0						
8 D	3.704	-3.1423E-04	15.59	4.973	15.59	9.720	ACTIVE	0.000	-1.400	13.55	
1.000	1.000	18.52	0.000	0.000	Ug5_2_8_L_0						
9 D	4.248	-2.9891E-04	18.04	5.756	18.04	10.77	ACTIVE	0.000	-1.600	15.48	
1.000	1.000	21.24	0.000	0.000	Ug5_2_8_L_0						
10 D	4.774	-2.8379E-04	20.22	6.451	20.22	11.79	ACTIVE	0.000	-1.800	17.42	
1.000	1.000	23.87	0.000	0.000	Ug5_2_8_L_0						
11 D	5.311	-2.6891E-04	22.58	7.201	22.58	12.80	ACTIVE	0.000	-2.000	19.35	
1.000	1.000	26.56	0.000	0.000	Ug5_2_8_L_0						
12 D	5.845	-2.5432E-04	24.88	7.937	24.88	13.80	ACTIVE	0.000	-2.200	21.29	
1.000	1.000	29.23	0.000	0.000	Ug5_2_8_L_0						
13 D	6.368	-2.4006E-04	27.00	8.612	27.00	14.79	ACTIVE	0.000	-2.400	23.23	
1.000	1.000	31.84	0.000	0.000	Ug5_2_8_L_0						
14 D	6.899	-2.2617E-04	29.25	9.331	29.25	15.78	ACTIVE	0.000	-2.600	25.16	
1.000	1.000	34.49	0.000	0.000	Ug5_2_8_L_0						
15 D	7.428	-2.1268E-04	31.48	10.04	31.48	16.77	ACTIVE	0.000	-2.800	27.10	
1.000	1.000	37.14	0.000	0.000	Ug5_2_8_L_0						
16 D	7.956	-1.9962E-04	33.69	10.75	33.69	17.75	ACTIVE	0.000	-3.000	29.03	
1.000	1.000	39.78	0.000	0.000	Ug5_2_8_L_0						
17 D	8.476	-1.8702E-04	35.77	11.41	35.77	18.73	ACTIVE	0.000	-3.200	30.97	
1.000	1.000	42.38	0.000	0.000	Ug5_2_8_L_0						
18 D	9.002	-1.7491E-04	37.96	12.11	37.96	19.71	ACTIVE	0.000	-3.400	32.90	
1.000	1.000	45.01	0.000	0.000	Ug5_2_8_L_0						
19 D	9.528	-1.6330E-04	40.13	12.80	40.13	20.69	ACTIVE	0.000	-3.600	34.84	
1.000	1.000	47.64	0.000	0.000	Ug5_2_8_L_0						
20 D	10.05	-1.5223E-04	42.20	13.46	42.20	21.67	ACTIVE	0.000	-3.800	36.77	
1.000	1.000	50.24	0.000	0.000	Ug5_2_8_L_0						
21 D	10.57	-1.4171E-04	44.36	14.15	44.36	22.66	ACTIVE	0.000	-4.000	38.71	
1.000	1.000	52.86	0.000	0.000	Ug5_2_8_L_0						
22 D	11.10	-1.3174E-04	46.51	14.84	46.51	23.64	ACTIVE	0.000	-4.200	40.65	
1.000	1.000	55.48	0.000	0.000	Ug5_2_8_L_0						
23 D	11.62	-1.2235E-04	48.57	15.49	48.57	24.62	ACTIVE	0.000	-4.400	42.58	
1.000	1.000	58.08	0.000	0.000	Ug5_2_8_L_0						
24 D	12.14	-1.1354E-04	50.71	16.18	50.71	25.60	ACTIVE	0.000	-4.600	44.52	
1.000	1.000	60.69	0.000	0.000	Ug5_2_8_L_0						
25 D	12.66	-1.0531E-04	52.85	16.86	52.85	26.59	ACTIVE	0.000	-4.800	46.45	
1.000	1.000	63.31	0.000	0.000	Ug5_2_8_L_0						
26 D	13.19	-9.7671E-05	54.98	17.54	54.98	27.57	ACTIVE	0.000	-5.000	48.39	
1.000	1.000	65.93	0.000	0.000	Ug5_2_8_L_0						
27 D	13.70	-9.0607E-05	57.03	18.19	57.03	28.55	ACTIVE	0.000	-5.200	50.32	
1.000	1.000	68.52	0.000	0.000	Ug5_2_8_L_0						
28 D	14.27	-8.4115E-05	59.16	19.07	59.16	29.54	UL-RL	1.2448E+05	-5.400	52.26	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	71.33	0.000	0.000	Ug5_2_8_L_0					
29 D	15.00	-7.8181E-05	61.28	20.80	61.28	30.53	UL-RL	1.2448E+05	-5.600	54.19
1.000	1.000	74.99	0.000	0.000	Ug5_2_8_L_0					
30 D	15.72	-7.2788E-05	63.33	22.45	63.33	31.52	UL-RL	1.2448E+05	-5.800	56.13
1.000	1.000	78.58	0.000	0.000	Ug5_2_8_L_0					
31 D	16.42	-6.7916E-05	65.44	24.05	65.44	32.50	UL-RL	1.2448E+05	-6.000	58.06
1.000	1.000	82.11	0.000	0.000	Ug5_2_8_L_0					
32 D	17.12	-6.3541E-05	67.56	25.58	67.56	33.49	UL-RL	1.2448E+05	-6.200	60.00
1.000	1.000	85.58	0.000	0.000	Ug5_2_8_L_0					
33 D	17.80	-5.9638E-05	69.61	27.06	69.61	34.49	UL-RL	1.2448E+05	-6.400	61.94
1.000	1.000	89.00	0.000	0.000	Ug5_2_8_L_0					
34 D	18.47	-5.6179E-05	71.72	28.48	71.72	35.48	UL-RL	1.2448E+05	-6.600	63.87
1.000	1.000	92.35	0.000	0.000	Ug5_2_8_L_0					
35 D	19.13	-5.3137E-05	73.82	29.86	73.82	36.47	UL-RL	1.2448E+05	-6.800	65.81
1.000	1.000	95.66	0.000	0.000	Ug5_2_8_L_0					
36 D	19.78	-5.0482E-05	75.93	31.18	75.93	37.46	UL-RL	1.2448E+05	-7.000	67.74
1.000	1.000	98.92	0.000	0.000	Ug5_2_8_L_0					
37 D	20.43	-4.8188E-05	77.98	32.46	77.98	38.46	UL-RL	1.2448E+05	-7.200	69.68
1.000	1.000	102.1	0.000	0.000	Ug5_2_8_L_0					
38 D	21.06	-4.6225E-05	80.08	33.70	80.08	39.45	UL-RL	1.2448E+05	-7.400	71.61
1.000	1.000	105.3	0.000	0.000	Ug5_2_8_L_0					
39 D	21.69	-4.4568E-05	82.18	34.90	82.18	40.45	UL-RL	1.2448E+05	-7.600	73.55
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
40 D	22.31	-4.3189E-05	84.22	36.07	84.22	41.45	UL-RL	1.2448E+05	-7.800	75.48
1.000	1.000	111.6	0.000	0.000	Ug5_2_8_L_0					
41 D	22.93	-4.2063E-05	86.32	37.21	86.32	42.45	UL-RL	1.2448E+05	-8.000	77.42
1.000	1.000	114.6	0.000	0.000	Ug5_2_8_L_0					
42 D	23.54	-4.1168E-05	88.42	38.32	88.42	43.45	UL-RL	1.2448E+05	-8.200	79.35
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
43 D	24.14	-4.0481E-05	90.47	39.41	90.47	44.45	UL-RL	1.2448E+05	-8.400	81.29
1.000	1.000	120.7	0.000	0.000	Ug5_2_8_L_0					
44 D	24.74	-3.9981E-05	92.56	40.47	92.56	45.45	UL-RL	1.2448E+05	-8.600	83.23
1.000	1.000	123.7	0.000	0.000	Ug5_2_8_L_0					
45 D	25.34	-3.9651E-05	94.65	41.51	94.65	46.45	UL-RL	1.2448E+05	-8.800	85.16
1.000	1.000	126.7	0.000	0.000	Ug5_2_8_L_0					
46 D	25.93	-3.9473E-05	96.75	42.54	96.75	47.45	UL-RL	1.2448E+05	-9.000	87.10
1.000	1.000	129.6	0.000	0.000	Ug5_2_8_L_0					
47 D	26.52	-3.9432E-05	98.79	43.55	98.79	48.46	UL-RL	1.2448E+05	-9.200	89.03
1.000	1.000	132.6	0.000	0.000	Ug5_2_8_L_0					
48 D	27.10	-3.9515E-05	100.9	44.54	100.9	49.46	UL-RL	1.2448E+05	-9.400	90.97
1.000	1.000	135.5	0.000	0.000	Ug5_2_8_L_0					
49 D	27.69	-3.9709E-05	103.0	45.52	103.0	50.47	UL-RL	1.2448E+05	-9.600	92.90
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
50 D	28.27	-4.0003E-05	105.0	46.49	105.0	51.47	UL-RL	1.2448E+05	-9.800	94.84
1.000	1.000	141.3	0.000	0.000	Ug5_2_8_L_0					
51 D	28.85	-4.0389E-05	107.1	47.45	107.1	52.48	UL-RL	1.2448E+05	-10.000	96.77
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
52 D	29.42	-4.0857E-05	109.2	48.40	109.2	53.49	UL-RL	1.2448E+05	-10.200	98.71
1.000	1.000	147.1	0.000	0.000	Ug5_2_8_L_0					
53 D	30.00	-4.1400E-05	111.2	49.34	111.2	54.50	UL-RL	1.2448E+05	-10.400	100.6
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
54 D	30.57	-4.2011E-05	113.3	50.28	113.3	55.51	UL-RL	1.2448E+05	-10.600	102.6
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
55 D	31.14	-4.2683E-05	115.4	51.20	115.4	56.52	UL-RL	1.2448E+05	-10.800	104.5
1.000	1.000	155.7	0.000	0.000	Ug5_2_8_L_0					
56 D	31.71	-4.3410E-05	117.5	52.12	117.5	57.53	UL-RL	1.2448E+05	-11.000	106.5
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
57 D	32.29	-4.4186E-05	119.6	53.04	119.6	58.54	UL-RL	1.2448E+05	-11.200	108.4
1.000	1.000	161.4	0.000	0.000	Ug5_2_8_L_0					
58 D	32.85	-4.5004E-05	121.6	53.95	121.6	59.55	UL-RL	1.2448E+05	-11.400	110.3
1.000	1.000	164.3	0.000	0.000	Ug5_2_8_L_0					
59 D	33.42	-4.5857E-05	123.7	54.85	123.7	60.56	UL-RL	1.2448E+05	-11.600	112.3
1.000	1.000	167.1	0.000	0.000	Ug5_2_8_L_0					
60 D	33.99	-4.6737E-05	125.8	55.76	125.8	61.58	UL-RL	1.2448E+05	-11.800	114.2
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
61 D	34.56	-4.7635E-05	127.9	56.66	127.9	62.59	UL-RL	1.2448E+05	-12.000	116.1
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
62 D	35.71	-4.8540E-05	129.7	60.51	129.7	63.50	UL-RL	6.1752E+04	-12.200	118.1
1.000	1.000	178.6	0.000	0.000	Ug6_741_743_L_0					
63 D	36.27	-4.9442E-05	131.6	61.37	131.6	64.42	UL-RL	6.1752E+04	-12.400	120.0
1.000	1.000	181.4	0.000	0.000	Ug6_741_743_L_0					
64 D	36.83	-5.0330E-05	133.5	62.23	133.5	65.33	UL-RL	6.1752E+04	-12.600	121.9
1.000	1.000	184.2	0.000	0.000	Ug6_741_743_L_0					
65 D	37.39	-5.1197E-05	135.3	63.09	135.3	66.25	UL-RL	6.1752E+04	-12.800	123.9
1.000	1.000	187.0	0.000	0.000	Ug6_741_743_L_0					
66 D	37.95	-5.2039E-05	137.1	63.95	137.1	67.17	UL-RL	6.1752E+04	-13.000	125.8
1.000	1.000	189.8	0.000	0.000	Ug6_741_743_L_0					
67 D	38.51	-5.2851E-05	139.0	64.82	139.0	68.08	UL-RL	6.1752E+04	-13.200	127.7
1.000	1.000	192.6	0.000	0.000	Ug6_741_743_L_0					
68 D	39.07	-5.3631E-05	140.8	65.69	140.8	69.00	UL-RL	6.1752E+04	-13.400	129.7
1.000	1.000	195.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.63	-5.4379E-05	142.6	66.56	142.6	69.92	UL-RL	6.1752E+04	-13.60	131.6
1.000	1.000	198.2	0.000	0.000	Ug6_741_743_L_0					
70 D	40.20	-5.5096E-05	144.4	67.43	144.4	70.84	UL-RL	6.1752E+04	-13.80	133.5
1.000	1.000	201.0	0.000	0.000	Ug6_741_743_L_0					
71 D	40.76	-5.5782E-05	146.3	68.31	146.3	71.76	UL-RL	6.1752E+04	-14.00	135.5
1.000	1.000	203.8	0.000	0.000	Ug6_741_743_L_0					
72 D	41.32	-5.6440E-05	148.1	69.19	148.1	72.68	UL-RL	6.1752E+04	-14.20	137.4
1.000	1.000	206.6	0.000	0.000	Ug6_741_743_L_0					
73 D	41.88	-5.7074E-05	149.9	70.07	149.9	73.59	UL-RL	6.1752E+04	-14.40	139.4
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
74 D	42.45	-5.7686E-05	151.7	70.95	151.7	74.51	UL-RL	6.1752E+04	-14.60	141.3
1.000	1.000	212.2	0.000	0.000	Ug6_741_743_L_0					
75 D	43.01	-5.8280E-05	153.6	71.84	153.6	75.43	UL-RL	6.1752E+04	-14.80	143.2
1.000	1.000	215.1	0.000	0.000	Ug6_741_743_L_0					
76 D	43.58	-5.8860E-05	155.4	72.72	155.4	76.36	UL-RL	6.1752E+04	-15.00	145.2
1.000	1.000	217.9	0.000	0.000	Ug6_741_743_L_0					
77 D	44.14	-5.9430E-05	157.2	73.61	157.2	77.28	UL-RL	6.1752E+04	-15.20	147.1
1.000	1.000	220.7	0.000	0.000	Ug6_741_743_L_0					
78 D	44.71	-5.9992E-05	159.1	74.49	159.1	78.20	UL-RL	6.1752E+04	-15.40	149.0
1.000	1.000	223.5	0.000	0.000	Ug6_741_743_L_0					
79 D	45.27	-6.0549E-05	160.9	75.38	160.9	79.12	UL-RL	6.1752E+04	-15.60	151.0
1.000	1.000	226.3	0.000	0.000	Ug6_741_743_L_0					
80 D	45.83	-6.1105E-05	162.7	76.27	162.7	80.04	UL-RL	6.1752E+04	-15.80	152.9
1.000	1.000	229.2	0.000	0.000	Ug6_741_743_L_0					
81 D	23.20	-6.1659E-05	164.6	77.16	164.6	80.96	UL-RL	6.1752E+04	-16.00	154.8
1.000	1.000	232.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	3.4530E-04	0.000	0.000	10.00	7.336	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.185	3.2971E-04	1.935	8.861	12.00	8.861	PASSIVE	0.000	-1.200	2.065	
1.000	1.000	10.93	0.000	0.000	Ug5_2_8_L_0						
8 D	4.167	3.1423E-04	3.871	16.71	14.00	16.71	V-C	2.6477E+04	-1.400	4.129	
1.000	1.000	20.84	0.000	0.000	Ug5_2_8_L_0						
9 D	4.712	2.9891E-04	5.806	17.36	16.00	17.36	V-C	2.6477E+04	-1.600	6.194	
1.000	1.000	23.56	0.000	0.000	Ug5_2_8_L_0						
10 D	5.248	2.8379E-04	7.742	17.98	18.00	17.98	V-C	2.6477E+04	-1.800	8.258	
1.000	1.000	26.24	0.000	0.000	Ug5_2_8_L_0						
11 D	5.782	2.6891E-04	9.677	18.58	20.00	18.58	V-C	2.6477E+04	-2.000	10.32	
1.000	1.000	28.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.313	2.5432E-04	11.61	19.18	22.00	19.18	V-C	2.6477E+04	-2.200	12.39	
1.000	1.000	31.56	0.000	0.000	Ug5_2_8_L_0						
13 D	6.844	2.4006E-04	13.55	19.77	24.00	19.77	V-C	2.6477E+04	-2.400	14.45	
1.000	1.000	34.22	0.000	0.000	Ug5_2_8_L_0						
14 D	7.376	2.2617E-04	15.48	20.36	26.00	20.36	V-C	2.6477E+04	-2.600	16.52	
1.000	1.000	36.88	0.000	0.000	Ug5_2_8_L_0						
15 D	7.908	2.1268E-04	17.42	20.96	28.00	20.96	V-C	2.6477E+04	-2.800	18.58	
1.000	1.000	39.54	0.000	0.000	Ug5_2_8_L_0						
16 D	8.442	1.9962E-04	19.35	21.57	30.00	21.57	V-C	2.6477E+04	-3.000	20.65	
1.000	1.000	42.21	0.000	0.000	Ug5_2_8_L_0						
17 D	8.979	1.8702E-04	21.29	22.18	32.00	22.18	V-C	2.6477E+04	-3.200	22.71	
1.000	1.000	44.89	0.000	0.000	Ug5_2_8_L_0						
18 D	9.517	1.7491E-04	23.23	22.81	34.00	22.81	V-C	2.6477E+04	-3.400	24.77	
1.000	1.000	47.59	0.000	0.000	Ug5_2_8_L_0						
19 D	10.06	1.6330E-04	25.16	23.45	36.00	23.45	V-C	2.6477E+04	-3.600	26.84	
1.000	1.000	50.29	0.000	0.000	Ug5_2_8_L_0						
20 D	10.60	1.5223E-04	27.10	24.11	38.00	24.11	V-C	2.6477E+04	-3.800	28.90	
1.000	1.000	53.01	0.000	0.000	Ug5_2_8_L_0						
21 D	11.15	1.4171E-04	29.03	24.78	40.00	24.78	V-C	2.6477E+04	-4.000	30.97	
1.000	1.000	55.74	0.000	0.000	Ug5_2_8_L_0						
22 D	11.70	1.3174E-04	30.97	25.46	42.00	25.46	V-C	2.6477E+04	-4.200	33.03	
1.000	1.000	58.49	0.000	0.000	Ug5_2_8_L_0						
23 D	12.25	1.2235E-04	32.90	26.16	44.00	26.16	V-C	2.6477E+04	-4.400	35.10	
1.000	1.000	61.25	0.000	0.000	Ug5_2_8_L_0						
24 D	12.81	1.1354E-04	34.84	26.87	46.00	26.87	V-C	2.6477E+04	-4.600	37.16	
1.000	1.000	64.03	0.000	0.000	Ug5_2_8_L_0						
25 D	13.37	1.0531E-04	36.77	27.60	48.00	27.60	V-C	2.6477E+04	-4.800	39.23	
1.000	1.000	66.83	0.000	0.000	Ug5_2_8_L_0						
26 D	13.93	9.7671E-05	38.71	28.35	50.00	28.35	V-C	2.6477E+04	-5.000	41.29	
1.000	1.000	69.64	0.000	0.000	Ug5_2_8_L_0						
27 D	14.49	9.0607E-05	40.65	29.11	52.00	29.11	V-C	2.6477E+04	-5.200	43.35	
1.000	1.000	72.47	0.000	0.000	Ug5_2_8_L_0						
28 D	15.06	8.4115E-05	42.58	29.89	54.00	29.89	V-C	2.6477E+04	-5.400	45.42	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	75.31	0.000	0.000	Ug5_2_8_L_0					
29 D	15.63	7.8181E-05	44.52	30.68	56.00	30.68	V-C	2.6477E+04	-5.600	47.48
1.000	1.000	78.17	0.000	0.000	Ug5_2_8_L_0					
30 D	16.21	7.2788E-05	46.45	31.49	58.00	31.49	V-C	2.6477E+04	-5.800	49.55
1.000	1.000	81.04	0.000	0.000	Ug5_2_8_L_0					
31 D	16.79	6.7916E-05	48.39	32.32	60.00	32.32	V-C	2.6477E+04	-6.000	51.61
1.000	1.000	83.93	0.000	0.000	Ug5_2_8_L_0					
32 D	17.37	6.3541E-05	50.32	33.15	62.00	33.15	V-C	2.6477E+04	-6.200	53.68
1.000	1.000	86.83	0.000	0.000	Ug5_2_8_L_0					
33 D	17.95	5.9638E-05	52.26	34.00	64.00	34.00	V-C	2.6477E+04	-6.400	55.74
1.000	1.000	89.75	0.000	0.000	Ug5_2_8_L_0					
34 D	18.53	5.6179E-05	54.19	34.87	66.00	34.87	V-C	2.6477E+04	-6.600	57.81
1.000	1.000	92.67	0.000	0.000	Ug5_2_8_L_0					
35 D	19.12	5.3137E-05	56.13	35.74	68.00	35.74	V-C	2.6477E+04	-6.800	59.87
1.000	1.000	95.61	0.000	0.000	Ug5_2_8_L_0					
36 D	19.71	5.0482E-05	58.06	36.63	70.00	36.63	V-C	2.6477E+04	-7.000	61.94
1.000	1.000	98.57	0.000	0.000	Ug5_2_8_L_0					
37 D	20.31	4.8188E-05	60.00	37.53	72.00	37.53	V-C	2.6477E+04	-7.200	64.00
1.000	1.000	101.5	0.000	0.000	Ug5_2_8_L_0					
38 D	20.89	4.6225E-05	61.94	38.38	74.00	38.46	UL-RL	7.9432E+04	-7.400	66.06
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
39 D	21.47	4.4568E-05	63.87	39.22	76.00	39.41	UL-RL	7.9432E+04	-7.600	68.13
1.000	1.000	107.4	0.000	0.000	Ug5_2_8_L_0					
40 D	22.06	4.3189E-05	65.81	40.09	78.00	40.37	UL-RL	7.9432E+04	-7.800	70.19
1.000	1.000	110.3	0.000	0.000	Ug5_2_8_L_0					
41 D	22.65	4.2063E-05	67.74	40.98	80.00	41.32	UL-RL	7.9432E+04	-8.000	72.26
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
42 D	23.24	4.1168E-05	69.68	41.89	82.00	42.27	UL-RL	7.9432E+04	-8.200	74.32
1.000	1.000	116.2	0.000	0.000	Ug5_2_8_L_0					
43 D	23.84	4.0481E-05	71.61	42.81	84.00	43.23	UL-RL	7.9432E+04	-8.400	76.39
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
44 D	24.44	3.9981E-05	73.55	43.74	86.00	44.19	UL-RL	7.9432E+04	-8.600	78.45
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
45 D	25.04	3.9651E-05	75.48	44.69	88.00	45.15	UL-RL	7.9432E+04	-8.800	80.52
1.000	1.000	125.2	0.000	0.000	Ug5_2_8_L_0					
46 D	25.65	3.9473E-05	77.42	45.65	90.00	46.11	UL-RL	7.9432E+04	-9.000	82.58
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
47 D	26.25	3.9432E-05	79.35	46.62	92.00	47.08	UL-RL	7.9432E+04	-9.200	84.65
1.000	1.000	131.3	0.000	0.000	Ug5_2_8_L_0					
48 D	26.86	3.9515E-05	81.29	47.60	94.00	48.04	UL-RL	7.9432E+04	-9.400	86.71
1.000	1.000	134.3	0.000	0.000	Ug5_2_8_L_0					
49 D	27.47	3.9709E-05	83.23	48.58	96.00	49.01	UL-RL	7.9432E+04	-9.600	88.77
1.000	1.000	137.4	0.000	0.000	Ug5_2_8_L_0					
50 D	28.08	4.0003E-05	85.16	49.57	98.00	49.98	UL-RL	7.9432E+04	-9.800	90.84
1.000	1.000	140.4	0.000	0.000	Ug5_2_8_L_0					
51 D	28.69	4.0389E-05	87.10	50.56	100.00	50.95	UL-RL	7.9432E+04	-10.000	92.90
1.000	1.000	143.5	0.000	0.000	Ug5_2_8_L_0					
52 D	29.31	4.0857E-05	89.03	51.56	102.0	51.93	UL-RL	7.9432E+04	-10.200	94.97
1.000	1.000	146.5	0.000	0.000	Ug5_2_8_L_0					
53 D	29.92	4.1400E-05	90.97	52.57	104.0	52.91	UL-RL	7.9432E+04	-10.400	97.03
1.000	1.000	149.6	0.000	0.000	Ug5_2_8_L_0					
54 D	30.53	4.2011E-05	92.90	53.57	106.0	53.89	UL-RL	7.9432E+04	-10.600	99.10
1.000	1.000	152.7	0.000	0.000	Ug5_2_8_L_0					
55 D	31.15	4.2683E-05	94.84	54.58	108.0	54.87	UL-RL	7.9432E+04	-10.800	101.2
1.000	1.000	155.7	0.000	0.000	Ug5_2_8_L_0					
56 D	31.76	4.3410E-05	96.77	55.59	110.0	55.85	UL-RL	7.9432E+04	-11.000	103.2
1.000	1.000	158.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.38	4.4186E-05	98.71	56.60	112.0	56.84	UL-RL	7.9432E+04	-11.200	105.3
1.000	1.000	161.9	0.000	0.000	Ug5_2_8_L_0					
58 D	32.99	4.5004E-05	100.6	57.62	114.0	57.82	UL-RL	7.9432E+04	-11.400	107.4
1.000	1.000	165.0	0.000	0.000	Ug5_2_8_L_0					
59 D	33.61	4.5857E-05	102.6	58.63	116.0	58.81	UL-RL	7.9432E+04	-11.600	109.4
1.000	1.000	168.1	0.000	0.000	Ug5_2_8_L_0					
60 D	34.23	4.6737E-05	104.5	59.65	118.0	59.81	UL-RL	7.9432E+04	-11.800	111.5
1.000	1.000	171.1	0.000	0.000	Ug5_2_8_L_0					
61 D	34.84	4.7635E-05	106.5	60.66	120.0	60.80	UL-RL	7.9432E+04	-12.000	113.5
1.000	1.000	174.2	0.000	0.000	Ug5_2_8_L_0					
62 D	35.29	4.8540E-05	108.2	60.83	121.8	61.54	UL-RL	5.7643E+04	-12.200	115.6
1.000	1.000	176.4	0.000	0.000	Ug6_741_743_L_0					
63 D	35.89	4.9442E-05	109.9	61.75	123.6	62.42	UL-RL	5.7643E+04	-12.400	117.7
1.000	1.000	179.4	0.000	0.000	Ug6_741_743_L_0					
64 D	36.48	5.0330E-05	111.7	62.67	125.4	63.30	UL-RL	5.7643E+04	-12.600	119.7
1.000	1.000	182.4	0.000	0.000	Ug6_741_743_L_0					
65 D	37.08	5.1197E-05	113.4	63.59	127.2	64.19	UL-RL	5.7643E+04	-12.800	121.8
1.000	1.000	185.4	0.000	0.000	Ug6_741_743_L_0					
66 D	37.67	5.2039E-05	115.1	64.50	129.0	65.07	UL-RL	5.7643E+04	-13.000	123.9
1.000	1.000	188.4	0.000	0.000	Ug6_741_743_L_0					
67 D	38.27	5.2851E-05	116.9	65.42	130.8	65.95	UL-RL	5.7643E+04	-13.200	125.9
1.000	1.000	191.4	0.000	0.000	Ug6_741_743_L_0					
68 D	38.87	5.3631E-05	118.6	66.33	132.6	66.84	UL-RL	5.7643E+04	-13.400	128.0
1.000	1.000	194.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.46	5.4379E-05	120.3	67.25	134.4	67.73	UL-RL	5.7643E+04	-13.60	130.1
1.000	1.000	197.3	0.000	0.000	Ug6_741_743_L_0					
70 D	40.06	5.5096E-05	122.1	68.16	136.2	68.61	UL-RL	5.7643E+04	-13.80	132.1
1.000	1.000	200.3	0.000	0.000	Ug6_741_743_L_0					
71 D	40.65	5.5782E-05	123.8	69.07	138.0	69.50	UL-RL	5.7643E+04	-14.00	134.2
1.000	1.000	203.3	0.000	0.000	Ug6_741_743_L_0					
72 D	41.25	5.6440E-05	125.5	69.98	139.8	70.38	UL-RL	5.7643E+04	-14.20	136.3
1.000	1.000	206.2	0.000	0.000	Ug6_741_743_L_0					
73 D	41.84	5.7074E-05	127.3	70.89	141.6	71.27	UL-RL	5.7643E+04	-14.40	138.3
1.000	1.000	209.2	0.000	0.000	Ug6_741_743_L_0					
74 D	42.44	5.7686E-05	129.0	71.79	143.4	72.16	UL-RL	5.7643E+04	-14.60	140.4
1.000	1.000	212.2	0.000	0.000	Ug6_741_743_L_0					
75 D	43.03	5.8280E-05	130.7	72.70	145.2	73.05	UL-RL	5.7643E+04	-14.80	142.5
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
76 D	43.62	5.8860E-05	132.5	73.61	147.0	73.94	UL-RL	5.7643E+04	-15.00	144.5
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
77 D	44.22	5.9430E-05	134.2	74.51	148.8	74.82	UL-RL	5.7643E+04	-15.20	146.6
1.000	1.000	221.1	0.000	0.000	Ug6_741_743_L_0					
78 D	44.81	5.9992E-05	136.0	75.42	150.6	75.71	UL-RL	5.7643E+04	-15.40	148.6
1.000	1.000	224.1	0.000	0.000	Ug6_741_743_L_0					
79 D	45.41	6.0549E-05	137.7	76.32	152.4	76.60	UL-RL	5.7643E+04	-15.60	150.7
1.000	1.000	227.0	0.000	0.000	Ug6_741_743_L_0					
80 D	46.00	6.1105E-05	139.4	77.23	154.2	77.49	UL-RL	5.7643E+04	-15.80	152.8
1.000	1.000	230.0	0.000	0.000	Ug6_741_743_L_0					
81 D	23.30	6.1659E-05	141.2	78.14	156.0	78.38	UL-RL	5.7643E+04	-16.00	154.8
1.000	1.000	233.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-9.00472E-11	9.00472E-11	-9.03566E-12	1.32494E-11
2	0.51948	-0.51948	-1.99014E-11	0.10390
3	1.5618	-1.5618	-0.10390	0.41626
4	3.1313	-3.1313	-0.41626	1.0425
5	5.2313	-5.2313	-1.0425	2.0888
6	7.8629	-7.8629	-2.0888	3.6614
7	8.8414	-8.8414	-3.6614	5.4297
8	8.3782	-8.3782	-5.4297	7.1053
9	7.9147	-7.9147	-7.1053	8.6882
10	7.4404	-7.4404	-8.6882	10.176
11	6.9702	-6.9702	-10.176	11.570
12	6.5027	-6.5027	-11.570	12.871
13	6.0263	-6.0263	-12.871	14.076
14	5.5493	-5.5493	-14.076	15.186
15	5.0691	-5.0691	-15.186	16.200
16	4.5828	-4.5828	-16.200	17.116
17	4.0799	-4.0799	-17.116	17.932
18	3.5651	-3.5651	-17.932	18.645
19	3.0352	-3.0352	-18.645	19.252
20	2.4805	-2.4805	-19.252	19.749
21	1.9041	-1.9041	-19.749	20.129
22	1.3026	-1.3026	-20.129	20.390
23	0.66685	-0.66685	-20.390	20.523
24	-9.08482E-04	9.08482E-04	-20.523	20.523
25	-0.70427	0.70427	-20.523	20.382
26	-1.4468	1.4468	-20.382	20.093
27	-2.2366	2.2366	-20.093	19.646
28	-3.0326	3.0326	-19.646	19.039
29	-3.6681	3.6681	-19.039	18.305
30	-4.1593	4.1593	-18.305	17.474
31	-4.5219	4.5219	-17.474	16.569
32	-4.7710	4.7710	-16.569	15.615
33	-4.9208	4.9208	-15.615	14.631
34	-4.9847	4.9847	-14.631	13.634
35	-4.9752	4.9752	-13.634	12.639
36	-4.9040	4.9040	-12.639	11.658
37	-4.7871	4.7871	-11.658	10.701
38	-4.6125	4.6125	-10.701	9.7781
39	-4.3926	4.3926	-9.7781	8.8996
40	-4.1384	4.1384	-8.8996	8.0719
41	-3.8599	3.8599	-8.0719	7.2999
42	-3.5663	3.5663	-7.2999	6.5866
43	-3.2656	3.2656	-6.5866	5.9335
44	-2.9653	2.9653	-5.9335	5.3404
45	-2.6717	2.6717	-5.3404	4.8061
46	-2.3907	2.3907	-4.8061	4.3280
47	-2.1274	2.1274	-4.3280	3.9025
48	-1.8863	1.8863	-3.9025	3.5252
49	-1.6716	1.6716	-3.5252	3.1909
50	-1.4867	1.4867	-3.1909	2.8936
51	-1.3349	1.3349	-2.8936	2.6266
52	-1.2188	1.2188	-2.6266	2.3829
53	-1.1409	1.1409	-2.3829	2.1547
54	-1.1035	1.1035	-2.1547	1.9340
55	-1.1083	1.1083	-1.9340	1.7123
56	-1.1569	1.1569	-1.7123	1.4809
57	-1.2509	1.2509	-1.4809	1.2308
58	-1.3914	1.3914	-1.2308	0.95248
59	-1.5791	1.5791	-0.95248	0.63665

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 -1.8149 1.8149 -0.63665 0.27367
 61 -2.0991 2.0991 -0.27367 -0.14615
 62 -1.6735 1.6735 0.14615 -0.48085
 63 -1.2857 1.2857 0.48085 -0.73798
 64 -0.93531 0.93531 0.73798 -0.92504
 65 -0.62190 0.62190 0.92504 -1.0494
 66 -0.34481 0.34481 1.0494 -1.1184
 67 -0.10335 0.10335 1.1184 -1.1391
 68 0.10326 -0.10326 1.1391 -1.1184
 69 0.27578 -0.27578 1.1184 -1.0633
 70 0.41497 -0.41497 1.0633 -0.98026
 71 0.52156 -0.52156 0.98026 -0.87594
 72 0.59622 -0.59622 0.87594 -0.75670
 73 0.63954 -0.63954 0.75670 -0.62879
 74 0.65203 -0.65203 0.62879 -0.49839
 75 0.63413 -0.63413 0.49839 -0.37156
 76 0.58618 -0.58618 0.37156 -0.25432
 77 0.50844 -0.50844 0.25432 -0.15263
 78 0.40108 -0.40108 0.15263 -7.24185E-02
 79 0.26421 -0.26421 7.24185E-02 -1.95772E-02
 80 9.78810E-02 -9.78810E-02 1.95772E-02 -1.72751E-13

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1055E+06 RIMNOR=0.1744E+05
 RENORM= 393.6 REMNOR=0.3148E-21 RATIO =0.6108E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.29 RMMAX = 20.52
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1055E+06 RDR =0.1744E+05
 RATIO=0.6108E-01 RATIO= 0.000
 MAX UN= 5.713 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
 MIN UN=-.3441E-01 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1055E+06 RIMNOR=0.1744E+05
 RENORM= 108.7 REMNOR=0.1951E-20 RATIO =0.3210E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.29 RMMAX = 20.52
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1055E+06 RDR =0.1744E+05
 RATIO=0.3210E-01 RATIO= 0.000
 MAX UN= 2.855 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
 MIN UN=-.2491E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1055E+06 RIMNOR=0.1744E+05
 RENORM= 46.84 REMNOR=0.1336E-18 RATIO =0.2107E-01 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.29 RMMAX = 20.52
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1055E+06 RDR =0.1744E+05
 RATIO=0.2107E-01 RATIO= 0.000
 MAX UN= 3.631 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
 MIN UN=-.9676E-09 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1055E+06 RIMNOR=0.1744E+05
 RENORM= 1.378 REMNOR=0.1383E-19 RATIO =0.3613E-02 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.29 RMMAX = 20.52
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1055E+06 RDR =0.1744E+05
 RATIO=0.3613E-02 RATIO= 0.000
 MAX UN=0.7885 IEQ= 83 NODE 42 DOF 1 Y-DISPL.F
 MIN UN=-.1399E-08 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1055E+06 RIMNOR=0.1744E+05
 RENORM=0.6220E-02 REMNOR=0.2397E-19 RATIO =0.2428E-03 TOLER =0.1000E-03 NOT CONVERGED
 RFMAX = 45.29 RMMAX = 20.52
 RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
 RDT =0.1055E+06 RDR =0.1744E+05
 RATIO=0.2428E-03 RATIO= 0.000
 MAX UN=0.7588E-01 IEQ= 87 NODE 44 DOF 1 Y-DISPL.F
 MIN UN=-.7053E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1055E+06  RIMNOR=0.1744E+05
           RENORM=0.4595E-17  REMNOR=0.3052E-19  RATIO =0.6599E-11  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 45.29      RMMAX = 20.52
           RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
           RDT   =0.1055E+06  RDR   =0.1744E+05
           RATIO=0.6599E-11  RATIO= 0.000
           MAX UN=0.6149E-09  IEQ=   15 NODE      8 DOF   1  Y-DISPL.F
           MIN UN=-.1241E-08  IEQ=   17 NODE      9 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
| PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                            |
|                                                           NewProject.BaseDesignSection_28.A2M2R1_1787   |
|                                                           Exe Time :24 May 2018      18:25:48   |
+-----+
    
```

New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F	X-ROT. F	(
	(02)	(04)	
1	2.6649117E-03	-4.1038162E-04	
2	2.5828354E-03	-4.1038162E-04	
3	2.5007596E-03	-4.1037436E-04	
4	2.4186876E-03	-4.1033800E-04	
5	2.3366287E-03	-4.1023604E-04	
6	2.2546010E-03	-4.1001718E-04	
7	2.1726341E-03	-4.0961526E-04	
8	2.0907725E-03	-4.0894926E-04	
9	2.0090784E-03	-4.0792315E-04	
10	1.9276346E-03	-4.0642573E-04	
11	1.8465479E-03	-4.0433086E-04	
12	1.7659515E-03	-4.0149749E-04	
13	1.6860065E-03	-3.9780002E-04	
14	1.6068944E-03	-3.9315887E-04	
15	1.5288081E-03	-3.8754056E-04	
16	1.4519425E-03	-3.8095757E-04	
17	1.3764851E-03	-3.7346837E-04	
18	1.3026092E-03	-3.6516318E-04	
19	1.2304679E-03	-3.5613765E-04	
20	1.1601962E-03	-3.4648121E-04	
21	1.0919122E-03	-3.3627748E-04	
22	1.0257168E-03	-3.2560425E-04	
23	9.6169698E-04	-3.1453397E-04	
24	8.9992524E-04	-3.0313391E-04	
25	8.4046124E-04	-2.9146649E-04	
26	7.8335262E-04	-2.7958950E-04	
27	7.2863612E-04	-2.6755644E-04	
28	6.7633743E-04	-2.5541672E-04	
29	6.2647349E-04	-2.4321624E-04	
30	5.7905215E-04	-2.3099748E-04	
31	5.3407308E-04	-2.1879990E-04	
32	4.9152853E-04	-2.0666033E-04	
33	4.5140302E-04	-1.9461296E-04	
34	4.1367505E-04	-1.8269011E-04	
35	3.7831664E-04	-1.7092227E-04	
36	3.4529388E-04	-1.5933842E-04	
37	3.1456731E-04	-1.4796639E-04	
38	2.8609157E-04	-1.3683300E-04	
39	2.5981644E-04	-1.2596465E-04	
40	2.3568630E-04	-1.1538736E-04	
41	2.1364036E-04	-1.0512715E-04	
42	1.9361255E-04	-9.5210299E-05	
43	1.7553156E-04	-8.5663551E-05	
44	1.5932062E-04	-7.6514430E-05	
45	1.4489745E-04	-6.7791514E-05	
46	1.3217397E-04	-5.9520503E-05	
47	1.2105787E-04	-5.1720096E-05	
48	1.1145379E-04	-4.4401819E-05	
49	1.0326464E-04	-3.7571167E-05	
50	9.6392809E-05	-3.1228659E-05	
51	9.0740942E-05	-2.5370151E-05	
52	8.6212945E-05	-1.9987074E-05	
53	8.2715239E-05	-1.5067829E-05	
54	8.0156098E-05	-1.0597049E-05	
55	7.8447603E-05	-6.5585140E-06	
56	7.7505041E-05	-2.9347583E-06	
57	7.7247232E-05	2.9198597E-07	
58	7.7596529E-05	3.1391350E-06	
59	7.8478679E-05	5.6231741E-06	
60	7.9822594E-05	7.7591463E-06	
61	8.1560010E-05	9.5602064E-06	
62	8.3625075E-05	1.1037238E-05	
63	8.5954973E-05	1.2215290E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	8.8493876E-05	1.3133626E-05
65	9.1193566E-05	1.3829103E-05
66	9.4012950E-05	1.4336068E-05
67	9.6917544E-05	1.4686293E-05
68	9.9878960E-05	1.4908918E-05
69	1.0287437E-04	1.5030417E-05
70	1.0588597E-04	1.5074584E-05
71	1.0890045E-04	1.5062516E-05
72	1.1190846E-04	1.5012618E-05
73	1.1490403E-04	1.4940608E-05
74	1.1788409E-04	1.4859522E-05
75	1.2084792E-04	1.4779731E-05
76	1.2379659E-04	1.4708947E-05
77	1.2673244E-04	1.4652239E-05
78	1.2965858E-04	1.4612038E-05
79	1.3257834E-04	1.4588148E-05
80	1.3549474E-04	1.4577752E-05
81	1.3841013E-04	1.4575411E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.6649E-03	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5101	-2.5828E-03	2.144	0.6839	2.144	1.774	ACTIVE	0.000	-0.2000	1.867	
1.000	1.000	2.551	0.000	0.000	Ug5_2_8_L_0						
3 D	1.024	-2.5008E-03	4.340	1.385	4.340	3.436	ACTIVE	0.000	-0.4000	3.733	
1.000	1.000	5.118	0.000	0.000	Ug5_2_8_L_0						
4 D	1.541	-2.4187E-03	6.605	2.107	6.605	4.933	ACTIVE	0.000	-0.6000	5.600	
1.000	1.000	7.707	0.000	0.000	Ug5_2_8_L_0						
5 D	2.062	-2.3366E-03	8.920	2.845	8.920	6.275	ACTIVE	0.000	-0.8000	7.467	
1.000	1.000	10.31	0.000	0.000	Ug5_2_8_L_0						
6 D	2.585	-2.2546E-03	11.26	3.591	11.26	7.498	ACTIVE	0.000	-1.000	9.333	
1.000	1.000	12.92	0.000	0.000	Ug5_2_8_L_0						
7 D	3.107	-2.1726E-03	13.59	4.336	13.59	8.636	ACTIVE	0.000	-1.200	11.20	
1.000	1.000	15.54	0.000	0.000	Ug5_2_8_L_0						
8 D	3.639	-2.0908E-03	16.07	5.126	16.07	9.720	ACTIVE	0.000	-1.400	13.07	
1.000	1.000	18.19	0.000	0.000	Ug5_2_8_L_0						
9 D	4.173	-2.0091E-03	18.60	5.932	18.60	10.77	ACTIVE	0.000	-1.600	14.93	
1.000	1.000	20.87	0.000	0.000	Ug5_2_8_L_0						
10 D	4.690	-1.9276E-03	20.84	6.649	20.84	11.79	ACTIVE	0.000	-1.800	16.80	
1.000	1.000	23.45	0.000	0.000	Ug5_2_8_L_0						
11 D	5.218	-1.8465E-03	23.26	7.421	23.26	12.80	ACTIVE	0.000	-2.000	18.67	
1.000	1.000	26.09	0.000	0.000	Ug5_2_8_L_0						
12 D	5.742	-1.7660E-03	25.64	8.178	25.64	13.80	ACTIVE	0.000	-2.200	20.53	
1.000	1.000	28.71	0.000	0.000	Ug5_2_8_L_0						
13 D	6.255	-1.6860E-03	27.82	8.875	27.82	14.79	ACTIVE	0.000	-2.400	22.40	
1.000	1.000	31.28	0.000	0.000	Ug5_2_8_L_0						
14 D	6.777	-1.6069E-03	30.15	9.617	30.15	15.78	ACTIVE	0.000	-2.600	24.27	
1.000	1.000	33.88	0.000	0.000	Ug5_2_8_L_0						
15 D	7.297	-1.5288E-03	32.45	10.35	32.45	16.77	ACTIVE	0.000	-2.800	26.13	
1.000	1.000	36.48	0.000	0.000	Ug5_2_8_L_0						
16 D	7.816	-1.4519E-03	34.73	11.08	34.73	17.75	ACTIVE	0.000	-3.000	28.00	
1.000	1.000	39.08	0.000	0.000	Ug5_2_8_L_0						
17 D	8.326	-1.3765E-03	36.87	11.76	36.87	18.73	ACTIVE	0.000	-3.200	29.87	
1.000	1.000	41.63	0.000	0.000	Ug5_2_8_L_0						
18 D	8.843	-1.3026E-03	39.13	12.48	39.13	19.71	ACTIVE	0.000	-3.400	31.73	
1.000	1.000	44.22	0.000	0.000	Ug5_2_8_L_0						
19 D	9.360	-1.2305E-03	41.37	13.20	41.37	20.69	ACTIVE	0.000	-3.600	33.60	
1.000	1.000	46.80	0.000	0.000	Ug5_2_8_L_0						
20 D	9.869	-1.1602E-03	43.51	13.88	43.51	21.67	ACTIVE	0.000	-3.800	35.47	
1.000	1.000	49.35	0.000	0.000	Ug5_2_8_L_0						
21 D	10.38	-1.0919E-03	45.74	14.59	45.74	22.66	ACTIVE	0.000	-4.000	37.33	
1.000	1.000	51.92	0.000	0.000	Ug5_2_8_L_0						
22 D	10.90	-1.0257E-03	47.96	15.30	47.96	23.64	ACTIVE	0.000	-4.200	39.20	
1.000	1.000	54.50	0.000	0.000	Ug5_2_8_L_0						
23 D	11.41	-9.6170E-04	50.09	15.98	50.09	24.62	ACTIVE	0.000	-4.400	41.07	
1.000	1.000	57.04	0.000	0.000	Ug5_2_8_L_0						
24 D	11.92	-8.9993E-04	52.30	16.68	52.30	25.60	ACTIVE	0.000	-4.600	42.93	
1.000	1.000	59.62	0.000	0.000	Ug5_2_8_L_0						
25 D	12.44	-8.4046E-04	54.50	17.39	54.50	26.59	ACTIVE	0.000	-4.800	44.80	
1.000	1.000	62.19	0.000	0.000	Ug5_2_8_L_0						
26 D	12.95	-7.8335E-04	56.70	18.09	56.70	27.57	ACTIVE	0.000	-5.000	46.67	
1.000	1.000	64.75	0.000	0.000	Ug5_2_8_L_0						
27 D	13.46	-7.2864E-04	58.82	18.76	58.82	28.55	ACTIVE	0.000	-5.200	48.53	
1.000	1.000	67.30	0.000	0.000	Ug5_2_8_L_0						
28 D	13.97	-6.7634E-04	61.02	19.46	61.02	29.54	ACTIVE	0.000	-5.400	50.40	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.86	0.000	0.000	Ug5_2_8_L_0					
29 D	14.49	-6.2647E-04	63.20	20.16	63.20	30.53	ACTIVE	0.000	-5.600	52.27
1.000	1.000	72.43	0.000	0.000	Ug5_2_8_L_0					
30 D	14.99	-5.7905E-04	65.32	20.84	65.32	31.52	ACTIVE	0.000	-5.800	54.13
1.000	1.000	74.97	0.000	0.000	Ug5_2_8_L_0					
31 D	15.51	-5.3407E-04	67.51	21.54	67.51	32.50	ACTIVE	0.000	-6.000	56.00
1.000	1.000	77.54	0.000	0.000	Ug5_2_8_L_0					
32 D	16.02	-4.9153E-04	69.69	22.23	69.69	33.49	ACTIVE	0.000	-6.200	57.87
1.000	1.000	80.10	0.000	0.000	Ug5_2_8_L_0					
33 D	16.53	-4.5140E-04	71.81	22.91	71.81	34.49	ACTIVE	0.000	-6.400	59.73
1.000	1.000	82.64	0.000	0.000	Ug5_2_8_L_0					
34 D	17.04	-4.1368E-04	73.99	23.60	73.99	35.48	ACTIVE	0.000	-6.600	61.60
1.000	1.000	85.20	0.000	0.000	Ug5_2_8_L_0					
35 D	17.55	-3.7832E-04	76.16	24.30	76.16	36.47	ACTIVE	0.000	-6.800	63.47
1.000	1.000	87.76	0.000	0.000	Ug5_2_8_L_0					
36 D	18.06	-3.4529E-04	78.33	24.99	78.33	37.46	ACTIVE	0.000	-7.000	65.33
1.000	1.000	90.32	0.000	0.000	Ug5_2_8_L_0					
37 D	18.57	-3.1457E-04	80.45	25.66	80.45	38.46	ACTIVE	0.000	-7.200	67.20
1.000	1.000	92.86	0.000	0.000	Ug5_2_8_L_0					
38 D	19.08	-2.8609E-04	82.62	26.36	82.62	39.45	ACTIVE	0.000	-7.400	69.07
1.000	1.000	95.42	0.000	0.000	Ug5_2_8_L_0					
39 D	19.60	-2.5982E-04	84.79	27.05	84.79	40.45	ACTIVE	0.000	-7.600	70.93
1.000	1.000	97.98	0.000	0.000	Ug5_2_8_L_0					
40 D	20.10	-2.3569E-04	86.91	27.72	86.91	41.45	ACTIVE	0.000	-7.800	72.80
1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
41 D	20.62	-2.1364E-04	89.07	28.41	89.07	42.45	ACTIVE	0.000	-8.000	74.67
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
42 D	21.13	-1.9361E-04	91.24	29.11	91.24	43.45	ACTIVE	0.000	-8.200	76.53
1.000	1.000	105.6	0.000	0.000	Ug5_2_8_L_0					
43 D	21.64	-1.7553E-04	93.36	29.78	93.36	44.45	ACTIVE	0.000	-8.400	78.40
1.000	1.000	108.2	0.000	0.000	Ug5_2_8_L_0					
44 D	22.15	-1.5932E-04	95.52	30.47	95.52	45.45	ACTIVE	0.000	-8.600	80.27
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
45 D	22.94	-1.4490E-04	97.68	32.55	97.68	46.45	UL-RL	9.9584E+04	-8.800	82.13
1.000	1.000	114.7	0.000	0.000	Ug5_2_8_L_0					
46 D	23.77	-1.3217E-04	99.84	34.86	99.84	47.45	UL-RL	9.9584E+04	-9.000	84.00
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
47 D	24.57	-1.2106E-04	102.0	37.00	102.0	48.46	UL-RL	9.9584E+04	-9.200	85.87
1.000	1.000	122.9	0.000	0.000	Ug5_2_8_L_0					
48 D	25.35	-1.1145E-04	104.1	39.00	104.1	49.46	UL-RL	9.9584E+04	-9.400	87.73
1.000	1.000	126.7	0.000	0.000	Ug5_2_8_L_0					
49 D	26.09	-1.0326E-04	106.3	40.85	106.3	50.47	UL-RL	9.9584E+04	-9.600	89.60
1.000	1.000	130.4	0.000	0.000	Ug5_2_8_L_0					
50 D	26.81	-9.6393E-05	108.4	42.56	108.4	51.47	UL-RL	9.9584E+04	-9.800	91.47
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
51 D	27.50	-9.0741E-05	110.6	44.16	110.6	52.48	UL-RL	9.9584E+04	-10.000	93.33
1.000	1.000	137.5	0.000	0.000	Ug5_2_8_L_0					
52 D	28.17	-8.6213E-05	112.7	45.64	112.7	53.49	UL-RL	9.9584E+04	-10.200	95.20
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
53 D	28.82	-8.2715E-05	114.8	47.02	114.8	54.50	UL-RL	9.9584E+04	-10.400	97.07
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
54 D	29.45	-8.0156E-05	117.0	48.30	117.0	55.51	UL-RL	9.9584E+04	-10.600	98.93
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
55 D	30.06	-7.8448E-05	119.1	49.50	119.1	56.52	UL-RL	9.9584E+04	-10.800	100.8
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
56 D	30.66	-7.7505E-05	121.3	50.62	121.3	57.53	UL-RL	9.9584E+04	-11.000	102.7
1.000	1.000	153.3	0.000	0.000	Ug5_2_8_L_0					
57 D	31.24	-7.7247E-05	123.4	51.67	123.4	58.54	UL-RL	9.9584E+04	-11.200	104.5
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					
58 D	31.81	-7.7597E-05	125.6	52.66	125.6	59.55	UL-RL	9.9584E+04	-11.400	106.4
1.000	1.000	159.1	0.000	0.000	Ug5_2_8_L_0					
59 D	32.37	-7.8479E-05	127.7	53.60	127.7	60.56	UL-RL	9.9584E+04	-11.600	108.3
1.000	1.000	161.9	0.000	0.000	Ug5_2_8_L_0					
60 D	32.93	-7.9823E-05	129.8	54.49	129.8	61.58	UL-RL	9.9584E+04	-11.800	110.1
1.000	1.000	164.6	0.000	0.000	Ug5_2_8_L_0					
61 D	33.47	-8.1560E-05	132.0	55.35	132.0	62.59	UL-RL	9.9584E+04	-12.000	112.0
1.000	1.000	167.3	0.000	0.000	Ug5_2_8_L_0					
62 D	34.95	-8.3625E-05	133.9	60.87	133.9	63.50	UL-RL	4.9402E+04	-12.200	113.9
1.000	1.000	174.7	0.000	0.000	Ug6_741_743_L_0					
63 D	35.49	-8.5955E-05	135.9	61.70	135.9	64.42	UL-RL	4.9402E+04	-12.400	115.7
1.000	1.000	177.4	0.000	0.000	Ug6_741_743_L_0					
64 D	36.02	-8.8494E-05	137.8	62.51	137.8	65.33	UL-RL	4.9402E+04	-12.600	117.6
1.000	1.000	180.1	0.000	0.000	Ug6_741_743_L_0					
65 D	36.56	-9.1194E-05	139.7	63.32	139.7	66.25	UL-RL	4.9402E+04	-12.800	119.5
1.000	1.000	182.8	0.000	0.000	Ug6_741_743_L_0					
66 D	37.09	-9.4013E-05	141.6	64.12	141.6	67.17	UL-RL	4.9402E+04	-13.000	121.3
1.000	1.000	185.4	0.000	0.000	Ug6_741_743_L_0					
67 D	37.62	-9.6918E-05	143.5	64.91	143.5	68.08	UL-RL	4.9402E+04	-13.200	123.2
1.000	1.000	188.1	0.000	0.000	Ug6_741_743_L_0					
68 D	38.16	-9.9879E-05	145.4	65.71	145.4	69.00	UL-RL	4.9402E+04	-13.400	125.1
1.000	1.000	190.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.69	-1.0287E-04	147.3	66.50	147.3	69.92	UL-RL	4.9402E+04	-13.60	126.9
1.000	1.000	193.4	0.000	0.000	Ug6_741_743_L_0					
70 D	39.22	-1.0589E-04	149.2	67.30	149.2	70.84	UL-RL	4.9402E+04	-13.80	128.8
1.000	1.000	196.1	0.000	0.000	Ug6_741_743_L_0					
71 D	39.75	-1.0890E-04	151.1	68.10	151.1	71.76	UL-RL	4.9402E+04	-14.00	130.7
1.000	1.000	198.8	0.000	0.000	Ug6_741_743_L_0					
72 D	40.29	-1.1191E-04	153.0	68.89	153.0	72.68	UL-RL	4.9402E+04	-14.20	132.5
1.000	1.000	201.4	0.000	0.000	Ug6_741_743_L_0					
73 D	40.82	-1.1490E-04	154.9	69.69	154.9	73.59	UL-RL	4.9402E+04	-14.40	134.4
1.000	1.000	204.1	0.000	0.000	Ug6_741_743_L_0					
74 D	41.35	-1.1788E-04	156.8	70.49	156.8	74.51	UL-RL	4.9402E+04	-14.60	136.3
1.000	1.000	206.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.88	-1.2085E-04	158.7	71.29	158.7	75.43	UL-RL	4.9402E+04	-14.80	138.1
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
76 D	42.42	-1.2380E-04	160.6	72.09	160.6	76.36	UL-RL	4.9402E+04	-15.00	140.0
1.000	1.000	212.1	0.000	0.000	Ug6_741_743_L_0					
77 D	42.95	-1.2673E-04	162.5	72.90	162.5	77.28	UL-RL	4.9402E+04	-15.20	141.9
1.000	1.000	214.8	0.000	0.000	Ug6_741_743_L_0					
78 D	43.49	-1.2966E-04	164.4	73.70	164.4	78.20	UL-RL	4.9402E+04	-15.40	143.7
1.000	1.000	217.4	0.000	0.000	Ug6_741_743_L_0					
79 D	44.02	-1.3258E-04	166.3	74.51	166.3	79.12	UL-RL	4.9402E+04	-15.60	145.6
1.000	1.000	220.1	0.000	0.000	Ug6_741_743_L_0					
80 D	44.56	-1.3549E-04	168.2	75.31	168.2	80.04	UL-RL	4.9402E+04	-15.80	147.5
1.000	1.000	222.8	0.000	0.000	Ug6_741_743_L_0					
81 D	22.55	-1.3841E-04	170.1	76.12	170.1	80.96	UL-RL	4.9402E+04	-16.00	149.3
1.000	1.000	225.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:25:48          |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.8465E-03	0.000	0.000	20.00	18.58	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.136	1.7660E-03	1.867	8.546	22.00	19.18	PASSIVE	0.000	-2.200	2.133	
1.000	1.000	10.68	0.000	0.000	Ug5_2_8_L_0						
13 D	4.272	1.6860E-03	3.733	17.09	24.00	19.77	PASSIVE	0.000	-2.400	4.267	
1.000	1.000	21.36	0.000	0.000	Ug5_2_8_L_0						
14 D	6.407	1.6069E-03	5.600	25.64	26.00	25.64	PASSIVE	0.000	-2.600	6.400	
1.000	1.000	32.04	0.000	0.000	Ug5_2_8_L_0						
15 D	8.543	1.5288E-03	7.467	34.18	28.00	34.18	PASSIVE	0.000	-2.800	8.533	
1.000	1.000	42.72	0.000	0.000	Ug5_2_8_L_0						
16 D	10.68	1.4519E-03	9.333	42.73	30.00	42.73	PASSIVE	0.000	-3.000	10.67	
1.000	1.000	53.39	0.000	0.000	Ug5_2_8_L_0						
17 D	11.80	1.3765E-03	11.20	46.18	32.00	46.18	V-C	2.1182E+04	-3.200	12.80	
1.000	1.000	58.98	0.000	0.000	Ug5_2_8_L_0						
18 D	12.09	1.3026E-03	13.07	45.53	34.00	45.53	V-C	2.1182E+04	-3.400	14.93	
1.000	1.000	60.46	0.000	0.000	Ug5_2_8_L_0						
19 D	12.39	1.2305E-03	14.93	44.91	36.00	44.91	V-C	2.1182E+04	-3.600	17.07	
1.000	1.000	61.97	0.000	0.000	Ug5_2_8_L_0						
20 D	12.70	1.1602E-03	16.80	44.32	38.00	44.32	V-C	2.1182E+04	-3.800	19.20	
1.000	1.000	63.52	0.000	0.000	Ug5_2_8_L_0						
21 D	13.02	1.0919E-03	18.67	43.78	40.00	43.78	V-C	2.1182E+04	-4.000	21.33	
1.000	1.000	65.11	0.000	0.000	Ug5_2_8_L_0						
22 D	13.35	1.0257E-03	20.53	43.28	42.00	43.28	V-C	2.1182E+04	-4.200	23.47	
1.000	1.000	66.74	0.000	0.000	Ug5_2_8_L_0						
23 D	13.69	9.6170E-04	22.40	42.83	44.00	42.83	V-C	2.1182E+04	-4.400	25.60	
1.000	1.000	68.43	0.000	0.000	Ug5_2_8_L_0						
24 D	14.03	8.9993E-04	24.27	42.42	46.00	42.42	V-C	2.1182E+04	-4.600	27.73	
1.000	1.000	70.16	0.000	0.000	Ug5_2_8_L_0						
25 D	14.39	8.4046E-04	26.13	42.07	48.00	42.07	V-C	2.1182E+04	-4.800	29.87	
1.000	1.000	71.94	0.000	0.000	Ug5_2_8_L_0						
26 D	14.76	7.8335E-04	28.00	41.78	50.00	41.78	V-C	2.1182E+04	-5.000	32.00	
1.000	1.000	73.78	0.000	0.000	Ug5_2_8_L_0						
27 D	15.13	7.2864E-04	29.87	41.53	52.00	41.53	V-C	2.1182E+04	-5.200	34.13	
1.000	1.000	75.66	0.000	0.000	Ug5_2_8_L_0						
28 D	15.52	6.7634E-04	31.73	41.34	54.00	41.34	V-C	2.1182E+04	-5.400	36.27	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	77.61	0.000	0.000	Ug5_2_8_L_0					
29 D	15.92	6.2647E-04	33.60	41.20	56.00	41.20	V-C	2.1182E+04	-5.600	38.40
1.000	1.000	79.60	0.000	0.000	Ug5_2_8_L_0					
30 D	16.33	5.7905E-04	35.47	41.12	58.00	41.12	V-C	2.1182E+04	-5.800	40.53
1.000	1.000	81.66	0.000	0.000	Ug5_2_8_L_0					
31 D	16.75	5.3407E-04	37.33	41.10	60.00	41.10	V-C	2.1182E+04	-6.000	42.67
1.000	1.000	83.76	0.000	0.000	Ug5_2_8_L_0					
32 D	17.19	4.9153E-04	39.20	41.13	62.00	41.13	V-C	2.1182E+04	-6.200	44.80
1.000	1.000	85.93	0.000	0.000	Ug5_2_8_L_0					
33 D	17.63	4.5140E-04	41.07	41.21	64.00	41.21	V-C	2.1182E+04	-6.400	46.93
1.000	1.000	88.14	0.000	0.000	Ug5_2_8_L_0					
34 D	18.08	4.1368E-04	42.93	41.34	66.00	41.34	V-C	2.1182E+04	-6.600	49.07
1.000	1.000	90.41	0.000	0.000	Ug5_2_8_L_0					
35 D	18.55	3.7832E-04	44.80	41.53	68.00	41.53	V-C	2.1182E+04	-6.800	51.20
1.000	1.000	92.73	0.000	0.000	Ug5_2_8_L_0					
36 D	19.02	3.4529E-04	46.67	41.77	70.00	41.77	V-C	2.1182E+04	-7.000	53.33
1.000	1.000	95.11	0.000	0.000	Ug5_2_8_L_0					
37 D	19.51	3.1457E-04	48.53	42.07	72.00	42.07	V-C	2.1182E+04	-7.200	55.47
1.000	1.000	97.53	0.000	0.000	Ug5_2_8_L_0					
38 D	20.00	2.8609E-04	50.40	42.41	74.00	42.41	V-C	2.1182E+04	-7.400	57.60
1.000	1.000	100.0	0.000	0.000	Ug5_2_8_L_0					
39 D	20.51	2.5982E-04	52.27	42.80	76.00	42.80	V-C	2.1182E+04	-7.600	59.73
1.000	1.000	102.5	0.000	0.000	Ug5_2_8_L_0					
40 D	21.02	2.3569E-04	54.13	43.24	78.00	43.24	V-C	2.1182E+04	-7.800	61.87
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
41 D	21.55	2.1364E-04	56.00	43.73	80.00	43.73	V-C	2.1182E+04	-8.000	64.00
1.000	1.000	107.7	0.000	0.000	Ug5_2_8_L_0					
42 D	22.08	1.9361E-04	57.87	44.26	82.00	44.26	V-C	2.1182E+04	-8.200	66.13
1.000	1.000	110.4	0.000	0.000	Ug5_2_8_L_0					
43 D	22.62	1.7553E-04	59.73	44.83	84.00	44.83	V-C	2.1182E+04	-8.400	68.27
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
44 D	23.17	1.5932E-04	61.60	45.44	86.00	45.44	V-C	2.1182E+04	-8.600	70.40
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
45 D	23.73	1.4490E-04	63.47	46.10	88.00	46.10	V-C	2.1182E+04	-8.800	72.53
1.000	1.000	118.6	0.000	0.000	Ug5_2_8_L_0					
46 D	24.29	1.3217E-04	65.33	46.79	90.00	46.79	V-C	2.1182E+04	-9.000	74.67
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
47 D	24.86	1.2106E-04	67.20	47.52	92.00	47.52	V-C	2.1182E+04	-9.200	76.80
1.000	1.000	124.3	0.000	0.000	Ug5_2_8_L_0					
48 D	25.44	1.1145E-04	69.07	48.28	94.00	48.28	V-C	2.1182E+04	-9.400	78.93
1.000	1.000	127.2	0.000	0.000	Ug5_2_8_L_0					
49 D	26.03	1.0326E-04	70.93	49.07	96.00	49.07	V-C	2.1182E+04	-9.600	81.07
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
50 D	26.58	9.6393E-05	72.80	49.71	98.00	49.98	UL-RL	6.3546E+04	-9.800	83.20
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
51 D	27.13	9.0741E-05	74.67	50.31	100.00	50.95	UL-RL	6.3546E+04	-10.000	85.33
1.000	1.000	135.6	0.000	0.000	Ug5_2_8_L_0					
52 D	27.69	8.6213E-05	76.53	50.98	102.0	51.93	UL-RL	6.3546E+04	-10.200	87.47
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
53 D	28.26	8.2715E-05	78.40	51.71	104.0	52.91	UL-RL	6.3546E+04	-10.400	89.60
1.000	1.000	141.3	0.000	0.000	Ug5_2_8_L_0					
54 D	28.84	8.0156E-05	80.27	52.49	106.0	53.89	UL-RL	6.3546E+04	-10.600	91.73
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
55 D	29.44	7.8448E-05	82.13	53.31	108.0	54.88	UL-RL	6.3546E+04	-10.800	93.87
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
56 D	30.03	7.7505E-05	84.00	54.17	110.0	55.88	UL-RL	6.3546E+04	-11.000	96.00
1.000	1.000	150.2	0.000	0.000	Ug5_2_8_L_0					
57 D	30.64	7.7247E-05	85.87	55.07	112.0	56.88	UL-RL	6.3546E+04	-11.200	98.13
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
58 D	31.25	7.7597E-05	87.73	56.01	114.0	57.89	UL-RL	6.3546E+04	-11.400	100.3
1.000	1.000	156.3	0.000	0.000	Ug5_2_8_L_0					
59 D	31.87	7.8479E-05	89.60	56.97	116.0	58.90	UL-RL	6.3546E+04	-11.600	102.4
1.000	1.000	159.4	0.000	0.000	Ug5_2_8_L_0					
60 D	32.50	7.9823E-05	91.47	57.97	118.0	59.91	UL-RL	6.3546E+04	-11.800	104.5
1.000	1.000	162.5	0.000	0.000	Ug5_2_8_L_0					
61 D	33.13	8.1560E-05	93.33	58.98	120.0	60.92	UL-RL	6.3546E+04	-12.000	106.7
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
62 D	33.53	8.3625E-05	95.00	58.84	121.8	61.54	UL-RL	4.6114E+04	-12.200	108.8
1.000	1.000	167.6	0.000	0.000	Ug6_741_743_L_0					
63 D	34.15	8.5955E-05	96.67	59.81	123.6	62.42	UL-RL	4.6114E+04	-12.400	110.9
1.000	1.000	170.7	0.000	0.000	Ug6_741_743_L_0					
64 D	34.77	8.8494E-05	98.33	60.79	125.4	63.30	UL-RL	4.6114E+04	-12.600	113.1
1.000	1.000	173.9	0.000	0.000	Ug6_741_743_L_0					
65 D	35.39	9.1194E-05	100.00	61.77	127.2	64.19	UL-RL	4.6114E+04	-12.800	115.2
1.000	1.000	177.0	0.000	0.000	Ug6_741_743_L_0					
66 D	36.02	9.4013E-05	101.7	62.77	129.0	65.07	UL-RL	4.6114E+04	-13.000	117.3
1.000	1.000	180.1	0.000	0.000	Ug6_741_743_L_0					
67 D	36.65	9.6918E-05	103.3	63.76	130.8	65.95	UL-RL	4.6114E+04	-13.200	119.5
1.000	1.000	183.2	0.000	0.000	Ug6_741_743_L_0					
68 D	37.27	9.9879E-05	105.0	64.76	132.6	66.84	UL-RL	4.6114E+04	-13.400	121.6
1.000	1.000	186.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.90	1.0287E-04	106.7	65.76	134.4	67.73	UL-RL	4.6114E+04	-13.60	123.7
1.000	1.000	189.5	0.000	0.000	Ug6_741_743_L_0					
70 D	38.53	1.0589E-04	108.3	66.76	136.2	68.61	UL-RL	4.6114E+04	-13.80	125.9
1.000	1.000	192.6	0.000	0.000	Ug6_741_743_L_0					
71 D	39.15	1.0890E-04	110.0	67.77	138.0	69.50	UL-RL	4.6114E+04	-14.00	128.0
1.000	1.000	195.8	0.000	0.000	Ug6_741_743_L_0					
72 D	39.78	1.1191E-04	111.7	68.77	139.8	70.38	UL-RL	4.6114E+04	-14.20	130.1
1.000	1.000	198.9	0.000	0.000	Ug6_741_743_L_0					
73 D	40.41	1.1490E-04	113.3	69.77	141.6	71.27	UL-RL	4.6114E+04	-14.40	132.3
1.000	1.000	202.0	0.000	0.000	Ug6_741_743_L_0					
74 D	41.03	1.1788E-04	115.0	70.77	143.4	72.16	UL-RL	4.6114E+04	-14.60	134.4
1.000	1.000	205.2	0.000	0.000	Ug6_741_743_L_0					
75 D	41.66	1.2085E-04	116.7	71.77	145.2	73.05	UL-RL	4.6114E+04	-14.80	136.5
1.000	1.000	208.3	0.000	0.000	Ug6_741_743_L_0					
76 D	42.29	1.2380E-04	118.3	72.77	147.0	73.94	UL-RL	4.6114E+04	-15.00	138.7
1.000	1.000	211.4	0.000	0.000	Ug6_741_743_L_0					
77 D	42.91	1.2673E-04	120.0	73.77	148.8	74.82	UL-RL	4.6114E+04	-15.20	140.8
1.000	1.000	214.6	0.000	0.000	Ug6_741_743_L_0					
78 D	43.54	1.2966E-04	121.7	74.77	150.6	75.71	UL-RL	4.6114E+04	-15.40	142.9
1.000	1.000	217.7	0.000	0.000	Ug6_741_743_L_0					
79 D	44.17	1.3258E-04	123.3	75.76	152.4	76.60	UL-RL	4.6114E+04	-15.60	145.1
1.000	1.000	220.8	0.000	0.000	Ug6_741_743_L_0					
80 D	44.79	1.3549E-04	125.0	76.76	154.2	77.49	UL-RL	4.6114E+04	-15.80	147.2
1.000	1.000	224.0	0.000	0.000	Ug6_741_743_L_0					
81 D	22.71	1.3841E-04	126.7	77.76	156.0	78.38	UL-RL	4.6114E+04	-16.00	149.3
1.000	1.000	227.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018   18:25:48   |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	5.44976E-10	-5.44976E-10	5.47208E-11	1.85747E-11
2	0.51011	-0.51011	4.09211E-11	0.10202
3	1.5337	-1.5337	-0.10202	0.40876
4	3.0751	-3.0751	-0.40876	1.0238
5	5.1375	-5.1375	-1.0238	2.0513
6	7.7224	-7.7224	-2.0513	3.5958
7	10.830	-10.830	-3.5958	5.7617
8	14.468	-14.468	-5.7617	8.6553
9	18.641	-18.641	-8.6553	12.384
10	23.331	-23.331	-12.384	17.050
11	28.549	-28.549	-17.050	22.760
12	32.155	-32.155	-22.760	29.191
13	34.139	-34.139	-29.191	36.018
14	34.508	-34.508	-36.018	42.920
15	33.262	-33.262	-42.920	49.572
16	30.398	-30.398	-49.572	55.652
17	26.927	-26.927	-55.652	61.037
18	23.678	-23.678	-61.037	65.773
19	20.643	-20.643	-65.773	69.902
20	17.808	-17.808	-69.902	73.463
21	15.171	-15.171	-73.463	76.498
22	12.722	-12.722	-76.498	79.042
23	10.445	-10.445	-79.042	81.131
24	8.3369	-8.3369	-81.131	82.798
25	6.3859	-6.3859	-82.798	84.076
26	4.5816	-4.5816	-84.076	84.992
27	2.9082	-2.9082	-84.992	85.574
28	1.3596	-1.3596	-85.574	85.845
29	-7.55059E-02	7.55059E-02	-85.845	85.830
30	-1.4125	1.4125	-85.830	85.548
31	-2.6581	2.6581	-85.548	85.016
32	-3.8237	3.8237	-85.016	84.251
33	-4.9238	4.9238	-84.251	83.267
34	-5.9656	5.9656	-83.267	82.074
35	-6.9599	6.9599	-82.074	80.682
36	-7.9171	7.9171	-80.682	79.098
37	-8.8511	8.8511	-79.098	77.328
38	-9.7684	9.7684	-77.328	75.374
39	-10.679	10.679	-75.374	73.238
40	-11.596	11.596	-73.238	70.919
41	-12.525	12.525	-70.919	68.414
42	-13.475	13.475	-68.414	65.719
43	-14.458	14.458	-65.719	62.828
44	-15.480	15.480	-62.828	59.732
45	-16.270	16.270	-59.732	56.478
46	-16.790	16.790	-56.478	53.120
47	-17.080	17.080	-53.120	49.704
48	-17.176	17.176	-49.704	46.268
49	-17.114	17.114	-46.268	42.846
50	-16.890	16.890	-42.846	39.468
51	-16.519	16.519	-39.468	36.164
52	-16.039	16.039	-36.164	32.956
53	-15.484	15.484	-32.956	29.859
54	-14.882	14.882	-29.859	26.883
55	-14.257	14.257	-26.883	24.032
56	-13.634	13.634	-24.032	21.305
57	-13.033	13.033	-21.305	18.698
58	-12.475	12.475	-18.698	16.203
59	-11.977	11.977	-16.203	13.808

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-11.551	11.551	-13.808	11.497
61	-11.212	11.212	-11.497	9.2551
62	-9.7915	9.7915	-9.2551	7.2968
63	-8.4537	8.4537	-7.2968	5.6060
64	-7.2024	7.2024	-5.6060	4.1655
65	-6.0406	6.0406	-4.1655	2.9574
66	-4.9705	4.9705	-2.9574	1.9633
67	-3.9935	3.9935	-1.9633	1.1646
68	-3.1106	3.1106	-1.1646	0.54249
69	-2.3221	2.3221	-0.54249	7.80587E-02
70	-1.6284	1.6284	-7.80587E-02	-0.24762
71	-1.0292	1.0292	0.24762	-0.45345
72	-0.52427	0.52427	0.45345	-0.55831
73	-0.11327	0.11327	0.55831	-0.58096
74	0.20420	-0.20420	0.58096	-0.54012
75	0.42858	-0.42858	0.54012	-0.45440
76	0.56022	-0.56022	0.45440	-0.34236
77	0.59944	-0.59944	0.34236	-0.22247
78	0.54646	-0.54646	0.22247	-0.11318
79	0.40144	-0.40144	0.11318	-3.28925E-02
80	0.16445	-0.16445	3.28925E-02	1.33438E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1265E+06 RIMNOR=0.3954E+06
RENORM= 701.2 REMNOR=0.3052E-19 RATIO =0.7445E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.97 RMMAX = 85.85
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1265E+06 RDR =0.3954E+06
RATIOT=0.7445E-01 RATIO= 0.000
MAX UN= 10.57 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7356E-01 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1265E+06 RIMNOR=0.3954E+06
RENORM= 218.2 REMNOR=0.2624E-19 RATIO =0.4153E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.97 RMMAX = 85.85
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1265E+06 RDR =0.3954E+06
RATIOT=0.4153E-01 RATIO= 0.000
MAX UN= 3.741 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.2663E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1265E+06 RIMNOR=0.3954E+06
RENORM= 123.2 REMNOR=0.1460E-17 RATIO =0.3121E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.97 RMMAX = 85.85
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1265E+06 RDR =0.3954E+06
RATIOT=0.3121E-01 RATIO= 0.000
MAX UN= 6.912 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
MIN UN=-.4945E-01 IEQ= 133 NODE 67 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1265E+06 RIMNOR=0.3954E+06
RENORM= 1.480 REMNOR=0.2737E-18 RATIO =0.3421E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.97 RMMAX = 85.85
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1265E+06 RDR =0.3954E+06
RATIOT=0.3421E-02 RATIO= 0.000
MAX UN=0.6985 IEQ= 109 NODE 55 DOF 1 Y-DISPL.F
MIN UN=-.2098 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1265E+06 RIMNOR=0.3954E+06
RENORM=0.9147E-16 REMNOR=0.2969E-18 RATIO =0.2689E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 43.97 RMMAX = 85.85
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1265E+06 RDR =0.3954E+06
RATIOT=0.2689E-10 RATIO= 0.000
MAX UN=0.3419E-08 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.3025E-08 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                               Exe Time :24 May 2018      18:25:48 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	9.8657742E-03	-1.2657889E-03
2	9.6126164E-03	-1.2657889E-03
3	9.3594591E-03	-1.2657818E-03
4	9.1063056E-03	-1.2657461E-03
5	8.8531649E-03	-1.2656462E-03
6	8.6000548E-03	-1.2654316E-03
7	8.3470043E-03	-1.2650375E-03
8	8.0940570E-03	-1.2643845E-03
9	7.8412740E-03	-1.2633784E-03
10	7.5887365E-03	-1.2619100E-03
11	7.3365490E-03	-1.2598558E-03
12	7.0848424E-03	-1.2570773E-03
13	6.8337766E-03	-1.2534216E-03
14	6.5835434E-03	-1.2487212E-03
15	6.3343699E-03	-1.2427941E-03
16	6.0865207E-03	-1.2354438E-03
17	5.8403001E-03	-1.2264593E-03
18	5.5960577E-03	-1.2156450E-03
19	5.3541742E-03	-1.2028501E-03
20	5.1150568E-03	-1.1879688E-03
21	4.8791309E-03	-1.1709404E-03
22	4.6468260E-03	-1.1517487E-03
23	4.4185738E-03	-1.1304228E-03
24	4.1947942E-03	-1.1070370E-03
25	3.9758884E-03	-1.0817102E-03
26	3.7622286E-03	-1.0546065E-03
27	3.5541513E-03	-1.0259350E-03
28	3.3519452E-03	-9.9592073E-04
29	3.1558584E-03	-9.6477557E-04
30	2.9660972E-03	-9.3269666E-04
31	2.7828298E-03	-8.9986730E-04
32	2.6061899E-03	-8.6645774E-04
33	2.4362758E-03	-8.3262506E-04
34	2.2731583E-03	-7.9851492E-04
35	2.1168794E-03	-7.6426148E-04
36	1.9674551E-03	-7.2998825E-04
37	1.8248785E-03	-6.9580887E-04
38	1.6891191E-03	-6.6182712E-04
39	1.5601281E-03	-6.2813867E-04
40	1.4378382E-03	-5.9483091E-04
41	1.3221651E-03	-5.6198387E-04
42	1.2130091E-03	-5.2967084E-04
43	1.1102566E-03	-4.9795891E-04
44	1.0137813E-03	-4.6690968E-04
45	9.2344525E-04	-4.3657995E-04
46	8.3909836E-04	-4.0702171E-04
47	7.6058190E-04	-3.7828356E-04
48	6.8772725E-04	-3.5041075E-04
49	6.2035707E-04	-3.2344583E-04
50	5.5828600E-04	-2.9742924E-04
51	5.0131991E-04	-2.7239936E-04
52	4.4925673E-04	-2.4839318E-04
53	4.0189280E-04	-2.2544966E-04
54	3.5900620E-04	-2.0360220E-04
55	3.2037634E-04	-1.8288840E-04
56	2.8577281E-04	-1.6334514E-04
57	2.5495774E-04	-1.4501011E-04
58	2.2768586E-04	-1.2791865E-04
59	2.0370556E-04	-1.1209793E-04
60	1.8276085E-04	-9.7564778E-05
61	1.6459340E-04	-8.4325380E-05
62	1.4894471E-04	-7.2375685E-05
63	1.3555966E-04	-6.1677996E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.2419459E-04	-5.2164229E-05
65	1.1461974E-04	-4.3763883E-05
66	1.0661962E-04	-3.6404759E-05
67	9.9993278E-05	-3.0013976E-05
68	9.4554320E-05	-2.4518835E-05
69	9.0130849E-05	-1.9847121E-05
70	8.6565347E-05	-1.5927278E-05
71	8.3714526E-05	-1.2688618E-05
72	8.1449128E-05	-1.0061530E-05
73	7.9653699E-05	-7.9776561E-06
74	7.8226316E-05	-6.3700382E-06
75	7.7078297E-05	-5.1732294E-06
76	7.6133893E-05	-4.3233828E-06
77	7.5329958E-05	-3.7583167E-06
78	7.4615612E-05	-3.4175610E-06
79	7.3951895E-05	-3.2423883E-06
80	7.3311416E-05	-3.1758324E-06
81	7.2677969E-05	-3.1626976E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018   18:25:48   |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-9.8658E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5001	-9.6126E-03	2.217	0.7074	2.217	1.774	ACTIVE	0.000	-0.2000	1.793	
1.000	1.000	2.500	0.000	0.000	Ug5_2_8_L_0						
3 D	1.004	-9.3595E-03	4.488	1.432	4.488	3.436	ACTIVE	0.000	-0.4000	3.586	
1.000	1.000	5.018	0.000	0.000	Ug5_2_8_L_0						
4 D	1.511	-9.1063E-03	6.826	2.177	6.826	4.933	ACTIVE	0.000	-0.6000	5.379	
1.000	1.000	7.557	0.000	0.000	Ug5_2_8_L_0						
5 D	2.022	-8.8532E-03	9.214	2.939	9.214	6.275	ACTIVE	0.000	-0.8000	7.172	
1.000	1.000	10.11	0.000	0.000	Ug5_2_8_L_0						
6 D	2.535	-8.6001E-03	11.62	3.708	11.62	7.498	ACTIVE	0.000	-1.000	8.966	
1.000	1.000	12.67	0.000	0.000	Ug5_2_8_L_0						
7 D	3.047	-8.3470E-03	14.04	4.477	14.04	8.636	ACTIVE	0.000	-1.200	10.76	
1.000	1.000	15.24	0.000	0.000	Ug5_2_8_L_0						
8 D	3.568	-8.0941E-03	16.59	5.291	16.59	9.720	ACTIVE	0.000	-1.400	12.55	
1.000	1.000	17.84	0.000	0.000	Ug5_2_8_L_0						
9 D	4.093	-7.8413E-03	19.18	6.120	19.18	10.77	ACTIVE	0.000	-1.600	14.34	
1.000	1.000	20.46	0.000	0.000	Ug5_2_8_L_0						
10 D	4.600	-7.5887E-03	21.51	6.860	21.51	11.79	ACTIVE	0.000	-1.800	16.14	
1.000	1.000	23.00	0.000	0.000	Ug5_2_8_L_0						
11 D	5.117	-7.3365E-03	24.00	7.656	24.00	12.80	ACTIVE	0.000	-2.000	17.93	
1.000	1.000	25.59	0.000	0.000	Ug5_2_8_L_0						
12 D	5.632	-7.0848E-03	26.45	8.437	26.45	13.80	ACTIVE	0.000	-2.200	19.72	
1.000	1.000	28.16	0.000	0.000	Ug5_2_8_L_0						
13 D	6.135	-6.8338E-03	28.71	9.157	28.71	14.79	ACTIVE	0.000	-2.400	21.52	
1.000	1.000	30.67	0.000	0.000	Ug5_2_8_L_0						
14 D	6.646	-6.5835E-03	31.10	9.922	31.10	15.78	ACTIVE	0.000	-2.600	23.31	
1.000	1.000	33.23	0.000	0.000	Ug5_2_8_L_0						
15 D	7.156	-6.3344E-03	33.48	10.68	33.48	16.77	ACTIVE	0.000	-2.800	25.10	
1.000	1.000	35.78	0.000	0.000	Ug5_2_8_L_0						
16 D	7.665	-6.0865E-03	35.83	11.43	35.83	17.75	ACTIVE	0.000	-3.000	26.90	
1.000	1.000	38.33	0.000	0.000	Ug5_2_8_L_0						
17 D	8.166	-5.8403E-03	38.05	12.14	38.05	18.73	ACTIVE	0.000	-3.200	28.69	
1.000	1.000	40.83	0.000	0.000	Ug5_2_8_L_0						
18 D	8.673	-5.5961E-03	40.38	12.88	40.38	19.71	ACTIVE	0.000	-3.400	30.48	
1.000	1.000	43.36	0.000	0.000	Ug5_2_8_L_0						
19 D	9.179	-5.3542E-03	42.70	13.62	42.70	20.69	ACTIVE	0.000	-3.600	32.28	
1.000	1.000	45.90	0.000	0.000	Ug5_2_8_L_0						
20 D	9.679	-5.1151E-03	44.91	14.32	44.91	21.67	ACTIVE	0.000	-3.800	34.07	
1.000	1.000	48.39	0.000	0.000	Ug5_2_8_L_0						
21 D	10.18	-4.8791E-03	47.21	15.06	47.21	22.66	ACTIVE	0.000	-4.000	35.86	
1.000	1.000	50.92	0.000	0.000	Ug5_2_8_L_0						
22 D	10.69	-4.6468E-03	49.50	15.79	49.50	23.64	ACTIVE	0.000	-4.200	37.66	
1.000	1.000	53.45	0.000	0.000	Ug5_2_8_L_0						
23 D	11.19	-4.4186E-03	51.70	16.49	51.70	24.62	ACTIVE	0.000	-4.400	39.45	
1.000	1.000	55.94	0.000	0.000	Ug5_2_8_L_0						
24 D	11.69	-4.1948E-03	53.99	17.22	53.99	25.60	ACTIVE	0.000	-4.600	41.24	
1.000	1.000	58.46	0.000	0.000	Ug5_2_8_L_0						
25 D	12.20	-3.9759E-03	56.27	17.95	56.27	26.59	ACTIVE	0.000	-4.800	43.03	
1.000	1.000	60.98	0.000	0.000	Ug5_2_8_L_0						
26 D	12.70	-3.7622E-03	58.54	18.67	58.54	27.57	ACTIVE	0.000	-5.000	44.83	
1.000	1.000	63.50	0.000	0.000	Ug5_2_8_L_0						
27 D	13.20	-3.5542E-03	60.74	19.37	60.74	28.55	ACTIVE	0.000	-5.200	46.62	
1.000	1.000	66.00	0.000	0.000	Ug5_2_8_L_0						
28 D	13.70	-3.3519E-03	63.00	20.10	63.00	29.54	ACTIVE	0.000	-5.400	48.41	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	68.51	0.000	0.000	Ug5_2_8_L_0					
29 D	14.21	-3.1559E-03	65.26	20.82	65.26	30.53	ACTIVE	0.000	-5.600	50.21
1.000	1.000	71.03	0.000	0.000	Ug5_2_8_L_0					
30 D	14.70	-2.9661E-03	67.46	21.52	67.46	31.52	ACTIVE	0.000	-5.800	52.00
1.000	1.000	73.52	0.000	0.000	Ug5_2_8_L_0					
31 D	15.21	-2.7828E-03	69.72	22.24	69.72	32.50	ACTIVE	0.000	-6.000	53.79
1.000	1.000	76.03	0.000	0.000	Ug5_2_8_L_0					
32 D	15.71	-2.6062E-03	71.97	22.96	71.97	33.49	ACTIVE	0.000	-6.200	55.59
1.000	1.000	78.54	0.000	0.000	Ug5_2_8_L_0					
33 D	16.21	-2.4363E-03	74.16	23.66	74.16	34.49	ACTIVE	0.000	-6.400	57.38
1.000	1.000	81.04	0.000	0.000	Ug5_2_8_L_0					
34 D	16.71	-2.2732E-03	76.41	24.38	76.41	35.48	ACTIVE	0.000	-6.600	59.17
1.000	1.000	83.55	0.000	0.000	Ug5_2_8_L_0					
35 D	17.21	-2.1169E-03	78.66	25.09	78.66	36.47	ACTIVE	0.000	-6.800	60.97
1.000	1.000	86.06	0.000	0.000	Ug5_2_8_L_0					
36 D	17.71	-1.9675E-03	80.91	25.81	80.91	37.46	ACTIVE	0.000	-7.000	62.76
1.000	1.000	88.57	0.000	0.000	Ug5_2_8_L_0					
37 D	18.21	-1.8249E-03	83.10	26.51	83.10	38.46	ACTIVE	0.000	-7.200	64.55
1.000	1.000	91.06	0.000	0.000	Ug5_2_8_L_0					
38 D	18.71	-1.6891E-03	85.34	27.22	85.34	39.45	ACTIVE	0.000	-7.400	66.34
1.000	1.000	93.57	0.000	0.000	Ug5_2_8_L_0					
39 D	19.22	-1.5601E-03	87.59	27.94	87.59	40.45	ACTIVE	0.000	-7.600	68.14
1.000	1.000	96.08	0.000	0.000	Ug5_2_8_L_0					
40 D	19.71	-1.4378E-03	89.78	28.64	89.78	41.45	ACTIVE	0.000	-7.800	69.93
1.000	1.000	98.57	0.000	0.000	Ug5_2_8_L_0					
41 D	20.22	-1.3222E-03	92.02	29.35	92.02	42.45	ACTIVE	0.000	-8.000	71.72
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
42 D	20.72	-1.2130E-03	94.26	30.07	94.26	43.45	ACTIVE	0.000	-8.200	73.52
1.000	1.000	103.6	0.000	0.000	Ug5_2_8_L_0					
43 D	21.22	-1.1103E-03	96.45	30.77	96.45	44.45	ACTIVE	0.000	-8.400	75.31
1.000	1.000	106.1	0.000	0.000	Ug5_2_8_L_0					
44 D	21.72	-1.0138E-03	98.68	31.48	98.68	45.45	ACTIVE	0.000	-8.600	77.10
1.000	1.000	108.6	0.000	0.000	Ug5_2_8_L_0					
45 D	22.22	-9.2345E-04	100.9	32.19	100.9	46.45	ACTIVE	0.000	-8.800	78.90
1.000	1.000	111.1	0.000	0.000	Ug5_2_8_L_0					
46 D	22.72	-8.3910E-04	103.2	32.91	103.2	47.45	ACTIVE	0.000	-9.000	80.69
1.000	1.000	113.6	0.000	0.000	Ug5_2_8_L_0					
47 D	23.22	-7.6058E-04	105.3	33.60	105.3	48.46	ACTIVE	0.000	-9.200	82.48
1.000	1.000	116.1	0.000	0.000	Ug5_2_8_L_0					
48 D	23.72	-6.8773E-04	107.6	34.32	107.6	49.46	ACTIVE	0.000	-9.400	84.28
1.000	1.000	118.6	0.000	0.000	Ug5_2_8_L_0					
49 D	24.22	-6.2036E-04	109.8	35.03	109.8	50.47	ACTIVE	0.000	-9.600	86.07
1.000	1.000	121.1	0.000	0.000	Ug5_2_8_L_0					
50 D	24.72	-5.5829E-04	112.0	35.73	112.0	51.47	ACTIVE	0.000	-9.800	87.86
1.000	1.000	123.6	0.000	0.000	Ug5_2_8_L_0					
51 D	25.22	-5.0132E-04	114.2	36.44	114.2	52.48	ACTIVE	0.000	-10.000	89.66
1.000	1.000	126.1	0.000	0.000	Ug5_2_8_L_0					
52 D	25.72	-4.4926E-04	116.5	37.15	116.5	53.49	ACTIVE	0.000	-10.200	91.45
1.000	1.000	128.6	0.000	0.000	Ug5_2_8_L_0					
53 D	26.22	-4.0189E-04	118.7	37.85	118.7	54.50	ACTIVE	0.000	-10.400	93.24
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
54 D	26.72	-3.5901E-04	120.9	38.56	120.9	55.51	ACTIVE	0.000	-10.600	95.03
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
55 D	27.22	-3.2038E-04	123.1	39.27	123.1	56.52	ACTIVE	0.000	-10.800	96.83
1.000	1.000	136.1	0.000	0.000	Ug5_2_8_L_0					
56 D	27.72	-2.8577E-04	125.3	39.98	125.3	57.53	ACTIVE	0.000	-11.000	98.62
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
57 D	28.47	-2.5496E-04	127.5	41.93	127.5	58.54	UL-RL	6.6389E+04	-11.200	100.4
1.000	1.000	142.3	0.000	0.000	Ug5_2_8_L_0					
58 D	29.40	-2.2769E-04	129.8	44.80	129.8	59.55	UL-RL	6.6389E+04	-11.400	102.2
1.000	1.000	147.0	0.000	0.000	Ug5_2_8_L_0					
59 D	30.28	-2.0371E-04	132.0	47.42	132.0	60.56	UL-RL	6.6389E+04	-11.600	104.0
1.000	1.000	151.4	0.000	0.000	Ug5_2_8_L_0					
60 D	31.12	-1.8276E-04	134.2	49.83	134.2	61.58	UL-RL	6.6389E+04	-11.800	105.8
1.000	1.000	155.6	0.000	0.000	Ug5_2_8_L_0					
61 D	31.93	-1.6459E-04	136.4	52.04	136.4	62.59	UL-RL	6.6389E+04	-12.000	107.6
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
62 D	34.07	-1.4894E-04	138.4	60.96	138.4	63.50	UL-RL	3.2934E+04	-12.200	109.4
1.000	1.000	170.3	0.000	0.000	Ug6_741_743_L_0					
63 D	34.70	-1.3556E-04	140.4	62.34	140.4	64.42	UL-RL	3.2934E+04	-12.400	111.2
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
64 D	35.32	-1.2419E-04	142.4	63.65	142.4	65.33	UL-RL	3.2934E+04	-12.600	113.0
1.000	1.000	176.6	0.000	0.000	Ug6_741_743_L_0					
65 D	35.93	-1.1462E-04	144.4	64.90	144.4	66.25	UL-RL	3.2934E+04	-12.800	114.8
1.000	1.000	179.7	0.000	0.000	Ug6_741_743_L_0					
66 D	36.50	-1.0662E-04	146.4	65.96	146.4	67.23	UL-RL	3.2934E+04	-13.000	116.6
1.000	1.000	182.5	0.000	0.000	Ug6_741_743_L_0					
67 D	37.07	-9.9993E-05	148.4	66.99	148.4	68.21	UL-RL	3.2934E+04	-13.200	118.3
1.000	1.000	185.3	0.000	0.000	Ug6_741_743_L_0					
68 D	37.63	-9.4554E-05	150.3	68.03	150.3	69.19	UL-RL	3.2934E+04	-13.400	120.1
1.000	1.000	188.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.20	-9.0131E-05	152.3	69.07	152.3	70.19	UL-RL	3.2934E+04	-13.60	121.9
1.000	1.000	191.0	0.000	0.000	Ug6_741_743_L_0					
70 D	38.76	-8.6565E-05	154.3	70.10	154.3	71.18	UL-RL	3.2934E+04	-13.80	123.7
1.000	1.000	193.8	0.000	0.000	Ug6_741_743_L_0					
71 D	39.33	-8.3715E-05	156.2	71.11	156.2	72.17	UL-RL	3.2934E+04	-14.00	125.5
1.000	1.000	196.6	0.000	0.000	Ug6_741_743_L_0					
72 D	39.88	-8.1449E-05	158.2	72.11	158.2	73.16	UL-RL	3.2934E+04	-14.20	127.3
1.000	1.000	199.4	0.000	0.000	Ug6_741_743_L_0					
73 D	40.44	-7.9654E-05	160.2	73.11	160.2	74.13	UL-RL	3.2934E+04	-14.40	129.1
1.000	1.000	202.2	0.000	0.000	Ug6_741_743_L_0					
74 D	41.00	-7.8226E-05	162.1	74.09	162.1	75.11	UL-RL	3.2934E+04	-14.60	130.9
1.000	1.000	205.0	0.000	0.000	Ug6_741_743_L_0					
75 D	41.55	-7.7078E-05	164.1	75.08	164.1	76.09	UL-RL	3.2934E+04	-14.80	132.7
1.000	1.000	207.8	0.000	0.000	Ug6_741_743_L_0					
76 D	42.11	-7.6134E-05	166.1	76.06	166.1	77.06	UL-RL	3.2934E+04	-15.00	134.5
1.000	1.000	210.5	0.000	0.000	Ug6_741_743_L_0					
77 D	42.66	-7.5330E-05	168.1	77.04	168.1	78.03	UL-RL	3.2934E+04	-15.20	136.3
1.000	1.000	213.3	0.000	0.000	Ug6_741_743_L_0					
78 D	43.22	-7.4616E-05	170.0	78.01	170.0	79.00	UL-RL	3.2934E+04	-15.40	138.1
1.000	1.000	216.1	0.000	0.000	Ug6_741_743_L_0					
79 D	43.77	-7.3952E-05	172.0	78.99	172.0	79.98	UL-RL	3.2934E+04	-15.60	139.9
1.000	1.000	218.8	0.000	0.000	Ug6_741_743_L_0					
80 D	44.32	-7.3311E-05	174.0	79.96	174.0	80.95	UL-RL	3.2934E+04	-15.80	141.7
1.000	1.000	221.6	0.000	0.000	Ug6_741_743_L_0					
81 D	22.44	-7.2678E-05	176.0	80.94	176.0	81.92	UL-RL	3.2934E+04	-16.00	143.4
1.000	1.000	224.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018 18:25:48                               |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	6.0865E-03	0.000	0.000	30.00	42.73	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.083	5.8403E-03	1.793	8.209	32.00	46.18	PASSIVE	0.000	-3.200	2.207	
1.000	1.000	10.42	0.000	0.000	Ug5_2_8_L_0						
18 D	4.166	5.5961E-03	3.586	16.42	34.00	45.53	PASSIVE	0.000	-3.400	4.414	
1.000	1.000	20.83	0.000	0.000	Ug5_2_8_L_0						
19 D	6.249	5.3542E-03	5.379	24.63	36.00	44.91	PASSIVE	0.000	-3.600	6.621	
1.000	1.000	31.25	0.000	0.000	Ug5_2_8_L_0						
20 D	8.333	5.1151E-03	7.172	32.84	38.00	44.32	PASSIVE	0.000	-3.800	8.828	
1.000	1.000	41.66	0.000	0.000	Ug5_2_8_L_0						
21 D	10.42	4.8791E-03	8.966	41.04	40.00	43.78	PASSIVE	0.000	-4.000	11.03	
1.000	1.000	52.08	0.000	0.000	Ug5_2_8_L_0						
22 D	12.50	4.6468E-03	10.76	49.25	42.00	49.25	PASSIVE	0.000	-4.200	13.24	
1.000	1.000	62.49	0.000	0.000	Ug5_2_8_L_0						
23 D	14.58	4.4186E-03	12.55	57.46	44.00	57.46	PASSIVE	0.000	-4.400	15.45	
1.000	1.000	72.91	0.000	0.000	Ug5_2_8_L_0						
24 D	16.67	4.1948E-03	14.34	65.67	46.00	65.67	PASSIVE	0.000	-4.600	17.66	
1.000	1.000	83.33	0.000	0.000	Ug5_2_8_L_0						
25 D	18.75	3.9759E-03	16.14	73.88	48.00	73.88	PASSIVE	0.000	-4.800	19.86	
1.000	1.000	93.74	0.000	0.000	Ug5_2_8_L_0						
26 D	20.83	3.7622E-03	17.93	82.09	50.00	82.09	PASSIVE	0.000	-5.000	22.07	
1.000	1.000	104.2	0.000	0.000	Ug5_2_8_L_0						
27 D	20.90	3.5542E-03	19.72	80.20	52.00	80.20	V-C	1.4121E+04	-5.200	24.28	
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0						
28 D	20.88	3.3519E-03	21.52	77.91	54.00	77.91	V-C	1.4121E+04	-5.400	26.48	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
29 D	20.88	3.1559E-03	23.31	75.71	56.00	75.71	V-C	1.4121E+04	-5.600	28.69
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
30 D	20.91	2.9661E-03	25.10	73.63	58.00	73.63	V-C	1.4121E+04	-5.800	30.90
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0					
31 D	20.95	2.7828E-03	26.90	71.66	60.00	71.66	V-C	1.4121E+04	-6.000	33.10
1.000	1.000	104.8	0.000	0.000	Ug5_2_8_L_0					
32 D	21.02	2.6062E-03	28.69	69.80	62.00	69.80	V-C	1.4121E+04	-6.200	35.31
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
33 D	21.11	2.4363E-03	30.48	68.05	64.00	68.05	V-C	1.4121E+04	-6.400	37.52
1.000	1.000	105.6	0.000	0.000	Ug5_2_8_L_0					
34 D	21.23	2.2732E-03	32.28	66.42	66.00	66.42	V-C	1.4121E+04	-6.600	39.72
1.000	1.000	106.1	0.000	0.000	Ug5_2_8_L_0					
35 D	21.37	2.1169E-03	34.07	64.91	68.00	64.91	V-C	1.4121E+04	-6.800	41.93
1.000	1.000	106.8	0.000	0.000	Ug5_2_8_L_0					
36 D	21.53	1.9675E-03	35.86	63.51	70.00	63.51	V-C	1.4121E+04	-7.000	44.14
1.000	1.000	107.6	0.000	0.000	Ug5_2_8_L_0					
37 D	21.71	1.8249E-03	37.66	62.22	72.00	62.22	V-C	1.4121E+04	-7.200	46.34
1.000	1.000	108.6	0.000	0.000	Ug5_2_8_L_0					
38 D	21.92	1.6891E-03	39.45	61.05	74.00	61.05	V-C	1.4121E+04	-7.400	48.55
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
39 D	22.15	1.5601E-03	41.24	59.99	76.00	59.99	V-C	1.4121E+04	-7.600	50.76
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
40 D	22.40	1.4378E-03	43.03	59.04	78.00	59.04	V-C	1.4121E+04	-7.800	52.97
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
41 D	22.68	1.3222E-03	44.83	58.21	80.00	58.21	V-C	1.4121E+04	-8.000	55.17
1.000	1.000	113.4	0.000	0.000	Ug5_2_8_L_0					
42 D	22.97	1.2130E-03	46.62	57.48	82.00	57.48	V-C	1.4121E+04	-8.200	57.38
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
43 D	23.29	1.1103E-03	48.41	56.85	84.00	56.85	V-C	1.4121E+04	-8.400	59.59
1.000	1.000	116.4	0.000	0.000	Ug5_2_8_L_0					
44 D	23.62	1.0138E-03	50.21	56.33	86.00	56.33	V-C	1.4121E+04	-8.600	61.79
1.000	1.000	118.1	0.000	0.000	Ug5_2_8_L_0					
45 D	23.98	9.2345E-04	52.00	55.91	88.00	55.91	V-C	1.4121E+04	-8.800	64.00
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
46 D	24.36	8.3910E-04	53.79	55.59	90.00	55.59	V-C	1.4121E+04	-9.000	66.21
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.76	7.6058E-04	55.59	55.36	92.00	55.36	V-C	1.4121E+04	-9.200	68.41
1.000	1.000	123.8	0.000	0.000	Ug5_2_8_L_0					
48 D	25.17	6.8773E-04	57.38	55.23	94.00	55.23	V-C	1.4121E+04	-9.400	70.62
1.000	1.000	125.8	0.000	0.000	Ug5_2_8_L_0					
49 D	25.60	6.2036E-04	59.17	55.18	96.00	55.18	V-C	1.4121E+04	-9.600	72.83
1.000	1.000	128.0	0.000	0.000	Ug5_2_8_L_0					
50 D	26.05	5.5829E-04	60.97	55.22	98.00	55.22	V-C	1.4121E+04	-9.800	75.03
1.000	1.000	130.3	0.000	0.000	Ug5_2_8_L_0					
51 D	26.52	5.0132E-04	62.76	55.34	100.00	55.34	V-C	1.4121E+04	-10.000	77.24
1.000	1.000	132.6	0.000	0.000	Ug5_2_8_L_0					
52 D	27.00	4.4926E-04	64.55	55.54	102.0	55.54	V-C	1.4121E+04	-10.200	79.45
1.000	1.000	135.0	0.000	0.000	Ug5_2_8_L_0					
53 D	27.49	4.0189E-04	66.34	55.81	104.0	55.81	V-C	1.4121E+04	-10.400	81.66
1.000	1.000	137.5	0.000	0.000	Ug5_2_8_L_0					
54 D	28.00	3.5901E-04	68.14	56.15	106.0	56.15	V-C	1.4121E+04	-10.600	83.86
1.000	1.000	140.0	0.000	0.000	Ug5_2_8_L_0					
55 D	28.53	3.2038E-04	69.93	56.56	108.0	56.56	V-C	1.4121E+04	-10.800	86.07
1.000	1.000	142.6	0.000	0.000	Ug5_2_8_L_0					
56 D	29.06	2.8577E-04	71.72	57.04	110.0	57.04	V-C	1.4121E+04	-11.000	88.28
1.000	1.000	145.3	0.000	0.000	Ug5_2_8_L_0					
57 D	29.61	2.5496E-04	73.52	57.57	112.0	57.57	V-C	1.4121E+04	-11.200	90.48
1.000	1.000	148.1	0.000	0.000	Ug5_2_8_L_0					
58 D	30.17	2.2769E-04	75.31	58.16	114.0	58.16	V-C	1.4121E+04	-11.400	92.69
1.000	1.000	150.8	0.000	0.000	Ug5_2_8_L_0					
59 D	30.70	2.0371E-04	77.10	58.59	116.0	58.90	UL-RL	4.2364E+04	-11.600	94.90
1.000	1.000	153.5	0.000	0.000	Ug5_2_8_L_0					
60 D	31.15	1.8276E-04	78.90	58.63	118.0	59.91	UL-RL	4.2364E+04	-11.800	97.10
1.000	1.000	155.7	0.000	0.000	Ug5_2_8_L_0					
61 D	31.62	1.6459E-04	80.69	58.79	120.0	60.92	UL-RL	4.2364E+04	-12.000	99.31
1.000	1.000	158.1	0.000	0.000	Ug5_2_8_L_0					
62 D	31.73	1.4894E-04	82.28	57.12	121.8	61.54	UL-RL	3.0743E+04	-12.200	101.5
1.000	1.000	158.6	0.000	0.000	Ug6_741_743_L_0					
63 D	32.26	1.3556E-04	83.88	57.59	123.6	62.42	UL-RL	3.0743E+04	-12.400	103.7
1.000	1.000	161.3	0.000	0.000	Ug6_741_743_L_0					
64 D	32.81	1.2419E-04	85.47	58.12	125.4	63.30	UL-RL	3.0743E+04	-12.600	105.9
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0					
65 D	33.37	1.1462E-04	87.06	58.72	127.2	64.19	UL-RL	3.0743E+04	-12.800	108.1
1.000	1.000	166.9	0.000	0.000	Ug6_741_743_L_0					
66 D	33.94	1.0662E-04	88.66	59.36	129.0	65.07	UL-RL	3.0743E+04	-13.000	110.3
1.000	1.000	169.7	0.000	0.000	Ug6_741_743_L_0					
67 D	34.52	9.9993E-05	90.25	60.05	130.8	65.95	UL-RL	3.0743E+04	-13.200	112.6
1.000	1.000	172.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.11	9.4554E-05	91.84	60.78	132.6	66.84	UL-RL	3.0743E+04	-13.400	114.8
1.000	1.000	175.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	35.70	9.0131E-05	93.43	61.53	134.4	67.73	UL-RL	3.0743E+04	-13.60	117.0
1.000	1.000	178.5	0.000	0.000	Ug6_741_743_L_0					
70 D	36.30	8.6565E-05	95.03	62.32	136.2	68.61	UL-RL	3.0743E+04	-13.80	119.2
1.000	1.000	181.5	0.000	0.000	Ug6_741_743_L_0					
71 D	36.90	8.3715E-05	96.62	63.12	138.0	69.50	UL-RL	3.0743E+04	-14.00	121.4
1.000	1.000	184.5	0.000	0.000	Ug6_741_743_L_0					
72 D	37.51	8.1449E-05	98.21	63.95	139.8	70.38	UL-RL	3.0743E+04	-14.20	123.6
1.000	1.000	187.5	0.000	0.000	Ug6_741_743_L_0					
73 D	38.12	7.9654E-05	99.81	64.79	141.6	71.27	UL-RL	3.0743E+04	-14.40	125.8
1.000	1.000	190.6	0.000	0.000	Ug6_741_743_L_0					
74 D	38.73	7.8226E-05	101.4	65.63	143.4	72.16	UL-RL	3.0743E+04	-14.60	128.0
1.000	1.000	193.6	0.000	0.000	Ug6_741_743_L_0					
75 D	39.34	7.7078E-05	103.0	66.49	145.2	73.05	UL-RL	3.0743E+04	-14.80	130.2
1.000	1.000	196.7	0.000	0.000	Ug6_741_743_L_0					
76 D	39.95	7.6134E-05	104.6	67.35	147.0	73.94	UL-RL	3.0743E+04	-15.00	132.4
1.000	1.000	199.8	0.000	0.000	Ug6_741_743_L_0					
77 D	40.57	7.5330E-05	106.2	68.22	148.8	74.82	UL-RL	3.0743E+04	-15.20	134.6
1.000	1.000	202.8	0.000	0.000	Ug6_741_743_L_0					
78 D	41.18	7.4616E-05	107.8	69.09	150.6	75.71	UL-RL	3.0743E+04	-15.40	136.8
1.000	1.000	205.9	0.000	0.000	Ug6_741_743_L_0					
79 D	41.80	7.3952E-05	109.4	69.96	152.4	76.60	UL-RL	3.0743E+04	-15.60	139.0
1.000	1.000	209.0	0.000	0.000	Ug6_741_743_L_0					
80 D	42.42	7.3311E-05	111.0	70.84	154.2	77.49	UL-RL	3.0743E+04	-15.80	141.2
1.000	1.000	212.1	0.000	0.000	Ug6_741_743_L_0					
81 D	21.52	7.2678E-05	112.6	71.71	156.0	78.38	UL-RL	3.0743E+04	-16.00	143.4
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.46350E-09	-2.46350E-09	2.45498E-10	-5.05087E-12
2	0.50009	-0.50009	1.86248E-10	0.10002
3	1.5036	-1.5036	-0.10002	0.40075
4	3.0150	-3.0150	-0.40075	1.0037
5	5.0373	-5.0373	-1.0037	2.0112
6	7.5721	-7.5721	-2.0112	3.5256
7	10.619	-10.619	-3.5256	5.6495
8	14.188	-14.188	-5.6495	8.4870
9	18.281	-18.281	-8.4870	12.143
10	22.880	-22.880	-12.143	16.719
11	27.998	-27.998	-16.719	22.319
12	33.630	-33.630	-22.319	29.045
13	39.765	-39.765	-29.045	36.998
14	46.411	-46.411	-36.998	46.280
15	53.567	-53.567	-46.280	56.993
16	61.233	-61.233	-56.993	69.240
17	67.315	-67.315	-69.240	82.703
18	71.822	-71.822	-82.703	97.067
19	74.751	-74.751	-97.067	112.02
20	76.098	-76.098	-112.02	127.24
21	75.866	-75.866	-127.24	142.41
22	74.057	-74.057	-142.41	157.22
23	70.663	-70.663	-157.22	171.35
24	65.691	-65.691	-171.35	184.49
25	59.139	-59.139	-184.49	196.32
26	51.008	-51.008	-196.32	206.52
27	43.312	-43.312	-206.52	215.18
28	36.136	-36.136	-215.18	222.41
29	29.461	-29.461	-222.41	228.30
30	23.259	-23.259	-228.30	232.96
31	17.513	-17.513	-232.96	236.46
32	12.200	-12.200	-236.46	238.90
33	7.2929	-7.2929	-238.90	240.36
34	2.7732	-2.7732	-240.36	240.91
35	-1.3826	1.3826	-240.91	240.63
36	-5.1978	5.1978	-240.63	239.59
37	-8.6988	8.6988	-239.59	237.86
38	-11.905	11.905	-237.86	235.47
39	-14.839	14.839	-235.47	232.51
40	-17.527	17.527	-232.51	229.00
41	-19.987	19.987	-229.00	225.00
42	-22.241	22.241	-225.00	220.56
43	-24.314	24.314	-220.56	215.69
44	-26.222	26.222	-215.69	210.45
45	-27.986	27.986	-210.45	204.85
46	-29.627	29.627	-204.85	198.93
47	-31.164	31.164	-198.93	192.69
48	-32.615	32.615	-192.69	186.17
49	-33.997	33.997	-186.17	179.37
50	-35.330	35.330	-179.37	172.30
51	-36.627	36.627	-172.30	164.98
52	-37.904	37.904	-164.98	157.40
53	-39.178	39.178	-157.40	149.56
54	-40.462	40.462	-149.56	141.47
55	-41.769	41.769	-141.47	133.12
56	-43.111	43.111	-133.12	124.49
57	-44.251	44.251	-124.49	115.64
58	-45.020	45.020	-115.64	106.64
59	-45.433	45.433	-106.64	97.553

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60	-45.454	45.454	-97.553	88.463
61	-45.148	45.148	-88.463	79.433
62	-42.806	42.806	-79.433	70.872
63	-40.365	40.365	-70.872	62.799
64	-37.853	37.853	-62.799	55.228
65	-35.293	35.293	-55.228	48.169
66	-32.733	32.733	-48.169	41.623
67	-30.186	30.186	-41.623	35.585
68	-27.660	27.660	-35.585	30.053
69	-25.160	25.160	-30.053	25.021
70	-22.694	22.694	-25.021	20.482
71	-20.269	20.269	-20.482	16.429
72	-17.892	17.892	-16.429	12.850
73	-15.566	15.566	-12.850	9.7371
74	-13.294	13.294	-9.7371	7.0783
75	-11.080	11.080	-7.0783	4.8622
76	-8.9258	8.9258	-4.8622	3.0771
77	-6.8322	6.8322	-3.0771	1.7106
78	-4.8002	4.8002	-1.7106	0.75059
79	-2.8303	2.8303	-0.75059	0.18454
80	-0.92264	0.92264	-0.18454	-8.67084E-14

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3017E+06 RIMNOR=0.3228E+07
RENORM= 1120. REMNOR=0.2969E-18 RATIO =0.6093E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 76.10 RMMAX = 240.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.3017E+06 RDR =0.3228E+07
RATIOT=0.6093E-01 RATIO= 0.000
MAX UN= 10.50 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.1182 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3017E+06 RIMNOR=0.3228E+07
RENORM= 387.9 REMNOR=0.3456E-18 RATIO =0.3586E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 76.10 RMMAX = 240.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.3017E+06 RDR =0.3228E+07
RATIOT=0.3586E-01 RATIO= 0.000
MAX UN= 4.966 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.2853E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3017E+06 RIMNOR=0.3228E+07
RENORM= 360.9 REMNOR=0.1183E-16 RATIO =0.3459E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 76.10 RMMAX = 240.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.3017E+06 RDR =0.3228E+07
RATIOT=0.3459E-01 RATIO= 0.000
MAX UN= 11.21 IEQ= 61 NODE 31 DOF 1 Y-DISPL.F
MIN UN=-1.855 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3017E+06 RIMNOR=0.3228E+07
RENORM= 6.265 REMNOR=0.2733E-17 RATIO =0.4557E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 76.10 RMMAX = 240.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.3017E+06 RDR =0.3228E+07
RATIOT=0.4557E-02 RATIO= 0.000
MAX UN= 2.477 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
MIN UN=-.5968E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.3017E+06 RIMNOR=0.3228E+07
RENORM=0.4414E-01 REMNOR=0.1536E-17 RATIO =0.3825E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 76.10 RMMAX = 240.9
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.3017E+06 RDR =0.3228E+07
RATIOT=0.3825E-03 RATIO= 0.000
MAX UN=0.2098 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.8191E-02 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.3017E+06  RIMNOR=0.3228E+07
           RENORM=0.1291E-14  REMNOR=0.3056E-17  RATIO =0.6542E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 76.10      RMMAX = 240.9
           RTSMAL=0.1000E-03  RMSMAL=0.1000E-02
           RDT   =0.3017E+06  RDR   =0.3228E+07
           RATIOI=0.6542E-10  RATIOR= 0.000
           MAX UN=0.1339E-07  IEQ=   21 NODE   11 DOF   1  Y-DISPL.F
           MIN UN=-.1381E-07  IEQ=   19 NODE   10 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
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NewProject.BaseDesignSection_28.A2M2R1_1787
Exe Time :24 May 2018      18:25:48

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.9251792E-02	-3.1313011E-03	
2	2.8625531E-02	-3.1313011E-03	
3	2.7999272E-02	-3.1312942E-03	
4	2.7373015E-02	-3.1312593E-03	
5	2.6746772E-02	-3.1311615E-03	
6	2.6120558E-02	-3.1309515E-03	
7	2.5494403E-02	-3.1305658E-03	
8	2.4868349E-02	-3.1299267E-03	
9	2.4242455E-02	-3.1289419E-03	
10	2.3616802E-02	-3.1275048E-03	
11	2.2991492E-02	-3.1254941E-03	
12	2.2366652E-02	-3.1227745E-03	
13	2.1742439E-02	-3.1191961E-03	
14	2.1119042E-02	-3.1145950E-03	
15	2.0496681E-02	-3.1087930E-03	
16	1.9875617E-02	-3.1015978E-03	
17	1.9256146E-02	-3.0928028E-03	
18	1.8638615E-02	-3.0821874E-03	
19	1.8023408E-02	-3.0695171E-03	
20	1.7410961E-02	-3.0545429E-03	
21	1.6801765E-02	-3.0370023E-03	
22	1.6196353E-02	-3.0166183E-03	
23	1.5595324E-02	-2.9931288E-03	
24	1.4999323E-02	-2.9663157E-03	
25	1.4409031E-02	-2.9360044E-03	
26	1.3825163E-02	-2.9020638E-03	
27	1.3248456E-02	-2.8644070E-03	
28	1.2679654E-02	-2.8229901E-03	
29	1.2119511E-02	-2.7778134E-03	
30	1.1568776E-02	-2.7289208E-03	
31	1.1028185E-02	-2.6764001E-03	
32	1.0498452E-02	-2.6203828E-03	
33	9.9802557E-03	-2.5610436E-03	
34	9.4742414E-03	-2.4986015E-03	
35	8.9810044E-03	-2.4333192E-03	
36	8.5010827E-03	-2.3655029E-03	
37	8.0349511E-03	-2.2955032E-03	
38	7.5830031E-03	-2.2237131E-03	
39	7.1455582E-03	-2.1505386E-03	
40	6.7228545E-03	-2.0763625E-03	
41	6.3150561E-03	-2.0015427E-03	
42	5.9222580E-03	-1.9264133E-03	
43	5.5444907E-03	-1.8512854E-03	
44	5.1817244E-03	-1.7764489E-03	
45	4.8338755E-03	-1.7021731E-03	
46	4.5008029E-03	-1.6287073E-03	
47	4.1823231E-03	-1.5562831E-03	
48	3.8782060E-03	-1.4851149E-03	
49	3.5881802E-03	-1.4154007E-03	
50	3.3119379E-03	-1.3473238E-03	
51	3.0491318E-03	-1.2810523E-03	
52	2.7993801E-03	-1.2167408E-03	
53	2.5623003E-03	-1.1545389E-03	
54	2.3374276E-03	-1.0945710E-03	
55	2.1243146E-03	-1.0369623E-03	
56	1.9224779E-03	-9.8182486E-04	
57	1.7314130E-03	-9.2926237E-04	
58	1.5505950E-03	-8.7937044E-04	
59	1.3794809E-03	-8.3223750E-04	
60	1.2175106E-03	-7.8794546E-04	
61	1.0641082E-03	-7.4657037E-04	
62	9.1868323E-04	-7.0818308E-04	
63	7.8063496E-04	-6.7279616E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	6.4936774E-04	-6.4036462E-04
65	5.2429531E-04	-6.1084012E-04
66	4.0484132E-04	-5.8417131E-04
67	2.9044035E-04	-5.6029893E-04
68	1.8054011E-04	-5.3915103E-04
69	7.4604175E-05	-5.2063963E-04
70	-2.7884173E-05	-5.0465474E-04
71	-1.2741746E-04	-4.9106590E-04
72	-2.2446052E-04	-4.7972680E-04
73	-3.1944739E-04	-4.7047588E-04
74	-4.1277833E-04	-4.6313683E-04
75	-5.0481686E-04	-4.5751893E-04
76	-5.9588699E-04	-4.5341737E-04
77	-6.8627032E-04	-4.5061344E-04
78	-7.7620338E-04	-4.4887474E-04
79	-8.6587483E-04	-4.4795522E-04
80	-9.5542278E-04	-4.4759533E-04
81	-1.0449365E-03	-4.4752200E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018   18:25:48             |
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New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.9252E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4894	-2.8626E-02	2.296	0.7325	2.296	1.774	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	2.447	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9821	-2.7999E-02	4.645	1.482	4.645	3.436	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	4.910	0.000	0.000	Ug5_2_8_L_0						
4 D	1.479	-2.7373E-02	7.062	2.253	7.062	4.933	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	7.396	0.000	0.000	Ug5_2_8_L_0						
5 D	1.979	-2.6747E-02	9.529	3.040	9.529	6.275	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	9.897	0.000	0.000	Ug5_2_8_L_0						
6 D	2.481	-2.6121E-02	12.02	3.834	12.02	7.498	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	12.41	0.000	0.000	Ug5_2_8_L_0						
7 D	2.983	-2.5494E-02	14.51	4.628	14.51	8.636	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	14.91	0.000	0.000	Ug5_2_8_L_0						
8 D	3.493	-2.4868E-02	17.14	5.467	17.14	9.720	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	17.47	0.000	0.000	Ug5_2_8_L_0						
9 D	4.007	-2.4242E-02	19.81	6.321	19.81	10.77	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	20.04	0.000	0.000	Ug5_2_8_L_0						
10 D	4.503	-2.3617E-02	22.21	7.087	22.21	11.79	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	22.52	0.000	0.000	Ug5_2_8_L_0						
11 D	5.010	-2.2991E-02	24.79	7.907	24.79	12.80	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	25.05	0.000	0.000	Ug5_2_8_L_0						
12 D	5.514	-2.2367E-02	27.31	8.713	27.31	13.80	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	27.57	0.000	0.000	Ug5_2_8_L_0						
13 D	6.006	-2.1742E-02	29.65	9.459	29.65	14.79	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	30.03	0.000	0.000	Ug5_2_8_L_0						
14 D	6.507	-2.1119E-02	32.13	10.25	32.13	15.78	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	32.53	0.000	0.000	Ug5_2_8_L_0						
15 D	7.006	-2.0497E-02	34.58	11.03	34.58	16.77	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	35.03	0.000	0.000	Ug5_2_8_L_0						
16 D	7.504	-1.9876E-02	37.01	11.81	37.01	17.75	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	37.52	0.000	0.000	Ug5_2_8_L_0						
17 D	7.994	-1.9256E-02	39.31	12.54	39.31	18.73	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	39.97	0.000	0.000	Ug5_2_8_L_0						
18 D	8.490	-1.8639E-02	41.72	13.31	41.72	19.71	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	42.45	0.000	0.000	Ug5_2_8_L_0						
19 D	8.986	-1.8023E-02	44.12	14.07	44.12	20.69	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	44.93	0.000	0.000	Ug5_2_8_L_0						
20 D	9.475	-1.7411E-02	46.40	14.80	46.40	21.67	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	47.37	0.000	0.000	Ug5_2_8_L_0						
21 D	9.970	-1.6802E-02	48.79	15.56	48.79	22.66	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	49.85	0.000	0.000	Ug5_2_8_L_0						
22 D	10.46	-1.6196E-02	51.16	16.32	51.16	23.64	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	52.32	0.000	0.000	Ug5_2_8_L_0						
23 D	10.95	-1.5595E-02	53.44	17.05	53.44	24.62	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	54.76	0.000	0.000	Ug5_2_8_L_0						
24 D	11.45	-1.4999E-02	55.80	17.80	55.80	25.60	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	57.23	0.000	0.000	Ug5_2_8_L_0						
25 D	11.94	-1.4409E-02	58.16	18.55	58.16	26.59	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	59.70	0.000	0.000	Ug5_2_8_L_0						
26 D	12.43	-1.3825E-02	60.51	19.30	60.51	27.57	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	62.16	0.000	0.000	Ug5_2_8_L_0						
27 D	12.92	-1.3248E-02	62.78	20.03	62.78	28.55	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	64.60	0.000	0.000	Ug5_2_8_L_0						
28 D	13.41	-1.2680E-02	65.13	20.78	65.13	29.54	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	67.06	0.000	0.000	Ug5_2_8_L_0					
29 D	13.90	-1.2120E-02	67.47	21.52	67.47	30.53	ACTIVE	0.000	-5.600	48.00
1.000	1.000	69.52	0.000	0.000	Ug5_2_8_L_0					
30 D	14.39	-1.1569E-02	69.74	22.25	69.74	31.52	ACTIVE	0.000	-5.800	49.71
1.000	1.000	71.96	0.000	0.000	Ug5_2_8_L_0					
31 D	14.88	-1.1028E-02	72.08	22.99	72.08	32.50	ACTIVE	0.000	-6.000	51.43
1.000	1.000	74.42	0.000	0.000	Ug5_2_8_L_0					
32 D	15.38	-1.0498E-02	74.41	23.74	74.41	33.49	ACTIVE	0.000	-6.200	53.14
1.000	1.000	76.88	0.000	0.000	Ug5_2_8_L_0					
33 D	15.86	-9.9803E-03	76.69	24.46	76.69	34.49	ACTIVE	0.000	-6.400	54.86
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0					
34 D	16.36	-9.4742E-03	79.02	25.21	79.02	35.48	ACTIVE	0.000	-6.600	56.57
1.000	1.000	81.78	0.000	0.000	Ug5_2_8_L_0					
35 D	16.85	-8.9810E-03	81.34	25.95	81.34	36.47	ACTIVE	0.000	-6.800	58.29
1.000	1.000	84.23	0.000	0.000	Ug5_2_8_L_0					
36 D	17.34	-8.5011E-03	83.67	26.69	83.67	37.46	ACTIVE	0.000	-7.000	60.00
1.000	1.000	86.69	0.000	0.000	Ug5_2_8_L_0					
37 D	17.83	-8.0350E-03	85.94	27.41	85.94	38.46	ACTIVE	0.000	-7.200	61.71
1.000	1.000	89.13	0.000	0.000	Ug5_2_8_L_0					
38 D	18.32	-7.5830E-03	88.26	28.16	88.26	39.45	ACTIVE	0.000	-7.400	63.43
1.000	1.000	91.58	0.000	0.000	Ug5_2_8_L_0					
39 D	18.81	-7.1456E-03	90.58	28.90	90.58	40.45	ACTIVE	0.000	-7.600	65.14
1.000	1.000	94.04	0.000	0.000	Ug5_2_8_L_0					
40 D	19.30	-6.7229E-03	92.85	29.62	92.85	41.45	ACTIVE	0.000	-7.800	66.86
1.000	1.000	96.48	0.000	0.000	Ug5_2_8_L_0					
41 D	19.79	-6.3151E-03	95.17	30.36	95.17	42.45	ACTIVE	0.000	-8.000	68.57
1.000	1.000	98.93	0.000	0.000	Ug5_2_8_L_0					
42 D	20.28	-5.9223E-03	97.49	31.10	97.49	43.45	ACTIVE	0.000	-8.200	70.29
1.000	1.000	101.4	0.000	0.000	Ug5_2_8_L_0					
43 D	20.76	-5.5445E-03	99.76	31.82	99.76	44.45	ACTIVE	0.000	-8.400	72.00
1.000	1.000	103.8	0.000	0.000	Ug5_2_8_L_0					
44 D	21.26	-5.1817E-03	102.1	32.56	102.1	45.45	ACTIVE	0.000	-8.600	73.71
1.000	1.000	106.3	0.000	0.000	Ug5_2_8_L_0					
45 D	21.75	-4.8339E-03	104.4	33.30	104.4	46.45	ACTIVE	0.000	-8.800	75.43
1.000	1.000	108.7	0.000	0.000	Ug5_2_8_L_0					
46 D	22.24	-4.5008E-03	106.7	34.04	106.7	47.45	ACTIVE	0.000	-9.000	77.14
1.000	1.000	111.2	0.000	0.000	Ug5_2_8_L_0					
47 D	22.72	-4.1823E-03	109.0	34.76	109.0	48.46	ACTIVE	0.000	-9.200	78.86
1.000	1.000	113.6	0.000	0.000	Ug5_2_8_L_0					
48 D	23.21	-3.8782E-03	111.3	35.50	111.3	49.46	ACTIVE	0.000	-9.400	80.57
1.000	1.000	116.1	0.000	0.000	Ug5_2_8_L_0					
49 D	23.70	-3.5882E-03	113.6	36.24	113.6	50.47	ACTIVE	0.000	-9.600	82.29
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
50 D	24.19	-3.3119E-03	115.9	36.96	115.9	51.47	ACTIVE	0.000	-9.800	84.00
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
51 D	24.68	-3.0491E-03	118.2	37.70	118.2	52.48	ACTIVE	0.000	-10.000	85.71
1.000	1.000	123.4	0.000	0.000	Ug5_2_8_L_0					
52 D	25.17	-2.7994E-03	120.5	38.43	120.5	53.49	ACTIVE	0.000	-10.200	87.43
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
53 D	25.66	-2.5623E-03	122.8	39.16	122.8	54.50	ACTIVE	0.000	-10.400	89.14
1.000	1.000	128.3	0.000	0.000	Ug5_2_8_L_0					
54 D	26.15	-2.3374E-03	125.1	39.89	125.1	55.51	ACTIVE	0.000	-10.600	90.86
1.000	1.000	130.8	0.000	0.000	Ug5_2_8_L_0					
55 D	26.64	-2.1243E-03	127.4	40.63	127.4	56.52	ACTIVE	0.000	-10.800	92.57
1.000	1.000	133.2	0.000	0.000	Ug5_2_8_L_0					
56 D	27.13	-1.9225E-03	129.7	41.36	129.7	57.53	ACTIVE	0.000	-11.000	94.29
1.000	1.000	135.7	0.000	0.000	Ug5_2_8_L_0					
57 D	27.62	-1.7314E-03	131.9	42.09	131.9	58.54	ACTIVE	0.000	-11.200	96.00
1.000	1.000	138.1	0.000	0.000	Ug5_2_8_L_0					
58 D	28.11	-1.5506E-03	134.2	42.82	134.2	59.55	ACTIVE	0.000	-11.400	97.71
1.000	1.000	140.5	0.000	0.000	Ug5_2_8_L_0					
59 D	28.60	-1.3795E-03	136.6	43.56	136.6	60.56	ACTIVE	0.000	-11.600	99.43
1.000	1.000	143.0	0.000	0.000	Ug5_2_8_L_0					
60 D	29.09	-1.2175E-03	138.8	44.28	138.8	61.58	ACTIVE	0.000	-11.800	101.1
1.000	1.000	145.4	0.000	0.000	Ug5_2_8_L_0					
61 D	29.58	-1.0641E-03	141.1	45.02	141.1	62.59	ACTIVE	0.000	-12.000	102.9
1.000	1.000	147.9	0.000	0.000	Ug5_2_8_L_0					
62 D	33.20	-9.1868E-04	143.2	61.42	143.2	63.50	ACTIVE	0.000	-12.200	104.6
1.000	1.000	166.0	0.000	0.000	Ug6_741_743_L_0					
63 D	33.74	-7.8063E-04	145.3	62.40	145.3	64.79	ACTIVE	0.000	-12.400	106.3
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
64 D	34.27	-6.4937E-04	147.4	63.37	147.4	66.13	ACTIVE	0.000	-12.600	108.0
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					
65 D	34.81	-5.2430E-04	149.5	64.34	149.5	67.42	ACTIVE	0.000	-12.800	109.7
1.000	1.000	174.1	0.000	0.000	Ug6_741_743_L_0					
66 D	35.34	-4.0484E-04	151.5	65.29	151.5	68.52	ACTIVE	0.000	-13.000	111.4
1.000	1.000	176.7	0.000	0.000	Ug6_741_743_L_0					
67 D	35.88	-2.9044E-04	153.6	66.25	153.6	69.59	ACTIVE	0.000	-13.200	113.1
1.000	1.000	179.4	0.000	0.000	Ug6_741_743_L_0					
68 D	36.68	-1.8054E-04	155.6	68.55	155.6	70.67	UL-RL	2.4701E+04	-13.400	114.9
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.68	-7.4604E-05	157.7	71.84	157.7	71.90	UL-RL	2.4701E+04	-13.60	116.6
1.000	1.000	188.4	0.000	0.000	Ug6_741_743_L_0					
70 D	38.41	2.7884E-05	159.7	73.75	159.7	73.76	UL-RL	2.4701E+04	-13.80	118.3
1.000	1.000	192.0	0.000	0.000	Ug6_741_743_L_0					
71 D	39.12	1.2742E-04	161.7	75.61	161.7	75.61	V-C	8234.	-14.00	120.0
1.000	1.000	195.6	0.000	0.000	Ug6_741_743_L_0					
72 D	39.83	2.2446E-04	163.8	77.43	163.8	77.43	V-C	8234.	-14.20	121.7
1.000	1.000	199.1	0.000	0.000	Ug6_741_743_L_0					
73 D	40.53	3.1945E-04	165.8	79.23	165.8	79.23	V-C	8234.	-14.40	123.4
1.000	1.000	202.7	0.000	0.000	Ug6_741_743_L_0					
74 D	41.23	4.1278E-04	167.9	81.01	167.9	81.01	V-C	8234.	-14.60	125.1
1.000	1.000	206.2	0.000	0.000	Ug6_741_743_L_0					
75 D	41.93	5.0482E-04	169.9	82.79	169.9	82.79	V-C	8234.	-14.80	126.9
1.000	1.000	209.6	0.000	0.000	Ug6_741_743_L_0					
76 D	42.62	5.9589E-04	172.0	84.55	172.0	84.55	V-C	8234.	-15.00	128.6
1.000	1.000	213.1	0.000	0.000	Ug6_741_743_L_0					
77 D	43.32	6.8627E-04	174.0	86.30	174.0	86.30	V-C	8234.	-15.20	130.3
1.000	1.000	216.6	0.000	0.000	Ug6_741_743_L_0					
78 D	44.01	7.7620E-04	176.1	88.05	176.1	88.05	V-C	8234.	-15.40	132.0
1.000	1.000	220.1	0.000	0.000	Ug6_741_743_L_0					
79 D	44.70	8.6587E-04	178.2	89.80	178.2	89.80	V-C	8234.	-15.60	133.7
1.000	1.000	223.5	0.000	0.000	Ug6_741_743_L_0					
80 D	45.39	9.5542E-04	180.2	91.54	180.2	91.54	V-C	8234.	-15.80	135.4
1.000	1.000	227.0	0.000	0.000	Ug6_741_743_L_0					
81 D	23.04	1.0449E-03	182.3	93.29	182.3	93.29	V-C	8234.	-16.00	137.1
1.000	1.000	230.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018          18:25:48                                          |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	1.6802E-02	0.000	0.000	40.00	43.78	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.027	1.6196E-02	1.714	7.848	42.00	49.25	PASSIVE	0.000	-4.200	2.286	
1.000	1.000	10.13	0.000	0.000	Ug5_2_8_L_0						
23 D	4.053	1.5595E-02	3.429	15.70	44.00	57.46	PASSIVE	0.000	-4.400	4.571	
1.000	1.000	20.27	0.000	0.000	Ug5_2_8_L_0						
24 D	6.080	1.4999E-02	5.143	23.54	46.00	65.67	PASSIVE	0.000	-4.600	6.857	
1.000	1.000	30.40	0.000	0.000	Ug5_2_8_L_0						
25 D	8.107	1.4409E-02	6.857	31.39	48.00	73.88	PASSIVE	0.000	-4.800	9.143	
1.000	1.000	40.53	0.000	0.000	Ug5_2_8_L_0						
26 D	10.13	1.3825E-02	8.571	39.24	50.00	82.09	PASSIVE	0.000	-5.000	11.43	
1.000	1.000	50.67	0.000	0.000	Ug5_2_8_L_0						
27 D	12.16	1.3248E-02	10.29	47.09	52.00	80.20	PASSIVE	0.000	-5.200	13.71	
1.000	1.000	60.80	0.000	0.000	Ug5_2_8_L_0						
28 D	14.19	1.2680E-02	12.00	54.94	54.00	77.91	PASSIVE	0.000	-5.400	16.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	70.94	0.000	0.000	Ug5_2_8_L_0					
29 D	16.21	1.2120E-02	13.71	62.78	56.00	75.71	PASSIVE	0.000	-5.600	18.29
1.000	1.000	81.07	0.000	0.000	Ug5_2_8_L_0					
30 D	18.24	1.1569E-02	15.43	70.63	58.00	73.63	PASSIVE	0.000	-5.800	20.57
1.000	1.000	91.20	0.000	0.000	Ug5_2_8_L_0					
31 D	20.27	1.1028E-02	17.14	78.48	60.00	78.48	PASSIVE	0.000	-6.000	22.86
1.000	1.000	101.3	0.000	0.000	Ug5_2_8_L_0					
32 D	22.29	1.0498E-02	18.86	86.33	62.00	86.33	PASSIVE	0.000	-6.200	25.14
1.000	1.000	111.5	0.000	0.000	Ug5_2_8_L_0					
33 D	24.32	9.9803E-03	20.57	94.18	64.00	94.18	PASSIVE	0.000	-6.400	27.43
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
34 D	26.35	9.4742E-03	22.29	102.0	66.00	102.0	PASSIVE	0.000	-6.600	29.71
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
35 D	28.37	8.9810E-03	24.00	109.9	68.00	109.9	PASSIVE	0.000	-6.800	32.00
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
36 D	30.40	8.5011E-03	25.71	117.7	70.00	117.7	PASSIVE	0.000	-7.000	34.29
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
37 D	32.43	8.0350E-03	27.43	125.6	72.00	125.6	PASSIVE	0.000	-7.200	36.57
1.000	1.000	162.1	0.000	0.000	Ug5_2_8_L_0					
38 D	32.21	7.5830E-03	29.14	122.2	74.00	122.2	V-C	1.0591E+04	-7.400	38.86
1.000	1.000	161.1	0.000	0.000	Ug5_2_8_L_0					
39 D	31.81	7.1456E-03	30.86	117.9	76.00	117.9	V-C	1.0591E+04	-7.600	41.14
1.000	1.000	159.0	0.000	0.000	Ug5_2_8_L_0					
40 D	31.44	6.7229E-03	32.57	113.8	78.00	113.8	V-C	1.0591E+04	-7.800	43.43
1.000	1.000	157.2	0.000	0.000	Ug5_2_8_L_0					
41 D	31.11	6.3151E-03	34.29	109.8	80.00	109.8	V-C	1.0591E+04	-8.000	45.71
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					
42 D	30.82	5.9223E-03	36.00	106.1	82.00	106.1	V-C	1.0591E+04	-8.200	48.00
1.000	1.000	154.1	0.000	0.000	Ug5_2_8_L_0					
43 D	30.57	5.5445E-03	37.71	102.6	84.00	102.6	V-C	1.0591E+04	-8.400	50.29
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
44 D	30.36	5.1817E-03	39.43	99.23	86.00	99.23	V-C	1.0591E+04	-8.600	52.57
1.000	1.000	151.8	0.000	0.000	Ug5_2_8_L_0					
45 D	30.19	4.8339E-03	41.14	96.08	88.00	96.08	V-C	1.0591E+04	-8.800	54.86
1.000	1.000	150.9	0.000	0.000	Ug5_2_8_L_0					
46 D	30.05	4.5008E-03	42.86	93.12	90.00	93.12	V-C	1.0591E+04	-9.000	57.14
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
47 D	29.96	4.1823E-03	44.57	90.36	92.00	90.36	V-C	1.0591E+04	-9.200	59.43
1.000	1.000	149.8	0.000	0.000	Ug5_2_8_L_0					
48 D	29.90	3.8782E-03	46.29	87.77	94.00	87.77	V-C	1.0591E+04	-9.400	61.71
1.000	1.000	149.5	0.000	0.000	Ug5_2_8_L_0					
49 D	29.87	3.5882E-03	48.00	85.36	96.00	85.36	V-C	1.0591E+04	-9.600	64.00
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
50 D	29.88	3.3119E-03	49.71	83.13	98.00	83.13	V-C	1.0591E+04	-9.800	66.29
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
51 D	29.93	3.0491E-03	51.43	81.07	100.00	81.07	V-C	1.0591E+04	-10.000	68.57
1.000	1.000	149.6	0.000	0.000	Ug5_2_8_L_0					
52 D	30.01	2.7994E-03	53.14	79.17	102.0	79.17	V-C	1.0591E+04	-10.200	70.86
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
53 D	30.12	2.5623E-03	54.86	77.43	104.0	77.43	V-C	1.0591E+04	-10.400	73.14
1.000	1.000	150.6	0.000	0.000	Ug5_2_8_L_0					
54 D	30.26	2.3374E-03	56.57	75.85	106.0	75.85	V-C	1.0591E+04	-10.600	75.43
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
55 D	30.42	2.1243E-03	58.29	74.41	108.0	74.41	V-C	1.0591E+04	-10.800	77.71
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
56 D	30.62	1.9225E-03	60.00	73.11	110.0	73.11	V-C	1.0591E+04	-11.000	80.00
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
57 D	30.84	1.7314E-03	61.71	71.94	112.0	71.94	V-C	1.0591E+04	-11.200	82.29
1.000	1.000	154.2	0.000	0.000	Ug5_2_8_L_0					
58 D	31.09	1.5506E-03	63.43	70.90	114.0	70.90	V-C	1.0591E+04	-11.400	84.57
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					
59 D	31.37	1.3795E-03	65.14	69.97	116.0	69.97	V-C	1.0591E+04	-11.600	86.86
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
60 D	31.66	1.2175E-03	66.86	69.16	118.0	69.16	V-C	1.0591E+04	-11.800	89.14
1.000	1.000	158.3	0.000	0.000	Ug5_2_8_L_0					
61 D	31.98	1.0641E-03	68.57	68.45	120.0	68.45	V-C	1.0591E+04	-12.000	91.43
1.000	1.000	159.9	0.000	0.000	Ug5_2_8_L_0					
62 D	31.68	9.1868E-04	70.09	64.69	121.8	64.69	V-C	7686.	-12.200	93.71
1.000	1.000	158.4	0.000	0.000	Ug6_741_743_L_0					
63 D	32.10	7.8063E-04	71.60	64.48	123.6	64.48	V-C	7686.	-12.400	96.00
1.000	1.000	160.5	0.000	0.000	Ug6_741_743_L_0					
64 D	32.52	6.4937E-04	73.11	64.32	125.4	64.32	V-C	7686.	-12.600	98.29
1.000	1.000	162.6	0.000	0.000	Ug6_741_743_L_0					
65 D	32.96	5.2430E-04	74.63	64.21	127.2	64.21	V-C	7686.	-12.800	100.6
1.000	1.000	164.8	0.000	0.000	Ug6_741_743_L_0					
66 D	33.04	4.0484E-04	76.14	62.32	129.0	65.07	UL-RL	2.3057E+04	-13.000	102.9
1.000	1.000	165.2	0.000	0.000	Ug6_741_743_L_0					
67 D	33.13	2.9044E-04	77.66	60.51	130.8	65.95	UL-RL	2.3057E+04	-13.200	105.1
1.000	1.000	165.7	0.000	0.000	Ug6_741_743_L_0					
68 D	33.25	1.8054E-04	79.17	58.81	132.6	66.84	UL-RL	2.3057E+04	-13.400	107.4
1.000	1.000	166.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	33.39	7.4604E-05	80.69	57.21	134.4	67.73	UL-RL	2.3057E+04	-13.60	109.7
1.000	1.000	166.9	0.000	0.000	Ug6_741_743_L_0					
70 D	33.54	-2.7884E-05	82.20	55.70	136.2	68.61	UL-RL	2.3057E+04	-13.80	112.0
1.000	1.000	167.7	0.000	0.000	Ug6_741_743_L_0					
71 D	33.71	-1.2742E-04	83.71	54.26	138.0	69.50	UL-RL	2.3057E+04	-14.00	114.3
1.000	1.000	168.5	0.000	0.000	Ug6_741_743_L_0					
72 D	33.89	-2.2446E-04	85.23	52.88	139.8	70.38	UL-RL	2.3057E+04	-14.20	116.6
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
73 D	34.08	-3.1945E-04	86.74	51.56	141.6	71.27	UL-RL	2.3057E+04	-14.40	118.9
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
74 D	34.28	-4.1278E-04	88.26	50.27	143.4	72.16	UL-RL	2.3057E+04	-14.60	121.1
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					
75 D	34.49	-5.0482E-04	89.77	49.02	145.2	73.05	UL-RL	2.3057E+04	-14.80	123.4
1.000	1.000	172.4	0.000	0.000	Ug6_741_743_L_0					
76 D	34.70	-5.9589E-04	91.29	47.78	147.0	73.94	UL-RL	2.3057E+04	-15.00	125.7
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
77 D	34.91	-6.8627E-04	92.80	46.57	148.8	74.82	UL-RL	2.3057E+04	-15.20	128.0
1.000	1.000	174.6	0.000	0.000	Ug6_741_743_L_0					
78 D	35.13	-7.7620E-04	94.31	45.36	150.6	75.71	UL-RL	2.3057E+04	-15.40	130.3
1.000	1.000	175.7	0.000	0.000	Ug6_741_743_L_0					
79 D	35.35	-8.6587E-04	95.83	44.17	152.4	76.60	UL-RL	2.3057E+04	-15.60	132.6
1.000	1.000	176.7	0.000	0.000	Ug6_741_743_L_0					
80 D	35.57	-9.5542E-04	97.34	42.97	154.2	77.49	UL-RL	2.3057E+04	-15.80	134.9
1.000	1.000	177.8	0.000	0.000	Ug6_741_743_L_0					
81 D	17.89	-1.0449E-03	98.86	41.78	156.0	78.38	UL-RL	2.3057E+04	-16.00	137.1
1.000	1.000	178.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|                 PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                 |                 |                 |                 |                 |                 |                 |
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New Project
    
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S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33 :

ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
C U R R E N T T I M E I S 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-5.69194E-09	5.69194E-09	-5.70468E-10	-8.82102E-10
2	0.48936	-0.48936	4.40903E-10	9.78714E-02
3	1.4714	-1.4714	-9.78714E-02	0.39216
4	2.9506	-2.9506	-0.39216	0.98228
5	4.9300	-4.9300	-0.98228	1.9683
6	7.4110	-7.4110	-1.9683	3.4505
7	10.394	-10.394	-3.4505	5.5292
8	13.887	-13.887	-5.5292	8.3067
9	17.894	-17.894	-8.3067	11.885
10	22.397	-22.397	-11.885	16.365
11	27.407	-27.407	-16.365	21.846
12	32.921	-32.921	-21.846	28.431
13	38.927	-38.927	-28.431	36.216
14	45.434	-45.434	-36.216	45.303
15	52.440	-52.440	-45.303	55.791
16	59.945	-59.945	-55.791	67.780
17	67.938	-67.938	-67.780	81.368
18	76.429	-76.429	-81.368	96.653
19	85.415	-85.415	-96.653	113.74
20	94.889	-94.889	-113.74	132.71
21	104.86	-104.86	-132.71	153.69
22	113.30	-113.30	-153.69	176.35
23	120.19	-120.19	-176.35	200.38
24	125.56	-125.56	-200.38	225.50
25	129.39	-129.39	-225.50	251.37
26	131.69	-131.69	-251.37	277.71
27	132.45	-132.45	-277.71	304.20
28	131.68	-131.68	-304.20	330.54
29	129.37	-129.37	-330.54	356.41
30	125.52	-125.52	-356.41	381.51
31	120.14	-120.14	-381.51	405.54
32	113.22	-113.22	-405.54	428.19
33	104.76	-104.76	-428.19	449.14
34	94.768	-94.768	-449.14	468.09
35	83.241	-83.241	-468.09	484.74
36	70.178	-70.178	-484.74	498.77
37	55.575	-55.575	-498.77	509.89
38	41.679	-41.679	-509.89	518.23
39	28.681	-28.681	-518.23	523.96
40	16.539	-16.539	-523.96	527.27
41	5.2155	-5.2155	-527.27	528.31
42	-5.3282	5.3282	-528.31	527.25
43	-15.134	15.134	-527.25	524.22
44	-24.239	24.239	-524.22	519.37
45	-32.681	32.681	-519.37	512.84
46	-40.499	40.499	-512.84	504.74
47	-47.732	47.732	-504.74	495.19
48	-54.415	54.415	-495.19	484.31
49	-60.583	60.583	-484.31	472.19
50	-66.275	66.275	-472.19	458.94
51	-71.521	71.521	-458.94	444.63
52	-76.355	76.355	-444.63	429.36
53	-80.811	80.811	-429.36	413.20
54	-84.916	84.916	-413.20	396.22
55	-88.700	88.700	-396.22	378.48
56	-92.191	92.191	-378.48	360.04
57	-95.418	95.418	-360.04	340.95
58	-98.404	98.404	-340.95	321.27
59	-101.17	101.17	-321.27	301.04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-103.75	103.75	-301.04	280.29
61	-106.15	106.15	-280.29	259.06
62	-104.63	104.63	-259.06	238.13
63	-102.99	102.99	-238.13	217.54
64	-101.23	101.23	-217.54	197.29
65	-99.380	99.380	-197.29	177.41
66	-97.072	97.072	-177.41	158.00
67	-94.325	94.325	-158.00	139.13
68	-90.892	90.892	-139.13	120.96
69	-86.597	86.597	-120.96	103.64
70	-81.729	81.729	-103.64	87.290
71	-76.317	76.317	-87.290	72.027
72	-70.380	70.380	-72.027	57.951
73	-63.931	63.931	-57.951	45.164
74	-56.982	56.982	-45.164	33.768
75	-49.542	49.542	-33.768	23.860
76	-41.618	41.618	-23.860	15.536
77	-33.214	33.214	-15.536	8.8931
78	-24.334	24.334	-8.8931	4.0262
79	-14.980	14.980	-4.0262	1.0303
80	-5.1511	5.1511	-1.0303	1.87285E-11

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1044E+07 RIMNOR=0.1478E+08
RENORM= 444.0 REMNOR=0.3056E-17 RATIO =0.2063E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 132.5 RMMAX = 528.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1044E+07 RDR =0.1478E+08
RATIOT=0.2063E-01 RATIO= 0.000
MAX UN= 5.319 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.8312E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1044E+07 RIMNOR=0.1478E+08
RENORM= 182.1 REMNOR=0.2489E-17 RATIO =0.1321E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 132.5 RMMAX = 528.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1044E+07 RDR =0.1478E+08
RATIOT=0.1321E-01 RATIO= 0.000
MAX UN= 2.842 IEQ= 77 NODE 39 DOF 1 Y-DISPL.F
MIN UN=-.9310E-08 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1044E+07 RIMNOR=0.1478E+08
RENORM= 480.6 REMNOR=0.3134E-17 RATIO =0.2146E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 132.5 RMMAX = 528.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1044E+07 RDR =0.1478E+08
RATIOT=0.2146E-01 RATIO= 0.000
MAX UN= 15.47 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
MIN UN=-.7587 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1044E+07 RIMNOR=0.1478E+08
RENORM= 101.6 REMNOR=0.2640E-16 RATIO =0.9869E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 132.5 RMMAX = 528.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1044E+07 RDR =0.1478E+08
RATIOT=0.9869E-02 RATIO= 0.000
MAX UN= 6.572 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
MIN UN=-4.025 IEQ= 157 NODE 79 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1044E+07 RIMNOR=0.1478E+08
RENORM= 2.249 REMNOR=0.9421E-17 RATIO =0.1468E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 132.5 RMMAX = 528.3
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1044E+07 RDR =0.1478E+08
RATIOT=0.1468E-02 RATIO= 0.000
MAX UN=0.7203 IEQ= 131 NODE 66 DOF 1 Y-DISPL.F
MIN UN=-1.216 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1044E+07  RIMNOR=0.1478E+08
           RENORM=0.1746E-14  REMNOR=0.1154E-16  RATIO =0.4090E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 132.5      RMMAX = 528.3
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT   =0.1044E+07  RDR   =0.1478E+08
           RATIOT=0.4090E-10  RATIOR= 0.000
           MAX UN=0.1303E-07  IEQ=   25 NODE   13 DOF   1  Y-DISPL.F
           MIN UN=-.1674E-07  IEQ=   15 NODE   8 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                               Exe Time :24 May 2018      18:25:48 |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	5.1359735E-02	-5.0006548E-03
2	5.0359604E-02	-5.0006548E-03
3	4.9359474E-02	-5.0006479E-03
4	4.8359347E-02	-5.0006134E-03
5	4.7359233E-02	-5.0005167E-03
6	4.6359148E-02	-5.0003091E-03
7	4.5359121E-02	-4.9999279E-03
8	4.4359193E-02	-4.9992961E-03
9	4.3359425E-02	-4.9983226E-03
10	4.2359894E-02	-4.9969019E-03
11	4.1360702E-02	-4.9949142E-03
12	4.0361975E-02	-4.9922256E-03
13	3.9363868E-02	-4.9886880E-03
14	3.8366567E-02	-4.9841392E-03
15	3.7370292E-02	-4.9784032E-03
16	3.6375298E-02	-4.9712898E-03
17	3.5381876E-02	-4.9625947E-03
18	3.4390375E-02	-4.9520999E-03
19	3.3401172E-02	-4.9395734E-03
20	3.2414697E-02	-4.9247692E-03
21	3.1431438E-02	-4.9074276E-03
22	3.0451919E-02	-4.8872748E-03
23	2.9476735E-02	-4.8640232E-03
24	2.8506536E-02	-4.8373717E-03
25	2.7542033E-02	-4.8070190E-03
26	2.6583993E-02	-4.7726930E-03
27	2.5633241E-02	-4.7341647E-03
28	2.4690625E-02	-4.6912474E-03
29	2.3757044E-02	-4.6437982E-03
30	2.2833414E-02	-4.5917170E-03
31	2.1920670E-02	-4.5349465E-03
32	2.1019754E-02	-4.4734732E-03
33	2.0131597E-02	-4.4073254E-03
34	1.9257130E-02	-4.3365755E-03
35	1.8397265E-02	-4.2613386E-03
36	1.7552884E-02	-4.1817729E-03
37	1.6724836E-02	-4.0980799E-03
38	1.5913915E-02	-4.0105032E-03
39	1.5120874E-02	-3.9193304E-03
40	1.4346400E-02	-3.8248921E-03
41	1.3591110E-02	-3.7275615E-03
42	1.2855541E-02	-3.6277554E-03
43	1.2140142E-02	-3.5259333E-03
44	1.1445268E-02	-3.4225979E-03
45	1.0771171E-02	-3.3182955E-03
46	1.0117981E-02	-3.2135760E-03
47	9.4857338E-03	-3.1089572E-03
48	8.8743594E-03	-3.0049224E-03
49	8.2836958E-03	-2.9019229E-03
50	7.7134961E-03	-2.8003791E-03
51	7.1634240E-03	-2.7006804E-03
52	6.6330637E-03	-2.6031870E-03
53	6.1219912E-03	-2.5082435E-03
54	5.6296022E-03	-2.4161472E-03
55	5.1553232E-03	-2.3271877E-03
56	4.6985005E-03	-2.2416267E-03
57	4.2584301E-03	-2.1597032E-03
58	3.8343622E-03	-2.0816357E-03
59	3.4255055E-03	-2.0076224E-03
60	3.0310310E-03	-1.9378426E-03
61	2.6500755E-03	-1.8724573E-03
62	2.2817455E-03	-1.8116106E-03
63	1.9251245E-03	-1.7553655E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.5792935E-03	-1.7037065E-03
65	1.2433381E-03	-1.6566049E-03
66	9.1635082E-04	-1.6140148E-03
67	5.9743575E-04	-1.5758707E-03
68	2.8571163E-04	-1.5420902E-03
69	-1.9684082E-05	-1.5125660E-03
70	-3.1958871E-04	-1.4871510E-03
71	-6.1480561E-04	-1.4656531E-03
72	-9.0609547E-04	-1.4478379E-03
73	-1.1941677E-03	-1.4334265E-03
74	-1.4796715E-03	-1.4220968E-03
75	-1.7631886E-03	-1.4135000E-03
76	-2.0452298E-03	-1.4072771E-03
77	-2.3262331E-03	-1.4030585E-03
78	-2.6065614E-03	-1.4004639E-03
79	-2.8865009E-03	-1.3991029E-03
80	-3.1662581E-03	-1.3985746E-03
81	-3.4459728E-03	-1.3984680E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.1360E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4837	-5.0360E-02	2.338	0.7458	2.338	1.774	ACTIVE	0.000	-0.2000	1.673	
1.000	1.000	2.418	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9708	-4.9359E-02	4.728	1.508	4.728	3.436	ACTIVE	0.000	-0.4000	3.345	
1.000	1.000	4.854	0.000	0.000	Ug5_2_8_L_0						
4 D	1.462	-4.8359E-02	7.187	2.293	7.187	4.933	ACTIVE	0.000	-0.6000	5.018	
1.000	1.000	7.311	0.000	0.000	Ug5_2_8_L_0						
5 D	1.957	-4.7359E-02	9.696	3.093	9.696	6.275	ACTIVE	0.000	-0.8000	6.691	
1.000	1.000	9.784	0.000	0.000	Ug5_2_8_L_0						
6 D	2.453	-4.6359E-02	12.23	3.900	12.23	7.498	ACTIVE	0.000	-1.000	8.364	
1.000	1.000	12.26	0.000	0.000	Ug5_2_8_L_0						
7 D	2.949	-4.5359E-02	14.76	4.708	14.76	8.636	ACTIVE	0.000	-1.200	10.04	
1.000	1.000	14.74	0.000	0.000	Ug5_2_8_L_0						
8 D	3.454	-4.4359E-02	17.43	5.559	17.43	9.720	ACTIVE	0.000	-1.400	11.71	
1.000	1.000	17.27	0.000	0.000	Ug5_2_8_L_0						
9 D	3.962	-4.3359E-02	20.15	6.427	20.15	10.77	ACTIVE	0.000	-1.600	13.38	
1.000	1.000	19.81	0.000	0.000	Ug5_2_8_L_0						
10 D	4.452	-4.2360E-02	22.59	7.206	22.59	11.79	ACTIVE	0.000	-1.800	15.05	
1.000	1.000	22.26	0.000	0.000	Ug5_2_8_L_0						
11 D	4.953	-4.1361E-02	25.20	8.040	25.20	12.80	ACTIVE	0.000	-2.000	16.73	
1.000	1.000	24.77	0.000	0.000	Ug5_2_8_L_0						
12 D	5.452	-4.0362E-02	27.77	8.859	27.77	13.80	ACTIVE	0.000	-2.200	18.40	
1.000	1.000	27.26	0.000	0.000	Ug5_2_8_L_0						
13 D	5.938	-3.9364E-02	30.15	9.618	30.15	14.79	ACTIVE	0.000	-2.400	20.07	
1.000	1.000	29.69	0.000	0.000	Ug5_2_8_L_0						
14 D	6.433	-3.8367E-02	32.67	10.42	32.67	15.78	ACTIVE	0.000	-2.600	21.75	
1.000	1.000	32.17	0.000	0.000	Ug5_2_8_L_0						
15 D	6.927	-3.7370E-02	35.16	11.22	35.16	16.77	ACTIVE	0.000	-2.800	23.42	
1.000	1.000	34.63	0.000	0.000	Ug5_2_8_L_0						
16 D	7.419	-3.6375E-02	37.64	12.01	37.64	17.75	ACTIVE	0.000	-3.000	25.09	
1.000	1.000	37.10	0.000	0.000	Ug5_2_8_L_0						
17 D	7.903	-3.5382E-02	39.98	12.75	39.98	18.73	ACTIVE	0.000	-3.200	26.76	
1.000	1.000	39.52	0.000	0.000	Ug5_2_8_L_0						
18 D	8.394	-3.4390E-02	42.43	13.53	42.43	19.71	ACTIVE	0.000	-3.400	28.44	
1.000	1.000	41.97	0.000	0.000	Ug5_2_8_L_0						
19 D	8.884	-3.3401E-02	44.86	14.31	44.86	20.69	ACTIVE	0.000	-3.600	30.11	
1.000	1.000	44.42	0.000	0.000	Ug5_2_8_L_0						
20 D	9.367	-3.2415E-02	47.19	15.05	47.19	21.67	ACTIVE	0.000	-3.800	31.78	
1.000	1.000	46.84	0.000	0.000	Ug5_2_8_L_0						
21 D	9.856	-3.1431E-02	49.62	15.83	49.62	22.66	ACTIVE	0.000	-4.000	33.45	
1.000	1.000	49.28	0.000	0.000	Ug5_2_8_L_0						
22 D	10.35	-3.0452E-02	52.03	16.60	52.03	23.64	ACTIVE	0.000	-4.200	35.13	
1.000	1.000	51.73	0.000	0.000	Ug5_2_8_L_0						
23 D	10.83	-2.9477E-02	54.35	17.34	54.35	24.62	ACTIVE	0.000	-4.400	36.80	
1.000	1.000	54.14	0.000	0.000	Ug5_2_8_L_0						
24 D	11.32	-2.8507E-02	56.76	18.11	56.76	25.60	ACTIVE	0.000	-4.600	38.47	
1.000	1.000	56.58	0.000	0.000	Ug5_2_8_L_0						
25 D	11.80	-2.7542E-02	59.16	18.87	59.16	26.59	ACTIVE	0.000	-4.800	40.15	
1.000	1.000	59.02	0.000	0.000	Ug5_2_8_L_0						
26 D	12.29	-2.6584E-02	61.55	19.63	61.55	27.57	ACTIVE	0.000	-5.000	41.82	
1.000	1.000	61.45	0.000	0.000	Ug5_2_8_L_0						
27 D	12.77	-2.5633E-02	63.87	20.37	63.87	28.55	ACTIVE	0.000	-5.200	43.49	
1.000	1.000	63.86	0.000	0.000	Ug5_2_8_L_0						
28 D	13.26	-2.4691E-02	66.25	21.13	66.25	29.54	ACTIVE	0.000	-5.400	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	66.30	0.000	0.000	Ug5_2_8_L_0					
29 D	13.75	-2.3757E-02	68.63	21.89	68.63	30.53	ACTIVE	0.000	-5.600	46.84
1.000	1.000	68.73	0.000	0.000	Ug5_2_8_L_0					
30 D	14.23	-2.2833E-02	70.95	22.63	70.95	31.52	ACTIVE	0.000	-5.800	48.51
1.000	1.000	71.14	0.000	0.000	Ug5_2_8_L_0					
31 D	14.71	-2.1921E-02	73.33	23.39	73.33	32.50	ACTIVE	0.000	-6.000	50.18
1.000	1.000	73.57	0.000	0.000	Ug5_2_8_L_0					
32 D	15.20	-2.1020E-02	75.70	24.15	75.70	33.49	ACTIVE	0.000	-6.200	51.85
1.000	1.000	76.00	0.000	0.000	Ug5_2_8_L_0					
33 D	15.68	-2.0132E-02	78.02	24.89	78.02	34.49	ACTIVE	0.000	-6.400	53.53
1.000	1.000	78.41	0.000	0.000	Ug5_2_8_L_0					
34 D	16.17	-1.9257E-02	80.39	25.64	80.39	35.48	ACTIVE	0.000	-6.600	55.20
1.000	1.000	80.84	0.000	0.000	Ug5_2_8_L_0					
35 D	16.65	-1.8397E-02	82.76	26.40	82.76	36.47	ACTIVE	0.000	-6.800	56.87
1.000	1.000	83.27	0.000	0.000	Ug5_2_8_L_0					
36 D	17.14	-1.7553E-02	85.12	27.15	85.12	37.46	ACTIVE	0.000	-7.000	58.55
1.000	1.000	85.70	0.000	0.000	Ug5_2_8_L_0					
37 D	17.62	-1.6725E-02	87.43	27.89	87.43	38.46	ACTIVE	0.000	-7.200	60.22
1.000	1.000	88.11	0.000	0.000	Ug5_2_8_L_0					
38 D	18.11	-1.5914E-02	89.80	28.65	89.80	39.45	ACTIVE	0.000	-7.400	61.89
1.000	1.000	90.54	0.000	0.000	Ug5_2_8_L_0					
39 D	18.59	-1.5121E-02	92.16	29.40	92.16	40.45	ACTIVE	0.000	-7.600	63.56
1.000	1.000	92.96	0.000	0.000	Ug5_2_8_L_0					
40 D	19.07	-1.4346E-02	94.47	30.14	94.47	41.45	ACTIVE	0.000	-7.800	65.24
1.000	1.000	95.37	0.000	0.000	Ug5_2_8_L_0					
41 D	19.56	-1.3591E-02	96.83	30.89	96.83	42.45	ACTIVE	0.000	-8.000	66.91
1.000	1.000	97.80	0.000	0.000	Ug5_2_8_L_0					
42 D	20.04	-1.2856E-02	99.19	31.64	99.19	43.45	ACTIVE	0.000	-8.200	68.58
1.000	1.000	100.2	0.000	0.000	Ug5_2_8_L_0					
43 D	20.53	-1.2140E-02	101.5	32.38	101.5	44.45	ACTIVE	0.000	-8.400	70.25
1.000	1.000	102.6	0.000	0.000	Ug5_2_8_L_0					
44 D	21.01	-1.1445E-02	103.9	33.13	103.9	45.45	ACTIVE	0.000	-8.600	71.93
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
45 D	21.50	-1.0771E-02	106.2	33.88	106.2	46.45	ACTIVE	0.000	-8.800	73.60
1.000	1.000	107.5	0.000	0.000	Ug5_2_8_L_0					
46 D	21.98	-1.0118E-02	108.6	34.63	108.6	47.45	ACTIVE	0.000	-9.000	75.27
1.000	1.000	109.9	0.000	0.000	Ug5_2_8_L_0					
47 D	22.46	-9.4857E-03	110.9	35.37	110.9	48.46	ACTIVE	0.000	-9.200	76.95
1.000	1.000	112.3	0.000	0.000	Ug5_2_8_L_0					
48 D	22.95	-8.8744E-03	113.2	36.12	113.2	49.46	ACTIVE	0.000	-9.400	78.62
1.000	1.000	114.7	0.000	0.000	Ug5_2_8_L_0					
49 D	23.43	-8.2837E-03	115.6	36.87	115.6	50.47	ACTIVE	0.000	-9.600	80.29
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
50 D	23.91	-7.7135E-03	117.9	37.61	117.9	51.47	ACTIVE	0.000	-9.800	81.96
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
51 D	24.40	-7.1634E-03	120.2	38.36	120.2	52.48	ACTIVE	0.000	-10.000	83.64
1.000	1.000	122.0	0.000	0.000	Ug5_2_8_L_0					
52 D	24.88	-6.6331E-03	122.6	39.11	122.6	53.49	ACTIVE	0.000	-10.200	85.31
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
53 D	25.37	-6.1220E-03	124.9	39.85	124.9	54.50	ACTIVE	0.000	-10.400	86.98
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
54 D	25.85	-5.6296E-03	127.3	40.60	127.3	55.51	ACTIVE	0.000	-10.600	88.65
1.000	1.000	129.3	0.000	0.000	Ug5_2_8_L_0					
55 D	26.33	-5.1553E-03	129.6	41.35	129.6	56.52	ACTIVE	0.000	-10.800	90.33
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
56 D	26.82	-4.6985E-03	132.0	42.09	132.0	57.53	ACTIVE	0.000	-11.000	92.00
1.000	1.000	134.1	0.000	0.000	Ug5_2_8_L_0					
57 D	27.30	-4.2584E-03	134.3	42.83	134.3	58.54	ACTIVE	0.000	-11.200	93.67
1.000	1.000	136.5	0.000	0.000	Ug5_2_8_L_0					
58 D	27.79	-3.8344E-03	136.6	43.58	136.6	59.55	ACTIVE	0.000	-11.400	95.35
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
59 D	28.27	-3.4255E-03	139.0	44.33	139.0	60.56	ACTIVE	0.000	-11.600	97.02
1.000	1.000	141.3	0.000	0.000	Ug5_2_8_L_0					
60 D	28.75	-3.0310E-03	141.3	45.07	141.3	61.58	ACTIVE	0.000	-11.800	98.69
1.000	1.000	143.8	0.000	0.000	Ug5_2_8_L_0					
61 D	29.24	-2.6501E-03	143.6	45.81	143.6	62.59	ACTIVE	0.000	-12.000	100.4
1.000	1.000	146.2	0.000	0.000	Ug5_2_8_L_0					
62 D	32.93	-2.2817E-03	145.8	62.61	145.8	63.50	ACTIVE	0.000	-12.200	102.0
1.000	1.000	164.6	0.000	0.000	Ug6_741_743_L_0					
63 D	33.46	-1.9251E-03	147.9	63.61	147.9	64.79	ACTIVE	0.000	-12.400	103.7
1.000	1.000	167.3	0.000	0.000	Ug6_741_743_L_0					
64 D	34.07	-1.5793E-03	150.0	64.94	150.0	66.13	UL-RL	2.1956E+04	-12.600	105.4
1.000	1.000	170.3	0.000	0.000	Ug6_741_743_L_0					
65 D	34.81	-1.2433E-03	152.1	66.99	152.1	67.42	UL-RL	2.1956E+04	-12.800	107.1
1.000	1.000	174.0	0.000	0.000	Ug6_741_743_L_0					
66 D	35.48	-9.1635E-04	154.2	68.69	154.2	68.69	V-C	7319.	-13.000	108.7
1.000	1.000	177.4	0.000	0.000	Ug6_741_743_L_0					
67 D	36.10	-5.9744E-04	156.3	70.09	156.3	70.09	V-C	7319.	-13.200	110.4
1.000	1.000	180.5	0.000	0.000	Ug6_741_743_L_0					
68 D	36.86	-2.8571E-04	158.4	72.21	158.4	72.21	V-C	7319.	-13.400	112.1
1.000	1.000	184.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.81	1.9684E-05	160.5	75.31	160.5	75.31	V-C	7319.	-13.60	113.7
1.000	1.000	189.1	0.000	0.000	Ug6_741_743_L_0					
70 D	38.68	3.1959E-04	162.6	77.97	162.6	77.97	V-C	7319.	-13.80	115.4
1.000	1.000	193.4	0.000	0.000	Ug6_741_743_L_0					
71 D	39.54	6.1481E-04	164.7	80.63	164.7	80.63	V-C	7319.	-14.00	117.1
1.000	1.000	197.7	0.000	0.000	Ug6_741_743_L_0					
72 D	40.53	9.0610E-04	166.7	83.89	166.7	83.89	V-C	7319.	-14.20	118.8
1.000	1.000	202.7	0.000	0.000	Ug6_741_743_L_0					
73 D	41.51	1.1942E-03	168.8	87.13	168.8	87.13	V-C	7319.	-14.40	120.4
1.000	1.000	207.6	0.000	0.000	Ug6_741_743_L_0					
74 D	42.49	1.4797E-03	170.9	90.34	170.9	90.34	V-C	7319.	-14.60	122.1
1.000	1.000	212.4	0.000	0.000	Ug6_741_743_L_0					
75 D	43.46	1.7632E-03	173.0	93.53	173.0	93.53	V-C	7319.	-14.80	123.8
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
76 D	44.43	2.0452E-03	175.1	96.71	175.1	96.71	V-C	7319.	-15.00	125.5
1.000	1.000	222.2	0.000	0.000	Ug6_741_743_L_0					
77 D	45.40	2.3262E-03	177.2	99.88	177.2	99.88	V-C	7319.	-15.20	127.1
1.000	1.000	227.0	0.000	0.000	Ug6_741_743_L_0					
78 D	46.37	2.6066E-03	179.3	103.0	179.3	103.0	V-C	7319.	-15.40	128.8
1.000	1.000	231.8	0.000	0.000	Ug6_741_743_L_0					
79 D	47.34	2.8865E-03	181.4	106.2	181.4	106.2	V-C	7319.	-15.60	130.5
1.000	1.000	236.7	0.000	0.000	Ug6_741_743_L_0					
80 D	48.30	3.1663E-03	183.5	109.4	183.5	109.4	V-C	7319.	-15.80	132.1
1.000	1.000	241.5	0.000	0.000	Ug6_741_743_L_0					
81 D	24.63	3.4460E-03	185.6	112.5	185.6	112.5	V-C	7319.	-16.00	133.8
1.000	1.000	246.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:25:48          |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	0.9985	2.8507E-02	0.8364	3.829	46.00	65.67	PASSIVE	0.000	-4.600	1.164	
1.000	1.000	4.993	0.000	0.000	Ug5_2_8_L_0						
25 D	2.996	2.7542E-02	2.509	11.49	48.00	73.88	PASSIVE	0.000	-4.800	3.491	
1.000	1.000	14.98	0.000	0.000	Ug5_2_8_L_0						
26 D	4.993	2.6584E-02	4.182	19.14	50.00	82.09	PASSIVE	0.000	-5.000	5.818	
1.000	1.000	24.96	0.000	0.000	Ug5_2_8_L_0						
27 D	6.990	2.5633E-02	5.855	26.80	52.00	80.20	PASSIVE	0.000	-5.200	8.145	
1.000	1.000	34.95	0.000	0.000	Ug5_2_8_L_0						
28 D	8.987	2.4691E-02	7.527	34.46	54.00	77.91	PASSIVE	0.000	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	44.93	0.000	0.000	Ug5_2_8_L_0						
29 D	10.98	2.3757E-02	9.200	42.12	56.00	75.71	PASSIVE	0.000	-5.600	12.80	
1.000	1.000	54.92	0.000	0.000	Ug5_2_8_L_0						
30 D	12.98	2.2833E-02	10.87	49.78	58.00	73.63	PASSIVE	0.000	-5.800	15.13	
1.000	1.000	64.90	0.000	0.000	Ug5_2_8_L_0						
31 D	14.98	2.1921E-02	12.55	57.43	60.00	78.48	PASSIVE	0.000	-6.000	17.45	
1.000	1.000	74.89	0.000	0.000	Ug5_2_8_L_0						
32 D	16.97	2.1020E-02	14.22	65.09	62.00	86.33	PASSIVE	0.000	-6.200	19.78	
1.000	1.000	84.87	0.000	0.000	Ug5_2_8_L_0						
33 D	18.97	2.0132E-02	15.89	72.75	64.00	94.18	PASSIVE	0.000	-6.400	22.11	
1.000	1.000	94.86	0.000	0.000	Ug5_2_8_L_0						
34 D	20.97	1.9257E-02	17.56	80.41	66.00	102.0	PASSIVE	0.000	-6.600	24.44	
1.000	1.000	104.8	0.000	0.000	Ug5_2_8_L_0						
35 D	22.97	1.8397E-02	19.24	88.06	68.00	109.9	PASSIVE	0.000	-6.800	26.76	
1.000	1.000	114.8	0.000	0.000	Ug5_2_8_L_0						
36 D	24.96	1.7553E-02	20.91	95.72	70.00	117.7	PASSIVE	0.000	-7.000	29.09	
1.000	1.000	124.8	0.000	0.000	Ug5_2_8_L_0						
37 D	26.96	1.6725E-02	22.58	103.4	72.00	125.6	PASSIVE	0.000	-7.200	31.42	
1.000	1.000	134.8	0.000	0.000	Ug5_2_8_L_0						
38 D	28.96	1.5914E-02	24.25	111.0	74.00	122.2	PASSIVE	0.000	-7.400	33.75	
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0						
39 D	30.95	1.5121E-02	25.93	118.7	76.00	118.7	PASSIVE	0.000	-7.600	36.07	
1.000	1.000	154.8	0.000	0.000	Ug5_2_8_L_0						
40 D	32.95	1.4346E-02	27.60	126.4	78.00	126.4	PASSIVE	0.000	-7.800	38.40	
1.000	1.000	164.8	0.000	0.000	Ug5_2_8_L_0						
41 D	34.95	1.3591E-02	29.27	134.0	80.00	134.0	PASSIVE	0.000	-8.000	40.73	
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0						
42 D	36.94	1.2856E-02	30.95	141.7	82.00	141.7	PASSIVE	0.000	-8.200	43.05	
1.000	1.000	184.7	0.000	0.000	Ug5_2_8_L_0						
43 D	38.94	1.2140E-02	32.62	149.3	84.00	149.3	PASSIVE	0.000	-8.400	45.38	
1.000	1.000	194.7	0.000	0.000	Ug5_2_8_L_0						
44 D	40.94	1.1445E-02	34.29	157.0	86.00	157.0	PASSIVE	0.000	-8.600	47.71	
1.000	1.000	204.7	0.000	0.000	Ug5_2_8_L_0						
45 D	40.27	1.0771E-02	35.96	151.3	88.00	151.3	V-C	9414.	-8.800	50.04	
1.000	1.000	201.4	0.000	0.000	Ug5_2_8_L_0						
46 D	39.54	1.0118E-02	37.64	145.4	90.00	145.4	V-C	9414.	-9.000	52.36	
1.000	1.000	197.7	0.000	0.000	Ug5_2_8_L_0						
47 D	38.86	9.4857E-03	39.31	139.6	92.00	139.6	V-C	9414.	-9.200	54.69	
1.000	1.000	194.3	0.000	0.000	Ug5_2_8_L_0						
48 D	38.23	8.8744E-03	40.98	134.2	94.00	134.2	V-C	9414.	-9.400	57.02	
1.000	1.000	191.2	0.000	0.000	Ug5_2_8_L_0						
49 D	37.65	8.2837E-03	42.65	128.9	96.00	128.9	V-C	9414.	-9.600	59.35	
1.000	1.000	188.3	0.000	0.000	Ug5_2_8_L_0						
50 D	37.12	7.7135E-03	44.33	123.9	98.00	123.9	V-C	9414.	-9.800	61.67	
1.000	1.000	185.6	0.000	0.000	Ug5_2_8_L_0						
51 D	36.63	7.1634E-03	46.00	119.2	100.00	119.2	V-C	9414.	-10.000	64.00	
1.000	1.000	183.2	0.000	0.000	Ug5_2_8_L_0						
52 D	36.19	6.6331E-03	47.67	114.6	102.0	114.6	V-C	9414.	-10.200	66.33	
1.000	1.000	180.9	0.000	0.000	Ug5_2_8_L_0						
53 D	35.79	6.1220E-03	49.35	110.3	104.0	110.3	V-C	9414.	-10.400	68.65	
1.000	1.000	179.0	0.000	0.000	Ug5_2_8_L_0						
54 D	35.43	5.6296E-03	51.02	106.2	106.0	106.2	V-C	9414.	-10.600	70.98	
1.000	1.000	177.2	0.000	0.000	Ug5_2_8_L_0						
55 D	35.12	5.1553E-03	52.69	102.3	108.0	102.3	V-C	9414.	-10.800	73.31	
1.000	1.000	175.6	0.000	0.000	Ug5_2_8_L_0						
56 D	34.84	4.6985E-03	54.36	98.59	110.0	98.59	V-C	9414.	-11.000	75.64	
1.000	1.000	174.2	0.000	0.000	Ug5_2_8_L_0						
57 D	34.61	4.2584E-03	56.04	95.08	112.0	95.08	V-C	9414.	-11.200	77.96	
1.000	1.000	173.0	0.000	0.000	Ug5_2_8_L_0						
58 D	34.41	3.8344E-03	57.71	91.74	114.0	91.74	V-C	9414.	-11.400	80.29	
1.000	1.000	172.0	0.000	0.000	Ug5_2_8_L_0						
59 D	34.24	3.4255E-03	59.38	88.58	116.0	88.58	V-C	9414.	-11.600	82.62	
1.000	1.000	171.2	0.000	0.000	Ug5_2_8_L_0						
60 D	34.10	3.0310E-03	61.05	85.58	118.0	85.58	V-C	9414.	-11.800	84.95	
1.000	1.000	170.5	0.000	0.000	Ug5_2_8_L_0						
61 D	34.00	2.6501E-03	62.73	82.72	120.0	82.72	V-C	9414.	-12.000	87.27	
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0						
62 D	32.59	2.2817E-03	64.20	73.34	121.8	73.34	V-C	6832.	-12.200	89.60	
1.000	1.000	162.9	0.000	0.000	Ug6_741_743_L_0						
63 D	32.71	1.9251E-03	65.67	71.63	123.6	71.63	V-C	6832.	-12.400	91.93	
1.000	1.000	163.6	0.000	0.000	Ug6_741_743_L_0						
64 D	32.81	1.5793E-03	67.15	69.79	125.4	70.11	UL-RL	2.0495E+04	-12.600	94.25	
1.000	1.000	164.0	0.000	0.000	Ug6_741_743_L_0						
65 D	32.83	1.2433E-03	68.62	67.58	127.2	68.90	UL-RL	2.0495E+04	-12.800	96.58	
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0						
66 D	32.87	9.1635E-04	70.09	65.44	129.0	67.75	UL-RL	2.0495E+04	-13.000	98.91	
1.000	1.000	164.3	0.000	0.000	Ug6_741_743_L_0						
67 D	32.92	5.9744E-04	71.56	63.35	130.8	66.67	UL-RL	2.0495E+04	-13.200	101.2	
1.000	1.000	164.6	0.000	0.000	Ug6_741_743_L_0						
68 D	32.50	2.8571E-04	73.04	58.94	132.6	66.84	UL-RL	2.0495E+04	-13.400	103.6	
1.000	1.000	162.5	0.000	0.000	Ug6_741_743_L_0						

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	31.83	-1.9684E-05	74.51	53.25	134.4	67.73	UL-RL	2.0495E+04	-13.60	105.9
1.000	1.000	159.1	0.000	0.000	Ug6_741_743_L_0					
70 D	31.18	-3.1959E-04	75.98	47.68	136.2	68.61	UL-RL	2.0495E+04	-13.80	108.2
1.000	1.000	155.9	0.000	0.000	Ug6_741_743_L_0					
71 D	30.55	-6.1481E-04	77.45	42.22	138.0	69.50	UL-RL	2.0495E+04	-14.00	110.5
1.000	1.000	152.8	0.000	0.000	Ug6_741_743_L_0					
72 D	29.95	-9.0610E-04	78.93	36.86	139.8	70.38	UL-RL	2.0495E+04	-14.20	112.9
1.000	1.000	149.7	0.000	0.000	Ug6_741_743_L_0					
73 D	29.46	-1.1942E-03	80.40	32.08	141.6	71.27	ACTIVE	0.000	-14.40	115.2
1.000	1.000	147.3	0.000	0.000	Ug6_741_743_L_0					
74 D	30.06	-1.4797E-03	81.87	32.77	143.4	72.16	ACTIVE	0.000	-14.60	117.5
1.000	1.000	150.3	0.000	0.000	Ug6_741_743_L_0					
75 D	30.66	-1.7632E-03	83.35	33.46	145.2	73.05	ACTIVE	0.000	-14.80	119.9
1.000	1.000	153.3	0.000	0.000	Ug6_741_743_L_0					
76 D	31.26	-2.0452E-03	84.82	34.14	147.0	73.94	ACTIVE	0.000	-15.00	122.2
1.000	1.000	156.3	0.000	0.000	Ug6_741_743_L_0					
77 D	31.87	-2.3262E-03	86.29	34.83	148.8	74.82	ACTIVE	0.000	-15.20	124.5
1.000	1.000	159.3	0.000	0.000	Ug6_741_743_L_0					
78 D	32.47	-2.6066E-03	87.76	35.52	150.6	75.71	ACTIVE	0.000	-15.40	126.8
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					
79 D	33.07	-2.8865E-03	89.24	36.21	152.4	76.60	ACTIVE	0.000	-15.60	129.2
1.000	1.000	165.4	0.000	0.000	Ug6_741_743_L_0					
80 D	33.68	-3.1663E-03	90.71	36.89	154.2	77.49	ACTIVE	0.000	-15.80	131.5
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
81 D	17.14	-3.4460E-03	92.18	37.58	156.0	78.38	ACTIVE	0.000	-16.00	133.8
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
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|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-5.43292E-10	5.43292E-10	-5.70725E-11	-1.24911E-09
2	0.48370	-0.48370	5.40521E-10	9.67393E-02
3	1.4545	-1.4545	-9.67393E-02	0.38763
4	2.9166	-2.9166	-0.38763	0.97095
5	4.8734	-4.8734	-0.97095	1.9456
6	7.3261	-7.3261	-1.9456	3.4109
7	10.275	-10.275	-3.4109	5.4658
8	13.729	-13.729	-5.4658	8.2116
9	17.690	-17.690	-8.2116	11.750
10	22.142	-22.142	-11.750	16.178
11	27.096	-27.096	-16.178	21.597
12	32.548	-32.548	-21.597	28.107
13	38.486	-38.486	-28.107	35.804
14	44.919	-44.919	-35.804	44.788
15	51.846	-51.846	-44.788	55.157
16	59.265	-59.265	-55.157	67.010
17	67.168	-67.168	-67.010	80.444
18	75.563	-75.563	-80.444	95.556
19	84.447	-84.447	-95.556	112.45
20	93.814	-93.814	-112.45	131.21
21	103.67	-103.67	-131.21	151.94
22	114.02	-114.02	-151.94	174.75
23	124.84	-124.84	-174.75	199.71
24	135.16	-135.16	-199.71	226.75
25	143.97	-143.97	-226.75	255.54
26	151.27	-151.27	-255.54	285.79
27	157.05	-157.05	-285.79	317.20
28	161.32	-161.32	-317.20	349.47
29	164.09	-164.09	-349.47	382.28
30	165.33	-165.33	-382.28	415.35
31	165.07	-165.07	-415.35	448.36
32	163.30	-163.30	-448.36	481.02
33	160.01	-160.01	-481.02	513.03
34	155.21	-155.21	-513.03	544.07
35	148.90	-148.90	-544.07	573.85
36	141.07	-141.07	-573.85	602.06
37	131.74	-131.74	-602.06	628.41
38	120.89	-120.89	-628.41	652.59
39	108.53	-108.53	-652.59	674.29
40	94.650	-94.650	-674.29	693.22
41	79.262	-79.262	-693.22	709.07
42	62.363	-62.363	-709.07	721.55
43	43.948	-43.948	-721.55	730.34
44	24.021	-24.021	-730.34	735.14
45	5.2456	-5.2456	-735.14	736.19
46	-12.317	12.317	-736.19	733.73
47	-28.718	28.718	-733.73	727.98
48	-44.005	44.005	-727.98	719.18
49	-58.226	58.226	-719.18	707.54
50	-71.430	71.430	-707.54	693.25
51	-83.662	83.662	-693.25	676.52
52	-94.967	94.967	-676.52	657.52
53	-105.39	105.39	-657.52	636.45
54	-114.98	114.98	-636.45	613.45
55	-123.76	123.76	-613.45	588.70
56	-131.79	131.79	-588.70	562.34
57	-139.09	139.09	-562.34	534.52
58	-145.72	145.72	-534.52	505.38
59	-151.69	151.69	-505.38	475.04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-157.04	157.04	-475.04	443.63
61	-161.80	161.80	-443.63	411.27
62	-161.46	161.46	-411.27	378.98
63	-160.71	160.71	-378.98	346.84
64	-159.45	159.45	-346.84	314.95
65	-157.48	157.48	-314.95	283.45
66	-154.86	154.86	-283.45	252.48
67	-151.68	151.68	-252.48	222.14
68	-147.33	147.33	-222.14	192.68
69	-141.34	141.34	-192.68	164.41
70	-133.85	133.85	-164.41	137.64
71	-124.86	124.86	-137.64	112.67
72	-114.27	114.27	-112.67	89.814
73	-102.21	102.21	-89.814	69.371
74	-89.783	89.783	-69.371	51.415
75	-76.982	76.982	-51.415	36.018
76	-63.814	63.814	-36.018	23.255
77	-50.280	50.280	-23.255	13.199
78	-36.382	36.382	-13.199	5.9229
79	-22.120	22.120	-5.9229	1.4989
80	-7.4944	7.4944	-1.4989	-4.33161E-11

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1953E+07  RIMNOR=0.2735E+08
           RENORM= 2.297     REMNOR=0.1154E-16  RATIO =0.1084E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 165.3     RMMAX = 736.2
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1953E+07   RDR =0.2735E+08
           RATIO=0.1084E-02  RATIO= 0.000
           MAX UN=0.1204E-08  IEQ= 22 NODE 11 DOF 2 X-ROT. F
           MIN UN=-.2023     IEQ= 125 NODE 63 DOF 1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1953E+07  RIMNOR=0.2735E+08
           RENORM=0.2353E-14  REMNOR=0.9522E-17  RATIO =0.3471E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 165.3     RMMAX = 736.2
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1953E+07   RDR =0.2735E+08
           RATIO=0.3471E-10  RATIO= 0.000
           MAX UN=0.1556E-07  IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
           MIN UN=-.2084E-07  IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                                               |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                     |
|                               Exe Time :24 May 2018      18:25:48                           |
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New Project
SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.1353870E-02	-5.0023508E-03	
2	5.0353400E-02	-5.0023508E-03	
3	4.9352930E-02	-5.0023431E-03	
4	4.8352465E-02	-5.0023056E-03	
5	4.7352013E-02	-5.0022020E-03	
6	4.6351592E-02	-5.0019823E-03	
7	4.5351232E-02	-5.0015827E-03	
8	4.4350976E-02	-5.0009252E-03	
9	4.3350885E-02	-4.9999182E-03	
10	4.2351039E-02	-4.9984558E-03	
11	4.1351541E-02	-4.9964185E-03	
12	4.0352519E-02	-4.9936726E-03	
13	3.9354129E-02	-4.9900707E-03	
14	3.8356558E-02	-4.9854514E-03	
15	3.7360028E-02	-4.9796394E-03	
16	3.6364795E-02	-4.9724458E-03	
17	3.5371150E-02	-4.9636674E-03	
18	3.4379443E-02	-4.9530874E-03	
19	3.3390051E-02	-4.9404753E-03	
20	3.2403405E-02	-4.9255865E-03	
21	3.1419990E-02	-4.9081628E-03	
22	3.0440332E-02	-4.8879318E-03	
23	2.9465024E-02	-4.8646077E-03	
24	2.8494715E-02	-4.8378907E-03	
25	2.7530113E-02	-4.8074806E-03	
26	2.6571987E-02	-4.7731048E-03	
27	2.5621156E-02	-4.7345343E-03	
28	2.4678470E-02	-4.6915822E-03	
29	2.3744825E-02	-4.6441056E-03	
30	2.2821136E-02	-4.5920042E-03	
31	2.1908335E-02	-4.5352209E-03	
32	2.1007365E-02	-4.4737418E-03	
33	2.0119154E-02	-4.4075954E-03	
34	1.9244633E-02	-4.3368539E-03	
35	1.8384711E-02	-4.2616326E-03	
36	1.7540268E-02	-4.1820896E-03	
37	1.6712154E-02	-4.0984266E-03	
38	1.5901160E-02	-4.0108871E-03	
39	1.5108039E-02	-3.9197588E-03	
40	1.4333474E-02	-3.8253721E-03	
41	1.3578082E-02	-3.7281007E-03	
42	1.2842398E-02	-3.6283610E-03	
43	1.2126872E-02	-3.5266127E-03	
44	1.1431854E-02	-3.4233584E-03	
45	1.0757596E-02	-3.3191443E-03	
46	1.0104227E-02	-3.2145202E-03	
47	9.4717803E-03	-3.1100036E-03	
48	8.8601858E-03	-3.0060780E-03	
49	8.2692796E-03	-2.9031940E-03	
50	7.6988136E-03	-2.8017719E-03	
51	7.1484504E-03	-2.7022005E-03	
52	6.6177729E-03	-2.6048395E-03	
53	6.1063563E-03	-2.5100327E-03	
54	5.6135954E-03	-2.4180769E-03	
55	5.1389163E-03	-2.3292606E-03	
56	4.6816645E-03	-2.2438444E-03	
57	4.2411360E-03	-2.1620663E-03	
58	3.8165810E-03	-2.0841432E-03	
59	3.4072086E-03	-2.0102718E-03	
60	3.0121904E-03	-1.9406295E-03	
61	2.6306642E-03	-1.8753757E-03	
62	2.2617381E-03	-1.8146520E-03	
63	1.9044973E-03	-1.7585208E-03	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.5580246E-03	-1.7069674E-03
65	1.2214070E-03	-1.6599638E-03
66	8.9373876E-04	-1.6174646E-03
67	5.7412520E-04	-1.5794047E-03
68	2.6168643E-04	-1.5457016E-03
69	-4.4438737E-05	-1.5162480E-03
70	-3.4508622E-04	-1.4908963E-03
71	-6.4105787E-04	-1.4694539E-03
72	-9.3311271E-04	-1.4516854E-03
73	-1.2219583E-03	-1.4373109E-03
74	-1.5082419E-03	-1.4260085E-03
75	-1.7925434E-03	-1.4174313E-03
76	-2.0753723E-03	-1.4112217E-03
77	-2.3571654E-03	-1.4070114E-03
78	-2.6382849E-03	-1.4044217E-03
79	-2.9190161E-03	-1.4030630E-03
80	-3.1995655E-03	-1.4025356E-03
81	-3.4800724E-03	-1.4024291E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:25:48  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.1354E-02	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5381	-5.0353E-02	2.327	1.018	2.338	1.774	UL-RL	4.4259E+04	-0.2000	1.673	
1.000	1.000	2.690	0.000	0.000	Ug5_2_8_L_0						
3 D	1.025	-4.9353E-02	4.655	1.779	4.728	3.436	UL-RL	4.4259E+04	-0.4000	3.345	
1.000	1.000	5.125	0.000	0.000	Ug5_2_8_L_0						
4 D	1.513	-4.8352E-02	6.982	2.546	7.187	4.933	UL-RL	4.4259E+04	-0.6000	5.018	
1.000	1.000	7.564	0.000	0.000	Ug5_2_8_L_0						
5 D	2.001	-4.7352E-02	9.309	3.315	9.696	6.275	UL-RL	4.4259E+04	-0.8000	6.691	
1.000	1.000	10.01	0.000	0.000	Ug5_2_8_L_0						
6 D	2.490	-4.6352E-02	11.64	4.085	12.23	7.498	UL-RL	4.4259E+04	-1.0000	8.364	
1.000	1.000	12.45	0.000	0.000	Ug5_2_8_L_0						
7 D	2.978	-4.5351E-02	13.96	4.856	14.76	8.636	UL-RL	4.4259E+04	-1.2000	10.04	
1.000	1.000	14.89	0.000	0.000	Ug5_2_8_L_0						
8 D	3.469	-4.4351E-02	16.29	5.634	17.43	9.720	UL-RL	4.4259E+04	-1.4000	11.71	
1.000	1.000	17.34	0.000	0.000	Ug5_2_8_L_0						
9 D	3.959	-4.3351E-02	18.62	6.415	20.15	10.77	UL-RL	4.4259E+04	-1.6000	13.38	
1.000	1.000	19.80	0.000	0.000	Ug5_2_8_L_0						
10 D	4.447	-4.2351E-02	20.95	7.179	22.59	11.79	UL-RL	4.4259E+04	-1.8000	15.05	
1.000	1.000	22.23	0.000	0.000	Ug5_2_8_L_0						
11 D	4.936	-4.1352E-02	23.27	7.953	25.20	12.80	UL-RL	4.4259E+04	-2.0000	16.73	
1.000	1.000	24.68	0.000	0.000	Ug5_2_8_L_0						
12 D	5.425	-4.0353E-02	25.60	8.724	27.77	13.80	UL-RL	4.4259E+04	-2.2000	18.40	
1.000	1.000	27.12	0.000	0.000	Ug5_2_8_L_0						
13 D	5.911	-3.9354E-02	27.93	9.483	30.15	14.79	UL-RL	4.4259E+04	-2.4000	20.07	
1.000	1.000	29.56	0.000	0.000	Ug5_2_8_L_0						
14 D	6.399	-3.8357E-02	30.25	10.25	32.67	15.78	UL-RL	4.4259E+04	-2.6000	21.75	
1.000	1.000	31.99	0.000	0.000	Ug5_2_8_L_0						
15 D	6.886	-3.7360E-02	32.58	11.01	35.16	16.77	UL-RL	4.4259E+04	-2.8000	23.42	
1.000	1.000	34.43	0.000	0.000	Ug5_2_8_L_0						
16 D	7.373	-3.6365E-02	34.91	11.78	37.64	17.75	UL-RL	4.4259E+04	-3.0000	25.09	
1.000	1.000	36.87	0.000	0.000	Ug5_2_8_L_0						
17 D	7.859	-3.5371E-02	37.24	12.53	39.98	18.73	UL-RL	4.4259E+04	-3.2000	26.76	
1.000	1.000	39.29	0.000	0.000	Ug5_2_8_L_0						
18 D	8.345	-3.4379E-02	39.56	13.29	42.43	19.71	UL-RL	4.4259E+04	-3.4000	28.44	
1.000	1.000	41.73	0.000	0.000	Ug5_2_8_L_0						
19 D	8.831	-3.3390E-02	41.89	14.05	44.86	20.69	UL-RL	4.4259E+04	-3.6000	30.11	
1.000	1.000	44.16	0.000	0.000	Ug5_2_8_L_0						
20 D	9.316	-3.2403E-02	44.22	14.80	47.19	21.67	UL-RL	4.4259E+04	-3.8000	31.78	
1.000	1.000	46.58	0.000	0.000	Ug5_2_8_L_0						
21 D	9.802	-3.1420E-02	46.55	15.55	49.62	22.66	UL-RL	4.4259E+04	-4.0000	33.45	
1.000	1.000	49.01	0.000	0.000	Ug5_2_8_L_0						
22 D	10.29	-3.0440E-02	48.87	16.31	52.03	23.64	UL-RL	4.4259E+04	-4.2000	35.13	
1.000	1.000	51.44	0.000	0.000	Ug5_2_8_L_0						
23 D	10.77	-2.9465E-02	51.20	17.06	54.35	24.62	UL-RL	4.4259E+04	-4.4000	36.80	
1.000	1.000	53.86	0.000	0.000	Ug5_2_8_L_0						
24 D	11.26	-2.8495E-02	53.53	17.81	56.76	25.60	UL-RL	4.4259E+04	-4.6000	38.47	
1.000	1.000	56.28	0.000	0.000	Ug5_2_8_L_0						
25 D	11.74	-2.7530E-02	55.85	18.56	59.16	26.59	UL-RL	4.4259E+04	-4.8000	40.15	
1.000	1.000	58.71	0.000	0.000	Ug5_2_8_L_0						
26 D	12.23	-2.6572E-02	58.18	19.31	61.55	27.57	UL-RL	4.4259E+04	-5.0000	41.82	
1.000	1.000	61.13	0.000	0.000	Ug5_2_8_L_0						
27 D	12.71	-2.5621E-02	60.51	20.06	63.87	28.55	UL-RL	4.4259E+04	-5.2000	43.49	
1.000	1.000	63.55	0.000	0.000	Ug5_2_8_L_0						
28 D	13.19	-2.4678E-02	62.84	20.81	66.25	29.54	UL-RL	4.4259E+04	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.97	0.000	0.000	Ug5_2_8_L_0					
29 D	13.68	-2.3745E-02	65.16	21.56	68.63	30.53	UL-RL	4.4259E+04	-5.600	46.84
1.000	1.000	68.39	0.000	0.000	Ug5_2_8_L_0					
30 D	14.16	-2.2821E-02	67.49	22.30	70.95	31.52	UL-RL	4.4259E+04	-5.800	48.51
1.000	1.000	70.81	0.000	0.000	Ug5_2_8_L_0					
31 D	14.65	-2.1908E-02	69.82	23.05	73.33	32.50	UL-RL	4.4259E+04	-6.000	50.18
1.000	1.000	73.23	0.000	0.000	Ug5_2_8_L_0					
32 D	15.13	-2.1007E-02	72.15	23.80	75.70	33.49	UL-RL	4.4259E+04	-6.200	51.85
1.000	1.000	75.65	0.000	0.000	Ug5_2_8_L_0					
33 D	15.61	-2.0119E-02	74.47	24.54	78.02	34.49	UL-RL	4.4259E+04	-6.400	53.53
1.000	1.000	78.07	0.000	0.000	Ug5_2_8_L_0					
34 D	16.10	-1.9245E-02	76.80	25.29	80.39	35.48	UL-RL	4.4259E+04	-6.600	55.20
1.000	1.000	80.49	0.000	0.000	Ug5_2_8_L_0					
35 D	16.58	-1.8385E-02	79.13	26.04	82.76	36.47	UL-RL	4.4259E+04	-6.800	56.87
1.000	1.000	82.91	0.000	0.000	Ug5_2_8_L_0					
36 D	17.07	-1.7540E-02	81.45	26.79	85.12	37.46	UL-RL	4.4259E+04	-7.000	58.55
1.000	1.000	85.33	0.000	0.000	Ug5_2_8_L_0					
37 D	17.55	-1.6712E-02	83.78	27.53	87.43	38.46	UL-RL	4.4259E+04	-7.200	60.22
1.000	1.000	87.75	0.000	0.000	Ug5_2_8_L_0					
38 D	18.03	-1.5901E-02	86.11	28.28	89.80	39.45	UL-RL	4.4259E+04	-7.400	61.89
1.000	1.000	90.17	0.000	0.000	Ug5_2_8_L_0					
39 D	18.52	-1.5108E-02	88.44	29.03	92.16	40.45	UL-RL	4.4259E+04	-7.600	63.56
1.000	1.000	92.59	0.000	0.000	Ug5_2_8_L_0					
40 D	19.00	-1.4333E-02	90.76	29.77	94.47	41.45	UL-RL	4.4259E+04	-7.800	65.24
1.000	1.000	95.01	0.000	0.000	Ug5_2_8_L_0					
41 D	19.49	-1.3578E-02	93.09	30.52	96.83	42.45	UL-RL	4.4259E+04	-8.000	66.91
1.000	1.000	97.43	0.000	0.000	Ug5_2_8_L_0					
42 D	19.97	-1.2842E-02	95.42	31.27	99.19	43.45	UL-RL	4.4259E+04	-8.200	68.58
1.000	1.000	99.85	0.000	0.000	Ug5_2_8_L_0					
43 D	20.45	-1.2127E-02	97.75	32.02	101.5	44.45	UL-RL	4.4259E+04	-8.400	70.25
1.000	1.000	102.3	0.000	0.000	Ug5_2_8_L_0					
44 D	20.94	-1.1432E-02	100.1	32.77	103.9	45.45	UL-RL	4.4259E+04	-8.600	71.93
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
45 D	21.42	-1.0758E-02	102.4	33.52	106.2	46.45	UL-RL	4.4259E+04	-8.800	73.60
1.000	1.000	107.1	0.000	0.000	Ug5_2_8_L_0					
46 D	21.91	-1.0104E-02	104.7	34.27	108.6	47.45	UL-RL	4.4259E+04	-9.000	75.27
1.000	1.000	109.5	0.000	0.000	Ug5_2_8_L_0					
47 D	22.39	-9.4718E-03	107.1	35.02	110.9	48.46	UL-RL	4.4259E+04	-9.200	76.95
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
48 D	22.88	-8.8602E-03	109.4	35.78	113.2	49.46	UL-RL	4.4259E+04	-9.400	78.62
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
49 D	23.36	-8.2693E-03	111.7	36.53	115.6	50.47	UL-RL	4.4259E+04	-9.600	80.29
1.000	1.000	116.8	0.000	0.000	Ug5_2_8_L_0					
50 D	23.85	-7.6988E-03	114.0	37.29	117.9	51.47	UL-RL	4.4259E+04	-9.800	81.96
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
51 D	24.34	-7.1485E-03	116.4	38.04	120.2	52.48	UL-RL	4.4259E+04	-10.000	83.64
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
52 D	24.82	-6.6178E-03	118.7	38.80	122.6	53.49	UL-RL	4.4259E+04	-10.200	85.31
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
53 D	25.31	-6.1064E-03	121.0	39.56	124.9	54.50	UL-RL	4.4259E+04	-10.400	86.98
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
54 D	25.79	-5.6136E-03	123.3	40.32	127.3	55.51	UL-RL	4.4259E+04	-10.600	88.65
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
55 D	26.28	-5.1389E-03	125.7	41.08	129.6	56.52	UL-RL	4.4259E+04	-10.800	90.33
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
56 D	26.77	-4.6817E-03	128.0	41.84	132.0	57.53	UL-RL	4.4259E+04	-11.000	92.00
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
57 D	27.26	-4.2411E-03	130.3	42.60	134.3	58.54	UL-RL	4.4259E+04	-11.200	93.67
1.000	1.000	136.3	0.000	0.000	Ug5_2_8_L_0					
58 D	27.74	-3.8166E-03	132.7	43.37	136.6	59.55	UL-RL	4.4259E+04	-11.400	95.35
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
59 D	28.23	-3.4072E-03	135.0	44.14	139.0	60.56	UL-RL	4.4259E+04	-11.600	97.02
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
60 D	28.72	-3.0122E-03	137.3	44.90	141.3	61.58	UL-RL	4.4259E+04	-11.800	98.69
1.000	1.000	143.6	0.000	0.000	Ug5_2_8_L_0					
61 D	29.21	-2.6307E-03	139.6	45.67	143.6	62.59	UL-RL	4.4259E+04	-12.000	100.4
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
62 D	32.81	-2.2617E-03	141.8	62.04	145.8	63.50	UL-RL	2.1956E+04	-12.200	102.0
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0					
63 D	33.35	-1.9045E-03	143.9	63.05	147.9	64.79	UL-RL	2.1956E+04	-12.400	103.7
1.000	1.000	166.8	0.000	0.000	Ug6_741_743_L_0					
64 D	33.96	-1.5580E-03	146.0	64.40	150.0	66.13	UL-RL	2.1956E+04	-12.600	105.4
1.000	1.000	169.8	0.000	0.000	Ug6_741_743_L_0					
65 D	34.70	-1.2214E-03	148.1	66.47	152.1	67.42	UL-RL	2.1956E+04	-12.800	107.1
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
66 D	35.38	-8.9374E-04	150.3	68.19	154.2	68.69	UL-RL	2.1956E+04	-13.000	108.7
1.000	1.000	176.9	0.000	0.000	Ug6_741_743_L_0					
67 D	36.00	-5.7413E-04	152.4	69.62	156.3	70.09	UL-RL	2.1956E+04	-13.200	110.4
1.000	1.000	180.0	0.000	0.000	Ug6_741_743_L_0					
68 D	36.77	-2.6169E-04	154.5	71.76	158.4	72.21	UL-RL	2.1956E+04	-13.400	112.1
1.000	1.000	183.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.73	4.4439E-05	156.7	74.89	160.5	75.31	UL-RL	2.1956E+04	-13.60	113.7
1.000	1.000	188.6	0.000	0.000	Ug6_741_743_L_0					
70 D	38.60	3.4509E-04	158.8	77.58	162.6	77.97	UL-RL	2.1956E+04	-13.80	115.4
1.000	1.000	193.0	0.000	0.000	Ug6_741_743_L_0					
71 D	39.47	6.4106E-04	160.9	80.26	164.7	80.63	UL-RL	2.1956E+04	-14.00	117.1
1.000	1.000	197.4	0.000	0.000	Ug6_741_743_L_0					
72 D	40.46	9.3311E-04	163.0	83.55	166.7	83.89	UL-RL	2.1956E+04	-14.20	118.8
1.000	1.000	202.3	0.000	0.000	Ug6_741_743_L_0					
73 D	41.45	1.2220E-03	165.2	86.81	168.8	87.13	UL-RL	2.1956E+04	-14.40	120.4
1.000	1.000	207.3	0.000	0.000	Ug6_741_743_L_0					
74 D	42.43	1.5082E-03	167.3	90.05	170.9	90.34	UL-RL	2.1956E+04	-14.60	122.1
1.000	1.000	212.2	0.000	0.000	Ug6_741_743_L_0					
75 D	43.41	1.7925E-03	169.4	93.27	173.0	93.53	UL-RL	2.1956E+04	-14.80	123.8
1.000	1.000	217.1	0.000	0.000	Ug6_741_743_L_0					
76 D	44.39	2.0754E-03	171.5	96.48	175.1	96.71	UL-RL	2.1956E+04	-15.00	125.5
1.000	1.000	221.9	0.000	0.000	Ug6_741_743_L_0					
77 D	45.36	2.3572E-03	173.7	99.67	177.2	99.88	UL-RL	2.1956E+04	-15.20	127.1
1.000	1.000	226.8	0.000	0.000	Ug6_741_743_L_0					
78 D	46.33	2.6383E-03	175.8	102.9	179.3	103.0	UL-RL	2.1956E+04	-15.40	128.8
1.000	1.000	231.7	0.000	0.000	Ug6_741_743_L_0					
79 D	47.30	2.9190E-03	177.9	106.0	181.4	106.2	UL-RL	2.1956E+04	-15.60	130.5
1.000	1.000	236.5	0.000	0.000	Ug6_741_743_L_0					
80 D	48.28	3.1996E-03	180.1	109.2	183.5	109.4	UL-RL	2.1956E+04	-15.80	132.1
1.000	1.000	241.4	0.000	0.000	Ug6_741_743_L_0					
81 D	24.62	3.4801E-03	182.2	112.4	185.6	112.5	UL-RL	2.1956E+04	-16.00	133.8
1.000	1.000	246.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:25:48          |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	0.9317	2.8495E-02	0.8364	3.495	46.00	65.67	UL-RL	2.8243E+04	-4.600	1.164	
1.000	1.000	4.659	0.000	0.000	Ug5_2_8_L_0						
25 D	2.928	2.7530E-02	2.509	11.15	48.00	73.88	UL-RL	2.8243E+04	-4.800	3.491	
1.000	1.000	14.64	0.000	0.000	Ug5_2_8_L_0						
26 D	4.925	2.6572E-02	4.182	18.81	50.00	82.09	UL-RL	2.8243E+04	-5.000	5.818	
1.000	1.000	24.62	0.000	0.000	Ug5_2_8_L_0						
27 D	6.921	2.5621E-02	5.855	26.46	52.00	80.20	UL-RL	2.8243E+04	-5.200	8.145	
1.000	1.000	34.61	0.000	0.000	Ug5_2_8_L_0						
28 D	8.918	2.4678E-02	7.527	34.12	54.00	77.91	UL-RL	2.8243E+04	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	44.59	0.000	0.000	Ug5_2_8_L_0						
29 D	10.91	2.3745E-02	9.200	41.77	56.00	75.71	UL-RL	2.8243E+04	-5.600	12.80	
1.000	1.000	54.57	0.000	0.000	Ug5_2_8_L_0						
30 D	12.91	2.2821E-02	10.87	49.43	58.00	73.63	UL-RL	2.8243E+04	-5.800	15.13	
1.000	1.000	64.56	0.000	0.000	Ug5_2_8_L_0						
31 D	14.91	2.1908E-02	12.55	57.08	60.00	78.48	UL-RL	2.8243E+04	-6.000	17.45	
1.000	1.000	74.54	0.000	0.000	Ug5_2_8_L_0						
32 D	16.90	2.1007E-02	14.22	64.74	62.00	86.33	UL-RL	2.8243E+04	-6.200	19.78	
1.000	1.000	84.52	0.000	0.000	Ug5_2_8_L_0						
33 D	18.90	2.0119E-02	15.89	72.40	64.00	94.18	UL-RL	2.8243E+04	-6.400	22.11	
1.000	1.000	94.51	0.000	0.000	Ug5_2_8_L_0						
34 D	20.90	1.9245E-02	17.56	80.05	66.00	102.0	UL-RL	2.8243E+04	-6.600	24.44	
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0						
35 D	22.89	1.8385E-02	19.24	87.71	68.00	109.9	UL-RL	2.8243E+04	-6.800	26.76	
1.000	1.000	114.5	0.000	0.000	Ug5_2_8_L_0						
36 D	24.89	1.7540E-02	20.91	95.37	70.00	117.7	UL-RL	2.8243E+04	-7.000	29.09	
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0						
37 D	26.89	1.6712E-02	22.58	103.0	72.00	125.6	UL-RL	2.8243E+04	-7.200	31.42	
1.000	1.000	134.4	0.000	0.000	Ug5_2_8_L_0						
38 D	28.88	1.5901E-02	24.25	110.7	74.00	122.2	UL-RL	2.8243E+04	-7.400	33.75	
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0						
39 D	30.88	1.5108E-02	25.93	118.3	76.00	118.7	UL-RL	2.8243E+04	-7.600	36.07	
1.000	1.000	154.4	0.000	0.000	Ug5_2_8_L_0						
40 D	32.88	1.4333E-02	27.60	126.0	78.00	126.4	UL-RL	2.8243E+04	-7.800	38.40	
1.000	1.000	164.4	0.000	0.000	Ug5_2_8_L_0						
41 D	34.87	1.3578E-02	29.27	133.6	80.00	134.0	UL-RL	2.8243E+04	-8.000	40.73	
1.000	1.000	174.4	0.000	0.000	Ug5_2_8_L_0						
42 D	36.87	1.2842E-02	30.95	141.3	82.00	141.7	UL-RL	2.8243E+04	-8.200	43.05	
1.000	1.000	184.4	0.000	0.000	Ug5_2_8_L_0						
43 D	38.87	1.2127E-02	32.62	149.0	84.00	149.3	UL-RL	2.8243E+04	-8.400	45.38	
1.000	1.000	194.3	0.000	0.000	Ug5_2_8_L_0						
44 D	40.86	1.1432E-02	34.29	156.6	86.00	157.0	UL-RL	2.8243E+04	-8.600	47.71	
1.000	1.000	204.3	0.000	0.000	Ug5_2_8_L_0						
45 D	40.20	1.0758E-02	35.96	150.9	88.00	151.3	UL-RL	2.8243E+04	-8.800	50.04	
1.000	1.000	201.0	0.000	0.000	Ug5_2_8_L_0						
46 D	39.47	1.0104E-02	37.64	145.0	90.00	145.4	UL-RL	2.8243E+04	-9.000	52.36	
1.000	1.000	197.3	0.000	0.000	Ug5_2_8_L_0						
47 D	38.79	9.4718E-03	39.31	139.2	92.00	139.6	UL-RL	2.8243E+04	-9.200	54.69	
1.000	1.000	193.9	0.000	0.000	Ug5_2_8_L_0						
48 D	38.15	8.8602E-03	40.98	133.8	94.00	134.2	UL-RL	2.8243E+04	-9.400	57.02	
1.000	1.000	190.8	0.000	0.000	Ug5_2_8_L_0						
49 D	37.57	8.2693E-03	42.65	128.5	96.00	128.9	UL-RL	2.8243E+04	-9.600	59.35	
1.000	1.000	187.9	0.000	0.000	Ug5_2_8_L_0						
50 D	37.04	7.6988E-03	44.33	123.5	98.00	123.9	UL-RL	2.8243E+04	-9.800	61.67	
1.000	1.000	185.2	0.000	0.000	Ug5_2_8_L_0						
51 D	36.55	7.1485E-03	46.00	118.7	100.00	119.2	UL-RL	2.8243E+04	-10.000	64.00	
1.000	1.000	182.7	0.000	0.000	Ug5_2_8_L_0						
52 D	36.10	6.6178E-03	47.67	114.2	102.0	114.6	UL-RL	2.8243E+04	-10.200	66.33	
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0						
53 D	35.70	6.1064E-03	49.35	109.9	104.0	110.3	UL-RL	2.8243E+04	-10.400	68.65	
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0						
54 D	35.34	5.6136E-03	51.02	105.7	106.0	106.2	UL-RL	2.8243E+04	-10.600	70.98	
1.000	1.000	176.7	0.000	0.000	Ug5_2_8_L_0						
55 D	35.03	5.1389E-03	52.69	101.8	108.0	102.3	UL-RL	2.8243E+04	-10.800	73.31	
1.000	1.000	175.1	0.000	0.000	Ug5_2_8_L_0						
56 D	34.75	4.6817E-03	54.36	98.11	110.0	98.59	UL-RL	2.8243E+04	-11.000	75.64	
1.000	1.000	173.7	0.000	0.000	Ug5_2_8_L_0						
57 D	34.51	4.2411E-03	56.04	94.59	112.0	95.08	UL-RL	2.8243E+04	-11.200	77.96	
1.000	1.000	172.6	0.000	0.000	Ug5_2_8_L_0						
58 D	34.31	3.8166E-03	57.71	91.24	114.0	91.74	UL-RL	2.8243E+04	-11.400	80.29	
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0						
59 D	34.14	3.4072E-03	59.38	88.06	116.0	88.58	UL-RL	2.8243E+04	-11.600	82.62	
1.000	1.000	170.7	0.000	0.000	Ug5_2_8_L_0						
60 D	34.00	3.0122E-03	61.05	85.04	118.0	85.58	UL-RL	2.8243E+04	-11.800	84.95	
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0						
61 D	33.89	2.6307E-03	62.73	82.18	120.0	82.72	UL-RL	2.8243E+04	-12.000	87.27	
1.000	1.000	169.4	0.000	0.000	Ug5_2_8_L_0						
62 D	32.51	2.2617E-03	64.20	72.93	121.8	73.34	UL-RL	2.0495E+04	-12.200	89.60	
1.000	1.000	162.5	0.000	0.000	Ug6_741_743_L_0						
63 D	32.63	1.9045E-03	65.67	71.21	123.6	71.63	UL-RL	2.0495E+04	-12.400	91.93	
1.000	1.000	163.1	0.000	0.000	Ug6_741_743_L_0						
64 D	32.72	1.5580E-03	67.15	69.35	125.4	70.11	UL-RL	2.0495E+04	-12.600	94.25	
1.000	1.000	163.6	0.000	0.000	Ug6_741_743_L_0						
65 D	32.74	1.2214E-03	68.62	67.13	127.2	68.90	UL-RL	2.0495E+04	-12.800	96.58	
1.000	1.000	163.7	0.000	0.000	Ug6_741_743_L_0						
66 D	32.78	8.9374E-04	70.09	64.98	129.0	67.75	UL-RL	2.0495E+04	-13.000	98.91	
1.000	1.000	163.9	0.000	0.000	Ug6_741_743_L_0						
67 D	32.82	5.7413E-04	71.56	62.87	130.8	66.67	UL-RL	2.0495E+04	-13.200	101.2	
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0						
68 D	32.40	2.6169E-04	73.04	58.45	132.6	66.84	UL-RL	2.0495E+04	-13.400	103.6	
1.000	1.000	162.0	0.000	0.000	Ug6_741_743_L_0						

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	31.73	-4.4439E-05	74.51	52.74	134.4	67.73	UL-RL	2.0495E+04	-13.60	105.9
1.000	1.000	158.6	0.000	0.000	Ug6_741_743_L_0					
70 D	31.08	-3.4509E-04	75.98	47.16	136.2	68.61	UL-RL	2.0495E+04	-13.80	108.2
1.000	1.000	155.4	0.000	0.000	Ug6_741_743_L_0					
71 D	30.45	-6.4106E-04	77.45	41.69	138.0	69.50	UL-RL	2.0495E+04	-14.00	110.5
1.000	1.000	152.2	0.000	0.000	Ug6_741_743_L_0					
72 D	29.84	-9.3311E-04	78.93	36.30	139.8	70.38	UL-RL	2.0495E+04	-14.20	112.9
1.000	1.000	149.2	0.000	0.000	Ug6_741_743_L_0					
73 D	29.46	-1.2220E-03	80.40	32.08	141.6	71.27	ACTIVE	0.000	-14.40	115.2
1.000	1.000	147.3	0.000	0.000	Ug6_741_743_L_0					
74 D	30.06	-1.5082E-03	81.87	32.77	143.4	72.16	ACTIVE	0.000	-14.60	117.5
1.000	1.000	150.3	0.000	0.000	Ug6_741_743_L_0					
75 D	30.66	-1.7925E-03	83.35	33.46	145.2	73.05	ACTIVE	0.000	-14.80	119.9
1.000	1.000	153.3	0.000	0.000	Ug6_741_743_L_0					
76 D	31.26	-2.0754E-03	84.82	34.14	147.0	73.94	ACTIVE	0.000	-15.00	122.2
1.000	1.000	156.3	0.000	0.000	Ug6_741_743_L_0					
77 D	31.87	-2.3572E-03	86.29	34.83	148.8	74.82	ACTIVE	0.000	-15.20	124.5
1.000	1.000	159.3	0.000	0.000	Ug6_741_743_L_0					
78 D	32.47	-2.6383E-03	87.76	35.52	150.6	75.71	ACTIVE	0.000	-15.40	126.8
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					
79 D	33.07	-2.9190E-03	89.24	36.21	152.4	76.60	ACTIVE	0.000	-15.60	129.2
1.000	1.000	165.4	0.000	0.000	Ug6_741_743_L_0					
80 D	33.68	-3.1996E-03	90.71	36.89	154.2	77.49	ACTIVE	0.000	-15.80	131.5
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
81 D	17.14	-3.4801E-03	92.18	37.58	156.0	78.38	ACTIVE	0.000	-16.00	133.8
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:25:48 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.27899E-08	1.27899E-08	-1.27587E-09	-2.48004E-09
2	0.53809	-0.53809	2.00286E-09	0.10762
3	1.5631	-1.5631	-0.10762	0.42023
4	3.0758	-3.0758	-0.42023	1.0354
5	5.0770	-5.0770	-1.0354	2.0508
6	7.5668	-7.5668	-2.0508	3.5641
7	10.545	-10.545	-3.5641	5.6732
8	14.014	-14.014	-5.6732	8.4759
9	17.973	-17.973	-8.4759	12.071
10	22.420	-22.420	-12.071	16.555
11	27.356	-27.356	-16.555	22.026
12	32.781	-32.781	-22.026	28.582
13	38.692	-38.692	-28.582	36.320
14	45.091	-45.091	-36.320	45.338
15	51.977	-51.977	-45.338	55.734
16	59.350	-59.350	-55.734	67.604
17	67.209	-67.209	-67.604	81.046
18	75.554	-75.554	-81.046	96.157
19	84.386	-84.386	-96.157	113.03
20	93.702	-93.702	-113.03	131.77
21	103.50	-103.50	-131.77	152.47
22	113.79	-113.79	-152.47	175.23
23	124.56	-124.56	-175.23	200.15
24	134.89	-134.89	-200.15	227.12
25	143.70	-143.70	-227.12	255.86
26	151.00	-151.00	-255.86	286.06
27	156.79	-156.79	-286.06	317.42
28	161.07	-161.07	-317.42	349.63
29	163.83	-163.83	-349.63	382.40
30	165.08	-165.08	-382.40	415.42
31	164.82	-164.82	-415.42	448.38
32	163.05	-163.05	-448.38	480.99
33	159.76	-159.76	-480.99	512.94
34	154.96	-154.96	-512.94	543.93
35	148.65	-148.65	-543.93	573.66
36	140.82	-140.82	-573.66	601.83
37	131.48	-131.48	-601.83	628.12
38	120.63	-120.63	-628.12	652.25
39	108.27	-108.27	-652.25	673.90
40	94.392	-94.392	-673.90	692.78
41	79.005	-79.005	-692.78	708.58
42	62.105	-62.105	-708.58	721.00
43	43.693	-43.693	-721.00	729.74
44	23.769	-23.769	-729.74	734.49
45	4.9984	-4.9984	-734.49	735.49
46	-12.559	12.559	-735.49	732.98
47	-28.951	28.951	-732.98	727.19
48	-44.226	44.226	-727.19	718.35
49	-58.434	58.434	-718.35	706.66
50	-71.620	71.620	-706.66	692.34
51	-83.830	83.830	-692.34	675.57
52	-95.110	95.110	-675.57	656.55
53	-105.50	105.50	-656.55	635.45
54	-115.05	115.05	-635.45	612.44
55	-123.80	123.80	-612.44	587.68
56	-131.78	131.78	-587.68	561.32
57	-139.04	139.04	-561.32	533.51
58	-145.60	145.60	-533.51	504.39
59	-151.50	151.50	-504.39	474.09

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-156.78	156.78	-474.09	442.74
61	-161.47	161.47	-442.74	410.44
62	-161.16	161.16	-410.44	378.21
63	-160.43	160.43	-378.21	346.12
64	-159.20	159.20	-346.12	314.28
65	-157.24	157.24	-314.28	282.84
66	-154.63	154.63	-282.84	251.91
67	-151.45	151.45	-251.91	221.62
68	-147.08	147.08	-221.62	192.21
69	-141.08	141.08	-192.21	163.99
70	-133.56	133.56	-163.99	137.28
71	-124.53	124.53	-137.28	112.37
72	-113.90	113.90	-112.37	89.591
73	-101.91	101.91	-89.591	69.209
74	-89.537	89.537	-69.209	51.302
75	-76.788	76.788	-51.302	35.944
76	-63.667	63.667	-35.944	23.211
77	-50.175	50.175	-23.211	13.176
78	-36.313	36.313	-13.176	5.9133
79	-22.083	22.083	-5.9133	1.4968
80	-7.4837	7.4837	-1.4968	3.82542E-11

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:25:48                             |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	6
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	6
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	2

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.08 [sec]

DATABASE CREATION CPU TIME..... 0.28 [sec]

Design Assumption : SISMICA STR - File di Paratie - File di output (.out)

```
-----+-----  
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION  *Build date:Jul 11, 2017* |  
|          |  
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |  
|          Exe Time :24 May 2018           18:25:49 |  
|          |  
+-----+-----
```

```
*****  
*  
* PARATIE PLUS Non-Linear Spring Engine *  
*  
* AN ELASTOPLASTIC FINITE ELEMENT PROGRAM *  
* FOR FLEXIBLE EARTH-RETAINING STRUCTURES *  
*  
* Written by Ce.A.S. s.r.l. (ITALY) *  
* with the scientific supervision of *  
* Roberto Nova - full professor SOIL MECHANICS *  
* at Politecnico di Milano (ITALY) *  
*  
*****  
*  
* RELEASE  2017.1   *Build date:Jul 11, 2017* *  
*  
*  
* Ce.A.S.   S.R.L   CENTRO DI ANALISI STRUTTURALE *  
*          VIALE  GIUSTINIANO 10 *  
*          20129  M I L A N O (ITALIA) *  
* TEL.     +39 02 2020221 (+39 035 23 67 19) *  
* FAX      +39 02 29512533 (+39 035 42285 49) *  
* email    bruno.becci@ceas.it *  
* Web Page www.ceas.it *  
*****
```

```
JOB : NewProject.BaseDesignSection_28.SISMICASTR_1817  
STARTING  
ACCEPTED <FILE,GENW >  
ACCEPTED <FILE,PLOTTER,BINARY >  
ACCEPTED <SOLVE TOTAL STRESS >  
ACCEPTED <PARAM ITEMAX 40 >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****  
*  
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *  
* BY THE PROGRAM. *  
*****
```

```
PRELIMINARY OPERATIONS CPU TIME 0.02 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|          Exe Time :24 May 2018   18:25:49   |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 81
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 162
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 102
NO. OF LONG NAMES (LASTNAME) ..... 22
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          |          NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|          |          Exe Time :24 May 2018           18:25:49   |
+-----+

P R E P R O C E S S O R   D A T A

N O .   O F   C O M M A N D S   102

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5E+04 1.5E+05
15 : ENDL
16 : LDATA Ug6_741_743_L_0 -12 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 18.5 9 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 5 26
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S355_114 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.8121 00 00 0
26 : STRIP LeftWall_32 1 6 1 11.75 0 5 45
27 : STEP Stage1_31
28 : CHANGE Ug5_2_8_L_0 U-FRICT=37 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
30 : CHANGE Ug5_2_8_L_0 U-KA=0.249 LeftWall_32
31 : CHANGE Ug5_2_8_L_0 U-KP=6.738 LeftWall_32
32 : CHANGE Ug5_2_8_L_0 D-KA=0.249 LeftWall_32
33 : CHANGE Ug5_2_8_L_0 D-KP=6.738 LeftWall_32
34 : CHANGE Ug6_741_743_L_0 U-FRICT=26 LeftWall_32
35 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
36 : CHANGE Ug6_741_743_L_0 U-KA=0.39 LeftWall_32
37 : CHANGE Ug6_741_743_L_0 U-KP=3.404 LeftWall_32
38 : CHANGE Ug6_741_743_L_0 D-KA=0.39 LeftWall_32
39 : CHANGE Ug6_741_743_L_0 D-KP=3.404 LeftWall_32
40 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
41 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
42 : CHANGE Ug6_741_743_L_0 U-COHE=5 LeftWall_32
43 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
44 : SETWALL LeftWall_32
45 : GEOM 0 0
46 : WATER 0 0 -16 0 0
47 : ADD WallElement_33
48 : ENDSTEP
49 : STEP Stage2_158
50 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
51 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
52 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
53 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
54 : SETWALL LeftWall_32
55 : GEOM 0 -1
56 : WATER 0 1 -16 0 0
57 : ENDSTEP
58 : STEP Stage3_255
59 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
60 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
61 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
62 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
63 : SETWALL LeftWall_32
64 : GEOM 0 -2
65 : WATER 0 2 -16 0 0
66 : ENDSTEP
67 : STEP Stage4_352
68 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
72 : SETWALL LeftWall_32
73 : GEOM 0 -3
74 : WATER 0 3 -16 0 0
75 : ENDSTEP
76 : STEP Stage5_449
77 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
78 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
79 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
80 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -4
83 : WATER 0 4 -16 0 0
84 : ENDSTEP
85 : STEP Stage6_546
86 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
87 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
88 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
89 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
90 : SETWALL LeftWall_32
91 : GEOM 0 -4.5
92 : WATER 0 4.5 -16 0 0
93 : ENDSTEP
94 : STEP Stage7_643
95 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
96 : CHANGE Ug6_741_743_L_0 D-FRICT=26 LeftWall_32
97 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
98 : CHANGE Ug6_741_743_L_0 D-COHE=5 LeftWall_32
99 : SETWALL LeftWall_32
100 : GEOM 0 -4.5
101 : WATER 0 4.5 -16 0 0
102 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /	4	0.0000	-0.60000 /
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /	8	0.0000	-1.4000 /
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /	12	0.0000	-2.2000 /
13	0.0000	-2.4000 /	14	0.0000	-2.6000 /	15	0.0000	-2.8000 /	16	0.0000	-3.0000 /
17	0.0000	-3.2000 /	18	0.0000	-3.4000 /	19	0.0000	-3.6000 /	20	0.0000	-3.8000 /
21	0.0000	-4.0000 /	22	0.0000	-4.2000 /	23	0.0000	-4.4000 /	24	0.0000	-4.6000 /
25	0.0000	-4.8000 /	26	0.0000	-5.0000 /	27	0.0000	-5.2000 /	28	0.0000	-5.4000 /
29	0.0000	-5.6000 /	30	0.0000	-5.8000 /	31	0.0000	-6.0000 /	32	0.0000	-6.2000 /
33	0.0000	-6.4000 /	34	0.0000	-6.6000 /	35	0.0000	-6.8000 /	36	0.0000	-7.0000 /
37	0.0000	-7.2000 /	38	0.0000	-7.4000 /	39	0.0000	-7.6000 /	40	0.0000	-7.8000 /
41	0.0000	-8.0000 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /
61	0.0000	-12.000 /	62	0.0000	-12.200 /	63	0.0000	-12.400 /	64	0.0000	-12.600 /
65	0.0000	-12.800 /	66	0.0000	-13.000 /	67	0.0000	-13.200 /	68	0.0000	-13.400 /
69	0.0000	-13.600 /	70	0.0000	-13.800 /	71	0.0000	-14.000 /	72	0.0000	-14.200 /
73	0.0000	-14.400 /	74	0.0000	-14.600 /	75	0.0000	-14.800 /	76	0.0000	-15.000 /
77	0.0000	-15.200 /	78	0.0000	-15.400 /	79	0.0000	-15.600 /	80	0.0000	-15.800 /
81	0.0000	-16.000 /									

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000
42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
ELEMENT GROUP NO.  3

WallElement_33      :
  2  80  0  1  0  0  0  0  0  0  0  0  0  0  0  1  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active
  6  active
  7  active

material set no.  1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000
  6  1.000
  7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
  1  1  2  1  0.000  0.000  0.8121  0.000  0.000
  2  2  3  1  0.000  0.000  0.8121  0.000  0.000
  3  3  4  1  0.000  0.000  0.8121  0.000  0.000
  4  4  5  1  0.000  0.000  0.8121  0.000  0.000
  5  5  6  1  0.000  0.000  0.8121  0.000  0.000
  6  6  7  1  0.000  0.000  0.8121  0.000  0.000
  7  7  8  1  0.000  0.000  0.8121  0.000  0.000
  8  8  9  1  0.000  0.000  0.8121  0.000  0.000
  9  9 10  1  0.000  0.000  0.8121  0.000  0.000
 10 10 11  1  0.000  0.000  0.8121  0.000  0.000
 11 11 12  1  0.000  0.000  0.8121  0.000  0.000
 12 12 13  1  0.000  0.000  0.8121  0.000  0.000
 13 13 14  1  0.000  0.000  0.8121  0.000  0.000
 14 14 15  1  0.000  0.000  0.8121  0.000  0.000
 15 15 16  1  0.000  0.000  0.8121  0.000  0.000
 16 16 17  1  0.000  0.000  0.8121  0.000  0.000
 17 17 18  1  0.000  0.000  0.8121  0.000  0.000
 18 18 19  1  0.000  0.000  0.8121  0.000  0.000
 19 19 20  1  0.000  0.000  0.8121  0.000  0.000
 20 20 21  1  0.000  0.000  0.8121  0.000  0.000
 21 21 22  1  0.000  0.000  0.8121  0.000  0.000
 22 22 23  1  0.000  0.000  0.8121  0.000  0.000
 23 23 24  1  0.000  0.000  0.8121  0.000  0.000
 24 24 25  1  0.000  0.000  0.8121  0.000  0.000
 25 25 26  1  0.000  0.000  0.8121  0.000  0.000
 26 26 27  1  0.000  0.000  0.8121  0.000  0.000
 27 27 28  1  0.000  0.000  0.8121  0.000  0.000
 28 28 29  1  0.000  0.000  0.8121  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.8121	0.000	0.000
30	30	31	1	0.000	0.000	0.8121	0.000	0.000
31	31	32	1	0.000	0.000	0.8121	0.000	0.000
32	32	33	1	0.000	0.000	0.8121	0.000	0.000
33	33	34	1	0.000	0.000	0.8121	0.000	0.000
34	34	35	1	0.000	0.000	0.8121	0.000	0.000
35	35	36	1	0.000	0.000	0.8121	0.000	0.000
36	36	37	1	0.000	0.000	0.8121	0.000	0.000
37	37	38	1	0.000	0.000	0.8121	0.000	0.000
38	38	39	1	0.000	0.000	0.8121	0.000	0.000
39	39	40	1	0.000	0.000	0.8121	0.000	0.000
40	40	41	1	0.000	0.000	0.8121	0.000	0.000
41	41	42	1	0.000	0.000	0.8121	0.000	0.000
42	42	43	1	0.000	0.000	0.8121	0.000	0.000
43	43	44	1	0.000	0.000	0.8121	0.000	0.000
44	44	45	1	0.000	0.000	0.8121	0.000	0.000
45	45	46	1	0.000	0.000	0.8121	0.000	0.000
46	46	47	1	0.000	0.000	0.8121	0.000	0.000
47	47	48	1	0.000	0.000	0.8121	0.000	0.000
48	48	49	1	0.000	0.000	0.8121	0.000	0.000
49	49	50	1	0.000	0.000	0.8121	0.000	0.000
50	50	51	1	0.000	0.000	0.8121	0.000	0.000
51	51	52	1	0.000	0.000	0.8121	0.000	0.000
52	52	53	1	0.000	0.000	0.8121	0.000	0.000
53	53	54	1	0.000	0.000	0.8121	0.000	0.000
54	54	55	1	0.000	0.000	0.8121	0.000	0.000
55	55	56	1	0.000	0.000	0.8121	0.000	0.000
56	56	57	1	0.000	0.000	0.8121	0.000	0.000
57	57	58	1	0.000	0.000	0.8121	0.000	0.000
58	58	59	1	0.000	0.000	0.8121	0.000	0.000
59	59	60	1	0.000	0.000	0.8121	0.000	0.000
60	60	61	1	0.000	0.000	0.8121	0.000	0.000
61	61	62	1	0.000	0.000	0.8121	0.000	0.000
62	62	63	1	0.000	0.000	0.8121	0.000	0.000
63	63	64	1	0.000	0.000	0.8121	0.000	0.000
64	64	65	1	0.000	0.000	0.8121	0.000	0.000
65	65	66	1	0.000	0.000	0.8121	0.000	0.000
66	66	67	1	0.000	0.000	0.8121	0.000	0.000
67	67	68	1	0.000	0.000	0.8121	0.000	0.000
68	68	69	1	0.000	0.000	0.8121	0.000	0.000
69	69	70	1	0.000	0.000	0.8121	0.000	0.000
70	70	71	1	0.000	0.000	0.8121	0.000	0.000
71	71	72	1	0.000	0.000	0.8121	0.000	0.000
72	72	73	1	0.000	0.000	0.8121	0.000	0.000
73	73	74	1	0.000	0.000	0.8121	0.000	0.000
74	74	75	1	0.000	0.000	0.8121	0.000	0.000
75	75	76	1	0.000	0.000	0.8121	0.000	0.000
76	76	77	1	0.000	0.000	0.8121	0.000	0.000
77	77	78	1	0.000	0.000	0.8121	0.000	0.000
78	78	79	1	0.000	0.000	0.8121	0.000	0.000
79	79	80	1	0.000	0.000	0.8121	0.000	0.000
80	80	81	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|          Exe Time :24 May 2018   18:25:49   |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|          Exe Time :24 May 2018   18:25:49   |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817                                          |
|          Exe Time :24 May 2018          18:25:49                                                  |
+-----+
L O A D      B A L A N C E
STEP 1 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 1 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 2 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 2 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 3 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 3 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 4 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 4 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 5 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 5 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 6 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 6 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F          0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F          0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817          |
|          Exe Time :24 May 2018          18:25:49                  |
+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |  
|                                                                     |  
|                                                                     |  
|                                                                     |  
|                                                                     |  
|                NewProject.BaseDesignSection_28.SISMICASTR_1817   |  
|                Exe Time :24 May 2018           18:25:49           |  
+-----+
```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```
ITEM NO.  1<NAME    >= 18.0000  (BOTH WALLS)  
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)  
ITEM NO.  3<LEVEL  >= 0.0000  (BOTH WALLS)  
ITEM NO.  4<WALL   >= 1.0000  (BOTH WALLS)  
ITEM NO.  5<GAMMAD >= 19.0000  (BOTH WALLS)  
ITEM NO.  6<GAMMAB >= 10.0000  (BOTH WALLS)  
ITEM NO.  7<GAMMAW >= 10.0000  (BOTH WALLS)  
ITEM NO.  9<U-FRICT >= 37.0000  (BOTH WALLS)  
ITEM NO. 10<U-KA   >= 0.24900  WALL NO.    1  
ITEM NO. 11<U-KP   >= 6.7380  WALL NO.    1  
ITEM NO. 12<K0-NC >= 0.50000  (BOTH WALLS)  
ITEM NO. 13<NEXP  >= 0.50000  (BOTH WALLS)  
ITEM NO. 14<OCR   >= 1.0000  (BOTH WALLS)  
ITEM NO. 16<MODEL >= 1.0000  (BOTH WALLS)  
ITEM NO. 17<EVC   >= 50000.  (BOTH WALLS)  
ITEM NO. 18<EUR   >= 0.15000E+06 (BOTH WALLS)  
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)  
ITEM NO. 52<D-NATURE>= 1.0000  (BOTH WALLS)  
ITEM NO. 53<D-LEVEL >= 0.0000  (BOTH WALLS)  
ITEM NO. 59<D-FRICT >= 37.0000  (BOTH WALLS)  
ITEM NO. 60<D-KA  >= 0.24900  WALL NO.    1  
ITEM NO. 61<D-KP  >= 6.7380  WALL NO.    1  
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)
```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

```
ITEM NO.  1<NAME    >= 19.0000  (BOTH WALLS)  
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)  
ITEM NO.  3<LEVEL  >= -12.0000 (BOTH WALLS)  
ITEM NO.  4<WALL   >= 1.0000  (BOTH WALLS)  
ITEM NO.  5<GAMMAD >= 18.5000  (BOTH WALLS)  
ITEM NO.  6<GAMMAB >= 9.0000  (BOTH WALLS)  
ITEM NO.  7<GAMMAW >= 10.0000  (BOTH WALLS)  
ITEM NO.  8<U-COHE >= 5.0000  (BOTH WALLS)  
ITEM NO.  9<U-FRICT >= 26.0000  (BOTH WALLS)  
ITEM NO. 10<U-KA   >= 0.39000  WALL NO.    1  
ITEM NO. 11<U-KP   >= 3.4040  WALL NO.    1  
ITEM NO. 12<K0-NC >= 0.50000  (BOTH WALLS)  
ITEM NO. 13<NEXP  >= 0.50000  (BOTH WALLS)  
ITEM NO. 14<OCR   >= 1.0000  (BOTH WALLS)  
ITEM NO. 16<MODEL >= 1.0000  (BOTH WALLS)  
ITEM NO. 17<EVC   >= 30000.  (BOTH WALLS)  
ITEM NO. 18<EUR   >= 90000.  (BOTH WALLS)  
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)  
ITEM NO. 52<D-NATURE>= 1.0000  (BOTH WALLS)  
ITEM NO. 53<D-LEVEL >= 0.0000  (BOTH WALLS)  
ITEM NO. 58<D-COHE >= 5.0000  (BOTH WALLS)  
ITEM NO. 59<D-FRICT >= 26.0000  (BOTH WALLS)  
ITEM NO. 60<D-KA  >= 0.39000  WALL NO.    1  
ITEM NO. 61<D-KP  >= 3.4040  WALL NO.    1  
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)
```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```
ITEM NO.  1<NAME    >= 18.0000  (BOTH WALLS)  
ITEM NO.  2<NATURE >= 1.0000  (BOTH WALLS)  
ITEM NO.  3<LEVEL  >= 0.0000  (BOTH WALLS)  
ITEM NO.  4<WALL   >= 1.0000  (BOTH WALLS)  
ITEM NO.  5<GAMMAD >= 19.0000  (BOTH WALLS)  
ITEM NO.  6<GAMMAB >= 10.0000  (BOTH WALLS)  
ITEM NO.  7<GAMMAW >= 10.0000  (BOTH WALLS)  
ITEM NO.  9<U-FRICT >= 37.0000  (BOTH WALLS)  
ITEM NO. 10<U-KA   >= 0.24900  WALL NO.    1
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.39000	WALL NO.	1
ITEM NO.	61<D-KP	>= 3.4040	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 26.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.39000	WALL NO.	1
ITEM NO.	11<U-KP	>= 3.4040	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 5.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 26.000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 60<D-KA >= 0.39000 WALL NO. 1
ITEM NO. 61<D-KP >= 3.4040 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION  *Build date:Jul 11, 2017* |
|                                                                     |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
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PHASE DESCRIPTORS

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STEP NO.      1
               LEFT WALL   RIGHT WALL
Y              0.000       -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   0.000         0.000
Z-WATER_TABLE  0.000       -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  0.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS            -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00       -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000         0.000
UPHILL VERTICAL ACCEL.  Kv_uh [g]   0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru       0.000         0.000
SEISMIC PRESSURE LOWER VALUE  0.000         0.000
SEISMIC PRESSURE UPPER VALUE  0.000         0.000
SEISMIC PRESSURE LOWER LEVEL  0.000         0.000
SEISMIC PRESSURE UPPER LEVEL  0.000         0.000
  
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=====end of step 1

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STEP NO.      2
               LEFT WALL   RIGHT WALL
Y              0.000       -0.9990E+30
Z-PC           0.000         0.000
Z-EXCAVATION   -1.000         0.000
Z-WATER_TABLE  0.000       -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000         0.000
ZQ             0.000         0.000
DZW_OF_THE_WATER_TABLE  1.000         0.000
QS_ON_THE_EXCAVATION_SIDE  0.000         0.000
ZQS            -0.9990E+30  -0.9990E+30
ZCUT           0.000         0.000
BALANCE LEVEL FOR PORE PRESSURES  -16.00       -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000         0.000
PORE_UPDATE_FLAG  0.000         0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000         0.000
lateral thrusts reduction elevatio  0.000         0.000
Downhill reduction factor for effe  0.000         0.000
Downhill reduction factor for pore  0.000         0.000
Uphill reduction factor for effect  0.000         0.000
Uphill reduction factor for pore p  0.000         0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000         0.000
UPHILL VERTICAL ACCEL.  Kv_uh [g]   0.000         0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000         0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000         0.000
UPHILL DELTA/PHI RATIO  0.000         0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000         0.000
DOWNHILL DELTA/PHI RATIO  0.000         0.000
DYN.WATER BEHAVIOUR  0.000         0.000
Excess pore pressure RATIO Ru       0.000         0.000
  
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

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=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

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=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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=====end of step 4

STEP NO.	5	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====
=====end of step 5

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.500	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.500	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====
=====end of step 6

STEP NO.	7	LEFT WALL	RIGHT WALL

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-4.500	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	4.500	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====end of step 7

LEFT-HAND WALL

LOWER LEVEL	-16.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-16.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |  
|          |  
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |  
|          Exe Time :24 May 2018 18:25:49 |  
+-----+
```

I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 6.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 1.0000000000000000
FOUNDATION WIDTH (B) 11.7500000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4763

NO. OF D.P.W FOR THIS AREA 9554
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

ITER 0 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1221E+06 RIMNOR= 0.000
 RENORM=0.2753E-27 REMNOR= 0.000 RATIO =0.4748E-16 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 47.08 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.1221E+06 RDR = 0.000
 RATIOOT=0.4748E-16 RATIOOR= 0.000
 MAX UN=0.7105E-14 IEQ= 143 NODE 72 DOF 1 Y-DISPL.F
 MIN UN=-.7105E-14 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 1 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1221E+06 RIMNOR= 0.000
 RENORM=0.1697E-29 REMNOR=0.1582E-52 RATIO =0.3727E-17 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 47.08 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.1221E+06 RDR = 0.000
 RATIOOT=0.3727E-17 RATIOOR= 0.000
 MAX UN=0.5014E-17 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
 MIN UN=-.2372E-15 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
 RINORM=0.1221E+06 RIMNOR= 0.000
 RENORM=0.1468E-29 REMNOR=0.6218E-52 RATIO =0.3467E-17 TOLER =0.1000E-03 CONVERGED !
 RFMAX = 47.08 RMMAX = 0.000
 RTSMAL=0.1000E-03 RMSMAL= 0.000
 RDT =0.1221E+06 RDR = 0.000
 RATIOOT=0.3467E-17 RATIOOR= 0.000
 MAX UN=0.2676E-26 IEQ= 158 NODE 79 DOF 2 X-ROT. F
 MIN UN=-.2058E-15 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
 NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SISMICASTR_1817                 |
|                               Exe Time :24 May 2018      18:25:49                           |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME  1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	2.4162E-20	0.000	0.000	0.000	0.000	V-C	4.7008E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	2.4777E-20	2.008	1.570	2.008	1.570	V-C	4.7008E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	2.5391E-20	4.057	3.055	4.057	3.055	V-C	4.7008E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	2.6003E-20	6.158	4.413	6.158	4.413	V-C	4.7008E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	2.6609E-20	8.297	5.651	8.297	5.651	V-C	4.7008E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	2.7206E-20	10.45	6.797	10.45	6.797	V-C	4.7008E+04	-1.0000	10.000	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	2.7788E-20	12.61	7.879	12.61	7.879	V-C	4.7008E+04	-1.2000	12.000	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	2.8348E-20	14.87	8.919	14.87	8.919	V-C	4.7008E+04	-1.4000	14.000	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	2.8881E-20	17.18	9.931	17.18	9.931	V-C	4.7008E+04	-1.6000	16.000	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	2.9375E-20	19.26	10.93	19.26	10.93	V-C	4.7008E+04	-1.8000	18.000	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	2.9823E-20	21.48	11.91	21.48	11.91	V-C	4.7008E+04	-2.0000	20.000	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	3.0212E-20	23.67	12.88	23.67	12.88	V-C	4.7008E+04	-2.2000	22.000	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	3.0536E-20	25.71	13.85	25.71	13.85	V-C	4.7008E+04	-2.4000	24.000	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	3.0786E-20	27.86	14.82	27.86	14.82	V-C	4.7008E+04	-2.6000	26.000	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	3.0954E-20	29.98	15.78	29.98	15.78	V-C	4.7008E+04	-2.8000	28.000	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	3.1038E-20	32.10	16.74	32.10	16.74	V-C	4.7008E+04	-3.0000	30.000	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	3.1035E-20	34.11	17.70	34.11	17.70	V-C	4.7008E+04	-3.2000	32.000	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	3.0944E-20	36.20	18.66	36.20	18.66	V-C	4.7008E+04	-3.4000	34.000	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	3.0761E-20	38.29	19.63	38.29	19.63	V-C	4.7008E+04	-3.6000	36.000	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	3.0479E-20	40.29	20.59	40.29	20.59	V-C	4.7008E+04	-3.8000	38.000	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	3.0094E-20	42.36	21.55	42.36	21.55	V-C	4.7008E+04	-4.0000	40.000	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	2.9610E-20	44.43	22.51	44.43	22.51	V-C	4.7008E+04	-4.2000	42.000	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	2.9036E-20	46.43	23.47	46.43	23.47	V-C	4.7008E+04	-4.4000	44.000	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	2.8383E-20	48.48	24.43	48.48	24.43	V-C	4.7008E+04	-4.6000	46.000	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	2.7660E-20	50.54	25.39	50.54	25.39	V-C	4.7008E+04	-4.8000	48.000	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	2.6876E-20	52.59	26.36	52.59	26.36	V-C	4.7008E+04	-5.0000	50.000	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	2.6040E-20	54.58	27.32	54.58	27.32	V-C	4.7008E+04	-5.2000	52.000	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	2.5156E-20	56.63	28.28	56.63	28.28	V-C	4.7008E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	2.4232E-20	58.67	29.25	58.67	29.25	V-C	4.7008E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	2.3274E-20	60.66	30.22	60.66	30.22	V-C	4.7008E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	2.2304E-20	62.70	31.18	62.70	31.18	V-C	4.7008E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	2.1345E-20	64.74	32.15	64.74	32.15	V-C	4.7008E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	2.0416E-20	66.73	33.12	66.73	33.12	V-C	4.7008E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	1.9521E-20	68.76	34.09	68.76	34.09	V-C	4.7008E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	1.8661E-20	70.79	35.06	70.79	35.06	V-C	4.7008E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	1.7835E-20	72.82	36.03	72.82	36.03	V-C	4.7008E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	1.7042E-20	74.81	37.00	74.81	37.00	V-C	4.7008E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	1.6281E-20	76.84	37.97	76.84	37.97	V-C	4.7008E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	1.5549E-20	78.86	38.94	78.86	38.94	V-C	4.7008E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	1.4839E-20	80.85	39.92	80.85	39.92	V-C	4.7008E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	1.4135E-20	82.88	40.89	82.88	40.89	V-C	4.7008E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	1.3428E-20	84.90	41.86	84.90	41.86	V-C	4.7008E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	1.2714E-20	86.89	42.84	86.89	42.84	V-C	4.7008E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	1.1987E-20	88.91	43.82	88.91	43.82	V-C	4.7008E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	1.1242E-20	90.93	44.79	90.93	44.79	V-C	4.7008E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	1.0475E-20	92.96	45.77	92.96	45.77	V-C	4.7008E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	9.6966E-21	94.94	46.75	94.94	46.75	V-C	4.7008E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	8.9200E-21	96.96	47.73	96.96	47.73	V-C	4.7008E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	8.1574E-21	98.98	48.71	98.98	48.71	V-C	4.7008E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	7.4213E-21	101.0	49.69	101.0	49.69	V-C	4.7008E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	6.7233E-21	103.0	50.67	103.0	50.67	V-C	4.7008E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	6.0750E-21	105.0	51.65	105.0	51.65	V-C	4.7008E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	5.4877E-21	107.0	52.63	107.0	52.63	V-C	4.7008E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	4.9720E-21	109.0	53.61	109.0	53.61	V-C	4.7008E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	4.5386E-21	111.0	54.60	111.0	54.60	V-C	4.7008E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	4.1976E-21	113.0	55.58	113.0	55.58	V-C	4.7008E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	3.9590E-21	115.0	56.56	115.0	56.56	V-C	4.7008E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	3.8323E-21	117.0	57.55	117.0	57.55	V-C	4.7008E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	3.8269E-21	119.1	58.53	119.1	58.53	V-C	4.7008E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	3.9516E-21	121.1	59.52	121.1	59.52	V-C	4.7008E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	4.2151E-21	123.1	60.50	123.1	60.50	V-C	4.7008E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	4.6256E-21	124.9	61.39	124.9	61.39	V-C	2.2505E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	5.1912E-21	126.7	62.28	126.7	62.28	V-C	2.2505E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	5.9194E-21	128.5	63.16	128.5	63.16	V-C	2.2505E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	6.8179E-21	130.3	64.05	130.3	64.05	V-C	2.2505E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	7.8937E-21	132.0	64.94	132.0	64.94	V-C	2.2505E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	9.1538E-21	133.8	65.83	133.8	65.83	V-C	2.2505E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	1.0605E-20	135.6	66.72	135.6	66.72	V-C	2.2505E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	1.2254E-20	137.3	67.60	137.3	67.60	V-C	2.2505E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	1.4106E-20	139.1	68.49	139.1	68.49	V-C	2.2505E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	1.6167E-20	140.9	69.38	140.9	69.38	V-C	2.2505E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	1.8436E-20	142.7	70.27	142.7	70.27	V-C	2.2505E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	2.0877E-20	144.4	71.16	144.4	71.16	V-C	2.2505E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	2.3421E-20	146.2	72.05	146.2	72.05	V-C	2.2505E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	2.5998E-20	148.0	72.94	148.0	72.94	V-C	2.2505E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	2.8571E-20	149.7	73.84	149.7	73.84	V-C	2.2505E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	3.1136E-20	151.5	74.73	151.5	74.73	V-C	2.2505E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	3.3696E-20	153.3	75.62	153.3	75.62	V-C	2.2505E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	3.6253E-20	155.1	76.51	155.1	76.51	V-C	2.2505E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	3.8808E-20	156.8	77.40	156.8	77.40	V-C	2.2505E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	4.1364E-20	158.6	78.29	158.6	78.29	V-C	2.2505E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.4162E-20	0.000	0.000	0.000	0.000	V-C	2.3371E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	-2.4777E-20	2.000	1.570	2.000	1.570	V-C	2.3371E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	-2.5391E-20	4.000	3.055	4.000	3.055	V-C	2.3371E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	-2.6003E-20	6.000	4.413	6.000	4.413	V-C	2.3371E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	-2.6609E-20	8.000	5.651	8.000	5.651	V-C	2.3371E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	-2.7206E-20	10.00	6.797	10.00	6.797	V-C	2.3371E+04	-1.0000	10.00	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	-2.7788E-20	12.00	7.879	12.00	7.879	V-C	2.3371E+04	-1.2000	12.00	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	-2.8348E-20	14.00	8.919	14.00	8.919	V-C	2.3371E+04	-1.4000	14.00	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	-2.8881E-20	16.00	9.931	16.00	9.931	V-C	2.3371E+04	-1.6000	16.00	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	-2.9375E-20	18.00	10.93	18.00	10.93	V-C	2.3371E+04	-1.8000	18.00	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	-2.9823E-20	20.00	11.91	20.00	11.91	V-C	2.3371E+04	-2.0000	20.00	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	-3.0212E-20	22.00	12.88	22.00	12.88	V-C	2.3371E+04	-2.2000	22.00	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	-3.0536E-20	24.00	13.85	24.00	13.85	V-C	2.3371E+04	-2.4000	24.00	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	-3.0786E-20	26.00	14.82	26.00	14.82	V-C	2.3371E+04	-2.6000	26.00	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	-3.0954E-20	28.00	15.78	28.00	15.78	V-C	2.3371E+04	-2.8000	28.00	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	-3.1038E-20	30.00	16.74	30.00	16.74	V-C	2.3371E+04	-3.0000	30.00	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	-3.1035E-20	32.00	17.70	32.00	17.70	V-C	2.3371E+04	-3.2000	32.00	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	-3.0944E-20	34.00	18.66	34.00	18.66	V-C	2.3371E+04	-3.4000	34.00	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	-3.0761E-20	36.00	19.63	36.00	19.63	V-C	2.3371E+04	-3.6000	36.00	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	-3.0479E-20	38.00	20.59	38.00	20.59	V-C	2.3371E+04	-3.8000	38.00	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	-3.0094E-20	40.00	21.55	40.00	21.55	V-C	2.3371E+04	-4.0000	40.00	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	-2.9610E-20	42.00	22.51	42.00	22.51	V-C	2.3371E+04	-4.2000	42.00	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	-2.9036E-20	44.00	23.47	44.00	23.47	V-C	2.3371E+04	-4.4000	44.00	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	-2.8383E-20	46.00	24.43	46.00	24.43	V-C	2.3371E+04	-4.6000	46.00	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	-2.7660E-20	48.00	25.39	48.00	25.39	V-C	2.3371E+04	-4.8000	48.00	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	-2.6876E-20	50.00	26.36	50.00	26.36	V-C	2.3371E+04	-5.0000	50.00	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	-2.6040E-20	52.00	27.32	52.00	27.32	V-C	2.3371E+04	-5.2000	52.00	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	-2.5156E-20	54.00	28.28	54.00	28.28	V-C	2.3371E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	-2.4232E-20	56.00	29.25	56.00	29.25	V-C	2.3371E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	-2.3274E-20	58.00	30.22	58.00	30.22	V-C	2.3371E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	-2.2304E-20	60.00	31.18	60.00	31.18	V-C	2.3371E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	-2.1345E-20	62.00	32.15	62.00	32.15	V-C	2.3371E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	-2.0416E-20	64.00	33.12	64.00	33.12	V-C	2.3371E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	-1.9521E-20	66.00	34.09	66.00	34.09	V-C	2.3371E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	-1.8661E-20	68.00	35.06	68.00	35.06	V-C	2.3371E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	-1.7835E-20	70.00	36.03	70.00	36.03	V-C	2.3371E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	-1.7042E-20	72.00	37.00	72.00	37.00	V-C	2.3371E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	-1.6281E-20	74.00	37.97	74.00	37.97	V-C	2.3371E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	-1.5549E-20	76.00	38.94	76.00	38.94	V-C	2.3371E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	-1.4839E-20	78.00	39.92	78.00	39.92	V-C	2.3371E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	-1.4135E-20	80.00	40.89	80.00	40.89	V-C	2.3371E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	-1.3428E-20	82.00	41.86	82.00	41.86	V-C	2.3371E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	-1.2714E-20	84.00	42.84	84.00	42.84	V-C	2.3371E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	-1.1987E-20	86.00	43.82	86.00	43.82	V-C	2.3371E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	-1.1242E-20	88.00	44.79	88.00	44.79	V-C	2.3371E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	-1.0475E-20	90.00	45.77	90.00	45.77	V-C	2.3371E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	-9.6966E-21	92.00	46.75	92.00	46.75	V-C	2.3371E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	-8.9200E-21	94.00	47.73	94.00	47.73	V-C	2.3371E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	-8.1574E-21	96.00	48.71	96.00	48.71	V-C	2.3371E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	-7.4213E-21	98.00	49.69	98.00	49.69	V-C	2.3371E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	-6.7233E-21	100.00	50.67	100.00	50.67	V-C	2.3371E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	-6.0750E-21	102.0	51.65	102.0	51.65	V-C	2.3371E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	-5.4877E-21	104.0	52.63	104.0	52.63	V-C	2.3371E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	-4.9720E-21	106.0	53.61	106.0	53.61	V-C	2.3371E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	-4.5386E-21	108.0	54.60	108.0	54.60	V-C	2.3371E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	-4.1976E-21	110.0	55.58	110.0	55.58	V-C	2.3371E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	-3.9590E-21	112.0	56.56	112.0	56.56	V-C	2.3371E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	-3.8323E-21	114.0	57.55	114.0	57.55	V-C	2.3371E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	-3.8269E-21	116.0	58.53	116.0	58.53	V-C	2.3371E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	-3.9516E-21	118.0	59.52	118.0	59.52	V-C	2.3371E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	-4.2151E-21	120.0	60.50	120.0	60.50	V-C	2.3371E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	-4.6256E-21	121.8	61.39	121.8	61.39	V-C	1.7574E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	-5.1912E-21	123.6	62.28	123.6	62.28	V-C	1.7574E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	-5.9194E-21	125.4	63.16	125.4	63.16	V-C	1.7574E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	-6.8179E-21	127.2	64.05	127.2	64.05	V-C	1.7574E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	-7.8937E-21	129.0	64.94	129.0	64.94	V-C	1.7574E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	-9.1538E-21	130.8	65.83	130.8	65.83	V-C	1.7574E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	-1.0605E-20	132.6	66.72	132.6	66.72	V-C	1.7574E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	-1.2254E-20	134.4	67.60	134.4	67.60	V-C	1.7574E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	-1.4106E-20	136.2	68.49	136.2	68.49	V-C	1.7574E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	-1.6167E-20	138.0	69.38	138.0	69.38	V-C	1.7574E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	-1.8436E-20	139.8	70.27	139.8	70.27	V-C	1.7574E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	-2.0877E-20	141.6	71.16	141.6	71.16	V-C	1.7574E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	-2.3421E-20	143.4	72.05	143.4	72.05	V-C	1.7574E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	-2.5998E-20	145.2	72.94	145.2	72.94	V-C	1.7574E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	-2.8571E-20	147.0	73.84	147.0	73.84	V-C	1.7574E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	-3.1136E-20	148.8	74.73	148.8	74.73	V-C	1.7574E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	-3.3696E-20	150.6	75.62	150.6	75.62	V-C	1.7574E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	-3.6253E-20	152.4	76.51	152.4	76.51	V-C	1.7574E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	-3.8808E-20	154.2	77.40	154.2	77.40	V-C	1.7574E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	-4.1364E-20	156.0	78.29	156.0	78.29	V-C	1.7574E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
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|          PARATIEPLUS(TM)    NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*  |
|
|
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018        18:25:49            |
|-----+
New Project
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.01855E-16	-1.01855E-16	-9.97120E-28	2.03710E-17
2	3.05921E-16	-3.05921E-16	-2.03710E-17	8.15552E-17
3	5.10341E-16	-5.10341E-16	-8.15552E-17	1.83623E-16
4	7.15104E-16	-7.15104E-16	-1.83623E-16	3.26644E-16
5	9.20187E-16	-9.20187E-16	-3.26644E-16	5.10682E-16
6	1.12555E-15	-1.12555E-15	-5.10682E-16	7.35792E-16
7	1.33115E-15	-1.33115E-15	-7.35792E-16	1.00202E-15
8	1.53689E-15	-1.53689E-15	-1.00202E-15	1.30940E-15
9	1.74270E-15	-1.74270E-15	-1.30940E-15	1.65794E-15
10	1.94844E-15	-1.94844E-15	-1.65794E-15	2.04763E-15
11	1.26579E-15	-1.26579E-15	-2.04763E-15	2.30079E-15
12	1.47095E-15	-1.47095E-15	-2.30079E-15	2.59498E-15
13	1.67556E-15	-1.67556E-15	-2.59498E-15	2.93009E-15
14	1.03035E-16	-1.03035E-16	-2.93009E-15	2.95069E-15
15	3.05875E-16	-3.05875E-16	-2.95069E-15	3.01187E-15
16	5.07473E-16	-5.07473E-16	-3.01187E-15	3.11336E-15
17	7.07570E-16	-7.07570E-16	-3.11336E-15	3.25488E-15
18	9.05893E-16	-9.05893E-16	-3.25488E-15	3.43606E-15
19	1.10216E-15	-1.10216E-15	-3.43606E-15	3.65649E-15
20	-4.80275E-16	4.80275E-16	-3.65649E-15	3.56043E-15
21	-2.06534E-15	2.06534E-15	-3.56043E-15	3.14737E-15
22	-1.87698E-15	1.87698E-15	-3.14737E-15	2.77197E-15
23	-1.69184E-15	1.69184E-15	-2.77197E-15	2.43360E-15
24	-1.51018E-15	1.51018E-15	-2.43360E-15	2.13157E-15
25	-1.33229E-15	1.33229E-15	-2.13157E-15	1.86511E-15
26	-1.15843E-15	1.15843E-15	-1.86511E-15	1.63342E-15
27	-9.88823E-16	9.88823E-16	-1.63342E-15	1.43566E-15
28	-8.23710E-16	8.23710E-16	-1.43566E-15	1.27092E-15
29	-4.21600E-15	4.21600E-15	-1.27092E-15	4.27716E-16
30	-4.06046E-15	4.06046E-15	-4.27716E-16	3.84376E-16
31	-3.90995E-15	3.90995E-15	-3.84376E-16	1.16636E-15
32	-2.11898E-16	2.11898E-16	-1.16636E-15	1.20874E-15
33	-7.18352E-17	7.18352E-17	-1.20874E-15	1.22311E-15
34	6.28696E-17	-6.28696E-17	1.22311E-15	-1.21054E-15
35	1.92162E-16	-1.92162E-16	1.21054E-15	-1.17210E-15
36	3.16017E-16	-3.16017E-16	1.17210E-15	-1.10890E-15
37	4.34436E-16	-4.34436E-16	1.10890E-15	-1.02201E-15
38	5.47450E-16	-5.47450E-16	1.02201E-15	-9.12522E-16
39	4.20783E-15	-4.20783E-15	9.12522E-16	-7.09562E-17
40	7.57526E-16	-7.57526E-16	7.09562E-17	8.05489E-17
41	8.54793E-16	-8.54793E-16	8.05489E-17	2.51508E-16
42	9.47066E-16	-9.47066E-16	2.51508E-16	4.40921E-16
43	1.03452E-15	-1.03452E-15	4.40921E-16	6.47825E-16
44	1.11737E-15	-1.11737E-15	6.47825E-16	8.71297E-16
45	-2.35688E-15	2.35688E-15	-8.71297E-16	3.99922E-16
46	-2.28251E-15	2.28251E-15	-3.99922E-16	5.65810E-17
47	-2.21196E-15	2.21196E-15	-5.65810E-17	4.98972E-16
48	-2.14487E-15	2.14487E-15	-4.98972E-16	9.27947E-16
49	-2.08091E-15	2.08091E-15	-9.27947E-16	1.34413E-15
50	-2.01968E-15	2.01968E-15	-1.34413E-15	1.74806E-15
51	-1.96075E-15	1.96075E-15	-1.74806E-15	2.14022E-15
52	-1.90368E-15	1.90368E-15	-2.14022E-15	2.52094E-15
53	-1.84801E-15	1.84801E-15	-2.52094E-15	2.89054E-15
54	-1.79324E-15	1.79324E-15	-2.89054E-15	3.24919E-15
55	-1.73886E-15	1.73886E-15	-3.24919E-15	3.59696E-15
56	-1.68433E-15	1.68433E-15	-3.59696E-15	3.93383E-15
57	-1.62910E-15	1.62910E-15	-3.93383E-15	4.25965E-15
58	-1.57264E-15	1.57264E-15	-4.25965E-15	4.57418E-15
59	-1.51436E-15	1.51436E-15	-4.57418E-15	4.87705E-15

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-1.45373E-15 1.45373E-15 4.87705E-15-5.16779E-15
61-1.39017E-15 1.39017E-15 5.16779E-15-5.44583E-15
62-1.35201E-15 1.35201E-15 5.44583E-15-5.71623E-15
63-1.31157E-15 1.31157E-15 5.71623E-15-5.97854E-15
64-1.26856E-15 1.26856E-15 5.97854E-15-6.23226E-15
65-1.22271E-15 1.22271E-15 6.23226E-15-6.47680E-15
66-1.17375E-15 1.17375E-15 6.47680E-15-6.71155E-15
67-1.12143E-15 1.12143E-15 6.71155E-15-6.93584E-15
68-1.06551E-15 1.06551E-15 6.93584E-15-7.14894E-15
69-1.00579E-15 1.00579E-15 7.14894E-15-7.35010E-15
70-9.42073E-16 9.42073E-16 7.35010E-15-7.53851E-15
71 6.23125E-15-6.23125E-15 7.53851E-15-6.29226E-15
72 1.34089E-14-1.34089E-14 6.29226E-15-3.61048E-15
73 1.34856E-14-1.34856E-14 3.61048E-15-9.13372E-16
74 6.46137E-15-6.46137E-15 9.13372E-16 3.78901E-16
75-5.58183E-16 5.58183E-16-3.78901E-16 2.67264E-16
76-4.67589E-16 4.67589E-16-2.67264E-16 1.73747E-16
77-3.72232E-16 3.72232E-16-1.73747E-16 9.93002E-17
78-2.72078E-16 2.72078E-16-9.93002E-17 4.48846E-17
79-1.67108E-16 1.67108E-16-4.48846E-17 1.14630E-17
80-5.73122E-17 5.73122E-17-1.14630E-17 1.81754E-27

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 302.6 REMNOR=0.6218E-52 RATIO =0.5168E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.5168E-01 RATIO= 0.000
MAX UN= 3.327 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.1019E-15 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 12.00 REMNOR=0.2777E-21 RATIO =0.1029E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1029E-01 RATIO= 0.000
MAX UN= 1.661 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.2766E-10 IEQ= 101 NODE 51 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM= 8.122 REMNOR=0.8119E-21 RATIO =0.8467E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.8467E-02 RATIO= 0.000
MAX UN= 1.821 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-.1256E-09 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM=0.1593 REMNOR=0.3171E-21 RATIO =0.1186E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1186E-02 RATIO= 0.000
MAX UN=0.3826 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
MIN UN=-.1306E-09 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1597E-26
RENORM=0.5649E-05 REMNOR=0.1304E-21 RATIO =0.7061E-05 TOLER =0.1000E-03 CONVERGED !
RFMAX = 46.57 RMMAX =0.7539E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.7061E-05 RATIO= 0.000
MAX UN=0.2377E-02 IEQ= 65 NODE 33 DOF 1 Y-DISPL.F
MIN UN=-.7402E-10 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |  
|                                                                    |  
|                               NewProject.BaseDesignSection_28.SISMICASTR_1817  |  
|                               Exe Time :24 May 2018       18:25:49  |  
+-----+
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.3603417E-04	-6.4828788E-05	
2	3.2306842E-04	-6.4828788E-05	
3	3.1010312E-04	-6.4821809E-05	
4	2.9714156E-04	-6.4786883E-05	
5	2.8419257E-04	-6.4688990E-05	
6	2.7127343E-04	-6.4478991E-05	
7	2.5841267E-04	-6.4093590E-05	
8	2.4565005E-04	-6.3497418E-05	
9	2.3302770E-04	-6.2691200E-05	
10	2.2058739E-04	-6.1677611E-05	
11	2.0837018E-04	-6.0461110E-05	
12	1.9641607E-04	-5.9047861E-05	
13	1.8476364E-04	-5.7445597E-05	
14	1.7344980E-04	-5.5663717E-05	
15	1.6250939E-04	-5.3713318E-05	
16	1.5197486E-04	-5.1607145E-05	
17	1.4187590E-04	-4.9359639E-05	
18	1.3223929E-04	-4.6987104E-05	
19	1.2308819E-04	-4.4507704E-05	
20	1.1444199E-04	-4.1941514E-05	
21	1.0631593E-04	-3.9310643E-05	
22	9.8720477E-05	-3.6639264E-05	
23	9.1661172E-05	-3.3953706E-05	
24	8.5138036E-05	-3.1282537E-05	
25	7.9145276E-05	-2.8654586E-05	
26	7.3671627E-05	-2.6095243E-05	
27	6.8701258E-05	-2.3625078E-05	
28	6.4214598E-05	-2.1260266E-05	
29	6.0189307E-05	-1.9013124E-05	
30	5.6600914E-05	-1.6892504E-05	
31	5.3423483E-05	-1.4904224E-05	
32	5.0630203E-05	-1.3051469E-05	
33	4.8193815E-05	-1.1335136E-05	
34	4.6087118E-05	-9.7542585E-06	
35	4.4283265E-05	-8.3060776E-06	
36	4.2756138E-05	-6.9861261E-06	
37	4.1480660E-05	-5.7885802E-06	
38	4.0433012E-05	-4.7065480E-06	
39	3.9590850E-05	-3.7323882E-06	
40	3.8933409E-05	-2.8579408E-06	
41	3.8441590E-05	-2.0747404E-06	
42	3.8098005E-05	-1.3741525E-06	
43	3.7886999E-05	-7.4751132E-07	
44	3.7794640E-05	-1.8628801E-07	
45	3.7808672E-05	3.1775652E-07	
46	3.7918452E-05	7.7244676E-07	
47	3.8114846E-05	1.1850564E-06	
48	3.8390111E-05	1.5622098E-06	
49	3.8737757E-05	1.9097797E-06	
50	3.9152384E-05	2.2327960E-06	
51	3.9629511E-05	2.5353679E-06	
52	4.0165389E-05	2.8206044E-06	
53	4.0756713E-05	3.0905064E-06	
54	4.1400601E-05	3.3459933E-06	
55	4.2094127E-05	3.5867281E-06	
56	4.2834203E-05	3.8111186E-06	
57	4.3617290E-05	4.0162457E-06	
58	4.4439130E-05	4.1978099E-06	
59	4.5294461E-05	4.3500826E-06	
60	4.6176730E-05	4.4658626E-06	
61	4.7077793E-05	4.5364400E-06	
62	4.7987610E-05	4.5515692E-06	
63	4.8894766E-05	4.5118715E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	4.9789485E-05	4.4290668E-06
65	5.0664228E-05	4.3137956E-06
66	5.1513477E-05	4.1756306E-06
67	5.2333522E-05	4.0230920E-06
68	5.3122254E-05	3.8636666E-06
69	5.3878961E-05	3.7038283E-06
70	5.4604124E-05	3.5490604E-06
71	5.5299224E-05	3.4038770E-06
72	5.5966551E-05	3.2718441E-06
73	5.6609014E-05	3.1556001E-06
74	5.7229959E-05	3.0568734E-06
75	5.7832987E-05	2.9764983E-06
76	5.8421779E-05	2.9144290E-06
77	5.8999918E-05	2.8697502E-06
78	5.9570720E-05	2.8406863E-06
79	6.0137058E-05	2.8246070E-06
80	6.0701196E-05	2.8180317E-06
81	6.1264644E-05	2.8166319E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.3603E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4903	-3.2307E-04	2.073	0.5161	2.073	1.603	ACTIVE	0.000	-0.2000	1.935	
1.000	1.000	2.452	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9826	-3.1010E-04	4.186	1.042	4.186	3.119	ACTIVE	0.000	-0.4000	3.871	
1.000	1.000	4.913	0.000	0.000	Ug5_2_8_L_0						
4 D	1.478	-2.9714E-04	6.351	1.581	6.351	4.509	ACTIVE	0.000	-0.6000	5.806	
1.000	1.000	7.388	0.000	0.000	Ug5_2_8_L_0						
5 D	1.974	-2.8419E-04	8.555	2.130	8.555	5.780	ACTIVE	0.000	-0.8000	7.742	
1.000	1.000	9.872	0.000	0.000	Ug5_2_8_L_0						
6 D	2.472	-2.7127E-04	10.78	2.683	10.78	6.958	ACTIVE	0.000	-1.000	9.677	
1.000	1.000	12.36	0.000	0.000	Ug5_2_8_L_0						
7 D	2.970	-2.5841E-04	13.00	3.236	13.00	8.073	ACTIVE	0.000	-1.200	11.61	
1.000	1.000	14.85	0.000	0.000	Ug5_2_8_L_0						
8 D	3.473	-2.4565E-04	15.33	3.816	15.33	9.145	ACTIVE	0.000	-1.400	13.55	
1.000	1.000	17.36	0.000	0.000	Ug5_2_8_L_0						
9 D	3.978	-2.3303E-04	17.69	4.405	17.69	10.19	ACTIVE	0.000	-1.600	15.48	
1.000	1.000	19.89	0.000	0.000	Ug5_2_8_L_0						
10 D	4.472	-2.2059E-04	19.84	4.941	19.84	11.22	ACTIVE	0.000	-1.800	17.42	
1.000	1.000	22.36	0.000	0.000	Ug5_2_8_L_0						
11 D	4.973	-2.0837E-04	22.13	5.510	22.13	12.23	ACTIVE	0.000	-2.000	19.35	
1.000	1.000	24.87	0.000	0.000	Ug5_2_8_L_0						
12 D	5.472	-1.9642E-04	24.38	6.071	24.38	13.24	ACTIVE	0.000	-2.200	21.29	
1.000	1.000	27.36	0.000	0.000	Ug5_2_8_L_0						
13 D	5.964	-1.8476E-04	26.48	6.594	26.48	14.24	ACTIVE	0.000	-2.400	23.23	
1.000	1.000	29.82	0.000	0.000	Ug5_2_8_L_0						
14 D	6.461	-1.7345E-04	28.70	7.145	28.70	15.24	ACTIVE	0.000	-2.600	25.16	
1.000	1.000	32.31	0.000	0.000	Ug5_2_8_L_0						
15 D	6.958	-1.6251E-04	30.89	7.691	30.89	16.23	ACTIVE	0.000	-2.800	27.10	
1.000	1.000	34.79	0.000	0.000	Ug5_2_8_L_0						
16 D	7.453	-1.5197E-04	33.06	8.233	33.06	17.23	ACTIVE	0.000	-3.000	29.03	
1.000	1.000	37.27	0.000	0.000	Ug5_2_8_L_0						
17 D	7.944	-1.4188E-04	35.14	8.750	35.14	18.22	ACTIVE	0.000	-3.200	30.97	
1.000	1.000	39.72	0.000	0.000	Ug5_2_8_L_0						
18 D	8.438	-1.3224E-04	37.30	9.287	37.30	19.21	ACTIVE	0.000	-3.400	32.90	
1.000	1.000	42.19	0.000	0.000	Ug5_2_8_L_0						
19 D	8.932	-1.2309E-04	39.45	9.823	39.45	20.21	ACTIVE	0.000	-3.600	34.84	
1.000	1.000	44.66	0.000	0.000	Ug5_2_8_L_0						
20 D	9.422	-1.1444E-04	41.51	10.34	41.51	21.20	ACTIVE	0.000	-3.800	36.77	
1.000	1.000	47.11	0.000	0.000	Ug5_2_8_L_0						
21 D	9.916	-1.0632E-04	43.65	10.87	43.65	22.19	ACTIVE	0.000	-4.000	38.71	
1.000	1.000	49.58	0.000	0.000	Ug5_2_8_L_0						
22 D	10.41	-9.8720E-05	45.78	11.40	45.78	23.18	ACTIVE	0.000	-4.200	40.65	
1.000	1.000	52.05	0.000	0.000	Ug5_2_8_L_0						
23 D	10.90	-9.1661E-05	47.84	11.91	47.84	24.18	ACTIVE	0.000	-4.400	42.58	
1.000	1.000	54.49	0.000	0.000	Ug5_2_8_L_0						
24 D	11.54	-8.5138E-05	49.97	13.17	49.97	25.17	UL-RL	1.4103E+05	-4.600	44.52	
1.000	1.000	57.68	0.000	0.000	Ug5_2_8_L_0						
25 D	12.29	-7.9145E-05	52.09	15.01	52.09	26.17	UL-RL	1.4103E+05	-4.800	46.45	
1.000	1.000	61.46	0.000	0.000	Ug5_2_8_L_0						
26 D	13.03	-7.3672E-05	54.20	16.77	54.20	27.16	UL-RL	1.4103E+05	-5.000	48.39	
1.000	1.000	65.16	0.000	0.000	Ug5_2_8_L_0						
27 D	13.76	-6.8701E-05	56.26	18.47	56.26	28.16	UL-RL	1.4103E+05	-5.200	50.32	
1.000	1.000	68.79	0.000	0.000	Ug5_2_8_L_0						
28 D	14.47	-6.4215E-05	58.37	20.10	58.37	29.16	UL-RL	1.4103E+05	-5.400	52.26	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.36	0.000	0.000	Ug5_2_8_L_0					
29 D	15.17	-6.0189E-05	60.48	21.66	60.48	30.15	UL-RL	1.4103E+05	-5.600	54.19
1.000	1.000	75.86	0.000	0.000	Ug5_2_8_L_0					
30 D	15.86	-5.6601E-05	62.53	23.17	62.53	31.15	UL-RL	1.4103E+05	-5.800	56.13
1.000	1.000	79.30	0.000	0.000	Ug5_2_8_L_0					
31 D	16.54	-5.3423E-05	64.63	24.62	64.63	32.15	UL-RL	1.4103E+05	-6.000	58.06
1.000	1.000	82.68	0.000	0.000	Ug5_2_8_L_0					
32 D	17.20	-5.0630E-05	66.74	26.01	66.74	33.15	UL-RL	1.4103E+05	-6.200	60.00
1.000	1.000	86.01	0.000	0.000	Ug5_2_8_L_0					
33 D	17.86	-4.8194E-05	68.79	27.35	68.79	34.15	UL-RL	1.4103E+05	-6.400	61.94
1.000	1.000	89.29	0.000	0.000	Ug5_2_8_L_0					
34 D	18.50	-4.6087E-05	70.89	28.65	70.89	35.15	UL-RL	1.4103E+05	-6.600	63.87
1.000	1.000	92.52	0.000	0.000	Ug5_2_8_L_0					
35 D	19.14	-4.4283E-05	72.98	29.91	72.98	36.15	UL-RL	1.4103E+05	-6.800	65.81
1.000	1.000	95.71	0.000	0.000	Ug5_2_8_L_0					
36 D	19.77	-4.2756E-05	75.08	31.13	75.08	37.16	UL-RL	1.4103E+05	-7.000	67.74
1.000	1.000	98.87	0.000	0.000	Ug5_2_8_L_0					
37 D	20.40	-4.1481E-05	77.13	32.31	77.13	38.16	UL-RL	1.4103E+05	-7.200	69.68
1.000	1.000	102.0	0.000	0.000	Ug5_2_8_L_0					
38 D	21.01	-4.0433E-05	79.22	33.46	79.22	39.16	UL-RL	1.4103E+05	-7.400	71.61
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
39 D	21.63	-3.9591E-05	81.32	34.58	81.32	40.17	UL-RL	1.4103E+05	-7.600	73.55
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
40 D	22.23	-3.8933E-05	83.37	35.68	83.37	41.17	UL-RL	1.4103E+05	-7.800	75.48
1.000	1.000	111.2	0.000	0.000	Ug5_2_8_L_0					
41 D	22.84	-3.8442E-05	85.46	36.76	85.46	42.18	UL-RL	1.4103E+05	-8.000	77.42
1.000	1.000	114.2	0.000	0.000	Ug5_2_8_L_0					
42 D	23.43	-3.8098E-05	87.55	37.81	87.55	43.19	UL-RL	1.4103E+05	-8.200	79.35
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
43 D	24.03	-3.7887E-05	89.60	38.85	89.60	44.19	UL-RL	1.4103E+05	-8.400	81.29
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
44 D	24.62	-3.7795E-05	91.69	39.87	91.69	45.20	UL-RL	1.4103E+05	-8.600	83.23
1.000	1.000	123.1	0.000	0.000	Ug5_2_8_L_0					
45 D	25.21	-3.7809E-05	93.77	40.88	93.77	46.21	UL-RL	1.4103E+05	-8.800	85.16
1.000	1.000	126.0	0.000	0.000	Ug5_2_8_L_0					
46 D	25.79	-3.7918E-05	95.86	41.87	95.86	47.22	UL-RL	1.4103E+05	-9.000	87.10
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
47 D	26.38	-3.8115E-05	97.91	42.86	97.91	48.23	UL-RL	1.4103E+05	-9.200	89.03
1.000	1.000	131.9	0.000	0.000	Ug5_2_8_L_0					
48 D	26.96	-3.8390E-05	100.00	43.83	100.00	49.24	UL-RL	1.4103E+05	-9.400	90.97
1.000	1.000	134.8	0.000	0.000	Ug5_2_8_L_0					
49 D	27.54	-3.8738E-05	102.1	44.79	102.1	50.26	UL-RL	1.4103E+05	-9.600	92.90
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
50 D	28.12	-3.9152E-05	104.1	45.75	104.1	51.27	UL-RL	1.4103E+05	-9.800	94.84
1.000	1.000	140.6	0.000	0.000	Ug5_2_8_L_0					
51 D	28.69	-3.9630E-05	106.2	46.69	106.2	52.28	UL-RL	1.4103E+05	-10.000	96.77
1.000	1.000	143.5	0.000	0.000	Ug5_2_8_L_0					
52 D	29.27	-4.0165E-05	108.3	47.63	108.3	53.29	UL-RL	1.4103E+05	-10.200	98.71
1.000	1.000	146.3	0.000	0.000	Ug5_2_8_L_0					
53 D	29.84	-4.0757E-05	110.3	48.56	110.3	54.31	UL-RL	1.4103E+05	-10.400	100.6
1.000	1.000	149.2	0.000	0.000	Ug5_2_8_L_0					
54 D	30.41	-4.1401E-05	112.4	49.48	112.4	55.32	UL-RL	1.4103E+05	-10.600	102.6
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
55 D	30.98	-4.2094E-05	114.5	50.40	114.5	56.34	UL-RL	1.4103E+05	-10.800	104.5
1.000	1.000	154.9	0.000	0.000	Ug5_2_8_L_0					
56 D	31.55	-4.2834E-05	116.6	51.31	116.6	57.35	UL-RL	1.4103E+05	-11.000	106.5
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.12	-4.3617E-05	118.6	52.22	118.6	58.37	UL-RL	1.4103E+05	-11.200	108.4
1.000	1.000	160.6	0.000	0.000	Ug5_2_8_L_0					
58 D	32.69	-4.4439E-05	120.7	53.12	120.7	59.39	UL-RL	1.4103E+05	-11.400	110.3
1.000	1.000	163.4	0.000	0.000	Ug5_2_8_L_0					
59 D	33.25	-4.5294E-05	122.8	54.02	122.8	60.40	UL-RL	1.4103E+05	-11.600	112.3
1.000	1.000	166.3	0.000	0.000	Ug5_2_8_L_0					
60 D	33.82	-4.6177E-05	124.9	54.91	124.9	61.42	UL-RL	1.4103E+05	-11.800	114.2
1.000	1.000	169.1	0.000	0.000	Ug5_2_8_L_0					
61 D	34.39	-4.7078E-05	126.9	55.80	126.9	62.44	UL-RL	1.4103E+05	-12.000	116.1
1.000	1.000	171.9	0.000	0.000	Ug5_2_8_L_0					
62 D	35.64	-4.7988E-05	128.8	60.12	128.8	63.36	UL-RL	6.7514E+04	-12.200	118.1
1.000	1.000	178.2	0.000	0.000	Ug6_741_743_L_0					
63 D	36.19	-4.8895E-05	130.7	60.97	130.7	64.28	UL-RL	6.7514E+04	-12.400	120.0
1.000	1.000	181.0	0.000	0.000	Ug6_741_743_L_0					
64 D	36.75	-4.9789E-05	132.5	61.83	132.5	65.20	UL-RL	6.7514E+04	-12.600	121.9
1.000	1.000	183.8	0.000	0.000	Ug6_741_743_L_0					
65 D	37.31	-5.0664E-05	134.4	62.69	134.4	66.12	UL-RL	6.7514E+04	-12.800	123.9
1.000	1.000	186.6	0.000	0.000	Ug6_741_743_L_0					
66 D	37.87	-5.1513E-05	136.2	63.56	136.2	67.04	UL-RL	6.7514E+04	-13.000	125.8
1.000	1.000	189.4	0.000	0.000	Ug6_741_743_L_0					
67 D	38.43	-5.2334E-05	138.1	64.42	138.1	67.96	UL-RL	6.7514E+04	-13.200	127.7
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
68 D	38.99	-5.3122E-05	139.9	65.29	139.9	68.88	UL-RL	6.7514E+04	-13.400	129.7
1.000	1.000	195.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.55	-5.3879E-05	141.7	66.16	141.7	69.80	UL-RL	6.7514E+04	-13.60	131.6
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
70 D	40.12	-5.4604E-05	143.6	67.03	143.6	70.72	UL-RL	6.7514E+04	-13.80	133.5
1.000	1.000	200.6	0.000	0.000	Ug6_741_743_L_0					
71 D	40.68	-5.5299E-05	145.4	67.91	145.4	71.64	UL-RL	6.7514E+04	-14.00	135.5
1.000	1.000	203.4	0.000	0.000	Ug6_741_743_L_0					
72 D	41.24	-5.5967E-05	147.2	68.78	147.2	72.56	UL-RL	6.7514E+04	-14.20	137.4
1.000	1.000	206.2	0.000	0.000	Ug6_741_743_L_0					
73 D	41.80	-5.6609E-05	149.1	69.66	149.1	73.49	UL-RL	6.7514E+04	-14.40	139.4
1.000	1.000	209.0	0.000	0.000	Ug6_741_743_L_0					
74 D	42.37	-5.7230E-05	150.9	70.54	150.9	74.41	UL-RL	6.7514E+04	-14.60	141.3
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	42.93	-5.7833E-05	152.7	71.43	152.7	75.33	UL-RL	6.7514E+04	-14.80	143.2
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
76 D	43.49	-5.8422E-05	154.6	72.31	154.6	76.25	UL-RL	6.7514E+04	-15.00	145.2
1.000	1.000	217.5	0.000	0.000	Ug6_741_743_L_0					
77 D	44.06	-5.9000E-05	156.4	73.20	156.4	77.18	UL-RL	6.7514E+04	-15.20	147.1
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
78 D	44.62	-5.9571E-05	158.3	74.08	158.3	78.10	UL-RL	6.7514E+04	-15.40	149.0
1.000	1.000	223.1	0.000	0.000	Ug6_741_743_L_0					
79 D	45.19	-6.0137E-05	160.1	74.97	160.1	79.03	UL-RL	6.7514E+04	-15.60	151.0
1.000	1.000	225.9	0.000	0.000	Ug6_741_743_L_0					
80 D	45.75	-6.0701E-05	161.9	75.85	161.9	79.95	UL-RL	6.7514E+04	-15.80	152.9
1.000	1.000	228.8	0.000	0.000	Ug6_741_743_L_0					
81 D	23.16	-6.1265E-05	163.8	76.74	163.8	80.88	UL-RL	6.7514E+04	-16.00	154.8
1.000	1.000	231.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	2.7127E-04	0.000	0.000	10.00	6.797	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.957	2.5841E-04	1.935	12.72	12.00	12.72	V-C	2.3371E+04	-1.200	2.065	
1.000	1.000	14.79	0.000	0.000	Ug5_2_8_L_0						
8 D	3.537	2.4565E-04	3.871	13.55	14.00	13.55	V-C	2.3371E+04	-1.400	4.129	
1.000	1.000	17.68	0.000	0.000	Ug5_2_8_L_0						
9 D	4.102	2.3303E-04	5.806	14.32	16.00	14.32	V-C	2.3371E+04	-1.600	6.194	
1.000	1.000	20.51	0.000	0.000	Ug5_2_8_L_0						
10 D	4.661	2.2059E-04	7.742	15.05	18.00	15.05	V-C	2.3371E+04	-1.800	8.258	
1.000	1.000	23.31	0.000	0.000	Ug5_2_8_L_0						
11 D	5.217	2.0837E-04	9.677	15.76	20.00	15.76	V-C	2.3371E+04	-2.000	10.32	
1.000	1.000	26.09	0.000	0.000	Ug5_2_8_L_0						
12 D	5.771	1.9642E-04	11.61	16.47	22.00	16.47	V-C	2.3371E+04	-2.200	12.39	
1.000	1.000	28.86	0.000	0.000	Ug5_2_8_L_0						
13 D	6.325	1.8476E-04	13.55	17.17	24.00	17.17	V-C	2.3371E+04	-2.400	14.45	
1.000	1.000	31.63	0.000	0.000	Ug5_2_8_L_0						
14 D	6.880	1.7345E-04	15.48	17.88	26.00	17.88	V-C	2.3371E+04	-2.600	16.52	
1.000	1.000	34.40	0.000	0.000	Ug5_2_8_L_0						
15 D	7.435	1.6251E-04	17.42	18.59	28.00	18.59	V-C	2.3371E+04	-2.800	18.58	
1.000	1.000	37.17	0.000	0.000	Ug5_2_8_L_0						
16 D	7.991	1.5197E-04	19.35	19.31	30.00	19.31	V-C	2.3371E+04	-3.000	20.65	
1.000	1.000	39.96	0.000	0.000	Ug5_2_8_L_0						
17 D	8.549	1.4188E-04	21.29	20.04	32.00	20.04	V-C	2.3371E+04	-3.200	22.71	
1.000	1.000	42.75	0.000	0.000	Ug5_2_8_L_0						
18 D	9.109	1.3224E-04	23.23	20.77	34.00	20.77	V-C	2.3371E+04	-3.400	24.77	
1.000	1.000	45.55	0.000	0.000	Ug5_2_8_L_0						
19 D	9.671	1.2309E-04	25.16	21.52	36.00	21.52	V-C	2.3371E+04	-3.600	26.84	
1.000	1.000	48.36	0.000	0.000	Ug5_2_8_L_0						
20 D	10.24	1.1444E-04	27.10	22.27	38.00	22.27	V-C	2.3371E+04	-3.800	28.90	
1.000	1.000	51.18	0.000	0.000	Ug5_2_8_L_0						
21 D	10.80	1.0632E-04	29.03	23.04	40.00	23.04	V-C	2.3371E+04	-4.000	30.97	
1.000	1.000	54.01	0.000	0.000	Ug5_2_8_L_0						
22 D	11.37	9.8720E-05	30.97	23.83	42.00	23.83	V-C	2.3371E+04	-4.200	33.03	
1.000	1.000	56.86	0.000	0.000	Ug5_2_8_L_0						
23 D	11.94	9.1661E-05	32.90	24.62	44.00	24.62	V-C	2.3371E+04	-4.400	35.10	
1.000	1.000	59.72	0.000	0.000	Ug5_2_8_L_0						
24 D	12.52	8.5138E-05	34.84	25.43	46.00	25.43	V-C	2.3371E+04	-4.600	37.16	
1.000	1.000	62.59	0.000	0.000	Ug5_2_8_L_0						
25 D	13.09	7.9145E-05	36.77	26.25	48.00	26.25	V-C	2.3371E+04	-4.800	39.23	
1.000	1.000	65.47	0.000	0.000	Ug5_2_8_L_0						
26 D	13.67	7.3672E-05	38.71	27.08	50.00	27.08	V-C	2.3371E+04	-5.000	41.29	
1.000	1.000	68.37	0.000	0.000	Ug5_2_8_L_0						
27 D	14.26	6.8701E-05	40.65	27.92	52.00	27.92	V-C	2.3371E+04	-5.200	43.35	
1.000	1.000	71.28	0.000	0.000	Ug5_2_8_L_0						
28 D	14.84	6.4215E-05	42.58	28.78	54.00	28.78	V-C	2.3371E+04	-5.400	45.42	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	74.20	0.000	0.000	Ug5_2_8_L_0					
29 D	15.43	6.0189E-05	44.52	29.64	56.00	29.64	V-C	2.3371E+04	-5.600	47.48
1.000	1.000	77.13	0.000	0.000	Ug5_2_8_L_0					
30 D	16.01	5.6601E-05	46.45	30.52	58.00	30.52	V-C	2.3371E+04	-5.800	49.55
1.000	1.000	80.07	0.000	0.000	Ug5_2_8_L_0					
31 D	16.60	5.3423E-05	48.39	31.41	60.00	31.41	V-C	2.3371E+04	-6.000	51.61
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0					
32 D	17.20	5.0630E-05	50.32	32.31	62.00	32.31	V-C	2.3371E+04	-6.200	53.68
1.000	1.000	85.99	0.000	0.000	Ug5_2_8_L_0					
33 D	17.79	4.8194E-05	52.26	33.22	64.00	33.22	V-C	2.3371E+04	-6.400	55.74
1.000	1.000	88.96	0.000	0.000	Ug5_2_8_L_0					
34 D	18.37	4.6087E-05	54.19	34.07	66.00	34.16	UL-RL	7.0113E+04	-6.600	57.81
1.000	1.000	91.87	0.000	0.000	Ug5_2_8_L_0					
35 D	18.96	4.4283E-05	56.13	34.92	68.00	35.12	UL-RL	7.0113E+04	-6.800	59.87
1.000	1.000	94.80	0.000	0.000	Ug5_2_8_L_0					
36 D	19.55	4.2756E-05	58.06	35.80	70.00	36.08	UL-RL	7.0113E+04	-7.000	61.94
1.000	1.000	97.74	0.000	0.000	Ug5_2_8_L_0					
37 D	20.14	4.1481E-05	60.00	36.70	72.00	37.03	UL-RL	7.0113E+04	-7.200	64.00
1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
38 D	20.74	4.0433E-05	61.94	37.61	74.00	37.99	UL-RL	7.0113E+04	-7.400	66.06
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
39 D	21.33	3.9591E-05	63.87	38.54	76.00	38.95	UL-RL	7.0113E+04	-7.600	68.13
1.000	1.000	106.7	0.000	0.000	Ug5_2_8_L_0					
40 D	21.93	3.8933E-05	65.81	39.47	78.00	39.92	UL-RL	7.0113E+04	-7.800	70.19
1.000	1.000	109.7	0.000	0.000	Ug5_2_8_L_0					
41 D	22.53	3.8442E-05	67.74	40.39	80.00	40.89	UL-RL	7.0113E+04	-8.000	72.26
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
42 D	23.13	3.8098E-05	69.68	41.33	82.00	41.86	UL-RL	7.0113E+04	-8.200	74.32
1.000	1.000	115.7	0.000	0.000	Ug5_2_8_L_0					
43 D	23.73	3.7887E-05	71.61	42.28	84.00	42.84	UL-RL	7.0113E+04	-8.400	76.39
1.000	1.000	118.7	0.000	0.000	Ug5_2_8_L_0					
44 D	24.34	3.7795E-05	73.55	43.23	86.00	43.82	UL-RL	7.0113E+04	-8.600	78.45
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
45 D	24.94	3.7809E-05	75.48	44.19	88.00	44.79	UL-RL	7.0113E+04	-8.800	80.52
1.000	1.000	124.7	0.000	0.000	Ug5_2_8_L_0					
46 D	25.55	3.7918E-05	77.42	45.17	90.00	45.77	UL-RL	7.0113E+04	-9.000	82.58
1.000	1.000	127.7	0.000	0.000	Ug5_2_8_L_0					
47 D	26.16	3.8115E-05	79.35	46.14	92.00	46.75	UL-RL	7.0113E+04	-9.200	84.65
1.000	1.000	130.8	0.000	0.000	Ug5_2_8_L_0					
48 D	26.77	3.8390E-05	81.29	47.13	94.00	47.73	UL-RL	7.0113E+04	-9.400	86.71
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
49 D	27.38	3.8738E-05	83.23	48.12	96.00	48.71	UL-RL	7.0113E+04	-9.600	88.77
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
50 D	27.99	3.9152E-05	85.16	49.11	98.00	49.69	UL-RL	7.0113E+04	-9.800	90.84
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
51 D	28.60	3.9630E-05	87.10	50.11	100.00	50.67	UL-RL	7.0113E+04	-10.000	92.90
1.000	1.000	143.0	0.000	0.000	Ug5_2_8_L_0					
52 D	29.22	4.0165E-05	89.03	51.11	102.0	51.65	UL-RL	7.0113E+04	-10.200	94.97
1.000	1.000	146.1	0.000	0.000	Ug5_2_8_L_0					
53 D	29.83	4.0757E-05	90.97	52.12	104.0	52.63	UL-RL	7.0113E+04	-10.400	97.03
1.000	1.000	149.2	0.000	0.000	Ug5_2_8_L_0					
54 D	30.45	4.1401E-05	92.90	53.13	106.0	53.61	UL-RL	7.0113E+04	-10.600	99.10
1.000	1.000	152.2	0.000	0.000	Ug5_2_8_L_0					
55 D	31.06	4.2094E-05	94.84	54.15	108.0	54.60	UL-RL	7.0113E+04	-10.800	101.2
1.000	1.000	155.3	0.000	0.000	Ug5_2_8_L_0					
56 D	31.68	4.2834E-05	96.77	55.17	110.0	55.58	UL-RL	7.0113E+04	-11.000	103.2
1.000	1.000	158.4	0.000	0.000	Ug5_2_8_L_0					
57 D	32.30	4.3617E-05	98.71	56.19	112.0	56.56	UL-RL	7.0113E+04	-11.200	105.3
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
58 D	32.92	4.4439E-05	100.6	57.22	114.0	57.55	UL-RL	7.0113E+04	-11.400	107.4
1.000	1.000	164.6	0.000	0.000	Ug5_2_8_L_0					
59 D	33.53	4.5294E-05	102.6	58.25	116.0	58.53	UL-RL	7.0113E+04	-11.600	109.4
1.000	1.000	167.7	0.000	0.000	Ug5_2_8_L_0					
60 D	34.15	4.6177E-05	104.5	59.28	118.0	59.52	UL-RL	7.0113E+04	-11.800	111.5
1.000	1.000	170.8	0.000	0.000	Ug5_2_8_L_0					
61 D	34.77	4.7078E-05	106.5	60.32	120.0	60.50	UL-RL	7.0113E+04	-12.000	113.5
1.000	1.000	173.9	0.000	0.000	Ug5_2_8_L_0					
62 D	35.21	4.7988E-05	108.2	60.42	121.8	61.39	UL-RL	5.2723E+04	-12.200	115.6
1.000	1.000	176.0	0.000	0.000	Ug6_741_743_L_0					
63 D	35.80	4.8895E-05	109.9	61.33	123.6	62.28	UL-RL	5.2723E+04	-12.400	117.7
1.000	1.000	179.0	0.000	0.000	Ug6_741_743_L_0					
64 D	36.40	4.9789E-05	111.7	62.25	125.4	63.16	UL-RL	5.2723E+04	-12.600	119.7
1.000	1.000	182.0	0.000	0.000	Ug6_741_743_L_0					
65 D	37.00	5.0664E-05	113.4	63.17	127.2	64.05	UL-RL	5.2723E+04	-12.800	121.8
1.000	1.000	185.0	0.000	0.000	Ug6_741_743_L_0					
66 D	37.59	5.1513E-05	115.1	64.09	129.0	64.94	UL-RL	5.2723E+04	-13.000	123.9
1.000	1.000	188.0	0.000	0.000	Ug6_741_743_L_0					
67 D	38.19	5.2334E-05	116.9	65.00	130.8	65.83	UL-RL	5.2723E+04	-13.200	125.9
1.000	1.000	190.9	0.000	0.000	Ug6_741_743_L_0					
68 D	38.78	5.3122E-05	118.6	65.92	132.6	66.72	UL-RL	5.2723E+04	-13.400	128.0
1.000	1.000	193.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.38	5.3879E-05	120.3	66.83	134.4	67.60	UL-RL	5.2723E+04	-13.60	130.1
1.000	1.000	196.9	0.000	0.000	Ug6_741_743_L_0					
70 D	39.97	5.4604E-05	122.1	67.74	136.2	68.49	UL-RL	5.2723E+04	-13.80	132.1
1.000	1.000	199.9	0.000	0.000	Ug6_741_743_L_0					
71 D	40.57	5.5299E-05	123.8	68.65	138.0	69.38	UL-RL	5.2723E+04	-14.00	134.2
1.000	1.000	202.8	0.000	0.000	Ug6_741_743_L_0					
72 D	41.16	5.5967E-05	125.5	69.56	139.8	70.27	UL-RL	5.2723E+04	-14.20	136.3
1.000	1.000	205.8	0.000	0.000	Ug6_741_743_L_0					
73 D	41.76	5.6609E-05	127.3	70.47	141.6	71.16	UL-RL	5.2723E+04	-14.40	138.3
1.000	1.000	208.8	0.000	0.000	Ug6_741_743_L_0					
74 D	42.35	5.7230E-05	129.0	71.38	143.4	72.05	UL-RL	5.2723E+04	-14.60	140.4
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	42.95	5.7833E-05	130.7	72.29	145.2	72.94	UL-RL	5.2723E+04	-14.80	142.5
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
76 D	43.54	5.8422E-05	132.5	73.19	147.0	73.84	UL-RL	5.2723E+04	-15.00	144.5
1.000	1.000	217.7	0.000	0.000	Ug6_741_743_L_0					
77 D	44.14	5.9000E-05	134.2	74.10	148.8	74.73	UL-RL	5.2723E+04	-15.20	146.6
1.000	1.000	220.7	0.000	0.000	Ug6_741_743_L_0					
78 D	44.73	5.9571E-05	136.0	75.00	150.6	75.62	UL-RL	5.2723E+04	-15.40	148.6
1.000	1.000	223.6	0.000	0.000	Ug6_741_743_L_0					
79 D	45.32	6.0137E-05	137.7	75.91	152.4	76.51	UL-RL	5.2723E+04	-15.60	150.7
1.000	1.000	226.6	0.000	0.000	Ug6_741_743_L_0					
80 D	45.92	6.0701E-05	139.4	76.82	154.2	77.40	UL-RL	5.2723E+04	-15.80	152.8
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
81 D	23.26	6.1265E-05	141.2	77.72	156.0	78.29	UL-RL	5.2723E+04	-16.00	154.8
1.000	1.000	232.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|                                                                     |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49       |
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New Project
  
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S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33

ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
C U R R E N T T I M E I S 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.23893E-11	-2.23893E-11	2.25064E-12	1.20439E-12
2	0.49031	-0.49031	-2.30307E-12	9.80625E-02
3	1.4730	-1.4730	-9.80625E-02	0.39265
4	2.9505	-2.9505	-0.39265	0.98276
5	4.9250	-4.9250	-0.98276	1.9678
6	7.3971	-7.3971	-1.9678	3.4472
7	7.4097	-7.4097	-3.4472	4.9291
8	7.3461	-7.3461	-4.9291	6.3984
9	7.2219	-7.2219	-6.3984	7.8427
10	7.0329	-7.0329	-7.8427	9.2493
11	6.7888	-6.7888	-9.2493	10.607
12	6.4897	-6.4897	-10.607	11.905
13	6.1285	-6.1285	-11.905	13.131
14	5.7102	-5.7102	-13.131	14.273
15	5.2330	-5.2330	-14.273	15.319
16	4.6950	-4.6950	-15.319	16.258
17	4.0892	-4.0892	-16.258	17.076
18	3.4181	-3.4181	-17.076	17.760
19	2.6791	-2.6791	-17.760	18.296
20	1.8657	-1.8657	-18.296	18.669
21	0.97920	-0.97920	-18.669	18.865
22	1.68070E-02	-1.68070E-02	-18.865	18.868
23	-1.0276	1.0276	-18.868	18.662
24	-2.0086	2.0086	-18.662	18.261
25	-2.8113	2.8113	-18.261	17.698
26	-3.4527	3.4527	-17.698	17.008
27	-3.9493	3.9493	-17.008	16.218
28	-4.3171	4.3171	-16.218	15.355
29	-4.5712	4.5712	-15.355	14.440
30	-4.7258	4.7258	-14.440	13.495
31	-4.7945	4.7945	-13.495	12.536
32	-4.7899	4.7899	-12.536	11.578
33	-4.7261	4.7261	-11.578	10.633
34	-4.5960	4.5960	-10.633	9.7140
35	-4.4123	4.4123	-9.7140	8.8316
36	-4.1864	4.1864	-8.8316	7.9943
37	-3.9289	3.9289	-7.9943	7.2085
38	-3.6492	3.6492	-7.2085	6.4786
39	-3.3557	3.3557	-6.4786	5.8075
40	-3.0545	3.0545	-5.8075	5.1966
41	-2.7491	2.7491	-5.1966	4.6468
42	-2.4457	2.4457	-4.6468	4.1576
43	-2.1499	2.1499	-4.1576	3.7277
44	-1.8668	1.8668	-3.7277	3.3543
45	-1.6006	1.6006	-3.3543	3.0342
46	-1.3556	1.3556	-3.0342	2.7631
47	-1.1353	1.1353	-2.7631	2.5360
48	-0.94300	0.94300	-2.5360	2.3474
49	-0.78181	0.78181	-2.3474	2.1910
50	-0.65454	0.65454	-2.1910	2.0601
51	-0.56379	0.56379	-2.0601	1.9474
52	-0.51204	0.51204	-1.9474	1.8450
53	-0.50161	0.50161	-1.8450	1.7447
54	-0.53473	0.53473	-1.7447	1.6377
55	-0.61347	0.61347	-1.6377	1.5150
56	-0.73980	0.73980	-1.5150	1.3671
57	-0.91551	0.91551	-1.3671	1.1840
58	-1.1422	1.1422	-1.1840	0.95551
59	-1.4214	1.4214	-0.95551	0.67122

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 -1.7541 1.7541 -0.67122 0.32040
61 -2.1412 2.1412 -0.32040 -0.10783
62 -1.7105 1.7105 0.10783 -0.44993
63 -1.3178 1.3178 0.44993 -0.71349
64 -0.96296 0.96296 0.71349 -0.90609
65 -0.64535 0.64535 0.90609 -1.0352
66 -0.36440 0.36440 1.0352 -1.1080
67 -0.11940 0.11940 1.1080 -1.1319
68 9.04039E-02-9.04039E-02 1.1319 -1.1138
69 0.26579 -0.26579 1.1138 -1.0607
70 0.40752 -0.40752 1.0607 -0.97918
71 0.51632 -0.51632 0.97918 -0.87591
72 0.59286 -0.59286 0.87591 -0.75734
73 0.63774 -0.63774 0.75734 -0.62979
74 0.65148 -0.65148 0.62979 -0.49949
75 0.63452 -0.63452 0.49949 -0.37259
76 0.58719 -0.58719 0.37259 -0.25515
77 0.50976 -0.50976 0.25515 -0.15320
78 0.40241 -0.40241 0.15320 -7.27173E-02
79 0.26525 -0.26525 7.27173E-02-1.96671E-02
80 9.83304E-02-9.83304E-02 1.96671E-02-1.32638E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1292E+05
RENORM= 367.3 REMNOR=0.1304E-21 RATIO =0.5929E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.21 RMMAX = 18.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1292E+05
RATIOT=0.5929E-01 RATIO= 0.000
MAX UN= 5.148 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
MIN UN=-.3441E-01 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1292E+05
RENORM= 83.97 REMNOR=0.1582E-20 RATIO =0.2835E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.21 RMMAX = 18.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1292E+05
RATIOT=0.2835E-01 RATIO= 0.000
MAX UN= 2.654 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
MIN UN=-.3455E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1292E+05
RENORM= 55.84 REMNOR=0.3330E-19 RATIO =0.2312E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.21 RMMAX = 18.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1292E+05
RATIOT=0.2312E-01 RATIO= 0.000
MAX UN= 4.539 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.1222E-08 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1292E+05
RENORM= 1.837 REMNOR=0.9476E-20 RATIO =0.4193E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.21 RMMAX = 18.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1292E+05
RATIOT=0.4193E-02 RATIO= 0.000
MAX UN= 1.168 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.3879E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1045E+06 RIMNOR=0.1292E+05
RENORM=0.3424E-17 REMNOR=0.1057E-19 RATIO =0.5725E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 45.21 RMMAX = 18.87
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1045E+06 RDR =0.1292E+05
RATIOT=0.5725E-11 RATIO= 0.000
MAX UN=0.7462E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.6707E-09 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SISMICASTR_1817                |
|                               Exe Time :24 May 2018    18:25:49                          |
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.1251918E-03	-3.3729961E-04	
2	2.0577319E-03	-3.3729961E-04	
3	1.9902724E-03	-3.3729278E-04	
4	1.9228166E-03	-3.3725859E-04	
5	1.8553731E-03	-3.3716276E-04	
6	1.7879588E-03	-3.3695717E-04	
7	1.7206016E-03	-3.3657987E-04	
8	1.6533433E-03	-3.3595499E-04	
9	1.5862421E-03	-3.3499274E-04	
10	1.5193757E-03	-3.3358927E-04	
11	1.4528437E-03	-3.3162680E-04	
12	1.3867710E-03	-3.2897368E-04	
13	1.3213072E-03	-3.2552618E-04	
14	1.2566157E-03	-3.2125056E-04	
15	1.1928599E-03	-3.1618036E-04	
16	1.1301923E-03	-3.1037998E-04	
17	1.0687522E-03	-3.0391091E-04	
18	1.0086682E-03	-2.9683193E-04	
19	9.5005637E-04	-2.8919908E-04	
20	8.9302198E-04	-2.8106579E-04	
21	8.3766029E-04	-2.7248315E-04	
22	7.8405570E-04	-2.6349989E-04	
23	7.3228392E-04	-2.5416277E-04	
24	6.8241119E-04	-2.4451665E-04	
25	6.3449498E-04	-2.3460476E-04	
26	5.8858422E-04	-2.2446886E-04	
27	5.4471988E-04	-2.1414951E-04	
28	5.0293424E-04	-2.0368615E-04	
29	4.6325243E-04	-1.9311764E-04	
30	4.2569165E-04	-1.8248223E-04	
31	3.9026146E-04	-1.7181794E-04	
32	3.5696403E-04	-1.6116278E-04	
33	3.2579337E-04	-1.5055482E-04	
34	2.9673637E-04	-1.4003272E-04	
35	2.6977194E-04	-1.2963578E-04	
36	2.4487104E-04	-1.1940421E-04	
37	2.2199659E-04	-1.0937939E-04	
38	2.0110277E-04	-9.9603957E-05	
39	1.8213542E-04	-9.0122291E-05	
40	1.6503119E-04	-8.0980535E-05	
41	1.4971759E-04	-7.2222966E-05	
42	1.3611398E-04	-6.3885809E-05	
43	1.2413348E-04	-5.5995476E-05	
44	1.1368481E-04	-4.8569843E-05	
45	1.0467390E-04	-4.1619483E-05	
46	9.7005123E-05	-3.5148222E-05	
47	9.0582842E-05	-2.9153546E-05	
48	8.5312486E-05	-2.3627154E-05	
49	8.1101620E-05	-1.8556166E-05	
50	7.7860765E-05	-1.3924225E-05	
51	7.5503939E-05	-9.7123977E-06	
52	7.3949134E-05	-5.9001271E-06	
53	7.3118640E-05	-2.4664968E-06	
54	7.2938789E-05	6.1023970E-07	
55	7.3340308E-05	3.3505644E-06	
56	7.4257882E-05	5.7738970E-06	
57	7.5629910E-05	7.8978762E-06	
58	7.7398101E-05	9.7378829E-06	
59	7.9506979E-05	1.1306623E-05	
60	8.1903310E-05	1.2613764E-05	
61	8.4535466E-05	1.3665630E-05	
62	8.7352725E-05	1.4464940E-05	
63	9.0305904E-05	1.5031179E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	9.3352109E-05	1.5401102E-05
65	9.6455525E-05	1.5608734E-05
66	9.9586867E-05	1.5685333E-05
67	1.0272282E-04	1.5659369E-05
68	1.0584549E-04	1.5556521E-05
69	1.0894183E-04	1.5399683E-05
70	1.1200310E-04	1.5208978E-05
71	1.1502432E-04	1.5001784E-05
72	1.1800370E-04	1.4792755E-05
73	1.2094210E-04	1.4593849E-05
74	1.2384253E-04	1.4414356E-05
75	1.2670958E-04	1.4260922E-05
76	1.2954890E-04	1.4137571E-05
77	1.3236671E-04	1.4045726E-05
78	1.3516922E-04	1.3984221E-05
79	1.3796217E-04	1.3949319E-05
80	1.4075030E-04	1.3934714E-05
81	1.4353696E-04	1.3931536E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817          |
|          Exe Time :24 May 2018          18:25:49          |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.1252E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4800	-2.0577E-03	2.141	0.5332	2.141	1.603	ACTIVE	0.000	-0.2000	1.867	
1.000	1.000	2.400	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9620	-1.9903E-03	4.323	1.077	4.323	3.119	ACTIVE	0.000	-0.4000	3.733	
1.000	1.000	4.810	0.000	0.000	Ug5_2_8_L_0						
4 D	1.447	-1.9228E-03	6.558	1.633	6.558	4.509	ACTIVE	0.000	-0.6000	5.600	
1.000	1.000	7.233	0.000	0.000	Ug5_2_8_L_0						
5 D	1.933	-1.8554E-03	8.831	2.199	8.831	5.780	ACTIVE	0.000	-0.8000	7.467	
1.000	1.000	9.665	0.000	0.000	Ug5_2_8_L_0						
6 D	2.420	-1.7880E-03	11.12	2.769	11.12	6.958	ACTIVE	0.000	-1.000	9.333	
1.000	1.000	12.10	0.000	0.000	Ug5_2_8_L_0						
7 D	2.908	-1.7206E-03	13.41	3.339	13.41	8.073	ACTIVE	0.000	-1.200	11.20	
1.000	1.000	14.54	0.000	0.000	Ug5_2_8_L_0						
8 D	3.401	-1.6533E-03	15.81	3.936	15.81	9.145	ACTIVE	0.000	-1.400	13.07	
1.000	1.000	17.00	0.000	0.000	Ug5_2_8_L_0						
9 D	3.895	-1.5862E-03	18.24	4.542	18.24	10.19	ACTIVE	0.000	-1.600	14.93	
1.000	1.000	19.48	0.000	0.000	Ug5_2_8_L_0						
10 D	4.379	-1.5194E-03	20.46	5.096	20.46	11.22	ACTIVE	0.000	-1.800	16.80	
1.000	1.000	21.90	0.000	0.000	Ug5_2_8_L_0						
11 D	4.870	-1.4528E-03	22.82	5.682	22.82	12.23	ACTIVE	0.000	-2.000	18.67	
1.000	1.000	24.35	0.000	0.000	Ug5_2_8_L_0						
12 D	5.358	-1.3868E-03	25.14	6.259	25.14	13.24	ACTIVE	0.000	-2.200	20.53	
1.000	1.000	26.79	0.000	0.000	Ug5_2_8_L_0						
13 D	5.840	-1.3213E-03	27.31	6.800	27.31	14.24	ACTIVE	0.000	-2.400	22.40	
1.000	1.000	29.20	0.000	0.000	Ug5_2_8_L_0						
14 D	6.327	-1.2566E-03	29.59	7.368	29.59	15.24	ACTIVE	0.000	-2.600	24.27	
1.000	1.000	31.63	0.000	0.000	Ug5_2_8_L_0						
15 D	6.813	-1.1929E-03	31.85	7.931	31.85	16.23	ACTIVE	0.000	-2.800	26.13	
1.000	1.000	34.06	0.000	0.000	Ug5_2_8_L_0						
16 D	7.298	-1.1302E-03	34.10	8.490	34.10	17.23	ACTIVE	0.000	-3.000	28.00	
1.000	1.000	36.49	0.000	0.000	Ug5_2_8_L_0						
17 D	7.778	-1.0688E-03	36.24	9.024	36.24	18.22	ACTIVE	0.000	-3.200	29.87	
1.000	1.000	38.89	0.000	0.000	Ug5_2_8_L_0						
18 D	8.262	-1.0087E-03	38.47	9.579	38.47	19.21	ACTIVE	0.000	-3.400	31.73	
1.000	1.000	41.31	0.000	0.000	Ug5_2_8_L_0						
19 D	8.746	-9.5006E-04	40.69	10.13	40.69	20.21	ACTIVE	0.000	-3.600	33.60	
1.000	1.000	43.73	0.000	0.000	Ug5_2_8_L_0						
20 D	9.226	-8.9302E-04	42.82	10.66	42.82	21.20	ACTIVE	0.000	-3.800	35.47	
1.000	1.000	46.13	0.000	0.000	Ug5_2_8_L_0						
21 D	9.709	-8.3766E-04	45.03	11.21	45.03	22.19	ACTIVE	0.000	-4.000	37.33	
1.000	1.000	48.55	0.000	0.000	Ug5_2_8_L_0						
22 D	10.19	-7.8406E-04	47.23	11.76	47.23	23.18	ACTIVE	0.000	-4.200	39.20	
1.000	1.000	50.96	0.000	0.000	Ug5_2_8_L_0						
23 D	10.67	-7.3228E-04	49.36	12.29	49.36	24.18	ACTIVE	0.000	-4.400	41.07	
1.000	1.000	53.36	0.000	0.000	Ug5_2_8_L_0						
24 D	11.15	-6.8241E-04	51.55	12.84	51.55	25.17	ACTIVE	0.000	-4.600	42.93	
1.000	1.000	55.77	0.000	0.000	Ug5_2_8_L_0						
25 D	11.64	-6.3449E-04	53.74	13.38	53.74	26.17	ACTIVE	0.000	-4.800	44.80	
1.000	1.000	58.18	0.000	0.000	Ug5_2_8_L_0						
26 D	12.12	-5.8858E-04	55.92	13.92	55.92	27.16	ACTIVE	0.000	-5.000	46.67	
1.000	1.000	60.59	0.000	0.000	Ug5_2_8_L_0						
27 D	12.60	-5.4472E-04	58.05	14.45	58.05	28.16	ACTIVE	0.000	-5.200	48.53	
1.000	1.000	62.99	0.000	0.000	Ug5_2_8_L_0						
28 D	13.08	-5.0293E-04	60.23	15.00	60.23	29.16	ACTIVE	0.000	-5.400	50.40	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.40	0.000	0.000	Ug5_2_8_L_0					
29 D	13.56	-4.6325E-04	62.40	15.54	62.40	30.15	ACTIVE	0.000	-5.600	52.27
1.000	1.000	67.81	0.000	0.000	Ug5_2_8_L_0					
30 D	14.04	-4.2569E-04	64.53	16.07	64.53	31.15	ACTIVE	0.000	-5.800	54.13
1.000	1.000	70.20	0.000	0.000	Ug5_2_8_L_0					
31 D	14.52	-3.9026E-04	66.70	16.61	66.70	32.15	ACTIVE	0.000	-6.000	56.00
1.000	1.000	72.61	0.000	0.000	Ug5_2_8_L_0					
32 D	15.00	-3.5696E-04	68.87	17.15	68.87	33.15	ACTIVE	0.000	-6.200	57.87
1.000	1.000	75.02	0.000	0.000	Ug5_2_8_L_0					
33 D	15.48	-3.2579E-04	70.99	17.68	70.99	34.15	ACTIVE	0.000	-6.400	59.73
1.000	1.000	77.41	0.000	0.000	Ug5_2_8_L_0					
34 D	15.96	-2.9674E-04	73.16	18.22	73.16	35.15	ACTIVE	0.000	-6.600	61.60
1.000	1.000	79.82	0.000	0.000	Ug5_2_8_L_0					
35 D	16.44	-2.6977E-04	75.32	18.76	75.32	36.15	ACTIVE	0.000	-6.800	63.47
1.000	1.000	82.22	0.000	0.000	Ug5_2_8_L_0					
36 D	16.93	-2.4487E-04	77.49	19.29	77.49	37.16	ACTIVE	0.000	-7.000	65.33
1.000	1.000	84.63	0.000	0.000	Ug5_2_8_L_0					
37 D	17.40	-2.2200E-04	79.61	19.82	79.61	38.16	ACTIVE	0.000	-7.200	67.20
1.000	1.000	87.02	0.000	0.000	Ug5_2_8_L_0					
38 D	17.89	-2.0110E-04	81.77	20.36	81.77	39.16	ACTIVE	0.000	-7.400	69.07
1.000	1.000	89.43	0.000	0.000	Ug5_2_8_L_0					
39 D	18.37	-1.8214E-04	83.93	20.90	83.93	40.17	ACTIVE	0.000	-7.600	70.93
1.000	1.000	91.83	0.000	0.000	Ug5_2_8_L_0					
40 D	19.12	-1.6503E-04	86.05	22.80	86.05	41.17	UL-RL	1.1282E+05	-7.800	72.80
1.000	1.000	95.60	0.000	0.000	Ug5_2_8_L_0					
41 D	20.05	-1.4972E-04	88.21	25.58	88.21	42.18	UL-RL	1.1282E+05	-8.000	74.67
1.000	1.000	100.2	0.000	0.000	Ug5_2_8_L_0					
42 D	20.94	-1.3611E-04	90.37	28.17	90.37	43.19	UL-RL	1.1282E+05	-8.200	76.53
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
43 D	21.79	-1.2413E-04	92.49	30.57	92.49	44.19	UL-RL	1.1282E+05	-8.400	78.40
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
44 D	22.61	-1.1368E-04	94.65	32.79	94.65	45.20	UL-RL	1.1282E+05	-8.600	80.27
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
45 D	23.40	-1.0467E-04	96.80	34.85	96.80	46.21	UL-RL	1.1282E+05	-8.800	82.13
1.000	1.000	117.0	0.000	0.000	Ug5_2_8_L_0					
46 D	24.15	-9.7005E-05	98.96	36.76	98.96	47.22	UL-RL	1.1282E+05	-9.000	84.00
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.88	-9.0583E-05	101.1	38.52	101.1	48.23	UL-RL	1.1282E+05	-9.200	85.87
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
48 D	25.58	-8.5312E-05	103.2	40.15	103.2	49.24	UL-RL	1.1282E+05	-9.400	87.73
1.000	1.000	127.9	0.000	0.000	Ug5_2_8_L_0					
49 D	26.25	-8.1102E-05	105.4	41.66	105.4	50.26	UL-RL	1.1282E+05	-9.600	89.60
1.000	1.000	131.3	0.000	0.000	Ug5_2_8_L_0					
50 D	26.91	-7.7861E-05	107.5	43.07	107.5	51.27	UL-RL	1.1282E+05	-9.800	91.47
1.000	1.000	134.5	0.000	0.000	Ug5_2_8_L_0					
51 D	27.54	-7.5504E-05	109.7	44.36	109.7	52.28	UL-RL	1.1282E+05	-10.000	93.33
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
52 D	28.15	-7.3949E-05	111.8	45.57	111.8	53.29	UL-RL	1.1282E+05	-10.200	95.20
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
53 D	28.75	-7.3119E-05	113.9	46.70	113.9	54.31	UL-RL	1.1282E+05	-10.400	97.07
1.000	1.000	143.8	0.000	0.000	Ug5_2_8_L_0					
54 D	29.34	-7.2939E-05	116.1	47.75	116.1	55.32	UL-RL	1.1282E+05	-10.600	98.93
1.000	1.000	146.7	0.000	0.000	Ug5_2_8_L_0					
55 D	29.91	-7.3340E-05	118.2	48.73	118.2	56.34	UL-RL	1.1282E+05	-10.800	100.8
1.000	1.000	149.5	0.000	0.000	Ug5_2_8_L_0					
56 D	30.47	-7.4258E-05	120.4	49.66	120.4	57.35	UL-RL	1.1282E+05	-11.000	102.7
1.000	1.000	152.3	0.000	0.000	Ug5_2_8_L_0					
57 D	31.01	-7.5630E-05	122.5	50.53	122.5	58.37	UL-RL	1.1282E+05	-11.200	104.5
1.000	1.000	155.1	0.000	0.000	Ug5_2_8_L_0					
58 D	31.55	-7.7398E-05	124.6	51.36	124.6	59.39	UL-RL	1.1282E+05	-11.400	106.4
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
59 D	32.08	-7.9507E-05	126.8	52.15	126.8	60.40	UL-RL	1.1282E+05	-11.600	108.3
1.000	1.000	160.4	0.000	0.000	Ug5_2_8_L_0					
60 D	32.61	-8.1903E-05	128.9	52.91	128.9	61.42	UL-RL	1.1282E+05	-11.800	110.1
1.000	1.000	163.0	0.000	0.000	Ug5_2_8_L_0					
61 D	33.13	-8.4535E-05	131.1	53.64	131.1	62.44	UL-RL	1.1282E+05	-12.000	112.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
62 D	34.79	-8.7353E-05	133.0	60.09	133.0	63.36	UL-RL	5.4011E+04	-12.200	113.9
1.000	1.000	174.0	0.000	0.000	Ug6_741_743_L_0					
63 D	35.32	-9.0306E-05	135.0	60.87	135.0	64.28	UL-RL	5.4011E+04	-12.400	115.7
1.000	1.000	176.6	0.000	0.000	Ug6_741_743_L_0					
64 D	35.85	-9.3352E-05	136.9	61.65	136.9	65.20	UL-RL	5.4011E+04	-12.600	117.6
1.000	1.000	179.2	0.000	0.000	Ug6_741_743_L_0					
65 D	36.38	-9.6456E-05	138.8	62.42	138.8	66.12	UL-RL	5.4011E+04	-12.800	119.5
1.000	1.000	181.9	0.000	0.000	Ug6_741_743_L_0					
66 D	36.91	-9.9587E-05	140.7	63.20	140.7	67.04	UL-RL	5.4011E+04	-13.000	121.3
1.000	1.000	184.5	0.000	0.000	Ug6_741_743_L_0					
67 D	37.43	-1.0272E-04	142.6	63.97	142.6	67.96	UL-RL	5.4011E+04	-13.200	123.2
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
68 D	37.96	-1.0585E-04	144.5	64.75	144.5	68.88	UL-RL	5.4011E+04	-13.400	125.1
1.000	1.000	189.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.49	-1.0894E-04	146.4	65.53	146.4	69.80	UL-RL	5.4011E+04	-13.60	126.9
1.000	1.000	192.5	0.000	0.000	Ug6_741_743_L_0					
70 D	39.02	-1.1200E-04	148.3	66.31	148.3	70.72	UL-RL	5.4011E+04	-13.80	128.8
1.000	1.000	195.1	0.000	0.000	Ug6_741_743_L_0					
71 D	39.55	-1.1502E-04	150.2	67.09	150.2	71.64	UL-RL	5.4011E+04	-14.00	130.7
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
72 D	40.08	-1.1800E-04	152.1	67.88	152.1	72.56	UL-RL	5.4011E+04	-14.20	132.5
1.000	1.000	200.4	0.000	0.000	Ug6_741_743_L_0					
73 D	40.61	-1.2094E-04	154.0	68.67	154.0	73.49	UL-RL	5.4011E+04	-14.40	134.4
1.000	1.000	203.1	0.000	0.000	Ug6_741_743_L_0					
74 D	41.15	-1.2384E-04	155.9	69.46	155.9	74.41	UL-RL	5.4011E+04	-14.60	136.3
1.000	1.000	205.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.68	-1.2671E-04	157.8	70.25	157.8	75.33	UL-RL	5.4011E+04	-14.80	138.1
1.000	1.000	208.4	0.000	0.000	Ug6_741_743_L_0					
76 D	42.21	-1.2955E-04	159.7	71.05	159.7	76.25	UL-RL	5.4011E+04	-15.00	140.0
1.000	1.000	211.0	0.000	0.000	Ug6_741_743_L_0					
77 D	42.74	-1.3237E-04	161.7	71.85	161.7	77.18	UL-RL	5.4011E+04	-15.20	141.9
1.000	1.000	213.7	0.000	0.000	Ug6_741_743_L_0					
78 D	43.28	-1.3517E-04	163.6	72.65	163.6	78.10	UL-RL	5.4011E+04	-15.40	143.7
1.000	1.000	216.4	0.000	0.000	Ug6_741_743_L_0					
79 D	43.81	-1.3796E-04	165.5	73.45	165.5	79.03	UL-RL	5.4011E+04	-15.60	145.6
1.000	1.000	219.0	0.000	0.000	Ug6_741_743_L_0					
80 D	44.34	-1.4075E-04	167.4	74.25	167.4	79.95	UL-RL	5.4011E+04	-15.80	147.5
1.000	1.000	221.7	0.000	0.000	Ug6_741_743_L_0					
81 D	22.44	-1.4354E-04	169.3	75.05	169.3	80.88	UL-RL	5.4011E+04	-16.00	149.3
1.000	1.000	224.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018 18:25:49 |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.4528E-03	0.000	0.000	20.00	15.76	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.942	1.3868E-03	1.867	12.58	22.00	16.47	PASSIVE	0.000	-2.200	2.133	
1.000	1.000	14.71	0.000	0.000	Ug5_2_8_L_0						
13 D	5.884	1.3213E-03	3.733	25.16	24.00	25.16	PASSIVE	0.000	-2.400	4.267	
1.000	1.000	29.42	0.000	0.000	Ug5_2_8_L_0						
14 D	8.640	1.2566E-03	5.600	36.80	26.00	36.80	V-C	1.8697E+04	-2.600	6.400	
1.000	1.000	43.20	0.000	0.000	Ug5_2_8_L_0						
15 D	9.024	1.1929E-03	7.467	36.59	28.00	36.59	V-C	1.8697E+04	-2.800	8.533	
1.000	1.000	45.12	0.000	0.000	Ug5_2_8_L_0						
16 D	9.408	1.1302E-03	9.333	36.37	30.00	36.37	V-C	1.8697E+04	-3.000	10.67	
1.000	1.000	47.04	0.000	0.000	Ug5_2_8_L_0						
17 D	9.794	1.0688E-03	11.20	36.17	32.00	36.17	V-C	1.8697E+04	-3.200	12.80	
1.000	1.000	48.97	0.000	0.000	Ug5_2_8_L_0						
18 D	10.18	1.0087E-03	13.07	35.99	34.00	35.99	V-C	1.8697E+04	-3.400	14.93	
1.000	1.000	50.92	0.000	0.000	Ug5_2_8_L_0						
19 D	10.58	9.5006E-04	14.93	35.83	36.00	35.83	V-C	1.8697E+04	-3.600	17.07	
1.000	1.000	52.89	0.000	0.000	Ug5_2_8_L_0						
20 D	10.98	8.9302E-04	16.80	35.69	38.00	35.69	V-C	1.8697E+04	-3.800	19.20	
1.000	1.000	54.89	0.000	0.000	Ug5_2_8_L_0						
21 D	11.39	8.3766E-04	18.67	35.59	40.00	35.59	V-C	1.8697E+04	-4.000	21.33	
1.000	1.000	56.93	0.000	0.000	Ug5_2_8_L_0						
22 D	11.80	7.8406E-04	20.53	35.52	42.00	35.52	V-C	1.8697E+04	-4.200	23.47	
1.000	1.000	58.99	0.000	0.000	Ug5_2_8_L_0						
23 D	12.22	7.3228E-04	22.40	35.49	44.00	35.49	V-C	1.8697E+04	-4.400	25.60	
1.000	1.000	61.09	0.000	0.000	Ug5_2_8_L_0						
24 D	12.64	6.8241E-04	24.27	35.49	46.00	35.49	V-C	1.8697E+04	-4.600	27.73	
1.000	1.000	63.22	0.000	0.000	Ug5_2_8_L_0						
25 D	13.08	6.3449E-04	26.13	35.53	48.00	35.53	V-C	1.8697E+04	-4.800	29.87	
1.000	1.000	65.40	0.000	0.000	Ug5_2_8_L_0						
26 D	13.52	5.8858E-04	28.00	35.61	50.00	35.61	V-C	1.8697E+04	-5.000	32.00	
1.000	1.000	67.61	0.000	0.000	Ug5_2_8_L_0						
27 D	13.97	5.4472E-04	29.87	35.73	52.00	35.73	V-C	1.8697E+04	-5.200	34.13	
1.000	1.000	69.86	0.000	0.000	Ug5_2_8_L_0						
28 D	14.43	5.0293E-04	31.73	35.89	54.00	35.89	V-C	1.8697E+04	-5.400	36.27	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.15	0.000	0.000	Ug5_2_8_L_0					
29 D	14.90	4.6325E-04	33.60	36.09	56.00	36.09	V-C	1.8697E+04	-5.600	38.40
1.000	1.000	74.49	0.000	0.000	Ug5_2_8_L_0					
30 D	15.37	4.2569E-04	35.47	36.33	58.00	36.33	V-C	1.8697E+04	-5.800	40.53
1.000	1.000	76.86	0.000	0.000	Ug5_2_8_L_0					
31 D	15.86	3.9026E-04	37.33	36.62	60.00	36.62	V-C	1.8697E+04	-6.000	42.67
1.000	1.000	79.28	0.000	0.000	Ug5_2_8_L_0					
32 D	16.35	3.5696E-04	39.20	36.94	62.00	36.94	V-C	1.8697E+04	-6.200	44.80
1.000	1.000	81.74	0.000	0.000	Ug5_2_8_L_0					
33 D	16.85	3.2579E-04	41.07	37.31	64.00	37.31	V-C	1.8697E+04	-6.400	46.93
1.000	1.000	84.25	0.000	0.000	Ug5_2_8_L_0					
34 D	17.36	2.9674E-04	42.93	37.72	66.00	37.72	V-C	1.8697E+04	-6.600	49.07
1.000	1.000	86.79	0.000	0.000	Ug5_2_8_L_0					
35 D	17.87	2.6977E-04	44.80	38.17	68.00	38.17	V-C	1.8697E+04	-6.800	51.20
1.000	1.000	89.37	0.000	0.000	Ug5_2_8_L_0					
36 D	18.40	2.4487E-04	46.67	38.66	70.00	38.66	V-C	1.8697E+04	-7.000	53.33
1.000	1.000	92.00	0.000	0.000	Ug5_2_8_L_0					
37 D	18.93	2.2200E-04	48.53	39.19	72.00	39.19	V-C	1.8697E+04	-7.200	55.47
1.000	1.000	94.66	0.000	0.000	Ug5_2_8_L_0					
38 D	19.47	2.0110E-04	50.40	39.76	74.00	39.76	V-C	1.8697E+04	-7.400	57.60
1.000	1.000	97.36	0.000	0.000	Ug5_2_8_L_0					
39 D	20.02	1.8214E-04	52.27	40.37	76.00	40.37	V-C	1.8697E+04	-7.600	59.73
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
40 D	20.58	1.6503E-04	54.13	41.01	78.00	41.01	V-C	1.8697E+04	-7.800	61.87
1.000	1.000	102.9	0.000	0.000	Ug5_2_8_L_0					
41 D	21.14	1.4972E-04	56.00	41.69	80.00	41.69	V-C	1.8697E+04	-8.000	64.00
1.000	1.000	105.7	0.000	0.000	Ug5_2_8_L_0					
42 D	21.71	1.3611E-04	57.87	42.40	82.00	42.40	V-C	1.8697E+04	-8.200	66.13
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
43 D	22.28	1.2413E-04	59.73	43.14	84.00	43.14	V-C	1.8697E+04	-8.400	68.27
1.000	1.000	111.4	0.000	0.000	Ug5_2_8_L_0					
44 D	22.86	1.1368E-04	61.60	43.92	86.00	43.92	V-C	1.8697E+04	-8.600	70.40
1.000	1.000	114.3	0.000	0.000	Ug5_2_8_L_0					
45 D	23.42	1.0467E-04	63.47	44.56	88.00	44.79	UL-RL	5.6090E+04	-8.800	72.53
1.000	1.000	117.1	0.000	0.000	Ug5_2_8_L_0					
46 D	23.95	9.7005E-05	65.33	45.08	90.00	45.77	UL-RL	5.6090E+04	-9.000	74.67
1.000	1.000	119.8	0.000	0.000	Ug5_2_8_L_0					
47 D	24.50	9.0583E-05	67.20	45.68	92.00	46.75	UL-RL	5.6090E+04	-9.200	76.80
1.000	1.000	122.5	0.000	0.000	Ug5_2_8_L_0					
48 D	25.05	8.5312E-05	69.07	46.34	94.00	47.73	UL-RL	5.6090E+04	-9.400	78.93
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
49 D	25.63	8.1102E-05	70.93	47.06	96.00	48.71	UL-RL	5.6090E+04	-9.600	81.07
1.000	1.000	128.1	0.000	0.000	Ug5_2_8_L_0					
50 D	26.21	7.7861E-05	72.80	47.84	98.00	49.69	UL-RL	5.6090E+04	-9.800	83.20
1.000	1.000	131.0	0.000	0.000	Ug5_2_8_L_0					
51 D	26.80	7.5504E-05	74.67	48.66	100.00	50.67	UL-RL	5.6090E+04	-10.000	85.33
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
52 D	27.40	7.3949E-05	76.53	49.54	102.0	51.65	UL-RL	5.6090E+04	-10.200	87.47
1.000	1.000	137.0	0.000	0.000	Ug5_2_8_L_0					
53 D	28.01	7.3119E-05	78.40	50.45	104.0	52.63	UL-RL	5.6090E+04	-10.400	89.60
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.63	7.2939E-05	80.27	51.40	106.0	53.61	UL-RL	5.6090E+04	-10.600	91.73
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
55 D	29.25	7.3340E-05	82.13	52.39	108.0	54.60	UL-RL	5.6090E+04	-10.800	93.87
1.000	1.000	146.3	0.000	0.000	Ug5_2_8_L_0					
56 D	29.88	7.4258E-05	84.00	53.41	110.0	55.58	UL-RL	5.6090E+04	-11.000	96.00
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
57 D	30.52	7.5630E-05	85.87	54.45	112.0	56.56	UL-RL	5.6090E+04	-11.200	98.13
1.000	1.000	152.6	0.000	0.000	Ug5_2_8_L_0					
58 D	31.16	7.7398E-05	87.73	55.52	114.0	57.55	UL-RL	5.6090E+04	-11.400	100.3
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
59 D	31.80	7.9507E-05	89.60	56.60	116.0	58.53	UL-RL	5.6090E+04	-11.600	102.4
1.000	1.000	159.0	0.000	0.000	Ug5_2_8_L_0					
60 D	32.45	8.1903E-05	91.47	57.70	118.0	59.52	UL-RL	5.6090E+04	-11.800	104.5
1.000	1.000	162.2	0.000	0.000	Ug5_2_8_L_0					
61 D	33.10	8.4535E-05	93.33	58.82	120.0	60.50	UL-RL	5.6090E+04	-12.000	106.7
1.000	1.000	165.5	0.000	0.000	Ug5_2_8_L_0					
62 D	33.45	8.7353E-05	95.00	58.46	121.8	61.39	UL-RL	4.2179E+04	-12.200	108.8
1.000	1.000	167.3	0.000	0.000	Ug6_741_743_L_0					
63 D	34.08	9.0306E-05	96.67	59.45	123.6	62.28	UL-RL	4.2179E+04	-12.400	110.9
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
64 D	34.70	9.3352E-05	98.33	60.45	125.4	63.16	UL-RL	4.2179E+04	-12.600	113.1
1.000	1.000	173.5	0.000	0.000	Ug6_741_743_L_0					
65 D	35.33	9.6456E-05	100.00	61.44	127.2	64.05	UL-RL	4.2179E+04	-12.800	115.2
1.000	1.000	176.6	0.000	0.000	Ug6_741_743_L_0					
66 D	35.96	9.9587E-05	101.7	62.44	129.0	64.94	UL-RL	4.2179E+04	-13.000	117.3
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					
67 D	36.58	1.0272E-04	103.3	63.44	130.8	65.83	UL-RL	4.2179E+04	-13.200	119.5
1.000	1.000	182.9	0.000	0.000	Ug6_741_743_L_0					
68 D	37.21	1.0585E-04	105.0	64.44	132.6	66.72	UL-RL	4.2179E+04	-13.400	121.6
1.000	1.000	186.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.83	1.0894E-04	106.7	65.43	134.4	67.60	UL-RL	4.2179E+04	-13.60	123.7
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
70 D	38.46	1.1200E-04	108.3	66.43	136.2	68.49	UL-RL	4.2179E+04	-13.80	125.9
1.000	1.000	192.3	0.000	0.000	Ug6_741_743_L_0					
71 D	39.08	1.1502E-04	110.0	67.42	138.0	69.38	UL-RL	4.2179E+04	-14.00	128.0
1.000	1.000	195.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.71	1.1800E-04	111.7	68.41	139.8	70.27	UL-RL	4.2179E+04	-14.20	130.1
1.000	1.000	198.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.33	1.2094E-04	113.3	69.40	141.6	71.16	UL-RL	4.2179E+04	-14.40	132.3
1.000	1.000	201.7	0.000	0.000	Ug6_741_743_L_0					
74 D	40.96	1.2384E-04	115.0	70.39	143.4	72.05	UL-RL	4.2179E+04	-14.60	134.4
1.000	1.000	204.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.58	1.2671E-04	116.7	71.38	145.2	72.94	UL-RL	4.2179E+04	-14.80	136.5
1.000	1.000	207.9	0.000	0.000	Ug6_741_743_L_0					
76 D	42.21	1.2955E-04	118.3	72.36	147.0	73.84	UL-RL	4.2179E+04	-15.00	138.7
1.000	1.000	211.0	0.000	0.000	Ug6_741_743_L_0					
77 D	42.83	1.3237E-04	120.0	73.35	148.8	74.73	UL-RL	4.2179E+04	-15.20	140.8
1.000	1.000	214.1	0.000	0.000	Ug6_741_743_L_0					
78 D	43.45	1.3517E-04	121.7	74.33	150.6	75.62	UL-RL	4.2179E+04	-15.40	142.9
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
79 D	44.08	1.3796E-04	123.3	75.31	152.4	76.51	UL-RL	4.2179E+04	-15.60	145.1
1.000	1.000	220.4	0.000	0.000	Ug6_741_743_L_0					
80 D	44.70	1.4075E-04	125.0	76.30	154.2	77.40	UL-RL	4.2179E+04	-15.80	147.2
1.000	1.000	223.5	0.000	0.000	Ug6_741_743_L_0					
81 D	22.66	1.4354E-04	126.7	77.28	156.0	78.29	UL-RL	4.2179E+04	-16.00	149.3
1.000	1.000	226.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|              PARATIEPLUS(TM)    NLS ENGINE RELEASE 2017.1    FULL VERSION *Build date:Jul 11, 2017* |
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NewProject.BaseDesignSection_28.SISMICASTR_1817
Exe Time :24 May 2018      18:25:49
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-4.29914E-10	4.29914E-10	-4.31832E-11	-1.89935E-10
2	0.47998	-0.47998	1.61177E-10	9.59953E-02
3	1.4419	-1.4419	-9.59953E-02	0.38439
4	2.8885	-2.8885	-0.38439	0.96209
5	4.8216	-4.8216	-0.96209	1.9264
6	7.2421	-7.2421	-1.9264	3.3748
7	10.150	-10.150	-3.3748	5.4048
8	13.551	-13.551	-5.4048	8.1149
9	17.446	-17.446	-8.1149	11.604
10	21.825	-21.825	-11.604	15.969
11	26.694	-26.694	-15.969	21.308
12	29.111	-29.111	-21.308	27.130
13	29.066	-29.066	-27.130	32.943
14	26.753	-26.753	-32.943	38.294
15	24.542	-24.542	-38.294	43.202
16	22.432	-22.432	-43.202	47.689
17	20.416	-20.416	-47.689	51.772
18	18.494	-18.494	-51.772	55.471
19	16.662	-16.662	-55.471	58.803
20	14.909	-14.909	-58.803	61.785
21	13.233	-13.233	-61.785	64.431
22	11.627	-11.627	-64.431	66.757
23	10.081	-10.081	-66.757	68.773
24	8.5900	-8.5900	-68.773	70.491
25	7.1471	-7.1471	-70.491	71.920
26	5.7439	-5.7439	-71.920	73.069
27	4.3693	-4.3693	-73.069	73.943
28	3.0179	-3.0179	-73.943	74.547
29	1.6812	-1.6812	-74.547	74.883
30	0.34834	-0.34834	-74.883	74.952
31	-0.98667	0.98667	-74.952	74.755
32	-2.3323	2.3323	-74.755	74.289
33	-3.6993	3.6993	-74.289	73.549
34	-5.0937	5.0937	-73.549	72.530
35	-6.5237	6.5237	-72.530	71.225
36	-7.9975	7.9975	-71.225	69.626
37	-9.5252	9.5252	-69.626	67.721
38	-11.112	11.112	-67.721	65.498
39	-12.767	12.767	-65.498	62.945
40	-14.223	14.223	-62.945	60.100
41	-15.311	15.311	-60.100	57.038
42	-16.078	16.078	-57.038	53.822
43	-16.567	16.567	-53.822	50.509
44	-16.819	16.819	-50.509	47.145
45	-16.841	16.841	-47.145	43.777
46	-16.640	16.640	-43.777	40.449
47	-16.258	16.258	-40.449	37.198
48	-15.735	15.735	-37.198	34.051
49	-15.107	15.107	-34.051	31.029
50	-14.408	14.408	-31.029	28.148
51	-13.668	13.668	-28.148	25.414
52	-12.914	12.914	-25.414	22.831
53	-12.171	12.171	-22.831	20.397
54	-11.462	11.462	-20.397	18.105
55	-10.807	10.807	-18.105	15.943
56	-10.223	10.223	-15.943	13.899
57	-9.7263	9.7263	-13.899	11.954
58	-9.3304	9.3304	-11.954	10.087
59	-9.0471	9.0471	-10.087	8.2781

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-8.8863	8.8863	-8.2781	6.5008
61	-8.8560	8.8560	-6.5008	4.7296
62	-7.5175	7.5175	-4.7296	3.2261
63	-6.2739	6.2739	-3.2261	1.9713
64	-5.1271	5.1271	-1.9713	0.94592
65	-4.0781	4.0781	-0.94592	0.13031
66	-3.1271	3.1271	-0.13031	-0.49511
67	-2.2741	2.2741	0.49511	-0.94993
68	-1.5188	1.5188	0.94993	-1.2537
69	-0.86036	0.86036	1.2537	-1.4258
70	-0.29804	0.29804	1.4258	-1.4854
71	0.16912	-0.16912	1.4854	-1.4515
72	0.54206	-0.54206	1.4515	-1.3431
73	0.82172	-0.82172	1.3431	-1.1788
74	1.0089	-1.0089	1.1788	-0.97700
75	1.1044	-1.1044	0.97700	-0.75611
76	1.1089	-1.1089	0.75611	-0.53434
77	1.0227	-1.0227	0.53434	-0.32981
78	0.84619	-0.84619	0.32981	-0.16057
79	0.57966	-0.57966	0.16057	-4.46398E-02
80	0.22319	-0.22319	4.46398E-02	2.75346E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 612.1 REMNOR=0.1057E-19 RATIO =0.7230E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.7230E-01 RATIO= 0.000
MAX UN= 9.298 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7356E-01 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 165.6 REMNOR=0.1129E-19 RATIO =0.3761E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.3761E-01 RATIO= 0.000
MAX UN= 2.504 IEQ= 39 NODE 20 DOF 1 Y-DISPL.F
MIN UN=-.3693E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 91.11 REMNOR=0.9564E-18 RATIO =0.2789E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.2789E-01 RATIO= 0.000
MAX UN= 5.206 IEQ= 85 NODE 43 DOF 1 Y-DISPL.F
MIN UN=-.4107E-08 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM= 1.926 REMNOR=0.1805E-18 RATIO =0.4056E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.4056E-02 RATIO= 0.000
MAX UN= 1.259 IEQ= 97 NODE 49 DOF 1 Y-DISPL.F
MIN UN=-.2725E-08 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1171E+06 RIMNOR=0.2843E+06
RENORM=0.4394E-16 REMNOR=0.1376E-18 RATIO =0.1937E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 43.76 RMMAX = 74.95
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1171E+06 RDR =0.2843E+06
RATIOT=0.1937E-10 RATIO= 0.000
MAX UN=0.2200E-08 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.2567E-08 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                     |
|                                                                     |
|               NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|               Exe Time :24 May 2018           18:25:49           |
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.3475448E-03	-9.7666762E-04	
2	7.1522113E-03	-9.7666762E-04	
3	6.9568782E-03	-9.7666094E-04	
4	6.7615487E-03	-9.7662754E-04	
5	6.5662312E-03	-9.7653391E-04	
6	6.3709423E-03	-9.7633304E-04	
7	6.1757092E-03	-9.7596438E-04	
8	5.9805727E-03	-9.7535382E-04	
9	5.7855896E-03	-9.7441359E-04	
10	5.5908360E-03	-9.7304221E-04	
11	5.3964092E-03	-9.7112456E-04	
12	5.2024311E-03	-9.6853199E-04	
13	5.0090508E-03	-9.6512220E-04	
14	4.8164471E-03	-9.6073940E-04	
15	4.6248312E-03	-9.5521433E-04	
16	4.4344497E-03	-9.4836420E-04	
17	4.2455860E-03	-9.3999266E-04	
18	4.0585644E-03	-9.2993074E-04	
19	3.8737332E-03	-9.1807731E-04	
20	3.6914551E-03	-9.0439915E-04	
21	3.5120937E-03	-8.8893109E-04	
22	3.3359961E-03	-8.7177569E-04	
23	3.1634858E-03	-8.5308512E-04	
24	2.9948535E-03	-8.3302225E-04	
25	2.8303582E-03	-8.1174069E-04	
26	2.6702288E-03	-7.8938515E-04	
27	2.5146674E-03	-7.6609184E-04	
28	2.3638469E-03	-7.4198850E-04	
29	2.2179180E-03	-7.1719542E-04	
30	2.0770072E-03	-6.9182542E-04	
31	1.9412192E-03	-6.6598438E-04	
32	1.8106388E-03	-6.3977187E-04	
33	1.6853297E-03	-6.1328098E-04	
34	1.5653392E-03	-5.8659961E-04	
35	1.4506970E-03	-5.5981043E-04	
36	1.3414170E-03	-5.3299141E-04	
37	1.2374980E-03	-5.0621642E-04	
38	1.1389233E-03	-4.7955520E-04	
39	1.0456639E-03	-4.5307461E-04	
40	9.5767720E-04	-4.2683851E-04	
41	8.7490811E-04	-4.0090839E-04	
42	7.9728947E-04	-3.7534381E-04	
43	7.2474235E-04	-3.5020279E-04	
44	6.5717632E-04	-3.2554228E-04	
45	5.9448995E-04	-3.0141871E-04	
46	5.3656964E-04	-2.7788786E-04	
47	4.8329154E-04	-2.5500600E-04	
48	4.3452019E-04	-2.3282981E-04	
49	3.9010873E-04	-2.1141690E-04	
50	3.4989882E-04	-1.9082618E-04	
51	3.1371963E-04	-1.7111789E-04	
52	2.8138792E-04	-1.5235387E-04	
53	2.5271188E-04	-1.3459157E-04	
54	2.2748333E-04	-1.1787067E-04	
55	2.0549212E-04	-1.0222214E-04	
56	1.8652175E-04	-8.7664381E-05	
57	1.7035317E-04	-7.4204588E-05	
58	1.5676685E-04	-6.1840764E-05	
59	1.4554442E-04	-5.0563605E-05	
60	1.3646996E-04	-4.0358204E-05	
61	1.2933096E-04	-3.1205602E-05	
62	1.2391898E-04	-2.3084186E-05	
63	1.2003178E-04	-1.5945310E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.1748030E-04	-9.7146687E-06
65	1.1609025E-04	-4.3189574E-06
66	1.1570185E-04	3.1365992E-07
67	1.1616951E-04	4.2531537E-06
68	1.1736142E-04	7.5672914E-06
69	1.1915908E-04	1.0321355E-05
70	1.2145679E-04	1.2577907E-05
71	1.2416106E-04	1.4396601E-05
72	1.2719001E-04	1.5834026E-05
73	1.3047281E-04	1.6943588E-05
74	1.3394893E-04	1.7775413E-05
75	1.3756758E-04	1.8376280E-05
76	1.4128694E-04	1.8789570E-05
77	1.4507356E-04	1.9055226E-05
78	1.4890162E-04	1.9209734E-05
79	1.5275225E-04	1.9286105E-05
80	1.5661282E-04	1.9313870E-05
81	1.6047648E-04	1.9319074E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-7.3475E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4689	-7.1522E-03	2.215	0.5515	2.215	1.603	ACTIVE	0.000	-0.2000	1.793	
1.000	1.000	2.345	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9399	-6.9569E-03	4.471	1.113	4.471	3.119	ACTIVE	0.000	-0.4000	3.586	
1.000	1.000	4.699	0.000	0.000	Ug5_2_8_L_0						
4 D	1.413	-6.7615E-03	6.779	1.688	6.779	4.509	ACTIVE	0.000	-0.6000	5.379	
1.000	1.000	7.067	0.000	0.000	Ug5_2_8_L_0						
5 D	1.889	-6.5662E-03	9.125	2.272	9.125	5.780	ACTIVE	0.000	-0.8000	7.172	
1.000	1.000	9.444	0.000	0.000	Ug5_2_8_L_0						
6 D	2.365	-6.3709E-03	11.49	2.861	11.49	6.958	ACTIVE	0.000	-1.000	8.966	
1.000	1.000	11.83	0.000	0.000	Ug5_2_8_L_0						
7 D	2.842	-6.1757E-03	13.85	3.449	13.85	8.073	ACTIVE	0.000	-1.200	10.76	
1.000	1.000	14.21	0.000	0.000	Ug5_2_8_L_0						
8 D	3.323	-5.9806E-03	16.32	4.064	16.32	9.145	ACTIVE	0.000	-1.400	12.55	
1.000	1.000	16.62	0.000	0.000	Ug5_2_8_L_0						
9 D	3.807	-5.7856E-03	18.83	4.689	18.83	10.19	ACTIVE	0.000	-1.600	14.34	
1.000	1.000	19.03	0.000	0.000	Ug5_2_8_L_0						
10 D	4.280	-5.5908E-03	21.13	5.260	21.13	11.22	ACTIVE	0.000	-1.800	16.14	
1.000	1.000	21.40	0.000	0.000	Ug5_2_8_L_0						
11 D	4.759	-5.3964E-03	23.55	5.865	23.55	12.23	ACTIVE	0.000	-2.000	17.93	
1.000	1.000	23.80	0.000	0.000	Ug5_2_8_L_0						
12 D	5.237	-5.2024E-03	25.95	6.461	25.95	13.24	ACTIVE	0.000	-2.200	19.72	
1.000	1.000	26.18	0.000	0.000	Ug5_2_8_L_0						
13 D	5.707	-5.0091E-03	28.19	7.020	28.19	14.24	ACTIVE	0.000	-2.400	21.52	
1.000	1.000	28.54	0.000	0.000	Ug5_2_8_L_0						
14 D	6.183	-4.8164E-03	30.55	7.606	30.55	15.24	ACTIVE	0.000	-2.600	23.31	
1.000	1.000	30.92	0.000	0.000	Ug5_2_8_L_0						
15 D	6.658	-4.6248E-03	32.88	8.187	32.88	16.23	ACTIVE	0.000	-2.800	25.10	
1.000	1.000	33.29	0.000	0.000	Ug5_2_8_L_0						
16 D	7.132	-4.4344E-03	35.20	8.765	35.20	17.23	ACTIVE	0.000	-3.000	26.90	
1.000	1.000	35.66	0.000	0.000	Ug5_2_8_L_0						
17 D	7.601	-4.2456E-03	37.42	9.317	37.42	18.22	ACTIVE	0.000	-3.200	28.69	
1.000	1.000	38.01	0.000	0.000	Ug5_2_8_L_0						
18 D	8.075	-4.0586E-03	39.72	9.890	39.72	19.21	ACTIVE	0.000	-3.400	30.48	
1.000	1.000	40.37	0.000	0.000	Ug5_2_8_L_0						
19 D	8.547	-3.8737E-03	42.01	10.46	42.01	20.21	ACTIVE	0.000	-3.600	32.28	
1.000	1.000	42.74	0.000	0.000	Ug5_2_8_L_0						
20 D	9.016	-3.6915E-03	44.22	11.01	44.22	21.20	ACTIVE	0.000	-3.800	34.07	
1.000	1.000	45.08	0.000	0.000	Ug5_2_8_L_0						
21 D	9.488	-3.5121E-03	46.50	11.58	46.50	22.19	ACTIVE	0.000	-4.000	35.86	
1.000	1.000	47.44	0.000	0.000	Ug5_2_8_L_0						
22 D	9.960	-3.3360E-03	48.77	12.14	48.77	23.18	ACTIVE	0.000	-4.200	37.66	
1.000	1.000	49.80	0.000	0.000	Ug5_2_8_L_0						
23 D	10.43	-3.1635E-03	50.98	12.69	50.98	24.18	ACTIVE	0.000	-4.400	39.45	
1.000	1.000	52.14	0.000	0.000	Ug5_2_8_L_0						
24 D	10.90	-2.9949E-03	53.24	13.26	53.24	25.17	ACTIVE	0.000	-4.600	41.24	
1.000	1.000	54.50	0.000	0.000	Ug5_2_8_L_0						
25 D	11.37	-2.8304E-03	55.51	13.82	55.51	26.17	ACTIVE	0.000	-4.800	43.03	
1.000	1.000	56.86	0.000	0.000	Ug5_2_8_L_0						
26 D	11.84	-2.6702E-03	57.76	14.38	57.76	27.16	ACTIVE	0.000	-5.000	44.83	
1.000	1.000	59.21	0.000	0.000	Ug5_2_8_L_0						
27 D	12.31	-2.5147E-03	59.96	14.93	59.96	28.16	ACTIVE	0.000	-5.200	46.62	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
28 D	12.78	-2.3638E-03	62.21	15.49	62.21	29.16	ACTIVE	0.000	-5.400	48.41	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	63.90	0.000	0.000	Ug5_2_8_L_0					
29 D	13.25	-2.2179E-03	64.46	16.05	64.46	30.15	ACTIVE	0.000	-5.600	50.21
1.000	1.000	66.26	0.000	0.000	Ug5_2_8_L_0					
30 D	13.72	-2.0770E-03	66.66	16.60	66.66	31.15	ACTIVE	0.000	-5.800	52.00
1.000	1.000	68.60	0.000	0.000	Ug5_2_8_L_0					
31 D	14.19	-1.9412E-03	68.91	17.16	68.91	32.15	ACTIVE	0.000	-6.000	53.79
1.000	1.000	70.95	0.000	0.000	Ug5_2_8_L_0					
32 D	14.66	-1.8106E-03	71.15	17.72	71.15	33.15	ACTIVE	0.000	-6.200	55.59
1.000	1.000	73.30	0.000	0.000	Ug5_2_8_L_0					
33 D	15.13	-1.6853E-03	73.35	18.26	73.35	34.15	ACTIVE	0.000	-6.400	57.38
1.000	1.000	75.64	0.000	0.000	Ug5_2_8_L_0					
34 D	15.60	-1.5653E-03	75.59	18.82	75.59	35.15	ACTIVE	0.000	-6.600	59.17
1.000	1.000	77.99	0.000	0.000	Ug5_2_8_L_0					
35 D	16.07	-1.4507E-03	77.83	19.38	77.83	36.15	ACTIVE	0.000	-6.800	60.97
1.000	1.000	80.34	0.000	0.000	Ug5_2_8_L_0					
36 D	16.54	-1.3414E-03	80.06	19.94	80.06	37.16	ACTIVE	0.000	-7.000	62.76
1.000	1.000	82.69	0.000	0.000	Ug5_2_8_L_0					
37 D	17.01	-1.2375E-03	82.26	20.48	82.26	38.16	ACTIVE	0.000	-7.200	64.55
1.000	1.000	85.03	0.000	0.000	Ug5_2_8_L_0					
38 D	17.48	-1.1389E-03	84.49	21.04	84.49	39.16	ACTIVE	0.000	-7.400	66.34
1.000	1.000	87.38	0.000	0.000	Ug5_2_8_L_0					
39 D	17.95	-1.0457E-03	86.73	21.59	86.73	40.17	ACTIVE	0.000	-7.600	68.14
1.000	1.000	89.73	0.000	0.000	Ug5_2_8_L_0					
40 D	18.41	-9.5768E-04	88.92	22.14	88.92	41.17	ACTIVE	0.000	-7.800	69.93
1.000	1.000	92.07	0.000	0.000	Ug5_2_8_L_0					
41 D	18.88	-8.7491E-04	91.15	22.70	91.15	42.18	ACTIVE	0.000	-8.000	71.72
1.000	1.000	94.42	0.000	0.000	Ug5_2_8_L_0					
42 D	19.35	-7.9729E-04	93.38	23.25	93.38	43.19	ACTIVE	0.000	-8.200	73.52
1.000	1.000	96.77	0.000	0.000	Ug5_2_8_L_0					
43 D	19.82	-7.2474E-04	95.58	23.80	95.58	44.19	ACTIVE	0.000	-8.400	75.31
1.000	1.000	99.11	0.000	0.000	Ug5_2_8_L_0					
44 D	20.29	-6.5718E-04	97.81	24.35	97.81	45.20	ACTIVE	0.000	-8.600	77.10
1.000	1.000	101.5	0.000	0.000	Ug5_2_8_L_0					
45 D	20.76	-5.9449E-04	100.0	24.91	100.0	46.21	ACTIVE	0.000	-8.800	78.90
1.000	1.000	103.8	0.000	0.000	Ug5_2_8_L_0					
46 D	21.23	-5.3657E-04	102.3	25.46	102.3	47.22	ACTIVE	0.000	-9.000	80.69
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
47 D	21.70	-4.8329E-04	104.5	26.01	104.5	48.23	ACTIVE	0.000	-9.200	82.48
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
48 D	22.17	-4.3452E-04	106.7	26.57	106.7	49.24	ACTIVE	0.000	-9.400	84.28
1.000	1.000	110.8	0.000	0.000	Ug5_2_8_L_0					
49 D	22.64	-3.9011E-04	108.9	27.12	108.9	50.26	ACTIVE	0.000	-9.600	86.07
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
50 D	23.11	-3.4990E-04	111.1	27.67	111.1	51.27	ACTIVE	0.000	-9.800	87.86
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
51 D	23.59	-3.1372E-04	113.3	28.29	113.3	52.28	UL-RL	7.5213E+04	-10.00	89.66
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
52 D	24.66	-2.8139E-04	115.6	31.85	115.6	53.29	UL-RL	7.5213E+04	-10.20	91.45
1.000	1.000	123.3	0.000	0.000	Ug5_2_8_L_0					
53 D	25.67	-2.5271E-04	117.8	35.10	117.8	54.31	UL-RL	7.5213E+04	-10.40	93.24
1.000	1.000	128.3	0.000	0.000	Ug5_2_8_L_0					
54 D	26.62	-2.2748E-04	120.0	38.08	120.0	55.32	UL-RL	7.5213E+04	-10.60	95.03
1.000	1.000	133.1	0.000	0.000	Ug5_2_8_L_0					
55 D	27.52	-2.0549E-04	122.2	40.78	122.2	56.34	UL-RL	7.5213E+04	-10.80	96.83
1.000	1.000	137.6	0.000	0.000	Ug5_2_8_L_0					
56 D	28.37	-1.8652E-04	124.4	43.24	124.4	57.35	UL-RL	7.5213E+04	-11.00	98.62
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
57 D	29.18	-1.7035E-04	126.6	45.47	126.6	58.37	UL-RL	7.5213E+04	-11.20	100.4
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
58 D	29.94	-1.5677E-04	128.8	47.49	128.8	59.39	UL-RL	7.5213E+04	-11.40	102.2
1.000	1.000	149.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.66	-1.4554E-04	131.1	49.32	131.1	60.40	UL-RL	7.5213E+04	-11.60	104.0
1.000	1.000	153.3	0.000	0.000	Ug5_2_8_L_0					
60 D	31.35	-1.3647E-04	133.3	50.97	133.3	61.42	UL-RL	7.5213E+04	-11.80	105.8
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
61 D	32.01	-1.2933E-04	135.5	52.48	135.5	62.44	UL-RL	7.5213E+04	-12.00	107.6
1.000	1.000	160.1	0.000	0.000	Ug5_2_8_L_0					
62 D	34.08	-1.2392E-04	137.5	61.02	137.5	63.36	UL-RL	3.6008E+04	-12.20	109.4
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
63 D	34.65	-1.2003E-04	139.5	62.08	139.5	64.28	UL-RL	3.6008E+04	-12.40	111.2
1.000	1.000	173.3	0.000	0.000	Ug6_741_743_L_0					
64 D	35.21	-1.1748E-04	141.5	63.10	141.5	65.20	UL-RL	3.6008E+04	-12.60	113.0
1.000	1.000	176.1	0.000	0.000	Ug6_741_743_L_0					
65 D	35.77	-1.1609E-04	143.5	64.07	143.5	66.12	UL-RL	3.6008E+04	-12.80	114.8
1.000	1.000	178.8	0.000	0.000	Ug6_741_743_L_0					
66 D	36.31	-1.1570E-04	145.5	65.01	145.5	67.04	UL-RL	3.6008E+04	-13.00	116.6
1.000	1.000	181.6	0.000	0.000	Ug6_741_743_L_0					
67 D	36.85	-1.1617E-04	147.5	65.92	147.5	67.96	UL-RL	3.6008E+04	-13.20	118.3
1.000	1.000	184.3	0.000	0.000	Ug6_741_743_L_0					
68 D	37.39	-1.1736E-04	149.4	66.80	149.4	68.88	UL-RL	3.6008E+04	-13.40	120.1
1.000	1.000	186.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.92	-1.1916E-04	151.4	67.66	151.4	69.80	UL-RL	3.6008E+04	-13.60	121.9
1.000	1.000	189.6	0.000	0.000	Ug6_741_743_L_0					
70 D	38.45	-1.2146E-04	153.4	68.50	153.4	70.72	UL-RL	3.6008E+04	-13.80	123.7
1.000	1.000	192.2	0.000	0.000	Ug6_741_743_L_0					
71 D	38.97	-1.2416E-04	155.4	69.34	155.4	71.64	UL-RL	3.6008E+04	-14.00	125.5
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
72 D	39.49	-1.2719E-04	157.3	70.16	157.3	72.56	UL-RL	3.6008E+04	-14.20	127.3
1.000	1.000	197.5	0.000	0.000	Ug6_741_743_L_0					
73 D	40.01	-1.3047E-04	159.3	70.97	159.3	73.49	UL-RL	3.6008E+04	-14.40	129.1
1.000	1.000	200.1	0.000	0.000	Ug6_741_743_L_0					
74 D	40.54	-1.3395E-04	161.3	71.78	161.3	74.41	UL-RL	3.6008E+04	-14.60	130.9
1.000	1.000	202.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.05	-1.3757E-04	163.3	72.58	163.3	75.33	UL-RL	3.6008E+04	-14.80	132.7
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.57	-1.4129E-04	165.3	73.39	165.3	76.25	UL-RL	3.6008E+04	-15.00	134.5
1.000	1.000	207.9	0.000	0.000	Ug6_741_743_L_0					
77 D	42.09	-1.4507E-04	167.2	74.19	167.2	77.18	UL-RL	3.6008E+04	-15.20	136.3
1.000	1.000	210.5	0.000	0.000	Ug6_741_743_L_0					
78 D	42.61	-1.4890E-04	169.2	74.98	169.2	78.10	UL-RL	3.6008E+04	-15.40	138.1
1.000	1.000	213.1	0.000	0.000	Ug6_741_743_L_0					
79 D	43.13	-1.5275E-04	171.2	75.78	171.2	79.03	UL-RL	3.6008E+04	-15.60	139.9
1.000	1.000	215.6	0.000	0.000	Ug6_741_743_L_0					
80 D	43.65	-1.5661E-04	173.2	76.58	173.2	79.95	UL-RL	3.6008E+04	-15.80	141.7
1.000	1.000	218.2	0.000	0.000	Ug6_741_743_L_0					
81 D	22.08	-1.6048E-04	175.2	77.38	175.2	80.88	UL-RL	3.6008E+04	-16.00	143.4
1.000	1.000	220.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	4.4344E-03	0.000	0.000	30.00	36.37	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.858	4.2456E-03	1.793	12.08	32.00	36.17	PASSIVE	0.000	-3.200	2.207	
1.000	1.000	14.29	0.000	0.000	Ug5_2_8_L_0						
18 D	5.716	4.0586E-03	3.586	24.16	34.00	35.99	PASSIVE	0.000	-3.400	4.414	
1.000	1.000	28.58	0.000	0.000	Ug5_2_8_L_0						
19 D	8.573	3.8737E-03	5.379	36.25	36.00	36.25	PASSIVE	0.000	-3.600	6.621	
1.000	1.000	42.87	0.000	0.000	Ug5_2_8_L_0						
20 D	11.43	3.6915E-03	7.172	48.33	38.00	48.33	PASSIVE	0.000	-3.800	8.828	
1.000	1.000	57.16	0.000	0.000	Ug5_2_8_L_0						
21 D	14.29	3.5121E-03	8.966	60.41	40.00	60.41	PASSIVE	0.000	-4.000	11.03	
1.000	1.000	71.44	0.000	0.000	Ug5_2_8_L_0						
22 D	15.84	3.3360E-03	10.76	65.98	42.00	65.98	V-C	1.2465E+04	-4.200	13.24	
1.000	1.000	79.22	0.000	0.000	Ug5_2_8_L_0						
23 D	15.98	3.1635E-03	12.55	64.48	44.00	64.48	V-C	1.2465E+04	-4.400	15.45	
1.000	1.000	79.92	0.000	0.000	Ug5_2_8_L_0						
24 D	16.14	2.9949E-03	14.34	63.03	46.00	63.03	V-C	1.2465E+04	-4.600	17.66	
1.000	1.000	80.68	0.000	0.000	Ug5_2_8_L_0						
25 D	16.30	2.8304E-03	16.14	61.64	48.00	61.64	V-C	1.2465E+04	-4.800	19.86	
1.000	1.000	81.50	0.000	0.000	Ug5_2_8_L_0						
26 D	16.48	2.6702E-03	17.93	60.31	50.00	60.31	V-C	1.2465E+04	-5.000	22.07	
1.000	1.000	82.38	0.000	0.000	Ug5_2_8_L_0						
27 D	16.67	2.5147E-03	19.72	59.05	52.00	59.05	V-C	1.2465E+04	-5.200	24.28	
1.000	1.000	83.33	0.000	0.000	Ug5_2_8_L_0						
28 D	16.87	2.3638E-03	21.52	57.86	54.00	57.86	V-C	1.2465E+04	-5.400	26.48	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	84.35	0.000	0.000	Ug5_2_8_L_0					
29 D	17.09	2.2179E-03	23.31	56.75	56.00	56.75	V-C	1.2465E+04	-5.600	28.69
1.000	1.000	85.44	0.000	0.000	Ug5_2_8_L_0					
30 D	17.32	2.0770E-03	25.10	55.71	58.00	55.71	V-C	1.2465E+04	-5.800	30.90
1.000	1.000	86.61	0.000	0.000	Ug5_2_8_L_0					
31 D	17.57	1.9412E-03	26.90	54.76	60.00	54.76	V-C	1.2465E+04	-6.000	33.10
1.000	1.000	87.86	0.000	0.000	Ug5_2_8_L_0					
32 D	17.84	1.8106E-03	28.69	53.88	62.00	53.88	V-C	1.2465E+04	-6.200	35.31
1.000	1.000	89.19	0.000	0.000	Ug5_2_8_L_0					
33 D	18.12	1.6853E-03	30.48	53.07	64.00	53.07	V-C	1.2465E+04	-6.400	37.52
1.000	1.000	90.59	0.000	0.000	Ug5_2_8_L_0					
34 D	18.42	1.5653E-03	32.28	52.35	66.00	52.35	V-C	1.2465E+04	-6.600	39.72
1.000	1.000	92.08	0.000	0.000	Ug5_2_8_L_0					
35 D	18.73	1.4507E-03	34.07	51.72	68.00	51.72	V-C	1.2465E+04	-6.800	41.93
1.000	1.000	93.65	0.000	0.000	Ug5_2_8_L_0					
36 D	19.06	1.3414E-03	35.86	51.16	70.00	51.16	V-C	1.2465E+04	-7.000	44.14
1.000	1.000	95.29	0.000	0.000	Ug5_2_8_L_0					
37 D	19.40	1.2375E-03	37.66	50.68	72.00	50.68	V-C	1.2465E+04	-7.200	46.34
1.000	1.000	97.02	0.000	0.000	Ug5_2_8_L_0					
38 D	19.77	1.1389E-03	39.45	50.28	74.00	50.28	V-C	1.2465E+04	-7.400	48.55
1.000	1.000	98.83	0.000	0.000	Ug5_2_8_L_0					
39 D	20.14	1.0457E-03	41.24	49.96	76.00	49.96	V-C	1.2465E+04	-7.600	50.76
1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
40 D	20.54	9.5768E-04	43.03	49.72	78.00	49.72	V-C	1.2465E+04	-7.800	52.97
1.000	1.000	102.7	0.000	0.000	Ug5_2_8_L_0					
41 D	20.95	8.7491E-04	44.83	49.56	80.00	49.56	V-C	1.2465E+04	-8.000	55.17
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
42 D	21.37	7.9729E-04	46.62	49.47	82.00	49.47	V-C	1.2465E+04	-8.200	57.38
1.000	1.000	106.8	0.000	0.000	Ug5_2_8_L_0					
43 D	21.81	7.2474E-04	48.41	49.45	84.00	49.45	V-C	1.2465E+04	-8.400	59.59
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
44 D	22.26	6.5718E-04	50.21	49.51	86.00	49.51	V-C	1.2465E+04	-8.600	61.79
1.000	1.000	111.3	0.000	0.000	Ug5_2_8_L_0					
45 D	22.73	5.9449E-04	52.00	49.64	88.00	49.64	V-C	1.2465E+04	-8.800	64.00
1.000	1.000	113.6	0.000	0.000	Ug5_2_8_L_0					
46 D	23.21	5.3657E-04	53.79	49.84	90.00	49.84	V-C	1.2465E+04	-9.000	66.21
1.000	1.000	116.0	0.000	0.000	Ug5_2_8_L_0					
47 D	23.70	4.8329E-04	55.59	50.10	92.00	50.10	V-C	1.2465E+04	-9.200	68.41
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
48 D	24.21	4.3452E-04	57.38	50.43	94.00	50.43	V-C	1.2465E+04	-9.400	70.62
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
49 D	24.73	3.9011E-04	59.17	50.82	96.00	50.82	V-C	1.2465E+04	-9.600	72.83
1.000	1.000	123.6	0.000	0.000	Ug5_2_8_L_0					
50 D	25.26	3.4990E-04	60.97	51.27	98.00	51.27	V-C	1.2465E+04	-9.800	75.03
1.000	1.000	126.3	0.000	0.000	Ug5_2_8_L_0					
51 D	25.80	3.1372E-04	62.76	51.77	100.00	51.77	V-C	1.2465E+04	-10.000	77.24
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
52 D	26.36	2.8139E-04	64.55	52.33	102.0	52.33	V-C	1.2465E+04	-10.200	79.45
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
53 D	26.92	2.5271E-04	66.34	52.94	104.0	52.94	V-C	1.2465E+04	-10.400	81.66
1.000	1.000	134.6	0.000	0.000	Ug5_2_8_L_0					
54 D	27.48	2.2748E-04	68.14	53.56	106.0	53.61	UL-RL	3.7394E+04	-10.600	83.86
1.000	1.000	137.4	0.000	0.000	Ug5_2_8_L_0					
55 D	27.95	2.0549E-04	69.93	53.69	108.0	54.60	UL-RL	3.7394E+04	-10.800	86.07
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
56 D	28.45	1.8652E-04	71.72	53.95	110.0	55.58	UL-RL	3.7394E+04	-11.000	88.28
1.000	1.000	142.2	0.000	0.000	Ug5_2_8_L_0					
57 D	28.96	1.7035E-04	73.52	54.33	112.0	56.56	UL-RL	3.7394E+04	-11.200	90.48
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
58 D	29.50	1.5677E-04	75.31	54.81	114.0	57.55	UL-RL	3.7394E+04	-11.400	92.69
1.000	1.000	147.5	0.000	0.000	Ug5_2_8_L_0					
59 D	30.06	1.4554E-04	77.10	55.38	116.0	58.53	UL-RL	3.7394E+04	-11.600	94.90
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.63	1.3647E-04	78.90	56.04	118.0	59.52	UL-RL	3.7394E+04	-11.800	97.10
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
61 D	31.22	1.2933E-04	80.69	56.78	120.0	60.50	UL-RL	3.7394E+04	-12.000	99.31
1.000	1.000	156.1	0.000	0.000	Ug5_2_8_L_0					
62 D	31.46	1.2392E-04	82.28	55.76	121.8	61.39	UL-RL	2.8119E+04	-12.200	101.5
1.000	1.000	157.3	0.000	0.000	Ug6_741_743_L_0					
63 D	32.05	1.2003E-04	83.88	56.55	123.6	62.28	UL-RL	2.8119E+04	-12.400	103.7
1.000	1.000	160.3	0.000	0.000	Ug6_741_743_L_0					
64 D	32.66	1.1748E-04	85.47	57.37	125.4	63.16	UL-RL	2.8119E+04	-12.600	105.9
1.000	1.000	163.3	0.000	0.000	Ug6_741_743_L_0					
65 D	33.27	1.1609E-04	87.06	58.22	127.2	64.05	UL-RL	2.8119E+04	-12.800	108.1
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
66 D	33.89	1.1570E-04	88.66	59.11	129.0	64.94	UL-RL	2.8119E+04	-13.000	110.3
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
67 D	34.51	1.1617E-04	90.25	60.01	130.8	65.83	UL-RL	2.8119E+04	-13.200	112.6
1.000	1.000	172.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.14	1.1736E-04	91.84	60.94	132.6	66.72	UL-RL	2.8119E+04	-13.400	114.8
1.000	1.000	175.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	35.77	1.1916E-04	93.43	61.88	134.4	67.60	UL-RL	2.8119E+04	-13.60	117.0
1.000	1.000	178.9	0.000	0.000	Ug6_741_743_L_0					
70 D	36.40	1.2146E-04	95.03	62.84	136.2	68.49	UL-RL	2.8119E+04	-13.80	119.2
1.000	1.000	182.0	0.000	0.000	Ug6_741_743_L_0					
71 D	37.04	1.2416E-04	96.62	63.81	138.0	69.38	UL-RL	2.8119E+04	-14.00	121.4
1.000	1.000	185.2	0.000	0.000	Ug6_741_743_L_0					
72 D	37.67	1.2719E-04	98.21	64.79	139.8	70.27	UL-RL	2.8119E+04	-14.20	123.6
1.000	1.000	188.4	0.000	0.000	Ug6_741_743_L_0					
73 D	38.31	1.3047E-04	99.81	65.77	141.6	71.16	UL-RL	2.8119E+04	-14.40	125.8
1.000	1.000	191.6	0.000	0.000	Ug6_741_743_L_0					
74 D	38.95	1.3395E-04	101.4	66.76	143.4	72.05	UL-RL	2.8119E+04	-14.60	128.0
1.000	1.000	194.8	0.000	0.000	Ug6_741_743_L_0					
75 D	39.59	1.3757E-04	103.0	67.75	145.2	72.94	UL-RL	2.8119E+04	-14.80	130.2
1.000	1.000	198.0	0.000	0.000	Ug6_741_743_L_0					
76 D	40.23	1.4129E-04	104.6	68.74	147.0	73.84	UL-RL	2.8119E+04	-15.00	132.4
1.000	1.000	201.2	0.000	0.000	Ug6_741_743_L_0					
77 D	40.87	1.4507E-04	106.2	69.74	148.8	74.73	UL-RL	2.8119E+04	-15.20	134.6
1.000	1.000	204.4	0.000	0.000	Ug6_741_743_L_0					
78 D	41.51	1.4890E-04	107.8	70.73	150.6	75.62	UL-RL	2.8119E+04	-15.40	136.8
1.000	1.000	207.6	0.000	0.000	Ug6_741_743_L_0					
79 D	42.15	1.5275E-04	109.4	71.73	152.4	76.51	UL-RL	2.8119E+04	-15.60	139.0
1.000	1.000	210.8	0.000	0.000	Ug6_741_743_L_0					
80 D	42.79	1.5661E-04	111.0	72.73	154.2	77.40	UL-RL	2.8119E+04	-15.80	141.2
1.000	1.000	214.0	0.000	0.000	Ug6_741_743_L_0					
81 D	21.72	1.6048E-04	112.6	73.72	156.0	78.29	UL-RL	2.8119E+04	-16.00	143.4
1.000	1.000	217.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|
|
|               NewProject.BaseDesignSection_28.SISMICASTR_1817
|               Exe Time :24 May 2018           18:25:49
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New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	3.36677E-10	-3.36677E-10	3.40954E-11	1.28445E-10
2	0.46893	-0.46893	-2.42859E-10	9.37854E-02
3	1.4088	-1.4088	-9.37854E-02	0.37555
4	2.8222	-2.8222	-0.37555	0.93999
5	4.7111	-4.7111	-0.93999	1.8822
6	7.0764	-7.0764	-1.8822	3.2975
7	9.9179	-9.9179	-3.2975	5.2811
8	13.241	-13.241	-5.2811	7.9293
9	17.048	-17.048	-7.9293	11.339
10	21.328	-21.328	-11.339	15.604
11	26.087	-26.087	-15.604	20.822
12	31.324	-31.324	-20.822	27.086
13	37.031	-37.031	-27.086	34.493
14	43.214	-43.214	-34.493	43.136
15	49.873	-49.873	-43.136	53.110
16	57.005	-57.005	-53.110	64.511
17	61.748	-61.748	-64.511	76.861
18	64.107	-64.107	-76.861	89.682
19	64.081	-64.081	-89.682	102.50
20	61.666	-61.666	-102.50	114.83
21	56.866	-56.866	-114.83	126.20
22	50.981	-50.981	-126.20	136.40
23	45.425	-45.425	-136.40	145.49
24	40.189	-40.189	-145.49	153.52
25	35.260	-35.260	-153.52	160.58
26	30.627	-30.627	-160.58	166.70
27	26.271	-26.271	-166.70	171.96
28	22.183	-22.183	-171.96	176.39
29	18.346	-18.346	-176.39	180.06
30	14.744	-14.744	-180.06	183.01
31	11.362	-11.362	-183.01	185.28
32	8.1855	-8.1855	-185.28	186.92
33	5.1955	-5.1955	-186.92	187.96
34	2.3784	-2.3784	-187.96	188.43
35	-0.28201	0.28201	-188.43	188.38
36	-2.8020	2.8020	-188.38	187.82
37	-5.1998	5.1998	-187.82	186.78
38	-7.4894	7.4894	-186.78	185.28
39	-9.6865	9.6865	-185.28	183.34
40	-11.809	11.809	-183.34	180.98
41	-13.870	13.870	-180.98	178.21
42	-15.885	15.885	-178.21	175.03
43	-17.871	17.871	-175.03	171.46
44	-19.840	19.840	-171.46	167.49
45	-21.807	21.807	-167.49	163.13
46	-23.785	23.785	-163.13	158.37
47	-25.789	25.789	-158.37	153.21
48	-27.831	27.831	-153.21	147.64
49	-29.922	29.922	-147.64	141.66
50	-32.077	32.077	-141.66	135.24
51	-34.291	34.291	-135.24	128.39
52	-35.987	35.987	-128.39	121.19
53	-37.237	37.237	-121.19	113.74
54	-38.098	38.098	-113.74	106.12
55	-38.529	38.529	-106.12	98.417
56	-38.604	38.604	-98.417	90.696
57	-38.389	38.389	-90.696	83.018
58	-37.950	37.950	-83.018	75.428
59	-37.342	37.342	-75.428	67.960

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-36.618	36.618	-67.960	60.636
61	-35.824	35.824	-60.636	53.471
62	-33.201	33.201	-53.471	46.831
63	-30.604	30.604	-46.831	40.710
64	-28.051	28.051	-40.710	35.100
65	-25.557	25.557	-35.100	29.989
66	-23.135	23.135	-29.989	25.362
67	-20.796	20.796	-25.362	21.202
68	-18.549	18.549	-21.202	17.493
69	-16.401	16.401	-17.493	14.212
70	-14.359	14.359	-14.212	11.341
71	-12.426	12.426	-11.341	8.8555
72	-10.607	10.607	-8.8555	6.7341
73	-8.9044	8.9044	-6.7341	4.9532
74	-7.3206	7.3206	-4.9532	3.4891
75	-5.8569	5.8569	-3.4891	2.3177
76	-4.5145	4.5145	-2.3177	1.4148
77	-3.2938	3.2938	-1.4148	0.75605
78	-2.1954	2.1954	-0.75605	0.31698
79	-1.2193	1.2193	-0.31698	7.31252E-02
80	-0.36561	0.36561	-7.31252E-02	1.07692E-14

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 1039. REMNOR=0.1376E-18 RATIO =0.6851E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.6851E-01 RATIO= 0.000
MAX UN= 14.13 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.1182 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 284.1 REMNOR=0.2236E-18 RATIO =0.3583E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.3583E-01 RATIO= 0.000
MAX UN= 3.995 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.3957E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 190.7 REMNOR=0.2830E-17 RATIO =0.2935E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.2935E-01 RATIO= 0.000
MAX UN= 6.776 IEQ= 53 NODE 27 DOF 1 Y-DISPL.F
MIN UN=-1.130 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM= 3.002 REMNOR=0.1185E-17 RATIO =0.3683E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.3683E-02 RATIO= 0.000
MAX UN= 1.468 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
MIN UN=-.3519E-01 IEQ= 135 NODE 68 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2213E+06 RIMNOR=0.2031E+07
RENORM=0.1012E-01 REMNOR=0.1172E-17 RATIO =0.2139E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 64.11 RMMAX = 188.4
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2213E+06 RDR =0.2031E+07
RATIOT=0.2139E-03 RATIO= 0.000
MAX UN=0.1009E-07 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.4091E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.2213E+06  RIMNOR=0.2031E+07
            RENORM=0.1067E-02  REMNOR=0.1549E-17  RATIO =0.6943E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 64.11      RMMAX = 188.4
            RTSMAL=0.1000E-03  RMSMAL=0.1000E-02
            RDT   =0.2213E+06  RDR   =0.2031E+07
            RATIOT=0.6943E-04  RATIOR= 0.000
            MAX UN=0.1451E-01  IEQ=   121  NODE    61  DOF   1  Y-DISPL.F
            MIN UN=-.8356E-08  IEQ=    7  NODE    4  DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
| | | | | |
| NewProject.BaseDesignSection_28.SISMICASTR_1817 |
| Exe Time :24 May 2018 18:25:49 |
-----+

New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

P R I N T O U T F O R T I M E S T E P 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	1.9473034E-02	-2.2062447E-03
2	1.9031785E-02	-2.2062447E-03
3	1.8590537E-02	-2.2062382E-03
4	1.8149291E-02	-2.2062056E-03
5	1.7708058E-02	-2.2061144E-03
6	1.7266853E-02	-2.2059186E-03
7	1.6825702E-02	-2.2055592E-03
8	1.6384645E-02	-2.2049639E-03
9	1.5943737E-02	-2.2040473E-03
10	1.5503054E-02	-2.2027103E-03
11	1.5062689E-02	-2.2008407E-03
12	1.4622761E-02	-2.1983130E-03
13	1.4183417E-02	-2.1949885E-03
14	1.3744829E-02	-2.1907152E-03
15	1.3307205E-02	-2.1853282E-03
16	1.2870784E-02	-2.1786491E-03
17	1.2435842E-02	-2.1704865E-03
18	1.2002700E-02	-2.1606360E-03
19	1.1571715E-02	-2.1488800E-03
20	1.1143290E-02	-2.1349877E-03
21	1.0717880E-02	-2.1187155E-03
22	1.0295982E-02	-2.0998064E-03
23	9.8781490E-03	-2.0780299E-03
24	9.4649723E-03	-2.0532212E-03
25	9.0570693E-03	-2.0252813E-03
26	8.6550708E-03	-1.9941767E-03
27	8.2596094E-03	-1.9599402E-03
28	7.8712990E-03	-1.9226693E-03
29	7.4907330E-03	-1.8825282E-03
30	7.1184638E-03	-1.8397463E-03
31	6.7549913E-03	-1.7946120E-03
32	6.4007572E-03	-1.7474309E-03
33	6.0561380E-03	-1.6984906E-03
34	5.7214601E-03	-1.6480630E-03
35	5.3969949E-03	-1.5964041E-03
36	5.0829645E-03	-1.5437545E-03
37	4.7795455E-03	-1.4903410E-03
38	4.4868664E-03	-1.4363756E-03
39	4.2050187E-03	-1.3820584E-03
40	3.9340540E-03	-1.3275769E-03
41	3.6739872E-03	-1.2731072E-03
42	3.4247993E-03	-1.2188146E-03
43	3.1864392E-03	-1.1648545E-03
44	2.9588256E-03	-1.1113730E-03
45	2.7418499E-03	-1.0585079E-03
46	2.5353738E-03	-1.0063884E-03
47	2.3392367E-03	-9.5513732E-04
48	2.1532532E-03	-9.0487081E-04
49	1.9772154E-03	-8.5569923E-04
50	1.8108943E-03	-8.0772805E-04
51	1.6540383E-03	-7.6105755E-04
52	1.5063745E-03	-7.1578377E-04
53	1.3676282E-03	-6.7200473E-04
54	1.2374743E-03	-6.2980586E-04
55	1.1155945E-03	-5.8927820E-04
56	1.0016458E-03	-5.5050896E-04
57	8.9526794E-04	-5.1358425E-04
58	7.9608343E-04	-4.7858956E-04
59	7.0369775E-04	-4.4561027E-04
60	6.1769926E-04	-4.1473201E-04
61	5.3765912E-04	-3.8604111E-04
62	4.6313116E-04	-3.5962496E-04
63	3.9365571E-04	-3.3551033E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	3.2877645E-04	-3.1365440E-04
65	2.6804728E-04	-2.9399844E-04
66	2.1103530E-04	-2.7646912E-04
67	1.5732364E-04	-2.6097970E-04
68	1.0651404E-04	-2.4743102E-04
69	5.8229117E-05	-2.3571408E-04
70	1.2114029E-05	-2.2571282E-04
71	-3.2162283E-05	-2.1730566E-04
72	-7.4906095E-05	-2.1036642E-04
73	-1.1639802E-04	-2.0476467E-04
74	-1.5689217E-04	-2.0036599E-04
75	-1.9661541E-04	-1.9703223E-04
76	-2.3576660E-04	-1.9462165E-04
77	-2.7451593E-04	-1.9298906E-04
78	-3.1300419E-04	-1.9198592E-04
79	-3.5134213E-04	-1.9146022E-04
80	-3.8960974E-04	-1.9125638E-04
81	-4.2785744E-04	-1.9121525E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-1.9473E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4571	-1.9032E-02	2.294	0.5712	2.294	1.603	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	2.285	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9162	-1.8591E-02	4.628	1.152	4.628	3.119	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	4.581	0.000	0.000	Ug5_2_8_L_0						
4 D	1.378	-1.8149E-02	7.015	1.747	7.015	4.509	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	6.890	0.000	0.000	Ug5_2_8_L_0						
5 D	1.842	-1.7708E-02	9.440	2.351	9.440	5.780	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	9.208	0.000	0.000	Ug5_2_8_L_0						
6 D	2.306	-1.7267E-02	11.88	2.959	11.88	6.958	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	11.53	0.000	0.000	Ug5_2_8_L_0						
7 D	2.771	-1.6826E-02	14.32	3.567	14.32	8.073	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	13.85	0.000	0.000	Ug5_2_8_L_0						
8 D	3.240	-1.6385E-02	16.87	4.202	16.87	9.145	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	16.20	0.000	0.000	Ug5_2_8_L_0						
9 D	3.712	-1.5944E-02	19.46	4.846	19.46	10.19	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	18.56	0.000	0.000	Ug5_2_8_L_0						
10 D	4.173	-1.5503E-02	21.84	5.437	21.84	11.22	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	20.87	0.000	0.000	Ug5_2_8_L_0						
11 D	4.641	-1.5063E-02	24.34	6.061	24.34	12.23	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	23.20	0.000	0.000	Ug5_2_8_L_0						
12 D	5.107	-1.4623E-02	26.81	6.676	26.81	13.24	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	25.53	0.000	0.000	Ug5_2_8_L_0						
13 D	5.565	-1.4183E-02	29.14	7.255	29.14	14.24	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	27.83	0.000	0.000	Ug5_2_8_L_0						
14 D	6.029	-1.3745E-02	31.57	7.861	31.57	15.24	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	30.15	0.000	0.000	Ug5_2_8_L_0						
15 D	6.492	-1.3307E-02	33.98	8.462	33.98	16.23	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	32.46	0.000	0.000	Ug5_2_8_L_0						
16 D	6.955	-1.2871E-02	36.38	9.059	36.38	17.23	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	34.77	0.000	0.000	Ug5_2_8_L_0						
17 D	7.412	-1.2436E-02	38.68	9.631	38.68	18.22	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	37.06	0.000	0.000	Ug5_2_8_L_0						
18 D	7.873	-1.2003E-02	41.06	10.22	41.06	19.21	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	39.37	0.000	0.000	Ug5_2_8_L_0						
19 D	8.334	-1.1572E-02	43.43	10.81	43.43	20.21	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	41.67	0.000	0.000	Ug5_2_8_L_0						
20 D	8.791	-1.1143E-02	45.72	11.38	45.72	21.20	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	43.95	0.000	0.000	Ug5_2_8_L_0						
21 D	9.251	-1.0718E-02	48.08	11.97	48.08	22.19	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	46.26	0.000	0.000	Ug5_2_8_L_0						
22 D	9.711	-1.0296E-02	50.43	12.56	50.43	23.18	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	48.56	0.000	0.000	Ug5_2_8_L_0						
23 D	10.17	-9.8781E-03	52.71	13.12	52.71	24.18	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	50.84	0.000	0.000	Ug5_2_8_L_0						
24 D	10.63	-9.4650E-03	55.06	13.71	55.06	25.17	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	53.14	0.000	0.000	Ug5_2_8_L_0						
25 D	11.09	-9.0571E-03	57.40	14.29	57.40	26.17	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	55.43	0.000	0.000	Ug5_2_8_L_0						
26 D	11.55	-8.6551E-03	59.73	14.87	59.73	27.16	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	57.73	0.000	0.000	Ug5_2_8_L_0						
27 D	12.00	-8.2596E-03	62.01	15.44	62.01	28.16	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	60.01	0.000	0.000	Ug5_2_8_L_0						
28 D	12.46	-7.8713E-03	64.34	16.02	64.34	29.16	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	62.31	0.000	0.000	Ug5_2_8_L_0					
29 D	12.92	-7.4907E-03	66.67	16.60	66.67	30.15	ACTIVE	0.000	-5.600	48.00
1.000	1.000	64.60	0.000	0.000	Ug5_2_8_L_0					
30 D	13.38	-7.1185E-03	68.95	17.17	68.95	31.15	ACTIVE	0.000	-5.800	49.71
1.000	1.000	66.88	0.000	0.000	Ug5_2_8_L_0					
31 D	13.83	-6.7550E-03	71.27	17.75	71.27	32.15	ACTIVE	0.000	-6.000	51.43
1.000	1.000	69.17	0.000	0.000	Ug5_2_8_L_0					
32 D	14.29	-6.4008E-03	73.59	18.32	73.59	33.15	ACTIVE	0.000	-6.200	53.14
1.000	1.000	71.47	0.000	0.000	Ug5_2_8_L_0					
33 D	14.75	-6.0561E-03	75.87	18.89	75.87	34.15	ACTIVE	0.000	-6.400	54.86
1.000	1.000	73.75	0.000	0.000	Ug5_2_8_L_0					
34 D	15.21	-5.7215E-03	78.19	19.47	78.19	35.15	ACTIVE	0.000	-6.600	56.57
1.000	1.000	76.04	0.000	0.000	Ug5_2_8_L_0					
35 D	15.67	-5.3970E-03	80.51	20.05	80.51	36.15	ACTIVE	0.000	-6.800	58.29
1.000	1.000	78.33	0.000	0.000	Ug5_2_8_L_0					
36 D	16.12	-5.0830E-03	82.82	20.62	82.82	37.16	ACTIVE	0.000	-7.000	60.00
1.000	1.000	80.62	0.000	0.000	Ug5_2_8_L_0					
37 D	16.58	-4.7795E-03	85.10	21.19	85.10	38.16	ACTIVE	0.000	-7.200	61.71
1.000	1.000	82.90	0.000	0.000	Ug5_2_8_L_0					
38 D	17.04	-4.4869E-03	87.41	21.76	87.41	39.16	ACTIVE	0.000	-7.400	63.43
1.000	1.000	85.19	0.000	0.000	Ug5_2_8_L_0					
39 D	17.50	-4.2050E-03	89.72	22.34	89.72	40.17	ACTIVE	0.000	-7.600	65.14
1.000	1.000	87.48	0.000	0.000	Ug5_2_8_L_0					
40 D	17.95	-3.9341E-03	92.00	22.91	92.00	41.17	ACTIVE	0.000	-7.800	66.86
1.000	1.000	89.76	0.000	0.000	Ug5_2_8_L_0					
41 D	18.41	-3.6740E-03	94.31	23.48	94.31	42.18	ACTIVE	0.000	-8.000	68.57
1.000	1.000	92.05	0.000	0.000	Ug5_2_8_L_0					
42 D	18.87	-3.4248E-03	96.62	24.06	96.62	43.19	ACTIVE	0.000	-8.200	70.29
1.000	1.000	94.34	0.000	0.000	Ug5_2_8_L_0					
43 D	19.32	-3.1864E-03	98.89	24.62	98.89	44.19	ACTIVE	0.000	-8.400	72.00
1.000	1.000	96.62	0.000	0.000	Ug5_2_8_L_0					
44 D	19.78	-2.9588E-03	101.2	25.20	101.2	45.20	ACTIVE	0.000	-8.600	73.71
1.000	1.000	98.91	0.000	0.000	Ug5_2_8_L_0					
45 D	20.24	-2.7418E-03	103.5	25.77	103.5	46.21	ACTIVE	0.000	-8.800	75.43
1.000	1.000	101.2	0.000	0.000	Ug5_2_8_L_0					
46 D	20.70	-2.5354E-03	105.8	26.35	105.8	47.22	ACTIVE	0.000	-9.000	77.14
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
47 D	21.15	-2.3392E-03	108.1	26.92	108.1	48.23	UL-RL	5.6410E+04	-9.200	78.86
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
48 D	21.61	-2.1533E-03	110.4	27.49	110.4	49.24	UL-RL	5.6410E+04	-9.400	80.57
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
49 D	22.07	-1.9772E-03	112.7	28.07	112.7	50.26	UL-RL	5.6410E+04	-9.600	82.29
1.000	1.000	110.4	0.000	0.000	Ug5_2_8_L_0					
50 D	22.53	-1.8109E-03	115.0	28.64	115.0	51.27	UL-RL	5.6410E+04	-9.800	84.00
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
51 D	22.99	-1.6540E-03	117.3	29.22	117.3	52.28	UL-RL	5.6410E+04	-10.000	85.71
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
52 D	23.44	-1.5064E-03	119.6	29.79	119.6	53.29	UL-RL	5.6410E+04	-10.200	87.43
1.000	1.000	117.2	0.000	0.000	Ug5_2_8_L_0					
53 D	23.90	-1.3676E-03	121.9	30.36	121.9	54.31	UL-RL	5.6410E+04	-10.400	89.14
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
54 D	24.36	-1.2375E-03	124.2	30.94	124.2	55.32	UL-RL	5.6410E+04	-10.600	90.86
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
55 D	24.82	-1.1156E-03	126.5	31.52	126.5	56.34	UL-RL	5.6410E+04	-10.800	92.57
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
56 D	25.28	-1.0016E-03	128.8	32.09	128.8	57.35	UL-RL	5.6410E+04	-11.000	94.29
1.000	1.000	126.4	0.000	0.000	Ug5_2_8_L_0					
57 D	25.73	-8.9527E-04	131.0	32.66	131.0	58.37	UL-RL	5.6410E+04	-11.200	96.00
1.000	1.000	128.7	0.000	0.000	Ug5_2_8_L_0					
58 D	26.19	-7.9608E-04	133.3	33.24	133.3	59.39	UL-RL	5.6410E+04	-11.400	97.71
1.000	1.000	131.0	0.000	0.000	Ug5_2_8_L_0					
59 D	26.65	-7.0370E-04	135.6	33.82	135.6	60.40	UL-RL	5.6410E+04	-11.600	99.43
1.000	1.000	133.2	0.000	0.000	Ug5_2_8_L_0					
60 D	27.11	-6.1770E-04	137.9	34.39	137.9	61.42	UL-RL	5.6410E+04	-11.800	101.1
1.000	1.000	135.5	0.000	0.000	Ug5_2_8_L_0					
61 D	27.56	-5.3766E-04	140.2	34.97	140.2	62.44	UL-RL	5.6410E+04	-12.000	102.9
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
62 D	31.77	-4.6313E-04	142.3	54.26	142.3	63.42	UL-RL	2.7006E+04	-12.200	104.6
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
63 D	32.68	-3.9366E-04	144.4	57.14	144.4	64.53	UL-RL	2.7006E+04	-12.400	106.3
1.000	1.000	163.4	0.000	0.000	Ug6_741_743_L_0					
64 D	33.57	-3.2878E-04	146.5	59.87	146.5	65.58	UL-RL	2.7006E+04	-12.600	108.0
1.000	1.000	167.9	0.000	0.000	Ug6_741_743_L_0					
65 D	34.44	-2.6805E-04	148.6	62.49	148.6	66.59	UL-RL	2.7006E+04	-12.800	109.7
1.000	1.000	172.2	0.000	0.000	Ug6_741_743_L_0					
66 D	35.28	-2.1104E-04	150.6	64.99	150.6	67.57	UL-RL	2.7006E+04	-13.000	111.4
1.000	1.000	176.4	0.000	0.000	Ug6_741_743_L_0					
67 D	36.11	-1.5732E-04	152.7	67.40	152.7	68.52	UL-RL	2.7006E+04	-13.200	113.1
1.000	1.000	180.5	0.000	0.000	Ug6_741_743_L_0					
68 D	36.81	-1.0651E-04	154.7	69.17	154.7	69.72	UL-RL	2.7006E+04	-13.400	114.9
1.000	1.000	184.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.46	-5.8229E-05	156.8	70.71	156.8	70.98	UL-RL	2.7006E+04	-13.60	116.6
1.000	1.000	187.3	0.000	0.000	Ug6_741_743_L_0					
70 D	38.07	-1.2114E-05	158.8	72.05	158.8	72.29	UL-RL	2.7006E+04	-13.80	118.3
1.000	1.000	190.3	0.000	0.000	Ug6_741_743_L_0					
71 D	38.67	3.2162E-05	160.9	73.35	160.9	73.58	UL-RL	2.7006E+04	-14.00	120.0
1.000	1.000	193.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.27	7.4906E-05	162.9	74.64	162.9	74.84	UL-RL	2.7006E+04	-14.20	121.7
1.000	1.000	196.4	0.000	0.000	Ug6_741_743_L_0					
73 D	39.87	1.1640E-04	165.0	75.91	165.0	76.09	UL-RL	2.7006E+04	-14.40	123.4
1.000	1.000	199.3	0.000	0.000	Ug6_741_743_L_0					
74 D	40.46	1.5689E-04	167.1	77.17	167.1	77.33	UL-RL	2.7006E+04	-14.60	125.1
1.000	1.000	202.3	0.000	0.000	Ug6_741_743_L_0					
75 D	41.05	1.9662E-04	169.1	78.41	169.1	78.56	UL-RL	2.7006E+04	-14.80	126.9
1.000	1.000	205.3	0.000	0.000	Ug6_741_743_L_0					
76 D	41.65	2.3577E-04	171.2	79.65	171.2	79.78	UL-RL	2.7006E+04	-15.00	128.6
1.000	1.000	208.2	0.000	0.000	Ug6_741_743_L_0					
77 D	42.24	2.7452E-04	173.2	80.89	173.2	80.99	UL-RL	2.7006E+04	-15.20	130.3
1.000	1.000	211.2	0.000	0.000	Ug6_741_743_L_0					
78 D	42.84	3.1300E-04	175.3	82.18	175.3	82.26	UL-RL	2.7006E+04	-15.40	132.0
1.000	1.000	214.2	0.000	0.000	Ug6_741_743_L_0					
79 D	43.44	3.5134E-04	177.4	83.47	177.4	83.53	UL-RL	2.7006E+04	-15.60	133.7
1.000	1.000	217.2	0.000	0.000	Ug6_741_743_L_0					
80 D	44.04	3.8961E-04	179.4	84.76	179.4	84.80	UL-RL	2.7006E+04	-15.80	135.4
1.000	1.000	220.2	0.000	0.000	Ug6_741_743_L_0					
81 D	22.32	4.2786E-04	181.5	86.05	181.5	86.06	UL-RL	2.7006E+04	-16.00	137.1
1.000	1.000	223.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FACTOR	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	1.0718E-02	0.000	0.000	40.00	60.41	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.767	1.0296E-02	1.714	11.55	42.00	65.98	PASSIVE	0.000	-4.200	2.286	
1.000	1.000	13.84	0.000	0.000	Ug5_2_8_L_0						
23 D	5.535	9.8781E-03	3.429	23.10	44.00	64.48	PASSIVE	0.000	-4.400	4.571	
1.000	1.000	27.67	0.000	0.000	Ug5_2_8_L_0						
24 D	8.302	9.4650E-03	5.143	34.65	46.00	63.03	PASSIVE	0.000	-4.600	6.857	
1.000	1.000	41.51	0.000	0.000	Ug5_2_8_L_0						
25 D	11.07	9.0571E-03	6.857	46.20	48.00	61.64	PASSIVE	0.000	-4.800	9.143	
1.000	1.000	55.35	0.000	0.000	Ug5_2_8_L_0						
26 D	13.84	8.6551E-03	8.571	57.75	50.00	60.31	PASSIVE	0.000	-5.000	11.43	
1.000	1.000	69.18	0.000	0.000	Ug5_2_8_L_0						
27 D	16.60	8.2596E-03	10.29	69.31	52.00	69.31	PASSIVE	0.000	-5.200	13.71	
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0						
28 D	19.37	7.8713E-03	12.00	80.86	54.00	80.86	PASSIVE	0.000	-5.400	16.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	96.86	0.000	0.000	Ug5_2_8_L_0					
29 D	22.14	7.4907E-03	13.71	92.41	56.00	92.41	PASSIVE	0.000	-5.600	18.29
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
30 D	24.41	7.1185E-03	15.43	101.5	58.00	101.5	V-C	9348.	-5.800	20.57
1.000	1.000	122.0	0.000	0.000	Ug5_2_8_L_0					
31 D	24.25	6.7550E-03	17.14	98.41	60.00	98.41	V-C	9348.	-6.000	22.86
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
32 D	24.12	6.4008E-03	18.86	95.46	62.00	95.46	V-C	9348.	-6.200	25.14
1.000	1.000	120.6	0.000	0.000	Ug5_2_8_L_0					
33 D	24.01	6.0561E-03	20.57	92.62	64.00	92.62	V-C	9348.	-6.400	27.43
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
34 D	23.92	5.7215E-03	22.29	89.91	66.00	89.91	V-C	9348.	-6.600	29.71
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
35 D	23.86	5.3970E-03	24.00	87.32	68.00	87.32	V-C	9348.	-6.800	32.00
1.000	1.000	119.3	0.000	0.000	Ug5_2_8_L_0					
36 D	23.83	5.0830E-03	25.71	84.85	70.00	84.85	V-C	9348.	-7.000	34.29
1.000	1.000	119.1	0.000	0.000	Ug5_2_8_L_0					
37 D	23.82	4.7795E-03	27.43	82.52	72.00	82.52	V-C	9348.	-7.200	36.57
1.000	1.000	119.1	0.000	0.000	Ug5_2_8_L_0					
38 D	23.83	4.4869E-03	29.14	80.31	74.00	80.31	V-C	9348.	-7.400	38.86
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
39 D	23.88	4.2050E-03	30.86	78.24	76.00	78.24	V-C	9348.	-7.600	41.14
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
40 D	23.94	3.9341E-03	32.57	76.29	78.00	76.29	V-C	9348.	-7.800	43.43
1.000	1.000	119.7	0.000	0.000	Ug5_2_8_L_0					
41 D	24.04	3.6740E-03	34.29	74.47	80.00	74.47	V-C	9348.	-8.000	45.71
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
42 D	24.16	3.4248E-03	36.00	72.78	82.00	72.78	V-C	9348.	-8.200	48.00
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
43 D	24.30	3.1864E-03	37.71	71.22	84.00	71.22	V-C	9348.	-8.400	50.29
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
44 D	24.47	2.9588E-03	39.43	69.78	86.00	69.78	V-C	9348.	-8.600	52.57
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
45 D	24.67	2.7418E-03	41.14	68.47	88.00	68.47	V-C	9348.	-8.800	54.86
1.000	1.000	123.3	0.000	0.000	Ug5_2_8_L_0					
46 D	24.88	2.5354E-03	42.86	67.28	90.00	67.28	V-C	9348.	-9.000	57.14
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
47 D	25.13	2.3392E-03	44.57	66.20	92.00	66.21	UL-RL	2.8045E+04	-9.200	59.43
1.000	1.000	125.6	0.000	0.000	Ug5_2_8_L_0					
48 D	25.39	2.1533E-03	46.29	65.25	94.00	65.25	UL-RL	2.8045E+04	-9.400	61.71
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
49 D	25.68	1.9772E-03	48.00	64.40	96.00	64.41	UL-RL	2.8045E+04	-9.600	64.00
1.000	1.000	128.4	0.000	0.000	Ug5_2_8_L_0					
50 D	25.99	1.8109E-03	49.71	63.67	98.00	63.68	UL-RL	2.8045E+04	-9.800	66.29
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
51 D	26.32	1.6540E-03	51.43	63.04	100.00	63.05	UL-RL	2.8045E+04	-10.000	68.57
1.000	1.000	131.6	0.000	0.000	Ug5_2_8_L_0					
52 D	26.68	1.5064E-03	53.14	62.52	102.0	62.53	UL-RL	2.8045E+04	-10.200	70.86
1.000	1.000	133.4	0.000	0.000	Ug5_2_8_L_0					
53 D	27.05	1.3676E-03	54.86	62.10	104.0	62.11	UL-RL	2.8045E+04	-10.400	73.14
1.000	1.000	135.2	0.000	0.000	Ug5_2_8_L_0					
54 D	27.44	1.2375E-03	56.57	61.77	106.0	61.78	UL-RL	2.8045E+04	-10.600	75.43
1.000	1.000	137.2	0.000	0.000	Ug5_2_8_L_0					
55 D	27.85	1.1156E-03	58.29	61.53	108.0	61.55	UL-RL	2.8045E+04	-10.800	77.71
1.000	1.000	139.2	0.000	0.000	Ug5_2_8_L_0					
56 D	28.28	1.0016E-03	60.00	61.38	110.0	61.40	UL-RL	2.8045E+04	-11.000	80.00
1.000	1.000	141.4	0.000	0.000	Ug5_2_8_L_0					
57 D	28.72	8.9527E-04	61.71	61.32	112.0	61.33	UL-RL	2.8045E+04	-11.200	82.29
1.000	1.000	143.6	0.000	0.000	Ug5_2_8_L_0					
58 D	29.18	7.9608E-04	63.43	61.33	114.0	61.35	UL-RL	2.8045E+04	-11.400	84.57
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
59 D	29.65	7.0370E-04	65.14	61.41	116.0	61.43	UL-RL	2.8045E+04	-11.600	86.86
1.000	1.000	148.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.14	6.1770E-04	66.86	61.56	118.0	61.59	UL-RL	2.8045E+04	-11.800	89.14
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
61 D	30.64	5.3766E-04	68.57	61.78	120.0	61.81	UL-RL	2.8045E+04	-12.000	91.43
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
62 D	30.55	4.6313E-04	70.09	59.06	121.8	61.39	UL-RL	2.1089E+04	-12.200	93.71
1.000	1.000	152.8	0.000	0.000	Ug6_741_743_L_0					
63 D	30.89	3.9366E-04	71.60	58.44	123.6	62.28	UL-RL	2.1089E+04	-12.400	96.00
1.000	1.000	154.4	0.000	0.000	Ug6_741_743_L_0					
64 D	31.24	3.2878E-04	73.11	57.94	125.4	63.16	UL-RL	2.1089E+04	-12.600	98.29
1.000	1.000	156.2	0.000	0.000	Ug6_741_743_L_0					
65 D	31.62	2.6805E-04	74.63	57.53	127.2	64.05	UL-RL	2.1089E+04	-12.800	100.6
1.000	1.000	158.1	0.000	0.000	Ug6_741_743_L_0					
66 D	32.01	2.1104E-04	76.14	57.20	129.0	64.94	UL-RL	2.1089E+04	-13.000	102.9
1.000	1.000	160.1	0.000	0.000	Ug6_741_743_L_0					
67 D	32.42	1.5732E-04	77.66	56.95	130.8	65.83	UL-RL	2.1089E+04	-13.200	105.1
1.000	1.000	162.1	0.000	0.000	Ug6_741_743_L_0					
68 D	32.84	1.0651E-04	79.17	56.77	132.6	66.72	UL-RL	2.1089E+04	-13.400	107.4
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	33.27	5.8229E-05	80.69	56.64	134.4	67.60	UL-RL	2.1089E+04	-13.60	109.7
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
70 D	33.71	1.2114E-05	82.20	56.56	136.2	68.49	UL-RL	2.1089E+04	-13.80	112.0
1.000	1.000	168.6	0.000	0.000	Ug6_741_743_L_0					
71 D	34.16	-3.2162E-05	83.71	56.52	138.0	69.38	UL-RL	2.1089E+04	-14.00	114.3
1.000	1.000	170.8	0.000	0.000	Ug6_741_743_L_0					
72 D	34.62	-7.4906E-05	85.23	56.51	139.8	70.27	UL-RL	2.1089E+04	-14.20	116.6
1.000	1.000	173.1	0.000	0.000	Ug6_741_743_L_0					
73 D	35.08	-1.1640E-04	86.74	56.54	141.6	71.16	UL-RL	2.1089E+04	-14.40	118.9
1.000	1.000	175.4	0.000	0.000	Ug6_741_743_L_0					
74 D	35.54	-1.5689E-04	88.26	56.58	143.4	72.05	UL-RL	2.1089E+04	-14.60	121.1
1.000	1.000	177.7	0.000	0.000	Ug6_741_743_L_0					
75 D	36.01	-1.9662E-04	89.77	56.64	145.2	72.94	UL-RL	2.1089E+04	-14.80	123.4
1.000	1.000	180.1	0.000	0.000	Ug6_741_743_L_0					
76 D	36.49	-2.3577E-04	91.29	56.71	147.0	73.84	UL-RL	2.1089E+04	-15.00	125.7
1.000	1.000	182.4	0.000	0.000	Ug6_741_743_L_0					
77 D	36.96	-2.7452E-04	92.80	56.80	148.8	74.73	UL-RL	2.1089E+04	-15.20	128.0
1.000	1.000	184.8	0.000	0.000	Ug6_741_743_L_0					
78 D	37.43	-3.1300E-04	94.31	56.88	150.6	75.62	UL-RL	2.1089E+04	-15.40	130.3
1.000	1.000	187.2	0.000	0.000	Ug6_741_743_L_0					
79 D	37.91	-3.5134E-04	95.83	56.97	152.4	76.51	UL-RL	2.1089E+04	-15.60	132.6
1.000	1.000	189.5	0.000	0.000	Ug6_741_743_L_0					
80 D	38.38	-3.8961E-04	97.34	57.06	154.2	77.40	UL-RL	2.1089E+04	-15.80	134.9
1.000	1.000	191.9	0.000	0.000	Ug6_741_743_L_0					
81 D	19.43	-4.2786E-04	98.86	57.16	156.0	78.29	UL-RL	2.1089E+04	-16.00	137.1
1.000	1.000	194.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|          Exe Time :24 May 2018           18:25:49   |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-4.81261E-09	4.81261E-09	-4.83055E-10	6.83633E-12
2	0.45709	-0.45709	-1.60067E-10	9.14178E-02
3	1.3733	-1.3733	-9.14178E-02	0.36608
4	2.7512	-2.7512	-0.36608	0.91632
5	4.5928	-4.5928	-0.91632	1.8349
6	6.8988	-6.8988	-1.8349	3.2146
7	9.6693	-9.6693	-3.2146	5.1485
8	12.910	-12.910	-5.1485	7.7304
9	16.622	-16.622	-7.7304	11.055
10	20.795	-20.795	-11.055	15.214
11	25.436	-25.436	-15.214	20.301
12	30.542	-30.542	-20.301	26.409
13	36.108	-36.108	-26.409	33.631
14	42.137	-42.137	-33.631	42.058
15	48.629	-48.629	-42.058	51.784
16	55.584	-55.584	-51.784	62.901
17	62.996	-62.996	-62.901	75.500
18	70.869	-70.869	-75.500	89.674
19	79.204	-79.204	-89.674	105.51
20	87.995	-87.995	-105.51	123.11
21	97.246	-97.246	-123.11	142.56
22	104.19	-104.19	-142.56	163.40
23	108.82	-108.82	-163.40	185.17
24	111.15	-111.15	-185.17	207.40
25	111.17	-111.17	-207.40	229.63
26	108.88	-108.88	-229.63	251.40
27	104.27	-104.27	-251.40	272.26
28	97.365	-97.365	-272.26	291.73
29	88.146	-88.146	-291.73	309.36
30	77.114	-77.114	-309.36	324.78
31	66.697	-66.697	-324.78	338.12
32	56.871	-56.871	-338.12	349.50
33	47.610	-47.610	-349.50	359.02
34	38.894	-38.894	-359.02	366.80
35	30.697	-30.697	-366.80	372.94
36	22.993	-22.993	-372.94	377.54
37	15.756	-15.756	-377.54	380.69
38	8.9605	-8.9605	-380.69	382.48
39	2.5816	-2.5816	-382.48	383.00
40	-3.4089	3.4089	-383.00	382.31
41	-9.0350	9.0350	-382.31	380.51
42	-14.322	14.322	-380.51	377.64
43	-19.298	19.298	-377.64	373.78
44	-23.986	23.986	-373.78	368.99
45	-28.411	28.411	-368.99	363.30
46	-32.597	32.597	-363.30	356.78
47	-36.570	36.570	-356.78	349.47
48	-40.350	40.350	-349.47	341.40
49	-43.962	43.962	-341.40	332.61
50	-47.429	47.429	-332.61	323.12
51	-50.770	50.770	-323.12	312.97
52	-54.006	54.006	-312.97	302.17
53	-57.159	57.159	-302.17	290.74
54	-60.246	60.246	-290.74	278.69
55	-63.285	63.285	-278.69	266.03
56	-66.295	66.295	-266.03	252.77
57	-69.292	69.292	-252.77	238.91
58	-72.291	72.291	-238.91	224.45
59	-75.308	75.308	-224.45	209.39

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-78.356	78.356	-209.39	193.72
61	-81.448	81.448	-193.72	177.43
62	-80.236	80.236	-177.43	161.38
63	-78.440	78.440	-161.38	145.70
64	-76.110	76.110	-145.70	130.47
65	-73.289	73.289	-130.47	115.82
66	-70.015	70.015	-115.82	101.81
67	-66.324	66.324	-101.81	88.548
68	-62.357	62.357	-88.548	76.077
69	-58.171	58.171	-76.077	64.443
70	-53.816	53.816	-64.443	53.679
71	-49.307	49.307	-53.679	43.818
72	-44.653	44.653	-43.818	34.888
73	-39.864	39.864	-34.888	26.915
74	-34.947	34.947	-26.915	19.925
75	-29.907	29.907	-19.925	13.944
76	-24.748	24.748	-13.944	8.9943
77	-19.472	19.472	-8.9943	5.1000
78	-14.069	14.069	-5.1000	2.2862
79	-8.5417	8.5417	-2.2862	0.57781
80	-2.8889	2.8889	-0.57781	9.05243E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 440.5 REMNOR=0.1549E-17 RATIO =0.2689E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2689E-01 RATIO= 0.000
MAX UN= 7.064 IEQ= 57 NODE 29 DOF 1 Y-DISPL.F
MIN UN=-.8312E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 126.0 REMNOR=0.1559E-17 RATIO =0.1438E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.1438E-01 RATIO= 0.000
MAX UN= 2.378 IEQ= 63 NODE 32 DOF 1 Y-DISPL.F
MIN UN=-.4778E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 461.4 REMNOR=0.1752E-17 RATIO =0.2752E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2752E-01 RATIO= 0.000
MAX UN= 21.36 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.5779 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM= 2.925 REMNOR=0.3190E-17 RATIO =0.2191E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.2191E-02 RATIO= 0.000
MAX UN= 1.185 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.8780 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6092E+06 RIMNOR=0.8227E+07
RENORM=0.7400E-02 REMNOR=0.2724E-17 RATIO =0.1102E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 111.2 RMMAX = 383.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.6092E+06 RDR =0.8227E+07
RATIOT=0.1102E-03 RATIO= 0.000
MAX UN=0.6220E-01 IEQ= 127 NODE 64 DOF 1 Y-DISPL.F
MIN UN=-.9613E-08 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.6092E+06  RIMNOR=0.8227E+07
           RENORM=0.5120E-04  REMNOR=0.3272E-17  RATIO =0.9167E-05  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 111.2      RMMAX = 383.0
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT   =0.6092E+06  RDR   =0.8227E+07
           RATIO=0.9167E-05  RATIO= 0.000
           MAX UN=0.9793E-08  IEQ=   45 NODE    23 DOF   1  Y-DISPL.F
           MIN UN=-.2648E-02  IEQ=  139 NODE    70 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                              |
|                                                                              |
|                NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|                Exe Time :24 May 2018   18:25:49                   |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0075695E-02	-3.1648037E-03	
2	2.9442734E-02	-3.1648037E-03	
3	2.8809774E-02	-3.1647973E-03	
4	2.8176817E-02	-3.1647652E-03	
5	2.7543871E-02	-3.1646752E-03	
6	2.6910953E-02	-3.1644820E-03	
7	2.6278089E-02	-3.1641275E-03	
8	2.5645318E-02	-3.1635404E-03	
9	2.5012694E-02	-3.1626362E-03	
10	2.4380291E-02	-3.1613173E-03	
11	2.3748202E-02	-3.1594730E-03	
12	2.3116545E-02	-3.1569795E-03	
13	2.2485463E-02	-3.1537000E-03	
14	2.1855128E-02	-3.1494845E-03	
15	2.1225742E-02	-3.1441702E-03	
16	2.0597545E-02	-3.1375813E-03	
17	1.9970804E-02	-3.1295289E-03	
18	1.9345841E-02	-3.1198113E-03	
19	1.8723005E-02	-3.1082139E-03	
20	1.8102696E-02	-3.0945090E-03	
21	1.7485361E-02	-3.0784563E-03	
22	1.6871490E-02	-3.0598021E-03	
23	1.6261631E-02	-3.0382804E-03	
24	1.5656387E-02	-3.0136120E-03	
25	1.5056415E-02	-2.9855242E-03	
26	1.4462421E-02	-2.9537894E-03	
27	1.3875156E-02	-2.9182450E-03	
28	1.3295386E-02	-2.8787921E-03	
29	1.2723902E-02	-2.8353972E-03	
30	1.2161488E-02	-2.7880909E-03	
31	1.1608920E-02	-2.7369685E-03	
32	1.1066947E-02	-2.6821902E-03	
33	1.0536275E-02	-2.6239799E-03	
34	1.0017565E-02	-2.5626268E-03	
35	9.5114104E-03	-2.4984846E-03	
36	9.0183307E-03	-2.4319463E-03	
37	8.5387681E-03	-2.3634014E-03	
38	8.0730819E-03	-2.2932170E-03	
39	7.6215674E-03	-2.2217402E-03	
40	7.1844501E-03	-2.1492981E-03	
41	6.7618920E-03	-2.0761988E-03	
42	6.3539951E-03	-2.0027322E-03	
43	5.9608054E-03	-1.9291713E-03	
44	5.5823158E-03	-1.855726E-03	
45	5.2184712E-03	-1.7827778E-03	
46	4.8691645E-03	-1.7104130E-03	
47	4.5342498E-03	-1.6388917E-03	
48	4.2135381E-03	-1.5684146E-03	
49	3.9068017E-03	-1.4991704E-03	
50	3.6137774E-03	-1.4313371E-03	
51	3.3341632E-03	-1.3650817E-03	
52	3.0676225E-03	-1.3005611E-03	
53	2.8138185E-03	-1.2379315E-03	
54	2.5723277E-03	-1.1773267E-03	
55	2.3427437E-03	-1.1188847E-03	
56	2.1246210E-03	-1.0627340E-03	
57	1.9174891E-03	-1.0089973E-03	
58	1.7208534E-03	-9.5779218E-04	
59	1.5341959E-03	-9.0923199E-04	
60	1.3569769E-03	-8.6342611E-04	
61	1.1886348E-03	-8.2048062E-04	
62	1.0285871E-03	-7.8049874E-04	
63	8.7623421E-04	-7.4353333E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.3097249E-04	-7.0958722E-04
65	5.9219799E-04	-6.7866115E-04
66	4.5930764E-04	-6.5074104E-04
67	3.3170408E-04	-6.2578340E-04
68	2.0880169E-04	-6.0371448E-04
69	9.0032444E-05	-5.8443316E-04
70	-2.5149062E-05	-5.6781424E-04
71	-1.3726103E-04	-5.5371205E-04
72	-2.4679087E-04	-5.4196473E-04
73	-3.5419218E-04	-5.3239623E-04
74	-4.5988196E-04	-5.2481672E-04
75	-5.6423792E-04	-5.1902297E-04
76	-6.6759578E-04	-5.1479858E-04
77	-7.7024668E-04	-5.1191417E-04
78	-8.7243463E-04	-5.1012760E-04
79	-9.7435391E-04	-5.0918384E-04
80	-1.0761465E-03	-5.0881488E-04
81	-1.1779045E-03	-5.0873979E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0076E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4508	-2.9443E-02	2.335	0.5815	2.335	1.603	ACTIVE	0.000	-0.2000	1.673	
1.000	1.000	2.254	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9037	-2.8810E-02	4.711	1.173	4.711	3.119	ACTIVE	0.000	-0.4000	3.345	
1.000	1.000	4.519	0.000	0.000	Ug5_2_8_L_0						
4 D	1.359	-2.8177E-02	7.140	1.778	7.140	4.509	ACTIVE	0.000	-0.6000	5.018	
1.000	1.000	6.796	0.000	0.000	Ug5_2_8_L_0						
5 D	1.817	-2.7544E-02	9.606	2.392	9.606	5.780	ACTIVE	0.000	-0.8000	6.691	
1.000	1.000	9.083	0.000	0.000	Ug5_2_8_L_0						
6 D	2.275	-2.6911E-02	12.09	3.010	12.09	6.958	ACTIVE	0.000	-1.000	8.364	
1.000	1.000	11.37	0.000	0.000	Ug5_2_8_L_0						
7 D	2.733	-2.6278E-02	14.57	3.629	14.57	8.073	ACTIVE	0.000	-1.200	10.04	
1.000	1.000	13.67	0.000	0.000	Ug5_2_8_L_0						
8 D	3.197	-2.5645E-02	17.17	4.274	17.17	9.145	ACTIVE	0.000	-1.400	11.71	
1.000	1.000	15.98	0.000	0.000	Ug5_2_8_L_0						
9 D	3.662	-2.5013E-02	19.79	4.929	19.79	10.19	ACTIVE	0.000	-1.600	13.38	
1.000	1.000	18.31	0.000	0.000	Ug5_2_8_L_0						
10 D	4.117	-2.4380E-02	22.21	5.530	22.21	11.22	ACTIVE	0.000	-1.800	15.05	
1.000	1.000	20.58	0.000	0.000	Ug5_2_8_L_0						
11 D	4.578	-2.3748E-02	24.76	6.165	24.76	12.23	ACTIVE	0.000	-2.000	16.73	
1.000	1.000	22.89	0.000	0.000	Ug5_2_8_L_0						
12 D	5.038	-2.3117E-02	27.27	6.790	27.27	13.24	ACTIVE	0.000	-2.200	18.40	
1.000	1.000	25.19	0.000	0.000	Ug5_2_8_L_0						
13 D	5.490	-2.2485E-02	29.64	7.380	29.64	14.24	ACTIVE	0.000	-2.400	20.07	
1.000	1.000	27.45	0.000	0.000	Ug5_2_8_L_0						
14 D	5.948	-2.1855E-02	32.11	7.996	32.11	15.24	ACTIVE	0.000	-2.600	21.75	
1.000	1.000	29.74	0.000	0.000	Ug5_2_8_L_0						
15 D	6.405	-2.1226E-02	34.57	8.607	34.57	16.23	ACTIVE	0.000	-2.800	23.42	
1.000	1.000	32.03	0.000	0.000	Ug5_2_8_L_0						
16 D	6.861	-2.0598E-02	37.01	9.215	37.01	17.23	ACTIVE	0.000	-3.000	25.09	
1.000	1.000	34.31	0.000	0.000	Ug5_2_8_L_0						
17 D	7.312	-1.9971E-02	39.34	9.797	39.34	18.22	ACTIVE	0.000	-3.200	26.76	
1.000	1.000	36.56	0.000	0.000	Ug5_2_8_L_0						
18 D	7.767	-1.9346E-02	41.77	10.40	41.77	19.21	ACTIVE	0.000	-3.400	28.44	
1.000	1.000	38.84	0.000	0.000	Ug5_2_8_L_0						
19 D	8.222	-1.8723E-02	44.18	11.00	44.18	20.21	ACTIVE	0.000	-3.600	30.11	
1.000	1.000	41.11	0.000	0.000	Ug5_2_8_L_0						
20 D	8.672	-1.8103E-02	46.51	11.58	46.51	21.20	ACTIVE	0.000	-3.800	31.78	
1.000	1.000	43.36	0.000	0.000	Ug5_2_8_L_0						
21 D	9.127	-1.7485E-02	48.91	12.18	48.91	22.19	ACTIVE	0.000	-4.000	33.45	
1.000	1.000	45.63	0.000	0.000	Ug5_2_8_L_0						
22 D	9.580	-1.6871E-02	51.30	12.77	51.30	23.18	ACTIVE	0.000	-4.200	35.13	
1.000	1.000	47.90	0.000	0.000	Ug5_2_8_L_0						
23 D	10.03	-1.6262E-02	53.63	13.35	53.63	24.18	ACTIVE	0.000	-4.400	36.80	
1.000	1.000	50.15	0.000	0.000	Ug5_2_8_L_0						
24 D	10.48	-1.5656E-02	56.01	13.95	56.01	25.17	ACTIVE	0.000	-4.600	38.47	
1.000	1.000	52.42	0.000	0.000	Ug5_2_8_L_0						
25 D	10.94	-1.5056E-02	58.39	14.54	58.39	26.17	ACTIVE	0.000	-4.800	40.15	
1.000	1.000	54.69	0.000	0.000	Ug5_2_8_L_0						
26 D	11.39	-1.4462E-02	60.77	15.13	60.77	27.16	ACTIVE	0.000	-5.000	41.82	
1.000	1.000	56.95	0.000	0.000	Ug5_2_8_L_0						
27 D	11.84	-1.3875E-02	63.09	15.71	63.09	28.16	ACTIVE	0.000	-5.200	43.49	
1.000	1.000	59.20	0.000	0.000	Ug5_2_8_L_0						
28 D	12.29	-1.3295E-02	65.46	16.30	65.46	29.16	ACTIVE	0.000	-5.400	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.46	0.000	0.000	Ug5_2_8_L_0					
29 D	12.75	-1.2724E-02	67.83	16.89	67.83	30.15	ACTIVE	0.000	-5.600	46.84
1.000	1.000	63.73	0.000	0.000	Ug5_2_8_L_0					
30 D	13.20	-1.2161E-02	70.15	17.47	70.15	31.15	ACTIVE	0.000	-5.800	48.51
1.000	1.000	65.98	0.000	0.000	Ug5_2_8_L_0					
31 D	13.65	-1.1609E-02	72.52	18.06	72.52	32.15	ACTIVE	0.000	-6.000	50.18
1.000	1.000	68.24	0.000	0.000	Ug5_2_8_L_0					
32 D	14.10	-1.1067E-02	74.88	18.65	74.88	33.15	ACTIVE	0.000	-6.200	51.85
1.000	1.000	70.50	0.000	0.000	Ug5_2_8_L_0					
33 D	14.55	-1.0536E-02	77.20	19.22	77.20	34.15	ACTIVE	0.000	-6.400	53.53
1.000	1.000	72.75	0.000	0.000	Ug5_2_8_L_0					
34 D	15.00	-1.0018E-02	79.56	19.81	79.56	35.15	ACTIVE	0.000	-6.600	55.20
1.000	1.000	75.01	0.000	0.000	Ug5_2_8_L_0					
35 D	15.45	-9.5114E-03	81.92	20.40	81.92	36.15	ACTIVE	0.000	-6.800	56.87
1.000	1.000	77.27	0.000	0.000	Ug5_2_8_L_0					
36 D	15.91	-9.0183E-03	84.28	20.98	84.28	37.16	ACTIVE	0.000	-7.000	58.55
1.000	1.000	79.53	0.000	0.000	Ug5_2_8_L_0					
37 D	16.36	-8.5388E-03	86.59	21.56	86.59	38.16	ACTIVE	0.000	-7.200	60.22
1.000	1.000	81.78	0.000	0.000	Ug5_2_8_L_0					
38 D	16.81	-8.0731E-03	88.95	22.15	88.95	39.16	ACTIVE	0.000	-7.400	61.89
1.000	1.000	84.04	0.000	0.000	Ug5_2_8_L_0					
39 D	17.26	-7.6216E-03	91.30	22.73	91.30	40.17	ACTIVE	0.000	-7.600	63.56
1.000	1.000	86.30	0.000	0.000	Ug5_2_8_L_0					
40 D	17.71	-7.1845E-03	93.62	23.31	93.62	41.17	ACTIVE	0.000	-7.800	65.24
1.000	1.000	88.55	0.000	0.000	Ug5_2_8_L_0					
41 D	18.16	-6.7619E-03	95.97	23.90	95.97	42.18	ACTIVE	0.000	-8.000	66.91
1.000	1.000	90.81	0.000	0.000	Ug5_2_8_L_0					
42 D	18.61	-6.3540E-03	98.32	24.48	98.32	43.19	ACTIVE	0.000	-8.200	68.58
1.000	1.000	93.06	0.000	0.000	Ug5_2_8_L_0					
43 D	19.06	-5.9608E-03	100.6	25.06	100.6	44.19	ACTIVE	0.000	-8.400	70.25
1.000	1.000	95.31	0.000	0.000	Ug5_2_8_L_0					
44 D	19.51	-5.5823E-03	103.0	25.64	103.0	45.20	ACTIVE	0.000	-8.600	71.93
1.000	1.000	97.57	0.000	0.000	Ug5_2_8_L_0					
45 D	19.97	-5.2185E-03	105.3	26.23	105.3	46.21	ACTIVE	0.000	-8.800	73.60
1.000	1.000	99.83	0.000	0.000	Ug5_2_8_L_0					
46 D	20.42	-4.8692E-03	107.7	26.81	107.7	47.22	ACTIVE	0.000	-9.000	75.27
1.000	1.000	102.1	0.000	0.000	Ug5_2_8_L_0					
47 D	20.87	-4.5342E-03	110.0	27.39	110.0	48.23	ACTIVE	0.000	-9.200	76.95
1.000	1.000	104.3	0.000	0.000	Ug5_2_8_L_0					
48 D	21.32	-4.2135E-03	112.3	27.97	112.3	49.24	ACTIVE	0.000	-9.400	78.62
1.000	1.000	106.6	0.000	0.000	Ug5_2_8_L_0					
49 D	21.77	-3.9068E-03	114.7	28.56	114.7	50.26	ACTIVE	0.000	-9.600	80.29
1.000	1.000	108.8	0.000	0.000	Ug5_2_8_L_0					
50 D	22.22	-3.6138E-03	117.0	29.13	117.0	51.27	ACTIVE	0.000	-9.800	81.96
1.000	1.000	111.1	0.000	0.000	Ug5_2_8_L_0					
51 D	22.67	-3.3342E-03	119.4	29.72	119.4	52.28	ACTIVE	0.000	-10.000	83.64
1.000	1.000	113.4	0.000	0.000	Ug5_2_8_L_0					
52 D	23.12	-3.0676E-03	121.7	30.30	121.7	53.29	ACTIVE	0.000	-10.200	85.31
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
53 D	23.57	-2.8138E-03	124.0	30.88	124.0	54.31	ACTIVE	0.000	-10.400	86.98
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
54 D	24.02	-2.5723E-03	126.4	31.46	126.4	55.32	ACTIVE	0.000	-10.600	88.65
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
55 D	24.47	-2.3427E-03	128.7	32.05	128.7	56.34	ACTIVE	0.000	-10.800	90.33
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
56 D	24.93	-2.1246E-03	131.0	32.63	131.0	57.35	ACTIVE	0.000	-11.000	92.00
1.000	1.000	124.6	0.000	0.000	Ug5_2_8_L_0					
57 D	25.38	-1.9175E-03	133.4	33.21	133.4	58.37	ACTIVE	0.000	-11.200	93.67
1.000	1.000	126.9	0.000	0.000	Ug5_2_8_L_0					
58 D	25.83	-1.7209E-03	135.7	33.79	135.7	59.39	ACTIVE	0.000	-11.400	95.35
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
59 D	26.28	-1.5342E-03	138.0	34.37	138.0	60.40	ACTIVE	0.000	-11.600	97.02
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
60 D	26.73	-1.3570E-03	140.4	34.95	140.4	61.42	ACTIVE	0.000	-11.800	98.69
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
61 D	27.19	-1.1886E-03	142.7	35.57	142.7	62.44	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
62 D	30.47	-1.0286E-03	144.8	50.32	144.8	63.42	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	152.4	0.000	0.000	Ug6_741_743_L_0					
63 D	30.98	-8.7623E-04	147.0	51.20	147.0	64.53	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	154.9	0.000	0.000	Ug6_741_743_L_0					
64 D	31.49	-7.3097E-04	149.1	52.08	149.1	65.58	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.5	0.000	0.000	Ug6_741_743_L_0					
65 D	32.62	-5.9220E-04	151.2	56.04	151.2	66.59	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	163.1	0.000	0.000	Ug6_741_743_L_0					
66 D	33.82	-4.5931E-04	153.3	60.39	153.3	67.57	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	169.1	0.000	0.000	Ug6_741_743_L_0					
67 D	35.00	-3.3170E-04	155.4	64.59	155.4	68.78	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	175.0	0.000	0.000	Ug6_741_743_L_0					
68 D	36.04	-2.0880E-04	157.5	68.11	157.5	70.56	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	180.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.02	-9.0032E-05	159.6	71.36	159.6	72.13	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	185.1	0.000	0.000	Ug6_741_743_L_0					
70 D	37.84	2.5149E-05	161.7	73.76	161.7	73.78	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
71 D	38.55	1.3726E-04	163.8	75.64	163.8	75.65	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.7	0.000	0.000	Ug6_741_743_L_0					
72 D	39.25	2.4679E-04	165.9	77.48	165.9	77.50	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	196.2	0.000	0.000	Ug6_741_743_L_0					
73 D	39.95	3.5419E-04	168.0	79.30	168.0	79.31	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.7	0.000	0.000	Ug6_741_743_L_0					
74 D	40.64	4.5988E-04	170.1	81.10	170.1	81.11	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	203.2	0.000	0.000	Ug6_741_743_L_0					
75 D	41.33	5.6424E-04	172.2	82.88	172.2	82.90	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.7	0.000	0.000	Ug6_741_743_L_0					
76 D	42.02	6.6760E-04	174.3	84.66	174.3	84.67	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	210.1	0.000	0.000	Ug6_741_743_L_0					
77 D	42.71	7.7025E-04	176.4	86.43	176.4	86.44	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.6	0.000	0.000	Ug6_741_743_L_0					
78 D	43.41	8.7243E-04	178.5	88.25	178.5	88.26	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	217.0	0.000	0.000	Ug6_741_743_L_0					
79 D	44.11	9.7435E-04	180.6	90.07	180.6	90.08	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.5	0.000	0.000	Ug6_741_743_L_0					
80 D	44.81	1.0761E-03	182.7	91.88	182.7	91.90	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	224.0	0.000	0.000	Ug6_741_743_L_0					
81 D	22.75	1.1779E-03	184.8	93.70	184.8	93.71	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817                                          |
|          Exe Time :24 May 2018          18:25:49                                                |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.360	1.5656E-02	0.8364	5.635	46.00	63.03	PASSIVE	0.000	-4.600	1.164	
1.000	1.000	6.799	0.000	0.000	Ug5_2_8_L_0						
25 D	4.079	1.5056E-02	2.509	16.91	48.00	61.64	PASSIVE	0.000	-4.800	3.491	
1.000	1.000	20.40	0.000	0.000	Ug5_2_8_L_0						
26 D	6.799	1.4462E-02	4.182	28.18	50.00	60.31	PASSIVE	0.000	-5.000	5.818	
1.000	1.000	34.00	0.000	0.000	Ug5_2_8_L_0						
27 D	9.519	1.3875E-02	5.855	39.45	52.00	69.31	PASSIVE	0.000	-5.200	8.145	
1.000	1.000	47.59	0.000	0.000	Ug5_2_8_L_0						
28 D	12.24	1.3295E-02	7.527	50.72	54.00	80.86	PASSIVE	0.000	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.19	0.000	0.000	Ug5_2_8_L_0					
29 D	14.96	1.2724E-02	9.200	61.99	56.00	92.41	PASSIVE	0.000	-5.600	12.80
1.000	1.000	74.79	0.000	0.000	Ug5_2_8_L_0					
30 D	17.68	1.2161E-02	10.87	73.26	58.00	101.5	PASSIVE	0.000	-5.800	15.13
1.000	1.000	88.39	0.000	0.000	Ug5_2_8_L_0					
31 D	20.40	1.1609E-02	12.55	84.53	60.00	98.41	PASSIVE	0.000	-6.000	17.45
1.000	1.000	102.0	0.000	0.000	Ug5_2_8_L_0					
32 D	23.12	1.1067E-02	14.22	95.80	62.00	95.80	PASSIVE	0.000	-6.200	19.78
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
33 D	25.84	1.0536E-02	15.89	107.1	64.00	107.1	PASSIVE	0.000	-6.400	22.11
1.000	1.000	129.2	0.000	0.000	Ug5_2_8_L_0					
34 D	28.56	1.0018E-02	17.56	118.3	66.00	118.3	PASSIVE	0.000	-6.600	24.44
1.000	1.000	142.8	0.000	0.000	Ug5_2_8_L_0					
35 D	29.51	9.5114E-03	19.24	120.8	68.00	120.8	V-C	8310.	-6.800	26.76
1.000	1.000	147.6	0.000	0.000	Ug5_2_8_L_0					
36 D	29.19	9.0183E-03	20.91	116.9	70.00	116.9	V-C	8310.	-7.000	29.09
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
37 D	28.90	8.5388E-03	22.58	113.1	72.00	113.1	V-C	8310.	-7.200	31.42
1.000	1.000	144.5	0.000	0.000	Ug5_2_8_L_0					
38 D	28.64	8.0731E-03	24.25	109.4	74.00	109.4	V-C	8310.	-7.400	33.75
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
39 D	28.41	7.6216E-03	25.93	106.0	76.00	106.0	V-C	8310.	-7.600	36.07
1.000	1.000	142.0	0.000	0.000	Ug5_2_8_L_0					
40 D	28.21	7.1845E-03	27.60	102.6	78.00	102.6	V-C	8310.	-7.800	38.40
1.000	1.000	141.0	0.000	0.000	Ug5_2_8_L_0					
41 D	28.04	6.7619E-03	29.27	99.47	80.00	99.47	V-C	8310.	-8.000	40.73
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
42 D	27.90	6.3540E-03	30.95	96.46	82.00	96.46	V-C	8310.	-8.200	43.05
1.000	1.000	139.5	0.000	0.000	Ug5_2_8_L_0					
43 D	27.80	5.9608E-03	32.62	93.62	84.00	93.62	V-C	8310.	-8.400	45.38
1.000	1.000	139.0	0.000	0.000	Ug5_2_8_L_0					
44 D	27.73	5.5823E-03	34.29	90.93	86.00	90.93	V-C	8310.	-8.600	47.71
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
45 D	27.69	5.2185E-03	35.96	88.40	88.00	88.40	V-C	8310.	-8.800	50.04
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
46 D	27.68	4.8692E-03	37.64	86.02	90.00	86.02	V-C	8310.	-9.000	52.36
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
47 D	27.70	4.5342E-03	39.31	83.79	92.00	83.79	V-C	8310.	-9.200	54.69
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
48 D	27.75	4.2135E-03	40.98	81.72	94.00	81.72	V-C	8310.	-9.400	57.02
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
49 D	27.83	3.9068E-03	42.65	79.79	96.00	79.79	V-C	8310.	-9.600	59.35
1.000	1.000	139.1	0.000	0.000	Ug5_2_8_L_0					
50 D	27.94	3.6138E-03	44.33	78.01	98.00	78.01	V-C	8310.	-9.800	61.67
1.000	1.000	139.7	0.000	0.000	Ug5_2_8_L_0					
51 D	28.07	3.3342E-03	46.00	76.36	100.00	76.36	V-C	8310.	-10.000	64.00
1.000	1.000	140.4	0.000	0.000	Ug5_2_8_L_0					
52 D	28.24	3.0676E-03	47.67	74.85	102.0	74.85	V-C	8310.	-10.200	66.33
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.43	2.8138E-03	49.35	73.47	104.0	73.47	V-C	8310.	-10.400	68.65
1.000	1.000	142.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.64	2.5723E-03	51.02	72.22	106.0	72.22	V-C	8310.	-10.600	70.98
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
55 D	28.88	2.3427E-03	52.69	71.09	108.0	71.09	V-C	8310.	-10.800	73.31
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
56 D	29.14	2.1246E-03	54.36	70.07	110.0	70.07	V-C	8310.	-11.000	75.64
1.000	1.000	145.7	0.000	0.000	Ug5_2_8_L_0					
57 D	29.43	1.9175E-03	56.04	69.17	112.0	69.17	V-C	8310.	-11.200	77.96
1.000	1.000	147.1	0.000	0.000	Ug5_2_8_L_0					
58 D	29.73	1.7209E-03	57.71	68.37	114.0	68.37	V-C	8310.	-11.400	80.29
1.000	1.000	148.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.06	1.5342E-03	59.38	67.67	116.0	67.67	V-C	8310.	-11.600	82.62
1.000	1.000	150.3	0.000	0.000	Ug5_2_8_L_0					
60 D	30.40	1.3570E-03	61.05	67.07	118.0	67.07	V-C	8310.	-11.800	84.95
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
61 D	30.76	1.1886E-03	62.73	66.54	120.0	66.55	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.8	0.000	0.000	Ug5_2_8_L_0					
62 D	30.61	1.0286E-03	64.20	63.45	121.8	63.50	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	153.0	0.000	0.000	Ug6_741_743_L_0					
63 D	31.04	8.7623E-04	65.67	63.28	123.6	63.38	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.2	0.000	0.000	Ug6_741_743_L_0					
64 D	31.49	7.3097E-04	67.15	63.17	125.4	63.32	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.4	0.000	0.000	Ug6_741_743_L_0					
65 D	31.64	5.9220E-04	68.62	61.60	127.2	64.05	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	158.2	0.000	0.000	Ug6_741_743_L_0					
66 D	31.75	4.5931E-04	70.09	59.84	129.0	64.94	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
67 D	31.89	3.3170E-04	71.56	58.20	130.8	65.83	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.4	0.000	0.000	Ug6_741_743_L_0					
68 D	32.04	2.0880E-04	73.04	56.66	132.6	66.72	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	160.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.22	9.0032E-05	74.51	55.20	134.4	67.60	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	161.1	0.000	0.000	Ug6_741_743_L_0					
70 D	32.41	-2.5149E-05	75.98	53.82	136.2	68.49	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	162.0	0.000	0.000	Ug6_741_743_L_0					
71 D	32.61	-1.3726E-04	77.45	52.50	138.0	69.38	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	163.0	0.000	0.000	Ug6_741_743_L_0					
72 D	32.82	-2.4679E-04	78.93	51.24	139.8	70.27	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	164.1	0.000	0.000	Ug6_741_743_L_0					
73 D	33.04	-3.5419E-04	80.40	50.01	141.6	71.16	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	165.2	0.000	0.000	Ug6_741_743_L_0					
74 D	33.27	-4.5988E-04	81.87	48.83	143.4	72.05	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
75 D	33.50	-5.6424E-04	83.35	47.67	145.2	72.94	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.5	0.000	0.000	Ug6_741_743_L_0					
76 D	33.74	-6.6760E-04	84.82	46.53	147.0	73.84	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
77 D	33.98	-7.7025E-04	86.29	45.40	148.8	74.73	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.9	0.000	0.000	Ug6_741_743_L_0					
78 D	34.22	-8.7243E-04	87.76	44.29	150.6	75.62	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	171.1	0.000	0.000	Ug6_741_743_L_0					
79 D	34.47	-9.7435E-04	89.24	43.18	152.4	76.51	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	172.3	0.000	0.000	Ug6_741_743_L_0					
80 D	34.71	-1.0761E-03	90.71	42.07	154.2	77.40	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.6	0.000	0.000	Ug6_741_743_L_0					
81 D	17.48	-1.1779E-03	92.18	40.96	156.0	78.29	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SISMICASTR_1817                    |
|                               Exe Time :24 May 2018      18:25:49                               |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-3.99537E-11	3.99537E-11	-1.50990E-12	6.74817E-10
2	0.45085	-0.45085	-5.10296E-10	9.01693E-02
3	1.3546	-1.3546	-9.01693E-02	0.36108
4	2.7138	-2.7138	-0.36108	0.90383
5	4.5303	-4.5303	-0.90383	1.8099
6	6.8051	-6.8051	-1.8099	3.1709
7	9.5382	-9.5382	-3.1709	5.0786
8	12.735	-12.735	-5.0786	7.6255
9	16.397	-16.397	-7.6255	10.905
10	20.514	-20.514	-10.905	15.008
11	25.092	-25.092	-15.008	20.026
12	30.130	-30.130	-20.026	26.052
13	35.621	-35.621	-26.052	33.176
14	41.569	-41.569	-33.176	41.490
15	47.974	-47.974	-41.490	51.085
16	54.835	-54.835	-51.085	62.052
17	62.147	-62.147	-62.052	74.482
18	69.914	-69.914	-74.482	88.464
19	78.136	-78.136	-88.464	104.09
20	86.809	-86.809	-104.09	121.45
21	95.935	-95.935	-121.45	140.64
22	105.52	-105.52	-140.64	161.74
23	115.55	-115.55	-161.74	184.85
24	124.67	-124.67	-184.85	209.79
25	131.53	-131.53	-209.79	236.09
26	136.12	-136.12	-236.09	263.32
27	138.44	-138.44	-263.32	291.00
28	138.49	-138.49	-291.00	318.70
29	136.28	-136.28	-318.70	345.96
30	131.80	-131.80	-345.96	372.32
31	125.05	-125.05	-372.32	397.33
32	116.03	-116.03	-397.33	420.54
33	104.75	-104.75	-420.54	441.49
34	91.194	-91.194	-441.49	459.72
35	77.134	-77.134	-459.72	475.15
36	63.850	-63.850	-475.15	487.92
37	51.308	-51.308	-487.92	498.18
38	39.480	-39.480	-498.18	506.08
39	28.334	-28.334	-506.08	511.75
40	17.838	-17.838	-511.75	515.31
41	7.9601	-7.9601	-515.31	516.91
42	-1.3304	1.3304	-516.91	516.64
43	-10.067	10.067	-516.64	514.63
44	-18.280	18.280	-514.63	510.97
45	-26.001	26.001	-510.97	505.77
46	-33.261	33.261	-505.77	499.12
47	-40.091	40.091	-499.12	491.10
48	-46.520	46.520	-491.10	481.80
49	-52.578	52.578	-481.80	471.28
50	-58.294	58.294	-471.28	459.62
51	-63.695	63.695	-459.62	446.88
52	-68.809	68.809	-446.88	433.12
53	-73.662	73.662	-433.12	418.39
54	-78.279	78.279	-418.39	402.73
55	-82.684	82.684	-402.73	386.20
56	-86.900	86.900	-386.20	368.82
57	-90.951	90.951	-368.82	350.63
58	-94.856	94.856	-350.63	331.65
59	-98.636	98.636	-331.65	311.93

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.31	102.31	-311.93	291.46
61	-105.89	105.89	-291.46	270.29
62	-106.02	106.02	-270.29	249.08
63	-106.08	106.08	-249.08	227.87
64	-106.08	106.08	-227.87	206.65
65	-105.09	105.09	-206.65	185.63
66	-103.02	103.02	-185.63	165.03
67	-99.912	99.912	-165.03	145.05
68	-95.920	95.920	-145.05	125.86
69	-91.117	91.117	-125.86	107.64
70	-85.685	85.685	-107.64	90.501
71	-79.747	79.747	-90.501	74.551
72	-73.318	73.318	-74.551	59.888
73	-66.412	66.412	-59.888	46.606
74	-59.039	59.039	-46.606	34.798
75	-51.209	51.209	-34.798	24.556
76	-42.927	42.927	-24.556	15.971
77	-34.197	34.197	-15.971	9.1311
78	-25.011	25.011	-9.1311	4.1290
79	-15.370	15.370	-4.1290	1.0550
80	-5.2747	5.2747	-1.0550	-2.45971E-11

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1026E+07  RIMNOR=0.1448E+08
           RENORM= 1.337     REMNOR=0.3272E-17  RATIO =0.1142E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 138.5     RMMAX = 516.9
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1026E+07   RDR =0.1448E+08
           RATIO=0.1142E-02  RATIO= 0.000
           MAX UN=0.5985E-09  IEQ=      8  NODE      4  DOF   2  X-ROT. F
           MIN UN=-.1554     IEQ=     125  NODE     63  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1026E+07  RIMNOR=0.1448E+08
           RENORM=0.6379E-15  REMNOR=0.3314E-17  RATIO =0.2494E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 138.5     RMMAX = 516.9
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1026E+07   RDR =0.1448E+08
           RATIO=0.2494E-10  RATIO= 0.000
           MAX UN=0.8051E-08  IEQ=     29  NODE     15  DOF   1  Y-DISPL.F
           MIN UN=-.6871E-08  IEQ=     19  NODE     10  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                              |
|                                                                              |
|                NewProject.BaseDesignSection_28.SISMICASTR_1817   |
|                Exe Time :24 May 2018   18:25:49                   |
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New Project
SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0072206E-02	-3.1661878E-03	
2	2.9438969E-02	-3.1661878E-03	
3	2.8805732E-02	-3.1661808E-03	
4	2.8172498E-02	-3.1661466E-03	
5	2.7539277E-02	-3.1660518E-03	
6	2.6906085E-02	-3.1658503E-03	
7	2.6272948E-02	-3.1654830E-03	
8	2.5639907E-02	-3.1648780E-03	
9	2.5007018E-02	-3.1639504E-03	
10	2.4374355E-02	-3.1626025E-03	
11	2.3742013E-02	-3.1607235E-03	
12	2.3110110E-02	-3.1581900E-03	
13	2.2478790E-02	-3.1548655E-03	
14	2.1848226E-02	-3.1506006E-03	
15	2.1218623E-02	-3.1452331E-03	
16	2.0590218E-02	-3.1385878E-03	
17	1.9963282E-02	-3.1304768E-03	
18	1.9338135E-02	-3.1206992E-03	
19	1.8715128E-02	-3.1090413E-03	
20	1.8094659E-02	-3.0952763E-03	
21	1.7477177E-02	-3.0791648E-03	
22	1.6863170E-02	-3.0604543E-03	
23	1.6253186E-02	-3.0388797E-03	
24	1.5647827E-02	-3.0141628E-03	
25	1.5047749E-02	-2.9860313E-03	
26	1.4453657E-02	-2.9542578E-03	
27	1.3866302E-02	-2.9186793E-03	
28	1.3286449E-02	-2.8791970E-03	
29	1.2714886E-02	-2.8357771E-03	
30	1.2152399E-02	-2.7884502E-03	
31	1.1599760E-02	-2.7373116E-03	
32	1.1057720E-02	-2.6825213E-03	
33	1.0526983E-02	-2.6243031E-03	
34	1.0008208E-02	-2.5629462E-03	
35	9.5019898E-03	-2.4988041E-03	
36	9.0088459E-03	-2.4322698E-03	
37	8.5292178E-03	-2.3637328E-03	
38	8.0634643E-03	-2.2935599E-03	
39	7.6118798E-03	-2.2220984E-03	
40	7.1746890E-03	-2.1496751E-03	
41	6.7520533E-03	-2.0765980E-03	
42	6.3440741E-03	-2.0031571E-03	
43	5.9507965E-03	-1.9296249E-03	
44	5.5722131E-03	-1.8562581E-03	
45	5.2082680E-03	-1.7832980E-03	
46	4.8588535E-03	-1.7109706E-03	
47	4.5238233E-03	-1.6394892E-03	
48	4.2029881E-03	-1.5690542E-03	
49	3.8961193E-03	-1.4998539E-03	
50	3.6029538E-03	-1.4320663E-03	
51	3.3231890E-03	-1.3658577E-03	
52	3.0564884E-03	-1.3013848E-03	
53	2.8025149E-03	-1.2388031E-03	
54	2.5608450E-03	-1.1782460E-03	
55	2.3310724E-03	-1.1198509E-03	
56	2.1127519E-03	-1.0637456E-03	
57	1.9054134E-03	-1.0100520E-03	
58	1.7085625E-03	-9.5888703E-04	
59	1.5216825E-03	-9.1036301E-04	
60	1.3442341E-03	-8.6458838E-04	
61	1.1756568E-03	-8.2166818E-04	
62	1.0153697E-03	-7.8170445E-04	
63	8.6277443E-04	-7.4475010E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	7.1726875E-04	-7.1080910E-04
65	5.7824977E-04	-6.7988333E-04
66	4.4511528E-04	-6.5195971E-04
67	3.1726858E-04	-6.2699572E-04
68	1.9412454E-04	-6.0491843E-04
69	7.5115450E-05	-5.8562746E-04
70	-4.0303895E-05	-5.6899826E-04
71	-1.5265163E-04	-5.5488569E-04
72	-2.6241519E-04	-5.4312840E-04
73	-3.7004830E-04	-5.3355075E-04
74	-4.7596816E-04	-5.2596321E-04
75	-5.8055272E-04	-5.2016274E-04
76	-6.8413797E-04	-5.1593303E-04
77	-7.8701536E-04	-5.1304473E-04
78	-8.8942914E-04	-5.1125558E-04
79	-9.9157385E-04	-5.1031036E-04
80	-1.0935917E-03	-5.0994080E-04
81	-1.1955749E-03	-5.0986558E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817 |
|          Exe Time :24 May 2018           18:25:49 |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0072E-02	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4882	-2.9439E-02	2.327	0.7683	2.335	1.603	UL-RL	5.0142E+04	-0.2000	1.673	
1.000	1.000	2.441	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9414	-2.8806E-02	4.655	1.362	4.711	3.119	UL-RL	5.0142E+04	-0.4000	3.345	
1.000	1.000	4.707	0.000	0.000	Ug5_2_8_L_0						
4 D	1.395	-2.8172E-02	6.982	1.955	7.140	4.509	UL-RL	5.0142E+04	-0.6000	5.018	
1.000	1.000	6.973	0.000	0.000	Ug5_2_8_L_0						
5 D	1.848	-2.7539E-02	9.309	2.548	9.606	5.780	UL-RL	5.0142E+04	-0.8000	6.691	
1.000	1.000	9.239	0.000	0.000	Ug5_2_8_L_0						
6 D	2.301	-2.6906E-02	11.64	3.142	12.09	6.958	UL-RL	5.0142E+04	-1.0000	8.364	
1.000	1.000	11.51	0.000	0.000	Ug5_2_8_L_0						
7 D	2.754	-2.6273E-02	13.96	3.735	14.57	8.073	UL-RL	5.0142E+04	-1.2000	10.04	
1.000	1.000	13.77	0.000	0.000	Ug5_2_8_L_0						
8 D	3.207	-2.5640E-02	16.29	4.328	17.17	9.145	UL-RL	5.0142E+04	-1.4000	11.71	
1.000	1.000	16.04	0.000	0.000	Ug5_2_8_L_0						
9 D	3.660	-2.5007E-02	18.62	4.921	19.79	10.19	UL-RL	5.0142E+04	-1.6000	13.38	
1.000	1.000	18.30	0.000	0.000	Ug5_2_8_L_0						
10 D	4.114	-2.4374E-02	20.95	5.513	22.21	11.22	UL-RL	5.0142E+04	-1.8000	15.05	
1.000	1.000	20.57	0.000	0.000	Ug5_2_8_L_0						
11 D	4.567	-2.3742E-02	23.27	6.105	24.76	12.23	UL-RL	5.0142E+04	-2.0000	16.73	
1.000	1.000	22.83	0.000	0.000	Ug5_2_8_L_0						
12 D	5.019	-2.3110E-02	25.60	6.697	27.27	13.24	UL-RL	5.0142E+04	-2.2000	18.40	
1.000	1.000	25.10	0.000	0.000	Ug5_2_8_L_0						
13 D	5.472	-2.2479E-02	27.93	7.289	29.64	14.24	UL-RL	5.0142E+04	-2.4000	20.07	
1.000	1.000	27.36	0.000	0.000	Ug5_2_8_L_0						
14 D	5.925	-2.1848E-02	30.25	7.879	32.11	15.24	UL-RL	5.0142E+04	-2.6000	21.75	
1.000	1.000	29.62	0.000	0.000	Ug5_2_8_L_0						
15 D	6.378	-2.1219E-02	32.58	8.470	34.57	16.23	UL-RL	5.0142E+04	-2.8000	23.42	
1.000	1.000	31.89	0.000	0.000	Ug5_2_8_L_0						
16 D	6.830	-2.0590E-02	34.91	9.060	37.01	17.23	UL-RL	5.0142E+04	-3.0000	25.09	
1.000	1.000	34.15	0.000	0.000	Ug5_2_8_L_0						
17 D	7.283	-1.9963E-02	37.24	9.649	39.34	18.22	UL-RL	5.0142E+04	-3.2000	26.76	
1.000	1.000	36.41	0.000	0.000	Ug5_2_8_L_0						
18 D	7.735	-1.9338E-02	39.56	10.24	41.77	19.21	UL-RL	5.0142E+04	-3.4000	28.44	
1.000	1.000	38.67	0.000	0.000	Ug5_2_8_L_0						
19 D	8.187	-1.8715E-02	41.89	10.83	44.18	20.21	UL-RL	5.0142E+04	-3.6000	30.11	
1.000	1.000	40.93	0.000	0.000	Ug5_2_8_L_0						
20 D	8.639	-1.8095E-02	44.22	11.41	46.51	21.20	UL-RL	5.0142E+04	-3.8000	31.78	
1.000	1.000	43.20	0.000	0.000	Ug5_2_8_L_0						
21 D	9.091	-1.7477E-02	46.55	12.00	48.91	22.19	UL-RL	5.0142E+04	-4.0000	33.45	
1.000	1.000	45.45	0.000	0.000	Ug5_2_8_L_0						
22 D	9.543	-1.6863E-02	48.87	12.59	51.30	23.18	UL-RL	5.0142E+04	-4.2000	35.13	
1.000	1.000	47.71	0.000	0.000	Ug5_2_8_L_0						
23 D	9.994	-1.6253E-02	51.20	13.17	53.63	24.18	UL-RL	5.0142E+04	-4.4000	36.80	
1.000	1.000	49.97	0.000	0.000	Ug5_2_8_L_0						
24 D	10.45	-1.5648E-02	53.53	13.76	56.01	25.17	UL-RL	5.0142E+04	-4.6000	38.47	
1.000	1.000	52.23	0.000	0.000	Ug5_2_8_L_0						
25 D	10.90	-1.5048E-02	55.85	14.34	58.39	26.17	UL-RL	5.0142E+04	-4.8000	40.15	
1.000	1.000	54.49	0.000	0.000	Ug5_2_8_L_0						
26 D	11.35	-1.4454E-02	58.18	14.93	60.77	27.16	UL-RL	5.0142E+04	-5.0000	41.82	
1.000	1.000	56.74	0.000	0.000	Ug5_2_8_L_0						
27 D	11.80	-1.3866E-02	60.51	15.51	63.09	28.16	UL-RL	5.0142E+04	-5.2000	43.49	
1.000	1.000	59.00	0.000	0.000	Ug5_2_8_L_0						
28 D	12.25	-1.3286E-02	62.84	16.09	65.46	29.16	UL-RL	5.0142E+04	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	61.26	0.000	0.000	Ug5_2_8_L_0					
29 D	12.70	-1.2715E-02	65.16	16.68	67.83	30.15	UL-RL	5.0142E+04	-5.600	46.84
1.000	1.000	63.51	0.000	0.000	Ug5_2_8_L_0					
30 D	13.15	-1.2152E-02	67.49	17.26	70.15	31.15	UL-RL	5.0142E+04	-5.800	48.51
1.000	1.000	65.77	0.000	0.000	Ug5_2_8_L_0					
31 D	13.61	-1.1600E-02	69.82	17.84	72.52	32.15	UL-RL	5.0142E+04	-6.000	50.18
1.000	1.000	68.03	0.000	0.000	Ug5_2_8_L_0					
32 D	14.06	-1.1058E-02	72.15	18.43	74.88	33.15	UL-RL	5.0142E+04	-6.200	51.85
1.000	1.000	70.28	0.000	0.000	Ug5_2_8_L_0					
33 D	14.51	-1.0527E-02	74.47	19.01	77.20	34.15	UL-RL	5.0142E+04	-6.400	53.53
1.000	1.000	72.54	0.000	0.000	Ug5_2_8_L_0					
34 D	14.96	-1.0008E-02	76.80	19.59	79.56	35.15	UL-RL	5.0142E+04	-6.600	55.20
1.000	1.000	74.79	0.000	0.000	Ug5_2_8_L_0					
35 D	15.41	-9.5020E-03	79.13	20.18	81.92	36.15	UL-RL	5.0142E+04	-6.800	56.87
1.000	1.000	77.05	0.000	0.000	Ug5_2_8_L_0					
36 D	15.86	-9.0088E-03	81.45	20.76	84.28	37.16	UL-RL	5.0142E+04	-7.000	58.55
1.000	1.000	79.30	0.000	0.000	Ug5_2_8_L_0					
37 D	16.31	-8.5292E-03	83.78	21.34	86.59	38.16	UL-RL	5.0142E+04	-7.200	60.22
1.000	1.000	81.56	0.000	0.000	Ug5_2_8_L_0					
38 D	16.76	-8.0635E-03	86.11	21.92	88.95	39.16	UL-RL	5.0142E+04	-7.400	61.89
1.000	1.000	83.81	0.000	0.000	Ug5_2_8_L_0					
39 D	17.21	-7.6119E-03	88.44	22.51	91.30	40.17	UL-RL	5.0142E+04	-7.600	63.56
1.000	1.000	86.07	0.000	0.000	Ug5_2_8_L_0					
40 D	17.67	-7.1747E-03	90.76	23.09	93.62	41.17	UL-RL	5.0142E+04	-7.800	65.24
1.000	1.000	88.33	0.000	0.000	Ug5_2_8_L_0					
41 D	18.12	-6.7521E-03	93.09	23.67	95.97	42.18	UL-RL	5.0142E+04	-8.000	66.91
1.000	1.000	90.58	0.000	0.000	Ug5_2_8_L_0					
42 D	18.57	-6.3441E-03	95.42	24.26	98.32	43.19	UL-RL	5.0142E+04	-8.200	68.58
1.000	1.000	92.84	0.000	0.000	Ug5_2_8_L_0					
43 D	19.02	-5.9508E-03	97.75	24.84	100.6	44.19	UL-RL	5.0142E+04	-8.400	70.25
1.000	1.000	95.09	0.000	0.000	Ug5_2_8_L_0					
44 D	19.47	-5.5722E-03	100.1	25.42	103.0	45.20	UL-RL	5.0142E+04	-8.600	71.93
1.000	1.000	97.35	0.000	0.000	Ug5_2_8_L_0					
45 D	19.92	-5.2083E-03	102.4	26.01	105.3	46.21	UL-RL	5.0142E+04	-8.800	73.60
1.000	1.000	99.61	0.000	0.000	Ug5_2_8_L_0					
46 D	20.37	-4.8589E-03	104.7	26.59	107.7	47.22	UL-RL	5.0142E+04	-9.000	75.27
1.000	1.000	101.9	0.000	0.000	Ug5_2_8_L_0					
47 D	20.82	-4.5238E-03	107.1	27.18	110.0	48.23	UL-RL	5.0142E+04	-9.200	76.95
1.000	1.000	104.1	0.000	0.000	Ug5_2_8_L_0					
48 D	21.28	-4.2030E-03	109.4	27.77	112.3	49.24	UL-RL	5.0142E+04	-9.400	78.62
1.000	1.000	106.4	0.000	0.000	Ug5_2_8_L_0					
49 D	21.73	-3.8961E-03	111.7	28.35	114.7	50.26	UL-RL	5.0142E+04	-9.600	80.29
1.000	1.000	108.6	0.000	0.000	Ug5_2_8_L_0					
50 D	22.18	-3.6030E-03	114.0	28.94	117.0	51.27	UL-RL	5.0142E+04	-9.800	81.96
1.000	1.000	110.9	0.000	0.000	Ug5_2_8_L_0					
51 D	22.63	-3.3232E-03	116.4	29.52	119.4	52.28	UL-RL	5.0142E+04	-10.000	83.64
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
52 D	23.08	-3.0565E-03	118.7	30.11	121.7	53.29	UL-RL	5.0142E+04	-10.200	85.31
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
53 D	23.54	-2.8025E-03	121.0	30.70	124.0	54.31	UL-RL	5.0142E+04	-10.400	86.98
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
54 D	23.99	-2.5608E-03	123.3	31.29	126.4	55.32	UL-RL	5.0142E+04	-10.600	88.65
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
55 D	24.44	-2.3311E-03	125.7	31.88	128.7	56.34	UL-RL	5.0142E+04	-10.800	90.33
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
56 D	24.89	-2.1128E-03	128.0	32.47	131.0	57.35	UL-RL	5.0142E+04	-11.000	92.00
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0					
57 D	25.35	-1.9054E-03	130.3	33.06	133.4	58.37	UL-RL	5.0142E+04	-11.200	93.67
1.000	1.000	126.7	0.000	0.000	Ug5_2_8_L_0					
58 D	25.80	-1.7086E-03	132.7	33.65	135.7	59.39	UL-RL	5.0142E+04	-11.400	95.35
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
59 D	26.25	-1.5217E-03	135.0	34.24	138.0	60.40	UL-RL	5.0142E+04	-11.600	97.02
1.000	1.000	131.3	0.000	0.000	Ug5_2_8_L_0					
60 D	26.70	-1.3442E-03	137.3	34.83	140.4	61.42	UL-RL	5.0142E+04	-11.800	98.69
1.000	1.000	133.5	0.000	0.000	Ug5_2_8_L_0					
61 D	27.16	-1.1757E-03	139.6	35.45	142.7	62.44	UL-RL	5.0142E+04	-12.000	100.4
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
62 D	30.38	-1.0154E-03	141.8	49.86	144.8	63.42	UL-RL	2.4005E+04	-12.200	102.0
1.000	1.000	151.9	0.000	0.000	Ug6_741_743_L_0					
63 D	30.89	-8.6277E-04	143.9	50.75	147.0	64.53	UL-RL	2.4005E+04	-12.400	103.7
1.000	1.000	154.5	0.000	0.000	Ug6_741_743_L_0					
64 D	31.40	-7.1727E-04	146.0	51.64	149.1	65.58	UL-RL	2.4005E+04	-12.600	105.4
1.000	1.000	157.0	0.000	0.000	Ug6_741_743_L_0					
65 D	32.53	-5.7825E-04	148.1	55.60	151.2	66.59	UL-RL	2.4005E+04	-12.800	107.1
1.000	1.000	162.7	0.000	0.000	Ug6_741_743_L_0					
66 D	33.74	-4.4512E-04	150.3	59.96	153.3	67.57	UL-RL	2.4005E+04	-13.000	108.7
1.000	1.000	168.7	0.000	0.000	Ug6_741_743_L_0					
67 D	34.92	-3.1727E-04	152.4	64.18	155.4	68.78	UL-RL	2.4005E+04	-13.200	110.4
1.000	1.000	174.6	0.000	0.000	Ug6_741_743_L_0					
68 D	35.96	-1.9412E-04	154.5	67.71	157.5	70.56	UL-RL	2.4005E+04	-13.400	112.1
1.000	1.000	179.8	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	36.95	-7.5115E-05	156.7	70.98	159.6	72.13	UL-RL	2.4005E+04	-13.60	113.7
1.000	1.000	184.7	0.000	0.000	Ug6_741_743_L_0					
70 D	37.76	4.0304E-05	158.8	73.40	161.7	73.78	UL-RL	2.4005E+04	-13.80	115.4
1.000	1.000	188.8	0.000	0.000	Ug6_741_743_L_0					
71 D	38.47	1.5265E-04	160.9	75.28	163.8	75.65	UL-RL	2.4005E+04	-14.00	117.1
1.000	1.000	192.4	0.000	0.000	Ug6_741_743_L_0					
72 D	39.18	2.6242E-04	163.0	77.14	165.9	77.50	UL-RL	2.4005E+04	-14.20	118.8
1.000	1.000	195.9	0.000	0.000	Ug6_741_743_L_0					
73 D	39.88	3.7005E-04	165.2	78.97	168.0	79.31	UL-RL	2.4005E+04	-14.40	120.4
1.000	1.000	199.4	0.000	0.000	Ug6_741_743_L_0					
74 D	40.58	4.7597E-04	167.3	80.78	170.1	81.11	UL-RL	2.4005E+04	-14.60	122.1
1.000	1.000	202.9	0.000	0.000	Ug6_741_743_L_0					
75 D	41.27	5.8055E-04	169.4	82.58	172.2	82.90	UL-RL	2.4005E+04	-14.80	123.8
1.000	1.000	206.4	0.000	0.000	Ug6_741_743_L_0					
76 D	41.96	6.8414E-04	171.5	84.37	174.3	84.67	UL-RL	2.4005E+04	-15.00	125.5
1.000	1.000	209.8	0.000	0.000	Ug6_741_743_L_0					
77 D	42.65	7.8702E-04	173.7	86.15	176.4	86.44	UL-RL	2.4005E+04	-15.20	127.1
1.000	1.000	213.3	0.000	0.000	Ug6_741_743_L_0					
78 D	43.36	8.8943E-04	175.8	87.98	178.5	88.26	UL-RL	2.4005E+04	-15.40	128.8
1.000	1.000	216.8	0.000	0.000	Ug6_741_743_L_0					
79 D	44.06	9.9157E-04	177.9	89.81	180.6	90.08	UL-RL	2.4005E+04	-15.60	130.5
1.000	1.000	220.3	0.000	0.000	Ug6_741_743_L_0					
80 D	44.76	1.0936E-03	180.1	91.64	182.7	91.90	UL-RL	2.4005E+04	-15.80	132.1
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
81 D	22.73	1.1956E-03	182.2	93.47	184.8	93.71	UL-RL	2.4005E+04	-16.00	133.8
1.000	1.000	227.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817                                          |
|          Exe Time :24 May 2018          18:25:49                                                |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	1.317	1.5648E-02	0.8364	5.422	46.00	63.03	UL-RL	2.4929E+04	-4.600	1.164	
1.000	1.000	6.586	0.000	0.000	Ug5_2_8_L_0						
25 D	4.036	1.5048E-02	2.509	16.69	48.00	61.64	UL-RL	2.4929E+04	-4.800	3.491	
1.000	1.000	20.18	0.000	0.000	Ug5_2_8_L_0						
26 D	6.755	1.4454E-02	4.182	27.96	50.00	60.31	UL-RL	2.4929E+04	-5.000	5.818	
1.000	1.000	33.78	0.000	0.000	Ug5_2_8_L_0						
27 D	9.475	1.3866E-02	5.855	39.23	52.00	69.31	UL-RL	2.4929E+04	-5.200	8.145	
1.000	1.000	47.37	0.000	0.000	Ug5_2_8_L_0						
28 D	12.19	1.3286E-02	7.527	50.50	54.00	80.86	UL-RL	2.4929E+04	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	60.97	0.000	0.000	Ug5_2_8_L_0					
29 D	14.91	1.2715E-02	9.200	61.76	56.00	92.41	UL-RL	2.4929E+04	-5.600	12.80
1.000	1.000	74.56	0.000	0.000	Ug5_2_8_L_0					
30 D	17.63	1.2152E-02	10.87	73.03	58.00	101.5	UL-RL	2.4929E+04	-5.800	15.13
1.000	1.000	88.16	0.000	0.000	Ug5_2_8_L_0					
31 D	20.35	1.1600E-02	12.55	84.30	60.00	98.41	UL-RL	2.4929E+04	-6.000	17.45
1.000	1.000	101.8	0.000	0.000	Ug5_2_8_L_0					
32 D	23.07	1.1058E-02	14.22	95.57	62.00	95.80	UL-RL	2.4929E+04	-6.200	19.78
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
33 D	25.79	1.0527E-02	15.89	106.8	64.00	107.1	UL-RL	2.4929E+04	-6.400	22.11
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
34 D	28.51	1.0008E-02	17.56	118.1	66.00	118.3	UL-RL	2.4929E+04	-6.600	24.44
1.000	1.000	142.5	0.000	0.000	Ug5_2_8_L_0					
35 D	29.47	9.5020E-03	19.24	120.6	68.00	120.8	UL-RL	2.4929E+04	-6.800	26.76
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
36 D	29.14	9.0088E-03	20.91	116.6	70.00	116.9	UL-RL	2.4929E+04	-7.000	29.09
1.000	1.000	145.7	0.000	0.000	Ug5_2_8_L_0					
37 D	28.85	8.5292E-03	22.58	112.8	72.00	113.1	UL-RL	2.4929E+04	-7.200	31.42
1.000	1.000	144.3	0.000	0.000	Ug5_2_8_L_0					
38 D	28.59	8.0635E-03	24.25	109.2	74.00	109.4	UL-RL	2.4929E+04	-7.400	33.75
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
39 D	28.36	7.6119E-03	25.93	105.7	76.00	106.0	UL-RL	2.4929E+04	-7.600	36.07
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
40 D	28.16	7.1747E-03	27.60	102.4	78.00	102.6	UL-RL	2.4929E+04	-7.800	38.40
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.99	6.7521E-03	29.27	99.22	80.00	99.47	UL-RL	2.4929E+04	-8.000	40.73
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
42 D	27.85	6.3441E-03	30.95	96.21	82.00	96.46	UL-RL	2.4929E+04	-8.200	43.05
1.000	1.000	139.3	0.000	0.000	Ug5_2_8_L_0					
43 D	27.75	5.9508E-03	32.62	93.37	84.00	93.62	UL-RL	2.4929E+04	-8.400	45.38
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
44 D	27.68	5.5722E-03	34.29	90.68	86.00	90.93	UL-RL	2.4929E+04	-8.600	47.71
1.000	1.000	138.4	0.000	0.000	Ug5_2_8_L_0					
45 D	27.64	5.2083E-03	35.96	88.14	88.00	88.40	UL-RL	2.4929E+04	-8.800	50.04
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
46 D	27.63	4.8589E-03	37.64	85.76	90.00	86.02	UL-RL	2.4929E+04	-9.000	52.36
1.000	1.000	138.1	0.000	0.000	Ug5_2_8_L_0					
47 D	27.65	4.5238E-03	39.31	83.53	92.00	83.79	UL-RL	2.4929E+04	-9.200	54.69
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
48 D	27.70	4.2030E-03	40.98	81.46	94.00	81.72	UL-RL	2.4929E+04	-9.400	57.02
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
49 D	27.77	3.8961E-03	42.65	79.53	96.00	79.79	UL-RL	2.4929E+04	-9.600	59.35
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
50 D	27.88	3.6030E-03	44.33	77.74	98.00	78.01	UL-RL	2.4929E+04	-9.800	61.67
1.000	1.000	139.4	0.000	0.000	Ug5_2_8_L_0					
51 D	28.02	3.3232E-03	46.00	76.09	100.00	76.36	UL-RL	2.4929E+04	-10.000	64.00
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
52 D	28.18	3.0565E-03	47.67	74.57	102.0	74.85	UL-RL	2.4929E+04	-10.200	66.33
1.000	1.000	140.9	0.000	0.000	Ug5_2_8_L_0					
53 D	28.37	2.8025E-03	49.35	73.19	104.0	73.47	UL-RL	2.4929E+04	-10.400	68.65
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
54 D	28.58	2.5608E-03	51.02	71.93	106.0	72.22	UL-RL	2.4929E+04	-10.600	70.98
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
55 D	28.82	2.3311E-03	52.69	70.80	108.0	71.09	UL-RL	2.4929E+04	-10.800	73.31
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
56 D	29.08	2.1128E-03	54.36	69.78	110.0	70.07	UL-RL	2.4929E+04	-11.000	75.64
1.000	1.000	145.4	0.000	0.000	Ug5_2_8_L_0					
57 D	29.37	1.9054E-03	56.04	68.87	112.0	69.17	UL-RL	2.4929E+04	-11.200	77.96
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
58 D	29.67	1.7086E-03	57.71	68.06	114.0	68.37	UL-RL	2.4929E+04	-11.400	80.29
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
59 D	30.00	1.5217E-03	59.38	67.36	116.0	67.67	UL-RL	2.4929E+04	-11.600	82.62
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
60 D	30.34	1.3442E-03	61.05	66.75	118.0	67.07	UL-RL	2.4929E+04	-11.800	84.95
1.000	1.000	151.7	0.000	0.000	Ug5_2_8_L_0					
61 D	30.70	1.1757E-03	62.73	66.21	120.0	66.55	UL-RL	2.4929E+04	-12.000	87.27
1.000	1.000	153.5	0.000	0.000	Ug5_2_8_L_0					
62 D	30.56	1.0154E-03	64.20	63.20	121.8	63.50	UL-RL	1.8746E+04	-12.200	89.60
1.000	1.000	152.8	0.000	0.000	Ug6_741_743_L_0					
63 D	30.99	8.6277E-04	65.67	63.03	123.6	63.38	UL-RL	1.8746E+04	-12.400	91.93
1.000	1.000	155.0	0.000	0.000	Ug6_741_743_L_0					
64 D	31.43	7.1727E-04	67.15	62.92	125.4	63.32	UL-RL	1.8746E+04	-12.600	94.25
1.000	1.000	157.2	0.000	0.000	Ug6_741_743_L_0					
65 D	31.58	5.7825E-04	68.62	61.34	127.2	64.05	UL-RL	1.8746E+04	-12.800	96.58
1.000	1.000	157.9	0.000	0.000	Ug6_741_743_L_0					
66 D	31.70	4.4512E-04	70.09	59.58	129.0	64.94	UL-RL	1.8746E+04	-13.000	98.91
1.000	1.000	158.5	0.000	0.000	Ug6_741_743_L_0					
67 D	31.83	3.1727E-04	71.56	57.93	130.8	65.83	UL-RL	1.8746E+04	-13.200	101.2
1.000	1.000	159.2	0.000	0.000	Ug6_741_743_L_0					
68 D	31.99	1.9412E-04	73.04	56.38	132.6	66.72	UL-RL	1.8746E+04	-13.400	103.6
1.000	1.000	159.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	32.16	7.5115E-05	74.51	54.92	134.4	67.60	UL-RL	1.8746E+04	-13.60	105.9
1.000	1.000	160.8	0.000	0.000	Ug6_741_743_L_0					
70 D	32.35	-4.0304E-05	75.98	53.53	136.2	68.49	UL-RL	1.8746E+04	-13.80	108.2
1.000	1.000	161.8	0.000	0.000	Ug6_741_743_L_0					
71 D	32.55	-1.5265E-04	77.45	52.21	138.0	69.38	UL-RL	1.8746E+04	-14.00	110.5
1.000	1.000	162.8	0.000	0.000	Ug6_741_743_L_0					
72 D	32.76	-2.6242E-04	78.93	50.94	139.8	70.27	UL-RL	1.8746E+04	-14.20	112.9
1.000	1.000	163.8	0.000	0.000	Ug6_741_743_L_0					
73 D	32.98	-3.7005E-04	80.40	49.72	141.6	71.16	UL-RL	1.8746E+04	-14.40	115.2
1.000	1.000	164.9	0.000	0.000	Ug6_741_743_L_0					
74 D	33.21	-4.7597E-04	81.87	48.53	143.4	72.05	UL-RL	1.8746E+04	-14.60	117.5
1.000	1.000	166.1	0.000	0.000	Ug6_741_743_L_0					
75 D	33.44	-5.8055E-04	83.35	47.36	145.2	72.94	UL-RL	1.8746E+04	-14.80	119.9
1.000	1.000	167.2	0.000	0.000	Ug6_741_743_L_0					
76 D	33.68	-6.8414E-04	84.82	46.22	147.0	73.84	UL-RL	1.8746E+04	-15.00	122.2
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
77 D	33.92	-7.8702E-04	86.29	45.09	148.8	74.73	UL-RL	1.8746E+04	-15.20	124.5
1.000	1.000	169.6	0.000	0.000	Ug6_741_743_L_0					
78 D	34.16	-8.8943E-04	87.76	43.97	150.6	75.62	UL-RL	1.8746E+04	-15.40	126.8
1.000	1.000	170.8	0.000	0.000	Ug6_741_743_L_0					
79 D	34.40	-9.9157E-04	89.24	42.86	152.4	76.51	UL-RL	1.8746E+04	-15.60	129.2
1.000	1.000	172.0	0.000	0.000	Ug6_741_743_L_0					
80 D	34.65	-1.0936E-03	90.71	41.74	154.2	77.40	UL-RL	1.8746E+04	-15.80	131.5
1.000	1.000	173.2	0.000	0.000	Ug6_741_743_L_0					
81 D	17.44	-1.1956E-03	92.18	40.63	156.0	78.29	UL-RL	1.8746E+04	-16.00	133.8
1.000	1.000	174.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|               PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                           |
|                                                                           |
|               NewProject.BaseDesignSection_28.SISMICASTR_1817     |
|               Exe Time :24 May 2018         18:25:49             |
+-----+
New Project
  
```

S T R E S S R E S U L T S F O R G R O U P N O . 3

```

WallElement_33 :
ELEMENT TYPE    2 NO.OF ELEMENTS. IN THIS GROUP    80
CURRENT        TIME        IS                7.0000
  
```

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.06160E-09	-2.06160E-09	2.05642E-10	8.88122E-10
2	0.48820	-0.48820	-8.94242E-10	9.76400E-02
3	1.4296	-1.4296	-9.76400E-02	0.38356
4	2.8243	-2.8243	-0.38356	0.94842
5	4.6721	-4.6721	-0.94842	1.8828
6	6.9731	-6.9731	-1.8828	3.2775
7	9.7274	-9.7274	-3.2775	5.2229
8	12.935	-12.935	-5.2229	7.8099
9	16.595	-16.595	-7.8099	11.129
10	20.709	-20.709	-11.129	15.271
11	25.275	-25.275	-15.271	20.326
12	30.295	-30.295	-20.326	26.385
13	35.767	-35.767	-26.385	33.538
14	41.692	-41.692	-33.538	41.876
15	48.069	-48.069	-41.876	51.490
16	54.900	-54.900	-51.490	62.470
17	62.182	-62.182	-62.470	74.907
18	69.917	-69.917	-74.907	88.890
19	78.104	-78.104	-88.890	104.51
20	86.743	-86.743	-104.51	121.86
21	95.834	-95.834	-121.86	141.03
22	105.38	-105.38	-141.03	162.10
23	115.37	-115.37	-162.10	185.18
24	124.50	-124.50	-185.18	210.08
25	131.36	-131.36	-210.08	236.35
26	135.95	-135.95	-236.35	263.54
27	138.28	-138.28	-263.54	291.20
28	138.34	-138.34	-291.20	318.86
29	136.13	-136.13	-318.86	346.09
30	131.65	-131.65	-346.09	372.42
31	124.90	-124.90	-372.42	397.40
32	115.89	-115.89	-397.40	420.58
33	104.61	-104.61	-420.58	441.50
34	91.056	-91.056	-441.50	459.71
35	76.999	-76.999	-459.71	475.11
36	63.717	-63.717	-475.11	487.85
37	51.178	-51.178	-487.85	498.09
38	39.353	-39.353	-498.09	505.96
39	28.211	-28.211	-505.96	511.60
40	17.718	-17.718	-511.60	515.15
41	7.8451	-7.8451	-515.15	516.71
42	-1.4409	1.4409	-516.71	516.43
43	-10.171	10.171	-516.43	514.39
44	-18.378	18.378	-514.39	510.72
45	-26.092	26.092	-510.72	505.50
46	-33.343	33.343	-505.50	498.83
47	-40.164	40.164	-498.83	490.80
48	-46.582	46.582	-490.80	481.48
49	-52.628	52.628	-481.48	470.95
50	-58.330	58.330	-470.95	459.29
51	-63.715	63.715	-459.29	446.55
52	-68.811	68.811	-446.55	432.78
53	-73.644	73.644	-432.78	418.05
54	-78.238	78.238	-418.05	402.41
55	-82.619	82.619	-402.41	385.88
56	-86.808	86.808	-385.88	368.52
57	-90.829	90.829	-368.52	350.36
58	-94.701	94.701	-350.36	331.42
59	-98.446	98.446	-331.42	311.73

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.08	102.08	-311.73	291.31
61	-105.62	105.62	-291.31	270.19
62	-105.80	105.80	-270.19	249.03
63	-105.90	105.90	-249.03	227.85
64	-105.93	105.93	-227.85	206.66
65	-104.98	104.98	-206.66	185.67
66	-102.94	102.94	-185.67	165.08
67	-99.855	99.855	-165.08	145.11
68	-95.887	95.887	-145.11	125.93
69	-91.104	91.104	-125.93	107.71
70	-85.692	85.692	-107.71	90.573
71	-79.769	79.769	-90.573	74.619
72	-73.352	73.352	-74.619	59.949
73	-66.455	66.455	-59.949	46.658
74	-59.088	59.088	-46.658	34.840
75	-51.260	51.260	-34.840	24.588
76	-42.976	42.976	-24.588	15.993
77	-34.241	34.241	-15.993	9.1449
78	-25.046	25.046	-9.1449	4.1356
79	-15.394	15.394	-4.1356	1.0568
80	-5.2837	5.2837	-1.0568	-7.56184E-12

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICASTR_1817  |
|          Exe Time :24 May 2018  18:25:49  |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	5
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	6
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	2

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.27 [sec]

Design Assumption : SISMICA GEO - File di Paratie - File di output (.out)

```
-----+-----  
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |  
|          |  
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |  
|          Exe Time :24 May 2018           18:25:50           |  
|          |  
+-----+-----
```

```
*****  
*  
* PARATIE PLUS Non-Linear Spring Engine *  
*  
* AN ELASTOPLASTIC FINITE ELEMENT PROGRAM *  
* FOR FLEXIBLE EARTH-RETAINING STRUCTURES *  
*  
* Written by Ce.A.S. s.r.l. (ITALY) *  
* with the scientific supervision of *  
* Roberto Nova - full professor SOIL MECHANICS *  
* at Politecnico di Milano (ITALY) *  
*  
*****  
*  
* RELEASE 2017.1 *Build date:Jul 11, 2017* *  
*  
*  
* Ce.A.S. S.R.L. CENTRO DI ANALISI STRUTTURALE *  
* VIALE GIUSTINIANO 10 *  
* 20129 M I L A N O (ITALIA) *  
* TEL. +39 02 2020221 (+39 035 23 67 19) *  
* FAX +39 02 29512533 (+39 035 42285 49) *  
* email bruno.becci@ceas.it *  
* Web Page www.ceas.it *  
*****
```

```
JOB : NewProject.BaseDesignSection_28.SISMICAGEO_1847  
STARTING  
ACCEPTED <FILE,GENW >  
ACCEPTED <FILE,PLOTTER,BINARY >  
ACCEPTED <SOLVE TOTAL STRESS >  
ACCEPTED <PARAM ITEMAX 40 >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****  
*  
* WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED *  
* BY THE PROGRAM. *  
*****
```

```
PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|          Exe Time :24 May 2018   18:25:50   |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 81
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 162
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 102
NO. OF LONG NAMES (LASTNAME) ..... 22
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

P R E P R O C E S S O R   D A T A

N O .   O F   C O M M A N D S   102

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -16 0 1
7 : SOIL 0_L LeftWall_32 -16 0 1 0
8 : SOIL 0_R LeftWall_32 -16 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5E+04 1.5E+05
15 : ENDL
16 : LDATA Ug6_741_743_L_0 -12 LeftWall_32
17 : ATREST 0.5 0.5 1
18 : WEIGHT 18.5 9 10
19 : PERMEABILITY 0.0001
20 : RESISTANCE 5 26
21 : YOUNG 3E+04 9E+04
22 : ENDL
23 : MATERIAL S355_114 2.1E+08
24 : MATERIAL C2530_104 3.148E+07
25 : BEAM WallElement_33 LeftWall_32 -16 0 C2530_104 0.8121 00 00 0
26 : STRIP LeftWall_32 1 6 1 11.75 0 5 45
27 : STEP Stage1_31
28 : CHANGE Ug5_2_8_L_0 U-FRICT=31.08 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
30 : CHANGE Ug5_2_8_L_0 U-KA=0.319 LeftWall_32
31 : CHANGE Ug5_2_8_L_0 U-KP=4.578 LeftWall_32
32 : CHANGE Ug5_2_8_L_0 D-KA=0.319 LeftWall_32
33 : CHANGE Ug5_2_8_L_0 D-KP=4.578 LeftWall_32
34 : CHANGE Ug6_741_743_L_0 U-FRICT=21.32 LeftWall_32
35 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
36 : CHANGE Ug6_741_743_L_0 U-KA=0.467 LeftWall_32
37 : CHANGE Ug6_741_743_L_0 U-KP=2.649 LeftWall_32
38 : CHANGE Ug6_741_743_L_0 D-KA=0.467 LeftWall_32
39 : CHANGE Ug6_741_743_L_0 D-KP=2.649 LeftWall_32
40 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
41 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
42 : CHANGE Ug6_741_743_L_0 U-COHE=4 LeftWall_32
43 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
44 : SETWALL LeftWall_32
45 : GEOM 0 0
46 : WATER 0 0 -16 0 0
47 : ADD WallElement_33
48 : ENDSTEP
49 : STEP Stage2_158
50 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
51 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
52 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
53 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
54 : SETWALL LeftWall_32
55 : GEOM 0 -1
56 : WATER 0 1 -16 0 0
57 : ENDSTEP
58 : STEP Stage3_255
59 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
60 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
61 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
62 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
63 : SETWALL LeftWall_32
64 : GEOM 0 -2
65 : WATER 0 2 -16 0 0
66 : ENDSTEP
67 : STEP Stage4_352
68 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
72 : SETWALL LeftWall_32
73 : GEOM 0 -3
74 : WATER 0 3 -16 0 0
75 : ENDSTEP
76 : STEP Stage5_449
77 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
78 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
79 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
80 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -4
83 : WATER 0 4 -16 0 0
84 : ENDSTEP
85 : STEP Stage6_546
86 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
87 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
88 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
89 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
90 : SETWALL LeftWall_32
91 : GEOM 0 -4.5
92 : WATER 0 4.5 -16 0 0
93 : ENDSTEP
94 : STEP Stage7_643
95 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
96 : CHANGE Ug6_741_743_L_0 D-FRICT=21.32 LeftWall_32
97 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
98 : CHANGE Ug6_741_743_L_0 D-COHE=4 LeftWall_32
99 : SETWALL LeftWall_32
100 : GEOM 0 -4.5
101 : WATER 0 4.5 -16 0 0
102 : ENDSTEP
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /	4	0.0000	-0.60000 /	
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /	8	0.0000	-1.4000 /	
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /	12	0.0000	-2.2000 /	
13	0.0000	-2.4000 /	14	0.0000	-2.6000 /	15	0.0000	-2.8000 /	16	0.0000	-3.0000 /	
17	0.0000	-3.2000 /	18	0.0000	-3.4000 /	19	0.0000	-3.6000 /	20	0.0000	-3.8000 /	
21	0.0000	-4.0000 /	22	0.0000	-4.2000 /	23	0.0000	-4.4000 /	24	0.0000	-4.6000 /	
25	0.0000	-4.8000 /	26	0.0000	-5.0000 /	27	0.0000	-5.2000 /	28	0.0000	-5.4000 /	
29	0.0000	-5.6000 /	30	0.0000	-5.8000 /	31	0.0000	-6.0000 /	32	0.0000	-6.2000 /	
33	0.0000	-6.4000 /	34	0.0000	-6.6000 /	35	0.0000	-6.8000 /	36	0.0000	-7.0000 /	
37	0.0000	-7.2000 /	38	0.0000	-7.4000 /	39	0.0000	-7.6000 /	40	0.0000	-7.8000 /	
41	0.0000	-8.0000 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /	
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /	
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /	
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /	
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /	
61	0.0000	-12.000 /	62	0.0000	-12.200 /	63	0.0000	-12.400 /	64	0.0000	-12.600 /	
65	0.0000	-12.800 /	66	0.0000	-13.000 /	67	0.0000	-13.200 /	68	0.0000	-13.400 /	
69	0.0000	-13.600 /	70	0.0000	-13.800 /	71	0.0000	-14.000 /	72	0.0000	-14.200 /	
73	0.0000	-14.400 /	74	0.0000	-14.600 /	75	0.0000	-14.800 /	76	0.0000	-15.000 /	
77	0.0000	-15.200 /	78	0.0000	-15.400 /	79	0.0000	-15.600 /	80	0.0000	-15.800 /	
81	0.0000	-16.000 /										

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000
42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.2000	0.000	0.000	0.000	1.000
62	62	2	0.2000	0.000	0.000	0.000	1.000
63	63	2	0.2000	0.000	0.000	0.000	1.000
64	64	2	0.2000	0.000	0.000	0.000	1.000
65	65	2	0.2000	0.000	0.000	0.000	1.000
66	66	2	0.2000	0.000	0.000	0.000	1.000
67	67	2	0.2000	0.000	0.000	0.000	1.000
68	68	2	0.2000	0.000	0.000	0.000	1.000
69	69	2	0.2000	0.000	0.000	0.000	1.000
70	70	2	0.2000	0.000	0.000	0.000	1.000
71	71	2	0.2000	0.000	0.000	0.000	1.000
72	72	2	0.2000	0.000	0.000	0.000	1.000
73	73	2	0.2000	0.000	0.000	0.000	1.000
74	74	2	0.2000	0.000	0.000	0.000	1.000
75	75	2	0.2000	0.000	0.000	0.000	1.000
76	76	2	0.2000	0.000	0.000	0.000	1.000
77	77	2	0.2000	0.000	0.000	0.000	1.000
78	78	2	0.2000	0.000	0.000	0.000	1.000
79	79	2	0.2000	0.000	0.000	0.000	1.000
80	80	2	0.2000	0.000	0.000	0.000	1.000
81	81	2	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R
 5 81 0 1 0 0 0 0 0 0 0 0 0 0 0 2 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 1.00000

```

material set no. 2

```

prop( 1) angle           180.000
prop( 2) layer as foreseen 2.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000
42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.2000	0.000	0.000	0.000	2.000
62	62	2	0.2000	0.000	0.000	0.000	2.000
63	63	2	0.2000	0.000	0.000	0.000	2.000
64	64	2	0.2000	0.000	0.000	0.000	2.000
65	65	2	0.2000	0.000	0.000	0.000	2.000
66	66	2	0.2000	0.000	0.000	0.000	2.000
67	67	2	0.2000	0.000	0.000	0.000	2.000
68	68	2	0.2000	0.000	0.000	0.000	2.000
69	69	2	0.2000	0.000	0.000	0.000	2.000
70	70	2	0.2000	0.000	0.000	0.000	2.000
71	71	2	0.2000	0.000	0.000	0.000	2.000
72	72	2	0.2000	0.000	0.000	0.000	2.000
73	73	2	0.2000	0.000	0.000	0.000	2.000
74	74	2	0.2000	0.000	0.000	0.000	2.000
75	75	2	0.2000	0.000	0.000	0.000	2.000
76	76	2	0.2000	0.000	0.000	0.000	2.000
77	77	2	0.2000	0.000	0.000	0.000	2.000
78	78	2	0.2000	0.000	0.000	0.000	2.000
79	79	2	0.2000	0.000	0.000	0.000	2.000
80	80	2	0.2000	0.000	0.000	0.000	2.000
81	81	2	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
+-----+
ELEMENT GROUP NO.  3

WallElement_33      :
  2  80  0  1  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  1  0
.....
.....2D WALL ELEMENT.....
.....

element group behaviour throughout stage analysis

stage  status
-----
  1  active
  2  active
  3  active
  4  active
  5  active
  6  active
  7  active

material set no.  1

prop( 1) young modulus      0.314800E+08
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

no. of step variable items:  1
step  inertia multiplier
-----
  1  1.000
  2  1.000
  3  1.000
  4  1.000
  5  1.000
  6  1.000
  7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
  1  1  2  1  0.000  0.000  0.8121  0.000  0.000
  2  2  3  1  0.000  0.000  0.8121  0.000  0.000
  3  3  4  1  0.000  0.000  0.8121  0.000  0.000
  4  4  5  1  0.000  0.000  0.8121  0.000  0.000
  5  5  6  1  0.000  0.000  0.8121  0.000  0.000
  6  6  7  1  0.000  0.000  0.8121  0.000  0.000
  7  7  8  1  0.000  0.000  0.8121  0.000  0.000
  8  8  9  1  0.000  0.000  0.8121  0.000  0.000
  9  9 10  1  0.000  0.000  0.8121  0.000  0.000
 10 10 11  1  0.000  0.000  0.8121  0.000  0.000
 11 11 12  1  0.000  0.000  0.8121  0.000  0.000
 12 12 13  1  0.000  0.000  0.8121  0.000  0.000
 13 13 14  1  0.000  0.000  0.8121  0.000  0.000
 14 14 15  1  0.000  0.000  0.8121  0.000  0.000
 15 15 16  1  0.000  0.000  0.8121  0.000  0.000
 16 16 17  1  0.000  0.000  0.8121  0.000  0.000
 17 17 18  1  0.000  0.000  0.8121  0.000  0.000
 18 18 19  1  0.000  0.000  0.8121  0.000  0.000
 19 19 20  1  0.000  0.000  0.8121  0.000  0.000
 20 20 21  1  0.000  0.000  0.8121  0.000  0.000
 21 21 22  1  0.000  0.000  0.8121  0.000  0.000
 22 22 23  1  0.000  0.000  0.8121  0.000  0.000
 23 23 24  1  0.000  0.000  0.8121  0.000  0.000
 24 24 25  1  0.000  0.000  0.8121  0.000  0.000
 25 25 26  1  0.000  0.000  0.8121  0.000  0.000
 26 26 27  1  0.000  0.000  0.8121  0.000  0.000
 27 27 28  1  0.000  0.000  0.8121  0.000  0.000
 28 28 29  1  0.000  0.000  0.8121  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.8121	0.000	0.000
30	30	31	1	0.000	0.000	0.8121	0.000	0.000
31	31	32	1	0.000	0.000	0.8121	0.000	0.000
32	32	33	1	0.000	0.000	0.8121	0.000	0.000
33	33	34	1	0.000	0.000	0.8121	0.000	0.000
34	34	35	1	0.000	0.000	0.8121	0.000	0.000
35	35	36	1	0.000	0.000	0.8121	0.000	0.000
36	36	37	1	0.000	0.000	0.8121	0.000	0.000
37	37	38	1	0.000	0.000	0.8121	0.000	0.000
38	38	39	1	0.000	0.000	0.8121	0.000	0.000
39	39	40	1	0.000	0.000	0.8121	0.000	0.000
40	40	41	1	0.000	0.000	0.8121	0.000	0.000
41	41	42	1	0.000	0.000	0.8121	0.000	0.000
42	42	43	1	0.000	0.000	0.8121	0.000	0.000
43	43	44	1	0.000	0.000	0.8121	0.000	0.000
44	44	45	1	0.000	0.000	0.8121	0.000	0.000
45	45	46	1	0.000	0.000	0.8121	0.000	0.000
46	46	47	1	0.000	0.000	0.8121	0.000	0.000
47	47	48	1	0.000	0.000	0.8121	0.000	0.000
48	48	49	1	0.000	0.000	0.8121	0.000	0.000
49	49	50	1	0.000	0.000	0.8121	0.000	0.000
50	50	51	1	0.000	0.000	0.8121	0.000	0.000
51	51	52	1	0.000	0.000	0.8121	0.000	0.000
52	52	53	1	0.000	0.000	0.8121	0.000	0.000
53	53	54	1	0.000	0.000	0.8121	0.000	0.000
54	54	55	1	0.000	0.000	0.8121	0.000	0.000
55	55	56	1	0.000	0.000	0.8121	0.000	0.000
56	56	57	1	0.000	0.000	0.8121	0.000	0.000
57	57	58	1	0.000	0.000	0.8121	0.000	0.000
58	58	59	1	0.000	0.000	0.8121	0.000	0.000
59	59	60	1	0.000	0.000	0.8121	0.000	0.000
60	60	61	1	0.000	0.000	0.8121	0.000	0.000
61	61	62	1	0.000	0.000	0.8121	0.000	0.000
62	62	63	1	0.000	0.000	0.8121	0.000	0.000
63	63	64	1	0.000	0.000	0.8121	0.000	0.000
64	64	65	1	0.000	0.000	0.8121	0.000	0.000
65	65	66	1	0.000	0.000	0.8121	0.000	0.000
66	66	67	1	0.000	0.000	0.8121	0.000	0.000
67	67	68	1	0.000	0.000	0.8121	0.000	0.000
68	68	69	1	0.000	0.000	0.8121	0.000	0.000
69	69	70	1	0.000	0.000	0.8121	0.000	0.000
70	70	71	1	0.000	0.000	0.8121	0.000	0.000
71	71	72	1	0.000	0.000	0.8121	0.000	0.000
72	72	73	1	0.000	0.000	0.8121	0.000	0.000
73	73	74	1	0.000	0.000	0.8121	0.000	0.000
74	74	75	1	0.000	0.000	0.8121	0.000	0.000
75	75	76	1	0.000	0.000	0.8121	0.000	0.000
76	76	77	1	0.000	0.000	0.8121	0.000	0.000
77	77	78	1	0.000	0.000	0.8121	0.000	0.000
78	78	79	1	0.000	0.000	0.8121	0.000	0.000
79	79	80	1	0.000	0.000	0.8121	0.000	0.000
80	80	81	1	0.000	0.000	0.8121	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+  
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |  
|                                                                    |  
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847          |  
|          Exe Time :24 May 2018          18:25:50                  |  
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 0  
NO. OF LOAD CURVES (NLCUR) ..... 14  
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|          Exe Time :24 May 2018   18:25:50   |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|          Exe Time :24 May 2018   18:25:50   |
+-----+
L O A D      B A L A N C E
STEP 1 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 1 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 2 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 2 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 3 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 3 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 4 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 4 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 5 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 5 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 6 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 6 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 2 Y-DISPL.F 0.0000000
STEP 7 TOTAL APPLIED LOAD IN DIR. 4 X-ROT. F 0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847                                          |
|          Exe Time :24 May 2018      18:25:50                                                    |
+-----+
```

NO. OF LAYERS 2
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|                Exe Time :24 May 2018  18:25:50  |
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.0000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.0000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 1

```

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 2

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 3

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 4

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 50000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.15000E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 19.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= -12.000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 18.500	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 9.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	8<U-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	8<U-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	9<U-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.46700	WALL NO.	1
ITEM NO.	11<U-KP	>= 2.6490	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 30000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 90000.	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	58<D-COHE	>= 4.0000	WALL NO.	1
ITEM NO.	58<D-COHE	>= 5.0000	WALL NO.	2
ITEM NO.	59<D-FRICT	>= 21.320	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 26.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.46700	WALL NO.	1
ITEM NO.	61<D-KP	>= 2.6490	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 50000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.15000E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 2 FOR STEP NO. 7

ITEM NO. 1<NAME >= 19.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= -12.000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 18.500 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 9.0000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 8<U-COHE >= 4.0000 WALL NO. 1
ITEM NO. 8<U-COHE >= 5.0000 WALL NO. 2
ITEM NO. 9<U-FRICT >= 21.320 WALL NO. 1
ITEM NO. 9<U-FRICT >= 26.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.46700 WALL NO. 1
ITEM NO. 11<U-KP >= 2.6490 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 30000. (BOTH WALLS)
ITEM NO. 18<EUR >= 90000. (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 58<D-COHE >= 4.0000 WALL NO. 1
ITEM NO. 58<D-COHE >= 5.0000 WALL NO. 2
ITEM NO. 59<D-FRICT >= 21.320 WALL NO. 1
ITEM NO. 59<D-FRICT >= 26.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.46700 WALL NO. 1
ITEM NO. 61<D-KP >= 2.6490 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 14 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|               PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                           |
|               NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|               Exe Time :24 May 2018      18:25:50 |
+-----+
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PHASE DESCRIPTORS

```
STEP NO.      1

                LEFT WALL    RIGHT WALL
Y              0.000         -0.9990E+30
Z-PC           0.000          0.000
Z-EXCAVATION   0.000          0.000
Z-WATER_TABLE  0.000         -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000          0.000
ZQ             0.000          0.000
DZW_OF_THE_WATER_TABLE  0.000          0.000
QS_ON_THE_EXCAVATION_SIDE 0.000          0.000
ZQS           -0.9990E+30   -0.9990E+30
ZCUT           0.000          0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00         -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000          0.000
PORE_UPDATE_FLAG 0.000          0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000          0.000
lateral thrusts reduction elevatio 0.000          0.000
Downhill reduction factor for effe 0.000          0.000
Downhill reduction factor for pore 0.000          0.000
Uphill reduction factor for effect 0.000          0.000
Uphill reduction factor for pore p 0.000          0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000          0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000          0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000          0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
UPHILL DELTA/PHI RATIO 0.000          0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
DOWNHILL DELTA/PHI RATIO 0.000          0.000
DYN.WATER BEHAVIOUR 0.000          0.000
Excess pore pressure RATIO Ru 0.000          0.000
SEISMIC PRESSURE LOWER VALUE 0.000          0.000
SEISMIC PRESSURE UPPER VALUE 0.000          0.000
SEISMIC PRESSURE LOWER LEVEL 0.000          0.000
SEISMIC PRESSURE UPPER LEVEL 0.000          0.000
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=====end of step 1

```
STEP NO.      2

                LEFT WALL    RIGHT WALL
Y              0.000         -0.9990E+30
Z-PC           0.000          0.000
Z-EXCAVATION   -1.000          0.000
Z-WATER_TABLE  0.000         -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000          0.000
ZQ             0.000          0.000
DZW_OF_THE_WATER_TABLE  1.000          0.000
QS_ON_THE_EXCAVATION_SIDE 0.000          0.000
ZQS           -0.9990E+30   -0.9990E+30
ZCUT           0.000          0.000
BALANCE LEVEL FOR PORE PRESSURES -16.00         -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000          0.000
PORE_UPDATE_FLAG 0.000          0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000          0.000
lateral thrusts reduction elevatio 0.000          0.000
Downhill reduction factor for effe 0.000          0.000
Downhill reduction factor for pore 0.000          0.000
Uphill reduction factor for effect 0.000          0.000
Uphill reduction factor for pore p 0.000          0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000          0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000          0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000          0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
UPHILL DELTA/PHI RATIO 0.000          0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000          0.000
DOWNHILL DELTA/PHI RATIO 0.000          0.000
DYN.WATER BEHAVIOUR 0.000          0.000
Excess pore pressure RATIO Ru 0.000          0.000
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
SEISMIC PRESSURE LOWER VALUE      0.000      0.000
SEISMIC PRESSURE UPPER VALUE      0.000      0.000
SEISMIC PRESSURE LOWER LEVEL      0.000      0.000
SEISMIC PRESSURE UPPER LEVEL      0.000      0.000
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=====
=====end of step 2

```
STEP NO.      3
LEFT WALL      RIGHT WALL
Y              0.000     -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION   -2.000      0.000
Z-WATER_TABLE  0.000     -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL          0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE             2.000      0.000
QS_ON_THE_EXCAVATION_SIDE           0.000      0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES   -16.00     -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000      0.000
PORE_UPDATE_FLAG                    0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000      0.000
lateral thrusts reduction elevatio  0.000      0.000
Downhill reduction factor for effe  0.000      0.000
Downhill reduction factor for pore  0.000      0.000
Uphill reduction factor for effect  0.000      0.000
Uphill reduction factor for pore p  0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000      0.000
UPHILL DELTA/PHI RATIO              0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000      0.000
DOWNHILL DELTA/PHI RATIO            0.000      0.000
DYN.WATER BEHAVIOUR                0.000      0.000
Excess pore pressure RATIO Ru       0.000      0.000
SEISMIC PRESSURE LOWER VALUE        0.000      0.000
SEISMIC PRESSURE UPPER VALUE        0.000      0.000
SEISMIC PRESSURE LOWER LEVEL        0.000      0.000
SEISMIC PRESSURE UPPER LEVEL        0.000      0.000
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=====end of step 3

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STEP NO.      4
LEFT WALL      RIGHT WALL
Y              0.000     -0.9990E+30
Z-PC           0.000      0.000
Z-EXCAVATION   -3.000      0.000
Z-WATER_TABLE  0.000     -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL          0.000      0.000
ZQ             0.000      0.000
DZW_OF_THE_WATER_TABLE             3.000      0.000
QS_ON_THE_EXCAVATION_SIDE           0.000      0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000      0.000
BALANCE LEVEL FOR PORE PRESSURES   -16.00     -16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000      0.000
PORE_UPDATE_FLAG                    0.000      0.000
PORE_TAB._FLAG (gt.0= use tabs)    0.000      0.000
lateral thrusts reduction elevatio  0.000      0.000
Downhill reduction factor for effe  0.000      0.000
Downhill reduction factor for pore  0.000      0.000
Uphill reduction factor for effect  0.000      0.000
Uphill reduction factor for pore p  0.000      0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000      0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000      0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000      0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000      0.000
UPHILL DELTA/PHI RATIO              0.000      0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000      0.000
DOWNHILL DELTA/PHI RATIO            0.000      0.000
DYN.WATER BEHAVIOUR                0.000      0.000
Excess pore pressure RATIO Ru       0.000      0.000
SEISMIC PRESSURE LOWER VALUE        0.000      0.000
SEISMIC PRESSURE UPPER VALUE        0.000      0.000
SEISMIC PRESSURE LOWER LEVEL        0.000      0.000
SEISMIC PRESSURE UPPER LEVEL        0.000      0.000
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====end of step 4

STEP NO.	5	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 5

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.500	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.500	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====end of step 6

STEP NO.	7	LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-4.500	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	4.500	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	-0.9990E+30	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-16.00	-16.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 7

LEFT-HAND WALL

LOWER LEVEL	-16.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-16.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

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I N I T I A L S T R E S S T A B L E S

S E C T I O N

NUMBER OF DEFINED TABLES 1

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 6.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 1.0000000000000000
FOUNDATION WIDTH (B) 11.7500000000000000
ZETA-F..... 0.0000000000000000E+000
Q-F 5.0000000000000000
BETA 45.0000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.0000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 4763

NO. OF D.P.W FOR THIS AREA 9554
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

```

ITER    0  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.2753E-27 REMNOR= 0.000        RATIO =0.4748E-16 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.4748E-16 RATIOOR= 0.000
          MAX UN=0.7105E-14 IEQ=    143 NODE        72 DOF    1    Y-DISPL.F
          MIN UN=-.7105E-14 IEQ=    147 NODE        74 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

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```

ITER    1  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.1690E-29 REMNOR=0.1300E-52 RATIO =0.3720E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.3720E-17 RATIOOR= 0.000
          MAX UN=0.3954E-17 IEQ=    119 NODE        60 DOF    1    Y-DISPL.F
          MIN UN=-.2360E-15 IEQ=    35 NODE        18 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```

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ITER    2  RNORM = 0.000    RMNORM= 0.000
          RINORM=0.1221E+06 RIMNOR= 0.000
          RENORM=0.1466E-29 REMNOR=0.4358E-52 RATIO =0.3464E-17 TOLER =0.1000E-03        CONVERGED !
          RFMAX = 47.08        RMMAX = 0.000
          RTSMAL=0.1000E-03 RMSMAL= 0.000
          RDT    =0.1221E+06 RDR    = 0.000
          RATIOI=0.3464E-17 RATIOOR= 0.000
          MAX UN=0.1887E-26 IEQ=    48 NODE        24 DOF    2    X-ROT. F
          MIN UN=-.2061E-15 IEQ=    15 NODE        8 DOF    1    Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS        0

```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.SISMICAGEO_1847                |
|                               Exe Time :24 May 2018      18:25:50                          |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME   1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*          |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847          |
|          Exe Time :24 May 2018           18:25:50          |
+-----+

```

New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE UFACTOR	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
		Peq	Su_a	Su_p	LAYER						
1 D	0.000	2.5292E-20	0.000	0.000	0.000	0.000	V-C	4.1493E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	2.5897E-20	2.008	1.570	2.008	1.570	V-C	4.1493E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	2.6501E-20	4.057	3.055	4.057	3.055	V-C	4.1493E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	2.7103E-20	6.158	4.413	6.158	4.413	V-C	4.1493E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	2.7700E-20	8.297	5.651	8.297	5.651	V-C	4.1493E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	2.8287E-20	10.45	6.797	10.45	6.797	V-C	4.1493E+04	-1.0000	10.000	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	2.8859E-20	12.61	7.879	12.61	7.879	V-C	4.1493E+04	-1.2000	12.000	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	2.9410E-20	14.87	8.919	14.87	8.919	V-C	4.1493E+04	-1.4000	14.000	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	2.9932E-20	17.18	9.931	17.18	9.931	V-C	4.1493E+04	-1.6000	16.000	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	3.0417E-20	19.26	10.93	19.26	10.93	V-C	4.1493E+04	-1.8000	18.000	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	3.0854E-20	21.48	11.91	21.48	11.91	V-C	4.1493E+04	-2.0000	20.000	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	3.1232E-20	23.67	12.88	23.67	12.88	V-C	4.1493E+04	-2.2000	22.000	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	3.1545E-20	25.71	13.85	25.71	13.85	V-C	4.1493E+04	-2.4000	24.000	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	3.1784E-20	27.86	14.82	27.86	14.82	V-C	4.1493E+04	-2.6000	26.000	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	3.1940E-20	29.98	15.78	29.98	15.78	V-C	4.1493E+04	-2.8000	28.000	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	3.2012E-20	32.10	16.74	32.10	16.74	V-C	4.1493E+04	-3.0000	30.000	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	3.1997E-20	34.11	17.70	34.11	17.70	V-C	4.1493E+04	-3.2000	32.000	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	3.1893E-20	36.20	18.66	36.20	18.66	V-C	4.1493E+04	-3.4000	34.000	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	3.1695E-20	38.29	19.63	38.29	19.63	V-C	4.1493E+04	-3.6000	36.000	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	3.1399E-20	40.29	20.59	40.29	20.59	V-C	4.1493E+04	-3.8000	38.000	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	3.1000E-20	42.36	21.55	42.36	21.55	V-C	4.1493E+04	-4.0000	40.000	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	3.0501E-20	44.43	22.51	44.43	22.51	V-C	4.1493E+04	-4.2000	42.000	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	2.9911E-20	46.43	23.47	46.43	23.47	V-C	4.1493E+04	-4.4000	44.000	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	2.9242E-20	48.48	24.43	48.48	24.43	V-C	4.1493E+04	-4.6000	46.000	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	2.8503E-20	50.54	25.39	50.54	25.39	V-C	4.1493E+04	-4.8000	48.000	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	2.7702E-20	52.59	26.36	52.59	26.36	V-C	4.1493E+04	-5.0000	50.000	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	2.6847E-20	54.58	27.32	54.58	27.32	V-C	4.1493E+04	-5.2000	52.000	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	2.5946E-20	56.63	28.28	56.63	28.28	V-C	4.1493E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	2.5003E-20	58.67	29.25	58.67	29.25	V-C	4.1493E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	2.4027E-20	60.66	30.22	60.66	30.22	V-C	4.1493E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	2.3038E-20	62.70	31.18	62.70	31.18	V-C	4.1493E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	2.2059E-20	64.74	32.15	64.74	32.15	V-C	4.1493E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	2.1110E-20	66.73	33.12	66.73	33.12	V-C	4.1493E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	2.0195E-20	68.76	34.09	68.76	34.09	V-C	4.1493E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	1.9314E-20	70.79	35.06	70.79	35.06	V-C	4.1493E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	1.8468E-20	72.82	36.03	72.82	36.03	V-C	4.1493E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	1.7655E-20	74.81	37.00	74.81	37.00	V-C	4.1493E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	1.6873E-20	76.84	37.97	76.84	37.97	V-C	4.1493E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	1.6120E-20	78.86	38.94	78.86	38.94	V-C	4.1493E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	1.5390E-20	80.85	39.92	80.85	39.92	V-C	4.1493E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	1.4665E-20	82.88	40.89	82.88	40.89	V-C	4.1493E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	1.3938E-20	84.90	41.86	84.90	41.86	V-C	4.1493E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	1.3204E-20	86.89	42.84	86.89	42.84	V-C	4.1493E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	1.2457E-20	88.91	43.82	88.91	43.82	V-C	4.1493E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	1.1692E-20	90.93	44.79	90.93	44.79	V-C	4.1493E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	1.0906E-20	92.96	45.77	92.96	45.77	V-C	4.1493E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	1.0109E-20	94.94	46.75	94.94	46.75	V-C	4.1493E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	9.3141E-21	96.96	47.73	96.96	47.73	V-C	4.1493E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	8.5336E-21	98.98	48.71	98.98	48.71	V-C	4.1493E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	7.7798E-21	101.0	49.69	101.0	49.69	V-C	4.1493E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	7.0647E-21	103.0	50.67	103.0	50.67	V-C	4.1493E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	6.3998E-21	105.0	51.65	105.0	51.65	V-C	4.1493E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	5.7963E-21	107.0	52.63	107.0	52.63	V-C	4.1493E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	5.2649E-21	109.0	53.61	109.0	53.61	V-C	4.1493E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	4.8163E-21	111.0	54.60	111.0	54.60	V-C	4.1493E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	4.4606E-21	113.0	55.58	113.0	55.58	V-C	4.1493E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	4.2078E-21	115.0	56.56	115.0	56.56	V-C	4.1493E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	4.0674E-21	117.0	57.55	117.0	57.55	V-C	4.1493E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	4.0486E-21	119.1	58.53	119.1	58.53	V-C	4.1493E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	4.1605E-21	121.1	59.52	121.1	59.52	V-C	4.1493E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	4.4116E-21	123.1	60.50	123.1	60.50	V-C	4.1493E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	4.8102E-21	124.9	61.39	124.9	61.39	V-C	2.0584E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	5.3642E-21	126.7	62.28	126.7	62.28	V-C	2.0584E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	6.0813E-21	128.5	63.16	128.5	63.16	V-C	2.0584E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	6.9690E-21	130.3	64.05	130.3	64.05	V-C	2.0584E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	8.0344E-21	132.0	64.94	132.0	64.94	V-C	2.0584E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	9.2845E-21	133.8	65.83	133.8	65.83	V-C	2.0584E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	1.0726E-20	135.6	66.72	135.6	66.72	V-C	2.0584E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	1.2365E-20	137.3	67.60	137.3	67.60	V-C	2.0584E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	1.4208E-20	139.1	68.49	139.1	68.49	V-C	2.0584E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	1.6260E-20	140.9	69.38	140.9	69.38	V-C	2.0584E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	1.8521E-20	142.7	70.27	142.7	70.27	V-C	2.0584E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	2.0953E-20	144.4	71.16	144.4	71.16	V-C	2.0584E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	2.3489E-20	146.2	72.05	146.2	72.05	V-C	2.0584E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	2.6058E-20	148.0	72.94	148.0	72.94	V-C	2.0584E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	2.8622E-20	149.7	73.84	149.7	73.84	V-C	2.0584E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	3.1179E-20	151.5	74.73	151.5	74.73	V-C	2.0584E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	3.3731E-20	153.3	75.62	153.3	75.62	V-C	2.0584E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	3.6280E-20	155.1	76.51	155.1	76.51	V-C	2.0584E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	3.8827E-20	156.8	77.40	156.8	77.40	V-C	2.0584E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	4.1374E-20	158.6	78.29	158.6	78.29	V-C	2.0584E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50      |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.5292E-20	0.000	0.000	0.000	0.000	V-C	2.6477E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.7141	-2.5897E-20	2.000	1.570	2.000	1.570	V-C	2.6477E+04	-0.2000	2.000	
1.000	1.000	3.570	0.000	0.000	Ug5_2_8_L_0						
3 D	1.411	-2.6501E-20	4.000	3.055	4.000	3.055	V-C	2.6477E+04	-0.4000	4.000	
1.000	1.000	7.055	0.000	0.000	Ug5_2_8_L_0						
4 D	2.083	-2.7103E-20	6.000	4.413	6.000	4.413	V-C	2.6477E+04	-0.6000	6.000	
1.000	1.000	10.41	0.000	0.000	Ug5_2_8_L_0						
5 D	2.730	-2.7700E-20	8.000	5.651	8.000	5.651	V-C	2.6477E+04	-0.8000	8.000	
1.000	1.000	13.65	0.000	0.000	Ug5_2_8_L_0						
6 D	3.359	-2.8287E-20	10.00	6.797	10.00	6.797	V-C	2.6477E+04	-1.0000	10.00	
1.000	1.000	16.80	0.000	0.000	Ug5_2_8_L_0						
7 D	3.976	-2.8859E-20	12.00	7.879	12.00	7.879	V-C	2.6477E+04	-1.2000	12.00	
1.000	1.000	19.88	0.000	0.000	Ug5_2_8_L_0						
8 D	4.584	-2.9410E-20	14.00	8.919	14.00	8.919	V-C	2.6477E+04	-1.4000	14.00	
1.000	1.000	22.92	0.000	0.000	Ug5_2_8_L_0						
9 D	5.186	-2.9932E-20	16.00	9.931	16.00	9.931	V-C	2.6477E+04	-1.6000	16.00	
1.000	1.000	25.93	0.000	0.000	Ug5_2_8_L_0						
10 D	5.785	-3.0417E-20	18.00	10.93	18.00	10.93	V-C	2.6477E+04	-1.8000	18.00	
1.000	1.000	28.93	0.000	0.000	Ug5_2_8_L_0						
11 D	6.381	-3.0854E-20	20.00	11.91	20.00	11.91	V-C	2.6477E+04	-2.0000	20.00	
1.000	1.000	31.91	0.000	0.000	Ug5_2_8_L_0						
12 D	6.976	-3.1232E-20	22.00	12.88	22.00	12.88	V-C	2.6477E+04	-2.2000	22.00	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.570	-3.1545E-20	24.00	13.85	24.00	13.85	V-C	2.6477E+04	-2.4000	24.00	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.163	-3.1784E-20	26.00	14.82	26.00	14.82	V-C	2.6477E+04	-2.6000	26.00	
1.000	1.000	40.82	0.000	0.000	Ug5_2_8_L_0						
15 D	8.756	-3.1940E-20	28.00	15.78	28.00	15.78	V-C	2.6477E+04	-2.8000	28.00	
1.000	1.000	43.78	0.000	0.000	Ug5_2_8_L_0						
16 D	9.349	-3.2012E-20	30.00	16.74	30.00	16.74	V-C	2.6477E+04	-3.0000	30.00	
1.000	1.000	46.74	0.000	0.000	Ug5_2_8_L_0						
17 D	9.941	-3.1997E-20	32.00	17.70	32.00	17.70	V-C	2.6477E+04	-3.2000	32.00	
1.000	1.000	49.70	0.000	0.000	Ug5_2_8_L_0						
18 D	10.53	-3.1893E-20	34.00	18.66	34.00	18.66	V-C	2.6477E+04	-3.4000	34.00	
1.000	1.000	52.66	0.000	0.000	Ug5_2_8_L_0						
19 D	11.13	-3.1695E-20	36.00	19.63	36.00	19.63	V-C	2.6477E+04	-3.6000	36.00	
1.000	1.000	55.63	0.000	0.000	Ug5_2_8_L_0						
20 D	11.72	-3.1399E-20	38.00	20.59	38.00	20.59	V-C	2.6477E+04	-3.8000	38.00	
1.000	1.000	58.59	0.000	0.000	Ug5_2_8_L_0						
21 D	12.31	-3.1000E-20	40.00	21.55	40.00	21.55	V-C	2.6477E+04	-4.0000	40.00	
1.000	1.000	61.55	0.000	0.000	Ug5_2_8_L_0						
22 D	12.90	-3.0501E-20	42.00	22.51	42.00	22.51	V-C	2.6477E+04	-4.2000	42.00	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
23 D	13.49	-2.9911E-20	44.00	23.47	44.00	23.47	V-C	2.6477E+04	-4.4000	44.00	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
24 D	14.09	-2.9242E-20	46.00	24.43	46.00	24.43	V-C	2.6477E+04	-4.6000	46.00	
1.000	1.000	70.43	0.000	0.000	Ug5_2_8_L_0						
25 D	14.68	-2.8503E-20	48.00	25.39	48.00	25.39	V-C	2.6477E+04	-4.8000	48.00	
1.000	1.000	73.39	0.000	0.000	Ug5_2_8_L_0						
26 D	15.27	-2.7702E-20	50.00	26.36	50.00	26.36	V-C	2.6477E+04	-5.0000	50.00	
1.000	1.000	76.36	0.000	0.000	Ug5_2_8_L_0						
27 D	15.86	-2.6847E-20	52.00	27.32	52.00	27.32	V-C	2.6477E+04	-5.2000	52.00	
1.000	1.000	79.32	0.000	0.000	Ug5_2_8_L_0						
28 D	16.46	-2.5946E-20	54.00	28.28	54.00	28.28	V-C	2.6477E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	82.28	0.000	0.000	Ug5_2_8_L_0					
29 D	17.05	-2.5003E-20	56.00	29.25	56.00	29.25	V-C	2.6477E+04	-5.600	56.00
1.000	1.000	85.25	0.000	0.000	Ug5_2_8_L_0					
30 D	17.64	-2.4027E-20	58.00	30.22	58.00	30.22	V-C	2.6477E+04	-5.800	58.00
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.24	-2.3038E-20	60.00	31.18	60.00	31.18	V-C	2.6477E+04	-6.000	60.00
1.000	1.000	91.18	0.000	0.000	Ug5_2_8_L_0					
32 D	18.83	-2.2059E-20	62.00	32.15	62.00	32.15	V-C	2.6477E+04	-6.200	62.00
1.000	1.000	94.15	0.000	0.000	Ug5_2_8_L_0					
33 D	19.42	-2.1110E-20	64.00	33.12	64.00	33.12	V-C	2.6477E+04	-6.400	64.00
1.000	1.000	97.12	0.000	0.000	Ug5_2_8_L_0					
34 D	20.02	-2.0195E-20	66.00	34.09	66.00	34.09	V-C	2.6477E+04	-6.600	66.00
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
35 D	20.61	-1.9314E-20	68.00	35.06	68.00	35.06	V-C	2.6477E+04	-6.800	68.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
36 D	21.21	-1.8468E-20	70.00	36.03	70.00	36.03	V-C	2.6477E+04	-7.000	70.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
37 D	21.80	-1.7655E-20	72.00	37.00	72.00	37.00	V-C	2.6477E+04	-7.200	72.00
1.000	1.000	109.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.39	-1.6873E-20	74.00	37.97	74.00	37.97	V-C	2.6477E+04	-7.400	74.00
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.99	-1.6120E-20	76.00	38.94	76.00	38.94	V-C	2.6477E+04	-7.600	76.00
1.000	1.000	114.9	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	-1.5390E-20	78.00	39.92	78.00	39.92	V-C	2.6477E+04	-7.800	78.00
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.18	-1.4665E-20	80.00	40.89	80.00	40.89	V-C	2.6477E+04	-8.000	80.00
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	-1.3938E-20	82.00	41.86	82.00	41.86	V-C	2.6477E+04	-8.200	82.00
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.37	-1.3204E-20	84.00	42.84	84.00	42.84	V-C	2.6477E+04	-8.400	84.00
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.96	-1.2457E-20	86.00	43.82	86.00	43.82	V-C	2.6477E+04	-8.600	86.00
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
45 D	26.56	-1.1692E-20	88.00	44.79	88.00	44.79	V-C	2.6477E+04	-8.800	88.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
46 D	27.15	-1.0906E-20	90.00	45.77	90.00	45.77	V-C	2.6477E+04	-9.000	90.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.75	-1.0109E-20	92.00	46.75	92.00	46.75	V-C	2.6477E+04	-9.200	92.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
48 D	28.35	-9.3141E-21	94.00	47.73	94.00	47.73	V-C	2.6477E+04	-9.400	94.00
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
49 D	28.94	-8.5336E-21	96.00	48.71	96.00	48.71	V-C	2.6477E+04	-9.600	96.00
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
50 D	29.54	-7.7798E-21	98.00	49.69	98.00	49.69	V-C	2.6477E+04	-9.800	98.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
51 D	30.13	-7.0647E-21	100.00	50.67	100.00	50.67	V-C	2.6477E+04	-10.000	100.00
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
52 D	30.73	-6.3998E-21	102.0	51.65	102.0	51.65	V-C	2.6477E+04	-10.200	102.0
1.000	1.000	153.6	0.000	0.000	Ug5_2_8_L_0					
53 D	31.33	-5.7963E-21	104.0	52.63	104.0	52.63	V-C	2.6477E+04	-10.400	104.0
1.000	1.000	156.6	0.000	0.000	Ug5_2_8_L_0					
54 D	31.92	-5.2649E-21	106.0	53.61	106.0	53.61	V-C	2.6477E+04	-10.600	106.0
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.52	-4.8163E-21	108.0	54.60	108.0	54.60	V-C	2.6477E+04	-10.800	108.0
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.12	-4.4606E-21	110.0	55.58	110.0	55.58	V-C	2.6477E+04	-11.000	110.0
1.000	1.000	165.6	0.000	0.000	Ug5_2_8_L_0					
57 D	33.71	-4.2078E-21	112.0	56.56	112.0	56.56	V-C	2.6477E+04	-11.200	112.0
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
58 D	34.31	-4.0674E-21	114.0	57.55	114.0	57.55	V-C	2.6477E+04	-11.400	114.0
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
59 D	34.91	-4.0486E-21	116.0	58.53	116.0	58.53	V-C	2.6477E+04	-11.600	116.0
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
60 D	35.50	-4.1605E-21	118.0	59.52	118.0	59.52	V-C	2.6477E+04	-11.800	118.0
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
61 D	36.10	-4.4116E-21	120.0	60.50	120.0	60.50	V-C	2.6477E+04	-12.000	120.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
62 D	36.68	-4.8102E-21	121.8	61.39	121.8	61.39	V-C	1.9214E+04	-12.200	122.0
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					
63 D	37.26	-5.3642E-21	123.6	62.28	123.6	62.28	V-C	1.9214E+04	-12.400	124.0
1.000	1.000	186.3	0.000	0.000	Ug6_741_743_L_0					
64 D	37.83	-6.0813E-21	125.4	63.16	125.4	63.16	V-C	1.9214E+04	-12.600	126.0
1.000	1.000	189.2	0.000	0.000	Ug6_741_743_L_0					
65 D	38.41	-6.9690E-21	127.2	64.05	127.2	64.05	V-C	1.9214E+04	-12.800	128.0
1.000	1.000	192.1	0.000	0.000	Ug6_741_743_L_0					
66 D	38.99	-8.0344E-21	129.0	64.94	129.0	64.94	V-C	1.9214E+04	-13.000	130.0
1.000	1.000	194.9	0.000	0.000	Ug6_741_743_L_0					
67 D	39.57	-9.2845E-21	130.8	65.83	130.8	65.83	V-C	1.9214E+04	-13.200	132.0
1.000	1.000	197.8	0.000	0.000	Ug6_741_743_L_0					
68 D	40.14	-1.0726E-20	132.6	66.72	132.6	66.72	V-C	1.9214E+04	-13.400	134.0
1.000	1.000	200.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	40.72	-1.2365E-20	134.4	67.60	134.4	67.60	V-C	1.9214E+04	-13.60	136.0
1.000	1.000	203.6	0.000	0.000	Ug6_741_743_L_0					
70 D	41.30	-1.4208E-20	136.2	68.49	136.2	68.49	V-C	1.9214E+04	-13.80	138.0
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
71 D	41.88	-1.6260E-20	138.0	69.38	138.0	69.38	V-C	1.9214E+04	-14.00	140.0
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
72 D	42.45	-1.8521E-20	139.8	70.27	139.8	70.27	V-C	1.9214E+04	-14.20	142.0
1.000	1.000	212.3	0.000	0.000	Ug6_741_743_L_0					
73 D	43.03	-2.0953E-20	141.6	71.16	141.6	71.16	V-C	1.9214E+04	-14.40	144.0
1.000	1.000	215.2	0.000	0.000	Ug6_741_743_L_0					
74 D	43.61	-2.3489E-20	143.4	72.05	143.4	72.05	V-C	1.9214E+04	-14.60	146.0
1.000	1.000	218.1	0.000	0.000	Ug6_741_743_L_0					
75 D	44.19	-2.6058E-20	145.2	72.94	145.2	72.94	V-C	1.9214E+04	-14.80	148.0
1.000	1.000	220.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.77	-2.8622E-20	147.0	73.84	147.0	73.84	V-C	1.9214E+04	-15.00	150.0
1.000	1.000	223.8	0.000	0.000	Ug6_741_743_L_0					
77 D	45.35	-3.1179E-20	148.8	74.73	148.8	74.73	V-C	1.9214E+04	-15.20	152.0
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
78 D	45.92	-3.3731E-20	150.6	75.62	150.6	75.62	V-C	1.9214E+04	-15.40	154.0
1.000	1.000	229.6	0.000	0.000	Ug6_741_743_L_0					
79 D	46.50	-3.6280E-20	152.4	76.51	152.4	76.51	V-C	1.9214E+04	-15.60	156.0
1.000	1.000	232.5	0.000	0.000	Ug6_741_743_L_0					
80 D	47.08	-3.8827E-20	154.2	77.40	154.2	77.40	V-C	1.9214E+04	-15.80	158.0
1.000	1.000	235.4	0.000	0.000	Ug6_741_743_L_0					
81 D	23.83	-4.1374E-20	156.0	78.29	156.0	78.29	V-C	1.9214E+04	-16.00	160.0
1.000	1.000	238.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                |                |                |                |                |                |                |
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+-----+
New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.02581E-16	-1.02581E-16	1.07916E-27	2.05163E-17
2	3.07941E-16	-3.07941E-16	-2.05163E-17	8.21044E-17
3	5.13492E-16	-5.13492E-16	-8.21044E-17	1.84803E-16
4	7.19226E-16	-7.19226E-16	-1.84803E-16	3.28648E-16
5	9.25122E-16	-9.25122E-16	-3.28648E-16	5.13672E-16
6	1.13114E-15	-1.13114E-15	-5.13672E-16	7.39901E-16
7	1.33724E-15	-1.33724E-15	-7.39901E-16	1.00735E-15
8	1.54333E-15	-1.54333E-15	-1.00735E-15	1.31601E-15
9	1.74934E-15	-1.74934E-15	-1.31601E-15	1.66588E-15
10	1.95513E-15	-1.95513E-15	-1.66588E-15	2.05691E-15
11	1.27241E-15	-1.27241E-15	-2.05691E-15	2.31139E-15
12	1.47737E-15	-1.47737E-15	-2.31139E-15	2.60687E-15
13	1.68165E-15	-1.68165E-15	-2.60687E-15	2.94320E-15
14	1.08696E-16	-1.08696E-16	-2.94320E-15	2.96493E-15
15	3.11002E-16	-3.11002E-16	-2.96493E-15	3.02713E-15
16	5.11978E-16	-5.11978E-16	-3.02713E-15	3.12953E-15
17	7.11374E-16	-7.11374E-16	-3.12953E-15	3.27181E-15
18	9.08932E-16	-9.08932E-16	-3.27181E-15	3.45359E-15
19	1.10438E-15	-1.10438E-15	-3.45359E-15	3.67447E-15
20	-4.78913E-16	4.78913E-16	-3.67447E-15	3.57869E-15
21	-2.06487E-15	2.06487E-15	-3.57869E-15	3.16571E-15
22	-1.87741E-15	1.87741E-15	-3.16571E-15	2.79023E-15
23	-1.69317E-15	1.69317E-15	-2.79023E-15	2.45160E-15
24	-1.51241E-15	1.51241E-15	-2.45160E-15	2.14911E-15
25	-1.33540E-15	1.33540E-15	-2.14911E-15	1.88203E-15
26	-1.16238E-15	1.16238E-15	-1.88203E-15	1.64956E-15
27	-9.93577E-16	9.93577E-16	-1.64956E-15	1.45084E-15
28	-8.29216E-16	8.29216E-16	-1.45084E-15	1.28500E-15
29	-4.22220E-15	4.22220E-15	-1.28500E-15	4.40560E-16
30	-4.06729E-15	4.06729E-15	-4.40560E-16	3.72897E-16
31	-3.91733E-15	3.91733E-15	-3.72897E-16	1.15636E-15
32	-2.19754E-16	2.19754E-16	-1.15636E-15	1.20031E-15
33	-8.00830E-17	8.00830E-17	-1.20031E-15	1.21633E-15
34	5.43171E-17	-5.43171E-17	1.21633E-15	-1.20546E-15
35	1.83395E-16	-1.83395E-16	1.20546E-15	-1.16878E-15
36	3.07126E-16	-3.07126E-16	1.16878E-15	-1.10736E-15
37	4.25513E-16	-4.25513E-16	1.10736E-15	-1.02226E-15
38	5.38586E-16	-5.38586E-16	1.02226E-15	-9.14540E-16
39	4.19912E-15	-4.19912E-15	9.14540E-16	-7.47169E-17
40	7.49049E-16	-7.49049E-16	7.47169E-17	7.50930E-17
41	8.46640E-16	-8.46640E-16	7.50930E-17	2.44421E-16
42	9.39317E-16	-9.39317E-16	2.44421E-16	4.32284E-16
43	1.02725E-15	-1.02725E-15	4.32284E-16	6.37735E-16
44	1.11064E-15	-1.11064E-15	6.37735E-16	8.59862E-16
45	-2.36299E-15	2.36299E-15	-8.59862E-16	3.87265E-16
46	-2.28796E-15	2.28796E-15	-3.87265E-16	7.03272E-17
47	-2.21669E-15	2.21669E-15	-7.03272E-17	5.13666E-16
48	-2.14887E-15	2.14887E-15	-5.13666E-16	9.43440E-16
49	-2.08414E-15	2.08414E-15	-9.43440E-16	1.36027E-15
50	-2.02214E-15	2.02214E-15	-1.36027E-15	1.76469E-15
51	-1.96245E-15	1.96245E-15	-1.76469E-15	2.15719E-15
52	-1.90464E-15	1.90464E-15	-2.15719E-15	2.53810E-15
53	-1.84827E-15	1.84827E-15	-2.53810E-15	2.90776E-15
54	-1.79285E-15	1.79285E-15	-2.90776E-15	3.26633E-15
55	-1.73790E-15	1.73790E-15	-3.26633E-15	3.61391E-15
56	-1.68290E-15	1.68290E-15	-3.61391E-15	3.95049E-15
57	-1.62732E-15	1.62732E-15	-3.95049E-15	4.27595E-15
58	-1.57064E-15	1.57064E-15	-4.27595E-15	4.59008E-15
59	-1.51231E-15	1.51231E-15	-4.59008E-15	4.89254E-15

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60-1.45179E-15 1.45179E-15 4.89254E-15-5.18290E-15
61-1.38857E-15 1.38857E-15 5.18290E-15-5.46061E-15
62-1.34965E-15 1.34965E-15 5.46061E-15-5.73054E-15
63-1.30853E-15 1.30853E-15 5.73054E-15-5.99224E-15
64-1.26493E-15 1.26493E-15 5.99224E-15-6.24523E-15
65-1.21856E-15 1.21856E-15 6.24523E-15-6.48894E-15
66-1.16917E-15 1.16917E-15 6.48894E-15-6.72278E-15
67-1.11651E-15 1.11651E-15 6.72278E-15-6.94608E-15
68-1.06035E-15 1.06035E-15 6.94608E-15-7.15815E-15
69-1.00048E-15 1.00048E-15 7.15815E-15-7.35825E-15
70-9.36697E-16 9.36697E-16 7.35825E-15-7.54559E-15
71 6.23659E-15-6.23659E-15 7.54559E-15-6.29827E-15
72 1.34141E-14-1.34141E-14 6.29827E-15-3.61545E-15
73 1.34905E-14-1.34905E-14 3.61545E-15-9.17341E-16
74 6.46601E-15-6.46601E-15 9.17341E-16 3.75860E-16
75-5.53975E-16 5.53975E-16-3.75860E-16 2.65065E-16
76-4.63915E-16 4.63915E-16-2.65065E-16 1.72282E-16
77-3.69193E-16 3.69193E-16-1.72282E-16 9.84431E-17
78-2.69777E-16 2.69777E-16-9.84431E-17 4.44878E-17
79-1.65645E-16 1.65645E-16-4.44878E-17 1.13587E-17
80-5.67908E-17 5.67908E-17-1.13587E-17 1.31266E-27

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1606E-26
RENORM= 302.6 REMNOR=0.4358E-52 RATIO =0.5168E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7546E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.5168E-01 RATIO= 0.000
MAX UN= 3.327 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
MIN UN=-.1026E-15 IEQ= 1 NODE 1 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1606E-26
RENORM= 16.06 REMNOR=0.2770E-21 RATIO =0.1191E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7546E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1191E-01 RATIO= 0.000
MAX UN= 1.612 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.3067E-10 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1606E-26
RENORM= 11.03 REMNOR=0.1657E-20 RATIO =0.9867E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7546E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.9867E-02 RATIO= 0.000
MAX UN= 1.904 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
MIN UN=-.2304E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1606E-26
RENORM=0.3250 REMNOR=0.3919E-21 RATIO =0.1694E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 46.57 RMMAX =0.7546E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.1694E-02 RATIO= 0.000
MAX UN=0.4964 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.1316E-09 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1133E+06 RIMNOR=0.1606E-26
RENORM=0.1380E-03 REMNOR=0.2743E-21 RATIO =0.3490E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 46.57 RMMAX =0.7546E-14
RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
RDT =0.1133E+06 RDR =0.1000E-19
RATIOT=0.3490E-04 RATIO= 0.000
MAX UN=0.1175E-01 IEQ= 73 NODE 37 DOF 1 Y-DISPL.F
MIN UN=-.1984E-09 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	4.4071210E-04	-8.1139219E-05	
2	4.2448426E-04	-8.1139219E-05	
3	4.0825691E-04	-8.1131827E-05	
4	3.9203350E-04	-8.1094828E-05	
5	3.7582342E-04	-8.0991101E-05	
6	3.5964498E-04	-8.0768538E-05	
7	3.4352841E-04	-8.0359989E-05	
8	3.2751679E-04	-7.9714356E-05	
9	3.1165898E-04	-7.8824070E-05	
10	2.9600265E-04	-7.7701558E-05	
11	2.8059300E-04	-7.6359420E-05	
12	2.6547267E-04	-7.4810381E-05	
13	2.5068179E-04	-7.3067131E-05	
14	2.3625791E-04	-7.1142481E-05	
15	2.2223603E-04	-6.9049402E-05	
16	2.0864851E-04	-6.6800973E-05	
17	1.9552505E-04	-6.4410444E-05	
18	1.8289283E-04	-6.1891443E-05	
19	1.7077610E-04	-5.9257985E-05	
20	1.5919630E-04	-5.6524521E-05	
21	1.4817201E-04	-5.3706095E-05	
22	1.3771854E-04	-5.0818385E-05	
23	1.2784818E-04	-4.7877809E-05	
24	1.1856979E-04	-4.4901624E-05	
25	1.0988869E-04	-4.1908040E-05	
26	1.0180645E-04	-3.8916255E-05	
27	9.4320751E-05	-3.5946572E-05	
28	8.7424957E-05	-3.3020489E-05	
29	8.1108124E-05	-3.0160884E-05	
30	7.5354700E-05	-2.7389826E-05	
31	7.0145064E-05	-2.4725714E-05	
32	6.5456360E-05	-2.2182775E-05	
33	6.1263202E-05	-1.9771473E-05	
34	5.7538514E-05	-1.7499022E-05	
35	5.4254048E-05	-1.5369745E-05	
36	5.1380948E-05	-1.3385479E-05	
37	4.8890219E-05	-1.1545953E-05	
38	4.6753058E-05	-9.8492520E-06	
39	4.4941226E-05	-8.2919311E-06	
40	4.3427334E-05	-6.8688790E-06	
41	4.2185151E-05	-5.5736836E-06	
42	4.1189830E-05	-4.3989548E-06	
43	4.0418076E-05	-3.3366167E-06	
44	3.9848257E-05	-2.3781720E-06	
45	3.9460462E-05	-1.5149430E-06	
46	3.9236512E-05	-7.3826681E-07	
47	3.9159947E-05	-3.9710737E-08	
48	3.9215956E-05	5.8877752E-07	
49	3.9391288E-05	1.1547160E-06	
50	3.9674128E-05	1.6649542E-06	
51	4.0053960E-05	2.1255663E-06	
52	4.0521404E-05	2.5417429E-06	
53	4.1067956E-05	2.9176523E-06	
54	4.1685967E-05	3.2564941E-06	
55	4.2368216E-05	3.5602738E-06	
56	4.3107795E-05	3.8298292E-06	
57	4.3897839E-05	4.0647585E-06	
58	4.4731277E-05	4.2633741E-06	
59	4.5600567E-05	4.4226651E-06	
60	4.6497431E-05	4.5382669E-06	
61	4.7412579E-05	4.6044375E-06	
62	4.8335435E-05	4.6140431E-06	
63	4.9254572E-05	4.5692952E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	5.0160310E-05	4.4819055E-06
65	5.1045200E-05	4.3625031E-06
66	5.1903814E-05	4.2206457E-06
67	5.2732529E-05	4.0648368E-06
68	5.3529317E-05	3.9025436E-06
69	5.4293544E-05	3.7402193E-06
70	5.5025766E-05	3.5833242E-06
71	5.5727535E-05	3.4363485E-06
72	5.6401203E-05	3.3028331E-06
73	5.7049740E-05	3.1853896E-06
74	5.7676544E-05	3.0857190E-06
75	5.8285266E-05	3.0046271E-06
76	5.8879628E-05	2.9420385E-06
77	5.9463252E-05	2.8970074E-06
78	6.0039481E-05	2.8677266E-06
79	6.0611215E-05	2.8515334E-06
80	6.1180733E-05	2.8449138E-06
81	6.1749556E-05	2.8435050E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-4.4071E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5193	-4.2448E-04	2.073	0.6612	2.073	1.603	ACTIVE	0.000	-0.2000	1.935	
1.000	1.000	2.597	0.000	0.000	Ug5_2_8_L_0						
3 D	1.041	-4.0826E-04	4.186	1.335	4.186	3.119	ACTIVE	0.000	-0.4000	3.871	
1.000	1.000	5.206	0.000	0.000	Ug5_2_8_L_0						
4 D	1.567	-3.9203E-04	6.351	2.026	6.351	4.509	ACTIVE	0.000	-0.6000	5.806	
1.000	1.000	7.833	0.000	0.000	Ug5_2_8_L_0						
5 D	2.094	-3.7582E-04	8.555	2.729	8.555	5.780	ACTIVE	0.000	-0.8000	7.742	
1.000	1.000	10.47	0.000	0.000	Ug5_2_8_L_0						
6 D	2.623	-3.5964E-04	10.78	3.438	10.78	6.958	ACTIVE	0.000	-1.000	9.677	
1.000	1.000	13.12	0.000	0.000	Ug5_2_8_L_0						
7 D	3.152	-3.4353E-04	13.00	4.146	13.00	8.073	ACTIVE	0.000	-1.200	11.61	
1.000	1.000	15.76	0.000	0.000	Ug5_2_8_L_0						
8 D	3.687	-3.2752E-04	15.33	4.889	15.33	9.145	ACTIVE	0.000	-1.400	13.55	
1.000	1.000	18.44	0.000	0.000	Ug5_2_8_L_0						
9 D	4.226	-3.1166E-04	17.69	5.644	17.69	10.19	ACTIVE	0.000	-1.600	15.48	
1.000	1.000	21.13	0.000	0.000	Ug5_2_8_L_0						
10 D	4.750	-2.9600E-04	19.84	6.331	19.84	11.22	ACTIVE	0.000	-1.800	17.42	
1.000	1.000	23.75	0.000	0.000	Ug5_2_8_L_0						
11 D	5.283	-2.8059E-04	22.13	7.059	22.13	12.23	ACTIVE	0.000	-2.000	19.35	
1.000	1.000	26.41	0.000	0.000	Ug5_2_8_L_0						
12 D	5.813	-2.6547E-04	24.38	7.777	24.38	13.24	ACTIVE	0.000	-2.200	21.29	
1.000	1.000	29.07	0.000	0.000	Ug5_2_8_L_0						
13 D	6.335	-2.5068E-04	26.48	8.448	26.48	14.24	ACTIVE	0.000	-2.400	23.23	
1.000	1.000	31.67	0.000	0.000	Ug5_2_8_L_0						
14 D	6.863	-2.3626E-04	28.70	9.154	28.70	15.24	ACTIVE	0.000	-2.600	25.16	
1.000	1.000	34.32	0.000	0.000	Ug5_2_8_L_0						
15 D	7.390	-2.2224E-04	30.89	9.853	30.89	16.23	ACTIVE	0.000	-2.800	27.10	
1.000	1.000	36.95	0.000	0.000	Ug5_2_8_L_0						
16 D	7.916	-2.0865E-04	33.06	10.55	33.06	17.23	ACTIVE	0.000	-3.000	29.03	
1.000	1.000	39.58	0.000	0.000	Ug5_2_8_L_0						
17 D	8.435	-1.9553E-04	35.14	11.21	35.14	18.22	ACTIVE	0.000	-3.200	30.97	
1.000	1.000	42.18	0.000	0.000	Ug5_2_8_L_0						
18 D	8.960	-1.8289E-04	37.30	11.90	37.30	19.21	ACTIVE	0.000	-3.400	32.90	
1.000	1.000	44.80	0.000	0.000	Ug5_2_8_L_0						
19 D	9.485	-1.7078E-04	39.45	12.58	39.45	20.21	ACTIVE	0.000	-3.600	34.84	
1.000	1.000	47.42	0.000	0.000	Ug5_2_8_L_0						
20 D	10.00	-1.5920E-04	41.51	13.24	41.51	21.20	ACTIVE	0.000	-3.800	36.77	
1.000	1.000	50.02	0.000	0.000	Ug5_2_8_L_0						
21 D	10.53	-1.4817E-04	43.65	13.93	43.65	22.19	ACTIVE	0.000	-4.000	38.71	
1.000	1.000	52.63	0.000	0.000	Ug5_2_8_L_0						
22 D	11.05	-1.3772E-04	45.78	14.61	45.78	23.18	ACTIVE	0.000	-4.200	40.65	
1.000	1.000	55.25	0.000	0.000	Ug5_2_8_L_0						
23 D	11.57	-1.2785E-04	47.84	15.26	47.84	24.18	ACTIVE	0.000	-4.400	42.58	
1.000	1.000	57.84	0.000	0.000	Ug5_2_8_L_0						
24 D	12.09	-1.1857E-04	49.97	15.94	49.97	25.17	ACTIVE	0.000	-4.600	44.52	
1.000	1.000	60.46	0.000	0.000	Ug5_2_8_L_0						
25 D	12.61	-1.0989E-04	52.09	16.62	52.09	26.17	ACTIVE	0.000	-4.800	46.45	
1.000	1.000	63.07	0.000	0.000	Ug5_2_8_L_0						
26 D	13.14	-1.0181E-04	54.20	17.29	54.20	27.16	ACTIVE	0.000	-5.000	48.39	
1.000	1.000	65.68	0.000	0.000	Ug5_2_8_L_0						
27 D	13.65	-9.4321E-05	56.26	17.95	56.26	28.16	ACTIVE	0.000	-5.200	50.32	
1.000	1.000	68.27	0.000	0.000	Ug5_2_8_L_0						
28 D	14.18	-8.7425E-05	58.37	18.62	58.37	29.16	ACTIVE	0.000	-5.400	52.26	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	70.88	0.000	0.000	Ug5_2_8_L_0					
29 D	14.85	-8.1108E-05	60.48	20.06	60.48	30.15	UL-RL	1.2448E+05	-5.600	54.19
1.000	1.000	74.25	0.000	0.000	Ug5_2_8_L_0					
30 D	15.58	-7.5355E-05	62.53	21.77	62.53	31.15	UL-RL	1.2448E+05	-5.800	56.13
1.000	1.000	77.90	0.000	0.000	Ug5_2_8_L_0					
31 D	16.30	-7.0145E-05	64.63	23.42	64.63	32.15	UL-RL	1.2448E+05	-6.000	58.06
1.000	1.000	81.48	0.000	0.000	Ug5_2_8_L_0					
32 D	17.00	-6.5456E-05	66.74	25.00	66.74	33.15	UL-RL	1.2448E+05	-6.200	60.00
1.000	1.000	85.00	0.000	0.000	Ug5_2_8_L_0					
33 D	17.69	-6.1263E-05	68.79	26.52	68.79	34.15	UL-RL	1.2448E+05	-6.400	61.94
1.000	1.000	88.46	0.000	0.000	Ug5_2_8_L_0					
34 D	18.37	-5.7539E-05	70.89	27.99	70.89	35.15	UL-RL	1.2448E+05	-6.600	63.87
1.000	1.000	91.86	0.000	0.000	Ug5_2_8_L_0					
35 D	19.04	-5.4254E-05	72.98	29.40	72.98	36.15	UL-RL	1.2448E+05	-6.800	65.81
1.000	1.000	95.21	0.000	0.000	Ug5_2_8_L_0					
36 D	19.70	-5.1381E-05	75.08	30.76	75.08	37.16	UL-RL	1.2448E+05	-7.000	67.74
1.000	1.000	98.50	0.000	0.000	Ug5_2_8_L_0					
37 D	20.35	-4.8890E-05	77.13	32.07	77.13	38.16	UL-RL	1.2448E+05	-7.200	69.68
1.000	1.000	101.8	0.000	0.000	Ug5_2_8_L_0					
38 D	20.99	-4.6753E-05	79.22	33.34	79.22	39.16	UL-RL	1.2448E+05	-7.400	71.61
1.000	1.000	105.0	0.000	0.000	Ug5_2_8_L_0					
39 D	21.62	-4.4941E-05	81.32	34.57	81.32	40.17	UL-RL	1.2448E+05	-7.600	73.55
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
40 D	22.25	-4.3427E-05	83.37	35.77	83.37	41.17	UL-RL	1.2448E+05	-7.800	75.48
1.000	1.000	111.3	0.000	0.000	Ug5_2_8_L_0					
41 D	22.87	-4.2185E-05	85.46	36.93	85.46	42.18	UL-RL	1.2448E+05	-8.000	77.42
1.000	1.000	114.3	0.000	0.000	Ug5_2_8_L_0					
42 D	23.48	-4.1190E-05	87.55	38.06	87.55	43.19	UL-RL	1.2448E+05	-8.200	79.35
1.000	1.000	117.4	0.000	0.000	Ug5_2_8_L_0					
43 D	24.09	-4.0418E-05	89.60	39.16	89.60	44.19	UL-RL	1.2448E+05	-8.400	81.29
1.000	1.000	120.5	0.000	0.000	Ug5_2_8_L_0					
44 D	24.69	-3.9848E-05	91.69	40.24	91.69	45.20	UL-RL	1.2448E+05	-8.600	83.23
1.000	1.000	123.5	0.000	0.000	Ug5_2_8_L_0					
45 D	25.29	-3.9460E-05	93.77	41.30	93.77	46.21	UL-RL	1.2448E+05	-8.800	85.16
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
46 D	25.89	-3.9237E-05	95.86	42.34	95.86	47.22	UL-RL	1.2448E+05	-9.000	87.10
1.000	1.000	129.4	0.000	0.000	Ug5_2_8_L_0					
47 D	26.48	-3.9160E-05	97.91	43.36	97.91	48.23	UL-RL	1.2448E+05	-9.200	89.03
1.000	1.000	132.4	0.000	0.000	Ug5_2_8_L_0					
48 D	27.07	-3.9216E-05	100.00	44.36	100.00	49.24	UL-RL	1.2448E+05	-9.400	90.97
1.000	1.000	135.3	0.000	0.000	Ug5_2_8_L_0					
49 D	27.65	-3.9391E-05	102.1	45.35	102.1	50.26	UL-RL	1.2448E+05	-9.600	92.90
1.000	1.000	138.3	0.000	0.000	Ug5_2_8_L_0					
50 D	28.23	-3.9674E-05	104.1	46.33	104.1	51.27	UL-RL	1.2448E+05	-9.800	94.84
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
51 D	28.81	-4.0054E-05	106.2	47.29	106.2	52.28	UL-RL	1.2448E+05	-10.000	96.77
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
52 D	29.39	-4.0521E-05	108.3	48.25	108.3	53.29	UL-RL	1.2448E+05	-10.200	98.71
1.000	1.000	147.0	0.000	0.000	Ug5_2_8_L_0					
53 D	29.97	-4.1068E-05	110.3	49.20	110.3	54.31	UL-RL	1.2448E+05	-10.400	100.6
1.000	1.000	149.8	0.000	0.000	Ug5_2_8_L_0					
54 D	30.54	-4.1686E-05	112.4	50.13	112.4	55.32	UL-RL	1.2448E+05	-10.600	102.6
1.000	1.000	152.7	0.000	0.000	Ug5_2_8_L_0					
55 D	31.12	-4.2368E-05	114.5	51.06	114.5	56.34	UL-RL	1.2448E+05	-10.800	104.5
1.000	1.000	155.6	0.000	0.000	Ug5_2_8_L_0					
56 D	31.69	-4.3108E-05	116.6	51.99	116.6	57.35	UL-RL	1.2448E+05	-11.000	106.5
1.000	1.000	158.4	0.000	0.000	Ug5_2_8_L_0					
57 D	32.26	-4.3898E-05	118.6	52.90	118.6	58.37	UL-RL	1.2448E+05	-11.200	108.4
1.000	1.000	161.3	0.000	0.000	Ug5_2_8_L_0					
58 D	32.83	-4.4731E-05	120.7	53.82	120.7	59.39	UL-RL	1.2448E+05	-11.400	110.3
1.000	1.000	164.1	0.000	0.000	Ug5_2_8_L_0					
59 D	33.40	-4.5601E-05	122.8	54.73	122.8	60.40	UL-RL	1.2448E+05	-11.600	112.3
1.000	1.000	167.0	0.000	0.000	Ug5_2_8_L_0					
60 D	33.97	-4.6497E-05	124.9	55.63	124.9	61.42	UL-RL	1.2448E+05	-11.800	114.2
1.000	1.000	169.8	0.000	0.000	Ug5_2_8_L_0					
61 D	34.53	-4.7413E-05	126.9	56.54	126.9	62.44	UL-RL	1.2448E+05	-12.000	116.1
1.000	1.000	172.7	0.000	0.000	Ug5_2_8_L_0					
62 D	35.69	-4.8335E-05	128.8	60.37	128.8	63.36	UL-RL	6.1752E+04	-12.200	118.1
1.000	1.000	178.4	0.000	0.000	Ug6_741_743_L_0					
63 D	36.25	-4.9255E-05	130.7	61.23	130.7	64.28	UL-RL	6.1752E+04	-12.400	120.0
1.000	1.000	181.2	0.000	0.000	Ug6_741_743_L_0					
64 D	36.81	-5.0160E-05	132.5	62.10	132.5	65.20	UL-RL	6.1752E+04	-12.600	121.9
1.000	1.000	184.0	0.000	0.000	Ug6_741_743_L_0					
65 D	37.37	-5.1045E-05	134.4	62.96	134.4	66.12	UL-RL	6.1752E+04	-12.800	123.9
1.000	1.000	186.8	0.000	0.000	Ug6_741_743_L_0					
66 D	37.93	-5.1904E-05	136.2	63.83	136.2	67.04	UL-RL	6.1752E+04	-13.000	125.8
1.000	1.000	189.6	0.000	0.000	Ug6_741_743_L_0					
67 D	38.49	-5.2733E-05	138.1	64.70	138.1	67.96	UL-RL	6.1752E+04	-13.200	127.7
1.000	1.000	192.4	0.000	0.000	Ug6_741_743_L_0					
68 D	39.05	-5.3529E-05	139.9	65.57	139.9	68.88	UL-RL	6.1752E+04	-13.400	129.7
1.000	1.000	195.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.61	-5.4294E-05	141.7	66.44	141.7	69.80	UL-RL	6.1752E+04	-13.60	131.6
1.000	1.000	198.1	0.000	0.000	Ug6_741_743_L_0					
70 D	40.17	-5.5026E-05	143.6	67.32	143.6	70.72	UL-RL	6.1752E+04	-13.80	133.5
1.000	1.000	200.9	0.000	0.000	Ug6_741_743_L_0					
71 D	40.74	-5.5728E-05	145.4	68.20	145.4	71.64	UL-RL	6.1752E+04	-14.00	135.5
1.000	1.000	203.7	0.000	0.000	Ug6_741_743_L_0					
72 D	41.30	-5.6401E-05	147.2	69.08	147.2	72.56	UL-RL	6.1752E+04	-14.20	137.4
1.000	1.000	206.5	0.000	0.000	Ug6_741_743_L_0					
73 D	41.86	-5.7050E-05	149.1	69.96	149.1	73.49	UL-RL	6.1752E+04	-14.40	139.4
1.000	1.000	209.3	0.000	0.000	Ug6_741_743_L_0					
74 D	42.43	-5.7677E-05	150.9	70.85	150.9	74.41	UL-RL	6.1752E+04	-14.60	141.3
1.000	1.000	212.1	0.000	0.000	Ug6_741_743_L_0					
75 D	42.99	-5.8285E-05	152.7	71.73	152.7	75.33	UL-RL	6.1752E+04	-14.80	143.2
1.000	1.000	215.0	0.000	0.000	Ug6_741_743_L_0					
76 D	43.56	-5.8880E-05	154.6	72.62	154.6	76.25	UL-RL	6.1752E+04	-15.00	145.2
1.000	1.000	217.8	0.000	0.000	Ug6_741_743_L_0					
77 D	44.12	-5.9463E-05	156.4	73.51	156.4	77.18	UL-RL	6.1752E+04	-15.20	147.1
1.000	1.000	220.6	0.000	0.000	Ug6_741_743_L_0					
78 D	44.69	-6.0039E-05	158.3	74.39	158.3	78.10	UL-RL	6.1752E+04	-15.40	149.0
1.000	1.000	223.4	0.000	0.000	Ug6_741_743_L_0					
79 D	45.25	-6.0611E-05	160.1	75.28	160.1	79.03	UL-RL	6.1752E+04	-15.60	151.0
1.000	1.000	226.3	0.000	0.000	Ug6_741_743_L_0					
80 D	45.82	-6.1181E-05	161.9	76.17	161.9	79.95	UL-RL	6.1752E+04	-15.80	152.9
1.000	1.000	229.1	0.000	0.000	Ug6_741_743_L_0					
81 D	23.19	-6.1750E-05	163.8	77.06	163.8	80.88	UL-RL	6.1752E+04	-16.00	154.8
1.000	1.000	231.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	3.5964E-04	0.000	0.000	10.00	6.797	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.185	3.4353E-04	1.935	8.861	12.00	8.861	PASSIVE	0.000	-1.200	2.065	
1.000	1.000	10.93	0.000	0.000	Ug5_2_8_L_0						
8 D	4.123	3.2752E-04	3.871	16.48	14.00	16.48	V-C	2.6477E+04	-1.400	4.129	
1.000	1.000	20.61	0.000	0.000	Ug5_2_8_L_0						
9 D	4.663	3.1166E-04	5.806	17.12	16.00	17.12	V-C	2.6477E+04	-1.600	6.194	
1.000	1.000	23.32	0.000	0.000	Ug5_2_8_L_0						
10 D	5.198	2.9600E-04	7.742	17.73	18.00	17.73	V-C	2.6477E+04	-1.800	8.258	
1.000	1.000	25.99	0.000	0.000	Ug5_2_8_L_0						
11 D	5.729	2.8059E-04	9.677	18.32	20.00	18.32	V-C	2.6477E+04	-2.000	10.32	
1.000	1.000	28.64	0.000	0.000	Ug5_2_8_L_0						
12 D	6.259	2.6547E-04	11.61	18.91	22.00	18.91	V-C	2.6477E+04	-2.200	12.39	
1.000	1.000	31.30	0.000	0.000	Ug5_2_8_L_0						
13 D	6.789	2.5068E-04	13.55	19.49	24.00	19.49	V-C	2.6477E+04	-2.400	14.45	
1.000	1.000	33.95	0.000	0.000	Ug5_2_8_L_0						
14 D	7.320	2.3626E-04	15.48	20.08	26.00	20.08	V-C	2.6477E+04	-2.600	16.52	
1.000	1.000	36.60	0.000	0.000	Ug5_2_8_L_0						
15 D	7.852	2.2224E-04	17.42	20.68	28.00	20.68	V-C	2.6477E+04	-2.800	18.58	
1.000	1.000	39.26	0.000	0.000	Ug5_2_8_L_0						
16 D	8.386	2.0865E-04	19.35	21.28	30.00	21.28	V-C	2.6477E+04	-3.000	20.65	
1.000	1.000	41.93	0.000	0.000	Ug5_2_8_L_0						
17 D	8.922	1.9553E-04	21.29	21.90	32.00	21.90	V-C	2.6477E+04	-3.200	22.71	
1.000	1.000	44.61	0.000	0.000	Ug5_2_8_L_0						
18 D	9.460	1.8289E-04	23.23	22.52	34.00	22.52	V-C	2.6477E+04	-3.400	24.77	
1.000	1.000	47.30	0.000	0.000	Ug5_2_8_L_0						
19 D	10.00	1.7078E-04	25.16	23.16	36.00	23.16	V-C	2.6477E+04	-3.600	26.84	
1.000	1.000	50.00	0.000	0.000	Ug5_2_8_L_0						
20 D	10.54	1.5920E-04	27.10	23.82	38.00	23.82	V-C	2.6477E+04	-3.800	28.90	
1.000	1.000	52.72	0.000	0.000	Ug5_2_8_L_0						
21 D	11.09	1.4817E-04	29.03	24.48	40.00	24.48	V-C	2.6477E+04	-4.000	30.97	
1.000	1.000	55.45	0.000	0.000	Ug5_2_8_L_0						
22 D	11.64	1.3772E-04	30.97	25.16	42.00	25.16	V-C	2.6477E+04	-4.200	33.03	
1.000	1.000	58.20	0.000	0.000	Ug5_2_8_L_0						
23 D	12.19	1.2785E-04	32.90	25.86	44.00	25.86	V-C	2.6477E+04	-4.400	35.10	
1.000	1.000	60.96	0.000	0.000	Ug5_2_8_L_0						
24 D	12.75	1.1857E-04	34.84	26.58	46.00	26.58	V-C	2.6477E+04	-4.600	37.16	
1.000	1.000	63.74	0.000	0.000	Ug5_2_8_L_0						
25 D	13.31	1.0989E-04	36.77	27.30	48.00	27.30	V-C	2.6477E+04	-4.800	39.23	
1.000	1.000	66.53	0.000	0.000	Ug5_2_8_L_0						
26 D	13.87	1.0181E-04	38.71	28.05	50.00	28.05	V-C	2.6477E+04	-5.000	41.29	
1.000	1.000	69.34	0.000	0.000	Ug5_2_8_L_0						
27 D	14.43	9.4321E-05	40.65	28.81	52.00	28.81	V-C	2.6477E+04	-5.200	43.35	
1.000	1.000	72.17	0.000	0.000	Ug5_2_8_L_0						
28 D	15.00	8.7425E-05	42.58	29.59	54.00	29.59	V-C	2.6477E+04	-5.400	45.42	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	75.01	0.000	0.000	Ug5_2_8_L_0					
29 D	15.57	8.1108E-05	44.52	30.39	56.00	30.39	V-C	2.6477E+04	-5.600	47.48
1.000	1.000	77.87	0.000	0.000	Ug5_2_8_L_0					
30 D	16.15	7.5355E-05	46.45	31.19	58.00	31.19	V-C	2.6477E+04	-5.800	49.55
1.000	1.000	80.74	0.000	0.000	Ug5_2_8_L_0					
31 D	16.73	7.0145E-05	48.39	32.02	60.00	32.02	V-C	2.6477E+04	-6.000	51.61
1.000	1.000	83.63	0.000	0.000	Ug5_2_8_L_0					
32 D	17.31	6.5456E-05	50.32	32.86	62.00	32.86	V-C	2.6477E+04	-6.200	53.68
1.000	1.000	86.54	0.000	0.000	Ug5_2_8_L_0					
33 D	17.89	6.1263E-05	52.26	33.71	64.00	33.71	V-C	2.6477E+04	-6.400	55.74
1.000	1.000	89.45	0.000	0.000	Ug5_2_8_L_0					
34 D	18.48	5.7539E-05	54.19	34.58	66.00	34.58	V-C	2.6477E+04	-6.600	57.81
1.000	1.000	92.38	0.000	0.000	Ug5_2_8_L_0					
35 D	19.07	5.4254E-05	56.13	35.46	68.00	35.46	V-C	2.6477E+04	-6.800	59.87
1.000	1.000	95.33	0.000	0.000	Ug5_2_8_L_0					
36 D	19.66	5.1381E-05	58.06	36.35	70.00	36.35	V-C	2.6477E+04	-7.000	61.94
1.000	1.000	98.28	0.000	0.000	Ug5_2_8_L_0					
37 D	20.25	4.8890E-05	60.00	37.25	72.00	37.25	V-C	2.6477E+04	-7.200	64.00
1.000	1.000	101.2	0.000	0.000	Ug5_2_8_L_0					
38 D	20.84	4.6753E-05	61.94	38.12	74.00	38.17	UL-RL	7.9432E+04	-7.400	66.06
1.000	1.000	104.2	0.000	0.000	Ug5_2_8_L_0					
39 D	21.42	4.4941E-05	63.87	38.97	76.00	39.13	UL-RL	7.9432E+04	-7.600	68.13
1.000	1.000	107.1	0.000	0.000	Ug5_2_8_L_0					
40 D	22.01	4.3427E-05	65.81	39.83	78.00	40.09	UL-RL	7.9432E+04	-7.800	70.19
1.000	1.000	110.0	0.000	0.000	Ug5_2_8_L_0					
41 D	22.60	4.2185E-05	67.74	40.72	80.00	41.05	UL-RL	7.9432E+04	-8.000	72.26
1.000	1.000	113.0	0.000	0.000	Ug5_2_8_L_0					
42 D	23.19	4.1190E-05	69.68	41.63	82.00	42.02	UL-RL	7.9432E+04	-8.200	74.32
1.000	1.000	115.9	0.000	0.000	Ug5_2_8_L_0					
43 D	23.79	4.0418E-05	71.61	42.55	84.00	42.98	UL-RL	7.9432E+04	-8.400	76.39
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
44 D	24.39	3.9848E-05	73.55	43.49	86.00	43.95	UL-RL	7.9432E+04	-8.600	78.45
1.000	1.000	121.9	0.000	0.000	Ug5_2_8_L_0					
45 D	24.99	3.9460E-05	75.48	44.44	88.00	44.91	UL-RL	7.9432E+04	-8.800	80.52
1.000	1.000	125.0	0.000	0.000	Ug5_2_8_L_0					
46 D	25.60	3.9237E-05	77.42	45.40	90.00	45.88	UL-RL	7.9432E+04	-9.000	82.58
1.000	1.000	128.0	0.000	0.000	Ug5_2_8_L_0					
47 D	26.20	3.9160E-05	79.35	46.37	92.00	46.85	UL-RL	7.9432E+04	-9.200	84.65
1.000	1.000	131.0	0.000	0.000	Ug5_2_8_L_0					
48 D	26.81	3.9216E-05	81.29	47.35	94.00	47.83	UL-RL	7.9432E+04	-9.400	86.71
1.000	1.000	134.1	0.000	0.000	Ug5_2_8_L_0					
49 D	27.42	3.9391E-05	83.23	48.34	96.00	48.80	UL-RL	7.9432E+04	-9.600	88.77
1.000	1.000	137.1	0.000	0.000	Ug5_2_8_L_0					
50 D	28.04	3.9674E-05	85.16	49.34	98.00	49.78	UL-RL	7.9432E+04	-9.800	90.84
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
51 D	28.65	4.0054E-05	87.10	50.34	100.00	50.75	UL-RL	7.9432E+04	-10.000	92.90
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
52 D	29.26	4.0521E-05	89.03	51.34	102.0	51.74	UL-RL	7.9432E+04	-10.200	94.97
1.000	1.000	146.3	0.000	0.000	Ug5_2_8_L_0					
53 D	29.88	4.1068E-05	90.97	52.35	104.0	52.72	UL-RL	7.9432E+04	-10.400	97.03
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
54 D	30.49	4.1686E-05	92.90	53.36	106.0	53.70	UL-RL	7.9432E+04	-10.600	99.10
1.000	1.000	152.5	0.000	0.000	Ug5_2_8_L_0					
55 D	31.11	4.2368E-05	94.84	54.38	108.0	54.69	UL-RL	7.9432E+04	-10.800	101.2
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					
56 D	31.72	4.3108E-05	96.77	55.39	110.0	55.68	UL-RL	7.9432E+04	-11.000	103.2
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
57 D	32.34	4.3898E-05	98.71	56.41	112.0	56.67	UL-RL	7.9432E+04	-11.200	105.3
1.000	1.000	161.7	0.000	0.000	Ug5_2_8_L_0					
58 D	32.96	4.4731E-05	100.6	57.43	114.0	57.66	UL-RL	7.9432E+04	-11.400	107.4
1.000	1.000	164.8	0.000	0.000	Ug5_2_8_L_0					
59 D	33.57	4.5601E-05	102.6	58.45	116.0	58.65	UL-RL	7.9432E+04	-11.600	109.4
1.000	1.000	167.9	0.000	0.000	Ug5_2_8_L_0					
60 D	34.19	4.6497E-05	104.5	59.47	118.0	59.65	UL-RL	7.9432E+04	-11.800	111.5
1.000	1.000	171.0	0.000	0.000	Ug5_2_8_L_0					
61 D	34.81	4.7413E-05	106.5	60.49	120.0	60.65	UL-RL	7.9432E+04	-12.000	113.5
1.000	1.000	174.0	0.000	0.000	Ug5_2_8_L_0					
62 D	35.26	4.8335E-05	108.2	60.67	121.8	61.39	UL-RL	5.7643E+04	-12.200	115.6
1.000	1.000	176.3	0.000	0.000	Ug6_741_743_L_0					
63 D	35.85	4.9255E-05	109.9	61.60	123.6	62.28	UL-RL	5.7643E+04	-12.400	117.7
1.000	1.000	179.3	0.000	0.000	Ug6_741_743_L_0					
64 D	36.45	5.0160E-05	111.7	62.52	125.4	63.16	UL-RL	5.7643E+04	-12.600	119.7
1.000	1.000	182.3	0.000	0.000	Ug6_741_743_L_0					
65 D	37.05	5.1045E-05	113.4	63.44	127.2	64.05	UL-RL	5.7643E+04	-12.800	121.8
1.000	1.000	185.2	0.000	0.000	Ug6_741_743_L_0					
66 D	37.65	5.1904E-05	115.1	64.36	129.0	64.94	UL-RL	5.7643E+04	-13.000	123.9
1.000	1.000	188.2	0.000	0.000	Ug6_741_743_L_0					
67 D	38.24	5.2733E-05	116.9	65.28	130.8	65.83	UL-RL	5.7643E+04	-13.200	125.9
1.000	1.000	191.2	0.000	0.000	Ug6_741_743_L_0					
68 D	38.84	5.3529E-05	118.6	66.20	132.6	66.72	UL-RL	5.7643E+04	-13.400	128.0
1.000	1.000	194.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	39.44	5.4294E-05	120.3	67.12	134.4	67.60	UL-RL	5.7643E+04	-13.60	130.1
1.000	1.000	197.2	0.000	0.000	Ug6_741_743_L_0					
70 D	40.03	5.5026E-05	122.1	68.04	136.2	68.49	UL-RL	5.7643E+04	-13.80	132.1
1.000	1.000	200.2	0.000	0.000	Ug6_741_743_L_0					
71 D	40.63	5.5728E-05	123.8	68.95	138.0	69.38	UL-RL	5.7643E+04	-14.00	134.2
1.000	1.000	203.1	0.000	0.000	Ug6_741_743_L_0					
72 D	41.22	5.6401E-05	125.5	69.86	139.8	70.27	UL-RL	5.7643E+04	-14.20	136.3
1.000	1.000	206.1	0.000	0.000	Ug6_741_743_L_0					
73 D	41.82	5.7050E-05	127.3	70.78	141.6	71.16	UL-RL	5.7643E+04	-14.40	138.3
1.000	1.000	209.1	0.000	0.000	Ug6_741_743_L_0					
74 D	42.41	5.7677E-05	129.0	71.69	143.4	72.05	UL-RL	5.7643E+04	-14.60	140.4
1.000	1.000	212.1	0.000	0.000	Ug6_741_743_L_0					
75 D	43.01	5.8285E-05	130.7	72.60	145.2	72.94	UL-RL	5.7643E+04	-14.80	142.5
1.000	1.000	215.0	0.000	0.000	Ug6_741_743_L_0					
76 D	43.60	5.8880E-05	132.5	73.51	147.0	73.84	UL-RL	5.7643E+04	-15.00	144.5
1.000	1.000	218.0	0.000	0.000	Ug6_741_743_L_0					
77 D	44.20	5.9463E-05	134.2	74.42	148.8	74.73	UL-RL	5.7643E+04	-15.20	146.6
1.000	1.000	221.0	0.000	0.000	Ug6_741_743_L_0					
78 D	44.79	6.0039E-05	136.0	75.32	150.6	75.62	UL-RL	5.7643E+04	-15.40	148.6
1.000	1.000	224.0	0.000	0.000	Ug6_741_743_L_0					
79 D	45.39	6.0611E-05	137.7	76.23	152.4	76.51	UL-RL	5.7643E+04	-15.60	150.7
1.000	1.000	226.9	0.000	0.000	Ug6_741_743_L_0					
80 D	45.98	6.1181E-05	139.4	77.14	154.2	77.40	UL-RL	5.7643E+04	-15.80	152.8
1.000	1.000	229.9	0.000	0.000	Ug6_741_743_L_0					
81 D	23.29	6.1750E-05	141.2	78.05	156.0	78.29	UL-RL	5.7643E+04	-16.00	154.8
1.000	1.000	232.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018             18:25:50      |
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New Project

S T R E S S R E S U L T S F O R G R O U P N O . 3

WallElement_33 :

ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
C U R R E N T T I M E I S 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	6.80000E-12	-6.80000E-12	6.90781E-13	6.99461E-13
2	0.51933	-0.51933	-3.29605E-12	0.10387
3	1.5606	-1.5606	-0.10387	0.41598
4	3.1271	-3.1271	-0.41598	1.0414
5	5.2213	-5.2213	-1.0414	2.0857
6	7.8443	-7.8443	-2.0857	3.6545
7	8.8111	-8.8111	-3.6545	5.4167
8	8.3759	-8.3759	-5.4167	7.0919
9	7.9382	-7.9382	-7.0919	8.6796
10	7.4906	-7.4906	-8.6796	10.178
11	7.0445	-7.0445	-10.178	11.587
12	6.5989	-6.5989	-11.587	12.906
13	6.1446	-6.1446	-12.906	14.135
14	5.6877	-5.6877	-14.135	15.273
15	5.2258	-5.2258	-15.273	16.318
16	4.7560	-4.7560	-16.318	17.269
17	4.2700	-4.2700	-17.269	18.123
18	3.7707	-3.7707	-18.123	18.877
19	3.2549	-3.2549	-18.877	19.528
20	2.7147	-2.7147	-19.528	20.071
21	2.1516	-2.1516	-20.071	20.502
22	1.5623	-1.5623	-20.502	20.814
23	0.93921	-0.93921	-20.814	21.002
24	0.28311	-0.28311	-21.002	21.059
25	-0.40951	0.40951	-21.059	20.977
26	-1.1421	1.1421	-20.977	20.748
27	-1.9218	1.9218	-20.748	20.364
28	-2.7483	2.7483	-20.364	19.814
29	-3.4722	3.4722	-19.814	19.120
30	-4.0409	4.0409	-19.120	18.312
31	-4.4708	4.4708	-18.312	17.417
32	-4.7778	4.7778	-17.417	16.462
33	-4.9766	4.9766	-16.462	15.467
34	-5.0815	5.0815	-15.467	14.450
35	-5.1057	5.1057	-14.450	13.429
36	-5.0617	5.0617	-13.429	12.417
37	-4.9726	4.9726	-12.417	11.422
38	-4.8189	4.8189	-11.422	10.458
39	-4.6136	4.6136	-10.458	9.5357
40	-4.3685	4.3685	-9.5357	8.6620
41	-4.0944	4.0944	-8.6620	7.8431
42	-3.8011	3.8011	-7.8431	7.0829
43	-3.4975	3.4975	-7.0829	6.3834
44	-3.1912	3.1912	-6.3834	5.7452
45	-2.8895	2.8895	-5.7452	5.1673
46	-2.5985	2.5985	-5.1673	4.6476
47	-2.3238	2.3238	-4.6476	4.1828
48	-2.0704	2.0704	-4.1828	3.7687
49	-1.8425	1.8425	-3.7687	3.4002
50	-1.6440	1.6440	-3.4002	3.0714
51	-1.4783	1.4783	-3.0714	2.7758
52	-1.3484	1.3484	-2.7758	2.5061
53	-1.2570	1.2570	-2.5061	2.2547
54	-1.2062	1.2062	-2.2547	2.0135
55	-1.1981	1.1981	-2.0135	1.7738
56	-1.2344	1.2344	-1.7738	1.5270
57	-1.3166	1.3166	-1.5270	1.2636
58	-1.4459	1.4459	-1.2636	0.97444
59	-1.6233	1.6233	-0.97444	0.64979

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 -1.8493 1.8493 -0.64979 0.27992
61 -2.1244 2.1244 -0.27992 -0.14496
62 -1.6940 1.6940 0.14496 -0.48375
63 -1.3017 1.3017 0.48375 -0.74409
64 -0.94726 0.94726 0.74409 -0.93354
65 -0.63021 0.63021 0.93354 -1.0596
66 -0.34990 0.34990 1.0596 -1.1296
67 -0.10561 0.10561 1.1296 -1.1507
68 0.10342 -0.10342 1.1507 -1.1300
69 0.27799 -0.27799 1.1300 -1.0744
70 0.41885 -0.41885 1.0744 -0.99063
71 0.52674 -0.52674 0.99063 -0.88528
72 0.60233 -0.60233 0.88528 -0.76482
73 0.64623 -0.64623 0.76482 -0.63557
74 0.65895 -0.65895 0.63557 -0.50378
75 0.64093 -0.64093 0.50378 -0.37560
76 0.59251 -0.59251 0.37560 -0.25710
77 0.51396 -0.51396 0.25710 -0.15430
78 0.40545 -0.40545 0.15430 -7.32132E-02
79 0.26710 -0.26710 7.32132E-02 -1.97927E-02
80 9.89586E-02 -9.89586E-02 1.97927E-02 1.53788E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1053E+06 RIMNOR=0.1851E+05
RENORM= 391.3 REMNOR=0.2743E-21 RATIO =0.6095E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.27 RMMAX = 21.06
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1053E+06 RDR =0.1851E+05
RATIOT=0.6095E-01 RATIO= 0.000
MAX UN= 5.660 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
MIN UN=-.3441E-01 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1053E+06 RIMNOR=0.1851E+05
RENORM= 108.3 REMNOR=0.1863E-20 RATIO =0.3207E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.27 RMMAX = 21.06
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1053E+06 RDR =0.1851E+05
RATIOT=0.3207E-01 RATIO= 0.000
MAX UN= 2.783 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-.2491E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1053E+06 RIMNOR=0.1851E+05
RENORM= 38.56 REMNOR=0.5193E-19 RATIO =0.1913E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.27 RMMAX = 21.06
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1053E+06 RDR =0.1851E+05
RATIOT=0.1913E-01 RATIO= 0.000
MAX UN= 3.602 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
MIN UN=-.8550E-09 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1053E+06 RIMNOR=0.1851E+05
RENORM=0.6530 REMNOR=0.3297E-19 RATIO =0.2490E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 45.27 RMMAX = 21.06
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1053E+06 RDR =0.1851E+05
RATIOT=0.2490E-02 RATIO= 0.000
MAX UN=0.6611 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7381E-09 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1053E+06 RIMNOR=0.1851E+05
RENORM=0.4631E-17 REMNOR=0.2445E-19 RATIO =0.6631E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 45.27 RMMAX = 21.06
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1053E+06 RDR =0.1851E+05
RATIOT=0.6631E-11 RATIO= 0.000
MAX UN=0.1031E-08 IEQ= 15 NODE 8 DOF 1 Y-DISPL.F
MIN UN=-.1131E-08 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                 PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                              |
|                                                                              |
|                                                                              |
|                                                                              |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|          Exe Time :24 May 2018          18:25:50           |
+-----+
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	2.6620503E-03	-4.0937891E-04
2	2.5801746E-03	-4.0937891E-04
3	2.4982993E-03	-4.0937165E-04
4	2.4164278E-03	-4.0933532E-04
5	2.3345695E-03	-4.0923346E-04
6	2.2527422E-03	-4.0901490E-04
7	2.1709757E-03	-4.0861369E-04
8	2.0893143E-03	-4.0794909E-04
9	2.0078200E-03	-4.0692549E-04
10	1.9265754E-03	-4.0543224E-04
11	1.8456868E-03	-4.0334386E-04
12	1.7652869E-03	-4.0052006E-04
13	1.6855361E-03	-3.9683609E-04
14	1.6066151E-03	-3.9221330E-04
15	1.5287155E-03	-3.8661917E-04
16	1.4520313E-03	-3.8006723E-04
17	1.3767482E-03	-3.7261706E-04
18	1.3030379E-03	-3.6435873E-04
19	1.2310523E-03	-3.5538646E-04
20	1.1609251E-03	-3.4578840E-04
21	1.0927735E-03	-3.3564696E-04
22	1.0266977E-03	-3.2503882E-04
23	9.6278429E-04	-3.1403544E-04
24	9.0110548E-04	-3.0270316E-04
25	8.4172085E-04	-2.9110356E-04
26	7.8467808E-04	-2.7929367E-04
27	7.3001415E-04	-2.6732634E-04
28	6.7775506E-04	-2.5525037E-04
29	6.2791822E-04	-2.4311115E-04
30	5.8051202E-04	-2.3095069E-04
31	5.3553675E-04	-2.1880806E-04
32	4.9298538E-04	-2.0671974E-04
33	4.5284319E-04	-1.9471967E-04
34	4.1508949E-04	-1.8283993E-04
35	3.7969717E-04	-1.7111085E-04
36	3.4663319E-04	-1.5956129E-04
37	3.1585899E-04	-1.4821904E-04
38	2.8733012E-04	-1.3711089E-04
39	2.6099726E-04	-1.2626329E-04
40	2.3680569E-04	-1.1570232E-04
41	2.1469548E-04	-1.0545413E-04
42	1.9460143E-04	-9.5545151E-05
43	1.7645301E-04	-8.6002331E-05
44	1.6017423E-04	-7.6853432E-05
45	1.4568352E-04	-6.8127301E-05
46	1.3289346E-04	-5.9850040E-05
47	1.2171230E-04	-5.2040828E-05
48	1.1204513E-04	-4.4711620E-05
49	1.0379526E-04	-3.7868291E-05
50	9.6865399E-05	-3.1511691E-05
51	9.1158427E-05	-2.5638011E-05
52	8.6578439E-05	-2.0239012E-05
53	8.3031981E-05	-1.5303380E-05
54	8.0427390E-05	-1.0815982E-05
55	7.8676773E-05	-6.7608168E-06
56	7.7695397E-05	-3.1206459E-06
57	7.7402019E-05	1.2208616E-07
58	7.7718885E-05	2.9846187E-06
59	7.8571609E-05	5.4832920E-06
60	7.9888940E-05	7.6330336E-06
61	8.1602431E-05	9.4469097E-06
62	8.3646034E-05	1.0935739E-05
63	8.5956726E-05	1.2124553E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	8.8478473E-05	1.3052636E-05
65	9.1162857E-05	1.3756871E-05
66	9.3968590E-05	1.4271642E-05
67	9.6861004E-05	1.4628759E-05
68	9.9811529E-05	1.4857407E-05
69	1.0279717E-04	1.4984110E-05
70	1.0579997E-04	1.5032712E-05
71	1.0880646E-04	1.5024366E-05
72	1.1180715E-04	1.4977535E-05
73	1.1479596E-04	1.4907996E-05
74	1.1776970E-04	1.4828846E-05
75	1.2072755E-04	1.4750519E-05
76	1.2367049E-04	1.4680791E-05
77	1.2660078E-04	1.4624795E-05
78	1.2952149E-04	1.4585031E-05
79	1.3243587E-04	1.4561370E-05
80	1.3534692E-04	1.4551062E-05
81	1.3825697E-04	1.4548739E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50      |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.6621E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5100	-2.5802E-03	2.141	0.6831	2.141	1.603	ACTIVE	0.000	-0.2000	1.867	
1.000	1.000	2.550	0.000	0.000	Ug5_2_8_L_0						
3 D	1.023	-2.4983E-03	4.323	1.379	4.323	3.119	ACTIVE	0.000	-0.4000	3.733	
1.000	1.000	5.113	0.000	0.000	Ug5_2_8_L_0						
4 D	1.538	-2.4164E-03	6.558	2.092	6.558	4.509	ACTIVE	0.000	-0.6000	5.600	
1.000	1.000	7.692	0.000	0.000	Ug5_2_8_L_0						
5 D	2.057	-2.3346E-03	8.831	2.817	8.831	5.780	ACTIVE	0.000	-0.8000	7.467	
1.000	1.000	10.28	0.000	0.000	Ug5_2_8_L_0						
6 D	2.576	-2.2527E-03	11.12	3.547	11.12	6.958	ACTIVE	0.000	-1.000	9.333	
1.000	1.000	12.88	0.000	0.000	Ug5_2_8_L_0						
7 D	3.096	-2.1710E-03	13.41	4.278	13.41	8.073	ACTIVE	0.000	-1.200	11.20	
1.000	1.000	15.48	0.000	0.000	Ug5_2_8_L_0						
8 D	3.622	-2.0893E-03	15.81	5.043	15.81	9.145	ACTIVE	0.000	-1.400	13.07	
1.000	1.000	18.11	0.000	0.000	Ug5_2_8_L_0						
9 D	4.151	-2.0078E-03	18.24	5.819	18.24	10.19	ACTIVE	0.000	-1.600	14.93	
1.000	1.000	20.75	0.000	0.000	Ug5_2_8_L_0						
10 D	4.666	-1.9266E-03	20.46	6.528	20.46	11.22	ACTIVE	0.000	-1.800	16.80	
1.000	1.000	23.33	0.000	0.000	Ug5_2_8_L_0						
11 D	5.189	-1.8457E-03	22.82	7.279	22.82	12.23	ACTIVE	0.000	-2.000	18.67	
1.000	1.000	25.95	0.000	0.000	Ug5_2_8_L_0						
12 D	5.710	-1.7653E-03	25.14	8.019	25.14	13.24	ACTIVE	0.000	-2.200	20.53	
1.000	1.000	28.55	0.000	0.000	Ug5_2_8_L_0						
13 D	6.222	-1.6855E-03	27.31	8.712	27.31	14.24	ACTIVE	0.000	-2.400	22.40	
1.000	1.000	31.11	0.000	0.000	Ug5_2_8_L_0						
14 D	6.741	-1.6066E-03	29.59	9.439	29.59	15.24	ACTIVE	0.000	-2.600	24.27	
1.000	1.000	33.71	0.000	0.000	Ug5_2_8_L_0						
15 D	7.259	-1.5287E-03	31.85	10.16	31.85	16.23	ACTIVE	0.000	-2.800	26.13	
1.000	1.000	36.29	0.000	0.000	Ug5_2_8_L_0						
16 D	7.775	-1.4520E-03	34.10	10.88	34.10	17.23	ACTIVE	0.000	-3.000	28.00	
1.000	1.000	38.88	0.000	0.000	Ug5_2_8_L_0						
17 D	8.285	-1.3767E-03	36.24	11.56	36.24	18.22	ACTIVE	0.000	-3.200	29.87	
1.000	1.000	41.43	0.000	0.000	Ug5_2_8_L_0						
18 D	8.801	-1.3030E-03	38.47	12.27	38.47	19.21	ACTIVE	0.000	-3.400	31.73	
1.000	1.000	44.00	0.000	0.000	Ug5_2_8_L_0						
19 D	9.316	-1.2311E-03	40.69	12.98	40.69	20.21	ACTIVE	0.000	-3.600	33.60	
1.000	1.000	46.58	0.000	0.000	Ug5_2_8_L_0						
20 D	9.825	-1.1609E-03	42.82	13.66	42.82	21.20	ACTIVE	0.000	-3.800	35.47	
1.000	1.000	49.13	0.000	0.000	Ug5_2_8_L_0						
21 D	10.34	-1.0928E-03	45.03	14.36	45.03	22.19	ACTIVE	0.000	-4.000	37.33	
1.000	1.000	51.70	0.000	0.000	Ug5_2_8_L_0						
22 D	10.85	-1.0267E-03	47.23	15.07	47.23	23.18	ACTIVE	0.000	-4.200	39.20	
1.000	1.000	54.27	0.000	0.000	Ug5_2_8_L_0						
23 D	11.36	-9.6278E-04	49.36	15.75	49.36	24.18	ACTIVE	0.000	-4.400	41.07	
1.000	1.000	56.81	0.000	0.000	Ug5_2_8_L_0						
24 D	11.88	-9.0111E-04	51.55	16.44	51.55	25.17	ACTIVE	0.000	-4.600	42.93	
1.000	1.000	59.38	0.000	0.000	Ug5_2_8_L_0						
25 D	12.39	-8.4172E-04	53.74	17.14	53.74	26.17	ACTIVE	0.000	-4.800	44.80	
1.000	1.000	61.94	0.000	0.000	Ug5_2_8_L_0						
26 D	12.90	-7.8468E-04	55.92	17.84	55.92	27.16	ACTIVE	0.000	-5.000	46.67	
1.000	1.000	64.51	0.000	0.000	Ug5_2_8_L_0						
27 D	13.41	-7.3001E-04	58.05	18.52	58.05	28.16	ACTIVE	0.000	-5.200	48.53	
1.000	1.000	67.05	0.000	0.000	Ug5_2_8_L_0						
28 D	13.92	-6.7776E-04	60.23	19.21	60.23	29.16	ACTIVE	0.000	-5.400	50.40	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.61	0.000	0.000	Ug5_2_8_L_0					
29 D	14.43	-6.2792E-04	62.40	19.91	62.40	30.15	ACTIVE	0.000	-5.600	52.27
1.000	1.000	72.17	0.000	0.000	Ug5_2_8_L_0					
30 D	14.94	-5.8051E-04	64.53	20.58	64.53	31.15	ACTIVE	0.000	-5.800	54.13
1.000	1.000	74.72	0.000	0.000	Ug5_2_8_L_0					
31 D	15.46	-5.3554E-04	66.70	21.28	66.70	32.15	ACTIVE	0.000	-6.000	56.00
1.000	1.000	77.28	0.000	0.000	Ug5_2_8_L_0					
32 D	15.97	-4.9299E-04	68.87	21.97	68.87	33.15	ACTIVE	0.000	-6.200	57.87
1.000	1.000	79.84	0.000	0.000	Ug5_2_8_L_0					
33 D	16.48	-4.5284E-04	70.99	22.65	70.99	34.15	ACTIVE	0.000	-6.400	59.73
1.000	1.000	82.38	0.000	0.000	Ug5_2_8_L_0					
34 D	16.99	-4.1509E-04	73.16	23.34	73.16	35.15	ACTIVE	0.000	-6.600	61.60
1.000	1.000	84.94	0.000	0.000	Ug5_2_8_L_0					
35 D	17.50	-3.7970E-04	75.32	24.03	75.32	36.15	ACTIVE	0.000	-6.800	63.47
1.000	1.000	87.50	0.000	0.000	Ug5_2_8_L_0					
36 D	18.01	-3.4663E-04	77.49	24.72	77.49	37.16	ACTIVE	0.000	-7.000	65.33
1.000	1.000	90.05	0.000	0.000	Ug5_2_8_L_0					
37 D	18.52	-3.1586E-04	79.61	25.40	79.61	38.16	ACTIVE	0.000	-7.200	67.20
1.000	1.000	92.60	0.000	0.000	Ug5_2_8_L_0					
38 D	19.03	-2.8733E-04	81.77	26.09	81.77	39.16	ACTIVE	0.000	-7.400	69.07
1.000	1.000	95.15	0.000	0.000	Ug5_2_8_L_0					
39 D	19.54	-2.6100E-04	83.93	26.77	83.93	40.17	ACTIVE	0.000	-7.600	70.93
1.000	1.000	97.71	0.000	0.000	Ug5_2_8_L_0					
40 D	20.05	-2.3681E-04	86.05	27.45	86.05	41.17	ACTIVE	0.000	-7.800	72.80
1.000	1.000	100.3	0.000	0.000	Ug5_2_8_L_0					
41 D	20.56	-2.1470E-04	88.21	28.14	88.21	42.18	ACTIVE	0.000	-8.000	74.67
1.000	1.000	102.8	0.000	0.000	Ug5_2_8_L_0					
42 D	21.07	-1.9460E-04	90.37	28.83	90.37	43.19	ACTIVE	0.000	-8.200	76.53
1.000	1.000	105.4	0.000	0.000	Ug5_2_8_L_0					
43 D	21.58	-1.7645E-04	92.49	29.50	92.49	44.19	ACTIVE	0.000	-8.400	78.40
1.000	1.000	107.9	0.000	0.000	Ug5_2_8_L_0					
44 D	22.09	-1.6017E-04	94.65	30.19	94.65	45.20	ACTIVE	0.000	-8.600	80.27
1.000	1.000	110.5	0.000	0.000	Ug5_2_8_L_0					
45 D	22.87	-1.4568E-04	96.80	32.24	96.80	46.21	UL-RL	9.9584E+04	-8.800	82.13
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
46 D	23.71	-1.3289E-04	98.96	34.56	98.96	47.22	UL-RL	9.9584E+04	-9.000	84.00
1.000	1.000	118.6	0.000	0.000	Ug5_2_8_L_0					
47 D	24.52	-1.2171E-04	101.1	36.72	101.1	48.23	UL-RL	9.9584E+04	-9.200	85.87
1.000	1.000	122.6	0.000	0.000	Ug5_2_8_L_0					
48 D	25.29	-1.1205E-04	103.2	38.73	103.2	49.24	UL-RL	9.9584E+04	-9.400	87.73
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
49 D	26.04	-1.0380E-04	105.4	40.59	105.4	50.26	UL-RL	9.9584E+04	-9.600	89.60
1.000	1.000	130.2	0.000	0.000	Ug5_2_8_L_0					
50 D	26.76	-9.6865E-05	107.5	42.32	107.5	51.27	UL-RL	9.9584E+04	-9.800	91.47
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
51 D	27.45	-9.1158E-05	109.7	43.93	109.7	52.28	UL-RL	9.9584E+04	-10.000	93.33
1.000	1.000	137.3	0.000	0.000	Ug5_2_8_L_0					
52 D	28.12	-8.6578E-05	111.8	45.42	111.8	53.29	UL-RL	9.9584E+04	-10.200	95.20
1.000	1.000	140.6	0.000	0.000	Ug5_2_8_L_0					
53 D	28.77	-8.3032E-05	113.9	46.81	113.9	54.31	UL-RL	9.9584E+04	-10.400	97.07
1.000	1.000	143.9	0.000	0.000	Ug5_2_8_L_0					
54 D	29.41	-8.0427E-05	116.1	48.10	116.1	55.32	UL-RL	9.9584E+04	-10.600	98.93
1.000	1.000	147.0	0.000	0.000	Ug5_2_8_L_0					
55 D	30.02	-7.8677E-05	118.2	49.31	118.2	56.34	UL-RL	9.9584E+04	-10.800	100.8
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
56 D	30.62	-7.7695E-05	120.4	50.44	120.4	57.35	UL-RL	9.9584E+04	-11.000	102.7
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
57 D	31.21	-7.7402E-05	122.5	51.50	122.5	58.37	UL-RL	9.9584E+04	-11.200	104.5
1.000	1.000	156.0	0.000	0.000	Ug5_2_8_L_0					
58 D	31.78	-7.7719E-05	124.6	52.49	124.6	59.39	UL-RL	9.9584E+04	-11.400	106.4
1.000	1.000	158.9	0.000	0.000	Ug5_2_8_L_0					
59 D	32.34	-7.8572E-05	126.8	53.44	126.8	60.40	UL-RL	9.9584E+04	-11.600	108.3
1.000	1.000	161.7	0.000	0.000	Ug5_2_8_L_0					
60 D	32.89	-7.9889E-05	128.9	54.34	128.9	61.42	UL-RL	9.9584E+04	-11.800	110.1
1.000	1.000	164.5	0.000	0.000	Ug5_2_8_L_0					
61 D	33.44	-8.1602E-05	131.1	55.20	131.1	62.44	UL-RL	9.9584E+04	-12.000	112.0
1.000	1.000	167.2	0.000	0.000	Ug5_2_8_L_0					
62 D	34.92	-8.3646E-05	133.0	60.73	133.0	63.36	UL-RL	4.9402E+04	-12.200	113.9
1.000	1.000	174.6	0.000	0.000	Ug6_741_743_L_0					
63 D	35.46	-8.5957E-05	135.0	61.55	135.0	64.28	UL-RL	4.9402E+04	-12.400	115.7
1.000	1.000	177.3	0.000	0.000	Ug6_741_743_L_0					
64 D	35.99	-8.8478E-05	136.9	62.37	136.9	65.20	UL-RL	4.9402E+04	-12.600	117.6
1.000	1.000	180.0	0.000	0.000	Ug6_741_743_L_0					
65 D	36.53	-9.1163E-05	138.8	63.18	138.8	66.12	UL-RL	4.9402E+04	-12.800	119.5
1.000	1.000	182.6	0.000	0.000	Ug6_741_743_L_0					
66 D	37.06	-9.3969E-05	140.7	63.99	140.7	67.04	UL-RL	4.9402E+04	-13.000	121.3
1.000	1.000	185.3	0.000	0.000	Ug6_741_743_L_0					
67 D	37.60	-9.6861E-05	142.6	64.79	142.6	67.96	UL-RL	4.9402E+04	-13.200	123.2
1.000	1.000	188.0	0.000	0.000	Ug6_741_743_L_0					
68 D	38.13	-9.9812E-05	144.5	65.59	144.5	68.88	UL-RL	4.9402E+04	-13.400	125.1
1.000	1.000	190.7	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.66	-1.0280E-04	146.4	66.39	146.4	69.80	UL-RL	4.9402E+04	-13.60	126.9
1.000	1.000	193.3	0.000	0.000	Ug6_741_743_L_0					
70 D	39.20	-1.0580E-04	148.3	67.19	148.3	70.72	UL-RL	4.9402E+04	-13.80	128.8
1.000	1.000	196.0	0.000	0.000	Ug6_741_743_L_0					
71 D	39.73	-1.0881E-04	150.2	67.99	150.2	71.64	UL-RL	4.9402E+04	-14.00	130.7
1.000	1.000	198.7	0.000	0.000	Ug6_741_743_L_0					
72 D	40.26	-1.1181E-04	152.1	68.79	152.1	72.56	UL-RL	4.9402E+04	-14.20	132.5
1.000	1.000	201.3	0.000	0.000	Ug6_741_743_L_0					
73 D	40.80	-1.1480E-04	154.0	69.59	154.0	73.49	UL-RL	4.9402E+04	-14.40	134.4
1.000	1.000	204.0	0.000	0.000	Ug6_741_743_L_0					
74 D	41.33	-1.1777E-04	155.9	70.39	155.9	74.41	UL-RL	4.9402E+04	-14.60	136.3
1.000	1.000	206.7	0.000	0.000	Ug6_741_743_L_0					
75 D	41.87	-1.2073E-04	157.8	71.19	157.8	75.33	UL-RL	4.9402E+04	-14.80	138.1
1.000	1.000	209.3	0.000	0.000	Ug6_741_743_L_0					
76 D	42.40	-1.2367E-04	159.7	72.00	159.7	76.25	UL-RL	4.9402E+04	-15.00	140.0
1.000	1.000	212.0	0.000	0.000	Ug6_741_743_L_0					
77 D	42.93	-1.2660E-04	161.7	72.80	161.7	77.18	UL-RL	4.9402E+04	-15.20	141.9
1.000	1.000	214.7	0.000	0.000	Ug6_741_743_L_0					
78 D	43.47	-1.2952E-04	163.6	73.61	163.6	78.10	UL-RL	4.9402E+04	-15.40	143.7
1.000	1.000	217.3	0.000	0.000	Ug6_741_743_L_0					
79 D	44.00	-1.3244E-04	165.5	74.42	165.5	79.03	UL-RL	4.9402E+04	-15.60	145.6
1.000	1.000	220.0	0.000	0.000	Ug6_741_743_L_0					
80 D	44.54	-1.3535E-04	167.4	75.23	167.4	79.95	UL-RL	4.9402E+04	-15.80	147.5
1.000	1.000	222.7	0.000	0.000	Ug6_741_743_L_0					
81 D	22.54	-1.3826E-04	169.3	76.04	169.3	80.88	UL-RL	4.9402E+04	-16.00	149.3
1.000	1.000	225.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018 18:25:50 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.8457E-03	0.000	0.000	20.00	18.32	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.136	1.7653E-03	1.867	8.546	22.00	18.91	PASSIVE	0.000	-2.200	2.133	
1.000	1.000	10.68	0.000	0.000	Ug5_2_8_L_0						
13 D	4.272	1.6855E-03	3.733	17.09	24.00	19.49	PASSIVE	0.000	-2.400	4.267	
1.000	1.000	21.36	0.000	0.000	Ug5_2_8_L_0						
14 D	6.407	1.6066E-03	5.600	25.64	26.00	25.64	PASSIVE	0.000	-2.600	6.400	
1.000	1.000	32.04	0.000	0.000	Ug5_2_8_L_0						
15 D	8.543	1.5287E-03	7.467	34.18	28.00	34.18	PASSIVE	0.000	-2.800	8.533	
1.000	1.000	42.72	0.000	0.000	Ug5_2_8_L_0						
16 D	10.68	1.4520E-03	9.333	42.73	30.00	42.73	PASSIVE	0.000	-3.000	10.67	
1.000	1.000	53.39	0.000	0.000	Ug5_2_8_L_0						
17 D	11.70	1.3767E-03	11.20	45.72	32.00	45.72	V-C	2.1182E+04	-3.200	12.80	
1.000	1.000	58.52	0.000	0.000	Ug5_2_8_L_0						
18 D	12.00	1.3030E-03	13.07	45.08	34.00	45.08	V-C	2.1182E+04	-3.400	14.93	
1.000	1.000	60.01	0.000	0.000	Ug5_2_8_L_0						
19 D	12.31	1.2311E-03	14.93	44.47	36.00	44.47	V-C	2.1182E+04	-3.600	17.07	
1.000	1.000	61.54	0.000	0.000	Ug5_2_8_L_0						
20 D	12.62	1.1609E-03	16.80	43.90	38.00	43.90	V-C	2.1182E+04	-3.800	19.20	
1.000	1.000	63.10	0.000	0.000	Ug5_2_8_L_0						
21 D	12.94	1.0928E-03	18.67	43.37	40.00	43.37	V-C	2.1182E+04	-4.000	21.33	
1.000	1.000	64.70	0.000	0.000	Ug5_2_8_L_0						
22 D	13.27	1.0267E-03	20.53	42.88	42.00	42.88	V-C	2.1182E+04	-4.200	23.47	
1.000	1.000	66.35	0.000	0.000	Ug5_2_8_L_0						
23 D	13.61	9.6278E-04	22.40	42.44	44.00	42.44	V-C	2.1182E+04	-4.400	25.60	
1.000	1.000	68.04	0.000	0.000	Ug5_2_8_L_0						
24 D	13.96	9.0111E-04	24.27	42.05	46.00	42.05	V-C	2.1182E+04	-4.600	27.73	
1.000	1.000	69.78	0.000	0.000	Ug5_2_8_L_0						
25 D	14.31	8.4172E-04	26.13	41.71	48.00	41.71	V-C	2.1182E+04	-4.800	29.87	
1.000	1.000	71.57	0.000	0.000	Ug5_2_8_L_0						
26 D	14.68	7.8468E-04	28.00	41.42	50.00	41.42	V-C	2.1182E+04	-5.000	32.00	
1.000	1.000	73.42	0.000	0.000	Ug5_2_8_L_0						
27 D	15.06	7.3001E-04	29.87	41.18	52.00	41.18	V-C	2.1182E+04	-5.200	34.13	
1.000	1.000	75.32	0.000	0.000	Ug5_2_8_L_0						
28 D	15.45	6.7776E-04	31.73	41.00	54.00	41.00	V-C	2.1182E+04	-5.400	36.27	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	77.27	0.000	0.000	Ug5_2_8_L_0					
29 D	15.86	6.2792E-04	33.60	40.88	56.00	40.88	V-C	2.1182E+04	-5.600	38.40
1.000	1.000	79.28	0.000	0.000	Ug5_2_8_L_0					
30 D	16.27	5.8051E-04	35.47	40.80	58.00	40.80	V-C	2.1182E+04	-5.800	40.53
1.000	1.000	81.34	0.000	0.000	Ug5_2_8_L_0					
31 D	16.69	5.3554E-04	37.33	40.79	60.00	40.79	V-C	2.1182E+04	-6.000	42.67
1.000	1.000	83.45	0.000	0.000	Ug5_2_8_L_0					
32 D	17.12	4.9299E-04	39.20	40.82	62.00	40.82	V-C	2.1182E+04	-6.200	44.80
1.000	1.000	85.62	0.000	0.000	Ug5_2_8_L_0					
33 D	17.57	4.5284E-04	41.07	40.91	64.00	40.91	V-C	2.1182E+04	-6.400	46.93
1.000	1.000	87.85	0.000	0.000	Ug5_2_8_L_0					
34 D	18.02	4.1509E-04	42.93	41.06	66.00	41.06	V-C	2.1182E+04	-6.600	49.07
1.000	1.000	90.12	0.000	0.000	Ug5_2_8_L_0					
35 D	18.49	3.7970E-04	44.80	41.25	68.00	41.25	V-C	2.1182E+04	-6.800	51.20
1.000	1.000	92.45	0.000	0.000	Ug5_2_8_L_0					
36 D	18.97	3.4663E-04	46.67	41.50	70.00	41.50	V-C	2.1182E+04	-7.000	53.33
1.000	1.000	94.83	0.000	0.000	Ug5_2_8_L_0					
37 D	19.45	3.1586E-04	48.53	41.80	72.00	41.80	V-C	2.1182E+04	-7.200	55.47
1.000	1.000	97.27	0.000	0.000	Ug5_2_8_L_0					
38 D	19.95	2.8733E-04	50.40	42.15	74.00	42.15	V-C	2.1182E+04	-7.400	57.60
1.000	1.000	99.75	0.000	0.000	Ug5_2_8_L_0					
39 D	20.46	2.6100E-04	52.27	42.55	76.00	42.55	V-C	2.1182E+04	-7.600	59.73
1.000	1.000	102.3	0.000	0.000	Ug5_2_8_L_0					
40 D	20.97	2.3681E-04	54.13	42.99	78.00	42.99	V-C	2.1182E+04	-7.800	61.87
1.000	1.000	104.9	0.000	0.000	Ug5_2_8_L_0					
41 D	21.50	2.1470E-04	56.00	43.48	80.00	43.48	V-C	2.1182E+04	-8.000	64.00
1.000	1.000	107.5	0.000	0.000	Ug5_2_8_L_0					
42 D	22.03	1.9460E-04	57.87	44.02	82.00	44.02	V-C	2.1182E+04	-8.200	66.13
1.000	1.000	110.2	0.000	0.000	Ug5_2_8_L_0					
43 D	22.57	1.7645E-04	59.73	44.60	84.00	44.60	V-C	2.1182E+04	-8.400	68.27
1.000	1.000	112.9	0.000	0.000	Ug5_2_8_L_0					
44 D	23.12	1.6017E-04	61.60	45.22	86.00	45.22	V-C	2.1182E+04	-8.600	70.40
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
45 D	23.68	1.4568E-04	63.47	45.88	88.00	45.88	V-C	2.1182E+04	-8.800	72.53
1.000	1.000	118.4	0.000	0.000	Ug5_2_8_L_0					
46 D	24.25	1.3289E-04	65.33	46.57	90.00	46.57	V-C	2.1182E+04	-9.000	74.67
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
47 D	24.82	1.2171E-04	67.20	47.31	92.00	47.31	V-C	2.1182E+04	-9.200	76.80
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
48 D	25.40	1.1205E-04	69.07	48.07	94.00	48.07	V-C	2.1182E+04	-9.400	78.93
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
49 D	25.99	1.0380E-04	70.93	48.87	96.00	48.87	V-C	2.1182E+04	-9.600	81.07
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
50 D	26.55	9.6865E-05	72.80	49.53	98.00	49.78	UL-RL	6.3546E+04	-9.800	83.20
1.000	1.000	132.7	0.000	0.000	Ug5_2_8_L_0					
51 D	27.09	9.1158E-05	74.67	50.13	100.00	50.75	UL-RL	6.3546E+04	-10.000	85.33
1.000	1.000	135.5	0.000	0.000	Ug5_2_8_L_0					
52 D	27.65	8.6578E-05	76.53	50.80	102.0	51.74	UL-RL	6.3546E+04	-10.200	87.47
1.000	1.000	138.3	0.000	0.000	Ug5_2_8_L_0					
53 D	28.23	8.3032E-05	78.40	51.53	104.0	52.72	UL-RL	6.3546E+04	-10.400	89.60
1.000	1.000	141.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.81	8.0427E-05	80.27	52.33	106.0	53.70	UL-RL	6.3546E+04	-10.600	91.73
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
55 D	29.40	7.8677E-05	82.13	53.16	108.0	54.70	UL-RL	6.3546E+04	-10.800	93.87
1.000	1.000	147.0	0.000	0.000	Ug5_2_8_L_0					
56 D	30.00	7.7695E-05	84.00	54.02	110.0	55.70	UL-RL	6.3546E+04	-11.000	96.00
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
57 D	30.61	7.7402E-05	85.87	54.92	112.0	56.71	UL-RL	6.3546E+04	-11.200	98.13
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
58 D	31.23	7.7719E-05	87.73	55.86	114.0	57.72	UL-RL	6.3546E+04	-11.400	100.3
1.000	1.000	156.1	0.000	0.000	Ug5_2_8_L_0					
59 D	31.85	7.8572E-05	89.60	56.83	116.0	58.73	UL-RL	6.3546E+04	-11.600	102.4
1.000	1.000	159.2	0.000	0.000	Ug5_2_8_L_0					
60 D	32.47	7.9889E-05	91.47	57.82	118.0	59.74	UL-RL	6.3546E+04	-11.800	104.5
1.000	1.000	162.4	0.000	0.000	Ug5_2_8_L_0					
61 D	33.10	8.1602E-05	93.33	58.84	120.0	60.76	UL-RL	6.3546E+04	-12.000	106.7
1.000	1.000	165.5	0.000	0.000	Ug5_2_8_L_0					
62 D	33.50	8.3646E-05	95.00	58.69	121.8	61.39	UL-RL	4.6114E+04	-12.200	108.8
1.000	1.000	167.5	0.000	0.000	Ug6_741_743_L_0					
63 D	34.12	8.5957E-05	96.67	59.66	123.6	62.28	UL-RL	4.6114E+04	-12.400	110.9
1.000	1.000	170.6	0.000	0.000	Ug6_741_743_L_0					
64 D	34.74	8.8478E-05	98.33	60.64	125.4	63.16	UL-RL	4.6114E+04	-12.600	113.1
1.000	1.000	173.7	0.000	0.000	Ug6_741_743_L_0					
65 D	35.37	9.1163E-05	100.00	61.63	127.2	64.05	UL-RL	4.6114E+04	-12.800	115.2
1.000	1.000	176.8	0.000	0.000	Ug6_741_743_L_0					
66 D	35.99	9.3969E-05	101.7	62.63	129.0	64.94	UL-RL	4.6114E+04	-13.000	117.3
1.000	1.000	180.0	0.000	0.000	Ug6_741_743_L_0					
67 D	36.62	9.6861E-05	103.3	63.63	130.8	65.83	UL-RL	4.6114E+04	-13.200	119.5
1.000	1.000	183.1	0.000	0.000	Ug6_741_743_L_0					
68 D	37.25	9.9812E-05	105.0	64.63	132.6	66.72	UL-RL	4.6114E+04	-13.400	121.6
1.000	1.000	186.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.87	1.0280E-04	106.7	65.64	134.4	67.60	UL-RL	4.6114E+04	-13.60	123.7
1.000	1.000	189.4	0.000	0.000	Ug6_741_743_L_0					
70 D	38.50	1.0580E-04	108.3	66.64	136.2	68.49	UL-RL	4.6114E+04	-13.80	125.9
1.000	1.000	192.5	0.000	0.000	Ug6_741_743_L_0					
71 D	39.13	1.0881E-04	110.0	67.65	138.0	69.38	UL-RL	4.6114E+04	-14.00	128.0
1.000	1.000	195.6	0.000	0.000	Ug6_741_743_L_0					
72 D	39.76	1.1181E-04	111.7	68.65	139.8	70.27	UL-RL	4.6114E+04	-14.20	130.1
1.000	1.000	198.8	0.000	0.000	Ug6_741_743_L_0					
73 D	40.38	1.1480E-04	113.3	69.65	141.6	71.16	UL-RL	4.6114E+04	-14.40	132.3
1.000	1.000	201.9	0.000	0.000	Ug6_741_743_L_0					
74 D	41.01	1.1777E-04	115.0	70.66	143.4	72.05	UL-RL	4.6114E+04	-14.60	134.4
1.000	1.000	205.1	0.000	0.000	Ug6_741_743_L_0					
75 D	41.64	1.2073E-04	116.7	71.66	145.2	72.94	UL-RL	4.6114E+04	-14.80	136.5
1.000	1.000	208.2	0.000	0.000	Ug6_741_743_L_0					
76 D	42.27	1.2367E-04	118.3	72.66	147.0	73.84	UL-RL	4.6114E+04	-15.00	138.7
1.000	1.000	211.3	0.000	0.000	Ug6_741_743_L_0					
77 D	42.89	1.2660E-04	120.0	73.66	148.8	74.73	UL-RL	4.6114E+04	-15.20	140.8
1.000	1.000	214.5	0.000	0.000	Ug6_741_743_L_0					
78 D	43.52	1.2952E-04	121.7	74.66	150.6	75.62	UL-RL	4.6114E+04	-15.40	142.9
1.000	1.000	217.6	0.000	0.000	Ug6_741_743_L_0					
79 D	44.15	1.3244E-04	123.3	75.67	152.4	76.51	UL-RL	4.6114E+04	-15.60	145.1
1.000	1.000	220.7	0.000	0.000	Ug6_741_743_L_0					
80 D	44.77	1.3535E-04	125.0	76.67	154.2	77.40	UL-RL	4.6114E+04	-15.80	147.2
1.000	1.000	223.9	0.000	0.000	Ug6_741_743_L_0					
81 D	22.70	1.3826E-04	126.7	77.67	156.0	78.29	UL-RL	4.6114E+04	-16.00	149.3
1.000	1.000	227.0	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|               PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
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NewProject.BaseDesignSection_28.SISMICAGEO_1847
Exe Time :24 May 2018   18:25:50
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-3.99821E-11	3.99821E-11	-4.59210E-12	-1.29920E-10
2	0.50996	-0.50996	1.31407E-10	0.10199
3	1.5325	-1.5325	-0.10199	0.40848
4	3.0708	-3.0708	-0.40848	1.0227
5	5.1276	-5.1276	-1.0227	2.0482
6	7.7037	-7.7037	-2.0482	3.5889
7	10.799	-10.799	-3.5889	5.7488
8	14.421	-14.421	-5.7488	8.6330
9	18.572	-18.572	-8.6330	12.347
10	23.237	-23.237	-12.347	16.995
11	28.426	-28.426	-16.995	22.680
12	32.001	-32.001	-22.680	29.080
13	33.952	-33.952	-29.080	35.871
14	34.286	-34.286	-35.871	42.728
15	33.001	-33.001	-42.728	49.328
16	30.098	-30.098	-49.328	55.348
17	26.679	-26.679	-55.348	60.683
18	23.477	-23.477	-60.683	65.379
19	20.485	-20.485	-65.379	69.476
20	17.691	-17.691	-69.476	73.014
21	15.091	-15.091	-73.014	76.032
22	12.675	-12.675	-76.032	78.567
23	10.430	-10.430	-78.567	80.653
24	8.3495	-8.3495	-80.653	82.323
25	6.4234	-6.4234	-82.323	83.608
26	4.6408	-4.6408	-83.608	84.536
27	2.9875	-2.9875	-84.536	85.134
28	1.4561	-1.4561	-85.134	85.425
29	3.56493E-02	-3.56493E-02	-85.425	85.432
30	-1.2882	1.2882	-85.432	85.174
31	-2.5232	2.5232	-85.174	84.670
32	-3.6803	3.6803	-84.670	83.934
33	-4.7734	4.7734	-83.934	82.979
34	-5.8103	5.8103	-82.979	81.817
35	-6.8016	6.8016	-81.817	80.457
36	-7.7579	7.7579	-80.457	78.905
37	-8.6919	8.6919	-78.905	77.167
38	-9.6113	9.6113	-77.167	75.244
39	-10.526	10.526	-75.244	73.139
40	-11.447	11.447	-73.139	70.850
41	-12.382	12.382	-70.850	68.373
42	-13.341	13.341	-68.373	65.705
43	-14.333	14.333	-65.705	62.839
44	-15.364	15.364	-62.839	59.766
45	-16.172	16.172	-59.766	56.531
46	-16.708	16.708	-56.531	53.190
47	-17.012	17.012	-53.190	49.787
48	-17.121	17.121	-49.787	46.363
49	-17.070	17.070	-46.363	42.949
50	-16.858	16.858	-42.949	39.577
51	-16.498	16.498	-39.577	36.278
52	-16.027	16.027	-36.278	33.072
53	-15.480	15.480	-33.072	29.976
54	-14.885	14.885	-29.976	26.999
55	-14.268	14.268	-26.999	24.146
56	-13.652	13.652	-24.146	21.415
57	-13.057	13.057	-21.415	18.804
58	-12.504	12.504	-18.804	16.303
59	-12.009	12.009	-16.303	13.901

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-11.586	11.586	-13.901	11.584
61	-11.249	11.249	-11.584	9.3343
62	-9.8276	9.8276	-9.3343	7.3688
63	-8.4889	8.4889	-7.3688	5.6710
64	-7.2366	7.2366	-5.6710	4.2237
65	-6.0735	6.0735	-4.2237	3.0090
66	-5.0019	5.0019	-3.0090	2.0086
67	-4.0232	4.0232	-2.0086	1.2039
68	-3.1385	3.1385	-1.2039	0.57625
69	-2.3482	2.3482	-0.57625	0.10661
70	-1.6524	1.6524	-0.10661	-0.22387
71	-1.0512	1.0512	0.22387	-0.43411
72	-0.54414	0.54414	0.43411	-0.54294
73	-0.13097	0.13097	0.54294	-0.56913
74	0.18874	-0.18874	0.56913	-0.53138
75	0.41539	-0.41539	0.53138	-0.44831
76	0.54935	-0.54935	0.44831	-0.33844
77	0.59092	-0.59092	0.33844	-0.22025
78	0.54033	-0.54033	0.22025	-0.11219
79	0.39773	-0.39773	0.11219	-3.26430E-02
80	0.16321	-0.16321	3.26430E-02	6.97220E-14

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1259E+06 RIMNOR=0.3928E+06
RENORM= 696.3 REMNOR=0.2445E-19 RATIO =0.7435E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.96 RMMAX = 85.43
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1259E+06 RDR =0.3928E+06
RATIOT=0.7435E-01 RATIO= 0.000
MAX UN= 10.57 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-.7356E-01 IEQ= 21 NODE 11 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1259E+06 RIMNOR=0.3928E+06
RENORM= 215.8 REMNOR=0.3680E-19 RATIO =0.4139E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.96 RMMAX = 85.43
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1259E+06 RDR =0.3928E+06
RATIOT=0.4139E-01 RATIO= 0.000
MAX UN= 3.643 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
MIN UN=-.2663E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1259E+06 RIMNOR=0.3928E+06
RENORM= 118.6 REMNOR=0.9473E-18 RATIO =0.3069E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.96 RMMAX = 85.43
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1259E+06 RDR =0.3928E+06
RATIOT=0.3069E-01 RATIO= 0.000
MAX UN= 6.785 IEQ= 43 NODE 22 DOF 1 Y-DISPL.F
MIN UN=-.6125E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1259E+06 RIMNOR=0.3928E+06
RENORM= 1.008 REMNOR=0.3451E-18 RATIO =0.2829E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 43.96 RMMAX = 85.43
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1259E+06 RDR =0.3928E+06
RATIOT=0.2829E-02 RATIO= 0.000
MAX UN=0.6806 IEQ= 109 NODE 55 DOF 1 Y-DISPL.F
MIN UN=-.1894 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1259E+06 RIMNOR=0.3928E+06
RENORM=0.5159E-16 REMNOR=0.2914E-18 RATIO =0.2024E-10 TOLER =0.1000E-03 CONVERGED !
RFMAX = 43.96 RMMAX = 85.43
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.1259E+06 RDR =0.3928E+06
RATIOT=0.2024E-10 RATIO= 0.000
MAX UN=0.3936E-08 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.3615E-08 IEQ= 11 NODE 6 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION  *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50          |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	9.7906890E-03	-1.2565031E-03	
2	9.5393884E-03	-1.2565031E-03	
3	9.2880882E-03	-1.2564960E-03	
4	9.0367919E-03	-1.2564604E-03	
5	8.7855084E-03	-1.2563605E-03	
6	8.5342553E-03	-1.2561462E-03	
7	8.2830618E-03	-1.2557529E-03	
8	8.0319714E-03	-1.2551012E-03	
9	7.7810448E-03	-1.2540976E-03	
10	7.5303630E-03	-1.2526335E-03	
11	7.2800303E-03	-1.2505857E-03	
12	7.0301768E-03	-1.2478168E-03	
13	6.7809618E-03	-1.2441746E-03	
14	6.5325763E-03	-1.2394925E-03	
15	6.2852462E-03	-1.2335896E-03	
16	6.0392349E-03	-1.2262703E-03	
17	5.7948452E-03	-1.2173249E-03	
18	5.5524251E-03	-1.2065588E-03	
19	5.3123531E-03	-1.1938224E-03	
20	5.0750345E-03	-1.1790111E-03	
21	4.8408921E-03	-1.1620654E-03	
22	4.6103528E-03	-1.1429705E-03	
23	4.3838452E-03	-1.1217568E-03	
24	4.1617863E-03	-1.0984998E-03	
25	3.9445735E-03	-1.0733198E-03	
26	3.7325755E-03	-1.0463823E-03	
27	3.5261248E-03	-1.0178970E-03	
28	3.3255061E-03	-9.8808728E-04	
29	3.1309642E-03	-9.5716221E-04	
30	2.9427026E-03	-9.2531630E-04	
31	2.7608870E-03	-8.9273040E-04	
32	2.5856494E-03	-8.5957248E-04	
33	2.4170867E-03	-8.2599752E-04	
34	2.2552686E-03	-7.9214925E-04	
35	2.1002364E-03	-7.5816007E-04	
36	1.9520059E-03	-7.2415184E-04	
37	1.8105702E-03	-6.9023677E-04	
38	1.6758988E-03	-6.5651733E-04	
39	1.5479439E-03	-6.2308799E-04	
40	1.4266385E-03	-5.9003513E-04	
41	1.3118995E-03	-5.5743785E-04	
42	1.2036282E-03	-5.2536864E-04	
43	1.1017124E-03	-4.9389393E-04	
44	1.0060269E-03	-4.6307476E-04	
45	9.1643545E-04	-4.3296747E-04	
46	8.3278947E-04	-4.0362371E-04	
47	7.5493184E-04	-3.7509183E-04	
48	6.8269561E-04	-3.4741694E-04	
49	6.1590510E-04	-3.2064151E-04	
50	5.5437664E-04	-2.9480601E-04	
51	4.9791778E-04	-2.6994895E-04	
52	4.4632809E-04	-2.4610747E-04	
53	3.9940547E-04	-2.2332079E-04	
54	3.5692959E-04	-2.0162267E-04	
55	3.1868130E-04	-1.8105108E-04	
56	2.8443157E-04	-1.6164336E-04	
57	2.5394381E-04	-1.4343774E-04	
58	2.2697397E-04	-1.2646959E-04	
59	2.0327170E-04	-1.1076567E-04	
60	1.8258232E-04	-9.6342532E-05	
61	1.6464890E-04	-8.3206203E-05	
62	1.4921432E-04	-7.1352626E-05	
63	1.3602484E-04	-6.0744172E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.2483817E-04	-5.1312867E-05
65	1.1542590E-04	-4.2988383E-05
66	1.0757383E-04	-3.5698760E-05
67	1.0108227E-04	-2.9371105E-05
68	9.5766122E-05	-2.3932453E-05
69	9.1454845E-05	-1.9310412E-05
70	8.7992284E-05	-1.5433468E-05
71	8.5236478E-05	-1.2231222E-05
72	8.3059428E-05	-9.6344809E-06
73	8.1346846E-05	-7.5753393E-06
74	7.9997884E-05	-5.9873248E-06
75	7.8924836E-05	-4.8055105E-06
76	7.8052819E-05	-3.9666039E-06
77	7.7319440E-05	-3.4090120E-06
78	7.6674450E-05	-3.0728884E-06
79	7.6079391E-05	-2.9001640E-06
80	7.5507242E-05	-2.8345658E-06
81	7.4942026E-05	-2.8216261E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-9.7907E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4999	-9.5394E-03	2.215	0.7066	2.215	1.603	ACTIVE	0.000	-0.2000	1.793	
1.000	1.000	2.500	0.000	0.000	Ug5_2_8_L_0						
3 D	1.002	-9.2881E-03	4.471	1.426	4.471	3.119	ACTIVE	0.000	-0.4000	3.586	
1.000	1.000	5.012	0.000	0.000	Ug5_2_8_L_0						
4 D	1.508	-9.0368E-03	6.779	2.162	6.779	4.509	ACTIVE	0.000	-0.6000	5.379	
1.000	1.000	7.542	0.000	0.000	Ug5_2_8_L_0						
5 D	2.017	-8.7855E-03	9.125	2.911	9.125	5.780	ACTIVE	0.000	-0.8000	7.172	
1.000	1.000	10.08	0.000	0.000	Ug5_2_8_L_0						
6 D	2.526	-8.5343E-03	11.49	3.665	11.49	6.958	ACTIVE	0.000	-1.000	8.966	
1.000	1.000	12.63	0.000	0.000	Ug5_2_8_L_0						
7 D	3.035	-8.2831E-03	13.85	4.419	13.85	8.073	ACTIVE	0.000	-1.200	10.76	
1.000	1.000	15.18	0.000	0.000	Ug5_2_8_L_0						
8 D	3.552	-8.0320E-03	16.32	5.207	16.32	9.145	ACTIVE	0.000	-1.400	12.55	
1.000	1.000	17.76	0.000	0.000	Ug5_2_8_L_0						
9 D	4.070	-7.7810E-03	18.83	6.007	18.83	10.19	ACTIVE	0.000	-1.600	14.34	
1.000	1.000	20.35	0.000	0.000	Ug5_2_8_L_0						
10 D	4.575	-7.5304E-03	21.13	6.739	21.13	11.22	ACTIVE	0.000	-1.800	16.14	
1.000	1.000	22.88	0.000	0.000	Ug5_2_8_L_0						
11 D	5.089	-7.2800E-03	23.55	7.514	23.55	12.23	ACTIVE	0.000	-2.000	17.93	
1.000	1.000	25.44	0.000	0.000	Ug5_2_8_L_0						
12 D	5.600	-7.0302E-03	25.95	8.277	25.95	13.24	ACTIVE	0.000	-2.200	19.72	
1.000	1.000	28.00	0.000	0.000	Ug5_2_8_L_0						
13 D	6.102	-6.7810E-03	28.19	8.993	28.19	14.24	ACTIVE	0.000	-2.400	21.52	
1.000	1.000	30.51	0.000	0.000	Ug5_2_8_L_0						
14 D	6.611	-6.5326E-03	30.55	9.744	30.55	15.24	ACTIVE	0.000	-2.600	23.31	
1.000	1.000	33.05	0.000	0.000	Ug5_2_8_L_0						
15 D	7.118	-6.2852E-03	32.88	10.49	32.88	16.23	ACTIVE	0.000	-2.800	25.10	
1.000	1.000	35.59	0.000	0.000	Ug5_2_8_L_0						
16 D	7.625	-6.0392E-03	35.20	11.23	35.20	17.23	ACTIVE	0.000	-3.000	26.90	
1.000	1.000	38.13	0.000	0.000	Ug5_2_8_L_0						
17 D	8.125	-5.7948E-03	37.42	11.94	37.42	18.22	ACTIVE	0.000	-3.200	28.69	
1.000	1.000	40.63	0.000	0.000	Ug5_2_8_L_0						
18 D	8.631	-5.5524E-03	39.72	12.67	39.72	19.21	ACTIVE	0.000	-3.400	30.48	
1.000	1.000	43.15	0.000	0.000	Ug5_2_8_L_0						
19 D	9.136	-5.3124E-03	42.01	13.40	42.01	20.21	ACTIVE	0.000	-3.600	32.28	
1.000	1.000	45.68	0.000	0.000	Ug5_2_8_L_0						
20 D	9.635	-5.0750E-03	44.22	14.11	44.22	21.20	ACTIVE	0.000	-3.800	34.07	
1.000	1.000	48.17	0.000	0.000	Ug5_2_8_L_0						
21 D	10.14	-4.8409E-03	46.50	14.83	46.50	22.19	ACTIVE	0.000	-4.000	35.86	
1.000	1.000	50.70	0.000	0.000	Ug5_2_8_L_0						
22 D	10.64	-4.6104E-03	48.77	15.56	48.77	23.18	ACTIVE	0.000	-4.200	37.66	
1.000	1.000	53.21	0.000	0.000	Ug5_2_8_L_0						
23 D	11.14	-4.3838E-03	50.98	16.26	50.98	24.18	ACTIVE	0.000	-4.400	39.45	
1.000	1.000	55.71	0.000	0.000	Ug5_2_8_L_0						
24 D	11.65	-4.1618E-03	53.24	16.98	53.24	25.17	ACTIVE	0.000	-4.600	41.24	
1.000	1.000	58.23	0.000	0.000	Ug5_2_8_L_0						
25 D	12.15	-3.9446E-03	55.51	17.71	55.51	26.17	ACTIVE	0.000	-4.800	43.03	
1.000	1.000	60.74	0.000	0.000	Ug5_2_8_L_0						
26 D	12.65	-3.7326E-03	57.76	18.43	57.76	27.16	ACTIVE	0.000	-5.000	44.83	
1.000	1.000	63.25	0.000	0.000	Ug5_2_8_L_0						
27 D	13.15	-3.5261E-03	59.96	19.13	59.96	28.16	ACTIVE	0.000	-5.200	46.62	
1.000	1.000	65.75	0.000	0.000	Ug5_2_8_L_0						
28 D	13.65	-3.3255E-03	62.21	19.85	62.21	29.16	ACTIVE	0.000	-5.400	48.41	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	68.26	0.000	0.000	Ug5_2_8_L_0					
29 D	14.15	-3.1310E-03	64.46	20.56	64.46	30.15	ACTIVE	0.000	-5.600	50.21
1.000	1.000	70.77	0.000	0.000	Ug5_2_8_L_0					
30 D	14.65	-2.9427E-03	66.66	21.26	66.66	31.15	ACTIVE	0.000	-5.800	52.00
1.000	1.000	73.26	0.000	0.000	Ug5_2_8_L_0					
31 D	15.15	-2.7609E-03	68.91	21.98	68.91	32.15	ACTIVE	0.000	-6.000	53.79
1.000	1.000	75.77	0.000	0.000	Ug5_2_8_L_0					
32 D	15.66	-2.5856E-03	71.15	22.70	71.15	33.15	ACTIVE	0.000	-6.200	55.59
1.000	1.000	78.28	0.000	0.000	Ug5_2_8_L_0					
33 D	16.16	-2.4171E-03	73.35	23.40	73.35	34.15	ACTIVE	0.000	-6.400	57.38
1.000	1.000	80.78	0.000	0.000	Ug5_2_8_L_0					
34 D	16.66	-2.2553E-03	75.59	24.11	75.59	35.15	ACTIVE	0.000	-6.600	59.17
1.000	1.000	83.28	0.000	0.000	Ug5_2_8_L_0					
35 D	17.16	-2.1002E-03	77.83	24.83	77.83	36.15	ACTIVE	0.000	-6.800	60.97
1.000	1.000	85.79	0.000	0.000	Ug5_2_8_L_0					
36 D	17.66	-1.9520E-03	80.06	25.54	80.06	37.16	ACTIVE	0.000	-7.000	62.76
1.000	1.000	88.30	0.000	0.000	Ug5_2_8_L_0					
37 D	18.16	-1.8106E-03	82.26	26.24	82.26	38.16	ACTIVE	0.000	-7.200	64.55
1.000	1.000	90.79	0.000	0.000	Ug5_2_8_L_0					
38 D	18.66	-1.6759E-03	84.49	26.95	84.49	39.16	ACTIVE	0.000	-7.400	66.34
1.000	1.000	93.30	0.000	0.000	Ug5_2_8_L_0					
39 D	19.16	-1.5479E-03	86.73	27.67	86.73	40.17	ACTIVE	0.000	-7.600	68.14
1.000	1.000	95.80	0.000	0.000	Ug5_2_8_L_0					
40 D	19.66	-1.4266E-03	88.92	28.37	88.92	41.17	ACTIVE	0.000	-7.800	69.93
1.000	1.000	98.30	0.000	0.000	Ug5_2_8_L_0					
41 D	20.16	-1.3119E-03	91.15	29.08	91.15	42.18	ACTIVE	0.000	-8.000	71.72
1.000	1.000	100.8	0.000	0.000	Ug5_2_8_L_0					
42 D	20.66	-1.2036E-03	93.38	29.79	93.38	43.19	ACTIVE	0.000	-8.200	73.52
1.000	1.000	103.3	0.000	0.000	Ug5_2_8_L_0					
43 D	21.16	-1.1017E-03	95.58	30.49	95.58	44.19	ACTIVE	0.000	-8.400	75.31
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
44 D	21.66	-1.0060E-03	97.81	31.20	97.81	45.20	ACTIVE	0.000	-8.600	77.10
1.000	1.000	108.3	0.000	0.000	Ug5_2_8_L_0					
45 D	22.16	-9.1644E-04	100.0	31.91	100.0	46.21	ACTIVE	0.000	-8.800	78.90
1.000	1.000	110.8	0.000	0.000	Ug5_2_8_L_0					
46 D	22.66	-8.3279E-04	102.3	32.62	102.3	47.22	ACTIVE	0.000	-9.000	80.69
1.000	1.000	113.3	0.000	0.000	Ug5_2_8_L_0					
47 D	23.16	-7.5493E-04	104.5	33.32	104.5	48.23	ACTIVE	0.000	-9.200	82.48
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
48 D	23.66	-6.8270E-04	106.7	34.03	106.7	49.24	ACTIVE	0.000	-9.400	84.28
1.000	1.000	118.3	0.000	0.000	Ug5_2_8_L_0					
49 D	24.16	-6.1591E-04	108.9	34.74	108.9	50.26	ACTIVE	0.000	-9.600	86.07
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
50 D	24.66	-5.5438E-04	111.1	35.44	111.1	51.27	ACTIVE	0.000	-9.800	87.86
1.000	1.000	123.3	0.000	0.000	Ug5_2_8_L_0					
51 D	25.16	-4.9792E-04	113.3	36.15	113.3	52.28	ACTIVE	0.000	-10.000	89.66
1.000	1.000	125.8	0.000	0.000	Ug5_2_8_L_0					
52 D	25.66	-4.4633E-04	115.6	36.86	115.6	53.29	ACTIVE	0.000	-10.200	91.45
1.000	1.000	128.3	0.000	0.000	Ug5_2_8_L_0					
53 D	26.16	-3.9941E-04	117.8	37.56	117.8	54.31	ACTIVE	0.000	-10.400	93.24
1.000	1.000	130.8	0.000	0.000	Ug5_2_8_L_0					
54 D	26.66	-3.5693E-04	120.0	38.27	120.0	55.32	ACTIVE	0.000	-10.600	95.03
1.000	1.000	133.3	0.000	0.000	Ug5_2_8_L_0					
55 D	27.16	-3.1868E-04	122.2	38.98	122.2	56.34	ACTIVE	0.000	-10.800	96.83
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
56 D	27.66	-2.8443E-04	124.4	39.69	124.4	57.35	ACTIVE	0.000	-11.000	98.62
1.000	1.000	138.3	0.000	0.000	Ug5_2_8_L_0					
57 D	28.45	-2.5394E-04	126.6	41.83	126.6	58.37	UL-RL	6.6389E+04	-11.200	100.4
1.000	1.000	142.2	0.000	0.000	Ug5_2_8_L_0					
58 D	29.38	-2.2697E-04	128.8	44.68	128.8	59.39	UL-RL	6.6389E+04	-11.400	102.2
1.000	1.000	146.9	0.000	0.000	Ug5_2_8_L_0					
59 D	30.26	-2.0327E-04	131.1	47.29	131.1	60.40	UL-RL	6.6389E+04	-11.600	104.0
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
60 D	31.10	-1.8258E-04	133.3	49.69	133.3	61.42	UL-RL	6.6389E+04	-11.800	105.8
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					
61 D	31.90	-1.6465E-04	135.5	51.89	135.5	62.44	UL-RL	6.6389E+04	-12.000	107.6
1.000	1.000	159.5	0.000	0.000	Ug5_2_8_L_0					
62 D	34.04	-1.4921E-04	137.5	60.81	137.5	63.36	UL-RL	3.2934E+04	-12.200	109.4
1.000	1.000	170.2	0.000	0.000	Ug6_741_743_L_0					
63 D	34.67	-1.3602E-04	139.5	62.19	139.5	64.28	UL-RL	3.2934E+04	-12.400	111.2
1.000	1.000	173.4	0.000	0.000	Ug6_741_743_L_0					
64 D	35.29	-1.2484E-04	141.5	63.49	141.5	65.20	UL-RL	3.2934E+04	-12.600	113.0
1.000	1.000	176.5	0.000	0.000	Ug6_741_743_L_0					
65 D	35.90	-1.1543E-04	143.5	64.74	143.5	66.12	UL-RL	3.2934E+04	-12.800	114.8
1.000	1.000	179.5	0.000	0.000	Ug6_741_743_L_0					
66 D	36.49	-1.0757E-04	145.5	65.90	145.5	67.05	UL-RL	3.2934E+04	-13.000	116.6
1.000	1.000	182.5	0.000	0.000	Ug6_741_743_L_0					
67 D	37.06	-1.0108E-04	147.5	66.94	147.5	68.02	UL-RL	3.2934E+04	-13.200	118.3
1.000	1.000	185.3	0.000	0.000	Ug6_741_743_L_0					
68 D	37.62	-9.5766E-05	149.4	67.96	149.4	68.99	UL-RL	3.2934E+04	-13.400	120.1
1.000	1.000	188.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	38.18	-9.1455E-05	151.4	68.96	151.4	69.95	UL-RL	3.2934E+04	-13.60	121.9
1.000	1.000	190.9	0.000	0.000	Ug6_741_743_L_0					
70 D	38.73	-8.7992E-05	153.4	69.95	153.4	70.91	UL-RL	3.2934E+04	-13.80	123.7
1.000	1.000	193.7	0.000	0.000	Ug6_741_743_L_0					
71 D	39.30	-8.5236E-05	155.4	70.96	155.4	71.90	UL-RL	3.2934E+04	-14.00	125.5
1.000	1.000	196.5	0.000	0.000	Ug6_741_743_L_0					
72 D	39.86	-8.3059E-05	157.3	71.97	157.3	72.89	UL-RL	3.2934E+04	-14.20	127.3
1.000	1.000	199.3	0.000	0.000	Ug6_741_743_L_0					
73 D	40.41	-8.1347E-05	159.3	72.96	159.3	73.87	UL-RL	3.2934E+04	-14.40	129.1
1.000	1.000	202.1	0.000	0.000	Ug6_741_743_L_0					
74 D	40.97	-7.9998E-05	161.3	73.95	161.3	74.85	UL-RL	3.2934E+04	-14.60	130.9
1.000	1.000	204.8	0.000	0.000	Ug6_741_743_L_0					
75 D	41.52	-7.8925E-05	163.3	74.93	163.3	75.83	UL-RL	3.2934E+04	-14.80	132.7
1.000	1.000	207.6	0.000	0.000	Ug6_741_743_L_0					
76 D	42.08	-7.8053E-05	165.3	75.91	165.3	76.81	UL-RL	3.2934E+04	-15.00	134.5
1.000	1.000	210.4	0.000	0.000	Ug6_741_743_L_0					
77 D	42.63	-7.7319E-05	167.2	76.88	167.2	77.78	UL-RL	3.2934E+04	-15.20	136.3
1.000	1.000	213.2	0.000	0.000	Ug6_741_743_L_0					
78 D	43.19	-7.6674E-05	169.2	77.86	169.2	78.76	UL-RL	3.2934E+04	-15.40	138.1
1.000	1.000	215.9	0.000	0.000	Ug6_741_743_L_0					
79 D	43.74	-7.6079E-05	171.2	78.83	171.2	79.74	UL-RL	3.2934E+04	-15.60	139.9
1.000	1.000	218.7	0.000	0.000	Ug6_741_743_L_0					
80 D	44.29	-7.5507E-05	173.2	79.81	173.2	80.71	UL-RL	3.2934E+04	-15.80	141.7
1.000	1.000	221.5	0.000	0.000	Ug6_741_743_L_0					
81 D	22.42	-7.4942E-05	175.2	80.78	175.2	81.69	UL-RL	3.2934E+04	-16.00	143.4
1.000	1.000	224.2	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018 18:25:50 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	6.0392E-03	0.000	0.000	30.00	42.73	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.083	5.7948E-03	1.793	8.209	32.00	45.72	PASSIVE	0.000	-3.200	2.207	
1.000	1.000	10.42	0.000	0.000	Ug5_2_8_L_0						
18 D	4.166	5.5524E-03	3.586	16.42	34.00	45.08	PASSIVE	0.000	-3.400	4.414	
1.000	1.000	20.83	0.000	0.000	Ug5_2_8_L_0						
19 D	6.249	5.3124E-03	5.379	24.63	36.00	44.47	PASSIVE	0.000	-3.600	6.621	
1.000	1.000	31.25	0.000	0.000	Ug5_2_8_L_0						
20 D	8.333	5.0750E-03	7.172	32.84	38.00	43.90	PASSIVE	0.000	-3.800	8.828	
1.000	1.000	41.66	0.000	0.000	Ug5_2_8_L_0						
21 D	10.42	4.8409E-03	8.966	41.04	40.00	43.37	PASSIVE	0.000	-4.000	11.03	
1.000	1.000	52.08	0.000	0.000	Ug5_2_8_L_0						
22 D	12.50	4.6104E-03	10.76	49.25	42.00	49.25	PASSIVE	0.000	-4.200	13.24	
1.000	1.000	62.49	0.000	0.000	Ug5_2_8_L_0						
23 D	14.58	4.3838E-03	12.55	57.46	44.00	57.46	PASSIVE	0.000	-4.400	15.45	
1.000	1.000	72.91	0.000	0.000	Ug5_2_8_L_0						
24 D	16.67	4.1618E-03	14.34	65.67	46.00	65.67	PASSIVE	0.000	-4.600	17.66	
1.000	1.000	83.33	0.000	0.000	Ug5_2_8_L_0						
25 D	18.75	3.9446E-03	16.14	73.88	48.00	73.88	PASSIVE	0.000	-4.800	19.86	
1.000	1.000	93.74	0.000	0.000	Ug5_2_8_L_0						
26 D	20.77	3.7326E-03	17.93	81.80	50.00	81.80	V-C	1.4121E+04	-5.000	22.07	
1.000	1.000	103.9	0.000	0.000	Ug5_2_8_L_0						
27 D	20.74	3.5261E-03	19.72	79.44	52.00	79.44	V-C	1.4121E+04	-5.200	24.28	
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0						
28 D	20.73	3.3255E-03	21.52	77.17	54.00	77.17	V-C	1.4121E+04	-5.400	26.48	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
29 D	20.74	3.1310E-03	23.31	75.01	56.00	75.01	V-C	1.4121E+04	-5.600	28.69
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
30 D	20.77	2.9427E-03	25.10	72.96	58.00	72.96	V-C	1.4121E+04	-5.800	30.90
1.000	1.000	103.9	0.000	0.000	Ug5_2_8_L_0					
31 D	20.82	2.7609E-03	26.90	71.02	60.00	71.02	V-C	1.4121E+04	-6.000	33.10
1.000	1.000	104.1	0.000	0.000	Ug5_2_8_L_0					
32 D	20.90	2.5856E-03	28.69	69.19	62.00	69.19	V-C	1.4121E+04	-6.200	35.31
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0					
33 D	21.00	2.4171E-03	30.48	67.47	64.00	67.47	V-C	1.4121E+04	-6.400	37.52
1.000	1.000	105.0	0.000	0.000	Ug5_2_8_L_0					
34 D	21.12	2.2553E-03	32.28	65.86	66.00	65.86	V-C	1.4121E+04	-6.600	39.72
1.000	1.000	105.6	0.000	0.000	Ug5_2_8_L_0					
35 D	21.26	2.1002E-03	34.07	64.37	68.00	64.37	V-C	1.4121E+04	-6.800	41.93
1.000	1.000	106.3	0.000	0.000	Ug5_2_8_L_0					
36 D	21.43	1.9520E-03	35.86	62.99	70.00	62.99	V-C	1.4121E+04	-7.000	44.14
1.000	1.000	107.1	0.000	0.000	Ug5_2_8_L_0					
37 D	21.62	1.8106E-03	37.66	61.73	72.00	61.73	V-C	1.4121E+04	-7.200	46.34
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
38 D	21.83	1.6759E-03	39.45	60.58	74.00	60.58	V-C	1.4121E+04	-7.400	48.55
1.000	1.000	109.1	0.000	0.000	Ug5_2_8_L_0					
39 D	22.06	1.5479E-03	41.24	59.55	76.00	59.55	V-C	1.4121E+04	-7.600	50.76
1.000	1.000	110.3	0.000	0.000	Ug5_2_8_L_0					
40 D	22.32	1.4266E-03	43.03	58.62	78.00	58.62	V-C	1.4121E+04	-7.800	52.97
1.000	1.000	111.6	0.000	0.000	Ug5_2_8_L_0					
41 D	22.59	1.3119E-03	44.83	57.80	80.00	57.80	V-C	1.4121E+04	-8.000	55.17
1.000	1.000	113.0	0.000	0.000	Ug5_2_8_L_0					
42 D	22.89	1.2036E-03	46.62	57.09	82.00	57.09	V-C	1.4121E+04	-8.200	57.38
1.000	1.000	114.5	0.000	0.000	Ug5_2_8_L_0					
43 D	23.21	1.1017E-03	48.41	56.49	84.00	56.49	V-C	1.4121E+04	-8.400	59.59
1.000	1.000	116.1	0.000	0.000	Ug5_2_8_L_0					
44 D	23.56	1.0060E-03	50.21	55.98	86.00	55.98	V-C	1.4121E+04	-8.600	61.79
1.000	1.000	117.8	0.000	0.000	Ug5_2_8_L_0					
45 D	23.92	9.1644E-04	52.00	55.58	88.00	55.58	V-C	1.4121E+04	-8.800	64.00
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
46 D	24.30	8.3279E-04	53.79	55.27	90.00	55.27	V-C	1.4121E+04	-9.000	66.21
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
47 D	24.70	7.5493E-04	55.59	55.06	92.00	55.06	V-C	1.4121E+04	-9.200	68.41
1.000	1.000	123.5	0.000	0.000	Ug5_2_8_L_0					
48 D	25.11	6.8270E-04	57.38	54.94	94.00	54.94	V-C	1.4121E+04	-9.400	70.62
1.000	1.000	125.6	0.000	0.000	Ug5_2_8_L_0					
49 D	25.55	6.1591E-04	59.17	54.91	96.00	54.91	V-C	1.4121E+04	-9.600	72.83
1.000	1.000	127.7	0.000	0.000	Ug5_2_8_L_0					
50 D	26.00	5.5438E-04	60.97	54.96	98.00	54.96	V-C	1.4121E+04	-9.800	75.03
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
51 D	26.47	4.9792E-04	62.76	55.09	100.00	55.09	V-C	1.4121E+04	-10.000	77.24
1.000	1.000	132.3	0.000	0.000	Ug5_2_8_L_0					
52 D	26.95	4.4633E-04	64.55	55.30	102.0	55.30	V-C	1.4121E+04	-10.200	79.45
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
53 D	27.45	3.9941E-04	66.34	55.59	104.0	55.59	V-C	1.4121E+04	-10.400	81.66
1.000	1.000	137.2	0.000	0.000	Ug5_2_8_L_0					
54 D	27.96	3.5693E-04	68.14	55.94	106.0	55.94	V-C	1.4121E+04	-10.600	83.86
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
55 D	28.49	3.1868E-04	69.93	56.36	108.0	56.36	V-C	1.4121E+04	-10.800	86.07
1.000	1.000	142.4	0.000	0.000	Ug5_2_8_L_0					
56 D	29.02	2.8443E-04	71.72	56.84	110.0	56.84	V-C	1.4121E+04	-11.000	88.28
1.000	1.000	145.1	0.000	0.000	Ug5_2_8_L_0					
57 D	29.57	2.5394E-04	73.52	57.38	112.0	57.38	V-C	1.4121E+04	-11.200	90.48
1.000	1.000	147.9	0.000	0.000	Ug5_2_8_L_0					
58 D	30.13	2.2697E-04	75.31	57.98	114.0	57.98	V-C	1.4121E+04	-11.400	92.69
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.66	2.0327E-04	77.10	58.42	116.0	58.73	UL-RL	4.2364E+04	-11.600	94.90
1.000	1.000	153.3	0.000	0.000	Ug5_2_8_L_0					
60 D	31.12	1.8258E-04	78.90	58.47	118.0	59.74	UL-RL	4.2364E+04	-11.800	97.10
1.000	1.000	155.6	0.000	0.000	Ug5_2_8_L_0					
61 D	31.59	1.6465E-04	80.69	58.65	120.0	60.76	UL-RL	4.2364E+04	-12.000	99.31
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
62 D	31.70	1.4921E-04	82.28	56.97	121.8	61.39	UL-RL	3.0743E+04	-12.200	101.5
1.000	1.000	158.5	0.000	0.000	Ug6_741_743_L_0					
63 D	32.24	1.3602E-04	83.88	57.46	123.6	62.28	UL-RL	3.0743E+04	-12.400	103.7
1.000	1.000	161.2	0.000	0.000	Ug6_741_743_L_0					
64 D	32.79	1.2484E-04	85.47	58.00	125.4	63.16	UL-RL	3.0743E+04	-12.600	105.9
1.000	1.000	163.9	0.000	0.000	Ug6_741_743_L_0					
65 D	33.35	1.1543E-04	87.06	58.61	127.2	64.05	UL-RL	3.0743E+04	-12.800	108.1
1.000	1.000	166.7	0.000	0.000	Ug6_741_743_L_0					
66 D	33.92	1.0757E-04	88.66	59.26	129.0	64.94	UL-RL	3.0743E+04	-13.000	110.3
1.000	1.000	169.6	0.000	0.000	Ug6_741_743_L_0					
67 D	34.50	1.0108E-04	90.25	59.96	130.8	65.83	UL-RL	3.0743E+04	-13.200	112.6
1.000	1.000	172.5	0.000	0.000	Ug6_741_743_L_0					
68 D	35.09	9.5766E-05	91.84	60.69	132.6	66.72	UL-RL	3.0743E+04	-13.400	114.8
1.000	1.000	175.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	35.68	9.1455E-05	93.43	61.45	134.4	67.60	UL-RL	3.0743E+04	-13.60	117.0
1.000	1.000	178.4	0.000	0.000	Ug6_741_743_L_0					
70 D	36.28	8.7992E-05	95.03	62.24	136.2	68.49	UL-RL	3.0743E+04	-13.80	119.2
1.000	1.000	181.4	0.000	0.000	Ug6_741_743_L_0					
71 D	36.89	8.5236E-05	96.62	63.05	138.0	69.38	UL-RL	3.0743E+04	-14.00	121.4
1.000	1.000	184.4	0.000	0.000	Ug6_741_743_L_0					
72 D	37.49	8.3059E-05	98.21	63.88	139.8	70.27	UL-RL	3.0743E+04	-14.20	123.6
1.000	1.000	187.5	0.000	0.000	Ug6_741_743_L_0					
73 D	38.10	8.1347E-05	99.81	64.73	141.6	71.16	UL-RL	3.0743E+04	-14.40	125.8
1.000	1.000	190.5	0.000	0.000	Ug6_741_743_L_0					
74 D	38.72	7.9998E-05	101.4	65.58	143.4	72.05	UL-RL	3.0743E+04	-14.60	128.0
1.000	1.000	193.6	0.000	0.000	Ug6_741_743_L_0					
75 D	39.33	7.8925E-05	103.0	66.44	145.2	72.94	UL-RL	3.0743E+04	-14.80	130.2
1.000	1.000	196.6	0.000	0.000	Ug6_741_743_L_0					
76 D	39.94	7.8053E-05	104.6	67.31	147.0	73.84	UL-RL	3.0743E+04	-15.00	132.4
1.000	1.000	199.7	0.000	0.000	Ug6_741_743_L_0					
77 D	40.56	7.7319E-05	106.2	68.18	148.8	74.73	UL-RL	3.0743E+04	-15.20	134.6
1.000	1.000	202.8	0.000	0.000	Ug6_741_743_L_0					
78 D	41.18	7.6674E-05	107.8	69.06	150.6	75.62	UL-RL	3.0743E+04	-15.40	136.8
1.000	1.000	205.9	0.000	0.000	Ug6_741_743_L_0					
79 D	41.79	7.6079E-05	109.4	69.93	152.4	76.51	UL-RL	3.0743E+04	-15.60	139.0
1.000	1.000	209.0	0.000	0.000	Ug6_741_743_L_0					
80 D	42.41	7.5507E-05	111.0	70.81	154.2	77.40	UL-RL	3.0743E+04	-15.80	141.2
1.000	1.000	212.1	0.000	0.000	Ug6_741_743_L_0					
81 D	21.51	7.4942E-05	112.6	71.69	156.0	78.29	UL-RL	3.0743E+04	-16.00	143.4
1.000	1.000	215.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|               PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                           |
|                                                                           |
|               NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|               Exe Time :24 May 2018   18:25:50                       |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.62731E-09	-1.62731E-09	1.62138E-10	-4.21281E-10
2	0.49994	-0.49994	6.56542E-10	9.99874E-02
3	1.5024	-1.5024	-9.99874E-02	0.40047
4	3.0107	-3.0107	-0.40047	1.0026
5	5.0274	-5.0274	-1.0026	2.0081
6	7.5534	-7.5534	-2.0081	3.5188
7	10.589	-10.589	-3.5188	5.6366
8	14.141	-14.141	-5.6366	8.4647
9	18.211	-18.211	-8.4647	12.107
10	22.786	-22.786	-12.107	16.664
11	27.875	-27.875	-16.664	22.239
12	33.476	-33.476	-22.239	28.934
13	39.578	-39.578	-28.934	36.850
14	46.189	-46.189	-36.850	46.088
15	53.307	-53.307	-46.088	56.749
16	60.932	-60.932	-56.749	68.936
17	66.974	-66.974	-68.936	82.330
18	71.439	-71.439	-82.330	96.618
19	74.325	-74.325	-96.618	111.48
20	75.627	-75.627	-111.48	126.61
21	75.350	-75.350	-126.61	141.68
22	73.494	-73.494	-141.68	156.38
23	70.054	-70.054	-156.38	170.39
24	65.034	-65.034	-170.39	183.40
25	58.434	-58.434	-183.40	195.08
26	50.311	-50.311	-195.08	205.14
27	42.718	-42.718	-205.14	213.69
28	35.638	-35.638	-213.69	220.82
29	29.052	-29.052	-220.82	226.63
30	22.933	-22.933	-226.63	231.21
31	17.264	-17.264	-231.21	234.66
32	12.021	-12.021	-234.66	237.07
33	7.1798	-7.1798	-237.07	238.51
34	2.7196	-2.7196	-238.51	239.05
35	-1.3824	1.3824	-239.05	238.77
36	-5.1492	5.1492	-238.77	237.74
37	-8.6063	8.6063	-237.74	236.02
38	-11.774	11.774	-236.02	233.67
39	-14.674	14.674	-233.67	230.73
40	-17.331	17.331	-230.73	227.27
41	-19.766	19.766	-227.27	223.31
42	-21.999	21.999	-223.31	218.91
43	-24.053	24.053	-218.91	214.10
44	-25.947	25.947	-214.10	208.91
45	-27.701	27.701	-208.91	203.37
46	-29.335	29.335	-203.37	197.51
47	-30.869	30.869	-197.51	191.33
48	-32.319	32.319	-191.33	184.87
49	-33.704	33.704	-184.87	178.13
50	-35.041	35.041	-178.13	171.12
51	-36.346	36.346	-171.12	163.85
52	-37.634	37.634	-163.85	156.32
53	-38.921	38.921	-156.32	148.54
54	-40.220	40.220	-148.54	140.50
55	-41.543	41.543	-140.50	132.19
56	-42.905	42.905	-132.19	123.61
57	-44.029	44.029	-123.61	114.80
58	-44.785	44.785	-114.80	105.84
59	-45.190	45.190	-105.84	96.805

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-45.209	45.209	-96.805	87.763
61	-44.905	44.905	-87.763	78.782
62	-42.566	42.566	-78.782	70.269
63	-40.130	40.130	-70.269	62.243
64	-37.625	37.625	-62.243	54.718
65	-35.075	35.075	-54.718	47.703
66	-32.504	32.504	-47.703	41.202
67	-29.949	29.949	-41.202	35.212
68	-27.419	27.419	-35.212	29.728
69	-24.925	24.925	-29.728	24.743
70	-22.473	22.473	-24.743	20.249
71	-20.064	20.064	-20.249	16.236
72	-17.703	17.703	-16.236	12.695
73	-15.394	15.394	-12.695	9.6165
74	-13.142	13.142	-9.6165	6.9882
75	-10.948	10.948	-6.9882	4.7986
76	-8.8147	8.8147	-4.7986	3.0357
77	-6.7436	6.7436	-3.0357	1.6869
78	-4.7353	4.7353	-1.6869	0.73987
79	-2.7904	2.7904	-0.73987	0.18180
80	-0.90894	0.90894	-0.18180	1.66134E-12

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2984E+06 RIMNOR=0.3182E+07
RENORM= 1113. REMNOR=0.2914E-18 RATIO =0.6108E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 75.63 RMMAX = 239.0
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2984E+06 RDR =0.3182E+07
RATIOT=0.6108E-01 RATIO= 0.000
MAX UN= 10.45 IEQ= 49 NODE 25 DOF 1 Y-DISPL.F
MIN UN=-.1182 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2984E+06 RIMNOR=0.3182E+07
RENORM= 383.5 REMNOR=0.3997E-18 RATIO =0.3585E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 75.63 RMMAX = 239.0
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2984E+06 RDR =0.3182E+07
RATIOT=0.3585E-01 RATIO= 0.000
MAX UN= 4.811 IEQ= 59 NODE 30 DOF 1 Y-DISPL.F
MIN UN=-.2853E-02 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2984E+06 RIMNOR=0.3182E+07
RENORM= 347.0 REMNOR=0.4908E-17 RATIO =0.3410E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 75.63 RMMAX = 239.0
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2984E+06 RDR =0.3182E+07
RATIOT=0.3410E-01 RATIO= 0.000
MAX UN= 11.02 IEQ= 61 NODE 31 DOF 1 Y-DISPL.F
MIN UN=-1.849 IEQ= 159 NODE 80 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2984E+06 RIMNOR=0.3182E+07
RENORM= 5.136 REMNOR=0.4095E-17 RATIO =0.4149E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 75.63 RMMAX = 239.0
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2984E+06 RDR =0.3182E+07
RATIOT=0.4149E-02 RATIO= 0.000
MAX UN= 2.236 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
MIN UN=-.6865E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.2984E+06 RIMNOR=0.3182E+07
RENORM=0.1262E-03 REMNOR=0.1640E-17 RATIO =0.2056E-04 TOLER =0.1000E-03 CONVERGED !
RFMAX = 75.63 RMMAX = 239.0
RTSMAL=0.1000E-03 RMSMAL=0.1000E-02
RDT =0.2984E+06 RDR =0.3182E+07
RATIOT=0.2056E-04 RATIO= 0.000
MAX UN=0.8207E-08 IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
MIN UN=-.1053E-01 IEQ= 137 NODE 69 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|                      NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|                      Exe Time :24 May 2018      18:25:50           |
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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.8957013E-02	-3.1028633E-03	
2	2.8336441E-02	-3.1028633E-03	
3	2.7715869E-02	-3.1028564E-03	
4	2.7095300E-02	-3.1028215E-03	
5	2.6474744E-02	-3.1027238E-03	
6	2.5854218E-02	-3.1025141E-03	
7	2.5233750E-02	-3.1021291E-03	
8	2.4613383E-02	-3.1014914E-03	
9	2.3993177E-02	-3.1005092E-03	
10	2.3373210E-02	-3.0990762E-03	
11	2.2753584E-02	-3.0970720E-03	
12	2.2134428E-02	-3.0943619E-03	
13	2.1515896E-02	-3.0907971E-03	
14	2.0898177E-02	-3.0862143E-03	
15	2.0281490E-02	-3.0804365E-03	
16	1.9666095E-02	-3.0732723E-03	
17	1.9052284E-02	-3.0645164E-03	
18	1.8440406E-02	-3.0539492E-03	
19	1.7830841E-02	-3.0413373E-03	
20	1.7224024E-02	-3.0264332E-03	
21	1.6620441E-02	-3.0089753E-03	
22	1.6020625E-02	-2.9886881E-03	
23	1.5425172E-02	-2.9653108E-03	
24	1.4834721E-02	-2.9386265E-03	
25	1.4249953E-02	-2.9084620E-03	
26	1.3671577E-02	-2.8746876E-03	
27	1.3100327E-02	-2.8372178E-03	
28	1.2536942E-02	-2.7960100E-03	
29	1.1982173E-02	-2.7510661E-03	
30	1.1436762E-02	-2.7024314E-03	
31	1.0901440E-02	-2.6501949E-03	
32	1.0376918E-02	-2.5944899E-03	
33	9.8638662E-03	-2.5354924E-03	
34	9.3629255E-03	-2.4734229E-03	
35	8.8746843E-03	-2.4085456E-03	
36	8.3996740E-03	-2.3411684E-03	
37	7.9383624E-03	-2.2716431E-03	
38	7.4911360E-03	-2.2003638E-03	
39	7.0583070E-03	-2.1277338E-03	
40	6.6401074E-03	-2.0541302E-03	
41	6.2366963E-03	-1.9799055E-03	
42	5.8481646E-03	-1.9053888E-03	
43	5.4745398E-03	-1.8308867E-03	
44	5.1157900E-03	-1.7566845E-03	
45	4.7718300E-03	-1.6830476E-03	
46	4.4425186E-03	-1.6102214E-03	
47	4.1276722E-03	-1.5384342E-03	
48	3.8270616E-03	-1.4678971E-03	
49	3.5404170E-03	-1.3988051E-03	
50	3.2674325E-03	-1.3313390E-03	
51	3.0077633E-03	-1.2656645E-03	
52	2.7610310E-03	-1.2019337E-03	
53	2.5268558E-03	-1.1402945E-03	
54	2.3047774E-03	-1.0808697E-03	
55	2.0943521E-03	-1.0237825E-03	
56	1.8951011E-03	-9.6914418E-04	
57	1.7065243E-03	-9.1705701E-04	
58	1.5281019E-03	-8.6761574E-04	
59	1.3592958E-03	-8.2090809E-04	
60	1.1995510E-03	-7.7701538E-04	
61	1.0482969E-03	-7.3601329E-04	
62	9.0494827E-04	-6.9797242E-04	
63	7.6890966E-04	-6.6290579E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	6.3959059E-04	-6.3076949E-04
65	5.1640966E-04	-6.0151637E-04
66	3.9879519E-04	-5.7509617E-04
67	2.8618621E-04	-5.5145059E-04
68	1.7803470E-04	-5.3050869E-04
69	7.3808356E-05	-5.1218251E-04
70	-2.7005296E-05	-4.9636128E-04
71	-1.2489445E-04	-4.8291447E-04
72	-2.2031965E-04	-4.7169622E-04
73	-3.1371079E-04	-4.6254574E-04
74	-4.0546412E-04	-4.5528778E-04
75	-4.9593945E-04	-4.4973300E-04
76	-5.8545732E-04	-4.4567827E-04
77	-6.7429631E-04	-4.4290685E-04
78	-7.6269027E-04	-4.4118860E-04
79	-8.5082573E-04	-4.4028007E-04
80	-9.3883917E-04	-4.3992453E-04
81	-1.0268188E-03	-4.3985210E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|          Exe Time :24 May 2018   18:25:50   |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

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0_L          :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

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HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.8957E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4892	-2.8336E-02	2.294	0.7317	2.294	1.603	ACTIVE	0.000	-0.2000	1.714	
1.000	1.000	2.446	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9810	-2.7716E-02	4.628	1.476	4.628	3.119	ACTIVE	0.000	-0.4000	3.429	
1.000	1.000	4.905	0.000	0.000	Ug5_2_8_L_0						
4 D	1.476	-2.7095E-02	7.015	2.238	7.015	4.509	ACTIVE	0.000	-0.6000	5.143	
1.000	1.000	7.381	0.000	0.000	Ug5_2_8_L_0						
5 D	1.974	-2.6475E-02	9.440	3.011	9.440	5.780	ACTIVE	0.000	-0.8000	6.857	
1.000	1.000	9.869	0.000	0.000	Ug5_2_8_L_0						
6 D	2.472	-2.5854E-02	11.88	3.790	11.88	6.958	ACTIVE	0.000	-1.000	8.571	
1.000	1.000	12.36	0.000	0.000	Ug5_2_8_L_0						
7 D	2.971	-2.5234E-02	14.32	4.570	14.32	8.073	ACTIVE	0.000	-1.200	10.29	
1.000	1.000	14.86	0.000	0.000	Ug5_2_8_L_0						
8 D	3.477	-2.4613E-02	16.87	5.383	16.87	9.145	ACTIVE	0.000	-1.400	12.00	
1.000	1.000	17.38	0.000	0.000	Ug5_2_8_L_0						
9 D	3.985	-2.3993E-02	19.46	6.208	19.46	10.19	ACTIVE	0.000	-1.600	13.71	
1.000	1.000	19.92	0.000	0.000	Ug5_2_8_L_0						
10 D	4.479	-2.3373E-02	21.84	6.966	21.84	11.22	ACTIVE	0.000	-1.800	15.43	
1.000	1.000	22.39	0.000	0.000	Ug5_2_8_L_0						
11 D	4.982	-2.2754E-02	24.34	7.765	24.34	12.23	ACTIVE	0.000	-2.000	17.14	
1.000	1.000	24.91	0.000	0.000	Ug5_2_8_L_0						
12 D	5.482	-2.2134E-02	26.81	8.553	26.81	13.24	ACTIVE	0.000	-2.200	18.86	
1.000	1.000	27.41	0.000	0.000	Ug5_2_8_L_0						
13 D	5.973	-2.1516E-02	29.14	9.295	29.14	14.24	ACTIVE	0.000	-2.400	20.57	
1.000	1.000	29.87	0.000	0.000	Ug5_2_8_L_0						
14 D	6.471	-2.0898E-02	31.57	10.07	31.57	15.24	ACTIVE	0.000	-2.600	22.29	
1.000	1.000	32.36	0.000	0.000	Ug5_2_8_L_0						
15 D	6.968	-2.0281E-02	33.98	10.84	33.98	16.23	ACTIVE	0.000	-2.800	24.00	
1.000	1.000	34.84	0.000	0.000	Ug5_2_8_L_0						
16 D	7.464	-1.9666E-02	36.38	11.61	36.38	17.23	ACTIVE	0.000	-3.000	25.71	
1.000	1.000	37.32	0.000	0.000	Ug5_2_8_L_0						
17 D	7.953	-1.9052E-02	38.68	12.34	38.68	18.22	ACTIVE	0.000	-3.200	27.43	
1.000	1.000	39.77	0.000	0.000	Ug5_2_8_L_0						
18 D	8.448	-1.8440E-02	41.06	13.10	41.06	19.21	ACTIVE	0.000	-3.400	29.14	
1.000	1.000	42.24	0.000	0.000	Ug5_2_8_L_0						
19 D	8.942	-1.7831E-02	43.43	13.85	43.43	20.21	ACTIVE	0.000	-3.600	30.86	
1.000	1.000	44.71	0.000	0.000	Ug5_2_8_L_0						
20 D	9.431	-1.7224E-02	45.72	14.58	45.72	21.20	ACTIVE	0.000	-3.800	32.57	
1.000	1.000	47.16	0.000	0.000	Ug5_2_8_L_0						
21 D	9.924	-1.6620E-02	48.08	15.34	48.08	22.19	ACTIVE	0.000	-4.000	34.29	
1.000	1.000	49.62	0.000	0.000	Ug5_2_8_L_0						
22 D	10.42	-1.6021E-02	50.43	16.09	50.43	23.18	ACTIVE	0.000	-4.200	36.00	
1.000	1.000	52.09	0.000	0.000	Ug5_2_8_L_0						
23 D	10.91	-1.5425E-02	52.71	16.81	52.71	24.18	ACTIVE	0.000	-4.400	37.71	
1.000	1.000	54.53	0.000	0.000	Ug5_2_8_L_0						
24 D	11.40	-1.4835E-02	55.06	17.56	55.06	25.17	ACTIVE	0.000	-4.600	39.43	
1.000	1.000	56.99	0.000	0.000	Ug5_2_8_L_0						
25 D	11.89	-1.4250E-02	57.40	18.31	57.40	26.17	ACTIVE	0.000	-4.800	41.14	
1.000	1.000	59.45	0.000	0.000	Ug5_2_8_L_0						
26 D	12.38	-1.3672E-02	59.73	19.05	59.73	27.16	ACTIVE	0.000	-5.000	42.86	
1.000	1.000	61.91	0.000	0.000	Ug5_2_8_L_0						
27 D	12.87	-1.3100E-02	62.01	19.78	62.01	28.16	ACTIVE	0.000	-5.200	44.57	
1.000	1.000	64.35	0.000	0.000	Ug5_2_8_L_0						
28 D	13.36	-1.2537E-02	64.34	20.53	64.34	29.16	ACTIVE	0.000	-5.400	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	66.81	0.000	0.000	Ug5_2_8_L_0					
29 D	13.85	-1.1982E-02	66.67	21.27	66.67	30.15	ACTIVE	0.000	-5.600	48.00
1.000	1.000	69.27	0.000	0.000	Ug5_2_8_L_0					
30 D	14.34	-1.1437E-02	68.95	21.99	68.95	31.15	ACTIVE	0.000	-5.800	49.71
1.000	1.000	71.71	0.000	0.000	Ug5_2_8_L_0					
31 D	14.83	-1.0901E-02	71.27	22.74	71.27	32.15	ACTIVE	0.000	-6.000	51.43
1.000	1.000	74.16	0.000	0.000	Ug5_2_8_L_0					
32 D	15.32	-1.0377E-02	73.59	23.48	73.59	33.15	ACTIVE	0.000	-6.200	53.14
1.000	1.000	76.62	0.000	0.000	Ug5_2_8_L_0					
33 D	15.81	-9.8639E-03	75.87	24.20	75.87	34.15	ACTIVE	0.000	-6.400	54.86
1.000	1.000	79.06	0.000	0.000	Ug5_2_8_L_0					
34 D	16.30	-9.3629E-03	78.19	24.94	78.19	35.15	ACTIVE	0.000	-6.600	56.57
1.000	1.000	81.51	0.000	0.000	Ug5_2_8_L_0					
35 D	16.79	-8.8747E-03	80.51	25.68	80.51	36.15	ACTIVE	0.000	-6.800	58.29
1.000	1.000	83.97	0.000	0.000	Ug5_2_8_L_0					
36 D	17.28	-8.3997E-03	82.82	26.42	82.82	37.16	ACTIVE	0.000	-7.000	60.00
1.000	1.000	86.42	0.000	0.000	Ug5_2_8_L_0					
37 D	17.77	-7.9384E-03	85.10	27.15	85.10	38.16	ACTIVE	0.000	-7.200	61.71
1.000	1.000	88.86	0.000	0.000	Ug5_2_8_L_0					
38 D	18.26	-7.4911E-03	87.41	27.88	87.41	39.16	ACTIVE	0.000	-7.400	63.43
1.000	1.000	91.31	0.000	0.000	Ug5_2_8_L_0					
39 D	18.75	-7.0583E-03	89.72	28.62	89.72	40.17	ACTIVE	0.000	-7.600	65.14
1.000	1.000	93.76	0.000	0.000	Ug5_2_8_L_0					
40 D	19.24	-6.6401E-03	92.00	29.35	92.00	41.17	ACTIVE	0.000	-7.800	66.86
1.000	1.000	96.20	0.000	0.000	Ug5_2_8_L_0					
41 D	19.73	-6.2367E-03	94.31	30.08	94.31	42.18	ACTIVE	0.000	-8.000	68.57
1.000	1.000	98.66	0.000	0.000	Ug5_2_8_L_0					
42 D	20.22	-5.8482E-03	96.62	30.82	96.62	43.19	ACTIVE	0.000	-8.200	70.29
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
43 D	20.71	-5.4745E-03	98.89	31.55	98.89	44.19	ACTIVE	0.000	-8.400	72.00
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
44 D	21.20	-5.1158E-03	101.2	32.28	101.2	45.20	ACTIVE	0.000	-8.600	73.71
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
45 D	21.69	-4.7718E-03	103.5	33.02	103.5	46.21	ACTIVE	0.000	-8.800	75.43
1.000	1.000	108.4	0.000	0.000	Ug5_2_8_L_0					
46 D	22.18	-4.4425E-03	105.8	33.75	105.8	47.22	ACTIVE	0.000	-9.000	77.14
1.000	1.000	110.9	0.000	0.000	Ug5_2_8_L_0					
47 D	22.67	-4.1277E-03	108.1	34.48	108.1	48.23	ACTIVE	0.000	-9.200	78.86
1.000	1.000	113.3	0.000	0.000	Ug5_2_8_L_0					
48 D	23.16	-3.8271E-03	110.4	35.22	110.4	49.24	ACTIVE	0.000	-9.400	80.57
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
49 D	23.65	-3.5404E-03	112.7	35.95	112.7	50.26	ACTIVE	0.000	-9.600	82.29
1.000	1.000	118.2	0.000	0.000	Ug5_2_8_L_0					
50 D	24.14	-3.2674E-03	115.0	36.68	115.0	51.27	ACTIVE	0.000	-9.800	84.00
1.000	1.000	120.7	0.000	0.000	Ug5_2_8_L_0					
51 D	24.62	-3.0078E-03	117.3	37.41	117.3	52.28	ACTIVE	0.000	-10.000	85.71
1.000	1.000	123.1	0.000	0.000	Ug5_2_8_L_0					
52 D	25.11	-2.7610E-03	119.6	38.15	119.6	53.29	ACTIVE	0.000	-10.200	87.43
1.000	1.000	125.6	0.000	0.000	Ug5_2_8_L_0					
53 D	25.60	-2.5269E-03	121.9	38.87	121.9	54.31	ACTIVE	0.000	-10.400	89.14
1.000	1.000	128.0	0.000	0.000	Ug5_2_8_L_0					
54 D	26.09	-2.3048E-03	124.2	39.61	124.2	55.32	ACTIVE	0.000	-10.600	90.86
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
55 D	26.58	-2.0944E-03	126.5	40.34	126.5	56.34	ACTIVE	0.000	-10.800	92.57
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
56 D	27.07	-1.8951E-03	128.8	41.07	128.8	57.35	ACTIVE	0.000	-11.000	94.29
1.000	1.000	135.4	0.000	0.000	Ug5_2_8_L_0					
57 D	27.56	-1.7065E-03	131.0	41.80	131.0	58.37	ACTIVE	0.000	-11.200	96.00
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
58 D	28.05	-1.5281E-03	133.3	42.53	133.3	59.39	ACTIVE	0.000	-11.400	97.71
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
59 D	28.54	-1.3593E-03	135.6	43.27	135.6	60.40	ACTIVE	0.000	-11.600	99.43
1.000	1.000	142.7	0.000	0.000	Ug5_2_8_L_0					
60 D	29.03	-1.1996E-03	137.9	43.99	137.9	61.42	ACTIVE	0.000	-11.800	101.1
1.000	1.000	145.1	0.000	0.000	Ug5_2_8_L_0					
61 D	29.52	-1.0483E-03	140.2	44.73	140.2	62.44	ACTIVE	0.000	-12.000	102.9
1.000	1.000	147.6	0.000	0.000	Ug5_2_8_L_0					
62 D	33.11	-9.0495E-04	142.3	60.99	142.3	63.36	ACTIVE	0.000	-12.200	104.6
1.000	1.000	165.6	0.000	0.000	Ug6_741_743_L_0					
63 D	33.65	-7.6891E-04	144.4	61.97	144.4	64.63	ACTIVE	0.000	-12.400	106.3
1.000	1.000	168.3	0.000	0.000	Ug6_741_743_L_0					
64 D	34.19	-6.3959E-04	146.5	62.94	146.5	65.98	ACTIVE	0.000	-12.600	108.0
1.000	1.000	170.9	0.000	0.000	Ug6_741_743_L_0					
65 D	34.72	-5.1641E-04	148.6	63.91	148.6	67.26	ACTIVE	0.000	-12.800	109.7
1.000	1.000	173.6	0.000	0.000	Ug6_741_743_L_0					
66 D	35.26	-3.9880E-04	150.6	64.87	150.6	68.46	ACTIVE	0.000	-13.000	111.4
1.000	1.000	176.3	0.000	0.000	Ug6_741_743_L_0					
67 D	35.79	-2.8619E-04	152.7	65.83	152.7	69.54	ACTIVE	0.000	-13.200	113.1
1.000	1.000	179.0	0.000	0.000	Ug6_741_743_L_0					
68 D	36.68	-1.7803E-04	154.7	68.57	154.7	70.60	UL-RL	2.4701E+04	-13.400	114.9
1.000	1.000	183.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.66	-7.3808E-05	156.8	71.73	156.8	71.81	UL-RL	2.4701E+04	-13.60	116.6
1.000	1.000	188.3	0.000	0.000	Ug6_741_743_L_0					
70 D	38.38	2.7005E-05	158.8	73.60	158.8	73.62	UL-RL	2.4701E+04	-13.80	118.3
1.000	1.000	191.9	0.000	0.000	Ug6_741_743_L_0					
71 D	39.09	1.2489E-04	160.9	75.45	160.9	75.45	V-C	8234.	-14.00	120.0
1.000	1.000	195.5	0.000	0.000	Ug6_741_743_L_0					
72 D	39.80	2.2032E-04	162.9	77.26	162.9	77.26	V-C	8234.	-14.20	121.7
1.000	1.000	199.0	0.000	0.000	Ug6_741_743_L_0					
73 D	40.50	3.1371E-04	165.0	79.05	165.0	79.05	V-C	8234.	-14.40	123.4
1.000	1.000	202.5	0.000	0.000	Ug6_741_743_L_0					
74 D	41.19	4.0546E-04	167.1	80.82	167.1	80.82	V-C	8234.	-14.60	125.1
1.000	1.000	206.0	0.000	0.000	Ug6_741_743_L_0					
75 D	41.89	4.9594E-04	169.1	82.58	169.1	82.58	V-C	8234.	-14.80	126.9
1.000	1.000	209.4	0.000	0.000	Ug6_741_743_L_0					
76 D	42.58	5.8546E-04	171.2	84.33	171.2	84.33	V-C	8234.	-15.00	128.6
1.000	1.000	212.9	0.000	0.000	Ug6_741_743_L_0					
77 D	43.27	6.7430E-04	173.2	86.07	173.2	86.07	V-C	8234.	-15.20	130.3
1.000	1.000	216.4	0.000	0.000	Ug6_741_743_L_0					
78 D	43.96	7.6269E-04	175.3	87.80	175.3	87.80	V-C	8234.	-15.40	132.0
1.000	1.000	219.8	0.000	0.000	Ug6_741_743_L_0					
79 D	44.65	8.5083E-04	177.4	89.54	177.4	89.54	V-C	8234.	-15.60	133.7
1.000	1.000	223.3	0.000	0.000	Ug6_741_743_L_0					
80 D	45.34	9.3884E-04	179.4	91.27	179.4	91.27	V-C	8234.	-15.80	135.4
1.000	1.000	226.7	0.000	0.000	Ug6_741_743_L_0					
81 D	23.01	1.0268E-03	181.5	93.00	181.5	93.00	V-C	8234.	-16.00	137.1
1.000	1.000	230.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018          18:25:50 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	1.6620E-02	0.000	0.000	40.00	43.37	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.027	1.6021E-02	1.714	7.848	42.00	49.25	PASSIVE	0.000	-4.200	2.286	
1.000	1.000	10.13	0.000	0.000	Ug5_2_8_L_0						
23 D	4.053	1.5425E-02	3.429	15.70	44.00	57.46	PASSIVE	0.000	-4.400	4.571	
1.000	1.000	20.27	0.000	0.000	Ug5_2_8_L_0						
24 D	6.080	1.4835E-02	5.143	23.54	46.00	65.67	PASSIVE	0.000	-4.600	6.857	
1.000	1.000	30.40	0.000	0.000	Ug5_2_8_L_0						
25 D	8.107	1.4250E-02	6.857	31.39	48.00	73.88	PASSIVE	0.000	-4.800	9.143	
1.000	1.000	40.53	0.000	0.000	Ug5_2_8_L_0						
26 D	10.13	1.3672E-02	8.571	39.24	50.00	81.80	PASSIVE	0.000	-5.000	11.43	
1.000	1.000	50.67	0.000	0.000	Ug5_2_8_L_0						
27 D	12.16	1.3100E-02	10.29	47.09	52.00	79.44	PASSIVE	0.000	-5.200	13.71	
1.000	1.000	60.80	0.000	0.000	Ug5_2_8_L_0						
28 D	14.19	1.2537E-02	12.00	54.94	54.00	77.17	PASSIVE	0.000	-5.400	16.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	70.94	0.000	0.000	Ug5_2_8_L_0					
29 D	16.21	1.1982E-02	13.71	62.78	56.00	75.01	PASSIVE	0.000	-5.600	18.29
1.000	1.000	81.07	0.000	0.000	Ug5_2_8_L_0					
30 D	18.24	1.1437E-02	15.43	70.63	58.00	72.96	PASSIVE	0.000	-5.800	20.57
1.000	1.000	91.20	0.000	0.000	Ug5_2_8_L_0					
31 D	20.27	1.0901E-02	17.14	78.48	60.00	78.48	PASSIVE	0.000	-6.000	22.86
1.000	1.000	101.3	0.000	0.000	Ug5_2_8_L_0					
32 D	22.29	1.0377E-02	18.86	86.33	62.00	86.33	PASSIVE	0.000	-6.200	25.14
1.000	1.000	111.5	0.000	0.000	Ug5_2_8_L_0					
33 D	24.32	9.8639E-03	20.57	94.18	64.00	94.18	PASSIVE	0.000	-6.400	27.43
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
34 D	26.35	9.3629E-03	22.29	102.0	66.00	102.0	PASSIVE	0.000	-6.600	29.71
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
35 D	28.37	8.8747E-03	24.00	109.9	68.00	109.9	PASSIVE	0.000	-6.800	32.00
1.000	1.000	141.9	0.000	0.000	Ug5_2_8_L_0					
36 D	30.40	8.3997E-03	25.71	117.7	70.00	117.7	PASSIVE	0.000	-7.000	34.29
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
37 D	32.39	7.9384E-03	27.43	125.4	72.00	125.4	V-C	1.0591E+04	-7.200	36.57
1.000	1.000	161.9	0.000	0.000	Ug5_2_8_L_0					
38 D	31.95	7.4911E-03	29.14	120.9	74.00	120.9	V-C	1.0591E+04	-7.400	38.86
1.000	1.000	159.8	0.000	0.000	Ug5_2_8_L_0					
39 D	31.56	7.0583E-03	30.86	116.6	76.00	116.6	V-C	1.0591E+04	-7.600	41.14
1.000	1.000	157.8	0.000	0.000	Ug5_2_8_L_0					
40 D	31.20	6.6401E-03	32.57	112.6	78.00	112.6	V-C	1.0591E+04	-7.800	43.43
1.000	1.000	156.0	0.000	0.000	Ug5_2_8_L_0					
41 D	30.88	6.2367E-03	34.29	108.7	80.00	108.7	V-C	1.0591E+04	-8.000	45.71
1.000	1.000	154.4	0.000	0.000	Ug5_2_8_L_0					
42 D	30.61	5.8482E-03	36.00	105.0	82.00	105.0	V-C	1.0591E+04	-8.200	48.00
1.000	1.000	153.0	0.000	0.000	Ug5_2_8_L_0					
43 D	30.37	5.4745E-03	37.71	101.6	84.00	101.6	V-C	1.0591E+04	-8.400	50.29
1.000	1.000	151.8	0.000	0.000	Ug5_2_8_L_0					
44 D	30.17	5.1158E-03	39.43	98.26	86.00	98.26	V-C	1.0591E+04	-8.600	52.57
1.000	1.000	150.8	0.000	0.000	Ug5_2_8_L_0					
45 D	30.00	4.7718E-03	41.14	95.17	88.00	95.17	V-C	1.0591E+04	-8.800	54.86
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
46 D	29.88	4.4425E-03	42.86	92.26	90.00	92.26	V-C	1.0591E+04	-9.000	57.14
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
47 D	29.79	4.1277E-03	44.57	89.54	92.00	89.54	V-C	1.0591E+04	-9.200	59.43
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
48 D	29.74	3.8271E-03	46.29	87.00	94.00	87.00	V-C	1.0591E+04	-9.400	61.71
1.000	1.000	148.7	0.000	0.000	Ug5_2_8_L_0					
49 D	29.73	3.5404E-03	48.00	84.63	96.00	84.63	V-C	1.0591E+04	-9.600	64.00
1.000	1.000	148.6	0.000	0.000	Ug5_2_8_L_0					
50 D	29.75	3.2674E-03	49.71	82.44	98.00	82.44	V-C	1.0591E+04	-9.800	66.29
1.000	1.000	148.7	0.000	0.000	Ug5_2_8_L_0					
51 D	29.80	3.0078E-03	51.43	80.42	100.00	80.42	V-C	1.0591E+04	-10.000	68.57
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
52 D	29.88	2.7610E-03	53.14	78.56	102.0	78.56	V-C	1.0591E+04	-10.200	70.86
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
53 D	30.00	2.5269E-03	54.86	76.86	104.0	76.86	V-C	1.0591E+04	-10.400	73.14
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
54 D	30.15	2.3048E-03	56.57	75.31	106.0	75.31	V-C	1.0591E+04	-10.600	75.43
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
55 D	30.32	2.0944E-03	58.29	73.91	108.0	73.91	V-C	1.0591E+04	-10.800	77.71
1.000	1.000	151.6	0.000	0.000	Ug5_2_8_L_0					
56 D	30.53	1.8951E-03	60.00	72.64	110.0	72.64	V-C	1.0591E+04	-11.000	80.00
1.000	1.000	152.6	0.000	0.000	Ug5_2_8_L_0					
57 D	30.76	1.7065E-03	61.71	71.50	112.0	71.50	V-C	1.0591E+04	-11.200	82.29
1.000	1.000	153.8	0.000	0.000	Ug5_2_8_L_0					
58 D	31.01	1.5281E-03	63.43	70.49	114.0	70.49	V-C	1.0591E+04	-11.400	84.57
1.000	1.000	155.1	0.000	0.000	Ug5_2_8_L_0					
59 D	31.29	1.3593E-03	65.14	69.60	116.0	69.60	V-C	1.0591E+04	-11.600	86.86
1.000	1.000	156.5	0.000	0.000	Ug5_2_8_L_0					
60 D	31.59	1.1996E-03	66.86	68.81	118.0	68.81	V-C	1.0591E+04	-11.800	89.14
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
61 D	31.91	1.0483E-03	68.57	68.13	120.0	68.13	V-C	1.0591E+04	-12.000	91.43
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
62 D	31.63	9.0495E-04	70.09	64.44	121.8	64.44	V-C	7686.	-12.200	93.71
1.000	1.000	158.2	0.000	0.000	Ug6_741_743_L_0					
63 D	32.05	7.6891E-04	71.60	64.24	123.6	64.24	V-C	7686.	-12.400	96.00
1.000	1.000	160.2	0.000	0.000	Ug6_741_743_L_0					
64 D	32.48	6.3959E-04	73.11	64.10	125.4	64.10	V-C	7686.	-12.600	98.29
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					
65 D	32.90	5.1641E-04	74.63	63.95	127.2	64.05	UL-RL	2.3057E+04	-12.800	100.6
1.000	1.000	164.5	0.000	0.000	Ug6_741_743_L_0					
66 D	32.98	3.9880E-04	76.14	62.06	129.0	64.94	UL-RL	2.3057E+04	-13.000	102.9
1.000	1.000	164.9	0.000	0.000	Ug6_741_743_L_0					
67 D	33.09	2.8619E-04	77.66	60.29	130.8	65.83	UL-RL	2.3057E+04	-13.200	105.1
1.000	1.000	165.4	0.000	0.000	Ug6_741_743_L_0					
68 D	33.21	1.7803E-04	79.17	58.64	132.6	66.72	UL-RL	2.3057E+04	-13.400	107.4
1.000	1.000	166.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	33.36	7.3808E-05	80.69	57.08	134.4	67.60	UL-RL	2.3057E+04	-13.60	109.7
1.000	1.000	166.8	0.000	0.000	Ug6_741_743_L_0					
70 D	33.52	-2.7005E-05	82.20	55.61	136.2	68.49	UL-RL	2.3057E+04	-13.80	112.0
1.000	1.000	167.6	0.000	0.000	Ug6_741_743_L_0					
71 D	33.70	-1.2489E-04	83.71	54.21	138.0	69.38	UL-RL	2.3057E+04	-14.00	114.3
1.000	1.000	168.5	0.000	0.000	Ug6_741_743_L_0					
72 D	33.89	-2.2032E-04	85.23	52.88	139.8	70.27	UL-RL	2.3057E+04	-14.20	116.6
1.000	1.000	169.4	0.000	0.000	Ug6_741_743_L_0					
73 D	34.09	-3.1371E-04	86.74	51.59	141.6	71.16	UL-RL	2.3057E+04	-14.40	118.9
1.000	1.000	170.4	0.000	0.000	Ug6_741_743_L_0					
74 D	34.30	-4.0546E-04	88.26	50.34	143.4	72.05	UL-RL	2.3057E+04	-14.60	121.1
1.000	1.000	171.5	0.000	0.000	Ug6_741_743_L_0					
75 D	34.51	-4.9594E-04	89.77	49.13	145.2	72.94	UL-RL	2.3057E+04	-14.80	123.4
1.000	1.000	172.6	0.000	0.000	Ug6_741_743_L_0					
76 D	34.73	-5.8546E-04	91.29	47.94	147.0	73.84	UL-RL	2.3057E+04	-15.00	125.7
1.000	1.000	173.7	0.000	0.000	Ug6_741_743_L_0					
77 D	34.95	-6.7430E-04	92.80	46.76	148.8	74.73	UL-RL	2.3057E+04	-15.20	128.0
1.000	1.000	174.8	0.000	0.000	Ug6_741_743_L_0					
78 D	35.18	-7.6269E-04	94.31	45.60	150.6	75.62	UL-RL	2.3057E+04	-15.40	130.3
1.000	1.000	175.9	0.000	0.000	Ug6_741_743_L_0					
79 D	35.40	-8.5083E-04	95.83	44.44	152.4	76.51	UL-RL	2.3057E+04	-15.60	132.6
1.000	1.000	177.0	0.000	0.000	Ug6_741_743_L_0					
80 D	35.63	-9.3884E-04	97.34	43.28	154.2	77.40	UL-RL	2.3057E+04	-15.80	134.9
1.000	1.000	178.1	0.000	0.000	Ug6_741_743_L_0					
81 D	17.93	-1.0268E-03	98.86	42.12	156.0	78.29	UL-RL	2.3057E+04	-16.00	137.1
1.000	1.000	179.3	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018      18:25:50 |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.75090E-11	-2.75090E-11	4.05685E-12	-1.44454E-10
2	0.48920	-0.48920	3.99383E-10	9.78404E-02
3	1.4702	-1.4702	-9.78404E-02	0.39188
4	2.9463	-2.9463	-0.39188	0.98114
5	4.9200	-4.9200	-0.98114	1.9651
6	7.3924	-7.3924	-1.9651	3.4436
7	10.363	-10.363	-3.4436	5.5163
8	13.840	-13.840	-5.5163	8.2843
9	17.825	-17.825	-8.2843	11.849
10	22.303	-22.303	-11.849	16.310
11	27.285	-27.285	-16.310	21.767
12	32.767	-32.767	-21.767	28.320
13	38.740	-38.740	-28.320	36.068
14	45.212	-45.212	-36.068	45.111
15	52.180	-52.180	-45.111	55.547
16	59.644	-59.644	-55.547	67.476
17	67.597	-67.597	-67.476	80.995
18	76.046	-76.046	-80.995	96.204
19	84.988	-84.988	-96.204	113.20
20	94.419	-94.419	-113.20	132.09
21	104.34	-104.34	-132.09	152.95
22	112.73	-112.73	-152.95	175.50
23	119.59	-119.59	-175.50	199.42
24	124.90	-124.90	-199.42	224.40
25	128.69	-128.69	-224.40	250.14
26	130.94	-130.94	-250.14	276.32
27	131.65	-131.65	-276.32	302.65
28	130.82	-130.82	-302.65	328.82
29	128.46	-128.46	-328.82	354.51
30	124.56	-124.56	-354.51	379.42
31	119.13	-119.13	-379.42	403.25
32	112.16	-112.16	-403.25	425.68
33	103.65	-103.65	-425.68	446.41
34	93.603	-93.603	-446.41	465.13
35	82.022	-82.022	-465.13	481.53
36	68.905	-68.905	-481.53	495.31
37	54.291	-54.291	-495.31	506.17
38	40.600	-40.600	-506.17	514.29
39	27.795	-27.795	-514.29	519.85
40	15.834	-15.834	-519.85	523.02
41	4.6808	-4.6808	-523.02	523.95
42	-5.7044	5.7044	-523.95	522.81
43	-15.362	15.362	-522.81	519.74
44	-24.330	24.330	-519.74	514.88
45	-32.645	32.645	-514.88	508.35
46	-40.346	40.346	-508.35	500.28
47	-47.471	47.471	-500.28	490.78
48	-54.056	54.056	-490.78	479.97
49	-60.135	60.135	-479.97	467.94
50	-65.746	65.746	-467.94	454.80
51	-70.920	70.920	-454.80	440.61
52	-75.689	75.689	-440.61	425.47
53	-80.087	80.087	-425.47	409.46
54	-84.143	84.143	-409.46	392.63
55	-87.884	87.884	-392.63	375.05
56	-91.340	91.340	-375.05	356.78
57	-94.538	94.538	-356.78	337.88
58	-97.501	97.501	-337.88	318.38
59	-100.25	100.25	-318.38	298.33

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-102.82	102.82	-298.33	277.76
61	-105.21	105.21	-277.76	256.72
62	-103.73	103.73	-256.72	235.97
63	-102.13	102.13	-235.97	215.55
64	-100.42	100.42	-215.55	195.46
65	-98.598	98.598	-195.46	175.74
66	-96.321	96.321	-175.74	156.48
67	-93.614	93.614	-156.48	137.76
68	-90.143	90.143	-137.76	119.73
69	-85.832	85.832	-119.73	102.56
70	-80.974	80.974	-102.56	86.368
71	-75.584	75.584	-86.368	71.251
72	-69.679	69.679	-71.251	57.315
73	-63.273	63.273	-57.315	44.661
74	-56.377	56.377	-44.661	33.385
75	-49.002	49.002	-33.385	23.585
76	-41.152	41.152	-23.585	15.354
77	-32.834	32.834	-15.354	8.7875
78	-24.049	24.049	-8.7875	3.9777
79	-14.800	14.800	-3.9777	1.0176
80	-5.0878	5.0878	-1.0176	1.37121E-11

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1028E+07 RIMNOR=0.1455E+08
RENORM= 442.0 REMNOR=0.1640E-17 RATIO =0.2073E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.6 RMMAX = 524.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1028E+07 RDR =0.1455E+08
RATIOT=0.2073E-01 RATIO= 0.000
MAX UN= 5.293 IEQ= 71 NODE 36 DOF 1 Y-DISPL.F
MIN UN=-.8312E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1028E+07 RIMNOR=0.1455E+08
RENORM= 180.0 REMNOR=0.2726E-17 RATIO =0.1323E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.6 RMMAX = 524.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1028E+07 RDR =0.1455E+08
RATIOT=0.1323E-01 RATIO= 0.000
MAX UN= 2.678 IEQ= 77 NODE 39 DOF 1 Y-DISPL.F
MIN UN=-.6013E-09 IEQ= 38 NODE 19 DOF 2 X-ROT. F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1028E+07 RIMNOR=0.1455E+08
RENORM= 463.7 REMNOR=0.2502E-17 RATIO =0.2124E-01 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.6 RMMAX = 524.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1028E+07 RDR =0.1455E+08
RATIOT=0.2124E-01 RATIO= 0.000
MAX UN= 15.02 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
MIN UN=-.6849 IEQ= 161 NODE 81 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1028E+07 RIMNOR=0.1455E+08
RENORM= 93.10 REMNOR=0.2038E-16 RATIO =0.9516E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.6 RMMAX = 524.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1028E+07 RDR =0.1455E+08
RATIOT=0.9516E-02 RATIO= 0.000
MAX UN= 6.262 IEQ= 81 NODE 41 DOF 1 Y-DISPL.F
MIN UN=-3.933 IEQ= 157 NODE 79 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM = 0.000 RMNORM= 0.000
RINORM=0.1028E+07 RIMNOR=0.1455E+08
RENORM= 3.639 REMNOR=0.1266E-16 RATIO =0.1881E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 131.6 RMMAX = 524.0
RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
RDT =0.1028E+07 RDR =0.1455E+08
RATIOT=0.1881E-02 RATIO= 0.000
MAX UN=0.9650 IEQ= 133 NODE 67 DOF 1 Y-DISPL.F
MIN UN=-1.096 IEQ= 147 NODE 74 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      6  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1028E+07  RIMNOR=0.1455E+08
           RENORM=0.3190E-14  REMNOR=0.6420E-17  RATIO =0.5570E-10  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 131.6      RMMAX = 524.0
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT   =0.1028E+07  RDR   =0.1455E+08
           RATIOT=0.5570E-10  RATIOR= 0.000
           MAX UN=0.1666E-07  IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
           MIN UN=-.2173E-07  IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|          Exe Time :24 May 2018           18:25:50 |
+-----+

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.0722476E-02	-4.9450064E-03	
2	4.9733475E-02	-4.9450064E-03	
3	4.8744474E-02	-4.9449995E-03	
4	4.7755477E-02	-4.9449651E-03	
5	4.6766492E-02	-4.9448685E-03	
6	4.5777537E-02	-4.9446612E-03	
7	4.4788639E-02	-4.9442807E-03	
8	4.3799841E-02	-4.9436503E-03	
9	4.2811202E-02	-4.9426793E-03	
10	4.1822799E-02	-4.9412628E-03	
11	4.0834734E-02	-4.9392816E-03	
12	3.9847133E-02	-4.9366025E-03	
13	3.8860150E-02	-4.9330784E-03	
14	3.7873969E-02	-4.9285480E-03	
15	3.6888809E-02	-4.9228362E-03	
16	3.5904926E-02	-4.9157538E-03	
17	3.4922608E-02	-4.9070978E-03	
18	3.3942201E-02	-4.8966511E-03	
19	3.2964082E-02	-4.8841831E-03	
20	3.1988679E-02	-4.8694489E-03	
21	3.1016475E-02	-4.8521900E-03	
22	3.0047994E-02	-4.8321340E-03	
23	2.9083827E-02	-4.8089947E-03	
24	2.8124622E-02	-4.7824719E-03	
25	2.7171084E-02	-4.7522661E-03	
26	2.6223979E-02	-4.7181063E-03	
27	2.5284125E-02	-4.6797650E-03	
28	2.4352369E-02	-4.6370569E-03	
29	2.3429603E-02	-4.5898404E-03	
30	2.2516740E-02	-4.5380169E-03	
31	2.1614707E-02	-4.4815308E-03	
32	2.0724444E-02	-4.4203698E-03	
33	1.9846873E-02	-4.3545637E-03	
34	1.8982923E-02	-4.2841864E-03	
35	1.8133496E-02	-4.2093545E-03	
36	1.7299467E-02	-4.1302278E-03	
37	1.6481681E-02	-4.0470092E-03	
38	1.5680924E-02	-3.9599439E-03	
39	1.4897941E-02	-3.8693212E-03	
40	1.4133411E-02	-3.7754729E-03	
41	1.3387942E-02	-3.6787740E-03	
42	1.2662063E-02	-3.5796428E-03	
43	1.1956216E-02	-3.4785404E-03	
44	1.1270745E-02	-3.3759711E-03	
45	1.0605893E-02	-3.2724786E-03	
46	9.9617823E-03	-3.1686050E-03	
47	9.3384421E-03	-3.0648592E-03	
48	8.7357984E-03	-2.9617164E-03	
49	8.1536858E-03	-2.8596199E-03	
50	7.5918559E-03	-2.7589830E-03	
51	7.0499726E-03	-2.6601884E-03	
52	6.5276212E-03	-2.5635900E-03	
53	6.0243794E-03	-2.4695268E-03	
54	5.5396473E-03	-2.3782910E-03	
55	5.0728556E-03	-2.2901674E-03	
56	4.6233557E-03	-2.2054134E-03	
57	4.1904499E-03	-2.1242643E-03	
58	3.7733953E-03	-2.0469351E-03	
59	3.3714082E-03	-1.9736211E-03	
60	2.9836674E-03	-1.9044992E-03	
61	2.6093184E-03	-1.8397283E-03	
62	2.2474765E-03	-1.7794508E-03	
63	1.8972344E-03	-1.7237290E-03	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.5576822E-03	-1.6725477E-03
65	1.2279145E-03	-1.6258788E-03
66	9.0703290E-04	-1.5836769E-03
67	5.9415023E-04	-1.5458773E-03
68	2.8839395E-04	-1.5123981E-03
69	-1.1090002E-05	-1.4831337E-03
70	-3.0513083E-04	-1.4579390E-03
71	-5.9452436E-04	-1.4366257E-03
72	-8.8002444E-04	-1.4189625E-03
73	-1.1623344E-03	-1.4046748E-03
74	-1.4420981E-03	-1.3934436E-03
75	-1.7198925E-03	-1.3849228E-03
76	-1.9962242E-03	-1.3787558E-03
77	-2.2715273E-03	-1.3745755E-03
78	-2.5461617E-03	-1.3720048E-03
79	-2.8204107E-03	-1.3706566E-03
80	-3.0944793E-03	-1.3701333E-03
81	-3.3685056E-03	-1.3700277E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                 |
|                NewProject.BaseDesignSection_28.SISMICAGEO_1847 |
|                Exe Time :24 May 2018            18:25:50      |
|-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
 CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.0722E-02	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4835	-4.9733E-02	2.335	0.7450	2.335	1.603	ACTIVE	0.000	-0.2000	1.673	
1.000	1.000	2.418	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9697	-4.8744E-02	4.711	1.503	4.711	3.119	ACTIVE	0.000	-0.4000	3.345	
1.000	1.000	4.848	0.000	0.000	Ug5_2_8_L_0						
4 D	1.459	-4.7755E-02	7.140	2.278	7.140	4.509	ACTIVE	0.000	-0.6000	5.018	
1.000	1.000	7.296	0.000	0.000	Ug5_2_8_L_0						
5 D	1.951	-4.6766E-02	9.606	3.064	9.606	5.780	ACTIVE	0.000	-0.8000	6.691	
1.000	1.000	9.755	0.000	0.000	Ug5_2_8_L_0						
6 D	2.444	-4.5778E-02	12.09	3.857	12.09	6.958	ACTIVE	0.000	-1.000	8.364	
1.000	1.000	12.22	0.000	0.000	Ug5_2_8_L_0						
7 D	2.937	-4.4789E-02	14.57	4.649	14.57	8.073	ACTIVE	0.000	-1.200	10.04	
1.000	1.000	14.69	0.000	0.000	Ug5_2_8_L_0						
8 D	3.437	-4.3800E-02	17.17	5.476	17.17	9.145	ACTIVE	0.000	-1.400	11.71	
1.000	1.000	17.18	0.000	0.000	Ug5_2_8_L_0						
9 D	3.939	-4.2811E-02	19.79	6.314	19.79	10.19	ACTIVE	0.000	-1.600	13.38	
1.000	1.000	19.70	0.000	0.000	Ug5_2_8_L_0						
10 D	4.428	-4.1823E-02	22.21	7.085	22.21	11.22	ACTIVE	0.000	-1.800	15.05	
1.000	1.000	22.14	0.000	0.000	Ug5_2_8_L_0						
11 D	4.925	-4.0835E-02	24.76	7.898	24.76	12.23	ACTIVE	0.000	-2.000	16.73	
1.000	1.000	24.62	0.000	0.000	Ug5_2_8_L_0						
12 D	5.420	-3.9847E-02	27.27	8.699	27.27	13.24	ACTIVE	0.000	-2.200	18.40	
1.000	1.000	27.10	0.000	0.000	Ug5_2_8_L_0						
13 D	5.905	-3.8860E-02	29.64	9.454	29.64	14.24	ACTIVE	0.000	-2.400	20.07	
1.000	1.000	29.53	0.000	0.000	Ug5_2_8_L_0						
14 D	6.398	-3.7874E-02	32.11	10.24	32.11	15.24	ACTIVE	0.000	-2.600	21.75	
1.000	1.000	31.99	0.000	0.000	Ug5_2_8_L_0						
15 D	6.889	-3.6889E-02	34.57	11.03	34.57	16.23	ACTIVE	0.000	-2.800	23.42	
1.000	1.000	34.44	0.000	0.000	Ug5_2_8_L_0						
16 D	7.379	-3.5905E-02	37.01	11.80	37.01	17.23	ACTIVE	0.000	-3.000	25.09	
1.000	1.000	36.90	0.000	0.000	Ug5_2_8_L_0						
17 D	7.863	-3.4923E-02	39.34	12.55	39.34	18.22	ACTIVE	0.000	-3.200	26.76	
1.000	1.000	39.31	0.000	0.000	Ug5_2_8_L_0						
18 D	8.352	-3.3942E-02	41.77	13.32	41.77	19.21	ACTIVE	0.000	-3.400	28.44	
1.000	1.000	41.76	0.000	0.000	Ug5_2_8_L_0						
19 D	8.840	-3.2964E-02	44.18	14.09	44.18	20.21	ACTIVE	0.000	-3.600	30.11	
1.000	1.000	44.20	0.000	0.000	Ug5_2_8_L_0						
20 D	9.323	-3.1989E-02	46.51	14.84	46.51	21.20	ACTIVE	0.000	-3.800	31.78	
1.000	1.000	46.62	0.000	0.000	Ug5_2_8_L_0						
21 D	9.811	-3.1016E-02	48.91	15.60	48.91	22.19	ACTIVE	0.000	-4.000	33.45	
1.000	1.000	49.06	0.000	0.000	Ug5_2_8_L_0						
22 D	10.30	-3.0048E-02	51.30	16.37	51.30	23.18	ACTIVE	0.000	-4.200	35.13	
1.000	1.000	51.49	0.000	0.000	Ug5_2_8_L_0						
23 D	10.78	-2.9084E-02	53.63	17.11	53.63	24.18	ACTIVE	0.000	-4.400	36.80	
1.000	1.000	53.91	0.000	0.000	Ug5_2_8_L_0						
24 D	11.27	-2.8125E-02	56.01	17.87	56.01	25.17	ACTIVE	0.000	-4.600	38.47	
1.000	1.000	56.34	0.000	0.000	Ug5_2_8_L_0						
25 D	11.75	-2.7171E-02	58.39	18.63	58.39	26.17	ACTIVE	0.000	-4.800	40.15	
1.000	1.000	58.77	0.000	0.000	Ug5_2_8_L_0						
26 D	12.24	-2.6224E-02	60.77	19.39	60.77	27.16	ACTIVE	0.000	-5.000	41.82	
1.000	1.000	61.20	0.000	0.000	Ug5_2_8_L_0						
27 D	12.72	-2.5284E-02	63.09	20.13	63.09	28.16	ACTIVE	0.000	-5.200	43.49	
1.000	1.000	63.62	0.000	0.000	Ug5_2_8_L_0						
28 D	13.21	-2.4352E-02	65.46	20.88	65.46	29.16	ACTIVE	0.000	-5.400	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	66.05	0.000	0.000	Ug5_2_8_L_0					
29 D	13.70	-2.3430E-02	67.83	21.64	67.83	30.15	ACTIVE	0.000	-5.600	46.84
1.000	1.000	68.48	0.000	0.000	Ug5_2_8_L_0					
30 D	14.18	-2.2517E-02	70.15	22.38	70.15	31.15	ACTIVE	0.000	-5.800	48.51
1.000	1.000	70.89	0.000	0.000	Ug5_2_8_L_0					
31 D	14.66	-2.1615E-02	72.52	23.13	72.52	32.15	ACTIVE	0.000	-6.000	50.18
1.000	1.000	73.31	0.000	0.000	Ug5_2_8_L_0					
32 D	15.15	-2.0724E-02	74.88	23.89	74.88	33.15	ACTIVE	0.000	-6.200	51.85
1.000	1.000	75.74	0.000	0.000	Ug5_2_8_L_0					
33 D	15.63	-1.9847E-02	77.20	24.63	77.20	34.15	ACTIVE	0.000	-6.400	53.53
1.000	1.000	78.15	0.000	0.000	Ug5_2_8_L_0					
34 D	16.12	-1.8983E-02	79.56	25.38	79.56	35.15	ACTIVE	0.000	-6.600	55.20
1.000	1.000	80.58	0.000	0.000	Ug5_2_8_L_0					
35 D	16.60	-1.8133E-02	81.92	26.13	81.92	36.15	ACTIVE	0.000	-6.800	56.87
1.000	1.000	83.00	0.000	0.000	Ug5_2_8_L_0					
36 D	17.09	-1.7299E-02	84.28	26.88	84.28	37.16	ACTIVE	0.000	-7.000	58.55
1.000	1.000	85.43	0.000	0.000	Ug5_2_8_L_0					
37 D	17.57	-1.6482E-02	86.59	27.62	86.59	38.16	ACTIVE	0.000	-7.200	60.22
1.000	1.000	87.84	0.000	0.000	Ug5_2_8_L_0					
38 D	18.05	-1.5681E-02	88.95	28.37	88.95	39.16	ACTIVE	0.000	-7.400	61.89
1.000	1.000	90.26	0.000	0.000	Ug5_2_8_L_0					
39 D	18.54	-1.4898E-02	91.30	29.13	91.30	40.17	ACTIVE	0.000	-7.600	63.56
1.000	1.000	92.69	0.000	0.000	Ug5_2_8_L_0					
40 D	19.02	-1.4133E-02	93.62	29.86	93.62	41.17	ACTIVE	0.000	-7.800	65.24
1.000	1.000	95.10	0.000	0.000	Ug5_2_8_L_0					
41 D	19.50	-1.3388E-02	95.97	30.61	95.97	42.18	ACTIVE	0.000	-8.000	66.91
1.000	1.000	97.52	0.000	0.000	Ug5_2_8_L_0					
42 D	19.99	-1.2662E-02	98.32	31.36	98.32	43.19	ACTIVE	0.000	-8.200	68.58
1.000	1.000	99.95	0.000	0.000	Ug5_2_8_L_0					
43 D	20.47	-1.1956E-02	100.6	32.10	100.6	44.19	ACTIVE	0.000	-8.400	70.25
1.000	1.000	102.4	0.000	0.000	Ug5_2_8_L_0					
44 D	20.96	-1.1271E-02	103.0	32.85	103.0	45.20	ACTIVE	0.000	-8.600	71.93
1.000	1.000	104.8	0.000	0.000	Ug5_2_8_L_0					
45 D	21.44	-1.0606E-02	105.3	33.60	105.3	46.21	ACTIVE	0.000	-8.800	73.60
1.000	1.000	107.2	0.000	0.000	Ug5_2_8_L_0					
46 D	21.92	-9.9618E-03	107.7	34.35	107.7	47.22	ACTIVE	0.000	-9.000	75.27
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
47 D	22.41	-9.3384E-03	110.0	35.09	110.0	48.23	ACTIVE	0.000	-9.200	76.95
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
48 D	22.89	-8.7358E-03	112.3	35.84	112.3	49.24	ACTIVE	0.000	-9.400	78.62
1.000	1.000	114.5	0.000	0.000	Ug5_2_8_L_0					
49 D	23.38	-8.1537E-03	114.7	36.59	114.7	50.26	ACTIVE	0.000	-9.600	80.29
1.000	1.000	116.9	0.000	0.000	Ug5_2_8_L_0					
50 D	23.86	-7.5919E-03	117.0	37.33	117.0	51.27	ACTIVE	0.000	-9.800	81.96
1.000	1.000	119.3	0.000	0.000	Ug5_2_8_L_0					
51 D	24.34	-7.0500E-03	119.4	38.07	119.4	52.28	ACTIVE	0.000	-10.000	83.64
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
52 D	24.83	-6.5276E-03	121.7	38.82	121.7	53.29	ACTIVE	0.000	-10.200	85.31
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
53 D	25.31	-6.0244E-03	124.0	39.56	124.0	54.31	ACTIVE	0.000	-10.400	86.98
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
54 D	25.79	-5.5396E-03	126.4	40.31	126.4	55.32	ACTIVE	0.000	-10.600	88.65
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
55 D	26.28	-5.0729E-03	128.7	41.06	128.7	56.34	ACTIVE	0.000	-10.800	90.33
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
56 D	26.76	-4.6234E-03	131.0	41.80	131.0	57.35	ACTIVE	0.000	-11.000	92.00
1.000	1.000	133.8	0.000	0.000	Ug5_2_8_L_0					
57 D	27.24	-4.1904E-03	133.4	42.54	133.4	58.37	ACTIVE	0.000	-11.200	93.67
1.000	1.000	136.2	0.000	0.000	Ug5_2_8_L_0					
58 D	27.73	-3.7734E-03	135.7	43.29	135.7	59.39	ACTIVE	0.000	-11.400	95.35
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
59 D	28.21	-3.3714E-03	138.0	44.04	138.0	60.40	ACTIVE	0.000	-11.600	97.02
1.000	1.000	141.1	0.000	0.000	Ug5_2_8_L_0					
60 D	28.69	-2.9837E-03	140.4	44.77	140.4	61.42	ACTIVE	0.000	-11.800	98.69
1.000	1.000	143.5	0.000	0.000	Ug5_2_8_L_0					
61 D	29.18	-2.6093E-03	142.7	45.52	142.7	62.44	ACTIVE	0.000	-12.000	100.4
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
62 D	32.84	-2.2475E-03	144.8	62.17	144.8	63.36	ACTIVE	0.000	-12.200	102.0
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					
63 D	33.38	-1.8972E-03	147.0	63.17	147.0	64.63	ACTIVE	0.000	-12.400	103.7
1.000	1.000	166.9	0.000	0.000	Ug6_741_743_L_0					
64 D	33.99	-1.5577E-03	149.1	64.57	149.1	65.98	UL-RL	2.1956E+04	-12.600	105.4
1.000	1.000	170.0	0.000	0.000	Ug6_741_743_L_0					
65 D	34.72	-1.2279E-03	151.2	66.56	151.2	67.26	UL-RL	2.1956E+04	-12.800	107.1
1.000	1.000	173.6	0.000	0.000	Ug6_741_743_L_0					
66 D	35.44	-9.0703E-04	153.3	68.49	153.3	68.49	V-C	7319.	-13.000	108.7
1.000	1.000	177.2	0.000	0.000	Ug6_741_743_L_0					
67 D	36.05	-5.9415E-04	155.4	69.86	155.4	69.86	V-C	7319.	-13.200	110.4
1.000	1.000	180.3	0.000	0.000	Ug6_741_743_L_0					
68 D	36.78	-2.8839E-04	157.5	71.81	157.5	71.81	V-C	7319.	-13.400	112.1
1.000	1.000	183.9	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.72	1.1090E-05	159.6	74.87	159.6	74.87	V-C	7319.	-13.60	113.7
1.000	1.000	188.6	0.000	0.000	Ug6_741_743_L_0					
70 D	38.58	3.0513E-04	161.7	77.49	161.7	77.49	V-C	7319.	-13.80	115.4
1.000	1.000	192.9	0.000	0.000	Ug6_741_743_L_0					
71 D	39.49	5.9452E-04	163.8	80.34	163.8	80.34	V-C	7319.	-14.00	117.1
1.000	1.000	197.4	0.000	0.000	Ug6_741_743_L_0					
72 D	40.47	8.8002E-04	165.9	83.56	165.9	83.56	V-C	7319.	-14.20	118.8
1.000	1.000	202.3	0.000	0.000	Ug6_741_743_L_0					
73 D	41.44	1.1623E-03	168.0	86.76	168.0	86.76	V-C	7319.	-14.40	120.4
1.000	1.000	207.2	0.000	0.000	Ug6_741_743_L_0					
74 D	42.41	1.4421E-03	170.1	89.92	170.1	89.92	V-C	7319.	-14.60	122.1
1.000	1.000	212.0	0.000	0.000	Ug6_741_743_L_0					
75 D	43.37	1.7199E-03	172.2	93.07	172.2	93.07	V-C	7319.	-14.80	123.8
1.000	1.000	216.9	0.000	0.000	Ug6_741_743_L_0					
76 D	44.33	1.9962E-03	174.3	96.21	174.3	96.21	V-C	7319.	-15.00	125.5
1.000	1.000	221.7	0.000	0.000	Ug6_741_743_L_0					
77 D	45.29	2.2715E-03	176.4	99.34	176.4	99.34	V-C	7319.	-15.20	127.1
1.000	1.000	226.5	0.000	0.000	Ug6_741_743_L_0					
78 D	46.25	2.5462E-03	178.5	102.5	178.5	102.5	V-C	7319.	-15.40	128.8
1.000	1.000	231.3	0.000	0.000	Ug6_741_743_L_0					
79 D	47.21	2.8204E-03	180.6	105.6	180.6	105.6	V-C	7319.	-15.60	130.5
1.000	1.000	236.0	0.000	0.000	Ug6_741_743_L_0					
80 D	48.17	3.0945E-03	182.7	108.7	182.7	108.7	V-C	7319.	-15.80	132.1
1.000	1.000	240.8	0.000	0.000	Ug6_741_743_L_0					
81 D	24.56	3.3685E-03	184.8	111.8	184.8	111.8	V-C	7319.	-16.00	133.8
1.000	1.000	245.6	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847                                          |
|          Exe Time :24 May 2018          18:25:50                                                |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	0.9985	2.8125E-02	0.8364	3.829	46.00	65.67	PASSIVE	0.000	-4.600	1.164	
1.000	1.000	4.993	0.000	0.000	Ug5_2_8_L_0						
25 D	2.996	2.7171E-02	2.509	11.49	48.00	73.88	PASSIVE	0.000	-4.800	3.491	
1.000	1.000	14.98	0.000	0.000	Ug5_2_8_L_0						
26 D	4.993	2.6224E-02	4.182	19.14	50.00	81.80	PASSIVE	0.000	-5.000	5.818	
1.000	1.000	24.96	0.000	0.000	Ug5_2_8_L_0						
27 D	6.990	2.5284E-02	5.855	26.80	52.00	79.44	PASSIVE	0.000	-5.200	8.145	
1.000	1.000	34.95	0.000	0.000	Ug5_2_8_L_0						
28 D	8.987	2.4352E-02	7.527	34.46	54.00	77.17	PASSIVE	0.000	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	44.93	0.000	0.000	Ug5_2_8_L_0					
29 D	10.98	2.3430E-02	9.200	42.12	56.00	75.01	PASSIVE	0.000	-5.600	12.80
1.000	1.000	54.92	0.000	0.000	Ug5_2_8_L_0					
30 D	12.98	2.2517E-02	10.87	49.78	58.00	72.96	PASSIVE	0.000	-5.800	15.13
1.000	1.000	64.90	0.000	0.000	Ug5_2_8_L_0					
31 D	14.98	2.1615E-02	12.55	57.43	60.00	78.48	PASSIVE	0.000	-6.000	17.45
1.000	1.000	74.89	0.000	0.000	Ug5_2_8_L_0					
32 D	16.97	2.0724E-02	14.22	65.09	62.00	86.33	PASSIVE	0.000	-6.200	19.78
1.000	1.000	84.87	0.000	0.000	Ug5_2_8_L_0					
33 D	18.97	1.9847E-02	15.89	72.75	64.00	94.18	PASSIVE	0.000	-6.400	22.11
1.000	1.000	94.86	0.000	0.000	Ug5_2_8_L_0					
34 D	20.97	1.8983E-02	17.56	80.41	66.00	102.0	PASSIVE	0.000	-6.600	24.44
1.000	1.000	104.8	0.000	0.000	Ug5_2_8_L_0					
35 D	22.97	1.8133E-02	19.24	88.06	68.00	109.9	PASSIVE	0.000	-6.800	26.76
1.000	1.000	114.8	0.000	0.000	Ug5_2_8_L_0					
36 D	24.96	1.7299E-02	20.91	95.72	70.00	117.7	PASSIVE	0.000	-7.000	29.09
1.000	1.000	124.8	0.000	0.000	Ug5_2_8_L_0					
37 D	26.96	1.6482E-02	22.58	103.4	72.00	125.4	PASSIVE	0.000	-7.200	31.42
1.000	1.000	134.8	0.000	0.000	Ug5_2_8_L_0					
38 D	28.96	1.5681E-02	24.25	111.0	74.00	120.9	PASSIVE	0.000	-7.400	33.75
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
39 D	30.95	1.4898E-02	25.93	118.7	76.00	118.7	PASSIVE	0.000	-7.600	36.07
1.000	1.000	154.8	0.000	0.000	Ug5_2_8_L_0					
40 D	32.95	1.4133E-02	27.60	126.4	78.00	126.4	PASSIVE	0.000	-7.800	38.40
1.000	1.000	164.8	0.000	0.000	Ug5_2_8_L_0					
41 D	34.95	1.3388E-02	29.27	134.0	80.00	134.0	PASSIVE	0.000	-8.000	40.73
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0					
42 D	36.94	1.2662E-02	30.95	141.7	82.00	141.7	PASSIVE	0.000	-8.200	43.05
1.000	1.000	184.7	0.000	0.000	Ug5_2_8_L_0					
43 D	38.94	1.1956E-02	32.62	149.3	84.00	149.3	PASSIVE	0.000	-8.400	45.38
1.000	1.000	194.7	0.000	0.000	Ug5_2_8_L_0					
44 D	40.65	1.1271E-02	34.29	155.6	86.00	155.6	V-C	9414.	-8.600	47.71
1.000	1.000	203.3	0.000	0.000	Ug5_2_8_L_0					
45 D	39.89	1.0606E-02	35.96	149.4	88.00	149.4	V-C	9414.	-8.800	50.04
1.000	1.000	199.5	0.000	0.000	Ug5_2_8_L_0					
46 D	39.19	9.9618E-03	37.64	143.6	90.00	143.6	V-C	9414.	-9.000	52.36
1.000	1.000	195.9	0.000	0.000	Ug5_2_8_L_0					
47 D	38.53	9.3384E-03	39.31	137.9	92.00	137.9	V-C	9414.	-9.200	54.69
1.000	1.000	192.6	0.000	0.000	Ug5_2_8_L_0					
48 D	37.92	8.7358E-03	40.98	132.6	94.00	132.6	V-C	9414.	-9.400	57.02
1.000	1.000	189.6	0.000	0.000	Ug5_2_8_L_0					
49 D	37.35	8.1537E-03	42.65	127.4	96.00	127.4	V-C	9414.	-9.600	59.35
1.000	1.000	186.8	0.000	0.000	Ug5_2_8_L_0					
50 D	36.84	7.5919E-03	44.33	122.5	98.00	122.5	V-C	9414.	-9.800	61.67
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
51 D	36.37	7.0500E-03	46.00	117.8	100.00	117.8	V-C	9414.	-10.000	64.00
1.000	1.000	181.8	0.000	0.000	Ug5_2_8_L_0					
52 D	35.94	6.5276E-03	47.67	113.4	102.0	113.4	V-C	9414.	-10.200	66.33
1.000	1.000	179.7	0.000	0.000	Ug5_2_8_L_0					
53 D	35.56	6.0244E-03	49.35	109.1	104.0	109.1	V-C	9414.	-10.400	68.65
1.000	1.000	177.8	0.000	0.000	Ug5_2_8_L_0					
54 D	35.22	5.5396E-03	51.02	105.1	106.0	105.1	V-C	9414.	-10.600	70.98
1.000	1.000	176.1	0.000	0.000	Ug5_2_8_L_0					
55 D	34.92	5.0729E-03	52.69	101.3	108.0	101.3	V-C	9414.	-10.800	73.31
1.000	1.000	174.6	0.000	0.000	Ug5_2_8_L_0					
56 D	34.66	4.6234E-03	54.36	97.67	110.0	97.67	V-C	9414.	-11.000	75.64
1.000	1.000	173.3	0.000	0.000	Ug5_2_8_L_0					
57 D	34.44	4.1904E-03	56.04	94.23	112.0	94.23	V-C	9414.	-11.200	77.96
1.000	1.000	172.2	0.000	0.000	Ug5_2_8_L_0					
58 D	34.25	3.7734E-03	57.71	90.97	114.0	90.97	V-C	9414.	-11.400	80.29
1.000	1.000	171.3	0.000	0.000	Ug5_2_8_L_0					
59 D	34.10	3.3714E-03	59.38	87.88	116.0	87.88	V-C	9414.	-11.600	82.62
1.000	1.000	170.5	0.000	0.000	Ug5_2_8_L_0					
60 D	33.98	2.9837E-03	61.05	84.95	118.0	84.95	V-C	9414.	-11.800	84.95
1.000	1.000	169.9	0.000	0.000	Ug5_2_8_L_0					
61 D	33.89	2.6093E-03	62.73	82.17	120.0	82.17	V-C	9414.	-12.000	87.27
1.000	1.000	169.4	0.000	0.000	Ug5_2_8_L_0					
62 D	32.51	2.2475E-03	64.20	72.95	121.8	72.95	V-C	6832.	-12.200	89.60
1.000	1.000	162.6	0.000	0.000	Ug6_741_743_L_0					
63 D	32.64	1.8972E-03	65.67	71.29	123.6	71.29	V-C	6832.	-12.400	91.93
1.000	1.000	163.2	0.000	0.000	Ug6_741_743_L_0					
64 D	32.74	1.5577E-03	67.15	69.45	125.4	69.84	UL-RL	2.0495E+04	-12.600	94.25
1.000	1.000	163.7	0.000	0.000	Ug6_741_743_L_0					
65 D	32.78	1.2279E-03	68.62	67.34	127.2	68.65	UL-RL	2.0495E+04	-12.800	96.58
1.000	1.000	163.9	0.000	0.000	Ug6_741_743_L_0					
66 D	32.84	9.0703E-04	70.09	65.29	129.0	67.53	UL-RL	2.0495E+04	-13.000	98.91
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					
67 D	32.91	5.9415E-04	71.56	63.30	130.8	66.47	UL-RL	2.0495E+04	-13.200	101.2
1.000	1.000	164.5	0.000	0.000	Ug6_741_743_L_0					
68 D	32.49	2.8839E-04	73.04	58.87	132.6	66.72	UL-RL	2.0495E+04	-13.400	103.6
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	31.84	-1.1090E-05	74.51	53.31	134.4	67.60	UL-RL	2.0495E+04	-13.60	105.9
1.000	1.000	159.2	0.000	0.000	Ug6_741_743_L_0					
70 D	31.22	-3.0513E-04	75.98	47.87	136.2	68.49	UL-RL	2.0495E+04	-13.80	108.2
1.000	1.000	156.1	0.000	0.000	Ug6_741_743_L_0					
71 D	30.62	-5.9452E-04	77.45	42.54	138.0	69.38	UL-RL	2.0495E+04	-14.00	110.5
1.000	1.000	153.1	0.000	0.000	Ug6_741_743_L_0					
72 D	30.03	-8.8002E-04	78.93	37.30	139.8	70.27	UL-RL	2.0495E+04	-14.20	112.9
1.000	1.000	150.2	0.000	0.000	Ug6_741_743_L_0					
73 D	29.47	-1.1623E-03	80.40	32.13	141.6	71.16	UL-RL	2.0495E+04	-14.40	115.2
1.000	1.000	147.3	0.000	0.000	Ug6_741_743_L_0					
74 D	30.06	-1.4421E-03	81.87	32.77	143.4	72.05	ACTIVE	0.000	-14.60	117.5
1.000	1.000	150.3	0.000	0.000	Ug6_741_743_L_0					
75 D	30.66	-1.7199E-03	83.35	33.46	145.2	72.94	ACTIVE	0.000	-14.80	119.9
1.000	1.000	153.3	0.000	0.000	Ug6_741_743_L_0					
76 D	31.26	-1.9962E-03	84.82	34.14	147.0	73.84	ACTIVE	0.000	-15.00	122.2
1.000	1.000	156.3	0.000	0.000	Ug6_741_743_L_0					
77 D	31.87	-2.2715E-03	86.29	34.83	148.8	74.73	ACTIVE	0.000	-15.20	124.5
1.000	1.000	159.3	0.000	0.000	Ug6_741_743_L_0					
78 D	32.47	-2.5462E-03	87.76	35.52	150.6	75.62	ACTIVE	0.000	-15.40	126.8
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					
79 D	33.07	-2.8204E-03	89.24	36.21	152.4	76.51	ACTIVE	0.000	-15.60	129.2
1.000	1.000	165.4	0.000	0.000	Ug6_741_743_L_0					
80 D	33.68	-3.0945E-03	90.71	36.89	154.2	77.40	ACTIVE	0.000	-15.80	131.5
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
81 D	17.14	-3.3685E-03	92.18	37.58	156.0	78.29	ACTIVE	0.000	-16.00	133.8
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	5.57474E-09	-5.57474E-09	5.56987E-10	2.93837E-10
2	0.48354	-0.48354	-2.95293E-11	9.67084E-02
3	1.4532	-1.4532	-9.67084E-02	0.38735
4	2.9124	-2.9124	-0.38735	0.96982
5	4.8634	-4.8634	-0.96982	1.9425
6	7.3075	-7.3075	-1.9425	3.4040
7	10.245	-10.245	-3.4040	5.4529
8	13.682	-13.682	-5.4529	8.1892
9	17.621	-17.621	-8.1892	11.713
10	22.049	-22.049	-11.713	16.123
11	26.974	-26.974	-16.123	21.518
12	32.393	-32.393	-21.518	27.997
13	38.299	-38.299	-27.997	35.656
14	44.697	-44.697	-35.656	44.596
15	51.586	-51.586	-44.596	54.913
16	58.965	-58.965	-54.913	66.706
17	66.828	-66.828	-66.706	80.071
18	75.180	-75.180	-80.071	95.107
19	84.020	-84.020	-95.107	111.91
20	93.343	-93.343	-111.91	130.58
21	103.15	-103.15	-130.58	151.21
22	113.45	-113.45	-151.21	173.90
23	124.23	-124.23	-173.90	198.75
24	134.50	-134.50	-198.75	225.65
25	143.26	-143.26	-225.65	254.30
26	150.51	-150.51	-254.30	284.40
27	156.25	-156.25	-284.40	315.65
28	160.47	-160.47	-315.65	347.75
29	163.18	-163.18	-347.75	380.38
30	164.38	-164.38	-380.38	413.26
31	164.06	-164.06	-413.26	446.07
32	162.24	-162.24	-446.07	478.52
33	158.90	-158.90	-478.52	510.30
34	154.04	-154.04	-510.30	541.10
35	147.68	-147.68	-541.10	570.64
36	139.80	-139.80	-570.64	598.60
37	130.41	-130.41	-598.60	624.68
38	119.51	-119.51	-624.68	648.58
39	107.09	-107.09	-648.58	670.00
40	93.160	-93.160	-670.00	688.63
41	77.717	-77.717	-688.63	704.18
42	60.762	-60.762	-704.18	716.33
43	42.292	-42.292	-716.33	724.79
44	22.595	-22.595	-724.79	729.31
45	4.1413	-4.1413	-729.31	730.14
46	-13.120	13.120	-730.14	727.51
47	-29.240	29.240	-727.51	721.66
48	-44.264	44.264	-721.66	712.81
49	-58.240	58.240	-712.81	701.16
50	-71.218	71.218	-701.16	686.92
51	-83.241	83.241	-686.92	670.27
52	-94.356	94.356	-670.27	651.40
53	-104.61	104.61	-651.40	630.48
54	-114.03	114.03	-630.48	607.67
55	-122.68	122.68	-607.67	583.14
56	-130.58	130.58	-583.14	557.02
57	-137.77	137.77	-557.02	529.47
58	-144.30	144.30	-529.47	500.61
59	-150.19	150.19	-500.61	470.57

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-155.48	155.48	-470.57	439.47
61	-160.19	160.19	-439.47	407.44
62	-159.86	159.86	-407.44	375.47
63	-159.12	159.12	-375.47	343.64
64	-157.87	157.87	-343.64	312.07
65	-155.93	155.93	-312.07	280.88
66	-153.33	153.33	-280.88	250.21
67	-150.19	150.19	-250.21	220.18
68	-145.90	145.90	-220.18	191.00
69	-140.01	140.01	-191.00	162.99
70	-132.65	132.65	-162.99	136.46
71	-123.78	123.78	-136.46	111.71
72	-113.35	113.35	-111.71	89.038
73	-101.38	101.38	-89.038	68.762
74	-89.029	89.029	-68.762	50.956
75	-76.320	76.320	-50.956	35.692
76	-63.252	63.252	-35.692	23.042
77	-49.827	49.827	-23.042	13.076
78	-36.047	36.047	-13.076	5.8669
79	-21.912	21.912	-5.8669	1.4845
80	-7.4222	7.4222	-1.4845	4.90687E-11

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1923E+07  RIMNOR=0.2693E+08
           RENORM= 1.353      REMNOR=0.6420E-17  RATIO =0.8389E-03  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 164.4      RMMAX = 730.1
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1923E+07    RDR =0.2693E+08
           RATIOI=0.8389E-03  RATIOR= 0.000
           MAX UN=0.9334E-09  IEQ= 24 NODE      12 DOF  2  X-ROT. F
           MIN UN=-.1554     IEQ= 125 NODE     63 DOF  1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```

```

ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.1923E+07  RIMNOR=0.2693E+08
           RENORM=0.5470E-02  REMNOR=0.9936E-17  RATIO =0.5334E-04  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 164.4      RMMAX = 730.1
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
           RDT =0.1923E+07    RDR =0.2693E+08
           RATIOI=0.5334E-04  RATIOR= 0.000
           MAX UN=0.1676E-07  IEQ= 21 NODE      11 DOF  1  Y-DISPL.F
           MIN UN=-.7396E-01  IEQ= 145 NODE     73 DOF  1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
+-----+
```

New Project

SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.0717994E-02	-4.9463157E-03	
2	4.9728731E-02	-4.9463157E-03	
3	4.8739468E-02	-4.9463082E-03	
4	4.7750210E-02	-4.9462714E-03	
5	4.6760964E-02	-4.9461695E-03	
6	4.5771750E-02	-4.9459530E-03	
7	4.4782595E-02	-4.9455584E-03	
8	4.3793543E-02	-4.9449084E-03	
9	4.2804655E-02	-4.9439118E-03	
10	4.1816009E-02	-4.9424634E-03	
11	4.0827707E-02	-4.9404442E-03	
12	3.9839878E-02	-4.9377214E-03	
13	3.8852675E-02	-4.9341480E-03	
14	3.7866286E-02	-4.9295637E-03	
15	3.6880929E-02	-4.9237937E-03	
16	3.5896860E-02	-4.9166500E-03	
17	3.4914369E-02	-4.9079301E-03	
18	3.3933803E-02	-4.8974183E-03	
19	3.2955537E-02	-4.8848847E-03	
20	3.1980000E-02	-4.8700856E-03	
21	3.1007676E-02	-4.8527638E-03	
22	3.0039085E-02	-4.8326478E-03	
23	2.9074822E-02	-4.8094526E-03	
24	2.8115530E-02	-4.7828796E-03	
25	2.7161915E-02	-4.7526294E-03	
26	2.6214741E-02	-4.7184312E-03	
27	2.5274826E-02	-4.6800571E-03	
28	2.4343014E-02	-4.6373218E-03	
29	2.3420197E-02	-4.5900837E-03	
30	2.2507287E-02	-4.5382440E-03	
31	2.1605210E-02	-4.4817471E-03	
32	2.0714904E-02	-4.4205806E-03	
33	1.9837291E-02	-4.3547743E-03	
34	1.8973299E-02	-4.2844021E-03	
35	1.8123827E-02	-4.2095806E-03	
36	1.7289752E-02	-4.1304694E-03	
37	1.6471916E-02	-4.0472718E-03	
38	1.5671104E-02	-3.9602327E-03	
39	1.4888060E-02	-3.8696414E-03	
40	1.4123462E-02	-3.7758299E-03	
41	1.3377917E-02	-3.6791732E-03	
42	1.2651954E-02	-3.5800895E-03	
43	1.1946013E-02	-3.4790399E-03	
44	1.1260436E-02	-3.3765287E-03	
45	1.0595466E-02	-3.2730995E-03	
46	9.9512245E-03	-3.1692944E-03	
47	9.3277392E-03	-3.0656220E-03	
48	8.7249352E-03	-2.9625575E-03	
49	8.1426461E-03	-2.8605439E-03	
50	7.5806228E-03	-2.7599943E-03	
51	7.0385281E-03	-2.6612910E-03	
52	6.5159468E-03	-2.5647877E-03	
53	6.0124557E-03	-2.4708226E-03	
54	5.5274544E-03	-2.3796874E-03	
55	5.0603731E-03	-2.2916664E-03	
56	4.6105631E-03	-2.2070160E-03	
57	4.1773264E-03	-2.1259709E-03	
58	3.7599201E-03	-2.0487450E-03	
59	3.3575608E-03	-1.9755324E-03	
60	2.9694279E-03	-1.9065086E-03	
61	2.5946676E-03	-1.8418313E-03	
62	2.2323963E-03	-1.7816413E-03	
63	1.8817078E-03	-1.7260003E-03	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

64	1.5416938E-03	-1.6748941E-03
65	1.2114497E-03	-1.6282949E-03
66	8.9007838E-04	-1.5861578E-03
67	5.7669342E-04	-1.5484186E-03
68	2.7042320E-04	-1.5149955E-03
69	-2.9585480E-05	-1.4857828E-03
70	-3.2416095E-04	-1.4606354E-03
71	-6.1409808E-04	-1.4393645E-03
72	-9.0014973E-04	-1.4217384E-03
73	-1.1830181E-03	-1.4074817E-03
74	-1.4633457E-03	-1.3962746E-03
75	-1.7417081E-03	-1.3877711E-03
76	-2.0186107E-03	-1.3816159E-03
77	-2.2944867E-03	-1.3774432E-03
78	-2.5696951E-03	-1.3748770E-03
79	-2.8445188E-03	-1.3735309E-03
80	-3.1191623E-03	-1.3730084E-03
81	-3.3937637E-03	-1.3729029E-03

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-5.0718E-02	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5251	-4.9729E-02	2.327	0.9529	2.335	1.603	UL-RL	4.4259E+04	-0.2000	1.673	
1.000	1.000	2.626	0.000	0.000	Ug5_2_8_L_0						
3 D	1.011	-4.8739E-02	4.655	1.710	4.711	3.119	UL-RL	4.4259E+04	-0.4000	3.345	
1.000	1.000	5.056	0.000	0.000	Ug5_2_8_L_0						
4 D	1.498	-4.7750E-02	6.982	2.471	7.140	4.509	UL-RL	4.4259E+04	-0.6000	5.018	
1.000	1.000	7.489	0.000	0.000	Ug5_2_8_L_0						
5 D	1.985	-4.6761E-02	9.309	3.234	9.606	5.780	UL-RL	4.4259E+04	-0.8000	6.691	
1.000	1.000	9.925	0.000	0.000	Ug5_2_8_L_0						
6 D	2.472	-4.5772E-02	11.64	3.998	12.09	6.958	UL-RL	4.4259E+04	-1.0000	8.364	
1.000	1.000	12.36	0.000	0.000	Ug5_2_8_L_0						
7 D	2.960	-4.4783E-02	13.96	4.762	14.57	8.073	UL-RL	4.4259E+04	-1.2000	10.04	
1.000	1.000	14.80	0.000	0.000	Ug5_2_8_L_0						
8 D	3.448	-4.3794E-02	16.29	5.533	17.17	9.145	UL-RL	4.4259E+04	-1.4000	11.71	
1.000	1.000	17.24	0.000	0.000	Ug5_2_8_L_0						
9 D	3.937	-4.2805E-02	18.62	6.306	19.79	10.19	UL-RL	4.4259E+04	-1.6000	13.38	
1.000	1.000	19.69	0.000	0.000	Ug5_2_8_L_0						
10 D	4.424	-4.1816E-02	20.95	7.065	22.21	11.22	UL-RL	4.4259E+04	-1.8000	15.05	
1.000	1.000	22.12	0.000	0.000	Ug5_2_8_L_0						
11 D	4.912	-4.0828E-02	23.27	7.832	24.76	12.23	UL-RL	4.4259E+04	-2.0000	16.73	
1.000	1.000	24.56	0.000	0.000	Ug5_2_8_L_0						
12 D	5.399	-3.9840E-02	25.60	8.596	27.27	13.24	UL-RL	4.4259E+04	-2.2000	18.40	
1.000	1.000	27.00	0.000	0.000	Ug5_2_8_L_0						
13 D	5.885	-3.8853E-02	27.93	9.351	29.64	14.24	UL-RL	4.4259E+04	-2.4000	20.07	
1.000	1.000	29.42	0.000	0.000	Ug5_2_8_L_0						
14 D	6.372	-3.7866E-02	30.25	10.11	32.11	15.24	UL-RL	4.4259E+04	-2.6000	21.75	
1.000	1.000	31.86	0.000	0.000	Ug5_2_8_L_0						
15 D	6.858	-3.6881E-02	32.58	10.87	34.57	16.23	UL-RL	4.4259E+04	-2.8000	23.42	
1.000	1.000	34.29	0.000	0.000	Ug5_2_8_L_0						
16 D	7.344	-3.5897E-02	34.91	11.63	37.01	17.23	UL-RL	4.4259E+04	-3.0000	25.09	
1.000	1.000	36.72	0.000	0.000	Ug5_2_8_L_0						
17 D	7.829	-3.4914E-02	37.24	12.38	39.34	18.22	UL-RL	4.4259E+04	-3.2000	26.76	
1.000	1.000	39.14	0.000	0.000	Ug5_2_8_L_0						
18 D	8.315	-3.3934E-02	39.56	13.14	41.77	19.21	UL-RL	4.4259E+04	-3.4000	28.44	
1.000	1.000	41.57	0.000	0.000	Ug5_2_8_L_0						
19 D	8.800	-3.2956E-02	41.89	13.89	44.18	20.21	UL-RL	4.4259E+04	-3.6000	30.11	
1.000	1.000	44.00	0.000	0.000	Ug5_2_8_L_0						
20 D	9.284	-3.1980E-02	44.22	14.64	46.51	21.20	UL-RL	4.4259E+04	-3.8000	31.78	
1.000	1.000	46.42	0.000	0.000	Ug5_2_8_L_0						
21 D	9.770	-3.1008E-02	46.55	15.39	48.91	22.19	UL-RL	4.4259E+04	-4.0000	33.45	
1.000	1.000	48.85	0.000	0.000	Ug5_2_8_L_0						
22 D	10.25	-3.0039E-02	48.87	16.14	51.30	23.18	UL-RL	4.4259E+04	-4.2000	35.13	
1.000	1.000	51.27	0.000	0.000	Ug5_2_8_L_0						
23 D	10.74	-2.9075E-02	51.20	16.89	53.63	24.18	UL-RL	4.4259E+04	-4.4000	36.80	
1.000	1.000	53.69	0.000	0.000	Ug5_2_8_L_0						
24 D	11.22	-2.8116E-02	53.53	17.64	56.01	25.17	UL-RL	4.4259E+04	-4.6000	38.47	
1.000	1.000	56.11	0.000	0.000	Ug5_2_8_L_0						
25 D	11.71	-2.7162E-02	55.85	18.39	58.39	26.17	UL-RL	4.4259E+04	-4.8000	40.15	
1.000	1.000	58.54	0.000	0.000	Ug5_2_8_L_0						
26 D	12.19	-2.6215E-02	58.18	19.14	60.77	27.16	UL-RL	4.4259E+04	-5.0000	41.82	
1.000	1.000	60.96	0.000	0.000	Ug5_2_8_L_0						
27 D	12.68	-2.5275E-02	60.51	19.89	63.09	28.16	UL-RL	4.4259E+04	-5.2000	43.49	
1.000	1.000	63.38	0.000	0.000	Ug5_2_8_L_0						
28 D	13.16	-2.4343E-02	62.84	20.63	65.46	29.16	UL-RL	4.4259E+04	-5.4000	45.16	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.80	0.000	0.000	Ug5_2_8_L_0					
29 D	13.64	-2.3420E-02	65.16	21.38	67.83	30.15	UL-RL	4.4259E+04	-5.600	46.84
1.000	1.000	68.22	0.000	0.000	Ug5_2_8_L_0					
30 D	14.13	-2.2507E-02	67.49	22.13	70.15	31.15	UL-RL	4.4259E+04	-5.800	48.51
1.000	1.000	70.63	0.000	0.000	Ug5_2_8_L_0					
31 D	14.61	-2.1605E-02	69.82	22.87	72.52	32.15	UL-RL	4.4259E+04	-6.000	50.18
1.000	1.000	73.05	0.000	0.000	Ug5_2_8_L_0					
32 D	15.09	-2.0715E-02	72.15	23.62	74.88	33.15	UL-RL	4.4259E+04	-6.200	51.85
1.000	1.000	75.47	0.000	0.000	Ug5_2_8_L_0					
33 D	15.58	-1.9837E-02	74.47	24.36	77.20	34.15	UL-RL	4.4259E+04	-6.400	53.53
1.000	1.000	77.89	0.000	0.000	Ug5_2_8_L_0					
34 D	16.06	-1.8973E-02	76.80	25.11	79.56	35.15	UL-RL	4.4259E+04	-6.600	55.20
1.000	1.000	80.31	0.000	0.000	Ug5_2_8_L_0					
35 D	16.55	-1.8124E-02	79.13	25.86	81.92	36.15	UL-RL	4.4259E+04	-6.800	56.87
1.000	1.000	82.73	0.000	0.000	Ug5_2_8_L_0					
36 D	17.03	-1.7290E-02	81.45	26.60	84.28	37.16	UL-RL	4.4259E+04	-7.000	58.55
1.000	1.000	85.15	0.000	0.000	Ug5_2_8_L_0					
37 D	17.51	-1.6472E-02	83.78	27.35	86.59	38.16	UL-RL	4.4259E+04	-7.200	60.22
1.000	1.000	87.56	0.000	0.000	Ug5_2_8_L_0					
38 D	18.00	-1.5671E-02	86.11	28.09	88.95	39.16	UL-RL	4.4259E+04	-7.400	61.89
1.000	1.000	89.98	0.000	0.000	Ug5_2_8_L_0					
39 D	18.48	-1.4888E-02	88.44	28.84	91.30	40.17	UL-RL	4.4259E+04	-7.600	63.56
1.000	1.000	92.40	0.000	0.000	Ug5_2_8_L_0					
40 D	18.96	-1.4123E-02	90.76	29.59	93.62	41.17	UL-RL	4.4259E+04	-7.800	65.24
1.000	1.000	94.82	0.000	0.000	Ug5_2_8_L_0					
41 D	19.45	-1.3378E-02	93.09	30.33	95.97	42.18	UL-RL	4.4259E+04	-8.000	66.91
1.000	1.000	97.24	0.000	0.000	Ug5_2_8_L_0					
42 D	19.93	-1.2652E-02	95.42	31.08	98.32	43.19	UL-RL	4.4259E+04	-8.200	68.58
1.000	1.000	99.66	0.000	0.000	Ug5_2_8_L_0					
43 D	20.42	-1.1946E-02	97.75	31.83	100.6	44.19	UL-RL	4.4259E+04	-8.400	70.25
1.000	1.000	102.1	0.000	0.000	Ug5_2_8_L_0					
44 D	20.90	-1.1260E-02	100.1	32.58	103.0	45.20	UL-RL	4.4259E+04	-8.600	71.93
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0					
45 D	21.38	-1.0595E-02	102.4	33.32	105.3	46.21	UL-RL	4.4259E+04	-8.800	73.60
1.000	1.000	106.9	0.000	0.000	Ug5_2_8_L_0					
46 D	21.87	-9.9512E-03	104.7	34.07	107.7	47.22	UL-RL	4.4259E+04	-9.000	75.27
1.000	1.000	109.3	0.000	0.000	Ug5_2_8_L_0					
47 D	22.35	-9.3277E-03	107.1	34.82	110.0	48.23	UL-RL	4.4259E+04	-9.200	76.95
1.000	1.000	111.8	0.000	0.000	Ug5_2_8_L_0					
48 D	22.84	-8.7249E-03	109.4	35.57	112.3	49.24	UL-RL	4.4259E+04	-9.400	78.62
1.000	1.000	114.2	0.000	0.000	Ug5_2_8_L_0					
49 D	23.32	-8.1426E-03	111.7	36.32	114.7	50.26	UL-RL	4.4259E+04	-9.600	80.29
1.000	1.000	116.6	0.000	0.000	Ug5_2_8_L_0					
50 D	23.81	-7.5806E-03	114.0	37.07	117.0	51.27	UL-RL	4.4259E+04	-9.800	81.96
1.000	1.000	119.0	0.000	0.000	Ug5_2_8_L_0					
51 D	24.29	-7.0385E-03	116.4	37.83	119.4	52.28	UL-RL	4.4259E+04	-10.000	83.64
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
52 D	24.78	-6.5159E-03	118.7	38.58	121.7	53.29	UL-RL	4.4259E+04	-10.200	85.31
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
53 D	25.26	-6.0125E-03	121.0	39.33	124.0	54.31	UL-RL	4.4259E+04	-10.400	86.98
1.000	1.000	126.3	0.000	0.000	Ug5_2_8_L_0					
54 D	25.75	-5.5275E-03	123.3	40.09	126.4	55.32	UL-RL	4.4259E+04	-10.600	88.65
1.000	1.000	128.7	0.000	0.000	Ug5_2_8_L_0					
55 D	26.23	-5.0604E-03	125.7	40.85	128.7	56.34	UL-RL	4.4259E+04	-10.800	90.33
1.000	1.000	131.2	0.000	0.000	Ug5_2_8_L_0					
56 D	26.72	-4.6106E-03	128.0	41.60	131.0	57.35	UL-RL	4.4259E+04	-11.000	92.00
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
57 D	27.21	-4.1773E-03	130.3	42.36	133.4	58.37	UL-RL	4.4259E+04	-11.200	93.67
1.000	1.000	136.0	0.000	0.000	Ug5_2_8_L_0					
58 D	27.69	-3.7599E-03	132.7	43.12	135.7	59.39	UL-RL	4.4259E+04	-11.400	95.35
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
59 D	28.18	-3.3576E-03	135.0	43.88	138.0	60.40	UL-RL	4.4259E+04	-11.600	97.02
1.000	1.000	140.9	0.000	0.000	Ug5_2_8_L_0					
60 D	28.67	-2.9694E-03	137.3	44.64	140.4	61.42	UL-RL	4.4259E+04	-11.800	98.69
1.000	1.000	143.3	0.000	0.000	Ug5_2_8_L_0					
61 D	29.15	-2.5947E-03	139.6	45.40	142.7	62.44	UL-RL	4.4259E+04	-12.000	100.4
1.000	1.000	145.8	0.000	0.000	Ug5_2_8_L_0					
62 D	32.75	-2.2324E-03	141.8	61.73	144.8	63.36	UL-RL	2.1956E+04	-12.200	102.0
1.000	1.000	163.8	0.000	0.000	Ug6_741_743_L_0					
63 D	33.29	-1.8817E-03	143.9	62.74	147.0	64.63	UL-RL	2.1956E+04	-12.400	103.7
1.000	1.000	166.4	0.000	0.000	Ug6_741_743_L_0					
64 D	33.91	-1.5417E-03	146.0	64.15	149.1	65.98	UL-RL	2.1956E+04	-12.600	105.4
1.000	1.000	169.5	0.000	0.000	Ug6_741_743_L_0					
65 D	34.64	-1.2114E-03	148.1	66.15	151.2	67.26	UL-RL	2.1956E+04	-12.800	107.1
1.000	1.000	173.2	0.000	0.000	Ug6_741_743_L_0					
66 D	35.36	-8.9008E-04	150.3	68.10	153.3	68.49	UL-RL	2.1956E+04	-13.000	108.7
1.000	1.000	176.8	0.000	0.000	Ug6_741_743_L_0					
67 D	35.98	-5.7669E-04	152.4	69.49	155.4	69.86	UL-RL	2.1956E+04	-13.200	110.4
1.000	1.000	179.9	0.000	0.000	Ug6_741_743_L_0					
68 D	36.71	-2.7042E-04	154.5	71.45	157.5	71.81	UL-RL	2.1956E+04	-13.400	112.1
1.000	1.000	183.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	37.66	2.9585E-05	156.7	74.54	159.6	74.87	UL-RL	2.1956E+04	-13.60	113.7
1.000	1.000	188.3	0.000	0.000	Ug6_741_743_L_0					
70 D	38.52	3.2416E-04	158.8	77.18	161.7	77.49	UL-RL	2.1956E+04	-13.80	115.4
1.000	1.000	192.6	0.000	0.000	Ug6_741_743_L_0					
71 D	39.43	6.1410E-04	160.9	80.05	163.8	80.34	UL-RL	2.1956E+04	-14.00	117.1
1.000	1.000	197.1	0.000	0.000	Ug6_741_743_L_0					
72 D	40.41	9.0015E-04	163.0	83.29	165.9	83.56	UL-RL	2.1956E+04	-14.20	118.8
1.000	1.000	202.1	0.000	0.000	Ug6_741_743_L_0					
73 D	41.39	1.1830E-03	165.2	86.50	168.0	86.76	UL-RL	2.1956E+04	-14.40	120.4
1.000	1.000	206.9	0.000	0.000	Ug6_741_743_L_0					
74 D	42.36	1.4633E-03	167.3	89.69	170.1	89.92	UL-RL	2.1956E+04	-14.60	122.1
1.000	1.000	211.8	0.000	0.000	Ug6_741_743_L_0					
75 D	43.33	1.7417E-03	169.4	92.86	172.2	93.07	UL-RL	2.1956E+04	-14.80	123.8
1.000	1.000	216.6	0.000	0.000	Ug6_741_743_L_0					
76 D	44.29	2.0186E-03	171.5	96.01	174.3	96.21	UL-RL	2.1956E+04	-15.00	125.5
1.000	1.000	221.5	0.000	0.000	Ug6_741_743_L_0					
77 D	45.26	2.2945E-03	173.7	99.16	176.4	99.34	UL-RL	2.1956E+04	-15.20	127.1
1.000	1.000	226.3	0.000	0.000	Ug6_741_743_L_0					
78 D	46.22	2.5697E-03	175.8	102.3	178.5	102.5	UL-RL	2.1956E+04	-15.40	128.8
1.000	1.000	231.1	0.000	0.000	Ug6_741_743_L_0					
79 D	47.18	2.8445E-03	177.9	105.4	180.6	105.6	UL-RL	2.1956E+04	-15.60	130.5
1.000	1.000	235.9	0.000	0.000	Ug6_741_743_L_0					
80 D	48.14	3.1192E-03	180.1	108.6	182.7	108.7	UL-RL	2.1956E+04	-15.80	132.1
1.000	1.000	240.7	0.000	0.000	Ug6_741_743_L_0					
81 D	24.55	3.3938E-03	182.2	111.7	184.8	111.8	UL-RL	2.1956E+04	-16.00	133.8
1.000	1.000	245.5	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847          |
|          Exe Time :24 May 2018          18:25:50          |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 81
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24 D	0.9471	2.8116E-02	0.8364	3.572	46.00	65.67	UL-RL	2.8243E+04	-4.600	1.164	
1.000	1.000	4.736	0.000	0.000	Ug5_2_8_L_0						
25 D	2.944	2.7162E-02	2.509	11.23	48.00	73.88	UL-RL	2.8243E+04	-4.800	3.491	
1.000	1.000	14.72	0.000	0.000	Ug5_2_8_L_0						
26 D	4.940	2.6215E-02	4.182	18.88	50.00	81.80	UL-RL	2.8243E+04	-5.000	5.818	
1.000	1.000	24.70	0.000	0.000	Ug5_2_8_L_0						
27 D	6.937	2.5275E-02	5.855	26.54	52.00	79.44	UL-RL	2.8243E+04	-5.200	8.145	
1.000	1.000	34.68	0.000	0.000	Ug5_2_8_L_0						
28 D	8.934	2.4343E-02	7.527	34.20	54.00	77.17	UL-RL	2.8243E+04	-5.400	10.47	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	44.67	0.000	0.000	Ug5_2_8_L_0					
29 D	10.93	2.3420E-02	9.200	41.85	56.00	75.01	UL-RL	2.8243E+04	-5.600	12.80
1.000	1.000	54.65	0.000	0.000	Ug5_2_8_L_0					
30 D	12.93	2.2507E-02	10.87	49.51	58.00	72.96	UL-RL	2.8243E+04	-5.800	15.13
1.000	1.000	64.64	0.000	0.000	Ug5_2_8_L_0					
31 D	14.92	2.1605E-02	12.55	57.16	60.00	78.48	UL-RL	2.8243E+04	-6.000	17.45
1.000	1.000	74.62	0.000	0.000	Ug5_2_8_L_0					
32 D	16.92	2.0715E-02	14.22	64.82	62.00	86.33	UL-RL	2.8243E+04	-6.200	19.78
1.000	1.000	84.60	0.000	0.000	Ug5_2_8_L_0					
33 D	18.92	1.9837E-02	15.89	72.48	64.00	94.18	UL-RL	2.8243E+04	-6.400	22.11
1.000	1.000	94.59	0.000	0.000	Ug5_2_8_L_0					
34 D	20.91	1.8973E-02	17.56	80.13	66.00	102.0	UL-RL	2.8243E+04	-6.600	24.44
1.000	1.000	104.6	0.000	0.000	Ug5_2_8_L_0					
35 D	22.91	1.8124E-02	19.24	87.79	68.00	109.9	UL-RL	2.8243E+04	-6.800	26.76
1.000	1.000	114.6	0.000	0.000	Ug5_2_8_L_0					
36 D	24.91	1.7290E-02	20.91	95.45	70.00	117.7	UL-RL	2.8243E+04	-7.000	29.09
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0					
37 D	26.90	1.6472E-02	22.58	103.1	72.00	125.4	UL-RL	2.8243E+04	-7.200	31.42
1.000	1.000	134.5	0.000	0.000	Ug5_2_8_L_0					
38 D	28.90	1.5671E-02	24.25	110.8	74.00	120.9	UL-RL	2.8243E+04	-7.400	33.75
1.000	1.000	144.5	0.000	0.000	Ug5_2_8_L_0					
39 D	30.90	1.4888E-02	25.93	118.4	76.00	118.7	UL-RL	2.8243E+04	-7.600	36.07
1.000	1.000	154.5	0.000	0.000	Ug5_2_8_L_0					
40 D	32.89	1.4123E-02	27.60	126.1	78.00	126.4	UL-RL	2.8243E+04	-7.800	38.40
1.000	1.000	164.5	0.000	0.000	Ug5_2_8_L_0					
41 D	34.89	1.3378E-02	29.27	133.7	80.00	134.0	UL-RL	2.8243E+04	-8.000	40.73
1.000	1.000	174.5	0.000	0.000	Ug5_2_8_L_0					
42 D	36.89	1.2652E-02	30.95	141.4	82.00	141.7	UL-RL	2.8243E+04	-8.200	43.05
1.000	1.000	184.4	0.000	0.000	Ug5_2_8_L_0					
43 D	38.88	1.1946E-02	32.62	149.0	84.00	149.3	UL-RL	2.8243E+04	-8.400	45.38
1.000	1.000	194.4	0.000	0.000	Ug5_2_8_L_0					
44 D	40.59	1.1260E-02	34.29	155.3	86.00	155.6	UL-RL	2.8243E+04	-8.600	47.71
1.000	1.000	203.0	0.000	0.000	Ug5_2_8_L_0					
45 D	39.84	1.0595E-02	35.96	149.1	88.00	149.4	UL-RL	2.8243E+04	-8.800	50.04
1.000	1.000	199.2	0.000	0.000	Ug5_2_8_L_0					
46 D	39.13	9.9512E-03	37.64	143.3	90.00	143.6	UL-RL	2.8243E+04	-9.000	52.36
1.000	1.000	195.6	0.000	0.000	Ug5_2_8_L_0					
47 D	38.47	9.3277E-03	39.31	137.6	92.00	137.9	UL-RL	2.8243E+04	-9.200	54.69
1.000	1.000	192.3	0.000	0.000	Ug5_2_8_L_0					
48 D	37.85	8.7249E-03	40.98	132.3	94.00	132.6	UL-RL	2.8243E+04	-9.400	57.02
1.000	1.000	189.3	0.000	0.000	Ug5_2_8_L_0					
49 D	37.29	8.1426E-03	42.65	127.1	96.00	127.4	UL-RL	2.8243E+04	-9.600	59.35
1.000	1.000	186.4	0.000	0.000	Ug5_2_8_L_0					
50 D	36.77	7.5806E-03	44.33	122.2	98.00	122.5	UL-RL	2.8243E+04	-9.800	61.67
1.000	1.000	183.9	0.000	0.000	Ug5_2_8_L_0					
51 D	36.30	7.0385E-03	46.00	117.5	100.00	117.8	UL-RL	2.8243E+04	-10.000	64.00
1.000	1.000	181.5	0.000	0.000	Ug5_2_8_L_0					
52 D	35.87	6.5159E-03	47.67	113.0	102.0	113.4	UL-RL	2.8243E+04	-10.200	66.33
1.000	1.000	179.4	0.000	0.000	Ug5_2_8_L_0					
53 D	35.49	6.0125E-03	49.35	108.8	104.0	109.1	UL-RL	2.8243E+04	-10.400	68.65
1.000	1.000	177.5	0.000	0.000	Ug5_2_8_L_0					
54 D	35.15	5.5275E-03	51.02	104.8	106.0	105.1	UL-RL	2.8243E+04	-10.600	70.98
1.000	1.000	175.8	0.000	0.000	Ug5_2_8_L_0					
55 D	34.85	5.0604E-03	52.69	100.9	108.0	101.3	UL-RL	2.8243E+04	-10.800	73.31
1.000	1.000	174.3	0.000	0.000	Ug5_2_8_L_0					
56 D	34.59	4.6106E-03	54.36	97.31	110.0	97.67	UL-RL	2.8243E+04	-11.000	75.64
1.000	1.000	172.9	0.000	0.000	Ug5_2_8_L_0					
57 D	34.37	4.1773E-03	56.04	93.86	112.0	94.23	UL-RL	2.8243E+04	-11.200	77.96
1.000	1.000	171.8	0.000	0.000	Ug5_2_8_L_0					
58 D	34.18	3.7599E-03	57.71	90.59	114.0	90.97	UL-RL	2.8243E+04	-11.400	80.29
1.000	1.000	170.9	0.000	0.000	Ug5_2_8_L_0					
59 D	34.02	3.3576E-03	59.38	87.49	116.0	87.88	UL-RL	2.8243E+04	-11.600	82.62
1.000	1.000	170.1	0.000	0.000	Ug5_2_8_L_0					
60 D	33.90	2.9694E-03	61.05	84.55	118.0	84.95	UL-RL	2.8243E+04	-11.800	84.95
1.000	1.000	169.5	0.000	0.000	Ug5_2_8_L_0					
61 D	33.81	2.5947E-03	62.73	81.76	120.0	82.17	UL-RL	2.8243E+04	-12.000	87.27
1.000	1.000	169.0	0.000	0.000	Ug5_2_8_L_0					
62 D	32.45	2.2324E-03	64.20	72.64	121.8	72.95	UL-RL	2.0495E+04	-12.200	89.60
1.000	1.000	162.2	0.000	0.000	Ug6_741_743_L_0					
63 D	32.58	1.8817E-03	65.67	70.97	123.6	71.29	UL-RL	2.0495E+04	-12.400	91.93
1.000	1.000	162.9	0.000	0.000	Ug6_741_743_L_0					
64 D	32.68	1.5417E-03	67.15	69.13	125.4	69.84	UL-RL	2.0495E+04	-12.600	94.25
1.000	1.000	163.4	0.000	0.000	Ug6_741_743_L_0					
65 D	32.72	1.2114E-03	68.62	67.00	127.2	68.65	UL-RL	2.0495E+04	-12.800	96.58
1.000	1.000	163.6	0.000	0.000	Ug6_741_743_L_0					
66 D	32.77	8.9008E-04	70.09	64.94	129.0	67.53	UL-RL	2.0495E+04	-13.000	98.91
1.000	1.000	163.8	0.000	0.000	Ug6_741_743_L_0					
67 D	32.84	5.7669E-04	71.56	62.94	130.8	66.47	UL-RL	2.0495E+04	-13.200	101.2
1.000	1.000	164.2	0.000	0.000	Ug6_741_743_L_0					
68 D	32.41	2.7042E-04	73.04	58.51	132.6	66.72	UL-RL	2.0495E+04	-13.400	103.6
1.000	1.000	162.1	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

69 D	31.76	-2.9585E-05	74.51	52.93	134.4	67.60	UL-RL	2.0495E+04	-13.60	105.9
1.000	1.000	158.8	0.000	0.000	Ug6_741_743_L_0					
70 D	31.14	-3.2416E-04	75.98	47.48	136.2	68.49	UL-RL	2.0495E+04	-13.80	108.2
1.000	1.000	155.7	0.000	0.000	Ug6_741_743_L_0					
71 D	30.54	-6.1410E-04	77.45	42.14	138.0	69.38	UL-RL	2.0495E+04	-14.00	110.5
1.000	1.000	152.7	0.000	0.000	Ug6_741_743_L_0					
72 D	29.95	-9.0015E-04	78.93	36.89	139.8	70.27	UL-RL	2.0495E+04	-14.20	112.9
1.000	1.000	149.8	0.000	0.000	Ug6_741_743_L_0					
73 D	29.46	-1.1830E-03	80.40	32.08	141.6	71.16	ACTIVE	0.000	-14.40	115.2
1.000	1.000	147.3	0.000	0.000	Ug6_741_743_L_0					
74 D	30.06	-1.4633E-03	81.87	32.77	143.4	72.05	ACTIVE	0.000	-14.60	117.5
1.000	1.000	150.3	0.000	0.000	Ug6_741_743_L_0					
75 D	30.66	-1.7417E-03	83.35	33.46	145.2	72.94	ACTIVE	0.000	-14.80	119.9
1.000	1.000	153.3	0.000	0.000	Ug6_741_743_L_0					
76 D	31.26	-2.0186E-03	84.82	34.14	147.0	73.84	ACTIVE	0.000	-15.00	122.2
1.000	1.000	156.3	0.000	0.000	Ug6_741_743_L_0					
77 D	31.87	-2.2945E-03	86.29	34.83	148.8	74.73	ACTIVE	0.000	-15.20	124.5
1.000	1.000	159.3	0.000	0.000	Ug6_741_743_L_0					
78 D	32.47	-2.5697E-03	87.76	35.52	150.6	75.62	ACTIVE	0.000	-15.40	126.8
1.000	1.000	162.4	0.000	0.000	Ug6_741_743_L_0					
79 D	33.07	-2.8445E-03	89.24	36.21	152.4	76.51	ACTIVE	0.000	-15.60	129.2
1.000	1.000	165.4	0.000	0.000	Ug6_741_743_L_0					
80 D	33.68	-3.1192E-03	90.71	36.89	154.2	77.40	ACTIVE	0.000	-15.80	131.5
1.000	1.000	168.4	0.000	0.000	Ug6_741_743_L_0					
81 D	17.14	-3.3938E-03	92.18	37.58	156.0	78.29	ACTIVE	0.000	-16.00	133.8
1.000	1.000	171.4	0.000	0.000	Ug6_741_743_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                       |
|                                                                       |
|               NewProject.BaseDesignSection_28.SISMICAGEO_1847   |
|               Exe Time :24 May 2018   18:25:50   |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 80
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-9.77946E-09	9.77946E-09	-9.78546E-10	-1.24177E-09
2	0.52513	-0.52513	9.21866E-11	0.10503
3	1.5363	-1.5363	-0.10503	0.41228
4	3.0341	-3.0341	-0.41228	1.0191
5	5.0191	-5.0191	-1.0191	2.0229
6	7.4915	-7.4915	-2.0229	3.5212
7	10.451	-10.451	-3.5212	5.6115
8	13.900	-13.900	-5.6115	8.3914
9	17.837	-17.837	-8.3914	11.959
10	22.261	-22.261	-11.959	16.411
11	27.173	-27.173	-16.411	21.846
12	32.572	-32.572	-21.846	28.360
13	38.457	-38.457	-28.360	36.051
14	44.828	-44.828	-36.051	45.017
15	51.686	-51.686	-45.017	55.354
16	59.031	-59.031	-55.354	67.161
17	66.860	-66.860	-67.161	80.532
18	75.174	-75.174	-80.532	95.567
19	83.974	-83.974	-95.567	112.36
20	93.259	-93.259	-112.36	131.01
21	103.03	-103.03	-131.01	151.62
22	113.28	-113.28	-151.62	174.28
23	124.02	-124.02	-174.28	199.08
24	134.30	-134.30	-199.08	225.94
25	143.06	-143.06	-225.94	254.55
26	150.31	-150.31	-254.55	284.61
27	156.05	-156.05	-284.61	315.82
28	160.28	-160.28	-315.82	347.88
29	162.99	-162.99	-347.88	380.48
30	164.19	-164.19	-380.48	413.32
31	163.88	-163.88	-413.32	446.09
32	162.05	-162.05	-446.09	478.50
33	158.71	-158.71	-478.50	510.24
34	153.86	-153.86	-510.24	541.01
35	147.49	-147.49	-541.01	570.51
36	139.62	-139.62	-570.51	598.44
37	130.22	-130.22	-598.44	624.48
38	119.32	-119.32	-624.48	648.34
39	106.90	-106.90	-648.34	669.72
40	92.973	-92.973	-669.72	688.32
41	77.530	-77.530	-688.32	703.83
42	60.575	-60.575	-703.83	715.94
43	42.107	-42.107	-715.94	724.36
44	22.414	-22.414	-724.36	728.84
45	3.9631	-3.9631	-728.84	729.64
46	-13.294	13.294	-729.64	726.98
47	-29.406	29.406	-726.98	721.10
48	-44.422	44.422	-721.10	712.21
49	-58.389	58.389	-712.21	700.53
50	-71.353	71.353	-700.53	686.26
51	-83.361	83.361	-686.26	669.59
52	-94.457	94.457	-669.59	650.70
53	-104.69	104.69	-650.70	629.76
54	-114.09	114.09	-629.76	606.95
55	-122.70	122.70	-606.95	582.41
56	-130.57	130.57	-582.41	556.29
57	-137.73	137.73	-556.29	528.75
58	-144.21	144.21	-528.75	499.90
59	-150.06	150.06	-499.90	469.89

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60	-155.29	155.29	-469.89	438.83
61	-159.94	159.94	-438.83	406.85
62	-159.64	159.64	-406.85	374.92
63	-158.93	158.93	-374.92	343.13
64	-157.70	157.70	-343.13	311.59
65	-155.77	155.77	-311.59	280.44
66	-153.18	153.18	-280.44	249.80
67	-150.04	150.04	-249.80	219.80
68	-145.74	145.74	-219.80	190.65
69	-139.85	139.85	-190.65	162.68
70	-132.47	132.47	-162.68	136.18
71	-123.58	123.58	-136.18	111.47
72	-113.12	113.12	-111.47	88.843
73	-101.12	101.12	-88.843	68.619
74	-88.816	88.816	-68.619	50.856
75	-76.150	76.150	-50.856	35.626
76	-63.122	63.122	-35.626	23.001
77	-49.733	49.733	-23.001	13.055
78	-35.984	35.984	-13.055	5.8579
79	-21.877	21.877	-5.8579	1.4824
80	-7.4119	7.4119	-1.4824	3.36642E-11

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.SISMICAGEO_1847  |
|          Exe Time :24 May 2018  18:25:50  |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	5
4	CONVERGENCE :YES	5
5	CONVERGENCE :YES	5
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	2

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.27 [sec]

5. VERIFICHE PALNCOLE PROTEZIONE SCAVI VI06



Report di Calcolo

Nome Progetto: New Project

Autore: Ingegnere

Jobname: Z:\01 COM\2017-010-ANAS-Pedemontana Piemontese\02-Bozze e varie\04_Sottofondazioni\Paratie
provvisionali\palancola AZ36 scavo plinti con tura h5,5m - con accidentale - 10kPa - berma come carico.pplus

Data: 24/05/2018 18:24:09

Design Section: Base Design Section

Descrizione del Software

ParatiePlus è un codice agli elementi finiti che simula il problema di uno scavo sostenuto da diaframmi flessibili e permette di valutare il comportamento della parete di sostegno durante tutte le fasi intermedie e nella configurazione finale.

Descrizione della Stratigrafia e degli Strati di Terreno

Tipo : HORIZONTAL

Quota : 0 m

OCR : 1

Tipo : HORIZONTAL

Quota : -12 m

OCR : 1

Tipo : HORIZONTAL

Quota : -18 m

OCR : 1

Descrizione Pareti

X : 0 m

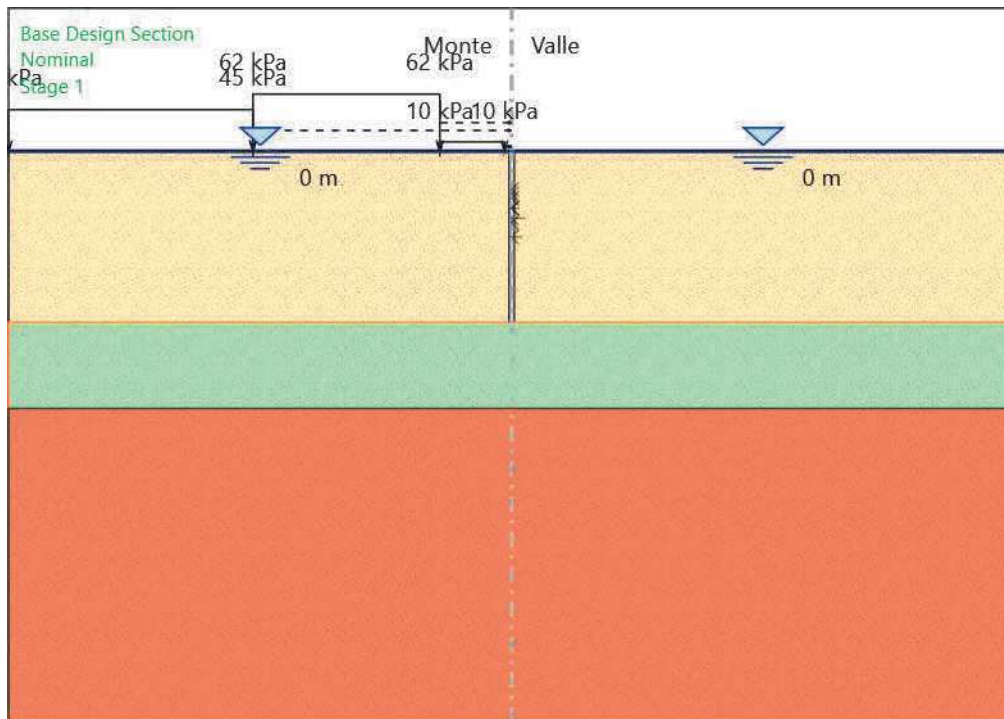
Quota in alto : 0 m

Quota di fondo : -12 m

Muro di sinistra

Fasi di Calcolo

Stage 1



Stage 1

Elementi strutturali

Paratia : WallElement

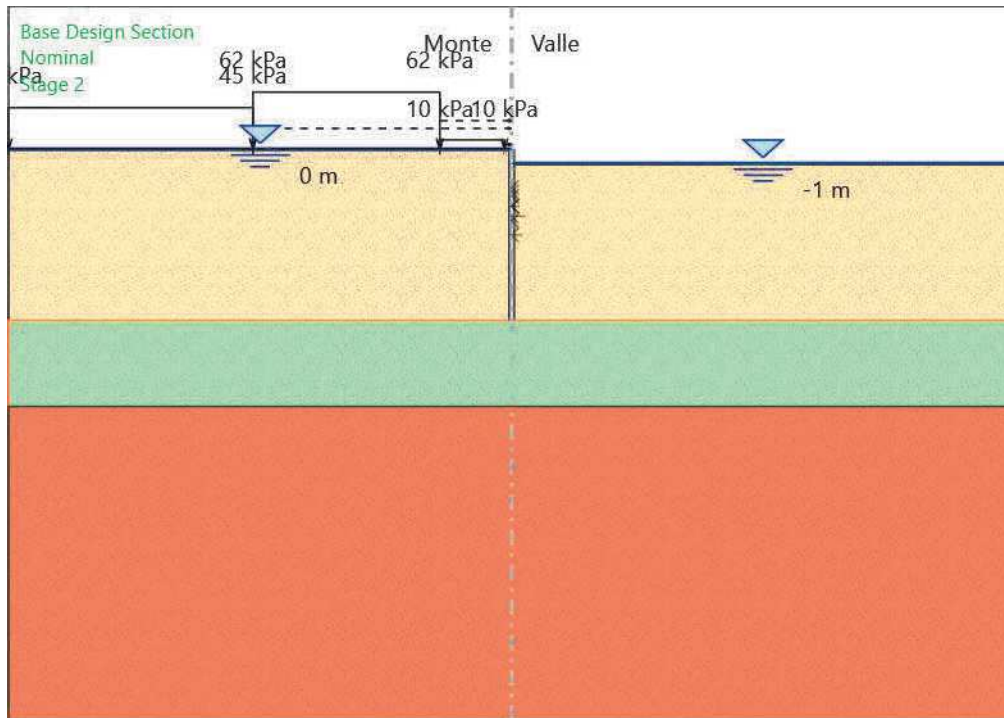
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 2



Stage 2

Elementi strutturali

Paratia : WallElement

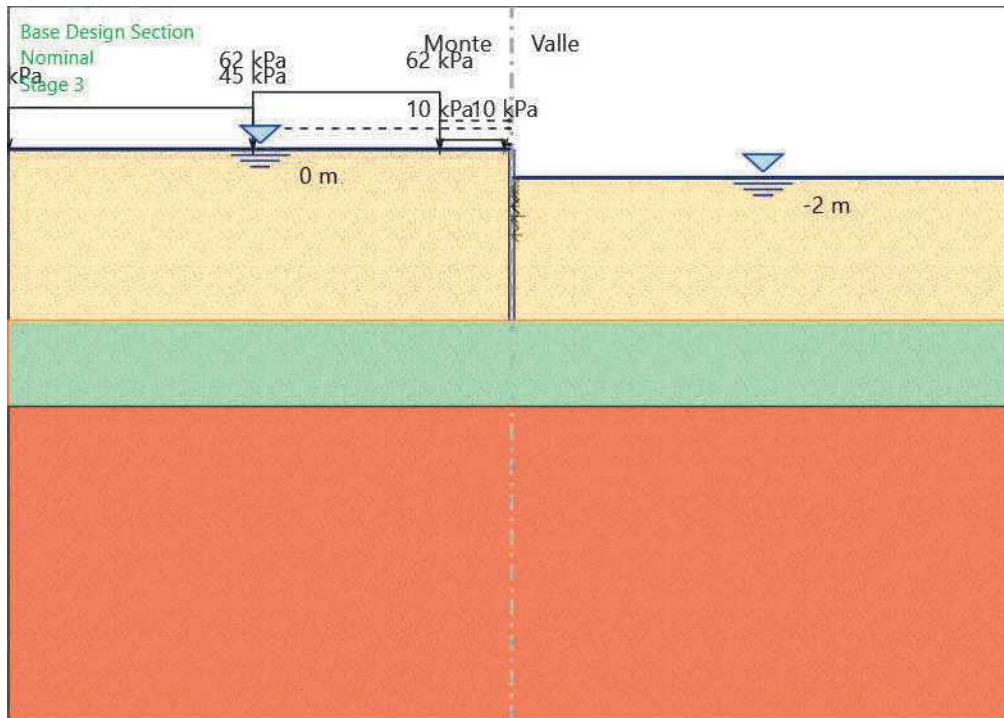
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 3



Stage 3

Elementi strutturali

Paratia : WallElement

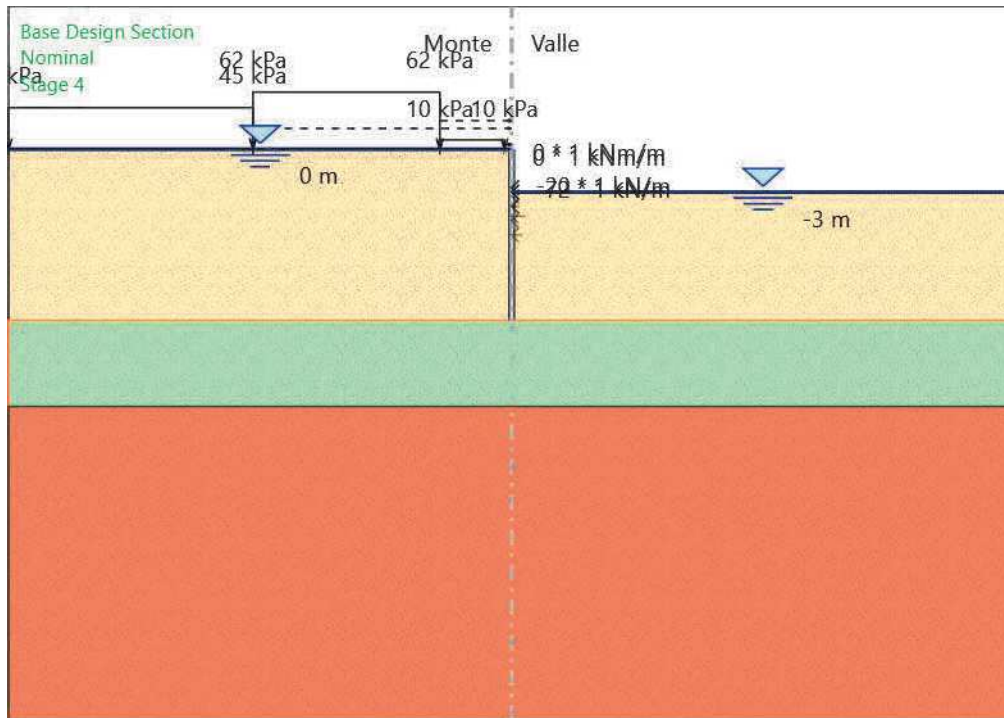
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 4



Stage 4

Elementi strutturali

Paratia : WallElement

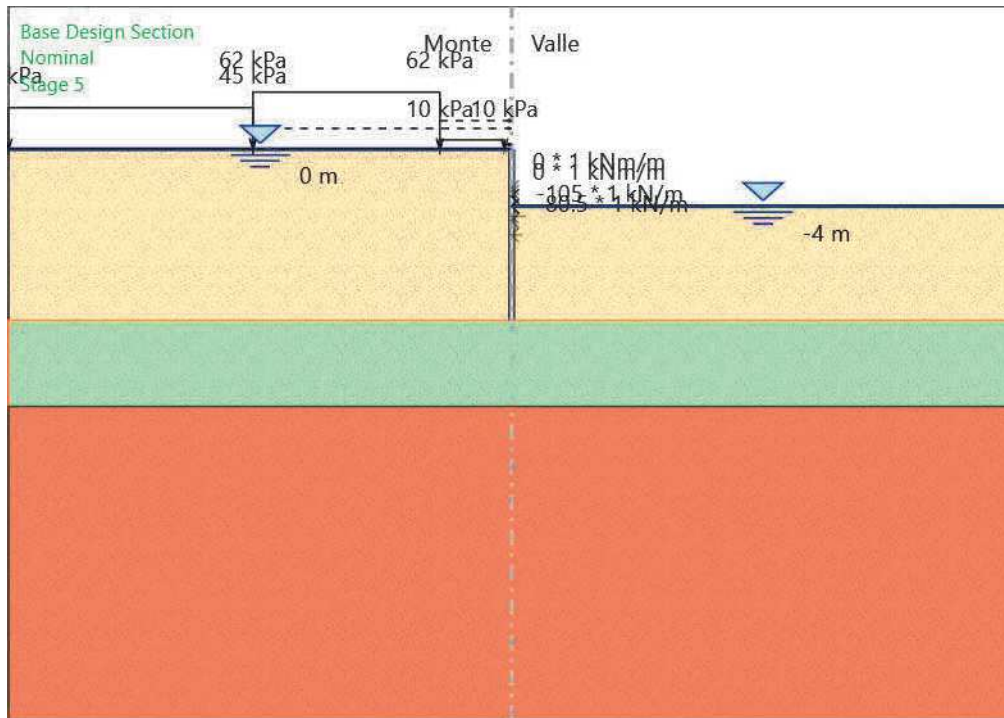
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 5



Stage 5

Elementi strutturali

Paratia : WallElement

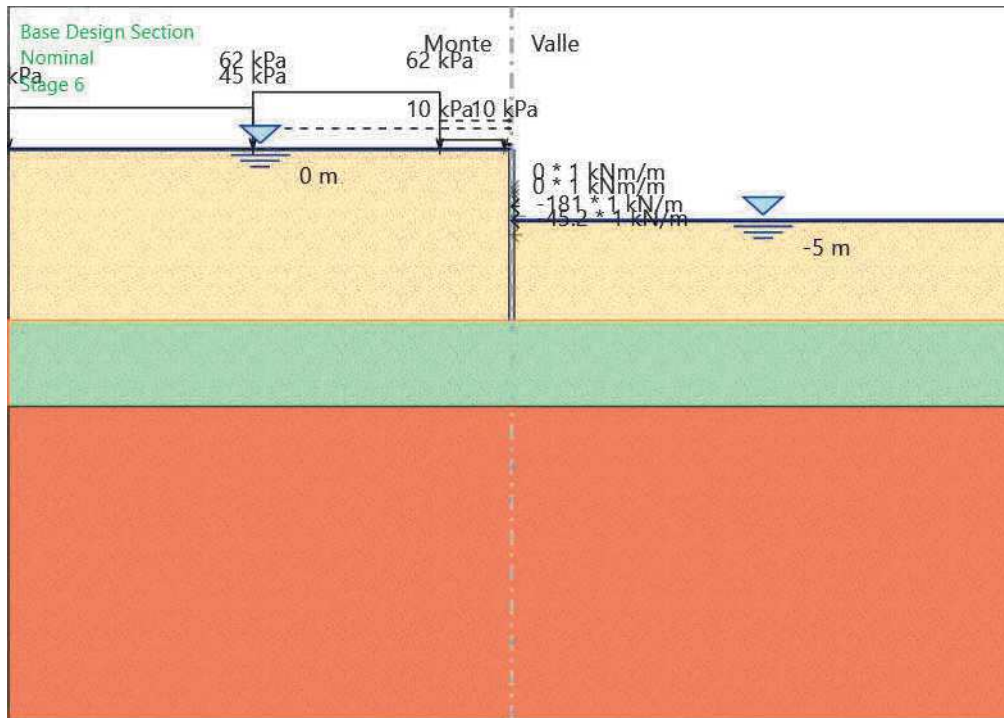
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 6



Stage 6

Elementi strutturali

Paratia : WallElement

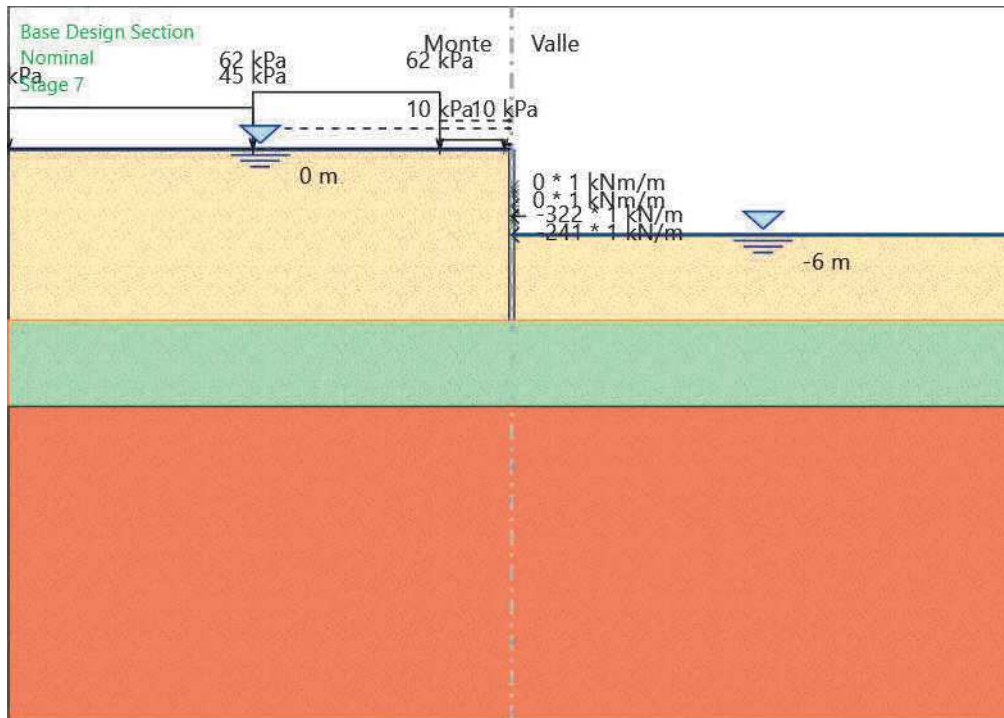
X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Stage 7



Stage 7

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -12 m

Sezione : Default Section

Grafici dei Risultati

Design Assumption : Nominal

Tabella Spostamento Nominal - LEFT Stage: Stage 1

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 1	0	0
Stage 1	-0.2	0
Stage 1	-0.4	0
Stage 1	-0.6	0
Stage 1	-0.8	0
Stage 1	-1	0
Stage 1	-1.2	0
Stage 1	-1.4	0
Stage 1	-1.6	0
Stage 1	-1.8	0
Stage 1	-2	0
Stage 1	-2.2	0
Stage 1	-2.4	0
Stage 1	-2.6	0
Stage 1	-2.8	0
Stage 1	-3	0
Stage 1	-3.2	0
Stage 1	-3.4	0
Stage 1	-3.6	0
Stage 1	-3.8	0
Stage 1	-4	0
Stage 1	-4.2	0
Stage 1	-4.4	0
Stage 1	-4.6	0
Stage 1	-4.8	0
Stage 1	-5	0
Stage 1	-5.2	0
Stage 1	-5.4	0
Stage 1	-5.6	0
Stage 1	-5.8	0
Stage 1	-6	0
Stage 1	-6.2	0
Stage 1	-6.4	0
Stage 1	-6.6	0
Stage 1	-6.8	0
Stage 1	-7	0
Stage 1	-7.2	0
Stage 1	-7.4	0
Stage 1	-7.6	0
Stage 1	-7.8	0
Stage 1	-8	0
Stage 1	-8.2	0
Stage 1	-8.4	0
Stage 1	-8.6	0
Stage 1	-8.8	0
Stage 1	-9	0
Stage 1	-9.2	0
Stage 1	-9.4	0
Stage 1	-9.6	0
Stage 1	-9.8	0
Stage 1	-10	0
Stage 1	-10.2	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 1	-10.4	0
Stage 1	-10.6	0
Stage 1	-10.8	0
Stage 1	-11	0
Stage 1	-11.2	0
Stage 1	-11.4	0
Stage 1	-11.6	0
Stage 1	-11.8	0
Stage 1	-12	0

Tabella Spostamento Nominal - LEFT Stage: Stage 2

Design Assumption: Nominal	Tipo Risultato: Spostamento	Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 2	0	0.21
Stage 2	-0.2	0.2
Stage 2	-0.4	0.18
Stage 2	-0.6	0.17
Stage 2	-0.8	0.16
Stage 2	-1	0.14
Stage 2	-1.2	0.13
Stage 2	-1.4	0.12
Stage 2	-1.6	0.1
Stage 2	-1.8	0.09
Stage 2	-2	0.08
Stage 2	-2.2	0.07
Stage 2	-2.4	0.06
Stage 2	-2.6	0.06
Stage 2	-2.8	0.05
Stage 2	-3	0.05
Stage 2	-3.2	0.04
Stage 2	-3.4	0.04
Stage 2	-3.6	0.04
Stage 2	-3.8	0.03
Stage 2	-4	0.03
Stage 2	-4.2	0.03
Stage 2	-4.4	0.03
Stage 2	-4.6	0.03
Stage 2	-4.8	0.03
Stage 2	-5	0.03
Stage 2	-5.2	0.03
Stage 2	-5.4	0.03
Stage 2	-5.6	0.03
Stage 2	-5.8	0.03
Stage 2	-6	0.03
Stage 2	-6.2	0.03
Stage 2	-6.4	0.03
Stage 2	-6.6	0.03
Stage 2	-6.8	0.03
Stage 2	-7	0.03
Stage 2	-7.2	0.03
Stage 2	-7.4	0.03
Stage 2	-7.6	0.03
Stage 2	-7.8	0.03
Stage 2	-8	0.03
Stage 2	-8.2	0.03
Stage 2	-8.4	0.03
Stage 2	-8.6	0.03
Stage 2	-8.8	0.03
Stage 2	-9	0.03
Stage 2	-9.2	0.03
Stage 2	-9.4	0.03
Stage 2	-9.6	0.03
Stage 2	-9.8	0.02
Stage 2	-10	0.02
Stage 2	-10.2	0.02
Stage 2	-10.4	0.02
Stage 2	-10.6	0.02
Stage 2	-10.8	0.02
Stage 2	-11	0.02
Stage 2	-11.2	0.02
Stage 2	-11.4	0.02

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 2	-11.6	0.02
Stage 2	-11.8	0.02
Stage 2	-12	0.02

Tabella Spostamento Nominal - LEFT Stage: Stage 3

Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 3	0	2.99
Stage 3	-0.2	2.85
Stage 3	-0.4	2.71
Stage 3	-0.6	2.57
Stage 3	-0.8	2.42
Stage 3	-1	2.28
Stage 3	-1.2	2.14
Stage 3	-1.4	2
Stage 3	-1.6	1.86
Stage 3	-1.8	1.72
Stage 3	-2	1.58
Stage 3	-2.2	1.45
Stage 3	-2.4	1.32
Stage 3	-2.6	1.19
Stage 3	-2.8	1.07
Stage 3	-3	0.95
Stage 3	-3.2	0.84
Stage 3	-3.4	0.74
Stage 3	-3.6	0.64
Stage 3	-3.8	0.55
Stage 3	-4	0.47
Stage 3	-4.2	0.4
Stage 3	-4.4	0.33
Stage 3	-4.6	0.28
Stage 3	-4.8	0.23
Stage 3	-5	0.19
Stage 3	-5.2	0.15
Stage 3	-5.4	0.12
Stage 3	-5.6	0.1
Stage 3	-5.8	0.08
Stage 3	-6	0.06
Stage 3	-6.2	0.05
Stage 3	-6.4	0.05
Stage 3	-6.6	0.04
Stage 3	-6.8	0.04
Stage 3	-7	0.04
Stage 3	-7.2	0.04
Stage 3	-7.4	0.04
Stage 3	-7.6	0.04
Stage 3	-7.8	0.04
Stage 3	-8	0.05
Stage 3	-8.2	0.05
Stage 3	-8.4	0.05
Stage 3	-8.6	0.05
Stage 3	-8.8	0.06
Stage 3	-9	0.06
Stage 3	-9.2	0.06
Stage 3	-9.4	0.06
Stage 3	-9.6	0.06
Stage 3	-9.8	0.06
Stage 3	-10	0.06
Stage 3	-10.2	0.06
Stage 3	-10.4	0.07
Stage 3	-10.6	0.07
Stage 3	-10.8	0.07
Stage 3	-11	0.07
Stage 3	-11.2	0.07
Stage 3	-11.4	0.06

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 3	-11.6	0.06
Stage 3	-11.8	0.06
Stage 3	-12	0.06

Tabella Spostamento Nominal - LEFT Stage: Stage 4

Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 4	0	2.96
Stage 4	-0.2	2.82
Stage 4	-0.4	2.67
Stage 4	-0.6	2.52
Stage 4	-0.8	2.38
Stage 4	-1	2.23
Stage 4	-1.2	2.09
Stage 4	-1.4	1.94
Stage 4	-1.6	1.8
Stage 4	-1.8	1.66
Stage 4	-2	1.52
Stage 4	-2.2	1.38
Stage 4	-2.4	1.25
Stage 4	-2.6	1.13
Stage 4	-2.8	1.01
Stage 4	-3	0.9
Stage 4	-3.2	0.8
Stage 4	-3.4	0.7
Stage 4	-3.6	0.62
Stage 4	-3.8	0.54
Stage 4	-4	0.48
Stage 4	-4.2	0.42
Stage 4	-4.4	0.36
Stage 4	-4.6	0.32
Stage 4	-4.8	0.28
Stage 4	-5	0.24
Stage 4	-5.2	0.22
Stage 4	-5.4	0.19
Stage 4	-5.6	0.18
Stage 4	-5.8	0.16
Stage 4	-6	0.15
Stage 4	-6.2	0.14
Stage 4	-6.4	0.14
Stage 4	-6.6	0.13
Stage 4	-6.8	0.13
Stage 4	-7	0.13
Stage 4	-7.2	0.13
Stage 4	-7.4	0.13
Stage 4	-7.6	0.13
Stage 4	-7.8	0.13
Stage 4	-8	0.13
Stage 4	-8.2	0.14
Stage 4	-8.4	0.14
Stage 4	-8.6	0.14
Stage 4	-8.8	0.14
Stage 4	-9	0.14
Stage 4	-9.2	0.14
Stage 4	-9.4	0.14
Stage 4	-9.6	0.14
Stage 4	-9.8	0.14
Stage 4	-10	0.14
Stage 4	-10.2	0.14
Stage 4	-10.4	0.13
Stage 4	-10.6	0.13
Stage 4	-10.8	0.13
Stage 4	-11	0.13
Stage 4	-11.2	0.13
Stage 4	-11.4	0.13

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 4	-11.6	0.12
Stage 4	-11.8	0.12
Stage 4	-12	0.12

Tabella Spostamento Nominal - LEFT Stage: Stage 5

Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 5	0	3.01
Stage 5	-0.2	2.85
Stage 5	-0.4	2.7
Stage 5	-0.6	2.54
Stage 5	-0.8	2.39
Stage 5	-1	2.23
Stage 5	-1.2	2.08
Stage 5	-1.4	1.92
Stage 5	-1.6	1.77
Stage 5	-1.8	1.62
Stage 5	-2	1.47
Stage 5	-2.2	1.33
Stage 5	-2.4	1.18
Stage 5	-2.6	1.05
Stage 5	-2.8	0.92
Stage 5	-3	0.8
Stage 5	-3.2	0.69
Stage 5	-3.4	0.59
Stage 5	-3.6	0.5
Stage 5	-3.8	0.43
Stage 5	-4	0.36
Stage 5	-4.2	0.31
Stage 5	-4.4	0.27
Stage 5	-4.6	0.24
Stage 5	-4.8	0.22
Stage 5	-5	0.2
Stage 5	-5.2	0.19
Stage 5	-5.4	0.19
Stage 5	-5.6	0.19
Stage 5	-5.8	0.19
Stage 5	-6	0.19
Stage 5	-6.2	0.2
Stage 5	-6.4	0.2
Stage 5	-6.6	0.21
Stage 5	-6.8	0.22
Stage 5	-7	0.22
Stage 5	-7.2	0.23
Stage 5	-7.4	0.24
Stage 5	-7.6	0.24
Stage 5	-7.8	0.25
Stage 5	-8	0.25
Stage 5	-8.2	0.26
Stage 5	-8.4	0.26
Stage 5	-8.6	0.26
Stage 5	-8.8	0.26
Stage 5	-9	0.26
Stage 5	-9.2	0.26
Stage 5	-9.4	0.26
Stage 5	-9.6	0.25
Stage 5	-9.8	0.25
Stage 5	-10	0.25
Stage 5	-10.2	0.24
Stage 5	-10.4	0.24
Stage 5	-10.6	0.24
Stage 5	-10.8	0.23
Stage 5	-11	0.23
Stage 5	-11.2	0.22
Stage 5	-11.4	0.22

Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 5	-11.6	0.21
Stage 5	-11.8	0.21
Stage 5	-12	0.21

Tabella Spostamento Nominal - LEFT Stage: Stage 6

Design Assumption: Nominal Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 6	0	3.35	
Stage 6	-0.2	3.18	
Stage 6	-0.4	3.02	
Stage 6	-0.6	2.85	
Stage 6	-0.8	2.69	
Stage 6	-1	2.52	
Stage 6	-1.2	2.36	
Stage 6	-1.4	2.2	
Stage 6	-1.6	2.03	
Stage 6	-1.8	1.87	
Stage 6	-2	1.71	
Stage 6	-2.2	1.55	
Stage 6	-2.4	1.4	
Stage 6	-2.6	1.25	
Stage 6	-2.8	1.1	
Stage 6	-3	0.96	
Stage 6	-3.2	0.83	
Stage 6	-3.4	0.7	
Stage 6	-3.6	0.59	
Stage 6	-3.8	0.49	
Stage 6	-4	0.4	
Stage 6	-4.2	0.34	
Stage 6	-4.4	0.28	
Stage 6	-4.6	0.25	
Stage 6	-4.8	0.22	
Stage 6	-5	0.2	
Stage 6	-5.2	0.2	
Stage 6	-5.4	0.2	
Stage 6	-5.6	0.2	
Stage 6	-5.8	0.21	
Stage 6	-6	0.23	
Stage 6	-6.2	0.24	
Stage 6	-6.4	0.26	
Stage 6	-6.6	0.28	
Stage 6	-6.8	0.3	
Stage 6	-7	0.31	
Stage 6	-7.2	0.33	
Stage 6	-7.4	0.34	
Stage 6	-7.6	0.36	
Stage 6	-7.8	0.37	
Stage 6	-8	0.38	
Stage 6	-8.2	0.39	
Stage 6	-8.4	0.39	
Stage 6	-8.6	0.4	
Stage 6	-8.8	0.4	
Stage 6	-9	0.4	
Stage 6	-9.2	0.4	
Stage 6	-9.4	0.4	
Stage 6	-9.6	0.4	
Stage 6	-9.8	0.39	
Stage 6	-10	0.39	
Stage 6	-10.2	0.39	
Stage 6	-10.4	0.38	
Stage 6	-10.6	0.38	
Stage 6	-10.8	0.37	
Stage 6	-11	0.36	
Stage 6	-11.2	0.36	
Stage 6	-11.4	0.35	

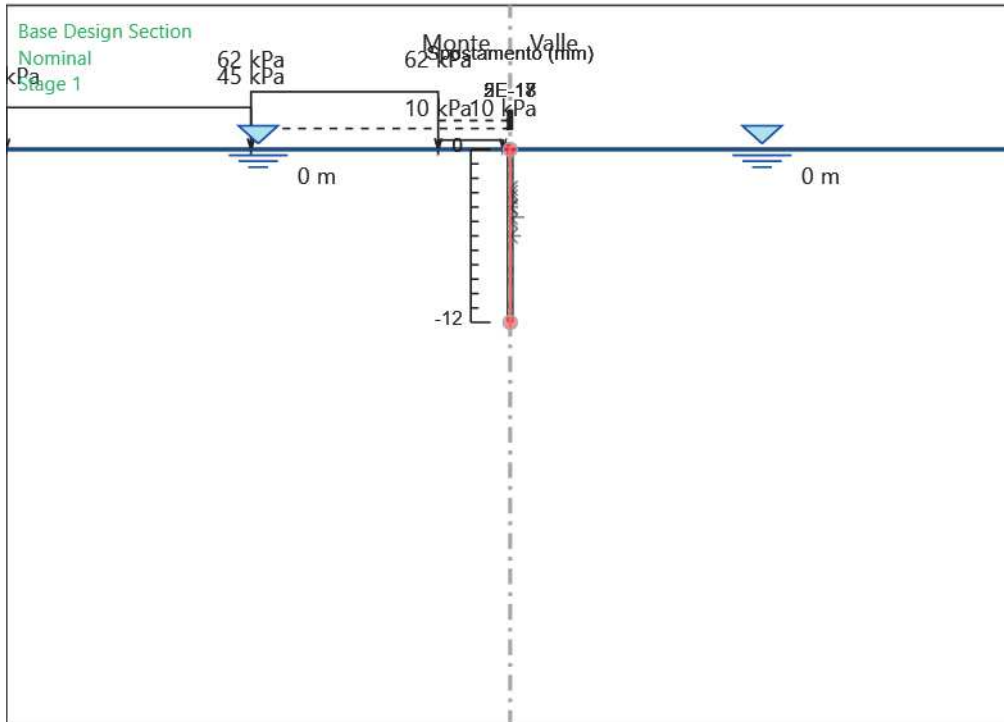
Design Assumption: Nominal Tipo Risultato: Spostamento		Muro: LEFT
Stage	Z (m)	Spostamento (mm)
Stage 6	-11.6	0.34
Stage 6	-11.8	0.34
Stage 6	-12	0.33

Tabella Spostamento Nominal - LEFT Stage: Stage 7

Design Assumption: Nominal Tipo Risultato: Spostamento			Muro: LEFT
Stage	Z (m)	Spostamento (mm)	
Stage 7	0	5.21	
Stage 7	-0.2	4.87	
Stage 7	-0.4	4.54	
Stage 7	-0.6	4.2	
Stage 7	-0.8	3.87	
Stage 7	-1	3.54	
Stage 7	-1.2	3.2	
Stage 7	-1.4	2.87	
Stage 7	-1.6	2.54	
Stage 7	-1.8	2.21	
Stage 7	-2	1.88	
Stage 7	-2.2	1.55	
Stage 7	-2.4	1.22	
Stage 7	-2.6	0.9	
Stage 7	-2.8	0.59	
Stage 7	-3	0.28	
Stage 7	-3.2	-0.03	
Stage 7	-3.4	-0.32	
Stage 7	-3.6	-0.6	
Stage 7	-3.8	-0.87	
Stage 7	-4	-1.12	
Stage 7	-4.2	-1.35	
Stage 7	-4.4	-1.55	
Stage 7	-4.6	-1.73	
Stage 7	-4.8	-1.87	
Stage 7	-5	-1.97	
Stage 7	-5.2	-2.03	
Stage 7	-5.4	-2.06	
Stage 7	-5.6	-2.06	
Stage 7	-5.8	-2.03	
Stage 7	-6	-1.97	
Stage 7	-6.2	-1.88	
Stage 7	-6.4	-1.76	
Stage 7	-6.6	-1.63	
Stage 7	-6.8	-1.49	
Stage 7	-7	-1.33	
Stage 7	-7.2	-1.18	
Stage 7	-7.4	-1.02	
Stage 7	-7.6	-0.86	
Stage 7	-7.8	-0.71	
Stage 7	-8	-0.56	
Stage 7	-8.2	-0.42	
Stage 7	-8.4	-0.29	
Stage 7	-8.6	-0.16	
Stage 7	-8.8	-0.05	
Stage 7	-9	0.06	
Stage 7	-9.2	0.15	
Stage 7	-9.4	0.24	
Stage 7	-9.6	0.32	
Stage 7	-9.8	0.4	
Stage 7	-10	0.46	
Stage 7	-10.2	0.52	
Stage 7	-10.4	0.58	
Stage 7	-10.6	0.63	
Stage 7	-10.8	0.68	
Stage 7	-11	0.72	
Stage 7	-11.2	0.77	
Stage 7	-11.4	0.81	

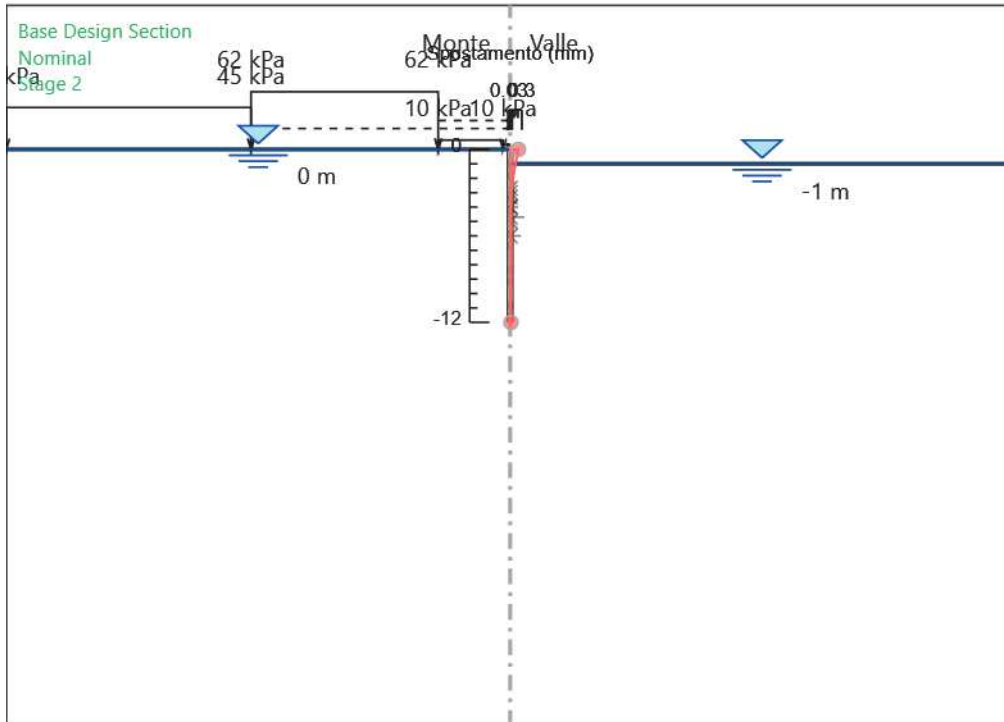
Design Assumption: Nominal Tipo Risultato: Spostamento	Muro: LEFT	
Stage	Z (m)	Spostamento (mm)
Stage 7	-11.6	0.85
Stage 7	-11.8	0.89
Stage 7	-12	0.94

Grafico Spostamento Nominal - Stage: Stage 1



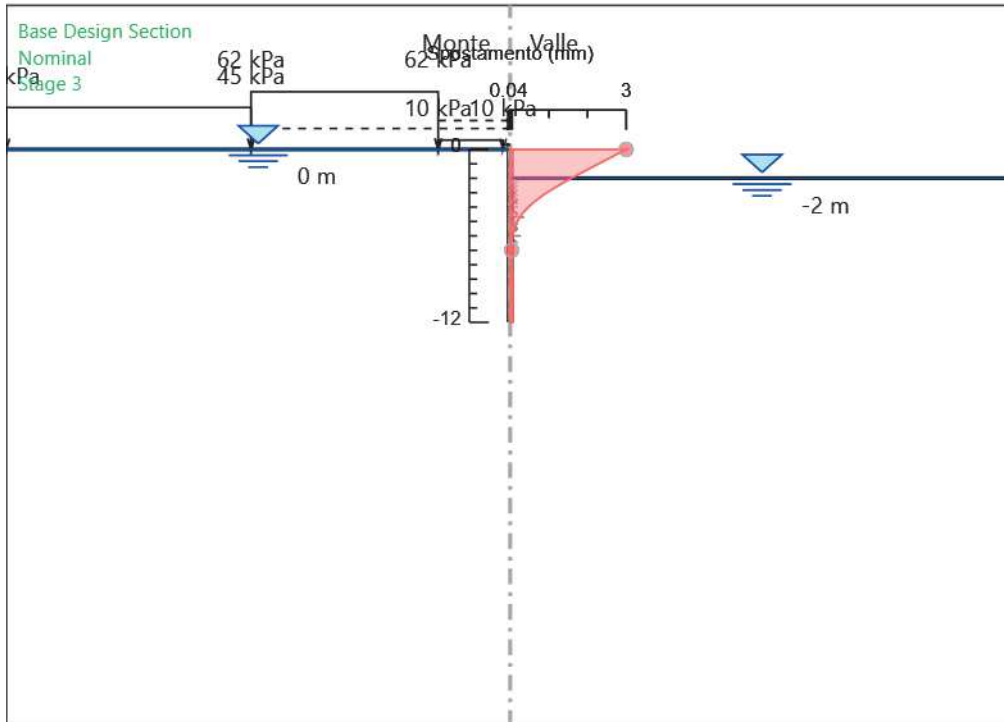
Design Assumption: Nominal
Stage: Stage 1
Spostamento

Grafico Spostamento Nominal - Stage: Stage 2



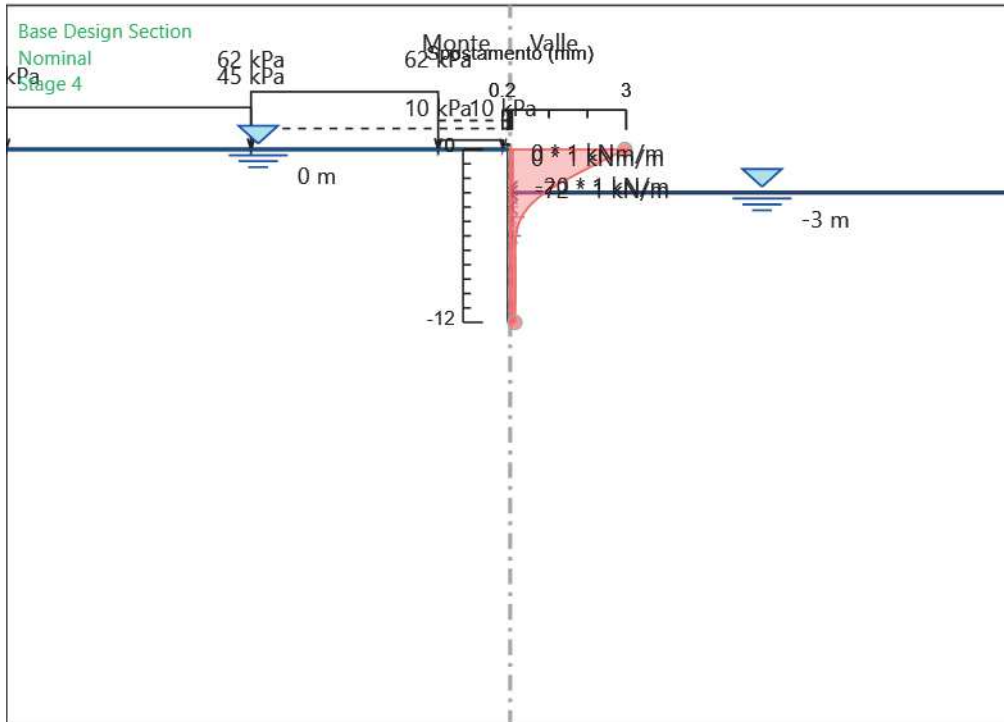
Design Assumption: Nominal
Stage: Stage 2
Spostamento

Grafico Spostamento Nominal - Stage: Stage 3



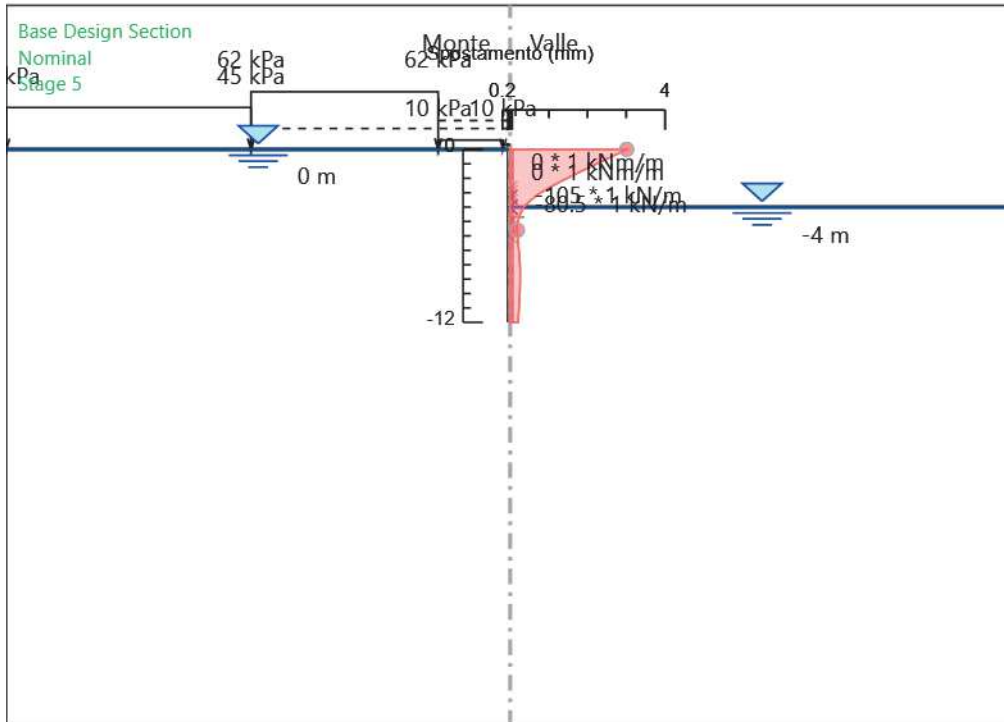
Design Assumption: Nominal
Stage: Stage 3
Spostamento

Grafico Spostamento Nominal - Stage: Stage 4



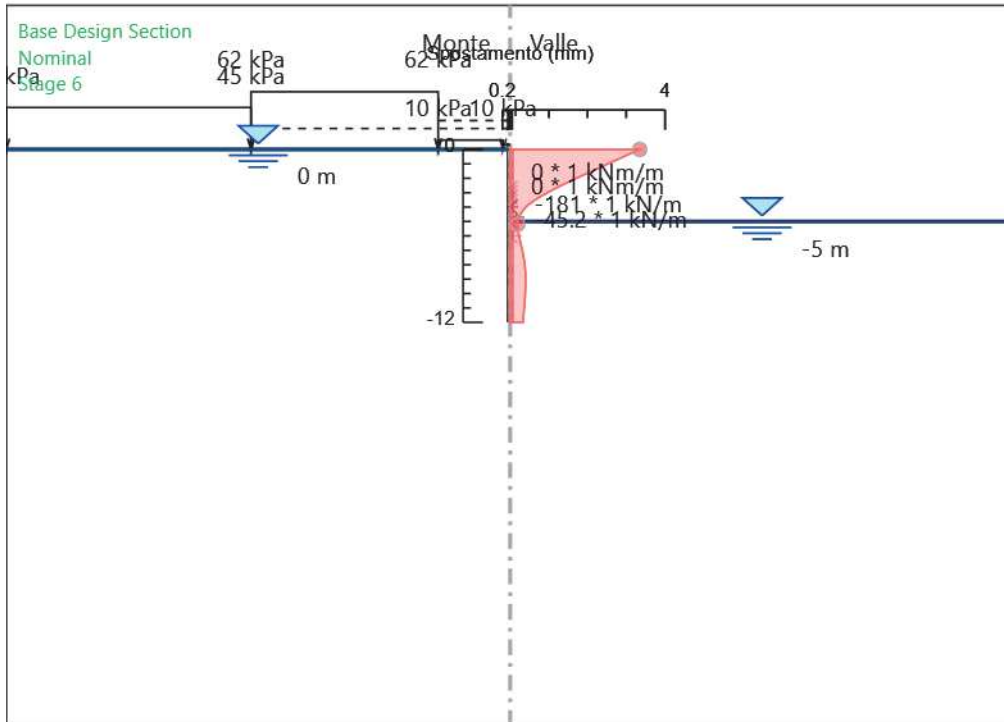
Design Assumption: Nominal
Stage: Stage 4
Spostamento

Grafico Spostamento Nominal - Stage: Stage 5



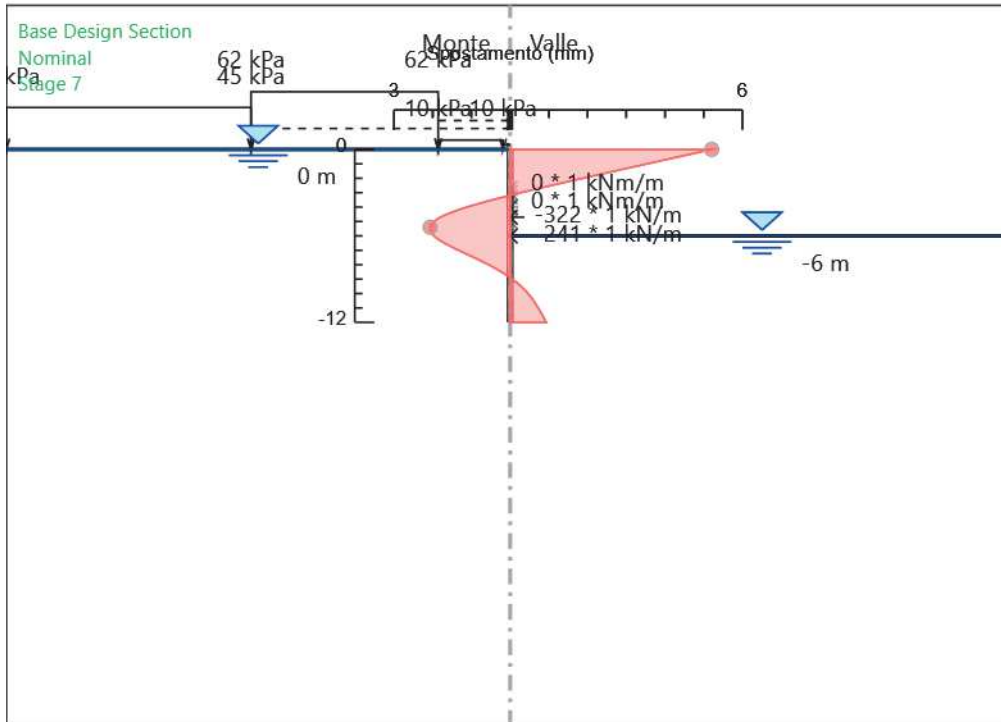
Design Assumption: Nominal
Stage: Stage 5
Spostamento

Grafico Spostamento Nominal - Stage: Stage 6



Design Assumption: Nominal
Stage: Stage 6
Spostamento

Grafico Spostamento Nominal - Stage: Stage 7



Design Assumption: Nominal
Stage: Stage 7
Spostamento

Inviluppi Spostamento Nominal

Risultati Paratia

Tabella Risultati Paratia Nominal - Stage: Stage 1

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	0	0	0
Stage 1	-0.2	0	0
Stage 1	-0.4	0	0
Stage 1	-0.6	0	0
Stage 1	-0.8	0	0
Stage 1	-1	0	0
Stage 1	-1.2	0	0
Stage 1	-1.4	0	0
Stage 1	-1.6	0	0
Stage 1	-1.8	0	0
Stage 1	-2	0	0
Stage 1	-2.2	0	0
Stage 1	-2.4	0	0
Stage 1	-2.6	0	0
Stage 1	-2.8	0	0
Stage 1	-3	0	0
Stage 1	-3.2	0	0
Stage 1	-3.4	0	0
Stage 1	-3.6	0	0
Stage 1	-3.8	0	0
Stage 1	-4	0	0
Stage 1	-4.2	0	0
Stage 1	-4.4	0	0
Stage 1	-4.6	0	0
Stage 1	-4.8	0	0
Stage 1	-5	0	0
Stage 1	-5.2	0	0
Stage 1	-5.4	0	0
Stage 1	-5.6	0	0
Stage 1	-5.8	0	0
Stage 1	-6	0	0
Stage 1	-6.2	0	0
Stage 1	-6.4	0	0
Stage 1	-6.6	0	0
Stage 1	-6.8	0	0
Stage 1	-7	0	0
Stage 1	-7.2	0	0
Stage 1	-7.4	0	0
Stage 1	-7.6	0	0
Stage 1	-7.8	0	0
Stage 1	-8	0	0
Stage 1	-8.2	0	0
Stage 1	-8.4	0	0
Stage 1	-8.6	0	0
Stage 1	-8.8	0	0
Stage 1	-9	0	0
Stage 1	-9.2	0	0
Stage 1	-9.4	0	0
Stage 1	-9.6	0	0
Stage 1	-9.8	0	0
Stage 1	-10	0	0
Stage 1	-10.2	0	0
Stage 1	-10.4	0	0
Stage 1	-10.6	0	0
Stage 1	-10.8	0	0

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 1	-11	0	0
Stage 1	-11.2	0	0
Stage 1	-11.4	0	0
Stage 1	-11.6	0	0
Stage 1	-11.8	0	0
Stage 1	-12	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 2

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	0	0	0
Stage 2	-0.2	0	0
Stage 2	-0.2	0	0
Stage 2	-0.4	-0.1	-0.49
Stage 2	-0.6	-0.4	-1.5
Stage 2	-0.8	-1	-3.02
Stage 2	-1	-2.02	-5.07
Stage 2	-1.2	-3.55	-7.66
Stage 2	-1.4	-5.1	-7.77
Stage 2	-1.6	-6.35	-6.22
Stage 2	-1.8	-7.24	-4.48
Stage 2	-2	-7.75	-2.54
Stage 2	-2.2	-7.88	-0.67
Stage 2	-2.4	-7.73	0.77
Stage 2	-2.6	-7.36	1.85
Stage 2	-2.8	-6.84	2.61
Stage 2	-3	-6.22	3.11
Stage 2	-3.2	-5.54	3.39
Stage 2	-3.4	-4.84	3.5
Stage 2	-3.6	-4.14	3.47
Stage 2	-3.8	-3.48	3.34
Stage 2	-4	-2.85	3.12
Stage 2	-4.2	-2.28	2.84
Stage 2	-4.4	-1.78	2.53
Stage 2	-4.6	-1.34	2.2
Stage 2	-4.8	-0.96	1.88
Stage 2	-5	-0.65	1.57
Stage 2	-5.2	-0.4	1.28
Stage 2	-5.4	-0.19	1.01
Stage 2	-5.6	-0.04	0.78
Stage 2	-5.8	0.08	0.59
Stage 2	-6	0.17	0.42
Stage 2	-6.2	0.22	0.28
Stage 2	-6.4	0.26	0.17
Stage 2	-6.6	0.27	0.08
Stage 2	-6.8	0.27	0.01
Stage 2	-7	0.26	-0.04
Stage 2	-7.2	0.25	-0.08
Stage 2	-7.4	0.23	-0.11
Stage 2	-7.6	0.2	-0.12
Stage 2	-7.8	0.18	-0.13
Stage 2	-8	0.15	-0.13
Stage 2	-8.2	0.13	-0.12
Stage 2	-8.4	0.1	-0.12
Stage 2	-8.6	0.08	-0.1
Stage 2	-8.8	0.06	-0.09
Stage 2	-9	0.05	-0.08
Stage 2	-9.2	0.03	-0.07
Stage 2	-9.4	0.02	-0.06
Stage 2	-9.6	0.01	-0.04
Stage 2	-9.8	0.01	-0.03
Stage 2	-10	0	-0.02
Stage 2	-10.2	0	-0.02
Stage 2	-10.4	0	-0.01
Stage 2	-10.6	0	0
Stage 2	-10.8	0	0
Stage 2	-11	0	0
Stage 2	-11.2	0	0

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 2	-11.4	0	0.01
Stage 2	-11.6	0	0.01
Stage 2	-11.8	0	0
Stage 2	-12	0	0

Tabella Risultati Paratia Nominal - Stage: Stage 3

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	0	0	0
Stage 3	-0.2	0	0
Stage 3	-0.2	0	0
Stage 3	-0.4	-0.1	-0.48
Stage 3	-0.6	-0.39	-1.45
Stage 3	-0.8	-0.97	-2.93
Stage 3	-1	-1.96	-4.93
Stage 3	-1.2	-3.45	-7.45
Stage 3	-1.4	-5.54	-10.46
Stage 3	-1.6	-8.33	-13.97
Stage 3	-1.8	-11.93	-17.98
Stage 3	-2	-16.43	-22.48
Stage 3	-2.2	-21.92	-27.47
Stage 3	-2.4	-27.94	-30.07
Stage 3	-2.6	-33.99	-30.27
Stage 3	-2.8	-39.61	-28.08
Stage 3	-3	-44.31	-23.49
Stage 3	-3.2	-48.06	-18.78
Stage 3	-3.4	-50.92	-14.29
Stage 3	-3.6	-52.92	-10.02
Stage 3	-3.8	-54.11	-5.94
Stage 3	-4	-54.52	-2.02
Stage 3	-4.2	-54.17	1.75
Stage 3	-4.4	-53.09	5.41
Stage 3	-4.6	-51.29	8.97
Stage 3	-4.8	-48.8	12.48
Stage 3	-5	-45.61	15.94
Stage 3	-5.2	-41.92	18.46
Stage 3	-5.4	-37.92	20
Stage 3	-5.6	-33.77	20.74
Stage 3	-5.8	-29.6	20.86
Stage 3	-6	-25.52	20.4
Stage 3	-6.2	-21.62	19.46
Stage 3	-6.4	-17.99	18.17
Stage 3	-6.6	-14.66	16.65
Stage 3	-6.8	-11.66	14.98
Stage 3	-7	-9.01	13.26
Stage 3	-7.2	-6.7	11.55
Stage 3	-7.4	-4.72	9.88
Stage 3	-7.6	-3.06	8.3
Stage 3	-7.8	-1.7	6.84
Stage 3	-8	-0.59	5.51
Stage 3	-8.2	0.27	4.31
Stage 3	-8.4	0.92	3.25
Stage 3	-8.6	1.39	2.34
Stage 3	-8.8	1.7	1.55
Stage 3	-9	1.87	0.89
Stage 3	-9.2	1.94	0.35
Stage 3	-9.4	1.93	-0.09
Stage 3	-9.6	1.84	-0.43
Stage 3	-9.8	1.7	-0.69
Stage 3	-10	1.53	-0.87
Stage 3	-10.2	1.33	-0.99
Stage 3	-10.4	1.12	-1.05
Stage 3	-10.6	0.91	-1.06
Stage 3	-10.8	0.71	-1.03
Stage 3	-11	0.52	-0.95
Stage 3	-11.2	0.35	-0.85

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 3	-11.4	0.2	-0.71
Stage 3	-11.6	0.09	-0.54
Stage 3	-11.8	0.03	-0.35
Stage 3	-12	0	-0.13

Tabella Risultati Paratia Nominal - Stage: Stage 4

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	0	0	0
Stage 4	-0.2	0	0
Stage 4	-0.2	0	0
Stage 4	-0.4	-0.21	-1.06
Stage 4	-0.6	-0.75	-2.68
Stage 4	-0.8	-1.72	-4.85
Stage 4	-1	-3.24	-7.6
Stage 4	-1.2	-5.42	-10.93
Stage 4	-1.4	-8.38	-14.8
Stage 4	-1.6	-12.23	-19.21
Stage 4	-1.8	-17.06	-24.16
Stage 4	-2	-22.98	-29.63
Stage 4	-2.2	-30.1	-35.61
Stage 4	-2.4	-38.52	-42.07
Stage 4	-2.6	-48.32	-49.02
Stage 4	-2.8	-55.6	-36.4
Stage 4	-3	-64.44	-44.2
Stage 4	-3.2	-60.52	19.63
Stage 4	-3.4	-57.81	13.54
Stage 4	-3.6	-55.81	10
Stage 4	-3.8	-54	9.06
Stage 4	-4	-52	10
Stage 4	-4.2	-49.76	11.18
Stage 4	-4.4	-47.28	12.42
Stage 4	-4.6	-44.53	13.73
Stage 4	-4.8	-41.51	15.12
Stage 4	-5	-38.19	16.59
Stage 4	-5.2	-34.58	18.06
Stage 4	-5.4	-30.82	18.79
Stage 4	-5.6	-27.03	18.92
Stage 4	-5.8	-23.32	18.59
Stage 4	-6	-19.75	17.84
Stage 4	-6.2	-16.4	16.73
Stage 4	-6.4	-13.33	15.37
Stage 4	-6.6	-10.55	13.86
Stage 4	-6.8	-8.1	12.28
Stage 4	-7	-5.96	10.69
Stage 4	-7.2	-4.13	9.14
Stage 4	-7.4	-2.6	7.67
Stage 4	-7.6	-1.34	6.3
Stage 4	-7.8	-0.33	5.05
Stage 4	-8	0.46	3.93
Stage 4	-8.2	1.04	2.94
Stage 4	-8.4	1.46	2.09
Stage 4	-8.6	1.74	1.36
Stage 4	-8.8	1.89	0.76
Stage 4	-9	1.94	0.26
Stage 4	-9.2	1.91	-0.13
Stage 4	-9.4	1.82	-0.44
Stage 4	-9.6	1.69	-0.67
Stage 4	-9.8	1.53	-0.83
Stage 4	-10	1.34	-0.93
Stage 4	-10.2	1.15	-0.97
Stage 4	-10.4	0.95	-0.98
Stage 4	-10.6	0.76	-0.95
Stage 4	-10.8	0.58	-0.89
Stage 4	-11	0.42	-0.81
Stage 4	-11.2	0.28	-0.7

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 4	-11.4	0.16	-0.58
Stage 4	-11.6	0.07	-0.43
Stage 4	-11.8	0.02	-0.27
Stage 4	-12	0	-0.1

Tabella Risultati Paratia Nominal - Stage: Stage 5

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	0	0	0
Stage 5	-0.2	0	0
Stage 5	-0.2	0	0
Stage 5	-0.4	-0.11	-0.56
Stage 5	-0.6	-0.47	-1.78
Stage 5	-0.8	-1.2	-3.66
Stage 5	-1	-2.44	-6.21
Stage 5	-1.2	-4.33	-9.44
Stage 5	-1.4	-7	-13.33
Stage 5	-1.6	-10.57	-17.86
Stage 5	-1.8	-15.17	-23.03
Stage 5	-2	-20.94	-28.84
Stage 5	-2.2	-28	-35.28
Stage 5	-2.4	-36.46	-42.32
Stage 5	-2.6	-46.45	-49.96
Stage 5	-2.8	-58.09	-58.17
Stage 5	-3	-71.47	-66.92
Stage 5	-3.2	-86.7	-76.17
Stage 5	-3.4	-82.87	19.15
Stage 5	-3.6	-81.06	9.1
Stage 5	-3.8	-81.31	-1.25
Stage 5	-4	-83.68	-11.85
Stage 5	-4.2	-72.1	57.86
Stage 5	-4.4	-62.35	48.75
Stage 5	-4.6	-53.95	42.04
Stage 5	-4.8	-46.39	37.79
Stage 5	-5	-39.33	35.29
Stage 5	-5.2	-32.69	33.19
Stage 5	-5.4	-26.55	30.73
Stage 5	-5.6	-20.94	28.05
Stage 5	-5.8	-15.88	25.28
Stage 5	-6	-11.4	22.42
Stage 5	-6.2	-7.49	19.52
Stage 5	-6.4	-4.16	16.67
Stage 5	-6.6	-1.37	13.93
Stage 5	-6.8	0.9	11.36
Stage 5	-7	2.7	8.99
Stage 5	-7.2	4.07	6.85
Stage 5	-7.4	5.06	4.96
Stage 5	-7.6	5.72	3.31
Stage 5	-7.8	6.1	1.9
Stage 5	-8	6.24	0.72
Stage 5	-8.2	6.2	-0.24
Stage 5	-8.4	5.99	-1.01
Stage 5	-8.6	5.68	-1.6
Stage 5	-8.8	5.27	-2.02
Stage 5	-9	4.81	-2.31
Stage 5	-9.2	4.31	-2.49
Stage 5	-9.4	3.8	-2.56
Stage 5	-9.6	3.29	-2.55
Stage 5	-9.8	2.8	-2.47
Stage 5	-10	2.33	-2.34
Stage 5	-10.2	1.89	-2.18
Stage 5	-10.4	1.5	-1.98
Stage 5	-10.6	1.14	-1.76
Stage 5	-10.8	0.84	-1.53
Stage 5	-11	0.58	-1.29
Stage 5	-11.2	0.37	-1.05

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 5	-11.4	0.21	-0.81
Stage 5	-11.6	0.09	-0.58
Stage 5	-11.8	0.02	-0.34
Stage 5	-12	0	-0.11

Tabella Risultati Paratia Nominal - Stage: Stage 6

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	0	0	0
Stage 6	-0.2	0	0
Stage 6	-0.2	0	0
Stage 6	-0.4	-0.09	-0.43
Stage 6	-0.6	-0.34	-1.3
Stage 6	-0.8	-0.87	-2.62
Stage 6	-1	-1.75	-4.41
Stage 6	-1.2	-3.09	-6.67
Stage 6	-1.4	-4.96	-9.38
Stage 6	-1.6	-7.47	-12.52
Stage 6	-1.8	-10.69	-16.12
Stage 6	-2	-14.72	-20.15
Stage 6	-2.2	-19.65	-24.63
Stage 6	-2.4	-25.55	-29.54
Stage 6	-2.6	-32.53	-34.9
Stage 6	-2.8	-40.72	-40.95
Stage 6	-3	-50.27	-47.71
Stage 6	-3.2	-61.29	-55.14
Stage 6	-3.4	-73.94	-63.22
Stage 6	-3.6	-88.32	-71.9
Stage 6	-3.8	-104.54	-81.14
Stage 6	-4	-122.72	-90.87
Stage 6	-4.2	-106.72	79.99
Stage 6	-4.4	-92.85	69.37
Stage 6	-4.6	-81.18	58.33
Stage 6	-4.8	-71.79	46.95
Stage 6	-5	-64.74	35.28
Stage 6	-5.2	-51.04	68.46
Stage 6	-5.4	-39.47	57.86
Stage 6	-5.6	-29.7	48.84
Stage 6	-5.8	-21.39	41.55
Stage 6	-6	-14.18	36.09
Stage 6	-6.2	-8.01	30.85
Stage 6	-6.4	-2.83	25.88
Stage 6	-6.6	1.42	21.25
Stage 6	-6.8	4.82	17
Stage 6	-7	7.45	13.17
Stage 6	-7.2	9.41	9.76
Stage 6	-7.4	10.76	6.77
Stage 6	-7.6	11.6	4.2
Stage 6	-7.8	12.01	2.02
Stage 6	-8	12.05	0.21
Stage 6	-8.2	11.79	-1.27
Stage 6	-8.4	11.31	-2.43
Stage 6	-8.6	10.64	-3.31
Stage 6	-8.8	9.85	-3.95
Stage 6	-9	8.98	-4.38
Stage 6	-9.2	8.05	-4.63
Stage 6	-9.4	7.11	-4.72
Stage 6	-9.6	6.17	-4.68
Stage 6	-9.8	5.27	-4.54
Stage 6	-10	4.4	-4.31
Stage 6	-10.2	3.6	-4.02
Stage 6	-10.4	2.86	-3.68
Stage 6	-10.6	2.2	-3.3
Stage 6	-10.8	1.63	-2.89
Stage 6	-11	1.13	-2.47
Stage 6	-11.2	0.73	-2.03

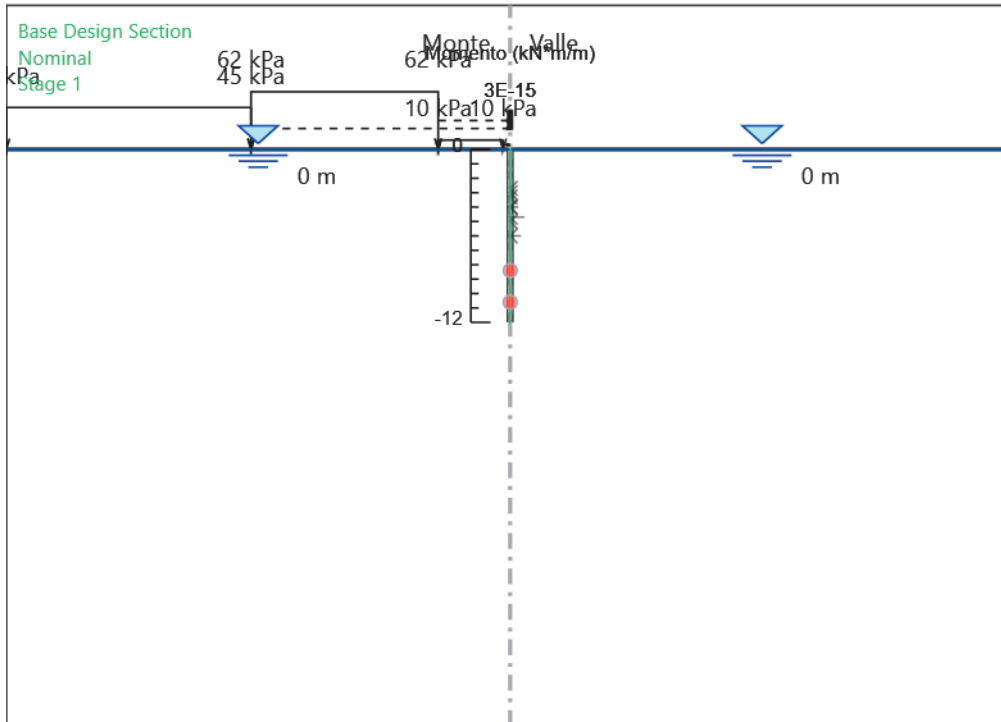
Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 6	-11.4	0.41	-1.58
Stage 6	-11.6	0.18	-1.14
Stage 6	-11.8	0.05	-0.68
Stage 6	-12	0	-0.23

Tabella Risultati Paratia Nominal - Stage: Stage 7

Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	0	0	0
Stage 7	-0.2	0	0
Stage 7	-0.2	0	0
Stage 7	-0.4	-0.08	-0.41
Stage 7	-0.6	-0.33	-1.25
Stage 7	-0.8	-0.84	-2.53
Stage 7	-1	-1.69	-4.25
Stage 7	-1.2	-2.97	-6.42
Stage 7	-1.4	-4.78	-9.03
Stage 7	-1.6	-7.19	-12.05
Stage 7	-1.8	-10.29	-15.51
Stage 7	-2	-14.17	-19.39
Stage 7	-2.2	-18.9	-23.69
Stage 7	-2.4	-24.6	-28.48
Stage 7	-2.6	-31.62	-35.1
Stage 7	-2.8	-40.38	-43.82
Stage 7	-3	-51.15	-53.85
Stage 7	-3.2	-64.15	-65
Stage 7	-3.4	-79.6	-77.24
Stage 7	-3.6	-97.71	-90.56
Stage 7	-3.8	-118.7	-104.91
Stage 7	-4	-142.75	-120.28
Stage 7	-4.2	-170.07	-136.59
Stage 7	-4.4	-200.84	-153.85
Stage 7	-4.6	-235.24	-172
Stage 7	-4.8	-273.43	-190.97
Stage 7	-5	-251.17	111.32
Stage 7	-5.2	-232.98	90.94
Stage 7	-5.4	-219.04	69.72
Stage 7	-5.6	-209.48	47.8
Stage 7	-5.8	-204.42	25.3
Stage 7	-6	-203.95	2.33
Stage 7	-6.2	-159.95	220
Stage 7	-6.4	-120.55	197
Stage 7	-6.6	-85.67	174.43
Stage 7	-6.8	-55.2	152.33
Stage 7	-7	-29.05	130.76
Stage 7	-7.2	-6.83	111.11
Stage 7	-7.4	11.74	92.86
Stage 7	-7.6	26.94	76
Stage 7	-7.8	39.05	60.53
Stage 7	-8	48.33	46.4
Stage 7	-8.2	55.04	33.56
Stage 7	-8.4	59.43	21.97
Stage 7	-8.6	61.75	11.56
Stage 7	-8.8	62.19	2.25
Stage 7	-9	60.99	-6.02
Stage 7	-9.2	58.41	-12.88
Stage 7	-9.4	54.74	-18.35
Stage 7	-9.6	50.24	-22.53
Stage 7	-9.8	45.13	-25.55
Stage 7	-10	39.63	-27.5
Stage 7	-10.2	33.93	-28.47
Stage 7	-10.4	28.22	-28.55
Stage 7	-10.6	22.66	-27.8
Stage 7	-10.8	17.41	-26.27
Stage 7	-11	12.6	-24.02
Stage 7	-11.2	8.39	-21.08

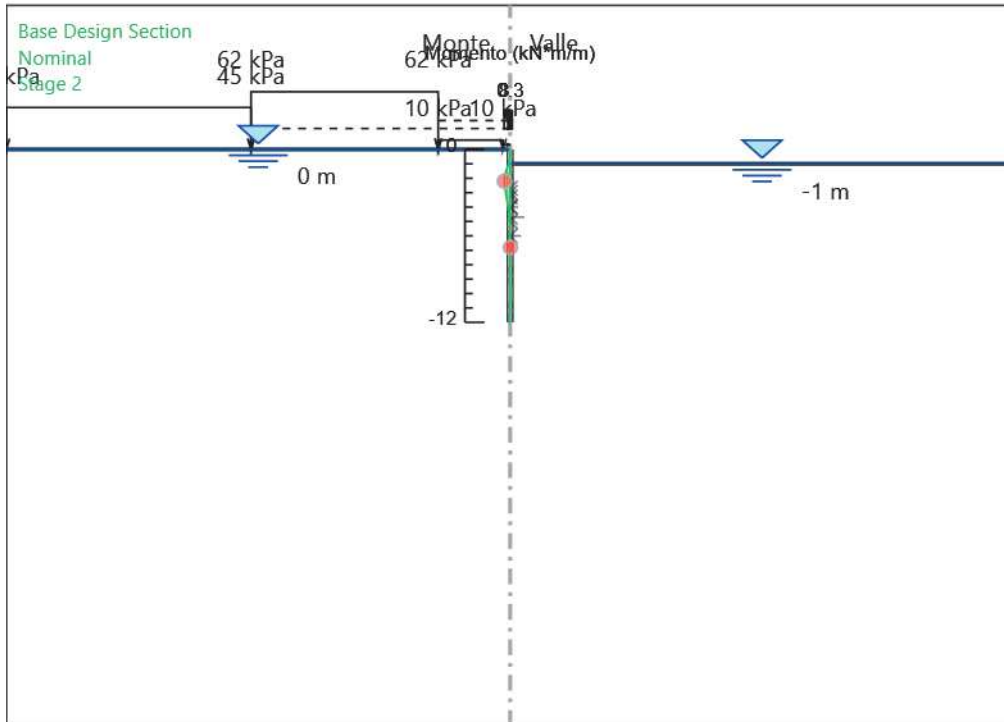
Design Assumption: Nominal Risultati Paratia		Muro: LEFT	
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Stage 7	-11.4	4.89	-17.47
Stage 7	-11.6	2.25	-13.22
Stage 7	-11.8	0.58	-8.33
Stage 7	-12	0	-2.92

Grafico Momento Nominal - Stage: Stage 1



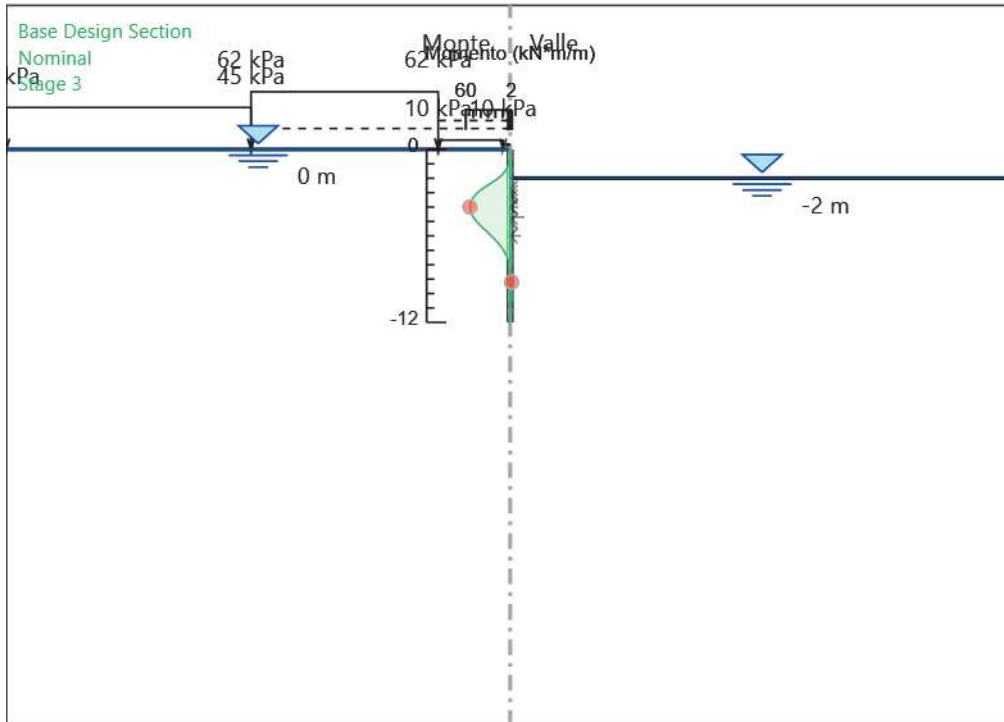
Design Assumption: Nominal
Stage: Stage 1
Momento

Grafico Momento Nominal - Stage: Stage 2



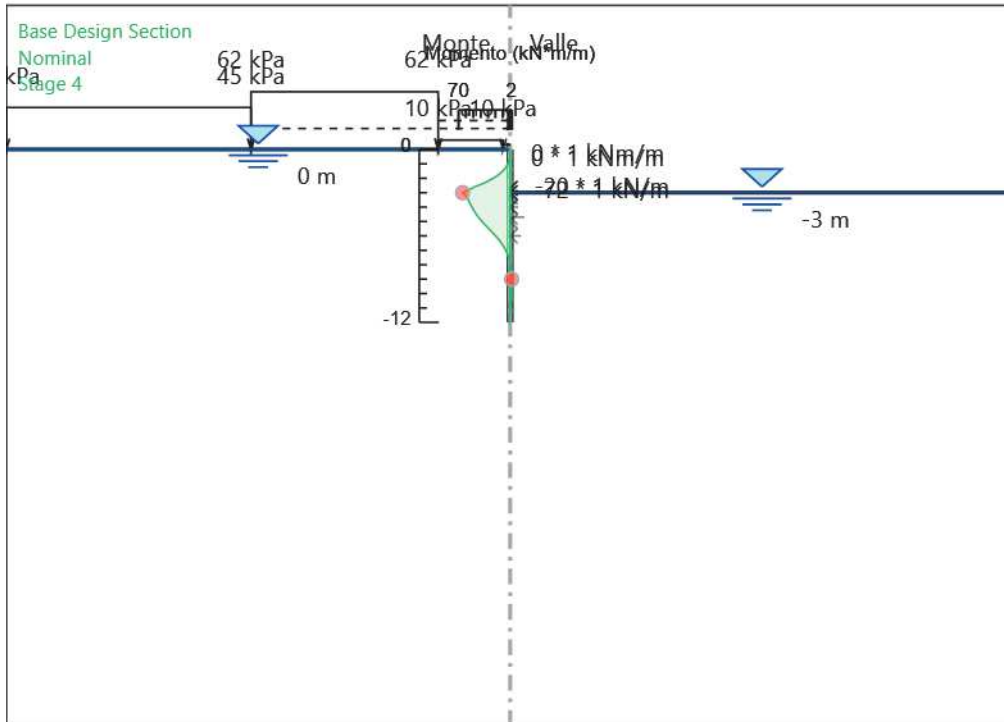
Design Assumption: Nominal
Stage: Stage 2
Momento

Grafico Momento Nominal - Stage: Stage 3



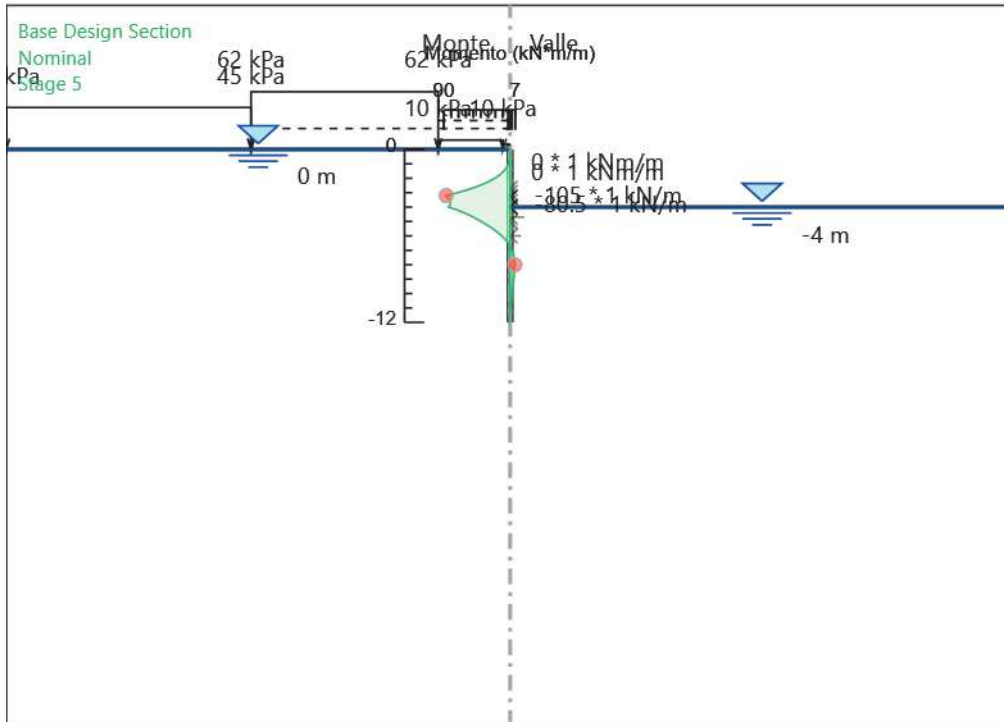
Design Assumption: Nominal
Stage: Stage 3
Momento

Grafico Momento Nominal - Stage: Stage 4



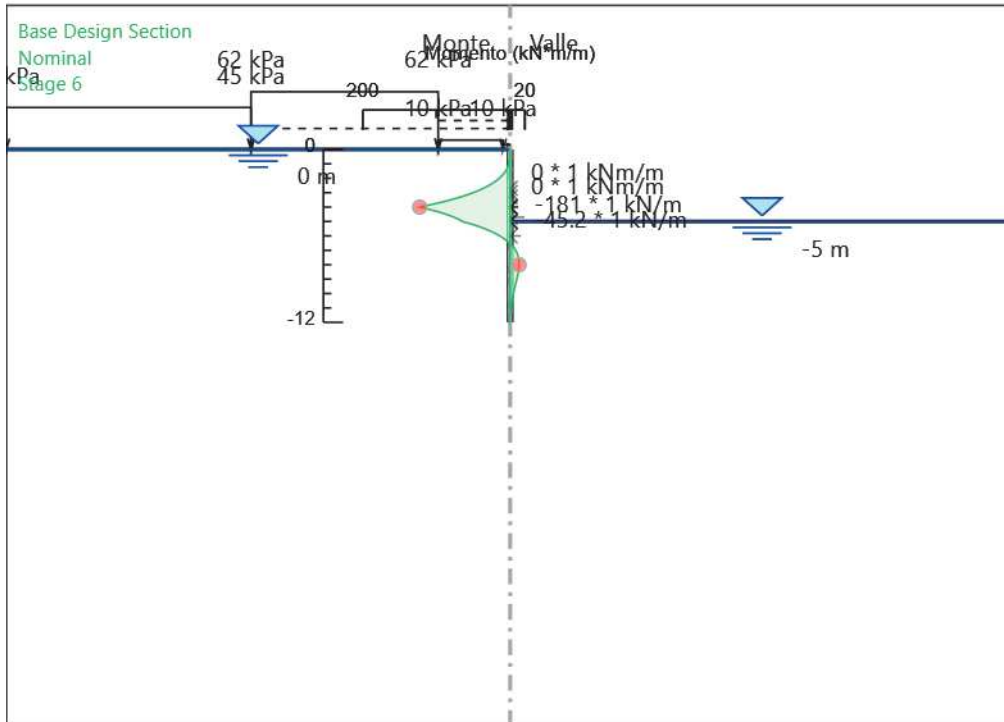
Design Assumption: Nominal
Stage: Stage 4
Momento

Grafico Momento Nominal - Stage: Stage 5



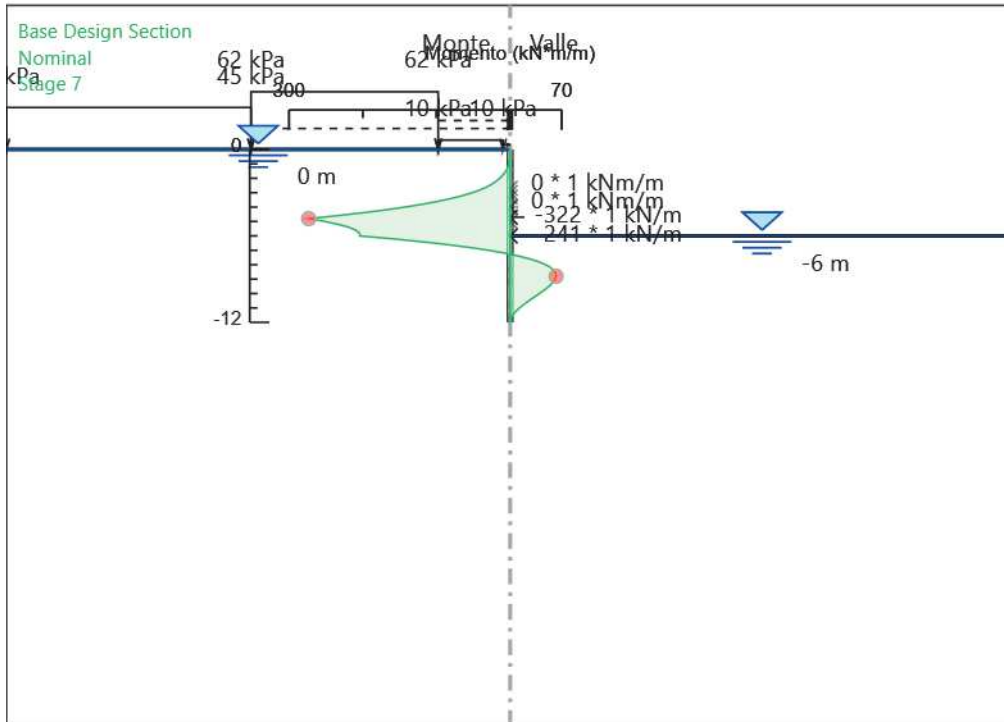
Design Assumption: Nominal
Stage: Stage 5
Momento

Grafico Momento Nominal - Stage: Stage 6



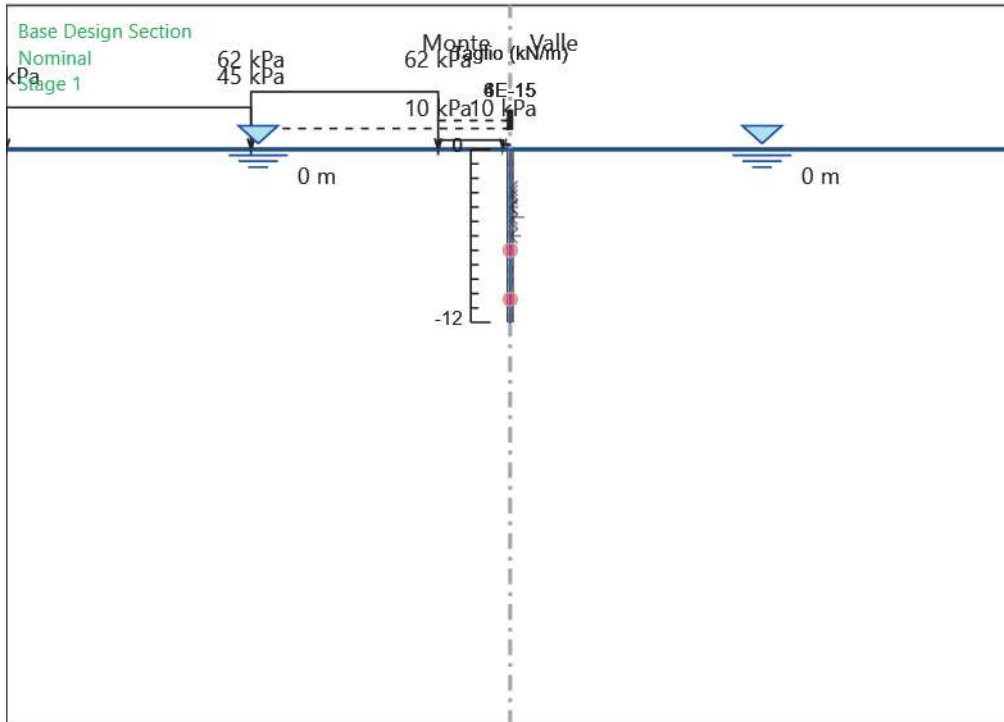
Design Assumption: Nominal
Stage: Stage 6
Momento

Grafico Momento Nominal - Stage: Stage 7



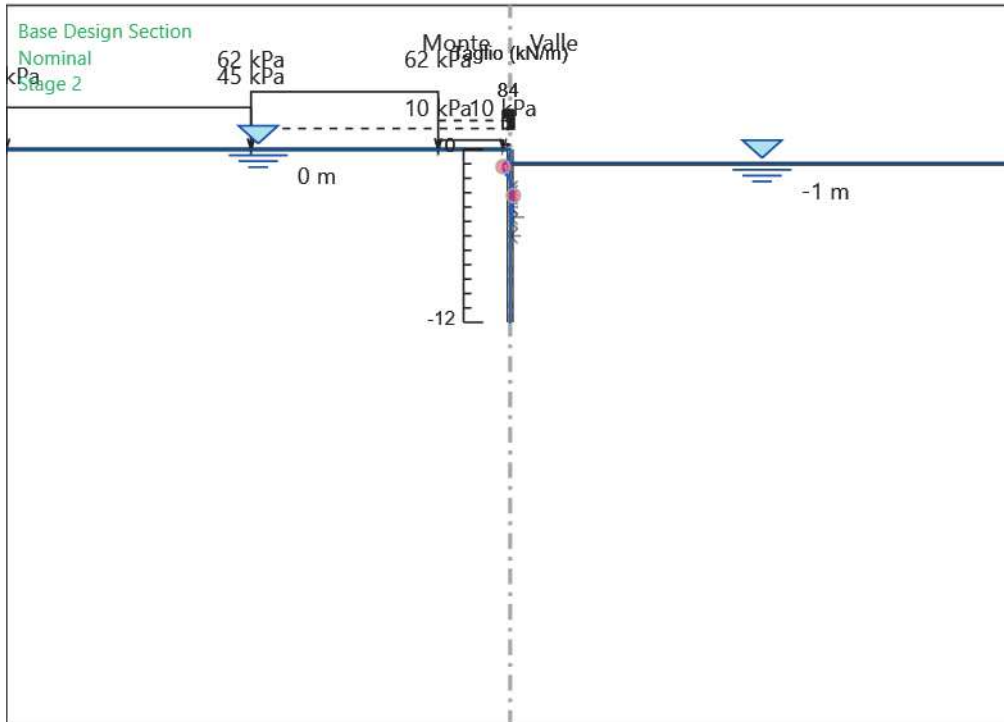
Design Assumption: Nominal
Stage: Stage 7
Momento

Grafico Taglio Nominal - Stage: Stage 1



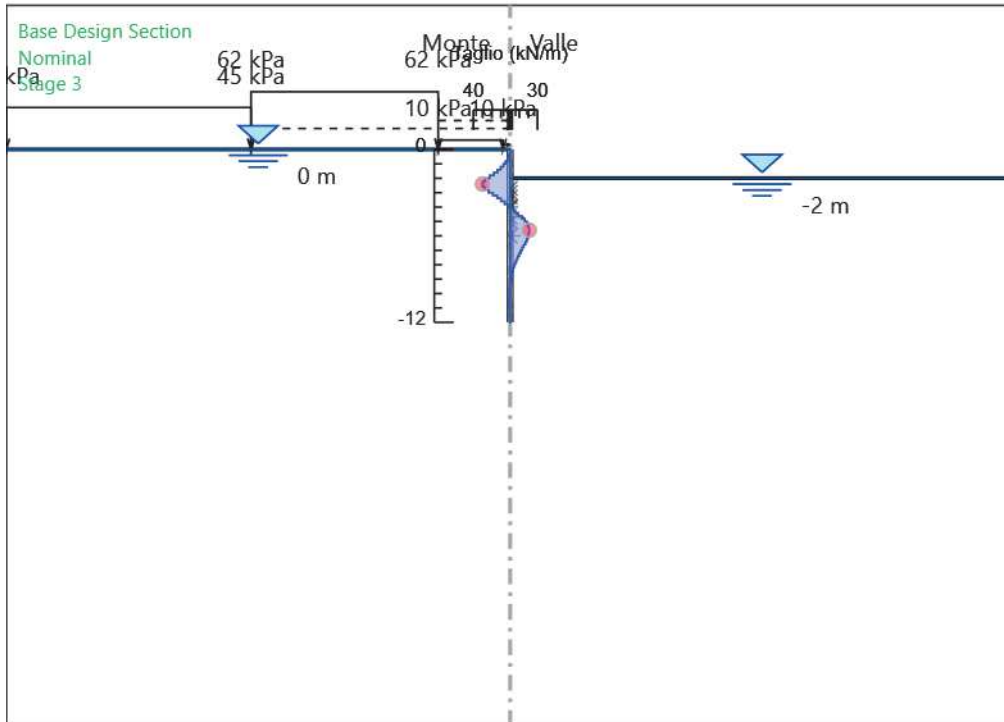
Design Assumption: Nominal
Stage: Stage 1
Taglio

Grafico Taglio Nominal - Stage: Stage 2



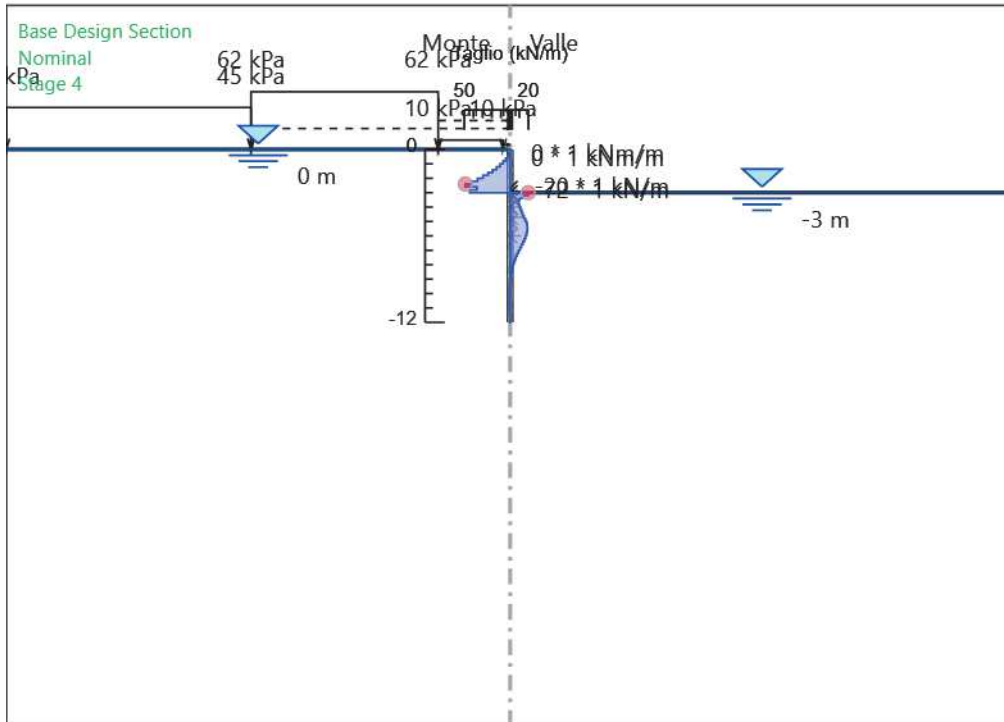
Design Assumption: Nominal
Stage: Stage 2
Taglio

Grafico Taglio Nominal - Stage: Stage 3



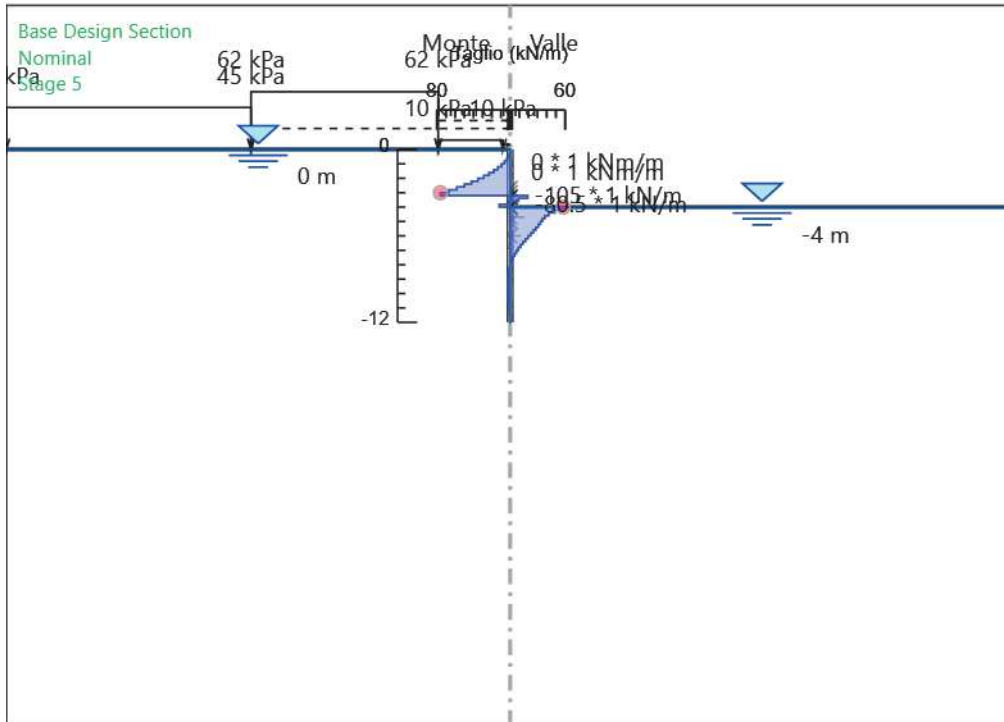
Design Assumption: Nominal
Stage: Stage 3
Taglio

Grafico Taglio Nominal - Stage: Stage 4



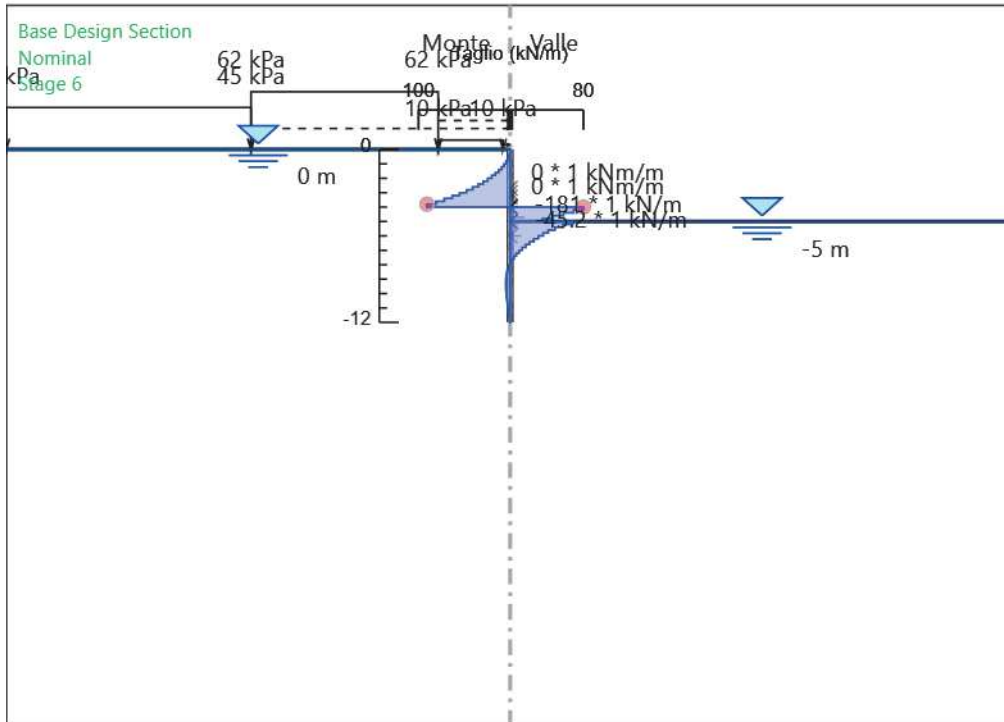
Design Assumption: Nominal
Stage: Stage 4
Taglio

Grafico Taglio Nominal - Stage: Stage 5



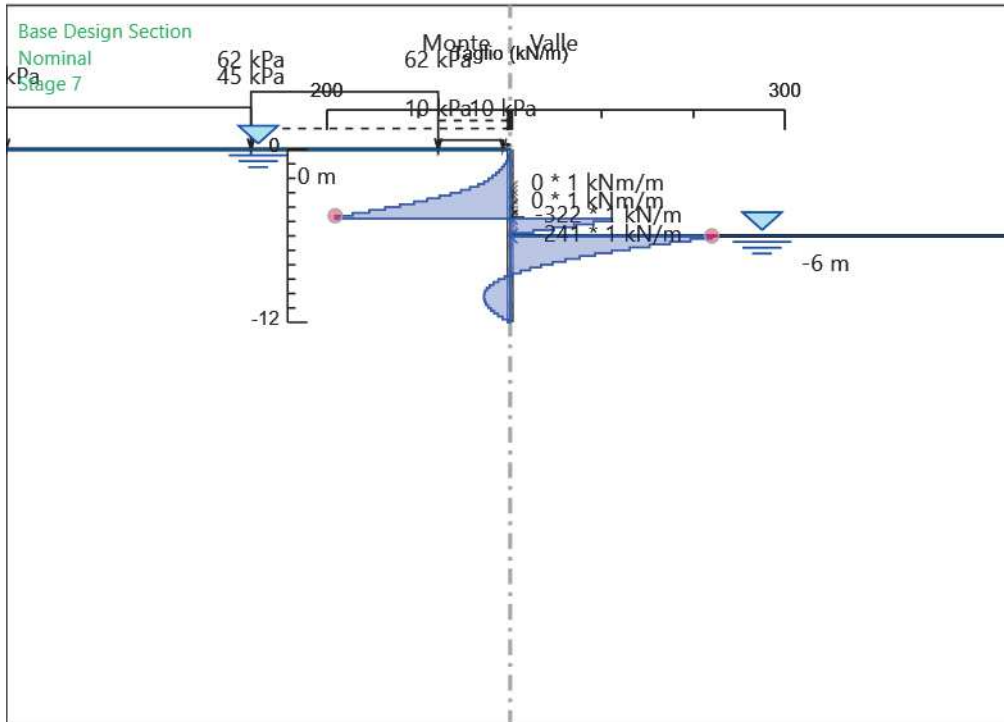
Design Assumption: Nominal
Stage: Stage 5
Taglio

Grafico Taglio Nominal - Stage: Stage 6



Design Assumption: Nominal
Stage: Stage 6
Taglio

Grafico Taglio Nominal - Stage: Stage 7



Design Assumption: Nominal
Stage: Stage 7
Taglio

Inviluppi Risultati Paratia Nominal

Risultati Terreno

Tabella Risultati Terreno Left Wall - Nominal - Stage 1

Design Assumption: Nominal Risultati Terreno										
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	LEFT Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0
Stage 1	-0.2	2.114	4.348	V-C	0.249	6.738	0	2	0	6.348
Stage 1	-0.4	4.601	7.77	V-C	0.249	6.738	0	4	0	11.77
Stage 1	-0.6	7.242	10.437	V-C	0.249	6.738	0	6	0	16.437
Stage 1	-0.8	10.188	12.726	V-C	0.249	6.738	0	8	0	20.726
Stage 1	-1	13.135	14.83	V-C	0.249	6.738	0	10	0	24.83
Stage 1	-1.2	15.661	16.828	V-C	0.249	6.738	0	12	0	28.828
Stage 1	-1.4	18.101	18.75	V-C	0.249	6.738	0	14	0	32.75
Stage 1	-1.6	20.633	20.608	V-C	0.249	6.738	0	16	0	36.608
Stage 1	-1.8	22.984	22.407	V-C	0.249	6.738	0	18	0	40.407
Stage 1	-2	25.438	24.149	V-C	0.249	6.738	0	20	0	44.149
Stage 1	-2.2	27.771	25.833	V-C	0.249	6.738	0	22	0	47.833
Stage 1	-2.4	30.202	27.462	V-C	0.249	6.738	0	24	0	51.462
Stage 1	-2.6	32.543	29.035	V-C	0.249	6.738	0	26	0	55.035
Stage 1	-2.8	34.975	30.555	V-C	0.249	6.738	0	28	0	58.555
Stage 1	-3	37.333	32.023	V-C	0.249	6.738	0	30	0	62.023
Stage 1	-3.2	39.772	33.441	V-C	0.249	6.738	0	32	0	65.441
Stage 1	-3.4	42.148	34.812	V-C	0.249	6.738	0	34	0	68.812
Stage 1	-3.6	44.534	36.137	V-C	0.249	6.738	0	36	0	72.137
Stage 1	-3.8	46.986	37.42	V-C	0.249	6.738	0	38	0	75.42
Stage 1	-4	49.382	38.663	V-C	0.249	6.738	0	40	0	78.663
Stage 1	-4.2	51.837	39.87	V-C	0.249	6.738	0	42	0	81.87
Stage 1	-4.4	54.239	41.041	V-C	0.249	6.738	0	44	0	85.041
Stage 1	-4.6	56.691	42.181	V-C	0.249	6.738	0	46	0	88.181
Stage 1	-4.8	59.093	43.291	V-C	0.249	6.738	0	48	0	91.291
Stage 1	-5	61.495	44.374	V-C	0.249	6.738	0	50	0	94.374
Stage 1	-5.2	63.719	45.433	V-C	0.249	6.738	0	52	0	97.433
Stage 1	-5.4	65.95	46.468	V-C	0.249	6.738	0	54	0	100.468
Stage 1	-5.6	68.186	47.483	V-C	0.249	6.738	0	56	0	103.483
Stage 1	-5.8	70.425	48.479	V-C	0.249	6.738	0	58	0	106.479
Stage 1	-6	72.666	49.458	V-C	0.249	6.738	0	60	0	109.458
Stage 1	-6.2	74.907	50.421	V-C	0.249	6.738	0	62	0	112.421
Stage 1	-6.4	77.149	51.37	V-C	0.249	6.738	0	64	0	115.37
Stage 1	-6.6	79.628	52.306	V-C	0.249	6.738	0	66	0	118.306
Stage 1	-6.8	82.01	53.23	V-C	0.249	6.738	0	68	0	121.23
Stage 1	-7	84.951	54.144	V-C	0.249	6.738	0	70	0	124.144
Stage 1	-7.2	87.295	55.049	V-C	0.249	6.738	0	72	0	127.049
Stage 1	-7.4	90.17	55.945	V-C	0.249	6.738	0	74	0	129.945
Stage 1	-7.6	92.482	56.834	V-C	0.249	6.738	0	76	0	132.834
Stage 1	-7.8	95.3	57.715	V-C	0.249	6.738	0	78	0	135.715
Stage 1	-8	98.084	58.591	V-C	0.249	6.738	0	80	0	138.591
Stage 1	-8.2	100.351	59.461	V-C	0.249	6.738	0	82	0	141.461
Stage 1	-8.4	103.087	60.327	V-C	0.249	6.738	0	84	0	144.327
Stage 1	-8.6	105.332	61.188	V-C	0.249	6.738	0	86	0	147.188
Stage 1	-8.8	108.026	62.045	V-C	0.249	6.738	0	88	0	150.045
Stage 1	-9	110.252	62.899	V-C	0.249	6.738	0	90	0	152.899
Stage 1	-9.2	112.909	63.751	V-C	0.249	6.738	0	92	0	155.751
Stage 1	-9.4	115.117	64.6	V-C	0.249	6.738	0	94	0	158.6
Stage 1	-9.6	117.74	65.446	V-C	0.249	6.738	0	96	0	161.446
Stage 1	-9.8	119.934	66.291	V-C	0.249	6.738	0	98	0	164.291
Stage 1	-10	122.526	67.135	V-C	0.249	6.738	0	100	0	167.135
Stage 1	-10.2	124.706	67.977	V-C	0.249	6.738	0	102	0	169.977
Stage 1	-10.4	127.27	68.818	V-C	0.249	6.738	0	104	0	172.818
Stage 1	-10.6	129.817	69.659	V-C	0.249	6.738	0	106	0	175.659
Stage 1	-10.8	131.977	70.499	V-C	0.249	6.738	0	108	0	178.499

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Muro: LEFT		Lato		LEFT			
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 1	-11	134.5	71.339	V-C	0.249	6.738	0	110	0	0	181.338
Stage 1	-11.2	136.651	72.178	V-C	0.249	6.738	0	112	0	0	184.178
Stage 1	-11.4	139.152	73.017	V-C	0.249	6.738	0	114	0	0	187.017
Stage 1	-11.6	141.293	73.857	V-C	0.249	6.738	0	116	0	0	189.857
Stage 1	-11.8	143.774	74.697	V-C	0.249	6.738	0	118	0	0	192.696
Stage 1	-12	145.908	75.537	V-C	0.249	6.738	0	120	0	0	195.537

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno										
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Muro: LEFT	Lato	RIGHT				
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 1	0	0	0	V-C	0.249	6.738	0	0	0	0
Stage 1	-0.2	2	4.348	V-C	0.249	6.738	0	2	0	6.348
Stage 1	-0.4	4	7.77	V-C	0.249	6.738	0	4	0	11.77
Stage 1	-0.6	6	10.437	V-C	0.249	6.738	0	6	0	16.437
Stage 1	-0.8	8	12.726	V-C	0.249	6.738	0	8	0	20.726
Stage 1	-1	10	14.83	V-C	0.249	6.738	0	10	0	24.83
Stage 1	-1.2	12	16.828	V-C	0.249	6.738	0	12	0	28.828
Stage 1	-1.4	14	18.75	V-C	0.249	6.738	0	14	0	32.75
Stage 1	-1.6	16	20.608	V-C	0.249	6.738	0	16	0	36.608
Stage 1	-1.8	18	22.407	V-C	0.249	6.738	0	18	0	40.407
Stage 1	-2	20	24.149	V-C	0.249	6.738	0	20	0	44.149
Stage 1	-2.2	22	25.833	V-C	0.249	6.738	0	22	0	47.833
Stage 1	-2.4	24	27.462	V-C	0.249	6.738	0	24	0	51.462
Stage 1	-2.6	26	29.035	V-C	0.249	6.738	0	26	0	55.035
Stage 1	-2.8	28	30.555	V-C	0.249	6.738	0	28	0	58.555
Stage 1	-3	30	32.023	V-C	0.249	6.738	0	30	0	62.023
Stage 1	-3.2	32	33.441	V-C	0.249	6.738	0	32	0	65.441
Stage 1	-3.4	34	34.812	V-C	0.249	6.738	0	34	0	68.812
Stage 1	-3.6	36	36.137	V-C	0.249	6.738	0	36	0	72.137
Stage 1	-3.8	38	37.42	V-C	0.249	6.738	0	38	0	75.42
Stage 1	-4	40	38.663	V-C	0.249	6.738	0	40	0	78.663
Stage 1	-4.2	42	39.87	V-C	0.249	6.738	0	42	0	81.87
Stage 1	-4.4	44	41.041	V-C	0.249	6.738	0	44	0	85.041
Stage 1	-4.6	46	42.181	V-C	0.249	6.738	0	46	0	88.181
Stage 1	-4.8	48	43.291	V-C	0.249	6.738	0	48	0	91.291
Stage 1	-5	50	44.374	V-C	0.249	6.738	0	50	0	94.374
Stage 1	-5.2	52	45.433	V-C	0.249	6.738	0	52	0	97.433
Stage 1	-5.4	54	46.468	V-C	0.249	6.738	0	54	0	100.468
Stage 1	-5.6	56	47.483	V-C	0.249	6.738	0	56	0	103.483
Stage 1	-5.8	58	48.479	V-C	0.249	6.738	0	58	0	106.479
Stage 1	-6	60	49.458	V-C	0.249	6.738	0	60	0	109.458
Stage 1	-6.2	62	50.421	V-C	0.249	6.738	0	62	0	112.421
Stage 1	-6.4	64	51.37	V-C	0.249	6.738	0	64	0	115.37
Stage 1	-6.6	66	52.306	V-C	0.249	6.738	0	66	0	118.306
Stage 1	-6.8	68	53.23	V-C	0.249	6.738	0	68	0	121.23
Stage 1	-7	70	54.144	V-C	0.249	6.738	0	70	0	124.144
Stage 1	-7.2	72	55.049	V-C	0.249	6.738	0	72	0	127.049
Stage 1	-7.4	74	55.945	V-C	0.249	6.738	0	74	0	129.945
Stage 1	-7.6	76	56.834	V-C	0.249	6.738	0	76	0	132.834
Stage 1	-7.8	78	57.715	V-C	0.249	6.738	0	78	0	135.715
Stage 1	-8	80	58.591	V-C	0.249	6.738	0	80	0	138.591
Stage 1	-8.2	82	59.461	V-C	0.249	6.738	0	82	0	141.461
Stage 1	-8.4	84	60.327	V-C	0.249	6.738	0	84	0	144.327
Stage 1	-8.6	86	61.188	V-C	0.249	6.738	0	86	0	147.188
Stage 1	-8.8	88	62.045	V-C	0.249	6.738	0	88	0	150.045
Stage 1	-9	90	62.899	V-C	0.249	6.738	0	90	0	152.899
Stage 1	-9.2	92	63.751	V-C	0.249	6.738	0	92	0	155.751
Stage 1	-9.4	94	64.6	V-C	0.249	6.738	0	94	0	158.6
Stage 1	-9.6	96	65.446	V-C	0.249	6.738	0	96	0	161.446
Stage 1	-9.8	98	66.291	V-C	0.249	6.738	0	98	0	164.291
Stage 1	-10	100	67.135	V-C	0.249	6.738	0	100	0	167.135
Stage 1	-10.2	102	67.977	V-C	0.249	6.738	0	102	0	169.977
Stage 1	-10.4	104	68.818	V-C	0.249	6.738	0	104	0	172.818
Stage 1	-10.6	106	69.659	V-C	0.249	6.738	0	106	0	175.659
Stage 1	-10.8	108	70.499	V-C	0.249	6.738	0	108	0	178.499
Stage 1	-11	110	71.339	V-C	0.249	6.738	0	110	0	181.338
Stage 1	-11.2	112	72.178	V-C	0.249	6.738	0	112	0	184.178
Stage 1	-11.4	114	73.017	V-C	0.249	6.738	0	114	0	187.017
Stage 1	-11.6	116	73.857	V-C	0.249	6.738	0	116	0	189.857
Stage 1	-11.8	118	74.697	V-C	0.249	6.738	0	118	0	192.696
Stage 1	-12	120	75.537	V-C	0.249	6.738	0	120	0	195.537

Tabella Risultati Terreno Left Wall - Nominal - Stage 2

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 2	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 2	-0.2	2.201	0.548	ACTIVE	0.249	6.738	0	1.913	0.043	0 2.461
Stage 2	-0.4	4.775	1.189	ACTIVE	0.249	6.738	0	3.826	0.043	0 5.015
Stage 2	-0.6	7.503	1.868	ACTIVE	0.249	6.738	0	5.739	0.043	0 7.607
Stage 2	-0.8	10.536	2.623	ACTIVE	0.249	6.738	0	7.652	0.043	0 10.276
Stage 2	-1	13.57	3.379	ACTIVE	0.249	6.738	0	9.565	0.043	0 12.944
Stage 2	-1.2	16.183	4.029	ACTIVE	0.249	6.738	0	11.478	0.043	0 15.508
Stage 2	-1.4	18.71	4.659	ACTIVE	0.249	6.738	0	13.391	0.043	0 18.05
Stage 2	-1.6	21.328	5.311	ACTIVE	0.249	6.738	0	15.304	0.043	0 20.615
Stage 2	-1.8	23.767	5.918	ACTIVE	0.249	6.738	0	17.217	0.043	0 23.135
Stage 2	-2	26.308	7.854	UL-RL	0.249	6.738	0	19.13	0.043	0 26.985
Stage 2	-2.2	28.727	11.519	UL-RL	0.249	6.738	0	21.043	0.043	0 32.563
Stage 2	-2.4	31.246	14.891	UL-RL	0.249	6.738	0	22.957	0.043	0 37.847
Stage 2	-2.6	33.673	17.975	UL-RL	0.249	6.738	0	24.87	0.043	0 42.844
Stage 2	-2.8	36.192	20.783	UL-RL	0.249	6.738	0	26.783	0.043	0 47.566
Stage 2	-3	38.637	23.333	UL-RL	0.249	6.738	0	28.696	0.043	0 52.029
Stage 2	-3.2	41.164	25.646	UL-RL	0.249	6.738	0	30.609	0.043	0 56.254
Stage 2	-3.4	43.627	27.743	UL-RL	0.249	6.738	0	32.522	0.043	0 60.265
Stage 2	-3.6	46.099	29.649	UL-RL	0.249	6.738	0	34.435	0.043	0 64.084
Stage 2	-3.8	48.638	31.387	UL-RL	0.249	6.738	0	36.348	0.043	0 67.735
Stage 2	-4	51.121	32.98	UL-RL	0.249	6.738	0	38.261	0.043	0 71.241
Stage 2	-4.2	53.663	34.449	UL-RL	0.249	6.738	0	40.174	0.043	0 74.623
Stage 2	-4.4	56.152	35.814	UL-RL	0.249	6.738	0	42.087	0.043	0 77.901
Stage 2	-4.6	58.691	37.094	UL-RL	0.249	6.738	0	44	0.043	0 81.094
Stage 2	-4.8	61.18	38.303	UL-RL	0.249	6.738	0	45.913	0.043	0 84.216
Stage 2	-5	63.668	39.455	UL-RL	0.249	6.738	0	47.826	0.043	0 87.281
Stage 2	-5.2	65.98	40.563	UL-RL	0.249	6.738	0	49.739	0.043	0 90.302
Stage 2	-5.4	68.298	41.635	UL-RL	0.249	6.738	0	51.652	0.043	0 93.287
Stage 2	-5.6	70.621	42.681	UL-RL	0.249	6.738	0	53.565	0.043	0 96.246
Stage 2	-5.8	72.947	43.707	UL-RL	0.249	6.738	0	55.478	0.043	0 99.185
Stage 2	-6	75.275	44.717	UL-RL	0.249	6.738	0	57.391	0.043	0 102.109
Stage 2	-6.2	77.603	45.717	UL-RL	0.249	6.738	0	59.304	0.043	0 105.022
Stage 2	-6.4	79.931	46.71	UL-RL	0.249	6.738	0	61.217	0.043	0 107.927
Stage 2	-6.6	82.498	47.697	UL-RL	0.249	6.738	0	63.13	0.043	0 110.827
Stage 2	-6.8	84.966	48.681	UL-RL	0.249	6.738	0	65.043	0.043	0 113.724
Stage 2	-7	87.995	49.662	UL-RL	0.249	6.738	0	66.956	0.043	0 116.619
Stage 2	-7.2	90.425	50.642	UL-RL	0.249	6.738	0	68.87	0.043	0 119.512
Stage 2	-7.4	93.388	51.621	UL-RL	0.249	6.738	0	70.783	0.043	0 122.404
Stage 2	-7.6	95.787	52.6	UL-RL	0.249	6.738	0	72.696	0.043	0 125.295
Stage 2	-7.8	98.691	53.577	UL-RL	0.249	6.738	0	74.609	0.043	0 128.186
Stage 2	-8	101.562	54.554	UL-RL	0.249	6.738	0	76.522	0.043	0 131.076
Stage 2	-8.2	103.916	55.53	UL-RL	0.249	6.738	0	78.435	0.043	0 133.965
Stage 2	-8.4	106.74	56.505	UL-RL	0.249	6.738	0	80.348	0.043	0 136.853
Stage 2	-8.6	109.071	57.479	UL-RL	0.249	6.738	0	82.261	0.043	0 139.74
Stage 2	-8.8	111.852	58.452	UL-RL	0.249	6.738	0	84.174	0.043	0 142.626
Stage 2	-9	114.165	59.423	UL-RL	0.249	6.738	0	86.087	0.043	0 145.51
Stage 2	-9.2	116.909	60.393	UL-RL	0.249	6.738	0	88	0.043	0 148.393
Stage 2	-9.4	119.204	61.361	UL-RL	0.249	6.738	0	89.913	0.043	0 151.274
Stage 2	-9.6	121.914	62.328	UL-RL	0.249	6.738	0	91.826	0.043	0 154.154
Stage 2	-9.8	124.194	63.294	UL-RL	0.249	6.738	0	93.739	0.043	0 157.033
Stage 2	-10	126.873	64.258	UL-RL	0.249	6.738	0	95.652	0.043	0 159.91
Stage 2	-10.2	129.141	65.222	UL-RL	0.249	6.738	0	97.565	0.043	0 162.787
Stage 2	-10.4	131.792	66.184	UL-RL	0.249	6.738	0	99.478	0.043	0 165.662
Stage 2	-10.6	134.426	67.145	UL-RL	0.249	6.738	0	101.391	0.043	0 168.536
Stage 2	-10.8	136.673	68.106	UL-RL	0.249	6.738	0	103.304	0.043	0 171.41
Stage 2	-11	139.283	69.066	UL-RL	0.249	6.738	0	105.217	0.043	0 174.283
Stage 2	-11.2	141.52	70.026	UL-RL	0.249	6.738	0	107.13	0.043	0 177.156
Stage 2	-11.4	144.108	70.985	UL-RL	0.249	6.738	0	109.043	0.043	0 180.028

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Muro:		LEFT		Lato		LEFT			
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 2	-11.6	146.337	71.945	UL-RL	0.249	6.738	0	110.956	0.043	0	182.901
Stage 2	-11.8	148.904	72.905	UL-RL	0.249	6.738	0	112.87	0.043	0	185.774
Stage 2	-12	151.125	73.865	UL-RL	0.249	6.738	0	114.783	0.043	0	188.648

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno		Muro:		LEFT	Lato		RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 2	0	0	0	REMOVED	0	0	0	0	0	0	
Stage 2	-0.2	0	0	REMOVED	0	0	0	0	0	0	
Stage 2	-0.4	0	0	REMOVED	0	0	0	0	0	0	
Stage 2	-0.6	0	0	REMOVED	0	0	0	0	0	0	
Stage 2	-0.8	0	0	REMOVED	0	0	0	0	0	0	
Stage 2	-1	0	0	PASSIVE	0.2496.738		0	0	0	0	
Stage 2	-1.2	1.913	12.89	PASSIVE	0.2496.738		0	2.087	0.043	0 14.977	
Stage 2	-1.4	3.826	21.591	V-C	0.2496.738		0	4.174	0.043	0 25.765	
Stage 2	-1.6	5.739	23.066	V-C	0.2496.738		0	6.261	0.043	0 29.327	
Stage 2	-1.8	7.652	24.495	V-C	0.2496.738		0	8.348	0.043	0 32.843	
Stage 2	-2	9.565	25.893	V-C	0.2496.738		0	10.435	0.043	0 36.328	
Stage 2	-2.2	11.478	27.267	V-C	0.2496.738		0	12.522	0.043	0 39.788	
Stage 2	-2.4	13.391	28.62	V-C	0.2496.738		0	14.609	0.043	0 43.228	
Stage 2	-2.6	15.304	29.953	V-C	0.2496.738		0	16.696	0.043	0 46.649	
Stage 2	-2.8	17.217	31.268	V-C	0.2496.738		0	18.783	0.043	0 50.051	
Stage 2	-3	19.13	32.564	V-C	0.2496.738		0	20.87	0.043	0 53.434	
Stage 2	-3.2	21.043	33.84	V-C	0.2496.738		0	22.957	0.043	0 56.797	
Stage 2	-3.4	22.957	35.095	V-C	0.2496.738		0	25.043	0.043	0 60.139	
Stage 2	-3.6	24.87	36.289	UL-RL	0.2496.738		0	27.13	0.043	0 63.419	
Stage 2	-3.8	26.783	37.412	UL-RL	0.2496.738		0	29.217	0.043	0 66.63	
Stage 2	-4	28.696	38.541	UL-RL	0.2496.738		0	31.304	0.043	0 69.845	
Stage 2	-4.2	30.609	39.669	UL-RL	0.2496.738		0	33.391	0.043	0 73.061	
Stage 2	-4.4	32.522	40.793	UL-RL	0.2496.738		0	35.478	0.043	0 76.271	
Stage 2	-4.6	34.435	41.907	UL-RL	0.2496.738		0	37.565	0.043	0 79.472	
Stage 2	-4.8	36.348	43.009	UL-RL	0.2496.738		0	39.652	0.043	0 82.661	
Stage 2	-5	38.261	44.097	UL-RL	0.2496.738		0	41.739	0.043	0 85.836	
Stage 2	-5.2	40.174	45.167	UL-RL	0.2496.738		0	43.826	0.043	0 88.993	
Stage 2	-5.4	42.087	46.22	UL-RL	0.2496.738		0	45.913	0.043	0 92.133	
Stage 2	-5.6	44	47.255	UL-RL	0.2496.738		0	48	0.043	0 95.255	
Stage 2	-5.8	45.913	48.271	UL-RL	0.2496.738		0	50.087	0.043	0 98.358	
Stage 2	-6	47.826	49.247	UL-RL	0.2496.738		0	52.174	0.043	0 101.421	
Stage 2	-6.2	49.739	50.196	UL-RL	0.2496.738		0	54.261	0.043	0 104.457	
Stage 2	-6.4	51.652	51.126	UL-RL	0.2496.738		0	56.348	0.043	0 107.474	
Stage 2	-6.6	53.565	52.04	UL-RL	0.2496.738		0	58.435	0.043	0 110.475	
Stage 2	-6.8	55.478	52.938	UL-RL	0.2496.738		0	60.522	0.043	0 113.46	
Stage 2	-7	57.391	53.821	UL-RL	0.2496.738		0	62.609	0.043	0 116.43	
Stage 2	-7.2	59.304	54.69	UL-RL	0.2496.738		0	64.696	0.043	0 119.386	
Stage 2	-7.4	61.217	55.548	UL-RL	0.2496.738		0	66.783	0.043	0 122.33	
Stage 2	-7.6	63.13	56.394	UL-RL	0.2496.738		0	68.87	0.043	0 125.263	
Stage 2	-7.8	65.043	57.23	UL-RL	0.2496.738		0	70.956	0.043	0 128.186	
Stage 2	-8	66.956	58.057	UL-RL	0.2496.738		0	73.043	0.043	0 131.1	
Stage 2	-8.2	68.87	58.876	UL-RL	0.2496.738		0	75.13	0.043	0 134.006	
Stage 2	-8.4	70.783	59.689	UL-RL	0.2496.738		0	77.217	0.043	0 136.906	
Stage 2	-8.6	72.696	60.495	UL-RL	0.2496.738		0	79.304	0.043	0 139.8	
Stage 2	-8.8	74.609	61.297	UL-RL	0.2496.738		0	81.391	0.043	0 142.688	
Stage 2	-9	76.522	62.094	UL-RL	0.2496.738		0	83.478	0.043	0 145.573	
Stage 2	-9.2	78.435	62.888	UL-RL	0.2496.738		0	85.565	0.043	0 148.453	
Stage 2	-9.4	80.348	63.679	UL-RL	0.2496.738		0	87.652	0.043	0 151.331	
Stage 2	-9.6	82.261	64.467	UL-RL	0.2496.738		0	89.739	0.043	0 154.206	
Stage 2	-9.8	84.174	65.253	UL-RL	0.2496.738		0	91.826	0.043	0 157.079	
Stage 2	-10	86.087	66.037	UL-RL	0.2496.738		0	93.913	0.043	0 159.95	
Stage 2	-10.2	88	66.82	UL-RL	0.2496.738		0	96	0.043	0 162.82	
Stage 2	-10.4	89.913	67.603	UL-RL	0.2496.738		0	98.087	0.043	0 165.689	
Stage 2	-10.6	91.826	68.384	UL-RL	0.2496.738		0	100.174	0.043	0 168.558	
Stage 2	-10.8	93.739	69.165	UL-RL	0.2496.738		0	102.261	0.043	0 171.426	
Stage 2	-11	95.652	69.945	UL-RL	0.2496.738		0	104.348	0.043	0 174.293	
Stage 2	-11.2	97.565	70.726	UL-RL	0.2496.738		0	106.435	0.043	0 177.16	
Stage 2	-11.4	99.478	71.506	UL-RL	0.2496.738		0	108.522	0.043	0 180.028	
Stage 2	-11.6	101.391	72.286	UL-RL	0.2496.738		0	110.609	0.043	0 182.895	
Stage 2	-11.8	103.304	73.067	UL-RL	0.2496.738		0	112.696	0.043	0 185.762	
Stage 2	-12	105.217	73.848	UL-RL	0.2496.738		0	114.783	0.043	0 188.63	

Tabella Risultati Terreno Left Wall - Nominal - Stage 3

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 3	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 3	-0.2	2.296	0.572	ACTIVE	0.249	6.738	0	1.818	0.091	0 2.39
Stage 3	-0.4	4.964	1.236	ACTIVE	0.249	6.738	0	3.636	0.091	0 4.872
Stage 3	-0.6	7.787	1.939	ACTIVE	0.249	6.738	0	5.455	0.091	0 7.394
Stage 3	-0.8	10.915	2.718	ACTIVE	0.249	6.738	0	7.273	0.091	0 9.991
Stage 3	-1	14.044	3.497	ACTIVE	0.249	6.738	0	9.091	0.091	0 12.588
Stage 3	-1.2	16.752	4.171	ACTIVE	0.249	6.738	0	10.909	0.091	0 15.08
Stage 3	-1.4	19.374	4.824	ACTIVE	0.249	6.738	0	12.727	0.091	0 17.551
Stage 3	-1.6	22.087	5.5	ACTIVE	0.249	6.738	0	14.545	0.091	0 20.045
Stage 3	-1.8	24.62	6.13	ACTIVE	0.249	6.738	0	16.364	0.091	0 22.494
Stage 3	-2	27.256	6.787	ACTIVE	0.249	6.738	0	18.182	0.091	0 24.969
Stage 3	-2.2	29.771	7.413	ACTIVE	0.249	6.738	0	20	0.091	0 27.413
Stage 3	-2.4	32.384	8.064	ACTIVE	0.249	6.738	0	21.818	0.091	0 29.882
Stage 3	-2.6	34.907	8.692	ACTIVE	0.249	6.738	0	23.636	0.091	0 32.328
Stage 3	-2.8	37.52	9.343	ACTIVE	0.249	6.738	0	25.455	0.091	0 34.797
Stage 3	-3	40.06	9.975	ACTIVE	0.249	6.738	0	27.273	0.091	0 37.248
Stage 3	-3.2	42.681	10.628	ACTIVE	0.249	6.738	0	29.091	0.091	0 39.719
Stage 3	-3.4	45.239	11.265	ACTIVE	0.249	6.738	0	30.909	0.091	0 42.174
Stage 3	-3.6	47.806	11.904	ACTIVE	0.249	6.738	0	32.727	0.091	0 44.631
Stage 3	-3.8	50.44	12.56	ACTIVE	0.249	6.738	0	34.545	0.091	0 47.105
Stage 3	-4	53.018	13.202	ACTIVE	0.249	6.738	0	36.364	0.091	0 49.565
Stage 3	-4.2	55.655	13.858	ACTIVE	0.249	6.738	0	38.182	0.091	0 52.04
Stage 3	-4.4	58.239	14.501	ACTIVE	0.249	6.738	0	40	0.091	0 54.501
Stage 3	-4.6	60.873	15.157	ACTIVE	0.249	6.738	0	41.818	0.091	0 56.976
Stage 3	-4.8	63.457	15.801	ACTIVE	0.249	6.738	0	43.636	0.091	0 59.437
Stage 3	-5	66.04	21.125	UL-RL	0.249	6.738	0	45.455	0.091	0 66.579
Stage 3	-5.2	68.446	26.676	UL-RL	0.249	6.738	0	47.273	0.091	0 73.949
Stage 3	-5.4	70.859	31.44	UL-RL	0.249	6.738	0	49.091	0.091	0 80.531
Stage 3	-5.6	73.277	35.493	UL-RL	0.249	6.738	0	50.909	0.091	0 86.402
Stage 3	-5.8	75.698	38.913	UL-RL	0.249	6.738	0	52.727	0.091	0 91.641
Stage 3	-6	78.121	41.78	UL-RL	0.249	6.738	0	54.545	0.091	0 96.325
Stage 3	-6.2	80.544	44.169	UL-RL	0.249	6.738	0	56.364	0.091	0 100.533
Stage 3	-6.4	82.967	46.153	UL-RL	0.249	6.738	0	58.182	0.091	0 104.335
Stage 3	-6.6	85.628	47.8	UL-RL	0.249	6.738	0	60	0.091	0 107.8
Stage 3	-6.8	88.192	49.172	UL-RL	0.249	6.738	0	61.818	0.091	0 110.99
Stage 3	-7	91.315	50.323	UL-RL	0.249	6.738	0	63.636	0.091	0 113.96
Stage 3	-7.2	93.84	51.304	UL-RL	0.249	6.738	0	65.455	0.091	0 116.758
Stage 3	-7.4	96.898	52.156	UL-RL	0.249	6.738	0	67.273	0.091	0 119.429
Stage 3	-7.6	99.391	52.917	UL-RL	0.249	6.738	0	69.091	0.091	0 122.008
Stage 3	-7.8	102.391	53.617	UL-RL	0.249	6.738	0	70.909	0.091	0 124.526
Stage 3	-8	105.357	54.282	UL-RL	0.249	6.738	0	72.727	0.091	0 127.009
Stage 3	-8.2	107.805	54.931	UL-RL	0.249	6.738	0	74.545	0.091	0 129.477
Stage 3	-8.4	110.724	55.582	UL-RL	0.249	6.738	0	76.364	0.091	0 131.945
Stage 3	-8.6	113.15	56.245	UL-RL	0.249	6.738	0	78.182	0.091	0 134.427
Stage 3	-8.8	116.026	56.931	UL-RL	0.249	6.738	0	80	0.091	0 136.931
Stage 3	-9	118.434	57.644	UL-RL	0.249	6.738	0	81.818	0.091	0 139.462
Stage 3	-9.2	121.272	58.389	UL-RL	0.249	6.738	0	83.636	0.091	0 142.025
Stage 3	-9.4	123.663	59.167	UL-RL	0.249	6.738	0	85.455	0.091	0 144.621
Stage 3	-9.6	126.467	59.978	UL-RL	0.249	6.738	0	87.273	0.091	0 147.25
Stage 3	-9.8	128.843	60.82	UL-RL	0.249	6.738	0	89.091	0.091	0 149.911
Stage 3	-10	131.616	61.692	UL-RL	0.249	6.738	0	90.909	0.091	0 152.601
Stage 3	-10.2	133.979	62.59	UL-RL	0.249	6.738	0	92.727	0.091	0 155.317
Stage 3	-10.4	136.725	63.511	UL-RL	0.249	6.738	0	94.545	0.091	0 158.057
Stage 3	-10.6	139.453	64.452	UL-RL	0.249	6.738	0	96.364	0.091	0 160.816
Stage 3	-10.8	141.796	65.409	UL-RL	0.249	6.738	0	98.182	0.091	0 163.591
Stage 3	-11	144.5	66.379	UL-RL	0.249	6.738	0	100	0.091	0 166.379
Stage 3	-11.2	146.833	67.358	UL-RL	0.249	6.738	0	101.818	0.091	0 169.176
Stage 3	-11.4	149.515	68.343	UL-RL	0.249	6.738	0	103.636	0.091	0 171.979

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro:		Lato		LEFT				
			Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 3	-11.6	151.839	69.331	UL-RL	0.249	6.738	0	105.454	0.091	0	174.786
Stage 3	-11.8	154.501	70.322	UL-RL	0.249	6.738	0	107.273	0.091	0	177.595
Stage 3	-12	156.817	71.314	UL-RL	0.249	6.738	0	109.091	0.091	0	180.405

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 3	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 3	-2	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 3	-2.2	1.818	12.251	PASSIVE	0.2496.738		0	2.182	0.091	0	14.433
Stage 3	-2.4	3.636	24.502	PASSIVE	0.2496.738		0	4.364	0.091	0	28.865
Stage 3	-2.6	5.455	36.753	PASSIVE	0.2496.738		0	6.545	0.091	0	43.298
Stage 3	-2.8	7.273	49.004	PASSIVE	0.2496.738		0	8.727	0.091	0	57.731
Stage 3	-3	9.091	49.923	V-C	0.2496.738		0	10.909	0.091	0	60.832
Stage 3	-3.2	10.909	49.042	V-C	0.2496.738		0	13.091	0.091	0	62.133
Stage 3	-3.4	12.727	48.261	V-C	0.2496.738		0	15.273	0.091	0	63.534
Stage 3	-3.6	14.545	47.591	V-C	0.2496.738		0	17.455	0.091	0	65.046
Stage 3	-3.8	16.364	47.041	V-C	0.2496.738		0	19.636	0.091	0	66.677
Stage 3	-4	18.182	46.617	V-C	0.2496.738		0	21.818	0.091	0	68.435
Stage 3	-4.2	20	46.323	V-C	0.2496.738		0	24	0.091	0	70.323
Stage 3	-4.4	21.818	46.159	V-C	0.2496.738		0	26.182	0.091	0	72.34
Stage 3	-4.6	23.636	46.124	V-C	0.2496.738		0	28.364	0.091	0	74.487
Stage 3	-4.8	25.455	46.215	V-C	0.2496.738		0	30.545	0.091	0	76.76
Stage 3	-5	27.273	46.425	V-C	0.2496.738		0	32.727	0.091	0	79.153
Stage 3	-5.2	29.091	46.749	V-C	0.2496.738		0	34.909	0.091	0	81.658
Stage 3	-5.4	30.909	47.175	V-C	0.2496.738		0	37.091	0.091	0	84.266
Stage 3	-5.6	32.727	47.694	V-C	0.2496.738		0	39.273	0.091	0	86.967
Stage 3	-5.8	34.545	47.917	UL-RL	0.2496.738		0	41.455	0.091	0	89.371
Stage 3	-6	36.364	47.986	UL-RL	0.2496.738		0	43.636	0.091	0	91.623
Stage 3	-6.2	38.182	48.258	UL-RL	0.2496.738		0	45.818	0.091	0	94.076
Stage 3	-6.4	40	48.708	UL-RL	0.2496.738		0	48	0.091	0	96.708
Stage 3	-6.6	41.818	49.306	UL-RL	0.2496.738		0	50.182	0.091	0	99.487
Stage 3	-6.8	43.636	50.021	UL-RL	0.2496.738		0	52.364	0.091	0	102.385
Stage 3	-7	45.455	50.83	UL-RL	0.2496.738		0	54.545	0.091	0	105.375
Stage 3	-7.2	47.273	51.708	UL-RL	0.2496.738		0	56.727	0.091	0	108.436
Stage 3	-7.4	49.091	52.637	UL-RL	0.2496.738		0	58.909	0.091	0	111.546
Stage 3	-7.6	50.909	53.599	UL-RL	0.2496.738		0	61.091	0.091	0	114.69
Stage 3	-7.8	52.727	54.581	UL-RL	0.2496.738		0	63.273	0.091	0	117.853
Stage 3	-8	54.545	55.57	UL-RL	0.2496.738		0	65.455	0.091	0	121.025
Stage 3	-8.2	56.364	56.558	UL-RL	0.2496.738		0	67.636	0.091	0	124.195
Stage 3	-8.4	58.182	57.538	UL-RL	0.2496.738		0	69.818	0.091	0	127.356
Stage 3	-8.6	60	58.505	UL-RL	0.2496.738		0	72	0.091	0	130.505
Stage 3	-8.8	61.818	59.455	UL-RL	0.2496.738		0	74.182	0.091	0	133.637
Stage 3	-9	63.636	60.385	UL-RL	0.2496.738		0	76.364	0.091	0	136.749
Stage 3	-9.2	65.455	61.296	UL-RL	0.2496.738		0	78.545	0.091	0	139.841
Stage 3	-9.4	67.273	62.186	UL-RL	0.2496.738		0	80.727	0.091	0	142.913
Stage 3	-9.6	69.091	63.056	UL-RL	0.2496.738		0	82.909	0.091	0	145.965
Stage 3	-9.8	70.909	63.907	UL-RL	0.2496.738		0	85.091	0.091	0	148.998
Stage 3	-10	72.727	64.741	UL-RL	0.2496.738		0	87.273	0.091	0	152.014
Stage 3	-10.2	74.545	65.56	UL-RL	0.2496.738		0	89.455	0.091	0	155.014
Stage 3	-10.4	76.364	66.366	UL-RL	0.2496.738		0	91.636	0.091	0	158.002
Stage 3	-10.6	78.182	67.16	UL-RL	0.2496.738		0	93.818	0.091	0	160.978
Stage 3	-10.8	80	67.946	UL-RL	0.2496.738		0	96	0.091	0	163.946
Stage 3	-11	81.818	68.724	UL-RL	0.2496.738		0	98.182	0.091	0	166.906
Stage 3	-11.2	83.636	69.498	UL-RL	0.2496.738		0	100.364	0.091	0	169.862
Stage 3	-11.4	85.454	70.268	UL-RL	0.2496.738		0	102.545	0.091	0	172.814
Stage 3	-11.6	87.273	71.036	UL-RL	0.2496.738		0	104.727	0.091	0	175.764
Stage 3	-11.8	89.091	71.804	UL-RL	0.2496.738		0	106.909	0.091	0	178.713
Stage 3	-12	90.909	72.571	UL-RL	0.2496.738		0	109.091	0.091	0	181.662

Tabella Risultati Terreno Left Wall - Nominal - Stage 4

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 4	0	0	0	PASSIVE	0.2496.738		0	0	0	0
Stage 4	-0.2	2.4	3.597	UL-RL	0.2496.738		0	1.714	0.143	0
Stage 4	-0.4	5.172	4.648	UL-RL	0.2496.738		0	3.429	0.143	0
Stage 4	-0.6	8.099	5.736	UL-RL	0.2496.738		0	5.143	0.143	0
Stage 4	-0.8	11.331	6.895	UL-RL	0.2496.738		0	6.857	0.143	0
Stage 4	-1	14.564	8.045	UL-RL	0.2496.738		0	8.571	0.143	0
Stage 4	-1.2	17.375	9.074	UL-RL	0.2496.738		0	10.286	0.143	0
Stage 4	-1.4	20.101	10.058	UL-RL	0.2496.738		0	12	0.143	0
Stage 4	-1.6	22.918	11.029	UL-RL	0.2496.738		0	13.714	0.143	0
Stage 4	-1.8	25.556	11.908	UL-RL	0.2496.738		0	15.429	0.143	0
Stage 4	-2	28.295	12.75	UL-RL	0.2496.738		0	17.143	0.143	0
Stage 4	-2.2	30.913	13.483	UL-RL	0.2496.738		0	18.857	0.143	0
Stage 4	-2.4	33.631	14.139	UL-RL	0.2496.738		0	20.571	0.143	0
Stage 4	-2.6	36.257	14.642	UL-RL	0.2496.738		0	22.286	0.143	0
Stage 4	-2.8	38.975	14.998	UL-RL	0.2496.738		0	24	0.143	0
Stage 4	-3	41.619	15.138	UL-RL	0.2496.738		0	25.714	0.143	0
Stage 4	-3.2	44.344	15.078	UL-RL	0.2496.738		0	27.429	0.143	0
Stage 4	-3.4	47.005	14.847	UL-RL	0.2496.738		0	29.143	0.143	0
Stage 4	-3.6	49.676	14.531	UL-RL	0.2496.738		0	30.857	0.143	0
Stage 4	-3.8	52.414	14.196	UL-RL	0.2496.738		0	32.571	0.143	0
Stage 4	-4	55.096	13.847	UL-RL	0.2496.738		0	34.286	0.143	0
Stage 4	-4.2	57.837	14.401	ACTIVE	0.2496.738		0	36	0.143	0
Stage 4	-4.4	60.524	15.071	ACTIVE	0.2496.738		0	37.714	0.143	0
Stage 4	-4.6	63.262	15.752	ACTIVE	0.2496.738		0	39.429	0.143	0
Stage 4	-4.8	65.95	16.422	ACTIVE	0.2496.738		0	41.143	0.143	0
Stage 4	-5	68.637	17.628	UL-RL	0.2496.738		0	42.857	0.143	0
Stage 4	-5.2	71.148	22.597	UL-RL	0.2496.738		0	44.571	0.143	0
Stage 4	-5.4	73.665	26.867	UL-RL	0.2496.738		0	46.286	0.143	0
Stage 4	-5.6	76.186	30.512	UL-RL	0.2496.738		0	48	0.143	0
Stage 4	-5.8	78.711	33.606	UL-RL	0.2496.738		0	49.714	0.143	0
Stage 4	-6	81.237	36.221	UL-RL	0.2496.738		0	51.429	0.143	0
Stage 4	-6.2	83.765	38.429	UL-RL	0.2496.738		0	53.143	0.143	0
Stage 4	-6.4	86.291	40.296	UL-RL	0.2496.738		0	54.857	0.143	0
Stage 4	-6.6	89.057	41.881	UL-RL	0.2496.738		0	56.571	0.143	0
Stage 4	-6.8	91.724	43.241	UL-RL	0.2496.738		0	58.286	0.143	0
Stage 4	-7	94.951	44.423	UL-RL	0.2496.738		0	60	0.143	0
Stage 4	-7.2	97.581	45.472	UL-RL	0.2496.738		0	61.714	0.143	0
Stage 4	-7.4	100.742	46.424	UL-RL	0.2496.738		0	63.429	0.143	0
Stage 4	-7.6	103.339	47.311	UL-RL	0.2496.738		0	65.143	0.143	0
Stage 4	-7.8	106.443	48.157	UL-RL	0.2496.738		0	66.857	0.143	0
Stage 4	-8	109.513	48.985	UL-RL	0.2496.738		0	68.571	0.143	0
Stage 4	-8.2	112.065	49.81	UL-RL	0.2496.738		0	70.286	0.143	0
Stage 4	-8.4	115.087	50.645	UL-RL	0.2496.738		0	72	0.143	0
Stage 4	-8.6	117.618	51.501	UL-RL	0.2496.738		0	73.714	0.143	0
Stage 4	-8.8	120.598	52.382	UL-RL	0.2496.738		0	75.429	0.143	0
Stage 4	-9	123.109	53.294	UL-RL	0.2496.738		0	77.143	0.143	0
Stage 4	-9.2	126.052	54.238	UL-RL	0.2496.738		0	78.857	0.143	0
Stage 4	-9.4	128.546	55.215	UL-RL	0.2496.738		0	80.571	0.143	0
Stage 4	-9.6	131.454	56.224	UL-RL	0.2496.738		0	82.286	0.143	0
Stage 4	-9.8	133.934	57.262	UL-RL	0.2496.738		0	84	0.143	0
Stage 4	-10	136.811	58.328	UL-RL	0.2496.738		0	85.714	0.143	0
Stage 4	-10.2	139.278	59.418	UL-RL	0.2496.738		0	87.429	0.143	0
Stage 4	-10.4	142.127	60.528	UL-RL	0.2496.738		0	89.143	0.143	0
Stage 4	-10.6	144.96	61.657	UL-RL	0.2496.738		0	90.857	0.143	0
Stage 4	-10.8	147.406	62.799	UL-RL	0.2496.738		0	92.571	0.143	0
Stage 4	-11	150.214	63.952	UL-RL	0.2496.738		0	94.286	0.143	0
Stage 4	-11.2	152.651	65.114	UL-RL	0.2496.738		0	96	0.143	0
Stage 4	-11.4	155.437	66.28	UL-RL	0.2496.738		0	97.714	0.143	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT	Lato		LEFT				
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 4	-11.6	157.865	67.451	UL-RL	0.249	6.738	0	99.428	0.143	0	166.879
Stage 4	-11.8	160.631	68.622	UL-RL	0.249	6.738	0	101.143	0.143	0	169.765
Stage 4	-12	163.05	69.795	UL-RL	0.249	6.738	0	102.857	0.143	0	172.652

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 4	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 4	-3	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 4	-3.2	1.714	9.752	UL-RL	0.2496.738		0	2.286	0.143	0	12.037
Stage 4	-3.4	3.429	21.76	UL-RL	0.2496.738		0	4.571	0.143	0	26.331
Stage 4	-3.6	5.143	33.811	UL-RL	0.2496.738		0	6.857	0.143	0	40.668
Stage 4	-3.8	6.857	42.321	UL-RL	0.2496.738		0	9.143	0.143	0	51.464
Stage 4	-4	8.571	42.587	UL-RL	0.2496.738		0	11.429	0.143	0	54.016
Stage 4	-4.2	10.286	42.923	UL-RL	0.2496.738		0	13.714	0.143	0	56.638
Stage 4	-4.4	12	43.333	UL-RL	0.2496.738		0	16	0.143	0	59.333
Stage 4	-4.6	13.714	43.816	UL-RL	0.2496.738		0	18.286	0.143	0	62.102
Stage 4	-4.8	15.429	44.368	UL-RL	0.2496.738		0	20.571	0.143	0	64.94
Stage 4	-5	17.143	44.984	UL-RL	0.2496.738		0	22.857	0.143	0	67.841
Stage 4	-5.2	18.857	45.658	UL-RL	0.2496.738		0	25.143	0.143	0	70.801
Stage 4	-5.4	20.571	46.383	UL-RL	0.2496.738		0	27.429	0.143	0	73.812
Stage 4	-5.6	22.286	47.152	UL-RL	0.2496.738		0	29.714	0.143	0	76.866
Stage 4	-5.8	24	47.578	UL-RL	0.2496.738		0	32	0.143	0	79.578
Stage 4	-6	25.714	47.809	UL-RL	0.2496.738		0	34.286	0.143	0	82.095
Stage 4	-6.2	27.429	48.204	UL-RL	0.2496.738		0	36.571	0.143	0	84.775
Stage 4	-6.4	29.143	48.742	UL-RL	0.2496.738		0	38.857	0.143	0	87.599
Stage 4	-6.6	30.857	49.397	UL-RL	0.2496.738		0	41.143	0.143	0	90.54
Stage 4	-6.8	32.571	50.143	UL-RL	0.2496.738		0	43.429	0.143	0	93.572
Stage 4	-7	34.286	50.958	UL-RL	0.2496.738		0	45.714	0.143	0	96.672
Stage 4	-7.2	36	51.823	UL-RL	0.2496.738		0	48	0.143	0	99.823
Stage 4	-7.4	37.714	52.721	UL-RL	0.2496.738		0	50.286	0.143	0	103.006
Stage 4	-7.6	39.429	53.637	UL-RL	0.2496.738		0	52.571	0.143	0	106.209
Stage 4	-7.8	41.143	54.562	UL-RL	0.2496.738		0	54.857	0.143	0	109.419
Stage 4	-8	42.857	55.485	UL-RL	0.2496.738		0	57.143	0.143	0	112.628
Stage 4	-8.2	44.571	56.399	UL-RL	0.2496.738		0	59.429	0.143	0	115.828
Stage 4	-8.4	46.286	57.3	UL-RL	0.2496.738		0	61.714	0.143	0	119.014
Stage 4	-8.6	48	58.183	UL-RL	0.2496.738		0	64	0.143	0	122.183
Stage 4	-8.8	49.714	59.046	UL-RL	0.2496.738		0	66.286	0.143	0	125.332
Stage 4	-9	51.429	59.888	UL-RL	0.2496.738		0	68.571	0.143	0	128.459
Stage 4	-9.2	53.143	60.708	UL-RL	0.2496.738		0	70.857	0.143	0	131.566
Stage 4	-9.4	54.857	61.508	UL-RL	0.2496.738		0	73.143	0.143	0	134.651
Stage 4	-9.6	56.571	62.288	UL-RL	0.2496.738		0	75.429	0.143	0	137.717
Stage 4	-9.8	58.286	63.05	UL-RL	0.2496.738		0	77.714	0.143	0	140.764
Stage 4	-10	60	63.795	UL-RL	0.2496.738		0	80	0.143	0	143.795
Stage 4	-10.2	61.714	64.525	UL-RL	0.2496.738		0	82.286	0.143	0	146.811
Stage 4	-10.4	63.428	65.243	UL-RL	0.2496.738		0	84.571	0.143	0	149.814
Stage 4	-10.6	65.143	65.95	UL-RL	0.2496.738		0	86.857	0.143	0	152.807
Stage 4	-10.8	66.857	66.649	UL-RL	0.2496.738		0	89.143	0.143	0	155.792
Stage 4	-11	68.571	67.342	UL-RL	0.2496.738		0	91.428	0.143	0	158.77
Stage 4	-11.2	70.286	68.03	UL-RL	0.2496.738		0	93.714	0.143	0	161.744
Stage 4	-11.4	72	68.714	UL-RL	0.2496.738		0	96	0.143	0	164.714
Stage 4	-11.6	73.714	69.397	UL-RL	0.2496.738		0	98.286	0.143	0	167.682
Stage 4	-11.8	75.428	70.078	UL-RL	0.2496.738		0	100.571	0.143	0	170.65
Stage 4	-12	77.143	70.76	UL-RL	0.2496.738		0	102.857	0.143	0	173.617

Tabella Risultati Terreno Left Wall - Nominal - Stage 5

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 5	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 5	-0.2	2.514	1.209	UL-RL	0.249	6.738	0	1.6	0.2	2.809
Stage 5	-0.4	5.401	2.881	UL-RL	0.249	6.738	0	3.2	0.2	6.081
Stage 5	-0.6	8.442	4.591	UL-RL	0.249	6.738	0	4.8	0.2	9.391
Stage 5	-0.8	11.788	6.375	UL-RL	0.249	6.738	0	6.4	0.2	12.775
Stage 5	-1	15.135	8.155	UL-RL	0.249	6.738	0	8	0.2	16.155
Stage 5	-1.2	18.061	9.822	UL-RL	0.249	6.738	0	9.6	0.2	19.422
Stage 5	-1.4	20.901	11.452	UL-RL	0.249	6.738	0	11.2	0.2	22.652
Stage 5	-1.6	23.833	13.084	UL-RL	0.249	6.738	0	12.8	0.2	25.884
Stage 5	-1.8	26.584	14.638	UL-RL	0.249	6.738	0	14.4	0.2	29.038
Stage 5	-2	29.438	16.172	UL-RL	0.249	6.738	0	16	0.2	32.172
Stage 5	-2.2	32.171	17.614	UL-RL	0.249	6.738	0	17.6	0.2	35.214
Stage 5	-2.4	35.002	19	UL-RL	0.249	6.738	0	19.2	0.2	38.2
Stage 5	-2.6	37.743	20.25	UL-RL	0.249	6.738	0	20.8	0.2	41.05
Stage 5	-2.8	40.575	21.365	UL-RL	0.249	6.738	0	22.4	0.2	43.765
Stage 5	-3	43.333	22.24	UL-RL	0.249	6.738	0	24	0.2	46.24
Stage 5	-3.2	46.172	22.829	UL-RL	0.249	6.738	0	25.6	0.2	48.429
Stage 5	-3.4	48.948	23.04	UL-RL	0.249	6.738	0	27.2	0.2	50.24
Stage 5	-3.6	51.734	22.938	UL-RL	0.249	6.738	0	28.8	0.2	51.738
Stage 5	-3.8	54.586	22.584	UL-RL	0.249	6.738	0	30.4	0.2	52.984
Stage 5	-4	57.382	21.964	UL-RL	0.249	6.738	0	32	0.2	53.964
Stage 5	-4.2	60.237	21.982	UL-RL	0.249	6.738	0	33.6	0.2	55.582
Stage 5	-4.4	63.039	21.908	UL-RL	0.249	6.738	0	35.2	0.2	57.108
Stage 5	-4.6	65.891	21.707	UL-RL	0.249	6.738	0	36.8	0.2	58.507
Stage 5	-4.8	68.693	21.407	UL-RL	0.249	6.738	0	38.4	0.2	59.807
Stage 5	-5	71.495	21.598	UL-RL	0.249	6.738	0	40	0.2	61.598
Stage 5	-5.2	74.119	25.541	UL-RL	0.249	6.738	0	41.6	0.2	67.141
Stage 5	-5.4	76.75	28.801	UL-RL	0.249	6.738	0	43.2	0.2	72.001
Stage 5	-5.6	79.386	31.473	UL-RL	0.249	6.738	0	44.8	0.2	76.273
Stage 5	-5.8	82.025	33.649	UL-RL	0.249	6.738	0	46.4	0.2	80.049
Stage 5	-6	84.666	35.414	UL-RL	0.249	6.738	0	48	0.2	83.414
Stage 5	-6.2	87.307	36.846	UL-RL	0.249	6.738	0	49.6	0.2	86.446
Stage 5	-6.4	89.949	38.017	UL-RL	0.249	6.738	0	51.2	0.2	89.217
Stage 5	-6.6	92.828	38.99	UL-RL	0.249	6.738	0	52.8	0.2	91.79
Stage 5	-6.8	95.61	39.82	UL-RL	0.249	6.738	0	54.4	0.2	94.22
Stage 5	-7	98.951	40.555	UL-RL	0.249	6.738	0	56	0.2	96.555
Stage 5	-7.2	101.695	41.234	UL-RL	0.249	6.738	0	57.6	0.2	98.834
Stage 5	-7.4	104.97	41.891	UL-RL	0.249	6.738	0	59.2	0.2	101.091
Stage 5	-7.6	107.682	42.551	UL-RL	0.249	6.738	0	60.8	0.2	103.351
Stage 5	-7.8	110.9	43.236	UL-RL	0.249	6.738	0	62.4	0.2	105.636
Stage 5	-8	114.084	43.96	UL-RL	0.249	6.738	0	64	0.2	107.96
Stage 5	-8.2	116.751	44.734	UL-RL	0.249	6.738	0	65.6	0.2	110.334
Stage 5	-8.4	119.887	45.565	UL-RL	0.249	6.738	0	67.2	0.2	112.766
Stage 5	-8.6	122.532	46.458	UL-RL	0.249	6.738	0	68.8	0.2	115.258
Stage 5	-8.8	125.626	47.412	UL-RL	0.249	6.738	0	70.4	0.2	117.812
Stage 5	-9	128.252	48.428	UL-RL	0.249	6.738	0	72	0.2	120.428
Stage 5	-9.2	131.309	49.502	UL-RL	0.249	6.738	0	73.6	0.2	123.102
Stage 5	-9.4	133.917	50.63	UL-RL	0.249	6.738	0	75.2	0.2	125.83
Stage 5	-9.6	136.94	51.808	UL-RL	0.249	6.738	0	76.8	0.2	128.608
Stage 5	-9.8	139.534	53.031	UL-RL	0.249	6.738	0	78.4	0.2	131.431
Stage 5	-10	142.526	54.292	UL-RL	0.249	6.738	0	80	0.2	134.292
Stage 5	-10.2	145.106	55.587	UL-RL	0.249	6.738	0	81.6	0.2	137.187
Stage 5	-10.4	148.07	56.909	UL-RL	0.249	6.738	0	83.2	0.2	140.109
Stage 5	-10.6	151.017	58.254	UL-RL	0.249	6.738	0	84.8	0.2	143.054
Stage 5	-10.8	153.577	59.617	UL-RL	0.249	6.738	0	86.4	0.2	146.017
Stage 5	-11	156.5	60.993	UL-RL	0.249	6.738	0	88	0.2	148.993
Stage 5	-11.2	159.051	62.378	UL-RL	0.249	6.738	0	89.6	0.2	151.978
Stage 5	-11.4	161.951	63.77	UL-RL	0.249	6.738	0	91.2	0.2	154.97

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Muro:		LEFT		Lato		LEFT			
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 5	-11.6	164.493	65.166	UL-RL	0.249	6.738	0	92.8	0.2	0	157.966
Stage 5	-11.8	167.374	66.563	UL-RL	0.249	6.738	0	94.4	0.2	0	160.963
Stage 5	-12	169.908	67.962	UL-RL	0.249	6.738	0	96	0.2	0	163.962

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)		
Stage 5	0	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-1	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-2.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-2.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-2.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-3	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-3.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-3.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-3.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-3.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 5	-4	0	0	ACTIVE	0.2496.738		0	0	0	0	0	0
Stage 5	-4.2	1.6	7.609	UL-RL	0.2496.738		0	2.4	0.2	0	10.009	
Stage 5	-4.4	3.2	18.787	UL-RL	0.2496.738		0	4.8	0.2	0	23.587	
Stage 5	-4.6	4.8	30.035	UL-RL	0.2496.738		0	7.2	0.2	0	37.235	
Stage 5	-4.8	6.4	37.728	UL-RL	0.2496.738		0	9.6	0.2	0	47.328	
Stage 5	-5	8	39.082	UL-RL	0.2496.738		0	12	0.2	0	51.082	
Stage 5	-5.2	9.6	40.448	UL-RL	0.2496.738		0	14.4	0.2	0	54.848	
Stage 5	-5.4	11.2	41.82	UL-RL	0.2496.738		0	16.8	0.2	0	58.62	
Stage 5	-5.6	12.8	43.192	UL-RL	0.2496.738		0	19.2	0.2	0	62.392	
Stage 5	-5.8	14.4	44.176	UL-RL	0.2496.738		0	21.6	0.2	0	65.776	
Stage 5	-6	16	44.915	UL-RL	0.2496.738		0	24	0.2	0	68.915	
Stage 5	-6.2	17.6	45.769	UL-RL	0.2496.738		0	26.4	0.2	0	72.169	
Stage 5	-6.4	19.2	46.718	UL-RL	0.2496.738		0	28.8	0.2	0	75.518	
Stage 5	-6.6	20.8	47.733	UL-RL	0.2496.738		0	31.2	0.2	0	78.933	
Stage 5	-6.8	22.4	48.793	UL-RL	0.2496.738		0	33.6	0.2	0	82.392	
Stage 5	-7	24	49.875	UL-RL	0.2496.738		0	36	0.2	0	85.875	
Stage 5	-7.2	25.6	50.963	UL-RL	0.2496.738		0	38.4	0.2	0	89.363	
Stage 5	-7.4	27.2	52.044	UL-RL	0.2496.738		0	40.8	0.2	0	92.843	
Stage 5	-7.6	28.8	53.105	UL-RL	0.2496.738		0	43.2	0.2	0	96.305	
Stage 5	-7.8	30.4	54.139	UL-RL	0.2496.738		0	45.6	0.2	0	99.739	
Stage 5	-8	32	55.141	UL-RL	0.2496.738		0	48	0.2	0	103.141	
Stage 5	-8.2	33.6	56.105	UL-RL	0.2496.738		0	50.4	0.2	0	106.505	
Stage 5	-8.4	35.2	57.03	UL-RL	0.2496.738		0	52.8	0.2	0	109.83	
Stage 5	-8.6	36.8	57.915	UL-RL	0.2496.738		0	55.2	0.2	0	113.115	
Stage 5	-8.8	38.4	58.761	UL-RL	0.2496.738		0	57.6	0.2	0	116.361	
Stage 5	-9	40	59.569	UL-RL	0.2496.738		0	60	0.2	0	119.569	
Stage 5	-9.2	41.6	60.341	UL-RL	0.2496.738		0	62.4	0.2	0	122.741	
Stage 5	-9.4	43.2	61.08	UL-RL	0.2496.738		0	64.8	0.2	0	125.88	
Stage 5	-9.6	44.8	61.79	UL-RL	0.2496.738		0	67.2	0.2	0	128.99	
Stage 5	-9.8	46.4	62.473	UL-RL	0.2496.738		0	69.6	0.2	0	132.073	
Stage 5	-10	48	63.133	UL-RL	0.2496.738		0	72	0.2	0	135.132	
Stage 5	-10.2	49.6	63.772	UL-RL	0.2496.738		0	74.4	0.2	0	138.172	
Stage 5	-10.4	51.2	64.395	UL-RL	0.2496.738		0	76.8	0.2	0	141.195	
Stage 5	-10.6	52.8	65.005	UL-RL	0.2496.738		0	79.2	0.2	0	144.205	
Stage 5	-10.8	54.4	65.603	UL-RL	0.2496.738		0	81.6	0.2	0	147.203	
Stage 5	-11	56	66.194	UL-RL	0.2496.738		0	84	0.2	0	150.194	
Stage 5	-11.2	57.6	66.778	UL-RL	0.2496.738		0	86.4	0.2	0	153.178	
Stage 5	-11.4	59.2	67.358	UL-RL	0.2496.738		0	88.8	0.2	0	156.158	
Stage 5	-11.6	60.8	67.935	UL-RL	0.2496.738		0	91.2	0.2	0	159.135	
Stage 5	-11.8	62.4	68.511	UL-RL	0.2496.738		0	93.6	0.2	0	162.111	
Stage 5	-12	64	69.086	UL-RL	0.2496.738		0	96	0.2	0	165.086	

Tabella Risultati Terreno Left Wall - Nominal - Stage 6

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 6	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 6	-0.2	2.641	0.658	ACTIVE	0.249	6.738	0	1.474	0.263	0
Stage 6	-0.4	5.653	1.408	ACTIVE	0.249	6.738	0	2.947	0.263	0
Stage 6	-0.6	8.821	2.196	ACTIVE	0.249	6.738	0	4.421	0.263	0
Stage 6	-0.8	12.293	3.061	ACTIVE	0.249	6.738	0	5.895	0.263	0
Stage 6	-1	15.767	3.926	ACTIVE	0.249	6.738	0	7.368	0.263	0
Stage 6	-1.2	18.819	4.686	ACTIVE	0.249	6.738	0	8.842	0.263	0
Stage 6	-1.4	21.786	5.425	ACTIVE	0.249	6.738	0	10.316	0.263	0
Stage 6	-1.6	24.843	6.186	ACTIVE	0.249	6.738	0	11.789	0.263	0
Stage 6	-1.8	27.721	6.903	ACTIVE	0.249	6.738	0	13.263	0.263	0
Stage 6	-2	30.701	7.645	ACTIVE	0.249	6.738	0	14.737	0.263	0
Stage 6	-2.2	33.56	8.356	ACTIVE	0.249	6.738	0	16.211	0.263	0
Stage 6	-2.4	36.518	9.093	ACTIVE	0.249	6.738	0	17.684	0.263	0
Stage 6	-2.6	39.385	11.129	UL-RL	0.249	6.738	0	19.158	0.263	0
Stage 6	-2.8	42.343	13.143	UL-RL	0.249	6.738	0	20.632	0.263	0
Stage 6	-3	45.228	15.043	UL-RL	0.249	6.738	0	22.105	0.263	0
Stage 6	-3.2	48.193	16.812	UL-RL	0.249	6.738	0	23.579	0.263	0
Stage 6	-3.4	51.096	18.363	UL-RL	0.249	6.738	0	25.053	0.263	0
Stage 6	-3.6	54.007	19.666	UL-RL	0.249	6.738	0	26.526	0.263	0
Stage 6	-3.8	56.986	20.664	UL-RL	0.249	6.738	0	28	0.263	0
Stage 6	-4	59.908	21.228	UL-RL	0.249	6.738	0	29.474	0.263	0
Stage 6	-4.2	62.889	22.17	UL-RL	0.249	6.738	0	30.947	0.263	0
Stage 6	-4.4	65.818	22.769	UL-RL	0.249	6.738	0	32.421	0.263	0
Stage 6	-4.6	68.796	23.019	UL-RL	0.249	6.738	0	33.895	0.263	0
Stage 6	-4.8	71.725	22.97	UL-RL	0.249	6.738	0	35.368	0.263	0
Stage 6	-5	74.652	23.225	UL-RL	0.249	6.738	0	36.842	0.263	0
Stage 6	-5.2	77.403	27.056	UL-RL	0.249	6.738	0	38.316	0.263	0
Stage 6	-5.4	80.161	30.069	UL-RL	0.249	6.738	0	39.789	0.263	0
Stage 6	-5.6	82.923	32.399	UL-RL	0.249	6.738	0	41.263	0.263	0
Stage 6	-5.8	85.688	34.168	UL-RL	0.249	6.738	0	42.737	0.263	0
Stage 6	-6	88.455	35.485	UL-RL	0.249	6.738	0	44.211	0.263	0
Stage 6	-6.2	91.223	36.449	UL-RL	0.249	6.738	0	45.684	0.263	0
Stage 6	-6.4	93.991	37.147	UL-RL	0.249	6.738	0	47.158	0.263	0
Stage 6	-6.6	96.997	37.657	UL-RL	0.249	6.738	0	48.632	0.263	0
Stage 6	-6.8	99.904	38.043	UL-RL	0.249	6.738	0	50.105	0.263	0
Stage 6	-7	103.372	38.363	UL-RL	0.249	6.738	0	51.579	0.263	0
Stage 6	-7.2	106.242	38.661	UL-RL	0.249	6.738	0	53.053	0.263	0
Stage 6	-7.4	109.644	38.975	UL-RL	0.249	6.738	0	54.526	0.263	0
Stage 6	-7.6	112.482	39.334	UL-RL	0.249	6.738	0	56	0.263	0
Stage 6	-7.8	115.826	39.759	UL-RL	0.249	6.738	0	57.474	0.263	0
Stage 6	-8	119.137	40.267	UL-RL	0.249	6.738	0	58.947	0.263	0
Stage 6	-8.2	121.93	40.867	UL-RL	0.249	6.738	0	60.421	0.263	0
Stage 6	-8.4	125.193	41.565	UL-RL	0.249	6.738	0	61.895	0.263	0
Stage 6	-8.6	127.964	42.362	UL-RL	0.249	6.738	0	63.368	0.263	0
Stage 6	-8.8	131.184	43.257	UL-RL	0.249	6.738	0	64.842	0.263	0
Stage 6	-9	133.936	44.247	UL-RL	0.249	6.738	0	66.316	0.263	0
Stage 6	-9.2	137.119	45.325	UL-RL	0.249	6.738	0	67.789	0.263	0
Stage 6	-9.4	139.854	46.485	UL-RL	0.249	6.738	0	69.263	0.263	0
Stage 6	-9.6	143.003	47.719	UL-RL	0.249	6.738	0	70.737	0.263	0
Stage 6	-9.8	145.723	49.018	UL-RL	0.249	6.738	0	72.21	0.263	0
Stage 6	-10	148.841	50.374	UL-RL	0.249	6.738	0	73.684	0.263	0
Stage 6	-10.2	151.548	51.778	UL-RL	0.249	6.738	0	75.158	0.263	0
Stage 6	-10.4	154.638	53.222	UL-RL	0.249	6.738	0	76.632	0.263	0
Stage 6	-10.6	157.712	54.699	UL-RL	0.249	6.738	0	78.105	0.263	0
Stage 6	-10.8	160.398	56.201	UL-RL	0.249	6.738	0	79.579	0.263	0
Stage 6	-11	163.447	57.723	UL-RL	0.249	6.738	0	81.053	0.263	0
Stage 6	-11.2	166.124	59.258	UL-RL	0.249	6.738	0	82.526	0.263	0
Stage 6	-11.4	169.151	60.802	UL-RL	0.249	6.738	0	84	0.263	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		LEFT			
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 6	-11.6	171.82	62.351	UL-RL	0.249	6.738	0	85.474	0.263	0	147.825
Stage 6	-11.8	174.826	63.903	UL-RL	0.249	6.738	0	86.947	0.263	0	150.85
Stage 6	-12	177.486	65.456	UL-RL	0.249	6.738	0	88.421	0.263	0	153.877

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 6	0	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-2.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-3.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.2	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.4	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.6	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-4.8	0	0	REMOVED	0	0	0	0	0	0	0
Stage 6	-5	0	0	PASSIVE	0.2496.738		0	0	0	0	0
Stage 6	-5.2	1.474	9.81	UL-RL	0.2496.738		0	2.526	0.263	0	12.337
Stage 6	-5.4	2.947	19.71	UL-RL	0.2496.738		0	5.053	0.263	0	24.763
Stage 6	-5.6	4.421	29.618	UL-RL	0.2496.738		0	7.579	0.263	0	37.197
Stage 6	-5.8	5.895	39.534	UL-RL	0.2496.738		0	10.105	0.263	0	49.639
Stage 6	-6	7.368	40.843	UL-RL	0.2496.738		0	12.632	0.263	0	53.474
Stage 6	-6.2	8.842	42.13	UL-RL	0.2496.738		0	15.158	0.263	0	57.288
Stage 6	-6.4	10.316	43.475	UL-RL	0.2496.738		0	17.684	0.263	0	61.159
Stage 6	-6.6	11.789	44.854	UL-RL	0.2496.738		0	20.21	0.263	0	65.064
Stage 6	-6.8	13.263	46.245	UL-RL	0.2496.738		0	22.737	0.263	0	68.982
Stage 6	-7	14.737	47.629	UL-RL	0.2496.738		0	25.263	0.263	0	72.892
Stage 6	-7.2	16.21	48.988	UL-RL	0.2496.738		0	27.789	0.263	0	76.778
Stage 6	-7.4	17.684	50.31	UL-RL	0.2496.738		0	30.316	0.263	0	80.626
Stage 6	-7.6	19.158	51.584	UL-RL	0.2496.738		0	32.842	0.263	0	84.426
Stage 6	-7.8	20.632	52.803	UL-RL	0.2496.738		0	35.368	0.263	0	88.171
Stage 6	-8	22.105	53.961	UL-RL	0.2496.738		0	37.895	0.263	0	91.855
Stage 6	-8.2	23.579	55.055	UL-RL	0.2496.738		0	40.421	0.263	0	95.476
Stage 6	-8.4	25.053	56.086	UL-RL	0.2496.738		0	42.947	0.263	0	99.034
Stage 6	-8.6	26.526	57.054	UL-RL	0.2496.738		0	45.474	0.263	0	102.528
Stage 6	-8.8	28	57.962	UL-RL	0.2496.738		0	48	0.263	0	105.962
Stage 6	-9	29.474	58.812	UL-RL	0.2496.738		0	50.526	0.263	0	109.338
Stage 6	-9.2	30.947	59.609	UL-RL	0.2496.738		0	53.053	0.263	0	112.662
Stage 6	-9.4	32.421	60.357	UL-RL	0.2496.738		0	55.579	0.263	0	115.936
Stage 6	-9.6	33.895	61.062	UL-RL	0.2496.738		0	58.105	0.263	0	119.167
Stage 6	-9.8	35.368	61.727	UL-RL	0.2496.738		0	60.632	0.263	0	122.358
Stage 6	-10	36.842	62.359	UL-RL	0.2496.738		0	63.158	0.263	0	125.516
Stage 6	-10.2	38.316	62.961	UL-RL	0.2496.738		0	65.684	0.263	0	128.646
Stage 6	-10.4	39.789	63.54	UL-RL	0.2496.738		0	68.21	0.263	0	131.75
Stage 6	-10.6	41.263	64.098	UL-RL	0.2496.738		0	70.737	0.263	0	134.835
Stage 6	-10.8	42.737	64.641	UL-RL	0.2496.738		0	73.263	0.263	0	137.904
Stage 6	-11	44.21	65.172	UL-RL	0.2496.738		0	75.789	0.263	0	140.961
Stage 6	-11.2	45.684	65.694	UL-RL	0.2496.738		0	78.316	0.263	0	144.009
Stage 6	-11.4	47.158	66.209	UL-RL	0.2496.738		0	80.842	0.263	0	147.051
Stage 6	-11.6	48.632	66.72	UL-RL	0.2496.738		0	83.368	0.263	0	150.088
Stage 6	-11.8	50.105	67.228	UL-RL	0.2496.738		0	85.895	0.263	0	153.123
Stage 6	-12	51.579	67.735	UL-RL	0.2496.738		0	88.421	0.263	0	156.156

Tabella Risultati Terreno Left Wall - Nominal - Stage 7

Design Assumption: Nominal Risultati Terreno		Muro:		LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)
Stage 7	0	0	0	ACTIVE	0.249	6.738	0	0	0	0
Stage 7	-0.2	2.781	0.728	UL-RL	0.249	6.738	0	1.333	0.333	0
Stage 7	-0.4	5.934	1.53	UL-RL	0.249	6.738	0	2.667	0.333	0
Stage 7	-0.6	9.242	2.37	UL-RL	0.249	6.738	0	4	0.333	0
Stage 7	-0.8	12.855	3.286	UL-RL	0.249	6.738	0	5.333	0.333	0
Stage 7	-1	16.468	4.202	UL-RL	0.249	6.738	0	6.667	0.333	0
Stage 7	-1.2	19.661	5.013	UL-RL	0.249	6.738	0	8	0.333	0
Stage 7	-1.4	22.768	5.802	UL-RL	0.249	6.738	0	9.333	0.333	0
Stage 7	-1.6	25.966	6.614	UL-RL	0.249	6.738	0	10.667	0.333	0
Stage 7	-1.8	28.984	7.381	UL-RL	0.249	6.738	0	12	0.333	0
Stage 7	-2	32.105	8.173	UL-RL	0.249	6.738	0	13.333	0.333	0
Stage 7	-2.2	35.104	9.286	UL-RL	0.249	6.738	0	14.667	0.333	0
Stage 7	-2.4	38.202	17.113	UL-RL	0.249	6.738	0	16	0.333	0
Stage 7	-2.6	41.21	26.245	UL-RL	0.249	6.738	0	17.333	0.333	0
Stage 7	-2.8	44.308	31.519	UL-RL	0.249	6.738	0	18.667	0.333	0
Stage 7	-3	47.333	35.743	UL-RL	0.249	6.738	0	20	0.333	0
Stage 7	-3.2	50.439	39.879	UL-RL	0.249	6.738	0	21.333	0.333	0
Stage 7	-3.4	53.482	43.893	UL-RL	0.249	6.738	0	22.667	0.333	0
Stage 7	-3.6	56.534	47.773	UL-RL	0.249	6.738	0	24	0.333	0
Stage 7	-3.8	59.652	51.493	UL-RL	0.249	6.738	0	25.333	0.333	0
Stage 7	-4	62.715	54.874	UL-RL	0.249	6.738	0	26.667	0.333	0
Stage 7	-4.2	65.837	58.276	UL-RL	0.249	6.738	0	28	0.333	0
Stage 7	-4.4	68.905	61.412	UL-RL	0.249	6.738	0	29.333	0.333	0
Stage 7	-4.6	72.024	64.191	UL-RL	0.249	6.738	0	30.667	0.333	0
Stage 7	-4.8	75.093	66.538	UL-RL	0.249	6.738	0	32	0.333	0
Stage 7	-5	78.161	68.579	V-C	0.249	6.738	0	33.333	0.333	0
Stage 7	-5.2	81.053	71.414	V-C	0.249	6.738	0	34.667	0.333	0
Stage 7	-5.4	83.95	73.593	V-C	0.249	6.738	0	36	0.333	0
Stage 7	-5.6	86.853	75.168	V-C	0.249	6.738	0	37.333	0.333	0
Stage 7	-5.8	89.758	76.18	V-C	0.249	6.738	0	38.667	0.333	0
Stage 7	-6	92.666	76.658	V-C	0.249	6.738	0	40	0.333	0
Stage 7	-6.2	95.574	76.641	V-C	0.249	6.738	0	41.333	0.333	0
Stage 7	-6.4	98.482	76.219	V-C	0.249	6.738	0	42.667	0.333	0
Stage 7	-6.6	101.628	75.486	V-C	0.249	6.738	0	44	0.333	0
Stage 7	-6.8	104.676	74.528	V-C	0.249	6.738	0	45.333	0.333	0
Stage 7	-7	108.284	73.418	V-C	0.249	6.738	0	46.667	0.333	0
Stage 7	-7.2	111.295	72.219	V-C	0.249	6.738	0	48	0.333	0
Stage 7	-7.4	114.837	70.987	V-C	0.249	6.738	0	49.333	0.333	0
Stage 7	-7.6	117.816	69.766	V-C	0.249	6.738	0	50.667	0.333	0
Stage 7	-7.8	121.3	68.592	V-C	0.249	6.738	0	52	0.333	0
Stage 7	-8	124.751	67.496	V-C	0.249	6.738	0	53.333	0.333	0
Stage 7	-8.2	127.684	66.499	V-C	0.249	6.738	0	54.667	0.333	0
Stage 7	-8.4	131.087	65.618	V-C	0.249	6.738	0	56	0.333	0
Stage 7	-8.6	133.999	64.863	V-C	0.249	6.738	0	57.333	0.333	0
Stage 7	-8.8	137.36	64.242	V-C	0.249	6.738	0	58.667	0.333	0
Stage 7	-9	140.252	61.552	UL-RL	0.249	6.738	0	60	0.333	0
Stage 7	-9.2	143.575	58.697	UL-RL	0.249	6.738	0	61.333	0.333	0
Stage 7	-9.4	146.451	56.227	UL-RL	0.249	6.738	0	62.667	0.333	0
Stage 7	-9.6	149.74	54.118	UL-RL	0.249	6.738	0	64	0.333	0
Stage 7	-9.8	152.6	52.341	UL-RL	0.249	6.738	0	65.333	0.333	0
Stage 7	-10	155.859	50.862	UL-RL	0.249	6.738	0	66.667	0.333	0
Stage 7	-10.2	158.706	49.643	UL-RL	0.249	6.738	0	68	0.333	0
Stage 7	-10.4	161.937	48.649	UL-RL	0.249	6.738	0	69.333	0.333	0
Stage 7	-10.6	165.15	47.84	UL-RL	0.249	6.738	0	70.667	0.333	0
Stage 7	-10.8	167.977	47.181	UL-RL	0.249	6.738	0	72	0.333	0
Stage 7	-11	171.167	46.637	UL-RL	0.249	6.738	0	73.333	0.333	0
Stage 7	-11.2	173.984	46.176	UL-RL	0.249	6.738	0	74.667	0.333	0
Stage 7	-11.4	177.151	45.771	UL-RL	0.249	6.738	0	76	0.333	0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Design Assumption: Nominal Risultati Terreno											
Stage	Z (m)	Sigma V (kPa)	Muro:		Lato		LEFT				
			Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)	
Stage 7	-11.6	179.96	45.4	UL-RL	0.249	6.738	0	77.333	0.333	0	122.733
Stage 7	-11.8	183.107	45.594	ACTIVE	0.249	6.738	0	78.667	0.333	0	124.26
Stage 7	-12	185.908	46.291	ACTIVE	0.249	6.738	0	80	0.333	0	126.291

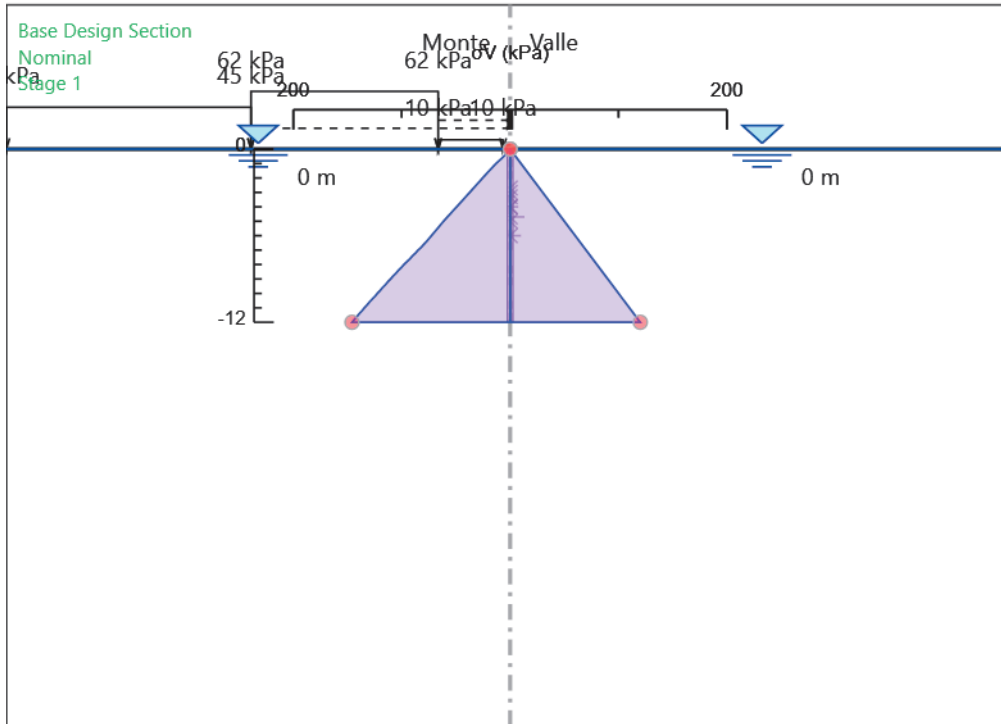
Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

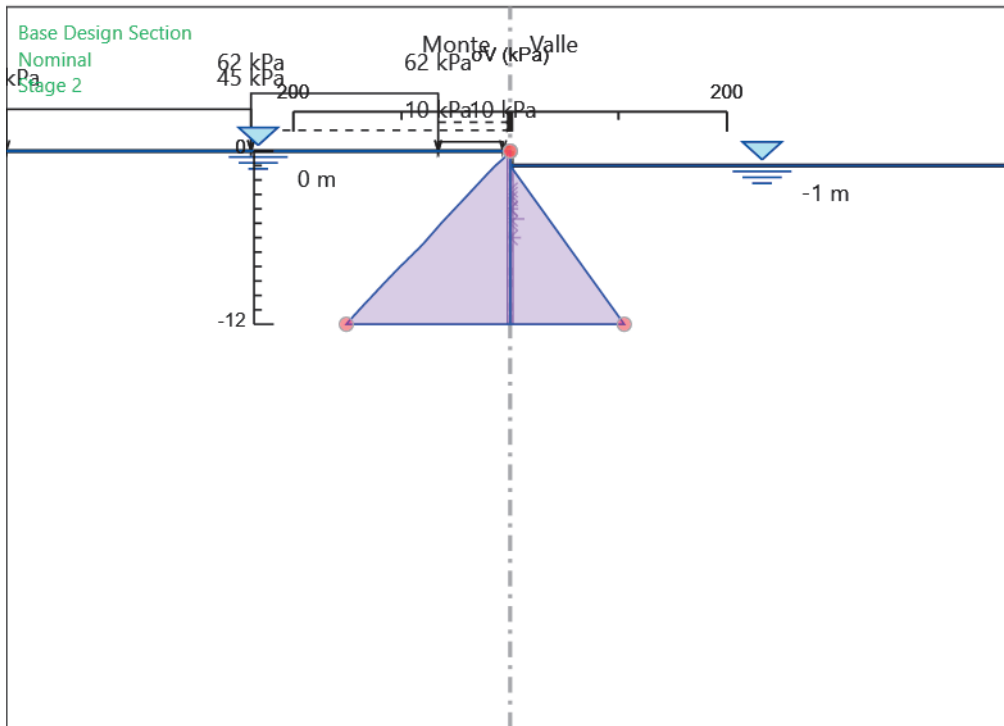
Progetto Definitivo

Design Assumption: Nominal Risultati Terreno			Muro:	LEFT	Lato	RIGHT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente U* (kPa)	Peq (kPa)		
Stage 7	0	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-1	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-2.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-2.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-2.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-3	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-3.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-3.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-3.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-3.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-4.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-4.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-4.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-4.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-5	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-5.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-5.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-5.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-5.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-6	0	0	REMOVED	0	0	0	0	0	0	0	0
Stage 7	-6.2	1.333	0.332	ACTIVE	0.2496.738		0	2.667	0.333	0	2.999	
Stage 7	-6.4	2.667	0.664	ACTIVE	0.2496.738		0	5.333	0.333	0	5.997	
Stage 7	-6.6	4	0.996	ACTIVE	0.2496.738		0	8	0.333	0	8.996	
Stage 7	-6.8	5.333	1.328	ACTIVE	0.2496.738		0	10.667	0.333	0	11.995	
Stage 7	-7	6.667	8.513	UL-RL	0.2496.738		0	13.333	0.333	0	21.847	
Stage 7	-7.2	8	12.962	UL-RL	0.2496.738		0	16	0.333	0	28.962	
Stage 7	-7.4	9.333	17.381	UL-RL	0.2496.738		0	18.667	0.333	0	36.048	
Stage 7	-7.6	10.667	21.722	UL-RL	0.2496.738		0	21.333	0.333	0	43.055	
Stage 7	-7.8	12	25.939	UL-RL	0.2496.738		0	24	0.333	0	49.939	
Stage 7	-8	13.333	29.998	UL-RL	0.2496.738		0	26.667	0.333	0	56.664	
Stage 7	-8.2	14.667	33.872	UL-RL	0.2496.738		0	29.333	0.333	0	63.205	
Stage 7	-8.4	16	37.541	UL-RL	0.2496.738		0	32	0.333	0	69.541	
Stage 7	-8.6	17.333	40.995	UL-RL	0.2496.738		0	34.667	0.333	0	75.662	
Stage 7	-8.8	18.667	44.228	UL-RL	0.2496.738		0	37.333	0.333	0	81.561	
Stage 7	-9	20	47.24	UL-RL	0.2496.738		0	40	0.333	0	87.24	
Stage 7	-9.2	21.333	50.038	UL-RL	0.2496.738		0	42.667	0.333	0	92.704	
Stage 7	-9.4	22.667	52.631	UL-RL	0.2496.738		0	45.333	0.333	0	97.964	
Stage 7	-9.6	24	55.033	UL-RL	0.2496.738		0	48	0.333	0	103.033	
Stage 7	-9.8	25.333	57.261	UL-RL	0.2496.738		0	50.667	0.333	0	107.927	
Stage 7	-10	26.667	59.331	UL-RL	0.2496.738		0	53.333	0.333	0	112.665	
Stage 7	-10.2	28	61.265	UL-RL	0.2496.738		0	56	0.333	0	117.265	
Stage 7	-10.4	29.333	63.08	UL-RL	0.2496.738		0	58.667	0.333	0	121.747	
Stage 7	-10.6	30.667	64.797	UL-RL	0.2496.738		0	61.333	0.333	0	126.13	
Stage 7	-10.8	32	66.435	UL-RL	0.2496.738		0	64	0.333	0	130.435	
Stage 7	-11	33.333	68.011	UL-RL	0.2496.738		0	66.667	0.333	0	134.677	
Stage 7	-11.2	34.667	69.541	UL-RL	0.2496.738		0	69.333	0.333	0	138.874	
Stage 7	-11.4	36	71.041	UL-RL	0.2496.738		0	72	0.333	0	143.04	
Stage 7	-11.6	37.333	72.521	UL-RL	0.2496.738		0	74.667	0.333	0	147.187	
Stage 7	-11.8	38.667	73.99	UL-RL	0.2496.738		0	77.333	0.333	0	151.323	
Stage 7	-12	40	75.455	UL-RL	0.2496.738		0	80	0.333	0	155.455	

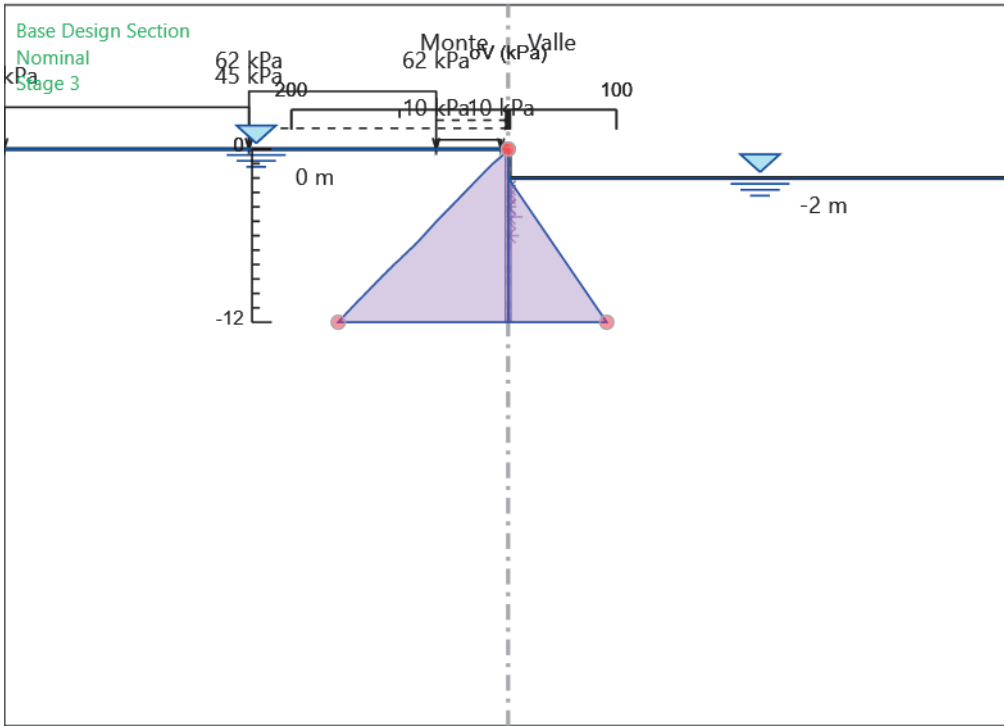
Grafico Risultati Terreno Sigma V



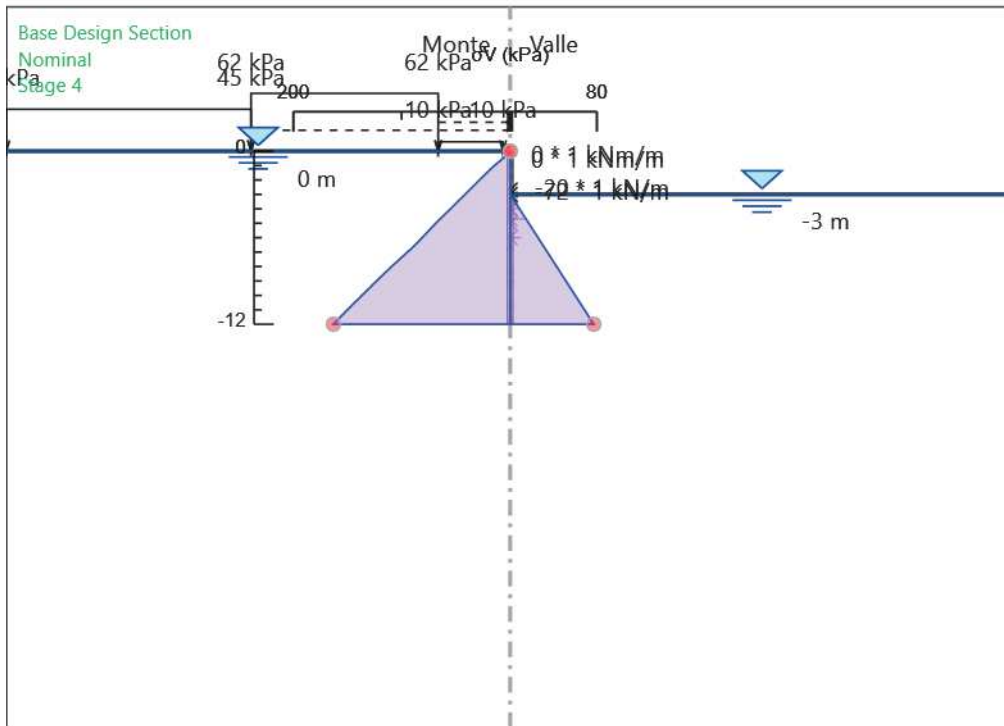
Design Assumption: Nominal
Stage: Stage 1
Sigma V



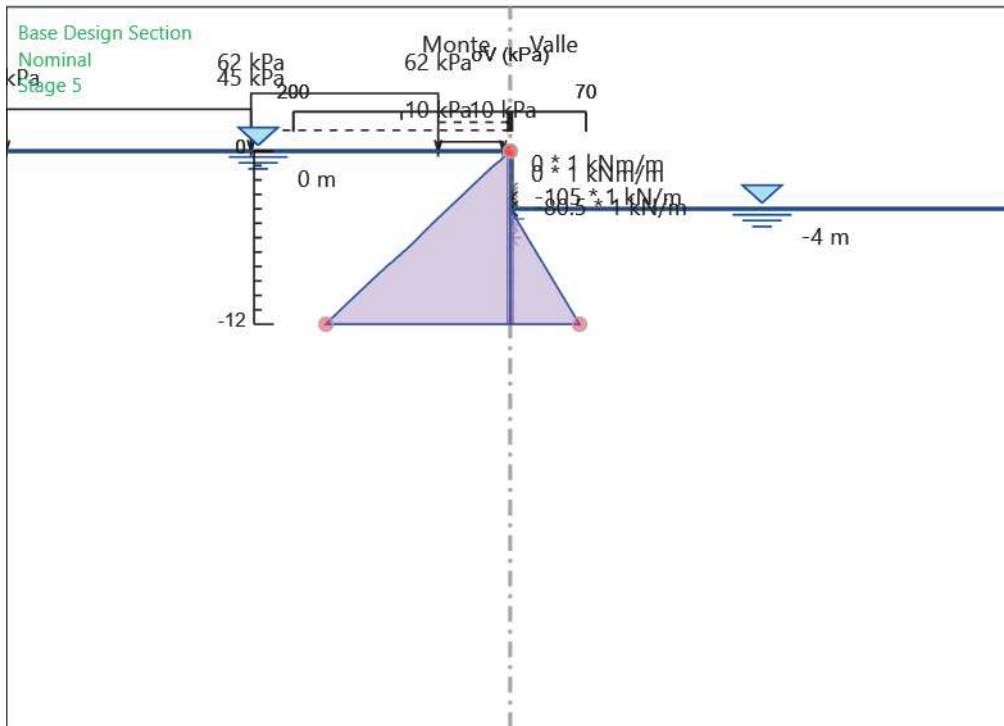
Design Assumption: Nominal
Stage: Stage 2
Sigma V



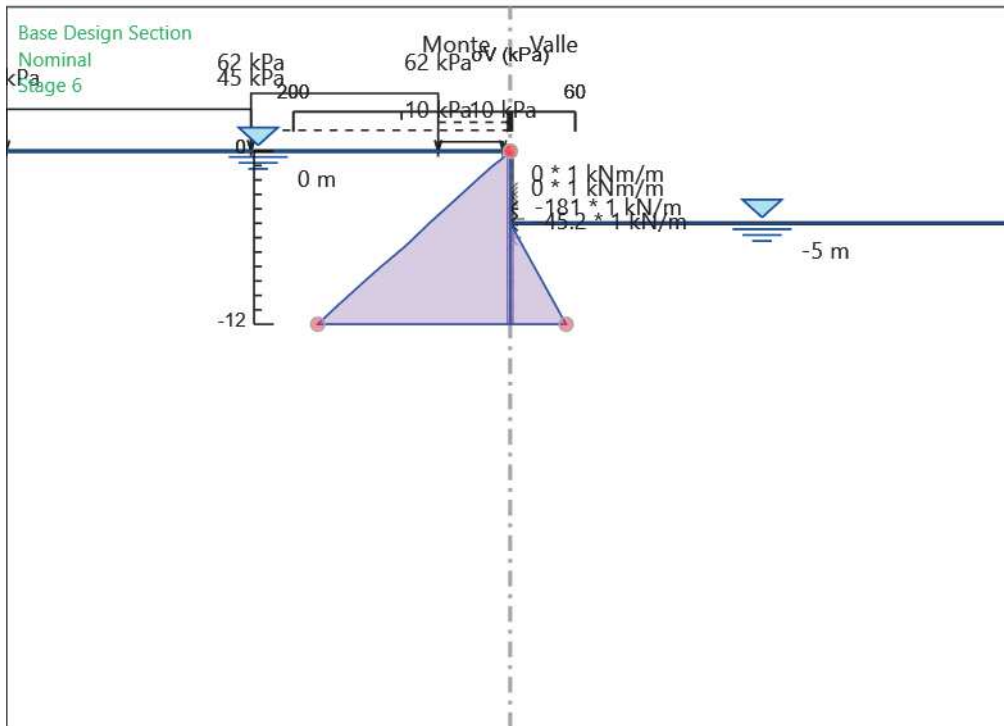
Design Assumption: Nominal
Stage: Stage 3
Sigma V



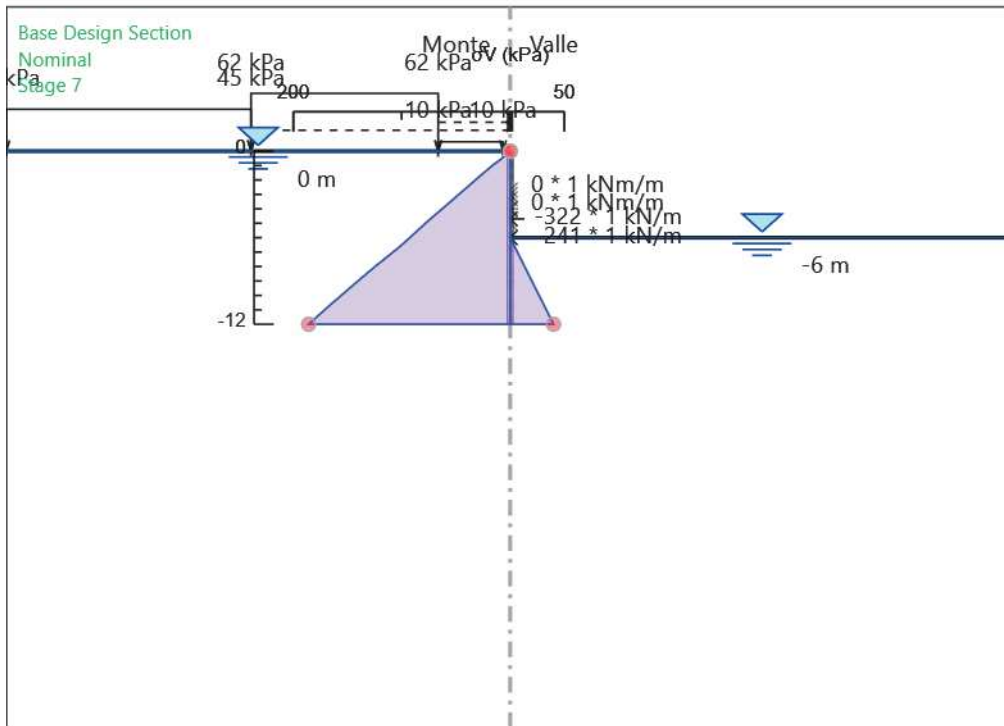
Design Assumption: Nominal
Stage: Stage 4
Sigma V



Design Assumption: Nominal
Stage: Stage 5
Sigma V

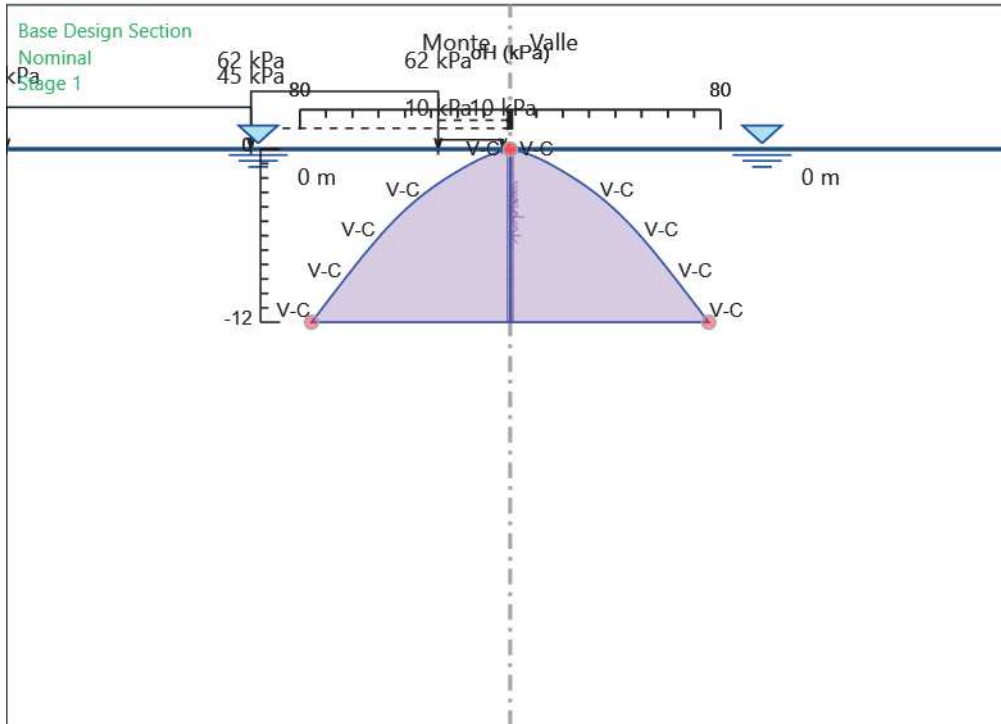


Design Assumption: Nominal
Stage: Stage 6
Sigma V

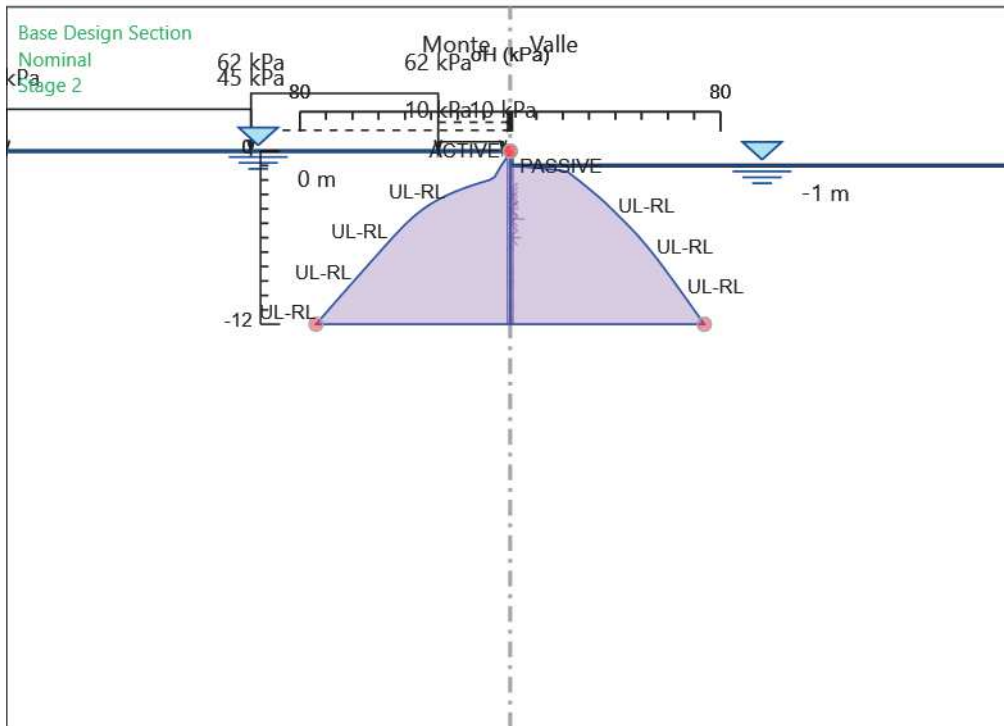


Design Assumption: Nominal
Stage: Stage 7
Sigma V

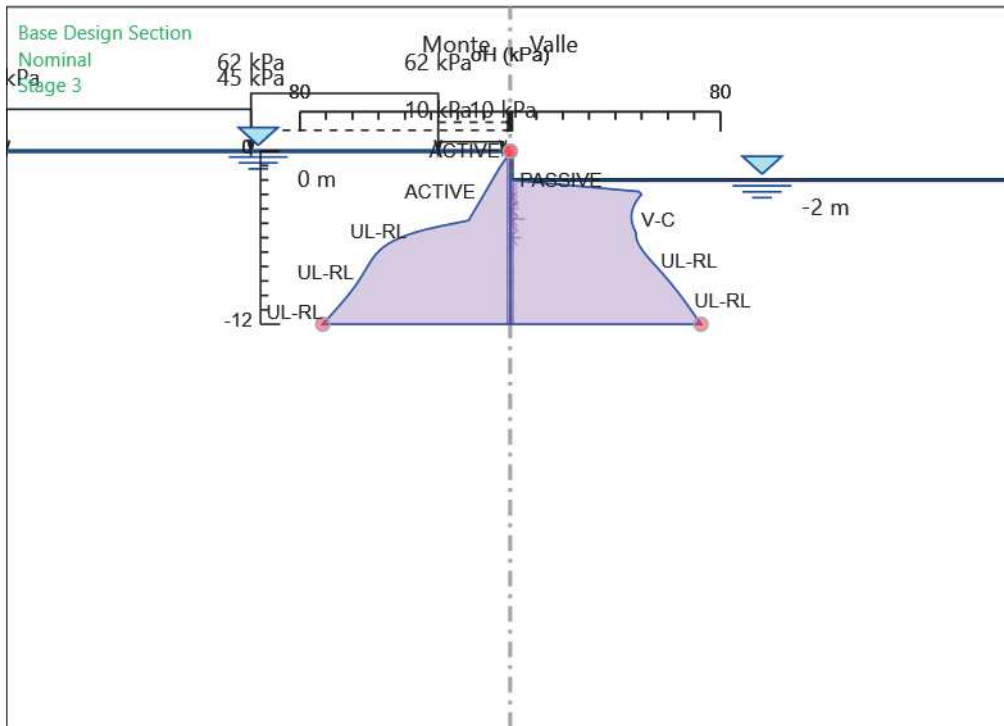
Grafico Risultati Terreno Sigma H



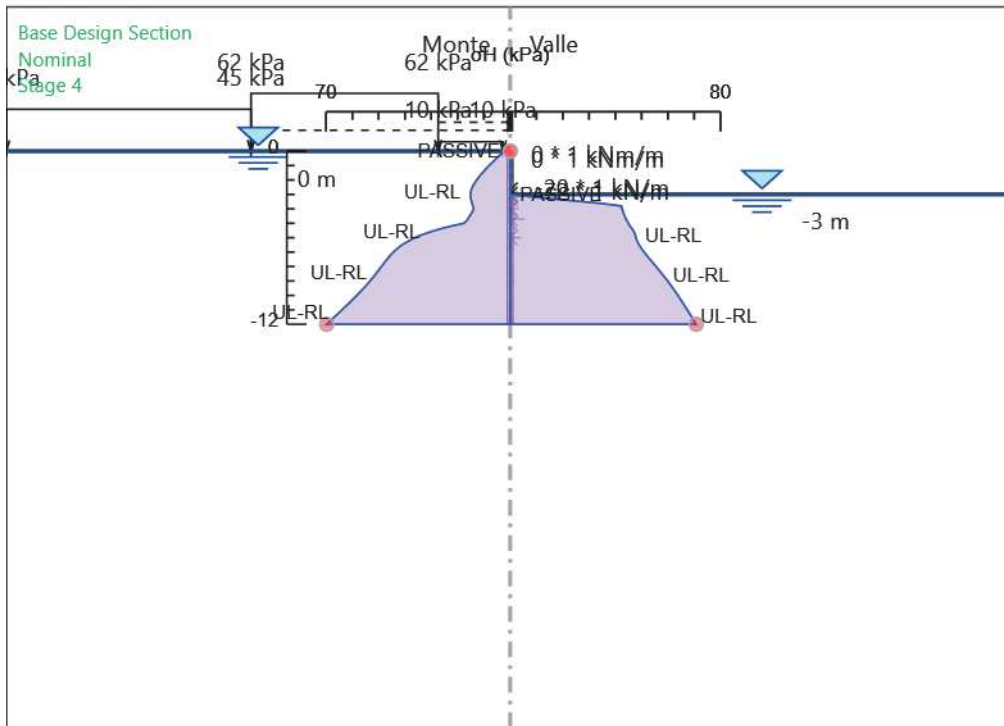
Design Assumption: Nominal
Stage: Stage 1
Sigma H



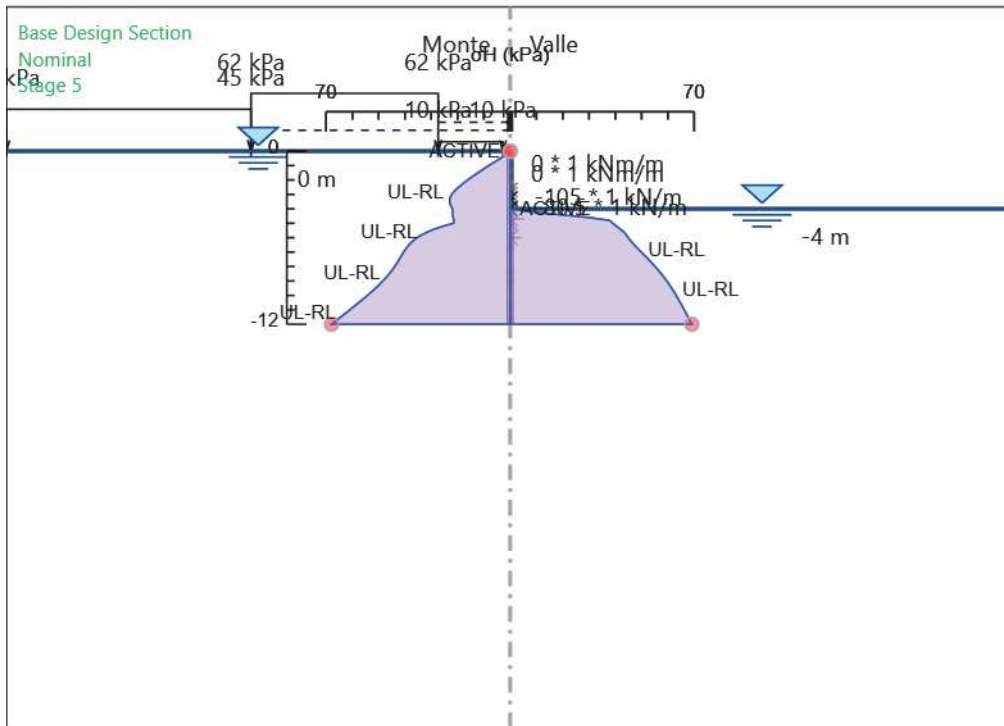
Design Assumption: Nominal
Stage: Stage 2
Sigma H



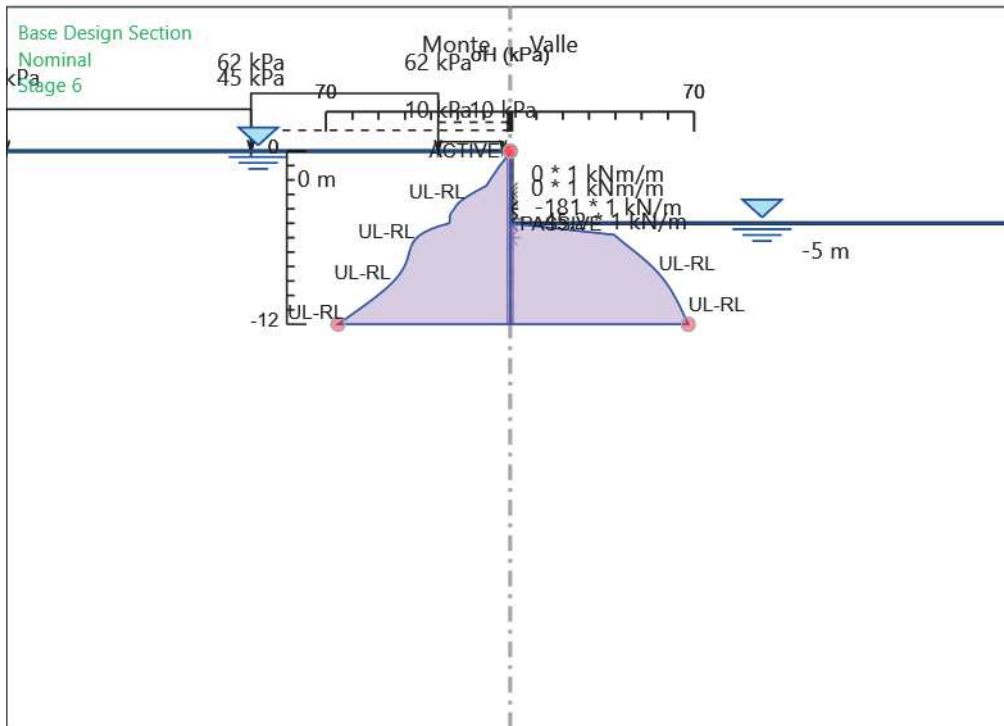
Design Assumption: Nominal
Stage: Stage 3
Sigma H



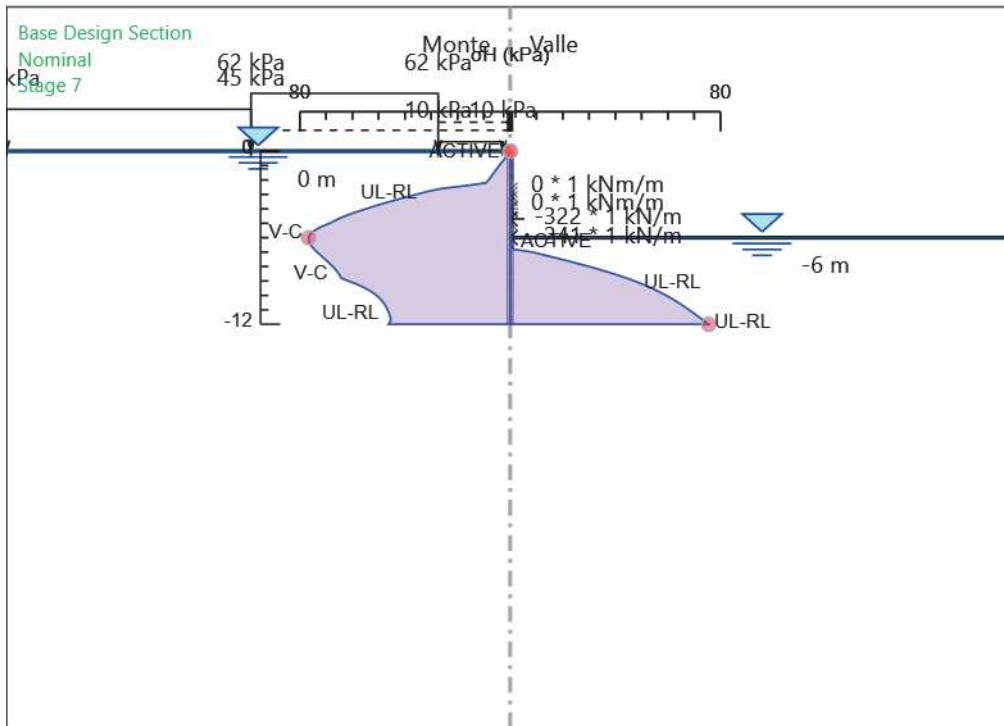
Design Assumption: Nominal
Stage: Stage 4
Sigma H



Design Assumption: Nominal
Stage: Stage 5
Sigma H

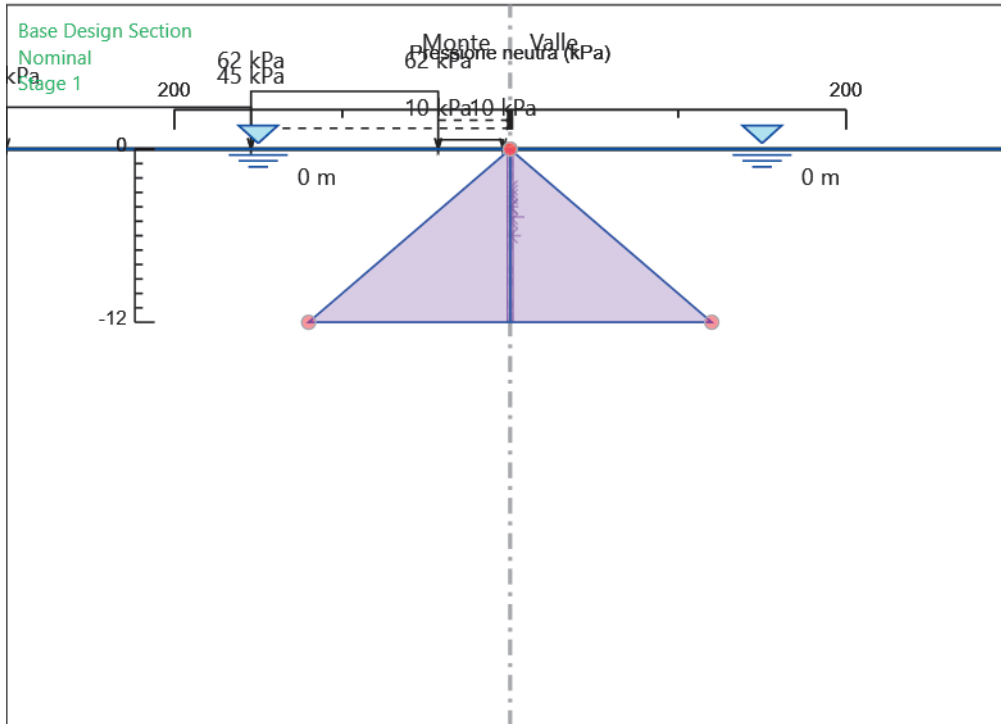


Design Assumption: Nominal
Stage: Stage 6
Sigma H

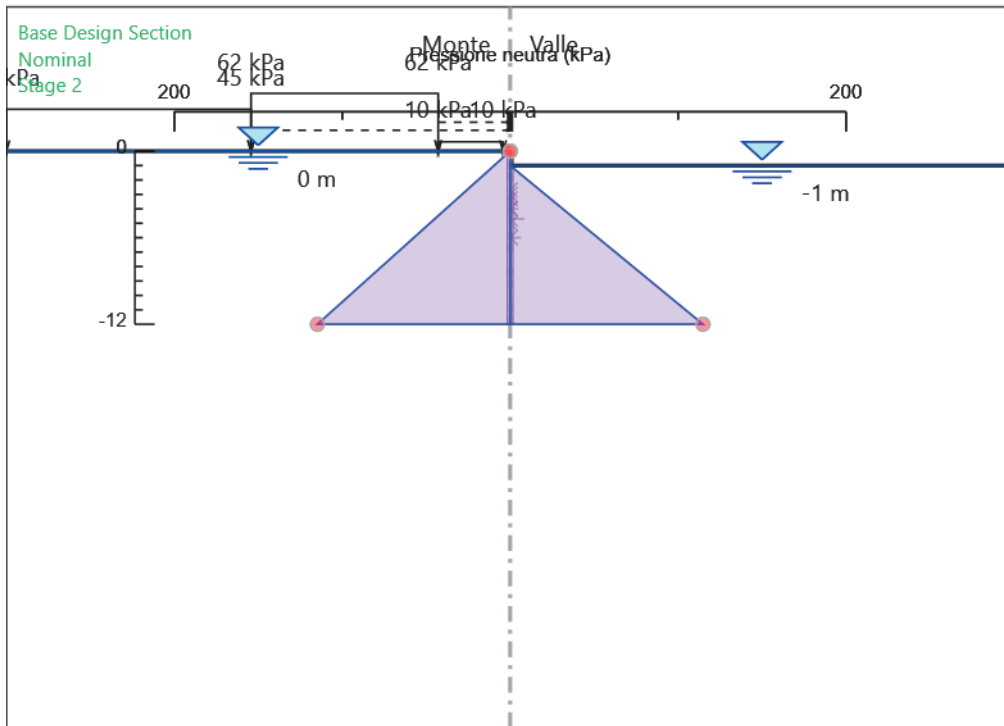


Design Assumption: Nominal
Stage: Stage 7
Sigma H

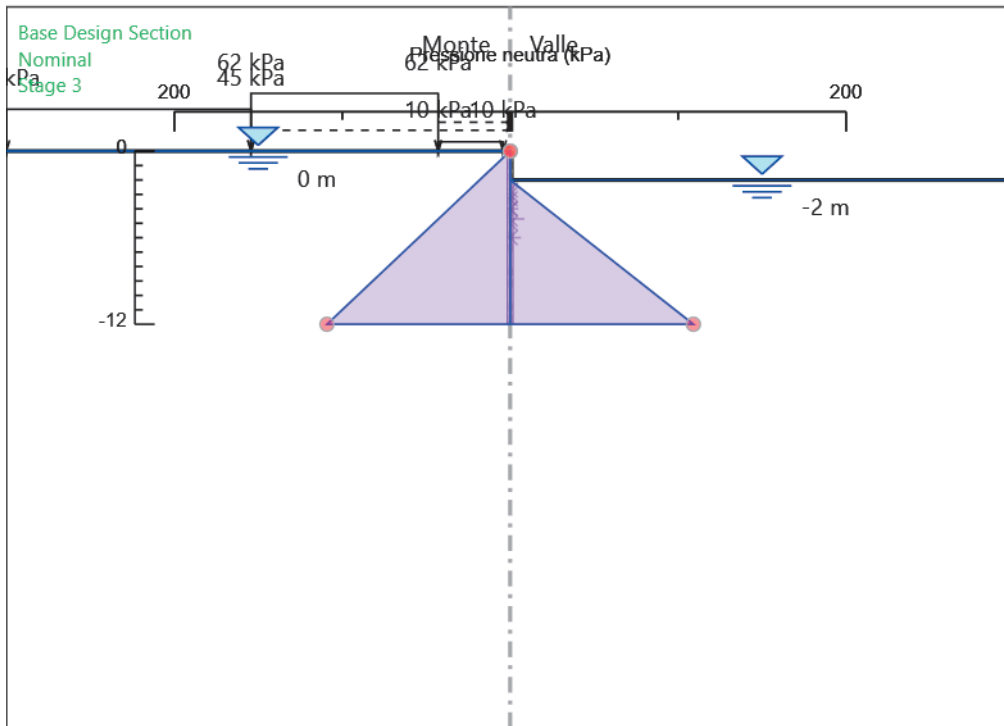
Grafico Risultati Terreno Pressione neutra



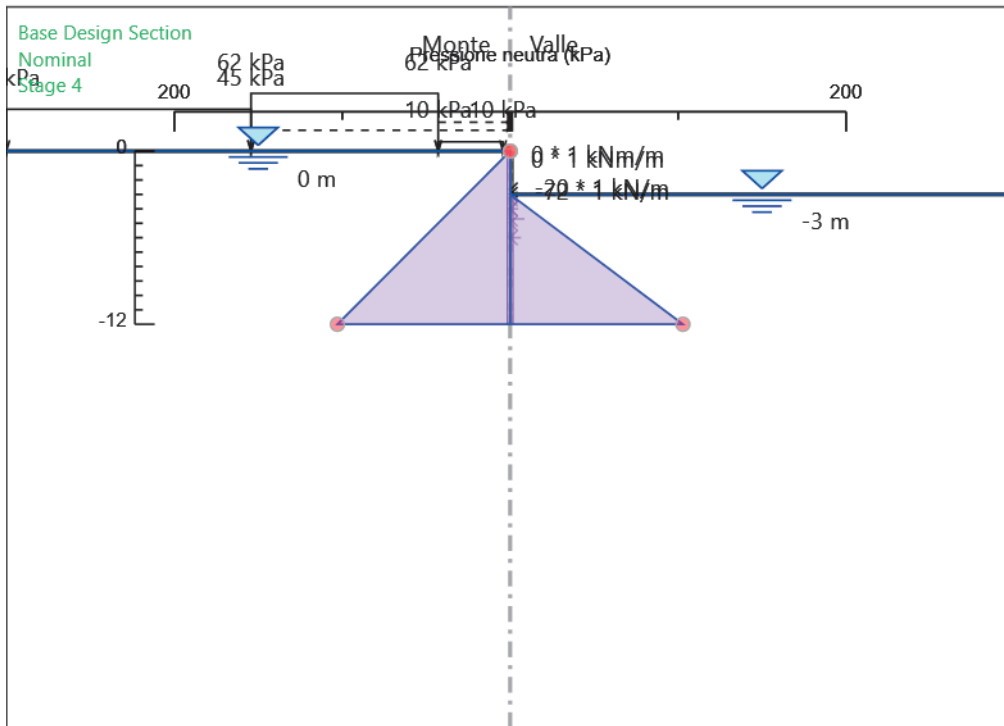
Design Assumption: Nominal
Stage: Stage 1
Pressione neutra



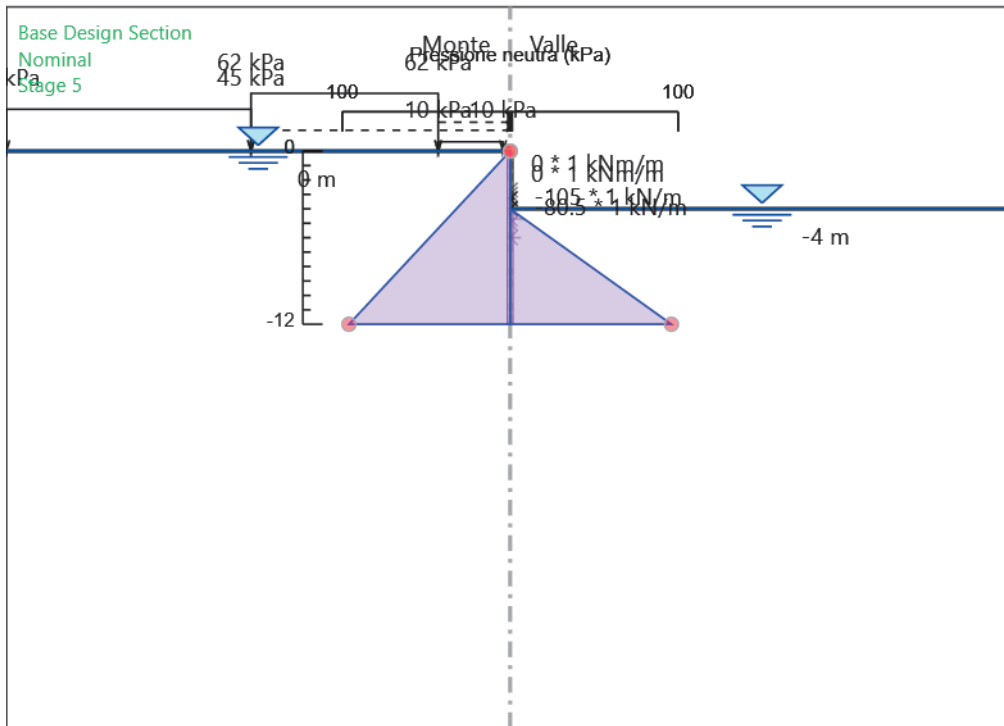
Design Assumption: Nominal
Stage: Stage 2
Pressione neutra



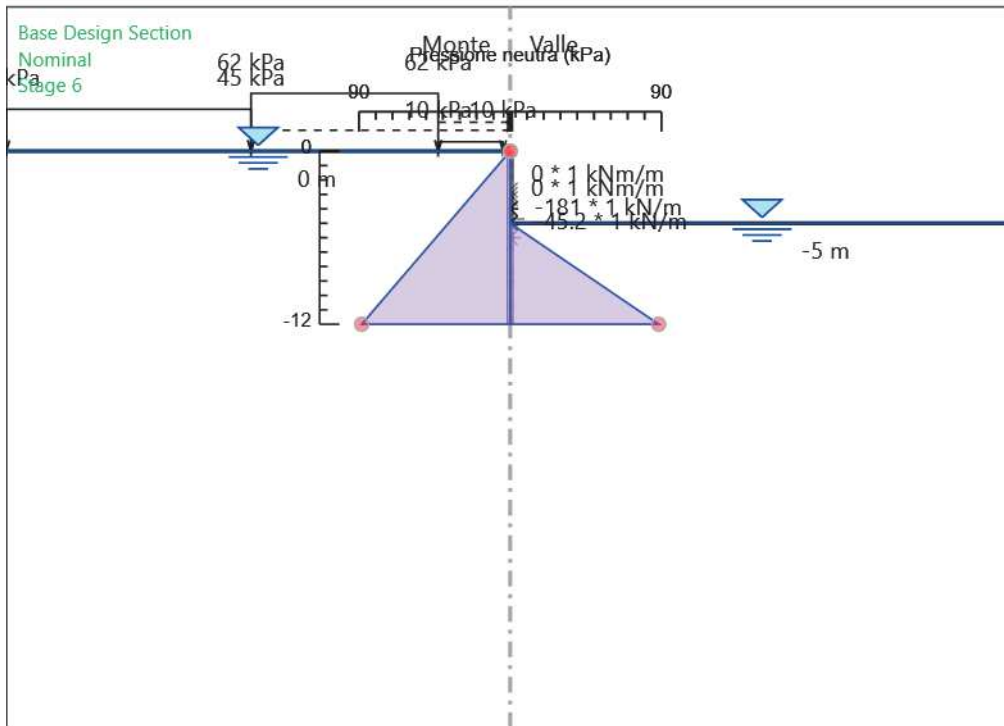
Design Assumption: Nominal
Stage: Stage 3
Pressione neutra



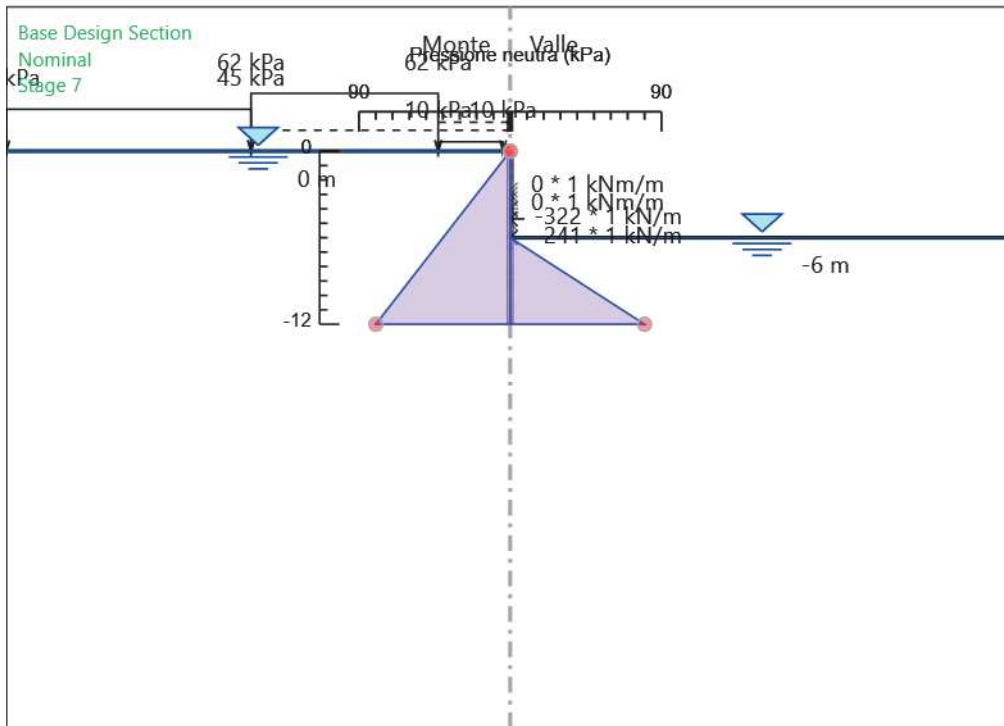
Design Assumption: Nominal
Stage: Stage 4
Pressione neutra



Design Assumption: Nominal
Stage: Stage 5
Pressione neutra

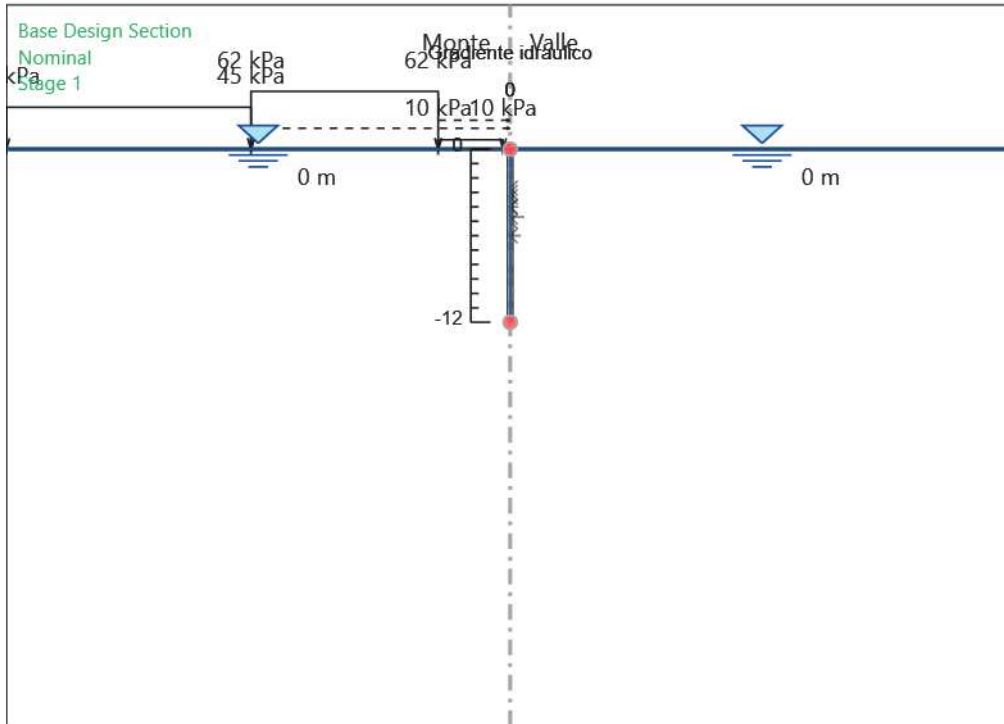


Design Assumption: Nominal
Stage: Stage 6
Pressione neutra

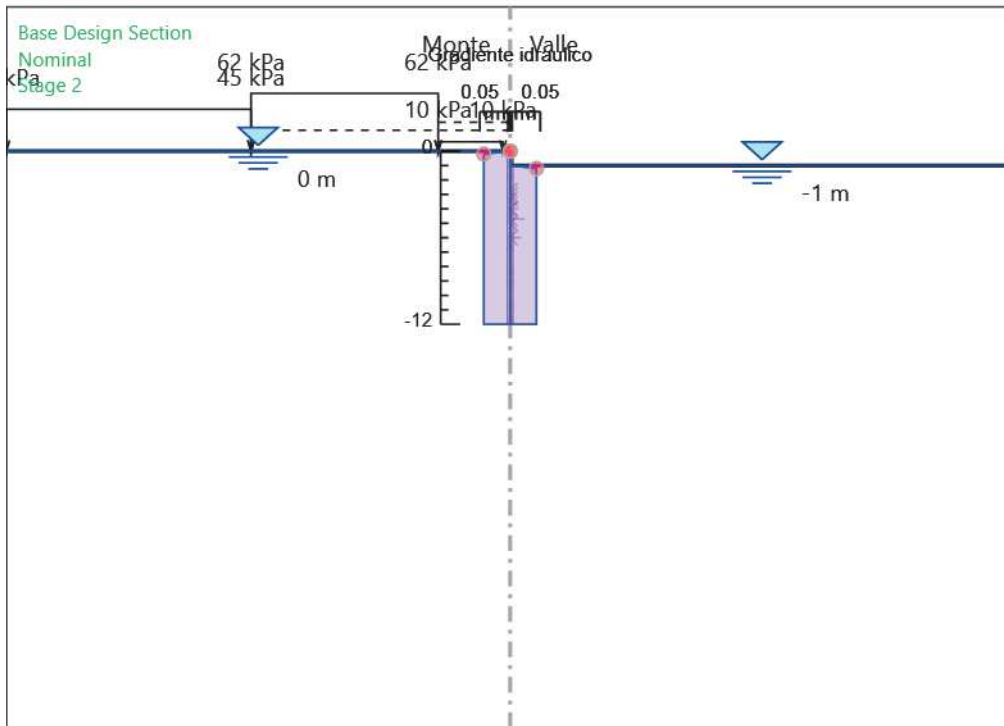


Design Assumption: Nominal
Stage: Stage 7
Pressione neutra

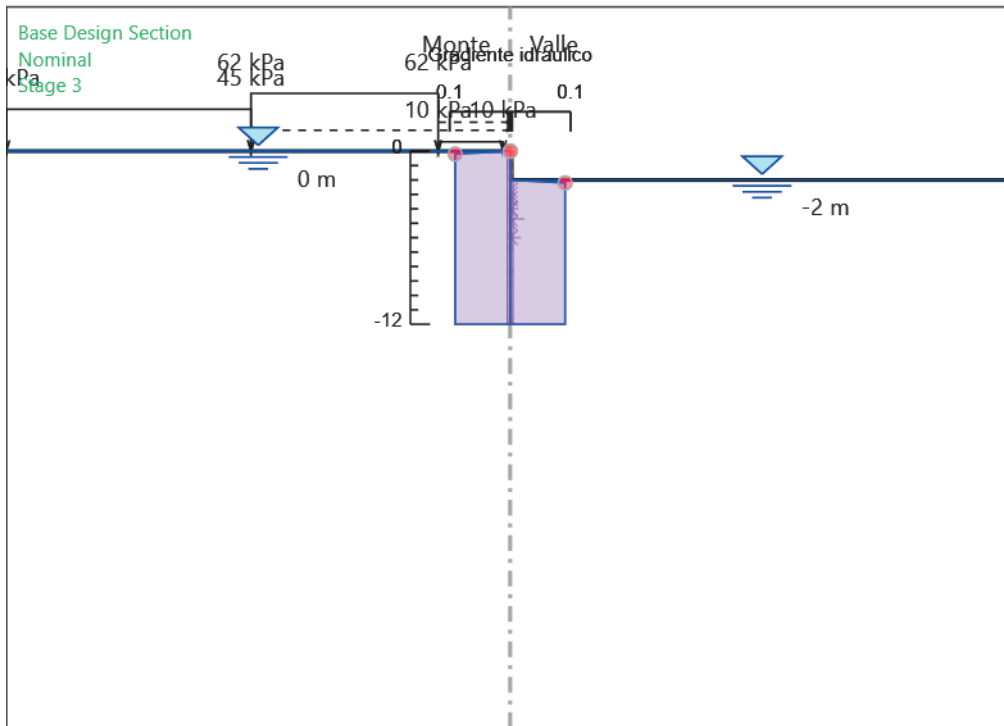
Grafico Risultati Terreno Gradiente idraulico



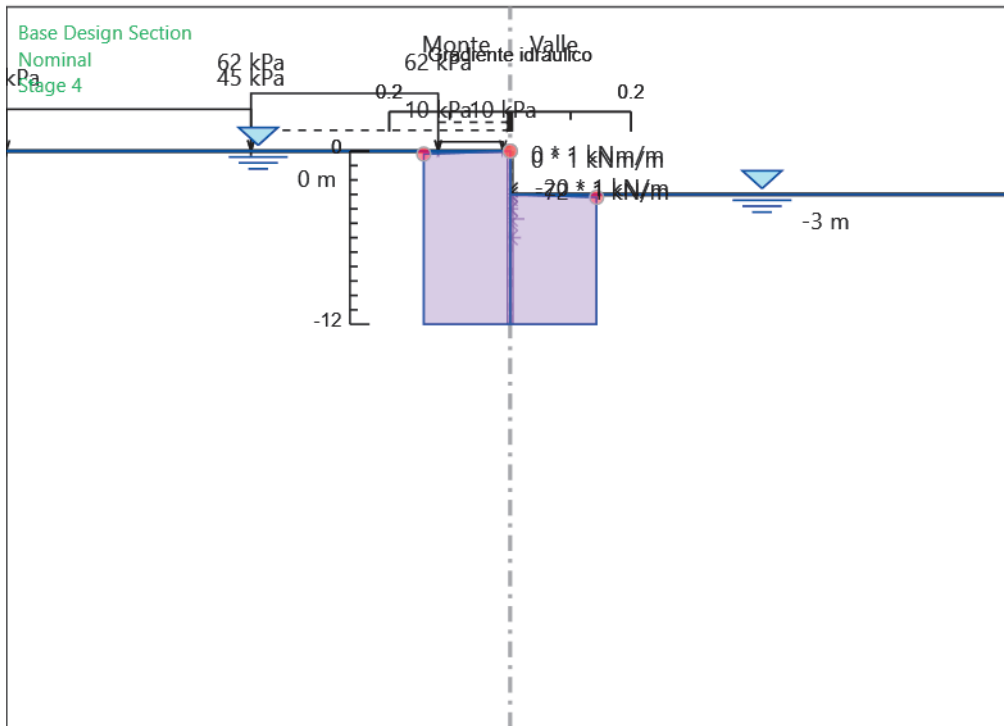
Design Assumption: Nominal
Stage: Stage 1
Gradiente idraulico



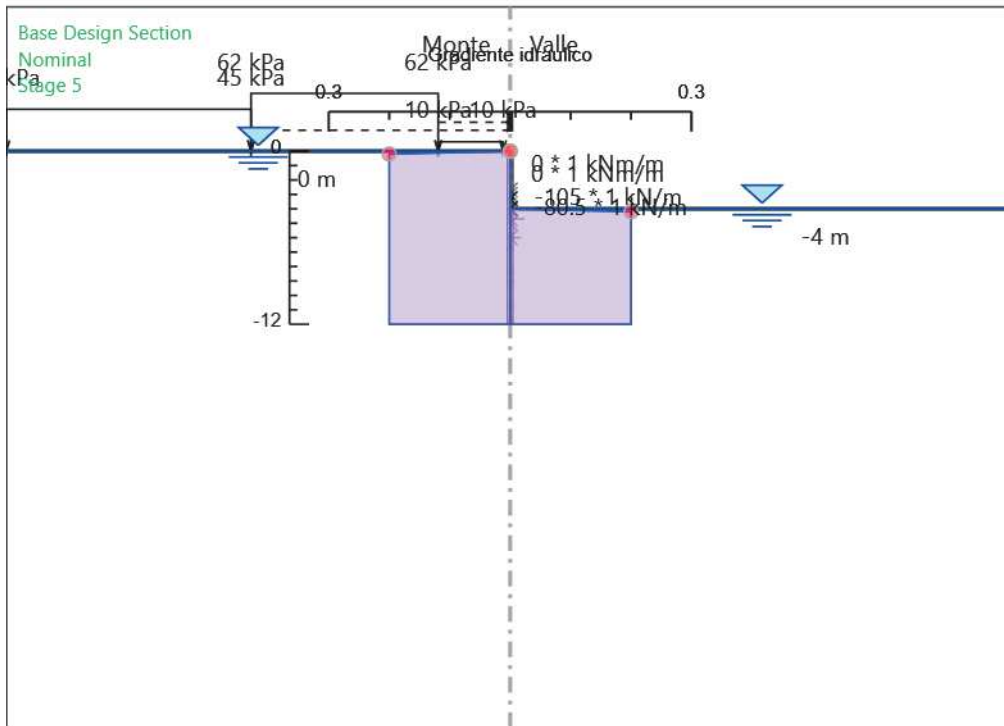
Design Assumption: Nominal
Stage: Stage 2
Gradiente idraulico



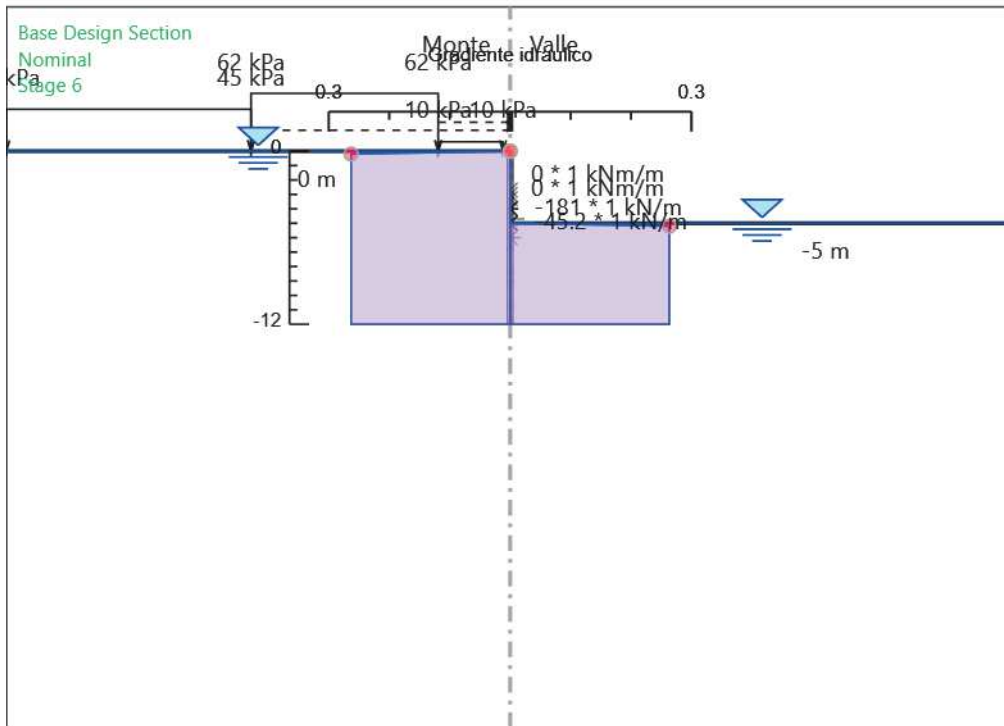
Design Assumption: Nominal
Stage: Stage 3
Gradiente idraulico



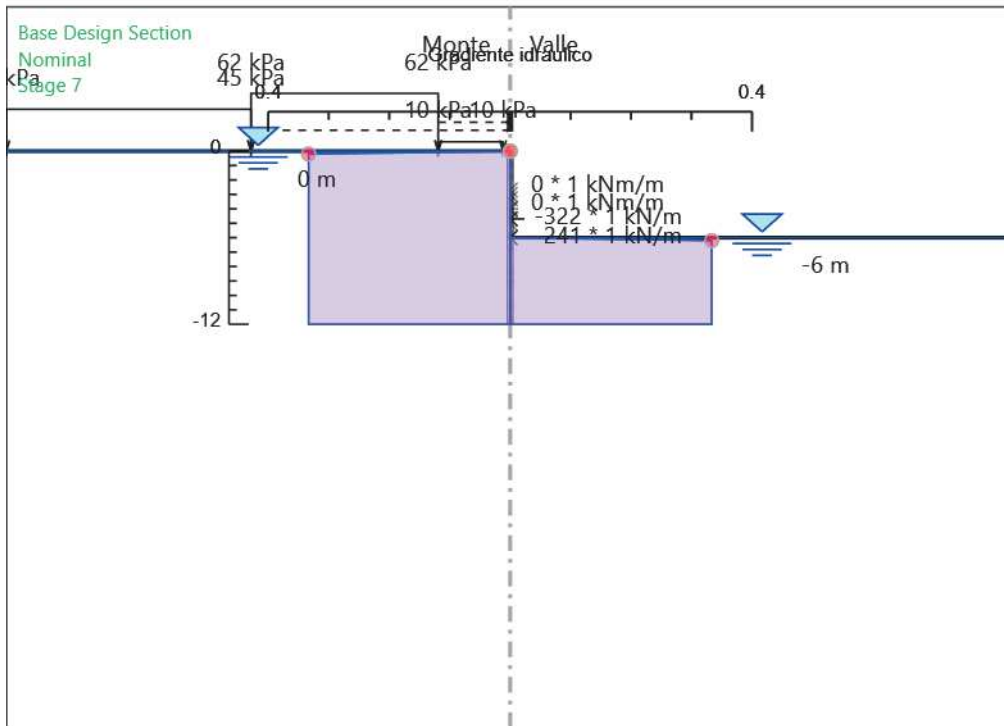
Design Assumption: Nominal
Stage: Stage 4
Gradiente idraulico



Design Assumption: Nominal
Stage: Stage 5
Gradiente idraulico

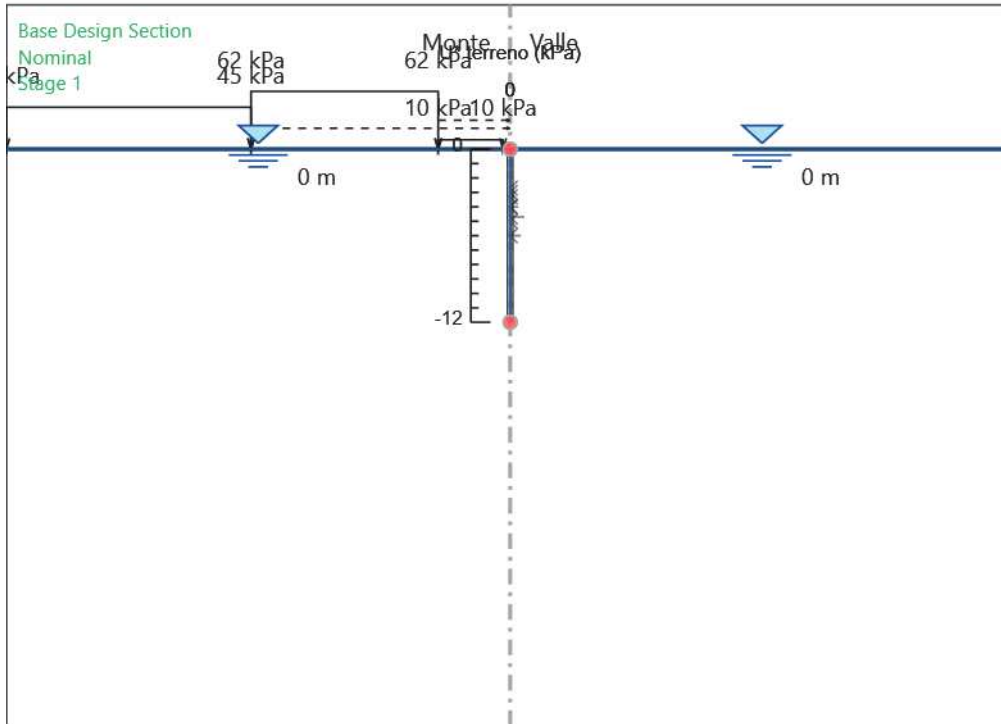


Design Assumption: Nominal
Stage: Stage 6
Gradiente idraulico

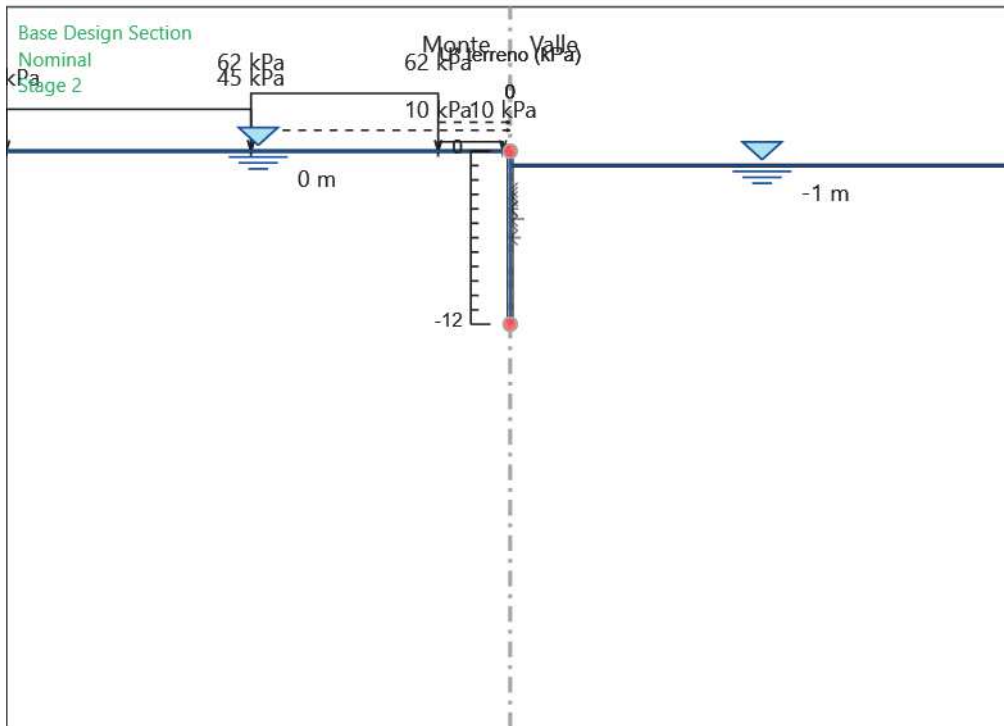


Design Assumption: Nominal
Stage: Stage 7
Gradiente idraulico

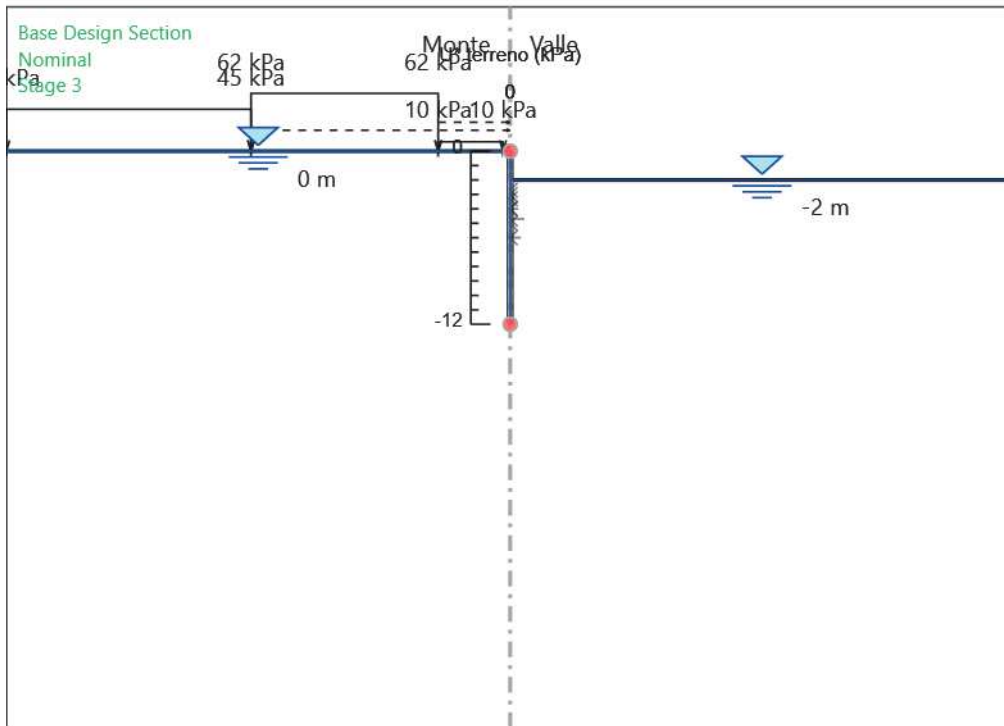
Grafico Risultati Terreno U* terreno



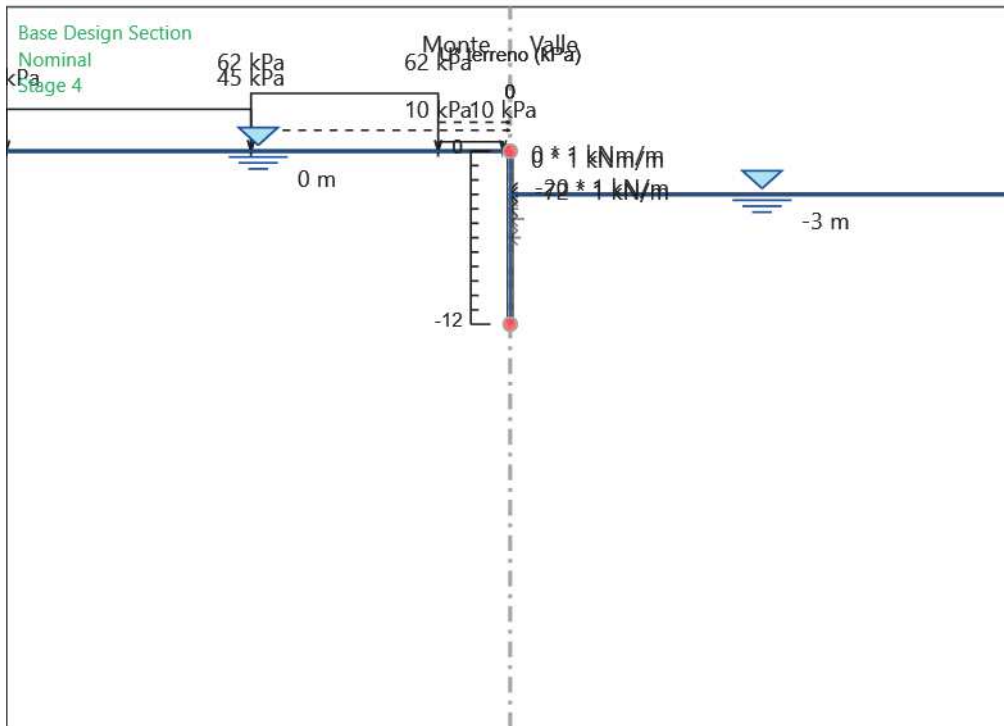
Design Assumption: Nominal
Stage: Stage 1
U* terreno



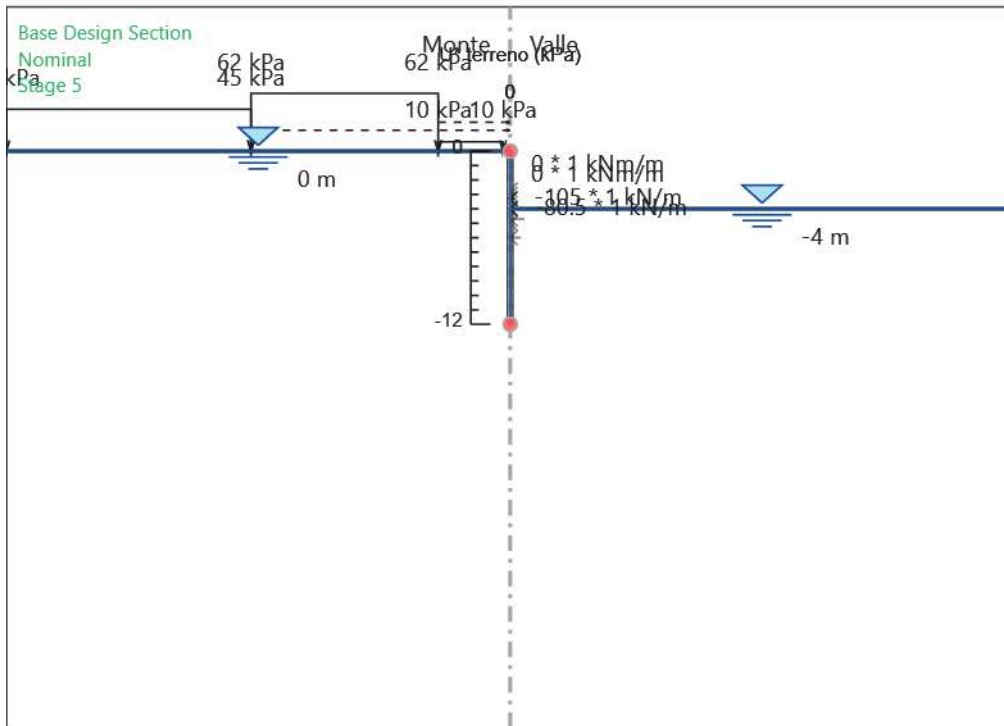
Design Assumption: Nominal
Stage: Stage 2
U* terreno



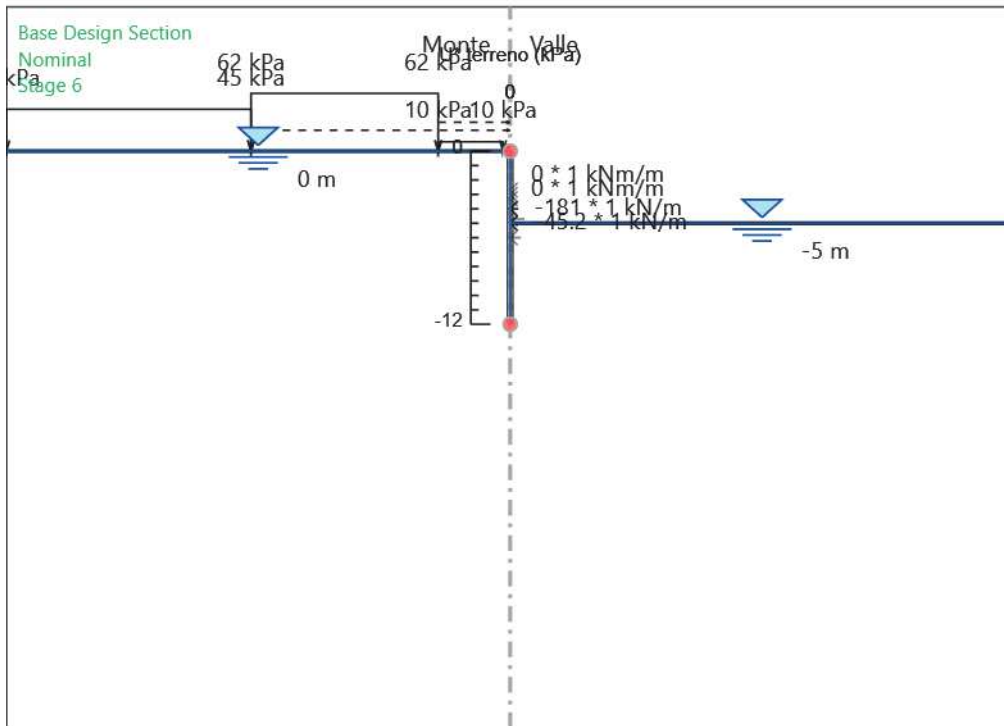
Design Assumption: Nominal
Stage: Stage 3
U* terreno



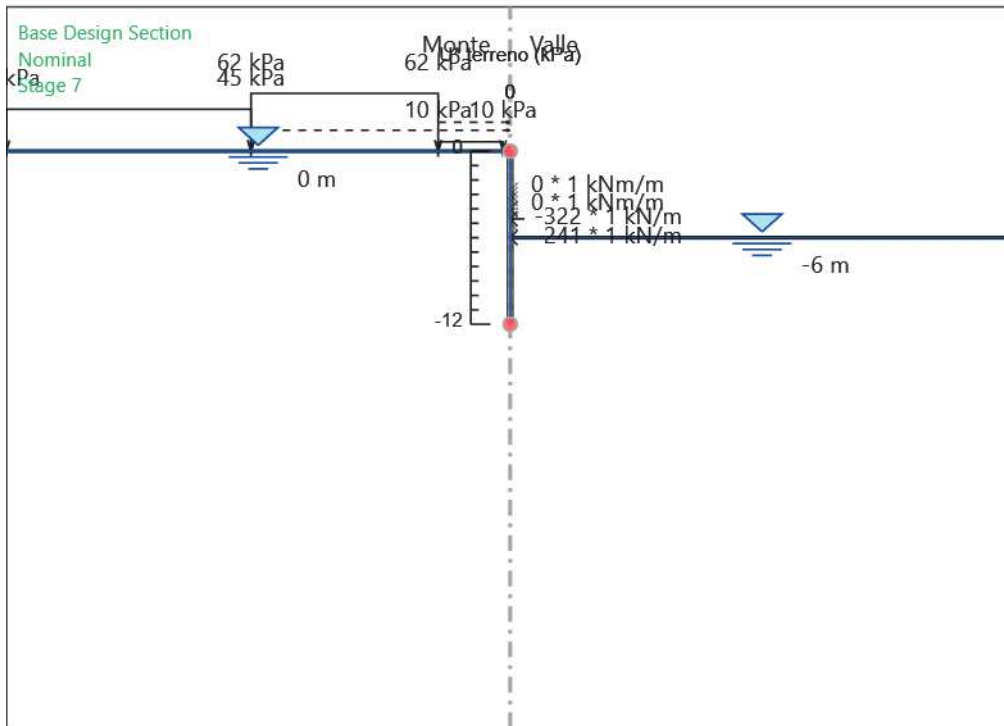
Design Assumption: Nominal
Stage: Stage 4
U* terreno



Design Assumption: Nominal
Stage: Stage 5
U* terreno



Design Assumption: Nominal
Stage: Stage 6
U* terreno



Design Assumption: Nominal
Stage: Stage 7
U* terreno

Riepilogo spinte

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	LEFT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva	Pressione neutra	Vera Totale	Min ammissibile	Max ammissibile	Percentuale di resistenza massima	Vera / Attiva
	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)		
Stage 1	557	720	1277	219.6	5942.1	9.37%	2.54
Stage 2	486.1	688.7	1174.8	227.4	6153	7.9%	2.14
Stage 3	422.4	654.5	1076.9	235.9	6383.1	6.62%	1.79
Stage 4	410.4	617.1	1027.5	245.2	6635.1	6.19%	1.67
Stage 5	409.6	576	985.6	255.4	6912.4	5.93%	1.6
Stage 6	371.5	530.5	902	266.8	7218.8	5.15%	1.39
Stage 7	572.3	480	1052.3	279.3	7559.2	7.57%	2.05

Design Assumption:	Tipo Risultato:	Muro:	LEFT	Lato	RIGHT		
Nominal	Riepilogo spinte						
Stage	Vera effettiva	Pressione neutra	Vera Totale	Min ammissibile	Max ammissibile	Percentuale di resistenza massima	Vera / Attiva
	(kN/m)	(kN/m)	(kN/m)	(kN/m)	(kN/m)		
Stage 1	557	720	1277	179.3	4851.4	11.48%	3.11
Stage 2	543.5	631.3	1174.8	144.1	3899.2	13.94%	3.77
Stage 3	531.4	545.5	1076.9	113.2	3062.7	17.35%	4.69
Stage 4	472.7	462.9	935.5	86.4	2339	20.21%	5.47
Stage 5	416.1	384	800.1	63.7	1724.9	24.12%	6.53
Stage 6	366.3	309.5	675.8	45	1216.4	30.11%	8.14
Stage 7	249.3	240	489.3	29.9	808.6	30.83%	8.34

Allegati

Design Assumption : Nominal - File di Paratie - File di output (.out)

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|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:23:40                             |
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```
*****
*                                                                                               *
*  PARATIE PLUS Non-Linear Spring Engine                                                       *
*                                                                                               *
*          AN ELASTOPLASTIC FINITE ELEMENT PROGRAM                                           *
*          FOR FLEXIBLE EARTH-RETAINING STRUCTURES                                           *
*                                                                                               *
*          Written by Ce.A.S. s.r.l. (ITALY)                                                  *
*          with the scientific supervision of                                                  *
*          Roberto Nova - full professor SOIL MECHANICS                                     *
*          at Politecnico di Milano (ITALY)                                                  *
*                                                                                               *
*****
*                                                                                               *
*  RELEASE  2017.1      *Build date:Jul 11, 2017*  *                                           *
*                                                                                               *
*                                                                                               *
*  Ce.A.S.    S.R.L  CENTRO DI ANALISI STRUTTURALE                                           *
*            VIALE  GIUSTINIANO 10                                                         *
*            20129  M I L A N O  (ITALIA)                                                  *
*  TEL.      +39 02 2020221  (+39 035 23 67 19)                                           *
*  FAX      +39 02 29512533  (+39 035 42285 49)                                           *
*  email    bruno.becci@ceas.it                                                           *
*  Web Page www.ceas.it                                                                 *
*****
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STARTING
ACCEPTED <FILE,GENW                                     >
ACCEPTED <FILE,PLOTTER,BINARY                           >
ACCEPTED <SOLVE TOTAL_STRESS                           >
ACCEPTED <PARAM ITEM MAX 40                             >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001                >
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*****
*                                                                                               *
*  WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED                                       *
*           BY THE PROGRAM.                                                                    *
*****
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PRELIMINARY OPERATIONS CPU TIME      0.02 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018           18:23:40     |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 86
NO. OF LONG NAMES (LASTNAME) ..... 20
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

-----+-----
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018          18:23:40 |
|-----+-----

```

P R E P R O C E S S O R D A T A

N O . O F C O M M A N D S 86

```

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5.5E+04 1.65E+05
15 : ENDL
16 : MATERIAL S355_114 2.1E+08
17 : BEAM WallElement_33 LeftWall_32 -12 0 S355_114 0.25 00 00 0
18 : STRIP LeftWall_32 1 7 5 13 0 62 45
19 : STRIP LeftWall_32 1 7 18 17 0 45 45
20 : STRIP LeftWall_32 1 7 0.5 4.5 0 10 45
21 : STEP Stage1_31
22 : CHANGE Ug5_2_8_L_0 U-FRICT=37 LeftWall_32
23 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
24 : CHANGE Ug5_2_8_L_0 U-KA=0.249 LeftWall_32
25 : CHANGE Ug5_2_8_L_0 U-KP=6.738 LeftWall_32
26 : CHANGE Ug5_2_8_L_0 D-KA=0.249 LeftWall_32
27 : CHANGE Ug5_2_8_L_0 D-KP=6.738 LeftWall_32
28 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
30 : SETWALL LeftWall_32
31 : GEOM 0 0
32 : WATER 0 0 -12 0 0
33 : ADD WallElement_33
34 : ENDSTEP
35 : STEP Stage2_158
36 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
37 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
38 : SETWALL LeftWall_32
39 : GEOM 0 -1
40 : WATER 0 1 -12 0 0
41 : ENDSTEP
42 : STEP Stage3_255
43 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
44 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
45 : SETWALL LeftWall_32
46 : GEOM 0 -2
47 : WATER 0 2 -12 0 0
48 : ENDSTEP
49 : STEP Stage4_352
50 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
51 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
52 : SETWALL LeftWall_32
53 : GEOM 0 -3
54 : WATER 0 3 -12 0 0
55 : LOAD step LeftWall_32 -2.7 1 -20
56 : LOAD step LeftWall_32 -3 1 -72
57 : ENDSTEP
58 : STEP Stage5_449
59 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
60 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
61 : SETWALL LeftWall_32
62 : GEOM 0 -4
63 : SURCHARGE 0 0 0 -4
64 : WATER 0 4 -12 0 0
65 : LOAD step LeftWall_32 -4 1 -80.5
66 : LOAD step LeftWall_32 -3.3 1 -105
67 : ENDSTEP
68 : STEP Stage6_546

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : SETWALL LeftWall_32
72 : GEOM 0 -5
73 : SURCHARGE 0 0 0 0
74 : WATER 0 5 -12 0 0
75 : LOAD step LeftWall_32 -5 1 -45.2
76 : LOAD step LeftWall_32 -4 1 -181
77 : ENDSTEP
78 : STEP Stage7_643
79 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
80 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -6
83 : WATER 0 6 -12 0 0
84 : LOAD constant LeftWall_32 -6 1 -241
85 : LOAD constant LeftWall_32 -4.7 1 -322
86 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+

```

N O D A L P O I N T D A T A

NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /	NODE	Y-COORD	Z-COORD /
1	0.0000	0.0000 /	2	0.0000	-0.20000 /	3	0.0000	-0.40000 /	4	0.0000	-0.60000 /
5	0.0000	-0.80000 /	6	0.0000	-1.0000 /	7	0.0000	-1.2000 /	8	0.0000	-1.4000 /
9	0.0000	-1.6000 /	10	0.0000	-1.8000 /	11	0.0000	-2.0000 /	12	0.0000	-2.2000 /
13	0.0000	-2.4000 /	14	0.0000	-2.6000 /	15	0.0000	-2.8000 /	16	0.0000	-3.0000 /
17	0.0000	-3.2000 /	18	0.0000	-3.4000 /	19	0.0000	-3.6000 /	20	0.0000	-3.8000 /
21	0.0000	-4.0000 /	22	0.0000	-4.2000 /	23	0.0000	-4.4000 /	24	0.0000	-4.6000 /
25	0.0000	-4.8000 /	26	0.0000	-5.0000 /	27	0.0000	-5.2000 /	28	0.0000	-5.4000 /
29	0.0000	-5.6000 /	30	0.0000	-5.8000 /	31	0.0000	-6.0000 /	32	0.0000	-6.2000 /
33	0.0000	-6.4000 /	34	0.0000	-6.6000 /	35	0.0000	-6.8000 /	36	0.0000	-7.0000 /
37	0.0000	-7.2000 /	38	0.0000	-7.4000 /	39	0.0000	-7.6000 /	40	0.0000	-7.8000 /
41	0.0000	-8.0000 /	42	0.0000	-8.2000 /	43	0.0000	-8.4000 /	44	0.0000	-8.6000 /
45	0.0000	-8.8000 /	46	0.0000	-9.0000 /	47	0.0000	-9.2000 /	48	0.0000	-9.4000 /
49	0.0000	-9.6000 /	50	0.0000	-9.8000 /	51	0.0000	-10.000 /	52	0.0000	-10.200 /
53	0.0000	-10.400 /	54	0.0000	-10.600 /	55	0.0000	-10.800 /	56	0.0000	-11.000 /
57	0.0000	-11.200 /	58	0.0000	-11.400 /	59	0.0000	-11.600 /	60	0.0000	-11.800 /
61	0.0000	-12.000 /									

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                |
|                NewProject.BaseDesignSection_28.Nominal_63  |
|                Exe Time :24 May 2018  18:23:40  |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

```

.....2D PLASTIC SOIL .....

```

element group behaviour throughout stage analysis

```

stage  status
-----
1  active
2  active
3  active
4  active
5  active
6  active
7  active

```

material set no. 1

```

prop( 1) angle 0.00000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 May 2018          18:23:40          |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R          :
 5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:23:40             |
+-----+

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
 2 60 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) young modulus      0.210000E+09
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

```

no. of step variable items: 1
step inertia multiplier

```

-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

```

element data

e1	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.2500	0.000	0.000
2	2	3	1	0.000	0.000	0.2500	0.000	0.000
3	3	4	1	0.000	0.000	0.2500	0.000	0.000
4	4	5	1	0.000	0.000	0.2500	0.000	0.000
5	5	6	1	0.000	0.000	0.2500	0.000	0.000
6	6	7	1	0.000	0.000	0.2500	0.000	0.000
7	7	8	1	0.000	0.000	0.2500	0.000	0.000
8	8	9	1	0.000	0.000	0.2500	0.000	0.000
9	9	10	1	0.000	0.000	0.2500	0.000	0.000
10	10	11	1	0.000	0.000	0.2500	0.000	0.000
11	11	12	1	0.000	0.000	0.2500	0.000	0.000
12	12	13	1	0.000	0.000	0.2500	0.000	0.000
13	13	14	1	0.000	0.000	0.2500	0.000	0.000
14	14	15	1	0.000	0.000	0.2500	0.000	0.000
15	15	16	1	0.000	0.000	0.2500	0.000	0.000
16	16	17	1	0.000	0.000	0.2500	0.000	0.000
17	17	18	1	0.000	0.000	0.2500	0.000	0.000
18	18	19	1	0.000	0.000	0.2500	0.000	0.000
19	19	20	1	0.000	0.000	0.2500	0.000	0.000
20	20	21	1	0.000	0.000	0.2500	0.000	0.000
21	21	22	1	0.000	0.000	0.2500	0.000	0.000
22	22	23	1	0.000	0.000	0.2500	0.000	0.000
23	23	24	1	0.000	0.000	0.2500	0.000	0.000
24	24	25	1	0.000	0.000	0.2500	0.000	0.000
25	25	26	1	0.000	0.000	0.2500	0.000	0.000
26	26	27	1	0.000	0.000	0.2500	0.000	0.000
27	27	28	1	0.000	0.000	0.2500	0.000	0.000
28	28	29	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.Nominal_63                               |
|                               Exe Time :24 May 2018      18:23:40                               |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 8
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:23:40                             |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

CONCENTRATED LOADS

NODE	DIRECTION	LOAD CURVE	LOAD CURVE MULTIPL
14	1	4	-0.2000E+02
16	1	4	-0.7200E+02
21	1	5	-0.8050E+02
17	1	5	-0.1050E+03
26	1	6	-0.4520E+02
21	1	6	-0.1810E+03
31	1	14	-0.2410E+03
25	1	14	-0.3220E+03

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018      18:23:40                                                |
+-----+
```

L O A D B A L A N C E

STEP	1	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	1	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	2	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	0.0000000
STEP	3	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	-92.0000000
STEP	4	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	5	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	-185.50000
STEP	5	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	6	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	-226.20000
STEP	6	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000
STEP	7	TOTAL APPLIED LOAD IN DIR.	2	Y-DISPL.F	-563.00000
STEP	7	TOTAL APPLIED LOAD IN DIR.	4	X-ROT.F	0.0000000

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.Nominal_63                               |
|                               Exe Time :24 May 2018      18:23:40                               |
+-----+
```

NO. OF LAYERS 1
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000    (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000    (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000    (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 37.000    (BOTH WALLS)
ITEM NO. 10<U-KA    >= 0.24900   WALL NO.      1
ITEM NO. 11<U-KP    >= 6.7380    WALL NO.      1
ITEM NO. 12<K0-NC   >= 0.50000    (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000    (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000    (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000    (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.    (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000    (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000    (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000    (BOTH WALLS)
ITEM NO. 60<D-KA    >= 0.24900   WALL NO.      1
ITEM NO. 61<D-KP    >= 6.7380    WALL NO.      1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000    (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000    (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000    (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 37.000    (BOTH WALLS)
ITEM NO. 10<U-KA    >= 0.24900   WALL NO.      1
ITEM NO. 11<U-KP    >= 6.7380    WALL NO.      1
ITEM NO. 12<K0-NC   >= 0.50000    (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000    (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000    (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000    (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.    (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000    (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000    (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000    (BOTH WALLS)
ITEM NO. 60<D-KA    >= 0.24900   WALL NO.      1
ITEM NO. 61<D-KP    >= 6.7380    WALL NO.      1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000    (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000    (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000    (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 37.000    (BOTH WALLS)

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>= 0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>= 6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 37.000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>= 0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>= 6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.0000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>=	18.0000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.0000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 7 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+

```

PHASE DESCRIPTORS

```

STEP NO.      1
              LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000        0.000
Z-EXCAVATION   0.000        0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000        0.000
ZQ             0.000        0.000
DZW_OF_THE_WATER_TABLE  0.000        0.000
QS_ON_THE_EXCAVATION_SIDE  0.000        0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES  -12.00      -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000        0.000
PORE_UPDATE_FLAG  0.000        0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000        0.000
lateral thrusts reduction elevatio  0.000        0.000
Downhill reduction factor for effe  0.000        0.000
Downhill reduction factor for pore  0.000        0.000
Uphill reduction factor for effect  0.000        0.000
Uphill reduction factor for pore p  0.000        0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000        0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000        0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000        0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000        0.000
UPHILL DELTA/PHI RATIO  0.000        0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000        0.000
DOWNHILL DELTA/PHI RATIO  0.000        0.000
DYN.WATER BEHAVIOUR  0.000        0.000
Excess pore pressure RATIO Ru  0.000        0.000
SEISMIC PRESSURE LOWER VALUE  0.000        0.000
SEISMIC PRESSURE UPPER VALUE  0.000        0.000
SEISMIC PRESSURE LOWER LEVEL  0.000        0.000
SEISMIC PRESSURE UPPER LEVEL  0.000        0.000

```

=====end of step 1

```

STEP NO.      2
              LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC           0.000        0.000
Z-EXCAVATION   -1.000        0.000
Z-WATER_TABLE  0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000        0.000
ZQ             0.000        0.000
DZW_OF_THE_WATER_TABLE  1.000        0.000
QS_ON_THE_EXCAVATION_SIDE  0.000        0.000
ZQS           -0.9990E+30  -0.9990E+30
ZCUT           0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES  -12.00      -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000        0.000
PORE_UPDATE_FLAG  0.000        0.000
PORE_TAB. _FLAG (gt.0= use tabs)  0.000        0.000
lateral thrusts reduction elevatio  0.000        0.000
Downhill reduction factor for effe  0.000        0.000
Downhill reduction factor for pore  0.000        0.000
Uphill reduction factor for effect  0.000        0.000
Uphill reduction factor for pore p  0.000        0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]  0.000        0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]  0.000        0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]  0.000        0.000
UPHILL BETA ANGLE (SLOPE) [deg]  0.000        0.000
UPHILL DELTA/PHI RATIO  0.000        0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]  0.000        0.000
DOWNHILL DELTA/PHI RATIO  0.000        0.000
DYN.WATER BEHAVIOUR  0.000        0.000
Excess pore pressure RATIO Ru  0.000        0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 2

STEP NO.	3	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 3

STEP NO.	4	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

=====
=====end of step 4

STEP NO.	5	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-4.000	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 5

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-5.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		5.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		0.000	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 6

STEP NO.	7	LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-6.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	0.000	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 7

LEFT-HAND WALL

LOWER LEVEL -12.00000
UPPER LEVEL 0.00000

RIGHT-HAND WALL

LOWER LEVEL -12.00000
UPPER LEVEL 0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018 18:23:40 |
+-----+
I N I T I A L   S T R E S S   T A B L E S

          S E C T I O N

NUMBER OF DEFINED TABLES          3

INPUT DATA FOR INITIAL STRESS SET NO. 1
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 5.000000000000000
FOUNDATION WIDTH (B) 13.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 62.000000000000000
BETA ..... 45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO. 2
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 18.000000000000000
FOUNDATION WIDTH (B) 17.000000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 45.000000000000000
BETA ..... 45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO. 3
PERTAINING SOIL ELEMENTS AT Y-COORD 0.0000

ACTIVATION TIME 1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY) 0.500000000000000
FOUNDATION WIDTH (B) 4.500000000000000
ZETA-F..... 0.000000000000000E+000
Q-F ..... 10.000000000000000
BETA ..... 45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION 3123

NO. OF D.P.W FOR THIS AREA 7200
MAX NO. OF D.P.W. AVAILABLE 81920
** MAX NO OF ITERATIONS SET TO 40

ITER 0 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6763E+05 RIMNOR= 0.000
RENORM=0.1175E-27 REMNOR= 0.000 RATIO =0.4169E-16 TOLER =0.1000E-03 CONVERGED !
RFMAX = 38.54 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.6763E+05 RDR = 0.000
RATIOT=0.4169E-16 RATIOR= 0.000
MAX UN=0.7105E-14 IEQ= 107 NODE 54 DOF 1 Y-DISPL.F
MIN UN=-.3553E-14 IEQ= 75 NODE 38 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER      1  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.6763E+05  RIMNOR= 0.000
           RENORM=0.5795E-29  REMNOR=0.1118E-53  RATIO =0.9256E-17  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 38.54      RMMAX = 0.000
           RTSMAL=0.1000E-03  RMSMAL= 0.000
           RDT   =0.6763E+05  RDR   = 0.000
           RATIO=0.9256E-17  RATIO= 0.000
           MAX UN=0.4696E-15  IEQ=   113  NODE    57  DOF   1  Y-DISPL.F
           MIN UN=-.6080E-27  IEQ=   116  NODE    58  DOF   2  X-ROT. F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

```
ITER      2  RNORM = 0.000      RMNORM= 0.000
           RINORM=0.6763E+05  RIMNOR= 0.000
           RENORM=0.5562E-29  REMNOR=0.2464E-53  RATIO =0.9069E-17  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 38.54      RMMAX = 0.000
           RTSMAL=0.1000E-03  RMSMAL= 0.000
           RDT   =0.6763E+05  RDR   = 0.000
           RATIO=0.9069E-17  RATIO= 0.000
           MAX UN=0.4712E-15  IEQ=   119  NODE    60  DOF   1  Y-DISPL.F
           MIN UN=-.1245E-17  IEQ=     1  NODE     1  DOF   1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018      18:23:40                                                  |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME 1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project
  
```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-1.3571E-21	0.000	0.000	0.000	0.000	V-C	6.8946E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.270	-2.2581E-21	2.114	4.348	2.114	4.348	V-C	6.8946E+04	-0.2000	2.000	
1.000	1.000	6.348	0.000	0.000	Ug5_2_8_L_0						
3 D	2.354	-3.1591E-21	4.601	7.770	4.601	7.770	V-C	6.8946E+04	-0.4000	4.000	
1.000	1.000	11.77	0.000	0.000	Ug5_2_8_L_0						
4 D	3.287	-4.0598E-21	7.242	10.44	7.242	10.44	V-C	6.8946E+04	-0.6000	6.000	
1.000	1.000	16.44	0.000	0.000	Ug5_2_8_L_0						
5 D	4.145	-4.9591E-21	10.19	12.73	10.19	12.73	V-C	6.8946E+04	-0.8000	8.000	
1.000	1.000	20.73	0.000	0.000	Ug5_2_8_L_0						
6 D	4.966	-5.8593E-21	13.14	14.83	13.14	14.83	V-C	6.8946E+04	-1.0000	10.00	
1.000	1.000	24.83	0.000	0.000	Ug5_2_8_L_0						
7 D	5.766	-6.7786E-21	15.66	16.83	15.66	16.83	V-C	6.8946E+04	-1.2000	12.00	
1.000	1.000	28.83	0.000	0.000	Ug5_2_8_L_0						
8 D	6.550	-7.7376E-21	18.10	18.75	18.10	18.75	V-C	6.8946E+04	-1.4000	14.00	
1.000	1.000	32.75	0.000	0.000	Ug5_2_8_L_0						
9 D	7.322	-8.7548E-21	20.63	20.61	20.63	20.61	V-C	6.8946E+04	-1.6000	16.00	
1.000	1.000	36.61	0.000	0.000	Ug5_2_8_L_0						
10 D	8.081	-9.8461E-21	22.98	22.41	22.98	22.41	V-C	6.8946E+04	-1.8000	18.00	
1.000	1.000	40.41	0.000	0.000	Ug5_2_8_L_0						
11 D	8.830	-1.1024E-20	25.44	24.15	25.44	24.15	V-C	6.8946E+04	-2.0000	20.00	
1.000	1.000	44.15	0.000	0.000	Ug5_2_8_L_0						
12 D	9.567	-1.2299E-20	27.77	25.83	27.77	25.83	V-C	6.8946E+04	-2.2000	22.00	
1.000	1.000	47.83	0.000	0.000	Ug5_2_8_L_0						
13 D	10.29	-1.3675E-20	30.20	27.46	30.20	27.46	V-C	6.8946E+04	-2.4000	24.00	
1.000	1.000	51.46	0.000	0.000	Ug5_2_8_L_0						
14 D	11.01	-1.5155E-20	32.54	29.04	32.54	29.04	V-C	6.8946E+04	-2.6000	26.00	
1.000	1.000	55.04	0.000	0.000	Ug5_2_8_L_0						
15 D	11.71	-1.6735E-20	34.97	30.56	34.97	30.56	V-C	6.8946E+04	-2.8000	28.00	
1.000	1.000	58.56	0.000	0.000	Ug5_2_8_L_0						
16 D	12.40	-1.8407E-20	37.33	32.02	37.33	32.02	V-C	6.8946E+04	-3.0000	30.00	
1.000	1.000	62.02	0.000	0.000	Ug5_2_8_L_0						
17 D	13.09	-2.0156E-20	39.77	33.44	39.77	33.44	V-C	6.8946E+04	-3.2000	32.00	
1.000	1.000	65.44	0.000	0.000	Ug5_2_8_L_0						
18 D	13.76	-2.1962E-20	42.15	34.81	42.15	34.81	V-C	6.8946E+04	-3.4000	34.00	
1.000	1.000	68.81	0.000	0.000	Ug5_2_8_L_0						
19 D	14.43	-2.3800E-20	44.53	36.14	44.53	36.14	V-C	6.8946E+04	-3.6000	36.00	
1.000	1.000	72.14	0.000	0.000	Ug5_2_8_L_0						
20 D	15.08	-2.5627E-20	46.99	37.42	46.99	37.42	V-C	6.8946E+04	-3.8000	38.00	
1.000	1.000	75.42	0.000	0.000	Ug5_2_8_L_0						
21 D	15.73	-2.7377E-20	49.38	38.66	49.38	38.66	V-C	6.8946E+04	-4.0000	40.00	
1.000	1.000	78.66	0.000	0.000	Ug5_2_8_L_0						
22 D	16.37	-2.9035E-20	51.84	39.87	51.84	39.87	V-C	6.8946E+04	-4.2000	42.00	
1.000	1.000	81.87	0.000	0.000	Ug5_2_8_L_0						
23 D	17.01	-3.0598E-20	54.24	41.04	54.24	41.04	V-C	6.8946E+04	-4.4000	44.00	
1.000	1.000	85.04	0.000	0.000	Ug5_2_8_L_0						
24 D	17.64	-3.2052E-20	56.69	42.18	56.69	42.18	V-C	6.8946E+04	-4.6000	46.00	
1.000	1.000	88.18	0.000	0.000	Ug5_2_8_L_0						
25 D	18.26	-3.3376E-20	59.09	43.29	59.09	43.29	V-C	6.8946E+04	-4.8000	48.00	
1.000	1.000	91.29	0.000	0.000	Ug5_2_8_L_0						
26 D	18.87	-3.4538E-20	61.49	44.37	61.49	44.37	V-C	6.8946E+04	-5.0000	50.00	
1.000	1.000	94.37	0.000	0.000	Ug5_2_8_L_0						
27 D	19.49	-3.5499E-20	63.72	45.43	63.72	45.43	V-C	6.8946E+04	-5.2000	52.00	
1.000	1.000	97.43	0.000	0.000	Ug5_2_8_L_0						
28 D	20.09	-3.6210E-20	65.95	46.47	65.95	46.47	V-C	6.8946E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
29 D	20.70	-3.6626E-20	68.19	47.48	68.19	47.48	V-C	6.8946E+04	-5.600	56.00
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
30 D	21.30	-3.6766E-20	70.43	48.48	70.43	48.48	V-C	6.8946E+04	-5.800	58.00
1.000	1.000	106.5	0.000	0.000	Ug5_2_8_L_0					
31 D	21.89	-3.6654E-20	72.67	49.46	72.67	49.46	V-C	6.8946E+04	-6.000	60.00
1.000	1.000	109.5	0.000	0.000	Ug5_2_8_L_0					
32 D	22.48	-3.6305E-20	74.91	50.42	74.91	50.42	V-C	6.8946E+04	-6.200	62.00
1.000	1.000	112.4	0.000	0.000	Ug5_2_8_L_0					
33 D	23.07	-3.5722E-20	77.15	51.37	77.15	51.37	V-C	6.8946E+04	-6.400	64.00
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
34 D	23.66	-3.4900E-20	79.63	52.31	79.63	52.31	V-C	6.8946E+04	-6.600	66.00
1.000	1.000	118.3	0.000	0.000	Ug5_2_8_L_0					
35 D	24.25	-3.3840E-20	82.01	53.23	82.01	53.23	V-C	6.8946E+04	-6.800	68.00
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
36 D	24.83	-3.2603E-20	84.95	54.14	84.95	54.14	V-C	6.8946E+04	-7.000	70.00
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
37 D	25.41	-3.1274E-20	87.30	55.05	87.30	55.05	V-C	6.8946E+04	-7.200	72.00
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
38 D	25.99	-2.9999E-20	90.17	55.95	90.17	55.95	V-C	6.8946E+04	-7.400	74.00
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
39 D	26.57	-2.8912E-20	92.48	56.83	92.48	56.83	V-C	6.8946E+04	-7.600	76.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
40 D	27.14	-2.8071E-20	95.30	57.72	95.30	57.72	V-C	6.8946E+04	-7.800	78.00
1.000	1.000	135.7	0.000	0.000	Ug5_2_8_L_0					
41 D	27.72	-2.7504E-20	98.08	58.59	98.08	58.59	V-C	6.8946E+04	-8.000	80.00
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
42 D	28.29	-2.7233E-20	100.4	59.46	100.4	59.46	V-C	6.8946E+04	-8.200	82.00
1.000	1.000	141.5	0.000	0.000	Ug5_2_8_L_0					
43 D	28.87	-2.7268E-20	103.1	60.33	103.1	60.33	V-C	6.8946E+04	-8.400	84.00
1.000	1.000	144.3	0.000	0.000	Ug5_2_8_L_0					
44 D	29.44	-2.7611E-20	105.3	61.19	105.3	61.19	V-C	6.8946E+04	-8.600	86.00
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
45 D	30.01	-2.8253E-20	108.0	62.05	108.0	62.05	V-C	6.8946E+04	-8.800	88.00
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
46 D	30.58	-2.9177E-20	110.3	62.90	110.3	62.90	V-C	6.8946E+04	-9.000	90.00
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
47 D	31.15	-3.0356E-20	112.9	63.75	112.9	63.75	V-C	6.8946E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.72	-3.1753E-20	115.1	64.60	115.1	64.60	V-C	6.8946E+04	-9.400	94.00
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
49 D	32.29	-3.3322E-20	117.7	65.45	117.7	65.45	V-C	6.8946E+04	-9.600	96.00
1.000	1.000	161.4	0.000	0.000	Ug5_2_8_L_0					
50 D	32.86	-3.5007E-20	119.9	66.29	119.9	66.29	V-C	6.8946E+04	-9.800	98.00
1.000	1.000	164.3	0.000	0.000	Ug5_2_8_L_0					
51 D	33.43	-3.6739E-20	122.5	67.13	122.5	67.13	V-C	6.8946E+04	-10.000	100.00
1.000	1.000	167.1	0.000	0.000	Ug5_2_8_L_0					
52 D	34.00	-3.8441E-20	124.7	67.98	124.7	67.98	V-C	6.8946E+04	-10.200	102.0
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.56	-4.0025E-20	127.3	68.82	127.3	68.82	V-C	6.8946E+04	-10.400	104.0
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
54 D	35.13	-4.1391E-20	129.8	69.66	129.8	69.66	V-C	6.8946E+04	-10.600	106.0
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.70	-4.2462E-20	132.0	70.50	132.0	70.50	V-C	6.8946E+04	-10.800	108.0
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.27	-4.3288E-20	134.5	71.34	134.5	71.34	V-C	6.8946E+04	-11.000	110.0
1.000	1.000	181.3	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	-4.3943E-20	136.7	72.18	136.7	72.18	V-C	6.8946E+04	-11.200	112.0
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.40	-4.4486E-20	139.2	73.02	139.2	73.02	V-C	6.8946E+04	-11.400	114.0
1.000	1.000	187.0	0.000	0.000	Ug5_2_8_L_0					
59 D	37.97	-4.4964E-20	141.3	73.86	141.3	73.86	V-C	6.8946E+04	-11.600	116.0
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.54	-4.5412E-20	143.8	74.70	143.8	74.70	V-C	6.8946E+04	-11.800	118.0
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.55	-4.5851E-20	145.9	75.54	145.9	75.54	V-C	6.8946E+04	-12.000	120.0
1.000	1.000	195.5	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	1.3571E-21	0.000	0.000	0.000	0.000	V-C	3.4277E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.270	2.2581E-21	2.000	4.348	2.000	4.348	V-C	3.4277E+04	-0.2000	2.000	
1.000	1.000	6.348	0.000	0.000	Ug5_2_8_L_0						
3 D	2.354	3.1591E-21	4.000	7.770	4.000	7.770	V-C	3.4277E+04	-0.4000	4.000	
1.000	1.000	11.77	0.000	0.000	Ug5_2_8_L_0						
4 D	3.287	4.0598E-21	6.000	10.44	6.000	10.44	V-C	3.4277E+04	-0.6000	6.000	
1.000	1.000	16.44	0.000	0.000	Ug5_2_8_L_0						
5 D	4.145	4.9591E-21	8.000	12.73	8.000	12.73	V-C	3.4277E+04	-0.8000	8.000	
1.000	1.000	20.73	0.000	0.000	Ug5_2_8_L_0						
6 D	4.966	5.8593E-21	10.00	14.83	10.00	14.83	V-C	3.4277E+04	-1.0000	10.00	
1.000	1.000	24.83	0.000	0.000	Ug5_2_8_L_0						
7 D	5.766	6.7786E-21	12.00	16.83	12.00	16.83	V-C	3.4277E+04	-1.2000	12.00	
1.000	1.000	28.83	0.000	0.000	Ug5_2_8_L_0						
8 D	6.550	7.7376E-21	14.00	18.75	14.00	18.75	V-C	3.4277E+04	-1.4000	14.00	
1.000	1.000	32.75	0.000	0.000	Ug5_2_8_L_0						
9 D	7.322	8.7548E-21	16.00	20.61	16.00	20.61	V-C	3.4277E+04	-1.6000	16.00	
1.000	1.000	36.61	0.000	0.000	Ug5_2_8_L_0						
10 D	8.081	9.8461E-21	18.00	22.41	18.00	22.41	V-C	3.4277E+04	-1.8000	18.00	
1.000	1.000	40.41	0.000	0.000	Ug5_2_8_L_0						
11 D	8.830	1.1024E-20	20.00	24.15	20.00	24.15	V-C	3.4277E+04	-2.0000	20.00	
1.000	1.000	44.15	0.000	0.000	Ug5_2_8_L_0						
12 D	9.567	1.2299E-20	22.00	25.83	22.00	25.83	V-C	3.4277E+04	-2.2000	22.00	
1.000	1.000	47.83	0.000	0.000	Ug5_2_8_L_0						
13 D	10.29	1.3675E-20	24.00	27.46	24.00	27.46	V-C	3.4277E+04	-2.4000	24.00	
1.000	1.000	51.46	0.000	0.000	Ug5_2_8_L_0						
14 D	11.01	1.5155E-20	26.00	29.04	26.00	29.04	V-C	3.4277E+04	-2.6000	26.00	
1.000	1.000	55.04	0.000	0.000	Ug5_2_8_L_0						
15 D	11.71	1.6735E-20	28.00	30.56	28.00	30.56	V-C	3.4277E+04	-2.8000	28.00	
1.000	1.000	58.56	0.000	0.000	Ug5_2_8_L_0						
16 D	12.40	1.8407E-20	30.00	32.02	30.00	32.02	V-C	3.4277E+04	-3.0000	30.00	
1.000	1.000	62.02	0.000	0.000	Ug5_2_8_L_0						
17 D	13.09	2.0156E-20	32.00	33.44	32.00	33.44	V-C	3.4277E+04	-3.2000	32.00	
1.000	1.000	65.44	0.000	0.000	Ug5_2_8_L_0						
18 D	13.76	2.1962E-20	34.00	34.81	34.00	34.81	V-C	3.4277E+04	-3.4000	34.00	
1.000	1.000	68.81	0.000	0.000	Ug5_2_8_L_0						
19 D	14.43	2.3800E-20	36.00	36.14	36.00	36.14	V-C	3.4277E+04	-3.6000	36.00	
1.000	1.000	72.14	0.000	0.000	Ug5_2_8_L_0						
20 D	15.08	2.5627E-20	38.00	37.42	38.00	37.42	V-C	3.4277E+04	-3.8000	38.00	
1.000	1.000	75.42	0.000	0.000	Ug5_2_8_L_0						
21 D	15.73	2.7377E-20	40.00	38.66	40.00	38.66	V-C	3.4277E+04	-4.0000	40.00	
1.000	1.000	78.66	0.000	0.000	Ug5_2_8_L_0						
22 D	16.37	2.9035E-20	42.00	39.87	42.00	39.87	V-C	3.4277E+04	-4.2000	42.00	
1.000	1.000	81.87	0.000	0.000	Ug5_2_8_L_0						
23 D	17.01	3.0598E-20	44.00	41.04	44.00	41.04	V-C	3.4277E+04	-4.4000	44.00	
1.000	1.000	85.04	0.000	0.000	Ug5_2_8_L_0						
24 D	17.64	3.2052E-20	46.00	42.18	46.00	42.18	V-C	3.4277E+04	-4.6000	46.00	
1.000	1.000	88.18	0.000	0.000	Ug5_2_8_L_0						
25 D	18.26	3.3376E-20	48.00	43.29	48.00	43.29	V-C	3.4277E+04	-4.8000	48.00	
1.000	1.000	91.29	0.000	0.000	Ug5_2_8_L_0						
26 D	18.87	3.4538E-20	50.00	44.37	50.00	44.37	V-C	3.4277E+04	-5.0000	50.00	
1.000	1.000	94.37	0.000	0.000	Ug5_2_8_L_0						
27 D	19.49	3.5499E-20	52.00	45.43	52.00	45.43	V-C	3.4277E+04	-5.2000	52.00	
1.000	1.000	97.43	0.000	0.000	Ug5_2_8_L_0						
28 D	20.09	3.6210E-20	54.00	46.47	54.00	46.47	V-C	3.4277E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
29 D	20.70	3.6626E-20	56.00	47.48	56.00	47.48	V-C	3.4277E+04	-5.600	56.00
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
30 D	21.30	3.6766E-20	58.00	48.48	58.00	48.48	V-C	3.4277E+04	-5.800	58.00
1.000	1.000	106.5	0.000	0.000	Ug5_2_8_L_0					
31 D	21.89	3.6654E-20	60.00	49.46	60.00	49.46	V-C	3.4277E+04	-6.000	60.00
1.000	1.000	109.5	0.000	0.000	Ug5_2_8_L_0					
32 D	22.48	3.6305E-20	62.00	50.42	62.00	50.42	V-C	3.4277E+04	-6.200	62.00
1.000	1.000	112.4	0.000	0.000	Ug5_2_8_L_0					
33 D	23.07	3.5722E-20	64.00	51.37	64.00	51.37	V-C	3.4277E+04	-6.400	64.00
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
34 D	23.66	3.4900E-20	66.00	52.31	66.00	52.31	V-C	3.4277E+04	-6.600	66.00
1.000	1.000	118.3	0.000	0.000	Ug5_2_8_L_0					
35 D	24.25	3.3840E-20	68.00	53.23	68.00	53.23	V-C	3.4277E+04	-6.800	68.00
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
36 D	24.83	3.2603E-20	70.00	54.14	70.00	54.14	V-C	3.4277E+04	-7.000	70.00
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
37 D	25.41	3.1274E-20	72.00	55.05	72.00	55.05	V-C	3.4277E+04	-7.200	72.00
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
38 D	25.99	2.9999E-20	74.00	55.95	74.00	55.95	V-C	3.4277E+04	-7.400	74.00
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
39 D	26.57	2.8912E-20	76.00	56.83	76.00	56.83	V-C	3.4277E+04	-7.600	76.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
40 D	27.14	2.8071E-20	78.00	57.72	78.00	57.72	V-C	3.4277E+04	-7.800	78.00
1.000	1.000	135.7	0.000	0.000	Ug5_2_8_L_0					
41 D	27.72	2.7504E-20	80.00	58.59	80.00	58.59	V-C	3.4277E+04	-8.000	80.00
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
42 D	28.29	2.7233E-20	82.00	59.46	82.00	59.46	V-C	3.4277E+04	-8.200	82.00
1.000	1.000	141.5	0.000	0.000	Ug5_2_8_L_0					
43 D	28.87	2.7268E-20	84.00	60.33	84.00	60.33	V-C	3.4277E+04	-8.400	84.00
1.000	1.000	144.3	0.000	0.000	Ug5_2_8_L_0					
44 D	29.44	2.7611E-20	86.00	61.19	86.00	61.19	V-C	3.4277E+04	-8.600	86.00
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
45 D	30.01	2.8253E-20	88.00	62.05	88.00	62.05	V-C	3.4277E+04	-8.800	88.00
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
46 D	30.58	2.9177E-20	90.00	62.90	90.00	62.90	V-C	3.4277E+04	-9.000	90.00
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
47 D	31.15	3.0356E-20	92.00	63.75	92.00	63.75	V-C	3.4277E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.72	3.1753E-20	94.00	64.60	94.00	64.60	V-C	3.4277E+04	-9.400	94.00
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
49 D	32.29	3.3322E-20	96.00	65.45	96.00	65.45	V-C	3.4277E+04	-9.600	96.00
1.000	1.000	161.4	0.000	0.000	Ug5_2_8_L_0					
50 D	32.86	3.5007E-20	98.00	66.29	98.00	66.29	V-C	3.4277E+04	-9.800	98.00
1.000	1.000	164.3	0.000	0.000	Ug5_2_8_L_0					
51 D	33.43	3.6739E-20	100.00	67.13	100.00	67.13	V-C	3.4277E+04	-10.000	100.00
1.000	1.000	167.1	0.000	0.000	Ug5_2_8_L_0					
52 D	34.00	3.8441E-20	102.0	67.98	102.0	67.98	V-C	3.4277E+04	-10.200	102.0
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.56	4.0025E-20	104.0	68.82	104.0	68.82	V-C	3.4277E+04	-10.400	104.0
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
54 D	35.13	4.1391E-20	106.0	69.66	106.0	69.66	V-C	3.4277E+04	-10.600	106.0
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.70	4.2462E-20	108.0	70.50	108.0	70.50	V-C	3.4277E+04	-10.800	108.0
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.27	4.3288E-20	110.0	71.34	110.0	71.34	V-C	3.4277E+04	-11.000	110.0
1.000	1.000	181.3	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	4.3943E-20	112.0	72.18	112.0	72.18	V-C	3.4277E+04	-11.200	112.0
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.40	4.4486E-20	114.0	73.02	114.0	73.02	V-C	3.4277E+04	-11.400	114.0
1.000	1.000	187.0	0.000	0.000	Ug5_2_8_L_0					
59 D	37.97	4.4964E-20	116.0	73.86	116.0	73.86	V-C	3.4277E+04	-11.600	116.0
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.54	4.5412E-20	118.0	74.70	118.0	74.70	V-C	3.4277E+04	-11.800	118.0
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.55	4.5851E-20	120.0	75.54	120.0	75.54	V-C	3.4277E+04	-12.000	120.0
1.000	1.000	195.5	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.24507E-18	-1.24507E-18	-1.57772E-29	2.49015E-19
2	-9.10638E-18	9.10638E-18	-2.49015E-19	-1.57226E-18
3	-3.23120E-17	3.23120E-17	1.57226E-18	-8.03466E-18
4	-6.84093E-17	6.84093E-17	8.03466E-18	-2.17165E-17
5	7.70706E-16	-7.70706E-16	2.17165E-17	1.32425E-16
6	7.08561E-16	-7.08561E-16	-1.32425E-16	2.74137E-16
7	6.33171E-16	-6.33171E-16	-2.74137E-16	4.00771E-16
8	5.44329E-16	-5.44329E-16	-4.00771E-16	5.09637E-16
9	4.41792E-16	-4.41792E-16	-5.09637E-16	5.97996E-16
10	3.25288E-16	-3.25288E-16	-5.97996E-16	6.63053E-16
11	1.94536E-16	-1.94536E-16	-6.63053E-16	7.01961E-16
12	4.92599E-17	-4.92599E-17	-7.01961E-16	7.11812E-16
13	-1.10792E-16	1.10792E-16	-7.11812E-16	6.89654E-16
14	-2.85820E-16	2.85820E-16	-6.89654E-16	6.32490E-16
15	-4.75956E-16	4.75956E-16	-6.32490E-16	5.37299E-16
16	-6.81238E-16	6.81238E-16	-5.37299E-16	4.01051E-16
17	-9.01590E-16	9.01590E-16	-4.01051E-16	2.20732E-16
18	-1.13680E-15	1.13680E-15	-2.20732E-16	-6.62829E-18
19	-3.16288E-15	3.16288E-15	-6.62829E-18	-6.39204E-16
20	1.26120E-16	-1.26120E-16	6.39204E-16	-6.13981E-16
21	-1.50914E-16	1.50914E-16	6.13981E-16	-6.44163E-16
22	-4.40431E-16	4.40431E-16	6.44163E-16	-7.32250E-16
23	-7.41444E-16	7.41444E-16	7.32250E-16	-8.80538E-16
24	-1.05282E-15	1.05282E-15	8.80538E-16	-1.09110E-15
25	-1.37330E-15	1.37330E-15	1.09110E-15	-1.36576E-15
26	-1.70154E-15	1.70154E-15	1.36576E-15	-1.70607E-15
27	-2.03610E-15	2.03610E-15	1.70607E-15	-2.11329E-15
28	1.17719E-15	-1.17719E-15	-2.11329E-15	-1.87785E-15
29	8.34375E-16	-8.34375E-16	-1.87785E-15	-1.71098E-15
30	4.89586E-16	-4.89586E-16	1.71098E-15	-1.61306E-15
31	1.44162E-16	-1.44162E-16	1.61306E-15	-1.58423E-15
32	-2.00685E-16	2.00685E-16	-1.58423E-15	-1.62436E-15
33	-5.43907E-16	5.43907E-16	-1.62436E-15	-1.73315E-15
34	2.66805E-15	-2.66805E-15	1.73315E-15	-1.19954E-15
35	2.33038E-15	-2.33038E-15	1.19954E-15	-7.33459E-16
36	5.54887E-15	-5.54887E-15	7.33459E-16	3.76310E-16
37	5.21817E-15	-5.21817E-15	-3.76310E-16	1.41994E-15
38	1.33812E-15	-1.33812E-15	-1.41994E-15	1.68757E-15
39	1.01368E-15	-1.01368E-15	-1.68757E-15	1.89030E-15
40	6.91464E-16	-6.91464E-16	-1.89030E-15	2.02860E-15
41	3.70580E-16	-3.70580E-16	-2.02860E-15	2.10271E-15
42	4.99604E-17	-4.99604E-17	-2.10271E-15	2.11270E-15
43	-2.71586E-16	2.71586E-16	-2.11270E-15	2.05839E-15
44	-5.95329E-16	5.95329E-16	-2.05839E-15	1.93932E-15
45	-9.22573E-16	9.22573E-16	-1.93932E-15	1.75481E-15
46	-1.25460E-15	1.25460E-15	-1.75481E-15	1.50389E-15
47	-1.59265E-15	1.59265E-15	-1.50389E-15	1.18536E-15
48	-1.93785E-15	1.93785E-15	-1.18536E-15	7.97787E-16
49	-2.29121E-15	2.29121E-15	-7.97787E-16	3.39547E-16
50	-2.65359E-15	2.65359E-15	-3.39547E-16	-1.91171E-16
51	-3.02571E-15	3.02571E-15	-1.91171E-16	-7.96329E-16
52	-3.40812E-15	3.40812E-15	-7.96329E-16	-1.47792E-15
53	-3.80121E-15	3.80121E-15	-1.47792E-15	-2.23816E-15
54	-2.90018E-15	2.90018E-15	-2.23816E-15	-1.65812E-15
55	-2.48502E-15	2.48502E-15	-1.65812E-15	-1.16112E-15
56	-2.05867E-15	2.05867E-15	-1.16112E-15	-7.49387E-16
57	-1.62110E-15	1.62110E-15	-7.49387E-16	-4.25167E-16
58	-1.17232E-15	1.17232E-15	-4.25167E-16	-1.90704E-16
59	7.12336E-16	-7.12336E-16	1.90704E-16	-4.82368E-17

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 2.41172E-16-2.41172E-16 4.82368E-17-1.45150E-28

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6175E+05 RIMNOR=0.1713E-27
            RENORM= 262.9    REMNOR=0.2464E-53  RATIO =0.6524E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2238E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6175E+05  RDR   =0.1000E-19
            RATIO=0.6524E-01  RATIO= 0.000
            MAX UN= 4.922    IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            MIN UN=-.1245E-17 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6175E+05 RIMNOR=0.1713E-27
            RENORM= 7.678    REMNOR=0.6000E-23  RATIO =0.1115E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2238E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6175E+05  RDR   =0.1000E-19
            RATIO=0.1115E-01  RATIO= 0.000
            MAX UN= 2.045    IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            MIN UN=-.3922E-11 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6175E+05 RIMNOR=0.1713E-27
            RENORM= 3.287    REMNOR=0.2675E-23  RATIO =0.7296E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2238E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6175E+05  RDR   =0.1000E-19
            RATIO=0.7296E-02  RATIO= 0.000
            MAX UN= 1.559    IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            MIN UN=-.1720E-10 IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6175E+05 RIMNOR=0.1713E-27
            RENORM=0.1077    REMNOR=0.1577E-23  RATIO =0.1321E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2238E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6175E+05  RDR   =0.1000E-19
            RATIO=0.1321E-02  RATIO= 0.000
            MAX UN=0.3279    IEQ=   19 NODE     10 DOF   1  Y-DISPL.F
            MIN UN=-.7068E-11 IEQ=   21 NODE     11 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6175E+05 RIMNOR=0.1713E-27
            RENORM=0.6867E-21 REMNOR=0.1297E-23  RATIO =0.1055E-12  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 38.03    RMMAX =0.2238E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6175E+05  RDR   =0.1000E-19
            RATIO=0.1055E-12  RATIO= 0.000
            MAX UN=0.1578E-10 IEQ=    7 NODE      4 DOF   1  Y-DISPL.F
            MIN UN=-.1242E-10 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	2.1326186E-04	-7.1336694E-05	
2	1.9899452E-04	-7.1336694E-05	
3	1.8472958E-04	-7.1300691E-05	
4	1.7048394E-04	-7.1119321E-05	
5	1.5630386E-04	-7.0607938E-05	
6	1.4228020E-04	-6.9504941E-05	
7	1.2856397E-04	-6.7470659E-05	
8	1.1536717E-04	-6.4307975E-05	
9	1.0290900E-04	-6.0121979E-05	
10	9.1370576E-05	-5.5152966E-05	
11	8.0882048E-05	-4.9670391E-05	
12	7.1518077E-05	-4.3952946E-05	
13	6.3300368E-05	-3.8243012E-05	
14	5.6208077E-05	-3.2725009E-05	
15	5.0188611E-05	-2.7533311E-05	
16	4.5166865E-05	-2.2759931E-05	
17	4.1052939E-05	-1.8461755E-05	
18	3.7748560E-05	-1.4667309E-05	
19	3.5152029E-05	-1.1382660E-05	
20	3.3162281E-05	-8.5962362E-06	
21	3.1682052E-05	-6.2821517E-06	
22	3.0620379E-05	-4.4037970E-06	
23	2.9894368E-05	-2.9179129E-06	
24	2.9430163E-05	-1.7777926E-06	
25	2.9163372E-05	-9.3586715E-07	
26	2.9039034E-05	-3.4568042E-07	
27	2.9011242E-05	3.6649759E-08	
28	2.9042523E-05	2.5141457E-07	
29	2.9103039E-05	3.3463863E-07	
30	2.9169702E-05	3.1771475E-07	
31	2.9225222E-05	2.2725565E-07	
32	2.9257179E-05	8.5423757E-08	
33	2.9257188E-05	-8.9458889E-08	
34	2.9220185E-05	-2.8249693E-07	
35	2.9143765E-05	-4.8190451E-07	
36	2.9027601E-05	-6.7865175E-07	
37	2.8872925E-05	-8.6609913E-07	
38	2.8682089E-05	-1.0396412E-06	
39	2.8458190E-05	-1.1963575E-06	
40	2.8204771E-05	-1.3346986E-06	
41	2.7925567E-05	-1.4541969E-06	
42	2.7624324E-05	-1.5552124E-06	
43	2.7304650E-05	-1.6387129E-06	
44	2.6969914E-05	-1.7060868E-06	
45	2.6623182E-05	-1.7589884E-06	
46	2.6267165E-05	-1.7992134E-06	
47	2.5904219E-05	-1.8285985E-06	
48	2.5536329E-05	-1.8489464E-06	
49	2.5165129E-05	-1.8619696E-06	
50	2.4791925E-05	-1.8692507E-06	
51	2.4417718E-05	-1.8722167E-06	
52	2.4043233E-05	-1.8721232E-06	
53	2.3669010E-05	-1.8700472E-06	
54	2.3295306E-05	-1.8668850E-06	
55	2.2922281E-05	-1.8633542E-06	
56	2.2549952E-05	-1.8599983E-06	
57	2.2178245E-05	-1.8571908E-06	
58	2.1807025E-05	-1.8551405E-06	
59	2.1436135E-05	-1.8538950E-06	
60	2.1065421E-05	-1.8533433E-06	
61	2.0694751E-05	-1.8532172E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.1326E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4922	-1.9899E-04	2.201	0.5481	2.201	4.391	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	2.461	0.000	0.000	Ug5_2_8_L_0						
3 D	1.003	-1.8473E-04	4.775	1.189	4.775	7.857	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	5.015	0.000	0.000	Ug5_2_8_L_0						
4 D	1.521	-1.7048E-04	7.503	1.868	7.503	10.57	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	7.607	0.000	0.000	Ug5_2_8_L_0						
5 D	2.055	-1.5630E-04	10.54	2.623	10.54	12.90	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	10.28	0.000	0.000	Ug5_2_8_L_0						
6 D	2.589	-1.4228E-04	13.57	3.379	13.57	15.05	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	12.94	0.000	0.000	Ug5_2_8_L_0						
7 D	3.102	-1.2856E-04	16.18	4.029	16.18	17.09	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	15.51	0.000	0.000	Ug5_2_8_L_0						
8 D	3.610	-1.1537E-04	18.71	4.659	18.71	19.05	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	18.05	0.000	0.000	Ug5_2_8_L_0						
9 D	4.123	-1.0291E-04	21.33	5.311	21.33	20.96	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	20.62	0.000	0.000	Ug5_2_8_L_0						
10 D	4.627	-9.1371E-05	23.77	5.918	23.77	22.80	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	23.14	0.000	0.000	Ug5_2_8_L_0						
11 D	5.397	-8.0882E-05	26.31	7.854	26.31	24.58	UL-RL	2.0684E+05	-2.000	19.13	
1.000	1.000	26.98	0.000	0.000	Ug5_2_8_L_0						
12 D	6.513	-7.1518E-05	28.73	11.52	28.73	26.31	UL-RL	2.0684E+05	-2.200	21.04	
1.000	1.000	32.56	0.000	0.000	Ug5_2_8_L_0						
13 D	7.569	-6.3300E-05	31.25	14.89	31.25	27.98	UL-RL	2.0684E+05	-2.400	22.96	
1.000	1.000	37.85	0.000	0.000	Ug5_2_8_L_0						
14 D	8.569	-5.6208E-05	33.67	17.97	33.67	29.60	UL-RL	2.0684E+05	-2.600	24.87	
1.000	1.000	42.84	0.000	0.000	Ug5_2_8_L_0						
15 D	9.513	-5.0189E-05	36.19	20.78	36.19	31.16	UL-RL	2.0684E+05	-2.800	26.78	
1.000	1.000	47.57	0.000	0.000	Ug5_2_8_L_0						
16 D	10.41	-4.5167E-05	38.64	23.33	38.64	32.68	UL-RL	2.0684E+05	-3.000	28.70	
1.000	1.000	52.03	0.000	0.000	Ug5_2_8_L_0						
17 D	11.25	-4.1053E-05	41.16	25.65	41.16	34.14	UL-RL	2.0684E+05	-3.200	30.61	
1.000	1.000	56.25	0.000	0.000	Ug5_2_8_L_0						
18 D	12.05	-3.7749E-05	43.63	27.74	43.63	35.55	UL-RL	2.0684E+05	-3.400	32.52	
1.000	1.000	60.26	0.000	0.000	Ug5_2_8_L_0						
19 D	12.82	-3.5152E-05	46.10	29.65	46.10	36.92	UL-RL	2.0684E+05	-3.600	34.43	
1.000	1.000	64.08	0.000	0.000	Ug5_2_8_L_0						
20 D	13.55	-3.3162E-05	48.64	31.39	48.64	38.25	UL-RL	2.0684E+05	-3.800	36.35	
1.000	1.000	67.73	0.000	0.000	Ug5_2_8_L_0						
21 D	14.25	-3.1682E-05	51.12	32.98	51.12	39.53	UL-RL	2.0684E+05	-4.000	38.26	
1.000	1.000	71.24	0.000	0.000	Ug5_2_8_L_0						
22 D	14.92	-3.0620E-05	53.66	34.45	53.66	40.78	UL-RL	2.0684E+05	-4.200	40.17	
1.000	1.000	74.62	0.000	0.000	Ug5_2_8_L_0						
23 D	15.58	-2.9894E-05	56.15	35.81	56.15	42.00	UL-RL	2.0684E+05	-4.400	42.09	
1.000	1.000	77.90	0.000	0.000	Ug5_2_8_L_0						
24 D	16.22	-2.9430E-05	58.69	37.09	58.69	43.18	UL-RL	2.0684E+05	-4.600	44.00	
1.000	1.000	81.09	0.000	0.000	Ug5_2_8_L_0						
25 D	16.84	-2.9163E-05	61.18	38.30	61.18	44.33	UL-RL	2.0684E+05	-4.800	45.91	
1.000	1.000	84.22	0.000	0.000	Ug5_2_8_L_0						
26 D	17.46	-2.9039E-05	63.67	39.46	63.67	45.46	UL-RL	2.0684E+05	-5.000	47.83	
1.000	1.000	87.28	0.000	0.000	Ug5_2_8_L_0						
27 D	18.06	-2.9011E-05	65.98	40.56	65.98	46.56	UL-RL	2.0684E+05	-5.200	49.74	
1.000	1.000	90.30	0.000	0.000	Ug5_2_8_L_0						
28 D	18.66	-2.9043E-05	68.30	41.64	68.30	47.64	UL-RL	2.0684E+05	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	93.29	0.000	0.000	Ug5_2_8_L_0					
29 D	19.25	-2.9103E-05	70.62	42.68	70.62	48.70	UL-RL	2.0684E+05	-5.600	53.57
1.000	1.000	96.25	0.000	0.000	Ug5_2_8_L_0					
30 D	19.84	-2.9170E-05	72.95	43.71	72.95	49.74	UL-RL	2.0684E+05	-5.800	55.48
1.000	1.000	99.19	0.000	0.000	Ug5_2_8_L_0					
31 D	20.42	-2.9225E-05	75.27	44.72	75.27	50.76	UL-RL	2.0684E+05	-6.000	57.39
1.000	1.000	102.1	0.000	0.000	Ug5_2_8_L_0					
32 D	21.00	-2.9257E-05	77.60	45.72	77.60	51.77	UL-RL	2.0684E+05	-6.200	59.30
1.000	1.000	105.0	0.000	0.000	Ug5_2_8_L_0					
33 D	21.59	-2.9257E-05	79.93	46.71	79.93	52.76	UL-RL	2.0684E+05	-6.400	61.22
1.000	1.000	107.9	0.000	0.000	Ug5_2_8_L_0					
34 D	22.17	-2.9220E-05	82.50	47.70	82.50	53.74	UL-RL	2.0684E+05	-6.600	63.13
1.000	1.000	110.8	0.000	0.000	Ug5_2_8_L_0					
35 D	22.74	-2.9144E-05	84.97	48.68	84.97	54.71	UL-RL	2.0684E+05	-6.800	65.04
1.000	1.000	113.7	0.000	0.000	Ug5_2_8_L_0					
36 D	23.32	-2.9028E-05	87.99	49.66	87.99	55.67	UL-RL	2.0684E+05	-7.000	66.96
1.000	1.000	116.6	0.000	0.000	Ug5_2_8_L_0					
37 D	23.90	-2.8873E-05	90.43	50.64	90.43	56.61	UL-RL	2.0684E+05	-7.200	68.87
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
38 D	24.48	-2.8682E-05	93.39	51.62	93.39	57.55	UL-RL	2.0684E+05	-7.400	70.78
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
39 D	25.06	-2.8458E-05	95.79	52.60	95.79	58.49	UL-RL	2.0684E+05	-7.600	72.70
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
40 D	25.64	-2.8205E-05	98.69	53.58	98.69	59.41	UL-RL	2.0684E+05	-7.800	74.61
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
41 D	26.22	-2.7926E-05	101.6	54.55	101.6	60.33	UL-RL	2.0684E+05	-8.000	76.52
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
42 D	26.79	-2.7624E-05	103.9	55.53	103.9	61.24	UL-RL	2.0684E+05	-8.200	78.43
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
43 D	27.37	-2.7305E-05	106.7	56.51	106.7	62.15	UL-RL	2.0684E+05	-8.400	80.35
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
44 D	27.95	-2.6970E-05	109.1	57.48	109.1	63.06	UL-RL	2.0684E+05	-8.600	82.26
1.000	1.000	139.7	0.000	0.000	Ug5_2_8_L_0					
45 D	28.53	-2.6623E-05	111.9	58.45	111.9	63.96	UL-RL	2.0684E+05	-8.800	84.17
1.000	1.000	142.6	0.000	0.000	Ug5_2_8_L_0					
46 D	29.10	-2.6267E-05	114.2	59.42	114.2	64.86	UL-RL	2.0684E+05	-9.000	86.09
1.000	1.000	145.5	0.000	0.000	Ug5_2_8_L_0					
47 D	29.68	-2.5904E-05	116.9	60.39	116.9	65.75	UL-RL	2.0684E+05	-9.200	88.00
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
48 D	30.25	-2.5536E-05	119.2	61.36	119.2	66.64	UL-RL	2.0684E+05	-9.400	89.91
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
49 D	30.83	-2.5165E-05	121.9	62.33	121.9	67.53	UL-RL	2.0684E+05	-9.600	91.83
1.000	1.000	154.2	0.000	0.000	Ug5_2_8_L_0					
50 D	31.41	-2.4792E-05	124.2	63.29	124.2	68.42	UL-RL	2.0684E+05	-9.800	93.74
1.000	1.000	157.0	0.000	0.000	Ug5_2_8_L_0					
51 D	31.98	-2.4418E-05	126.9	64.26	126.9	69.31	UL-RL	2.0684E+05	-10.000	95.65
1.000	1.000	159.9	0.000	0.000	Ug5_2_8_L_0					
52 D	32.56	-2.4043E-05	129.1	65.22	129.1	70.19	UL-RL	2.0684E+05	-10.200	97.57
1.000	1.000	162.8	0.000	0.000	Ug5_2_8_L_0					
53 D	33.13	-2.3669E-05	131.8	66.18	131.8	71.08	UL-RL	2.0684E+05	-10.400	99.48
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
54 D	33.71	-2.3295E-05	134.4	67.14	134.4	71.96	UL-RL	2.0684E+05	-10.600	101.4
1.000	1.000	168.5	0.000	0.000	Ug5_2_8_L_0					
55 D	34.28	-2.2922E-05	136.7	68.11	136.7	72.85	UL-RL	2.0684E+05	-10.800	103.3
1.000	1.000	171.4	0.000	0.000	Ug5_2_8_L_0					
56 D	34.86	-2.2550E-05	139.3	69.07	139.3	73.73	UL-RL	2.0684E+05	-11.000	105.2
1.000	1.000	174.3	0.000	0.000	Ug5_2_8_L_0					
57 D	35.43	-2.2178E-05	141.5	70.03	141.5	74.61	UL-RL	2.0684E+05	-11.200	107.1
1.000	1.000	177.2	0.000	0.000	Ug5_2_8_L_0					
58 D	36.01	-2.1807E-05	144.1	70.99	144.1	75.50	UL-RL	2.0684E+05	-11.400	109.0
1.000	1.000	180.0	0.000	0.000	Ug5_2_8_L_0					
59 D	36.58	-2.1436E-05	146.3	71.94	146.3	76.38	UL-RL	2.0684E+05	-11.600	111.0
1.000	1.000	182.9	0.000	0.000	Ug5_2_8_L_0					
60 D	37.15	-2.1065E-05	148.9	72.90	148.9	77.26	UL-RL	2.0684E+05	-11.800	112.9
1.000	1.000	185.8	0.000	0.000	Ug5_2_8_L_0					
61 D	18.86	-2.0695E-05	151.1	73.86	151.1	78.15	UL-RL	2.0684E+05	-12.000	114.8
1.000	1.000	188.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	1.4228E-04	0.000	0.000	10.00	14.83	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.995	1.2856E-04	1.913	12.89	12.00	16.83	PASSIVE	0.000	-1.200	2.087	
1.000	1.000	14.98	0.000	0.000	Ug5_2_8_L_0						
8 D	5.153	1.1537E-04	3.826	21.59	14.00	21.59	V-C	3.4277E+04	-1.400	4.174	
1.000	1.000	25.76	0.000	0.000	Ug5_2_8_L_0						
9 D	5.865	1.0291E-04	5.739	23.07	16.00	23.07	V-C	3.4277E+04	-1.600	6.261	
1.000	1.000	29.33	0.000	0.000	Ug5_2_8_L_0						
10 D	6.569	9.1371E-05	7.652	24.50	18.00	24.50	V-C	3.4277E+04	-1.800	8.348	
1.000	1.000	32.84	0.000	0.000	Ug5_2_8_L_0						
11 D	7.266	8.0882E-05	9.565	25.89	20.00	25.89	V-C	3.4277E+04	-2.000	10.43	
1.000	1.000	36.33	0.000	0.000	Ug5_2_8_L_0						
12 D	7.958	7.1518E-05	11.48	27.27	22.00	27.27	V-C	3.4277E+04	-2.200	12.52	
1.000	1.000	39.79	0.000	0.000	Ug5_2_8_L_0						
13 D	8.646	6.3300E-05	13.39	28.62	24.00	28.62	V-C	3.4277E+04	-2.400	14.61	
1.000	1.000	43.23	0.000	0.000	Ug5_2_8_L_0						
14 D	9.330	5.6208E-05	15.30	29.95	26.00	29.95	V-C	3.4277E+04	-2.600	16.70	
1.000	1.000	46.65	0.000	0.000	Ug5_2_8_L_0						
15 D	10.01	5.0189E-05	17.22	31.27	28.00	31.27	V-C	3.4277E+04	-2.800	18.78	
1.000	1.000	50.05	0.000	0.000	Ug5_2_8_L_0						
16 D	10.69	4.5167E-05	19.13	32.56	30.00	32.56	V-C	3.4277E+04	-3.000	20.87	
1.000	1.000	53.43	0.000	0.000	Ug5_2_8_L_0						
17 D	11.36	4.1053E-05	21.04	33.84	32.00	33.84	V-C	3.4277E+04	-3.200	22.96	
1.000	1.000	56.80	0.000	0.000	Ug5_2_8_L_0						
18 D	12.03	3.7749E-05	22.96	35.10	34.00	35.10	V-C	3.4277E+04	-3.400	25.04	
1.000	1.000	60.14	0.000	0.000	Ug5_2_8_L_0						
19 D	12.68	3.5152E-05	24.87	36.29	36.00	36.35	UL-RL	1.0283E+05	-3.600	27.13	
1.000	1.000	63.42	0.000	0.000	Ug5_2_8_L_0						
20 D	13.33	3.3162E-05	26.78	37.41	38.00	37.60	UL-RL	1.0283E+05	-3.800	29.22	
1.000	1.000	66.63	0.000	0.000	Ug5_2_8_L_0						
21 D	13.97	3.1682E-05	28.70	38.54	40.00	38.82	UL-RL	1.0283E+05	-4.000	31.30	
1.000	1.000	69.85	0.000	0.000	Ug5_2_8_L_0						
22 D	14.61	3.0620E-05	30.61	39.67	42.00	40.01	UL-RL	1.0283E+05	-4.200	33.39	
1.000	1.000	73.06	0.000	0.000	Ug5_2_8_L_0						
23 D	15.25	2.9894E-05	32.52	40.79	44.00	41.16	UL-RL	1.0283E+05	-4.400	35.48	
1.000	1.000	76.27	0.000	0.000	Ug5_2_8_L_0						
24 D	15.89	2.9430E-05	34.43	41.91	46.00	42.28	UL-RL	1.0283E+05	-4.600	37.57	
1.000	1.000	79.47	0.000	0.000	Ug5_2_8_L_0						
25 D	16.53	2.9163E-05	36.35	43.01	48.00	43.37	UL-RL	1.0283E+05	-4.800	39.65	
1.000	1.000	82.66	0.000	0.000	Ug5_2_8_L_0						
26 D	17.17	2.9039E-05	38.26	44.10	50.00	44.44	UL-RL	1.0283E+05	-5.000	41.74	
1.000	1.000	85.84	0.000	0.000	Ug5_2_8_L_0						
27 D	17.80	2.9011E-05	40.17	45.17	52.00	45.48	UL-RL	1.0283E+05	-5.200	43.83	
1.000	1.000	88.99	0.000	0.000	Ug5_2_8_L_0						
28 D	18.43	2.9043E-05	42.09	46.22	54.00	46.50	UL-RL	1.0283E+05	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	92.13	0.000	0.000	Ug5_2_8_L_0					
29 D	19.05	2.9103E-05	44.00	47.25	56.00	47.50	UL-RL	1.0283E+05	-5.600	48.00
1.000	1.000	95.25	0.000	0.000	Ug5_2_8_L_0					
30 D	19.67	2.9170E-05	45.91	48.27	58.00	48.48	UL-RL	1.0283E+05	-5.800	50.09
1.000	1.000	98.36	0.000	0.000	Ug5_2_8_L_0					
31 D	20.28	2.9225E-05	47.83	49.25	60.00	49.46	UL-RL	1.0283E+05	-6.000	52.17
1.000	1.000	101.4	0.000	0.000	Ug5_2_8_L_0					
32 D	20.89	2.9257E-05	49.74	50.20	62.00	50.42	UL-RL	1.0283E+05	-6.200	54.26
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0					
33 D	21.49	2.9257E-05	51.65	51.13	64.00	51.37	UL-RL	1.0283E+05	-6.400	56.35
1.000	1.000	107.5	0.000	0.000	Ug5_2_8_L_0					
34 D	22.09	2.9220E-05	53.57	52.04	66.00	52.31	UL-RL	1.0283E+05	-6.600	58.43
1.000	1.000	110.5	0.000	0.000	Ug5_2_8_L_0					
35 D	22.69	2.9144E-05	55.48	52.94	68.00	53.23	UL-RL	1.0283E+05	-6.800	60.52
1.000	1.000	113.5	0.000	0.000	Ug5_2_8_L_0					
36 D	23.29	2.9028E-05	57.39	53.82	70.00	54.14	UL-RL	1.0283E+05	-7.000	62.61
1.000	1.000	116.4	0.000	0.000	Ug5_2_8_L_0					
37 D	23.88	2.8873E-05	59.30	54.69	72.00	55.05	UL-RL	1.0283E+05	-7.200	64.70
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
38 D	24.47	2.8682E-05	61.22	55.55	74.00	55.95	UL-RL	1.0283E+05	-7.400	66.78
1.000	1.000	122.3	0.000	0.000	Ug5_2_8_L_0					
39 D	25.05	2.8458E-05	63.13	56.39	76.00	56.83	UL-RL	1.0283E+05	-7.600	68.87
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
40 D	25.64	2.8205E-05	65.04	57.23	78.00	57.72	UL-RL	1.0283E+05	-7.800	70.96
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
41 D	26.22	2.7926E-05	66.96	58.06	80.00	58.59	UL-RL	1.0283E+05	-8.000	73.04
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
42 D	26.80	2.7624E-05	68.87	58.88	82.00	59.46	UL-RL	1.0283E+05	-8.200	75.13
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
43 D	27.38	2.7305E-05	70.78	59.69	84.00	60.33	UL-RL	1.0283E+05	-8.400	77.22
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
44 D	27.96	2.6970E-05	72.70	60.50	86.00	61.19	UL-RL	1.0283E+05	-8.600	79.30
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
45 D	28.54	2.6623E-05	74.61	61.30	88.00	62.05	UL-RL	1.0283E+05	-8.800	81.39
1.000	1.000	142.7	0.000	0.000	Ug5_2_8_L_0					
46 D	29.11	2.6267E-05	76.52	62.09	90.00	62.90	UL-RL	1.0283E+05	-9.000	83.48
1.000	1.000	145.6	0.000	0.000	Ug5_2_8_L_0					
47 D	29.69	2.5904E-05	78.43	62.89	92.00	63.75	UL-RL	1.0283E+05	-9.200	85.57
1.000	1.000	148.5	0.000	0.000	Ug5_2_8_L_0					
48 D	30.27	2.5536E-05	80.35	63.68	94.00	64.60	UL-RL	1.0283E+05	-9.400	87.65
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
49 D	30.84	2.5165E-05	82.26	64.47	96.00	65.45	UL-RL	1.0283E+05	-9.600	89.74
1.000	1.000	154.2	0.000	0.000	Ug5_2_8_L_0					
50 D	31.42	2.4792E-05	84.17	65.25	98.00	66.29	UL-RL	1.0283E+05	-9.800	91.83
1.000	1.000	157.1	0.000	0.000	Ug5_2_8_L_0					
51 D	31.99	2.4418E-05	86.09	66.04	100.00	67.13	UL-RL	1.0283E+05	-10.000	93.91
1.000	1.000	160.0	0.000	0.000	Ug5_2_8_L_0					
52 D	32.56	2.4043E-05	88.00	66.82	102.0	67.98	UL-RL	1.0283E+05	-10.200	96.00
1.000	1.000	162.8	0.000	0.000	Ug5_2_8_L_0					
53 D	33.14	2.3669E-05	89.91	67.60	104.0	68.82	UL-RL	1.0283E+05	-10.400	98.09
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
54 D	33.71	2.3295E-05	91.83	68.38	106.0	69.66	UL-RL	1.0283E+05	-10.600	100.2
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
55 D	34.29	2.2922E-05	93.74	69.16	108.0	70.50	UL-RL	1.0283E+05	-10.800	102.3
1.000	1.000	171.4	0.000	0.000	Ug5_2_8_L_0					
56 D	34.86	2.2550E-05	95.65	69.95	110.0	71.34	UL-RL	1.0283E+05	-11.000	104.3
1.000	1.000	174.3	0.000	0.000	Ug5_2_8_L_0					
57 D	35.43	2.2178E-05	97.57	70.73	112.0	72.18	UL-RL	1.0283E+05	-11.200	106.4
1.000	1.000	177.2	0.000	0.000	Ug5_2_8_L_0					
58 D	36.01	2.1807E-05	99.48	71.51	114.0	73.02	UL-RL	1.0283E+05	-11.400	108.5
1.000	1.000	180.0	0.000	0.000	Ug5_2_8_L_0					
59 D	36.58	2.1436E-05	101.4	72.29	116.0	73.86	UL-RL	1.0283E+05	-11.600	110.6
1.000	1.000	182.9	0.000	0.000	Ug5_2_8_L_0					
60 D	37.15	2.1065E-05	103.3	73.07	118.0	74.70	UL-RL	1.0283E+05	-11.800	112.7
1.000	1.000	185.8	0.000	0.000	Ug5_2_8_L_0					
61 D	18.86	2.0695E-05	105.2	73.85	120.0	75.54	UL-RL	1.0283E+05	-12.000	114.8
1.000	1.000	188.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                              |
|                                                                              |
|                NewProject.BaseDesignSection_28.Nominal_63   |
|                Exe Time :24 May 2018   18:23:40              |
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New Project
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.76401E-12	-2.76401E-12	2.74447E-13	1.22569E-13
2	0.49223	-0.49223	-1.17240E-13	9.84459E-02
3	1.4952	-1.4952	-9.84459E-02	0.39749
4	3.0167	-3.0167	-0.39749	1.0008
5	5.0718	-5.0718	-1.0008	2.0152
6	7.6606	-7.6606	-2.0152	3.5473
7	7.7668	-7.7668	-3.5473	5.1007
8	6.2238	-6.2238	-5.1007	6.3454
9	4.4815	-4.4815	-6.3454	7.2417
10	2.5399	-2.5399	-7.2417	7.7497
11	0.67124	-0.67124	-7.7497	7.8839
12	-0.77393	0.77393	-7.8839	7.7292
13	-1.8501	1.8501	-7.7292	7.3591
14	-2.6111	2.6111	-7.3591	6.8369
15	-3.1081	3.1081	-6.8369	6.2153
16	-3.3891	3.3891	-6.2153	5.5375
17	-3.4975	3.4975	-5.5375	4.8380
18	-3.4723	3.4723	-4.8380	4.1435
19	-3.3393	3.3393	-4.1435	3.4756
20	-3.1183	3.1183	-3.4756	2.8520
21	-2.8391	2.8391	-2.8520	2.2841
22	-2.5267	2.5267	-2.2841	1.7788
23	-2.2006	2.2006	-1.7788	1.3387
24	-1.8763	1.8763	-1.3387	0.96344
25	-1.5654	1.5654	-0.96344	0.65035
26	-1.2763	1.2763	-0.65035	0.39509
27	-1.0146	1.0146	-0.39509	0.19216
28	-0.78378	0.78378	-0.19216	3.54054E-02
29	-0.58543	0.58543	-3.54054E-02	-8.16816E-02
30	-0.41993	0.41993	8.16816E-02	-0.16567
31	-0.28244	0.28244	0.16567	-0.22216
32	-0.16941	0.16941	0.22216	-0.25604
33	-7.88050E-02	7.88050E-02	0.25604	-0.27180
34	-8.27863E-03	8.27863E-03	0.27180	-0.27346
35	4.46505E-02	-4.46505E-02	0.27346	-0.26453
36	8.24835E-02	-8.24835E-02	0.26453	-0.24803
37	0.10764	-0.10764	0.24803	-0.22650
38	0.12240	-0.12240	0.22650	-0.20202
39	0.12883	-0.12883	0.20202	-0.17626
40	0.12879	-0.12879	0.17626	-0.15050
41	0.12390	-0.12390	0.15050	-0.12572
42	0.11556	-0.11556	0.12572	-0.10260
43	0.10492	-0.10492	0.10260	-8.16206E-02
44	9.29394E-02	-9.29394E-02	8.16206E-02	-6.30328E-02
45	8.03768E-02	-8.03768E-02	6.30328E-02	-4.69575E-02
46	6.78253E-02	-6.78253E-02	4.69575E-02	-3.33924E-02
47	5.57303E-02	-5.57303E-02	3.33924E-02	-2.22464E-02
48	4.44127E-02	-4.44127E-02	2.22464E-02	-1.33638E-02
49	3.40916E-02	-3.40916E-02	1.33638E-02	-6.54552E-03
50	2.49041E-02	-2.49041E-02	6.54552E-03	-1.56470E-03
51	1.69246E-02	-1.69246E-02	1.56470E-03	1.82031E-03
52	1.01811E-02	-1.01811E-02	1.82031E-03	3.85643E-03
53	4.66988E-03	-4.66988E-03	3.85643E-03	4.79041E-03
54	3.67801E-04	-3.67801E-04	4.79041E-03	4.86397E-03
55	-2.75770E-03	2.75770E-03	4.86397E-03	4.31243E-03
56	-4.74074E-03	4.74074E-03	4.31243E-03	3.36428E-03
57	-5.61133E-03	5.61133E-03	3.36428E-03	2.24201E-03
58	-5.39167E-03	5.39167E-03	2.24201E-03	1.16368E-03
59	-4.09456E-03	4.09456E-03	1.16368E-03	3.44768E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-1.72376E-03 1.72376E-03-3.44768E-04-7.21177E-14

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM= 384.0    REMNOR=0.1297E-23  RATIO =0.8364E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.8364E-01  RATIO= 0.000
            MAX UN= 7.171    IEQ=   21 NODE    11 DOF    1  Y-DISPL.F
            MIN UN=-.4743E-01 IEQ=   11 NODE    6 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM= 53.47    REMNOR=0.3003E-22  RATIO =0.3121E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.3121E-01  RATIO= 0.000
            MAX UN= 2.490    IEQ=   19 NODE    10 DOF    1  Y-DISPL.F
            MIN UN=-.9345E-11 IEQ=   69 NODE   35 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM= 136.4    REMNOR=0.5767E-21  RATIO =0.4985E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.4985E-01  RATIO= 0.000
            MAX UN= 8.191    IEQ=   31 NODE    16 DOF    1  Y-DISPL.F
            MIN UN=-.2299E-09 IEQ=   15 NODE    8 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM= 16.98    REMNOR=0.3600E-21  RATIO =0.1759E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.1759E-01  RATIO= 0.000
            MAX UN= 3.554    IEQ=   43 NODE    22 DOF    1  Y-DISPL.F
            MIN UN=-.7361E-10 IEQ=   25 NODE    13 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM=0.4048E-01 REMNOR=0.2780E-21  RATIO =0.8587E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.8587E-03  RATIO= 0.000
            MAX UN=0.1887    IEQ=   49 NODE    25 DOF    1  Y-DISPL.F
            MIN UN=-.1253E-09 IEQ=   25 NODE    13 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5489E+05 RIMNOR= 1124.
            RENORM=0.7182E-19 REMNOR=0.7695E-21  RATIO =0.1144E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 36.60    RMMAX = 7.884
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5489E+05  RDR   = 1124.
            RATIO=0.1144E-11  RATIO= 0.000
            MAX UN=0.1118E-09 IEQ=    1 NODE     1 DOF    1  Y-DISPL.F
            MIN UN=-.1292E-09 IEQ=   15 NODE     8 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|               PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017* |
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New Project
SOLUTION REACHED USING      6 ITERATIONS ON   40

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PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	2.9933021E-03	-7.1101536E-04
2	2.8510990E-03	-7.1101536E-04
3	2.7088983E-03	-7.1098040E-04
4	2.5667163E-03	-7.1080424E-04
5	2.4245980E-03	-7.1030745E-04
6	2.2826316E-03	-7.0923572E-04
7	2.1409640E-03	-7.0725875E-04
8	1.9998155E-03	-7.0397181E-04
9	1.8594945E-03	-6.9889754E-04
10	1.7204123E-03	-6.9148595E-04
11	1.5830974E-03	-6.8111475E-04
12	1.4482100E-03	-6.6708963E-04
13	1.3165421E-03	-6.4885546E-04
14	1.1889620E-03	-6.2620748E-04
15	1.0663437E-03	-5.9929130E-04
16	9.4949700E-04	-5.6860290E-04
17	8.3910812E-04	-5.3482258E-04
18	7.3572865E-04	-4.9862357E-04
19	6.3977725E-04	-4.6064609E-04
20	5.5154804E-04	-4.2150124E-04
21	4.7121597E-04	-3.8177416E-04
22	3.9884014E-04	-3.4202681E-04
23	3.3437035E-04	-3.0280289E-04
24	2.7764886E-04	-2.6463081E-04
25	2.2841343E-04	-2.2802769E-04
26	1.8629921E-04	-1.9350312E-04
27	1.5084461E-04	-1.6149460E-04
28	1.2151406E-04	-1.3229850E-04
29	9.7726549E-05	-1.0608240E-04
30	7.8878243E-05	-8.2909188E-05
31	6.4361676E-05	-6.2753936E-05
32	5.3582316E-05	-4.5514726E-05
33	4.5972335E-05	-3.1028136E-05
34	4.1001282E-05	-1.9088239E-05
35	3.8182805E-05	-9.4618579E-06
36	3.7078803E-05	-1.9015145E-06
37	3.7301222E-05	3.8442141E-06
38	3.8512006E-05	8.0227057E-06
39	4.0421624E-05	1.0870990E-05
40	4.2786546E-05	1.2611435E-05
41	4.5405987E-05	1.3448711E-05
42	4.8118164E-05	1.3567983E-05
43	5.0796301E-05	1.3134068E-05
44	5.3344539E-05	1.2291366E-05
45	5.5693884E-05	1.1164388E-05
46	5.7798367E-05	9.8586894E-06
47	5.9631304E-05	8.4621574E-06
48	6.1181951E-05	7.0464385E-06
49	6.2452397E-05	5.6684785E-06
50	6.3454775E-05	4.3720837E-06
51	6.4208806E-05	3.1894039E-06
52	6.4739592E-05	2.1423653E-06
53	6.5075668E-05	1.2440778E-06
54	6.5247463E-05	4.9965661E-07
55	6.5285687E-05	-9.2418268E-08
56	6.5220148E-05	-5.3970375E-07
57	6.5078599E-05	-8.5509601E-07
58	6.4885720E-05	-1.0563384E-06
59	6.4662190E-05	-1.1656719E-06
60	6.4423811E-05	-1.2096085E-06
61	6.4180651E-05	-1.2188037E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.9933E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4780	-2.8511E-03	2.296	0.5717	2.296	4.391	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	2.390	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9745	-2.7089E-03	4.964	1.236	4.964	7.857	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	4.872	0.000	0.000	Ug5_2_8_L_0						
4 D	1.479	-2.5667E-03	7.787	1.939	7.787	10.57	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	7.394	0.000	0.000	Ug5_2_8_L_0						
5 D	1.998	-2.4246E-03	10.92	2.718	10.92	12.90	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	9.991	0.000	0.000	Ug5_2_8_L_0						
6 D	2.518	-2.2826E-03	14.04	3.497	14.04	15.05	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	12.59	0.000	0.000	Ug5_2_8_L_0						
7 D	3.016	-2.1410E-03	16.75	4.171	16.75	17.09	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	15.08	0.000	0.000	Ug5_2_8_L_0						
8 D	3.510	-1.9998E-03	19.37	4.824	19.37	19.05	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	17.55	0.000	0.000	Ug5_2_8_L_0						
9 D	4.009	-1.8595E-03	22.09	5.500	22.09	20.96	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	20.05	0.000	0.000	Ug5_2_8_L_0						
10 D	4.499	-1.7204E-03	24.62	6.130	24.62	22.80	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	22.49	0.000	0.000	Ug5_2_8_L_0						
11 D	4.994	-1.5831E-03	27.26	6.787	27.26	24.58	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	24.97	0.000	0.000	Ug5_2_8_L_0						
12 D	5.483	-1.4482E-03	29.77	7.413	29.77	26.31	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	27.41	0.000	0.000	Ug5_2_8_L_0						
13 D	5.976	-1.3165E-03	32.38	8.064	32.38	27.98	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	29.88	0.000	0.000	Ug5_2_8_L_0						
14 D	6.466	-1.1890E-03	34.91	8.692	34.91	29.60	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	32.33	0.000	0.000	Ug5_2_8_L_0						
15 D	6.959	-1.0663E-03	37.52	9.343	37.52	31.16	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	34.80	0.000	0.000	Ug5_2_8_L_0						
16 D	7.450	-9.4950E-04	40.06	9.975	40.06	32.68	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	37.25	0.000	0.000	Ug5_2_8_L_0						
17 D	7.944	-8.3911E-04	42.68	10.63	42.68	34.14	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	39.72	0.000	0.000	Ug5_2_8_L_0						
18 D	8.435	-7.3573E-04	45.24	11.26	45.24	35.55	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	42.17	0.000	0.000	Ug5_2_8_L_0						
19 D	8.926	-6.3978E-04	47.81	11.90	47.81	36.92	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	44.63	0.000	0.000	Ug5_2_8_L_0						
20 D	9.421	-5.5155E-04	50.44	12.56	50.44	38.25	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	47.11	0.000	0.000	Ug5_2_8_L_0						
21 D	9.913	-4.7122E-04	53.02	13.20	53.02	39.53	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	49.57	0.000	0.000	Ug5_2_8_L_0						
22 D	10.41	-3.9884E-04	55.65	13.86	55.65	40.78	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	52.04	0.000	0.000	Ug5_2_8_L_0						
23 D	10.90	-3.3437E-04	58.24	14.50	58.24	42.00	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	54.50	0.000	0.000	Ug5_2_8_L_0						
24 D	11.40	-2.7765E-04	60.87	15.16	60.87	43.18	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	56.98	0.000	0.000	Ug5_2_8_L_0						
25 D	11.89	-2.2841E-04	63.46	15.80	63.46	44.33	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	59.44	0.000	0.000	Ug5_2_8_L_0						
26 D	13.32	-1.8630E-04	66.04	21.12	66.04	45.46	UL-RL	1.2410E+05	-5.000	45.45	
1.000	1.000	66.58	0.000	0.000	Ug5_2_8_L_0						
27 D	14.79	-1.5084E-04	68.45	26.68	68.45	46.56	UL-RL	1.2410E+05	-5.200	47.27	
1.000	1.000	73.95	0.000	0.000	Ug5_2_8_L_0						
28 D	16.11	-1.2151E-04	70.86	31.44	70.86	47.64	UL-RL	1.2410E+05	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	80.53	0.000	0.000	Ug5_2_8_L_0					
29 D	17.28	-9.7727E-05	73.28	35.49	73.28	48.70	UL-RL	1.2410E+05	-5.600	50.91
1.000	1.000	86.40	0.000	0.000	Ug5_2_8_L_0					
30 D	18.33	-7.8878E-05	75.70	38.91	75.70	49.74	UL-RL	1.2410E+05	-5.800	52.73
1.000	1.000	91.64	0.000	0.000	Ug5_2_8_L_0					
31 D	19.27	-6.4362E-05	78.12	41.78	78.12	50.76	UL-RL	1.2410E+05	-6.000	54.55
1.000	1.000	96.33	0.000	0.000	Ug5_2_8_L_0					
32 D	20.11	-5.3582E-05	80.54	44.17	80.54	51.77	UL-RL	1.2410E+05	-6.200	56.36
1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
33 D	20.87	-4.5972E-05	82.97	46.15	82.97	52.76	UL-RL	1.2410E+05	-6.400	58.18
1.000	1.000	104.3	0.000	0.000	Ug5_2_8_L_0					
34 D	21.56	-4.1001E-05	85.63	47.80	85.63	53.74	UL-RL	1.2410E+05	-6.600	60.00
1.000	1.000	107.8	0.000	0.000	Ug5_2_8_L_0					
35 D	22.20	-3.8183E-05	88.19	49.17	88.19	54.71	UL-RL	1.2410E+05	-6.800	61.82
1.000	1.000	111.0	0.000	0.000	Ug5_2_8_L_0					
36 D	22.79	-3.7079E-05	91.31	50.32	91.31	55.67	UL-RL	1.2410E+05	-7.000	63.64
1.000	1.000	114.0	0.000	0.000	Ug5_2_8_L_0					
37 D	23.35	-3.7301E-05	93.84	51.30	93.84	56.61	UL-RL	1.2410E+05	-7.200	65.45
1.000	1.000	116.8	0.000	0.000	Ug5_2_8_L_0					
38 D	23.89	-3.8512E-05	96.90	52.16	96.90	57.55	UL-RL	1.2410E+05	-7.400	67.27
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
39 D	24.40	-4.0422E-05	99.39	52.92	99.39	58.49	UL-RL	1.2410E+05	-7.600	69.09
1.000	1.000	122.0	0.000	0.000	Ug5_2_8_L_0					
40 D	24.91	-4.2787E-05	102.4	53.62	102.4	59.41	UL-RL	1.2410E+05	-7.800	70.91
1.000	1.000	124.5	0.000	0.000	Ug5_2_8_L_0					
41 D	25.40	-4.5406E-05	105.4	54.28	105.4	60.33	UL-RL	1.2410E+05	-8.000	72.73
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
42 D	25.90	-4.8118E-05	107.8	54.93	107.8	61.24	UL-RL	1.2410E+05	-8.200	74.55
1.000	1.000	129.5	0.000	0.000	Ug5_2_8_L_0					
43 D	26.39	-5.0796E-05	110.7	55.58	110.7	62.15	UL-RL	1.2410E+05	-8.400	76.36
1.000	1.000	131.9	0.000	0.000	Ug5_2_8_L_0					
44 D	26.89	-5.3345E-05	113.2	56.25	113.2	63.06	UL-RL	1.2410E+05	-8.600	78.18
1.000	1.000	134.4	0.000	0.000	Ug5_2_8_L_0					
45 D	27.39	-5.5694E-05	116.0	56.93	116.0	63.96	UL-RL	1.2410E+05	-8.800	80.00
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
46 D	27.89	-5.7798E-05	118.4	57.64	118.4	64.86	UL-RL	1.2410E+05	-9.000	81.82
1.000	1.000	139.5	0.000	0.000	Ug5_2_8_L_0					
47 D	28.41	-5.9631E-05	121.3	58.39	121.3	65.75	UL-RL	1.2410E+05	-9.200	83.64
1.000	1.000	142.0	0.000	0.000	Ug5_2_8_L_0					
48 D	28.92	-6.1182E-05	123.7	59.17	123.7	66.64	UL-RL	1.2410E+05	-9.400	85.45
1.000	1.000	144.6	0.000	0.000	Ug5_2_8_L_0					
49 D	29.45	-6.2452E-05	126.5	59.98	126.5	67.53	UL-RL	1.2410E+05	-9.600	87.27
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
50 D	29.98	-6.3455E-05	128.8	60.82	128.8	68.42	UL-RL	1.2410E+05	-9.800	89.09
1.000	1.000	149.9	0.000	0.000	Ug5_2_8_L_0					
51 D	30.52	-6.4209E-05	131.6	61.69	131.6	69.31	UL-RL	1.2410E+05	-10.000	90.91
1.000	1.000	152.6	0.000	0.000	Ug5_2_8_L_0					
52 D	31.06	-6.4740E-05	134.0	62.59	134.0	70.19	UL-RL	1.2410E+05	-10.200	92.73
1.000	1.000	155.3	0.000	0.000	Ug5_2_8_L_0					
53 D	31.61	-6.5076E-05	136.7	63.51	136.7	71.08	UL-RL	1.2410E+05	-10.400	94.55
1.000	1.000	158.1	0.000	0.000	Ug5_2_8_L_0					
54 D	32.16	-6.5247E-05	139.5	64.45	139.5	71.96	UL-RL	1.2410E+05	-10.600	96.36
1.000	1.000	160.8	0.000	0.000	Ug5_2_8_L_0					
55 D	32.72	-6.5286E-05	141.8	65.41	141.8	72.85	UL-RL	1.2410E+05	-10.800	98.18
1.000	1.000	163.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.28	-6.5220E-05	144.5	66.38	144.5	73.73	UL-RL	1.2410E+05	-11.000	100.00
1.000	1.000	166.4	0.000	0.000	Ug5_2_8_L_0					
57 D	33.84	-6.5079E-05	146.8	67.36	146.8	74.61	UL-RL	1.2410E+05	-11.200	101.8
1.000	1.000	169.2	0.000	0.000	Ug5_2_8_L_0					
58 D	34.40	-6.4886E-05	149.5	68.34	149.5	75.50	UL-RL	1.2410E+05	-11.400	103.6
1.000	1.000	172.0	0.000	0.000	Ug5_2_8_L_0					
59 D	34.96	-6.4662E-05	151.8	69.33	151.8	76.38	UL-RL	1.2410E+05	-11.600	105.5
1.000	1.000	174.8	0.000	0.000	Ug5_2_8_L_0					
60 D	35.52	-6.4424E-05	154.5	70.32	154.5	77.26	UL-RL	1.2410E+05	-11.800	107.3
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
61 D	18.04	-6.4181E-05	156.8	71.31	156.8	78.15	UL-RL	1.2410E+05	-12.000	109.1
1.000	1.000	180.4	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:23:40                                          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.5831E-03	0.000	0.000	20.00	25.89	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.887	1.4482E-03	1.818	12.25	22.00	27.27	PASSIVE	0.000	-2.200	2.182	
1.000	1.000	14.43	0.000	0.000	Ug5_2_8_L_0						
13 D	5.773	1.3165E-03	3.636	24.50	24.00	28.62	PASSIVE	0.000	-2.400	4.364	
1.000	1.000	28.87	0.000	0.000	Ug5_2_8_L_0						
14 D	8.660	1.1890E-03	5.455	36.75	26.00	36.75	PASSIVE	0.000	-2.600	6.545	
1.000	1.000	43.30	0.000	0.000	Ug5_2_8_L_0						
15 D	11.55	1.0663E-03	7.273	49.00	28.00	49.00	PASSIVE	0.000	-2.800	8.727	
1.000	1.000	57.73	0.000	0.000	Ug5_2_8_L_0						
16 D	12.17	9.4950E-04	9.091	49.92	30.00	49.92	V-C	2.0566E+04	-3.000	10.91	
1.000	1.000	60.83	0.000	0.000	Ug5_2_8_L_0						
17 D	12.43	8.3911E-04	10.91	49.04	32.00	49.04	V-C	2.0566E+04	-3.200	13.09	
1.000	1.000	62.13	0.000	0.000	Ug5_2_8_L_0						
18 D	12.71	7.3573E-04	12.73	48.26	34.00	48.26	V-C	2.0566E+04	-3.400	15.27	
1.000	1.000	63.53	0.000	0.000	Ug5_2_8_L_0						
19 D	13.01	6.3978E-04	14.55	47.59	36.00	47.59	V-C	2.0566E+04	-3.600	17.45	
1.000	1.000	65.05	0.000	0.000	Ug5_2_8_L_0						
20 D	13.34	5.5155E-04	16.36	47.04	38.00	47.04	V-C	2.0566E+04	-3.800	19.64	
1.000	1.000	66.68	0.000	0.000	Ug5_2_8_L_0						
21 D	13.69	4.7122E-04	18.18	46.62	40.00	46.62	V-C	2.0566E+04	-4.000	21.82	
1.000	1.000	68.44	0.000	0.000	Ug5_2_8_L_0						
22 D	14.06	3.9884E-04	20.00	46.32	42.00	46.32	V-C	2.0566E+04	-4.200	24.00	
1.000	1.000	70.32	0.000	0.000	Ug5_2_8_L_0						
23 D	14.47	3.3437E-04	21.82	46.16	44.00	46.16	V-C	2.0566E+04	-4.400	26.18	
1.000	1.000	72.34	0.000	0.000	Ug5_2_8_L_0						
24 D	14.90	2.7765E-04	23.64	46.12	46.00	46.12	V-C	2.0566E+04	-4.600	28.36	
1.000	1.000	74.49	0.000	0.000	Ug5_2_8_L_0						
25 D	15.35	2.2841E-04	25.45	46.21	48.00	46.21	V-C	2.0566E+04	-4.800	30.55	
1.000	1.000	76.76	0.000	0.000	Ug5_2_8_L_0						
26 D	15.83	1.8630E-04	27.27	46.43	50.00	46.43	V-C	2.0566E+04	-5.000	32.73	
1.000	1.000	79.15	0.000	0.000	Ug5_2_8_L_0						
27 D	16.33	1.5084E-04	29.09	46.75	52.00	46.75	V-C	2.0566E+04	-5.200	34.91	
1.000	1.000	81.66	0.000	0.000	Ug5_2_8_L_0						
28 D	16.85	1.2151E-04	30.91	47.17	54.00	47.17	V-C	2.0566E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	84.27	0.000	0.000	Ug5_2_8_L_0					
29 D	17.39	9.7727E-05	32.73	47.69	56.00	47.69	V-C	2.0566E+04	-5.600	39.27
1.000	1.000	86.97	0.000	0.000	Ug5_2_8_L_0					
30 D	17.87	7.8878E-05	34.55	47.92	58.00	48.48	UL-RL	6.1699E+04	-5.800	41.45
1.000	1.000	89.37	0.000	0.000	Ug5_2_8_L_0					
31 D	18.32	6.4362E-05	36.36	47.99	60.00	49.46	UL-RL	6.1699E+04	-6.000	43.64
1.000	1.000	91.62	0.000	0.000	Ug5_2_8_L_0					
32 D	18.82	5.3582E-05	38.18	48.26	62.00	50.42	UL-RL	6.1699E+04	-6.200	45.82
1.000	1.000	94.08	0.000	0.000	Ug5_2_8_L_0					
33 D	19.34	4.5972E-05	40.00	48.71	64.00	51.37	UL-RL	6.1699E+04	-6.400	48.00
1.000	1.000	96.71	0.000	0.000	Ug5_2_8_L_0					
34 D	19.90	4.1001E-05	41.82	49.31	66.00	52.31	UL-RL	6.1699E+04	-6.600	50.18
1.000	1.000	99.49	0.000	0.000	Ug5_2_8_L_0					
35 D	20.48	3.8183E-05	43.64	50.02	68.00	53.23	UL-RL	6.1699E+04	-6.800	52.36
1.000	1.000	102.4	0.000	0.000	Ug5_2_8_L_0					
36 D	21.08	3.7079E-05	45.45	50.83	70.00	54.14	UL-RL	6.1699E+04	-7.000	54.55
1.000	1.000	105.4	0.000	0.000	Ug5_2_8_L_0					
37 D	21.69	3.7301E-05	47.27	51.71	72.00	55.05	UL-RL	6.1699E+04	-7.200	56.73
1.000	1.000	108.4	0.000	0.000	Ug5_2_8_L_0					
38 D	22.31	3.8512E-05	49.09	52.64	74.00	55.95	UL-RL	6.1699E+04	-7.400	58.91
1.000	1.000	111.5	0.000	0.000	Ug5_2_8_L_0					
39 D	22.94	4.0422E-05	50.91	53.60	76.00	56.83	UL-RL	6.1699E+04	-7.600	61.09
1.000	1.000	114.7	0.000	0.000	Ug5_2_8_L_0					
40 D	23.57	4.2787E-05	52.73	54.58	78.00	57.72	UL-RL	6.1699E+04	-7.800	63.27
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.20	4.5406E-05	54.55	55.57	80.00	58.59	UL-RL	6.1699E+04	-8.000	65.45
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
42 D	24.84	4.8118E-05	56.36	56.56	82.00	59.46	UL-RL	6.1699E+04	-8.200	67.64
1.000	1.000	124.2	0.000	0.000	Ug5_2_8_L_0					
43 D	25.47	5.0796E-05	58.18	57.54	84.00	60.33	UL-RL	6.1699E+04	-8.400	69.82
1.000	1.000	127.4	0.000	0.000	Ug5_2_8_L_0					
44 D	26.10	5.3345E-05	60.00	58.51	86.00	61.19	UL-RL	6.1699E+04	-8.600	72.00
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
45 D	26.73	5.5694E-05	61.82	59.45	88.00	62.05	UL-RL	6.1699E+04	-8.800	74.18
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
46 D	27.35	5.7798E-05	63.64	60.39	90.00	62.90	UL-RL	6.1699E+04	-9.000	76.36
1.000	1.000	136.7	0.000	0.000	Ug5_2_8_L_0					
47 D	27.97	5.9631E-05	65.45	61.30	92.00	63.75	UL-RL	6.1699E+04	-9.200	78.55
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
48 D	28.58	6.1182E-05	67.27	62.19	94.00	64.60	UL-RL	6.1699E+04	-9.400	80.73
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
49 D	29.19	6.2452E-05	69.09	63.06	96.00	65.45	UL-RL	6.1699E+04	-9.600	82.91
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
50 D	29.80	6.3455E-05	70.91	63.91	98.00	66.29	UL-RL	6.1699E+04	-9.800	85.09
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
51 D	30.40	6.4209E-05	72.73	64.74	100.00	67.13	UL-RL	6.1699E+04	-10.000	87.27
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
52 D	31.00	6.4740E-05	74.55	65.56	102.0	67.98	UL-RL	6.1699E+04	-10.200	89.45
1.000	1.000	155.0	0.000	0.000	Ug5_2_8_L_0					
53 D	31.60	6.5076E-05	76.36	66.37	104.0	68.82	UL-RL	6.1699E+04	-10.400	91.64
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
54 D	32.20	6.5247E-05	78.18	67.16	106.0	69.66	UL-RL	6.1699E+04	-10.600	93.82
1.000	1.000	161.0	0.000	0.000	Ug5_2_8_L_0					
55 D	32.79	6.5286E-05	80.00	67.95	108.0	70.50	UL-RL	6.1699E+04	-10.800	96.00
1.000	1.000	163.9	0.000	0.000	Ug5_2_8_L_0					
56 D	33.38	6.5220E-05	81.82	68.72	110.0	71.34	UL-RL	6.1699E+04	-11.000	98.18
1.000	1.000	166.9	0.000	0.000	Ug5_2_8_L_0					
57 D	33.97	6.5079E-05	83.64	69.50	112.0	72.18	UL-RL	6.1699E+04	-11.200	100.4
1.000	1.000	169.9	0.000	0.000	Ug5_2_8_L_0					
58 D	34.56	6.4886E-05	85.45	70.27	114.0	73.02	UL-RL	6.1699E+04	-11.400	102.5
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
59 D	35.15	6.4662E-05	87.27	71.04	116.0	73.86	UL-RL	6.1699E+04	-11.600	104.7
1.000	1.000	175.8	0.000	0.000	Ug5_2_8_L_0					
60 D	35.74	6.4424E-05	89.09	71.80	118.0	74.70	UL-RL	6.1699E+04	-11.800	106.9
1.000	1.000	178.7	0.000	0.000	Ug5_2_8_L_0					
61 D	18.17	6.4181E-05	90.91	72.57	120.0	75.54	UL-RL	6.1699E+04	-12.000	109.1
1.000	1.000	181.7	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.11822E-10	1.11822E-10	-1.11330E-11	1.03195E-11
2	0.47798	-0.47798	-2.68661E-11	9.55963E-02
3	1.4525	-1.4525	-9.55963E-02	0.38609
4	2.9312	-2.9312	-0.38609	0.97233
5	4.9293	-4.9293	-0.97233	1.9582
6	7.4469	-7.4469	-1.9582	3.4476
7	10.463	-10.463	-3.4476	5.5402
8	13.973	-13.973	-5.5402	8.3348
9	17.982	-17.982	-8.3348	11.931
10	22.481	-22.481	-11.931	16.427
11	27.475	-27.475	-16.427	21.922
12	30.071	-30.071	-21.922	27.937
13	30.274	-30.274	-27.937	33.991
14	28.080	-28.080	-33.991	39.607
15	23.493	-23.493	-39.607	44.306
16	18.777	-18.777	-44.306	48.061
17	14.294	-14.294	-48.061	50.920
18	10.022	-10.022	-50.920	52.924
19	5.9387	-5.9387	-52.924	54.112
20	2.0242	-2.0242	-54.112	54.517
21	-1.7498	1.7498	-54.517	54.167
22	-5.4064	5.4064	-54.167	53.086
23	-8.9742	8.9742	-53.086	51.291
24	-12.477	12.477	-51.291	48.796
25	-15.941	15.941	-48.796	45.607
26	-18.456	18.456	-45.607	41.916
27	-19.998	19.998	-41.916	37.917
28	-20.745	20.745	-37.917	33.768
29	-20.858	20.858	-33.768	29.596
30	-20.404	20.404	-29.596	25.516
31	-19.463	19.463	-25.516	21.623
32	-18.172	18.172	-21.623	17.989
33	-16.646	16.646	-17.989	14.659
34	-14.984	14.984	-14.659	11.663
35	-13.263	13.263	-11.663	9.0101
36	-11.546	11.546	-9.0101	6.7009
37	-9.8815	9.8815	-6.7009	4.7246
38	-8.3049	8.3049	-4.7246	3.0636
39	-6.8413	6.8413	-3.0636	1.6954
40	-5.5067	5.5067	-1.6954	0.59404
41	-4.3098	4.3098	-0.59404	-0.26791
42	-3.2533	3.2533	0.26791	-0.91858
43	-2.3355	2.3355	0.91858	-1.3857
44	-1.5511	1.5511	1.3857	-1.6959
45	-0.89227	0.89227	1.6959	-1.8744
46	-0.34959	0.34959	1.8744	-1.9443
47	8.72651E-02	-8.72651E-02	1.9443	-1.9268
48	0.42897	-0.42897	1.9268	-1.8410
49	0.68609	-0.68609	1.8410	-1.7038
50	0.86870	-0.86870	1.7038	-1.5301
51	0.98610	-0.98610	1.5301	-1.3328
52	1.0467	-1.0467	1.3328	-1.1235
53	1.0576	-1.0576	1.1235	-0.91200
54	1.0252	-1.0252	0.91200	-0.70696
55	0.95433	-0.95433	0.70696	-0.51609
56	0.84890	-0.84890	0.51609	-0.34631
57	0.71175	-0.71175	0.34631	-0.20396
58	0.54482	-0.54482	0.20396	-9.49974E-02
59	0.34928	-0.34928	9.49974E-02	-2.51418E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.12570 -0.12570 2.51418E-02-3.94665E-13

ITER 0 RNORM = 5584. RMNORM= 0.000
RINORM=0.6723E+05 RIMNOR=0.8024E+05
RENORM= 4238. REMNOR=0.7695E-21 RATIO =0.2511 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 72.00 RMMAX = 54.52
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6723E+05 RDR =0.8024E+05
RATIOT=0.2511 RATIO= 0.000
MAX UN= 11.40 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-59.99 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 5584. RMNORM= 0.000
RINORM=0.6723E+05 RIMNOR=0.8024E+05
RENORM=0.6926 REMNOR=0.5886E-21 RATIO =0.3210E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 72.00 RMMAX = 54.52
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6723E+05 RDR =0.8024E+05
RATIOT=0.3210E-02 RATIO= 0.000
MAX UN=0.6202 IEQ= 49 NODE 25 DOF 1 Y-DISPL.F
MIN UN=-.2507E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 5584. RMNORM= 0.000
RINORM=0.6723E+05 RIMNOR=0.8024E+05
RENORM=0.9399E-19 REMNOR=0.2992E-21 RATIO =0.1182E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 72.00 RMMAX = 54.52
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6723E+05 RDR =0.8024E+05
RATIOT=0.1182E-11 RATIO= 0.000
MAX UN=0.1670E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.1195E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.9614E-03	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.062	-2.8152E-03	2.400	3.597	2.400	4.391	UL-RL	8.2735E+04	-0.2000	1.714	
1.000	1.000	5.312	0.000	0.000	Ug5_2_8_L_0						
3 D	1.615	-2.6689E-03	5.172	4.648	5.172	7.857	UL-RL	8.2735E+04	-0.4000	3.429	
1.000	1.000	8.077	0.000	0.000	Ug5_2_8_L_0						
4 D	2.176	-2.5227E-03	8.099	5.736	8.099	10.57	UL-RL	8.2735E+04	-0.6000	5.143	
1.000	1.000	10.88	0.000	0.000	Ug5_2_8_L_0						
5 D	2.750	-2.3766E-03	11.33	6.895	11.33	12.90	UL-RL	8.2735E+04	-0.8000	6.857	
1.000	1.000	13.75	0.000	0.000	Ug5_2_8_L_0						
6 D	3.323	-2.2308E-03	14.56	8.045	14.56	15.05	UL-RL	8.2735E+04	-1.0000	8.571	
1.000	1.000	16.62	0.000	0.000	Ug5_2_8_L_0						
7 D	3.872	-2.0855E-03	17.38	9.074	17.38	17.09	UL-RL	8.2735E+04	-1.2000	10.29	
1.000	1.000	19.36	0.000	0.000	Ug5_2_8_L_0						
8 D	4.412	-1.9410E-03	20.10	10.06	20.10	19.05	UL-RL	8.2735E+04	-1.4000	12.00	
1.000	1.000	22.06	0.000	0.000	Ug5_2_8_L_0						
9 D	4.949	-1.7977E-03	22.92	11.03	22.92	20.96	UL-RL	8.2735E+04	-1.6000	13.71	
1.000	1.000	24.74	0.000	0.000	Ug5_2_8_L_0						
10 D	5.467	-1.6562E-03	25.56	11.91	25.56	22.80	UL-RL	8.2735E+04	-1.8000	15.43	
1.000	1.000	27.34	0.000	0.000	Ug5_2_8_L_0						
11 D	5.979	-1.5173E-03	28.30	12.75	28.30	24.58	UL-RL	8.2735E+04	-2.0000	17.14	
1.000	1.000	29.89	0.000	0.000	Ug5_2_8_L_0						
12 D	6.468	-1.3818E-03	30.91	13.48	30.91	26.31	UL-RL	8.2735E+04	-2.2000	18.86	
1.000	1.000	32.34	0.000	0.000	Ug5_2_8_L_0						
13 D	6.942	-1.2506E-03	33.63	14.14	33.63	27.98	UL-RL	8.2735E+04	-2.4000	20.57	
1.000	1.000	34.71	0.000	0.000	Ug5_2_8_L_0						
14 D	7.386	-1.1252E-03	36.26	14.64	36.26	29.60	UL-RL	8.2735E+04	-2.6000	22.29	
1.000	1.000	36.93	0.000	0.000	Ug5_2_8_L_0						
15 D	7.800	-1.0068E-03	38.97	15.00	38.97	31.16	UL-RL	8.2735E+04	-2.8000	24.00	
1.000	1.000	39.00	0.000	0.000	Ug5_2_8_L_0						
16 D	8.170	-8.9651E-04	41.62	15.14	41.62	32.68	UL-RL	8.2735E+04	-3.0000	25.71	
1.000	1.000	40.85	0.000	0.000	Ug5_2_8_L_0						
17 D	8.501	-7.9537E-04	44.34	15.08	44.34	34.14	UL-RL	8.2735E+04	-3.2000	27.43	
1.000	1.000	42.51	0.000	0.000	Ug5_2_8_L_0						
18 D	8.798	-7.0311E-04	47.01	14.85	47.01	35.55	UL-RL	8.2735E+04	-3.4000	29.14	
1.000	1.000	43.99	0.000	0.000	Ug5_2_8_L_0						
19 D	9.078	-6.1932E-04	49.68	14.53	49.68	36.92	UL-RL	8.2735E+04	-3.6000	30.86	
1.000	1.000	45.39	0.000	0.000	Ug5_2_8_L_0						
20 D	9.353	-5.4370E-04	52.41	14.20	52.41	38.25	UL-RL	8.2735E+04	-3.8000	32.57	
1.000	1.000	46.77	0.000	0.000	Ug5_2_8_L_0						
21 D	9.626	-4.7598E-04	55.10	13.85	55.10	39.53	UL-RL	8.2735E+04	-4.0000	34.29	
1.000	1.000	48.13	0.000	0.000	Ug5_2_8_L_0						
22 D	10.08	-4.1585E-04	57.84	14.40	57.84	40.78	ACTIVE	0.000	-4.2000	36.00	
1.000	1.000	50.40	0.000	0.000	Ug5_2_8_L_0						
23 D	10.56	-3.6300E-04	60.52	15.07	60.52	42.00	ACTIVE	0.000	-4.4000	37.71	
1.000	1.000	52.78	0.000	0.000	Ug5_2_8_L_0						
24 D	11.04	-3.1706E-04	63.26	15.75	63.26	43.18	ACTIVE	0.000	-4.6000	39.43	
1.000	1.000	55.18	0.000	0.000	Ug5_2_8_L_0						
25 D	11.51	-2.7763E-04	65.95	16.42	65.95	44.33	ACTIVE	0.000	-4.8000	41.14	
1.000	1.000	57.56	0.000	0.000	Ug5_2_8_L_0						
26 D	12.10	-2.4426E-04	68.64	17.63	68.64	45.46	UL-RL	8.2735E+04	-5.0000	42.86	
1.000	1.000	60.49	0.000	0.000	Ug5_2_8_L_0						
27 D	13.43	-2.1647E-04	71.15	22.60	71.15	46.56	UL-RL	8.2735E+04	-5.2000	44.57	
1.000	1.000	67.17	0.000	0.000	Ug5_2_8_L_0						
28 D	14.63	-1.9374E-04	73.66	26.87	73.66	47.64	UL-RL	8.2735E+04	-5.4000	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	73.15	0.000	0.000	Ug5_2_8_L_0					
29 D	15.70	-1.7551E-04	76.19	30.51	76.19	48.70	UL-RL	8.2735E+04	-5.600	48.00
1.000	1.000	78.51	0.000	0.000	Ug5_2_8_L_0					
30 D	16.66	-1.6124E-04	78.71	33.61	78.71	49.74	UL-RL	8.2735E+04	-5.800	49.71
1.000	1.000	83.32	0.000	0.000	Ug5_2_8_L_0					
31 D	17.53	-1.5038E-04	81.24	36.22	81.24	50.76	UL-RL	8.2735E+04	-6.000	51.43
1.000	1.000	87.65	0.000	0.000	Ug5_2_8_L_0					
32 D	18.31	-1.4242E-04	83.76	38.43	83.76	51.77	UL-RL	8.2735E+04	-6.200	53.14
1.000	1.000	91.57	0.000	0.000	Ug5_2_8_L_0					
33 D	19.03	-1.3687E-04	86.29	40.30	86.29	52.76	UL-RL	8.2735E+04	-6.400	54.86
1.000	1.000	95.15	0.000	0.000	Ug5_2_8_L_0					
34 D	19.69	-1.3327E-04	89.06	41.88	89.06	53.74	UL-RL	8.2735E+04	-6.600	56.57
1.000	1.000	98.45	0.000	0.000	Ug5_2_8_L_0					
35 D	20.31	-1.3122E-04	91.72	43.24	91.72	54.71	UL-RL	8.2735E+04	-6.800	58.29
1.000	1.000	101.5	0.000	0.000	Ug5_2_8_L_0					
36 D	20.88	-1.3036E-04	94.95	44.42	94.95	55.67	UL-RL	8.2735E+04	-7.000	60.00
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
37 D	21.44	-1.3039E-04	97.58	45.47	97.58	56.61	UL-RL	8.2735E+04	-7.200	61.71
1.000	1.000	107.2	0.000	0.000	Ug5_2_8_L_0					
38 D	21.97	-1.3102E-04	100.7	46.42	100.7	57.55	UL-RL	8.2735E+04	-7.400	63.43
1.000	1.000	109.9	0.000	0.000	Ug5_2_8_L_0					
39 D	22.49	-1.3205E-04	103.3	47.31	103.3	58.49	UL-RL	8.2735E+04	-7.600	65.14
1.000	1.000	112.5	0.000	0.000	Ug5_2_8_L_0					
40 D	23.00	-1.3327E-04	106.4	48.16	106.4	59.41	UL-RL	8.2735E+04	-7.800	66.86
1.000	1.000	115.0	0.000	0.000	Ug5_2_8_L_0					
41 D	23.51	-1.3455E-04	109.5	48.98	109.5	60.33	UL-RL	8.2735E+04	-8.000	68.57
1.000	1.000	117.6	0.000	0.000	Ug5_2_8_L_0					
42 D	24.02	-1.3577E-04	112.1	49.81	112.1	61.24	UL-RL	8.2735E+04	-8.200	70.29
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
43 D	24.53	-1.3683E-04	115.1	50.65	115.1	62.15	UL-RL	8.2735E+04	-8.400	72.00
1.000	1.000	122.6	0.000	0.000	Ug5_2_8_L_0					
44 D	25.04	-1.3769E-04	117.6	51.50	117.6	63.06	UL-RL	8.2735E+04	-8.600	73.71
1.000	1.000	125.2	0.000	0.000	Ug5_2_8_L_0					
45 D	25.56	-1.3830E-04	120.6	52.38	120.6	63.96	UL-RL	8.2735E+04	-8.800	75.43
1.000	1.000	127.8	0.000	0.000	Ug5_2_8_L_0					
46 D	26.09	-1.3863E-04	123.1	53.29	123.1	64.86	UL-RL	8.2735E+04	-9.000	77.14
1.000	1.000	130.4	0.000	0.000	Ug5_2_8_L_0					
47 D	26.62	-1.3868E-04	126.1	54.24	126.1	65.75	UL-RL	8.2735E+04	-9.200	78.86
1.000	1.000	133.1	0.000	0.000	Ug5_2_8_L_0					
48 D	27.16	-1.3846E-04	128.5	55.22	128.5	66.64	UL-RL	8.2735E+04	-9.400	80.57
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
49 D	27.70	-1.3797E-04	131.5	56.22	131.5	67.53	UL-RL	8.2735E+04	-9.600	82.29
1.000	1.000	138.5	0.000	0.000	Ug5_2_8_L_0					
50 D	28.25	-1.3723E-04	133.9	57.26	133.9	68.42	UL-RL	8.2735E+04	-9.800	84.00
1.000	1.000	141.3	0.000	0.000	Ug5_2_8_L_0					
51 D	28.81	-1.3626E-04	136.8	58.33	136.8	69.31	UL-RL	8.2735E+04	-10.000	85.71
1.000	1.000	144.0	0.000	0.000	Ug5_2_8_L_0					
52 D	29.37	-1.3511E-04	139.3	59.42	139.3	70.19	UL-RL	8.2735E+04	-10.200	87.43
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
53 D	29.93	-1.3378E-04	142.1	60.53	142.1	71.08	UL-RL	8.2735E+04	-10.400	89.14
1.000	1.000	149.7	0.000	0.000	Ug5_2_8_L_0					
54 D	30.50	-1.3232E-04	145.0	61.66	145.0	71.96	UL-RL	8.2735E+04	-10.600	90.86
1.000	1.000	152.5	0.000	0.000	Ug5_2_8_L_0					
55 D	31.07	-1.3074E-04	147.4	62.80	147.4	72.85	UL-RL	8.2735E+04	-10.800	92.57
1.000	1.000	155.4	0.000	0.000	Ug5_2_8_L_0					
56 D	31.65	-1.2908E-04	150.2	63.95	150.2	73.73	UL-RL	8.2735E+04	-11.000	94.29
1.000	1.000	158.2	0.000	0.000	Ug5_2_8_L_0					
57 D	32.22	-1.2736E-04	152.7	65.11	152.7	74.61	UL-RL	8.2735E+04	-11.200	96.00
1.000	1.000	161.1	0.000	0.000	Ug5_2_8_L_0					
58 D	32.80	-1.2560E-04	155.4	66.28	155.4	75.50	UL-RL	8.2735E+04	-11.400	97.71
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					
59 D	33.38	-1.2381E-04	157.9	67.45	157.9	76.38	UL-RL	8.2735E+04	-11.600	99.43
1.000	1.000	166.9	0.000	0.000	Ug5_2_8_L_0					
60 D	33.95	-1.2201E-04	160.6	68.62	160.6	77.26	UL-RL	8.2735E+04	-11.800	101.1
1.000	1.000	169.8	0.000	0.000	Ug5_2_8_L_0					
61 D	17.27	-1.2021E-04	163.1	69.80	163.1	78.15	UL-RL	8.2735E+04	-12.000	102.9
1.000	1.000	172.7	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:23:40                                          |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	8.9651E-04	0.000	0.000	30.00	49.92	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.407	7.9537E-04	1.714	9.752	32.00	49.04	UL-RL	4.1133E+04	-3.200	2.286	
1.000	1.000	12.04	0.000	0.000	Ug5_2_8_L_0						
18 D	5.266	7.0311E-04	3.429	21.76	34.00	48.26	UL-RL	4.1133E+04	-3.400	4.571	
1.000	1.000	26.33	0.000	0.000	Ug5_2_8_L_0						
19 D	8.134	6.1932E-04	5.143	33.81	36.00	47.59	UL-RL	4.1133E+04	-3.600	6.857	
1.000	1.000	40.67	0.000	0.000	Ug5_2_8_L_0						
20 D	10.29	5.4370E-04	6.857	42.32	38.00	47.04	UL-RL	4.1133E+04	-3.800	9.143	
1.000	1.000	51.46	0.000	0.000	Ug5_2_8_L_0						
21 D	10.80	4.7598E-04	8.571	42.59	40.00	46.62	UL-RL	4.1133E+04	-4.000	11.43	
1.000	1.000	54.02	0.000	0.000	Ug5_2_8_L_0						
22 D	11.33	4.1585E-04	10.29	42.92	42.00	46.32	UL-RL	4.1133E+04	-4.200	13.71	
1.000	1.000	56.64	0.000	0.000	Ug5_2_8_L_0						
23 D	11.87	3.6300E-04	12.00	43.33	44.00	46.16	UL-RL	4.1133E+04	-4.400	16.00	
1.000	1.000	59.33	0.000	0.000	Ug5_2_8_L_0						
24 D	12.42	3.1706E-04	13.71	43.82	46.00	46.12	UL-RL	4.1133E+04	-4.600	18.29	
1.000	1.000	62.10	0.000	0.000	Ug5_2_8_L_0						
25 D	12.99	2.7763E-04	15.43	44.37	48.00	46.21	UL-RL	4.1133E+04	-4.800	20.57	
1.000	1.000	64.94	0.000	0.000	Ug5_2_8_L_0						
26 D	13.57	2.4426E-04	17.14	44.98	50.00	46.43	UL-RL	4.1133E+04	-5.000	22.86	
1.000	1.000	67.84	0.000	0.000	Ug5_2_8_L_0						
27 D	14.16	2.1647E-04	18.86	45.66	52.00	46.75	UL-RL	4.1133E+04	-5.200	25.14	
1.000	1.000	70.80	0.000	0.000	Ug5_2_8_L_0						
28 D	14.76	1.9374E-04	20.57	46.38	54.00	47.17	UL-RL	4.1133E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	73.81	0.000	0.000	Ug5_2_8_L_0					
29 D	15.37	1.7551E-04	22.29	47.15	56.00	47.69	UL-RL	4.1133E+04	-5.600	29.71
1.000	1.000	76.87	0.000	0.000	Ug5_2_8_L_0					
30 D	15.92	1.6124E-04	24.00	47.58	58.00	48.48	UL-RL	4.1133E+04	-5.800	32.00
1.000	1.000	79.58	0.000	0.000	Ug5_2_8_L_0					
31 D	16.42	1.5038E-04	25.71	47.81	60.00	49.46	UL-RL	4.1133E+04	-6.000	34.29
1.000	1.000	82.09	0.000	0.000	Ug5_2_8_L_0					
32 D	16.96	1.4242E-04	27.43	48.20	62.00	50.42	UL-RL	4.1133E+04	-6.200	36.57
1.000	1.000	84.78	0.000	0.000	Ug5_2_8_L_0					
33 D	17.52	1.3687E-04	29.14	48.74	64.00	51.37	UL-RL	4.1133E+04	-6.400	38.86
1.000	1.000	87.60	0.000	0.000	Ug5_2_8_L_0					
34 D	18.11	1.3327E-04	30.86	49.40	66.00	52.31	UL-RL	4.1133E+04	-6.600	41.14
1.000	1.000	90.54	0.000	0.000	Ug5_2_8_L_0					
35 D	18.71	1.3122E-04	32.57	50.14	68.00	53.23	UL-RL	4.1133E+04	-6.800	43.43
1.000	1.000	93.57	0.000	0.000	Ug5_2_8_L_0					
36 D	19.33	1.3036E-04	34.29	50.96	70.00	54.14	UL-RL	4.1133E+04	-7.000	45.71
1.000	1.000	96.67	0.000	0.000	Ug5_2_8_L_0					
37 D	19.96	1.3039E-04	36.00	51.82	72.00	55.05	UL-RL	4.1133E+04	-7.200	48.00
1.000	1.000	99.82	0.000	0.000	Ug5_2_8_L_0					
38 D	20.60	1.3102E-04	37.71	52.72	74.00	55.95	UL-RL	4.1133E+04	-7.400	50.29
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
39 D	21.24	1.3205E-04	39.43	53.64	76.00	56.83	UL-RL	4.1133E+04	-7.600	52.57
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
40 D	21.88	1.3327E-04	41.14	54.56	78.00	57.72	UL-RL	4.1133E+04	-7.800	54.86
1.000	1.000	109.4	0.000	0.000	Ug5_2_8_L_0					
41 D	22.53	1.3455E-04	42.86	55.48	80.00	58.59	UL-RL	4.1133E+04	-8.000	57.14
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
42 D	23.17	1.3577E-04	44.57	56.40	82.00	59.46	UL-RL	4.1133E+04	-8.200	59.43
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
43 D	23.80	1.3683E-04	46.29	57.30	84.00	60.33	UL-RL	4.1133E+04	-8.400	61.71
1.000	1.000	119.0	0.000	0.000	Ug5_2_8_L_0					
44 D	24.44	1.3769E-04	48.00	58.18	86.00	61.19	UL-RL	4.1133E+04	-8.600	64.00
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
45 D	25.07	1.3830E-04	49.71	59.05	88.00	62.05	UL-RL	4.1133E+04	-8.800	66.29
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
46 D	25.69	1.3863E-04	51.43	59.89	90.00	62.90	UL-RL	4.1133E+04	-9.000	68.57
1.000	1.000	128.5	0.000	0.000	Ug5_2_8_L_0					
47 D	26.31	1.3868E-04	53.14	60.71	92.00	63.75	UL-RL	4.1133E+04	-9.200	70.86
1.000	1.000	131.6	0.000	0.000	Ug5_2_8_L_0					
48 D	26.93	1.3846E-04	54.86	61.51	94.00	64.60	UL-RL	4.1133E+04	-9.400	73.14
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
49 D	27.54	1.3797E-04	56.57	62.29	96.00	65.45	UL-RL	4.1133E+04	-9.600	75.43
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
50 D	28.15	1.3723E-04	58.29	63.05	98.00	66.29	UL-RL	4.1133E+04	-9.800	77.71
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
51 D	28.76	1.3626E-04	60.00	63.79	100.00	67.13	UL-RL	4.1133E+04	-10.000	80.00
1.000	1.000	143.8	0.000	0.000	Ug5_2_8_L_0					
52 D	29.36	1.3511E-04	61.71	64.53	102.0	67.98	UL-RL	4.1133E+04	-10.200	82.29
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
53 D	29.96	1.3378E-04	63.43	65.24	104.0	68.82	UL-RL	4.1133E+04	-10.400	84.57
1.000	1.000	149.8	0.000	0.000	Ug5_2_8_L_0					
54 D	30.56	1.3232E-04	65.14	65.95	106.0	69.66	UL-RL	4.1133E+04	-10.600	86.86
1.000	1.000	152.8	0.000	0.000	Ug5_2_8_L_0					
55 D	31.16	1.3074E-04	66.86	66.65	108.0	70.50	UL-RL	4.1133E+04	-10.800	89.14
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
56 D	31.75	1.2908E-04	68.57	67.34	110.0	71.34	UL-RL	4.1133E+04	-11.000	91.43
1.000	1.000	158.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.35	1.2736E-04	70.29	68.03	112.0	72.18	UL-RL	4.1133E+04	-11.200	93.71
1.000	1.000	161.7	0.000	0.000	Ug5_2_8_L_0					
58 D	32.94	1.2560E-04	72.00	68.71	114.0	73.02	UL-RL	4.1133E+04	-11.400	96.00
1.000	1.000	164.7	0.000	0.000	Ug5_2_8_L_0					
59 D	33.54	1.2381E-04	73.71	69.40	116.0	73.86	UL-RL	4.1133E+04	-11.600	98.29
1.000	1.000	167.7	0.000	0.000	Ug5_2_8_L_0					
60 D	34.13	1.2201E-04	75.43	70.08	118.0	74.70	UL-RL	4.1133E+04	-11.800	100.6
1.000	1.000	170.6	0.000	0.000	Ug5_2_8_L_0					
61 D	17.36	1.2021E-04	77.14	70.76	120.0	75.54	UL-RL	4.1133E+04	-12.000	102.9
1.000	1.000	173.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63 |
|          Exe Time :24 May 2018   18:23:40 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	6.88409E-11	-6.88409E-11	6.94411E-12	2.86746E-11
2	1.0623	-1.0623	-3.16884E-11	0.21246
3	2.6777	-2.6777	-0.21246	0.74799
4	4.8534	-4.8534	-0.74799	1.7187
5	7.6038	-7.6038	-1.7187	3.2394
6	10.927	-10.927	-3.2394	5.4248
7	14.799	-14.799	-5.4248	8.3846
8	19.210	-19.210	-8.3846	12.227
9	24.159	-24.159	-12.227	17.059
10	29.626	-29.626	-17.059	22.984
11	35.605	-35.605	-22.984	30.105
12	42.073	-42.073	-30.105	38.519
13	49.015	-49.015	-38.519	48.323
14	36.401	-36.401	-48.323	55.603
15	44.200	-44.200	-55.603	64.443
16	-19.629	19.629	-64.443	60.517
17	-13.535	13.535	-60.517	57.810
18	-10.004	10.004	-57.810	55.809
19	-9.0597	9.0597	-55.809	53.997
20	-9.9990	9.9990	-53.997	51.997
21	-11.176	11.176	-51.997	49.762
22	-12.423	12.423	-49.762	47.278
23	-13.733	13.733	-47.278	44.531
24	-15.117	15.117	-44.531	41.508
25	-16.592	16.592	-41.508	38.189
26	-18.063	18.063	-38.189	34.577
27	-18.790	18.790	-34.577	30.819
28	-18.921	18.921	-30.819	27.035
29	-18.592	18.592	-27.035	23.316
30	-17.844	17.844	-23.316	19.747
31	-16.733	16.733	-19.747	16.401
32	-15.373	15.373	-16.401	13.326
33	-13.863	13.863	-13.326	10.554
34	-12.280	12.280	-10.554	8.0978
35	-10.689	10.689	-8.0978	5.9599
36	-9.1390	9.1390	-5.9599	4.1321
37	-7.6662	7.6662	-4.1321	2.5989
38	-6.2969	6.2969	-2.5989	1.3395
39	-5.0480	5.0480	-1.3395	0.32992
40	-3.9289	3.9289	-0.32992	-0.45586
41	-2.9433	2.9433	0.45586	-1.0445
42	-2.0898	2.0898	1.0445	-1.4625
43	-1.3635	1.3635	1.4625	-1.7352
44	-0.75710	0.75710	1.7352	-1.8866
45	-0.26123	0.26123	1.8866	-1.9388
46	0.13432	-0.13432	1.9388	-1.9120
47	0.44030	-0.44030	1.9120	-1.8239
48	0.66739	-0.66739	1.8239	-1.6904
49	0.82592	-0.82592	1.6904	-1.5253
50	0.92553	-0.92553	1.5253	-1.3402
51	0.97498	-0.97498	1.3402	-1.1452
52	0.98205	-0.98205	1.1452	-0.94876
53	0.95342	-0.95342	0.94876	-0.75807
54	0.89468	-0.89468	0.75807	-0.57914
55	0.81033	-0.81033	0.57914	-0.41707
56	0.70386	-0.70386	0.41707	-0.27630
57	0.57782	-0.57782	0.27630	-0.16074
58	0.43395	-0.43395	0.16074	-7.39478E-02
59	0.27330	-0.27330	7.39478E-02	-1.92875E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 9.64326E-02-9.64326E-02 1.92875E-02 2.91064E-13

ITER 0 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7158E+05 RIMNOR=0.8638E+05
RENORM=0.2150E+05 REMNOR=0.2992E-21 RATIO =0.5480 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 105.0 RMMAX = 64.44
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7158E+05 RDR =0.8638E+05
RATIOT=0.5480 RATIO= 0.000
MAX UN= 71.83 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-102.8 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7158E+05 RIMNOR=0.8638E+05
RENORM=0.1729E-18 REMNOR=0.5039E-21 RATIO =0.1554E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 105.0 RMMAX = 64.44
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7158E+05 RDR =0.8638E+05
RATIOT=0.1554E-11 RATIO= 0.000
MAX UN=0.2275E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
MIN UN=-.1457E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|                                     |
|      PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017* |
|                                     |
|                                     |
|                                     |
|               NewProject.BaseDesignSection_28.Nominal_63 |
|               Exe Time :24 May 2018      18:23:40 |
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New Project
SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	3.0099167E-03	-7.7671053E-04
2	2.8545746E-03	-7.7671053E-04
3	2.6992352E-03	-7.7666944E-04
4	2.5439182E-03	-7.7645723E-04
5	2.3886788E-03	-7.7584756E-04
6	2.2336273E-03	-7.7451616E-04
7	2.0789487E-03	-7.7203983E-04
8	1.9249224E-03	-7.6789812E-04
9	1.7719415E-03	-7.6147555E-04
10	1.6205316E-03	-7.5206211E-04
11	1.4713696E-03	-7.3885437E-04
12	1.3253025E-03	-7.2095695E-04
13	1.1833652E-03	-6.9738407E-04
14	1.0467988E-03	-6.6706181E-04
15	9.1706773E-04	-6.2883085E-04
16	7.9587643E-04	-5.8145049E-04
17	6.8518474E-04	-5.2360377E-04
18	5.8671240E-04	-4.6158640E-04
19	5.0041247E-04	-4.0163473E-04
20	4.2602025E-04	-3.4225695E-04
21	3.6357384E-04	-2.8192144E-04
22	3.1302766E-04	-2.2495109E-04
23	2.7307358E-04	-1.7577812E-04
24	2.4227372E-04	-1.3324550E-04
25	2.1938613E-04	-9.6551689E-05
26	2.0329671E-04	-6.5202974E-05
27	1.9297106E-04	-3.8863089E-05
28	1.8743987E-04	-1.7198096E-05
29	1.8580520E-04	1.6743745E-07
30	1.8724680E-04	1.3632305E-05
31	1.9102553E-04	2.3608363E-05
32	1.9648558E-04	3.0516478E-05
33	2.0305563E-04	3.4777660E-05
34	2.1024747E-04	3.6801119E-05
35	2.1765280E-04	3.6975326E-05
36	2.2493839E-04	3.5661377E-05
37	2.3184005E-04	3.3188542E-05
38	2.3815616E-04	2.9851584E-05
39	2.4374036E-04	2.5909715E-05
40	2.4849463E-04	2.1586665E-05
41	2.5236224E-04	1.7071771E-05
42	2.5532100E-04	1.2521793E-05
43	2.5737705E-04	8.0632451E-06
44	2.5855899E-04	3.7950916E-06
45	2.5891273E-04	-2.0835496E-07
46	2.5849680E-04	-3.8945516E-06
47	2.5737832E-04	-7.2296754E-06
48	2.5562952E-04	-1.0195883E-05
49	2.5332486E-04	-1.2788634E-05
50	2.5053856E-04	-1.5014238E-05
51	2.4734266E-04	-1.6887695E-05
52	2.4380542E-04	-1.8430712E-05
53	2.3999073E-04	-1.9669862E-05
54	2.3595589E-04	-2.0635613E-05
55	2.3175254E-04	-2.1360610E-05
56	2.2742542E-04	-2.1879036E-05
57	2.2301237E-04	-2.2225810E-05
58	2.1854420E-04	-2.2436042E-05
59	2.1404473E-04	-2.2544650E-05
60	2.0953082E-04	-2.2586118E-05
61	2.0501227E-04	-2.2594344E-05

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0099E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5617	-2.8546E-03	2.514	1.209	2.514	4.391	UL-RL	6.2051E+04	-0.2000	1.600	
1.000	1.000	2.809	0.000	0.000	Ug5_2_8_L_0						
3 D	1.216	-2.6992E-03	5.401	2.881	5.401	7.857	UL-RL	6.2051E+04	-0.4000	3.200	
1.000	1.000	6.081	0.000	0.000	Ug5_2_8_L_0						
4 D	1.878	-2.5439E-03	8.442	4.591	8.442	10.57	UL-RL	6.2051E+04	-0.6000	4.800	
1.000	1.000	9.391	0.000	0.000	Ug5_2_8_L_0						
5 D	2.555	-2.3887E-03	11.79	6.375	11.79	12.90	UL-RL	6.2051E+04	-0.8000	6.400	
1.000	1.000	12.78	0.000	0.000	Ug5_2_8_L_0						
6 D	3.231	-2.2336E-03	15.14	8.155	15.14	15.05	UL-RL	6.2051E+04	-1.0000	8.000	
1.000	1.000	16.16	0.000	0.000	Ug5_2_8_L_0						
7 D	3.884	-2.0789E-03	18.06	9.822	18.06	17.09	UL-RL	6.2051E+04	-1.2000	9.600	
1.000	1.000	19.42	0.000	0.000	Ug5_2_8_L_0						
8 D	4.530	-1.9249E-03	20.90	11.45	20.90	19.05	UL-RL	6.2051E+04	-1.4000	11.20	
1.000	1.000	22.65	0.000	0.000	Ug5_2_8_L_0						
9 D	5.177	-1.7719E-03	23.83	13.08	23.83	20.96	UL-RL	6.2051E+04	-1.6000	12.80	
1.000	1.000	25.88	0.000	0.000	Ug5_2_8_L_0						
10 D	5.808	-1.6205E-03	26.58	14.64	26.58	22.80	UL-RL	6.2051E+04	-1.8000	14.40	
1.000	1.000	29.04	0.000	0.000	Ug5_2_8_L_0						
11 D	6.434	-1.4714E-03	29.44	16.17	29.44	24.58	UL-RL	6.2051E+04	-2.0000	16.00	
1.000	1.000	32.17	0.000	0.000	Ug5_2_8_L_0						
12 D	7.043	-1.3253E-03	32.17	17.61	32.17	26.31	UL-RL	6.2051E+04	-2.2000	17.60	
1.000	1.000	35.21	0.000	0.000	Ug5_2_8_L_0						
13 D	7.640	-1.1834E-03	35.00	19.00	35.00	27.98	UL-RL	6.2051E+04	-2.4000	19.20	
1.000	1.000	38.20	0.000	0.000	Ug5_2_8_L_0						
14 D	8.210	-1.0468E-03	37.74	20.25	37.74	29.60	UL-RL	6.2051E+04	-2.6000	20.80	
1.000	1.000	41.05	0.000	0.000	Ug5_2_8_L_0						
15 D	8.753	-9.1707E-04	40.57	21.36	40.57	31.16	UL-RL	6.2051E+04	-2.8000	22.40	
1.000	1.000	43.76	0.000	0.000	Ug5_2_8_L_0						
16 D	9.248	-7.9588E-04	43.33	22.24	43.33	32.68	UL-RL	6.2051E+04	-3.0000	24.00	
1.000	1.000	46.24	0.000	0.000	Ug5_2_8_L_0						
17 D	9.686	-6.8518E-04	46.17	22.83	46.17	34.14	UL-RL	6.2051E+04	-3.2000	25.60	
1.000	1.000	48.43	0.000	0.000	Ug5_2_8_L_0						
18 D	10.05	-5.8671E-04	48.95	23.04	48.95	35.55	UL-RL	6.2051E+04	-3.4000	27.20	
1.000	1.000	50.24	0.000	0.000	Ug5_2_8_L_0						
19 D	10.35	-5.0041E-04	51.73	22.94	51.73	36.92	UL-RL	6.2051E+04	-3.6000	28.80	
1.000	1.000	51.74	0.000	0.000	Ug5_2_8_L_0						
20 D	10.60	-4.2602E-04	54.59	22.58	54.59	38.25	UL-RL	6.2051E+04	-3.8000	30.40	
1.000	1.000	52.98	0.000	0.000	Ug5_2_8_L_0						
21 D	10.79	-3.6357E-04	57.38	21.96	57.38	39.53	UL-RL	6.2051E+04	-4.0000	32.00	
1.000	1.000	53.96	0.000	0.000	Ug5_2_8_L_0						
22 D	11.12	-3.1303E-04	60.24	21.98	60.24	40.78	UL-RL	6.2051E+04	-4.2000	33.60	
1.000	1.000	55.58	0.000	0.000	Ug5_2_8_L_0						
23 D	11.42	-2.7307E-04	63.04	21.91	63.04	42.00	UL-RL	6.2051E+04	-4.4000	35.20	
1.000	1.000	57.11	0.000	0.000	Ug5_2_8_L_0						
24 D	11.70	-2.4227E-04	65.89	21.71	65.89	43.18	UL-RL	6.2051E+04	-4.6000	36.80	
1.000	1.000	58.51	0.000	0.000	Ug5_2_8_L_0						
25 D	11.96	-2.1939E-04	68.69	21.41	68.69	44.33	UL-RL	6.2051E+04	-4.8000	38.40	
1.000	1.000	59.81	0.000	0.000	Ug5_2_8_L_0						
26 D	12.32	-2.0330E-04	71.49	21.60	71.49	45.46	UL-RL	6.2051E+04	-5.0000	40.00	
1.000	1.000	61.60	0.000	0.000	Ug5_2_8_L_0						
27 D	13.43	-1.9297E-04	74.12	25.54	74.12	46.56	UL-RL	6.2051E+04	-5.2000	41.60	
1.000	1.000	67.14	0.000	0.000	Ug5_2_8_L_0						
28 D	14.40	-1.8744E-04	76.75	28.80	76.75	47.64	UL-RL	6.2051E+04	-5.4000	43.20	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.00	0.000	0.000	Ug5_2_8_L_0					
29 D	15.25	-1.8581E-04	79.39	31.47	79.39	48.70	UL-RL	6.2051E+04	-5.600	44.80
1.000	1.000	76.27	0.000	0.000	Ug5_2_8_L_0					
30 D	16.01	-1.8725E-04	82.03	33.65	82.03	49.74	UL-RL	6.2051E+04	-5.800	46.40
1.000	1.000	80.05	0.000	0.000	Ug5_2_8_L_0					
31 D	16.68	-1.9103E-04	84.67	35.41	84.67	50.76	UL-RL	6.2051E+04	-6.000	48.00
1.000	1.000	83.41	0.000	0.000	Ug5_2_8_L_0					
32 D	17.29	-1.9649E-04	87.31	36.85	87.31	51.77	UL-RL	6.2051E+04	-6.200	49.60
1.000	1.000	86.45	0.000	0.000	Ug5_2_8_L_0					
33 D	17.84	-2.0306E-04	89.95	38.02	89.95	52.76	UL-RL	6.2051E+04	-6.400	51.20
1.000	1.000	89.22	0.000	0.000	Ug5_2_8_L_0					
34 D	18.36	-2.1025E-04	92.83	38.99	92.83	53.74	UL-RL	6.2051E+04	-6.600	52.80
1.000	1.000	91.79	0.000	0.000	Ug5_2_8_L_0					
35 D	18.84	-2.1765E-04	95.61	39.82	95.61	54.71	UL-RL	6.2051E+04	-6.800	54.40
1.000	1.000	94.22	0.000	0.000	Ug5_2_8_L_0					
36 D	19.31	-2.2494E-04	98.95	40.55	98.95	55.67	UL-RL	6.2051E+04	-7.000	56.00
1.000	1.000	96.55	0.000	0.000	Ug5_2_8_L_0					
37 D	19.77	-2.3184E-04	101.7	41.23	101.7	56.61	UL-RL	6.2051E+04	-7.200	57.60
1.000	1.000	98.83	0.000	0.000	Ug5_2_8_L_0					
38 D	20.22	-2.3816E-04	105.0	41.89	105.0	57.55	UL-RL	6.2051E+04	-7.400	59.20
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
39 D	20.67	-2.4374E-04	107.7	42.55	107.7	58.49	UL-RL	6.2051E+04	-7.600	60.80
1.000	1.000	103.4	0.000	0.000	Ug5_2_8_L_0					
40 D	21.13	-2.4849E-04	110.9	43.24	110.9	59.41	UL-RL	6.2051E+04	-7.800	62.40
1.000	1.000	105.6	0.000	0.000	Ug5_2_8_L_0					
41 D	21.59	-2.5236E-04	114.1	43.96	114.1	60.33	UL-RL	6.2051E+04	-8.000	64.00
1.000	1.000	108.0	0.000	0.000	Ug5_2_8_L_0					
42 D	22.07	-2.5532E-04	116.8	44.73	116.8	61.24	UL-RL	6.2051E+04	-8.200	65.60
1.000	1.000	110.3	0.000	0.000	Ug5_2_8_L_0					
43 D	22.55	-2.5738E-04	119.9	45.57	119.9	62.15	UL-RL	6.2051E+04	-8.400	67.20
1.000	1.000	112.8	0.000	0.000	Ug5_2_8_L_0					
44 D	23.05	-2.5856E-04	122.5	46.46	122.5	63.06	UL-RL	6.2051E+04	-8.600	68.80
1.000	1.000	115.3	0.000	0.000	Ug5_2_8_L_0					
45 D	23.56	-2.5891E-04	125.6	47.41	125.6	63.96	UL-RL	6.2051E+04	-8.800	70.40
1.000	1.000	117.8	0.000	0.000	Ug5_2_8_L_0					
46 D	24.09	-2.5850E-04	128.3	48.43	128.3	64.86	UL-RL	6.2051E+04	-9.000	72.00
1.000	1.000	120.4	0.000	0.000	Ug5_2_8_L_0					
47 D	24.62	-2.5738E-04	131.3	49.50	131.3	65.75	UL-RL	6.2051E+04	-9.200	73.60
1.000	1.000	123.1	0.000	0.000	Ug5_2_8_L_0					
48 D	25.17	-2.5563E-04	133.9	50.63	133.9	66.64	UL-RL	6.2051E+04	-9.400	75.20
1.000	1.000	125.8	0.000	0.000	Ug5_2_8_L_0					
49 D	25.72	-2.5332E-04	136.9	51.81	136.9	67.53	UL-RL	6.2051E+04	-9.600	76.80
1.000	1.000	128.6	0.000	0.000	Ug5_2_8_L_0					
50 D	26.29	-2.5054E-04	139.5	53.03	139.5	68.42	UL-RL	6.2051E+04	-9.800	78.40
1.000	1.000	131.4	0.000	0.000	Ug5_2_8_L_0					
51 D	26.86	-2.4734E-04	142.5	54.29	142.5	69.31	UL-RL	6.2051E+04	-10.000	80.00
1.000	1.000	134.3	0.000	0.000	Ug5_2_8_L_0					
52 D	27.44	-2.4381E-04	145.1	55.59	145.1	70.19	UL-RL	6.2051E+04	-10.200	81.60
1.000	1.000	137.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.02	-2.3999E-04	148.1	56.91	148.1	71.08	UL-RL	6.2051E+04	-10.400	83.20
1.000	1.000	140.1	0.000	0.000	Ug5_2_8_L_0					
54 D	28.61	-2.3596E-04	151.0	58.25	151.0	71.96	UL-RL	6.2051E+04	-10.600	84.80
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
55 D	29.20	-2.3175E-04	153.6	59.62	153.6	72.85	UL-RL	6.2051E+04	-10.800	86.40
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
56 D	29.80	-2.2743E-04	156.5	60.99	156.5	73.73	UL-RL	6.2051E+04	-11.000	88.00
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
57 D	30.40	-2.2301E-04	159.1	62.38	159.1	74.61	UL-RL	6.2051E+04	-11.200	89.60
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
58 D	30.99	-2.1854E-04	162.0	63.77	162.0	75.50	UL-RL	6.2051E+04	-11.400	91.20
1.000	1.000	155.0	0.000	0.000	Ug5_2_8_L_0					
59 D	31.59	-2.1404E-04	164.5	65.17	164.5	76.38	UL-RL	6.2051E+04	-11.600	92.80
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
60 D	32.19	-2.0953E-04	167.4	66.56	167.4	77.26	UL-RL	6.2051E+04	-11.800	94.40
1.000	1.000	161.0	0.000	0.000	Ug5_2_8_L_0					
61 D	16.40	-2.0501E-04	169.9	67.96	169.9	78.15	UL-RL	6.2051E+04	-12.000	96.00
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	3.6357E-04	0.000	0.000	40.00	46.62	ACTIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.002	3.1303E-04	1.600	7.609	42.00	46.32	UL-RL	3.0850E+04	-4.200	2.400	
1.000	1.000	10.01	0.000	0.000	Ug5_2_8_L_0						
23 D	4.717	2.7307E-04	3.200	18.79	44.00	46.16	UL-RL	3.0850E+04	-4.400	4.800	
1.000	1.000	23.59	0.000	0.000	Ug5_2_8_L_0						
24 D	7.447	2.4227E-04	4.800	30.04	46.00	46.12	UL-RL	3.0850E+04	-4.600	7.200	
1.000	1.000	37.24	0.000	0.000	Ug5_2_8_L_0						
25 D	9.466	2.1939E-04	6.400	37.73	48.00	46.21	UL-RL	3.0850E+04	-4.800	9.600	
1.000	1.000	47.33	0.000	0.000	Ug5_2_8_L_0						
26 D	10.22	2.0330E-04	8.000	39.08	50.00	46.43	UL-RL	3.0850E+04	-5.000	12.00	
1.000	1.000	51.08	0.000	0.000	Ug5_2_8_L_0						
27 D	10.97	1.9297E-04	9.600	40.45	52.00	46.75	UL-RL	3.0850E+04	-5.200	14.40	
1.000	1.000	54.85	0.000	0.000	Ug5_2_8_L_0						
28 D	11.72	1.8744E-04	11.20	41.82	54.00	47.17	UL-RL	3.0850E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	58.62	0.000	0.000	Ug5_2_8_L_0					
29 D	12.48	1.8581E-04	12.80	43.19	56.00	47.69	UL-RL	3.0850E+04	-5.600	19.20
1.000	1.000	62.39	0.000	0.000	Ug5_2_8_L_0					
30 D	13.16	1.8725E-04	14.40	44.18	58.00	48.48	UL-RL	3.0850E+04	-5.800	21.60
1.000	1.000	65.78	0.000	0.000	Ug5_2_8_L_0					
31 D	13.78	1.9103E-04	16.00	44.92	60.00	49.46	UL-RL	3.0850E+04	-6.000	24.00
1.000	1.000	68.92	0.000	0.000	Ug5_2_8_L_0					
32 D	14.43	1.9649E-04	17.60	45.77	62.00	50.42	UL-RL	3.0850E+04	-6.200	26.40
1.000	1.000	72.17	0.000	0.000	Ug5_2_8_L_0					
33 D	15.10	2.0306E-04	19.20	46.72	64.00	51.37	UL-RL	3.0850E+04	-6.400	28.80
1.000	1.000	75.52	0.000	0.000	Ug5_2_8_L_0					
34 D	15.79	2.1025E-04	20.80	47.73	66.00	52.31	UL-RL	3.0850E+04	-6.600	31.20
1.000	1.000	78.93	0.000	0.000	Ug5_2_8_L_0					
35 D	16.48	2.1765E-04	22.40	48.79	68.00	53.23	UL-RL	3.0850E+04	-6.800	33.60
1.000	1.000	82.39	0.000	0.000	Ug5_2_8_L_0					
36 D	17.17	2.2494E-04	24.00	49.87	70.00	54.14	UL-RL	3.0850E+04	-7.000	36.00
1.000	1.000	85.87	0.000	0.000	Ug5_2_8_L_0					
37 D	17.87	2.3184E-04	25.60	50.96	72.00	55.05	UL-RL	3.0850E+04	-7.200	38.40
1.000	1.000	89.36	0.000	0.000	Ug5_2_8_L_0					
38 D	18.57	2.3816E-04	27.20	52.04	74.00	55.95	UL-RL	3.0850E+04	-7.400	40.80
1.000	1.000	92.84	0.000	0.000	Ug5_2_8_L_0					
39 D	19.26	2.4374E-04	28.80	53.11	76.00	56.83	UL-RL	3.0850E+04	-7.600	43.20
1.000	1.000	96.30	0.000	0.000	Ug5_2_8_L_0					
40 D	19.95	2.4849E-04	30.40	54.14	78.00	57.72	UL-RL	3.0850E+04	-7.800	45.60
1.000	1.000	99.74	0.000	0.000	Ug5_2_8_L_0					
41 D	20.63	2.5236E-04	32.00	55.14	80.00	58.59	UL-RL	3.0850E+04	-8.000	48.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
42 D	21.30	2.5532E-04	33.60	56.10	82.00	59.46	UL-RL	3.0850E+04	-8.200	50.40
1.000	1.000	106.5	0.000	0.000	Ug5_2_8_L_0					
43 D	21.97	2.5738E-04	35.20	57.03	84.00	60.33	UL-RL	3.0850E+04	-8.400	52.80
1.000	1.000	109.8	0.000	0.000	Ug5_2_8_L_0					
44 D	22.62	2.5856E-04	36.80	57.91	86.00	61.19	UL-RL	3.0850E+04	-8.600	55.20
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
45 D	23.27	2.5891E-04	38.40	58.76	88.00	62.05	UL-RL	3.0850E+04	-8.800	57.60
1.000	1.000	116.4	0.000	0.000	Ug5_2_8_L_0					
46 D	23.91	2.5850E-04	40.00	59.57	90.00	62.90	UL-RL	3.0850E+04	-9.000	60.00
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
47 D	24.55	2.5738E-04	41.60	60.34	92.00	63.75	UL-RL	3.0850E+04	-9.200	62.40
1.000	1.000	122.7	0.000	0.000	Ug5_2_8_L_0					
48 D	25.18	2.5563E-04	43.20	61.08	94.00	64.60	UL-RL	3.0850E+04	-9.400	64.80
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
49 D	25.80	2.5332E-04	44.80	61.79	96.00	65.45	UL-RL	3.0850E+04	-9.600	67.20
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
50 D	26.41	2.5054E-04	46.40	62.47	98.00	66.29	UL-RL	3.0850E+04	-9.800	69.60
1.000	1.000	132.1	0.000	0.000	Ug5_2_8_L_0					
51 D	27.03	2.4734E-04	48.00	63.13	100.00	67.13	UL-RL	3.0850E+04	-10.000	72.00
1.000	1.000	135.1	0.000	0.000	Ug5_2_8_L_0					
52 D	27.63	2.4381E-04	49.60	63.77	102.0	67.98	UL-RL	3.0850E+04	-10.200	74.40
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.24	2.3999E-04	51.20	64.40	104.0	68.82	UL-RL	3.0850E+04	-10.400	76.80
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
54 D	28.84	2.3596E-04	52.80	65.00	106.0	69.66	UL-RL	3.0850E+04	-10.600	79.20
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
55 D	29.44	2.3175E-04	54.40	65.60	108.0	70.50	UL-RL	3.0850E+04	-10.800	81.60
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
56 D	30.04	2.2743E-04	56.00	66.19	110.0	71.34	UL-RL	3.0850E+04	-11.000	84.00
1.000	1.000	150.2	0.000	0.000	Ug5_2_8_L_0					
57 D	30.64	2.2301E-04	57.60	66.78	112.0	72.18	UL-RL	3.0850E+04	-11.200	86.40
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
58 D	31.23	2.1854E-04	59.20	67.36	114.0	73.02	UL-RL	3.0850E+04	-11.400	88.80
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					
59 D	31.83	2.1404E-04	60.80	67.94	116.0	73.86	UL-RL	3.0850E+04	-11.600	91.20
1.000	1.000	159.1	0.000	0.000	Ug5_2_8_L_0					
60 D	32.42	2.0953E-04	62.40	68.51	118.0	74.70	UL-RL	3.0850E+04	-11.800	93.60
1.000	1.000	162.1	0.000	0.000	Ug5_2_8_L_0					
61 D	16.51	2.0501E-04	64.00	69.09	120.0	75.54	UL-RL	3.0850E+04	-12.000	96.00
1.000	1.000	165.1	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63   |
|          Exe Time :24 May 2018   18:23:40             |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-7.48592E-11	7.48592E-11	-7.19569E-12	1.44922E-11
2	0.56171	-0.56171	-2.05898E-11	0.11234
3	1.7779	-1.7779	-0.11234	0.46792
4	3.6561	-3.6561	-0.46792	1.1991
5	6.2112	-6.2112	-1.1991	2.4414
6	9.4423	-9.4423	-2.4414	4.3298
7	13.327	-13.327	-4.3298	6.9952
8	17.857	-17.857	-6.9952	10.567
9	23.034	-23.034	-10.567	15.173
10	28.841	-28.841	-15.173	20.942
11	35.276	-35.276	-20.942	27.997
12	42.318	-42.318	-27.997	36.460
13	49.958	-49.958	-36.460	46.452
14	58.168	-58.168	-46.452	58.086
15	66.921	-66.921	-58.086	71.470
16	76.169	-76.169	-71.470	86.704
17	-19.145	19.145	-86.704	82.875
18	-9.0969	9.0969	-82.875	81.055
19	1.2507	-1.2507	-81.055	81.306
20	11.847	-11.847	-81.306	83.675
21	-57.860	57.860	-83.675	72.103
22	-48.745	48.745	-72.103	62.354
23	-42.041	42.041	-62.354	53.946
24	-37.787	37.787	-53.946	46.389
25	-35.291	35.291	-46.389	39.330
26	-33.188	33.188	-39.330	32.693
27	-30.729	30.729	-32.693	26.547
28	-28.053	28.053	-26.547	20.937
29	-25.277	25.277	-20.937	15.881
30	-22.422	22.422	-15.881	11.397
31	-19.522	19.522	-11.397	7.4925
32	-16.667	16.667	-7.4925	4.1591
33	-13.927	13.927	-4.1591	1.3737
34	-11.356	11.356	-1.3737	-0.89740
35	-8.9902	8.9902	0.89740	-2.6954
36	-6.8542	6.8542	2.6954	-4.0663
37	-4.9599	4.9599	4.0663	-5.0582
38	-3.3104	3.3104	5.0582	-5.7203
39	-1.9011	1.9011	5.7203	-6.1005
40	-0.72177	0.72177	6.1005	-6.2449
41	0.24209	-0.24209	6.2449	-6.1965
42	1.0079	-1.0079	6.1965	-5.9949
43	1.5951	-1.5951	5.9949	-5.6759
44	2.0237	-2.0237	5.6759	-5.2711
45	2.3140	-2.3140	5.2711	-4.8083
46	2.4858	-2.4858	4.8083	-4.3112
47	2.5580	-2.5580	4.3112	-3.7996
48	2.5479	-2.5479	3.7996	-3.2900
49	2.4715	-2.4715	3.2900	-2.7957
50	2.3431	-2.3431	2.7957	-2.3271
51	2.1751	-2.1751	2.3271	-1.8920
52	1.9780	-1.9780	1.8920	-1.4964
53	1.7608	-1.7608	1.4964	-1.1443
54	1.5307	-1.5307	1.1443	-0.83813
55	1.2935	-1.2935	0.83813	-0.57944
56	1.0533	-1.0533	0.57944	-0.36877
57	0.81345	-0.81345	0.36877	-0.20608
58	0.57592	-0.57592	0.20608	-9.08967E-02
59	0.34202	-0.34202	9.08967E-02	-2.24923E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.11246 -0.11246 2.24923E-02-1.21529E-12

ITER 0 RNORM =0.3480E+05 RMNORM= 0.000
RINORM=0.1084E+06 RIMNOR=0.1338E+06
RENORM=0.2283E+05 REMNOR=0.5039E-21 RATIO =0.4589 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 181.0 RMMAX = 86.70
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.1084E+06 RDR =0.1338E+06
RATIOT=0.4589 RATIO= 0.000
MAX UN= 104.8 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
MIN UN=-100.8 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM =0.3480E+05 RMNORM= 0.000
RINORM=0.1084E+06 RIMNOR=0.1338E+06
RENORM= 2.051 REMNOR=0.6779E-21 RATIO =0.4350E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 181.0 RMMAX = 86.70
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.1084E+06 RDR =0.1338E+06
RATIOT=0.4350E-02 RATIO= 0.000
MAX UN=0.8830 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
MIN UN=-.5486E-10 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM =0.3480E+05 RMNORM= 0.000
RINORM=0.1084E+06 RIMNOR=0.1338E+06
RENORM=0.7207 REMNOR=0.6709E-21 RATIO =0.2578E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 181.0 RMMAX = 86.70
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.1084E+06 RDR =0.1338E+06
RATIOT=0.2578E-02 RATIO= 0.000
MAX UN=0.6925 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
MIN UN=-.8230E-10 IEQ= 27 NODE 14 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM =0.3480E+05 RMNORM= 0.000
RINORM=0.1084E+06 RIMNOR=0.1338E+06
RENORM=0.5262E-01 REMNOR=0.1870E-21 RATIO =0.6966E-03 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 181.0 RMMAX = 86.70
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.1084E+06 RDR =0.1338E+06
RATIOT=0.6966E-03 RATIO= 0.000
MAX UN=0.2294 IEQ= 23 NODE 12 DOF 1 Y-DISPL.F
MIN UN=-.9592E-10 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM =0.3480E+05 RMNORM= 0.000
RINORM=0.1084E+06 RIMNOR=0.1338E+06
RENORM=0.5658E-05 REMNOR=0.9989E-21 RATIO =0.7224E-05 TOLER =0.1000E-03 CONVERGED !
RFMAX = 181.0 RMMAX = 86.70
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.1084E+06 RDR =0.1338E+06
RATIOT=0.7224E-05 RATIO= 0.000
MAX UN=0.2379E-02 IEQ= 25 NODE 13 DOF 1 Y-DISPL.F
MIN UN=-.2696E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                           |
|                                                                           |
|           NewProject.BaseDesignSection_28.Nominal_63      |
|           Exe Time :24 May 2018           18:23:40        |
+-----+

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New Project

SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.3467070E-03	-8.2285776E-04	
2	3.1821355E-03	-8.2285776E-04	
3	3.0175660E-03	-8.2282658E-04	
4	2.8530132E-03	-8.2266934E-04	
5	2.6885173E-03	-8.2222554E-04	
6	2.5241573E-03	-8.2126734E-04	
7	2.3600645E-03	-8.1949854E-04	
8	2.1964361E-03	-8.1655600E-04	
9	2.0335488E-03	-8.1201158E-04	
10	1.8717712E-03	-8.0537207E-04	
11	1.7115769E-03	-7.9607950E-04	
12	1.5535577E-03	-7.8351148E-04	
13	1.3984364E-03	-7.6698122E-04	
14	1.2470795E-03	-7.4573780E-04	
15	1.1005112E-03	-7.1894663E-04	
16	9.5993314E-04	-6.8567058E-04	
17	8.2674379E-04	-6.4487194E-04	
18	7.0256079E-04	-5.9541683E-04	
19	5.8923590E-04	-5.3607907E-04	
20	4.8887539E-04	-4.6554783E-04	
21	4.0385589E-04	-3.8243595E-04	
22	3.3595453E-04	-2.9852789E-04	
23	2.8371645E-04	-2.2554416E-04	
24	2.4511420E-04	-1.6190039E-04	
25	2.1844295E-04	-1.0595667E-04	
26	2.0233060E-04	-5.6027015E-05	
27	1.9552629E-04	-1.3685579E-05	
28	1.9624045E-04	1.9416537E-05	
29	2.0277264E-04	4.4714616E-05	
30	2.1368557E-04	6.3401779E-05	
31	2.2775477E-04	7.6410321E-05	
32	2.4392320E-04	8.4522654E-05	
33	2.6128715E-04	8.8485887E-05	
34	2.7908775E-04	8.9002010E-05	
35	2.9670142E-04	8.6720095E-05	
36	3.1362864E-04	8.2230998E-05	
37	3.2948192E-04	7.6064550E-05	
38	3.4397375E-04	6.8688593E-05	
39	3.5690384E-04	6.0509987E-05	
40	3.6814742E-04	5.1876639E-05	
41	3.7764366E-04	4.3080673E-05	
42	3.8538487E-04	3.4362308E-05	
43	3.9140660E-04	2.5914215E-05	
44	3.9577856E-04	1.7886154E-05	
45	3.9859649E-04	1.0389750E-05	
46	3.9997509E-04	3.5030379E-06	
47	4.0004163E-04	-2.7247709E-06	
48	3.9893074E-04	-8.2691461E-06	
49	3.9677979E-04	-1.3126217E-05	
50	3.9372521E-04	-1.7309125E-05	
51	3.8989930E-04	-2.0844855E-05	
52	3.8542777E-04	-2.3771327E-05	
53	3.8042846E-04	-2.6134644E-05	
54	3.7500817E-04	-2.7987879E-05	
55	3.6926349E-04	-2.9388354E-05	
56	3.6327896E-04	-3.0396848E-05	
57	3.5712668E-04	-3.1076409E-05	
58	3.5086602E-04	-3.1491564E-05	
59	3.4454332E-04	-3.1707764E-05	
60	3.3819178E-04	-3.1791022E-05	
61	3.3183103E-04	-3.1807694E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.3467E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4262	-3.1821E-03	2.641	0.6575	2.641	4.391	ACTIVE	0.000	-0.2000	1.474	
1.000	1.000	2.131	0.000	0.000	Ug5_2_8_L_0						
3 D	0.8710	-3.0176E-03	5.653	1.408	5.653	7.857	ACTIVE	0.000	-0.4000	2.947	
1.000	1.000	4.355	0.000	0.000	Ug5_2_8_L_0						
4 D	1.323	-2.8530E-03	8.821	2.196	8.821	10.57	ACTIVE	0.000	-0.6000	4.421	
1.000	1.000	6.617	0.000	0.000	Ug5_2_8_L_0						
5 D	1.791	-2.6885E-03	12.29	3.061	12.29	12.90	ACTIVE	0.000	-0.8000	5.895	
1.000	1.000	8.956	0.000	0.000	Ug5_2_8_L_0						
6 D	2.259	-2.5242E-03	15.77	3.926	15.77	15.05	ACTIVE	0.000	-1.000	7.368	
1.000	1.000	11.29	0.000	0.000	Ug5_2_8_L_0						
7 D	2.706	-2.3601E-03	18.82	4.686	18.82	17.09	ACTIVE	0.000	-1.200	8.842	
1.000	1.000	13.53	0.000	0.000	Ug5_2_8_L_0						
8 D	3.148	-2.1964E-03	21.79	5.425	21.79	19.05	ACTIVE	0.000	-1.400	10.32	
1.000	1.000	15.74	0.000	0.000	Ug5_2_8_L_0						
9 D	3.595	-2.0335E-03	24.84	6.186	24.84	20.96	ACTIVE	0.000	-1.600	11.79	
1.000	1.000	17.98	0.000	0.000	Ug5_2_8_L_0						
10 D	4.033	-1.8718E-03	27.72	6.903	27.72	22.80	ACTIVE	0.000	-1.800	13.26	
1.000	1.000	20.17	0.000	0.000	Ug5_2_8_L_0						
11 D	4.476	-1.7116E-03	30.70	7.645	30.70	24.58	ACTIVE	0.000	-2.000	14.74	
1.000	1.000	22.38	0.000	0.000	Ug5_2_8_L_0						
12 D	4.913	-1.5536E-03	33.56	8.356	33.56	26.31	ACTIVE	0.000	-2.200	16.21	
1.000	1.000	24.57	0.000	0.000	Ug5_2_8_L_0						
13 D	5.355	-1.3984E-03	36.52	9.093	36.52	27.98	ACTIVE	0.000	-2.400	17.68	
1.000	1.000	26.78	0.000	0.000	Ug5_2_8_L_0						
14 D	6.057	-1.2471E-03	39.39	11.13	39.39	29.60	UL-RL	4.9641E+04	-2.600	19.16	
1.000	1.000	30.29	0.000	0.000	Ug5_2_8_L_0						
15 D	6.755	-1.1005E-03	42.34	13.14	42.34	31.16	UL-RL	4.9641E+04	-2.800	20.63	
1.000	1.000	33.77	0.000	0.000	Ug5_2_8_L_0						
16 D	7.430	-9.5993E-04	45.23	15.04	45.23	32.68	UL-RL	4.9641E+04	-3.000	22.11	
1.000	1.000	37.15	0.000	0.000	Ug5_2_8_L_0						
17 D	8.078	-8.2674E-04	48.19	16.81	48.19	34.14	UL-RL	4.9641E+04	-3.200	23.58	
1.000	1.000	40.39	0.000	0.000	Ug5_2_8_L_0						
18 D	8.683	-7.0256E-04	51.10	18.36	51.10	35.55	UL-RL	4.9641E+04	-3.400	25.05	
1.000	1.000	43.42	0.000	0.000	Ug5_2_8_L_0						
19 D	9.238	-5.8924E-04	54.01	19.67	54.01	36.92	UL-RL	4.9641E+04	-3.600	26.53	
1.000	1.000	46.19	0.000	0.000	Ug5_2_8_L_0						
20 D	9.733	-4.8888E-04	56.99	20.66	56.99	38.25	UL-RL	4.9641E+04	-3.800	28.00	
1.000	1.000	48.66	0.000	0.000	Ug5_2_8_L_0						
21 D	10.14	-4.0386E-04	59.91	21.23	59.91	39.53	UL-RL	4.9641E+04	-4.000	29.47	
1.000	1.000	50.70	0.000	0.000	Ug5_2_8_L_0						
22 D	10.62	-3.3595E-04	62.89	22.17	62.89	40.78	UL-RL	4.9641E+04	-4.200	30.95	
1.000	1.000	53.12	0.000	0.000	Ug5_2_8_L_0						
23 D	11.04	-2.8372E-04	65.82	22.77	65.82	42.00	UL-RL	4.9641E+04	-4.400	32.42	
1.000	1.000	55.19	0.000	0.000	Ug5_2_8_L_0						
24 D	11.38	-2.4511E-04	68.80	23.02	68.80	43.18	UL-RL	4.9641E+04	-4.600	33.89	
1.000	1.000	56.91	0.000	0.000	Ug5_2_8_L_0						
25 D	11.67	-2.1844E-04	71.72	22.97	71.72	44.33	UL-RL	4.9641E+04	-4.800	35.37	
1.000	1.000	58.34	0.000	0.000	Ug5_2_8_L_0						
26 D	12.01	-2.0233E-04	74.65	23.23	74.65	45.46	UL-RL	4.9641E+04	-5.000	36.84	
1.000	1.000	60.07	0.000	0.000	Ug5_2_8_L_0						
27 D	13.07	-1.9553E-04	77.40	27.06	77.40	46.56	UL-RL	4.9641E+04	-5.200	38.32	
1.000	1.000	65.37	0.000	0.000	Ug5_2_8_L_0						
28 D	13.97	-1.9624E-04	80.16	30.07	80.16	47.64	UL-RL	4.9641E+04	-5.400	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.86	0.000	0.000	Ug5_2_8_L_0					
29 D	14.73	-2.0277E-04	82.92	32.40	82.92	48.70	UL-RL	4.9641E+04	-5.600	41.26
1.000	1.000	73.66	0.000	0.000	Ug5_2_8_L_0					
30 D	15.38	-2.1369E-04	85.69	34.17	85.69	49.74	UL-RL	4.9641E+04	-5.800	42.74
1.000	1.000	76.91	0.000	0.000	Ug5_2_8_L_0					
31 D	15.94	-2.2775E-04	88.46	35.49	88.46	50.76	UL-RL	4.9641E+04	-6.000	44.21
1.000	1.000	79.70	0.000	0.000	Ug5_2_8_L_0					
32 D	16.43	-2.4392E-04	91.22	36.45	91.22	51.77	UL-RL	4.9641E+04	-6.200	45.68
1.000	1.000	82.13	0.000	0.000	Ug5_2_8_L_0					
33 D	16.86	-2.6129E-04	93.99	37.15	93.99	52.76	UL-RL	4.9641E+04	-6.400	47.16
1.000	1.000	84.31	0.000	0.000	Ug5_2_8_L_0					
34 D	17.26	-2.7909E-04	97.00	37.66	97.00	53.74	UL-RL	4.9641E+04	-6.600	48.63
1.000	1.000	86.29	0.000	0.000	Ug5_2_8_L_0					
35 D	17.63	-2.9670E-04	99.90	38.04	99.90	54.71	UL-RL	4.9641E+04	-6.800	50.11
1.000	1.000	88.15	0.000	0.000	Ug5_2_8_L_0					
36 D	17.99	-3.1363E-04	103.4	38.36	103.4	55.67	UL-RL	4.9641E+04	-7.000	51.58
1.000	1.000	89.94	0.000	0.000	Ug5_2_8_L_0					
37 D	18.34	-3.2948E-04	106.2	38.66	106.2	56.61	UL-RL	4.9641E+04	-7.200	53.05
1.000	1.000	91.71	0.000	0.000	Ug5_2_8_L_0					
38 D	18.70	-3.4397E-04	109.6	38.98	109.6	57.55	UL-RL	4.9641E+04	-7.400	54.53
1.000	1.000	93.50	0.000	0.000	Ug5_2_8_L_0					
39 D	19.07	-3.5690E-04	112.5	39.33	112.5	58.49	UL-RL	4.9641E+04	-7.600	56.00
1.000	1.000	95.33	0.000	0.000	Ug5_2_8_L_0					
40 D	19.45	-3.6815E-04	115.8	39.76	115.8	59.41	UL-RL	4.9641E+04	-7.800	57.47
1.000	1.000	97.23	0.000	0.000	Ug5_2_8_L_0					
41 D	19.84	-3.7764E-04	119.1	40.27	119.1	60.33	UL-RL	4.9641E+04	-8.000	58.95
1.000	1.000	99.21	0.000	0.000	Ug5_2_8_L_0					
42 D	20.26	-3.8538E-04	121.9	40.87	121.9	61.24	UL-RL	4.9641E+04	-8.200	60.42
1.000	1.000	101.3	0.000	0.000	Ug5_2_8_L_0					
43 D	20.69	-3.9141E-04	125.2	41.56	125.2	62.15	UL-RL	4.9641E+04	-8.400	61.89
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
44 D	21.15	-3.9578E-04	128.0	42.36	128.0	63.06	UL-RL	4.9641E+04	-8.600	63.37
1.000	1.000	105.7	0.000	0.000	Ug5_2_8_L_0					
45 D	21.62	-3.9860E-04	131.2	43.26	131.2	63.96	UL-RL	4.9641E+04	-8.800	64.84
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
46 D	22.11	-3.9998E-04	133.9	44.25	133.9	64.86	UL-RL	4.9641E+04	-9.000	66.32
1.000	1.000	110.6	0.000	0.000	Ug5_2_8_L_0					
47 D	22.62	-4.0004E-04	137.1	45.33	137.1	65.75	UL-RL	4.9641E+04	-9.200	67.79
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
48 D	23.15	-3.9893E-04	139.9	46.48	139.9	66.64	UL-RL	4.9641E+04	-9.400	69.26
1.000	1.000	115.7	0.000	0.000	Ug5_2_8_L_0					
49 D	23.69	-3.9678E-04	143.0	47.72	143.0	67.53	UL-RL	4.9641E+04	-9.600	70.74
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
50 D	24.25	-3.9373E-04	145.7	49.02	145.7	68.42	UL-RL	4.9641E+04	-9.800	72.21
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
51 D	24.81	-3.8990E-04	148.8	50.37	148.8	69.31	UL-RL	4.9641E+04	-10.000	73.68
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
52 D	25.39	-3.8543E-04	151.5	51.78	151.5	70.19	UL-RL	4.9641E+04	-10.200	75.16
1.000	1.000	126.9	0.000	0.000	Ug5_2_8_L_0					
53 D	25.97	-3.8043E-04	154.6	53.22	154.6	71.08	UL-RL	4.9641E+04	-10.400	76.63
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
54 D	26.56	-3.7501E-04	157.7	54.70	157.7	71.96	UL-RL	4.9641E+04	-10.600	78.11
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
55 D	27.16	-3.6926E-04	160.4	56.20	160.4	72.85	UL-RL	4.9641E+04	-10.800	79.58
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
56 D	27.76	-3.6328E-04	163.4	57.72	163.4	73.73	UL-RL	4.9641E+04	-11.000	81.05
1.000	1.000	138.8	0.000	0.000	Ug5_2_8_L_0					
57 D	28.36	-3.5713E-04	166.1	59.26	166.1	74.61	UL-RL	4.9641E+04	-11.200	82.53
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
58 D	28.96	-3.5087E-04	169.2	60.80	169.2	75.50	UL-RL	4.9641E+04	-11.400	84.00
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
59 D	29.56	-3.4454E-04	171.8	62.35	171.8	76.38	UL-RL	4.9641E+04	-11.600	85.47
1.000	1.000	147.8	0.000	0.000	Ug5_2_8_L_0					
60 D	30.17	-3.3819E-04	174.8	63.90	174.8	77.26	UL-RL	4.9641E+04	-11.800	86.95
1.000	1.000	150.9	0.000	0.000	Ug5_2_8_L_0					
61 D	15.39	-3.3183E-04	177.5	65.46	177.5	78.15	UL-RL	4.9641E+04	-12.000	88.42
1.000	1.000	153.9	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.Nominal_63                                          |
|          Exe Time :24 May 2018          18:23:40                                          |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26 D	0.000	2.0233E-04	0.000	0.000	50.00	46.43	PASSIVE	0.000	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
27 D	2.467	1.9553E-04	1.474	9.810	52.00	46.75	UL-RL	2.4680E+04	-5.200	2.526	
1.000	1.000	12.34	0.000	0.000	Ug5_2_8_L_0						
28 D	4.953	1.9624E-04	2.947	19.71	54.00	47.17	UL-RL	2.4680E+04	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	24.76	0.000	0.000	Ug5_2_8_L_0					
29 D	7.439	2.0277E-04	4.421	29.62	56.00	47.69	UL-RL	2.4680E+04	-5.600	7.579
1.000	1.000	37.20	0.000	0.000	Ug5_2_8_L_0					
30 D	9.928	2.1369E-04	5.895	39.53	58.00	48.48	UL-RL	2.4680E+04	-5.800	10.11
1.000	1.000	49.64	0.000	0.000	Ug5_2_8_L_0					
31 D	10.69	2.2775E-04	7.368	40.84	60.00	49.46	UL-RL	2.4680E+04	-6.000	12.63
1.000	1.000	53.47	0.000	0.000	Ug5_2_8_L_0					
32 D	11.46	2.4392E-04	8.842	42.13	62.00	50.42	UL-RL	2.4680E+04	-6.200	15.16
1.000	1.000	57.29	0.000	0.000	Ug5_2_8_L_0					
33 D	12.23	2.6129E-04	10.32	43.47	64.00	51.37	UL-RL	2.4680E+04	-6.400	17.68
1.000	1.000	61.16	0.000	0.000	Ug5_2_8_L_0					
34 D	13.01	2.7909E-04	11.79	44.85	66.00	52.31	UL-RL	2.4680E+04	-6.600	20.21
1.000	1.000	65.06	0.000	0.000	Ug5_2_8_L_0					
35 D	13.80	2.9670E-04	13.26	46.25	68.00	53.23	UL-RL	2.4680E+04	-6.800	22.74
1.000	1.000	68.98	0.000	0.000	Ug5_2_8_L_0					
36 D	14.58	3.1363E-04	14.74	47.63	70.00	54.14	UL-RL	2.4680E+04	-7.000	25.26
1.000	1.000	72.89	0.000	0.000	Ug5_2_8_L_0					
37 D	15.36	3.2948E-04	16.21	48.99	72.00	55.05	UL-RL	2.4680E+04	-7.200	27.79
1.000	1.000	76.78	0.000	0.000	Ug5_2_8_L_0					
38 D	16.13	3.4397E-04	17.68	50.31	74.00	55.95	UL-RL	2.4680E+04	-7.400	30.32
1.000	1.000	80.63	0.000	0.000	Ug5_2_8_L_0					
39 D	16.89	3.5690E-04	19.16	51.58	76.00	56.83	UL-RL	2.4680E+04	-7.600	32.84
1.000	1.000	84.43	0.000	0.000	Ug5_2_8_L_0					
40 D	17.63	3.6815E-04	20.63	52.80	78.00	57.72	UL-RL	2.4680E+04	-7.800	35.37
1.000	1.000	88.17	0.000	0.000	Ug5_2_8_L_0					
41 D	18.37	3.7764E-04	22.11	53.96	80.00	58.59	UL-RL	2.4680E+04	-8.000	37.89
1.000	1.000	91.86	0.000	0.000	Ug5_2_8_L_0					
42 D	19.10	3.8538E-04	23.58	55.06	82.00	59.46	UL-RL	2.4680E+04	-8.200	40.42
1.000	1.000	95.48	0.000	0.000	Ug5_2_8_L_0					
43 D	19.81	3.9141E-04	25.05	56.09	84.00	60.33	UL-RL	2.4680E+04	-8.400	42.95
1.000	1.000	99.03	0.000	0.000	Ug5_2_8_L_0					
44 D	20.51	3.9578E-04	26.53	57.05	86.00	61.19	UL-RL	2.4680E+04	-8.600	45.47
1.000	1.000	102.5	0.000	0.000	Ug5_2_8_L_0					
45 D	21.19	3.9860E-04	28.00	57.96	88.00	62.05	UL-RL	2.4680E+04	-8.800	48.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
46 D	21.87	3.9998E-04	29.47	58.81	90.00	62.90	UL-RL	2.4680E+04	-9.000	50.53
1.000	1.000	109.3	0.000	0.000	Ug5_2_8_L_0					
47 D	22.53	4.0004E-04	30.95	59.61	92.00	63.75	UL-RL	2.4680E+04	-9.200	53.05
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
48 D	23.19	3.9893E-04	32.42	60.36	94.00	64.60	UL-RL	2.4680E+04	-9.400	55.58
1.000	1.000	115.9	0.000	0.000	Ug5_2_8_L_0					
49 D	23.83	3.9678E-04	33.89	61.06	96.00	65.45	UL-RL	2.4680E+04	-9.600	58.11
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
50 D	24.47	3.9373E-04	35.37	61.73	98.00	66.29	UL-RL	2.4680E+04	-9.800	60.63
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
51 D	25.10	3.8990E-04	36.84	62.36	100.00	67.13	UL-RL	2.4680E+04	-10.000	63.16
1.000	1.000	125.5	0.000	0.000	Ug5_2_8_L_0					
52 D	25.73	3.8543E-04	38.32	62.96	102.0	67.98	UL-RL	2.4680E+04	-10.200	65.68
1.000	1.000	128.6	0.000	0.000	Ug5_2_8_L_0					
53 D	26.35	3.8043E-04	39.79	63.54	104.0	68.82	UL-RL	2.4680E+04	-10.400	68.21
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
54 D	26.97	3.7501E-04	41.26	64.10	106.0	69.66	UL-RL	2.4680E+04	-10.600	70.74
1.000	1.000	134.8	0.000	0.000	Ug5_2_8_L_0					
55 D	27.58	3.6926E-04	42.74	64.64	108.0	70.50	UL-RL	2.4680E+04	-10.800	73.26
1.000	1.000	137.9	0.000	0.000	Ug5_2_8_L_0					
56 D	28.19	3.6328E-04	44.21	65.17	110.0	71.34	UL-RL	2.4680E+04	-11.000	75.79
1.000	1.000	141.0	0.000	0.000	Ug5_2_8_L_0					
57 D	28.80	3.5713E-04	45.68	65.69	112.0	72.18	UL-RL	2.4680E+04	-11.200	78.32
1.000	1.000	144.0	0.000	0.000	Ug5_2_8_L_0					
58 D	29.41	3.5087E-04	47.16	66.21	114.0	73.02	UL-RL	2.4680E+04	-11.400	80.84
1.000	1.000	147.1	0.000	0.000	Ug5_2_8_L_0					
59 D	30.02	3.4454E-04	48.63	66.72	116.0	73.86	UL-RL	2.4680E+04	-11.600	83.37
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
60 D	30.62	3.3819E-04	50.11	67.23	118.0	74.70	UL-RL	2.4680E+04	-11.800	85.89
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
61 D	15.62	3.3183E-04	51.58	67.74	120.0	75.54	UL-RL	2.4680E+04	-12.000	88.42
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.25684E-10	-1.25684E-10	1.24979E-11	3.47231E-11
2	0.42624	-0.42624	-2.17053E-11	8.52476E-02
3	1.2972	-1.2972	-8.52476E-02	0.34470
4	2.6207	-2.6207	-0.34470	0.86884
5	4.4119	-4.4119	-0.86884	1.7512
6	6.6707	-6.6707	-1.7512	3.0854
7	9.3763	-9.3763	-3.0854	4.9606
8	12.524	-12.524	-4.9606	7.4655
9	16.120	-16.120	-7.4655	10.689
10	20.153	-20.153	-10.689	14.720
11	24.629	-24.629	-14.720	19.646
12	29.542	-29.542	-19.646	25.554
13	34.895	-34.895	-25.554	32.533
14	40.953	-40.953	-32.533	40.724
15	47.708	-47.708	-40.724	50.265
16	55.137	-55.137	-50.265	61.293
17	63.216	-63.216	-61.293	73.936
18	71.899	-71.899	-73.936	88.316
19	81.137	-81.137	-88.316	104.54
20	90.870	-90.870	-104.54	122.72
21	-79.990	79.990	-122.72	106.72
22	-69.366	69.366	-106.72	92.846
23	-58.328	58.328	-92.846	81.180
24	-46.946	46.946	-81.180	71.791
25	-35.278	35.278	-71.791	64.735
26	-68.465	68.465	-64.735	51.043
27	-57.857	57.857	-51.043	39.471
28	-48.838	48.838	-39.471	29.703
29	-41.545	41.545	-29.703	21.394
30	-36.092	36.092	-21.394	14.176
31	-30.848	30.848	-14.176	8.0064
32	-25.879	25.879	-8.0064	2.8306
33	-21.250	21.250	-2.8306	-1.4193
34	-17.005	17.005	1.4193	-4.8203
35	-13.171	13.171	4.8203	-7.4546
36	-9.7615	9.7615	7.4546	-9.4069
37	-6.7744	6.7744	9.4069	-10.762
38	-4.1993	4.1993	10.762	-11.602
39	-2.0178	2.0178	11.602	-12.005
40	-0.20544	0.20544	12.005	-12.046
41	1.2664	-1.2664	12.046	-11.793
42	2.4287	-2.4287	11.793	-11.307
43	3.3139	-3.3139	11.307	-10.644
44	3.9543	-3.9543	10.644	-9.8536
45	4.3818	-4.3818	9.8536	-8.9772
46	4.6266	-4.6266	8.9772	-8.0519
47	4.7172	-4.7172	8.0519	-7.1085
48	4.6796	-4.6796	7.1085	-6.1726
49	4.5373	-4.5373	6.1726	-5.2651
50	4.3112	-4.3112	5.2651	-4.4029
51	4.0194	-4.0194	4.4029	-3.5990
52	3.6774	-3.6774	3.5990	-2.8635
53	3.2981	-3.2981	2.8635	-2.2039
54	2.8920	-2.8920	2.2039	-1.6255
55	2.4672	-2.4672	1.6255	-1.1321
56	2.0300	-2.0300	1.1321	-0.72609
57	1.5850	-1.5850	0.72609	-0.40910
58	1.1351	-1.1351	0.40910	-0.18207
59	0.68244	-0.68244	0.18207	-4.55849E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.22791 -0.22791 4.55849E-02 1.46995E-12

```

ITER      0  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM=0.1923E+06  REMNOR=0.9989E-21  RATIO = 1.076      TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI= 1.076      RATIOOR= 0.000
            MAX UN= 180.7      IEQ= 41 NODE      21 DOF  1  Y-DISPL.F
            MIN UN=-322.3      IEQ= 49 NODE      25 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      2  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM= 496.1      REMNOR=0.1991E-20  RATIO =0.5464E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI=0.5464E-01  RATIOOR= 0.000
            MAX UN= 3.374      IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-9.135      IEQ= 63 NODE      32 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      3  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM= 16.51      REMNOR=0.2874E-20  RATIO =0.9968E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI=0.9968E-02  RATIOOR= 0.000
            MAX UN= 2.041      IEQ= 19 NODE      10 DOF  1  Y-DISPL.F
            MIN UN=-2.467      IEQ= 67 NODE      34 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      4  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM=0.1538      REMNOR=0.2518E-20  RATIO =0.9620E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI=0.9620E-03  RATIOOR= 0.000
            MAX UN=0.5438E-09  IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-.2386      IEQ= 29 NODE      15 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      5  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM=0.1073      REMNOR=0.1589E-20  RATIO =0.8035E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI=0.8035E-03  RATIOOR= 0.000
            MAX UN=0.1165      IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-.2598E-01  IEQ= 41 NODE      21 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      6  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1662E+06  RIMNOR=0.1859E+06
            RENORM=0.6770E-04  REMNOR=0.1778E-20  RATIO =0.2018E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 322.0      RMMAX = 122.7
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1662E+06  RDR =0.1859E+06
            RATIOI=0.2018E-04  RATIOOR= 0.000
            MAX UN=0.2734E-09  IEQ= 17 NODE      9 DOF  1  Y-DISPL.F
            MIN UN=-.6164E-02  IEQ= 41 NODE      21 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|                PARATIEPLUS(TM)    NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*          |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
|                |                |                |                |                |                |
+-----+
NewProject.BaseDesignSection_28.Nominal_63
Exe Time :24 May 2018          18:23:40

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.2064438E-03	-1.6696350E-03	
2	4.8725168E-03	-1.6696350E-03	
3	4.5385918E-03	-1.6696048E-03	
4	4.2046830E-03	-1.6694529E-03	
5	3.8708291E-03	-1.6690248E-03	
6	3.5371061E-03	-1.6681011E-03	
7	3.2036406E-03	-1.6663968E-03	
8	2.8706227E-03	-1.6635626E-03	
9	2.5383184E-03	-1.6591866E-03	
10	2.2070825E-03	-1.6527946E-03	
11	1.8773707E-03	-1.6438504E-03	
12	1.5497523E-03	-1.6317558E-03	
13	1.2249228E-03	-1.6158458E-03	
14	9.0372404E-04	-1.5952856E-03	
15	5.8719331E-04	-1.5689534E-03	
16	2.7661891E-04	-1.5354776E-03	
17	-2.6419658E-05	-1.4933082E-03	
18	-3.2001228E-04	-1.4407348E-03	
19	-6.0189536E-04	-1.3758882E-03	
20	-8.6941442E-04	-1.2967446E-03	
21	-1.1194940E-03	-1.2011309E-03	
22	-1.3486130E-03	-1.0867289E-03	
23	-1.5527693E-03	-9.5108335E-04	
24	-1.7274574E-03	-7.9160417E-04	
25	-1.8676410E-03	-6.0557592E-04	
26	-1.9692993E-03	-4.1372138E-04	
27	-2.0341155E-03	-2.3666107E-04	
28	-2.0647467E-03	-7.1350580E-05	
29	-2.0632288E-03	8.5364176E-05	
30	-2.0309575E-03	2.3673212E-04	
31	-1.9686707E-03	3.8607903E-04	
32	-1.8776105E-03	5.1916347E-04	
33	-1.7630391E-03	6.2174782E-04	
34	-1.6307226E-03	6.9716468E-04	
35	-1.4857665E-03	7.4868174E-04	
36	-1.3326303E-03	7.7949324E-04	
37	-1.1751494E-03	7.9261418E-04	
38	-1.0165799E-03	7.9081672E-04	
39	-8.5964611E-04	7.7666852E-04	
40	-7.0657826E-04	7.5253430E-04	
41	-5.5915376E-04	7.2057953E-04	
42	-4.1873634E-04	6.8277643E-04	
43	-2.8631398E-04	6.4091152E-04	
44	-1.6253521E-04	5.9659446E-04	
45	-4.7744048E-05	5.5126805E-04	
46	5.7989817E-05	5.0621740E-04	
47	1.5483510E-04	4.6254953E-04	
48	2.4316193E-04	4.2116611E-04	
49	3.2350090E-04	3.8277303E-04	
50	3.9650527E-04	3.4789730E-04	
51	4.6291813E-04	3.1690184E-04	
52	5.2354040E-04	2.8999996E-04	
53	5.7919509E-04	2.6727072E-04	
54	6.3072054E-04	2.4866158E-04	
55	6.7892337E-04	2.3400720E-04	
56	7.2456866E-04	2.2303143E-04	
57	7.6835586E-04	2.1535450E-04	
58	8.1089846E-04	2.1049750E-04	
59	8.5270453E-04	2.0788550E-04	
60	8.9415773E-04	2.0684964E-04	
61	9.3550128E-04	2.0663631E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.Nominal_63    |
|          Exe Time :24 May 2018      18:23:40           |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.2064E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4123	-4.8725E-03	2.781	0.7283	2.781	4.391	UL-RL	4.1367E+04	-0.2000	1.333	
1.000	1.000	2.062	0.000	0.000	Ug5_2_8_L_0						
3 D	0.8393	-4.5386E-03	5.934	1.530	5.934	7.857	UL-RL	4.1367E+04	-0.4000	2.667	
1.000	1.000	4.196	0.000	0.000	Ug5_2_8_L_0						
4 D	1.274	-4.2047E-03	9.242	2.370	9.242	10.57	UL-RL	4.1367E+04	-0.6000	4.000	
1.000	1.000	6.370	0.000	0.000	Ug5_2_8_L_0						
5 D	1.724	-3.8708E-03	12.85	3.286	12.85	12.90	UL-RL	4.1367E+04	-0.8000	5.333	
1.000	1.000	8.619	0.000	0.000	Ug5_2_8_L_0						
6 D	2.174	-3.5371E-03	16.47	4.202	16.47	15.05	UL-RL	4.1367E+04	-1.0000	6.667	
1.000	1.000	10.87	0.000	0.000	Ug5_2_8_L_0						
7 D	2.603	-3.2036E-03	19.66	5.013	19.66	17.09	UL-RL	4.1367E+04	-1.2000	8.000	
1.000	1.000	13.01	0.000	0.000	Ug5_2_8_L_0						
8 D	3.027	-2.8706E-03	22.77	5.802	22.77	19.05	UL-RL	4.1367E+04	-1.4000	9.333	
1.000	1.000	15.14	0.000	0.000	Ug5_2_8_L_0						
9 D	3.456	-2.5383E-03	25.97	6.614	25.97	20.96	UL-RL	4.1367E+04	-1.6000	10.67	
1.000	1.000	17.28	0.000	0.000	Ug5_2_8_L_0						
10 D	3.876	-2.2071E-03	28.98	7.381	28.98	22.80	UL-RL	4.1367E+04	-1.8000	12.00	
1.000	1.000	19.38	0.000	0.000	Ug5_2_8_L_0						
11 D	4.301	-1.8774E-03	32.10	8.173	32.10	24.58	UL-RL	4.1367E+04	-2.0000	13.33	
1.000	1.000	21.51	0.000	0.000	Ug5_2_8_L_0						
12 D	4.790	-1.5498E-03	35.10	9.286	35.10	26.31	UL-RL	4.1367E+04	-2.2000	14.67	
1.000	1.000	23.95	0.000	0.000	Ug5_2_8_L_0						
13 D	6.623	-1.2249E-03	38.20	17.11	38.20	27.98	UL-RL	4.1367E+04	-2.4000	16.00	
1.000	1.000	33.11	0.000	0.000	Ug5_2_8_L_0						
14 D	8.716	-9.0372E-04	41.21	26.24	41.21	29.60	UL-RL	4.1367E+04	-2.6000	17.33	
1.000	1.000	43.58	0.000	0.000	Ug5_2_8_L_0						
15 D	10.04	-5.8719E-04	44.31	31.52	44.31	33.08	UL-RL	4.1367E+04	-2.8000	18.67	
1.000	1.000	50.19	0.000	0.000	Ug5_2_8_L_0						
16 D	11.15	-2.7662E-04	47.33	35.74	47.33	36.99	UL-RL	4.1367E+04	-3.0000	20.00	
1.000	1.000	55.74	0.000	0.000	Ug5_2_8_L_0						
17 D	12.24	2.6420E-05	50.44	39.88	50.44	40.81	UL-RL	4.1367E+04	-3.2000	21.33	
1.000	1.000	61.21	0.000	0.000	Ug5_2_8_L_0						
18 D	13.31	3.2001E-04	53.48	43.89	53.48	44.53	UL-RL	4.1367E+04	-3.4000	22.67	
1.000	1.000	66.56	0.000	0.000	Ug5_2_8_L_0						
19 D	14.35	6.0190E-04	56.53	47.77	56.53	48.13	UL-RL	4.1367E+04	-3.6000	24.00	
1.000	1.000	71.77	0.000	0.000	Ug5_2_8_L_0						
20 D	15.37	8.6941E-04	59.65	51.49	59.65	51.59	UL-RL	4.1367E+04	-3.8000	25.33	
1.000	1.000	76.83	0.000	0.000	Ug5_2_8_L_0						
21 D	16.31	1.1195E-03	62.72	54.87	62.72	54.92	UL-RL	4.1367E+04	-4.0000	26.67	
1.000	1.000	81.54	0.000	0.000	Ug5_2_8_L_0						
22 D	17.26	1.3486E-03	65.84	58.28	65.84	58.31	UL-RL	4.1367E+04	-4.2000	28.00	
1.000	1.000	86.28	0.000	0.000	Ug5_2_8_L_0						
23 D	18.15	1.5528E-03	68.91	61.41	68.91	61.43	UL-RL	4.1367E+04	-4.4000	29.33	
1.000	1.000	90.75	0.000	0.000	Ug5_2_8_L_0						
24 D	18.97	1.7275E-03	72.02	64.19	72.02	64.20	UL-RL	4.1367E+04	-4.6000	30.67	
1.000	1.000	94.86	0.000	0.000	Ug5_2_8_L_0						
25 D	19.71	1.8676E-03	75.09	66.54	75.09	66.54	UL-RL	4.1367E+04	-4.8000	32.00	
1.000	1.000	98.54	0.000	0.000	Ug5_2_8_L_0						
26 D	20.38	1.9693E-03	78.16	68.58	78.16	68.58	V-C	1.3789E+04	-5.0000	33.33	
1.000	1.000	101.9	0.000	0.000	Ug5_2_8_L_0						
27 D	21.22	2.0341E-03	81.05	71.41	81.05	71.41	V-C	1.3789E+04	-5.2000	34.67	
1.000	1.000	106.1	0.000	0.000	Ug5_2_8_L_0						
28 D	21.92	2.0647E-03	83.95	73.59	83.95	73.59	V-C	1.3789E+04	-5.4000	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
29 D	22.50	2.0632E-03	86.85	75.17	86.85	75.17	V-C	1.3789E+04	-5.600	37.33
1.000	1.000	112.5	0.000	0.000	Ug5_2_8_L_0					
30 D	22.97	2.0310E-03	89.76	76.18	89.76	76.18	V-C	1.3789E+04	-5.800	38.67
1.000	1.000	114.8	0.000	0.000	Ug5_2_8_L_0					
31 D	23.33	1.9687E-03	92.67	76.66	92.67	76.66	V-C	1.3789E+04	-6.000	40.00
1.000	1.000	116.7	0.000	0.000	Ug5_2_8_L_0					
32 D	23.59	1.8776E-03	95.57	76.64	95.57	76.64	V-C	1.3789E+04	-6.200	41.33
1.000	1.000	118.0	0.000	0.000	Ug5_2_8_L_0					
33 D	23.78	1.7630E-03	98.48	76.22	98.48	76.22	V-C	1.3789E+04	-6.400	42.67
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
34 D	23.90	1.6307E-03	101.6	75.49	101.6	75.49	V-C	1.3789E+04	-6.600	44.00
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
35 D	23.97	1.4858E-03	104.7	74.53	104.7	74.53	V-C	1.3789E+04	-6.800	45.33
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
36 D	24.02	1.3326E-03	108.3	73.42	108.3	73.42	V-C	1.3789E+04	-7.000	46.67
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
37 D	24.04	1.1751E-03	111.3	72.22	111.3	72.22	V-C	1.3789E+04	-7.200	48.00
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
38 D	24.06	1.0166E-03	114.8	70.99	114.8	70.99	V-C	1.3789E+04	-7.400	49.33
1.000	1.000	120.3	0.000	0.000	Ug5_2_8_L_0					
39 D	24.09	8.5965E-04	117.8	69.77	117.8	69.77	V-C	1.3789E+04	-7.600	50.67
1.000	1.000	120.4	0.000	0.000	Ug5_2_8_L_0					
40 D	24.12	7.0658E-04	121.3	68.59	121.3	68.59	V-C	1.3789E+04	-7.800	52.00
1.000	1.000	120.6	0.000	0.000	Ug5_2_8_L_0					
41 D	24.17	5.5915E-04	124.8	67.50	124.8	67.50	V-C	1.3789E+04	-8.000	53.33
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
42 D	24.23	4.1874E-04	127.7	66.50	127.7	66.50	V-C	1.3789E+04	-8.200	54.67
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
43 D	24.32	2.8631E-04	131.1	65.62	131.1	65.62	V-C	1.3789E+04	-8.400	56.00
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
44 D	24.44	1.6254E-04	134.0	64.86	134.0	64.86	V-C	1.3789E+04	-8.600	57.33
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
45 D	24.58	4.7744E-05	137.4	64.24	137.4	64.24	V-C	1.3789E+04	-8.800	58.67
1.000	1.000	122.9	0.000	0.000	Ug5_2_8_L_0					
46 D	24.31	-5.7990E-05	140.3	61.55	140.3	64.86	UL-RL	4.1367E+04	-9.000	60.00
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
47 D	24.01	-1.5484E-04	143.6	58.70	143.6	65.75	UL-RL	4.1367E+04	-9.200	61.33
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
48 D	23.78	-2.4316E-04	146.5	56.23	146.5	66.64	UL-RL	4.1367E+04	-9.400	62.67
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
49 D	23.62	-3.2350E-04	149.7	54.12	149.7	67.53	UL-RL	4.1367E+04	-9.600	64.00
1.000	1.000	118.1	0.000	0.000	Ug5_2_8_L_0					
50 D	23.53	-3.9651E-04	152.6	52.34	152.6	68.42	UL-RL	4.1367E+04	-9.800	65.33
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
51 D	23.51	-4.6292E-04	155.9	50.86	155.9	69.31	UL-RL	4.1367E+04	-10.000	66.67
1.000	1.000	117.5	0.000	0.000	Ug5_2_8_L_0					
52 D	23.53	-5.2354E-04	158.7	49.64	158.7	70.19	UL-RL	4.1367E+04	-10.200	68.00
1.000	1.000	117.6	0.000	0.000	Ug5_2_8_L_0					
53 D	23.60	-5.7920E-04	161.9	48.65	161.9	71.08	UL-RL	4.1367E+04	-10.400	69.33
1.000	1.000	118.0	0.000	0.000	Ug5_2_8_L_0					
54 D	23.70	-6.3072E-04	165.2	47.84	165.2	71.96	UL-RL	4.1367E+04	-10.600	70.67
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
55 D	23.84	-6.7892E-04	168.0	47.18	168.0	72.85	UL-RL	4.1367E+04	-10.800	72.00
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
56 D	23.99	-7.2457E-04	171.2	46.64	171.2	73.73	UL-RL	4.1367E+04	-11.000	73.33
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
57 D	24.17	-7.6836E-04	174.0	46.18	174.0	74.61	UL-RL	4.1367E+04	-11.200	74.67
1.000	1.000	120.8	0.000	0.000	Ug5_2_8_L_0					
58 D	24.35	-8.1090E-04	177.2	45.77	177.2	75.50	UL-RL	4.1367E+04	-11.400	76.00
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
59 D	24.55	-8.5270E-04	180.0	45.40	180.0	76.38	UL-RL	4.1367E+04	-11.600	77.33
1.000	1.000	122.7	0.000	0.000	Ug5_2_8_L_0					
60 D	24.85	-8.9416E-04	183.1	45.59	183.1	77.26	ACTIVE	0.000	-11.800	78.67
1.000	1.000	124.3	0.000	0.000	Ug5_2_8_L_0					
61 D	12.63	-9.3550E-04	185.9	46.29	185.9	78.15	ACTIVE	0.000	-12.000	80.00
1.000	1.000	126.3	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.Nominal_63          |
|          Exe Time :24 May 2018          18:23:40          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26	0.000	--	--	--	--	--	REMOVED	--	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
27	0.000	--	--	--	--	--	REMOVED	--	-5.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
28	0.000	--	--	--	--	--	REMOVED	--	-5.400	0.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	0.000	0.000	0.000	not available					
29	0.000	--	--	--	--	--	REMOVED	--	-5.600	0.000
1.000	1.000	0.000	0.000	0.000	not available					
30	0.000	--	--	--	--	--	REMOVED	--	-5.800	0.000
1.000	1.000	0.000	0.000	0.000	not available					
31	0.000	--	--	--	--	--	REMOVED	--	-6.000	0.000
1.000	1.000	0.000	0.000	0.000	not available					
32 D	0.5997	-1.8776E-03	1.333	0.3320	62.00	50.42	ACTIVE	0.000	-6.200	2.667
1.000	1.000	2.999	0.000	0.000	Ug5_2_8_L_0					
33 D	1.199	-1.7630E-03	2.667	0.6640	64.00	51.37	ACTIVE	0.000	-6.400	5.333
1.000	1.000	5.997	0.000	0.000	Ug5_2_8_L_0					
34 D	1.799	-1.6307E-03	4.000	0.9960	66.00	52.31	ACTIVE	0.000	-6.600	8.000
1.000	1.000	8.996	0.000	0.000	Ug5_2_8_L_0					
35 D	2.399	-1.4858E-03	5.333	1.328	68.00	53.23	ACTIVE	0.000	-6.800	10.67
1.000	1.000	11.99	0.000	0.000	Ug5_2_8_L_0					
36 D	4.369	-1.3326E-03	6.667	8.513	70.00	54.14	UL-RL	2.0566E+04	-7.000	13.33
1.000	1.000	21.85	0.000	0.000	Ug5_2_8_L_0					
37 D	5.792	-1.1751E-03	8.000	12.96	72.00	55.05	UL-RL	2.0566E+04	-7.200	16.00
1.000	1.000	28.96	0.000	0.000	Ug5_2_8_L_0					
38 D	7.210	-1.0166E-03	9.333	17.38	74.00	55.95	UL-RL	2.0566E+04	-7.400	18.67
1.000	1.000	36.05	0.000	0.000	Ug5_2_8_L_0					
39 D	8.611	-8.5965E-04	10.67	21.72	76.00	56.83	UL-RL	2.0566E+04	-7.600	21.33
1.000	1.000	43.05	0.000	0.000	Ug5_2_8_L_0					
40 D	9.988	-7.0658E-04	12.00	25.94	78.00	57.72	UL-RL	2.0566E+04	-7.800	24.00
1.000	1.000	49.94	0.000	0.000	Ug5_2_8_L_0					
41 D	11.33	-5.5915E-04	13.33	30.00	80.00	58.59	UL-RL	2.0566E+04	-8.000	26.67
1.000	1.000	56.66	0.000	0.000	Ug5_2_8_L_0					
42 D	12.64	-4.1874E-04	14.67	33.87	82.00	59.46	UL-RL	2.0566E+04	-8.200	29.33
1.000	1.000	63.20	0.000	0.000	Ug5_2_8_L_0					
43 D	13.91	-2.8631E-04	16.00	37.54	84.00	60.33	UL-RL	2.0566E+04	-8.400	32.00
1.000	1.000	69.54	0.000	0.000	Ug5_2_8_L_0					
44 D	15.13	-1.6254E-04	17.33	41.00	86.00	61.19	UL-RL	2.0566E+04	-8.600	34.67
1.000	1.000	75.66	0.000	0.000	Ug5_2_8_L_0					
45 D	16.31	-4.7744E-05	18.67	44.23	88.00	62.05	UL-RL	2.0566E+04	-8.800	37.33
1.000	1.000	81.56	0.000	0.000	Ug5_2_8_L_0					
46 D	17.45	5.7990E-05	20.00	47.24	90.00	62.90	UL-RL	2.0566E+04	-9.000	40.00
1.000	1.000	87.24	0.000	0.000	Ug5_2_8_L_0					
47 D	18.54	1.5484E-04	21.33	50.04	92.00	63.75	UL-RL	2.0566E+04	-9.200	42.67
1.000	1.000	92.70	0.000	0.000	Ug5_2_8_L_0					
48 D	19.59	2.4316E-04	22.67	52.63	94.00	64.60	UL-RL	2.0566E+04	-9.400	45.33
1.000	1.000	97.96	0.000	0.000	Ug5_2_8_L_0					
49 D	20.61	3.2350E-04	24.00	55.03	96.00	65.45	UL-RL	2.0566E+04	-9.600	48.00
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
50 D	21.59	3.9651E-04	25.33	57.26	98.00	66.29	UL-RL	2.0566E+04	-9.800	50.67
1.000	1.000	107.9	0.000	0.000	Ug5_2_8_L_0					
51 D	22.53	4.6292E-04	26.67	59.33	100.00	67.13	UL-RL	2.0566E+04	-10.000	53.33
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
52 D	23.45	5.2354E-04	28.00	61.26	102.0	67.98	UL-RL	2.0566E+04	-10.200	56.00
1.000	1.000	117.3	0.000	0.000	Ug5_2_8_L_0					
53 D	24.35	5.7920E-04	29.33	63.08	104.0	68.82	UL-RL	2.0566E+04	-10.400	58.67
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
54 D	25.23	6.3072E-04	30.67	64.80	106.0	69.66	UL-RL	2.0566E+04	-10.600	61.33
1.000	1.000	126.1	0.000	0.000	Ug5_2_8_L_0					
55 D	26.09	6.7892E-04	32.00	66.43	108.0	70.50	UL-RL	2.0566E+04	-10.800	64.00
1.000	1.000	130.4	0.000	0.000	Ug5_2_8_L_0					
56 D	26.94	7.2457E-04	33.33	68.01	110.0	71.34	UL-RL	2.0566E+04	-11.000	66.67
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
57 D	27.77	7.6836E-04	34.67	69.54	112.0	72.18	UL-RL	2.0566E+04	-11.200	69.33
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
58 D	28.61	8.1090E-04	36.00	71.04	114.0	73.02	UL-RL	2.0566E+04	-11.400	72.00
1.000	1.000	143.0	0.000	0.000	Ug5_2_8_L_0					
59 D	29.44	8.5270E-04	37.33	72.52	116.0	73.86	UL-RL	2.0566E+04	-11.600	74.67
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
60 D	30.26	8.9416E-04	38.67	73.99	118.0	74.70	UL-RL	2.0566E+04	-11.800	77.33
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
61 D	15.55	9.3550E-04	40.00	75.45	120.0	75.54	UL-RL	2.0566E+04	-12.000	80.00
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.Nominal_63 |
|              Exe Time :24 May 2018           18:23:40 |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-2.30749E-11	2.30749E-11	-2.11176E-12	2.02831E-11
2	0.41233	-0.41233	-1.18394E-11	8.24652E-02
3	1.2516	-1.2516	-8.24652E-02	0.33279
4	2.5256	-2.5256	-0.33279	0.83790
5	4.2494	-4.2494	-0.83790	1.6878
6	6.4231	-6.4231	-1.6878	2.9724
7	9.0257	-9.0257	-2.9724	4.7775
8	12.053	-12.053	-4.7775	7.1881
9	15.509	-15.509	-7.1881	10.290
10	19.385	-19.385	-10.290	14.167
11	23.686	-23.686	-14.167	18.904
12	28.477	-28.477	-18.904	24.600
13	35.100	-35.100	-24.600	31.620
14	43.815	-43.815	-31.620	40.383
15	53.852	-53.852	-40.383	51.153
16	65.001	-65.001	-51.153	64.153
17	77.243	-77.243	-64.153	79.602
18	90.555	-90.555	-79.602	97.713
19	104.91	-104.91	-97.713	118.70
20	120.28	-120.28	-118.70	142.75
21	136.59	-136.59	-142.75	170.07
22	153.85	-153.85	-170.07	200.84
23	172.00	-172.00	-200.84	235.24
24	190.97	-190.97	-235.24	273.43
25	-111.32	111.32	-273.43	251.17
26	-90.935	90.935	-251.17	232.98
27	-69.719	69.719	-232.98	219.04
28	-47.801	47.801	-219.04	209.48
29	-25.300	25.300	-209.48	204.42
30	-2.3311	2.3311	-204.42	203.95
31	-220.00	220.00	-203.95	159.95
32	-197.00	197.00	-159.95	120.55
33	-174.43	174.43	-120.55	85.666
34	-152.33	152.33	-85.666	55.201
35	-130.76	130.76	-55.201	29.050
36	-111.11	111.11	-29.050	6.8281
37	-92.856	92.856	-6.8281	-11.743
38	-76.002	76.002	11.743	-26.943
39	-60.526	60.526	26.943	-39.049
40	-46.395	46.395	39.049	-48.328
41	-33.562	33.562	48.328	-55.040
42	-21.970	21.970	55.040	-59.434
43	-11.555	11.555	59.434	-61.745
44	-2.2480	2.2480	61.745	-62.195
45	6.0214	-6.0214	62.195	-60.991
46	12.884	-12.884	60.991	-58.414
47	18.349	-18.349	58.414	-54.744
48	22.535	-22.535	54.744	-50.237
49	25.552	-25.552	50.237	-45.127
50	27.501	-27.501	45.127	-39.626
51	28.474	-28.474	39.626	-33.932
52	28.550	-28.550	33.932	-28.222
53	27.797	-27.797	28.222	-22.662
54	26.272	-26.272	22.662	-17.408
55	24.021	-24.021	17.408	-12.604
56	21.080	-21.080	12.604	-8.3878
57	17.474	-17.474	8.3878	-4.8931
58	13.220	-13.220	4.8931	-2.2491
59	8.3290	-8.3290	2.2491	-0.58331

60 2.9164 -2.9164 0.58331 2.76070E-12

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.Nominal_63                       |
|                               Exe Time :24 May 2018      18:23:40                             |
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F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	6
4	CONVERGENCE :YES	3
5	CONVERGENCE :YES	2
6	CONVERGENCE :YES	5
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.22 [sec]

Design Assumption : A1+M1+R1 - File di Paratie - File di output (.out)

```
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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*
|
|          NewProject.BaseDesignSection_28.A1M1R1_1757
|          Exe Time :24 May 2018          18:23:40
|
|-----+
```

```
*****
*
*   PARATIE PLUS Non-Linear Spring Engine
*
*   AN ELASTOPLASTIC FINITE ELEMENT PROGRAM
*   FOR FLEXIBLE EARTH-RETAINING STRUCTURES
*
*   Written by Ce.A.S. s.r.l. (ITALY)
*   with the scientific supervision of
*   Roberto Nova - full professor SOIL MECHANICS
*   at Politecnico di Milano (ITALY)
*
*****
*
*   RELEASE  2017.1      *Build date:Jul 11, 2017*
*
*
*   Ce.A.S.      S.R.L   CENTRO DI ANALISI STRUTTURALE
*               VIALE   GIUSTINIANO 10
*               20129   M I L A N O (ITALIA)
*   TEL.         +39 02 2020221   (+39 035 23 67 19)
*   FAX          +39 02 29512533  (+39 035 42285 49)
*   email        bruno.becci@ceas.it
*   Web Page     www.ceas.it
*****
```

```
JOB : NewProject.BaseDesignSection_28.A1M1R1_1757
STARTING
ACCEPTED <FILE,GENW                               >
ACCEPTED <FILE,PLOTTER,BINARY                     >
ACCEPTED <SOLVE TOTAL STRESS                       >
ACCEPTED <PARAM ITEMAX 40                          >
ACCEPTED <CONTROL HINGES 0 0.0001 0.001           >
```

```
*****
*
*   WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED
*             BY THE PROGRAM.
*****
```

PRELIMINARY OPERATIONS CPU TIME 0.02 [sec]

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:23:40       |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 86
NO. OF LONG NAMES (LASTNAME) ..... 20
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES       kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS    kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS      kN*m/m
ETC.
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018          18:23:40 |
+-----+

P R E P R O C E S S O R   D A T A

N O .   O F   C O M M A N D S       86

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5.5E+04 1.65E+05
15 : ENDL
16 : MATERIAL S355_114 2.1E+08
17 : BEAM WallElement_33 LeftWall_32 -12 0 S355_114 0.25 00 00 0
18 : STRIP LeftWall_32 1 7 5 13 0 62 45
19 : STRIP LeftWall_32 1 7 18 17 0 45 45
20 : STRIP LeftWall_32 1 7 0.5 4.5 0 11.54 45
21 : STEP Stage1_31
22 : CHANGE Ug5_2_8_L_0 U-FRICT=37 LeftWall_32
23 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
24 : CHANGE Ug5_2_8_L_0 U-KA=0.249 LeftWall_32
25 : CHANGE Ug5_2_8_L_0 U-KP=6.738 LeftWall_32
26 : CHANGE Ug5_2_8_L_0 D-KA=0.249 LeftWall_32
27 : CHANGE Ug5_2_8_L_0 D-KP=6.738 LeftWall_32
28 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
30 : SETWALL LeftWall_32
31 : GEOM 0 0
32 : WATER 0 0 -12 0 0
33 : ADD WallElement_33
34 : ENDSTEP
35 : STEP Stage2_158
36 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
37 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
38 : SETWALL LeftWall_32
39 : GEOM 0 -1
40 : WATER 0 1 -12 0 0
41 : ENDSTEP
42 : STEP Stage3_255
43 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
44 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
45 : SETWALL LeftWall_32
46 : GEOM 0 -2
47 : WATER 0 2 -12 0 0
48 : ENDSTEP
49 : STEP Stage4_352
50 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
51 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
52 : SETWALL LeftWall_32
53 : GEOM 0 -3
54 : WATER 0 3 -12 0 0
55 : LOAD step LeftWall_32 -2.7 1 -20
56 : LOAD step LeftWall_32 -3 1 -72
57 : ENDSTEP
58 : STEP Stage5_449
59 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
60 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
61 : SETWALL LeftWall_32
62 : GEOM 0 -4
63 : SURCHARGE 0 0 0 -4
64 : WATER 0 4 -12 0 0
65 : LOAD step LeftWall_32 -4 1 -80.5
66 : LOAD step LeftWall_32 -3.3 1 -105
67 : ENDSTEP
68 : STEP Stage6_546
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : SETWALL LeftWall_32
72 : GEOM 0 -5
73 : SURCHARGE 0 0 0 0
74 : WATER 0 5 -12 0 0
75 : LOAD step LeftWall_32 -5 1 -45.2
76 : LOAD step LeftWall_32 -4 1 -181
77 : ENDSTEP
78 : STEP Stage7_643
79 : CHANGE Ug5_2_8_L_0 D-FRICT=37 LeftWall_32
80 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -6
83 : WATER 0 6 -12 0 0
84 : LOAD constant LeftWall_32 -6 1 -241
85 : LOAD constant LeftWall_32 -4.7 1 -322
86 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+

```

N O D A L P O I N T D A T A

```

+-----+
| NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / |
| 1 0.0000      0.0000 / 2 0.0000     -0.20000 / 3 0.0000     -0.40000 / 4 0.0000     -0.60000 / |
| 5 0.0000     -0.80000 / 6 0.0000     -1.0000 / 7 0.0000     -1.2000 / 8 0.0000     -1.4000 / |
| 9 0.0000     -1.6000 / 10 0.0000    -1.8000 / 11 0.0000    -2.0000 / 12 0.0000    -2.2000 / |
| 13 0.0000    -2.4000 / 14 0.0000    -2.6000 / 15 0.0000    -2.8000 / 16 0.0000    -3.0000 / |
| 17 0.0000    -3.2000 / 18 0.0000    -3.4000 / 19 0.0000    -3.6000 / 20 0.0000    -3.8000 / |
| 21 0.0000    -4.0000 / 22 0.0000    -4.2000 / 23 0.0000    -4.4000 / 24 0.0000    -4.6000 / |
| 25 0.0000    -4.8000 / 26 0.0000    -5.0000 / 27 0.0000    -5.2000 / 28 0.0000    -5.4000 / |
| 29 0.0000    -5.6000 / 30 0.0000    -5.8000 / 31 0.0000    -6.0000 / 32 0.0000    -6.2000 / |
| 33 0.0000    -6.4000 / 34 0.0000    -6.6000 / 35 0.0000    -6.8000 / 36 0.0000    -7.0000 / |
| 37 0.0000    -7.2000 / 38 0.0000    -7.4000 / 39 0.0000    -7.6000 / 40 0.0000    -7.8000 / |
| 41 0.0000    -8.0000 / 42 0.0000    -8.2000 / 43 0.0000    -8.4000 / 44 0.0000    -8.6000 / |
| 45 0.0000    -8.8000 / 46 0.0000    -9.0000 / 47 0.0000    -9.2000 / 48 0.0000    -9.4000 / |
| 49 0.0000    -9.6000 / 50 0.0000    -9.8000 / 51 0.0000    -10.000 / 52 0.0000    -10.200 / |
| 53 0.0000    -10.400 / 54 0.0000    -10.600 / 55 0.0000    -10.800 / 56 0.0000    -11.000 / |
| 57 0.0000    -11.200 / 58 0.0000    -11.400 / 59 0.0000    -11.600 / 60 0.0000    -11.800 / |
| 61 0.0000    -12.000 / |
+-----+

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L
 5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

```

.....2D PLASTIC SOIL .....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:23:40       |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R          :
 5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018   18:23:40             |
+-----+

```

ELEMENT GROUP NO. 3

```

WallElement_33      :
 2 60 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

```

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) young modulus      0.210000E+09
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

```

no. of step variable items: 1
step inertia multiplier

```

-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

```

element data

e1	na	nb	mat	erc1	erc2	thick	by-i	by-j
1	1	2	1	0.000	0.000	0.2500	0.000	0.000
2	2	3	1	0.000	0.000	0.2500	0.000	0.000
3	3	4	1	0.000	0.000	0.2500	0.000	0.000
4	4	5	1	0.000	0.000	0.2500	0.000	0.000
5	5	6	1	0.000	0.000	0.2500	0.000	0.000
6	6	7	1	0.000	0.000	0.2500	0.000	0.000
7	7	8	1	0.000	0.000	0.2500	0.000	0.000
8	8	9	1	0.000	0.000	0.2500	0.000	0.000
9	9	10	1	0.000	0.000	0.2500	0.000	0.000
10	10	11	1	0.000	0.000	0.2500	0.000	0.000
11	11	12	1	0.000	0.000	0.2500	0.000	0.000
12	12	13	1	0.000	0.000	0.2500	0.000	0.000
13	13	14	1	0.000	0.000	0.2500	0.000	0.000
14	14	15	1	0.000	0.000	0.2500	0.000	0.000
15	15	16	1	0.000	0.000	0.2500	0.000	0.000
16	16	17	1	0.000	0.000	0.2500	0.000	0.000
17	17	18	1	0.000	0.000	0.2500	0.000	0.000
18	18	19	1	0.000	0.000	0.2500	0.000	0.000
19	19	20	1	0.000	0.000	0.2500	0.000	0.000
20	20	21	1	0.000	0.000	0.2500	0.000	0.000
21	21	22	1	0.000	0.000	0.2500	0.000	0.000
22	22	23	1	0.000	0.000	0.2500	0.000	0.000
23	23	24	1	0.000	0.000	0.2500	0.000	0.000
24	24	25	1	0.000	0.000	0.2500	0.000	0.000
25	25	26	1	0.000	0.000	0.2500	0.000	0.000
26	26	27	1	0.000	0.000	0.2500	0.000	0.000
27	27	28	1	0.000	0.000	0.2500	0.000	0.000
28	28	29	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                               |
|                               Exe Time :24 May 2018      18:23:40                               |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 8
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018      18:23:40          |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

CONCENTRATED LOADS

NODE	DIRECTION	LOAD CURVE	LOAD CURVE MULTIPL
14	1	4	-0.2000E+02
16	1	4	-0.7200E+02
21	1	5	-0.8050E+02
17	1	5	-0.1050E+03
26	1	6	-0.4520E+02
21	1	6	-0.1810E+03
31	1	14	-0.2410E+03
25	1	14	-0.3220E+03

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018      18:23:40  |
+-----+
L O A D      B A L A N C E

STEP  1  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  1  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  2  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  2  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  3  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  3  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  4  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F     -92.0000000
STEP  4  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  5  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -185.50000
STEP  5  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  6  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -226.20000
STEP  6  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000

STEP  7  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -563.00000
STEP  7  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                               |
|                               Exe Time :24 May 2018      18:23:40                               |
+-----+
```

NO. OF LAYERS 1
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                |
|                NewProject.BaseDesignSection_28.A1M1R1_1757 |
|                Exe Time :24 May 2018   18:23:40 |
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO. 1<NAME      >= 18.000   (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000   (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000   (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000   (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000   (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000   (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000   (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 37.000   (BOTH WALLS)
ITEM NO. 10<U-KA    >= 0.24900  WALL NO.    1
ITEM NO. 11<U-KP    >= 6.7380   WALL NO.    1
ITEM NO. 12<K0-NC   >= 0.50000   (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000   (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000   (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000   (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000   (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000   (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000   (BOTH WALLS)
ITEM NO. 60<D-KA    >= 0.24900  WALL NO.    1
ITEM NO. 61<D-KP    >= 6.7380   WALL NO.    1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```

ITEM NO. 1<NAME      >= 18.000   (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000   (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000   (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000   (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000   (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000   (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000   (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 37.000   (BOTH WALLS)
ITEM NO. 10<U-KA    >= 0.24900  WALL NO.    1
ITEM NO. 11<U-KP    >= 6.7380   WALL NO.    1
ITEM NO. 12<K0-NC   >= 0.50000   (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000   (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000   (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000   (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.   (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000   (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000   (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000   (BOTH WALLS)
ITEM NO. 60<D-KA    >= 0.24900  WALL NO.    1
ITEM NO. 61<D-KP    >= 6.7380   WALL NO.    1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

```

ITEM NO. 1<NAME      >= 18.000   (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000   (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000   (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000   (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000   (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000   (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000   (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 37.000   (BOTH WALLS)

```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

ITEM NO. 10<U-KA >= 0.24900 WALL NO. 1
ITEM NO. 11<U-KP >= 6.7380 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 55000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.24900 WALL NO. 1
ITEM NO. 61<D-KP >= 6.7380 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

```

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 37.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.24900 WALL NO. 1
ITEM NO. 11<U-KP >= 6.7380 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 55000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.24900 WALL NO. 1
ITEM NO. 61<D-KP >= 6.7380 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

```

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 37.000 (BOTH WALLS)
ITEM NO. 10<U-KA >= 0.24900 WALL NO. 1
ITEM NO. 11<U-KP >= 6.7380 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 55000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 37.000 (BOTH WALLS)
ITEM NO. 60<D-KA >= 0.24900 WALL NO. 1
ITEM NO. 61<D-KP >= 6.7380 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

```

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.0000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO.	1<NAME	>=	18.0000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>=	19.0000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>=	10.0000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>=	10.0000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	10<U-KA	>=	0.24900	WALL NO.	1
ITEM NO.	11<U-KP	>=	6.7380	WALL NO.	1
ITEM NO.	12<K0-NC	>=	0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>=	0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>=	1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>=	1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>=	55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>=	0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>=	0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>=	1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>=	0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>=	37.0000	(BOTH WALLS)	
ITEM NO.	60<D-KA	>=	0.24900	WALL NO.	1
ITEM NO.	61<D-KP	>=	6.7380	WALL NO.	1
ITEM NO.	77<D-PERM	>=	0.10000E-03	(BOTH WALLS)	

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 7 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018           18:23:40   |
+-----+

```

PHASE DESCRIPTORS

```

STEP NO.      1

                LEFT WALL      RIGHT WALL
Y              0.000            -0.9990E+30
Z-PC           0.000             0.000
Z-EXCAVATION   0.000             0.000
Z-WATER_TABLE  0.000            -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000             0.000
ZQ             0.000             0.000
DZW_OF_THE_WATER_TABLE  0.000             0.000
QS_ON_THE_EXCAVATION_SIDE  0.000             0.000
ZQS            -0.9990E+30      -0.9990E+30
ZCUT           0.000             0.000
BALANCE LEVEL FOR PORE PRESSURES  -12.00           -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000             0.000
PORE_UPDATE_FLAG  0.000             0.000
PORE_TAB._FLAG (gt.0= use tabs)  0.000             0.000
lateral thrusts reduction elevatio  0.000             0.000
Downhill reduction factor for effe  0.000             0.000
Downhill reduction factor for pore  0.000             0.000
Uphill reduction factor for effect  0.000             0.000
Uphill reduction factor for pore p  0.000             0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000             0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000             0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000             0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000             0.000
UPHILL DELTA/PHI RATIO               0.000             0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000             0.000
DOWNHILL DELTA/PHI RATIO             0.000             0.000
DYN.WATER BEHAVIOUR                 0.000             0.000
Excess pore pressure RATIO Ru       0.000             0.000
SEISMIC PRESSURE LOWER VALUE        0.000             0.000
SEISMIC PRESSURE UPPER VALUE        0.000             0.000
SEISMIC PRESSURE LOWER LEVEL        0.000             0.000
SEISMIC PRESSURE UPPER LEVEL        0.000             0.000

```

=====end of step 1

```

STEP NO.      2

                LEFT WALL      RIGHT WALL
Y              0.000            -0.9990E+30
Z-PC           0.000             0.000
Z-EXCAVATION   -1.000             0.000
Z-WATER_TABLE  0.000            -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000             0.000
ZQ             0.000             0.000
DZW_OF_THE_WATER_TABLE  1.000             0.000
QS_ON_THE_EXCAVATION_SIDE  0.000             0.000
ZQS            -0.9990E+30      -0.9990E+30
ZCUT           0.000             0.000
BALANCE LEVEL FOR PORE PRESSURES  -12.00           -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)  0.000             0.000
PORE_UPDATE_FLAG  0.000             0.000
PORE_TAB._FLAG (gt.0= use tabs)  0.000             0.000
lateral thrusts reduction elevatio  0.000             0.000
Downhill reduction factor for effe  0.000             0.000
Downhill reduction factor for pore  0.000             0.000
Uphill reduction factor for effect  0.000             0.000
Uphill reduction factor for pore p  0.000             0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]    0.000             0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]    0.000             0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]   0.000             0.000
UPHILL BETA ANGLE (SLOPE) [deg]     0.000             0.000
UPHILL DELTA/PHI RATIO               0.000             0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]   0.000             0.000
DOWNHILL DELTA/PHI RATIO             0.000             0.000
DYN.WATER BEHAVIOUR                 0.000             0.000
Excess pore pressure RATIO Ru       0.000             0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

=====
=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

=====
=====end of step 4

```
STEP NO.      5

LEFT WALL     RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000     0.000
Z-EXCAVATION   -4.000     0.000
Z-WATER_TABLE  0.000    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000     0.000
ZQ             0.000     0.000
DZW_OF_THE_WATER_TABLE  4.000     0.000
QS_ON_THE_EXCAVATION_SIDE  0.000     0.000
ZQS           -4.000    -0.9990E+30
ZCUT           0.000     0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000     0.000
PORE_UPDATE_FLAG 0.000     0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000     0.000
lateral thrusts reduction elevatio 0.000     0.000
Downhill reduction factor for effe 0.000     0.000
Downhill reduction factor for pore 0.000     0.000
Uphill reduction factor for effect 0.000     0.000
Uphill reduction factor for pore p 0.000     0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000     0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000     0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000     0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000     0.000
UPHILL DELTA/PHI RATIO 0.000     0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000     0.000
DOWNHILL DELTA/PHI RATIO 0.000     0.000
DYN.WATER BEHAVIOUR 0.000     0.000
Excess pore pressure RATIO Ru 0.000     0.000
SEISMIC PRESSURE LOWER VALUE 0.000     0.000
SEISMIC PRESSURE UPPER VALUE 0.000     0.000
SEISMIC PRESSURE LOWER LEVEL 0.000     0.000
SEISMIC PRESSURE UPPER LEVEL 0.000     0.000
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=====
=====end of step 5

```
STEP NO.      6

LEFT WALL     RIGHT WALL
Y              0.000    -0.9990E+30
Z-PC           0.000     0.000
Z-EXCAVATION   -5.000     0.000
Z-WATER_TABLE  0.000    -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL  0.000     0.000
ZQ             0.000     0.000
DZW_OF_THE_WATER_TABLE  5.000     0.000
QS_ON_THE_EXCAVATION_SIDE  0.000     0.000
ZQS           0.000    -0.9990E+30
ZCUT           0.000     0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00    -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000     0.000
PORE_UPDATE_FLAG 0.000     0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000     0.000
lateral thrusts reduction elevatio 0.000     0.000
Downhill reduction factor for effe 0.000     0.000
Downhill reduction factor for pore 0.000     0.000
Uphill reduction factor for effect 0.000     0.000
Uphill reduction factor for pore p 0.000     0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000     0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000     0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000     0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000     0.000
UPHILL DELTA/PHI RATIO 0.000     0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000     0.000
DOWNHILL DELTA/PHI RATIO 0.000     0.000
DYN.WATER BEHAVIOUR 0.000     0.000
Excess pore pressure RATIO Ru 0.000     0.000
SEISMIC PRESSURE LOWER VALUE 0.000     0.000
SEISMIC PRESSURE UPPER VALUE 0.000     0.000
SEISMIC PRESSURE LOWER LEVEL 0.000     0.000
SEISMIC PRESSURE UPPER LEVEL 0.000     0.000
```

=====
=====end of step 6

```
STEP NO.      7

LEFT WALL     RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-6.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	0.000	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 7

LEFT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018      18:23:40 |
+-----+
I N I T I A L   S T R E S S   T A B L E S

          S E C T I O N

NUMBER OF DEFINED TABLES          3

INPUT DATA FOR INITIAL STRESS SET NO.  1
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              5.000000000000000
FOUNDATION WIDTH (B)                   13.000000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              62.000000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO.  2
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              18.000000000000000
FOUNDATION WIDTH (B)                   17.000000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              45.000000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO.  3
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              0.500000000000000
FOUNDATION WIDTH (B)                   4.500000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              11.540000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION          3123

NO. OF D.P.W FOR THIS AREA          7200
MAX NO. OF D.P.W. AVAILABLE          81920
** MAX NO OF ITERATIONS SET TO          40

ITER      0  RNORM = 0.000  RMNORM= 0.000
          RINORM=0.6773E+05  RIMNOR= 0.000
          RENORM=0.1672E-27  REMNOR= 0.000  RATIO =0.4969E-16  TOLER =0.1000E-03  CONVERGED !
          RFMAX = 38.54  RFMAX = 0.000
          RTSMAL=0.1000E-03  RMSMAL= 0.000
          RDT =0.6773E+05  RDR = 0.000
          RATIOI=0.4969E-16  RATIOI= 0.000
          MAX UN=0.3553E-14  IEQ= 91 NODE 46 DOF 1 Y-DISPL.F
          MIN UN=-.7105E-14  IEQ= 115 NODE 58 DOF 1 Y-DISPL.F
          NO. OF CONTACT CONSTRAINT VIOLATIONS 0

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER 1 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6773E+05 RIMNOR= 0.000
RENORM=0.2189E-28 REMNOR=0.8614E-53 RATIO =0.1798E-16 TOLER =0.1000E-03 CONVERGED !
RFMAX = 38.54 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.6773E+05 RDR = 0.000
RATIOT=0.1798E-16 RATIO= 0.000
MAX UN=0.2142E-15 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.2139E-14 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000 RMNORM= 0.000
RINORM=0.6773E+05 RIMNOR= 0.000
RENORM=0.1879E-28 REMNOR=0.4985E-53 RATIO =0.1666E-16 TOLER =0.1000E-03 CONVERGED !
RFMAX = 38.54 RMMAX = 0.000
RTSMAL=0.1000E-03 RMSMAL= 0.000
RDT =0.6773E+05 RDR = 0.000
RATIOT=0.1666E-16 RATIO= 0.000
MAX UN=0.2150E-15 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
MIN UN=-.1815E-14 IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```


Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:23:40                             |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME  1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)          (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+

```

New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	2.5825E-21	0.000	0.000	0.000	0.000	V-C	6.8946E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.333	2.7530E-21	2.132	4.664	2.132	4.664	V-C	6.8946E+04	-0.2000	2.000	
1.000	1.000	6.664	0.000	0.000	Ug5_2_8_L_0						
3 D	2.452	2.9226E-21	4.692	8.262	4.692	8.262	V-C	6.8946E+04	-0.4000	4.000	
1.000	1.000	12.26	0.000	0.000	Ug5_2_8_L_0						
4 D	3.398	3.0890E-21	7.429	10.99	7.429	10.99	V-C	6.8946E+04	-0.6000	6.000	
1.000	1.000	16.99	0.000	0.000	Ug5_2_8_L_0						
5 D	4.258	3.2489E-21	10.52	13.29	10.52	13.29	V-C	6.8946E+04	-0.8000	8.000	
1.000	1.000	21.29	0.000	0.000	Ug5_2_8_L_0						
6 D	5.076	3.3973E-21	13.60	15.38	13.60	15.38	V-C	6.8946E+04	-1.0000	10.00	
1.000	1.000	25.38	0.000	0.000	Ug5_2_8_L_0						
7 D	5.870	3.5279E-21	16.20	17.35	16.20	17.35	V-C	6.8946E+04	-1.2000	12.00	
1.000	1.000	29.35	0.000	0.000	Ug5_2_8_L_0						
8 D	6.649	3.6332E-21	18.69	19.25	18.69	19.25	V-C	6.8946E+04	-1.4000	14.00	
1.000	1.000	33.25	0.000	0.000	Ug5_2_8_L_0						
9 D	7.415	3.7046E-21	21.29	21.08	21.29	21.08	V-C	6.8946E+04	-1.6000	16.00	
1.000	1.000	37.08	0.000	0.000	Ug5_2_8_L_0						
10 D	8.169	3.7319E-21	23.67	22.85	23.67	22.85	V-C	6.8946E+04	-1.8000	18.00	
1.000	1.000	40.85	0.000	0.000	Ug5_2_8_L_0						
11 D	8.912	3.7042E-21	26.17	24.56	26.17	24.56	V-C	6.8946E+04	-2.0000	20.00	
1.000	1.000	44.56	0.000	0.000	Ug5_2_8_L_0						
12 D	9.643	3.6093E-21	28.52	26.22	28.52	26.22	V-C	6.8946E+04	-2.2000	22.00	
1.000	1.000	48.22	0.000	0.000	Ug5_2_8_L_0						
13 D	10.36	3.4340E-21	30.98	27.82	30.98	27.82	V-C	6.8946E+04	-2.4000	24.00	
1.000	1.000	51.82	0.000	0.000	Ug5_2_8_L_0						
14 D	11.07	3.1647E-21	33.34	29.37	33.34	29.37	V-C	6.8946E+04	-2.6000	26.00	
1.000	1.000	55.37	0.000	0.000	Ug5_2_8_L_0						
15 D	11.77	2.7867E-21	35.80	30.86	35.80	30.86	V-C	6.8946E+04	-2.8000	28.00	
1.000	1.000	58.86	0.000	0.000	Ug5_2_8_L_0						
16 D	12.46	2.2852E-21	38.16	32.31	38.16	32.31	V-C	6.8946E+04	-3.0000	30.00	
1.000	1.000	62.31	0.000	0.000	Ug5_2_8_L_0						
17 D	13.14	1.6450E-21	40.62	33.71	40.62	33.71	V-C	6.8946E+04	-3.2000	32.00	
1.000	1.000	65.71	0.000	0.000	Ug5_2_8_L_0						
18 D	13.81	8.5105E-22	43.01	35.06	43.01	35.06	V-C	6.8946E+04	-3.4000	34.00	
1.000	1.000	69.06	0.000	0.000	Ug5_2_8_L_0						
19 D	14.47	-1.1154E-22	45.40	36.37	45.40	36.37	V-C	6.8946E+04	-3.6000	36.00	
1.000	1.000	72.37	0.000	0.000	Ug5_2_8_L_0						
20 D	15.13	-1.2569E-21	47.87	37.63	47.87	37.63	V-C	6.8946E+04	-3.8000	38.00	
1.000	1.000	75.63	0.000	0.000	Ug5_2_8_L_0						
21 D	15.77	-2.5980E-21	50.27	38.86	50.27	38.86	V-C	6.8946E+04	-4.0000	40.00	
1.000	1.000	78.86	0.000	0.000	Ug5_2_8_L_0						
22 D	16.41	-4.1381E-21	52.73	40.06	52.73	40.06	V-C	6.8946E+04	-4.2000	42.00	
1.000	1.000	82.06	0.000	0.000	Ug5_2_8_L_0						
23 D	17.04	-5.8437E-21	55.14	41.21	55.14	41.21	V-C	6.8946E+04	-4.4000	44.00	
1.000	1.000	85.21	0.000	0.000	Ug5_2_8_L_0						
24 D	17.67	-7.6705E-21	57.60	42.34	57.60	42.34	V-C	6.8946E+04	-4.6000	46.00	
1.000	1.000	88.34	0.000	0.000	Ug5_2_8_L_0						
25 D	18.29	-9.5714E-21	60.01	43.44	60.01	43.44	V-C	6.8946E+04	-4.8000	48.00	
1.000	1.000	91.44	0.000	0.000	Ug5_2_8_L_0						
26 D	18.90	-1.1496E-20	62.41	44.51	62.41	44.51	V-C	6.8946E+04	-5.0000	50.00	
1.000	1.000	94.51	0.000	0.000	Ug5_2_8_L_0						
27 D	19.51	-1.3391E-20	64.61	45.56	64.61	45.56	V-C	6.8946E+04	-5.2000	52.00	
1.000	1.000	97.56	0.000	0.000	Ug5_2_8_L_0						
28 D	20.12	-1.5198E-20	66.82	46.59	66.82	46.59	V-C	6.8946E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.6	0.000	0.000	Ug5_2_8_L_0					
29 D	20.72	-1.6855E-20	69.03	47.60	69.03	47.60	V-C	6.8946E+04	-5.600	56.00
1.000	1.000	103.6	0.000	0.000	Ug5_2_8_L_0					
30 D	21.32	-1.8294E-20	71.25	48.59	71.25	48.59	V-C	6.8946E+04	-5.800	58.00
1.000	1.000	106.6	0.000	0.000	Ug5_2_8_L_0					
31 D	21.91	-1.9441E-20	73.47	49.56	73.47	49.56	V-C	6.8946E+04	-6.000	60.00
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
32 D	22.50	-2.0236E-20	75.70	50.51	75.70	50.51	V-C	6.8946E+04	-6.200	62.00
1.000	1.000	112.5	0.000	0.000	Ug5_2_8_L_0					
33 D	23.09	-2.0682E-20	77.92	51.46	77.92	51.46	V-C	6.8946E+04	-6.400	64.00
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
34 D	23.68	-2.0790E-20	80.38	52.39	80.38	52.39	V-C	6.8946E+04	-6.600	66.00
1.000	1.000	118.4	0.000	0.000	Ug5_2_8_L_0					
35 D	24.26	-2.0568E-20	82.75	53.31	82.75	53.31	V-C	6.8946E+04	-6.800	68.00
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
36 D	24.84	-2.0016E-20	85.67	54.22	85.67	54.22	V-C	6.8946E+04	-7.000	70.00
1.000	1.000	124.2	0.000	0.000	Ug5_2_8_L_0					
37 D	25.42	-1.9130E-20	88.00	55.12	88.00	55.12	V-C	6.8946E+04	-7.200	72.00
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
38 D	26.00	-1.7897E-20	90.86	56.01	90.86	56.01	V-C	6.8946E+04	-7.400	74.00
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
39 D	26.58	-1.6300E-20	93.16	56.89	93.16	56.89	V-C	6.8946E+04	-7.600	76.00
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
40 D	27.15	-1.4319E-20	95.97	57.77	95.97	57.77	V-C	6.8946E+04	-7.800	78.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.73	-1.1908E-20	98.74	58.64	98.74	58.64	V-C	6.8946E+04	-8.000	80.00
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
42 D	28.30	-8.9515E-21	101.0	59.51	101.0	59.51	V-C	6.8946E+04	-8.200	82.00
1.000	1.000	141.5	0.000	0.000	Ug5_2_8_L_0					
43 D	28.87	-5.3138E-21	103.7	60.37	103.7	60.37	V-C	6.8946E+04	-8.400	84.00
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
44 D	29.45	-8.5722E-22	105.9	61.23	105.9	61.23	V-C	6.8946E+04	-8.600	86.00
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
45 D	30.02	4.5550E-21	108.6	62.09	108.6	62.09	V-C	6.8946E+04	-8.800	88.00
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
46 D	30.59	1.1040E-20	110.8	62.94	110.8	62.94	V-C	6.8946E+04	-9.000	90.00
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
47 D	31.16	1.8626E-20	113.5	63.79	113.5	63.79	V-C	6.8946E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.73	2.7247E-20	115.7	64.64	115.7	64.64	V-C	6.8946E+04	-9.400	94.00
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
49 D	32.30	3.6828E-20	118.3	65.48	118.3	65.48	V-C	6.8946E+04	-9.600	96.00
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
50 D	32.86	4.7355E-20	120.5	66.32	120.5	66.32	V-C	6.8946E+04	-9.800	98.00
1.000	1.000	164.3	0.000	0.000	Ug5_2_8_L_0					
51 D	33.43	5.8816E-20	123.1	67.17	123.1	67.17	V-C	6.8946E+04	-10.000	100.00
1.000	1.000	167.2	0.000	0.000	Ug5_2_8_L_0					
52 D	34.00	7.1182E-20	125.2	68.01	125.2	68.01	V-C	6.8946E+04	-10.200	102.0
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.57	8.4404E-20	127.8	68.85	127.8	68.85	V-C	6.8946E+04	-10.400	104.0
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
54 D	35.14	9.8412E-20	130.3	69.69	130.3	69.69	V-C	6.8946E+04	-10.600	106.0
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.70	1.1311E-19	132.5	70.52	132.5	70.52	V-C	6.8946E+04	-10.800	108.0
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.27	1.2837E-19	135.0	71.36	135.0	71.36	V-C	6.8946E+04	-11.000	110.0
1.000	1.000	181.4	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	1.4402E-19	137.2	72.20	137.2	72.20	V-C	6.8946E+04	-11.200	112.0
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.41	1.5988E-19	139.6	73.04	139.6	73.04	V-C	6.8946E+04	-11.400	114.0
1.000	1.000	187.0	0.000	0.000	Ug5_2_8_L_0					
59 D	37.98	1.7573E-19	141.8	73.88	141.8	73.88	V-C	6.8946E+04	-11.600	116.0
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.54	1.9149E-19	144.3	74.72	144.3	74.72	V-C	6.8946E+04	-11.800	118.0
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.56	2.0722E-19	146.4	75.56	146.4	75.56	V-C	6.8946E+04	-12.000	120.0
1.000	1.000	195.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757   |
|          Exe Time :24 May 2018          18:23:40       |
|          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.5825E-21	0.000	0.000	0.000	0.000	V-C	3.4277E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.333	-2.7530E-21	2.000	4.664	2.000	4.664	V-C	3.4277E+04	-0.2000	2.000	
1.000	1.000	6.664	0.000	0.000	Ug5_2_8_L_0						
3 D	2.452	-2.9226E-21	4.000	8.262	4.000	8.262	V-C	3.4277E+04	-0.4000	4.000	
1.000	1.000	12.26	0.000	0.000	Ug5_2_8_L_0						
4 D	3.398	-3.0890E-21	6.000	10.99	6.000	10.99	V-C	3.4277E+04	-0.6000	6.000	
1.000	1.000	16.99	0.000	0.000	Ug5_2_8_L_0						
5 D	4.258	-3.2489E-21	8.000	13.29	8.000	13.29	V-C	3.4277E+04	-0.8000	8.000	
1.000	1.000	21.29	0.000	0.000	Ug5_2_8_L_0						
6 D	5.076	-3.3973E-21	10.00	15.38	10.00	15.38	V-C	3.4277E+04	-1.0000	10.00	
1.000	1.000	25.38	0.000	0.000	Ug5_2_8_L_0						
7 D	5.870	-3.5279E-21	12.00	17.35	12.00	17.35	V-C	3.4277E+04	-1.2000	12.00	
1.000	1.000	29.35	0.000	0.000	Ug5_2_8_L_0						
8 D	6.649	-3.6332E-21	14.00	19.25	14.00	19.25	V-C	3.4277E+04	-1.4000	14.00	
1.000	1.000	33.25	0.000	0.000	Ug5_2_8_L_0						
9 D	7.415	-3.7046E-21	16.00	21.08	16.00	21.08	V-C	3.4277E+04	-1.6000	16.00	
1.000	1.000	37.08	0.000	0.000	Ug5_2_8_L_0						
10 D	8.169	-3.7319E-21	18.00	22.85	18.00	22.85	V-C	3.4277E+04	-1.8000	18.00	
1.000	1.000	40.85	0.000	0.000	Ug5_2_8_L_0						
11 D	8.912	-3.7042E-21	20.00	24.56	20.00	24.56	V-C	3.4277E+04	-2.0000	20.00	
1.000	1.000	44.56	0.000	0.000	Ug5_2_8_L_0						
12 D	9.643	-3.6093E-21	22.00	26.22	22.00	26.22	V-C	3.4277E+04	-2.2000	22.00	
1.000	1.000	48.22	0.000	0.000	Ug5_2_8_L_0						
13 D	10.36	-3.4340E-21	24.00	27.82	24.00	27.82	V-C	3.4277E+04	-2.4000	24.00	
1.000	1.000	51.82	0.000	0.000	Ug5_2_8_L_0						
14 D	11.07	-3.1647E-21	26.00	29.37	26.00	29.37	V-C	3.4277E+04	-2.6000	26.00	
1.000	1.000	55.37	0.000	0.000	Ug5_2_8_L_0						
15 D	11.77	-2.7867E-21	28.00	30.86	28.00	30.86	V-C	3.4277E+04	-2.8000	28.00	
1.000	1.000	58.86	0.000	0.000	Ug5_2_8_L_0						
16 D	12.46	-2.2852E-21	30.00	32.31	30.00	32.31	V-C	3.4277E+04	-3.0000	30.00	
1.000	1.000	62.31	0.000	0.000	Ug5_2_8_L_0						
17 D	13.14	-1.6450E-21	32.00	33.71	32.00	33.71	V-C	3.4277E+04	-3.2000	32.00	
1.000	1.000	65.71	0.000	0.000	Ug5_2_8_L_0						
18 D	13.81	-8.5105E-22	34.00	35.06	34.00	35.06	V-C	3.4277E+04	-3.4000	34.00	
1.000	1.000	69.06	0.000	0.000	Ug5_2_8_L_0						
19 D	14.47	1.1154E-22	36.00	36.37	36.00	36.37	V-C	3.4277E+04	-3.6000	36.00	
1.000	1.000	72.37	0.000	0.000	Ug5_2_8_L_0						
20 D	15.13	1.2569E-21	38.00	37.63	38.00	37.63	V-C	3.4277E+04	-3.8000	38.00	
1.000	1.000	75.63	0.000	0.000	Ug5_2_8_L_0						
21 D	15.77	2.5980E-21	40.00	38.86	40.00	38.86	V-C	3.4277E+04	-4.0000	40.00	
1.000	1.000	78.86	0.000	0.000	Ug5_2_8_L_0						
22 D	16.41	4.1381E-21	42.00	40.06	42.00	40.06	V-C	3.4277E+04	-4.2000	42.00	
1.000	1.000	82.06	0.000	0.000	Ug5_2_8_L_0						
23 D	17.04	5.8437E-21	44.00	41.21	44.00	41.21	V-C	3.4277E+04	-4.4000	44.00	
1.000	1.000	85.21	0.000	0.000	Ug5_2_8_L_0						
24 D	17.67	7.6705E-21	46.00	42.34	46.00	42.34	V-C	3.4277E+04	-4.6000	46.00	
1.000	1.000	88.34	0.000	0.000	Ug5_2_8_L_0						
25 D	18.29	9.5714E-21	48.00	43.44	48.00	43.44	V-C	3.4277E+04	-4.8000	48.00	
1.000	1.000	91.44	0.000	0.000	Ug5_2_8_L_0						
26 D	18.90	1.1496E-20	50.00	44.51	50.00	44.51	V-C	3.4277E+04	-5.0000	50.00	
1.000	1.000	94.51	0.000	0.000	Ug5_2_8_L_0						
27 D	19.51	1.3391E-20	52.00	45.56	52.00	45.56	V-C	3.4277E+04	-5.2000	52.00	
1.000	1.000	97.56	0.000	0.000	Ug5_2_8_L_0						
28 D	20.12	1.5198E-20	54.00	46.59	54.00	46.59	V-C	3.4277E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.6	0.000	0.000	Ug5_2_8_L_0					
29 D	20.72	1.6855E-20	56.00	47.60	56.00	47.60	V-C	3.4277E+04	-5.600	56.00
1.000	1.000	103.6	0.000	0.000	Ug5_2_8_L_0					
30 D	21.32	1.8294E-20	58.00	48.59	58.00	48.59	V-C	3.4277E+04	-5.800	58.00
1.000	1.000	106.6	0.000	0.000	Ug5_2_8_L_0					
31 D	21.91	1.9441E-20	60.00	49.56	60.00	49.56	V-C	3.4277E+04	-6.000	60.00
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
32 D	22.50	2.0236E-20	62.00	50.51	62.00	50.51	V-C	3.4277E+04	-6.200	62.00
1.000	1.000	112.5	0.000	0.000	Ug5_2_8_L_0					
33 D	23.09	2.0682E-20	64.00	51.46	64.00	51.46	V-C	3.4277E+04	-6.400	64.00
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
34 D	23.68	2.0790E-20	66.00	52.39	66.00	52.39	V-C	3.4277E+04	-6.600	66.00
1.000	1.000	118.4	0.000	0.000	Ug5_2_8_L_0					
35 D	24.26	2.0568E-20	68.00	53.31	68.00	53.31	V-C	3.4277E+04	-6.800	68.00
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
36 D	24.84	2.0016E-20	70.00	54.22	70.00	54.22	V-C	3.4277E+04	-7.000	70.00
1.000	1.000	124.2	0.000	0.000	Ug5_2_8_L_0					
37 D	25.42	1.9130E-20	72.00	55.12	72.00	55.12	V-C	3.4277E+04	-7.200	72.00
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
38 D	26.00	1.7897E-20	74.00	56.01	74.00	56.01	V-C	3.4277E+04	-7.400	74.00
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
39 D	26.58	1.6300E-20	76.00	56.89	76.00	56.89	V-C	3.4277E+04	-7.600	76.00
1.000	1.000	132.9	0.000	0.000	Ug5_2_8_L_0					
40 D	27.15	1.4319E-20	78.00	57.77	78.00	57.77	V-C	3.4277E+04	-7.800	78.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.73	1.1908E-20	80.00	58.64	80.00	58.64	V-C	3.4277E+04	-8.000	80.00
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
42 D	28.30	8.9515E-21	82.00	59.51	82.00	59.51	V-C	3.4277E+04	-8.200	82.00
1.000	1.000	141.5	0.000	0.000	Ug5_2_8_L_0					
43 D	28.87	5.3138E-21	84.00	60.37	84.00	60.37	V-C	3.4277E+04	-8.400	84.00
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
44 D	29.45	8.5722E-22	86.00	61.23	86.00	61.23	V-C	3.4277E+04	-8.600	86.00
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
45 D	30.02	-4.5550E-21	88.00	62.09	88.00	62.09	V-C	3.4277E+04	-8.800	88.00
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
46 D	30.59	-1.1040E-20	90.00	62.94	90.00	62.94	V-C	3.4277E+04	-9.000	90.00
1.000	1.000	152.9	0.000	0.000	Ug5_2_8_L_0					
47 D	31.16	-1.8626E-20	92.00	63.79	92.00	63.79	V-C	3.4277E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.73	-2.7247E-20	94.00	64.64	94.00	64.64	V-C	3.4277E+04	-9.400	94.00
1.000	1.000	158.6	0.000	0.000	Ug5_2_8_L_0					
49 D	32.30	-3.6828E-20	96.00	65.48	96.00	65.48	V-C	3.4277E+04	-9.600	96.00
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
50 D	32.86	-4.7355E-20	98.00	66.32	98.00	66.32	V-C	3.4277E+04	-9.800	98.00
1.000	1.000	164.3	0.000	0.000	Ug5_2_8_L_0					
51 D	33.43	-5.8816E-20	100.00	67.17	100.00	67.17	V-C	3.4277E+04	-10.000	100.00
1.000	1.000	167.2	0.000	0.000	Ug5_2_8_L_0					
52 D	34.00	-7.1182E-20	102.0	68.01	102.0	68.01	V-C	3.4277E+04	-10.200	102.0
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.57	-8.4404E-20	104.0	68.85	104.0	68.85	V-C	3.4277E+04	-10.400	104.0
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
54 D	35.14	-9.8412E-20	106.0	69.69	106.0	69.69	V-C	3.4277E+04	-10.600	106.0
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.70	-1.1311E-19	108.0	70.52	108.0	70.52	V-C	3.4277E+04	-10.800	108.0
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.27	-1.2837E-19	110.0	71.36	110.0	71.36	V-C	3.4277E+04	-11.000	110.0
1.000	1.000	181.4	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	-1.4402E-19	112.0	72.20	112.0	72.20	V-C	3.4277E+04	-11.200	112.0
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.41	-1.5988E-19	114.0	73.04	114.0	73.04	V-C	3.4277E+04	-11.400	114.0
1.000	1.000	187.0	0.000	0.000	Ug5_2_8_L_0					
59 D	37.98	-1.7573E-19	116.0	73.88	116.0	73.88	V-C	3.4277E+04	-11.600	116.0
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.54	-1.9149E-19	118.0	74.72	118.0	74.72	V-C	3.4277E+04	-11.800	118.0
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.56	-2.0722E-19	120.0	75.56	120.0	75.56	V-C	3.4277E+04	-12.000	120.0
1.000	1.000	195.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|                    NewProject.BaseDesignSection_28.A1M1R1_1757   |
|                    Exe Time :24 May 2018           18:23:40     |
+-----+
New Project
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.46543E-17	-2.46543E-17	-3.15544E-29	4.93086E-18
2	7.31047E-17	-7.31047E-17	-4.93086E-18	1.95518E-17
3	1.20679E-16	-1.20679E-16	-1.95518E-17	4.36876E-17
4	1.67322E-16	-1.67322E-16	-4.36876E-17	7.71521E-17
5	2.12921E-16	-2.12921E-16	-7.71521E-17	1.19736E-16
6	2.57286E-16	-2.57286E-16	-1.19736E-16	1.71194E-16
7	3.00136E-16	-3.00136E-16	-1.71194E-16	2.31221E-16
8	3.41090E-16	-3.41090E-16	-2.31221E-16	2.99439E-16
9	3.79654E-16	-3.79654E-16	-2.99439E-16	3.75369E-16
10	4.15224E-16	-4.15224E-16	-3.75369E-16	4.58414E-16
11	4.47078E-16	-4.47078E-16	-4.58414E-16	5.47830E-16
12	4.74387E-16	-4.74387E-16	-5.47830E-16	6.42707E-16
13	4.96217E-16	-4.96217E-16	-6.42707E-16	7.41951E-16
14	5.11543E-16	-5.11543E-16	-7.41951E-16	8.44259E-16
15	5.19266E-16	-5.19266E-16	-8.44259E-16	9.48112E-16
16	5.18235E-16	-5.18235E-16	-9.48112E-16	1.05176E-15
17	5.07268E-16	-5.07268E-16	-1.05176E-15	1.15321E-15
18	4.85187E-16	-4.85187E-16	-1.15321E-15	1.25025E-15
19	4.50849E-16	-4.50849E-16	-1.25025E-15	1.34042E-15
20	4.03183E-16	-4.03183E-16	-1.34042E-15	1.42106E-15
21	-1.43513E-15	1.43513E-15	-1.42106E-15	1.13403E-15
22	-1.51217E-15	1.51217E-15	-1.13403E-15	8.31598E-16
23	-1.60491E-15	1.60491E-15	-8.31598E-16	5.10616E-16
24	-1.71372E-15	1.71372E-15	-5.10616E-16	1.67872E-16
25	-1.83870E-15	1.83870E-15	-1.67872E-16	1.99868E-16
26	-1.97962E-15	1.97962E-15	-1.99868E-16	5.95789E-16
27	-2.13592E-15	2.13592E-15	-5.95789E-16	1.02297E-15
28	-2.30667E-15	2.30667E-15	-1.02297E-15	1.48431E-15
29	-2.49055E-15	2.49055E-15	-1.48431E-15	1.98242E-15
30	-2.68582E-15	2.68582E-15	-1.98242E-15	2.51958E-15
31	6.62391E-16	-6.62391E-16	2.51958E-15	-2.38710E-15
32	4.51235E-16	-4.51235E-16	2.38710E-15	-2.29685E-15
33	2.36445E-16	-2.36445E-16	2.29685E-15	-2.24957E-15
34	2.14787E-17	-2.14787E-17	2.24957E-15	-2.24527E-15
35	-1.89771E-16	1.89771E-16	-2.24527E-15	2.28322E-15
36	-3.92972E-16	3.92972E-16	-2.28322E-15	2.36182E-15
37	-5.83354E-16	5.83354E-16	-2.36182E-15	2.47849E-15
38	-7.55712E-16	7.55712E-16	-2.47849E-15	2.62963E-15
39	-9.04422E-16	9.04422E-16	-2.62963E-15	2.81052E-15
40	-4.57616E-15	4.57616E-15	-2.81052E-15	3.72575E-15
41	-4.65908E-15	4.65908E-15	-3.72575E-15	4.65756E-15
42	-4.69912E-15	4.69912E-15	-4.65756E-15	5.59739E-15
43	-4.68921E-15	4.68921E-15	-5.59739E-15	6.53523E-15
44	-4.62205E-15	4.62205E-15	-6.53523E-15	7.45963E-15
45	-9.37443E-16	9.37443E-16	-7.45963E-15	7.64712E-15
46	2.81942E-15	-2.81942E-15	7.64712E-15	-7.08324E-15
47	3.10334E-15	-3.10334E-15	7.08324E-15	-6.46257E-15
48	-7.83237E-17	7.83237E-17	-6.46257E-15	6.47823E-15
49	3.86964E-16	-3.86964E-16	6.47823E-15	-6.40084E-15
50	9.53242E-16	-9.53242E-16	6.40084E-15	-6.21019E-15
51	1.62680E-15	-1.62680E-15	6.21019E-15	-5.88482E-15
52	2.41338E-15	-2.41338E-15	5.88482E-15	-5.40217E-15
53	3.31806E-15	-3.31806E-15	5.40217E-15	-4.73856E-15
54	4.34527E-15	-4.34527E-15	4.73856E-15	-3.86951E-15
55	5.49866E-15	-5.49866E-15	3.86951E-15	-2.76977E-15
56	6.78117E-15	-6.78117E-15	2.76977E-15	-1.41354E-15
57	8.19497E-15	-8.19497E-15	1.41354E-15	-2.25453E-16
58	2.63615E-15	-2.63615E-15	-2.25453E-16	7.52683E-16
59	-2.78894E-15	2.78894E-15	-7.52683E-16	1.94895E-16

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-9.74425E-16 9.74425E-16-1.94895E-16-1.00974E-28

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6184E+05 RIMNOR=0.1258E-26
            RENORM= 266.8    REMNOR=0.4985E-53  RATIO =0.6569E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.7647E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6184E+05  RDR   =0.1000E-19
            RATIO=0.6569E-01 RATIO= 0.000
            MAX UN= 5.032    IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            MIN UN=-.2465E-16 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6184E+05 RIMNOR=0.1258E-26
            RENORM= 7.693    REMNOR=0.8461E-23  RATIO =0.1115E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.7647E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6184E+05  RDR   =0.1000E-19
            RATIO=0.1115E-01 RATIO= 0.000
            MAX UN= 2.072    IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            MIN UN=-.5125E-11 IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6184E+05 RIMNOR=0.1258E-26
            RENORM= 3.079    REMNOR=0.2623E-23  RATIO =0.7056E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.7647E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6184E+05  RDR   =0.1000E-19
            RATIO=0.7056E-02 RATIO= 0.000
            MAX UN= 1.518    IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            MIN UN=-.3013E-11 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6184E+05 RIMNOR=0.1258E-26
            RENORM=0.7256E-01 REMNOR=0.3621E-23  RATIO =0.1083E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.7647E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6184E+05  RDR   =0.1000E-19
            RATIO=0.1083E-02 RATIO= 0.000
            MAX UN=0.2691    IEQ=   19 NODE     10 DOF   1  Y-DISPL.F
            MIN UN=-.1198E-10 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6184E+05 RIMNOR=0.1258E-26
            RENORM=0.2159E-21 REMNOR=0.1352E-23  RATIO =0.5909E-13  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 38.03    RMMAX =0.7647E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6184E+05  RDR   =0.1000E-19
            RATIO=0.5909E-13 RATIO= 0.000
            MAX UN=0.5107E-11 IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            MIN UN=-.7597E-11 IEQ=    9 NODE      5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)
1	2.1253838E-04	-7.1209857E-05
2	1.9829641E-04	-7.1209857E-05
3	1.8405684E-04	-7.1173790E-05
4	1.6983662E-04	-7.0991895E-05
5	1.5568218E-04	-7.0478510E-05
6	1.4168488E-04	-6.9370152E-05
7	1.2799663E-04	-6.7324247E-05
8	1.1483107E-04	-6.4140017E-05
9	1.0240931E-04	-5.9925425E-05
10	9.0912964E-05	-5.4929797E-05
11	8.0470972E-05	-4.9430458E-05
12	7.1155634E-05	-4.3708325E-05
13	6.2986518E-05	-3.8003053E-05
14	5.5941154E-05	-3.2496675E-05
15	4.9965767E-05	-2.7321517E-05
16	4.4984447E-05	-2.2567864E-05
17	4.0906804E-05	-1.8291173E-05
18	3.7634334E-05	-1.4518812E-05
19	3.5065314E-05	-1.1255929E-05
20	3.3098818E-05	-8.4902165E-06
21	3.1637852E-05	-6.1952430E-06
22	3.0591808E-05	-4.3340732E-06
23	2.9878196E-05	-2.8632922E-06
24	2.9423581E-05	-1.7361681E-06
25	2.9163985E-05	-9.0520231E-07
26	2.9044844E-05	-3.2407584E-07
27	2.9020613E-05	5.0913352E-08
28	2.9054139E-05	2.5985183E-07
29	2.9115871E-05	3.3854985E-07
30	2.9182955E-05	3.1818678E-07
31	2.9238302E-05	2.2517072E-07
32	2.9269647E-05	8.1505534E-08
33	2.9268741E-05	-9.4602464E-08
34	2.9230629E-05	-2.8836672E-07
35	2.9152996E-05	-4.8810104E-07
36	2.9035586E-05	-6.8486465E-07
37	2.8879687E-05	-8.7209604E-07
38	2.8687687E-05	-1.0452565E-06
39	2.8462713E-05	-1.2014818E-06
40	2.8208323E-05	-1.3392680E-06
41	2.7928264E-05	-1.4581843E-06
42	2.7626282E-05	-1.5586190E-06
43	2.7305982E-05	-1.6415609E-06
44	2.6970730E-05	-1.7084134E-06
45	2.6623580E-05	-1.7608404E-06
46	2.6267237E-05	-1.8006433E-06
47	2.5904042E-05	-1.8296608E-06
48	2.5535972E-05	-1.8496951E-06
49	2.5164649E-05	-1.8624563E-06
50	2.4791371E-05	-1.8695233E-06
51	2.4417126E-05	-1.8723184E-06
52	2.4042635E-05	-1.8720919E-06
53	2.3668429E-05	-1.8699156E-06
54	2.3294758E-05	-1.8666801E-06
55	2.2921780E-05	-1.8630983E-06
56	2.2549506E-05	-1.8597086E-06
57	2.2177859E-05	-1.8568805E-06
58	2.1806703E-05	-1.8548189E-06
59	2.1435877E-05	-1.8535682E-06
60	2.1065229E-05	-1.8530148E-06
61	2.0694625E-05	-1.8528884E-06

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-2.1254E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4931	-1.9830E-04	2.219	0.5525	2.219	4.707	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	2.465	0.000	0.000	Ug5_2_8_L_0						
3 D	1.008	-1.8406E-04	4.866	1.212	4.866	8.349	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	5.038	0.000	0.000	Ug5_2_8_L_0						
4 D	1.531	-1.6984E-04	7.690	1.915	7.690	11.12	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	7.654	0.000	0.000	Ug5_2_8_L_0						
5 D	2.072	-1.5568E-04	10.86	2.705	10.86	13.46	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	10.36	0.000	0.000	Ug5_2_8_L_0						
6 D	2.612	-1.4168E-04	14.04	3.495	14.04	15.59	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	13.06	0.000	0.000	Ug5_2_8_L_0						
7 D	3.128	-1.2800E-04	16.72	4.163	16.72	17.61	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	15.64	0.000	0.000	Ug5_2_8_L_0						
8 D	3.639	-1.1483E-04	19.30	4.806	19.30	19.55	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	18.20	0.000	0.000	Ug5_2_8_L_0						
9 D	4.156	-1.0241E-04	21.98	5.474	21.98	21.42	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	20.78	0.000	0.000	Ug5_2_8_L_0						
10 D	4.661	-9.0913E-05	24.45	6.089	24.45	23.24	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	23.31	0.000	0.000	Ug5_2_8_L_0						
11 D	5.496	-8.0471E-05	27.04	8.349	27.04	24.99	UL-RL	2.0684E+05	-2.000	19.13	
1.000	1.000	27.48	0.000	0.000	Ug5_2_8_L_0						
12 D	6.604	-7.1156E-05	29.48	11.98	29.48	26.69	UL-RL	2.0684E+05	-2.200	21.04	
1.000	1.000	33.02	0.000	0.000	Ug5_2_8_L_0						
13 D	7.654	-6.2987E-05	32.03	15.31	32.03	28.34	UL-RL	2.0684E+05	-2.400	22.96	
1.000	1.000	38.27	0.000	0.000	Ug5_2_8_L_0						
14 D	8.646	-5.5941E-05	34.47	18.36	34.47	29.93	UL-RL	2.0684E+05	-2.600	24.87	
1.000	1.000	43.23	0.000	0.000	Ug5_2_8_L_0						
15 D	9.584	-4.9966E-05	37.01	21.14	37.01	31.47	UL-RL	2.0684E+05	-2.800	26.78	
1.000	1.000	47.92	0.000	0.000	Ug5_2_8_L_0						
16 D	10.47	-4.4984E-05	39.47	23.66	39.47	32.96	UL-RL	2.0684E+05	-3.000	28.70	
1.000	1.000	52.35	0.000	0.000	Ug5_2_8_L_0						
17 D	11.31	-4.0907E-05	42.01	25.94	42.01	34.40	UL-RL	2.0684E+05	-3.200	30.61	
1.000	1.000	56.55	0.000	0.000	Ug5_2_8_L_0						
18 D	12.11	-3.7634E-05	44.48	28.02	44.48	35.80	UL-RL	2.0684E+05	-3.400	32.52	
1.000	1.000	60.54	0.000	0.000	Ug5_2_8_L_0						
19 D	12.87	-3.5065E-05	46.96	29.90	46.96	37.15	UL-RL	2.0684E+05	-3.600	34.43	
1.000	1.000	64.33	0.000	0.000	Ug5_2_8_L_0						
20 D	13.59	-3.3099E-05	49.52	31.61	49.52	38.46	UL-RL	2.0684E+05	-3.800	36.35	
1.000	1.000	67.96	0.000	0.000	Ug5_2_8_L_0						
21 D	14.29	-3.1638E-05	52.01	33.19	52.01	39.73	UL-RL	2.0684E+05	-4.000	38.26	
1.000	1.000	71.45	0.000	0.000	Ug5_2_8_L_0						
22 D	14.96	-3.0592E-05	54.56	34.64	54.56	40.97	UL-RL	2.0684E+05	-4.200	40.17	
1.000	1.000	74.81	0.000	0.000	Ug5_2_8_L_0						
23 D	15.62	-2.9878E-05	57.05	35.99	57.05	42.17	UL-RL	2.0684E+05	-4.400	42.09	
1.000	1.000	78.08	0.000	0.000	Ug5_2_8_L_0						
24 D	16.25	-2.9424E-05	59.60	37.26	59.60	43.34	UL-RL	2.0684E+05	-4.600	44.00	
1.000	1.000	81.26	0.000	0.000	Ug5_2_8_L_0						
25 D	16.87	-2.9164E-05	62.10	38.45	62.10	44.48	UL-RL	2.0684E+05	-4.800	45.91	
1.000	1.000	84.37	0.000	0.000	Ug5_2_8_L_0						
26 D	17.48	-2.9045E-05	64.59	39.59	64.59	45.60	UL-RL	2.0684E+05	-5.000	47.83	
1.000	1.000	87.42	0.000	0.000	Ug5_2_8_L_0						
27 D	18.09	-2.9021E-05	66.87	40.69	66.87	46.69	UL-RL	2.0684E+05	-5.200	49.74	
1.000	1.000	90.43	0.000	0.000	Ug5_2_8_L_0						
28 D	18.68	-2.9054E-05	69.17	41.75	69.17	47.76	UL-RL	2.0684E+05	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	93.41	0.000	0.000	Ug5_2_8_L_0					
29 D	19.27	-2.9116E-05	71.47	42.79	71.47	48.81	UL-RL	2.0684E+05	-5.600	53.57
1.000	1.000	96.36	0.000	0.000	Ug5_2_8_L_0					
30 D	19.86	-2.9183E-05	73.77	43.81	73.77	49.85	UL-RL	2.0684E+05	-5.800	55.48
1.000	1.000	99.29	0.000	0.000	Ug5_2_8_L_0					
31 D	20.44	-2.9238E-05	76.08	44.81	76.08	50.86	UL-RL	2.0684E+05	-6.000	57.39
1.000	1.000	102.2	0.000	0.000	Ug5_2_8_L_0					
32 D	21.02	-2.9270E-05	78.39	45.81	78.39	51.86	UL-RL	2.0684E+05	-6.200	59.30
1.000	1.000	105.1	0.000	0.000	Ug5_2_8_L_0					
33 D	21.60	-2.9269E-05	80.70	46.79	80.70	52.85	UL-RL	2.0684E+05	-6.400	61.22
1.000	1.000	108.0	0.000	0.000	Ug5_2_8_L_0					
34 D	22.18	-2.9231E-05	83.25	47.78	83.25	53.82	UL-RL	2.0684E+05	-6.600	63.13
1.000	1.000	110.9	0.000	0.000	Ug5_2_8_L_0					
35 D	22.76	-2.9153E-05	85.70	48.76	85.70	54.79	UL-RL	2.0684E+05	-6.800	65.04
1.000	1.000	113.8	0.000	0.000	Ug5_2_8_L_0					
36 D	23.34	-2.9036E-05	88.72	49.73	88.72	55.74	UL-RL	2.0684E+05	-7.000	66.96
1.000	1.000	116.7	0.000	0.000	Ug5_2_8_L_0					
37 D	23.92	-2.8880E-05	91.13	50.71	91.13	56.68	UL-RL	2.0684E+05	-7.200	68.87
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
38 D	24.49	-2.8688E-05	94.08	51.68	94.08	57.62	UL-RL	2.0684E+05	-7.400	70.78
1.000	1.000	122.5	0.000	0.000	Ug5_2_8_L_0					
39 D	25.07	-2.8463E-05	96.47	52.66	96.47	58.55	UL-RL	2.0684E+05	-7.600	72.70
1.000	1.000	125.4	0.000	0.000	Ug5_2_8_L_0					
40 D	25.65	-2.8208E-05	99.36	53.63	99.36	59.47	UL-RL	2.0684E+05	-7.800	74.61
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
41 D	26.23	-2.7928E-05	102.2	54.61	102.2	60.38	UL-RL	2.0684E+05	-8.000	76.52
1.000	1.000	131.1	0.000	0.000	Ug5_2_8_L_0					
42 D	26.80	-2.7626E-05	104.6	55.58	104.6	61.29	UL-RL	2.0684E+05	-8.200	78.43
1.000	1.000	134.0	0.000	0.000	Ug5_2_8_L_0					
43 D	27.38	-2.7306E-05	107.4	56.55	107.4	62.20	UL-RL	2.0684E+05	-8.400	80.35
1.000	1.000	136.9	0.000	0.000	Ug5_2_8_L_0					
44 D	27.96	-2.6971E-05	109.7	57.52	109.7	63.10	UL-RL	2.0684E+05	-8.600	82.26
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
45 D	28.53	-2.6624E-05	112.5	58.49	112.5	64.00	UL-RL	2.0684E+05	-8.800	84.17
1.000	1.000	142.7	0.000	0.000	Ug5_2_8_L_0					
46 D	29.11	-2.6267E-05	114.8	59.46	114.8	64.90	UL-RL	2.0684E+05	-9.000	86.09
1.000	1.000	145.6	0.000	0.000	Ug5_2_8_L_0					
47 D	29.69	-2.5904E-05	117.5	60.43	117.5	65.79	UL-RL	2.0684E+05	-9.200	88.00
1.000	1.000	148.4	0.000	0.000	Ug5_2_8_L_0					
48 D	30.26	-2.5536E-05	119.8	61.40	119.8	66.68	UL-RL	2.0684E+05	-9.400	89.91
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
49 D	30.84	-2.5165E-05	122.5	62.36	122.5	67.57	UL-RL	2.0684E+05	-9.600	91.83
1.000	1.000	154.2	0.000	0.000	Ug5_2_8_L_0					
50 D	31.41	-2.4791E-05	124.8	63.33	124.8	68.45	UL-RL	2.0684E+05	-9.800	93.74
1.000	1.000	157.1	0.000	0.000	Ug5_2_8_L_0					
51 D	31.99	-2.4417E-05	127.4	64.29	127.4	69.34	UL-RL	2.0684E+05	-10.000	95.65
1.000	1.000	159.9	0.000	0.000	Ug5_2_8_L_0					
52 D	32.56	-2.4043E-05	129.7	65.25	129.7	70.22	UL-RL	2.0684E+05	-10.200	97.57
1.000	1.000	162.8	0.000	0.000	Ug5_2_8_L_0					
53 D	33.14	-2.3668E-05	132.3	66.21	132.3	71.11	UL-RL	2.0684E+05	-10.400	99.48
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
54 D	33.71	-2.3295E-05	134.9	67.17	134.9	71.99	UL-RL	2.0684E+05	-10.600	101.4
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
55 D	34.29	-2.2922E-05	137.2	68.13	137.2	72.87	UL-RL	2.0684E+05	-10.800	103.3
1.000	1.000	171.4	0.000	0.000	Ug5_2_8_L_0					
56 D	34.86	-2.2550E-05	139.8	69.09	139.8	73.75	UL-RL	2.0684E+05	-11.000	105.2
1.000	1.000	174.3	0.000	0.000	Ug5_2_8_L_0					
57 D	35.44	-2.2178E-05	142.0	70.05	142.0	74.64	UL-RL	2.0684E+05	-11.200	107.1
1.000	1.000	177.2	0.000	0.000	Ug5_2_8_L_0					
58 D	36.01	-2.1807E-05	144.6	71.01	144.6	75.52	UL-RL	2.0684E+05	-11.400	109.0
1.000	1.000	180.1	0.000	0.000	Ug5_2_8_L_0					
59 D	36.58	-2.1436E-05	146.8	71.97	146.8	76.40	UL-RL	2.0684E+05	-11.600	111.0
1.000	1.000	182.9	0.000	0.000	Ug5_2_8_L_0					
60 D	37.16	-2.1065E-05	149.4	72.93	149.4	77.28	UL-RL	2.0684E+05	-11.800	112.9
1.000	1.000	185.8	0.000	0.000	Ug5_2_8_L_0					
61 D	18.87	-2.0695E-05	151.6	73.88	151.6	78.16	UL-RL	2.0684E+05	-12.000	114.8
1.000	1.000	188.7	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:23:40          |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 2

O_R :
 ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
 CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	1.4168E-04	0.000	0.000	10.00	15.38	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.995	1.2800E-04	1.913	12.89	12.00	17.35	PASSIVE	0.000	-1.200	2.087	
1.000	1.000	14.98	0.000	0.000	Ug5_2_8_L_0						
8 D	5.248	1.1483E-04	3.826	22.07	14.00	22.07	V-C	3.4277E+04	-1.400	4.174	
1.000	1.000	26.24	0.000	0.000	Ug5_2_8_L_0						
9 D	5.955	1.0241E-04	5.739	23.52	16.00	23.52	V-C	3.4277E+04	-1.600	6.261	
1.000	1.000	29.78	0.000	0.000	Ug5_2_8_L_0						
10 D	6.653	9.0913E-05	7.652	24.92	18.00	24.92	V-C	3.4277E+04	-1.800	8.348	
1.000	1.000	33.27	0.000	0.000	Ug5_2_8_L_0						
11 D	7.345	8.0471E-05	9.565	26.29	20.00	26.29	V-C	3.4277E+04	-2.000	10.43	
1.000	1.000	36.72	0.000	0.000	Ug5_2_8_L_0						
12 D	8.032	7.1156E-05	11.48	27.64	22.00	27.64	V-C	3.4277E+04	-2.200	12.52	
1.000	1.000	40.16	0.000	0.000	Ug5_2_8_L_0						
13 D	8.715	6.2987E-05	13.39	28.97	24.00	28.97	V-C	3.4277E+04	-2.400	14.61	
1.000	1.000	43.57	0.000	0.000	Ug5_2_8_L_0						
14 D	9.394	5.5941E-05	15.30	30.28	26.00	30.28	V-C	3.4277E+04	-2.600	16.70	
1.000	1.000	46.97	0.000	0.000	Ug5_2_8_L_0						
15 D	10.07	4.9966E-05	17.22	31.57	28.00	31.57	V-C	3.4277E+04	-2.800	18.78	
1.000	1.000	50.35	0.000	0.000	Ug5_2_8_L_0						
16 D	10.74	4.4984E-05	19.13	32.85	30.00	32.85	V-C	3.4277E+04	-3.000	20.87	
1.000	1.000	53.71	0.000	0.000	Ug5_2_8_L_0						
17 D	11.41	4.0907E-05	21.04	34.10	32.00	34.10	V-C	3.4277E+04	-3.200	22.96	
1.000	1.000	57.06	0.000	0.000	Ug5_2_8_L_0						
18 D	12.08	3.7634E-05	22.96	35.34	34.00	35.34	V-C	3.4277E+04	-3.400	25.04	
1.000	1.000	60.38	0.000	0.000	Ug5_2_8_L_0						
19 D	12.73	3.5065E-05	24.87	36.51	36.00	36.58	UL-RL	1.0283E+05	-3.600	27.13	
1.000	1.000	63.64	0.000	0.000	Ug5_2_8_L_0						
20 D	13.37	3.3099E-05	26.78	37.63	38.00	37.82	UL-RL	1.0283E+05	-3.800	29.22	
1.000	1.000	66.84	0.000	0.000	Ug5_2_8_L_0						
21 D	14.01	3.1638E-05	28.70	38.74	40.00	39.02	UL-RL	1.0283E+05	-4.000	31.30	
1.000	1.000	70.05	0.000	0.000	Ug5_2_8_L_0						
22 D	14.65	3.0592E-05	30.61	39.86	42.00	40.19	UL-RL	1.0283E+05	-4.200	33.39	
1.000	1.000	73.25	0.000	0.000	Ug5_2_8_L_0						
23 D	15.29	2.9878E-05	32.52	40.97	44.00	41.33	UL-RL	1.0283E+05	-4.400	35.48	
1.000	1.000	76.45	0.000	0.000	Ug5_2_8_L_0						
24 D	15.93	2.9424E-05	34.43	42.07	46.00	42.44	UL-RL	1.0283E+05	-4.600	37.57	
1.000	1.000	79.64	0.000	0.000	Ug5_2_8_L_0						
25 D	16.56	2.9164E-05	36.35	43.16	48.00	43.52	UL-RL	1.0283E+05	-4.800	39.65	
1.000	1.000	82.82	0.000	0.000	Ug5_2_8_L_0						
26 D	17.20	2.9045E-05	38.26	44.24	50.00	44.58	UL-RL	1.0283E+05	-5.000	41.74	
1.000	1.000	85.98	0.000	0.000	Ug5_2_8_L_0						
27 D	17.83	2.9021E-05	40.17	45.30	52.00	45.61	UL-RL	1.0283E+05	-5.200	43.83	
1.000	1.000	89.13	0.000	0.000	Ug5_2_8_L_0						
28 D	18.45	2.9054E-05	42.09	46.35	54.00	46.62	UL-RL	1.0283E+05	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	92.26	0.000	0.000	Ug5_2_8_L_0					
29 D	19.07	2.9116E-05	44.00	47.37	56.00	47.62	UL-RL	1.0283E+05	-5.600	48.00
1.000	1.000	95.37	0.000	0.000	Ug5_2_8_L_0					
30 D	19.69	2.9183E-05	45.91	48.38	58.00	48.59	UL-RL	1.0283E+05	-5.800	50.09
1.000	1.000	98.47	0.000	0.000	Ug5_2_8_L_0					
31 D	20.30	2.9238E-05	47.83	49.35	60.00	49.56	UL-RL	1.0283E+05	-6.000	52.17
1.000	1.000	101.5	0.000	0.000	Ug5_2_8_L_0					
32 D	20.91	2.9270E-05	49.74	50.29	62.00	50.51	UL-RL	1.0283E+05	-6.200	54.26
1.000	1.000	104.6	0.000	0.000	Ug5_2_8_L_0					
33 D	21.51	2.9269E-05	51.65	51.21	64.00	51.46	UL-RL	1.0283E+05	-6.400	56.35
1.000	1.000	107.6	0.000	0.000	Ug5_2_8_L_0					
34 D	22.11	2.9231E-05	53.57	52.12	66.00	52.39	UL-RL	1.0283E+05	-6.600	58.43
1.000	1.000	110.6	0.000	0.000	Ug5_2_8_L_0					
35 D	22.71	2.9153E-05	55.48	53.02	68.00	53.31	UL-RL	1.0283E+05	-6.800	60.52
1.000	1.000	113.5	0.000	0.000	Ug5_2_8_L_0					
36 D	23.30	2.9036E-05	57.39	53.89	70.00	54.22	UL-RL	1.0283E+05	-7.000	62.61
1.000	1.000	116.5	0.000	0.000	Ug5_2_8_L_0					
37 D	23.89	2.8880E-05	59.30	54.76	72.00	55.12	UL-RL	1.0283E+05	-7.200	64.70
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
38 D	24.48	2.8688E-05	61.22	55.61	74.00	56.01	UL-RL	1.0283E+05	-7.400	66.78
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
39 D	25.06	2.8463E-05	63.13	56.45	76.00	56.89	UL-RL	1.0283E+05	-7.600	68.87
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
40 D	25.65	2.8208E-05	65.04	57.29	78.00	57.77	UL-RL	1.0283E+05	-7.800	70.96
1.000	1.000	128.2	0.000	0.000	Ug5_2_8_L_0					
41 D	26.23	2.7928E-05	66.96	58.11	80.00	58.64	UL-RL	1.0283E+05	-8.000	73.04
1.000	1.000	131.2	0.000	0.000	Ug5_2_8_L_0					
42 D	26.81	2.7626E-05	68.87	58.93	82.00	59.51	UL-RL	1.0283E+05	-8.200	75.13
1.000	1.000	134.1	0.000	0.000	Ug5_2_8_L_0					
43 D	27.39	2.7306E-05	70.78	59.74	84.00	60.37	UL-RL	1.0283E+05	-8.400	77.22
1.000	1.000	137.0	0.000	0.000	Ug5_2_8_L_0					
44 D	27.97	2.6971E-05	72.70	60.54	86.00	61.23	UL-RL	1.0283E+05	-8.600	79.30
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
45 D	28.55	2.6624E-05	74.61	61.34	88.00	62.09	UL-RL	1.0283E+05	-8.800	81.39
1.000	1.000	142.7	0.000	0.000	Ug5_2_8_L_0					
46 D	29.12	2.6267E-05	76.52	62.13	90.00	62.94	UL-RL	1.0283E+05	-9.000	83.48
1.000	1.000	145.6	0.000	0.000	Ug5_2_8_L_0					
47 D	29.70	2.5904E-05	78.43	62.93	92.00	63.79	UL-RL	1.0283E+05	-9.200	85.57
1.000	1.000	148.5	0.000	0.000	Ug5_2_8_L_0					
48 D	30.27	2.5536E-05	80.35	63.72	94.00	64.64	UL-RL	1.0283E+05	-9.400	87.65
1.000	1.000	151.4	0.000	0.000	Ug5_2_8_L_0					
49 D	30.85	2.5165E-05	82.26	64.50	96.00	65.48	UL-RL	1.0283E+05	-9.600	89.74
1.000	1.000	154.2	0.000	0.000	Ug5_2_8_L_0					
50 D	31.42	2.4791E-05	84.17	65.29	98.00	66.32	UL-RL	1.0283E+05	-9.800	91.83
1.000	1.000	157.1	0.000	0.000	Ug5_2_8_L_0					
51 D	32.00	2.4417E-05	86.09	66.07	100.00	67.17	UL-RL	1.0283E+05	-10.000	93.91
1.000	1.000	160.0	0.000	0.000	Ug5_2_8_L_0					
52 D	32.57	2.4043E-05	88.00	66.85	102.0	68.01	UL-RL	1.0283E+05	-10.200	96.00
1.000	1.000	162.9	0.000	0.000	Ug5_2_8_L_0					
53 D	33.14	2.3668E-05	89.91	67.63	104.0	68.85	UL-RL	1.0283E+05	-10.400	98.09
1.000	1.000	165.7	0.000	0.000	Ug5_2_8_L_0					
54 D	33.72	2.3295E-05	91.83	68.41	106.0	69.69	UL-RL	1.0283E+05	-10.600	100.2
1.000	1.000	168.6	0.000	0.000	Ug5_2_8_L_0					
55 D	34.29	2.2922E-05	93.74	69.19	108.0	70.52	UL-RL	1.0283E+05	-10.800	102.3
1.000	1.000	171.5	0.000	0.000	Ug5_2_8_L_0					
56 D	34.86	2.2550E-05	95.65	69.97	110.0	71.36	UL-RL	1.0283E+05	-11.000	104.3
1.000	1.000	174.3	0.000	0.000	Ug5_2_8_L_0					
57 D	35.44	2.2178E-05	97.57	70.75	112.0	72.20	UL-RL	1.0283E+05	-11.200	106.4
1.000	1.000	177.2	0.000	0.000	Ug5_2_8_L_0					
58 D	36.01	2.1807E-05	99.48	71.53	114.0	73.04	UL-RL	1.0283E+05	-11.400	108.5
1.000	1.000	180.0	0.000	0.000	Ug5_2_8_L_0					
59 D	36.58	2.1436E-05	101.4	72.31	116.0	73.88	UL-RL	1.0283E+05	-11.600	110.6
1.000	1.000	182.9	0.000	0.000	Ug5_2_8_L_0					
60 D	37.16	2.1065E-05	103.3	73.09	118.0	74.72	UL-RL	1.0283E+05	-11.800	112.7
1.000	1.000	185.8	0.000	0.000	Ug5_2_8_L_0					
61 D	18.86	2.0695E-05	105.2	73.87	120.0	75.56	UL-RL	1.0283E+05	-12.000	114.8
1.000	1.000	188.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-1.49922E-12	1.49922E-12	-1.31450E-13	-1.39976E-12
2	0.49310	-0.49310	1.26343E-12	9.86199E-02
3	1.5006	-1.5006	-9.86199E-02	0.39875
4	3.0314	-3.0314	-0.39875	1.0050
5	5.1030	-5.1030	-1.0050	2.0256
6	7.7151	-7.7151	-2.0256	3.5686
7	7.8480	-7.8480	-3.5686	5.1382
8	6.2390	-6.2390	-5.1382	6.3860
9	4.4393	-4.4393	-6.3860	7.2739
10	2.4474	-2.4474	-7.2739	7.7634
11	0.59859	-0.59859	-7.7634	7.8831
12	-0.82910	0.82910	-7.8831	7.7173
13	-1.8902	1.8902	-7.7173	7.3392
14	-2.6382	2.6382	-7.3392	6.8116
15	-3.1245	3.1245	-6.8116	6.1867
16	-3.3967	3.3967	-6.1867	5.5073
17	-3.4981	3.4981	-5.5073	4.8077
18	-3.4674	3.4674	-4.8077	4.1142
19	-3.3299	3.3299	-4.1142	3.4483
20	-3.1059	3.1059	-3.4483	2.8271
21	-2.8252	2.8252	-2.8271	2.2620
22	-2.5122	2.5122	-2.2620	1.7596
23	-2.1863	2.1863	-1.7596	1.3224
24	-1.8628	1.8628	-1.3224	0.94981
25	-1.5530	1.5530	-0.94981	0.63921
26	-1.2653	1.2653	-0.63921	0.38616
27	-1.0050	1.0050	-0.38616	0.18516
28	-0.77563	0.77563	-0.18516	3.00324E-02
29	-0.57873	0.57873	-3.00324E-02	-8.57126E-02
30	-0.41458	0.41458	8.57126E-02	-0.16863
31	-0.27790	0.27790	0.16863	-0.22421
32	-0.16564	0.16564	0.22421	-0.25734
33	-7.57507E-02	7.57507E-02	0.25734	-0.27249
34	-5.87117E-03	5.87117E-03	0.27249	-0.27366
35	4.64863E-02	-4.64863E-02	0.27366	-0.26436
36	8.38247E-02	-8.38247E-02	0.26436	-0.24760
37	0.10856	-0.10856	0.24760	-0.22589
38	0.12297	-0.12297	0.22589	-0.20129
39	0.12912	-0.12912	0.20129	-0.17547
40	0.12886	-0.12886	0.17547	-0.14969
41	0.12381	-0.12381	0.14969	-0.12493
42	0.11535	-0.11535	0.12493	-0.10186
43	0.10463	-0.10463	0.10186	-8.09373E-02
44	9.25936E-02	-9.25936E-02	8.09373E-02	-6.24186E-02
45	8.00063E-02	-8.00063E-02	6.24186E-02	-4.64174E-02
46	6.74504E-02	-6.74504E-02	4.64174E-02	-3.29273E-02
47	5.53663E-02	-5.53663E-02	3.29273E-02	-2.18540E-02
48	4.40709E-02	-4.40709E-02	2.18540E-02	-1.30399E-02
49	3.37794E-02	-3.37794E-02	1.30399E-02	-6.28402E-03
50	2.46263E-02	-2.46263E-02	6.28402E-03	-1.35876E-03
51	1.66834E-02	-1.66834E-02	1.35876E-03	1.97801E-03
52	9.97699E-03	-9.97699E-03	1.97801E-03	3.97331E-03
53	4.50175E-03	-4.50175E-03	3.97331E-03	4.87366E-03
54	2.33554E-04	-2.33554E-04	4.87366E-03	4.92037E-03
55	-2.86093E-03	2.86093E-03	4.92037E-03	4.34819E-03
56	-4.81636E-03	4.81636E-03	4.34819E-03	3.38492E-03
57	-5.66305E-03	5.66305E-03	3.38492E-03	2.25231E-03
58	-5.42342E-03	5.42342E-03	2.25231E-03	1.16762E-03
59	-4.11036E-03	4.11036E-03	1.16762E-03	3.45550E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-1.72766E-03 1.72766E-03-3.45550E-04 1.15144E-13

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM= 389.2    REMNOR=0.1352E-23  RATIO =0.8415E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.8415E-01 RATIO= 0.000
            MAX UN= 7.250    IEQ=   21 NODE    11 DOF    1  Y-DISPL.F
            MIN UN=-.4743E-01 IEQ=   11 NODE    6 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM= 58.62    REMNOR=0.3033E-22  RATIO =0.3266E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.3266E-01 RATIO= 0.000
            MAX UN= 2.677    IEQ=   19 NODE    10 DOF    1  Y-DISPL.F
            MIN UN=-.4762E-02 IEQ=    3 NODE    2 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM= 138.9    REMNOR=0.7621E-21  RATIO =0.5028E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.5028E-01 RATIO= 0.000
            MAX UN= 8.253    IEQ=   31 NODE    16 DOF    1  Y-DISPL.F
            MIN UN=-.2162E-09 IEQ=    3 NODE    2 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM= 17.95    REMNOR=0.1371E-20  RATIO =0.1807E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.1807E-01 RATIO= 0.000
            MAX UN= 3.637    IEQ=   43 NODE    22 DOF    1  Y-DISPL.F
            MIN UN=-.1612E-09 IEQ=    5 NODE    3 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM=0.8743E-01 REMNOR=0.4988E-21  RATIO =0.1261E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.1261E-02 RATIO= 0.000
            MAX UN=0.2853    IEQ=   49 NODE    25 DOF    1  Y-DISPL.F
            MIN UN=-.1896E-09 IEQ=   13 NODE    7 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5496E+05 RIMNOR= 1122.
            RENORM=0.1233E-18 REMNOR=0.3494E-21  RATIO =0.1498E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 36.60    RMMAX = 7.883
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-04
            RDT  =0.5496E+05  RDR   = 1122.
            RATIO=0.1498E-11 RATIO= 0.000
            MAX UN=0.1543E-09 IEQ=    3 NODE    2 DOF    1  Y-DISPL.F
            MIN UN=-.1185E-09 IEQ=   13 NODE    7 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0345660E-03	-7.2004967E-04	
2	2.8905560E-03	-7.2004967E-04	
3	2.7465484E-03	-7.2001464E-04	
4	2.6025596E-03	-7.1983796E-04	
5	2.4586347E-03	-7.1933917E-04	
6	2.3148625E-03	-7.1826207E-04	
7	2.1713907E-03	-7.1627349E-04	
8	2.0284411E-03	-7.1296500E-04	
9	1.8863248E-03	-7.0785514E-04	
10	1.7454561E-03	-7.0038940E-04	
11	1.6063679E-03	-6.8994058E-04	
12	1.4697254E-03	-6.7580922E-04	
13	1.3363270E-03	-6.5743479E-04	
14	1.2070484E-03	-6.3460695E-04	
15	1.0827718E-03	-6.0746556E-04	
16	9.6431703E-04	-5.7650070E-04	
17	8.5238038E-04	-5.4239529E-04	
18	7.4752215E-04	-5.0583293E-04	
19	6.5016773E-04	-4.6746264E-04	
20	5.6061639E-04	-4.2790288E-04	
21	4.7904687E-04	-3.8774480E-04	
22	4.0552100E-04	-3.4755504E-04	
23	3.3999049E-04	-3.0788078E-04	
24	2.8229893E-04	-2.6925283E-04	
25	2.3218504E-04	-2.3218966E-04	
26	1.8928475E-04	-1.9720128E-04	
27	1.5313679E-04	-1.6473151E-04	
28	1.2320392E-04	-1.3508790E-04	
29	9.8901486E-05	-1.0844650E-04	
30	7.9620572E-05	-8.4876301E-05	
31	6.4747576E-05	-6.4356942E-05	
32	5.3681042E-05	-4.6789667E-05	
33	4.5845766E-05	-3.2012417E-05	
34	4.0703804E-05	-1.9819232E-05	
35	3.7761421E-05	-9.9758242E-06	
36	3.6573449E-05	-2.2327958E-06	
37	3.6745203E-05	3.6637627E-06	
38	3.7932538E-05	7.9640886E-06	
39	3.9840429E-05	1.0908275E-05	
40	4.2220473E-05	1.2721825E-05	
41	4.4867635E-05	1.3612515E-05	
42	4.7616498E-05	1.3768499E-05	
43	5.0337230E-05	1.3357411E-05	
44	5.2931458E-05	1.2526259E-05	
45	5.5328176E-05	1.1401919E-05	
46	5.7479846E-05	1.0092061E-05	
47	5.9358615E-05	8.6864316E-06	
48	6.0952917E-05	7.2582842E-06	
49	6.2264315E-05	5.8659294E-06	
50	6.3304666E-05	4.5543086E-06	
51	6.4093620E-05	3.3564927E-06	
52	6.4656374E-05	2.2951306E-06	
53	6.5021678E-05	1.3838751E-06	
54	6.5220277E-05	6.2821472E-07	
55	6.5283250E-05	2.6852896E-08	
56	6.5240806E-05	-4.2768490E-07	
57	6.5121102E-05	-7.4834265E-07	
58	6.4949200E-05	-9.5303388E-07	
59	6.4746117E-05	-1.0642863E-06	
60	6.4527921E-05	-1.1090116E-06	
61	6.4304859E-05	-1.1183755E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+

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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0346E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4789	-2.8906E-03	2.314	0.5761	2.314	4.707	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	2.394	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9790	-2.7465E-03	5.056	1.259	5.056	8.349	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	4.895	0.000	0.000	Ug5_2_8_L_0						
4 D	1.488	-2.6026E-03	7.975	1.986	7.975	11.12	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	7.440	0.000	0.000	Ug5_2_8_L_0						
5 D	2.015	-2.4586E-03	11.24	2.800	11.24	13.46	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	10.07	0.000	0.000	Ug5_2_8_L_0						
6 D	2.541	-2.3149E-03	14.51	3.613	14.51	15.59	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	12.70	0.000	0.000	Ug5_2_8_L_0						
7 D	3.043	-2.1714E-03	17.29	4.305	17.29	17.61	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	15.21	0.000	0.000	Ug5_2_8_L_0						
8 D	3.540	-2.0284E-03	19.97	4.971	19.97	19.55	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	17.70	0.000	0.000	Ug5_2_8_L_0						
9 D	4.042	-1.8863E-03	22.74	5.663	22.74	21.42	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	20.21	0.000	0.000	Ug5_2_8_L_0						
10 D	4.533	-1.7455E-03	25.31	6.301	25.31	23.24	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	22.67	0.000	0.000	Ug5_2_8_L_0						
11 D	5.030	-1.6064E-03	27.99	6.969	27.99	24.99	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	25.15	0.000	0.000	Ug5_2_8_L_0						
12 D	5.520	-1.4697E-03	30.52	7.600	30.52	26.69	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	27.60	0.000	0.000	Ug5_2_8_L_0						
13 D	6.015	-1.3363E-03	33.17	8.258	33.17	28.34	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	30.08	0.000	0.000	Ug5_2_8_L_0						
14 D	6.505	-1.2070E-03	35.70	8.890	35.70	29.93	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	32.53	0.000	0.000	Ug5_2_8_L_0						
15 D	7.000	-1.0828E-03	38.34	9.547	38.34	31.47	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	35.00	0.000	0.000	Ug5_2_8_L_0						
16 D	7.491	-9.6432E-04	40.89	10.18	40.89	32.96	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	37.45	0.000	0.000	Ug5_2_8_L_0						
17 D	7.986	-8.5238E-04	43.53	10.84	43.53	34.40	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	39.93	0.000	0.000	Ug5_2_8_L_0						
18 D	8.477	-7.4752E-04	46.10	11.48	46.10	35.80	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	42.39	0.000	0.000	Ug5_2_8_L_0						
19 D	8.969	-6.5017E-04	48.67	12.12	48.67	37.15	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	44.85	0.000	0.000	Ug5_2_8_L_0						
20 D	9.465	-5.6062E-04	51.32	12.78	51.32	38.46	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	47.32	0.000	0.000	Ug5_2_8_L_0						
21 D	9.957	-4.7905E-04	53.90	13.42	53.90	39.73	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	49.79	0.000	0.000	Ug5_2_8_L_0						
22 D	10.45	-4.0552E-04	56.55	14.08	56.55	40.97	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	52.26	0.000	0.000	Ug5_2_8_L_0						
23 D	10.95	-3.3999E-04	59.14	14.73	59.14	42.17	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	54.73	0.000	0.000	Ug5_2_8_L_0						
24 D	11.44	-2.8230E-04	61.79	15.38	61.79	43.34	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	57.20	0.000	0.000	Ug5_2_8_L_0						
25 D	11.93	-2.3219E-04	64.37	16.03	64.37	44.48	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	59.66	0.000	0.000	Ug5_2_8_L_0						
26 D	13.27	-1.8928E-04	66.96	20.89	66.96	45.60	UL-RL	1.2410E+05	-5.000	45.45	
1.000	1.000	66.35	0.000	0.000	Ug5_2_8_L_0						
27 D	14.76	-1.5314E-04	69.34	26.52	69.34	46.69	UL-RL	1.2410E+05	-5.200	47.27	
1.000	1.000	73.79	0.000	0.000	Ug5_2_8_L_0						
28 D	16.09	-1.2320E-04	71.73	31.35	71.73	47.76	UL-RL	1.2410E+05	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	80.44	0.000	0.000	Ug5_2_8_L_0					
29 D	17.27	-9.8901E-05	74.13	35.46	74.13	48.81	UL-RL	1.2410E+05	-5.600	50.91
1.000	1.000	86.37	0.000	0.000	Ug5_2_8_L_0					
30 D	18.33	-7.9621E-05	76.53	38.93	76.53	49.85	UL-RL	1.2410E+05	-5.800	52.73
1.000	1.000	91.65	0.000	0.000	Ug5_2_8_L_0					
31 D	19.28	-6.4748E-05	78.93	41.83	78.93	50.86	UL-RL	1.2410E+05	-6.000	54.55
1.000	1.000	96.38	0.000	0.000	Ug5_2_8_L_0					
32 D	20.12	-5.3681E-05	81.33	44.25	81.33	51.86	UL-RL	1.2410E+05	-6.200	56.36
1.000	1.000	100.6	0.000	0.000	Ug5_2_8_L_0					
33 D	20.89	-4.5846E-05	83.74	46.26	83.74	52.85	UL-RL	1.2410E+05	-6.400	58.18
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
34 D	21.58	-4.0704E-05	86.38	47.92	86.38	53.82	UL-RL	1.2410E+05	-6.600	60.00
1.000	1.000	107.9	0.000	0.000	Ug5_2_8_L_0					
35 D	22.22	-3.7761E-05	88.93	49.30	88.93	54.79	UL-RL	1.2410E+05	-6.800	61.82
1.000	1.000	111.1	0.000	0.000	Ug5_2_8_L_0					
36 D	22.82	-3.6573E-05	92.04	50.46	92.04	55.74	UL-RL	1.2410E+05	-7.000	63.64
1.000	1.000	114.1	0.000	0.000	Ug5_2_8_L_0					
37 D	23.38	-3.6745E-05	94.55	51.44	94.55	56.68	UL-RL	1.2410E+05	-7.200	65.45
1.000	1.000	116.9	0.000	0.000	Ug5_2_8_L_0					
38 D	23.91	-3.7933E-05	97.59	52.29	97.59	57.62	UL-RL	1.2410E+05	-7.400	67.27
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
39 D	24.43	-3.9840E-05	100.1	53.05	100.1	58.55	UL-RL	1.2410E+05	-7.600	69.09
1.000	1.000	122.1	0.000	0.000	Ug5_2_8_L_0					
40 D	24.93	-4.2220E-05	103.1	53.74	103.1	59.47	UL-RL	1.2410E+05	-7.800	70.91
1.000	1.000	124.7	0.000	0.000	Ug5_2_8_L_0					
41 D	25.43	-4.4868E-05	106.0	54.40	106.0	60.38	UL-RL	1.2410E+05	-8.000	72.73
1.000	1.000	127.1	0.000	0.000	Ug5_2_8_L_0					
42 D	25.92	-4.7616E-05	108.4	55.04	108.4	61.29	UL-RL	1.2410E+05	-8.200	74.55
1.000	1.000	129.6	0.000	0.000	Ug5_2_8_L_0					
43 D	26.41	-5.0337E-05	111.4	55.69	111.4	62.20	UL-RL	1.2410E+05	-8.400	76.36
1.000	1.000	132.0	0.000	0.000	Ug5_2_8_L_0					
44 D	26.90	-5.2931E-05	113.8	56.34	113.8	63.10	UL-RL	1.2410E+05	-8.600	78.18
1.000	1.000	134.5	0.000	0.000	Ug5_2_8_L_0					
45 D	27.40	-5.5328E-05	116.6	57.02	116.6	64.00	UL-RL	1.2410E+05	-8.800	80.00
1.000	1.000	137.0	0.000	0.000	Ug5_2_8_L_0					
46 D	27.91	-5.7480E-05	119.0	57.72	119.0	64.90	UL-RL	1.2410E+05	-9.000	81.82
1.000	1.000	139.5	0.000	0.000	Ug5_2_8_L_0					
47 D	28.42	-5.9359E-05	121.9	58.46	121.9	65.79	UL-RL	1.2410E+05	-9.200	83.64
1.000	1.000	142.1	0.000	0.000	Ug5_2_8_L_0					
48 D	28.94	-6.0953E-05	124.2	59.23	124.2	66.68	UL-RL	1.2410E+05	-9.400	85.45
1.000	1.000	144.7	0.000	0.000	Ug5_2_8_L_0					
49 D	29.46	-6.2264E-05	127.0	60.04	127.0	67.57	UL-RL	1.2410E+05	-9.600	87.27
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
50 D	29.99	-6.3305E-05	129.4	60.87	129.4	68.45	UL-RL	1.2410E+05	-9.800	89.09
1.000	1.000	150.0	0.000	0.000	Ug5_2_8_L_0					
51 D	30.53	-6.4094E-05	132.2	61.74	132.2	69.34	UL-RL	1.2410E+05	-10.000	90.91
1.000	1.000	152.6	0.000	0.000	Ug5_2_8_L_0					
52 D	31.07	-6.4656E-05	134.5	62.63	134.5	70.22	UL-RL	1.2410E+05	-10.200	92.73
1.000	1.000	155.4	0.000	0.000	Ug5_2_8_L_0					
53 D	31.62	-6.5022E-05	137.3	63.55	137.3	71.11	UL-RL	1.2410E+05	-10.400	94.55
1.000	1.000	158.1	0.000	0.000	Ug5_2_8_L_0					
54 D	32.17	-6.5220E-05	140.0	64.48	140.0	71.99	UL-RL	1.2410E+05	-10.600	96.36
1.000	1.000	160.8	0.000	0.000	Ug5_2_8_L_0					
55 D	32.72	-6.5283E-05	142.3	65.44	142.3	72.87	UL-RL	1.2410E+05	-10.800	98.18
1.000	1.000	163.6	0.000	0.000	Ug5_2_8_L_0					
56 D	33.28	-6.5241E-05	145.0	66.40	145.0	73.75	UL-RL	1.2410E+05	-11.000	100.00
1.000	1.000	166.4	0.000	0.000	Ug5_2_8_L_0					
57 D	33.84	-6.5121E-05	147.3	67.38	147.3	74.64	UL-RL	1.2410E+05	-11.200	101.8
1.000	1.000	169.2	0.000	0.000	Ug5_2_8_L_0					
58 D	34.40	-6.4949E-05	150.0	68.36	150.0	75.52	UL-RL	1.2410E+05	-11.400	103.6
1.000	1.000	172.0	0.000	0.000	Ug5_2_8_L_0					
59 D	34.96	-6.4746E-05	152.3	69.34	152.3	76.40	UL-RL	1.2410E+05	-11.600	105.5
1.000	1.000	174.8	0.000	0.000	Ug5_2_8_L_0					
60 D	35.52	-6.4528E-05	155.0	70.33	155.0	77.28	UL-RL	1.2410E+05	-11.800	107.3
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
61 D	18.04	-6.4305E-05	157.3	71.32	157.3	78.16	UL-RL	1.2410E+05	-12.000	109.1
1.000	1.000	180.4	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	1.6064E-03	0.000	0.000	20.00	26.29	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.887	1.4697E-03	1.818	12.25	22.00	27.64	PASSIVE	0.000	-2.200	2.182	
1.000	1.000	14.43	0.000	0.000	Ug5_2_8_L_0						
13 D	5.773	1.3363E-03	3.636	24.50	24.00	28.97	PASSIVE	0.000	-2.400	4.364	
1.000	1.000	28.87	0.000	0.000	Ug5_2_8_L_0						
14 D	8.660	1.2070E-03	5.455	36.75	26.00	36.75	PASSIVE	0.000	-2.600	6.545	
1.000	1.000	43.30	0.000	0.000	Ug5_2_8_L_0						
15 D	11.55	1.0828E-03	7.273	49.00	28.00	49.00	PASSIVE	0.000	-2.800	8.727	
1.000	1.000	57.73	0.000	0.000	Ug5_2_8_L_0						
16 D	12.28	9.6432E-04	9.091	50.51	30.00	50.51	V-C	2.0566E+04	-3.000	10.91	
1.000	1.000	61.42	0.000	0.000	Ug5_2_8_L_0						
17 D	12.53	8.5238E-04	10.91	49.58	32.00	49.58	V-C	2.0566E+04	-3.200	13.09	
1.000	1.000	62.67	0.000	0.000	Ug5_2_8_L_0						
18 D	12.80	7.4752E-04	12.73	48.75	34.00	48.75	V-C	2.0566E+04	-3.400	15.27	
1.000	1.000	64.02	0.000	0.000	Ug5_2_8_L_0						
19 D	13.10	6.5017E-04	14.55	48.03	36.00	48.03	V-C	2.0566E+04	-3.600	17.45	
1.000	1.000	65.49	0.000	0.000	Ug5_2_8_L_0						
20 D	13.42	5.6062E-04	16.36	47.44	38.00	47.44	V-C	2.0566E+04	-3.800	19.64	
1.000	1.000	67.08	0.000	0.000	Ug5_2_8_L_0						
21 D	13.76	4.7905E-04	18.18	46.98	40.00	46.98	V-C	2.0566E+04	-4.000	21.82	
1.000	1.000	68.80	0.000	0.000	Ug5_2_8_L_0						
22 D	14.13	4.0552E-04	20.00	46.65	42.00	46.65	V-C	2.0566E+04	-4.200	24.00	
1.000	1.000	70.65	0.000	0.000	Ug5_2_8_L_0						
23 D	14.53	3.3999E-04	21.82	46.45	44.00	46.45	V-C	2.0566E+04	-4.400	26.18	
1.000	1.000	72.63	0.000	0.000	Ug5_2_8_L_0						
24 D	14.95	2.8230E-04	23.64	46.38	46.00	46.38	V-C	2.0566E+04	-4.600	28.36	
1.000	1.000	74.74	0.000	0.000	Ug5_2_8_L_0						
25 D	15.40	2.3219E-04	25.45	46.44	48.00	46.44	V-C	2.0566E+04	-4.800	30.55	
1.000	1.000	76.99	0.000	0.000	Ug5_2_8_L_0						
26 D	15.87	1.8928E-04	27.27	46.63	50.00	46.63	V-C	2.0566E+04	-5.000	32.73	
1.000	1.000	79.35	0.000	0.000	Ug5_2_8_L_0						
27 D	16.37	1.5314E-04	29.09	46.93	52.00	46.93	V-C	2.0566E+04	-5.200	34.91	
1.000	1.000	81.84	0.000	0.000	Ug5_2_8_L_0						
28 D	16.88	1.2320E-04	30.91	47.33	54.00	47.33	V-C	2.0566E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	84.42	0.000	0.000	Ug5_2_8_L_0					
29 D	17.42	9.8901E-05	32.73	47.83	56.00	47.83	V-C	2.0566E+04	-5.600	39.27
1.000	1.000	87.10	0.000	0.000	Ug5_2_8_L_0					
30 D	17.91	7.9621E-05	34.55	48.07	58.00	48.59	UL-RL	6.1699E+04	-5.800	41.45
1.000	1.000	89.53	0.000	0.000	Ug5_2_8_L_0					
31 D	18.35	6.4748E-05	36.36	48.11	60.00	49.56	UL-RL	6.1699E+04	-6.000	43.64
1.000	1.000	91.75	0.000	0.000	Ug5_2_8_L_0					
32 D	18.84	5.3681E-05	38.18	48.36	62.00	50.51	UL-RL	6.1699E+04	-6.200	45.82
1.000	1.000	94.18	0.000	0.000	Ug5_2_8_L_0					
33 D	19.36	4.5846E-05	40.00	48.79	64.00	51.46	UL-RL	6.1699E+04	-6.400	48.00
1.000	1.000	96.79	0.000	0.000	Ug5_2_8_L_0					
34 D	19.91	4.0704E-05	41.82	49.37	66.00	52.39	UL-RL	6.1699E+04	-6.600	50.18
1.000	1.000	99.55	0.000	0.000	Ug5_2_8_L_0					
35 D	20.49	3.7761E-05	43.64	50.07	68.00	53.31	UL-RL	6.1699E+04	-6.800	52.36
1.000	1.000	102.4	0.000	0.000	Ug5_2_8_L_0					
36 D	21.08	3.6573E-05	45.45	50.87	70.00	54.22	UL-RL	6.1699E+04	-7.000	54.55
1.000	1.000	105.4	0.000	0.000	Ug5_2_8_L_0					
37 D	21.69	3.6745E-05	47.27	51.74	72.00	55.12	UL-RL	6.1699E+04	-7.200	56.73
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
38 D	22.31	3.7933E-05	49.09	52.67	74.00	56.01	UL-RL	6.1699E+04	-7.400	58.91
1.000	1.000	111.6	0.000	0.000	Ug5_2_8_L_0					
39 D	22.94	3.9840E-05	50.91	53.62	76.00	56.89	UL-RL	6.1699E+04	-7.600	61.09
1.000	1.000	114.7	0.000	0.000	Ug5_2_8_L_0					
40 D	23.58	4.2220E-05	52.73	54.60	78.00	57.77	UL-RL	6.1699E+04	-7.800	63.27
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.21	4.4868E-05	54.55	55.59	80.00	58.64	UL-RL	6.1699E+04	-8.000	65.45
1.000	1.000	121.0	0.000	0.000	Ug5_2_8_L_0					
42 D	24.84	4.7616E-05	56.36	56.58	82.00	59.51	UL-RL	6.1699E+04	-8.200	67.64
1.000	1.000	124.2	0.000	0.000	Ug5_2_8_L_0					
43 D	25.48	5.0337E-05	58.18	57.56	84.00	60.37	UL-RL	6.1699E+04	-8.400	69.82
1.000	1.000	127.4	0.000	0.000	Ug5_2_8_L_0					
44 D	26.10	5.2931E-05	60.00	58.52	86.00	61.23	UL-RL	6.1699E+04	-8.600	72.00
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
45 D	26.73	5.5328E-05	61.82	59.47	88.00	62.09	UL-RL	6.1699E+04	-8.800	74.18
1.000	1.000	133.7	0.000	0.000	Ug5_2_8_L_0					
46 D	27.35	5.7480E-05	63.64	60.41	90.00	62.94	UL-RL	6.1699E+04	-9.000	76.36
1.000	1.000	136.8	0.000	0.000	Ug5_2_8_L_0					
47 D	27.97	5.9359E-05	65.45	61.32	92.00	63.79	UL-RL	6.1699E+04	-9.200	78.55
1.000	1.000	139.9	0.000	0.000	Ug5_2_8_L_0					
48 D	28.59	6.0953E-05	67.27	62.21	94.00	64.64	UL-RL	6.1699E+04	-9.400	80.73
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
49 D	29.20	6.2264E-05	69.09	63.08	96.00	65.48	UL-RL	6.1699E+04	-9.600	82.91
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
50 D	29.80	6.3305E-05	70.91	63.93	98.00	66.32	UL-RL	6.1699E+04	-9.800	85.09
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
51 D	30.41	6.4094E-05	72.73	64.77	100.00	67.17	UL-RL	6.1699E+04	-10.000	87.27
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
52 D	31.01	6.4656E-05	74.55	65.58	102.0	68.01	UL-RL	6.1699E+04	-10.200	89.45
1.000	1.000	155.0	0.000	0.000	Ug5_2_8_L_0					
53 D	31.61	6.5022E-05	76.36	66.39	104.0	68.85	UL-RL	6.1699E+04	-10.400	91.64
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
54 D	32.20	6.5220E-05	78.18	67.19	106.0	69.69	UL-RL	6.1699E+04	-10.600	93.82
1.000	1.000	161.0	0.000	0.000	Ug5_2_8_L_0					
55 D	32.79	6.5283E-05	80.00	67.97	108.0	70.52	UL-RL	6.1699E+04	-10.800	96.00
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					
56 D	33.39	6.5241E-05	81.82	68.75	110.0	71.36	UL-RL	6.1699E+04	-11.000	98.18
1.000	1.000	166.9	0.000	0.000	Ug5_2_8_L_0					
57 D	33.98	6.5121E-05	83.64	69.52	112.0	72.20	UL-RL	6.1699E+04	-11.200	100.4
1.000	1.000	169.9	0.000	0.000	Ug5_2_8_L_0					
58 D	34.57	6.4949E-05	85.45	70.29	114.0	73.04	UL-RL	6.1699E+04	-11.400	102.5
1.000	1.000	172.8	0.000	0.000	Ug5_2_8_L_0					
59 D	35.16	6.4746E-05	87.27	71.06	116.0	73.88	UL-RL	6.1699E+04	-11.600	104.7
1.000	1.000	175.8	0.000	0.000	Ug5_2_8_L_0					
60 D	35.75	6.4528E-05	89.09	71.83	118.0	74.72	UL-RL	6.1699E+04	-11.800	106.9
1.000	1.000	178.7	0.000	0.000	Ug5_2_8_L_0					
61 D	18.17	6.4305E-05	90.91	72.60	120.0	75.56	UL-RL	6.1699E+04	-12.000	109.1
1.000	1.000	181.7	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017* |
|                               |                               |                               |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
 ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
 CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.03363E-10	-1.03363E-10	1.04248E-11	-2.39359E-13
2	0.47885	-0.47885	5.33706E-12	9.57703E-02
3	1.4579	-1.4579	-9.57703E-02	0.38735
4	2.9460	-2.9460	-0.38735	0.97654
5	4.9605	-4.9605	-0.97654	1.9686
6	7.5013	-7.5013	-1.9686	3.4689
7	10.544	-10.544	-3.4689	5.5777
8	14.084	-14.084	-5.5777	8.3945
9	18.126	-18.126	-8.3945	12.020
10	22.659	-22.659	-12.020	16.551
11	27.689	-27.689	-16.551	22.089
12	30.322	-30.322	-22.089	28.154
13	30.564	-30.564	-28.154	34.266
14	28.410	-28.410	-34.266	39.948
15	23.864	-23.864	-39.948	44.721
16	19.071	-19.071	-44.721	48.535
17	14.523	-14.523	-48.535	51.440
18	10.195	-10.195	-51.440	53.479
19	6.0669	-6.0669	-53.479	54.692
20	2.1162	-2.1162	-54.692	55.116
21	-1.6858	1.6858	-55.116	54.778
22	-5.3622	5.3622	-54.778	53.706
23	-8.9427	8.9427	-53.706	51.917
24	-12.451	12.451	-51.917	49.427
25	-15.915	15.915	-49.427	46.244
26	-18.517	18.517	-46.244	42.541
27	-20.125	20.125	-42.541	38.516
28	-20.921	20.921	-38.516	34.332
29	-21.068	21.068	-34.332	30.118
30	-20.643	20.643	-30.118	25.990
31	-19.717	19.717	-25.990	22.046
32	-18.429	18.429	-22.046	18.360
33	-16.900	16.900	-18.360	14.980
34	-15.226	15.226	-14.980	11.935
35	-13.490	13.490	-11.935	9.2372
36	-11.754	11.754	-9.2372	6.8863
37	-10.069	10.069	-6.8863	4.8724
38	-8.4715	8.4715	-4.8724	3.1781
39	-6.9864	6.9864	-3.1781	1.7808
40	-5.6308	5.6308	-1.7808	0.65466
41	-4.4140	4.4140	-0.65466	-0.22814
42	-3.3389	3.3389	0.22814	-0.89593
43	-2.4041	2.4041	0.89593	-1.3768
44	-1.6044	1.6044	1.3768	-1.6976
45	-0.93194	0.93194	1.6976	-1.8840
46	-0.37743	0.37743	1.8840	-1.9595
47	6.95628E-02	-6.95628E-02	1.9595	-1.9456
48	0.41979	-0.41979	1.9456	-1.8616
49	0.68391	-0.68391	1.8616	-1.7248
50	0.87211	-0.87211	1.7248	-1.5504
51	0.99381	-0.99381	1.5504	-1.3517
52	1.0575	-1.0575	1.3517	-1.1402
53	1.0705	-1.0705	1.1402	-0.92608
54	1.0391	-1.0391	0.92608	-0.71827
55	0.96829	-0.96829	0.71827	-0.52461
56	0.86210	-0.86210	0.52461	-0.35219
57	0.72338	-0.72338	0.35219	-0.20751
58	0.55410	-0.55410	0.20751	-9.66927E-02
59	0.35545	-0.35545	9.66927E-02	-2.56030E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.12801 -0.12801 2.56030E-02-2.76043E-13

ITER 0 RNORM = 5584. RMNORM= 0.000
RINORM=0.6771E+05 RIMNOR=0.8217E+05
RENORM= 4228. REMNOR=0.3494E-21 RATIO =0.2499 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 72.00 RMMAX = 55.12
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6771E+05 RDR =0.8217E+05
RATIOT=0.2499 RATIO= 0.000
MAX UN= 11.40 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
MIN UN=-59.87 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 5584. RMNORM= 0.000
RINORM=0.6771E+05 RIMNOR=0.8217E+05
RENORM=0.7274 REMNOR=0.5863E-21 RATIO =0.3278E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 72.00 RMMAX = 55.12
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6771E+05 RDR =0.8217E+05
RATIOT=0.3278E-02 RATIO= 0.000
MAX UN=0.6305 IEQ= 49 NODE 25 DOF 1 Y-DISPL.F
MIN UN=-.1331E-09 IEQ= 17 NODE 9 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM = 5584. RMNORM= 0.000
RINORM=0.6771E+05 RIMNOR=0.8217E+05
RENORM=0.2463E-18 REMNOR=0.5442E-21 RATIO =0.1907E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 72.00 RMMAX = 55.12
RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
RDT =0.6771E+05 RDR =0.8217E+05
RATIOT=0.1907E-11 RATIO= 0.000
MAX UN=0.1950E-09 IEQ= 9 NODE 5 DOF 1 Y-DISPL.F
MIN UN=-.2078E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:23:40 |
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New Project
SOLUTION REACHED USING 3 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0025560E-03	-7.3976917E-04	
2	2.8546022E-03	-7.3976917E-04	
3	2.7066536E-03	-7.3969139E-04	
4	2.5587439E-03	-7.3933968E-04	
5	2.4109545E-03	-7.3843607E-04	
6	2.2634304E-03	-7.3661895E-04	
7	2.1163975E-03	-7.3344202E-04	
8	1.9701795E-03	-7.2837643E-04	
9	1.8252135E-03	-7.2081350E-04	
10	1.6820664E-03	-7.1006565E-04	
11	1.5414505E-03	-6.9536792E-04	
12	1.4042386E-03	-6.7588001E-04	
13	1.2714788E-03	-6.5068837E-04	
14	1.1444091E-03	-6.1880902E-04	
15	1.0243736E-03	-5.8065373E-04	
16	9.1254272E-04	-5.3657153E-04	
17	8.0986658E-04	-4.9065728E-04	
18	7.1612003E-04	-4.4713193E-04	
19	6.3090162E-04	-4.0528945E-04	
20	5.5391401E-04	-3.6480056E-04	
21	4.8489125E-04	-3.2566884E-04	
22	4.2354547E-04	-2.8805741E-04	
23	3.6955470E-04	-2.5214982E-04	
24	3.2255925E-04	-2.1813665E-04	
25	2.8216045E-04	-1.8621737E-04	
26	2.4791868E-04	-1.5660251E-04	
27	2.1935105E-04	-1.2951569E-04	
28	1.9593242E-04	-1.0513086E-04	
29	1.7711368E-04	-8.3521391E-05	
30	1.6233928E-04	-6.4680617E-05	
31	1.5106171E-04	-4.8535733E-05	
32	1.4275407E-04	-3.4955134E-05	
33	1.3692065E-04	-2.3760305E-05	
34	1.3310484E-04	-1.4742118E-05	
35	1.3089381E-04	-7.6737935E-06	
36	1.2992091E-04	-2.3217210E-06	
37	1.2986617E-04	1.5460330E-06	
38	1.3045529E-04	4.1532974E-06	
39	1.3145751E-04	5.7109111E-06	
40	1.3268265E-04	6.4135134E-06	
41	1.3397767E-04	6.4374639E-06	
42	1.3522286E-04	5.9397981E-06	
43	1.3632798E-04	5.0579935E-06	
44	1.3722834E-04	3.9103666E-06	
45	1.3788107E-04	2.5969464E-06	
46	1.3826159E-04	1.2006479E-06	
47	1.3836029E-04	-2.1127250E-07	
48	1.3817958E-04	-1.5857081E-06	
49	1.3773121E-04	-2.8821231E-06	
50	1.3703390E-04	-4.0709998E-06	
51	1.3611131E-04	-5.1323889E-06	
52	1.3499020E-04	-6.0545340E-06	
53	1.3369914E-04	-6.8325480E-06	
54	1.3226678E-04	-7.4676213E-06	
55	1.3072122E-04	-7.9657816E-06	
56	1.2908890E-04	-8.3373315E-06	
57	1.2739380E-04	-8.5962115E-06	
58	1.2565679E-04	-8.7595506E-06	
59	1.2389502E-04	-8.8473471E-06	
60	1.2212138E-04	-8.8822602E-06	
61	1.2034387E-04	-8.8894900E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1 D	0.000	-3.0026E-03	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.063	-2.8546E-03	2.417	3.603	2.417	4.707	UL-RL	8.2735E+04	-0.2000	1.714	
1.000	1.000	5.317	0.000	0.000	Ug5_2_8_L_0						
3 D	1.618	-2.7067E-03	5.263	4.663	5.263	8.349	UL-RL	8.2735E+04	-0.4000	3.429	
1.000	1.000	8.092	0.000	0.000	Ug5_2_8_L_0						
4 D	2.182	-2.5587E-03	8.287	5.767	8.287	11.12	UL-RL	8.2735E+04	-0.6000	5.143	
1.000	1.000	10.91	0.000	0.000	Ug5_2_8_L_0						
5 D	2.762	-2.4110E-03	11.66	6.952	11.66	13.46	UL-RL	8.2735E+04	-0.8000	6.857	
1.000	1.000	13.81	0.000	0.000	Ug5_2_8_L_0						
6 D	3.340	-2.2634E-03	15.03	8.128	15.03	15.59	UL-RL	8.2735E+04	-1.0000	8.571	
1.000	1.000	16.70	0.000	0.000	Ug5_2_8_L_0						
7 D	3.890	-2.1164E-03	17.91	9.167	17.91	17.61	UL-RL	8.2735E+04	-1.2000	10.29	
1.000	1.000	19.45	0.000	0.000	Ug5_2_8_L_0						
8 D	4.431	-1.9702E-03	20.69	10.16	20.69	19.55	UL-RL	8.2735E+04	-1.4000	12.00	
1.000	1.000	22.16	0.000	0.000	Ug5_2_8_L_0						
9 D	4.970	-1.8252E-03	23.57	11.13	23.57	21.42	UL-RL	8.2735E+04	-1.6000	13.71	
1.000	1.000	24.85	0.000	0.000	Ug5_2_8_L_0						
10 D	5.488	-1.6821E-03	26.24	12.01	26.24	23.24	UL-RL	8.2735E+04	-1.8000	15.43	
1.000	1.000	27.44	0.000	0.000	Ug5_2_8_L_0						
11 D	6.000	-1.5415E-03	29.03	12.86	29.03	24.99	UL-RL	8.2735E+04	-2.0000	17.14	
1.000	1.000	30.00	0.000	0.000	Ug5_2_8_L_0						
12 D	6.489	-1.4042E-03	31.66	13.59	31.66	26.69	UL-RL	8.2735E+04	-2.2000	18.86	
1.000	1.000	32.45	0.000	0.000	Ug5_2_8_L_0						
13 D	6.964	-1.2715E-03	34.41	14.25	34.41	28.34	UL-RL	8.2735E+04	-2.4000	20.57	
1.000	1.000	34.82	0.000	0.000	Ug5_2_8_L_0						
14 D	7.407	-1.1444E-03	37.05	14.75	37.05	29.93	UL-RL	8.2735E+04	-2.6000	22.29	
1.000	1.000	37.03	0.000	0.000	Ug5_2_8_L_0						
15 D	7.821	-1.0244E-03	39.80	15.11	39.80	31.47	UL-RL	8.2735E+04	-2.8000	24.00	
1.000	1.000	39.11	0.000	0.000	Ug5_2_8_L_0						
16 D	8.192	-9.1254E-04	42.45	15.24	42.45	32.96	UL-RL	8.2735E+04	-3.0000	25.71	
1.000	1.000	40.96	0.000	0.000	Ug5_2_8_L_0						
17 D	8.523	-8.0987E-04	45.19	15.19	45.19	34.40	UL-RL	8.2735E+04	-3.2000	27.43	
1.000	1.000	42.62	0.000	0.000	Ug5_2_8_L_0						
18 D	8.820	-7.1612E-04	47.86	14.96	47.86	35.80	UL-RL	8.2735E+04	-3.4000	29.14	
1.000	1.000	44.10	0.000	0.000	Ug5_2_8_L_0						
19 D	9.101	-6.3090E-04	50.54	14.65	50.54	37.15	UL-RL	8.2735E+04	-3.6000	30.86	
1.000	1.000	45.51	0.000	0.000	Ug5_2_8_L_0						
20 D	9.378	-5.5391E-04	53.29	14.32	53.29	38.46	UL-RL	8.2735E+04	-3.8000	32.57	
1.000	1.000	46.89	0.000	0.000	Ug5_2_8_L_0						
21 D	9.653	-4.8489E-04	55.98	13.98	55.98	39.73	UL-RL	8.2735E+04	-4.0000	34.29	
1.000	1.000	48.26	0.000	0.000	Ug5_2_8_L_0						
22 D	10.12	-4.2355E-04	58.73	14.62	58.73	40.97	ACTIVE	0.000	-4.2000	36.00	
1.000	1.000	50.62	0.000	0.000	Ug5_2_8_L_0						
23 D	10.60	-3.6955E-04	61.43	15.29	61.43	42.17	ACTIVE	0.000	-4.4000	37.71	
1.000	1.000	53.01	0.000	0.000	Ug5_2_8_L_0						
24 D	11.08	-3.2256E-04	64.17	15.98	64.17	43.34	ACTIVE	0.000	-4.6000	39.43	
1.000	1.000	55.41	0.000	0.000	Ug5_2_8_L_0						
25 D	11.56	-2.8216E-04	66.87	16.65	66.87	44.48	ACTIVE	0.000	-4.8000	41.14	
1.000	1.000	57.79	0.000	0.000	Ug5_2_8_L_0						
26 D	12.04	-2.4792E-04	69.56	17.34	69.56	45.60	UL-RL	8.2735E+04	-5.0000	42.86	
1.000	1.000	60.20	0.000	0.000	Ug5_2_8_L_0						
27 D	13.39	-2.1935E-04	72.04	22.39	72.04	46.69	UL-RL	8.2735E+04	-5.2000	44.57	
1.000	1.000	66.96	0.000	0.000	Ug5_2_8_L_0						
28 D	14.60	-1.9593E-04	74.54	26.74	74.54	47.76	UL-RL	8.2735E+04	-5.4000	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	73.02	0.000	0.000	Ug5_2_8_L_0					
29 D	15.69	-1.7711E-04	77.03	30.44	77.03	48.81	UL-RL	8.2735E+04	-5.600	48.00
1.000	1.000	78.44	0.000	0.000	Ug5_2_8_L_0					
30 D	16.66	-1.6234E-04	79.54	33.59	79.54	49.85	UL-RL	8.2735E+04	-5.800	49.71
1.000	1.000	83.30	0.000	0.000	Ug5_2_8_L_0					
31 D	17.54	-1.5106E-04	82.05	36.25	82.05	50.86	UL-RL	8.2735E+04	-6.000	51.43
1.000	1.000	87.68	0.000	0.000	Ug5_2_8_L_0					
32 D	18.33	-1.4275E-04	84.55	38.49	84.55	51.86	UL-RL	8.2735E+04	-6.200	53.14
1.000	1.000	91.63	0.000	0.000	Ug5_2_8_L_0					
33 D	19.05	-1.3692E-04	87.06	40.38	87.06	52.85	UL-RL	8.2735E+04	-6.400	54.86
1.000	1.000	95.24	0.000	0.000	Ug5_2_8_L_0					
34 D	19.71	-1.3310E-04	89.81	41.99	89.81	53.82	UL-RL	8.2735E+04	-6.600	56.57
1.000	1.000	98.56	0.000	0.000	Ug5_2_8_L_0					
35 D	20.33	-1.3089E-04	92.46	43.36	92.46	54.79	UL-RL	8.2735E+04	-6.800	58.29
1.000	1.000	101.6	0.000	0.000	Ug5_2_8_L_0					
36 D	20.91	-1.2992E-04	95.67	44.55	95.67	55.74	UL-RL	8.2735E+04	-7.000	60.00
1.000	1.000	104.6	0.000	0.000	Ug5_2_8_L_0					
37 D	21.46	-1.2987E-04	98.29	45.61	98.29	56.68	UL-RL	8.2735E+04	-7.200	61.71
1.000	1.000	107.3	0.000	0.000	Ug5_2_8_L_0					
38 D	22.00	-1.3046E-04	101.4	46.56	101.4	57.62	UL-RL	8.2735E+04	-7.400	63.43
1.000	1.000	110.0	0.000	0.000	Ug5_2_8_L_0					
39 D	22.52	-1.3146E-04	104.0	47.44	104.0	58.55	UL-RL	8.2735E+04	-7.600	65.14
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
40 D	23.03	-1.3268E-04	107.1	48.29	107.1	59.47	UL-RL	8.2735E+04	-7.800	66.86
1.000	1.000	115.1	0.000	0.000	Ug5_2_8_L_0					
41 D	23.54	-1.3398E-04	110.2	49.11	110.2	60.38	UL-RL	8.2735E+04	-8.000	68.57
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
42 D	24.04	-1.3522E-04	112.7	49.93	112.7	61.29	UL-RL	8.2735E+04	-8.200	70.29
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
43 D	24.55	-1.3633E-04	115.7	50.75	115.7	62.20	UL-RL	8.2735E+04	-8.400	72.00
1.000	1.000	122.8	0.000	0.000	Ug5_2_8_L_0					
44 D	25.06	-1.3723E-04	118.2	51.60	118.2	63.10	UL-RL	8.2735E+04	-8.600	73.71
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
45 D	25.58	-1.3788E-04	121.2	52.47	121.2	64.00	UL-RL	8.2735E+04	-8.800	75.43
1.000	1.000	127.9	0.000	0.000	Ug5_2_8_L_0					
46 D	26.10	-1.3826E-04	123.7	53.38	123.7	64.90	UL-RL	8.2735E+04	-9.000	77.14
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
47 D	26.63	-1.3836E-04	126.6	54.31	126.6	65.79	UL-RL	8.2735E+04	-9.200	78.86
1.000	1.000	133.2	0.000	0.000	Ug5_2_8_L_0					
48 D	27.17	-1.3818E-04	129.1	55.28	129.1	66.68	UL-RL	8.2735E+04	-9.400	80.57
1.000	1.000	135.9	0.000	0.000	Ug5_2_8_L_0					
49 D	27.71	-1.3773E-04	132.0	56.29	132.0	67.57	UL-RL	8.2735E+04	-9.600	82.29
1.000	1.000	138.6	0.000	0.000	Ug5_2_8_L_0					
50 D	28.26	-1.3703E-04	134.5	57.32	134.5	68.45	UL-RL	8.2735E+04	-9.800	84.00
1.000	1.000	141.3	0.000	0.000	Ug5_2_8_L_0					
51 D	28.82	-1.3611E-04	137.4	58.38	137.4	69.34	UL-RL	8.2735E+04	-10.000	85.71
1.000	1.000	144.1	0.000	0.000	Ug5_2_8_L_0					
52 D	29.38	-1.3499E-04	139.8	59.46	139.8	70.22	UL-RL	8.2735E+04	-10.200	87.43
1.000	1.000	146.9	0.000	0.000	Ug5_2_8_L_0					
53 D	29.94	-1.3370E-04	142.7	60.57	142.7	71.11	UL-RL	8.2735E+04	-10.400	89.14
1.000	1.000	149.7	0.000	0.000	Ug5_2_8_L_0					
54 D	30.51	-1.3227E-04	145.5	61.69	145.5	71.99	UL-RL	8.2735E+04	-10.600	90.86
1.000	1.000	152.5	0.000	0.000	Ug5_2_8_L_0					
55 D	31.08	-1.3072E-04	147.9	62.83	147.9	72.87	UL-RL	8.2735E+04	-10.800	92.57
1.000	1.000	155.4	0.000	0.000	Ug5_2_8_L_0					
56 D	31.65	-1.2909E-04	150.7	63.98	150.7	73.75	UL-RL	8.2735E+04	-11.000	94.29
1.000	1.000	158.3	0.000	0.000	Ug5_2_8_L_0					
57 D	32.23	-1.2739E-04	153.2	65.13	153.2	74.64	UL-RL	8.2735E+04	-11.200	96.00
1.000	1.000	161.1	0.000	0.000	Ug5_2_8_L_0					
58 D	32.80	-1.2566E-04	155.9	66.30	155.9	75.52	UL-RL	8.2735E+04	-11.400	97.71
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					
59 D	33.38	-1.2390E-04	158.4	67.46	158.4	76.40	UL-RL	8.2735E+04	-11.600	99.43
1.000	1.000	166.9	0.000	0.000	Ug5_2_8_L_0					
60 D	33.95	-1.2212E-04	161.1	68.63	161.1	77.28	UL-RL	8.2735E+04	-11.800	101.1
1.000	1.000	169.8	0.000	0.000	Ug5_2_8_L_0					
61 D	17.27	-1.2034E-04	163.5	69.80	163.5	78.16	UL-RL	8.2735E+04	-12.000	102.9
1.000	1.000	172.7	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018 18:23:40 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	9.1254E-04	0.000	0.000	30.00	50.51	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.418	8.0987E-04	1.714	9.802	32.00	49.58	UL-RL	4.1133E+04	-3.200	2.286	
1.000	1.000	12.09	0.000	0.000	Ug5_2_8_L_0						
18 D	5.276	7.1612E-04	3.429	21.81	34.00	48.75	UL-RL	4.1133E+04	-3.400	4.571	
1.000	1.000	26.38	0.000	0.000	Ug5_2_8_L_0						
19 D	8.143	6.3090E-04	5.143	33.86	36.00	48.03	UL-RL	4.1133E+04	-3.600	6.857	
1.000	1.000	40.72	0.000	0.000	Ug5_2_8_L_0						
20 D	10.38	5.5391E-04	6.857	42.77	38.00	47.44	UL-RL	4.1133E+04	-3.800	9.143	
1.000	1.000	51.91	0.000	0.000	Ug5_2_8_L_0						
21 D	10.88	4.8489E-04	8.571	42.99	40.00	46.98	UL-RL	4.1133E+04	-4.000	11.43	
1.000	1.000	54.42	0.000	0.000	Ug5_2_8_L_0						
22 D	11.40	4.2355E-04	10.29	43.29	42.00	46.65	UL-RL	4.1133E+04	-4.200	13.71	
1.000	1.000	57.00	0.000	0.000	Ug5_2_8_L_0						
23 D	11.93	3.6955E-04	12.00	43.66	44.00	46.45	UL-RL	4.1133E+04	-4.400	16.00	
1.000	1.000	59.66	0.000	0.000	Ug5_2_8_L_0						
24 D	12.48	3.2256E-04	13.71	44.11	46.00	46.38	UL-RL	4.1133E+04	-4.600	18.29	
1.000	1.000	62.39	0.000	0.000	Ug5_2_8_L_0						
25 D	13.04	2.8216E-04	15.43	44.63	48.00	46.44	UL-RL	4.1133E+04	-4.800	20.57	
1.000	1.000	65.20	0.000	0.000	Ug5_2_8_L_0						
26 D	13.61	2.4792E-04	17.14	45.21	50.00	46.63	UL-RL	4.1133E+04	-5.000	22.86	
1.000	1.000	68.07	0.000	0.000	Ug5_2_8_L_0						
27 D	14.20	2.1935E-04	18.86	45.86	52.00	46.93	UL-RL	4.1133E+04	-5.200	25.14	
1.000	1.000	71.00	0.000	0.000	Ug5_2_8_L_0						
28 D	14.80	1.9593E-04	20.57	46.56	54.00	47.33	UL-RL	4.1133E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	73.99	0.000	0.000	Ug5_2_8_L_0					
29 D	15.40	1.7711E-04	22.29	47.31	56.00	47.83	UL-RL	4.1133E+04	-5.600	29.71
1.000	1.000	77.02	0.000	0.000	Ug5_2_8_L_0					
30 D	15.95	1.6234E-04	24.00	47.75	58.00	48.59	UL-RL	4.1133E+04	-5.800	32.00
1.000	1.000	79.75	0.000	0.000	Ug5_2_8_L_0					
31 D	16.45	1.5106E-04	25.71	47.94	60.00	49.56	UL-RL	4.1133E+04	-6.000	34.29
1.000	1.000	82.23	0.000	0.000	Ug5_2_8_L_0					
32 D	16.98	1.4275E-04	27.43	48.31	62.00	50.51	UL-RL	4.1133E+04	-6.200	36.57
1.000	1.000	84.88	0.000	0.000	Ug5_2_8_L_0					
33 D	17.54	1.3692E-04	29.14	48.83	64.00	51.46	UL-RL	4.1133E+04	-6.400	38.86
1.000	1.000	87.69	0.000	0.000	Ug5_2_8_L_0					
34 D	18.12	1.3310E-04	30.86	49.47	66.00	52.39	UL-RL	4.1133E+04	-6.600	41.14
1.000	1.000	90.61	0.000	0.000	Ug5_2_8_L_0					
35 D	18.73	1.3089E-04	32.57	50.20	68.00	53.31	UL-RL	4.1133E+04	-6.800	43.43
1.000	1.000	93.63	0.000	0.000	Ug5_2_8_L_0					
36 D	19.34	1.2992E-04	34.29	51.00	70.00	54.22	UL-RL	4.1133E+04	-7.000	45.71
1.000	1.000	96.72	0.000	0.000	Ug5_2_8_L_0					
37 D	19.97	1.2987E-04	36.00	51.86	72.00	55.12	UL-RL	4.1133E+04	-7.200	48.00
1.000	1.000	99.86	0.000	0.000	Ug5_2_8_L_0					
38 D	20.61	1.3046E-04	37.71	52.75	74.00	56.01	UL-RL	4.1133E+04	-7.400	50.29
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
39 D	21.25	1.3146E-04	39.43	53.66	76.00	56.89	UL-RL	4.1133E+04	-7.600	52.57
1.000	1.000	106.2	0.000	0.000	Ug5_2_8_L_0					
40 D	21.89	1.3268E-04	41.14	54.58	78.00	57.77	UL-RL	4.1133E+04	-7.800	54.86
1.000	1.000	109.4	0.000	0.000	Ug5_2_8_L_0					
41 D	22.53	1.3398E-04	42.86	55.50	80.00	58.64	UL-RL	4.1133E+04	-8.000	57.14
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
42 D	23.17	1.3522E-04	44.57	56.42	82.00	59.51	UL-RL	4.1133E+04	-8.200	59.43
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
43 D	23.81	1.3633E-04	46.29	57.32	84.00	60.37	UL-RL	4.1133E+04	-8.400	61.71
1.000	1.000	119.0	0.000	0.000	Ug5_2_8_L_0					
44 D	24.44	1.3723E-04	48.00	58.20	86.00	61.23	UL-RL	4.1133E+04	-8.600	64.00
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
45 D	25.07	1.3788E-04	49.71	59.06	88.00	62.09	UL-RL	4.1133E+04	-8.800	66.29
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
46 D	25.70	1.3826E-04	51.43	59.91	90.00	62.94	UL-RL	4.1133E+04	-9.000	68.57
1.000	1.000	128.5	0.000	0.000	Ug5_2_8_L_0					
47 D	26.32	1.3836E-04	53.14	60.73	92.00	63.79	UL-RL	4.1133E+04	-9.200	70.86
1.000	1.000	131.6	0.000	0.000	Ug5_2_8_L_0					
48 D	26.93	1.3818E-04	54.86	61.53	94.00	64.64	UL-RL	4.1133E+04	-9.400	73.14
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
49 D	27.55	1.3773E-04	56.57	62.31	96.00	65.48	UL-RL	4.1133E+04	-9.600	75.43
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
50 D	28.16	1.3703E-04	58.29	63.07	98.00	66.32	UL-RL	4.1133E+04	-9.800	77.71
1.000	1.000	140.8	0.000	0.000	Ug5_2_8_L_0					
51 D	28.76	1.3611E-04	60.00	63.82	100.00	67.17	UL-RL	4.1133E+04	-10.000	80.00
1.000	1.000	143.8	0.000	0.000	Ug5_2_8_L_0					
52 D	29.37	1.3499E-04	61.71	64.55	102.0	68.01	UL-RL	4.1133E+04	-10.200	82.29
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
53 D	29.97	1.3370E-04	63.43	65.27	104.0	68.85	UL-RL	4.1133E+04	-10.400	84.57
1.000	1.000	149.8	0.000	0.000	Ug5_2_8_L_0					
54 D	30.57	1.3227E-04	65.14	65.97	106.0	69.69	UL-RL	4.1133E+04	-10.600	86.86
1.000	1.000	152.8	0.000	0.000	Ug5_2_8_L_0					
55 D	31.16	1.3072E-04	66.86	66.67	108.0	70.52	UL-RL	4.1133E+04	-10.800	89.14
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
56 D	31.76	1.2909E-04	68.57	67.37	110.0	71.36	UL-RL	4.1133E+04	-11.000	91.43
1.000	1.000	158.8	0.000	0.000	Ug5_2_8_L_0					
57 D	32.35	1.2739E-04	70.29	68.06	112.0	72.20	UL-RL	4.1133E+04	-11.200	93.71
1.000	1.000	161.8	0.000	0.000	Ug5_2_8_L_0					
58 D	32.95	1.2566E-04	72.00	68.74	114.0	73.04	UL-RL	4.1133E+04	-11.400	96.00
1.000	1.000	164.7	0.000	0.000	Ug5_2_8_L_0					
59 D	33.54	1.2390E-04	73.71	69.42	116.0	73.88	UL-RL	4.1133E+04	-11.600	98.29
1.000	1.000	167.7	0.000	0.000	Ug5_2_8_L_0					
60 D	34.14	1.2212E-04	75.43	70.11	118.0	74.72	UL-RL	4.1133E+04	-11.800	100.6
1.000	1.000	170.7	0.000	0.000	Ug5_2_8_L_0					
61 D	17.36	1.2034E-04	77.14	70.79	120.0	75.56	UL-RL	4.1133E+04	-12.000	102.9
1.000	1.000	173.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE  2017.1   FULL VERSION   *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:23:40          |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

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WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000
    
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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.80096E-11	-2.80096E-11	2.90723E-12	-7.50111E-12
2	1.0634	-1.0634	1.60880E-11	0.21268
3	2.6818	-2.6818	-0.21268	0.74904
4	4.8637	-4.8637	-0.74904	1.7218
5	7.6256	-7.6256	-1.7218	3.2469
6	10.966	-10.966	-3.2469	5.4400
7	14.856	-14.856	-5.4400	8.4112
8	19.287	-19.287	-8.4112	12.269
9	24.257	-24.257	-12.269	17.120
10	29.745	-29.745	-17.120	23.069
11	35.746	-35.746	-23.069	30.218
12	42.235	-42.235	-30.218	38.665
13	49.199	-49.199	-38.665	48.505
14	56.605	-56.605	-48.505	58.826
15	64.426	-64.426	-58.826	70.171
16	72.743	-72.743	-70.171	82.635
17	81.556	-81.556	-82.635	96.318
18	90.865	-90.865	-96.318	112.229
19	100.670	-100.670	-112.229	130.368
20	110.971	-110.971	-130.368	150.735
21	121.768	-121.768	-150.735	173.330
22	133.061	-133.061	-173.330	198.153
23	144.850	-144.850	-198.153	225.204
24	157.135	-157.135	-225.204	254.483
25	170.016	-170.016	-254.483	285.990
26	183.493	-183.493	-285.990	319.725
27	197.566	-197.566	-319.725	355.698
28	212.235	-212.235	-355.698	393.909
29	227.500	-227.500	-393.909	434.358
30	243.361	-243.361	-434.358	477.045
31	259.818	-259.818	-477.045	521.970
32	276.871	-276.871	-521.970	569.133
33	294.520	-294.520	-569.133	618.544
34	312.765	-312.765	-618.544	670.293
35	331.606	-331.606	-670.293	724.380
36	351.043	-351.043	-724.380	780.805
37	371.076	-371.076	-780.805	839.568
38	391.705	-391.705	-839.568	900.669
39	412.930	-412.930	-900.669	964.108
40	434.751	-434.751	-964.108	1030.085
41	457.168	-457.168	-1030.085	1098.600
42	480.181	-480.181	-1098.600	1169.653
43	503.790	-503.790	-1169.653	1243.244
44	527.995	-527.995	-1243.244	1319.373
45	552.796	-552.796	-1319.373	1398.040
46	578.193	-578.193	-1398.040	1479.245
47	604.186	-604.186	-1479.245	1563.088
48	630.775	-630.775	-1563.088	1649.569
49	657.960	-657.960	-1649.569	1738.688
50	685.741	-685.741	-1738.688	1830.445
51	714.118	-714.118	-1830.445	1924.850
52	743.091	-743.091	-1924.850	2021.903
53	772.660	-772.660	-2021.903	2121.604
54	802.825	-802.825	-2121.604	2222.953
55	833.586	-833.586	-2222.953	2325.950
56	864.943	-864.943	-2325.950	2430.595
57	896.896	-896.896	-2430.595	2536.888
58	929.445	-929.445	-2536.888	2644.829
59	962.590	-962.590	-2644.829	2754.428

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 9.88354E-02-9.88354E-02 1.97681E-02 4.26784E-13

ITER 0 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7186E+05 RIMNOR=0.8802E+05
RENORM=0.2149E+05 REMNOR=0.5442E-21 RATIO =0.5468 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 105.0 RMMAX = 64.71
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7186E+05 RDR =0.8802E+05
RATIOT=0.5468 RATIO= 0.000
MAX UN= 71.83 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-102.8 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7186E+05 RIMNOR=0.8802E+05
RENORM=0.1536E-18 REMNOR=0.3707E-21 RATIO =0.1462E-11 TOLER =0.1000E-03 CONVERGED !
RFMAX = 105.0 RMMAX = 64.71
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7186E+05 RDR =0.8802E+05
RATIOT=0.1462E-11 RATIO= 0.000
MAX UN=0.1912E-09 IEQ= 13 NODE 7 DOF 1 Y-DISPL.F
MIN UN=-.1471E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:23:40 |
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New Project
SOLUTION REACHED USING 2 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 5 (AT TIME 5.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0507820E-03	-7.8474715E-04	
2	2.8938326E-03	-7.8474715E-04	
3	2.7368859E-03	-7.8470582E-04	
4	2.5799618E-03	-7.8449256E-04	
5	2.4231155E-03	-7.8388029E-04	
6	2.2664579E-03	-7.8254355E-04	
7	2.1101747E-03	-7.8005735E-04	
8	1.9545465E-03	-7.7589912E-04	
9	1.7999677E-03	-7.6945124E-04	
10	1.6469661E-03	-7.6000153E-04	
11	1.4962209E-03	-7.4674449E-04	
12	1.3485819E-03	-7.2878276E-04	
13	1.2050873E-03	-7.0512879E-04	
14	1.0669816E-03	-6.7470703E-04	
15	9.3573307E-04	-6.3635674E-04	
16	8.1305028E-04	-5.8883594E-04	
17	7.0089738E-04	-5.3082654E-04	
18	6.0099868E-04	-4.6862323E-04	
19	5.1331199E-04	-4.0846135E-04	
20	4.3757757E-04	-3.4884808E-04	
21	3.7383868E-04	-2.8825069E-04	
22	3.2205512E-04	-2.3099079E-04	
23	2.8092452E-04	-1.8149846E-04	
24	2.4901524E-04	-1.3861368E-04	
25	2.2509219E-04	-1.0153179E-04	
26	2.0804855E-04	-6.9759459E-05	
27	1.9685617E-04	-4.2971510E-05	
28	1.9054889E-04	-2.0850327E-05	
29	1.8822908E-04	-3.0335263E-06	
30	1.8907443E-04	1.0867538E-05	
31	1.9234196E-04	2.1256607E-05	
32	1.9737056E-04	2.8548359E-05	
33	2.0358260E-04	3.3159872E-05	
34	2.1048296E-04	3.5498239E-05	
35	2.1765620E-04	3.5951290E-05	
36	2.2476190E-04	3.4880630E-05	
37	2.3152889E-04	3.2616922E-05	
38	2.3774888E-04	2.9456963E-05	
39	2.4326937E-04	2.5662443E-05	
40	2.4798666E-04	2.1459841E-05	
41	2.5183891E-04	1.7041386E-05	
42	2.5479946E-04	1.2566751E-05	
43	2.5687049E-04	8.1653143E-06	
44	2.5807725E-04	3.9387748E-06	
45	2.5846279E-04	-3.5984776E-08	
46	2.5808330E-04	-3.7040519E-06	
47	2.5700401E-04	-7.0294537E-06	
48	2.5529568E-04	-9.9924255E-06	
49	2.5303162E-04	-1.2586737E-05	
50	2.5028525E-04	-1.4817234E-05	
51	2.4712808E-04	-1.6697672E-05	
52	2.4362806E-04	-1.8248724E-05	
53	2.3984893E-04	-1.9496126E-05	
54	2.3584805E-04	-2.0469694E-05	
55	2.3167717E-04	-2.1201598E-05	
56	2.2738126E-04	-2.1725709E-05	
57	2.229842E-04	-2.2076790E-05	
58	2.1855974E-04	-2.2289946E-05	
59	2.1408930E-04	-2.2400232E-05	
60	2.0960419E-04	-2.2442408E-05	
61	2.0511436E-04	-2.2450790E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018          18:23:40      |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0508E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5651	-2.8938E-03	2.532	1.226	2.532	4.707	UL-RL	6.2051E+04	-0.2000	1.600	
1.000	1.000	2.826	0.000	0.000	Ug5_2_8_L_0						
3 D	1.220	-2.7369E-03	5.492	2.902	5.492	8.349	UL-RL	6.2051E+04	-0.4000	3.200	
1.000	1.000	6.102	0.000	0.000	Ug5_2_8_L_0						
4 D	1.884	-2.5800E-03	8.629	4.622	8.629	11.12	UL-RL	6.2051E+04	-0.6000	4.800	
1.000	1.000	9.422	0.000	0.000	Ug5_2_8_L_0						
5 D	2.565	-2.4231E-03	12.12	6.426	12.12	13.46	UL-RL	6.2051E+04	-0.8000	6.400	
1.000	1.000	12.83	0.000	0.000	Ug5_2_8_L_0						
6 D	3.245	-2.2665E-03	15.60	8.226	15.60	15.59	UL-RL	6.2051E+04	-1.0000	8.000	
1.000	1.000	16.23	0.000	0.000	Ug5_2_8_L_0						
7 D	3.899	-2.1102E-03	18.60	9.896	18.60	17.61	UL-RL	6.2051E+04	-1.2000	9.600	
1.000	1.000	19.50	0.000	0.000	Ug5_2_8_L_0						
8 D	4.545	-1.9545E-03	21.49	11.53	21.49	19.55	UL-RL	6.2051E+04	-1.4000	11.20	
1.000	1.000	22.73	0.000	0.000	Ug5_2_8_L_0						
9 D	5.192	-1.8000E-03	24.49	13.16	24.49	21.42	UL-RL	6.2051E+04	-1.6000	12.80	
1.000	1.000	25.96	0.000	0.000	Ug5_2_8_L_0						
10 D	5.821	-1.6470E-03	27.27	14.71	27.27	23.24	UL-RL	6.2051E+04	-1.8000	14.40	
1.000	1.000	29.11	0.000	0.000	Ug5_2_8_L_0						
11 D	6.447	-1.4962E-03	30.17	16.24	30.17	24.99	UL-RL	6.2051E+04	-2.0000	16.00	
1.000	1.000	32.24	0.000	0.000	Ug5_2_8_L_0						
12 D	7.054	-1.3486E-03	32.92	17.67	32.92	26.69	UL-RL	6.2051E+04	-2.2000	17.60	
1.000	1.000	35.27	0.000	0.000	Ug5_2_8_L_0						
13 D	7.650	-1.2051E-03	35.78	19.05	35.78	28.34	UL-RL	6.2051E+04	-2.4000	19.20	
1.000	1.000	38.25	0.000	0.000	Ug5_2_8_L_0						
14 D	8.219	-1.0670E-03	38.54	20.30	38.54	29.93	UL-RL	6.2051E+04	-2.6000	20.80	
1.000	1.000	41.10	0.000	0.000	Ug5_2_8_L_0						
15 D	8.761	-9.3573E-04	41.40	21.41	41.40	31.47	UL-RL	6.2051E+04	-2.8000	22.40	
1.000	1.000	43.81	0.000	0.000	Ug5_2_8_L_0						
16 D	9.255	-8.1305E-04	44.16	22.28	44.16	32.96	UL-RL	6.2051E+04	-3.0000	24.00	
1.000	1.000	46.28	0.000	0.000	Ug5_2_8_L_0						
17 D	9.693	-7.0090E-04	47.02	22.86	47.02	34.40	UL-RL	6.2051E+04	-3.2000	25.60	
1.000	1.000	48.46	0.000	0.000	Ug5_2_8_L_0						
18 D	10.05	-6.0100E-04	49.81	23.07	49.81	35.80	UL-RL	6.2051E+04	-3.4000	27.20	
1.000	1.000	50.27	0.000	0.000	Ug5_2_8_L_0						
19 D	10.35	-5.1331E-04	52.60	22.97	52.60	37.15	UL-RL	6.2051E+04	-3.6000	28.80	
1.000	1.000	51.77	0.000	0.000	Ug5_2_8_L_0						
20 D	10.60	-4.3758E-04	55.47	22.62	55.47	38.46	UL-RL	6.2051E+04	-3.8000	30.40	
1.000	1.000	53.02	0.000	0.000	Ug5_2_8_L_0						
21 D	10.80	-3.7384E-04	58.27	22.01	58.27	39.73	UL-RL	6.2051E+04	-4.0000	32.00	
1.000	1.000	54.01	0.000	0.000	Ug5_2_8_L_0						
22 D	11.14	-3.2206E-04	61.13	22.12	61.13	40.97	UL-RL	6.2051E+04	-4.2000	33.60	
1.000	1.000	55.72	0.000	0.000	Ug5_2_8_L_0						
23 D	11.45	-2.8092E-04	63.94	22.05	63.94	42.17	UL-RL	6.2051E+04	-4.4000	35.20	
1.000	1.000	57.25	0.000	0.000	Ug5_2_8_L_0						
24 D	11.73	-2.4902E-04	66.80	21.86	66.80	43.34	UL-RL	6.2051E+04	-4.6000	36.80	
1.000	1.000	58.66	0.000	0.000	Ug5_2_8_L_0						
25 D	11.99	-2.2509E-04	69.61	21.56	69.61	44.48	UL-RL	6.2051E+04	-4.8000	38.40	
1.000	1.000	59.96	0.000	0.000	Ug5_2_8_L_0						
26 D	12.25	-2.0805E-04	72.41	21.24	72.41	45.60	UL-RL	6.2051E+04	-5.0000	40.00	
1.000	1.000	61.24	0.000	0.000	Ug5_2_8_L_0						
27 D	13.38	-1.9686E-04	75.01	25.28	75.01	46.69	UL-RL	6.2051E+04	-5.2000	41.60	
1.000	1.000	66.88	0.000	0.000	Ug5_2_8_L_0						
28 D	14.36	-1.9055E-04	77.62	28.61	77.62	47.76	UL-RL	6.2051E+04	-5.4000	43.20	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	71.81	0.000	0.000	Ug5_2_8_L_0					
29 D	15.23	-1.8823E-04	80.23	31.35	80.23	48.81	UL-RL	6.2051E+04	-5.600	44.80
1.000	1.000	76.15	0.000	0.000	Ug5_2_8_L_0					
30 D	16.00	-1.8907E-04	82.85	33.59	82.85	49.85	UL-RL	6.2051E+04	-5.800	46.40
1.000	1.000	79.99	0.000	0.000	Ug5_2_8_L_0					
31 D	16.68	-1.9234E-04	85.47	35.40	85.47	50.86	UL-RL	6.2051E+04	-6.000	48.00
1.000	1.000	83.40	0.000	0.000	Ug5_2_8_L_0					
32 D	17.29	-1.9737E-04	88.10	36.87	88.10	51.86	UL-RL	6.2051E+04	-6.200	49.60
1.000	1.000	86.47	0.000	0.000	Ug5_2_8_L_0					
33 D	17.85	-2.0358E-04	90.72	38.07	90.72	52.85	UL-RL	6.2051E+04	-6.400	51.20
1.000	1.000	89.27	0.000	0.000	Ug5_2_8_L_0					
34 D	18.37	-2.1048E-04	93.58	39.07	93.58	53.82	UL-RL	6.2051E+04	-6.600	52.80
1.000	1.000	91.87	0.000	0.000	Ug5_2_8_L_0					
35 D	18.86	-2.1766E-04	96.35	39.92	96.35	54.79	UL-RL	6.2051E+04	-6.800	54.40
1.000	1.000	94.32	0.000	0.000	Ug5_2_8_L_0					
36 D	19.33	-2.2476E-04	99.67	40.67	99.67	55.74	UL-RL	6.2051E+04	-7.000	56.00
1.000	1.000	96.67	0.000	0.000	Ug5_2_8_L_0					
37 D	19.79	-2.3153E-04	102.4	41.35	102.4	56.68	UL-RL	6.2051E+04	-7.200	57.60
1.000	1.000	98.95	0.000	0.000	Ug5_2_8_L_0					
38 D	20.24	-2.3775E-04	105.7	42.02	105.7	57.62	UL-RL	6.2051E+04	-7.400	59.20
1.000	1.000	101.2	0.000	0.000	Ug5_2_8_L_0					
39 D	20.70	-2.4327E-04	108.4	42.68	108.4	58.55	UL-RL	6.2051E+04	-7.600	60.80
1.000	1.000	103.5	0.000	0.000	Ug5_2_8_L_0					
40 D	21.15	-2.4799E-04	111.6	43.36	111.6	59.47	UL-RL	6.2051E+04	-7.800	62.40
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
41 D	21.62	-2.5184E-04	114.7	44.08	114.7	60.38	UL-RL	6.2051E+04	-8.000	64.00
1.000	1.000	108.1	0.000	0.000	Ug5_2_8_L_0					
42 D	22.09	-2.5480E-04	117.4	44.85	117.4	61.29	UL-RL	6.2051E+04	-8.200	65.60
1.000	1.000	110.4	0.000	0.000	Ug5_2_8_L_0					
43 D	22.57	-2.5687E-04	120.5	45.67	120.5	62.20	UL-RL	6.2051E+04	-8.400	67.20
1.000	1.000	112.9	0.000	0.000	Ug5_2_8_L_0					
44 D	23.07	-2.5808E-04	123.1	46.56	123.1	63.10	UL-RL	6.2051E+04	-8.600	68.80
1.000	1.000	115.4	0.000	0.000	Ug5_2_8_L_0					
45 D	23.58	-2.5846E-04	126.2	47.51	126.2	64.00	UL-RL	6.2051E+04	-8.800	70.40
1.000	1.000	117.9	0.000	0.000	Ug5_2_8_L_0					
46 D	24.10	-2.5808E-04	128.8	48.51	128.8	64.90	UL-RL	6.2051E+04	-9.000	72.00
1.000	1.000	120.5	0.000	0.000	Ug5_2_8_L_0					
47 D	24.64	-2.5700E-04	131.9	49.58	131.9	65.79	UL-RL	6.2051E+04	-9.200	73.60
1.000	1.000	123.2	0.000	0.000	Ug5_2_8_L_0					
48 D	25.18	-2.5530E-04	134.5	50.70	134.5	66.68	UL-RL	6.2051E+04	-9.400	75.20
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
49 D	25.73	-2.5303E-04	137.5	51.87	137.5	67.57	UL-RL	6.2051E+04	-9.600	76.80
1.000	1.000	128.7	0.000	0.000	Ug5_2_8_L_0					
50 D	26.30	-2.5029E-04	140.1	53.09	140.1	68.45	UL-RL	6.2051E+04	-9.800	78.40
1.000	1.000	131.5	0.000	0.000	Ug5_2_8_L_0					
51 D	26.87	-2.4713E-04	143.1	54.34	143.1	69.34	UL-RL	6.2051E+04	-10.000	80.00
1.000	1.000	134.3	0.000	0.000	Ug5_2_8_L_0					
52 D	27.45	-2.4363E-04	145.6	55.63	145.6	70.22	UL-RL	6.2051E+04	-10.200	81.60
1.000	1.000	137.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.03	-2.3985E-04	148.6	56.95	148.6	71.11	UL-RL	6.2051E+04	-10.400	83.20
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
54 D	28.62	-2.3585E-04	151.5	58.29	151.5	71.99	UL-RL	6.2051E+04	-10.600	84.80
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
55 D	29.21	-2.3168E-04	154.1	59.65	154.1	72.87	UL-RL	6.2051E+04	-10.800	86.40
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
56 D	29.80	-2.2738E-04	157.0	61.02	157.0	73.75	UL-RL	6.2051E+04	-11.000	88.00
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
57 D	30.40	-2.2300E-04	159.6	62.40	159.6	74.64	UL-RL	6.2051E+04	-11.200	89.60
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
58 D	31.00	-2.1856E-04	162.4	63.79	162.4	75.52	UL-RL	6.2051E+04	-11.400	91.20
1.000	1.000	155.0	0.000	0.000	Ug5_2_8_L_0					
59 D	31.60	-2.1409E-04	165.0	65.18	165.0	76.40	UL-RL	6.2051E+04	-11.600	92.80
1.000	1.000	158.0	0.000	0.000	Ug5_2_8_L_0					
60 D	32.19	-2.0960E-04	167.9	66.57	167.9	77.28	UL-RL	6.2051E+04	-11.800	94.40
1.000	1.000	161.0	0.000	0.000	Ug5_2_8_L_0					
61 D	16.40	-2.0511E-04	170.4	67.97	170.4	78.16	UL-RL	6.2051E+04	-12.000	96.00
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL * FACTOR	FORCE UFACTOR	DISPL-Y Peg	VERTICAL-P Su_a	HORIZON.-P Su_p	MAX-V-P LAYER	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	3.7384E-04	0.000	0.000	40.00	46.98	ACTIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	2.010	3.2206E-04	1.600	7.650	42.00	46.65	UL-RL	3.0850E+04	-4.200	2.400	
1.000	1.000	10.05	0.000	0.000	Ug5_2_8_L_0						
23 D	4.725	2.8092E-04	3.200	18.83	44.00	46.45	UL-RL	3.0850E+04	-4.400	4.800	
1.000	1.000	23.63	0.000	0.000	Ug5_2_8_L_0						
24 D	7.455	2.4902E-04	4.800	30.07	46.00	46.38	UL-RL	3.0850E+04	-4.600	7.200	
1.000	1.000	37.27	0.000	0.000	Ug5_2_8_L_0						
25 D	9.525	2.2509E-04	6.400	38.02	48.00	46.44	UL-RL	3.0850E+04	-4.800	9.600	
1.000	1.000	47.62	0.000	0.000	Ug5_2_8_L_0						
26 D	10.27	2.0805E-04	8.000	39.34	50.00	46.63	UL-RL	3.0850E+04	-5.000	12.00	
1.000	1.000	51.34	0.000	0.000	Ug5_2_8_L_0						
27 D	11.02	1.9686E-04	9.600	40.68	52.00	46.93	UL-RL	3.0850E+04	-5.200	14.40	
1.000	1.000	55.08	0.000	0.000	Ug5_2_8_L_0						
28 D	11.77	1.9055E-04	11.20	42.03	54.00	47.33	UL-RL	3.0850E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	58.83	0.000	0.000	Ug5_2_8_L_0					
29 D	12.51	1.8823E-04	12.80	43.37	56.00	47.83	UL-RL	3.0850E+04	-5.600	19.20
1.000	1.000	62.57	0.000	0.000	Ug5_2_8_L_0					
30 D	13.19	1.8907E-04	14.40	44.37	58.00	48.59	UL-RL	3.0850E+04	-5.800	21.60
1.000	1.000	65.97	0.000	0.000	Ug5_2_8_L_0					
31 D	13.81	1.9234E-04	16.00	45.07	60.00	49.56	UL-RL	3.0850E+04	-6.000	24.00
1.000	1.000	69.07	0.000	0.000	Ug5_2_8_L_0					
32 D	14.46	1.9737E-04	17.60	45.90	62.00	50.51	UL-RL	3.0850E+04	-6.200	26.40
1.000	1.000	72.30	0.000	0.000	Ug5_2_8_L_0					
33 D	15.12	2.0358E-04	19.20	46.82	64.00	51.46	UL-RL	3.0850E+04	-6.400	28.80
1.000	1.000	75.62	0.000	0.000	Ug5_2_8_L_0					
34 D	15.80	2.1048E-04	20.80	47.81	66.00	52.39	UL-RL	3.0850E+04	-6.600	31.20
1.000	1.000	79.01	0.000	0.000	Ug5_2_8_L_0					
35 D	16.49	2.1766E-04	22.40	48.86	68.00	53.31	UL-RL	3.0850E+04	-6.800	33.60
1.000	1.000	82.46	0.000	0.000	Ug5_2_8_L_0					
36 D	17.19	2.2476E-04	24.00	49.93	70.00	54.22	UL-RL	3.0850E+04	-7.000	36.00
1.000	1.000	85.93	0.000	0.000	Ug5_2_8_L_0					
37 D	17.88	2.3153E-04	25.60	51.00	72.00	55.12	UL-RL	3.0850E+04	-7.200	38.40
1.000	1.000	89.40	0.000	0.000	Ug5_2_8_L_0					
38 D	18.58	2.3775E-04	27.20	52.08	74.00	56.01	UL-RL	3.0850E+04	-7.400	40.80
1.000	1.000	92.88	0.000	0.000	Ug5_2_8_L_0					
39 D	19.27	2.4327E-04	28.80	53.13	76.00	56.89	UL-RL	3.0850E+04	-7.600	43.20
1.000	1.000	96.33	0.000	0.000	Ug5_2_8_L_0					
40 D	19.95	2.4799E-04	30.40	54.16	78.00	57.77	UL-RL	3.0850E+04	-7.800	45.60
1.000	1.000	99.76	0.000	0.000	Ug5_2_8_L_0					
41 D	20.63	2.5184E-04	32.00	55.16	80.00	58.64	UL-RL	3.0850E+04	-8.000	48.00
1.000	1.000	103.2	0.000	0.000	Ug5_2_8_L_0					
42 D	21.30	2.5480E-04	33.60	56.12	82.00	59.51	UL-RL	3.0850E+04	-8.200	50.40
1.000	1.000	106.5	0.000	0.000	Ug5_2_8_L_0					
43 D	21.97	2.5687E-04	35.20	57.05	84.00	60.37	UL-RL	3.0850E+04	-8.400	52.80
1.000	1.000	109.8	0.000	0.000	Ug5_2_8_L_0					
44 D	22.63	2.5808E-04	36.80	57.93	86.00	61.23	UL-RL	3.0850E+04	-8.600	55.20
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
45 D	23.28	2.5846E-04	38.40	58.78	88.00	62.09	UL-RL	3.0850E+04	-8.800	57.60
1.000	1.000	116.4	0.000	0.000	Ug5_2_8_L_0					
46 D	23.92	2.5808E-04	40.00	59.59	90.00	62.94	UL-RL	3.0850E+04	-9.000	60.00
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
47 D	24.55	2.5700E-04	41.60	60.36	92.00	63.79	UL-RL	3.0850E+04	-9.200	62.40
1.000	1.000	122.8	0.000	0.000	Ug5_2_8_L_0					
48 D	25.18	2.5530E-04	43.20	61.10	94.00	64.64	UL-RL	3.0850E+04	-9.400	64.80
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
49 D	25.80	2.5303E-04	44.80	61.81	96.00	65.48	UL-RL	3.0850E+04	-9.600	67.20
1.000	1.000	129.0	0.000	0.000	Ug5_2_8_L_0					
50 D	26.42	2.5029E-04	46.40	62.49	98.00	66.32	UL-RL	3.0850E+04	-9.800	69.60
1.000	1.000	132.1	0.000	0.000	Ug5_2_8_L_0					
51 D	27.03	2.4713E-04	48.00	63.15	100.00	67.17	UL-RL	3.0850E+04	-10.000	72.00
1.000	1.000	135.2	0.000	0.000	Ug5_2_8_L_0					
52 D	27.64	2.4363E-04	49.60	63.79	102.0	68.01	UL-RL	3.0850E+04	-10.200	74.40
1.000	1.000	138.2	0.000	0.000	Ug5_2_8_L_0					
53 D	28.24	2.3985E-04	51.20	64.42	104.0	68.85	UL-RL	3.0850E+04	-10.400	76.80
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
54 D	28.85	2.3585E-04	52.80	65.03	106.0	69.69	UL-RL	3.0850E+04	-10.600	79.20
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
55 D	29.45	2.3168E-04	54.40	65.63	108.0	70.52	UL-RL	3.0850E+04	-10.800	81.60
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
56 D	30.04	2.2738E-04	56.00	66.22	110.0	71.36	UL-RL	3.0850E+04	-11.000	84.00
1.000	1.000	150.2	0.000	0.000	Ug5_2_8_L_0					
57 D	30.64	2.2300E-04	57.60	66.80	112.0	72.20	UL-RL	3.0850E+04	-11.200	86.40
1.000	1.000	153.2	0.000	0.000	Ug5_2_8_L_0					
58 D	31.24	2.1856E-04	59.20	67.38	114.0	73.04	UL-RL	3.0850E+04	-11.400	88.80
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					
59 D	31.83	2.1409E-04	60.80	67.96	116.0	73.88	UL-RL	3.0850E+04	-11.600	91.20
1.000	1.000	159.2	0.000	0.000	Ug5_2_8_L_0					
60 D	32.43	2.0960E-04	62.40	68.54	118.0	74.72	UL-RL	3.0850E+04	-11.800	93.60
1.000	1.000	162.1	0.000	0.000	Ug5_2_8_L_0					
61 D	16.51	2.0511E-04	64.00	69.11	120.0	75.56	UL-RL	3.0850E+04	-12.000	96.00
1.000	1.000	165.1	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-6.39464E-13	6.39464E-13	2.35589E-13	-1.01159E-11
2	0.56510	-0.56510	1.08016E-11	0.11302
3	1.7855	-1.7855	-0.11302	0.47011
4	3.6698	-3.6698	-0.47011	1.2041
5	6.2350	-6.2350	-1.2041	2.4511
6	9.4803	-9.4803	-2.4511	4.3471
7	13.379	-13.379	-4.3471	7.0230
8	17.924	-17.924	-7.0230	10.608
9	23.116	-23.116	-10.608	15.231
10	28.937	-28.937	-15.231	21.019
11	35.385	-35.385	-21.019	28.096
12	42.439	-42.439	-28.096	36.583
13	50.089	-50.089	-36.583	46.601
14	58.308	-58.308	-46.601	58.263
15	67.070	-67.070	-58.263	71.677
16	76.325	-76.325	-71.677	86.942
17	-18.982	18.982	-86.942	83.145
18	-8.9276	8.9276	-83.145	81.360
19	1.4270	-1.4270	-81.360	81.645
20	12.032	-12.032	-81.645	84.052
21	-57.666	57.666	-84.052	72.518
22	-48.531	48.531	-72.518	62.812
23	-41.806	41.806	-62.812	54.451
24	-37.530	37.530	-54.451	46.945
25	-35.062	35.062	-46.945	39.933
26	-33.082	33.082	-39.933	33.316
27	-30.723	30.723	-33.316	27.171
28	-28.126	28.126	-27.171	21.546
29	-25.410	25.410	-21.546	16.464
30	-22.606	22.606	-16.464	11.943
31	-19.740	19.740	-11.943	7.9953
32	-16.905	16.905	-7.9953	4.6143
33	-14.174	14.174	-4.6143	1.7796
34	-11.602	11.602	-1.7796	-0.54082
35	-9.2298	9.2298	0.54082	-2.3868
36	-7.0816	7.0816	2.3868	-3.8031
37	-5.1717	5.1717	3.8031	-4.8374
38	-3.5040	3.5040	4.8374	-5.5382
39	-2.0752	2.0752	5.5382	-5.9533
40	-0.87590	0.87590	5.9533	-6.1284
41	0.10783	-0.10783	6.1284	-6.1069
42	0.89291	-0.89291	6.1069	-5.9283
43	1.4983	-1.4983	5.9283	-5.6286
44	1.9438	-1.9438	5.6286	-5.2399
45	2.2496	-2.2496	5.2399	-4.7900
46	2.4353	-2.4353	4.7900	-4.3029
47	2.5198	-2.5198	4.3029	-3.7990
48	2.5205	-2.5205	3.7990	-3.2949
49	2.4534	-2.4534	3.2949	-2.8042
50	2.3327	-2.3327	2.8042	-2.3376
51	2.1711	-2.1711	2.3376	-1.9034
52	1.9791	-1.9791	1.9034	-1.5076
53	1.7657	-1.7657	1.5076	-1.1545
54	1.5383	-1.5383	1.1545	-0.84682
55	1.3026	-1.3026	0.84682	-0.58630
56	1.0630	-1.0630	0.58630	-0.37369
57	0.82269	-0.82269	0.37369	-0.20915
58	0.58373	-0.58373	0.20915	-9.24092E-02
59	0.34746	-0.34746	9.24092E-02	-2.29173E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

60 0.11458      -0.11458      2.29173E-02-4.40079E-13

ITER      0  RNORM =0.3480E+05  RMNORM= 0.000
           RINORM=0.1086E+06  RIMNOR=0.1353E+06
           RENORM=0.2283E+05  REMNOR=0.3707E-21  RATIO =0.4586      TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 181.0      RMMAX = 86.94
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
           RDT =0.1086E+06  RDR =0.1353E+06
           RATIO=0.4586      RATIO= 0.000
           MAX UN= 104.8      IEQ= 33 NODE      17 DOF      1 Y-DISPL.F
           MIN UN=-100.8      IEQ= 41 NODE      21 DOF      1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM =0.3480E+05  RMNORM= 0.000
           RINORM=0.1086E+06  RIMNOR=0.1353E+06
           RENORM= 2.063      REMNOR=0.5726E-21  RATIO =0.4359E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 181.0      RMMAX = 86.94
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
           RDT =0.1086E+06  RDR =0.1353E+06
           RATIO=0.4359E-02  RATIO= 0.000
           MAX UN=0.8780      IEQ= 3 NODE      2 DOF      1 Y-DISPL.F
           MIN UN=-.1558E-09  IEQ= 29 NODE      15 DOF      1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM =0.3480E+05  RMNORM= 0.000
           RINORM=0.1086E+06  RIMNOR=0.1353E+06
           RENORM=0.7984      REMNOR=0.5169E-21  RATIO =0.2712E-02  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 181.0      RMMAX = 86.94
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
           RDT =0.1086E+06  RDR =0.1353E+06
           RATIO=0.2712E-02  RATIO= 0.000
           MAX UN=0.7189      IEQ= 17 NODE      9 DOF      1 Y-DISPL.F
           MIN UN=-.1753E-09  IEQ= 15 NODE      8 DOF      1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM =0.3480E+05  RMNORM= 0.000
           RINORM=0.1086E+06  RIMNOR=0.1353E+06
           RENORM=0.7939E-01  REMNOR=0.4038E-21  RATIO =0.8552E-03  TOLER =0.1000E-03  NOT CONVERGED
           RFMAX = 181.0      RMMAX = 86.94
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
           RDT =0.1086E+06  RDR =0.1353E+06
           RATIO=0.8552E-03  RATIO= 0.000
           MAX UN=0.2814      IEQ= 23 NODE      12 DOF      1 Y-DISPL.F
           MIN UN=-.2037E-09  IEQ= 11 NODE      6 DOF      1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM =0.3480E+05  RMNORM= 0.000
           RINORM=0.1086E+06  RIMNOR=0.1353E+06
           RENORM=0.3157E-18  REMNOR=0.4981E-21  RATIO =0.1705E-11  TOLER =0.1000E-03  CONVERGED !
           RFMAX = 181.0      RMMAX = 86.94
           RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
           RDT =0.1086E+06  RDR =0.1353E+06
           RATIO=0.1705E-11  RATIO= 0.000
           MAX UN=0.2247E-09  IEQ= 11 NODE      6 DOF      1 Y-DISPL.F
           MIN UN=-.2468E-09  IEQ= 13 NODE      7 DOF      1 Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|              NewProject.BaseDesignSection_28.A1M1R1_1757 |
|              Exe Time :24 May 2018           18:23:40 |
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New Project
SOLUTION REACHED USING 5 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.3972550E-03	-8.3297824E-04	
2	3.2306594E-03	-8.3297824E-04	
3	3.0640658E-03	-8.3294700E-04	
4	2.8974890E-03	-8.3278924E-04	
5	2.7309693E-03	-8.3234343E-04	
6	2.5645861E-03	-8.3137988E-04	
7	2.3984718E-03	-8.2959945E-04	
8	2.2328253E-03	-8.2663537E-04	
9	2.0679254E-03	-8.2205537E-04	
10	1.9041440E-03	-8.1536169E-04	
11	1.7419591E-03	-8.0599150E-04	
12	1.5819677E-03	-7.9331724E-04	
13	1.4248987E-03	-7.7664672E-04	
14	1.2716259E-03	-7.5522327E-04	
15	1.1231819E-03	-7.2821177E-04	
16	9.8077586E-04	-6.9467993E-04	
17	8.4581283E-04	-6.5359446E-04	
18	7.1991629E-04	-6.0382554E-04	
19	6.0494302E-04	-5.4415067E-04	
20	5.0300359E-04	-4.7326228E-04	
21	4.1647838E-04	-3.8977600E-04	
22	3.4714772E-04	-3.0547858E-04	
23	2.9355962E-04	-2.3209109E-04	
24	2.5368965E-04	-1.6802801E-04	
25	2.2583622E-04	-1.1164789E-04	
26	2.0863083E-04	-6.1262863E-05	
27	2.0082614E-04	-1.8452353E-05	
28	2.0063413E-04	1.5121191E-05	
29	2.0635392E-04	4.0884253E-05	
30	2.1654625E-04	6.0023550E-05	
31	2.2998362E-04	7.3467057E-05	
32	2.4560509E-04	8.1992044E-05	
33	2.6250188E-04	8.6339829E-05	
34	2.7990909E-04	8.7208675E-05	
35	2.9719656E-04	8.5245623E-05	
36	3.1385790E-04	8.1040870E-05	
37	3.2949873E-04	7.5124663E-05	
38	3.4382486E-04	6.7966080E-05	
39	3.5662958E-04	5.9973822E-05	
40	3.6778215E-04	5.1498050E-05	
41	3.7721621E-04	4.2833410E-05	
42	3.8491912E-04	3.4222778E-05	
43	3.9092195E-04	2.5861520E-05	
44	3.9529051E-04	1.7902050E-05	
45	3.9811715E-04	1.0458542E-05	
46	3.9951367E-04	3.6114426E-06	
47	3.9960492E-04	-2.5878039E-06	
48	3.9852351E-04	-8.1126262E-06	
49	3.9640521E-04	-1.2957315E-05	
50	3.9338518E-04	-1.7133381E-05	
51	3.8959475E-04	-2.0666381E-05	
52	3.8515894E-04	-2.3593010E-05	
53	3.8019511E-04	-2.5958335E-05	
54	3.7480978E-04	-2.7814580E-05	
55	3.6909944E-04	-2.9218391E-05	
56	3.6314857E-04	-3.0230044E-05	
57	3.5702938E-04	-3.0912239E-05	
58	3.5080135E-04	-3.1329313E-05	
59	3.4451097E-04	-3.1546676E-05	
60	3.3819159E-04	-3.1630448E-05	
61	3.3186294E-04	-3.1647237E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
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New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.3973E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4271	-3.2307E-03	2.658	0.6619	2.658	4.707	ACTIVE	0.000	-0.2000	1.474	
1.000	1.000	2.136	0.000	0.000	Ug5_2_8_L_0						
3 D	0.8756	-3.0641E-03	5.745	1.430	5.745	8.349	ACTIVE	0.000	-0.4000	2.947	
1.000	1.000	4.378	0.000	0.000	Ug5_2_8_L_0						
4 D	1.333	-2.8975E-03	9.008	2.243	9.008	11.12	ACTIVE	0.000	-0.6000	4.421	
1.000	1.000	6.664	0.000	0.000	Ug5_2_8_L_0						
5 D	1.808	-2.7310E-03	12.62	3.143	12.62	13.46	ACTIVE	0.000	-0.8000	5.895	
1.000	1.000	9.038	0.000	0.000	Ug5_2_8_L_0						
6 D	2.282	-2.5646E-03	16.23	4.042	16.23	15.59	ACTIVE	0.000	-1.000	7.368	
1.000	1.000	11.41	0.000	0.000	Ug5_2_8_L_0						
7 D	2.732	-2.3985E-03	19.36	4.820	19.36	17.61	ACTIVE	0.000	-1.200	8.842	
1.000	1.000	13.66	0.000	0.000	Ug5_2_8_L_0						
8 D	3.178	-2.2328E-03	22.38	5.572	22.38	19.55	ACTIVE	0.000	-1.400	10.32	
1.000	1.000	15.89	0.000	0.000	Ug5_2_8_L_0						
9 D	3.628	-2.0679E-03	25.50	6.349	25.50	21.42	ACTIVE	0.000	-1.600	11.79	
1.000	1.000	18.14	0.000	0.000	Ug5_2_8_L_0						
10 D	4.067	-1.9041E-03	28.41	7.073	28.41	23.24	ACTIVE	0.000	-1.800	13.26	
1.000	1.000	20.34	0.000	0.000	Ug5_2_8_L_0						
11 D	4.513	-1.7420E-03	31.43	7.826	31.43	24.99	ACTIVE	0.000	-2.000	14.74	
1.000	1.000	22.56	0.000	0.000	Ug5_2_8_L_0						
12 D	4.951	-1.5820E-03	34.31	8.543	34.31	26.69	ACTIVE	0.000	-2.200	16.21	
1.000	1.000	24.75	0.000	0.000	Ug5_2_8_L_0						
13 D	5.394	-1.4249E-03	37.30	9.288	37.30	28.34	ACTIVE	0.000	-2.400	17.68	
1.000	1.000	26.97	0.000	0.000	Ug5_2_8_L_0						
14 D	6.023	-1.2716E-03	40.18	10.96	40.18	29.93	UL-RL	4.9641E+04	-2.600	19.16	
1.000	1.000	30.12	0.000	0.000	Ug5_2_8_L_0						
15 D	6.723	-1.1232E-03	43.16	12.99	43.16	31.47	UL-RL	4.9641E+04	-2.800	20.63	
1.000	1.000	33.62	0.000	0.000	Ug5_2_8_L_0						
16 D	7.400	-9.8078E-04	46.06	14.90	46.06	32.96	UL-RL	4.9641E+04	-3.000	22.11	
1.000	1.000	37.00	0.000	0.000	Ug5_2_8_L_0						
17 D	8.052	-8.4581E-04	49.04	16.68	49.04	34.40	UL-RL	4.9641E+04	-3.200	23.58	
1.000	1.000	40.26	0.000	0.000	Ug5_2_8_L_0						
18 D	8.659	-7.1992E-04	51.95	18.24	51.95	35.80	UL-RL	4.9641E+04	-3.400	25.05	
1.000	1.000	43.30	0.000	0.000	Ug5_2_8_L_0						
19 D	9.218	-6.0494E-04	54.87	19.56	54.87	37.15	UL-RL	4.9641E+04	-3.600	26.53	
1.000	1.000	46.09	0.000	0.000	Ug5_2_8_L_0						
20 D	9.715	-5.0300E-04	57.87	20.58	57.87	38.46	UL-RL	4.9641E+04	-3.800	28.00	
1.000	1.000	48.58	0.000	0.000	Ug5_2_8_L_0						
21 D	10.13	-4.1648E-04	60.79	21.16	60.79	39.73	UL-RL	4.9641E+04	-4.000	29.47	
1.000	1.000	50.63	0.000	0.000	Ug5_2_8_L_0						
22 D	10.63	-3.4715E-04	63.79	22.20	63.79	40.97	UL-RL	4.9641E+04	-4.200	30.95	
1.000	1.000	53.15	0.000	0.000	Ug5_2_8_L_0						
23 D	11.05	-2.9356E-04	66.72	22.81	66.72	42.17	UL-RL	4.9641E+04	-4.400	32.42	
1.000	1.000	55.23	0.000	0.000	Ug5_2_8_L_0						
24 D	11.39	-2.5369E-04	69.71	23.08	69.71	43.34	UL-RL	4.9641E+04	-4.600	33.89	
1.000	1.000	56.97	0.000	0.000	Ug5_2_8_L_0						
25 D	11.68	-2.2584E-04	72.64	23.04	72.64	44.48	UL-RL	4.9641E+04	-4.800	35.37	
1.000	1.000	58.41	0.000	0.000	Ug5_2_8_L_0						
26 D	11.93	-2.0863E-04	75.57	22.79	75.57	45.60	UL-RL	4.9641E+04	-5.000	36.84	
1.000	1.000	59.64	0.000	0.000	Ug5_2_8_L_0						
27 D	13.01	-2.0083E-04	78.30	26.72	78.30	46.69	UL-RL	4.9641E+04	-5.200	38.32	
1.000	1.000	65.04	0.000	0.000	Ug5_2_8_L_0						
28 D	13.92	-2.0063E-04	81.03	29.82	81.03	47.76	UL-RL	4.9641E+04	-5.400	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	69.61	0.000	0.000	Ug5_2_8_L_0					
29 D	14.70	-2.0635E-04	83.77	32.22	83.77	48.81	UL-RL	4.9641E+04	-5.600	41.26
1.000	1.000	73.49	0.000	0.000	Ug5_2_8_L_0					
30 D	15.36	-2.1655E-04	86.52	34.06	86.52	49.85	UL-RL	4.9641E+04	-5.800	42.74
1.000	1.000	76.79	0.000	0.000	Ug5_2_8_L_0					
31 D	15.93	-2.2998E-04	89.26	35.43	89.26	50.86	UL-RL	4.9641E+04	-6.000	44.21
1.000	1.000	79.64	0.000	0.000	Ug5_2_8_L_0					
32 D	16.42	-2.4561E-04	92.01	36.44	92.01	51.86	UL-RL	4.9641E+04	-6.200	45.68
1.000	1.000	82.12	0.000	0.000	Ug5_2_8_L_0					
33 D	16.87	-2.6250E-04	94.76	37.17	94.76	52.85	UL-RL	4.9641E+04	-6.400	47.16
1.000	1.000	84.33	0.000	0.000	Ug5_2_8_L_0					
34 D	17.27	-2.7991E-04	97.75	37.71	97.75	53.82	UL-RL	4.9641E+04	-6.600	48.63
1.000	1.000	86.34	0.000	0.000	Ug5_2_8_L_0					
35 D	17.64	-2.9720E-04	100.6	38.12	100.6	54.79	UL-RL	4.9641E+04	-6.800	50.11
1.000	1.000	88.22	0.000	0.000	Ug5_2_8_L_0					
36 D	18.01	-3.1386E-04	104.1	38.46	104.1	55.74	UL-RL	4.9641E+04	-7.000	51.58
1.000	1.000	90.03	0.000	0.000	Ug5_2_8_L_0					
37 D	18.36	-3.2950E-04	106.9	38.77	106.9	56.68	UL-RL	4.9641E+04	-7.200	53.05
1.000	1.000	91.82	0.000	0.000	Ug5_2_8_L_0					
38 D	18.72	-3.4382E-04	110.3	39.09	110.3	57.62	UL-RL	4.9641E+04	-7.400	54.53
1.000	1.000	93.61	0.000	0.000	Ug5_2_8_L_0					
39 D	19.09	-3.5663E-04	113.2	39.45	113.2	58.55	UL-RL	4.9641E+04	-7.600	56.00
1.000	1.000	95.45	0.000	0.000	Ug5_2_8_L_0					
40 D	19.47	-3.6778E-04	116.5	39.88	116.5	59.47	UL-RL	4.9641E+04	-7.800	57.47
1.000	1.000	97.35	0.000	0.000	Ug5_2_8_L_0					
41 D	19.87	-3.7722E-04	119.8	40.38	119.8	60.38	UL-RL	4.9641E+04	-8.000	58.95
1.000	1.000	99.33	0.000	0.000	Ug5_2_8_L_0					
42 D	20.28	-3.8492E-04	122.6	40.98	122.6	61.29	UL-RL	4.9641E+04	-8.200	60.42
1.000	1.000	101.4	0.000	0.000	Ug5_2_8_L_0					
43 D	20.71	-3.9092E-04	125.8	41.67	125.8	62.20	UL-RL	4.9641E+04	-8.400	61.89
1.000	1.000	103.6	0.000	0.000	Ug5_2_8_L_0					
44 D	21.17	-3.9529E-04	128.6	42.46	128.6	63.10	UL-RL	4.9641E+04	-8.600	63.37
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
45 D	21.64	-3.9812E-04	131.8	43.35	131.8	64.00	UL-RL	4.9641E+04	-8.800	64.84
1.000	1.000	108.2	0.000	0.000	Ug5_2_8_L_0					
46 D	22.13	-3.9951E-04	134.5	44.34	134.5	64.90	UL-RL	4.9641E+04	-9.000	66.32
1.000	1.000	110.7	0.000	0.000	Ug5_2_8_L_0					
47 D	22.64	-3.9960E-04	137.7	45.41	137.7	65.79	UL-RL	4.9641E+04	-9.200	67.79
1.000	1.000	113.2	0.000	0.000	Ug5_2_8_L_0					
48 D	23.16	-3.9852E-04	140.4	46.56	140.4	66.68	UL-RL	4.9641E+04	-9.400	69.26
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
49 D	23.70	-3.9641E-04	143.6	47.79	143.6	67.57	UL-RL	4.9641E+04	-9.600	70.74
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
50 D	24.26	-3.9339E-04	146.3	49.08	146.3	68.45	UL-RL	4.9641E+04	-9.800	72.21
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
51 D	24.82	-3.8959E-04	149.4	50.43	149.4	69.34	UL-RL	4.9641E+04	-10.000	73.68
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
52 D	25.40	-3.8516E-04	152.1	51.83	152.1	70.22	UL-RL	4.9641E+04	-10.200	75.16
1.000	1.000	127.0	0.000	0.000	Ug5_2_8_L_0					
53 D	25.98	-3.8020E-04	155.2	53.27	155.2	71.11	UL-RL	4.9641E+04	-10.400	76.63
1.000	1.000	129.9	0.000	0.000	Ug5_2_8_L_0					
54 D	26.57	-3.7481E-04	158.2	54.74	158.2	71.99	UL-RL	4.9641E+04	-10.600	78.11
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
55 D	27.16	-3.6910E-04	160.9	56.24	160.9	72.87	UL-RL	4.9641E+04	-10.800	79.58
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
56 D	27.76	-3.6315E-04	164.0	57.75	164.0	73.75	UL-RL	4.9641E+04	-11.000	81.05
1.000	1.000	138.8	0.000	0.000	Ug5_2_8_L_0					
57 D	28.36	-3.5703E-04	166.6	59.28	166.6	74.64	UL-RL	4.9641E+04	-11.200	82.53
1.000	1.000	141.8	0.000	0.000	Ug5_2_8_L_0					
58 D	28.96	-3.5080E-04	169.6	60.82	169.6	75.52	UL-RL	4.9641E+04	-11.400	84.00
1.000	1.000	144.8	0.000	0.000	Ug5_2_8_L_0					
59 D	29.57	-3.4451E-04	172.3	62.37	172.3	76.40	UL-RL	4.9641E+04	-11.600	85.47
1.000	1.000	147.8	0.000	0.000	Ug5_2_8_L_0					
60 D	30.17	-3.3819E-04	175.3	63.92	175.3	77.28	UL-RL	4.9641E+04	-11.800	86.95
1.000	1.000	150.9	0.000	0.000	Ug5_2_8_L_0					
61 D	15.39	-3.3186E-04	178.0	65.46	178.0	78.16	UL-RL	4.9641E+04	-12.000	88.42
1.000	1.000	153.9	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A1M1R1_1757          |
|          Exe Time :24 May 2018          18:23:40          |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26 D	0.000	2.0863E-04	0.000	0.000	50.00	46.63	PASSIVE	0.000	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
27 D	2.469	2.0083E-04	1.474	9.818	52.00	46.93	UL-RL	2.4680E+04	-5.200	2.526	
1.000	1.000	12.34	0.000	0.000	Ug5_2_8_L_0						
28 D	4.954	2.0063E-04	2.947	19.72	54.00	47.33	UL-RL	2.4680E+04	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	24.77	0.000	0.000	Ug5_2_8_L_0					
29 D	7.440	2.0635E-04	4.421	29.62	56.00	47.83	UL-RL	2.4680E+04	-5.600	7.579
1.000	1.000	37.20	0.000	0.000	Ug5_2_8_L_0					
30 D	9.928	2.1655E-04	5.895	39.54	58.00	48.59	UL-RL	2.4680E+04	-5.800	10.11
1.000	1.000	49.64	0.000	0.000	Ug5_2_8_L_0					
31 D	10.73	2.2998E-04	7.368	41.02	60.00	49.56	UL-RL	2.4680E+04	-6.000	12.63
1.000	1.000	53.65	0.000	0.000	Ug5_2_8_L_0					
32 D	11.49	2.4561E-04	8.842	42.28	62.00	50.51	UL-RL	2.4680E+04	-6.200	15.16
1.000	1.000	57.43	0.000	0.000	Ug5_2_8_L_0					
33 D	12.26	2.6250E-04	10.32	43.59	64.00	51.46	UL-RL	2.4680E+04	-6.400	17.68
1.000	1.000	61.28	0.000	0.000	Ug5_2_8_L_0					
34 D	13.03	2.7991E-04	11.79	44.95	66.00	52.39	UL-RL	2.4680E+04	-6.600	20.21
1.000	1.000	65.16	0.000	0.000	Ug5_2_8_L_0					
35 D	13.81	2.9720E-04	13.26	46.32	68.00	53.31	UL-RL	2.4680E+04	-6.800	22.74
1.000	1.000	69.06	0.000	0.000	Ug5_2_8_L_0					
36 D	14.59	3.1386E-04	14.74	47.69	70.00	54.22	UL-RL	2.4680E+04	-7.000	25.26
1.000	1.000	72.95	0.000	0.000	Ug5_2_8_L_0					
37 D	15.37	3.2950E-04	16.21	49.04	72.00	55.12	UL-RL	2.4680E+04	-7.200	27.79
1.000	1.000	76.83	0.000	0.000	Ug5_2_8_L_0					
38 D	16.13	3.4382E-04	17.68	50.35	74.00	56.01	UL-RL	2.4680E+04	-7.400	30.32
1.000	1.000	80.67	0.000	0.000	Ug5_2_8_L_0					
39 D	16.89	3.5663E-04	19.16	51.62	76.00	56.89	UL-RL	2.4680E+04	-7.600	32.84
1.000	1.000	84.46	0.000	0.000	Ug5_2_8_L_0					
40 D	17.64	3.6778E-04	20.63	52.83	78.00	57.77	UL-RL	2.4680E+04	-7.800	35.37
1.000	1.000	88.20	0.000	0.000	Ug5_2_8_L_0					
41 D	18.38	3.7722E-04	22.11	53.98	80.00	58.64	UL-RL	2.4680E+04	-8.000	37.89
1.000	1.000	91.88	0.000	0.000	Ug5_2_8_L_0					
42 D	19.10	3.8492E-04	23.58	55.08	82.00	59.51	UL-RL	2.4680E+04	-8.200	40.42
1.000	1.000	95.50	0.000	0.000	Ug5_2_8_L_0					
43 D	19.81	3.9092E-04	25.05	56.10	84.00	60.37	UL-RL	2.4680E+04	-8.400	42.95
1.000	1.000	99.05	0.000	0.000	Ug5_2_8_L_0					
44 D	20.51	3.9529E-04	26.53	57.07	86.00	61.23	UL-RL	2.4680E+04	-8.600	45.47
1.000	1.000	102.5	0.000	0.000	Ug5_2_8_L_0					
45 D	21.20	3.9812E-04	28.00	57.98	88.00	62.09	UL-RL	2.4680E+04	-8.800	48.00
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0					
46 D	21.87	3.9951E-04	29.47	58.83	90.00	62.94	UL-RL	2.4680E+04	-9.000	50.53
1.000	1.000	109.4	0.000	0.000	Ug5_2_8_L_0					
47 D	22.54	3.9960E-04	30.95	59.63	92.00	63.79	UL-RL	2.4680E+04	-9.200	53.05
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
48 D	23.19	3.9852E-04	32.42	60.37	94.00	64.64	UL-RL	2.4680E+04	-9.400	55.58
1.000	1.000	116.0	0.000	0.000	Ug5_2_8_L_0					
49 D	23.84	3.9641E-04	33.89	61.08	96.00	65.48	UL-RL	2.4680E+04	-9.600	58.11
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
50 D	24.48	3.9339E-04	35.37	61.74	98.00	66.32	UL-RL	2.4680E+04	-9.800	60.63
1.000	1.000	122.4	0.000	0.000	Ug5_2_8_L_0					
51 D	25.11	3.8959E-04	36.84	62.38	100.00	67.17	UL-RL	2.4680E+04	-10.000	63.16
1.000	1.000	125.5	0.000	0.000	Ug5_2_8_L_0					
52 D	25.73	3.8516E-04	38.32	62.98	102.0	68.01	UL-RL	2.4680E+04	-10.200	65.68
1.000	1.000	128.7	0.000	0.000	Ug5_2_8_L_0					
53 D	26.35	3.8020E-04	39.79	63.56	104.0	68.85	UL-RL	2.4680E+04	-10.400	68.21
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
54 D	26.97	3.7481E-04	41.26	64.12	106.0	69.69	UL-RL	2.4680E+04	-10.600	70.74
1.000	1.000	134.9	0.000	0.000	Ug5_2_8_L_0					
55 D	27.59	3.6910E-04	42.74	64.66	108.0	70.52	UL-RL	2.4680E+04	-10.800	73.26
1.000	1.000	137.9	0.000	0.000	Ug5_2_8_L_0					
56 D	28.20	3.6315E-04	44.21	65.19	110.0	71.36	UL-RL	2.4680E+04	-11.000	75.79
1.000	1.000	141.0	0.000	0.000	Ug5_2_8_L_0					
57 D	28.81	3.5703E-04	45.68	65.72	112.0	72.20	UL-RL	2.4680E+04	-11.200	78.32
1.000	1.000	144.0	0.000	0.000	Ug5_2_8_L_0					
58 D	29.41	3.5080E-04	47.16	66.23	114.0	73.04	UL-RL	2.4680E+04	-11.400	80.84
1.000	1.000	147.1	0.000	0.000	Ug5_2_8_L_0					
59 D	30.02	3.4451E-04	48.63	66.74	116.0	73.88	UL-RL	2.4680E+04	-11.600	83.37
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
60 D	30.63	3.3819E-04	50.11	67.25	118.0	74.72	UL-RL	2.4680E+04	-11.800	85.89
1.000	1.000	153.1	0.000	0.000	Ug5_2_8_L_0					
61 D	15.62	3.3186E-04	51.58	67.76	120.0	75.56	UL-RL	2.4680E+04	-12.000	88.42
1.000	1.000	156.2	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018           18:23:40 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-7.94529E-11	7.94529E-11	-7.95874E-12	-1.61591E-11
2	0.42711	-0.42711	7.39630E-12	8.54216E-02
3	1.3027	-1.3027	-8.54216E-02	0.34595
4	2.6355	-2.6355	-0.34595	0.87305
5	4.4430	-4.4430	-0.87305	1.7617
6	6.7252	-6.7252	-1.7617	3.1067
7	9.4576	-9.4576	-3.1067	4.9982
8	12.635	-12.635	-4.9982	7.5252
9	16.263	-16.263	-7.5252	10.778
10	20.330	-20.330	-10.778	14.844
11	24.843	-24.843	-14.844	19.812
12	29.794	-29.794	-19.812	25.771
13	35.188	-35.188	-25.771	32.809
14	41.211	-41.211	-32.809	41.051
15	47.934	-47.934	-41.051	50.638
16	55.335	-55.335	-50.638	61.705
17	63.387	-63.387	-61.705	74.382
18	72.046	-72.046	-74.382	88.791
19	81.264	-81.264	-88.791	105.04
20	90.979	-90.979	-105.04	123.24
21	-79.895	79.895	-123.24	107.26
22	-69.265	69.265	-107.26	93.408
23	-58.218	58.218	-93.408	81.764
24	-46.823	46.823	-81.764	72.400
25	-35.141	35.141	-72.400	65.372
26	-68.414	68.414	-65.372	51.689
27	-57.876	57.876	-51.689	40.114
28	-48.908	48.908	-40.114	30.332
29	-41.651	41.651	-30.332	22.002
30	-36.221	36.221	-22.002	14.758
31	-31.024	31.024	-14.758	8.5529
32	-26.087	26.087	-8.5529	3.3355
33	-21.477	21.477	-3.3355	-0.95980
34	-17.241	17.241	0.95980	-4.4079
35	-13.408	13.408	4.4079	-7.0894
36	-9.9916	9.9916	7.0894	-9.0878
37	-6.9936	6.9936	9.0878	-10.486
38	-4.4043	4.4043	10.486	-11.367
39	-2.2062	2.2062	11.367	-11.809
40	-0.37595	0.37595	11.809	-11.884
41	1.1143	-1.1143	11.884	-11.661
42	2.2951	-2.2951	11.661	-11.202
43	3.1981	-3.1981	11.202	-10.562
44	3.8556	-3.8556	10.562	-9.7912
45	4.2990	-4.2990	9.7912	-8.9314
46	4.5584	-4.5584	8.9314	-8.0197
47	4.6622	-4.6622	8.0197	-7.0872
48	4.6365	-4.6365	7.0872	-6.1600
49	4.5046	-4.5046	6.1600	-5.2590
50	4.2876	-4.2876	5.2590	-4.4015
51	4.0035	-4.0035	4.4015	-3.6008
52	3.6680	-3.6680	3.6008	-2.8672
53	3.2939	-3.2939	2.8672	-2.2084
54	2.8917	-2.8917	2.2084	-1.6301
55	2.4698	-2.4698	1.6301	-1.1361
56	2.0345	-2.0345	1.1361	-0.72924
57	1.5902	-1.5902	0.72924	-0.41120
58	1.1402	-1.1402	0.41120	-0.18316
59	0.68626	-0.68626	0.18316	-4.59056E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.22952 -0.22952 4.59056E-02-8.67403E-13

```

ITER 0 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM=0.1923E+06 REMNOR=0.4981E-21 RATIO = 1.074 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT= 1.074 RATIO= 0.000
      MAX UN= 180.7 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
      MIN UN=-322.3 IEQ= 49 NODE 25 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM= 491.0 REMNOR=0.3064E-20 RATIO =0.5428E-01 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT=0.5428E-01 RATIO= 0.000
      MAX UN= 3.373 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
      MIN UN=-9.116 IEQ= 63 NODE 32 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM= 16.45 REMNOR=0.3671E-20 RATIO =0.9935E-02 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT=0.9935E-02 RATIO= 0.000
      MAX UN= 2.071 IEQ= 19 NODE 10 DOF 1 Y-DISPL.F
      MIN UN=-2.448 IEQ= 67 NODE 34 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 4 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM=0.1819 REMNOR=0.1435E-20 RATIO =0.1045E-02 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT=0.1045E-02 RATIO= 0.000
      MAX UN=0.4245E-09 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
      MIN UN=-.2562 IEQ= 29 NODE 15 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 5 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM=0.1299 REMNOR=0.3183E-20 RATIO =0.8830E-03 TOLER =0.1000E-03 NOT CONVERGED
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT=0.8830E-03 RATIO= 0.000
      MAX UN=0.1281 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
      MIN UN=-.1926E-01 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 6 RNORM =0.1618E+06 RMNORM= 0.000
      RINORM=0.1666E+06 RIMNOR=0.1883E+06
      RENORM=0.9768E-04 REMNOR=0.2342E-20 RATIO =0.2421E-04 TOLER =0.1000E-03 CONVERGED !
      RFMAX = 322.0 RMMAX = 123.2
      RTSMAL=0.1000E-02 RMSMAL=0.1000E-02
      RDT =0.1666E+06 RDR =0.1883E+06
      RATIOT=0.2421E-04 RATIO= 0.000
      MAX UN=0.2061E-09 IEQ= 5 NODE 3 DOF 1 Y-DISPL.F
      MIN UN=-.7227E-02 IEQ= 41 NODE 21 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|                                                                                               |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:23:40                             |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.2641029E-03	-1.6795637E-03	
2	4.9281901E-03	-1.6795637E-03	
3	4.5922794E-03	-1.6795335E-03	
4	4.2563849E-03	-1.6793809E-03	
5	3.9205456E-03	-1.6789502E-03	
6	3.5848381E-03	-1.6780202E-03	
7	3.2493900E-03	-1.6763024E-03	
8	2.9143932E-03	-1.6734437E-03	
9	2.5801163E-03	-1.6690277E-03	
10	2.2469178E-03	-1.6625753E-03	
11	1.9152581E-03	-1.6535448E-03	
12	1.5857120E-03	-1.6413325E-03	
13	1.2589816E-03	-1.6252721E-03	
14	9.3591513E-04	-1.6045326E-03	
15	6.1755474E-04	-1.5780009E-03	
16	3.0519185E-04	-1.5443129E-03	
17	4.0840564E-07	-1.5019196E-03	
18	-2.9488319E-04	-1.4491114E-03	
19	-5.7841727E-04	-1.3840199E-03	
20	-8.4753745E-04	-1.3046227E-03	
21	-1.0991666E-03	-1.2087475E-03	
22	-1.3297821E-03	-1.0940767E-03	
23	-1.5353805E-03	-9.5815458E-04	
24	-1.7114545E-03	-7.9839017E-04	
25	-1.8529660E-03	-6.1206734E-04	
26	-1.9558923E-03	-4.1990816E-04	
27	-2.0219147E-03	-2.4253500E-04	
28	-2.0536890E-03	-7.6907376E-05	
29	-2.0532506E-03	8.0125636E-05	
30	-2.0219953E-03	2.3181053E-04	
31	-1.9606614E-03	3.8147129E-04	
32	-1.8704917E-03	5.1486525E-04	
33	-1.7567494E-03	6.1775405E-04	
34	-1.6252016E-03	6.9346997E-04	
35	-1.4809551E-03	7.4528074E-04	
36	-1.3284700E-03	7.7638098E-04	
37	-1.1715833E-03	7.8978417E-04	
38	-1.0135523E-03	7.8825942E-04	
39	-8.5710368E-04	7.7437202E-04	
40	-7.0447018E-04	7.5048494E-04	
41	-5.5743207E-04	7.1876239E-04	
42	-4.1735616E-04	6.8117572E-04	
43	-2.8523366E-04	6.3951095E-04	
44	-1.6171636E-04	5.9537751E-04	
45	-4.7151614E-05	5.5021815E-04	
46	5.8387605E-05	5.0531813E-04	
47	1.5506676E-04	4.6178488E-04	
48	2.4325283E-04	4.2052071E-04	
49	3.2347342E-04	3.8223230E-04	
50	3.9637896E-04	3.4744752E-04	
51	4.6270989E-04	3.1653023E-04	
52	5.2326466E-04	2.8969465E-04	
53	5.7886400E-04	2.6702081E-04	
54	6.3034418E-04	2.4845713E-04	
55	6.7850990E-04	2.3383918E-04	
56	7.2412455E-04	2.2289170E-04	
57	7.6788602E-04	2.1523579E-04	
58	8.1040643E-04	2.1039333E-04	
59	8.5219264E-04	2.0779017E-04	
60	8.9362724E-04	2.0675817E-04	
61	9.3495260E-04	2.0654560E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A1M1R1_1757  |
|          Exe Time :24 May 2018  18:23:40  |
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New Project

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.2641E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4138	-4.9282E-03	2.798	0.7355	2.798	4.707	UL-RL	4.1367E+04	-0.2000	1.333	
1.000	1.000	2.069	0.000	0.000	Ug5_2_8_L_0						
3 D	0.8448	-4.5923E-03	6.025	1.557	6.025	8.349	UL-RL	4.1367E+04	-0.4000	2.667	
1.000	1.000	4.224	0.000	0.000	Ug5_2_8_L_0						
4 D	1.285	-4.2564E-03	9.429	2.423	9.429	11.12	UL-RL	4.1367E+04	-0.6000	4.000	
1.000	1.000	6.423	0.000	0.000	Ug5_2_8_L_0						
5 D	1.742	-3.9205E-03	13.18	3.376	13.18	13.46	UL-RL	4.1367E+04	-0.8000	5.333	
1.000	1.000	8.709	0.000	0.000	Ug5_2_8_L_0						
6 D	2.199	-3.5848E-03	16.94	4.328	16.94	15.59	UL-RL	4.1367E+04	-1.000	6.667	
1.000	1.000	10.99	0.000	0.000	Ug5_2_8_L_0						
7 D	2.632	-3.2494E-03	20.20	5.159	20.20	17.61	UL-RL	4.1367E+04	-1.200	8.000	
1.000	1.000	13.16	0.000	0.000	Ug5_2_8_L_0						
8 D	3.059	-2.9144E-03	23.36	5.963	23.36	19.55	UL-RL	4.1367E+04	-1.400	9.333	
1.000	1.000	15.30	0.000	0.000	Ug5_2_8_L_0						
9 D	3.492	-2.5801E-03	26.62	6.793	26.62	21.42	UL-RL	4.1367E+04	-1.600	10.67	
1.000	1.000	17.46	0.000	0.000	Ug5_2_8_L_0						
10 D	3.914	-2.2469E-03	29.67	7.569	29.67	23.24	UL-RL	4.1367E+04	-1.800	12.00	
1.000	1.000	19.57	0.000	0.000	Ug5_2_8_L_0						
11 D	4.341	-1.9153E-03	32.83	8.373	32.83	24.99	UL-RL	4.1367E+04	-2.000	13.33	
1.000	1.000	21.71	0.000	0.000	Ug5_2_8_L_0						
12 D	4.765	-1.5857E-03	35.85	9.160	35.85	26.69	UL-RL	4.1367E+04	-2.200	14.67	
1.000	1.000	23.83	0.000	0.000	Ug5_2_8_L_0						
13 D	6.599	-1.2590E-03	38.98	16.99	38.98	28.34	UL-RL	4.1367E+04	-2.400	16.00	
1.000	1.000	32.99	0.000	0.000	Ug5_2_8_L_0						
14 D	8.618	-9.3592E-04	42.01	25.76	42.01	29.93	UL-RL	4.1367E+04	-2.600	17.33	
1.000	1.000	43.09	0.000	0.000	Ug5_2_8_L_0						
15 D	10.03	-6.1755E-04	45.13	31.49	45.13	33.17	UL-RL	4.1367E+04	-2.800	18.67	
1.000	1.000	50.16	0.000	0.000	Ug5_2_8_L_0						
16 D	11.14	-3.0519E-04	48.16	35.71	48.16	37.05	UL-RL	4.1367E+04	-3.000	20.00	
1.000	1.000	55.71	0.000	0.000	Ug5_2_8_L_0						
17 D	12.24	-4.0841E-07	51.29	39.85	51.29	40.87	UL-RL	4.1367E+04	-3.200	21.33	
1.000	1.000	61.18	0.000	0.000	Ug5_2_8_L_0						
18 D	13.30	2.9488E-04	54.34	43.86	54.34	44.58	UL-RL	4.1367E+04	-3.400	22.67	
1.000	1.000	66.52	0.000	0.000	Ug5_2_8_L_0						
19 D	14.35	5.7842E-04	57.40	47.74	57.40	48.17	UL-RL	4.1367E+04	-3.600	24.00	
1.000	1.000	71.74	0.000	0.000	Ug5_2_8_L_0						
20 D	15.36	8.4754E-04	60.53	51.46	60.53	51.62	UL-RL	4.1367E+04	-3.800	25.33	
1.000	1.000	76.79	0.000	0.000	Ug5_2_8_L_0						
21 D	16.31	1.0992E-03	63.60	54.87	63.60	54.93	UL-RL	4.1367E+04	-4.000	26.67	
1.000	1.000	81.54	0.000	0.000	Ug5_2_8_L_0						
22 D	17.26	1.3298E-03	66.73	58.30	66.73	58.34	UL-RL	4.1367E+04	-4.200	28.00	
1.000	1.000	86.30	0.000	0.000	Ug5_2_8_L_0						
23 D	18.15	1.5354E-03	69.81	61.43	69.81	61.46	UL-RL	4.1367E+04	-4.400	29.33	
1.000	1.000	90.77	0.000	0.000	Ug5_2_8_L_0						
24 D	18.98	1.7115E-03	72.94	64.21	72.94	64.23	UL-RL	4.1367E+04	-4.600	30.67	
1.000	1.000	94.88	0.000	0.000	Ug5_2_8_L_0						
25 D	19.71	1.8530E-03	76.01	66.56	76.01	66.56	UL-RL	4.1367E+04	-4.800	32.00	
1.000	1.000	98.56	0.000	0.000	Ug5_2_8_L_0						
26 D	20.35	1.9559E-03	79.08	68.43	79.08	68.43	V-C	1.3789E+04	-5.000	33.33	
1.000	1.000	101.8	0.000	0.000	Ug5_2_8_L_0						
27 D	21.19	2.0219E-03	81.95	71.29	81.95	71.29	V-C	1.3789E+04	-5.200	34.67	
1.000	1.000	106.0	0.000	0.000	Ug5_2_8_L_0						
28 D	21.90	2.0537E-03	84.82	73.50	84.82	73.50	V-C	1.3789E+04	-5.400	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	109.5	0.000	0.000	Ug5_2_8_L_0					
29 D	22.49	2.0533E-03	87.70	75.10	87.70	75.10	V-C	1.3789E+04	-5.600	37.33
1.000	1.000	112.4	0.000	0.000	Ug5_2_8_L_0					
30 D	22.96	2.0220E-03	90.59	76.13	90.59	76.13	V-C	1.3789E+04	-5.800	38.67
1.000	1.000	114.8	0.000	0.000	Ug5_2_8_L_0					
31 D	23.33	1.9607E-03	93.47	76.63	93.47	76.63	V-C	1.3789E+04	-6.000	40.00
1.000	1.000	116.6	0.000	0.000	Ug5_2_8_L_0					
32 D	23.59	1.8705E-03	96.36	76.62	96.36	76.62	V-C	1.3789E+04	-6.200	41.33
1.000	1.000	118.0	0.000	0.000	Ug5_2_8_L_0					
33 D	23.78	1.7567E-03	99.25	76.21	99.25	76.21	V-C	1.3789E+04	-6.400	42.67
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
34 D	23.90	1.6252E-03	102.4	75.49	102.4	75.49	V-C	1.3789E+04	-6.600	44.00
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
35 D	23.98	1.4810E-03	105.4	74.54	105.4	74.54	V-C	1.3789E+04	-6.800	45.33
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
36 D	24.02	1.3285E-03	109.0	73.44	109.0	73.44	V-C	1.3789E+04	-7.000	46.67
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
37 D	24.05	1.1716E-03	112.0	72.25	112.0	72.25	V-C	1.3789E+04	-7.200	48.00
1.000	1.000	120.3	0.000	0.000	Ug5_2_8_L_0					
38 D	24.07	1.0136E-03	115.5	71.02	115.5	71.02	V-C	1.3789E+04	-7.400	49.33
1.000	1.000	120.4	0.000	0.000	Ug5_2_8_L_0					
39 D	24.09	8.5710E-04	118.5	69.81	118.5	69.81	V-C	1.3789E+04	-7.600	50.67
1.000	1.000	120.5	0.000	0.000	Ug5_2_8_L_0					
40 D	24.13	7.0447E-04	122.0	68.63	122.0	68.63	V-C	1.3789E+04	-7.800	52.00
1.000	1.000	120.6	0.000	0.000	Ug5_2_8_L_0					
41 D	24.17	5.5743E-04	125.4	67.54	125.4	67.54	V-C	1.3789E+04	-8.000	53.33
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
42 D	24.24	4.1736E-04	128.3	66.54	128.3	66.54	V-C	1.3789E+04	-8.200	54.67
1.000	1.000	121.2	0.000	0.000	Ug5_2_8_L_0					
43 D	24.33	2.8523E-04	131.7	65.66	131.7	65.66	V-C	1.3789E+04	-8.400	56.00
1.000	1.000	121.7	0.000	0.000	Ug5_2_8_L_0					
44 D	24.45	1.6172E-04	134.6	64.91	134.6	64.91	V-C	1.3789E+04	-8.600	57.33
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
45 D	24.59	4.7152E-05	138.0	64.29	138.0	64.29	V-C	1.3789E+04	-8.800	58.67
1.000	1.000	123.0	0.000	0.000	Ug5_2_8_L_0					
46 D	24.32	-5.8388E-05	140.8	61.61	140.8	64.90	UL-RL	4.1367E+04	-9.000	60.00
1.000	1.000	121.6	0.000	0.000	Ug5_2_8_L_0					
47 D	24.02	-1.5507E-04	144.2	58.75	144.2	65.79	UL-RL	4.1367E+04	-9.200	61.33
1.000	1.000	120.1	0.000	0.000	Ug5_2_8_L_0					
48 D	23.79	-2.4325E-04	147.0	56.28	147.0	66.68	UL-RL	4.1367E+04	-9.400	62.67
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
49 D	23.63	-3.2347E-04	150.3	54.17	150.3	67.57	UL-RL	4.1367E+04	-9.600	64.00
1.000	1.000	118.2	0.000	0.000	Ug5_2_8_L_0					
50 D	23.55	-3.9638E-04	153.2	52.40	153.2	68.45	UL-RL	4.1367E+04	-9.800	65.33
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
51 D	23.52	-4.6271E-04	156.4	50.91	156.4	69.34	UL-RL	4.1367E+04	-10.000	66.67
1.000	1.000	117.6	0.000	0.000	Ug5_2_8_L_0					
52 D	23.54	-5.2326E-04	159.2	49.69	159.2	70.22	UL-RL	4.1367E+04	-10.200	68.00
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
53 D	23.61	-5.7886E-04	162.5	48.70	162.5	71.11	UL-RL	4.1367E+04	-10.400	69.33
1.000	1.000	118.0	0.000	0.000	Ug5_2_8_L_0					
54 D	23.71	-6.3034E-04	165.7	47.89	165.7	71.99	UL-RL	4.1367E+04	-10.600	70.67
1.000	1.000	118.6	0.000	0.000	Ug5_2_8_L_0					
55 D	23.85	-6.7851E-04	168.5	47.23	168.5	72.87	UL-RL	4.1367E+04	-10.800	72.00
1.000	1.000	119.2	0.000	0.000	Ug5_2_8_L_0					
56 D	24.00	-7.2412E-04	171.7	46.68	171.7	73.75	UL-RL	4.1367E+04	-11.000	73.33
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
57 D	24.18	-7.6789E-04	174.5	46.22	174.5	74.64	UL-RL	4.1367E+04	-11.200	74.67
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
58 D	24.36	-8.1041E-04	177.6	45.81	177.6	75.52	UL-RL	4.1367E+04	-11.400	76.00
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
59 D	24.55	-8.5219E-04	180.4	45.44	180.4	76.40	UL-RL	4.1367E+04	-11.600	77.33
1.000	1.000	122.8	0.000	0.000	Ug5_2_8_L_0					
60 D	24.88	-8.9363E-04	183.6	45.71	183.6	77.28	ACTIVE	0.000	-11.800	78.67
1.000	1.000	124.4	0.000	0.000	Ug5_2_8_L_0					
61 D	12.64	-9.3495E-04	186.4	46.41	186.4	78.16	ACTIVE	0.000	-12.000	80.00
1.000	1.000	126.4	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A1M1R1_1757 |
|          Exe Time :24 May 2018   18:23:40 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26	0.000	--	--	--	--	--	REMOVED	--	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
27	0.000	--	--	--	--	--	REMOVED	--	-5.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
28	0.000	--	--	--	--	--	REMOVED	--	-5.400	0.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	0.000	0.000	0.000	not available					
29	0.000	--	--	--	--	--	REMOVED	--	-5.600	0.000
1.000	1.000	0.000	0.000	0.000	not available					
30	0.000	--	--	--	--	--	REMOVED	--	-5.800	0.000
1.000	1.000	0.000	0.000	0.000	not available					
31	0.000	--	--	--	--	--	REMOVED	--	-6.000	0.000
1.000	1.000	0.000	0.000	0.000	not available					
32 D	0.5997	-1.8705E-03	1.333	0.3320	62.00	50.51	ACTIVE	0.000	-6.200	2.667
1.000	1.000	2.999	0.000	0.000	Ug5_2_8_L_0					
33 D	1.199	-1.7567E-03	2.667	0.6640	64.00	51.46	ACTIVE	0.000	-6.400	5.333
1.000	1.000	5.997	0.000	0.000	Ug5_2_8_L_0					
34 D	1.799	-1.6252E-03	4.000	0.9960	66.00	52.39	ACTIVE	0.000	-6.600	8.000
1.000	1.000	8.996	0.000	0.000	Ug5_2_8_L_0					
35 D	2.399	-1.4810E-03	5.333	1.328	68.00	53.31	ACTIVE	0.000	-6.800	10.67
1.000	1.000	11.99	0.000	0.000	Ug5_2_8_L_0					
36 D	4.398	-1.3285E-03	6.667	8.656	70.00	54.22	UL-RL	2.0566E+04	-7.000	13.33
1.000	1.000	21.99	0.000	0.000	Ug5_2_8_L_0					
37 D	5.817	-1.1716E-03	8.000	13.08	72.00	55.12	UL-RL	2.0566E+04	-7.200	16.00
1.000	1.000	29.08	0.000	0.000	Ug5_2_8_L_0					
38 D	7.231	-1.0136E-03	9.333	17.49	74.00	56.01	UL-RL	2.0566E+04	-7.400	18.67
1.000	1.000	36.15	0.000	0.000	Ug5_2_8_L_0					
39 D	8.629	-8.5710E-04	10.67	21.81	76.00	56.89	UL-RL	2.0566E+04	-7.600	21.33
1.000	1.000	43.15	0.000	0.000	Ug5_2_8_L_0					
40 D	10.00	-7.0447E-04	12.00	26.02	78.00	57.77	UL-RL	2.0566E+04	-7.800	24.00
1.000	1.000	50.02	0.000	0.000	Ug5_2_8_L_0					
41 D	11.35	-5.5743E-04	13.33	30.06	80.00	58.64	UL-RL	2.0566E+04	-8.000	26.67
1.000	1.000	56.73	0.000	0.000	Ug5_2_8_L_0					
42 D	12.65	-4.1736E-04	14.67	33.93	82.00	59.51	UL-RL	2.0566E+04	-8.200	29.33
1.000	1.000	63.26	0.000	0.000	Ug5_2_8_L_0					
43 D	13.92	-2.8523E-04	16.00	37.59	84.00	60.37	UL-RL	2.0566E+04	-8.400	32.00
1.000	1.000	69.59	0.000	0.000	Ug5_2_8_L_0					
44 D	15.14	-1.6172E-04	17.33	41.04	86.00	61.23	UL-RL	2.0566E+04	-8.600	34.67
1.000	1.000	75.71	0.000	0.000	Ug5_2_8_L_0					
45 D	16.32	-4.7152E-05	18.67	44.27	88.00	62.09	UL-RL	2.0566E+04	-8.800	37.33
1.000	1.000	81.60	0.000	0.000	Ug5_2_8_L_0					
46 D	17.45	5.8388E-05	20.00	47.27	90.00	62.94	UL-RL	2.0566E+04	-9.000	40.00
1.000	1.000	87.27	0.000	0.000	Ug5_2_8_L_0					
47 D	18.55	1.5507E-04	21.33	50.07	92.00	63.79	UL-RL	2.0566E+04	-9.200	42.67
1.000	1.000	92.73	0.000	0.000	Ug5_2_8_L_0					
48 D	19.60	2.4325E-04	22.67	52.66	94.00	64.64	UL-RL	2.0566E+04	-9.400	45.33
1.000	1.000	97.99	0.000	0.000	Ug5_2_8_L_0					
49 D	20.61	3.2347E-04	24.00	55.06	96.00	65.48	UL-RL	2.0566E+04	-9.600	48.00
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0					
50 D	21.59	3.9638E-04	25.33	57.28	98.00	66.32	UL-RL	2.0566E+04	-9.800	50.67
1.000	1.000	107.9	0.000	0.000	Ug5_2_8_L_0					
51 D	22.54	4.6271E-04	26.67	59.35	100.00	67.17	UL-RL	2.0566E+04	-10.000	53.33
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
52 D	23.46	5.2326E-04	28.00	61.28	102.0	68.01	UL-RL	2.0566E+04	-10.200	56.00
1.000	1.000	117.3	0.000	0.000	Ug5_2_8_L_0					
53 D	24.35	5.7886E-04	29.33	63.10	104.0	68.85	UL-RL	2.0566E+04	-10.400	58.67
1.000	1.000	121.8	0.000	0.000	Ug5_2_8_L_0					
54 D	25.23	6.3034E-04	30.67	64.81	106.0	69.69	UL-RL	2.0566E+04	-10.600	61.33
1.000	1.000	126.1	0.000	0.000	Ug5_2_8_L_0					
55 D	26.09	6.7851E-04	32.00	66.45	108.0	70.52	UL-RL	2.0566E+04	-10.800	64.00
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
56 D	26.94	7.2412E-04	33.33	68.03	110.0	71.36	UL-RL	2.0566E+04	-11.000	66.67
1.000	1.000	134.7	0.000	0.000	Ug5_2_8_L_0					
57 D	27.78	7.6789E-04	34.67	69.56	112.0	72.20	UL-RL	2.0566E+04	-11.200	69.33
1.000	1.000	138.9	0.000	0.000	Ug5_2_8_L_0					
58 D	28.61	8.1041E-04	36.00	71.05	114.0	73.04	UL-RL	2.0566E+04	-11.400	72.00
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
59 D	29.44	8.5219E-04	37.33	72.53	116.0	73.88	UL-RL	2.0566E+04	-11.600	74.67
1.000	1.000	147.2	0.000	0.000	Ug5_2_8_L_0					
60 D	30.27	8.9363E-04	38.67	74.00	118.0	74.72	UL-RL	2.0566E+04	-11.800	77.33
1.000	1.000	151.3	0.000	0.000	Ug5_2_8_L_0					
61 D	15.55	9.3495E-04	40.00	75.47	120.0	75.56	UL-RL	2.0566E+04	-12.000	80.00
1.000	1.000	155.5	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|           PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                           |
|           NewProject.BaseDesignSection_28.A1M1R1_1757   |
|           Exe Time :24 May 2018           18:23:40       |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.13474E-10	-1.13474E-10	1.14719E-11	-1.39932E-12
2	0.41377	-0.41377	2.73155E-11	8.27530E-02
3	1.2585	-1.2585	-8.27530E-02	0.33446
4	2.5431	-2.5431	-0.33446	0.84308
5	4.2850	-4.2850	-0.84308	1.7001
6	6.4839	-6.4839	-1.7001	2.9969
7	9.1156	-9.1156	-2.9969	4.8200
8	12.175	-12.175	-4.8200	7.2550
9	15.667	-15.667	-7.2550	10.388
10	19.581	-19.581	-10.388	14.304
11	23.922	-23.922	-14.304	19.089
12	28.687	-28.687	-19.089	24.826
13	35.286	-35.286	-24.826	31.883
14	43.904	-43.904	-31.883	40.664
15	53.936	-53.936	-40.664	51.451
16	65.079	-65.079	-51.451	64.467
17	77.315	-77.315	-64.467	79.930
18	90.620	-90.620	-79.930	98.054
19	104.97	-104.97	-98.054	119.05
20	120.33	-120.33	-119.05	143.11
21	136.64	-136.64	-143.11	170.44
22	153.91	-153.91	-170.44	201.22
23	172.06	-172.06	-201.22	235.63
24	191.04	-191.04	-235.63	273.84
25	-111.25	111.25	-273.84	251.59
26	-90.894	90.894	-251.59	233.41
27	-69.702	69.702	-233.41	219.47
28	-47.802	47.802	-219.47	209.91
29	-25.316	25.316	-209.91	204.85
30	-2.3574	2.3574	-204.85	204.38
31	-220.03	220.03	-204.38	160.37
32	-197.04	197.04	-160.37	120.96
33	-174.46	174.46	-120.96	86.071
34	-152.36	152.36	-86.071	55.599
35	-130.79	130.79	-55.599	29.441
36	-111.16	111.16	-29.441	7.2084
37	-92.931	92.931	-7.2084	-11.378
38	-76.090	76.090	11.378	-26.596
39	-60.625	60.625	26.596	-38.721
40	-46.501	46.501	38.721	-48.021
41	-33.672	33.672	48.021	-54.755
42	-22.083	22.083	54.755	-59.172
43	-11.668	11.668	59.172	-61.506
44	-2.3610	2.3610	61.506	-61.978
45	5.9099	-5.9099	61.978	-60.796
46	12.776	-12.776	60.796	-58.240
47	18.246	-18.246	58.240	-54.591
48	22.438	-22.438	54.591	-50.104
49	25.461	-25.461	50.104	-45.011
50	27.417	-27.417	45.011	-39.528
51	28.396	-28.396	39.528	-33.849
52	28.478	-28.478	33.849	-28.153
53	27.732	-27.732	28.153	-22.607
54	26.214	-26.214	22.607	-17.364
55	23.969	-23.969	17.364	-12.570
56	21.033	-21.033	12.570	-8.3638
57	17.432	-17.432	8.3638	-4.8773
58	13.183	-13.183	4.8773	-2.2407
59	8.2973	-8.2973	2.2407	-0.58121

60 2.9059 -2.9059 0.58121 1.83888E-12

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A1M1R1_1757                       |
|                               Exe Time :24 May 2018      18:23:40                             |
+-----+
```

F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	5
3	CONVERGENCE :YES	6
4	CONVERGENCE :YES	3
5	CONVERGENCE :YES	2
6	CONVERGENCE :YES	5
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.05 [sec]

DATABASE CREATION CPU TIME..... 0.21 [sec]

Design Assumption : A2+M2+R1 - File di Paratie - File di output (.out)

```
-----+-----  
|                PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1    FULL VERSION  *Build date:Jul 11, 2017*  |  
|                |  
|                NewProject.BaseDesignSection_28.A2M2R1_1787  |  
|                Exe Time :24 May 2018      18:23:41          |  
|                |  
+-----+-----
```

```
*****  
*  
*  PARATIE PLUS Non-Linear Spring Engine  *  
*  
*      AN ELASTOPLASTIC FINITE ELEMENT PROGRAM  *  
*      FOR FLEXIBLE EARTH-RETAINING STRUCTURES  *  
*  
*      Written by Ce.A.S. s.r.l. (ITALY)  *  
*      with the scientific supervision of  *  
*      Roberto Nova - full professor SOIL MECHANICS  *  
*      at Politecnico di Milano (ITALY)  *  
*  
*****  
*  
*  RELEASE  2017.1    *Build date:Jul 11, 2017*  *  
*  
*  
*  Ce.A.S.    S.R.L  CENTRO DI ANALISI STRUTTURALE  *  
*            VIALE  GIUSTINIANO 10  *  
*            20129  M I L A N O (ITALIA)  *  
*  TEL.      +39 02 2020221  (+39 035 23 67 19)  *  
*  FAX       +39 02 29512533  (+39 035 42285 49)  *  
*  email     bruno.becci@ceas.it  *  
*  Web Page  www.ceas.it  *  
*****
```

```
JOB : NewProject.BaseDesignSection_28.A2M2R1_1787  
STARTING  
ACCEPTED <FILE,GENW >  
ACCEPTED <FILE,PLOTTER,BINARY >  
ACCEPTED <SOLVE TOTAL STRESS >  
ACCEPTED <PARAM ITEMAX 40 >  
ACCEPTED <CONTROL HINGES 0 0.0001 0.001 >
```

```
*****  
*  
*  WARNING : PORE PRESSURES ARE AUTOMATICALLY COMPUTED  *  
*            BY THE PROGRAM.  *  
*****
```

```
PRELIMINARY OPERATIONS CPU TIME 0.00 [sec]
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:23:41      |
+-----+
```

INPUT FILE HAS BEEN GENERATED BY WALGEN PROGRAM

New Project

```
NO. OF NODAL POINTS (NUMNP) ..... 61
NO. OF COORDINATES (NCOORD)..... 2
NO. OF NODE DOFS (NDOF)..... 2
NO. OF EQUATIONS (NEQ)..... 122
NO. OF CONSTRAINTS CARDS (NVINC)..... 0
NO. OF ELEMENT GROUPS (NEG)..... 3
NO. OF SOLUTION STEPS (NSTE)..... 7
NO. OF ELEMENT SETS ATTACHED TO SLAVE NODES ... 0
NO. OF RECORD FROM WALGEN ..... 86
NO. OF LONG NAMES (LASTNAME) ..... 20
LENGTH UNIT CHOICE ..... 3 (M )
FORCE UNIT CHOICE ..... 3 (KN )
MAX PORE PRESSURE TABLE LENGTH..... 1
NO. OF ELEMENT GROUPS REQUIRING ADD. SLIP DOF . 0
```

```
IDOFA (01) = 2 Y-DISPL.F
IDOFA (02) = 4 X-ROT. F
```

RELEVANT ITEMS UNITS

```
STRESSES                kPa
Y-DISPLACEMENTS        m
ROTATIONS                RADIANS
BEAM AND SLAB MOMENTS   kN*m/m
BEAM SHEAR FORCES      kN/m
ANCHOR FORCES           kN/m
AXIAL FORCES IN TRUSSES kN/m
AXIAL FORCES SPRINGS   kN/m
Y-REACTIONS             kN/m
X-MOMENT REACTIONS     kN*m/m
ETC.
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+

P R E P R O C E S S O R   D A T A

N O .   O F   C O M M A N D S   86

1 : UNIT m kN
2 : TITLE New Project
3 : DELTA 0.2
4 : option param itemax 40
5 : option control hinges 0 0.0001 0.001
6 : WALL LeftWall_32 0 -12 0 1
7 : SOIL 0_L LeftWall_32 -12 0 1 0
8 : SOIL 0_R LeftWall_32 -12 0 2 180
9 : LDATA Ug5_2_8_L_0 0 LeftWall_32
10 : ATREST 0.5 0.5 1
11 : WEIGHT 19 10 10
12 : PERMEABILITY 0.0001
13 : RESISTANCE 0 37
14 : YOUNG 5.5E+04 1.65E+05
15 : ENDL
16 : MATERIAL S355_114 2.1E+08
17 : BEAM WallElement_33 LeftWall_32 -12 0 S355_114 0.25 00 00 0
18 : STRIP LeftWall_32 1 7 5 13 0 62 45
19 : STRIP LeftWall_32 1 7 18 17 0 45 45
20 : STRIP LeftWall_32 1 7 0.5 4.5 0 13 45
21 : STEP Stage1_31
22 : CHANGE Ug5_2_8_L_0 U-FRICT=31.08 LeftWall_32
23 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
24 : CHANGE Ug5_2_8_L_0 U-KA=0.319 LeftWall_32
25 : CHANGE Ug5_2_8_L_0 U-KP=4.578 LeftWall_32
26 : CHANGE Ug5_2_8_L_0 D-KA=0.319 LeftWall_32
27 : CHANGE Ug5_2_8_L_0 D-KP=4.578 LeftWall_32
28 : CHANGE Ug5_2_8_L_0 U-COHE=0 LeftWall_32
29 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
30 : SETWALL LeftWall_32
31 : GEOM 0 0
32 : WATER 0 0 -12 0 0
33 : ADD WallElement_33
34 : ENDSTEP
35 : STEP Stage2_158
36 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
37 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
38 : SETWALL LeftWall_32
39 : GEOM 0 -1
40 : WATER 0 1 -12 0 0
41 : ENDSTEP
42 : STEP Stage3_255
43 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
44 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
45 : SETWALL LeftWall_32
46 : GEOM 0 -2
47 : WATER 0 2 -12 0 0
48 : ENDSTEP
49 : STEP Stage4_352
50 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
51 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
52 : SETWALL LeftWall_32
53 : GEOM 0 -3
54 : WATER 0 3 -12 0 0
55 : LOAD step LeftWall_32 -2.7 1 -20
56 : LOAD step LeftWall_32 -3 1 -72
57 : ENDSTEP
58 : STEP Stage5_449
59 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
60 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
61 : SETWALL LeftWall_32
62 : GEOM 0 -4
63 : SURCHARGE 0 0 0 -4
64 : WATER 0 4 -12 0 0
65 : LOAD step LeftWall_32 -4 1 -80.5
66 : LOAD step LeftWall_32 -3.3 1 -105
67 : ENDSTEP
68 : STEP Stage6_546
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
69 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
70 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
71 : SETWALL LeftWall_32
72 : GEOM 0 -5
73 : SURCHARGE 0 0 0 0
74 : WATER 0 5 -12 0 0
75 : LOAD step LeftWall_32 -5 1 -45.2
76 : LOAD step LeftWall_32 -4 1 -181
77 : ENDSTEP
78 : STEP Stage7_643
79 : CHANGE Ug5_2_8_L_0 D-FRICT=31.08 LeftWall_32
80 : CHANGE Ug5_2_8_L_0 D-COHE=0 LeftWall_32
81 : SETWALL LeftWall_32
82 : GEOM 0 -6
83 : WATER 0 6 -12 0 0
84 : LOAD constant LeftWall_32 -6 1 -241
85 : LOAD constant LeftWall_32 -4.7 1 -322
86 : ENDSTEP
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+

```

N O D A L P O I N T D A T A

```

+-----+
| NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / NODE      Y-COORD      Z-COORD / |
+-----+
| 1 0.0000      0.0000 / 2 0.0000     -0.20000 / 3 0.0000     -0.40000 / 4 0.0000     -0.60000 / |
| 5 0.0000     -0.80000 / 6 0.0000     -1.0000 / 7 0.0000     -1.2000 / 8 0.0000     -1.4000 / |
| 9 0.0000     -1.6000 / 10 0.0000    -1.8000 / 11 0.0000    -2.0000 / 12 0.0000    -2.2000 / |
| 13 0.0000    -2.4000 / 14 0.0000    -2.6000 / 15 0.0000    -2.8000 / 16 0.0000    -3.0000 / |
| 17 0.0000    -3.2000 / 18 0.0000    -3.4000 / 19 0.0000    -3.6000 / 20 0.0000    -3.8000 / |
| 21 0.0000    -4.0000 / 22 0.0000    -4.2000 / 23 0.0000    -4.4000 / 24 0.0000    -4.6000 / |
| 25 0.0000    -4.8000 / 26 0.0000    -5.0000 / 27 0.0000    -5.2000 / 28 0.0000    -5.4000 / |
| 29 0.0000    -5.6000 / 30 0.0000    -5.8000 / 31 0.0000    -6.0000 / 32 0.0000    -6.2000 / |
| 33 0.0000    -6.4000 / 34 0.0000    -6.6000 / 35 0.0000    -6.8000 / 36 0.0000    -7.0000 / |
| 37 0.0000    -7.2000 / 38 0.0000    -7.4000 / 39 0.0000    -7.6000 / 40 0.0000    -7.8000 / |
| 41 0.0000    -8.0000 / 42 0.0000    -8.2000 / 43 0.0000    -8.4000 / 44 0.0000    -8.6000 / |
| 45 0.0000    -8.8000 / 46 0.0000    -9.0000 / 47 0.0000    -9.2000 / 48 0.0000    -9.4000 / |
| 49 0.0000    -9.6000 / 50 0.0000    -9.8000 / 51 0.0000    -10.000 / 52 0.0000    -10.200 / |
| 53 0.0000    -10.400 / 54 0.0000    -10.600 / 55 0.0000    -10.800 / 56 0.0000    -11.000 / |
| 57 0.0000    -11.200 / 58 0.0000    -11.400 / 59 0.0000    -11.600 / 60 0.0000    -11.800 / |
| 61 0.0000    -12.000 / |
+-----+

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+

```

ELEMENT GROUP NO. 1

```

0_L      :
 5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle           0.00000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	1.000
2	2	1	0.2000	0.000	0.000	0.000	1.000
3	3	1	0.2000	0.000	0.000	0.000	1.000
4	4	1	0.2000	0.000	0.000	0.000	1.000
5	5	1	0.2000	0.000	0.000	0.000	1.000
6	6	1	0.2000	0.000	0.000	0.000	1.000
7	7	1	0.2000	0.000	0.000	0.000	1.000
8	8	1	0.2000	0.000	0.000	0.000	1.000
9	9	1	0.2000	0.000	0.000	0.000	1.000
10	10	1	0.2000	0.000	0.000	0.000	1.000
11	11	1	0.2000	0.000	0.000	0.000	1.000
12	12	1	0.2000	0.000	0.000	0.000	1.000
13	13	1	0.2000	0.000	0.000	0.000	1.000
14	14	1	0.2000	0.000	0.000	0.000	1.000
15	15	1	0.2000	0.000	0.000	0.000	1.000
16	16	1	0.2000	0.000	0.000	0.000	1.000
17	17	1	0.2000	0.000	0.000	0.000	1.000
18	18	1	0.2000	0.000	0.000	0.000	1.000
19	19	1	0.2000	0.000	0.000	0.000	1.000
20	20	1	0.2000	0.000	0.000	0.000	1.000
21	21	1	0.2000	0.000	0.000	0.000	1.000
22	22	1	0.2000	0.000	0.000	0.000	1.000
23	23	1	0.2000	0.000	0.000	0.000	1.000
24	24	1	0.2000	0.000	0.000	0.000	1.000
25	25	1	0.2000	0.000	0.000	0.000	1.000
26	26	1	0.2000	0.000	0.000	0.000	1.000
27	27	1	0.2000	0.000	0.000	0.000	1.000
28	28	1	0.2000	0.000	0.000	0.000	1.000
29	29	1	0.2000	0.000	0.000	0.000	1.000
30	30	1	0.2000	0.000	0.000	0.000	1.000
31	31	1	0.2000	0.000	0.000	0.000	1.000
32	32	1	0.2000	0.000	0.000	0.000	1.000
33	33	1	0.2000	0.000	0.000	0.000	1.000
34	34	1	0.2000	0.000	0.000	0.000	1.000
35	35	1	0.2000	0.000	0.000	0.000	1.000
36	36	1	0.2000	0.000	0.000	0.000	1.000
37	37	1	0.2000	0.000	0.000	0.000	1.000
38	38	1	0.2000	0.000	0.000	0.000	1.000
39	39	1	0.2000	0.000	0.000	0.000	1.000
40	40	1	0.2000	0.000	0.000	0.000	1.000
41	41	1	0.2000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	1.000
43	43	1	0.2000	0.000	0.000	0.000	1.000
44	44	1	0.2000	0.000	0.000	0.000	1.000
45	45	1	0.2000	0.000	0.000	0.000	1.000
46	46	1	0.2000	0.000	0.000	0.000	1.000
47	47	1	0.2000	0.000	0.000	0.000	1.000
48	48	1	0.2000	0.000	0.000	0.000	1.000
49	49	1	0.2000	0.000	0.000	0.000	1.000
50	50	1	0.2000	0.000	0.000	0.000	1.000
51	51	1	0.2000	0.000	0.000	0.000	1.000
52	52	1	0.2000	0.000	0.000	0.000	1.000
53	53	1	0.2000	0.000	0.000	0.000	1.000
54	54	1	0.2000	0.000	0.000	0.000	1.000
55	55	1	0.2000	0.000	0.000	0.000	1.000
56	56	1	0.2000	0.000	0.000	0.000	1.000
57	57	1	0.2000	0.000	0.000	0.000	1.000
58	58	1	0.2000	0.000	0.000	0.000	1.000
59	59	1	0.2000	0.000	0.000	0.000	1.000
60	60	1	0.2000	0.000	0.000	0.000	1.000
61	61	1	0.1000	0.000	0.000	0.000	1.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+

```

ELEMENT GROUP NO. 2

```

0_R          :
 5 61 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0

```

.....2D PLASTIC SOIL

element group behaviour throughout stage analysis

```

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

```

material set no. 1

```

prop( 1) angle          180.000
prop( 2) layer as foreseen 1.00000

```

element data

el	n	mat	area	.....	.....	.....	flag
1	1	1	0.1000	0.000	0.000	0.000	2.000
2	2	1	0.2000	0.000	0.000	0.000	2.000
3	3	1	0.2000	0.000	0.000	0.000	2.000
4	4	1	0.2000	0.000	0.000	0.000	2.000
5	5	1	0.2000	0.000	0.000	0.000	2.000
6	6	1	0.2000	0.000	0.000	0.000	2.000
7	7	1	0.2000	0.000	0.000	0.000	2.000
8	8	1	0.2000	0.000	0.000	0.000	2.000
9	9	1	0.2000	0.000	0.000	0.000	2.000
10	10	1	0.2000	0.000	0.000	0.000	2.000
11	11	1	0.2000	0.000	0.000	0.000	2.000
12	12	1	0.2000	0.000	0.000	0.000	2.000
13	13	1	0.2000	0.000	0.000	0.000	2.000
14	14	1	0.2000	0.000	0.000	0.000	2.000
15	15	1	0.2000	0.000	0.000	0.000	2.000
16	16	1	0.2000	0.000	0.000	0.000	2.000
17	17	1	0.2000	0.000	0.000	0.000	2.000
18	18	1	0.2000	0.000	0.000	0.000	2.000
19	19	1	0.2000	0.000	0.000	0.000	2.000
20	20	1	0.2000	0.000	0.000	0.000	2.000
21	21	1	0.2000	0.000	0.000	0.000	2.000
22	22	1	0.2000	0.000	0.000	0.000	2.000
23	23	1	0.2000	0.000	0.000	0.000	2.000
24	24	1	0.2000	0.000	0.000	0.000	2.000
25	25	1	0.2000	0.000	0.000	0.000	2.000
26	26	1	0.2000	0.000	0.000	0.000	2.000
27	27	1	0.2000	0.000	0.000	0.000	2.000
28	28	1	0.2000	0.000	0.000	0.000	2.000
29	29	1	0.2000	0.000	0.000	0.000	2.000
30	30	1	0.2000	0.000	0.000	0.000	2.000
31	31	1	0.2000	0.000	0.000	0.000	2.000
32	32	1	0.2000	0.000	0.000	0.000	2.000
33	33	1	0.2000	0.000	0.000	0.000	2.000
34	34	1	0.2000	0.000	0.000	0.000	2.000
35	35	1	0.2000	0.000	0.000	0.000	2.000
36	36	1	0.2000	0.000	0.000	0.000	2.000
37	37	1	0.2000	0.000	0.000	0.000	2.000
38	38	1	0.2000	0.000	0.000	0.000	2.000
39	39	1	0.2000	0.000	0.000	0.000	2.000
40	40	1	0.2000	0.000	0.000	0.000	2.000
41	41	1	0.2000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

42	42	1	0.2000	0.000	0.000	0.000	2.000
43	43	1	0.2000	0.000	0.000	0.000	2.000
44	44	1	0.2000	0.000	0.000	0.000	2.000
45	45	1	0.2000	0.000	0.000	0.000	2.000
46	46	1	0.2000	0.000	0.000	0.000	2.000
47	47	1	0.2000	0.000	0.000	0.000	2.000
48	48	1	0.2000	0.000	0.000	0.000	2.000
49	49	1	0.2000	0.000	0.000	0.000	2.000
50	50	1	0.2000	0.000	0.000	0.000	2.000
51	51	1	0.2000	0.000	0.000	0.000	2.000
52	52	1	0.2000	0.000	0.000	0.000	2.000
53	53	1	0.2000	0.000	0.000	0.000	2.000
54	54	1	0.2000	0.000	0.000	0.000	2.000
55	55	1	0.2000	0.000	0.000	0.000	2.000
56	56	1	0.2000	0.000	0.000	0.000	2.000
57	57	1	0.2000	0.000	0.000	0.000	2.000
58	58	1	0.2000	0.000	0.000	0.000	2.000
59	59	1	0.2000	0.000	0.000	0.000	2.000
60	60	1	0.2000	0.000	0.000	0.000	2.000
61	61	1	0.1000	0.000	0.000	0.000	2.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018   18:23:41 |
+-----+
ELEMENT GROUP NO. 3

WallElement_33      :
 2 60 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0
.....
.....2D WALL ELEMENT.....
.....

element group behaviour throughout stage analysis

stage  status
-----
 1  active
 2  active
 3  active
 4  active
 5  active
 6  active
 7  active

material set no. 1

prop( 1) young modulus      0.210000E+09
prop( 2) modification time  0.00000
prop( 3) new young modulus  0.00000
prop( 4) poisson ratio      0.00000
prop( 5) future .....      0.00000

no. of step variable items: 1
step  inertia multiplier
-----
 1  1.000
 2  1.000
 3  1.000
 4  1.000
 5  1.000
 6  1.000
 7  1.000

element data

  e1  na  nb  mat  erc1  erc2  thick  by-i  by-j
-----
 1  1  2  1  0.000  0.000  0.2500  0.000  0.000
 2  2  3  1  0.000  0.000  0.2500  0.000  0.000
 3  3  4  1  0.000  0.000  0.2500  0.000  0.000
 4  4  5  1  0.000  0.000  0.2500  0.000  0.000
 5  5  6  1  0.000  0.000  0.2500  0.000  0.000
 6  6  7  1  0.000  0.000  0.2500  0.000  0.000
 7  7  8  1  0.000  0.000  0.2500  0.000  0.000
 8  8  9  1  0.000  0.000  0.2500  0.000  0.000
 9  9 10  1  0.000  0.000  0.2500  0.000  0.000
10 10 11  1  0.000  0.000  0.2500  0.000  0.000
11 11 12  1  0.000  0.000  0.2500  0.000  0.000
12 12 13  1  0.000  0.000  0.2500  0.000  0.000
13 13 14  1  0.000  0.000  0.2500  0.000  0.000
14 14 15  1  0.000  0.000  0.2500  0.000  0.000
15 15 16  1  0.000  0.000  0.2500  0.000  0.000
16 16 17  1  0.000  0.000  0.2500  0.000  0.000
17 17 18  1  0.000  0.000  0.2500  0.000  0.000
18 18 19  1  0.000  0.000  0.2500  0.000  0.000
19 19 20  1  0.000  0.000  0.2500  0.000  0.000
20 20 21  1  0.000  0.000  0.2500  0.000  0.000
21 21 22  1  0.000  0.000  0.2500  0.000  0.000
22 22 23  1  0.000  0.000  0.2500  0.000  0.000
23 23 24  1  0.000  0.000  0.2500  0.000  0.000
24 24 25  1  0.000  0.000  0.2500  0.000  0.000
25 25 26  1  0.000  0.000  0.2500  0.000  0.000
26 26 27  1  0.000  0.000  0.2500  0.000  0.000
27 27 28  1  0.000  0.000  0.2500  0.000  0.000
28 28 29  1  0.000  0.000  0.2500  0.000  0.000

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

29	29	30	1	0.000	0.000	0.2500	0.000	0.000
30	30	31	1	0.000	0.000	0.2500	0.000	0.000
31	31	32	1	0.000	0.000	0.2500	0.000	0.000
32	32	33	1	0.000	0.000	0.2500	0.000	0.000
33	33	34	1	0.000	0.000	0.2500	0.000	0.000
34	34	35	1	0.000	0.000	0.2500	0.000	0.000
35	35	36	1	0.000	0.000	0.2500	0.000	0.000
36	36	37	1	0.000	0.000	0.2500	0.000	0.000
37	37	38	1	0.000	0.000	0.2500	0.000	0.000
38	38	39	1	0.000	0.000	0.2500	0.000	0.000
39	39	40	1	0.000	0.000	0.2500	0.000	0.000
40	40	41	1	0.000	0.000	0.2500	0.000	0.000
41	41	42	1	0.000	0.000	0.2500	0.000	0.000
42	42	43	1	0.000	0.000	0.2500	0.000	0.000
43	43	44	1	0.000	0.000	0.2500	0.000	0.000
44	44	45	1	0.000	0.000	0.2500	0.000	0.000
45	45	46	1	0.000	0.000	0.2500	0.000	0.000
46	46	47	1	0.000	0.000	0.2500	0.000	0.000
47	47	48	1	0.000	0.000	0.2500	0.000	0.000
48	48	49	1	0.000	0.000	0.2500	0.000	0.000
49	49	50	1	0.000	0.000	0.2500	0.000	0.000
50	50	51	1	0.000	0.000	0.2500	0.000	0.000
51	51	52	1	0.000	0.000	0.2500	0.000	0.000
52	52	53	1	0.000	0.000	0.2500	0.000	0.000
53	53	54	1	0.000	0.000	0.2500	0.000	0.000
54	54	55	1	0.000	0.000	0.2500	0.000	0.000
55	55	56	1	0.000	0.000	0.2500	0.000	0.000
56	56	57	1	0.000	0.000	0.2500	0.000	0.000
57	57	58	1	0.000	0.000	0.2500	0.000	0.000
58	58	59	1	0.000	0.000	0.2500	0.000	0.000
59	59	60	1	0.000	0.000	0.2500	0.000	0.000
60	60	61	1	0.000	0.000	0.2500	0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                               |
|                               Exe Time :24 May 2018      18:23:41                               |
+-----+
```

```
NO. OF NODAL LOADS (NLOAD) ..... 8
NO. OF LOAD CURVES (NLCUR) ..... 14
MAXIMUM POINTS/LCURVE (NPTM)..... 5
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:23:41  |
+-----+
L O A D      D A T A
```

LOAD FUNCTION NUMBER = 1
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
1.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 2
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
2.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 3
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
3.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 4
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
4.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 5
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
5.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 6
NUMBER OF TIME POINTS = 5

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
6.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 7
NUMBER OF TIME POINTS = 5

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
7.20000	0.0000E+00
8.00000	0.0000E+00

LOAD FUNCTION NUMBER = 8
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
0.80000	0.0000E+00
1.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 9
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
1.80000	0.0000E+00
2.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 10
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
2.80000	0.0000E+00
3.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 11
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
3.80000	0.0000E+00
4.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 12
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
4.80000	0.0000E+00
5.00000	0.1000E+01
8.00000	0.1000E+01

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

LOAD FUNCTION NUMBER = 13
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
5.80000	0.0000E+00
6.00000	0.1000E+01
8.00000	0.1000E+01

LOAD FUNCTION NUMBER = 14
NUMBER OF TIME POINTS = 4

TIME VALUE	FUNCTION
0.00000	0.0000E+00
6.80000	0.0000E+00
7.00000	0.1000E+01
8.00000	0.1000E+01

CONCENTRATED LOADS

NODE	DIRECTION	LOAD CURVE	LOAD CURVE MULTIPL
14	1	4	-0.2000E+02
16	1	4	-0.7200E+02
21	1	5	-0.8050E+02
17	1	5	-0.1050E+03
26	1	6	-0.4520E+02
21	1	6	-0.1810E+03
31	1	14	-0.2410E+03
25	1	14	-0.3220E+03

NO. OF DISTRIBUTED LOAD CARDS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787                                          |
|          Exe Time :24 May 2018      18:23:41                                                  |
+-----+
L O A D      B A L A N C E
STEP  1  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  1  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  2  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  2  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  3  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F      0.0000000
STEP  3  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  4  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F     -92.0000000
STEP  4  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  5  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -185.50000
STEP  5  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  6  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -226.20000
STEP  6  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
STEP  7  TOTAL APPLIED LOAD IN DIR.  2  Y-DISPL.F    -563.00000
STEP  7  TOTAL APPLIED LOAD IN DIR.  4  X-ROT. F      0.0000000
```

LOAD INPUT SECTION COMPLETED

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                               |
|                               Exe Time :24 May 2018      18:23:41                               |
+-----+
```

NO. OF LAYERS 1
NO. OF DATA PER LAYER..... 100

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018          18:23:41 |
+-----+

```

LAYER DESCRIPTORS FOR STEP NO. 1

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 1

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000    (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000    (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000    (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 31.080    WALL NO.      1
ITEM NO. 9<U-FRICT  >= 37.000    WALL NO.      2
ITEM NO. 10<U-KA    >= 0.31900    WALL NO.      1
ITEM NO. 11<U-KP    >= 4.5780    WALL NO.      1
ITEM NO. 12<K0-NC   >= 0.50000    (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000    (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000    (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000    (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.    (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000    (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000    (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080    WALL NO.      1
ITEM NO. 59<D-FRICT >= 37.000    WALL NO.      2
ITEM NO. 60<D-KA    >= 0.31900    WALL NO.      1
ITEM NO. 61<D-KP    >= 4.5780    WALL NO.      1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 2

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 2

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)
ITEM NO. 5<GAMMAD   >= 19.000    (BOTH WALLS)
ITEM NO. 6<GAMMAB   >= 10.000    (BOTH WALLS)
ITEM NO. 7<GAMMAW   >= 10.000    (BOTH WALLS)
ITEM NO. 9<U-FRICT  >= 31.080    WALL NO.      1
ITEM NO. 9<U-FRICT  >= 37.000    WALL NO.      2
ITEM NO. 10<U-KA    >= 0.31900    WALL NO.      1
ITEM NO. 11<U-KP    >= 4.5780    WALL NO.      1
ITEM NO. 12<K0-NC   >= 0.50000    (BOTH WALLS)
ITEM NO. 13<NEXP    >= 0.50000    (BOTH WALLS)
ITEM NO. 14<OCR     >= 1.0000    (BOTH WALLS)
ITEM NO. 16<MODEL   >= 1.0000    (BOTH WALLS)
ITEM NO. 17<EVC     >= 55000.    (BOTH WALLS)
ITEM NO. 18<EUR     >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM  >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000    (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000    (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080    WALL NO.      1
ITEM NO. 59<D-FRICT >= 37.000    WALL NO.      2
ITEM NO. 60<D-KA    >= 0.31900    WALL NO.      1
ITEM NO. 61<D-KP    >= 4.5780    WALL NO.      1
ITEM NO. 77<D-PERM  >= 0.10000E-03 (BOTH WALLS)

```

LAYER DESCRIPTORS FOR STEP NO. 3

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 3

```

ITEM NO. 1<NAME      >= 18.000    (BOTH WALLS)
ITEM NO. 2<NATURE   >= 1.0000    (BOTH WALLS)
ITEM NO. 3<LEVEL    >= 0.0000    (BOTH WALLS)
ITEM NO. 4<WALL     >= 1.0000    (BOTH WALLS)

```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 4

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 4

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1
ITEM NO.	61<D-KP	>= 4.5780	WALL NO.	1
ITEM NO.	77<D-PERM	>= 0.10000E-03	(BOTH WALLS)	

LAYER DESCRIPTORS FOR STEP NO. 5

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 5

ITEM NO.	1<NAME	>= 18.000	(BOTH WALLS)	
ITEM NO.	2<NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	3<LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	4<WALL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	5<GAMMAD	>= 19.000	(BOTH WALLS)	
ITEM NO.	6<GAMMAB	>= 10.000	(BOTH WALLS)	
ITEM NO.	7<GAMMAW	>= 10.000	(BOTH WALLS)	
ITEM NO.	9<U-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	9<U-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	10<U-KA	>= 0.31900	WALL NO.	1
ITEM NO.	11<U-KP	>= 4.5780	WALL NO.	1
ITEM NO.	12<K0-NC	>= 0.50000	(BOTH WALLS)	
ITEM NO.	13<NEXP	>= 0.50000	(BOTH WALLS)	
ITEM NO.	14<OCR	>= 1.0000	(BOTH WALLS)	
ITEM NO.	16<MODEL	>= 1.0000	(BOTH WALLS)	
ITEM NO.	17<EVC	>= 55000.	(BOTH WALLS)	
ITEM NO.	18<EUR	>= 0.16500E+06	(BOTH WALLS)	
ITEM NO.	27<U-PERM	>= 0.10000E-03	(BOTH WALLS)	
ITEM NO.	52<D-NATURE	>= 1.0000	(BOTH WALLS)	
ITEM NO.	53<D-LEVEL	>= 0.0000	(BOTH WALLS)	
ITEM NO.	59<D-FRICT	>= 31.080	WALL NO.	1
ITEM NO.	59<D-FRICT	>= 37.000	WALL NO.	2
ITEM NO.	60<D-KA	>= 0.31900	WALL NO.	1

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 6

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 6

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 55000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

LAYER DESCRIPTORS FOR STEP NO. 7

NON ZERO LAYER DESCRIPTORS FOR LAYER NO. 1 FOR STEP NO. 7

ITEM NO. 1<NAME >= 18.000 (BOTH WALLS)
ITEM NO. 2<NATURE >= 1.0000 (BOTH WALLS)
ITEM NO. 3<LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 4<WALL >= 1.0000 (BOTH WALLS)
ITEM NO. 5<GAMMAD >= 19.000 (BOTH WALLS)
ITEM NO. 6<GAMMAB >= 10.000 (BOTH WALLS)
ITEM NO. 7<GAMMAW >= 10.000 (BOTH WALLS)
ITEM NO. 9<U-FRICT >= 31.080 WALL NO. 1
ITEM NO. 9<U-FRICT >= 37.000 WALL NO. 2
ITEM NO. 10<U-KA >= 0.31900 WALL NO. 1
ITEM NO. 11<U-KP >= 4.5780 WALL NO. 1
ITEM NO. 12<K0-NC >= 0.50000 (BOTH WALLS)
ITEM NO. 13<NEXP >= 0.50000 (BOTH WALLS)
ITEM NO. 14<OCR >= 1.0000 (BOTH WALLS)
ITEM NO. 16<MODEL >= 1.0000 (BOTH WALLS)
ITEM NO. 17<EVC >= 55000. (BOTH WALLS)
ITEM NO. 18<EUR >= 0.16500E+06 (BOTH WALLS)
ITEM NO. 27<U-PERM >= 0.10000E-03 (BOTH WALLS)
ITEM NO. 52<D-NATURE>= 1.0000 (BOTH WALLS)
ITEM NO. 53<D-LEVEL >= 0.0000 (BOTH WALLS)
ITEM NO. 59<D-FRICT >= 31.080 WALL NO. 1
ITEM NO. 59<D-FRICT >= 37.000 WALL NO. 2
ITEM NO. 60<D-KA >= 0.31900 WALL NO. 1
ITEM NO. 61<D-KP >= 4.5780 WALL NO. 1
ITEM NO. 77<D-PERM >= 0.10000E-03 (BOTH WALLS)

DEFAULT WATER UNIT WEIGHT = 10.000
AVERAGED ON 7 VALUES

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:23:41  |
+-----+

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PHASE DESCRIPTORS

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STEP NO.      1

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC          0.000        0.000
Z-EXCAVATION  0.000        0.000
Z-WATER_TABLE 0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000  0.000
ZQ            0.000        0.000
DZW_OF_THE_WATER_TABLE 0.000  0.000
QS_ON_THE_EXCAVATION_SIDE 0.000  0.000
ZQS          -0.9990E+30 -0.9990E+30
ZCUT         0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00 -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000  0.000
PORE_UPDATE_FLAG 0.000    0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000  0.000
lateral thrusts reduction elevatio 0.000  0.000
Downhill reduction factor for effe 0.000  0.000
Downhill reduction factor for pore 0.000  0.000
Uphill reduction factor for effect 0.000  0.000
Uphill reduction factor for pore p 0.000  0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000  0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000  0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000  0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000  0.000
UPHILL DELTA/PHI RATIO 0.000  0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000  0.000
DOWNHILL DELTA/PHI RATIO 0.000  0.000
DYN.WATER BEHAVIOUR 0.000  0.000
Excess pore pressure RATIO Ru 0.000  0.000
SEISMIC PRESSURE LOWER VALUE 0.000  0.000
SEISMIC PRESSURE UPPER VALUE 0.000  0.000
SEISMIC PRESSURE LOWER LEVEL 0.000  0.000
SEISMIC PRESSURE UPPER LEVEL 0.000  0.000

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=====end of step 1

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STEP NO.      2

                LEFT WALL  RIGHT WALL
Y              0.000      -0.9990E+30
Z-PC          0.000        0.000
Z-EXCAVATION -1.000        0.000
Z-WATER_TABLE 0.000      -0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL 0.000  0.000
ZQ            0.000        0.000
DZW_OF_THE_WATER_TABLE 1.000  0.000
QS_ON_THE_EXCAVATION_SIDE 0.000  0.000
ZQS          -0.9990E+30 -0.9990E+30
ZCUT         0.000        0.000
BALANCE LEVEL FOR PORE PRESSURES -12.00 -12.00
WATER_BEHAVIOUR_FLAG (LINING OPT) 0.000  0.000
PORE_UPDATE_FLAG 0.000    0.000
PORE_TAB. _FLAG (gt.0= use tabs) 0.000  0.000
lateral thrusts reduction elevatio 0.000  0.000
Downhill reduction factor for effe 0.000  0.000
Downhill reduction factor for pore 0.000  0.000
Uphill reduction factor for effect 0.000  0.000
Uphill reduction factor for pore p 0.000  0.000
SEISMIC HORIZONTAL ACCEL. Kh [g] 0.000  0.000
UPHILL VERTICAL ACCEL. Kv_uh [g] 0.000  0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g] 0.000  0.000
UPHILL BETA ANGLE (SLOPE) [deg] 0.000  0.000
UPHILL DELTA/PHI RATIO 0.000  0.000
DOWNHILL BETA ANGLE (SLOPE) [deg] 0.000  0.000
DOWNHILL DELTA/PHI RATIO 0.000  0.000
DYN.WATER BEHAVIOUR 0.000  0.000
Excess pore pressure RATIO Ru 0.000  0.000

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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 2

STEP NO.	3		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-2.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		2.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

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=====end of step 3

STEP NO.	4		
		LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-3.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		3.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-0.9990E+30	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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=====end of step 4

STEP NO.	5	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-4.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		4.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		-4.000	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

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=====end of step 5

STEP NO.	6	LEFT WALL	RIGHT WALL
Y		0.000	-0.9990E+30
Z-PC		0.000	0.000
Z-EXCAVATION		-5.000	0.000
Z-WATER_TABLE		0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL		0.000	0.000
ZQ		0.000	0.000
DZW_OF_THE_WATER_TABLE		5.000	0.000
QS_ON_THE_EXCAVATION_SIDE		0.000	0.000
ZQS		0.000	-0.9990E+30
ZCUT		0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES		-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)		0.000	0.000
PORE_UPDATE_FLAG		0.000	0.000
PORE_TAB._FLAG (gt.0= use tabs)		0.000	0.000
lateral thrusts reduction elevatio		0.000	0.000
Downhill reduction factor for effe		0.000	0.000
Downhill reduction factor for pore		0.000	0.000
Uphill reduction factor for effect		0.000	0.000
Uphill reduction factor for pore p		0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]		0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]		0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]		0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
UPHILL DELTA/PHI RATIO		0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]		0.000	0.000
DOWNHILL DELTA/PHI RATIO		0.000	0.000
DYN.WATER BEHAVIOUR		0.000	0.000
Excess pore pressure RATIO Ru		0.000	0.000
SEISMIC PRESSURE LOWER VALUE		0.000	0.000
SEISMIC PRESSURE UPPER VALUE		0.000	0.000
SEISMIC PRESSURE LOWER LEVEL		0.000	0.000
SEISMIC PRESSURE UPPER LEVEL		0.000	0.000

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=====end of step 6

STEP NO.	7	LEFT WALL	RIGHT WALL
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

Y	0.000	-0.9990E+30
Z-PC	0.000	0.000
Z-EXCAVATION	-6.000	0.000
Z-WATER_TABLE	0.000	-0.9990E+30
Q_AT_THE_FREE_FIELD_LEVEL	0.000	0.000
ZQ	0.000	0.000
DZW_OF_THE_WATER_TABLE	6.000	0.000
QS_ON_THE_EXCAVATION_SIDE	0.000	0.000
ZQS	0.000	-0.9990E+30
ZCUT	0.000	0.000
BALANCE LEVEL FOR PORE PRESSURES	-12.00	-12.00
WATER_BEHAVIOUR_FLAG (LINING OPT)	0.000	0.000
PORE_UPDATE_FLAG	0.000	0.000
PORE_TAB. _FLAG (gt.0= use tabs)	0.000	0.000
lateral thrusts reduction elevatio	0.000	0.000
Downhill reduction factor for effe	0.000	0.000
Downhill reduction factor for pore	0.000	0.000
Uphill reduction factor for effect	0.000	0.000
Uphill reduction factor for pore p	0.000	0.000
SEISMIC HORIZONTAL ACCEL. Kh [g]	0.000	0.000
UPHILL VERTICAL ACCEL. Kv_uh [g]	0.000	0.000
DOWNHILL VERTICAL ACCEL.Kv_dh [g]	0.000	0.000
UPHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
UPHILL DELTA/PHI RATIO	0.000	0.000
DOWNHILL BETA ANGLE (SLOPE) [deg]	0.000	0.000
DOWNHILL DELTA/PHI RATIO	0.000	0.000
DYN.WATER BEHAVIOUR	0.000	0.000
Excess pore pressure RATIO Ru	0.000	0.000
SEISMIC PRESSURE LOWER VALUE	0.000	0.000
SEISMIC PRESSURE UPPER VALUE	0.000	0.000
SEISMIC PRESSURE LOWER LEVEL	0.000	0.000
SEISMIC PRESSURE UPPER LEVEL	0.000	0.000

=====
=====end of step 7

LEFT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

RIGHT-HAND WALL

LOWER LEVEL	-12.00000
UPPER LEVEL	0.00000

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018      18:23:41 |
+-----+
I N I T I A L   S T R E S S   T A B L E S

          S E C T I O N

NUMBER OF DEFINED TABLES          3

INPUT DATA FOR INITIAL STRESS SET NO.    1
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              5.000000000000000
FOUNDATION WIDTH (B)                  13.000000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              62.000000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO.    2
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              18.000000000000000
FOUNDATION WIDTH (B)                  17.000000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              45.000000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

INPUT DATA FOR INITIAL STRESS SET NO.    3
PERTAINING SOIL ELEMENTS AT Y-COORD    0.0000

ACTIVATION TIME                      1.0000
END TIME (TIME BEYOND WHICH IT IS REMOVED) 7.0000

TYPE BOUSSINESQ

HORIZONTAL DISTANCE (DY)              0.500000000000000
FOUNDATION WIDTH (B)                  4.500000000000000
ZETA-F.....                          0.000000000000000E+000
Q-F .....                              13.000000000000000
BETA .....                             45.000000000000000
BEHAVIOUR (0=FREE, 1=REFLECTING) 0.000000000000000E+000

ELEMENT GROUPS BACKUP AREA CAN STAY IN CORE AT
POSITION          3123

NO. OF D.P.W FOR THIS AREA          7200
MAX NO. OF D.P.W. AVAILABLE          81920
** MAX NO OF ITERATIONS SET TO          40

ITER      0  RNORM = 0.000    RMNORM= 0.000
           RINORM=0.6782E+05  RIMNOR= 0.000
           RENORM=0.1428E-27  REMNOR= 0.000    RATIO =0.4588E-16  TOLER =0.1000E-03    CONVERGED !
           RFMAX = 38.55      RMAX = 0.000
           RTSMAL=0.1000E-03  RMSMAL= 0.000
           RDT =0.6782E+05    RDR = 0.000
           RATIOT=0.4588E-16  RATIOOR= 0.000
           MAX UN=0.3553E-14  IEQ= 121 NODE    61 DOF    1  Y-DISPL.F
           MIN UN=-.7105E-14  IEQ= 117 NODE    59 DOF    1  Y-DISPL.F
           NO. OF CONTACT CONSTRAINT VIOLATIONS          0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
ITER 1 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6782E+05  RIMNOR= 0.000
      RENORM=0.8925E-30  REMNOR=0.1751E-54  RATIO =0.3628E-17  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 38.55      RMMAX = 0.000
      RTSMAL=0.1000E-03  RMSMAL= 0.000
      RDT =0.6782E+05   RDR = 0.000
      RATIOI=0.3628E-17  RATIOOR= 0.000
      MAX UN=0.1074E-15  IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
      MIN UN=-.3514E-15  IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM = 0.000      RMNORM= 0.000
      RINORM=0.6782E+05  RIMNOR= 0.000
      RENORM=0.7687E-30  REMNOR=0.2508E-54  RATIO =0.3367E-17  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 38.55      RMMAX = 0.000
      RTSMAL=0.1000E-03  RMSMAL= 0.000
      RDT =0.6782E+05   RDR = 0.000
      RATIOI=0.3367E-17  RATIOOR= 0.000
      MAX UN=0.7387E-16  IEQ= 35 NODE 18 DOF 1 Y-DISPL.F
      MIN UN=-.3004E-15  IEQ= 119 NODE 60 DOF 1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS 0
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```
+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:23:41                             |
+-----+
New Project
SOLUTION REACHED USING      2 ITERATIONS ON      40

P R I N T   O U T   F O R   T I M E   S T E P   1   ( AT TIME  1.000   )

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

      Y-DISPL.F      X-ROT. F
      (02)           (04)      (

ALL NODAL POINTS HAVE ZERO DISPLACEMENT COMPONENTS
```

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+
New Project

```

STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	5.5016E-21	0.000	0.000	0.000	0.000	V-C	6.0857E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.393	4.4501E-21	2.148	4.964	2.148	4.964	V-C	6.0857E+04	-0.2000	2.000	
1.000	1.000	6.964	0.000	0.000	Ug5_2_8_L_0						
3 D	2.546	3.3979E-21	4.779	8.728	4.779	8.728	V-C	6.0857E+04	-0.4000	4.000	
1.000	1.000	12.73	0.000	0.000	Ug5_2_8_L_0						
4 D	3.503	2.3437E-21	7.608	11.52	7.608	11.52	V-C	6.0857E+04	-0.6000	6.000	
1.000	1.000	17.52	0.000	0.000	Ug5_2_8_L_0						
5 D	4.364	1.2853E-21	10.83	13.82	10.83	13.82	V-C	6.0857E+04	-0.8000	8.000	
1.000	1.000	21.82	0.000	0.000	Ug5_2_8_L_0						
6 D	5.179	2.2069E-22	14.05	15.90	14.05	15.90	V-C	6.0857E+04	-1.0000	10.000	
1.000	1.000	25.90	0.000	0.000	Ug5_2_8_L_0						
7 D	5.970	-8.5259E-22	16.71	17.85	16.71	17.85	V-C	6.0857E+04	-1.2000	12.000	
1.000	1.000	29.85	0.000	0.000	Ug5_2_8_L_0						
8 D	6.743	-1.9366E-21	19.25	19.72	19.25	19.72	V-C	6.0857E+04	-1.4000	14.000	
1.000	1.000	33.72	0.000	0.000	Ug5_2_8_L_0						
9 D	7.504	-3.0287E-21	21.91	21.52	21.91	21.52	V-C	6.0857E+04	-1.6000	16.000	
1.000	1.000	37.52	0.000	0.000	Ug5_2_8_L_0						
10 D	8.252	-4.1080E-21	24.32	23.26	24.32	23.26	V-C	6.0857E+04	-1.8000	18.000	
1.000	1.000	41.26	0.000	0.000	Ug5_2_8_L_0						
11 D	8.989	-5.1485E-21	26.86	24.95	26.86	24.95	V-C	6.0857E+04	-2.0000	20.000	
1.000	1.000	44.95	0.000	0.000	Ug5_2_8_L_0						
12 D	9.716	-6.1229E-21	29.23	26.58	29.23	26.58	V-C	6.0857E+04	-2.2000	22.000	
1.000	1.000	48.58	0.000	0.000	Ug5_2_8_L_0						
13 D	10.43	-7.0026E-21	31.73	28.16	31.73	28.16	V-C	6.0857E+04	-2.4000	24.000	
1.000	1.000	52.16	0.000	0.000	Ug5_2_8_L_0						
14 D	11.14	-7.7573E-21	34.09	29.68	34.09	29.68	V-C	6.0857E+04	-2.6000	26.000	
1.000	1.000	55.68	0.000	0.000	Ug5_2_8_L_0						
15 D	11.83	-8.3551E-21	36.57	31.16	36.57	31.16	V-C	6.0857E+04	-2.8000	28.000	
1.000	1.000	59.16	0.000	0.000	Ug5_2_8_L_0						
16 D	12.52	-8.7706E-21	38.95	32.58	38.95	32.58	V-C	6.0857E+04	-3.0000	30.000	
1.000	1.000	62.58	0.000	0.000	Ug5_2_8_L_0						
17 D	13.19	-9.0113E-21	41.43	33.96	41.43	33.96	V-C	6.0857E+04	-3.2000	32.000	
1.000	1.000	65.96	0.000	0.000	Ug5_2_8_L_0						
18 D	13.86	-9.0912E-21	43.82	35.30	43.82	35.30	V-C	6.0857E+04	-3.4000	34.000	
1.000	1.000	69.30	0.000	0.000	Ug5_2_8_L_0						
19 D	14.52	-9.0221E-21	46.22	36.59	46.22	36.59	V-C	6.0857E+04	-3.6000	36.000	
1.000	1.000	72.59	0.000	0.000	Ug5_2_8_L_0						
20 D	15.17	-8.8137E-21	48.70	37.84	48.70	37.84	V-C	6.0857E+04	-3.8000	38.000	
1.000	1.000	75.84	0.000	0.000	Ug5_2_8_L_0						
21 D	15.81	-8.4735E-21	51.11	39.05	51.11	39.05	V-C	6.0857E+04	-4.0000	40.000	
1.000	1.000	79.05	0.000	0.000	Ug5_2_8_L_0						
22 D	16.45	-8.0071E-21	53.58	40.23	53.58	40.23	V-C	6.0857E+04	-4.2000	42.000	
1.000	1.000	82.23	0.000	0.000	Ug5_2_8_L_0						
23 D	17.08	-7.4178E-21	55.99	41.38	55.99	41.38	V-C	6.0857E+04	-4.4000	44.000	
1.000	1.000	85.38	0.000	0.000	Ug5_2_8_L_0						
24 D	17.70	-6.7071E-21	58.47	42.49	58.47	42.49	V-C	6.0857E+04	-4.6000	46.000	
1.000	1.000	88.49	0.000	0.000	Ug5_2_8_L_0						
25 D	18.32	-5.8748E-21	60.88	43.58	60.88	43.58	V-C	6.0857E+04	-4.8000	48.000	
1.000	1.000	91.58	0.000	0.000	Ug5_2_8_L_0						
26 D	18.93	-4.9190E-21	63.28	44.65	63.28	44.65	V-C	6.0857E+04	-5.0000	50.000	
1.000	1.000	94.65	0.000	0.000	Ug5_2_8_L_0						
27 D	19.54	-3.8363E-21	65.46	45.69	65.46	45.69	V-C	6.0857E+04	-5.2000	52.000	
1.000	1.000	97.69	0.000	0.000	Ug5_2_8_L_0						
28 D	20.14	-2.6222E-21	67.65	46.71	67.65	46.71	V-C	6.0857E+04	-5.4000	54.000	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
29 D	20.74	-1.2883E-21	69.84	47.70	69.84	47.70	V-C	6.0857E+04	-5.600	56.00
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
30 D	21.34	8.5041E-23	72.04	48.69	72.04	48.69	V-C	6.0857E+04	-5.800	58.00
1.000	1.000	106.7	0.000	0.000	Ug5_2_8_L_0					
31 D	21.93	1.4009E-21	74.24	49.65	74.24	49.65	V-C	6.0857E+04	-6.000	60.00
1.000	1.000	109.7	0.000	0.000	Ug5_2_8_L_0					
32 D	22.52	2.5800E-21	76.44	50.60	76.44	50.60	V-C	6.0857E+04	-6.200	62.00
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
33 D	23.11	3.6124E-21	78.65	51.54	78.65	51.54	V-C	6.0857E+04	-6.400	64.00
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
34 D	23.69	4.5052E-21	81.10	52.47	81.10	52.47	V-C	6.0857E+04	-6.600	66.00
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
35 D	24.28	5.2653E-21	83.45	53.38	83.45	53.38	V-C	6.0857E+04	-6.800	68.00
1.000	1.000	121.4	0.000	0.000	Ug5_2_8_L_0					
36 D	24.86	5.8988E-21	86.36	54.28	86.36	54.28	V-C	6.0857E+04	-7.000	70.00
1.000	1.000	124.3	0.000	0.000	Ug5_2_8_L_0					
37 D	25.44	6.4111E-21	88.67	55.18	88.67	55.18	V-C	6.0857E+04	-7.200	72.00
1.000	1.000	127.2	0.000	0.000	Ug5_2_8_L_0					
38 D	26.01	6.8066E-21	91.52	56.07	91.52	56.07	V-C	6.0857E+04	-7.400	74.00
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
39 D	26.59	7.1055E-21	93.80	56.95	93.80	56.95	V-C	6.0857E+04	-7.600	76.00
1.000	1.000	133.0	0.000	0.000	Ug5_2_8_L_0					
40 D	27.17	7.3787E-21	96.60	57.83	96.60	57.83	V-C	6.0857E+04	-7.800	78.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.74	7.6435E-21	99.36	58.70	99.36	58.70	V-C	6.0857E+04	-8.000	80.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
42 D	28.31	7.8979E-21	101.6	59.56	101.6	59.56	V-C	6.0857E+04	-8.200	82.00
1.000	1.000	141.6	0.000	0.000	Ug5_2_8_L_0					
43 D	28.88	8.1381E-21	104.3	60.42	104.3	60.42	V-C	6.0857E+04	-8.400	84.00
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
44 D	29.46	8.3578E-21	106.5	61.28	106.5	61.28	V-C	6.0857E+04	-8.600	86.00
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
45 D	30.03	8.5658E-21	109.2	62.13	109.2	62.13	V-C	6.0857E+04	-8.800	88.00
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
46 D	30.60	8.8375E-21	111.4	62.98	111.4	62.98	V-C	6.0857E+04	-9.000	90.00
1.000	1.000	153.0	0.000	0.000	Ug5_2_8_L_0					
47 D	31.17	9.2626E-21	114.0	63.83	114.0	63.83	V-C	6.0857E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.73	9.9280E-21	116.2	64.67	116.2	64.67	V-C	6.0857E+04	-9.400	94.00
1.000	1.000	158.7	0.000	0.000	Ug5_2_8_L_0					
49 D	32.30	1.0900E-20	118.8	65.51	118.8	65.51	V-C	6.0857E+04	-9.600	96.00
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
50 D	32.87	1.2171E-20	121.0	66.36	121.0	66.36	V-C	6.0857E+04	-9.800	98.00
1.000	1.000	164.4	0.000	0.000	Ug5_2_8_L_0					
51 D	33.44	1.3712E-20	123.6	67.20	123.6	67.20	V-C	6.0857E+04	-10.000	100.00
1.000	1.000	167.2	0.000	0.000	Ug5_2_8_L_0					
52 D	34.01	1.5493E-20	125.8	68.03	125.8	68.03	V-C	6.0857E+04	-10.200	102.00
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.57	1.7474E-20	128.3	68.87	128.3	68.87	V-C	6.0857E+04	-10.400	104.00
1.000	1.000	172.9	0.000	0.000	Ug5_2_8_L_0					
54 D	35.14	1.9614E-20	130.8	69.71	130.8	69.71	V-C	6.0857E+04	-10.600	106.00
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.71	2.1865E-20	133.0	70.55	133.0	70.55	V-C	6.0857E+04	-10.800	108.00
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.28	2.4172E-20	135.5	71.39	135.5	71.39	V-C	6.0857E+04	-11.000	110.00
1.000	1.000	181.4	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	2.6476E-20	137.6	72.22	137.6	72.22	V-C	6.0857E+04	-11.200	112.00
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.41	2.8710E-20	140.1	73.06	140.1	73.06	V-C	6.0857E+04	-11.400	114.00
1.000	1.000	187.1	0.000	0.000	Ug5_2_8_L_0					
59 D	37.98	3.0798E-20	142.2	73.90	142.2	73.90	V-C	6.0857E+04	-11.600	116.00
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.55	3.2694E-20	144.7	74.74	144.7	74.74	V-C	6.0857E+04	-11.800	118.00
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.56	3.4480E-20	146.8	75.57	146.8	75.57	V-C	6.0857E+04	-12.000	120.00
1.000	1.000	195.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+
New Project
    
```

STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 1.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.5016E-21	0.000	0.000	0.000	0.000	V-C	3.8834E+04	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.393	-4.4501E-21	2.000	4.964	2.000	4.964	V-C	3.8834E+04	-0.2000	2.000	
1.000	1.000	6.964	0.000	0.000	Ug5_2_8_L_0						
3 D	2.546	-3.3979E-21	4.000	8.728	4.000	8.728	V-C	3.8834E+04	-0.4000	4.000	
1.000	1.000	12.73	0.000	0.000	Ug5_2_8_L_0						
4 D	3.503	-2.3437E-21	6.000	11.52	6.000	11.52	V-C	3.8834E+04	-0.6000	6.000	
1.000	1.000	17.52	0.000	0.000	Ug5_2_8_L_0						
5 D	4.364	-1.2853E-21	8.000	13.82	8.000	13.82	V-C	3.8834E+04	-0.8000	8.000	
1.000	1.000	21.82	0.000	0.000	Ug5_2_8_L_0						
6 D	5.179	-2.2069E-22	10.00	15.90	10.00	15.90	V-C	3.8834E+04	-1.0000	10.00	
1.000	1.000	25.90	0.000	0.000	Ug5_2_8_L_0						
7 D	5.970	8.5259E-22	12.00	17.85	12.00	17.85	V-C	3.8834E+04	-1.2000	12.00	
1.000	1.000	29.85	0.000	0.000	Ug5_2_8_L_0						
8 D	6.743	1.9366E-21	14.00	19.72	14.00	19.72	V-C	3.8834E+04	-1.4000	14.00	
1.000	1.000	33.72	0.000	0.000	Ug5_2_8_L_0						
9 D	7.504	3.0287E-21	16.00	21.52	16.00	21.52	V-C	3.8834E+04	-1.6000	16.00	
1.000	1.000	37.52	0.000	0.000	Ug5_2_8_L_0						
10 D	8.252	4.1080E-21	18.00	23.26	18.00	23.26	V-C	3.8834E+04	-1.8000	18.00	
1.000	1.000	41.26	0.000	0.000	Ug5_2_8_L_0						
11 D	8.989	5.1485E-21	20.00	24.95	20.00	24.95	V-C	3.8834E+04	-2.0000	20.00	
1.000	1.000	44.95	0.000	0.000	Ug5_2_8_L_0						
12 D	9.716	6.1229E-21	22.00	26.58	22.00	26.58	V-C	3.8834E+04	-2.2000	22.00	
1.000	1.000	48.58	0.000	0.000	Ug5_2_8_L_0						
13 D	10.43	7.0026E-21	24.00	28.16	24.00	28.16	V-C	3.8834E+04	-2.4000	24.00	
1.000	1.000	52.16	0.000	0.000	Ug5_2_8_L_0						
14 D	11.14	7.7573E-21	26.00	29.68	26.00	29.68	V-C	3.8834E+04	-2.6000	26.00	
1.000	1.000	55.68	0.000	0.000	Ug5_2_8_L_0						
15 D	11.83	8.3551E-21	28.00	31.16	28.00	31.16	V-C	3.8834E+04	-2.8000	28.00	
1.000	1.000	59.16	0.000	0.000	Ug5_2_8_L_0						
16 D	12.52	8.7706E-21	30.00	32.58	30.00	32.58	V-C	3.8834E+04	-3.0000	30.00	
1.000	1.000	62.58	0.000	0.000	Ug5_2_8_L_0						
17 D	13.19	9.0113E-21	32.00	33.96	32.00	33.96	V-C	3.8834E+04	-3.2000	32.00	
1.000	1.000	65.96	0.000	0.000	Ug5_2_8_L_0						
18 D	13.86	9.0912E-21	34.00	35.30	34.00	35.30	V-C	3.8834E+04	-3.4000	34.00	
1.000	1.000	69.30	0.000	0.000	Ug5_2_8_L_0						
19 D	14.52	9.0221E-21	36.00	36.59	36.00	36.59	V-C	3.8834E+04	-3.6000	36.00	
1.000	1.000	72.59	0.000	0.000	Ug5_2_8_L_0						
20 D	15.17	8.8137E-21	38.00	37.84	38.00	37.84	V-C	3.8834E+04	-3.8000	38.00	
1.000	1.000	75.84	0.000	0.000	Ug5_2_8_L_0						
21 D	15.81	8.4735E-21	40.00	39.05	40.00	39.05	V-C	3.8834E+04	-4.0000	40.00	
1.000	1.000	79.05	0.000	0.000	Ug5_2_8_L_0						
22 D	16.45	8.0071E-21	42.00	40.23	42.00	40.23	V-C	3.8834E+04	-4.2000	42.00	
1.000	1.000	82.23	0.000	0.000	Ug5_2_8_L_0						
23 D	17.08	7.4178E-21	44.00	41.38	44.00	41.38	V-C	3.8834E+04	-4.4000	44.00	
1.000	1.000	85.38	0.000	0.000	Ug5_2_8_L_0						
24 D	17.70	6.7071E-21	46.00	42.49	46.00	42.49	V-C	3.8834E+04	-4.6000	46.00	
1.000	1.000	88.49	0.000	0.000	Ug5_2_8_L_0						
25 D	18.32	5.8748E-21	48.00	43.58	48.00	43.58	V-C	3.8834E+04	-4.8000	48.00	
1.000	1.000	91.58	0.000	0.000	Ug5_2_8_L_0						
26 D	18.93	4.9190E-21	50.00	44.65	50.00	44.65	V-C	3.8834E+04	-5.0000	50.00	
1.000	1.000	94.65	0.000	0.000	Ug5_2_8_L_0						
27 D	19.54	3.8363E-21	52.00	45.69	52.00	45.69	V-C	3.8834E+04	-5.2000	52.00	
1.000	1.000	97.69	0.000	0.000	Ug5_2_8_L_0						
28 D	20.14	2.6222E-21	54.00	46.71	54.00	46.71	V-C	3.8834E+04	-5.4000	54.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	100.7	0.000	0.000	Ug5_2_8_L_0					
29 D	20.74	1.2883E-21	56.00	47.70	56.00	47.70	V-C	3.8834E+04	-5.600	56.00
1.000	1.000	103.7	0.000	0.000	Ug5_2_8_L_0					
30 D	21.34	-8.5041E-23	58.00	48.69	58.00	48.69	V-C	3.8834E+04	-5.800	58.00
1.000	1.000	106.7	0.000	0.000	Ug5_2_8_L_0					
31 D	21.93	-1.4009E-21	60.00	49.65	60.00	49.65	V-C	3.8834E+04	-6.000	60.00
1.000	1.000	109.7	0.000	0.000	Ug5_2_8_L_0					
32 D	22.52	-2.5800E-21	62.00	50.60	62.00	50.60	V-C	3.8834E+04	-6.200	62.00
1.000	1.000	112.6	0.000	0.000	Ug5_2_8_L_0					
33 D	23.11	-3.6124E-21	64.00	51.54	64.00	51.54	V-C	3.8834E+04	-6.400	64.00
1.000	1.000	115.5	0.000	0.000	Ug5_2_8_L_0					
34 D	23.69	-4.5052E-21	66.00	52.47	66.00	52.47	V-C	3.8834E+04	-6.600	66.00
1.000	1.000	118.5	0.000	0.000	Ug5_2_8_L_0					
35 D	24.28	-5.2653E-21	68.00	53.38	68.00	53.38	V-C	3.8834E+04	-6.800	68.00
1.000	1.000	121.4	0.000	0.000	Ug5_2_8_L_0					
36 D	24.86	-5.8988E-21	70.00	54.28	70.00	54.28	V-C	3.8834E+04	-7.000	70.00
1.000	1.000	124.3	0.000	0.000	Ug5_2_8_L_0					
37 D	25.44	-6.4111E-21	72.00	55.18	72.00	55.18	V-C	3.8834E+04	-7.200	72.00
1.000	1.000	127.2	0.000	0.000	Ug5_2_8_L_0					
38 D	26.01	-6.8066E-21	74.00	56.07	74.00	56.07	V-C	3.8834E+04	-7.400	74.00
1.000	1.000	130.1	0.000	0.000	Ug5_2_8_L_0					
39 D	26.59	-7.1055E-21	76.00	56.95	76.00	56.95	V-C	3.8834E+04	-7.600	76.00
1.000	1.000	133.0	0.000	0.000	Ug5_2_8_L_0					
40 D	27.17	-7.3787E-21	78.00	57.83	78.00	57.83	V-C	3.8834E+04	-7.800	78.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
41 D	27.74	-7.6435E-21	80.00	58.70	80.00	58.70	V-C	3.8834E+04	-8.000	80.00
1.000	1.000	138.7	0.000	0.000	Ug5_2_8_L_0					
42 D	28.31	-7.8979E-21	82.00	59.56	82.00	59.56	V-C	3.8834E+04	-8.200	82.00
1.000	1.000	141.6	0.000	0.000	Ug5_2_8_L_0					
43 D	28.88	-8.1381E-21	84.00	60.42	84.00	60.42	V-C	3.8834E+04	-8.400	84.00
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
44 D	29.46	-8.3578E-21	86.00	61.28	86.00	61.28	V-C	3.8834E+04	-8.600	86.00
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
45 D	30.03	-8.5658E-21	88.00	62.13	88.00	62.13	V-C	3.8834E+04	-8.800	88.00
1.000	1.000	150.1	0.000	0.000	Ug5_2_8_L_0					
46 D	30.60	-8.8375E-21	90.00	62.98	90.00	62.98	V-C	3.8834E+04	-9.000	90.00
1.000	1.000	153.0	0.000	0.000	Ug5_2_8_L_0					
47 D	31.17	-9.2626E-21	92.00	63.83	92.00	63.83	V-C	3.8834E+04	-9.200	92.00
1.000	1.000	155.8	0.000	0.000	Ug5_2_8_L_0					
48 D	31.73	-9.9280E-21	94.00	64.67	94.00	64.67	V-C	3.8834E+04	-9.400	94.00
1.000	1.000	158.7	0.000	0.000	Ug5_2_8_L_0					
49 D	32.30	-1.0900E-20	96.00	65.51	96.00	65.51	V-C	3.8834E+04	-9.600	96.00
1.000	1.000	161.5	0.000	0.000	Ug5_2_8_L_0					
50 D	32.87	-1.2171E-20	98.00	66.36	98.00	66.36	V-C	3.8834E+04	-9.800	98.00
1.000	1.000	164.4	0.000	0.000	Ug5_2_8_L_0					
51 D	33.44	-1.3712E-20	100.00	67.20	100.00	67.20	V-C	3.8834E+04	-10.000	100.00
1.000	1.000	167.2	0.000	0.000	Ug5_2_8_L_0					
52 D	34.01	-1.5493E-20	102.0	68.03	102.0	68.03	V-C	3.8834E+04	-10.200	102.0
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
53 D	34.57	-1.7474E-20	104.0	68.87	104.0	68.87	V-C	3.8834E+04	-10.400	104.0
1.000	1.000	172.9	0.000	0.000	Ug5_2_8_L_0					
54 D	35.14	-1.9614E-20	106.0	69.71	106.0	69.71	V-C	3.8834E+04	-10.600	106.0
1.000	1.000	175.7	0.000	0.000	Ug5_2_8_L_0					
55 D	35.71	-2.1865E-20	108.0	70.55	108.0	70.55	V-C	3.8834E+04	-10.800	108.0
1.000	1.000	178.5	0.000	0.000	Ug5_2_8_L_0					
56 D	36.28	-2.4172E-20	110.0	71.39	110.0	71.39	V-C	3.8834E+04	-11.000	110.0
1.000	1.000	181.4	0.000	0.000	Ug5_2_8_L_0					
57 D	36.84	-2.6476E-20	112.0	72.22	112.0	72.22	V-C	3.8834E+04	-11.200	112.0
1.000	1.000	184.2	0.000	0.000	Ug5_2_8_L_0					
58 D	37.41	-2.8710E-20	114.0	73.06	114.0	73.06	V-C	3.8834E+04	-11.400	114.0
1.000	1.000	187.1	0.000	0.000	Ug5_2_8_L_0					
59 D	37.98	-3.0798E-20	116.0	73.90	116.0	73.90	V-C	3.8834E+04	-11.600	116.0
1.000	1.000	189.9	0.000	0.000	Ug5_2_8_L_0					
60 D	38.55	-3.2694E-20	118.0	74.74	118.0	74.74	V-C	3.8834E+04	-11.800	118.0
1.000	1.000	192.7	0.000	0.000	Ug5_2_8_L_0					
61 D	19.56	-3.4480E-20	120.0	75.57	120.0	75.57	V-C	3.8834E+04	-12.000	120.0
1.000	1.000	195.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
| PARATIEPLUS(TM) NLS ENGINE RELEASE 2017.1 FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                       |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787             |
|                               Exe Time :24 May 2018                               18:23:41 |
+-----+
New Project
```

STRESS RESULTS FOR GROUP NO. 3

WallElement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 1.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.93258E-17	-1.93258E-17	1.57772E-29	3.86517E-18
2	4.86341E-17	-4.86341E-17	-3.86517E-18	1.35920E-17
3	6.86114E-17	-6.86114E-17	-1.35920E-17	2.73143E-17
4	7.92968E-17	-7.92968E-17	-2.73143E-17	4.31736E-17
5	8.07725E-17	-8.07725E-17	-4.31736E-17	5.93281E-17
6	7.31784E-17	-7.31784E-17	-5.93281E-17	7.39638E-17
7	5.67254E-17	-5.67254E-17	-7.39638E-17	8.53089E-17
8	-8.56472E-16	8.56472E-16	-8.53089E-17	-8.59855E-17
9	-8.89672E-16	8.89672E-16	8.59855E-17	-2.63920E-16
10	-9.30570E-16	9.30570E-16	2.63920E-16	-4.50034E-16
11	-9.78583E-16	9.78583E-16	4.50034E-16	-6.45751E-16
12	-1.03302E-15	1.03302E-15	6.45751E-16	-8.52355E-16
13	-1.09311E-15	1.09311E-15	8.52355E-16	-1.07098E-15
14	-1.15797E-15	1.15797E-15	1.07098E-15	-1.30257E-15
15	5.49710E-16	-5.49710E-16	1.30257E-15	-1.19263E-15
16	4.78227E-16	-4.78227E-16	1.19263E-15	-1.09698E-15
17	4.05004E-16	-4.05004E-16	1.09698E-15	-1.01598E-15
18	3.31131E-16	-3.31131E-16	1.01598E-15	-9.49756E-16
19	2.57710E-16	-2.57710E-16	9.49756E-16	-8.98214E-16
20	1.85834E-16	-1.85834E-16	8.98214E-16	-8.61048E-16
21	1.16564E-16	-1.16564E-16	8.61048E-16	-8.37735E-16
22	5.09153E-17	-5.09153E-17	8.37735E-16	-8.27552E-16
23	-1.01627E-17	1.01627E-17	8.27552E-16	-8.29584E-16
24	-6.58029E-17	6.58029E-17	8.29584E-16	-8.42745E-16
25	-1.15235E-16	1.15235E-16	8.42745E-16	-8.65792E-16
26	-1.57798E-16	1.57798E-16	8.65792E-16	-8.97351E-16
27	-1.92952E-16	1.92952E-16	8.97351E-16	-9.35942E-16
28	3.33243E-15	-3.33243E-15	9.35942E-16	-2.69456E-16
29	3.31320E-15	-3.31320E-15	2.69456E-16	3.93184E-16
30	3.30222E-15	-3.30222E-15	3.93184E-16	1.05363E-15
31	-2.53188E-16	2.53188E-16	1.05363E-15	1.00299E-15
32	-2.47680E-16	2.47680E-16	1.00299E-15	9.53454E-16
33	-2.34138E-16	2.34138E-16	9.53454E-16	9.06627E-16
34	-2.12796E-16	2.12796E-16	9.06627E-16	8.64067E-16
35	-1.83930E-16	1.83930E-16	8.64067E-16	8.27281E-16
36	-1.47827E-16	1.47827E-16	8.27281E-16	7.97716E-16
37	-1.04759E-16	1.04759E-16	7.97716E-16	7.76764E-16
38	-3.60767E-15	3.60767E-15	7.76764E-16	5.52296E-17
39	1.40435E-18	-1.40435E-18	5.52296E-17	5.55105E-17
40	6.42531E-17	-6.42531E-17	5.55105E-17	6.83611E-17
41	1.33608E-16	-1.33608E-16	6.83611E-17	9.50827E-17
42	2.09606E-16	-2.09606E-16	9.50827E-17	1.37004E-16
43	2.92509E-16	-2.92509E-16	1.37004E-16	1.95506E-16
44	-3.17001E-15	3.17001E-15	1.95506E-16	-4.38494E-16
45	-3.07202E-15	3.07202E-15	4.38494E-16	-1.05290E-15
46	-2.96559E-15	2.96559E-15	1.05290E-15	-1.64602E-15
47	-2.85001E-15	2.85001E-15	1.64602E-15	-2.21602E-15
48	8.28248E-16	-8.28248E-16	2.21602E-15	-2.05037E-15
49	9.64623E-16	-9.64623E-16	2.05037E-15	-1.85744E-15
50	1.11271E-15	-1.11271E-15	1.85744E-15	-1.63490E-15
51	1.27339E-15	-1.27339E-15	1.63490E-15	-1.38022E-15
52	1.44748E-15	-1.44748E-15	1.38022E-15	-1.09074E-15
53	1.63577E-15	-1.63577E-15	1.09074E-15	-7.63583E-16
54	1.83893E-15	-1.83893E-15	7.63583E-16	-3.95797E-16
55	2.05752E-15	-2.05752E-15	3.95797E-16	-1.57072E-17
56	2.29201E-15	-2.29201E-15	1.57072E-17	4.74109E-16
57	2.54273E-15	-2.54273E-15	4.74109E-16	9.82656E-16
58	2.80992E-15	-2.80992E-15	9.82656E-16	1.54464E-15
59	-4.01173E-15	4.01173E-15	-1.54464E-15	7.42293E-16

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-3.71128E-15 3.71128E-15-7.42293E-16 5.04871E-29

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ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM= 276.2    REMNOR=0.2508E-54  RATIO =0.6679E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.6679E-01 RATIO= 0.000
            MAX UN= 5.136    IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            MIN UN=-.1933E-16 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM= 10.80    REMNOR=0.5480E-23  RATIO =0.1321E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.1321E-01 RATIO= 0.000
            MAX UN= 2.156    IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            MIN UN=-.7617E-11 IEQ=    1 NODE      1 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM= 6.649    REMNOR=0.3586E-23  RATIO =0.1036E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.1036E-01 RATIO= 0.000
            MAX UN= 2.044    IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            MIN UN=-.1113E-10 IEQ=    3 NODE      3 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM=0.4599    REMNOR=0.3502E-23  RATIO =0.2725E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.2725E-02 RATIO= 0.000
            MAX UN=0.6780    IEQ=   21 NODE     11 DOF   1  Y-DISPL.F
            MIN UN=-.1727E-10 IEQ=    7 NODE      4 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM=0.1467E-01 REMNOR=0.5758E-23  RATIO =0.4867E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.4867E-03 RATIO= 0.000
            MAX UN=0.1211    IEQ=   23 NODE     12 DOF   1  Y-DISPL.F
            MIN UN=-.3126E-10 IEQ=    3 NODE      2 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.6192E+05 RIMNOR=0.9928E-28
            RENORM=0.7640E-21 REMNOR=0.3944E-23  RATIO =0.1111E-12  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 38.03    RMMAX =0.2216E-14
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-19
            RDT  =0.6192E+05  RDR   =0.1000E-19
            RATIO=0.1111E-12 RATIO= 0.000
            MAX UN=0.1300E-10 IEQ=   13 NODE      7 DOF   1  Y-DISPL.F
            MIN UN=-.1192E-10 IEQ=   11 NODE      6 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+  
|                PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |  
|                |                |                |                |                |                |  
|                |                |                |                |                |                |  
|                |                |                |                |                |                |  
|                |                |                |                |                |                |  
|                |                |                |                |                |                |  
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|                |                |                |                |                |                |  
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 2 (AT TIME 2.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	3.0424251E-04	-1.0107895E-04	
2	2.8402672E-04	-1.0107895E-04	
3	2.6381349E-04	-1.0104054E-04	
4	2.4362089E-04	-1.0084621E-04	
5	2.2349871E-04	-1.0029621E-04	
6	2.0354511E-04	-9.9105770E-05	
7	1.8392387E-04	-9.6903295E-05	
8	1.6487107E-04	-9.3391614E-05	
9	1.4665857E-04	-8.8509764E-05	
10	1.2954695E-04	-8.2431120E-05	
11	1.1374615E-04	-7.5452043E-05	
12	9.9405522E-05	-6.7882130E-05	
13	8.6611175E-05	-6.0044129E-05	
14	7.5385689E-05	-5.2238848E-05	
15	6.5697620E-05	-4.4703811E-05	
16	5.7474570E-05	-3.7612699E-05	
17	5.0614948E-05	-3.1084984E-05	
18	4.4998013E-05	-2.5195189E-05	
19	4.0491825E-05	-1.9981094E-05	
20	3.6959943E-05	-1.5451477E-05	
21	3.4266516E-05	-1.1592828E-05	
22	3.2280170E-05	-8.3740176E-06	
23	3.0877268E-05	-5.7498185E-06	
24	2.9944280E-05	-3.6650658E-06	
25	2.9379324E-05	-2.0590747E-06	
26	2.9092913E-05	-8.6914145E-07	
27	2.9008065E-05	-3.3250295E-08	
28	2.9059966E-05	5.0793127E-07	
29	2.9195271E-05	8.0960866E-07	
30	2.9371187E-05	9.2195291E-07	
31	2.9554404E-05	8.8957172E-07	
32	2.9719956E-05	7.5130463E-07	
33	2.9850073E-05	5.4025800E-07	
34	2.9933047E-05	2.8402644E-07	
35	2.9962166E-05	5.0313846E-09	
36	2.9934719E-05	-2.7905993E-07	
37	2.9851101E-05	-5.5477430E-07	
38	2.9714023E-05	-8.1228972E-07	
39	2.9527837E-05	-1.0450170E-06	
40	2.9297918E-05	-1.2492255E-06	
41	2.9030130E-05	-1.4236946E-06	
42	2.8730367E-05	-1.5692610E-06	
43	2.8404217E-05	-1.6879511E-06	
44	2.8056810E-05	-1.7822866E-06	
45	2.7692741E-05	-1.8550727E-06	
46	2.7316025E-05	-1.9092307E-06	
47	2.6930097E-05	-1.9476651E-06	
48	2.6537821E-05	-1.9731667E-06	
49	2.6141519E-05	-1.9883423E-06	
50	2.5743016E-05	-1.9955671E-06	
51	2.5343683E-05	-1.9969553E-06	
52	2.4944490E-05	-1.9943451E-06	
53	2.4546118E-05	-1.9892943E-06	
54	2.4148870E-05	-1.9830817E-06	
55	2.3752895E-05	-1.9767156E-06	
56	2.3358144E-05	-1.9709420E-06	
57	2.2964446E-05	-1.9662541E-06	
58	2.2571554E-05	-1.9629015E-06	
59	2.2179195E-05	-1.9608966E-06	
60	2.1787120E-05	-1.9600197E-06	
61	2.1395123E-05	-1.9598214E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:23:41  |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-3.0424E-04	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5252	-2.8403E-04	2.235	0.7130	2.235	5.007	ACTIVE	0.000	-0.2000	1.913	
1.000	1.000	2.626	0.000	0.000	Ug5_2_8_L_0						
3 D	1.081	-2.6381E-04	4.953	1.580	4.953	8.815	ACTIVE	0.000	-0.4000	3.826	
1.000	1.000	5.406	0.000	0.000	Ug5_2_8_L_0						
4 D	1.650	-2.4362E-04	7.868	2.510	7.868	11.65	ACTIVE	0.000	-0.6000	5.739	
1.000	1.000	8.249	0.000	0.000	Ug5_2_8_L_0						
5 D	2.244	-2.2350E-04	11.18	3.565	11.18	14.00	ACTIVE	0.000	-0.8000	7.652	
1.000	1.000	11.22	0.000	0.000	Ug5_2_8_L_0						
6 D	2.837	-2.0355E-04	14.48	4.619	14.48	16.11	ACTIVE	0.000	-1.000	9.565	
1.000	1.000	14.18	0.000	0.000	Ug5_2_8_L_0						
7 D	3.395	-1.8392E-04	17.23	5.496	17.23	18.11	ACTIVE	0.000	-1.200	11.48	
1.000	1.000	16.97	0.000	0.000	Ug5_2_8_L_0						
8 D	3.945	-1.6487E-04	19.86	6.336	19.86	20.02	ACTIVE	0.000	-1.400	13.39	
1.000	1.000	19.73	0.000	0.000	Ug5_2_8_L_0						
9 D	4.503	-1.4666E-04	22.60	7.211	22.60	21.87	ACTIVE	0.000	-1.600	15.30	
1.000	1.000	22.52	0.000	0.000	Ug5_2_8_L_0						
10 D	5.045	-1.2955E-04	25.10	8.008	25.10	23.65	ACTIVE	0.000	-1.800	17.22	
1.000	1.000	25.23	0.000	0.000	Ug5_2_8_L_0						
11 D	5.595	-1.1375E-04	27.73	8.846	27.73	25.38	ACTIVE	0.000	-2.000	19.13	
1.000	1.000	27.98	0.000	0.000	Ug5_2_8_L_0						
12 D	6.135	-9.9406E-05	30.19	9.630	30.19	27.06	ACTIVE	0.000	-2.200	21.04	
1.000	1.000	30.67	0.000	0.000	Ug5_2_8_L_0						
13 D	7.164	-8.6611E-05	32.77	12.87	32.77	28.68	UL-RL	1.8257E+05	-2.400	22.96	
1.000	1.000	35.82	0.000	0.000	Ug5_2_8_L_0						
14 D	8.271	-7.5386E-05	35.23	16.48	35.23	30.25	UL-RL	1.8257E+05	-2.600	24.87	
1.000	1.000	41.35	0.000	0.000	Ug5_2_8_L_0						
15 D	9.311	-6.5698E-05	37.79	19.77	37.79	31.77	UL-RL	1.8257E+05	-2.800	26.78	
1.000	1.000	46.55	0.000	0.000	Ug5_2_8_L_0						
16 D	10.29	-5.7475E-05	40.26	22.74	40.26	33.24	UL-RL	1.8257E+05	-3.000	28.70	
1.000	1.000	51.44	0.000	0.000	Ug5_2_8_L_0						
17 D	11.21	-5.0615E-05	42.82	25.42	42.82	34.66	UL-RL	1.8257E+05	-3.200	30.61	
1.000	1.000	56.03	0.000	0.000	Ug5_2_8_L_0						
18 D	12.07	-4.4998E-05	45.30	27.82	45.30	36.03	UL-RL	1.8257E+05	-3.400	32.52	
1.000	1.000	60.34	0.000	0.000	Ug5_2_8_L_0						
19 D	12.88	-4.0492E-05	47.78	29.98	47.78	37.37	UL-RL	1.8257E+05	-3.600	34.43	
1.000	1.000	64.41	0.000	0.000	Ug5_2_8_L_0						
20 D	13.65	-3.6960E-05	50.35	31.92	50.35	38.66	UL-RL	1.8257E+05	-3.800	36.35	
1.000	1.000	68.26	0.000	0.000	Ug5_2_8_L_0						
21 D	14.39	-3.4267E-05	52.84	33.67	52.84	39.92	UL-RL	1.8257E+05	-4.000	38.26	
1.000	1.000	71.93	0.000	0.000	Ug5_2_8_L_0						
22 D	15.08	-3.2280E-05	55.41	35.25	55.41	41.14	UL-RL	1.8257E+05	-4.200	40.17	
1.000	1.000	75.42	0.000	0.000	Ug5_2_8_L_0						
23 D	15.76	-3.0877E-05	57.91	36.70	57.91	42.33	UL-RL	1.8257E+05	-4.400	42.09	
1.000	1.000	78.78	0.000	0.000	Ug5_2_8_L_0						
24 D	16.41	-2.9944E-05	60.47	38.03	60.47	43.49	UL-RL	1.8257E+05	-4.600	44.00	
1.000	1.000	82.03	0.000	0.000	Ug5_2_8_L_0						
25 D	17.04	-2.9379E-05	62.96	39.26	62.96	44.63	UL-RL	1.8257E+05	-4.800	45.91	
1.000	1.000	85.18	0.000	0.000	Ug5_2_8_L_0						
26 D	17.65	-2.9093E-05	65.46	40.42	65.46	45.73	UL-RL	1.8257E+05	-5.000	47.83	
1.000	1.000	88.25	0.000	0.000	Ug5_2_8_L_0						
27 D	18.25	-2.9008E-05	67.72	41.52	67.72	46.82	UL-RL	1.8257E+05	-5.200	49.74	
1.000	1.000	91.26	0.000	0.000	Ug5_2_8_L_0						
28 D	18.85	-2.9060E-05	69.99	42.57	69.99	47.88	UL-RL	1.8257E+05	-5.400	51.65	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	94.23	0.000	0.000	Ug5_2_8_L_0					
29 D	19.43	-2.9195E-05	72.27	43.59	72.27	48.92	UL-RL	1.8257E+05	-5.600	53.57
1.000	1.000	97.16	0.000	0.000	Ug5_2_8_L_0					
30 D	20.01	-2.9371E-05	74.56	44.58	74.56	49.95	UL-RL	1.8257E+05	-5.800	55.48
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0					
31 D	20.59	-2.9554E-05	76.85	45.56	76.85	50.96	UL-RL	1.8257E+05	-6.000	57.39
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
32 D	21.17	-2.9720E-05	79.14	46.52	79.14	51.95	UL-RL	1.8257E+05	-6.200	59.30
1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
33 D	21.74	-2.9850E-05	81.43	47.48	81.43	52.93	UL-RL	1.8257E+05	-6.400	61.22
1.000	1.000	108.7	0.000	0.000	Ug5_2_8_L_0					
34 D	22.31	-2.9933E-05	83.97	48.44	83.97	53.90	UL-RL	1.8257E+05	-6.600	63.13
1.000	1.000	111.6	0.000	0.000	Ug5_2_8_L_0					
35 D	22.89	-2.9962E-05	86.40	49.39	86.40	54.86	UL-RL	1.8257E+05	-6.800	65.04
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
36 D	23.46	-2.9935E-05	89.40	50.34	89.40	55.81	UL-RL	1.8257E+05	-7.000	66.96
1.000	1.000	117.3	0.000	0.000	Ug5_2_8_L_0					
37 D	24.03	-2.9851E-05	91.80	51.30	91.80	56.75	UL-RL	1.8257E+05	-7.200	68.87
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
38 D	24.61	-2.9714E-05	94.74	52.25	94.74	57.68	UL-RL	1.8257E+05	-7.400	70.78
1.000	1.000	123.0	0.000	0.000	Ug5_2_8_L_0					
39 D	25.18	-2.9528E-05	97.11	53.21	97.11	58.60	UL-RL	1.8257E+05	-7.600	72.70
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
40 D	25.76	-2.9298E-05	99.99	54.17	99.99	59.52	UL-RL	1.8257E+05	-7.800	74.61
1.000	1.000	128.8	0.000	0.000	Ug5_2_8_L_0					
41 D	26.33	-2.9030E-05	102.8	55.13	102.8	60.43	UL-RL	1.8257E+05	-8.000	76.52
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
42 D	26.91	-2.8730E-05	105.2	56.10	105.2	61.34	UL-RL	1.8257E+05	-8.200	78.43
1.000	1.000	134.5	0.000	0.000	Ug5_2_8_L_0					
43 D	27.48	-2.8404E-05	108.0	57.06	108.0	62.25	UL-RL	1.8257E+05	-8.400	80.35
1.000	1.000	137.4	0.000	0.000	Ug5_2_8_L_0					
44 D	28.06	-2.8057E-05	110.3	58.02	110.3	63.15	UL-RL	1.8257E+05	-8.600	82.26
1.000	1.000	140.3	0.000	0.000	Ug5_2_8_L_0					
45 D	28.63	-2.7693E-05	113.0	58.99	113.0	64.04	UL-RL	1.8257E+05	-8.800	84.17
1.000	1.000	143.2	0.000	0.000	Ug5_2_8_L_0					
46 D	29.21	-2.7316E-05	115.3	59.95	115.3	64.93	UL-RL	1.8257E+05	-9.000	86.09
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
47 D	29.78	-2.6930E-05	118.0	60.91	118.0	65.83	UL-RL	1.8257E+05	-9.200	88.00
1.000	1.000	148.9	0.000	0.000	Ug5_2_8_L_0					
48 D	30.36	-2.6538E-05	120.3	61.87	120.3	66.71	UL-RL	1.8257E+05	-9.400	89.91
1.000	1.000	151.8	0.000	0.000	Ug5_2_8_L_0					
49 D	30.93	-2.6142E-05	123.0	62.83	123.0	67.60	UL-RL	1.8257E+05	-9.600	91.83
1.000	1.000	154.7	0.000	0.000	Ug5_2_8_L_0					
50 D	31.50	-2.5743E-05	125.3	63.79	125.3	68.49	UL-RL	1.8257E+05	-9.800	93.74
1.000	1.000	157.5	0.000	0.000	Ug5_2_8_L_0					
51 D	32.08	-2.5344E-05	127.9	64.74	127.9	69.37	UL-RL	1.8257E+05	-10.000	95.65
1.000	1.000	160.4	0.000	0.000	Ug5_2_8_L_0					
52 D	32.65	-2.4944E-05	130.2	65.70	130.2	70.25	UL-RL	1.8257E+05	-10.200	97.57
1.000	1.000	163.3	0.000	0.000	Ug5_2_8_L_0					
53 D	33.23	-2.4546E-05	132.8	66.65	132.8	71.13	UL-RL	1.8257E+05	-10.400	99.48
1.000	1.000	166.1	0.000	0.000	Ug5_2_8_L_0					
54 D	33.80	-2.4149E-05	135.4	67.61	135.4	72.02	UL-RL	1.8257E+05	-10.600	101.4
1.000	1.000	169.0	0.000	0.000	Ug5_2_8_L_0					
55 D	34.37	-2.3753E-05	137.7	68.56	137.7	72.90	UL-RL	1.8257E+05	-10.800	103.3
1.000	1.000	171.9	0.000	0.000	Ug5_2_8_L_0					
56 D	34.95	-2.3358E-05	140.3	69.51	140.3	73.78	UL-RL	1.8257E+05	-11.000	105.2
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0					
57 D	35.52	-2.2964E-05	142.5	70.47	142.5	74.66	UL-RL	1.8257E+05	-11.200	107.1
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
58 D	36.09	-2.2572E-05	145.1	71.42	145.1	75.54	UL-RL	1.8257E+05	-11.400	109.0
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
59 D	36.67	-2.2179E-05	147.3	72.37	147.3	76.42	UL-RL	1.8257E+05	-11.600	111.0
1.000	1.000	183.3	0.000	0.000	Ug5_2_8_L_0					
60 D	37.24	-2.1787E-05	149.8	73.32	149.8	77.30	UL-RL	1.8257E+05	-11.800	112.9
1.000	1.000	186.2	0.000	0.000	Ug5_2_8_L_0					
61 D	18.91	-2.1395E-05	152.0	74.28	152.0	78.18	UL-RL	1.8257E+05	-12.000	114.8
1.000	1.000	189.1	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:23:41  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 2.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6 D	0.000	2.0355E-04	0.000	0.000	10.00	15.90	PASSIVE	0.000	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
7 D	2.169	1.8392E-04	1.913	8.758	12.00	17.85	PASSIVE	0.000	-1.200	2.087	
1.000	1.000	10.84	0.000	0.000	Ug5_2_8_L_0						
8 D	4.338	1.6487E-04	3.826	17.52	14.00	19.72	PASSIVE	0.000	-1.400	4.174	
1.000	1.000	21.69	0.000	0.000	Ug5_2_8_L_0						
9 D	6.481	1.4666E-04	5.739	26.14	16.00	26.14	V-C	3.8834E+04	-1.600	6.261	
1.000	1.000	32.40	0.000	0.000	Ug5_2_8_L_0						
10 D	7.119	1.2955E-04	7.652	27.25	18.00	27.25	V-C	3.8834E+04	-1.800	8.348	
1.000	1.000	35.60	0.000	0.000	Ug5_2_8_L_0						
11 D	7.754	1.1375E-04	9.565	28.34	20.00	28.34	V-C	3.8834E+04	-2.000	10.43	
1.000	1.000	38.77	0.000	0.000	Ug5_2_8_L_0						
12 D	8.388	9.9406E-05	11.48	29.42	22.00	29.42	V-C	3.8834E+04	-2.200	12.52	
1.000	1.000	41.94	0.000	0.000	Ug5_2_8_L_0						
13 D	9.023	8.6611E-05	13.39	30.51	24.00	30.51	V-C	3.8834E+04	-2.400	14.61	
1.000	1.000	45.12	0.000	0.000	Ug5_2_8_L_0						
14 D	9.659	7.5386E-05	15.30	31.60	26.00	31.60	V-C	3.8834E+04	-2.600	16.70	
1.000	1.000	48.30	0.000	0.000	Ug5_2_8_L_0						
15 D	10.30	6.5698E-05	17.22	32.70	28.00	32.70	V-C	3.8834E+04	-2.800	18.78	
1.000	1.000	51.48	0.000	0.000	Ug5_2_8_L_0						
16 D	10.94	5.7475E-05	19.13	33.81	30.00	33.81	V-C	3.8834E+04	-3.000	20.87	
1.000	1.000	54.68	0.000	0.000	Ug5_2_8_L_0						
17 D	11.58	5.0615E-05	21.04	34.92	32.00	34.92	V-C	3.8834E+04	-3.200	22.96	
1.000	1.000	57.88	0.000	0.000	Ug5_2_8_L_0						
18 D	12.22	4.4998E-05	22.96	36.03	34.00	36.03	V-C	3.8834E+04	-3.400	25.04	
1.000	1.000	61.08	0.000	0.000	Ug5_2_8_L_0						
19 D	12.86	4.0492E-05	24.87	37.15	36.00	37.15	V-C	3.8834E+04	-3.600	27.13	
1.000	1.000	64.28	0.000	0.000	Ug5_2_8_L_0						
20 D	13.49	3.6960E-05	26.78	38.26	38.00	38.26	V-C	3.8834E+04	-3.800	29.22	
1.000	1.000	67.47	0.000	0.000	Ug5_2_8_L_0						
21 D	14.12	3.4267E-05	28.70	39.29	40.00	39.40	UL-RL	1.1650E+05	-4.000	31.30	
1.000	1.000	70.59	0.000	0.000	Ug5_2_8_L_0						
22 D	14.73	3.2280E-05	30.61	40.28	42.00	40.55	UL-RL	1.1650E+05	-4.200	33.39	
1.000	1.000	73.67	0.000	0.000	Ug5_2_8_L_0						
23 D	15.35	3.0877E-05	32.52	41.29	44.00	41.68	UL-RL	1.1650E+05	-4.400	35.48	
1.000	1.000	76.77	0.000	0.000	Ug5_2_8_L_0						
24 D	15.98	2.9944E-05	34.43	42.33	46.00	42.77	UL-RL	1.1650E+05	-4.600	37.57	
1.000	1.000	79.89	0.000	0.000	Ug5_2_8_L_0						
25 D	16.60	2.9379E-05	36.35	43.37	48.00	43.84	UL-RL	1.1650E+05	-4.800	39.65	
1.000	1.000	83.02	0.000	0.000	Ug5_2_8_L_0						
26 D	17.23	2.9093E-05	38.26	44.42	50.00	44.89	UL-RL	1.1650E+05	-5.000	41.74	
1.000	1.000	86.16	0.000	0.000	Ug5_2_8_L_0						
27 D	17.86	2.9008E-05	40.17	45.47	52.00	45.91	UL-RL	1.1650E+05	-5.200	43.83	
1.000	1.000	89.29	0.000	0.000	Ug5_2_8_L_0						
28 D	18.48	2.9060E-05	42.09	46.51	54.00	46.92	UL-RL	1.1650E+05	-5.400	45.91	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	92.42	0.000	0.000	Ug5_2_8_L_0					
29 D	19.11	2.9195E-05	44.00	47.53	56.00	47.90	UL-RL	1.1650E+05	-5.600	48.00
1.000	1.000	95.53	0.000	0.000	Ug5_2_8_L_0					
30 D	19.73	2.9371E-05	45.91	48.55	58.00	48.87	UL-RL	1.1650E+05	-5.800	50.09
1.000	1.000	98.64	0.000	0.000	Ug5_2_8_L_0					
31 D	20.34	2.9554E-05	47.83	49.55	60.00	49.82	UL-RL	1.1650E+05	-6.000	52.17
1.000	1.000	101.7	0.000	0.000	Ug5_2_8_L_0					
32 D	20.96	2.9720E-05	49.74	50.53	62.00	50.75	UL-RL	1.1650E+05	-6.200	54.26
1.000	1.000	104.8	0.000	0.000	Ug5_2_8_L_0					
33 D	21.57	2.9850E-05	51.65	51.50	64.00	51.67	UL-RL	1.1650E+05	-6.400	56.35
1.000	1.000	107.8	0.000	0.000	Ug5_2_8_L_0					
34 D	22.18	2.9933E-05	53.57	52.45	66.00	52.58	UL-RL	1.1650E+05	-6.600	58.43
1.000	1.000	110.9	0.000	0.000	Ug5_2_8_L_0					
35 D	22.78	2.9962E-05	55.48	53.38	68.00	53.48	UL-RL	1.1650E+05	-6.800	60.52
1.000	1.000	113.9	0.000	0.000	Ug5_2_8_L_0					
36 D	23.38	2.9935E-05	57.39	54.29	70.00	54.37	UL-RL	1.1650E+05	-7.000	62.61
1.000	1.000	116.9	0.000	0.000	Ug5_2_8_L_0					
37 D	23.98	2.9851E-05	59.30	55.19	72.00	55.25	UL-RL	1.1650E+05	-7.200	64.70
1.000	1.000	119.9	0.000	0.000	Ug5_2_8_L_0					
38 D	24.57	2.9714E-05	61.22	56.08	74.00	56.12	UL-RL	1.1650E+05	-7.400	66.78
1.000	1.000	122.9	0.000	0.000	Ug5_2_8_L_0					
39 D	25.17	2.9528E-05	63.13	56.96	76.00	56.98	UL-RL	1.1650E+05	-7.600	68.87
1.000	1.000	125.8	0.000	0.000	Ug5_2_8_L_0					
40 D	25.76	2.9298E-05	65.04	57.82	78.00	57.84	UL-RL	1.1650E+05	-7.800	70.96
1.000	1.000	128.8	0.000	0.000	Ug5_2_8_L_0					
41 D	26.34	2.9030E-05	66.96	58.67	80.00	58.70	UL-RL	1.1650E+05	-8.000	73.04
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
42 D	26.92	2.8730E-05	68.87	59.48	82.00	59.56	UL-RL	1.1650E+05	-8.200	75.13
1.000	1.000	134.6	0.000	0.000	Ug5_2_8_L_0					
43 D	27.50	2.8404E-05	70.78	60.28	84.00	60.42	UL-RL	1.1650E+05	-8.400	77.22
1.000	1.000	137.5	0.000	0.000	Ug5_2_8_L_0					
44 D	28.08	2.8057E-05	72.70	61.08	86.00	61.28	UL-RL	1.1650E+05	-8.600	79.30
1.000	1.000	140.4	0.000	0.000	Ug5_2_8_L_0					
45 D	28.65	2.7693E-05	74.61	61.87	88.00	62.13	UL-RL	1.1650E+05	-8.800	81.39
1.000	1.000	143.3	0.000	0.000	Ug5_2_8_L_0					
46 D	29.23	2.7316E-05	76.52	62.65	90.00	62.98	UL-RL	1.1650E+05	-9.000	83.48
1.000	1.000	146.1	0.000	0.000	Ug5_2_8_L_0					
47 D	29.80	2.6930E-05	78.43	63.44	92.00	63.83	UL-RL	1.1650E+05	-9.200	85.57
1.000	1.000	149.0	0.000	0.000	Ug5_2_8_L_0					
48 D	30.37	2.6538E-05	80.35	64.22	94.00	64.67	UL-RL	1.1650E+05	-9.400	87.65
1.000	1.000	151.9	0.000	0.000	Ug5_2_8_L_0					
49 D	30.95	2.6142E-05	82.26	64.99	96.00	65.51	UL-RL	1.1650E+05	-9.600	89.74
1.000	1.000	154.7	0.000	0.000	Ug5_2_8_L_0					
50 D	31.52	2.5743E-05	84.17	65.77	98.00	66.36	UL-RL	1.1650E+05	-9.800	91.83
1.000	1.000	157.6	0.000	0.000	Ug5_2_8_L_0					
51 D	32.09	2.5344E-05	86.09	66.54	100.00	67.20	UL-RL	1.1650E+05	-10.000	93.91
1.000	1.000	160.5	0.000	0.000	Ug5_2_8_L_0					
52 D	32.66	2.4944E-05	88.00	67.31	102.0	68.03	UL-RL	1.1650E+05	-10.200	96.00
1.000	1.000	163.3	0.000	0.000	Ug5_2_8_L_0					
53 D	33.23	2.4546E-05	89.91	68.08	104.0	68.87	UL-RL	1.1650E+05	-10.400	98.09
1.000	1.000	166.2	0.000	0.000	Ug5_2_8_L_0					
54 D	33.81	2.4149E-05	91.83	68.85	106.0	69.71	UL-RL	1.1650E+05	-10.600	100.2
1.000	1.000	169.0	0.000	0.000	Ug5_2_8_L_0					
55 D	34.38	2.3753E-05	93.74	69.62	108.0	70.55	UL-RL	1.1650E+05	-10.800	102.3
1.000	1.000	171.9	0.000	0.000	Ug5_2_8_L_0					
56 D	34.95	2.3358E-05	95.65	70.40	110.0	71.39	UL-RL	1.1650E+05	-11.000	104.3
1.000	1.000	174.7	0.000	0.000	Ug5_2_8_L_0					
57 D	35.52	2.2964E-05	97.57	71.17	112.0	72.22	UL-RL	1.1650E+05	-11.200	106.4
1.000	1.000	177.6	0.000	0.000	Ug5_2_8_L_0					
58 D	36.09	2.2572E-05	99.48	71.94	114.0	73.06	UL-RL	1.1650E+05	-11.400	108.5
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					
59 D	36.66	2.2179E-05	101.4	72.71	116.0	73.90	UL-RL	1.1650E+05	-11.600	110.6
1.000	1.000	183.3	0.000	0.000	Ug5_2_8_L_0					
60 D	37.23	2.1787E-05	103.3	73.48	118.0	74.74	UL-RL	1.1650E+05	-11.800	112.7
1.000	1.000	186.2	0.000	0.000	Ug5_2_8_L_0					
61 D	18.90	2.1395E-05	105.2	74.25	120.0	75.57	UL-RL	1.1650E+05	-12.000	114.8
1.000	1.000	189.0	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787         |
|          Exe Time :24 May 2018           18:23:41           |
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New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 2.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.19560E-12	-2.19560E-12	2.13607E-13	-7.94916E-13
2	0.52522	-0.52522	1.76503E-12	0.10504
3	1.6064	-1.6064	-0.10504	0.42633
4	3.2562	-3.2562	-0.42633	1.0776
5	5.4998	-5.4998	-1.0776	2.1775
6	8.3367	-8.3367	-2.1775	3.8449
7	9.5626	-9.5626	-3.8449	5.7574
8	9.1701	-9.1701	-5.7574	7.5914
9	7.1923	-7.1923	-7.5914	9.0299
10	5.1184	-5.1184	-9.0299	10.054
11	2.9595	-2.9595	-10.054	10.645
12	0.70578	-0.70578	-10.645	10.787
13	-1.1531	1.1531	-10.787	10.556
14	-2.5417	2.5417	-10.556	10.048
15	-3.5276	3.5276	-10.048	9.3421
16	-4.1755	4.1755	-9.3421	8.5070
17	-4.5456	4.5456	-8.5070	7.5979
18	-4.6925	4.6925	-7.5979	6.6594
19	-4.6656	4.6656	-6.6594	5.7263
20	-4.5076	4.5076	-5.7263	4.8248
21	-4.2405	4.2405	-4.8248	3.9767
22	-3.8890	3.8890	-3.9767	3.1989
23	-3.4863	3.4863	-3.1989	2.5016
24	-3.0593	3.0593	-2.5016	1.8898
25	-2.6290	2.6290	-1.8898	1.3640
26	-2.2114	2.2114	-1.3640	0.92169
27	-1.8179	1.8179	-0.92169	0.55810
28	-1.4565	1.4565	-0.55810	0.26680
29	-1.1320	1.1320	-0.26680	4.03957E-02
30	-0.84667	0.84667	-4.03957E-02	-0.12894
31	-0.60100	0.60100	0.12894	-0.24914
32	-0.39402	0.39402	0.24914	-0.32794
33	-0.22374	0.22374	0.32794	-0.37269
34	-8.74806E-02	8.74806E-02	0.37269	-0.39019
35	1.78052E-02	-1.78052E-02	0.39019	-0.38663
36	9.67049E-02	-9.67049E-02	0.38663	-0.36728
37	0.15213	-0.15213	0.36728	-0.33686
38	0.18677	-0.18677	0.33686	-0.29950
39	0.20313	-0.20313	0.29950	-0.25888
40	0.20346	-0.20346	0.25888	-0.21819
41	0.19170	-0.19170	0.21819	-0.17985
42	0.17575	-0.17575	0.17985	-0.14470
43	0.15722	-0.15722	0.14470	-0.11325
44	0.13740	-0.13740	0.11325	-8.57733E-02
45	0.11729	-0.11729	8.57733E-02	-6.23151E-02
46	9.76814E-02	-9.76814E-02	6.23151E-02	-4.27788E-02
47	7.91334E-02	-7.91334E-02	4.27788E-02	-2.69521E-02
48	6.20417E-02	-6.20417E-02	2.69521E-02	-1.45438E-02
49	4.66611E-02	-4.66611E-02	1.45438E-02	-5.21160E-03
50	3.31363E-02	-3.31363E-02	5.21160E-03	1.41566E-03
51	2.15291E-02	-2.15291E-02	1.41566E-03	5.72159E-03
52	1.18421E-02	-1.18421E-02	5.72159E-03	8.08988E-03
53	4.03850E-03	-4.03850E-03	8.08988E-03	8.89758E-03
54	-1.93985E-03	1.93985E-03	-8.89758E-03	8.50961E-03
55	-6.15956E-03	6.15956E-03	-8.50961E-03	7.27770E-03
56	-8.68488E-03	8.68488E-03	-7.27770E-03	5.54072E-03
57	-9.57028E-03	9.57028E-03	-5.54072E-03	3.62667E-03
58	-8.85595E-03	8.85595E-03	-3.62667E-03	1.85548E-03
59	-6.56628E-03	6.56628E-03	-1.85548E-03	5.42221E-04

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60-2.71097E-03 2.71097E-03-5.42221E-04-2.93316E-14

```

ITER      0  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM= 425.4    REMNOR=0.3944E-23  RATIO =0.8731E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.8731E-01 RATIO= 0.000
            MAX UN= 7.659    IEQ= 21 NODE    11 DOF    1  Y-DISPL.F
            MIN UN=-.4743E-01 IEQ= 11 NODE    6 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      2  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM= 81.39    REMNOR=0.5748E-22  RATIO =0.3819E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.3819E-01 RATIO= 0.000
            MAX UN= 2.814    IEQ= 21 NODE    11 DOF    1  Y-DISPL.F
            MIN UN=-.3434E-02 IEQ= 3 NODE    2 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      3  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM= 264.3    REMNOR=0.2211E-20  RATIO =0.6882E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.6882E-01 RATIO= 0.000
            MAX UN= 10.78    IEQ= 33 NODE    17 DOF    1  Y-DISPL.F
            MIN UN=-.2229E-09 IEQ= 27 NODE    14 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      4  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM= 50.68    REMNOR=0.5021E-20  RATIO =0.3014E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.3014E-01 RATIO= 0.000
            MAX UN= 5.160    IEQ= 47 NODE    24 DOF    1  Y-DISPL.F
            MIN UN=-.3592E-09 IEQ= 13 NODE    7 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      5  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM= 1.322    REMNOR=0.1593E-20  RATIO =0.4867E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.4867E-02 RATIO= 0.000
            MAX UN= 1.090    IEQ= 55 NODE    28 DOF    1  Y-DISPL.F
            MIN UN=-.1477E-09 IEQ= 25 NODE    13 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER      6  RNORM = 0.000      RMNORM= 0.000
            RINORM=0.5581E+05 RIMNOR= 2188.
            RENORM=0.6619E-18 REMNOR=0.1646E-20  RATIO =0.3444E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 36.68    RMMAX = 10.79
            RTSMAL=0.1000E-03 RMSMAL=0.1000E-03
            RDT  =0.5581E+05 RDR  = 2188.
            RATIO=0.3444E-11 RATIO= 0.000
            MAX UN=0.3338E-09 IEQ= 5 NODE    3 DOF    1  Y-DISPL.F
            MIN UN=-.4346E-09 IEQ= 3 NODE    2 DOF    1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS 0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+

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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 3 (AT TIME 3.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	4.9560193E-03	-1.0912245E-03	
2	4.7377744E-03	-1.0912245E-03	
3	4.5195320E-03	-1.0911870E-03	
4	4.3013097E-03	-1.0909974E-03	
5	4.0831562E-03	-1.0904606E-03	
6	3.8651672E-03	-1.0892985E-03	
7	3.6475027E-03	-1.0871480E-03	
8	3.4304036E-03	-1.0835637E-03	
9	3.2142077E-03	-1.0780209E-03	
10	2.9993660E-03	-1.0699160E-03	
11	2.7864577E-03	-1.0585664E-03	
12	2.5762064E-03	-1.0432121E-03	
13	2.3694855E-03	-1.0231684E-03	
14	2.1672820E-03	-9.9798084E-04	
15	1.9706510E-03	-9.6742436E-04	
16	1.7806698E-03	-9.3150395E-04	
17	1.5983905E-03	-8.9045415E-04	
18	1.4247982E-03	-8.4473992E-04	
19	1.2607592E-03	-7.9505537E-04	
20	1.1069812E-03	-7.4229299E-04	
21	9.6398567E-04	-6.8738676E-04	
22	8.3211332E-04	-6.3118966E-04	
23	7.1154384E-04	-5.7448201E-04	
24	6.0230699E-04	-5.1797722E-04	
25	5.0429585E-04	-4.6232908E-04	
26	4.1727817E-04	-4.0813875E-04	
27	3.4090646E-04	-3.5596224E-04	
28	2.7472490E-04	-3.0631718E-04	
29	2.1817827E-04	-2.5969189E-04	
30	1.7061619E-04	-2.1654588E-04	
31	1.3130423E-04	-1.7723520E-04	
32	9.9453532E-05	-1.4195544E-04	
33	7.4249163E-05	-1.1077155E-04	
34	5.4874843E-05	-8.3638689E-05	
35	4.0533208E-05	-6.0413012E-05	
36	3.0464043E-05	-4.0871255E-05	
37	2.3957705E-05	-2.4734971E-05	
38	2.0363964E-05	-1.1690582E-05	
39	1.9097439E-05	-1.4066819E-06	
40	1.9639662E-05	6.4527844E-06	
41	2.1538944E-05	1.2218123E-05	
42	2.4408426E-05	1.6206184E-05	
43	2.7922798E-05	1.8714949E-05	
44	3.1814148E-05	2.0019848E-05	
45	3.5867146E-05	2.0371173E-05	
46	3.9913947E-05	1.9992747E-05	
47	4.3828728E-05	1.9081572E-05	
48	4.7522433E-05	1.7808251E-05	
49	5.0937563E-05	1.6317947E-05	
50	5.4043202E-05	1.4731735E-05	
51	5.6830415E-05	1.3148131E-05	
52	5.9307865E-05	1.1644767E-05	
53	6.1497533E-05	1.0280228E-05	
54	6.3431808E-05	9.0951450E-06	
55	6.5149199E-05	8.1141875E-06	
56	6.6691733E-05	7.3469847E-06	
57	6.8101956E-05	6.7892280E-06	
58	6.9420225E-05	6.4234796E-06	
59	7.0682150E-05	6.2197631E-06	
60	7.1916124E-05	6.1359559E-06	
61	7.3140984E-05	6.1180136E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:23:41      |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-4.9560E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.5123	-4.7378E-03	2.330	0.7433	2.330	5.007	ACTIVE	0.000	-0.2000	1.818	
1.000	1.000	2.561	0.000	0.000	Ug5_2_8_L_0						
3 D	1.055	-4.5195E-03	5.142	1.640	5.142	8.815	ACTIVE	0.000	-0.4000	3.636	
1.000	1.000	5.277	0.000	0.000	Ug5_2_8_L_0						
4 D	1.611	-4.3013E-03	8.153	2.601	8.153	11.65	ACTIVE	0.000	-0.6000	5.455	
1.000	1.000	8.055	0.000	0.000	Ug5_2_8_L_0						
5 D	2.192	-4.0832E-03	11.56	3.686	11.56	14.00	ACTIVE	0.000	-0.8000	7.273	
1.000	1.000	10.96	0.000	0.000	Ug5_2_8_L_0						
6 D	2.772	-3.8652E-03	14.95	4.771	14.95	16.11	ACTIVE	0.000	-1.000	9.091	
1.000	1.000	13.86	0.000	0.000	Ug5_2_8_L_0						
7 D	3.317	-3.6475E-03	17.80	5.678	17.80	18.11	ACTIVE	0.000	-1.200	10.91	
1.000	1.000	16.59	0.000	0.000	Ug5_2_8_L_0						
8 D	3.855	-3.4304E-03	20.53	6.548	20.53	20.02	ACTIVE	0.000	-1.400	12.73	
1.000	1.000	19.28	0.000	0.000	Ug5_2_8_L_0						
9 D	4.400	-3.2142E-03	23.36	7.453	23.36	21.87	ACTIVE	0.000	-1.600	14.55	
1.000	1.000	22.00	0.000	0.000	Ug5_2_8_L_0						
10 D	4.929	-2.9994E-03	25.96	8.281	25.96	23.65	ACTIVE	0.000	-1.800	16.36	
1.000	1.000	24.64	0.000	0.000	Ug5_2_8_L_0						
11 D	5.466	-2.7865E-03	28.68	9.148	28.68	25.38	ACTIVE	0.000	-2.000	18.18	
1.000	1.000	27.33	0.000	0.000	Ug5_2_8_L_0						
12 D	5.993	-2.5762E-03	31.23	9.963	31.23	27.06	ACTIVE	0.000	-2.200	20.00	
1.000	1.000	29.96	0.000	0.000	Ug5_2_8_L_0						
13 D	6.527	-2.3695E-03	33.91	10.82	33.91	28.68	ACTIVE	0.000	-2.400	21.82	
1.000	1.000	32.63	0.000	0.000	Ug5_2_8_L_0						
14 D	7.053	-2.1673E-03	36.46	11.63	36.46	30.25	ACTIVE	0.000	-2.600	23.64	
1.000	1.000	35.27	0.000	0.000	Ug5_2_8_L_0						
15 D	7.587	-1.9707E-03	39.12	12.48	39.12	31.77	ACTIVE	0.000	-2.800	25.45	
1.000	1.000	37.93	0.000	0.000	Ug5_2_8_L_0						
16 D	8.114	-1.7807E-03	41.68	13.30	41.68	33.24	ACTIVE	0.000	-3.000	27.27	
1.000	1.000	40.57	0.000	0.000	Ug5_2_8_L_0						
17 D	8.647	-1.5984E-03	44.34	14.14	44.34	34.66	ACTIVE	0.000	-3.200	29.09	
1.000	1.000	43.23	0.000	0.000	Ug5_2_8_L_0						
18 D	9.175	-1.4248E-03	46.91	14.96	46.91	36.03	ACTIVE	0.000	-3.400	30.91	
1.000	1.000	45.87	0.000	0.000	Ug5_2_8_L_0						
19 D	9.703	-1.2608E-03	49.49	15.79	49.49	37.37	ACTIVE	0.000	-3.600	32.73	
1.000	1.000	48.51	0.000	0.000	Ug5_2_8_L_0						
20 D	10.24	-1.1070E-03	52.15	16.64	52.15	38.66	ACTIVE	0.000	-3.800	34.55	
1.000	1.000	51.18	0.000	0.000	Ug5_2_8_L_0						
21 D	10.77	-9.6399E-04	54.74	17.46	54.74	39.92	ACTIVE	0.000	-4.000	36.36	
1.000	1.000	53.83	0.000	0.000	Ug5_2_8_L_0						
22 D	11.30	-8.3211E-04	57.40	18.31	57.40	41.14	ACTIVE	0.000	-4.200	38.18	
1.000	1.000	56.49	0.000	0.000	Ug5_2_8_L_0						
23 D	11.83	-7.1154E-04	59.99	19.14	59.99	42.33	ACTIVE	0.000	-4.400	40.00	
1.000	1.000	59.14	0.000	0.000	Ug5_2_8_L_0						
24 D	12.36	-6.0231E-04	62.65	19.99	62.65	43.49	ACTIVE	0.000	-4.600	41.82	
1.000	1.000	61.80	0.000	0.000	Ug5_2_8_L_0						
25 D	12.89	-5.0430E-04	65.24	20.81	65.24	44.63	ACTIVE	0.000	-4.800	43.64	
1.000	1.000	64.45	0.000	0.000	Ug5_2_8_L_0						
26 D	13.42	-4.1728E-04	67.83	21.64	67.83	45.73	ACTIVE	0.000	-5.000	45.45	
1.000	1.000	67.09	0.000	0.000	Ug5_2_8_L_0						
27 D	13.93	-3.4091E-04	70.19	22.39	70.19	46.82	ACTIVE	0.000	-5.200	47.27	
1.000	1.000	69.66	0.000	0.000	Ug5_2_8_L_0						
28 D	14.45	-2.7472E-04	72.56	23.15	72.56	47.88	ACTIVE	0.000	-5.400	49.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	72.24	0.000	0.000	Ug5_2_8_L_0					
29 D	15.03	-2.1818E-04	74.93	24.22	74.93	48.92	UL-RL	1.0954E+05	-5.600	50.91
1.000	1.000	75.13	0.000	0.000	Ug5_2_8_L_0					
30 D	16.64	-1.7062E-04	77.31	30.49	77.31	49.95	UL-RL	1.0954E+05	-5.800	52.73
1.000	1.000	83.22	0.000	0.000	Ug5_2_8_L_0					
31 D	18.08	-1.3130E-04	79.69	35.84	79.69	50.96	UL-RL	1.0954E+05	-6.000	54.55
1.000	1.000	90.38	0.000	0.000	Ug5_2_8_L_0					
32 D	19.34	-9.9454E-05	82.08	40.36	82.08	51.95	UL-RL	1.0954E+05	-6.200	56.36
1.000	1.000	96.72	0.000	0.000	Ug5_2_8_L_0					
33 D	20.46	-7.4249E-05	84.47	44.14	84.47	52.93	UL-RL	1.0954E+05	-6.400	58.18
1.000	1.000	102.3	0.000	0.000	Ug5_2_8_L_0					
34 D	21.45	-5.4875E-05	87.10	47.27	87.10	53.90	UL-RL	1.0954E+05	-6.600	60.00
1.000	1.000	107.3	0.000	0.000	Ug5_2_8_L_0					
35 D	22.33	-4.0533E-05	89.63	49.84	89.63	54.86	UL-RL	1.0954E+05	-6.800	61.82
1.000	1.000	111.7	0.000	0.000	Ug5_2_8_L_0					
36 D	23.12	-3.0464E-05	92.72	51.94	92.72	55.81	UL-RL	1.0954E+05	-7.000	63.64
1.000	1.000	115.6	0.000	0.000	Ug5_2_8_L_0					
37 D	23.82	-2.3958E-05	95.22	53.65	95.22	56.75	UL-RL	1.0954E+05	-7.200	65.45
1.000	1.000	119.1	0.000	0.000	Ug5_2_8_L_0					
38 D	24.46	-2.0364E-05	98.25	55.03	98.25	57.68	UL-RL	1.0954E+05	-7.400	67.27
1.000	1.000	122.3	0.000	0.000	Ug5_2_8_L_0					
39 D	25.05	-1.9097E-05	100.7	56.16	100.7	58.60	UL-RL	1.0954E+05	-7.600	69.09
1.000	1.000	125.2	0.000	0.000	Ug5_2_8_L_0					
40 D	25.60	-1.9640E-05	103.7	57.08	103.7	59.52	UL-RL	1.0954E+05	-7.800	70.91
1.000	1.000	128.0	0.000	0.000	Ug5_2_8_L_0					
41 D	26.12	-2.1539E-05	106.6	57.85	106.6	60.43	UL-RL	1.0954E+05	-8.000	72.73
1.000	1.000	130.6	0.000	0.000	Ug5_2_8_L_0					
42 D	26.61	-2.4408E-05	109.1	58.51	109.1	61.34	UL-RL	1.0954E+05	-8.200	74.55
1.000	1.000	133.1	0.000	0.000	Ug5_2_8_L_0					
43 D	27.09	-2.7923E-05	111.9	59.10	111.9	62.25	UL-RL	1.0954E+05	-8.400	76.36
1.000	1.000	135.5	0.000	0.000	Ug5_2_8_L_0					
44 D	27.57	-3.1814E-05	114.4	59.65	114.4	63.15	UL-RL	1.0954E+05	-8.600	78.18
1.000	1.000	137.8	0.000	0.000	Ug5_2_8_L_0					
45 D	28.04	-3.5867E-05	117.2	60.18	117.2	64.04	UL-RL	1.0954E+05	-8.800	80.00
1.000	1.000	140.2	0.000	0.000	Ug5_2_8_L_0					
46 D	28.50	-3.9914E-05	119.6	60.70	119.6	64.93	UL-RL	1.0954E+05	-9.000	81.82
1.000	1.000	142.5	0.000	0.000	Ug5_2_8_L_0					
47 D	28.98	-4.3829E-05	122.4	61.24	122.4	65.83	UL-RL	1.0954E+05	-9.200	83.64
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
48 D	29.45	-4.7522E-05	124.8	61.80	124.8	66.71	UL-RL	1.0954E+05	-9.400	85.45
1.000	1.000	147.3	0.000	0.000	Ug5_2_8_L_0					
49 D	29.93	-5.0938E-05	127.6	62.39	127.6	67.60	UL-RL	1.0954E+05	-9.600	87.27
1.000	1.000	149.7	0.000	0.000	Ug5_2_8_L_0					
50 D	30.42	-5.4043E-05	129.9	63.01	129.9	68.49	UL-RL	1.0954E+05	-9.800	89.09
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
51 D	30.91	-5.6830E-05	132.7	63.66	132.7	69.37	UL-RL	1.0954E+05	-10.000	90.91
1.000	1.000	154.6	0.000	0.000	Ug5_2_8_L_0					
52 D	31.42	-5.9308E-05	135.0	64.35	135.0	70.25	UL-RL	1.0954E+05	-10.200	92.73
1.000	1.000	157.1	0.000	0.000	Ug5_2_8_L_0					
53 D	31.92	-6.1498E-05	137.8	65.07	137.8	71.13	UL-RL	1.0954E+05	-10.400	94.55
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					
54 D	32.44	-6.3432E-05	140.5	65.82	140.5	72.02	UL-RL	1.0954E+05	-10.600	96.36
1.000	1.000	162.2	0.000	0.000	Ug5_2_8_L_0					
55 D	32.95	-6.5149E-05	142.8	66.59	142.8	72.90	UL-RL	1.0954E+05	-10.800	98.18
1.000	1.000	164.8	0.000	0.000	Ug5_2_8_L_0					
56 D	33.47	-6.6692E-05	145.5	67.37	145.5	73.78	UL-RL	1.0954E+05	-11.000	100.00
1.000	1.000	167.4	0.000	0.000	Ug5_2_8_L_0					
57 D	34.00	-6.8102E-05	147.8	68.18	147.8	74.66	UL-RL	1.0954E+05	-11.200	101.8
1.000	1.000	170.0	0.000	0.000	Ug5_2_8_L_0					
58 D	34.53	-6.9420E-05	150.5	68.99	150.5	75.54	UL-RL	1.0954E+05	-11.400	103.6
1.000	1.000	172.6	0.000	0.000	Ug5_2_8_L_0					
59 D	35.05	-7.0682E-05	152.8	69.81	152.8	76.42	UL-RL	1.0954E+05	-11.600	105.5
1.000	1.000	175.3	0.000	0.000	Ug5_2_8_L_0					
60 D	35.58	-7.1916E-05	155.4	70.63	155.4	77.30	UL-RL	1.0954E+05	-11.800	107.3
1.000	1.000	177.9	0.000	0.000	Ug5_2_8_L_0					
61 D	18.05	-7.3141E-05	157.7	71.45	157.7	78.18	UL-RL	1.0954E+05	-12.000	109.1
1.000	1.000	180.5	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018 18:23:41 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 3.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11 D	0.000	2.7865E-03	0.000	0.000	20.00	28.34	PASSIVE	0.000	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
12 D	2.101	2.5762E-03	1.818	8.324	22.00	29.42	PASSIVE	0.000	-2.200	2.182	
1.000	1.000	10.51	0.000	0.000	Ug5_2_8_L_0						
13 D	4.202	2.3695E-03	3.636	16.65	24.00	30.51	PASSIVE	0.000	-2.400	4.364	
1.000	1.000	21.01	0.000	0.000	Ug5_2_8_L_0						
14 D	6.303	2.1673E-03	5.455	24.97	26.00	31.60	PASSIVE	0.000	-2.600	6.545	
1.000	1.000	31.52	0.000	0.000	Ug5_2_8_L_0						
15 D	8.404	1.9707E-03	7.273	33.29	28.00	33.29	PASSIVE	0.000	-2.800	8.727	
1.000	1.000	42.02	0.000	0.000	Ug5_2_8_L_0						
16 D	10.51	1.7807E-03	9.091	41.62	30.00	41.62	PASSIVE	0.000	-3.000	10.91	
1.000	1.000	52.53	0.000	0.000	Ug5_2_8_L_0						
17 D	12.61	1.5984E-03	10.91	49.94	32.00	49.94	PASSIVE	0.000	-3.200	13.09	
1.000	1.000	63.03	0.000	0.000	Ug5_2_8_L_0						
18 D	14.71	1.4248E-03	12.73	58.27	34.00	58.27	PASSIVE	0.000	-3.400	15.27	
1.000	1.000	73.54	0.000	0.000	Ug5_2_8_L_0						
19 D	16.37	1.2608E-03	14.55	64.41	36.00	64.41	V-C	2.3300E+04	-3.600	17.45	
1.000	1.000	81.86	0.000	0.000	Ug5_2_8_L_0						
20 D	16.33	1.1070E-03	16.36	62.03	38.00	62.03	V-C	2.3300E+04	-3.800	19.64	
1.000	1.000	81.66	0.000	0.000	Ug5_2_8_L_0						
21 D	16.34	9.6399E-04	18.18	59.87	40.00	59.87	V-C	2.3300E+04	-4.000	21.82	
1.000	1.000	81.69	0.000	0.000	Ug5_2_8_L_0						
22 D	16.39	8.3211E-04	20.00	57.95	42.00	57.95	V-C	2.3300E+04	-4.200	24.00	
1.000	1.000	81.95	0.000	0.000	Ug5_2_8_L_0						
23 D	16.49	7.1154E-04	21.82	56.27	44.00	56.27	V-C	2.3300E+04	-4.400	26.18	
1.000	1.000	82.45	0.000	0.000	Ug5_2_8_L_0						
24 D	16.64	6.0231E-04	23.64	54.82	46.00	54.82	V-C	2.3300E+04	-4.600	28.36	
1.000	1.000	83.19	0.000	0.000	Ug5_2_8_L_0						
25 D	16.83	5.0430E-04	25.45	53.62	48.00	53.62	V-C	2.3300E+04	-4.800	30.55	
1.000	1.000	84.16	0.000	0.000	Ug5_2_8_L_0						
26 D	17.07	4.1728E-04	27.27	52.64	50.00	52.64	V-C	2.3300E+04	-5.000	32.73	
1.000	1.000	85.37	0.000	0.000	Ug5_2_8_L_0						
27 D	17.36	3.4091E-04	29.09	51.90	52.00	51.90	V-C	2.3300E+04	-5.200	34.91	
1.000	1.000	86.80	0.000	0.000	Ug5_2_8_L_0						
28 D	17.69	2.7472E-04	30.91	51.37	54.00	51.37	V-C	2.3300E+04	-5.400	37.09	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	88.46	0.000	0.000	Ug5_2_8_L_0					
29 D	18.06	2.1818E-04	32.73	51.04	56.00	51.04	V-C	2.3300E+04	-5.600	39.27
1.000	1.000	90.32	0.000	0.000	Ug5_2_8_L_0					
30 D	18.47	1.7062E-04	34.55	50.91	58.00	50.91	V-C	2.3300E+04	-5.800	41.45
1.000	1.000	92.37	0.000	0.000	Ug5_2_8_L_0					
31 D	18.92	1.3130E-04	36.36	50.95	60.00	50.95	V-C	2.3300E+04	-6.000	43.64
1.000	1.000	94.59	0.000	0.000	Ug5_2_8_L_0					
32 D	19.40	9.9454E-05	38.18	51.16	62.00	51.16	V-C	2.3300E+04	-6.200	45.82
1.000	1.000	96.98	0.000	0.000	Ug5_2_8_L_0					
33 D	19.80	7.4249E-05	40.00	50.98	64.00	51.76	UL-RL	6.9900E+04	-6.400	48.00
1.000	1.000	98.98	0.000	0.000	Ug5_2_8_L_0					
34 D	20.15	5.4875E-05	41.82	50.59	66.00	52.65	UL-RL	6.9900E+04	-6.600	50.18
1.000	1.000	100.8	0.000	0.000	Ug5_2_8_L_0					
35 D	20.58	4.0533E-05	43.64	50.53	68.00	53.54	UL-RL	6.9900E+04	-6.800	52.36
1.000	1.000	102.9	0.000	0.000	Ug5_2_8_L_0					
36 D	21.06	3.0464E-05	45.45	50.76	70.00	54.41	UL-RL	6.9900E+04	-7.000	54.55
1.000	1.000	105.3	0.000	0.000	Ug5_2_8_L_0					
37 D	21.59	2.3958E-05	47.27	51.23	72.00	55.28	UL-RL	6.9900E+04	-7.200	56.73
1.000	1.000	108.0	0.000	0.000	Ug5_2_8_L_0					
38 D	22.16	2.0364E-05	49.09	51.89	74.00	56.13	UL-RL	6.9900E+04	-7.400	58.91
1.000	1.000	110.8	0.000	0.000	Ug5_2_8_L_0					
39 D	22.76	1.9097E-05	50.91	52.69	76.00	56.98	UL-RL	6.9900E+04	-7.600	61.09
1.000	1.000	113.8	0.000	0.000	Ug5_2_8_L_0					
40 D	23.37	1.9640E-05	52.73	53.60	78.00	57.84	UL-RL	6.9900E+04	-7.800	63.27
1.000	1.000	116.9	0.000	0.000	Ug5_2_8_L_0					
41 D	24.01	2.1539E-05	54.55	54.58	80.00	58.70	UL-RL	6.9900E+04	-8.000	65.45
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
42 D	24.65	2.4408E-05	56.36	55.60	82.00	59.56	UL-RL	6.9900E+04	-8.200	67.64
1.000	1.000	123.2	0.000	0.000	Ug5_2_8_L_0					
43 D	25.29	2.7923E-05	58.18	56.65	84.00	60.42	UL-RL	6.9900E+04	-8.400	69.82
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
44 D	25.94	3.1814E-05	60.00	57.72	86.00	61.28	UL-RL	6.9900E+04	-8.600	72.00
1.000	1.000	129.7	0.000	0.000	Ug5_2_8_L_0					
45 D	26.60	3.5867E-05	61.82	58.80	88.00	62.13	UL-RL	6.9900E+04	-8.800	74.18
1.000	1.000	133.0	0.000	0.000	Ug5_2_8_L_0					
46 D	27.25	3.9914E-05	63.64	59.88	90.00	62.98	UL-RL	6.9900E+04	-9.000	76.36
1.000	1.000	136.2	0.000	0.000	Ug5_2_8_L_0					
47 D	27.90	4.3829E-05	65.45	60.94	92.00	63.83	UL-RL	6.9900E+04	-9.200	78.55
1.000	1.000	139.5	0.000	0.000	Ug5_2_8_L_0					
48 D	28.54	4.7522E-05	67.27	61.99	94.00	64.67	UL-RL	6.9900E+04	-9.400	80.73
1.000	1.000	142.7	0.000	0.000	Ug5_2_8_L_0					
49 D	29.18	5.0938E-05	69.09	63.01	96.00	65.51	UL-RL	6.9900E+04	-9.600	82.91
1.000	1.000	145.9	0.000	0.000	Ug5_2_8_L_0					
50 D	29.82	5.4043E-05	70.91	64.01	98.00	66.36	UL-RL	6.9900E+04	-9.800	85.09
1.000	1.000	149.1	0.000	0.000	Ug5_2_8_L_0					
51 D	30.45	5.6830E-05	72.73	64.99	100.00	67.20	UL-RL	6.9900E+04	-10.000	87.27
1.000	1.000	152.3	0.000	0.000	Ug5_2_8_L_0					
52 D	31.08	5.9308E-05	74.55	65.94	102.0	68.03	UL-RL	6.9900E+04	-10.200	89.45
1.000	1.000	155.4	0.000	0.000	Ug5_2_8_L_0					
53 D	31.70	6.1498E-05	76.36	66.87	104.0	68.87	UL-RL	6.9900E+04	-10.400	91.64
1.000	1.000	158.5	0.000	0.000	Ug5_2_8_L_0					
54 D	32.32	6.3432E-05	78.18	67.79	106.0	69.71	UL-RL	6.9900E+04	-10.600	93.82
1.000	1.000	161.6	0.000	0.000	Ug5_2_8_L_0					
55 D	32.94	6.5149E-05	80.00	68.69	108.0	70.55	UL-RL	6.9900E+04	-10.800	96.00
1.000	1.000	164.7	0.000	0.000	Ug5_2_8_L_0					
56 D	33.55	6.6692E-05	81.82	69.57	110.0	71.39	UL-RL	6.9900E+04	-11.000	98.18
1.000	1.000	167.8	0.000	0.000	Ug5_2_8_L_0					
57 D	34.16	6.8102E-05	83.64	70.45	112.0	72.22	UL-RL	6.9900E+04	-11.200	100.4
1.000	1.000	170.8	0.000	0.000	Ug5_2_8_L_0					
58 D	34.77	6.9420E-05	85.45	71.32	114.0	73.06	UL-RL	6.9900E+04	-11.400	102.5
1.000	1.000	173.9	0.000	0.000	Ug5_2_8_L_0					
59 D	35.38	7.0682E-05	87.27	72.18	116.0	73.90	UL-RL	6.9900E+04	-11.600	104.7
1.000	1.000	176.9	0.000	0.000	Ug5_2_8_L_0					
60 D	35.99	7.1916E-05	89.09	73.04	118.0	74.74	UL-RL	6.9900E+04	-11.800	106.9
1.000	1.000	180.0	0.000	0.000	Ug5_2_8_L_0					
61 D	18.30	7.3141E-05	90.91	73.91	120.0	75.57	UL-RL	6.9900E+04	-12.000	109.1
1.000	1.000	183.0	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018   18:23:41 |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 3.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	-2.58701E-10	2.58701E-10	-2.57327E-11	-8.49747E-11
2	0.51230	-0.51230	7.65852E-11	0.10246
3	1.5677	-1.5677	-0.10246	0.41599
4	3.1787	-3.1787	-0.41599	1.0517
5	5.3706	-5.3706	-1.0517	2.1258
6	8.1429	-8.1429	-2.1258	3.7544
7	11.460	-11.460	-3.7544	6.0465
8	15.315	-15.315	-6.0465	9.1095
9	19.715	-19.715	-9.1095	13.053
10	24.644	-24.644	-13.053	17.981
11	30.110	-30.110	-17.981	24.003
12	34.001	-34.001	-24.003	30.804
13	36.326	-36.326	-30.804	38.069
14	37.076	-37.076	-38.069	45.484
15	36.259	-36.259	-45.484	52.736
16	33.867	-33.867	-52.736	59.509
17	29.907	-29.907	-59.509	65.491
18	24.374	-24.374	-65.491	70.366
19	17.705	-17.705	-70.366	73.907
20	11.609	-11.609	-73.907	76.228
21	6.0359	-6.0359	-76.228	77.436
22	0.94433	-0.94433	-77.436	77.624
23	-3.7178	3.7178	-77.624	76.881
24	-7.9942	7.9942	-76.881	75.282
25	-11.937	11.937	-75.282	72.895
26	-15.592	15.592	-72.895	69.776
27	-19.021	19.021	-69.776	65.972
28	-22.265	22.265	-65.972	61.519
29	-25.303	25.303	-61.519	56.458
30	-27.133	27.133	-56.458	51.032
31	-27.975	27.975	-51.032	45.437
32	-28.026	28.026	-45.437	39.832
33	-27.359	27.359	-39.832	34.360
34	-26.060	26.060	-34.360	29.148
35	-24.307	24.307	-29.148	24.287
36	-22.252	22.252	-24.287	19.836
37	-20.022	20.022	-19.836	15.832
38	-17.720	17.720	-15.832	12.288
39	-15.427	15.427	-12.288	9.2027
40	-13.204	13.204	-9.2027	6.5619
41	-11.095	11.095	-6.5619	4.3429
42	-9.1296	9.1296	-4.3429	2.5170
43	-7.3295	7.3295	-2.5170	1.0511
44	-5.7077	5.7077	-1.0511	-9.04345E-02
45	-4.2694	4.2694	9.04345E-02	-0.94432
46	-3.0142	3.0142	0.94432	-1.5472
47	-1.9370	1.9370	1.5472	-1.9346
48	-1.0296	1.0296	1.9346	-2.1405
49	-0.28179	0.28179	2.1405	-2.1968
50	0.31755	-0.31755	2.1968	-2.1333
51	0.77997	-0.77997	2.1333	-1.9773
52	1.1166	-1.1166	1.9773	-1.7540
53	1.3379	-1.3379	1.7540	-1.4864
54	1.4529	-1.4529	1.4864	-1.1959
55	1.4695	-1.4695	1.1959	-0.90196
56	1.3940	-1.3940	0.90196	-0.62316
57	1.2311	-1.2311	0.62316	-0.37694
58	0.98417	-0.98417	0.37694	-0.18010
59	0.65522	-0.65522	0.18010	-4.90586E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

60 0.24528 -0.24528 4.90586E-02-3.15325E-13

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ITER 0 RNORM = 5584.      RMNORM= 0.000
      RINORM=0.8547E+05  RIMNOR=0.1750E+06
      RENORM= 4674.      REMNOR=0.1646E-20  RATIO =0.2339      TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 72.00      RMMAX = 77.62
      RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
      RDT =0.8547E+05   RDR =0.1750E+06
      RATIO=0.2339      RATIO= 0.000
      MAX UN= 10.48      IEQ= 35 NODE      18 DOF      1 Y-DISPL.F
      MIN UN=-61.65     IEQ= 31 NODE      16 DOF      1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER 2 RNORM = 5584.      RMNORM= 0.000
      RINORM=0.8547E+05  RIMNOR=0.1750E+06
      RENORM= 9.771      REMNOR=0.2003E-20  RATIO =0.1069E-01  TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 72.00      RMMAX = 77.62
      RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
      RDT =0.8547E+05   RDR =0.1750E+06
      RATIO=0.1069E-01  RATIO= 0.000
      MAX UN= 1.353      IEQ= 57 NODE      29 DOF      1 Y-DISPL.F
      MIN UN=-.2672E-01  IEQ= 3 NODE      2 DOF      1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER 3 RNORM = 5584.      RMNORM= 0.000
      RINORM=0.8547E+05  RIMNOR=0.1750E+06
      RENORM=0.5429      REMNOR=0.7094E-21  RATIO =0.2520E-02  TOLER =0.1000E-03  NOT CONVERGED
      RFMAX = 72.00      RMMAX = 77.62
      RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
      RDT =0.8547E+05   RDR =0.1750E+06
      RATIO=0.2520E-02  RATIO= 0.000
      MAX UN=0.6248      IEQ= 35 NODE      18 DOF      1 Y-DISPL.F
      MIN UN=-.3619E-09  IEQ= 9 NODE      5 DOF      1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER 4 RNORM = 5584.      RMNORM= 0.000
      RINORM=0.8547E+05  RIMNOR=0.1750E+06
      RENORM=0.5189E-18  REMNOR=0.1967E-20  RATIO =0.2464E-11  TOLER =0.1000E-03  CONVERGED !
      RFMAX = 72.00      RMMAX = 77.62
      RTSMAL=0.1000E-03  RMSMAL=0.1000E-03
      RDT =0.8547E+05   RDR =0.1750E+06
      RATIO=0.2464E-11  RATIO= 0.000
      MAX UN=0.2636E-09  IEQ= 5 NODE      3 DOF      1 Y-DISPL.F
      MIN UN=-.4336E-09  IEQ= 7 NODE      4 DOF      1 Y-DISPL.F
      NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                      NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                      Exe Time :24 May 2018      18:23:41      |
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New Project
SOLUTION REACHED USING 4 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 4 (AT TIME 4.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	4.8790345E-03	-1.0820415E-03	
2	4.6626262E-03	-1.0820415E-03	
3	4.4462249E-03	-1.0819369E-03	
4	4.2298757E-03	-1.0814693E-03	
5	4.0136845E-03	-1.0802927E-03	
6	3.7978341E-03	-1.0779838E-03	
7	3.5825999E-03	-1.0740402E-03	
8	3.3683655E-03	-1.0678836E-03	
9	3.1556374E-03	-1.0588636E-03	
10	2.9450591E-03	-1.0462590E-03	
11	2.7374254E-03	-1.0292798E-03	
12	2.5336959E-03	-1.0070698E-03	
13	2.3350076E-03	-9.7870891E-04	
14	2.1426877E-03	-9.4321677E-04	
15	1.9581679E-03	-9.0101878E-04	
16	1.7827024E-03	-8.5248789E-04	
17	1.6173189E-03	-8.0175263E-04	
18	1.4618662E-03	-7.5303226E-04	
19	1.3160267E-03	-7.0550186E-04	
20	1.1796264E-03	-6.5855810E-04	
21	1.0525904E-03	-6.1181878E-04	
22	9.3489667E-04	-5.6512184E-04	
23	8.2653492E-04	-5.1852680E-04	
24	7.2746048E-04	-4.7231378E-04	
25	6.3755768E-04	-4.2687658E-04	
26	5.5663298E-04	-3.8259238E-04	
27	4.8442150E-04	-3.3980198E-04	
28	4.2059228E-04	-2.9881579E-04	
29	3.6475571E-04	-2.5992165E-04	
30	3.1646616E-04	-2.2338930E-04	
31	2.7522542E-04	-1.8947552E-04	
32	2.4048543E-04	-1.5842214E-04	
33	2.1165457E-04	-1.3040142E-04	
34	1.8811828E-04	-1.0547950E-04	
35	1.6925740E-04	-8.3638150E-05	
36	1.5446361E-04	-6.4787839E-05	
37	1.4315305E-04	-4.8776466E-05	
38	1.3477712E-04	-3.5404551E-05	
39	1.2883058E-04	-2.4442373E-05	
40	1.2485596E-04	-1.5643335E-05	
41	1.2244588E-04	-8.7547767E-06	
42	1.2124338E-04	-3.5262938E-06	
43	1.2094083E-04	2.8410218E-07	
44	1.2127775E-04	2.9054692E-06	
45	1.2203792E-04	4.5504648E-06	
46	1.2304578E-04	5.4131484E-06	
47	1.2416264E-04	5.6677082E-06	
48	1.2528259E-04	5.4680652E-06	
49	1.2632850E-04	4.9480327E-06	
50	1.2724806E-04	4.2219268E-06	
51	1.2800991E-04	3.3854525E-06	
52	1.2860010E-04	2.5167790E-06	
53	1.2901860E-04	1.6778019E-06	
54	1.2927628E-04	9.1499354E-07	
55	1.2939184E-04	2.6081456E-07	
56	1.2938913E-04	-2.6552250E-07	
57	1.2929461E-04	-6.5719918E-07	
58	1.2913490E-04	-9.1914352E-07	
59	1.2893452E-04	-1.0675479E-06	
60	1.2871364E-04	-1.1295431E-06	
61	1.2848592E-04	-1.1430062E-06	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE  2017.1  FULL VERSION  *Build date:Jul 11, 2017*  |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787  |
|          Exe Time :24 May 2018  18:23:41  |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-4.8790E-03	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.429	-4.6626E-03	2.434	5.433	2.434	5.433	V-C	2.4343E+04	-0.2000	1.714	
1.000	1.000	7.147	0.000	0.000	Ug5_2_8_L_0						
3 D	2.105	-4.4462E-03	5.350	7.098	5.350	8.815	UL-RL	7.3028E+04	-0.4000	3.429	
1.000	1.000	10.53	0.000	0.000	Ug5_2_8_L_0						
4 D	2.623	-4.2299E-03	8.465	7.973	8.465	11.65	UL-RL	7.3028E+04	-0.6000	5.143	
1.000	1.000	13.12	0.000	0.000	Ug5_2_8_L_0						
5 D	3.165	-4.0137E-03	11.97	8.968	11.97	14.00	UL-RL	7.3028E+04	-0.8000	6.857	
1.000	1.000	15.82	0.000	0.000	Ug5_2_8_L_0						
6 D	3.704	-3.7978E-03	15.47	9.948	15.47	16.11	UL-RL	7.3028E+04	-1.0000	8.571	
1.000	1.000	18.52	0.000	0.000	Ug5_2_8_L_0						
7 D	4.203	-3.5826E-03	18.42	10.73	18.42	18.11	UL-RL	7.3028E+04	-1.2000	10.29	
1.000	1.000	21.02	0.000	0.000	Ug5_2_8_L_0						
8 D	4.688	-3.3684E-03	21.25	11.44	21.25	20.02	UL-RL	7.3028E+04	-1.4000	12.00	
1.000	1.000	23.44	0.000	0.000	Ug5_2_8_L_0						
9 D	5.172	-3.1556E-03	24.19	12.15	24.19	21.87	UL-RL	7.3028E+04	-1.6000	13.71	
1.000	1.000	25.86	0.000	0.000	Ug5_2_8_L_0						
10 D	5.629	-2.9451E-03	26.89	12.71	26.89	23.65	UL-RL	7.3028E+04	-1.8000	15.43	
1.000	1.000	28.14	0.000	0.000	Ug5_2_8_L_0						
11 D	6.078	-2.7374E-03	29.72	13.25	29.72	25.38	UL-RL	7.3028E+04	-2.0000	17.14	
1.000	1.000	30.39	0.000	0.000	Ug5_2_8_L_0						
12 D	6.499	-2.5337E-03	32.38	13.64	32.38	27.06	UL-RL	7.3028E+04	-2.2000	18.86	
1.000	1.000	32.50	0.000	0.000	Ug5_2_8_L_0						
13 D	6.906	-2.3350E-03	35.16	13.96	35.16	28.68	UL-RL	7.3028E+04	-2.4000	20.57	
1.000	1.000	34.53	0.000	0.000	Ug5_2_8_L_0						
14 D	7.277	-2.1427E-03	37.81	14.10	37.81	30.25	UL-RL	7.3028E+04	-2.6000	22.29	
1.000	1.000	36.39	0.000	0.000	Ug5_2_8_L_0						
15 D	7.624	-1.9582E-03	40.57	14.12	40.57	31.77	UL-RL	7.3028E+04	-2.8000	24.00	
1.000	1.000	38.12	0.000	0.000	Ug5_2_8_L_0						
16 D	7.928	-1.7827E-03	43.24	13.93	43.24	33.24	UL-RL	7.3028E+04	-3.0000	25.71	
1.000	1.000	39.64	0.000	0.000	Ug5_2_8_L_0						
17 D	8.421	-1.6173E-03	46.00	14.67	46.00	34.66	ACTIVE	0.000	-3.2000	27.43	
1.000	1.000	42.10	0.000	0.000	Ug5_2_8_L_0						
18 D	8.934	-1.4619E-03	48.68	15.53	48.68	36.03	ACTIVE	0.000	-3.4000	29.14	
1.000	1.000	44.67	0.000	0.000	Ug5_2_8_L_0						
19 D	9.448	-1.3160E-03	51.36	16.38	51.36	37.37	ACTIVE	0.000	-3.6000	30.86	
1.000	1.000	47.24	0.000	0.000	Ug5_2_8_L_0						
20 D	9.968	-1.1796E-03	54.13	17.27	54.13	38.66	ACTIVE	0.000	-3.8000	32.57	
1.000	1.000	49.84	0.000	0.000	Ug5_2_8_L_0						
21 D	10.48	-1.0526E-03	56.82	18.13	56.82	39.92	ACTIVE	0.000	-4.0000	34.29	
1.000	1.000	52.41	0.000	0.000	Ug5_2_8_L_0						
22 D	11.00	-9.3490E-04	59.58	19.01	59.58	41.14	ACTIVE	0.000	-4.2000	36.00	
1.000	1.000	55.01	0.000	0.000	Ug5_2_8_L_0						
23 D	11.52	-8.2653E-04	62.28	19.87	62.28	42.33	ACTIVE	0.000	-4.4000	37.71	
1.000	1.000	57.58	0.000	0.000	Ug5_2_8_L_0						
24 D	12.04	-7.2746E-04	65.04	20.75	65.04	43.49	ACTIVE	0.000	-4.6000	39.43	
1.000	1.000	60.18	0.000	0.000	Ug5_2_8_L_0						
25 D	12.55	-6.3756E-04	67.73	21.61	67.73	44.63	ACTIVE	0.000	-4.8000	41.14	
1.000	1.000	62.75	0.000	0.000	Ug5_2_8_L_0						
26 D	13.06	-5.5663E-04	70.43	22.47	70.43	45.73	ACTIVE	0.000	-5.0000	42.86	
1.000	1.000	65.32	0.000	0.000	Ug5_2_8_L_0						
27 D	13.56	-4.8442E-04	72.89	23.25	72.89	46.82	ACTIVE	0.000	-5.2000	44.57	
1.000	1.000	67.82	0.000	0.000	Ug5_2_8_L_0						
28 D	14.07	-4.2059E-04	75.36	24.04	75.36	47.88	ACTIVE	0.000	-5.4000	46.29	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	70.33	0.000	0.000	Ug5_2_8_L_0					
29 D	14.57	-3.6476E-04	77.84	24.83	77.84	48.92	ACTIVE	0.000	-5.600	48.00
1.000	1.000	72.83	0.000	0.000	Ug5_2_8_L_0					
30 D	15.07	-3.1647E-04	80.32	25.62	80.32	49.95	ACTIVE	0.000	-5.800	49.71
1.000	1.000	75.34	0.000	0.000	Ug5_2_8_L_0					
31 D	15.66	-2.7523E-04	82.81	26.89	82.81	50.96	UL-RL	7.3028E+04	-6.000	51.43
1.000	1.000	78.31	0.000	0.000	Ug5_2_8_L_0					
32 D	16.96	-2.4049E-04	85.30	31.67	85.30	51.95	UL-RL	7.3028E+04	-6.200	53.14
1.000	1.000	84.81	0.000	0.000	Ug5_2_8_L_0					
33 D	18.12	-2.1165E-04	87.79	35.76	87.79	52.93	UL-RL	7.3028E+04	-6.400	54.86
1.000	1.000	90.62	0.000	0.000	Ug5_2_8_L_0					
34 D	19.16	-1.8812E-04	90.53	39.25	90.53	53.90	UL-RL	7.3028E+04	-6.600	56.57
1.000	1.000	95.82	0.000	0.000	Ug5_2_8_L_0					
35 D	20.10	-1.6926E-04	93.16	42.21	93.16	54.86	UL-RL	7.3028E+04	-6.800	58.29
1.000	1.000	100.5	0.000	0.000	Ug5_2_8_L_0					
36 D	20.94	-1.5446E-04	96.36	44.71	96.36	55.81	UL-RL	7.3028E+04	-7.000	60.00
1.000	1.000	104.7	0.000	0.000	Ug5_2_8_L_0					
37 D	21.71	-1.4315E-04	98.96	46.81	98.96	56.75	UL-RL	7.3028E+04	-7.200	61.71
1.000	1.000	108.5	0.000	0.000	Ug5_2_8_L_0					
38 D	22.41	-1.3478E-04	102.1	48.60	102.1	57.68	UL-RL	7.3028E+04	-7.400	63.43
1.000	1.000	112.0	0.000	0.000	Ug5_2_8_L_0					
39 D	23.05	-1.2883E-04	104.7	50.12	104.7	58.60	UL-RL	7.3028E+04	-7.600	65.14
1.000	1.000	115.3	0.000	0.000	Ug5_2_8_L_0					
40 D	23.66	-1.2486E-04	107.7	51.42	107.7	59.52	UL-RL	7.3028E+04	-7.800	66.86
1.000	1.000	118.3	0.000	0.000	Ug5_2_8_L_0					
41 D	24.23	-1.2245E-04	110.8	52.56	110.8	60.43	UL-RL	7.3028E+04	-8.000	68.57
1.000	1.000	121.1	0.000	0.000	Ug5_2_8_L_0					
42 D	24.77	-1.2124E-04	113.3	53.57	113.3	61.34	UL-RL	7.3028E+04	-8.200	70.29
1.000	1.000	123.9	0.000	0.000	Ug5_2_8_L_0					
43 D	25.30	-1.2094E-04	116.3	54.49	116.3	62.25	UL-RL	7.3028E+04	-8.400	72.00
1.000	1.000	126.5	0.000	0.000	Ug5_2_8_L_0					
44 D	25.81	-1.2128E-04	118.8	55.35	118.8	63.15	UL-RL	7.3028E+04	-8.600	73.71
1.000	1.000	129.1	0.000	0.000	Ug5_2_8_L_0					
45 D	26.32	-1.2204E-04	121.8	56.17	121.8	64.04	UL-RL	7.3028E+04	-8.800	75.43
1.000	1.000	131.6	0.000	0.000	Ug5_2_8_L_0					
46 D	26.82	-1.2305E-04	124.3	56.97	124.3	64.93	UL-RL	7.3028E+04	-9.000	77.14
1.000	1.000	134.1	0.000	0.000	Ug5_2_8_L_0					
47 D	27.32	-1.2416E-04	127.2	57.76	127.2	65.83	UL-RL	7.3028E+04	-9.200	78.86
1.000	1.000	136.6	0.000	0.000	Ug5_2_8_L_0					
48 D	27.83	-1.2528E-04	129.7	58.56	129.7	66.71	UL-RL	7.3028E+04	-9.400	80.57
1.000	1.000	139.1	0.000	0.000	Ug5_2_8_L_0					
49 D	28.33	-1.2633E-04	132.6	59.38	132.6	67.60	UL-RL	7.3028E+04	-9.600	82.29
1.000	1.000	141.7	0.000	0.000	Ug5_2_8_L_0					
50 D	28.84	-1.2725E-04	135.0	60.21	135.0	68.49	UL-RL	7.3028E+04	-9.800	84.00
1.000	1.000	144.2	0.000	0.000	Ug5_2_8_L_0					
51 D	29.36	-1.2801E-04	137.9	61.06	137.9	69.37	UL-RL	7.3028E+04	-10.00	85.71
1.000	1.000	146.8	0.000	0.000	Ug5_2_8_L_0					
52 D	29.87	-1.2860E-04	140.3	61.94	140.3	70.25	UL-RL	7.3028E+04	-10.20	87.43
1.000	1.000	149.4	0.000	0.000	Ug5_2_8_L_0					
53 D	30.40	-1.2902E-04	143.2	62.84	143.2	71.13	UL-RL	7.3028E+04	-10.40	89.14
1.000	1.000	152.0	0.000	0.000	Ug5_2_8_L_0					
54 D	30.92	-1.2928E-04	146.0	63.76	146.0	72.02	UL-RL	7.3028E+04	-10.60	90.86
1.000	1.000	154.6	0.000	0.000	Ug5_2_8_L_0					
55 D	31.45	-1.2939E-04	148.4	64.70	148.4	72.90	UL-RL	7.3028E+04	-10.80	92.57
1.000	1.000	157.3	0.000	0.000	Ug5_2_8_L_0					
56 D	31.99	-1.2939E-04	151.2	65.65	151.2	73.78	UL-RL	7.3028E+04	-11.00	94.29
1.000	1.000	159.9	0.000	0.000	Ug5_2_8_L_0					
57 D	32.52	-1.2929E-04	153.6	66.62	153.6	74.66	UL-RL	7.3028E+04	-11.20	96.00
1.000	1.000	162.6	0.000	0.000	Ug5_2_8_L_0					
58 D	33.06	-1.2913E-04	156.4	67.59	156.4	75.54	UL-RL	7.3028E+04	-11.40	97.71
1.000	1.000	165.3	0.000	0.000	Ug5_2_8_L_0					
59 D	33.60	-1.2893E-04	158.8	68.57	158.8	76.42	UL-RL	7.3028E+04	-11.60	99.43
1.000	1.000	168.0	0.000	0.000	Ug5_2_8_L_0					
60 D	34.14	-1.2871E-04	161.6	69.55	161.6	77.30	UL-RL	7.3028E+04	-11.80	101.1
1.000	1.000	170.7	0.000	0.000	Ug5_2_8_L_0					
61 D	17.34	-1.2849E-04	164.0	70.53	164.0	78.18	UL-RL	7.3028E+04	-12.00	102.9
1.000	1.000	173.4	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018 18:23:41 |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 4.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16 D	0.000	1.7827E-03	0.000	0.000	30.00	41.62	PASSIVE	0.000	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
17 D	2.027	1.6173E-03	1.714	7.848	32.00	49.94	PASSIVE	0.000	-3.200	2.286	
1.000	1.000	10.13	0.000	0.000	Ug5_2_8_L_0						
18 D	4.053	1.4619E-03	3.429	15.70	34.00	58.27	PASSIVE	0.000	-3.400	4.571	
1.000	1.000	20.27	0.000	0.000	Ug5_2_8_L_0						
19 D	6.080	1.3160E-03	5.143	23.54	36.00	64.41	PASSIVE	0.000	-3.600	6.857	
1.000	1.000	30.40	0.000	0.000	Ug5_2_8_L_0						
20 D	8.107	1.1796E-03	6.857	31.39	38.00	62.03	PASSIVE	0.000	-3.800	9.143	
1.000	1.000	40.53	0.000	0.000	Ug5_2_8_L_0						
21 D	10.13	1.0526E-03	8.571	39.24	40.00	59.87	PASSIVE	0.000	-4.000	11.43	
1.000	1.000	50.67	0.000	0.000	Ug5_2_8_L_0						
22 D	12.16	9.3490E-04	10.29	47.09	42.00	57.95	PASSIVE	0.000	-4.200	13.71	
1.000	1.000	60.80	0.000	0.000	Ug5_2_8_L_0						
23 D	14.19	8.2653E-04	12.00	54.94	44.00	56.27	PASSIVE	0.000	-4.400	16.00	
1.000	1.000	70.94	0.000	0.000	Ug5_2_8_L_0						
24 D	14.75	7.2746E-04	13.71	55.46	46.00	55.46	V-C	1.5533E+04	-4.600	18.29	
1.000	1.000	73.74	0.000	0.000	Ug5_2_8_L_0						
25 D	14.99	6.3756E-04	15.43	54.40	48.00	54.40	V-C	1.5533E+04	-4.800	20.57	
1.000	1.000	74.97	0.000	0.000	Ug5_2_8_L_0						
26 D	15.28	5.5663E-04	17.14	53.53	50.00	53.53	V-C	1.5533E+04	-5.000	22.86	
1.000	1.000	76.39	0.000	0.000	Ug5_2_8_L_0						
27 D	15.60	4.8442E-04	18.86	52.86	52.00	52.86	V-C	1.5533E+04	-5.200	25.14	
1.000	1.000	78.00	0.000	0.000	Ug5_2_8_L_0						
28 D	15.96	4.2059E-04	20.57	52.38	54.00	52.38	V-C	1.5533E+04	-5.400	27.43	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	79.81	0.000	0.000	Ug5_2_8_L_0					
29 D	16.36	3.6476E-04	22.29	52.07	56.00	52.07	V-C	1.5533E+04	-5.600	29.71
1.000	1.000	81.79	0.000	0.000	Ug5_2_8_L_0					
30 D	16.79	3.1647E-04	24.00	51.93	58.00	51.93	V-C	1.5533E+04	-5.800	32.00
1.000	1.000	83.93	0.000	0.000	Ug5_2_8_L_0					
31 D	17.25	2.7523E-04	25.71	51.95	60.00	51.95	V-C	1.5533E+04	-6.000	34.29
1.000	1.000	86.24	0.000	0.000	Ug5_2_8_L_0					
32 D	17.74	2.4049E-04	27.43	52.11	62.00	52.11	V-C	1.5533E+04	-6.200	36.57
1.000	1.000	88.68	0.000	0.000	Ug5_2_8_L_0					
33 D	18.25	2.1165E-04	29.14	52.40	64.00	52.40	V-C	1.5533E+04	-6.400	38.86
1.000	1.000	91.26	0.000	0.000	Ug5_2_8_L_0					
34 D	18.79	1.8812E-04	30.86	52.80	66.00	52.80	V-C	1.5533E+04	-6.600	41.14
1.000	1.000	93.94	0.000	0.000	Ug5_2_8_L_0					
35 D	19.25	1.6926E-04	32.57	52.83	68.00	53.54	UL-RL	4.6600E+04	-6.800	43.43
1.000	1.000	96.25	0.000	0.000	Ug5_2_8_L_0					
36 D	19.71	1.5446E-04	34.29	52.83	70.00	54.41	UL-RL	4.6600E+04	-7.000	45.71
1.000	1.000	98.54	0.000	0.000	Ug5_2_8_L_0					
37 D	20.21	1.4315E-04	36.00	53.07	72.00	55.28	UL-RL	4.6600E+04	-7.200	48.00
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
38 D	20.76	1.3478E-04	37.71	53.50	74.00	56.13	UL-RL	4.6600E+04	-7.400	50.29
1.000	1.000	103.8	0.000	0.000	Ug5_2_8_L_0					
39 D	21.33	1.2883E-04	39.43	54.08	76.00	56.98	UL-RL	4.6600E+04	-7.600	52.57
1.000	1.000	106.6	0.000	0.000	Ug5_2_8_L_0					
40 D	21.92	1.2486E-04	41.14	54.76	78.00	57.84	UL-RL	4.6600E+04	-7.800	54.86
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
41 D	22.54	1.2245E-04	42.86	55.53	80.00	58.70	UL-RL	4.6600E+04	-8.000	57.14
1.000	1.000	112.7	0.000	0.000	Ug5_2_8_L_0					
42 D	23.15	1.2124E-04	44.57	56.34	82.00	59.56	UL-RL	4.6600E+04	-8.200	59.43
1.000	1.000	115.8	0.000	0.000	Ug5_2_8_L_0					
43 D	23.78	1.2094E-04	46.29	57.21	84.00	60.42	UL-RL	4.6600E+04	-8.400	61.71
1.000	1.000	118.9	0.000	0.000	Ug5_2_8_L_0					
44 D	24.42	1.2128E-04	48.00	58.10	86.00	61.28	UL-RL	4.6600E+04	-8.600	64.00
1.000	1.000	122.1	0.000	0.000	Ug5_2_8_L_0					
45 D	25.06	1.2204E-04	49.71	59.01	88.00	62.13	UL-RL	4.6600E+04	-8.800	66.29
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
46 D	25.70	1.2305E-04	51.43	59.93	90.00	62.98	UL-RL	4.6600E+04	-9.000	68.57
1.000	1.000	128.5	0.000	0.000	Ug5_2_8_L_0					
47 D	26.34	1.2416E-04	53.14	60.85	92.00	63.83	UL-RL	4.6600E+04	-9.200	70.86
1.000	1.000	131.7	0.000	0.000	Ug5_2_8_L_0					
48 D	26.98	1.2528E-04	54.86	61.76	94.00	64.67	UL-RL	4.6600E+04	-9.400	73.14
1.000	1.000	134.9	0.000	0.000	Ug5_2_8_L_0					
49 D	27.62	1.2633E-04	56.57	62.65	96.00	65.51	UL-RL	4.6600E+04	-9.600	75.43
1.000	1.000	138.1	0.000	0.000	Ug5_2_8_L_0					
50 D	28.25	1.2725E-04	58.29	63.53	98.00	66.36	UL-RL	4.6600E+04	-9.800	77.71
1.000	1.000	141.2	0.000	0.000	Ug5_2_8_L_0					
51 D	28.88	1.2801E-04	60.00	64.40	100.00	67.20	UL-RL	4.6600E+04	-10.000	80.00
1.000	1.000	144.4	0.000	0.000	Ug5_2_8_L_0					
52 D	29.51	1.2860E-04	61.71	65.24	102.0	68.03	UL-RL	4.6600E+04	-10.200	82.29
1.000	1.000	147.5	0.000	0.000	Ug5_2_8_L_0					
53 D	30.13	1.2902E-04	63.43	66.07	104.0	68.87	UL-RL	4.6600E+04	-10.400	84.57
1.000	1.000	150.6	0.000	0.000	Ug5_2_8_L_0					
54 D	30.75	1.2928E-04	65.14	66.89	106.0	69.71	UL-RL	4.6600E+04	-10.600	86.86
1.000	1.000	153.7	0.000	0.000	Ug5_2_8_L_0					
55 D	31.37	1.2939E-04	66.86	67.69	108.0	70.55	UL-RL	4.6600E+04	-10.800	89.14
1.000	1.000	156.8	0.000	0.000	Ug5_2_8_L_0					
56 D	31.98	1.2939E-04	68.57	68.48	110.0	71.39	UL-RL	4.6600E+04	-11.000	91.43
1.000	1.000	159.9	0.000	0.000	Ug5_2_8_L_0					
57 D	32.60	1.2929E-04	70.29	69.27	112.0	72.22	UL-RL	4.6600E+04	-11.200	93.71
1.000	1.000	163.0	0.000	0.000	Ug5_2_8_L_0					
58 D	33.21	1.2913E-04	72.00	70.05	114.0	73.06	UL-RL	4.6600E+04	-11.400	96.00
1.000	1.000	166.0	0.000	0.000	Ug5_2_8_L_0					
59 D	33.82	1.2893E-04	73.71	70.82	116.0	73.90	UL-RL	4.6600E+04	-11.600	98.29
1.000	1.000	169.1	0.000	0.000	Ug5_2_8_L_0					
60 D	34.43	1.2871E-04	75.43	71.60	118.0	74.74	UL-RL	4.6600E+04	-11.800	100.6
1.000	1.000	172.2	0.000	0.000	Ug5_2_8_L_0					
61 D	17.52	1.2849E-04	77.14	72.37	120.0	75.57	UL-RL	4.6600E+04	-12.000	102.9
1.000	1.000	175.2	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|                          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                          Exe Time :24 May 2018           18:23:41   |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 3

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WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 4.0000

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WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.51822E-10	-1.51822E-10	1.52283E-11	-4.37810E-11
2	1.4294	-1.4294	6.30103E-11	0.28588
3	3.5347	-3.5347	-0.28588	0.99281
4	6.1579	-6.1579	-0.99281	2.2244
5	9.3229	-9.3229	-2.2244	4.0890
6	13.027	-13.027	-4.0890	6.6943
7	17.230	-17.230	-6.6943	10.140
8	21.918	-21.918	-10.140	14.524
9	27.090	-27.090	-14.524	19.942
10	32.719	-32.719	-19.942	26.486
11	38.797	-38.797	-26.486	34.245
12	45.296	-45.296	-34.245	43.304
13	52.202	-52.202	-43.304	53.745
14	59.480	-59.480	-53.745	61.641
15	67.103	-67.103	-61.641	71.061
16	75.169	-75.169	-71.061	77.667
17	83.675	-83.675	-77.667	85.552
18	92.623	-92.623	-85.552	94.414
19	102.012	-102.012	-94.414	103.948
20	111.845	-111.845	-103.948	113.855
21	122.120	-122.120	-113.855	124.832
22	132.946	-132.946	-124.832	136.577
23	144.323	-144.323	-136.577	149.787
24	156.251	-156.251	-149.787	164.455
25	168.730	-168.730	-164.455	180.634
26	181.760	-181.760	-180.634	198.371
27	195.353	-195.353	-198.371	217.701
28	209.509	-209.509	-217.701	238.651
29	224.238	-224.238	-238.651	261.243
30	239.540	-239.540	-261.243	285.490
31	255.415	-255.415	-285.490	311.422
32	271.863	-271.863	-311.422	339.198
33	288.884	-288.884	-339.198	368.766
34	306.487	-306.487	-368.766	399.174
35	324.672	-324.672	-399.174	431.470
36	343.448	-343.448	-431.470	465.700
37	362.815	-362.815	-465.700	501.912
38	382.773	-382.773	-501.912	540.152
39	403.322	-403.322	-540.152	580.476
40	424.471	-424.471	-580.476	622.940
41	446.220	-446.220	-622.940	667.600
42	468.578	-468.578	-667.600	714.504
43	491.545	-491.545	-714.504	763.700
44	515.120	-515.120	-763.700	815.248
45	539.303	-539.303	-815.248	869.198
46	564.094	-564.094	-869.198	925.498
47	589.493	-589.493	-925.498	984.198
48	615.500	-615.500	-984.198	1045.348
49	642.115	-642.115	-1045.348	1109.000
50	669.338	-669.338	-1109.000	1175.200
51	697.169	-697.169	-1175.200	1244.000
52	725.608	-725.608	-1244.000	1315.448
53	754.655	-754.655	-1315.448	1389.592
54	784.310	-784.310	-1389.592	1466.380
55	814.573	-814.573	-1466.380	1545.852
56	845.444	-845.444	-1545.852	1628.048
57	876.923	-876.923	-1628.048	1712.912
58	909.010	-909.010	-1712.912	1800.492
59	941.705	-941.705	-1800.492	1890.848

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.18405 -0.18405 3.68113E-02-6.59494E-13

ITER 0 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7785E+05 RIMNOR=0.1530E+06
RENORM=0.2180E+05 REMNOR=0.1967E-20 RATIO =0.5292 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 105.0 RMMAX = 71.06
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7785E+05 RDR =0.1530E+06
RATIOT=0.5292 RATIO= 0.000
MAX UN= 71.83 IEQ= 31 NODE 16 DOF 1 Y-DISPL.F
MIN UN=-103.2 IEQ= 33 NODE 17 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 2 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7785E+05 RIMNOR=0.1530E+06
RENORM=0.7748 REMNOR=0.8727E-21 RATIO =0.3155E-02 TOLER =0.1000E-03 NOT CONVERGED
RFMAX = 105.0 RMMAX = 71.06
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7785E+05 RDR =0.1530E+06
RATIOT=0.3155E-02 RATIO= 0.000
MAX UN=0.5465 IEQ= 61 NODE 31 DOF 1 Y-DISPL.F
MIN UN=-.2232 IEQ= 3 NODE 2 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

ITER 3 RNORM =0.1751E+05 RMNORM= 0.000
RINORM=0.7785E+05 RIMNOR=0.1530E+06
RENORM=0.1185E-05 REMNOR=0.1370E-20 RATIO =0.3902E-05 TOLER =0.1000E-03 CONVERGED !
RFMAX = 105.0 RMMAX = 71.06
RTSMAL=0.1000E-02 RMSMAL=0.1000E-03
RDT =0.7785E+05 RDR =0.1530E+06
RATIOT=0.3902E-05 RATIO= 0.000
MAX UN=0.1089E-02 IEQ= 51 NODE 26 DOF 1 Y-DISPL.F
MIN UN=-.4392E-09 IEQ= 7 NODE 4 DOF 1 Y-DISPL.F
NO. OF CONTACT CONSTRAINT VIOLATIONS 0

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-4.9124E-03	0.000	0.000	0.000	0.000	PASSIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	1.138	-4.6882E-03	2.548	4.088	2.548	5.490	UL-RL	5.4771E+04	-0.2000	1.600	
1.000	1.000	5.688	0.000	0.000	Ug5_2_8_L_0						
3 D	1.888	-4.4640E-03	5.579	6.239	5.579	8.815	UL-RL	5.4771E+04	-0.4000	3.200	
1.000	1.000	9.439	0.000	0.000	Ug5_2_8_L_0						
4 D	2.480	-4.2398E-03	8.808	7.600	8.808	11.65	UL-RL	5.4771E+04	-0.6000	4.800	
1.000	1.000	12.40	0.000	0.000	Ug5_2_8_L_0						
5 D	3.096	-4.0158E-03	12.43	9.081	12.43	14.00	UL-RL	5.4771E+04	-0.8000	6.400	
1.000	1.000	15.48	0.000	0.000	Ug5_2_8_L_0						
6 D	3.710	-3.7920E-03	16.05	10.55	16.05	16.11	UL-RL	5.4771E+04	-1.0000	8.000	
1.000	1.000	18.55	0.000	0.000	Ug5_2_8_L_0						
7 D	4.285	-3.5688E-03	19.11	11.83	19.11	18.11	UL-RL	5.4771E+04	-1.2000	9.600	
1.000	1.000	21.43	0.000	0.000	Ug5_2_8_L_0						
8 D	4.847	-3.3466E-03	22.05	13.04	22.05	20.02	UL-RL	5.4771E+04	-1.4000	11.20	
1.000	1.000	24.24	0.000	0.000	Ug5_2_8_L_0						
9 D	5.409	-3.1257E-03	25.11	14.24	25.11	21.87	UL-RL	5.4771E+04	-1.6000	12.80	
1.000	1.000	27.04	0.000	0.000	Ug5_2_8_L_0						
10 D	5.944	-2.9069E-03	27.92	15.32	27.92	23.65	UL-RL	5.4771E+04	-1.8000	14.40	
1.000	1.000	29.72	0.000	0.000	Ug5_2_8_L_0						
11 D	6.474	-2.6908E-03	30.86	16.37	30.86	25.38	UL-RL	5.4771E+04	-2.0000	16.00	
1.000	1.000	32.37	0.000	0.000	Ug5_2_8_L_0						
12 D	6.977	-2.4786E-03	33.63	17.28	33.63	27.06	UL-RL	5.4771E+04	-2.2000	17.60	
1.000	1.000	34.88	0.000	0.000	Ug5_2_8_L_0						
13 D	7.466	-2.2713E-03	36.53	18.13	36.53	28.68	UL-RL	5.4771E+04	-2.4000	19.20	
1.000	1.000	37.33	0.000	0.000	Ug5_2_8_L_0						
14 D	7.922	-2.0703E-03	39.29	18.81	39.29	30.25	UL-RL	5.4771E+04	-2.6000	20.80	
1.000	1.000	39.61	0.000	0.000	Ug5_2_8_L_0						
15 D	8.351	-1.8772E-03	42.17	19.35	42.17	31.77	UL-RL	5.4771E+04	-2.8000	22.40	
1.000	1.000	41.75	0.000	0.000	Ug5_2_8_L_0						
16 D	8.732	-1.6937E-03	44.95	19.66	44.95	33.24	UL-RL	5.4771E+04	-3.0000	24.00	
1.000	1.000	43.66	0.000	0.000	Ug5_2_8_L_0						
17 D	9.282	-1.5220E-03	47.83	20.81	47.83	34.66	UL-RL	5.4771E+04	-3.2000	25.60	
1.000	1.000	46.41	0.000	0.000	Ug5_2_8_L_0						
18 D	9.815	-1.3637E-03	50.62	21.87	50.62	36.03	UL-RL	5.4771E+04	-3.4000	27.20	
1.000	1.000	49.07	0.000	0.000	Ug5_2_8_L_0						
19 D	10.31	-1.2190E-03	53.42	22.73	53.42	37.37	UL-RL	5.4771E+04	-3.6000	28.80	
1.000	1.000	51.53	0.000	0.000	Ug5_2_8_L_0						
20 D	10.76	-1.0876E-03	56.30	23.39	56.30	38.66	UL-RL	5.4771E+04	-3.8000	30.40	
1.000	1.000	53.79	0.000	0.000	Ug5_2_8_L_0						
21 D	11.16	-9.6968E-04	59.11	23.81	59.11	39.92	UL-RL	5.4771E+04	-4.0000	32.00	
1.000	1.000	55.81	0.000	0.000	Ug5_2_8_L_0						
22 D	11.53	-8.6515E-04	61.98	24.03	61.98	41.14	UL-RL	5.4771E+04	-4.2000	33.60	
1.000	1.000	57.63	0.000	0.000	Ug5_2_8_L_0						
23 D	11.85	-7.7281E-04	64.79	24.07	64.79	42.33	UL-RL	5.4771E+04	-4.4000	35.20	
1.000	1.000	59.27	0.000	0.000	Ug5_2_8_L_0						
24 D	12.17	-6.9134E-04	67.67	24.04	67.67	43.49	UL-RL	5.4771E+04	-4.6000	36.80	
1.000	1.000	60.84	0.000	0.000	Ug5_2_8_L_0						
25 D	12.47	-6.1963E-04	70.48	23.96	70.48	44.63	UL-RL	5.4771E+04	-4.8000	38.40	
1.000	1.000	62.36	0.000	0.000	Ug5_2_8_L_0						
26 D	12.78	-5.5679E-04	73.28	23.89	73.28	45.73	UL-RL	5.4771E+04	-5.0000	40.00	
1.000	1.000	63.89	0.000	0.000	Ug5_2_8_L_0						
27 D	13.16	-5.0206E-04	75.86	24.20	75.86	46.82	ACTIVE	0.000	-5.2000	41.60	
1.000	1.000	65.80	0.000	0.000	Ug5_2_8_L_0						
28 D	13.64	-4.5477E-04	78.45	25.02	78.45	47.88	ACTIVE	0.000	-5.4000	43.20	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	68.22	0.000	0.000	Ug5_2_8_L_0					
29 D	14.13	-4.1429E-04	81.04	25.85	81.04	48.92	ACTIVE	0.000	-5.600	44.80
1.000	1.000	70.65	0.000	0.000	Ug5_2_8_L_0					
30 D	14.62	-3.8003E-04	83.64	26.68	83.64	49.95	ACTIVE	0.000	-5.800	46.40
1.000	1.000	73.08	0.000	0.000	Ug5_2_8_L_0					
31 D	15.10	-3.5139E-04	86.24	27.51	86.24	50.96	ACTIVE	0.000	-6.000	48.00
1.000	1.000	75.51	0.000	0.000	Ug5_2_8_L_0					
32 D	15.65	-3.2778E-04	88.84	28.66	88.84	51.95	UL-RL	5.4771E+04	-6.200	49.60
1.000	1.000	78.26	0.000	0.000	Ug5_2_8_L_0					
33 D	16.70	-3.0863E-04	91.45	32.28	91.45	52.93	UL-RL	5.4771E+04	-6.400	51.20
1.000	1.000	83.48	0.000	0.000	Ug5_2_8_L_0					
34 D	17.63	-2.9336E-04	94.30	35.37	94.30	53.90	UL-RL	5.4771E+04	-6.600	52.80
1.000	1.000	88.17	0.000	0.000	Ug5_2_8_L_0					
35 D	18.48	-2.8142E-04	97.05	38.01	97.05	54.86	UL-RL	5.4771E+04	-6.800	54.40
1.000	1.000	92.41	0.000	0.000	Ug5_2_8_L_0					
36 D	19.25	-2.7228E-04	100.4	40.25	100.4	55.81	UL-RL	5.4771E+04	-7.000	56.00
1.000	1.000	96.25	0.000	0.000	Ug5_2_8_L_0					
37 D	19.95	-2.6545E-04	103.1	42.17	103.1	56.75	UL-RL	5.4771E+04	-7.200	57.60
1.000	1.000	99.77	0.000	0.000	Ug5_2_8_L_0					
38 D	20.61	-2.6048E-04	106.3	43.83	106.3	57.68	UL-RL	5.4771E+04	-7.400	59.20
1.000	1.000	103.0	0.000	0.000	Ug5_2_8_L_0					
39 D	21.21	-2.5696E-04	109.0	45.27	109.0	58.60	UL-RL	5.4771E+04	-7.600	60.80
1.000	1.000	106.1	0.000	0.000	Ug5_2_8_L_0					
40 D	21.79	-2.5454E-04	112.2	46.55	112.2	59.52	UL-RL	5.4771E+04	-7.800	62.40
1.000	1.000	108.9	0.000	0.000	Ug5_2_8_L_0					
41 D	22.34	-2.5290E-04	115.4	47.70	115.4	60.43	UL-RL	5.4771E+04	-8.000	64.00
1.000	1.000	111.7	0.000	0.000	Ug5_2_8_L_0					
42 D	22.87	-2.5180E-04	118.0	48.77	118.0	61.34	UL-RL	5.4771E+04	-8.200	65.60
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
43 D	23.39	-2.5101E-04	121.1	49.77	121.1	62.25	UL-RL	5.4771E+04	-8.400	67.20
1.000	1.000	117.0	0.000	0.000	Ug5_2_8_L_0					
44 D	23.91	-2.5036E-04	123.7	50.74	123.7	63.15	UL-RL	5.4771E+04	-8.600	68.80
1.000	1.000	119.5	0.000	0.000	Ug5_2_8_L_0					
45 D	24.42	-2.4970E-04	126.8	51.69	126.8	64.04	UL-RL	5.4771E+04	-8.800	70.40
1.000	1.000	122.1	0.000	0.000	Ug5_2_8_L_0					
46 D	24.93	-2.4895E-04	129.4	52.64	129.4	64.93	UL-RL	5.4771E+04	-9.000	72.00
1.000	1.000	124.6	0.000	0.000	Ug5_2_8_L_0					
47 D	25.44	-2.4801E-04	132.4	53.61	132.4	65.83	UL-RL	5.4771E+04	-9.200	73.60
1.000	1.000	127.2	0.000	0.000	Ug5_2_8_L_0					
48 D	25.96	-2.4684E-04	135.0	54.59	135.0	66.71	UL-RL	5.4771E+04	-9.400	75.20
1.000	1.000	129.8	0.000	0.000	Ug5_2_8_L_0					
49 D	26.48	-2.4542E-04	138.0	55.60	138.0	67.60	UL-RL	5.4771E+04	-9.600	76.80
1.000	1.000	132.4	0.000	0.000	Ug5_2_8_L_0					
50 D	27.01	-2.4373E-04	140.6	56.63	140.6	68.49	UL-RL	5.4771E+04	-9.800	78.40
1.000	1.000	135.0	0.000	0.000	Ug5_2_8_L_0					
51 D	27.54	-2.4177E-04	143.6	57.69	143.6	69.37	UL-RL	5.4771E+04	-10.000	80.00
1.000	1.000	137.7	0.000	0.000	Ug5_2_8_L_0					
52 D	28.08	-2.3957E-04	146.2	58.78	146.2	70.25	UL-RL	5.4771E+04	-10.200	81.60
1.000	1.000	140.4	0.000	0.000	Ug5_2_8_L_0					
53 D	28.62	-2.3714E-04	149.1	59.89	149.1	71.13	UL-RL	5.4771E+04	-10.400	83.20
1.000	1.000	143.1	0.000	0.000	Ug5_2_8_L_0					
54 D	29.17	-2.3451E-04	152.0	61.03	152.0	72.02	UL-RL	5.4771E+04	-10.600	84.80
1.000	1.000	145.8	0.000	0.000	Ug5_2_8_L_0					
55 D	29.72	-2.3172E-04	154.6	62.18	154.6	72.90	UL-RL	5.4771E+04	-10.800	86.40
1.000	1.000	148.6	0.000	0.000	Ug5_2_8_L_0					
56 D	30.27	-2.2880E-04	157.5	63.35	157.5	73.78	UL-RL	5.4771E+04	-11.000	88.00
1.000	1.000	151.4	0.000	0.000	Ug5_2_8_L_0					
57 D	30.83	-2.2579E-04	160.0	64.53	160.0	74.66	UL-RL	5.4771E+04	-11.200	89.60
1.000	1.000	154.1	0.000	0.000	Ug5_2_8_L_0					
58 D	31.38	-2.2270E-04	162.9	65.72	162.9	75.54	UL-RL	5.4771E+04	-11.400	91.20
1.000	1.000	156.9	0.000	0.000	Ug5_2_8_L_0					
59 D	31.94	-2.1958E-04	165.4	66.92	165.4	76.42	UL-RL	5.4771E+04	-11.600	92.80
1.000	1.000	159.7	0.000	0.000	Ug5_2_8_L_0					
60 D	32.50	-2.1643E-04	168.3	68.12	168.3	77.30	UL-RL	5.4771E+04	-11.800	94.40
1.000	1.000	162.5	0.000	0.000	Ug5_2_8_L_0					
61 D	16.53	-2.1328E-04	170.8	69.31	170.8	78.18	UL-RL	5.4771E+04	-12.000	96.00
1.000	1.000	165.3	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018 18:23:41                               |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 5.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21 D	0.000	9.6968E-04	0.000	0.000	40.00	59.87	PASSIVE	0.000	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
22 D	1.457	8.6515E-04	1.600	4.887	42.00	57.95	UL-RL	3.4950E+04	-4.200	2.400	
1.000	1.000	7.287	0.000	0.000	Ug5_2_8_L_0						
23 D	3.514	7.7281E-04	3.200	12.77	44.00	56.27	UL-RL	3.4950E+04	-4.400	4.800	
1.000	1.000	17.57	0.000	0.000	Ug5_2_8_L_0						
24 D	5.582	6.9134E-04	4.800	20.71	46.00	55.46	UL-RL	3.4950E+04	-4.600	7.200	
1.000	1.000	27.91	0.000	0.000	Ug5_2_8_L_0						
25 D	7.655	6.1963E-04	6.400	28.67	48.00	54.40	UL-RL	3.4950E+04	-4.800	9.600	
1.000	1.000	38.27	0.000	0.000	Ug5_2_8_L_0						
26 D	9.725	5.5679E-04	8.000	36.62	50.00	53.53	PASSIVE	0.000	-5.000	12.00	
1.000	1.000	48.62	0.000	0.000	Ug5_2_8_L_0						
27 D	11.67	5.0206E-04	9.600	43.95	52.00	52.86	PASSIVE	0.000	-5.200	14.40	
1.000	1.000	58.35	0.000	0.000	Ug5_2_8_L_0						
28 D	13.20	4.5477E-04	11.20	49.20	54.00	52.38	UL-RL	3.4950E+04	-5.400	16.80	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	66.00	0.000	0.000	Ug5_2_8_L_0					
29 D	13.75	4.1429E-04	12.80	49.53	56.00	52.07	UL-RL	3.4950E+04	-5.600	19.20
1.000	1.000	68.73	0.000	0.000	Ug5_2_8_L_0					
30 D	14.31	3.8003E-04	14.40	49.95	58.00	51.93	UL-RL	3.4950E+04	-5.800	21.60
1.000	1.000	71.55	0.000	0.000	Ug5_2_8_L_0					
31 D	14.89	3.5139E-04	16.00	50.47	60.00	51.95	UL-RL	3.4950E+04	-6.000	24.00
1.000	1.000	74.47	0.000	0.000	Ug5_2_8_L_0					
32 D	15.49	3.2778E-04	17.60	51.06	62.00	52.11	UL-RL	3.4950E+04	-6.200	26.40
1.000	1.000	77.46	0.000	0.000	Ug5_2_8_L_0					
33 D	16.10	3.0863E-04	19.20	51.72	64.00	52.40	UL-RL	3.4950E+04	-6.400	28.80
1.000	1.000	80.52	0.000	0.000	Ug5_2_8_L_0					
34 D	16.73	2.9336E-04	20.80	52.44	66.00	52.80	UL-RL	3.4950E+04	-6.600	31.20
1.000	1.000	83.64	0.000	0.000	Ug5_2_8_L_0					
35 D	17.27	2.8142E-04	22.40	52.73	68.00	53.54	UL-RL	3.4950E+04	-6.800	33.60
1.000	1.000	86.33	0.000	0.000	Ug5_2_8_L_0					
36 D	17.79	2.7228E-04	24.00	52.95	70.00	54.41	UL-RL	3.4950E+04	-7.000	36.00
1.000	1.000	88.95	0.000	0.000	Ug5_2_8_L_0					
37 D	18.35	2.6545E-04	25.60	53.35	72.00	55.28	UL-RL	3.4950E+04	-7.200	38.40
1.000	1.000	91.75	0.000	0.000	Ug5_2_8_L_0					
38 D	18.94	2.6048E-04	27.20	53.91	74.00	56.13	UL-RL	3.4950E+04	-7.400	40.80
1.000	1.000	94.71	0.000	0.000	Ug5_2_8_L_0					
39 D	19.56	2.5696E-04	28.80	54.58	76.00	56.98	UL-RL	3.4950E+04	-7.600	43.20
1.000	1.000	97.78	0.000	0.000	Ug5_2_8_L_0					
40 D	20.18	2.5454E-04	30.40	55.32	78.00	57.84	UL-RL	3.4950E+04	-7.800	45.60
1.000	1.000	100.9	0.000	0.000	Ug5_2_8_L_0					
41 D	20.82	2.5290E-04	32.00	56.11	80.00	58.70	UL-RL	3.4950E+04	-8.000	48.00
1.000	1.000	104.1	0.000	0.000	Ug5_2_8_L_0					
42 D	21.46	2.5180E-04	33.60	56.92	82.00	59.56	UL-RL	3.4950E+04	-8.200	50.40
1.000	1.000	107.3	0.000	0.000	Ug5_2_8_L_0					
43 D	22.11	2.5101E-04	35.20	57.76	84.00	60.42	UL-RL	3.4950E+04	-8.400	52.80
1.000	1.000	110.6	0.000	0.000	Ug5_2_8_L_0					
44 D	22.76	2.5036E-04	36.80	58.62	86.00	61.28	UL-RL	3.4950E+04	-8.600	55.20
1.000	1.000	113.8	0.000	0.000	Ug5_2_8_L_0					
45 D	23.41	2.4970E-04	38.40	59.47	88.00	62.13	UL-RL	3.4950E+04	-8.800	57.60
1.000	1.000	117.1	0.000	0.000	Ug5_2_8_L_0					
46 D	24.06	2.4895E-04	40.00	60.32	90.00	62.98	UL-RL	3.4950E+04	-9.000	60.00
1.000	1.000	120.3	0.000	0.000	Ug5_2_8_L_0					
47 D	24.71	2.4801E-04	41.60	61.15	92.00	63.83	UL-RL	3.4950E+04	-9.200	62.40
1.000	1.000	123.5	0.000	0.000	Ug5_2_8_L_0					
48 D	25.35	2.4684E-04	43.20	61.96	94.00	64.67	UL-RL	3.4950E+04	-9.400	64.80
1.000	1.000	126.8	0.000	0.000	Ug5_2_8_L_0					
49 D	25.99	2.4542E-04	44.80	62.76	96.00	65.51	UL-RL	3.4950E+04	-9.600	67.20
1.000	1.000	130.0	0.000	0.000	Ug5_2_8_L_0					
50 D	26.63	2.4373E-04	46.40	63.53	98.00	66.36	UL-RL	3.4950E+04	-9.800	69.60
1.000	1.000	133.1	0.000	0.000	Ug5_2_8_L_0					
51 D	27.26	2.4177E-04	48.00	64.28	100.00	67.20	UL-RL	3.4950E+04	-10.000	72.00
1.000	1.000	136.3	0.000	0.000	Ug5_2_8_L_0					
52 D	27.88	2.3957E-04	49.60	65.01	102.0	68.03	UL-RL	3.4950E+04	-10.200	74.40
1.000	1.000	139.4	0.000	0.000	Ug5_2_8_L_0					
53 D	28.51	2.3714E-04	51.20	65.73	104.0	68.87	UL-RL	3.4950E+04	-10.400	76.80
1.000	1.000	142.5	0.000	0.000	Ug5_2_8_L_0					
54 D	29.12	2.3451E-04	52.80	66.42	106.0	69.71	UL-RL	3.4950E+04	-10.600	79.20
1.000	1.000	145.6	0.000	0.000	Ug5_2_8_L_0					
55 D	29.74	2.3172E-04	54.40	67.10	108.0	70.55	UL-RL	3.4950E+04	-10.800	81.60
1.000	1.000	148.7	0.000	0.000	Ug5_2_8_L_0					
56 D	30.36	2.2880E-04	56.00	67.78	110.0	71.39	UL-RL	3.4950E+04	-11.000	84.00
1.000	1.000	151.8	0.000	0.000	Ug5_2_8_L_0					
57 D	30.97	2.2579E-04	57.60	68.44	112.0	72.22	UL-RL	3.4950E+04	-11.200	86.40
1.000	1.000	154.8	0.000	0.000	Ug5_2_8_L_0					
58 D	31.58	2.2270E-04	59.20	69.09	114.0	73.06	UL-RL	3.4950E+04	-11.400	88.80
1.000	1.000	157.9	0.000	0.000	Ug5_2_8_L_0					
59 D	32.19	2.1958E-04	60.80	69.75	116.0	73.90	UL-RL	3.4950E+04	-11.600	91.20
1.000	1.000	160.9	0.000	0.000	Ug5_2_8_L_0					
60 D	32.80	2.1643E-04	62.40	70.40	118.0	74.74	UL-RL	3.4950E+04	-11.800	93.60
1.000	1.000	164.0	0.000	0.000	Ug5_2_8_L_0					
61 D	16.70	2.1328E-04	64.00	71.04	120.0	75.57	UL-RL	3.4950E+04	-12.000	96.00
1.000	1.000	167.0	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+
New Project
  
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 5.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	2.73346E-11	-2.73346E-11	2.90301E-12	-5.62670E-11
2	1.1376	-1.1376	5.89113E-11	0.22753
3	3.0254	-3.0254	-0.22753	0.83260
4	5.5053	-5.5053	-0.83260	1.9337
5	8.6016	-8.6016	-1.9337	3.6540
6	12.312	-12.312	-3.6540	6.1163
7	16.597	-16.597	-6.1163	9.4357
8	21.444	-21.444	-9.4357	13.725
9	26.853	-26.853	-13.725	19.095
10	32.797	-32.797	-19.095	25.654
11	39.271	-39.271	-25.654	33.509
12	46.248	-46.248	-33.509	42.758
13	53.714	-53.714	-42.758	53.501
14	61.636	-61.636	-53.501	65.828
15	69.987	-69.987	-65.828	79.826
16	78.718	-78.718	-79.826	95.569
17	-16.999	16.999	-95.569	92.169
18	-7.1845	7.1845	-92.169	90.732
19	3.1207	-3.1207	-90.732	91.357
20	13.879	-13.879	-91.357	94.132
21	-55.459	55.459	-94.132	83.040
22	-45.391	45.391	-83.040	73.962
23	-37.052	37.052	-73.962	66.552
24	-30.466	30.466	-66.552	60.459
25	-25.649	25.649	-60.459	55.329
26	-22.598	22.598	-55.329	50.809
27	-21.107	21.107	-50.809	46.588
28	-20.664	20.664	-46.588	42.455
29	-20.279	20.279	-42.455	38.399
30	-19.973	19.973	-38.399	34.405
31	-19.764	19.764	-34.405	30.452
32	-19.605	19.605	-30.452	26.531
33	-19.013	19.013	-26.531	22.728
34	-18.106	18.106	-22.728	19.107
35	-16.890	16.890	-19.107	15.729
36	-15.429	15.429	-15.729	12.643
37	-13.824	13.824	-12.643	9.8786
38	-12.160	12.160	-9.8786	7.4466
39	-10.501	10.501	-7.4466	5.3463
40	-8.8950	8.8950	-5.3463	3.5673
41	-7.3774	7.3774	-3.5673	2.0918
42	-5.9694	5.9694	-2.0918	0.89795
43	-4.6882	4.6882	-0.89795	-3.96889E-02
44	-3.5436	3.5436	3.96889E-02	-0.74840
45	-2.5390	2.5390	0.74840	-1.2562
46	-1.6732	1.6732	1.2562	-1.5908
47	-0.94123	0.94123	1.5908	-1.7791
48	-0.33586	0.33586	1.7791	-1.8463
49	0.15182	-0.15182	1.8463	-1.8159
50	0.53149	-0.53149	1.8159	-1.7096
51	0.81299	-0.81299	1.7096	-1.5470
52	1.0058	-1.0058	1.5470	-1.3458
53	1.1187	-1.1187	1.3458	-1.1221
54	1.1596	-1.1596	1.1221	-0.89018
55	1.1349	-1.1349	0.89018	-0.66320
56	1.0500	-1.0500	0.66320	-0.45320
57	0.90902	-0.90902	0.45320	-0.27140
58	0.71479	-0.71479	0.27140	-0.12844
59	0.46914	-0.46914	0.12844	-3.46122E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.17305 -0.17305 3.46122E-02-4.03255E-13

```

ITER      0  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM=0.2297E+05  REMNOR=0.1370E-20  RATIO =0.4560    TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.4560     RATIO= 0.000
            MAX UN= 104.8     IEQ=   33 NODE    17 DOF   1  Y-DISPL.F
            MIN UN=-100.8    IEQ=   41 NODE    21 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      2  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM= 2.690      REMNOR=0.1815E-20  RATIO =0.4936E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.4936E-02  RATIO= 0.000
            MAX UN=0.8161     IEQ=   65 NODE    33 DOF   1  Y-DISPL.F
            MIN UN=-.5986E-10 IEQ=   37 NODE    19 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      3  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM=0.2539      REMNOR=0.1691E-20  RATIO =0.1516E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.1516E-02  RATIO= 0.000
            MAX UN=0.3933     IEQ=   33 NODE    17 DOF   1  Y-DISPL.F
            MIN UN=-.3931E-09 IEQ=    3 NODE     2 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      4  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM=0.3147E-01  REMNOR=0.1350E-20  RATIO =0.5338E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.5338E-03  RATIO= 0.000
            MAX UN=0.1710     IEQ=   37 NODE    19 DOF   1  Y-DISPL.F
            MIN UN=-.4077E-09 IEQ=    9 NODE     5 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      5  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM=0.2642E-02  REMNOR=0.3057E-20  RATIO =0.1547E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.1547E-03  RATIO= 0.000
            MAX UN=0.3911E-01 IEQ=   43 NODE    22 DOF   1  Y-DISPL.F
            MIN UN=-.3663E-09 IEQ=    5 NODE     3 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0

ITER      6  RNORM =0.3480E+05  RMNORM= 0.000
            RINORM=0.1104E+06  RIMNOR=0.1936E+06
            RENORM=0.4854E-18  REMNOR=0.1290E-20  RATIO =0.2097E-11  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 181.0      RMMAX = 95.57
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-03
            RDT  =0.1104E+06  RDR   =0.1936E+06
            RATIO=0.2097E-11  RATIO= 0.000
            MAX UN=0.3468E-09 IEQ=    3 NODE     2 DOF   1  Y-DISPL.F
            MIN UN=-.3762E-09 IEQ=    5 NODE     3 DOF   1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS      0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                     |
|                                                                     |
|                   NewProject.BaseDesignSection_28.A2M2R1_1787 |
|                   Exe Time :24 May 2018           18:23:41 |
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New Project

SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 6 (AT TIME 6.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	5.2410586E-03	-1.1305412E-03	
2	5.0149503E-03	-1.1305412E-03	
3	4.7888444E-03	-1.1305072E-03	
4	4.5627567E-03	-1.1303347E-03	
5	4.3367316E-03	-1.1298460E-03	
6	4.1108563E-03	-1.1287869E-03	
7	3.8852770E-03	-1.1268251E-03	
8	3.6602136E-03	-1.1235531E-03	
9	3.4359751E-03	-1.1184908E-03	
10	3.2129735E-03	-1.1110859E-03	
11	2.9917385E-03	-1.1007145E-03	
12	2.7729318E-03	-1.0866814E-03	
13	2.5573611E-03	-1.0682206E-03	
14	2.3459945E-03	-1.0444954E-03	
15	2.1399744E-03	-1.0145981E-03	
16	1.9406319E-03	-9.7755069E-04	
17	1.7494998E-03	-9.3230403E-04	
18	1.5683306E-03	-8.7773905E-04	
19	1.3991048E-03	-8.1266526E-04	
20	1.2440491E-03	-7.3582201E-04	
21	1.1056500E-03	-6.4587833E-04	
22	9.8578280E-04	-5.5466991E-04	
23	8.8308197E-04	-4.7396290E-04	
24	7.9560048E-04	-4.0221335E-04	
25	7.2170712E-04	-3.3780649E-04	
26	6.6010074E-04	-2.7905676E-04	
27	6.0960417E-04	-2.2751436E-04	
28	5.6850705E-04	-1.8479500E-04	
29	5.3519708E-04	-1.4941202E-04	
30	5.0833876E-04	-1.2008132E-04	
31	4.8683315E-04	-9.5721583E-05	
32	4.6977738E-04	-7.5454291E-05	
33	4.5642377E-04	-5.8603354E-05	
34	4.4613982E-04	-4.4695672E-05	
35	4.3836918E-04	-3.3432692E-05	
36	4.3260577E-04	-2.4584349E-05	
37	4.2839086E-04	-1.7905079E-05	
38	4.2531652E-04	-1.3134293E-05	
39	4.2302749E-04	-1.0008261E-05	
40	4.2122076E-04	-8.2691237E-06	
41	4.1964374E-04	-7.6715567E-06	
42	4.1809124E-04	-7.9874131E-06	
43	4.1640175E-04	-9.0086193E-06	
44	4.1445319E-04	-1.0548824E-05	
45	4.1215854E-04	-1.2444353E-05	
46	4.0946117E-04	-1.4554327E-05	
47	4.0633043E-04	-1.6759997E-05	
48	4.0275730E-04	-1.8963667E-05	
49	3.9875030E-04	-2.1087239E-05	
50	3.9433178E-04	-2.3070540E-05	
51	3.8953439E-04	-2.4869612E-05	
52	3.8439806E-04	-2.6454938E-05	
53	3.7896794E-04	-2.7809591E-05	
54	3.7329023E-04	-2.8928176E-05	
55	3.6741213E-04	-2.9814886E-05	
56	3.6137887E-04	-3.0482644E-05	
57	3.5523229E-04	-3.0952069E-05	
58	3.4900943E-04	-3.1250708E-05	
59	3.4274114E-04	-3.1412480E-05	
60	3.3645090E-04	-3.1477296E-05	
61	3.3015332E-04	-3.1490819E-05	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018   18:23:41 |
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New Project

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STRESS RESULTS FOR GROUP NO. 1

0_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-5.2411E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4654	-5.0150E-03	2.675	0.8532	2.675	5.490	ACTIVE	0.000	-0.2000	1.474	
1.000	1.000	2.327	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9615	-4.7888E-03	5.831	1.860	5.831	8.815	ACTIVE	0.000	-0.4000	2.947	
1.000	1.000	4.808	0.000	0.000	Ug5_2_8_L_0						
4 D	1.470	-4.5628E-03	9.186	2.930	9.186	11.65	ACTIVE	0.000	-0.6000	4.421	
1.000	1.000	7.352	0.000	0.000	Ug5_2_8_L_0						
5 D	2.004	-4.3367E-03	12.93	4.126	12.93	14.00	ACTIVE	0.000	-0.8000	5.895	
1.000	1.000	10.02	0.000	0.000	Ug5_2_8_L_0						
6 D	2.538	-4.1109E-03	16.68	5.320	16.68	16.11	ACTIVE	0.000	-1.000	7.368	
1.000	1.000	12.69	0.000	0.000	Ug5_2_8_L_0						
7 D	3.036	-3.8853E-03	19.87	6.337	19.87	18.11	ACTIVE	0.000	-1.200	8.842	
1.000	1.000	15.18	0.000	0.000	Ug5_2_8_L_0						
8 D	3.527	-3.6602E-03	22.94	7.317	22.94	20.02	ACTIVE	0.000	-1.400	10.32	
1.000	1.000	17.63	0.000	0.000	Ug5_2_8_L_0						
9 D	4.024	-3.4360E-03	26.12	8.332	26.12	21.87	ACTIVE	0.000	-1.600	11.79	
1.000	1.000	20.12	0.000	0.000	Ug5_2_8_L_0						
10 D	4.507	-3.2130E-03	29.06	9.270	29.06	23.65	ACTIVE	0.000	-1.800	13.26	
1.000	1.000	22.53	0.000	0.000	Ug5_2_8_L_0						
11 D	4.997	-2.9917E-03	32.12	10.25	32.12	25.38	ACTIVE	0.000	-2.000	14.74	
1.000	1.000	24.98	0.000	0.000	Ug5_2_8_L_0						
12 D	5.477	-2.7729E-03	35.02	11.17	35.02	27.06	ACTIVE	0.000	-2.200	16.21	
1.000	1.000	27.38	0.000	0.000	Ug5_2_8_L_0						
13 D	5.964	-2.5574E-03	38.04	12.14	38.04	28.68	ACTIVE	0.000	-2.400	17.68	
1.000	1.000	29.82	0.000	0.000	Ug5_2_8_L_0						
14 D	6.443	-2.3460E-03	40.94	13.06	40.94	30.25	ACTIVE	0.000	-2.600	19.16	
1.000	1.000	32.22	0.000	0.000	Ug5_2_8_L_0						
15 D	6.930	-2.1400E-03	43.94	14.02	43.94	31.77	ACTIVE	0.000	-2.800	20.63	
1.000	1.000	34.65	0.000	0.000	Ug5_2_8_L_0						
16 D	7.410	-1.9406E-03	46.85	14.94	46.85	33.24	ACTIVE	0.000	-3.000	22.11	
1.000	1.000	37.05	0.000	0.000	Ug5_2_8_L_0						
17 D	7.896	-1.7495E-03	49.85	15.90	49.85	34.66	ACTIVE	0.000	-3.200	23.58	
1.000	1.000	39.48	0.000	0.000	Ug5_2_8_L_0						
18 D	8.377	-1.5683E-03	52.77	16.83	52.77	36.03	ACTIVE	0.000	-3.400	25.05	
1.000	1.000	41.89	0.000	0.000	Ug5_2_8_L_0						
19 D	8.858	-1.3991E-03	55.69	17.77	55.69	37.37	ACTIVE	0.000	-3.600	26.53	
1.000	1.000	44.29	0.000	0.000	Ug5_2_8_L_0						
20 D	9.345	-1.2440E-03	58.70	18.73	58.70	38.66	ACTIVE	0.000	-3.800	28.00	
1.000	1.000	46.73	0.000	0.000	Ug5_2_8_L_0						
21 D	9.827	-1.1057E-03	61.63	19.66	61.63	39.92	ACTIVE	0.000	-4.000	29.47	
1.000	1.000	49.13	0.000	0.000	Ug5_2_8_L_0						
22 D	10.31	-9.8578E-04	64.64	20.62	64.64	41.14	ACTIVE	0.000	-4.200	30.95	
1.000	1.000	51.57	0.000	0.000	Ug5_2_8_L_0						
23 D	10.80	-8.8308E-04	67.57	21.56	67.57	42.33	ACTIVE	0.000	-4.400	32.42	
1.000	1.000	53.98	0.000	0.000	Ug5_2_8_L_0						
24 D	11.28	-7.9560E-04	70.57	22.51	70.57	43.49	ACTIVE	0.000	-4.600	33.89	
1.000	1.000	56.41	0.000	0.000	Ug5_2_8_L_0						
25 D	11.76	-7.2171E-04	73.51	23.45	73.51	44.63	ACTIVE	0.000	-4.800	35.37	
1.000	1.000	58.82	0.000	0.000	Ug5_2_8_L_0						
26 D	12.25	-6.6010E-04	76.44	24.38	76.44	45.73	ACTIVE	0.000	-5.000	36.84	
1.000	1.000	61.23	0.000	0.000	Ug5_2_8_L_0						
27 D	12.71	-6.0960E-04	79.14	25.25	79.14	46.82	ACTIVE	0.000	-5.200	38.32	
1.000	1.000	63.56	0.000	0.000	Ug5_2_8_L_0						
28 D	13.18	-5.6851E-04	81.86	26.11	81.86	47.88	ACTIVE	0.000	-5.400	39.79	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	65.90	0.000	0.000	Ug5_2_8_L_0					
29 D	13.65	-5.3520E-04	84.58	26.98	84.58	48.92	ACTIVE	0.000	-5.600	41.26
1.000	1.000	68.24	0.000	0.000	Ug5_2_8_L_0					
30 D	14.12	-5.0834E-04	87.30	27.85	87.30	49.95	ACTIVE	0.000	-5.800	42.74
1.000	1.000	70.59	0.000	0.000	Ug5_2_8_L_0					
31 D	14.59	-4.8683E-04	90.03	28.72	90.03	50.96	ACTIVE	0.000	-6.000	44.21
1.000	1.000	72.93	0.000	0.000	Ug5_2_8_L_0					
32 D	15.05	-4.6978E-04	92.76	29.59	92.76	51.95	ACTIVE	0.000	-6.200	45.68
1.000	1.000	75.27	0.000	0.000	Ug5_2_8_L_0					
33 D	15.52	-4.5642E-04	95.49	30.46	95.49	52.93	ACTIVE	0.000	-6.400	47.16
1.000	1.000	77.62	0.000	0.000	Ug5_2_8_L_0					
34 D	16.01	-4.4614E-04	98.47	31.41	98.47	53.90	ACTIVE	0.000	-6.600	48.63
1.000	1.000	80.04	0.000	0.000	Ug5_2_8_L_0					
35 D	16.68	-4.3837E-04	101.3	33.28	101.3	54.86	UL-RL	4.3817E+04	-6.800	50.11
1.000	1.000	83.38	0.000	0.000	Ug5_2_8_L_0					
36 D	17.40	-4.3261E-04	104.8	35.44	104.8	55.81	UL-RL	4.3817E+04	-7.000	51.58
1.000	1.000	87.02	0.000	0.000	Ug5_2_8_L_0					
37 D	18.07	-4.2839E-04	107.6	37.31	107.6	56.75	UL-RL	4.3817E+04	-7.200	53.05
1.000	1.000	90.36	0.000	0.000	Ug5_2_8_L_0					
38 D	18.69	-4.2532E-04	111.0	38.94	111.0	57.68	UL-RL	4.3817E+04	-7.400	54.53
1.000	1.000	93.47	0.000	0.000	Ug5_2_8_L_0					
39 D	19.28	-4.2303E-04	113.8	40.39	113.8	58.60	UL-RL	4.3817E+04	-7.600	56.00
1.000	1.000	96.39	0.000	0.000	Ug5_2_8_L_0					
40 D	19.84	-4.2122E-04	117.1	41.71	117.1	59.52	UL-RL	4.3817E+04	-7.800	57.47
1.000	1.000	99.18	0.000	0.000	Ug5_2_8_L_0					
41 D	20.37	-4.1964E-04	120.4	42.92	120.4	60.43	UL-RL	4.3817E+04	-8.000	58.95
1.000	1.000	101.9	0.000	0.000	Ug5_2_8_L_0					
42 D	20.90	-4.1809E-04	123.2	44.07	123.2	61.34	UL-RL	4.3817E+04	-8.200	60.42
1.000	1.000	104.5	0.000	0.000	Ug5_2_8_L_0					
43 D	21.41	-4.1640E-04	126.4	45.18	126.4	62.25	UL-RL	4.3817E+04	-8.400	61.89
1.000	1.000	107.1	0.000	0.000	Ug5_2_8_L_0					
44 D	21.93	-4.1445E-04	129.2	46.26	129.2	63.15	UL-RL	4.3817E+04	-8.600	63.37
1.000	1.000	109.6	0.000	0.000	Ug5_2_8_L_0					
45 D	22.44	-4.1216E-04	132.4	47.35	132.4	64.04	UL-RL	4.3817E+04	-8.800	64.84
1.000	1.000	112.2	0.000	0.000	Ug5_2_8_L_0					
46 D	22.95	-4.0946E-04	135.1	48.45	135.1	64.93	UL-RL	4.3817E+04	-9.000	66.32
1.000	1.000	114.8	0.000	0.000	Ug5_2_8_L_0					
47 D	23.47	-4.0633E-04	138.3	49.58	138.3	65.83	UL-RL	4.3817E+04	-9.200	67.79
1.000	1.000	117.4	0.000	0.000	Ug5_2_8_L_0					
48 D	24.00	-4.0276E-04	141.0	50.73	141.0	66.71	UL-RL	4.3817E+04	-9.400	69.26
1.000	1.000	120.0	0.000	0.000	Ug5_2_8_L_0					
49 D	24.53	-3.9875E-04	144.1	51.91	144.1	67.60	UL-RL	4.3817E+04	-9.600	70.74
1.000	1.000	122.6	0.000	0.000	Ug5_2_8_L_0					
50 D	25.07	-3.9433E-04	146.8	53.13	146.8	68.49	UL-RL	4.3817E+04	-9.800	72.21
1.000	1.000	125.3	0.000	0.000	Ug5_2_8_L_0					
51 D	25.61	-3.8953E-04	149.9	54.37	149.9	69.37	UL-RL	4.3817E+04	-10.000	73.68
1.000	1.000	128.1	0.000	0.000	Ug5_2_8_L_0					
52 D	26.16	-3.8440E-04	152.6	55.65	152.6	70.25	UL-RL	4.3817E+04	-10.200	75.16
1.000	1.000	130.8	0.000	0.000	Ug5_2_8_L_0					
53 D	26.72	-3.7897E-04	155.7	56.96	155.7	71.13	UL-RL	4.3817E+04	-10.400	76.63
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
54 D	27.28	-3.7329E-04	158.7	58.29	158.7	72.02	UL-RL	4.3817E+04	-10.600	78.11
1.000	1.000	136.4	0.000	0.000	Ug5_2_8_L_0					
55 D	27.85	-3.6741E-04	161.4	59.65	161.4	72.90	UL-RL	4.3817E+04	-10.800	79.58
1.000	1.000	139.2	0.000	0.000	Ug5_2_8_L_0					
56 D	28.41	-3.6138E-04	164.4	61.02	164.4	73.78	UL-RL	4.3817E+04	-11.000	81.05
1.000	1.000	142.1	0.000	0.000	Ug5_2_8_L_0					
57 D	28.98	-3.5523E-04	167.1	62.40	167.1	74.66	UL-RL	4.3817E+04	-11.200	82.53
1.000	1.000	144.9	0.000	0.000	Ug5_2_8_L_0					
58 D	29.56	-3.4901E-04	170.1	63.79	170.1	75.54	UL-RL	4.3817E+04	-11.400	84.00
1.000	1.000	147.8	0.000	0.000	Ug5_2_8_L_0					
59 D	30.13	-3.4274E-04	172.8	65.18	172.8	76.42	UL-RL	4.3817E+04	-11.600	85.47
1.000	1.000	150.7	0.000	0.000	Ug5_2_8_L_0					
60 D	30.71	-3.3645E-04	175.8	66.58	175.8	77.30	UL-RL	4.3817E+04	-11.800	86.95
1.000	1.000	153.5	0.000	0.000	Ug5_2_8_L_0					
61 D	15.64	-3.3015E-04	178.4	67.98	178.4	78.18	UL-RL	4.3817E+04	-12.000	88.42
1.000	1.000	156.4	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*          |
|                                                                                                                                            |
|                                                                                                                                            |
|                                                                                                                                            |
|          NewProject.BaseDesignSection_28.A2M2R1_1787          |
|          Exe Time :24 May 2018          18:23:41          |
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New Project

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STRESS RESULTS FOR GROUP NO. 2

0_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 6.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26 D	0.000	6.6010E-04	0.000	0.000	50.00	53.53	PASSIVE	0.000	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
27 D	1.855	6.0960E-04	1.474	6.746	52.00	52.86	PASSIVE	0.000	-5.200	2.526	
1.000	1.000	9.273	0.000	0.000	Ug5_2_8_L_0						
28 D	3.709	5.6851E-04	2.947	13.49	54.00	52.38	PASSIVE	0.000	-5.400	5.053	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	18.55	0.000	0.000	Ug5_2_8_L_0					
29 D	5.564	5.3520E-04	4.421	20.24	56.00	52.07	PASSIVE	0.000	-5.600	7.579
1.000	1.000	27.82	0.000	0.000	Ug5_2_8_L_0					
30 D	7.418	5.0834E-04	5.895	26.99	58.00	51.93	PASSIVE	0.000	-5.800	10.11
1.000	1.000	37.09	0.000	0.000	Ug5_2_8_L_0					
31 D	9.273	4.8683E-04	7.368	33.73	60.00	51.95	PASSIVE	0.000	-6.000	12.63
1.000	1.000	46.36	0.000	0.000	Ug5_2_8_L_0					
32 D	11.13	4.6978E-04	8.842	40.48	62.00	52.11	PASSIVE	0.000	-6.200	15.16
1.000	1.000	55.64	0.000	0.000	Ug5_2_8_L_0					
33 D	12.98	4.5642E-04	10.32	47.23	64.00	52.40	PASSIVE	0.000	-6.400	17.68
1.000	1.000	64.91	0.000	0.000	Ug5_2_8_L_0					
34 D	14.47	4.4614E-04	11.79	52.13	66.00	52.80	UL-RL	2.7960E+04	-6.600	20.21
1.000	1.000	72.34	0.000	0.000	Ug5_2_8_L_0					
35 D	15.07	4.3837E-04	13.26	52.62	68.00	53.54	UL-RL	2.7960E+04	-6.800	22.74
1.000	1.000	75.36	0.000	0.000	Ug5_2_8_L_0					
36 D	15.65	4.3261E-04	14.74	52.99	70.00	54.41	UL-RL	2.7960E+04	-7.000	25.26
1.000	1.000	78.26	0.000	0.000	Ug5_2_8_L_0					
37 D	16.26	4.2839E-04	16.21	53.52	72.00	55.28	UL-RL	2.7960E+04	-7.200	27.79
1.000	1.000	81.31	0.000	0.000	Ug5_2_8_L_0					
38 D	16.90	4.2532E-04	17.68	54.17	74.00	56.13	UL-RL	2.7960E+04	-7.400	30.32
1.000	1.000	84.49	0.000	0.000	Ug5_2_8_L_0					
39 D	17.55	4.2303E-04	19.16	54.91	76.00	56.98	UL-RL	2.7960E+04	-7.600	32.84
1.000	1.000	87.75	0.000	0.000	Ug5_2_8_L_0					
40 D	18.21	4.2122E-04	20.63	55.69	78.00	57.84	UL-RL	2.7960E+04	-7.800	35.37
1.000	1.000	91.06	0.000	0.000	Ug5_2_8_L_0					
41 D	18.88	4.1964E-04	22.11	56.50	80.00	58.70	UL-RL	2.7960E+04	-8.000	37.89
1.000	1.000	94.40	0.000	0.000	Ug5_2_8_L_0					
42 D	19.55	4.1809E-04	23.58	57.32	82.00	59.56	UL-RL	2.7960E+04	-8.200	40.42
1.000	1.000	97.74	0.000	0.000	Ug5_2_8_L_0					
43 D	20.22	4.1640E-04	25.05	58.14	84.00	60.42	UL-RL	2.7960E+04	-8.400	42.95
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
44 D	20.89	4.1445E-04	26.53	58.96	86.00	61.28	UL-RL	2.7960E+04	-8.600	45.47
1.000	1.000	104.4	0.000	0.000	Ug5_2_8_L_0					
45 D	21.55	4.1216E-04	28.00	59.77	88.00	62.13	UL-RL	2.7960E+04	-8.800	48.00
1.000	1.000	107.8	0.000	0.000	Ug5_2_8_L_0					
46 D	22.22	4.0946E-04	29.47	60.56	90.00	62.98	UL-RL	2.7960E+04	-9.000	50.53
1.000	1.000	111.1	0.000	0.000	Ug5_2_8_L_0					
47 D	22.87	4.0633E-04	30.95	61.32	92.00	63.83	UL-RL	2.7960E+04	-9.200	53.05
1.000	1.000	114.4	0.000	0.000	Ug5_2_8_L_0					
48 D	23.53	4.0276E-04	32.42	62.06	94.00	64.67	UL-RL	2.7960E+04	-9.400	55.58
1.000	1.000	117.6	0.000	0.000	Ug5_2_8_L_0					
49 D	24.18	3.9875E-04	33.89	62.78	96.00	65.51	UL-RL	2.7960E+04	-9.600	58.11
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
50 D	24.82	3.9433E-04	35.37	63.46	98.00	66.36	UL-RL	2.7960E+04	-9.800	60.63
1.000	1.000	124.1	0.000	0.000	Ug5_2_8_L_0					
51 D	25.46	3.8953E-04	36.84	64.12	100.00	67.20	UL-RL	2.7960E+04	-10.000	63.16
1.000	1.000	127.3	0.000	0.000	Ug5_2_8_L_0					
52 D	26.09	3.8440E-04	38.32	64.76	102.0	68.03	UL-RL	2.7960E+04	-10.200	65.68
1.000	1.000	130.4	0.000	0.000	Ug5_2_8_L_0					
53 D	26.72	3.7897E-04	39.79	65.37	104.0	68.87	UL-RL	2.7960E+04	-10.400	68.21
1.000	1.000	133.6	0.000	0.000	Ug5_2_8_L_0					
54 D	27.34	3.7329E-04	41.26	65.96	106.0	69.71	UL-RL	2.7960E+04	-10.600	70.74
1.000	1.000	136.7	0.000	0.000	Ug5_2_8_L_0					
55 D	27.96	3.6741E-04	42.74	66.54	108.0	70.55	UL-RL	2.7960E+04	-10.800	73.26
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
56 D	28.58	3.6138E-04	44.21	67.11	110.0	71.39	UL-RL	2.7960E+04	-11.000	75.79
1.000	1.000	142.9	0.000	0.000	Ug5_2_8_L_0					
57 D	29.20	3.5523E-04	45.68	67.66	112.0	72.22	UL-RL	2.7960E+04	-11.200	78.32
1.000	1.000	146.0	0.000	0.000	Ug5_2_8_L_0					
58 D	29.81	3.4901E-04	47.16	68.21	114.0	73.06	UL-RL	2.7960E+04	-11.400	80.84
1.000	1.000	149.1	0.000	0.000	Ug5_2_8_L_0					
59 D	30.42	3.4274E-04	48.63	68.75	116.0	73.90	UL-RL	2.7960E+04	-11.600	83.37
1.000	1.000	152.1	0.000	0.000	Ug5_2_8_L_0					
60 D	31.04	3.3645E-04	50.11	69.29	118.0	74.74	UL-RL	2.7960E+04	-11.800	85.89
1.000	1.000	155.2	0.000	0.000	Ug5_2_8_L_0					
61 D	15.83	3.3015E-04	51.58	69.83	120.0	75.57	UL-RL	2.7960E+04	-12.000	88.42
1.000	1.000	158.3	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

```

+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018      18:23:41 |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 6.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	8.08243E-11	-8.08243E-11	8.16103E-12	-5.14353E-11
2	0.46538	-0.46538	3.27838E-11	9.30754E-02
3	1.4269	-1.4269	-9.30754E-02	0.37845
4	2.8972	-2.8972	-0.37845	0.95789
5	4.9014	-4.9014	-0.95789	1.9382
6	7.4391	-7.4391	-1.9382	3.4260
7	10.475	-10.475	-3.4260	5.5210
8	14.002	-14.002	-5.5210	8.3213
9	18.026	-18.026	-8.3213	11.926
10	22.532	-22.532	-11.926	16.433
11	27.529	-27.529	-16.433	21.939
12	33.006	-33.006	-21.939	28.540
13	38.970	-38.970	-28.540	36.334
14	45.413	-45.413	-36.334	45.416
15	52.343	-52.343	-45.416	55.885
16	59.753	-59.753	-55.885	67.836
17	67.649	-67.649	-67.836	81.365
18	76.026	-76.026	-81.365	96.571
19	84.884	-84.884	-96.571	113.55
20	94.229	-94.229	-113.55	132.39
21	-76.944	76.944	-132.39	117.00
22	-66.630	66.630	-117.00	103.68
23	-55.835	55.835	-103.68	92.512
24	-44.553	44.553	-92.512	83.601
25	-32.790	32.790	-83.601	77.043
26	-65.745	65.745	-77.043	63.894
27	-54.887	54.887	-63.894	52.917
28	-45.415	45.415	-52.917	43.834
29	-37.331	37.331	-43.834	36.368
30	-30.632	30.632	-36.368	30.241
31	-25.319	25.319	-30.241	25.177
32	-21.391	21.391	-25.177	20.899
33	-18.849	18.849	-20.899	17.130
34	-17.309	17.309	-17.130	13.668
35	-15.703	15.703	-13.668	10.527
36	-13.951	13.951	-10.527	7.7367
37	-12.142	12.142	-7.7367	5.3084
38	-10.345	10.345	-5.3084	3.2394
39	-8.6162	8.6162	-3.2394	1.5161
40	-6.9912	6.9912	-1.5161	0.11787
41	-5.4970	5.4970	-0.11787	-0.98154
42	-4.1464	4.1464	0.98154	-1.8108
43	-2.9493	2.9493	1.8108	-2.4007
44	-1.9088	1.9088	2.4007	-2.7824
45	-1.0229	1.0229	2.7824	-2.9870
46	-0.28541	0.28541	2.9870	-3.0441
47	0.31274	-0.31274	3.0441	-2.9816
48	0.78236	-0.78236	2.9816	-2.8251
49	1.1353	-1.1353	2.8251	-2.5980
50	1.3836	-1.3836	2.5980	-2.3213
51	1.5392	-1.5392	2.3213	-2.0135
52	1.6131	-1.6131	2.0135	-1.6909
53	1.6154	-1.6154	1.6909	-1.3678
54	1.5548	-1.5548	1.3678	-1.0568
55	1.4387	-1.4387	1.0568	-0.76908
56	1.2729	-1.2729	0.76908	-0.51450
57	1.0620	-1.0620	0.51450	-0.30209
58	0.80918	-0.80918	0.30209	-0.14026
59	0.51640	-0.51640	0.14026	-3.69749E-02

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

60 0.18487 -0.18487 3.69749E-02-1.28047E-12

```

ITER      0  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM=0.1930E+06  REMNOR=0.1290E-20  RATIO = 1.068      TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO= 1.068      RATIO= 0.000
            MAX UN= 180.7      IEQ= 41 NODE      21 DOF  1  Y-DISPL.F
            MIN UN=-322.3      IEQ= 49 NODE      25 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      2  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM= 405.5      REMNOR=0.1876E-20  RATIO =0.4895E-01  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO=0.4895E-01  RATIO= 0.000
            MAX UN= 3.225      IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-9.134      IEQ= 63 NODE      32 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      3  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM= 13.88      REMNOR=0.3892E-20  RATIO =0.9058E-02  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO=0.9058E-02  RATIO= 0.000
            MAX UN= 1.455      IEQ= 19 NODE      10 DOF  1  Y-DISPL.F
            MIN UN=-1.888      IEQ= 71 NODE      36 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      4  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM=0.3134E-01  REMNOR=0.1119E-20  RATIO =0.4304E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO=0.4304E-03  RATIO= 0.000
            MAX UN=0.7615E-01  IEQ= 105 NODE      53 DOF  1  Y-DISPL.F
            MIN UN=-.1187      IEQ= 27 NODE      14 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      5  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM=0.2693E-01  REMNOR=0.2133E-20  RATIO =0.3989E-03  TOLER =0.1000E-03  NOT CONVERGED
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO=0.3989E-03  RATIO= 0.000
            MAX UN=0.6007E-01  IEQ= 3 NODE      2 DOF  1  Y-DISPL.F
            MIN UN=-.2510E-02  IEQ= 89 NODE      45 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0

ITER      6  RNORM =0.1618E+06  RMNORM= 0.000
            RINORM=0.1692E+06  RIMNOR=0.2362E+06
            RENORM=0.2003E-03  REMNOR=0.2197E-20  RATIO =0.3440E-04  TOLER =0.1000E-03  CONVERGED !
            RFMAX = 322.0      RMMAX = 132.4
            RTSMAL=0.1000E-02  RMSMAL=0.1000E-02
            RDT =0.1692E+06  RDR =0.2362E+06
            RATIO=0.3440E-04  RATIO= 0.000
            MAX UN=0.6603E-03  IEQ= 105 NODE      53 DOF  1  Y-DISPL.F
            MIN UN=-.7951E-02  IEQ= 35 NODE      18 DOF  1  Y-DISPL.F
            NO. OF CONTACT CONSTRAINT VIOLATIONS  0
    
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Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017*   |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787   |
|          Exe Time :24 May 2018           18:23:41       |
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New Project
SOLUTION REACHED USING 6 ITERATIONS ON 40

PRINT OUT FOR TIME STEP 7 (AT TIME 7.000)

PRINT OUT OF ACTIVE COMPONENTS (FIXED NODES ARE NOT PRINTED OUT)

	Y-DISPL.F (02)	X-ROT. F (04)	(
1	7.0386940E-03	-1.9872668E-03	
2	6.6412406E-03	-1.9872668E-03	
3	6.2437895E-03	-1.9872338E-03	
4	5.8463561E-03	-1.9870666E-03	
5	5.4489832E-03	-1.9865932E-03	
6	5.0517556E-03	-1.9855682E-03	
7	4.6548142E-03	-1.9836704E-03	
8	4.2583718E-03	-1.9805061E-03	
9	3.8627271E-03	-1.9756116E-03	
10	3.4682781E-03	-1.9684539E-03	
11	3.0755365E-03	-1.9584307E-03	
12	2.6851415E-03	-1.9448714E-03	
13	2.2978763E-03	-1.9269872E-03	
14	1.9147016E-03	-1.9037793E-03	
15	1.5368027E-03	-1.8739998E-03	
16	1.1656360E-03	-1.8362050E-03	
17	8.0295908E-04	-1.7888075E-03	
18	4.5086668E-04	-1.7300776E-03	
19	1.1180822E-04	-1.6581449E-03	
20	-2.1137724E-04	-1.5710018E-03	
21	-5.1543420E-04	-1.4665069E-03	
22	-7.9666991E-04	-1.3423837E-03	
23	-1.0509187E-03	-1.1962260E-03	
24	-1.2735224E-03	-1.0254989E-03	
25	-1.4593031E-03	-8.2754462E-04	
26	-1.6041103E-03	-6.2314208E-04	
27	-1.7095079E-03	-4.3296579E-04	
28	-1.7780462E-03	-2.5404099E-04	
29	-1.8116707E-03	-8.3312111E-05	
30	-1.8117087E-03	8.2351015E-05	
31	-1.7788551E-03	2.4614217E-04	
32	-1.7143357E-03	3.9368060E-04	
33	-1.6234254E-03	5.1058597E-04	
34	-1.5119310E-03	6.0004700E-04	
35	-1.3850277E-03	6.6519009E-04	
36	-1.2472720E-03	7.0907775E-04	
37	-1.1026144E-03	7.3471031E-04	
38	-9.5440984E-04	7.4502370E-04	
39	-8.0544249E-04	7.4277334E-04	
40	-6.5797554E-04	7.3039747E-04	
41	-5.1381483E-04	7.1005160E-04	
42	-3.7435618E-04	6.8368655E-04	
43	-2.4062366E-04	6.5306981E-04	
44	-1.1330576E-04	6.1979051E-04	
45	7.2088982E-06	5.8526543E-04	
46	1.2080013E-04	5.5074517E-04	
47	2.2757834E-04	5.1729557E-04	
48	3.2784652E-04	4.8576845E-04	
49	4.2205647E-04	4.5680260E-04	
50	5.1076706E-04	4.3083595E-04	
51	5.9460687E-04	4.0811629E-04	
52	6.7423657E-04	3.8871181E-04	
53	7.5030641E-04	3.7255614E-04	
54	8.2346146E-04	3.5949453E-04	
55	8.9429640E-04	3.4931552E-04	
56	9.6336232E-04	3.4175619E-04	
57	1.0311527E-03	3.3650354E-04	
58	1.0980933E-03	3.3319491E-04	
59	1.1645327E-03	3.3141819E-04	
60	1.2307320E-03	3.3071199E-04	
61	1.2968582E-03	3.3056565E-04	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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+-----+
|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|          |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
+-----+
New Project
    
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STRESS RESULTS FOR GROUP NO. 1

O_L :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peq	Su_a	Su_p	LAYER						
1 D	0.000	-7.0387E-03	0.000	0.000	0.000	0.000	ACTIVE	0.000	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	Ug5_2_8_L_0						
2 D	0.4520	-6.6412E-03	2.815	0.9268	2.815	5.490	UL-RL	3.6514E+04	-0.2000	1.333	
1.000	1.000	2.260	0.000	0.000	Ug5_2_8_L_0						
3 D	0.9301	-6.2438E-03	6.112	1.984	6.112	8.815	UL-RL	3.6514E+04	-0.4000	2.667	
1.000	1.000	4.651	0.000	0.000	Ug5_2_8_L_0						
4 D	1.421	-5.8464E-03	9.608	3.105	9.608	11.65	UL-RL	3.6514E+04	-0.6000	4.000	
1.000	1.000	7.105	0.000	0.000	Ug5_2_8_L_0						
5 D	1.937	-5.4490E-03	13.50	4.350	13.50	14.00	UL-RL	3.6514E+04	-0.8000	5.333	
1.000	1.000	9.684	0.000	0.000	Ug5_2_8_L_0						
6 D	2.452	-5.0518E-03	17.38	5.594	17.38	16.11	UL-RL	3.6514E+04	-1.000	6.667	
1.000	1.000	12.26	0.000	0.000	Ug5_2_8_L_0						
7 D	2.932	-4.6548E-03	20.71	6.662	20.71	18.11	UL-RL	3.6514E+04	-1.200	8.000	
1.000	1.000	14.66	0.000	0.000	Ug5_2_8_L_0						
8 D	3.405	-4.2584E-03	23.92	7.691	23.92	20.02	UL-RL	3.6514E+04	-1.400	9.333	
1.000	1.000	17.02	0.000	0.000	Ug5_2_8_L_0						
9 D	3.885	-3.8627E-03	27.24	8.756	27.24	21.87	UL-RL	3.6514E+04	-1.600	10.67	
1.000	1.000	19.42	0.000	0.000	Ug5_2_8_L_0						
10 D	4.349	-3.4683E-03	30.32	9.743	30.32	23.65	UL-RL	3.6514E+04	-1.800	12.00	
1.000	1.000	21.74	0.000	0.000	Ug5_2_8_L_0						
11 D	4.821	-3.0755E-03	33.53	10.77	33.53	25.38	UL-RL	3.6514E+04	-2.000	13.33	
1.000	1.000	24.10	0.000	0.000	Ug5_2_8_L_0						
12 D	5.963	-2.6851E-03	36.57	15.15	36.57	27.06	UL-RL	3.6514E+04	-2.200	14.67	
1.000	1.000	29.82	0.000	0.000	Ug5_2_8_L_0						
13 D	7.690	-2.2979E-03	39.73	22.45	39.73	28.68	UL-RL	3.6514E+04	-2.400	16.00	
1.000	1.000	38.45	0.000	0.000	Ug5_2_8_L_0						
14 D	9.374	-1.9147E-03	42.76	29.53	42.76	30.34	UL-RL	3.6514E+04	-2.600	17.33	
1.000	1.000	46.87	0.000	0.000	Ug5_2_8_L_0						
15 D	10.36	-1.5368E-03	45.91	33.14	45.91	33.71	UL-RL	3.6514E+04	-2.800	18.67	
1.000	1.000	51.81	0.000	0.000	Ug5_2_8_L_0						
16 D	11.34	-1.1656E-03	48.95	36.70	48.95	37.03	UL-RL	3.6514E+04	-3.000	20.00	
1.000	1.000	56.70	0.000	0.000	Ug5_2_8_L_0						
17 D	12.31	-8.0296E-04	52.10	40.23	52.10	40.34	UL-RL	3.6514E+04	-3.200	21.33	
1.000	1.000	61.56	0.000	0.000	Ug5_2_8_L_0						
18 D	13.25	-4.5087E-04	55.15	43.59	55.15	43.65	UL-RL	3.6514E+04	-3.400	22.67	
1.000	1.000	66.26	0.000	0.000	Ug5_2_8_L_0						
19 D	14.18	-1.1181E-04	58.22	46.89	58.22	46.94	UL-RL	3.6514E+04	-3.600	24.00	
1.000	1.000	70.89	0.000	0.000	Ug5_2_8_L_0						
20 D	15.10	2.1138E-04	61.37	50.15	61.37	50.19	UL-RL	3.6514E+04	-3.800	25.33	
1.000	1.000	75.48	0.000	0.000	Ug5_2_8_L_0						
21 D	16.00	5.1543E-04	64.44	53.34	64.44	53.38	UL-RL	3.6514E+04	-4.000	26.67	
1.000	1.000	80.01	0.000	0.000	Ug5_2_8_L_0						
22 D	16.89	7.9667E-04	67.58	56.47	67.58	56.50	UL-RL	3.6514E+04	-4.200	28.00	
1.000	1.000	84.47	0.000	0.000	Ug5_2_8_L_0						
23 D	17.76	1.0509E-03	70.66	59.45	70.66	59.47	UL-RL	3.6514E+04	-4.400	29.33	
1.000	1.000	88.78	0.000	0.000	Ug5_2_8_L_0						
24 D	18.58	1.2735E-03	73.80	62.21	73.80	62.23	UL-RL	3.6514E+04	-4.600	30.67	
1.000	1.000	92.88	0.000	0.000	Ug5_2_8_L_0						
25 D	19.33	1.4593E-03	76.88	64.67	76.88	64.68	UL-RL	3.6514E+04	-4.800	32.00	
1.000	1.000	96.67	0.000	0.000	Ug5_2_8_L_0						
26 D	20.02	1.6041E-03	79.95	66.75	79.95	66.76	UL-RL	3.6514E+04	-5.000	33.33	
1.000	1.000	100.1	0.000	0.000	Ug5_2_8_L_0						
27 D	20.63	1.7095E-03	82.79	68.46	82.79	68.46	UL-RL	3.6514E+04	-5.200	34.67	
1.000	1.000	103.1	0.000	0.000	Ug5_2_8_L_0						
28 D	21.16	1.7780E-03	85.65	69.81	85.65	69.82	UL-RL	3.6514E+04	-5.400	36.00	

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	105.8	0.000	0.000	Ug5_2_8_L_0					
29 D	21.63	1.8117E-03	88.51	70.83	88.51	70.83	V-C	1.2171E+04	-5.600	37.33
1.000	1.000	108.2	0.000	0.000	Ug5_2_8_L_0					
30 D	22.03	1.8117E-03	91.37	71.50	91.37	71.50	V-C	1.2171E+04	-5.800	38.67
1.000	1.000	110.2	0.000	0.000	Ug5_2_8_L_0					
31 D	22.36	1.7789E-03	94.24	71.82	94.24	71.82	V-C	1.2171E+04	-6.000	40.00
1.000	1.000	111.8	0.000	0.000	Ug5_2_8_L_0					
32 D	22.63	1.7143E-03	97.11	71.81	97.11	71.81	V-C	1.2171E+04	-6.200	41.33
1.000	1.000	113.1	0.000	0.000	Ug5_2_8_L_0					
33 D	22.83	1.6234E-03	99.98	71.50	99.98	71.50	V-C	1.2171E+04	-6.400	42.67
1.000	1.000	114.2	0.000	0.000	Ug5_2_8_L_0					
34 D	23.00	1.5119E-03	103.1	71.01	103.1	71.01	V-C	1.2171E+04	-6.600	44.00
1.000	1.000	115.0	0.000	0.000	Ug5_2_8_L_0					
35 D	23.20	1.3850E-03	106.1	70.65	106.1	70.65	V-C	1.2171E+04	-6.800	45.33
1.000	1.000	116.0	0.000	0.000	Ug5_2_8_L_0					
36 D	23.39	1.2473E-03	109.7	70.28	109.7	70.28	V-C	1.2171E+04	-7.000	46.67
1.000	1.000	116.9	0.000	0.000	Ug5_2_8_L_0					
37 D	23.55	1.1026E-03	112.7	69.74	112.7	69.74	V-C	1.2171E+04	-7.200	48.00
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
38 D	23.68	9.5441E-04	116.2	69.09	116.2	69.09	V-C	1.2171E+04	-7.400	49.33
1.000	1.000	118.4	0.000	0.000	Ug5_2_8_L_0					
39 D	23.81	8.0544E-04	119.1	68.37	119.1	68.37	V-C	1.2171E+04	-7.600	50.67
1.000	1.000	119.0	0.000	0.000	Ug5_2_8_L_0					
40 D	23.93	6.5798E-04	122.6	67.63	122.6	67.63	V-C	1.2171E+04	-7.800	52.00
1.000	1.000	119.6	0.000	0.000	Ug5_2_8_L_0					
41 D	24.05	5.1381E-04	126.0	66.89	126.0	66.89	V-C	1.2171E+04	-8.000	53.33
1.000	1.000	120.2	0.000	0.000	Ug5_2_8_L_0					
42 D	24.17	3.7436E-04	128.9	66.19	128.9	66.19	V-C	1.2171E+04	-8.200	54.67
1.000	1.000	120.9	0.000	0.000	Ug5_2_8_L_0					
43 D	24.31	2.4062E-04	132.3	65.53	132.3	65.54	UL-RL	3.6514E+04	-8.400	56.00
1.000	1.000	121.5	0.000	0.000	Ug5_2_8_L_0					
44 D	24.46	1.1331E-04	135.2	64.94	135.2	64.95	UL-RL	3.6514E+04	-8.600	57.33
1.000	1.000	122.3	0.000	0.000	Ug5_2_8_L_0					
45 D	24.62	-7.2089E-06	138.5	64.43	138.5	64.44	UL-RL	3.6514E+04	-8.800	58.67
1.000	1.000	123.1	0.000	0.000	Ug5_2_8_L_0					
46 D	24.43	-1.2080E-04	141.4	62.15	141.4	64.93	UL-RL	3.6514E+04	-9.000	60.00
1.000	1.000	122.2	0.000	0.000	Ug5_2_8_L_0					
47 D	24.13	-2.2758E-04	144.7	59.33	144.7	65.83	UL-RL	3.6514E+04	-9.200	61.33
1.000	1.000	120.7	0.000	0.000	Ug5_2_8_L_0					
48 D	23.89	-3.2785E-04	147.6	56.76	147.6	66.71	UL-RL	3.6514E+04	-9.400	62.67
1.000	1.000	119.4	0.000	0.000	Ug5_2_8_L_0					
49 D	23.69	-4.2206E-04	150.8	54.43	150.8	67.60	UL-RL	3.6514E+04	-9.600	64.00
1.000	1.000	118.4	0.000	0.000	Ug5_2_8_L_0					
50 D	23.53	-5.1077E-04	153.7	52.31	153.7	68.49	UL-RL	3.6514E+04	-9.800	65.33
1.000	1.000	117.6	0.000	0.000	Ug5_2_8_L_0					
51 D	23.41	-5.9461E-04	156.9	50.39	156.9	69.37	UL-RL	3.6514E+04	-10.000	66.67
1.000	1.000	117.1	0.000	0.000	Ug5_2_8_L_0					
52 D	23.79	-6.7424E-04	159.8	50.97	159.8	70.25	UL-RL	3.6514E+04	-10.200	68.00
1.000	1.000	119.0	0.000	0.000	Ug5_2_8_L_0					
53 D	24.26	-7.5031E-04	163.0	51.99	163.0	71.13	UL-RL	3.6514E+04	-10.400	69.33
1.000	1.000	121.3	0.000	0.000	Ug5_2_8_L_0					
54 D	24.74	-8.2346E-04	166.2	53.01	166.2	72.02	UL-RL	3.6514E+04	-10.600	70.67
1.000	1.000	123.7	0.000	0.000	Ug5_2_8_L_0					
55 D	25.18	-8.9430E-04	169.0	53.91	169.0	72.90	UL-RL	3.6514E+04	-10.800	72.00
1.000	1.000	125.9	0.000	0.000	Ug5_2_8_L_0					
56 D	25.65	-9.6336E-04	172.2	54.92	172.2	73.78	UL-RL	3.6514E+04	-11.000	73.33
1.000	1.000	128.3	0.000	0.000	Ug5_2_8_L_0					
57 D	26.10	-1.0312E-03	175.0	55.81	175.0	74.66	ACTIVE	0.000	-11.200	74.67
1.000	1.000	130.5	0.000	0.000	Ug5_2_8_L_0					
58 D	26.56	-1.0981E-03	178.1	56.82	178.1	75.54	ACTIVE	0.000	-11.400	76.00
1.000	1.000	132.8	0.000	0.000	Ug5_2_8_L_0					
59 D	27.01	-1.1645E-03	180.9	57.71	180.9	76.42	ACTIVE	0.000	-11.600	77.33
1.000	1.000	135.0	0.000	0.000	Ug5_2_8_L_0					
60 D	27.48	-1.2307E-03	184.0	58.71	184.0	77.30	ACTIVE	0.000	-11.800	78.67
1.000	1.000	137.4	0.000	0.000	Ug5_2_8_L_0					
61 D	13.96	-1.2969E-03	186.8	59.60	186.8	78.18	ACTIVE	0.000	-12.000	80.00
1.000	1.000	139.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017* |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018 18:23:41                               |
+-----+
New Project

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STRESS RESULTS FOR GROUP NO. 2

O_R :
ELEMENT TYPE 5 NO.OF ELEMENTS. IN THIS GROUP 61
CURRENT TIME IS 7.0000

HARDENING 2D SOIL ELEMENT

***** TOTAL STRESS FORMULATION *****

EL *	FORCE	DISPL-Y	VERTICAL-P	HORIZON.-P	MAX-V-P	MAX-H-P	STATE	STIFFNESS	Z-LEVEL	PORE	E
FACTOR	UFACTOR	Peg	Su_a	Su_p	LAYER						
1	0.000	--	--	--	--	--	REMOVED	--	0.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
2	0.000	--	--	--	--	--	REMOVED	--	-0.2000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
3	0.000	--	--	--	--	--	REMOVED	--	-0.4000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
4	0.000	--	--	--	--	--	REMOVED	--	-0.6000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
5	0.000	--	--	--	--	--	REMOVED	--	-0.8000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
6	0.000	--	--	--	--	--	REMOVED	--	-1.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
7	0.000	--	--	--	--	--	REMOVED	--	-1.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
8	0.000	--	--	--	--	--	REMOVED	--	-1.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
9	0.000	--	--	--	--	--	REMOVED	--	-1.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
10	0.000	--	--	--	--	--	REMOVED	--	-1.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
11	0.000	--	--	--	--	--	REMOVED	--	-2.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
12	0.000	--	--	--	--	--	REMOVED	--	-2.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
13	0.000	--	--	--	--	--	REMOVED	--	-2.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
14	0.000	--	--	--	--	--	REMOVED	--	-2.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
15	0.000	--	--	--	--	--	REMOVED	--	-2.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
16	0.000	--	--	--	--	--	REMOVED	--	-3.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
17	0.000	--	--	--	--	--	REMOVED	--	-3.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
18	0.000	--	--	--	--	--	REMOVED	--	-3.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
19	0.000	--	--	--	--	--	REMOVED	--	-3.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
20	0.000	--	--	--	--	--	REMOVED	--	-3.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
21	0.000	--	--	--	--	--	REMOVED	--	-4.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
22	0.000	--	--	--	--	--	REMOVED	--	-4.200	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
23	0.000	--	--	--	--	--	REMOVED	--	-4.400	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
24	0.000	--	--	--	--	--	REMOVED	--	-4.600	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
25	0.000	--	--	--	--	--	REMOVED	--	-4.800	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
26	0.000	--	--	--	--	--	REMOVED	--	-5.000	0.000	
1.000	1.000	0.000	0.000	0.000	not available						
27	0.000	--	--	--	--	--	REMOVED	--	-5.200	0.000	

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme

Lotto 1

Progetto Definitivo

1.000	1.000	0.000	0.000	0.000	not available					
28	0.000	--	--	--	--	--	REMOVED	--	-5.400	0.000
1.000	1.000	0.000	0.000	0.000	not available					
29	0.000	--	--	--	--	--	REMOVED	--	-5.600	0.000
1.000	1.000	0.000	0.000	0.000	not available					
30	0.000	--	--	--	--	--	REMOVED	--	-5.800	0.000
1.000	1.000	0.000	0.000	0.000	not available					
31	0.000	--	--	--	--	--	REMOVED	--	-6.000	0.000
1.000	1.000	0.000	0.000	0.000	not available					
32 D	0.6184	-1.7143E-03	1.333	0.4253	62.00	52.11	ACTIVE	0.000	-6.200	2.667
1.000	1.000	3.092	0.000	0.000	Ug5_2_8_L_0					
33 D	1.237	-1.6234E-03	2.667	0.8507	64.00	52.40	ACTIVE	0.000	-6.400	5.333
1.000	1.000	6.184	0.000	0.000	Ug5_2_8_L_0					
34 D	1.855	-1.5119E-03	4.000	1.276	66.00	52.80	ACTIVE	0.000	-6.600	8.000
1.000	1.000	9.276	0.000	0.000	Ug5_2_8_L_0					
35 D	2.474	-1.3850E-03	5.333	1.701	68.00	53.54	ACTIVE	0.000	-6.800	10.67
1.000	1.000	12.37	0.000	0.000	Ug5_2_8_L_0					
36 D	3.092	-1.2473E-03	6.667	2.127	70.00	54.41	ACTIVE	0.000	-7.000	13.33
1.000	1.000	15.46	0.000	0.000	Ug5_2_8_L_0					
37 D	3.710	-1.1026E-03	8.000	2.552	72.00	55.28	ACTIVE	0.000	-7.200	16.00
1.000	1.000	18.55	0.000	0.000	Ug5_2_8_L_0					
38 D	5.849	-9.5441E-04	9.333	10.58	74.00	56.13	UL-RL	2.3300E+04	-7.400	18.67
1.000	1.000	29.25	0.000	0.000	Ug5_2_8_L_0					
39 D	8.308	-8.0544E-04	10.67	20.21	76.00	56.98	UL-RL	2.3300E+04	-7.600	21.33
1.000	1.000	41.54	0.000	0.000	Ug5_2_8_L_0					
40 D	9.956	-6.5798E-04	12.00	25.78	78.00	57.84	UL-RL	2.3300E+04	-7.800	24.00
1.000	1.000	49.78	0.000	0.000	Ug5_2_8_L_0					
41 D	11.34	-5.1381E-04	13.33	30.06	80.00	58.70	UL-RL	2.3300E+04	-8.000	26.67
1.000	1.000	56.72	0.000	0.000	Ug5_2_8_L_0					
42 D	12.71	-3.7436E-04	14.67	34.21	82.00	59.56	UL-RL	2.3300E+04	-8.200	29.33
1.000	1.000	63.54	0.000	0.000	Ug5_2_8_L_0					
43 D	14.04	-2.4062E-04	16.00	38.22	84.00	60.42	UL-RL	2.3300E+04	-8.400	32.00
1.000	1.000	70.22	0.000	0.000	Ug5_2_8_L_0					
44 D	15.35	-1.1331E-04	17.33	42.08	86.00	61.28	UL-RL	2.3300E+04	-8.600	34.67
1.000	1.000	76.75	0.000	0.000	Ug5_2_8_L_0					
45 D	16.62	7.2089E-06	18.67	45.78	88.00	62.13	UL-RL	2.3300E+04	-8.800	37.33
1.000	1.000	83.11	0.000	0.000	Ug5_2_8_L_0					
46 D	17.86	1.2080E-04	20.00	49.29	90.00	62.98	UL-RL	2.3300E+04	-9.000	40.00
1.000	1.000	89.29	0.000	0.000	Ug5_2_8_L_0					
47 D	19.06	2.2758E-04	21.33	52.63	92.00	63.83	UL-RL	2.3300E+04	-9.200	42.67
1.000	1.000	95.30	0.000	0.000	Ug5_2_8_L_0					
48 D	20.23	3.2785E-04	22.67	55.79	94.00	64.67	UL-RL	2.3300E+04	-9.400	45.33
1.000	1.000	101.1	0.000	0.000	Ug5_2_8_L_0					
49 D	21.36	4.2206E-04	24.00	58.80	96.00	65.51	UL-RL	2.3300E+04	-9.600	48.00
1.000	1.000	106.8	0.000	0.000	Ug5_2_8_L_0					
50 D	22.46	5.1077E-04	25.33	61.65	98.00	66.36	UL-RL	2.3300E+04	-9.800	50.67
1.000	1.000	112.3	0.000	0.000	Ug5_2_8_L_0					
51 D	23.54	5.9461E-04	26.67	64.37	100.00	67.20	UL-RL	2.3300E+04	-10.00	53.33
1.000	1.000	117.7	0.000	0.000	Ug5_2_8_L_0					
52 D	24.59	6.7424E-04	28.00	66.97	102.0	68.03	UL-RL	2.3300E+04	-10.20	56.00
1.000	1.000	123.0	0.000	0.000	Ug5_2_8_L_0					
53 D	25.55	7.5031E-04	29.33	69.07	104.0	69.07	UL-RL	2.3300E+04	-10.40	58.67
1.000	1.000	127.7	0.000	0.000	Ug5_2_8_L_0					
54 D	26.35	8.2346E-04	30.67	70.44	106.0	70.44	UL-RL	2.3300E+04	-10.60	61.33
1.000	1.000	131.8	0.000	0.000	Ug5_2_8_L_0					
55 D	27.16	8.9430E-04	32.00	71.78	108.0	71.78	UL-RL	2.3300E+04	-10.80	64.00
1.000	1.000	135.8	0.000	0.000	Ug5_2_8_L_0					
56 D	27.95	9.6336E-04	33.33	73.10	110.0	73.10	UL-RL	2.3300E+04	-11.00	66.67
1.000	1.000	139.8	0.000	0.000	Ug5_2_8_L_0					
57 D	28.75	1.0312E-03	34.67	74.42	112.0	74.42	V-C	7767.	-11.20	69.33
1.000	1.000	143.7	0.000	0.000	Ug5_2_8_L_0					
58 D	29.54	1.0981E-03	36.00	75.72	114.0	75.72	V-C	7767.	-11.40	72.00
1.000	1.000	147.7	0.000	0.000	Ug5_2_8_L_0					
59 D	30.34	1.1645E-03	37.33	77.02	116.0	77.02	V-C	7767.	-11.60	74.67
1.000	1.000	151.7	0.000	0.000	Ug5_2_8_L_0					
60 D	31.13	1.2307E-03	38.67	78.31	118.0	78.31	V-C	7767.	-11.80	77.33
1.000	1.000	155.6	0.000	0.000	Ug5_2_8_L_0					
61 D	15.96	1.2969E-03	40.00	79.60	120.0	79.60	V-C	7767.	-12.00	80.00
1.000	1.000	159.6	0.000	0.000	Ug5_2_8_L_0					

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)   NLS ENGINE RELEASE 2017.1   FULL VERSION *Build date:Jul 11, 2017* |
|                                                                    |
|                                                                    |
|          NewProject.BaseDesignSection_28.A2M2R1_1787 |
|          Exe Time :24 May 2018           18:23:41 |
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New Project

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STRESS RESULTS FOR GROUP NO. 3

WallElement_33 :
ELEMENT TYPE 2 NO.OF ELEMENTS. IN THIS GROUP 60
CURRENT TIME IS 7.0000

WALL2D ELEMENT

EL	TA	TB	MA	MB
1	1.17502E-10	-1.17502E-10	1.22333E-11	-5.09646E-11
2	0.45203	-0.45203	6.84290E-11	9.04057E-02
3	1.3822	-1.3822	-9.04057E-02	0.36684
4	2.8031	-2.8031	-0.36684	0.92745
5	4.7398	-4.7398	-0.92745	1.8754
6	7.1920	-7.1920	-1.8754	3.3138
7	10.124	-10.124	-3.3138	5.3387
8	13.529	-13.529	-5.3387	8.0445
9	17.414	-17.414	-8.0445	11.527
10	21.763	-21.763	-11.527	15.880
11	26.583	-26.583	-15.880	21.196
12	32.547	-32.547	-21.196	27.706
13	40.237	-40.237	-27.706	35.753
14	49.611	-49.611	-35.753	45.675
15	59.972	-59.972	-45.675	57.670
16	71.312	-71.312	-57.670	71.932
17	83.624	-83.624	-71.932	88.657
18	96.884	-96.884	-88.657	108.03
19	111.07	-111.07	-108.03	130.25
20	126.17	-126.17	-130.25	155.48
21	142.18	-142.18	-155.48	183.92
22	159.08	-159.08	-183.92	215.73
23	176.83	-176.83	-215.73	251.10
24	195.41	-195.41	-251.10	290.18
25	-107.25	107.25	-290.18	268.73
26	-87.234	87.234	-268.73	251.28
27	-66.608	66.608	-251.28	237.96
28	-45.445	45.445	-237.96	228.87
29	-23.813	23.813	-228.87	224.11
30	-1.7803	1.7803	-224.11	223.76
31	-220.42	220.42	-223.76	179.67
32	-198.41	198.41	-179.67	139.99
33	-176.81	176.81	-139.99	104.63
34	-155.66	155.66	-104.63	73.497
35	-134.94	134.94	-73.497	46.509
36	-114.64	114.64	-46.509	23.581
37	-94.803	94.803	-23.581	4.6201
38	-76.967	76.967	-4.6201	-10.773
39	-61.467	61.467	10.773	-23.067
40	-47.497	47.497	23.067	-32.566
41	-34.796	34.796	32.566	-39.526
42	-23.332	23.332	39.526	-44.192
43	-13.070	13.070	44.192	-46.806
44	-3.9646	3.9646	46.806	-47.599
45	4.0329	-4.0329	47.599	-46.792
46	10.605	-10.605	46.792	-44.671
47	15.679	-15.679	44.671	-41.536
48	19.339	-19.339	41.536	-37.668
49	21.664	-21.664	37.668	-33.335
50	22.730	-22.730	33.335	-28.789
51	22.601	-22.601	28.789	-24.269
52	21.799	-21.799	24.269	-19.909
53	20.515	-20.515	19.909	-15.806
54	18.896	-18.896	15.806	-12.027
55	16.920	-16.920	12.027	-8.6430
56	14.616	-14.616	8.6430	-5.7197
57	11.962	-11.962	5.7197	-3.3273

Relazione di Calcolo

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

58	8.9819	-8.9819	3.3273	-1.5309
59	5.6540	-5.6540	1.5309	-0.40012
60	2.0005	-2.0005	0.40012	9.69064E-13

Collegamento tra l'A4 (Torino-Milano) in località Santhià, Biella, Gattinara e
l'A26 (Genova Voltri-Gravellona) in località Ghemme
Lotto 1

Progetto Definitivo

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|          PARATIEPLUS(TM)  NLS ENGINE RELEASE 2017.1  FULL VERSION *Build date:Jul 11, 2017*  |
|                                                                                               |
|                               NewProject.BaseDesignSection_28.A2M2R1_1787                       |
|                               Exe Time :24 May 2018      18:23:41                             |
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F I N A L I N C R E M E N T A L A N A L Y S I S

S U M M A R Y

STEP		NO. OF ITERATIONS
1	CONVERGENCE :YES	2
2	CONVERGENCE :YES	6
3	CONVERGENCE :YES	6
4	CONVERGENCE :YES	4
5	CONVERGENCE :YES	3
6	CONVERGENCE :YES	6
7	CONVERGENCE :YES	6

END OF PROCESS FOR PROBLEM

New Project

NONLINEAR SOLUTION CPU TIME 0.07 [sec]

DATABASE CREATION CPU TIME..... 0.21 [sec]