
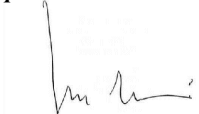



**ASSE VIARIO MARCHE-UMBRIA
E QUADRILATERO DI PENETRAZIONE INTERNA
MAXI LOTTO 2**

LAVORI DI COMPLETAMENTO DELLA DIRETTRICE PERUGIA ANCONA:
SS. 318 DI "VALFABBRICA", TRATTO PIANELLO - VALFABBRICA
SS. 76 "VAL D'ESINO", TRATTI FOSSATO VICO - CANCELLI E ALBACINA - SERRA SAN QUIRICO
"PEDEMONTANA DELLE MARCHE", TRATTO FABRIANO-MUCCIA-SFERCIA.

PROGETTO ESECUTIVO DI DETTAGLIO

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PROGETTAZIONE: Associazione Temporanea di Imprese

Mandataria: **PROGETTAZIONE GRANDI INFRASTRUTTURE PROGIN S.p.A.** Mandanti: **LOMBARDI SA INGEGNERI CONSULENTI** **LOMBARDI-REICO INGEGNERIA S.r.l.** **SGAI s.r.l. di E.Forlani & C.** Studio di Ingegneria e Geologia Applicata

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<p>2.1.1. - PEDEMONTANA DELLE MARCHE Lotto funzionale del Sub lotto 2.1 - Tratto Fabriano - Matelica Nord</p> <p>OPERE D'ARTE MINORI - OPERE IDAULICHE SU VIABILITA' INTERFERITA Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo</p>	<p>SCALA:</p> <p>DATA: <i>Settembre 2020</i></p>
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Codice Unico di Progetto (CUP) **F12C03000050021** (Assegnato CIPE 20-04-2015)

Codice elaborato:

Opera	Tratto	Settore	CEE	WBS	Id. doc.	N. prog.	Rev.
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REV.	DATA	DESCRIZIONE	Redatto		Controllato	Approvato
A	Settembre 2020	RISCONTRO ISTRUTTORIE QMU-DL SETT.2020	TECNOSTRUTTURE	A. TOSIANI	S. LIETO	A. GRIMALDI

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	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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1. INTRODUZIONE

La presente relazione riporta i calcoli, e le relative verifiche, del TOMBINO DN1500 - progr.3+979 in Dx su viabilità interferita, più precisamente i calcoli si riferiscono alle apere di imbocco e sbocco del tombino, nell'ambito dei Lavori di completamento della direttrice Perugia - Ancona, Lotto della Pedemontana Marche: Tratto Fabriano - Muccia - Sfercia.

In accordo alle disposizioni dettate dalle "Norme tecniche per le costruzioni" (DM 14.09.2005), sono state effettuate le verifiche agli stati limite di esercizio (SLE) e agli stati limite ultimi (SLU).

Secondo la normativa tecnica in vigore, ai fini della zonazione sismica del territorio italiano (O.P.C.M. 20.03.2003), l'area in oggetto ricade in zona sismica di categoria 2. Pertanto, per strutture di classe 2 (vita utile di 100 anni, sisma con periodo di ritorno di 1000 anni) l'accelerazione orizzontale utilizzata, come da relazione sismica è pari a si adotterà il valore $a_g = 0.275$ (relazione sismica L073211E04000000REL01D par. 5) con suolo è di categoria E. A tale accelerazione si è fatto riferimento nei calcoli di verifica riportati nel seguito.

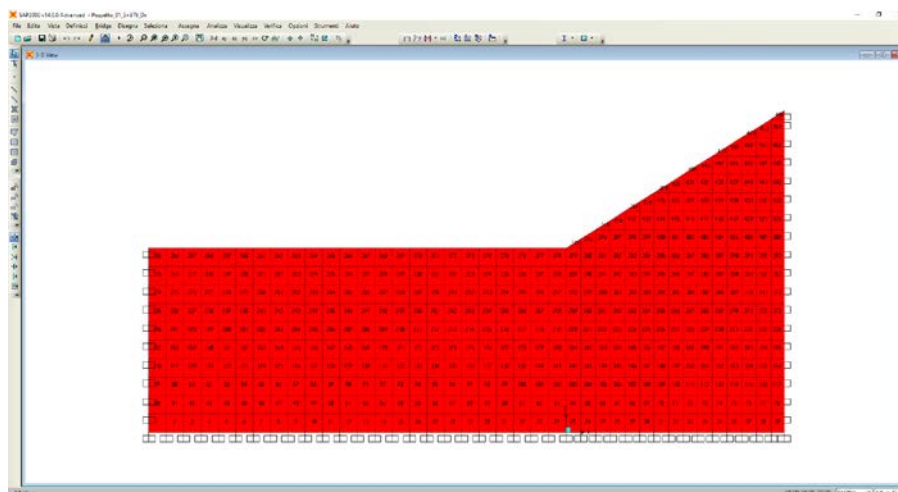
Per la descrizione delle opere si faccia riferimento agli elaborati grafici di progetto da considerarsi parte integrante della presente.

In coda alla relazione è riportato, nell' Allegato, il file di input e output delle analisi svolte.

1.1 IPOTESI DI CALCOLO

Per il calcolo delle strutture gettate in opera si è proceduto ad un'analisi con l'ausilio del programma di calcolo automatico agli elementi finiti SAP2000.

Considerata la geometria della struttura, per il calcolo delle sollecitazioni si è assunto uno schema di calcolo a piastra:



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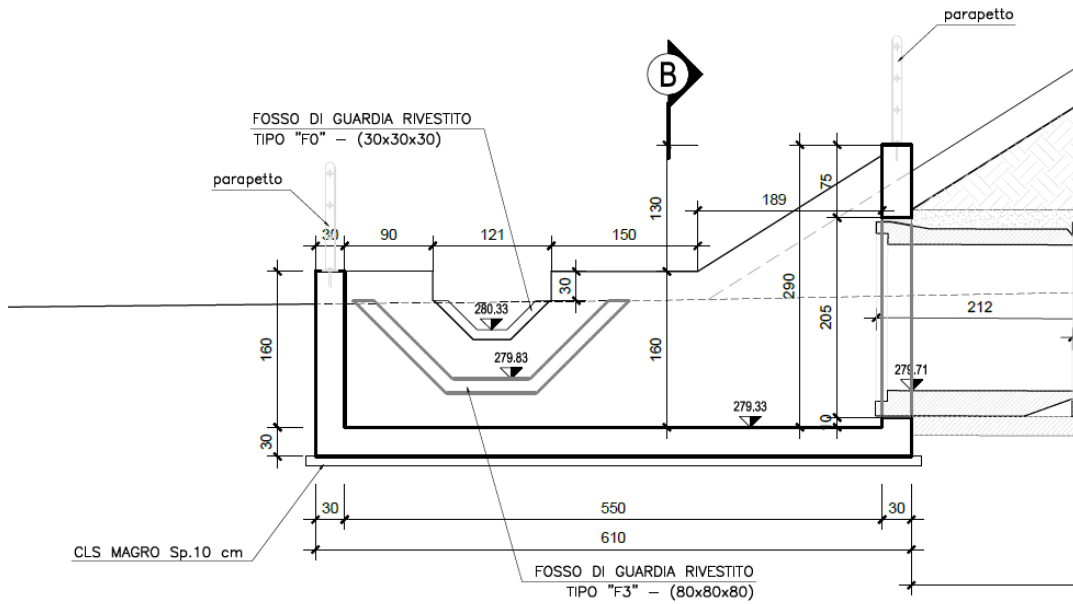


Figura 1: Sezione vasca di imbocco

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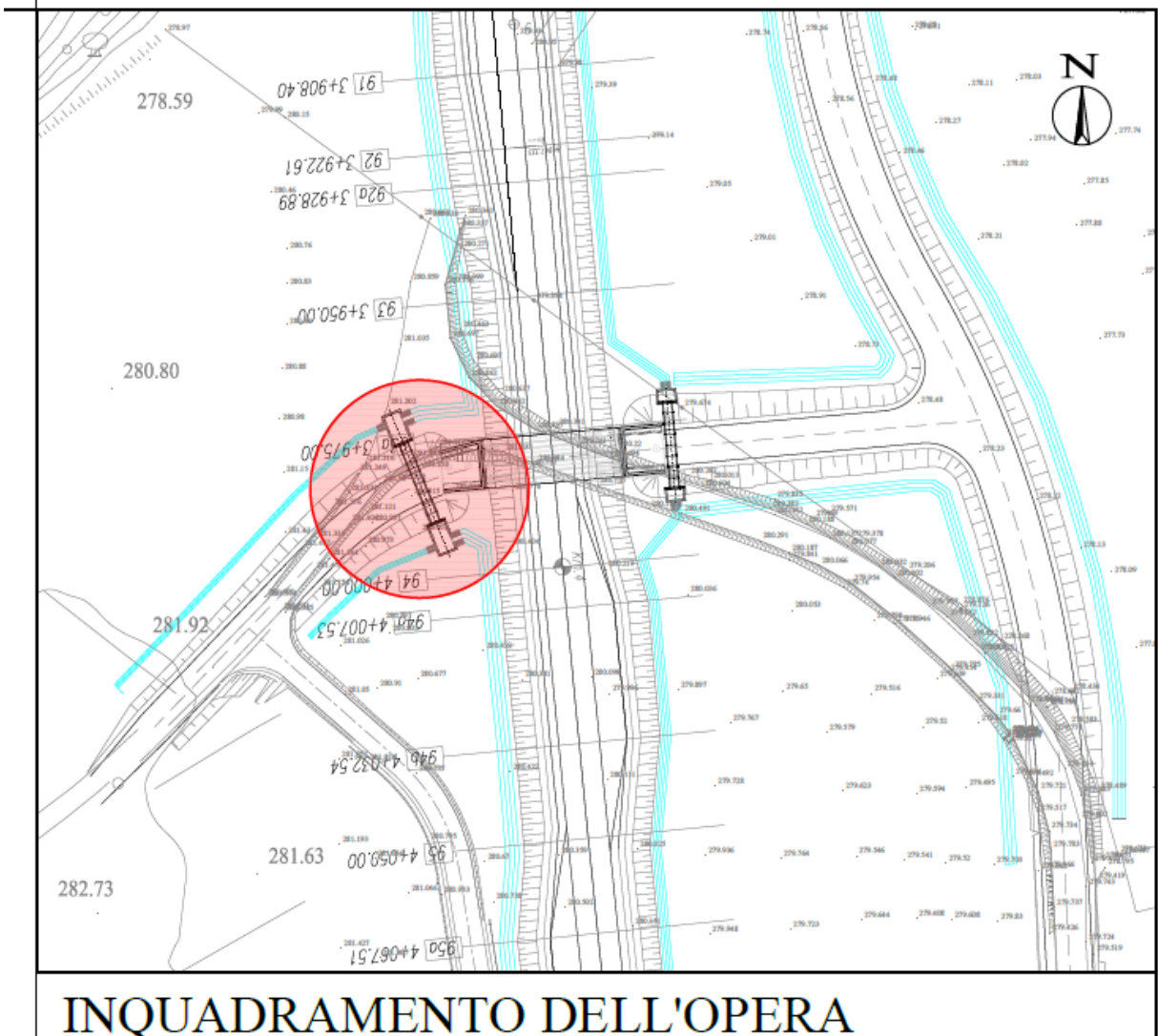


Figura 2: Stralcio planimetrico

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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2. DOCUMENTI DI RIFERIMENTO

Nella esecuzione dei calcoli si è fatto riferimento ai seguenti documenti normativi.

2.1 NORMATIVE DI CARATTERE GENERALE

L. 05/11/1971 n. 1086: "Norme per la disciplina delle opere in conglomerato cementizio armato normale e precompresso ed a struttura metallica";

L. 02/02/1974 n. 64: "Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche";

2.2 NORMATIVE SPECIFICHE PER LE STRUTTURE

Decreto Ministeriale 14 settembre 2005 "Norme Tecniche per le Costruzioni".

OPCM 3274 d.d. 20/03/2003: "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modifiche ed integrazioni

CNR-UNI 10011: "Costruzioni di acciaio "Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione".

CNR-UNI 10016:"Travi composte di acciaio e calcestruzzo - Istruzioni per l'impiego nelle costruzioni".

UNI EN 1992-2005:"Progettazione delle strutture di calcestruzzo".

UNI EN 1993-2005: "Progettazione delle strutture di acciaio".

UNI EN 1994-2005: "Progettazione delle strutture composte acciaio-calcestruzzo".

UNI EN 1997-2005: "Progettazione geotecnica".

UNI EN 1998-2005: "Progettazione delle strutture per la resistenza sismica".

UNI EN 206-1-2001: Calcestruzzo: "Specificazione, prestazione, produzione e conformità".

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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3. MATERIALI

Per la realizzazione delle sottostrutture sono stati previsti i seguenti materiali.

Calcestruzzi

I materiali da utilizzare avranno le seguenti caratteristiche:

Tab.1- FONDAZIONI ed ELEVAZIONI

		Classe di esposizione
		XA2
Classe di resistenza minima:	C_{min}	C32/40
Rapporto massimo acqua/cemento	a/max	0.5
Contenuto minimo di cemento (kg/m^3)	cem_{min}	360

Tab.2- CALCESTRUZZO PER MAGRONE

Classe di resistenza minima:	C_{min}	C12/15
------------------------------	-----------	--------

Acciaio per armature

Tab.3 - ACCIAIO ARMATURA ORDINARIA

Acciaio in barre ad aderenza migliorata tipo B450C

controllato in stabilimento:

Tensione caratteristica di snervamento:

$$f_{yk} = 450 \text{ MPa}$$

Per la realizzazione dei calcestruzzi, al fine di assicurare i requisiti di qualità e di durabilità, si è fatto riferimento alle specifiche riportate nella norma UNI EN 206-1. pertanto sulla base delle condizioni ambientali prevedibili per le opere in oggetto si riporta nella tabella seguente, in corrispondenza di ogni elemento strutturale, la classe di esposizione, la resistenza caratteristica R_{ck} , il rapporto a/c massimo, il quantitativo di cemento minimo, e l'eventuale percentuale di aria che deve essere inglobata nel calcestruzzo.

Sono previsti inoltre copriferri pari a:

40 mm per le fondazioni e superfici controterra in genere.

Le caratteristiche meccaniche del calcestruzzo in opera sono state valutate conformemente alle specifiche previste dal Decreto Ministeriale 14 settembre 2005, pertanto nella tabella seguente

vengono riportati i valori assunti per il modulo elastico e per le resistenze allo stato limite ultimo e di esercizio

CARATTERISTICHE MECCANICHE CALCESTRUZZI				
f_{ck}/R_{ck} (Mpa)	E_c (Mpa)	S.L.U		S.L.E
		$f_{cd}=R_{ck}/\gamma_{m,c}$ (Mpa)	$f_{ctd}=f_{ctk}/\gamma_{m,c}$ (Mpa)	$\sigma_c=R_{ck}/(\gamma_{m,c}\times\gamma_{E,c})$ (Mpa)
C32/40	33000	21.05	2.45	19.2 (rara) 14.8 (quasi permanente)

Le caratteristiche meccaniche adottate per l'acciaio sono:

CARATTERISTICHE MECCANICHE ACCIAIO PER C.A.					
TIPO	E_c (Mpa)	f_{tk} (Mpa)	f_{yk} (Mpa)	S.L.U	S.L.E
				$f_{yd} = f_{yk}/\gamma_{m,s}$ (Mpa)	$\sigma_{smax}=f_{yk}/1.25$ (Mpa)
B450C	210000	540	450	391	360

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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4. GEOTECNICA

4.1 CARATTERISTICHE GEOLOGICHE E IDROGEOLOGICHE

Nel calcolo dell'opera in oggetto, per quanto riguarda la determinazione della spinta delle terre, della capacità portante del terreno e delle caratteristiche di interazione terreno-struttura, si adottano, a favore di sicurezza, i seguenti parametri geotecnici ricavati dalla "Relazione geotecnica generale sulle opere all'aperto e gallerie artificiali (geotecnica-geomeccanica)" doc. L0703211E02GE0000REL02, da tale relazione si ha:

Per il terreno di fondazione si sono assunti i seguenti parametri geotecnici: "**Unità A: Alluvioni attuali e recenti con facies prevalentemente limoso-argillosa (unità Ala: Unità Geologica Are 2).**"

- peso di volume naturale $\gamma = 19\div 20 \text{ kN/m}^3$
- angolo di attrito $\phi' = (26+29)/2 \cong 27.5^\circ$
- coesione drenata $c' = (0\div 10)/2 \cong 5 \text{ kPa}$
- coesione non drenata $c_u = (80\div 100)/2 = 90 \text{ kPa}$

Per il terreno di rinfianco (terreno da rilevato stradale) si sono assunti i seguenti valori di resistenza:

- peso di volume naturale $\gamma = 20 \text{ kN/m}^3$
- angolo di attrito $\phi' = 35^\circ$
- coesione drenata $c' = 0.0 \text{ kPa}$
- coesione non drenata $c_u = 0.0 \text{ kPa}$

Per il calcolo della spinta sulla vasca si è considerato il coefficiente di spinta a riposo, k_0 .

La falda non interferisce con l'opera.

Inoltre, l'opera in oggetto viene realizzata all'interno del terreno in sito, pertanto per il calcolo delle spinte si assumono i parametri geotecnici del terreno in sito.

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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5. VASCHE DI IMBOCCO E SBOCCO

5.1 ANALISI DEI CARICHI

5.1.1 Azione sismica

Le strutture, ai sensi della normativa di riferimento, sono assunte di Classe 2 (vita utile 100 anni).

Tutte le azioni sono calcolate considerando un periodo di ritorno per i fenomeni naturali pari a 1000 anni, pertanto nella valutazione della accelerazione orizzontale massima ag si è fatto riferimento alle mappe di pericolosità sismica dell'I.N.G.V. (Istituto Nazionale di Geofisica e Vulcanologia) andando a considerare il parametro ag/g riferito a una probabilità di superamento non maggiore del 5% in 50 anni, come previsto dal paragrafo 3.2.2.3 del D.M.14/09/05.

La tabella sottostante riporta i valori considerati per la zona in esame

Zona sismica	2
Categoria suolo di fondazione	E
Classe della struttura	2
Accelerazione orizzontale massima convenzionale per zona 1 e struttura di classe 2 (vedi par. 3.2.2.3)	0.275
Fattore S che tiene conto della categoria del suolo di fondazione = E	1.25

In definitiva l'accelerazione orizzontale massima convenzionale per zona 2, struttura di classe I e suolo di categoria E = 0.275 g x 1.25 = 0.344 g.

Incremento sismica sul terreno

Visto la tipologia d'opera per il coefficiente di spinta si può assumere una spinta a riposo con:

$$k_0 = 1 - \sin \phi = 0.538 \quad \text{con } \phi = 27.5^\circ - \text{Valore medio}$$

Mentre l'incremento di spinta sismica del terreno si calcola con l'espressione di Wood:

$$\Delta S = a_g/g * S * \gamma * H^2 = 0.275 * 1.25 * 19.50 * 3.20^2 = 68.64 \text{ kN} \quad - \text{ par } H = 3.20 \text{ m}$$

$$\Delta S = a_g/g * S * \gamma * H^2 = 0.275 * 1.25 * 19.50 * 1.90^2 = 24.20 \text{ kN} \quad - \text{ par } H = 1.90 \text{ m}$$

Da cui:

$$P_s = \Delta S / H = 68.64 / 2.90 = 23.67 \text{ kN/m}^2 \quad - \text{ applicata a } H/2$$

$$P_s = \Delta S / H = 24.20 / 1.60 = 15.12 \text{ kN/m}^2 \quad - \text{ applicata a } H/2$$

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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dove:

γ = peso di volume del terreno;

H = dislivello tra la quota del piano campagna e la quota di fondo scavo;

ΔS = incremento sismico del terreno

Forze di inerzia sismiche

Essendo:

$$a_g/g = 0.275$$

$$S = 1.25$$

i due coefficienti sismici orizzontale e verticale da applicare sulle masse strutturali sono pari a:

$$k_h = a_g/g * S/r = 0.344$$

$$k_v = \pm 0.5 * k_h = 0.172$$

5.2 CALCOLO DELLE SPINTE STATICHE

Spinta del terreno e dell'accidentale

Sulle piastre, in esercizio, viene presa in considerazione la spinta del terreno a riposo e di un accidentale pari a 10 kN/m² dovuto ad un eventuale mezzo meccanico.

In sismica, come detto in precedenza, viene considerata la forza d'inerzia orizzontale e l'incremento di spinta sismica del terreno mentre il carico accidentale viene assunto nullo.

Spinta del terreno sui piedritti

I parametri geotecnica del terreno sono:

$$\gamma = 19.50 \text{ kN/m}^3$$

$$\phi = 27.5^\circ$$

$$K_o = 0.538$$

Pertanto la spinta del terreno sulle pareti è pari a:

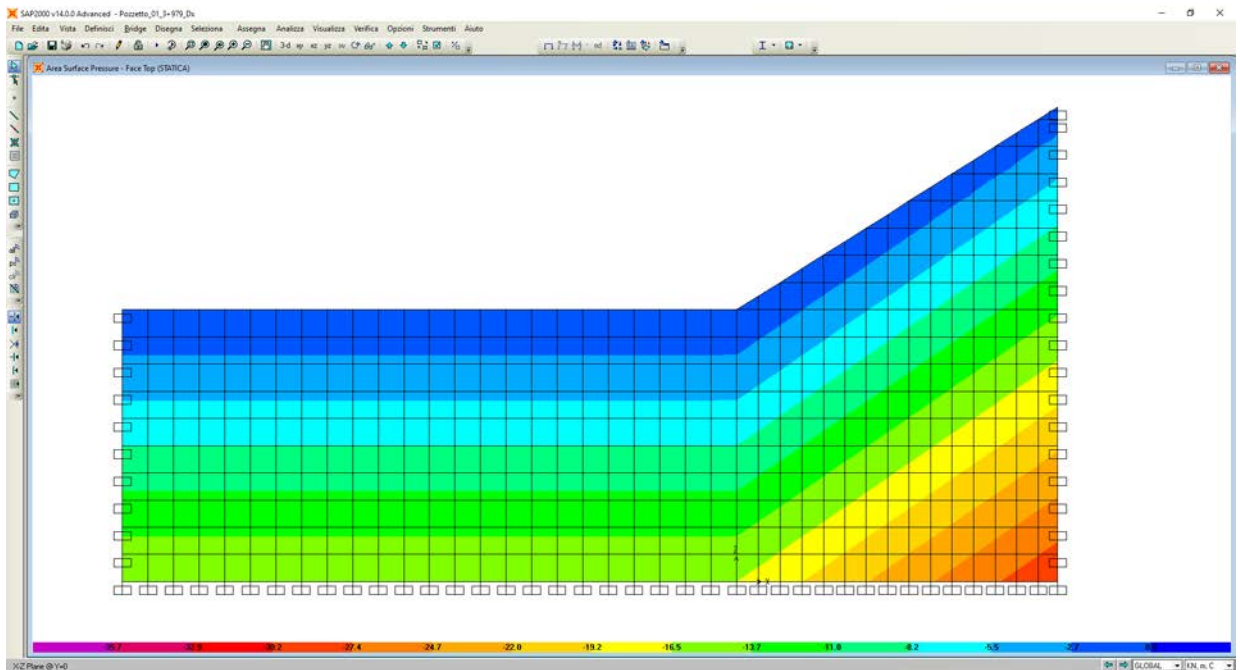
Esercizio (solo terreno)

$$P_o = 0.538 * 20.00 * 0.00 = 0.00 \text{ kN/m}^2$$

$$P_1 = 0.538 * 19.50 * 2.90 = 29.86 \text{ kN/m}^2$$

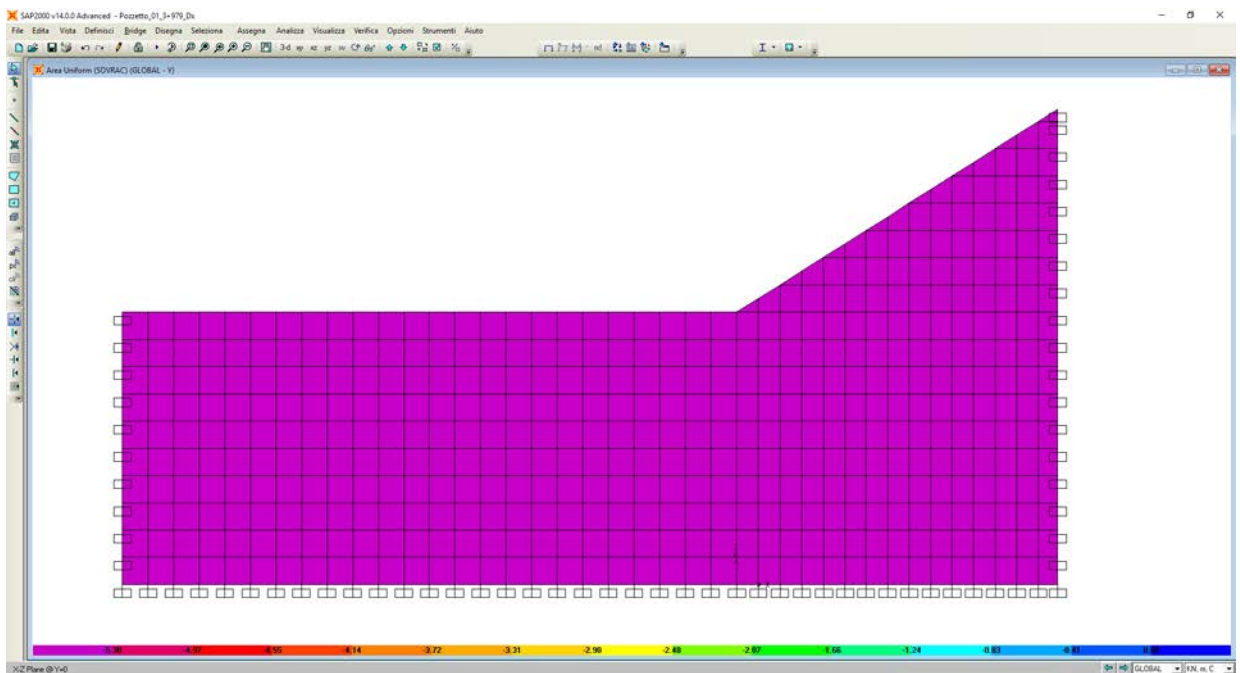
$$P_2 = 0.538 * 19.50 * 1.60 = 16.47 \text{ kN/m}^2$$

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Esercizio (solo accidentale)

Pripartito = $10 \cdot 0.538 = 5.38 \text{ kN/m}^2$



Sismica

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- incremento di spinta sismica del terreno

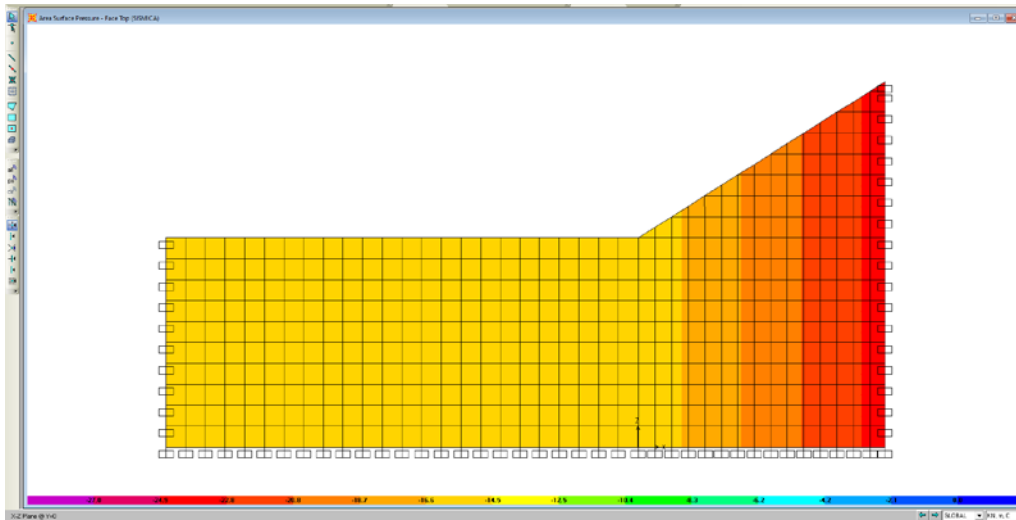
$$\Delta S = a_g/g * S * \gamma * H^2 = 0.275 * 1.25 * 19.50 * 3.20^2 = 68.64 \text{ kN} \quad - \text{ par } H = 3.20 \text{ m}$$

$$\Delta S = a_g/g * S * \gamma * H^2 = 0.275 * 1.25 * 19.50 * 1.90^2 = 24.20 \text{ kN} \quad - \text{ par } H = 1.90 \text{ m}$$

Da cui:

$$P_s = \Delta S / H = 68.64 / 2.90 = 23.67 \text{ kN/m}^2 \quad - \text{ applicata a } H/2$$

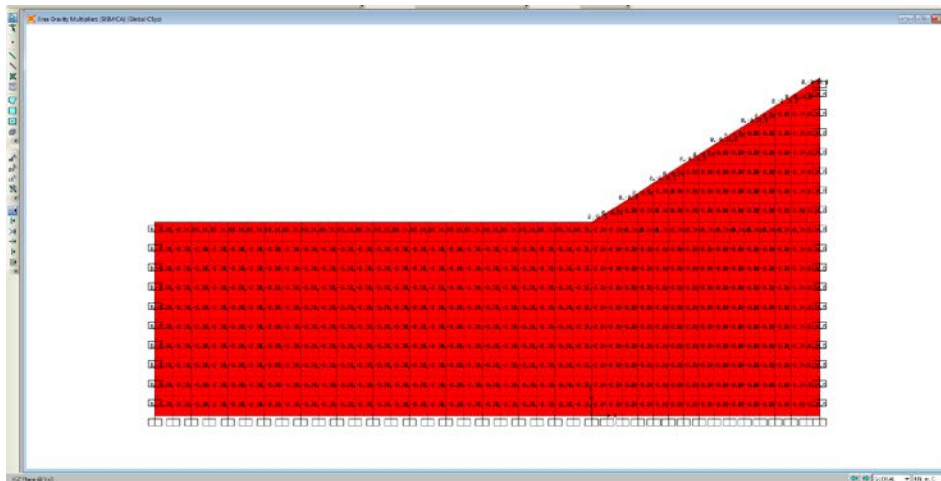
$$P_s = \Delta S / H = 24.20 / 1.60 = 15.12 \text{ kN/m}^2 \quad - \text{ applicata a } H/2$$



Incremento di spinta sismica

$$F_{h, \text{ orizz}} = 0.344 * W$$

-Azione inerziale su W viene calcolato automaticamente dal programma



Moltiplicatori gravitazionali per le forze inerziali

5.3 COMBINAZIONI DI CARICO

Le combinazioni di carico, considerate ai fini delle verifiche, sono stabilite in modo da garantire

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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la sicurezza in conformità a quanto prescritto al cap. 2 delle NT.

5.3.1 Combinazioni per la verifica allo SLU e SLE

Gli stati limite ultimi delle opere interrato si riferiscono allo sviluppo di meccanismi di collasso, determinati dalla mobilitazione della resistenza del terreno, e al raggiungimento della resistenza degli elementi strutturali che compongono l'opera.

Le verifiche agli stati limite ultimi devono essere eseguiti in riferimento ai seguenti stati limite:

- SLU di tipo geotecnico (GEO) e di equilibrio di corpo rigido (EQU)
 - collasso per carico limite dell'insieme fondazione-terreno;
- SLU di tipo strutturale (STR)
 - raggiungimento della resistenza negli elementi strutturali.

Le verifiche saranno condotte utilizzando i coefficienti parziali riportati nelle Tabelle sottostanti (vedi DM 14/09/ 2005 NTC) per i parametri geotecnici e le azioni.

1. combinazione 1 → (A1+M1+R1) → STR
2. combinazione 2 → (A2+M2+R2) → GEO (carico limite)

Tabella 6.2.II - Coefficienti parziali per i parametri del terreno

PARAMETRO	GRANDEZZA ALLA QUALE APPLICARE IL COEFF. PARZIALE	COEFFICIENTE PARZIALE γ_M	M ₁	M ₂
Tangente dell'angolo di resistenza al taglio	$\tan \varphi'_k$	$\gamma_{\varphi'}$	1	1.25
Coesione efficace	c'_k	$\gamma_{c'}$	1	1.25
Resistenza non drenata	c'_{uk}	γ_{cu}	1	1.4
Peso dell'unità di volume	γ	γ_{γ}	1	1

Nella tabella 5.1.V è indicato un coefficiente maggiore di uno per gli effetti a sfavore di sicurezza e un coefficiente minore del precedente, per gli effetti a favore di sicurezza.

I coefficienti di amplificazione dei carichi γ e i coefficienti di combinazione Ψ sono riportati nelle tabelle 5.1.VI.

In particolare nel calcolo della struttura in oggetto si fa riferimento alla combinazione A1 STR.

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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Tabella 5.1.V – Coefficienti parziali di sicurezza per le combinazioni di carico agli SLU

		Coefficiente	EQU ⁽¹⁾	A1 STR	A2 GEO
Carichi permanenti	favorevoli	γ_{G1}	0,90	1,00	1,00
	sfavorevoli		1,10	1,35	1,00
Carichi permanenti non strutturali ⁽²⁾	favorevoli	γ_{G2}	0,00	0,00	0,00
	sfavorevoli		1,50	1,50	1,30
Carichi variabili da traffico	favorevoli	γ_Q	0,00	0,00	0,00
	sfavorevoli		1,35	1,35	1,15
Carichi variabili	favorevoli	γ_{Qi}	0,00	0,00	0,00
	sfavorevoli		1,50	1,50	1,30
Distorsioni e presollecitazioni di progetto	favorevoli	γ_{e1}	0,90	1,00	1,00
	sfavorevoli		1,00 ⁽³⁾	1,00 ⁽⁴⁾	1,00
Ritiro e viscosità, Variazioni termiche, Cedimenti vincolari	favorevoli	$\gamma_{e2}, \gamma_{e3}, \gamma_{e4}$	0,00	0,00	0,00
	sfavorevoli		1,20	1,20	1,00

⁽¹⁾ Equilibrio che non coinvolga i parametri di deformabilità e resistenza del terreno; altrimenti si applicano i valori di GEO.
⁽²⁾ Nel caso in cui i carichi permanenti non strutturali (ad es. carichi permanenti portati) siano compiutamente definiti si potranno adottare gli stessi coefficienti validi per le azioni permanenti.
⁽³⁾ 1,30 per instabilità in strutture con precompressione esterna
⁽⁴⁾ 1,20 per effetti locali

I valori del coefficiente ψ_{2i} sono quelli riportati nella tabella 5.1.VI della norma; la stessa propone nel caso di ponti, e più in generale per opere stradali, si assumere per i carichi dovuti al transito dei mezzi $\psi_{2i} = 0.0$.

Ai fini delle verifiche degli stati limite ultimi si riportano per comodità le combinazioni delle azioni riportate nella normativa sui ponti alla quale è possibile fare riferimento per la simbologia adottata:

$$\text{STR}) \Rightarrow \gamma_{G1} \cdot G_1 + \gamma_{G2} \cdot G_2 + \gamma_{Q1} \cdot Q_{k1} + \sum_i \psi_{0i} \cdot Q_{ki} \Rightarrow (\Phi_d' = \Phi_k')$$

Ai fini delle verifiche degli stati limite di esercizio (fessurazione) si definiscono le seguenti combinazioni:

$$\text{Rara)} \Rightarrow G_1 + G_2 + Q_{k1} + \sum_i \psi_{0i} \cdot Q_{ki}$$

$$\text{Frequente)} \Rightarrow G_1 + G_2 + \psi_{11} \cdot Q_{k1} + \sum_i \psi_{2i} \cdot Q_{ki}$$

$$\text{Quasi permanente)} \Rightarrow G_1 + G_2 + \psi_{21} \cdot Q_{k1} + \sum_i \psi_{2i} \cdot Q_{ki}$$

Per la condizione sismica, le combinazioni per gli stati limite ultimi da prendere in considerazione sono le seguenti:

$$\text{STR}) \Rightarrow E + G_1 + G_2 + \sum_i \psi_{2i} \cdot Q_{ki} \Rightarrow (\Phi_d' = \Phi_k')$$

Dove:

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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$$E = \pm 1.00 \times E_Y \pm 0.30 \times E_Z \quad \text{oppure} \quad E = \pm 0.30 \times E_Y \pm 1.00 \times E_Z$$

Avendo indicato con E_Y e E_Z rispettivamente le componenti orizzontale e verticale dell'azione sismica.

Gli effetti dell'azione sismica saranno valutati tenendo conto delle masse associate ai seguenti carichi gravitazionali:

$$G_1 + G_2 + \sum_i \psi_{2i} \cdot Q_{ki}$$

Le combinazioni di carico vengono ottenute combinando opportunamente i coefficienti innanzi detti.

5.3.2 Stato limite di apertura delle fessure

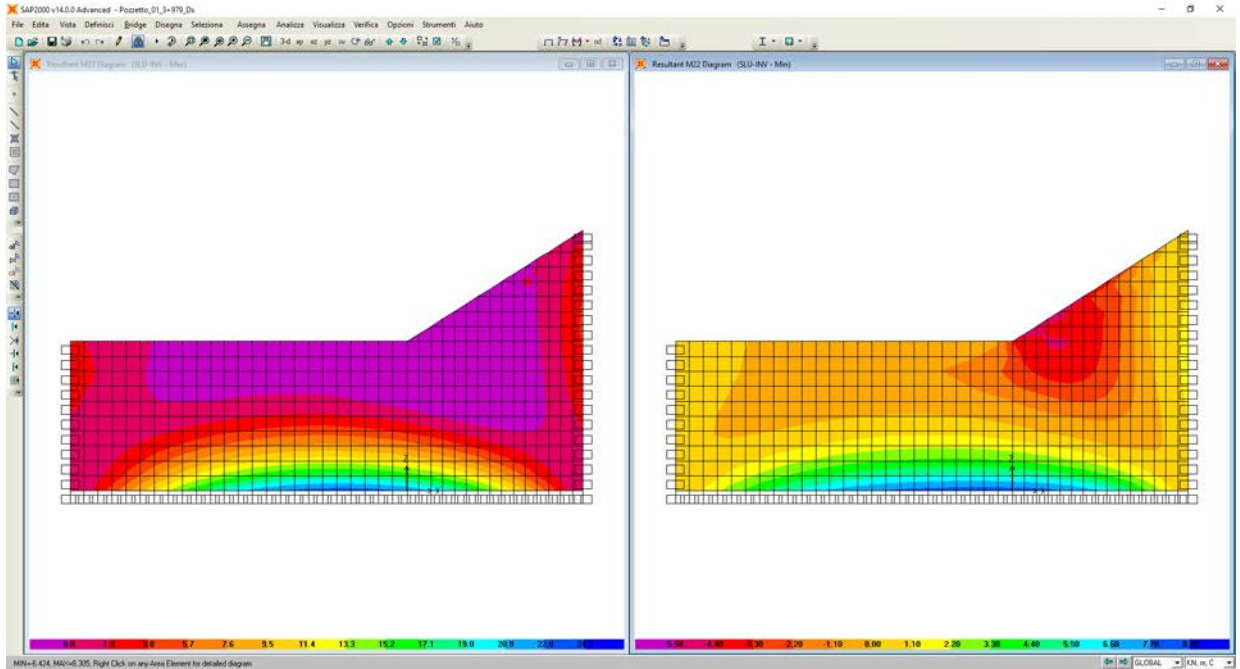
Per le verifiche a fessurazione si adotta la combinazione caratteristica FREQUENTE e QUASI PERMANENTE, così come richiesto del DM 2005 per gli SLE.

Pertanto l'apertura convenzionale delle fessure dovrà risultare:

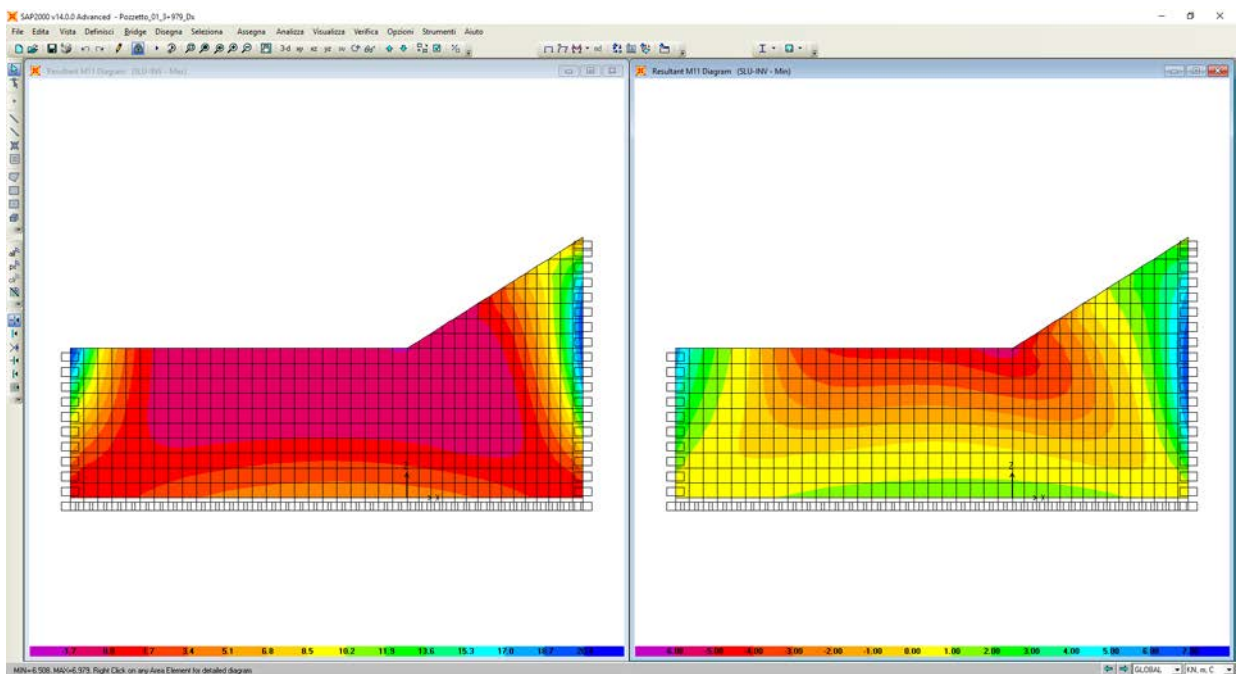
- a) $\delta_f \leq w_1 = 0.20 \text{ mm}$ per strutture in condizioni ambientali aggressive e molto aggressive, così come identificate nel DM 2005, per tutte le strutture a permanente contatto con il terreno e per le zone non ispezionabili di tutte le strutture;
- b) $\delta_f \leq w_2 = 0.30 \text{ mm}$ per strutture in condizioni ambientali ordinarie secondo il citato paragrafo del DM 2005.

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5.4 DIAGRAMMI DELLE SOLLECITAZIONI

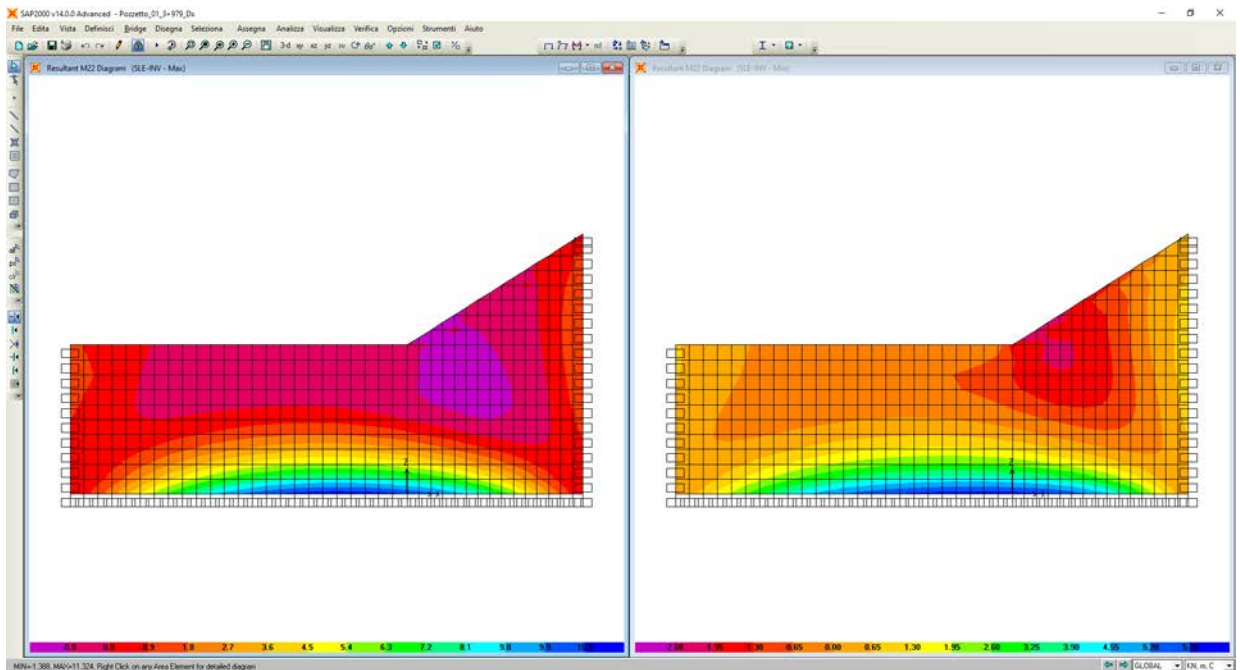


Involuppo Momenti Flettenti SLU: M22 (\pm)

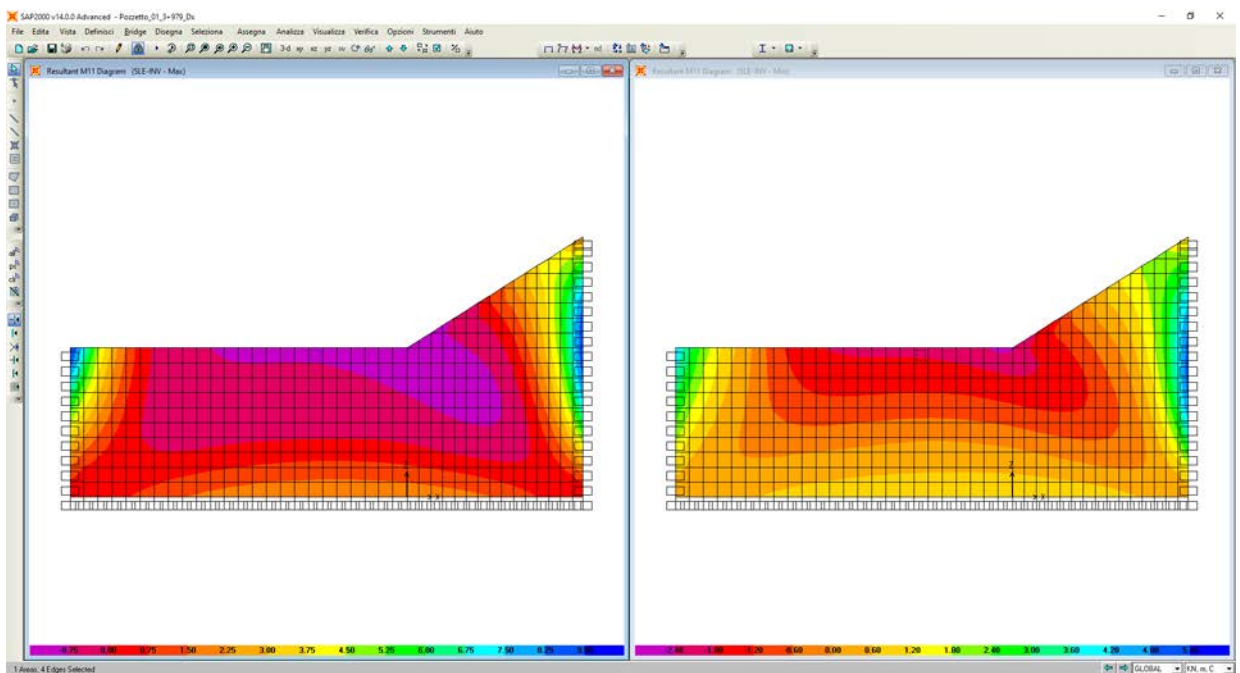


Involuppo Momenti Flettenti SLU: M11(\pm)

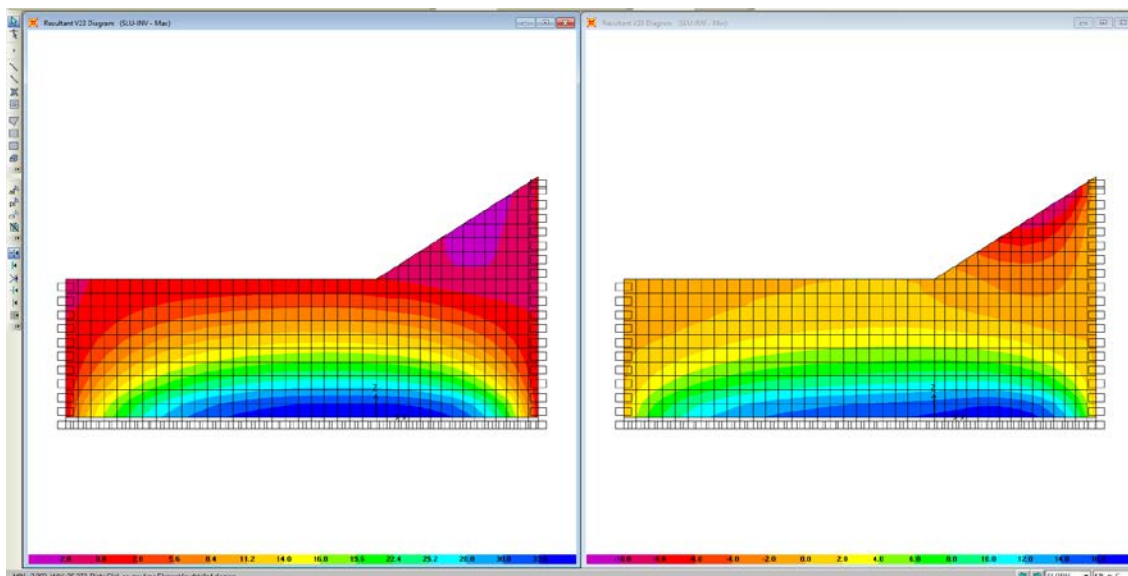
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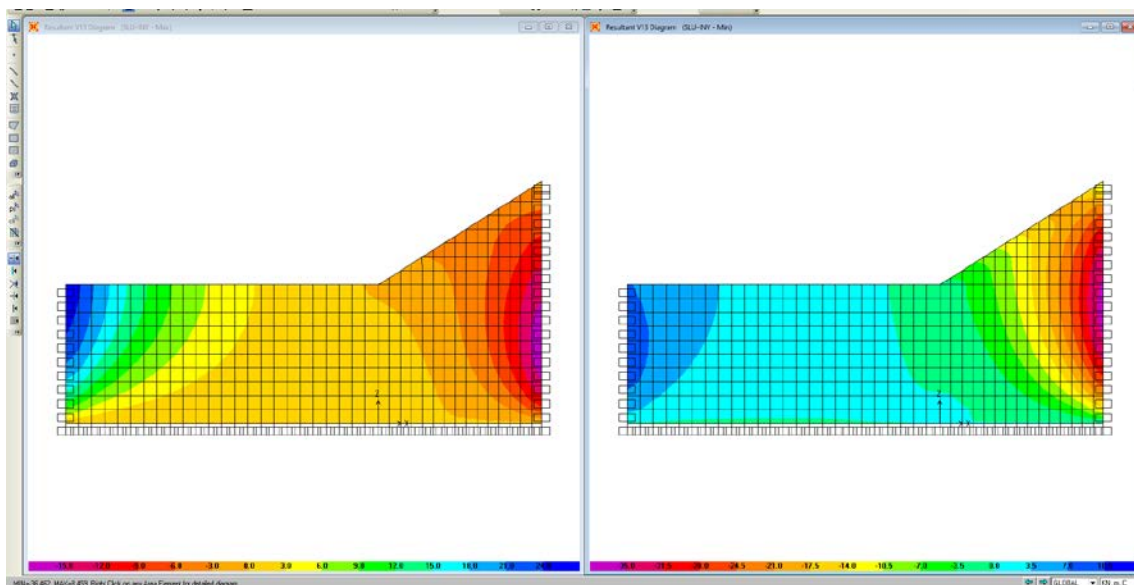
Inviluppo Momenti Flettenti SLE: M22 (\pm)



Inviluppo Momenti Flettenti SLE: M11 (\pm)



Involuppo Sollecitazioni di Taglio SLU: V23 (±)



Involuppo Sollecitazioni di Taglio SLU: V13 (±)

Riassumendo si hanno le seguenti sollecitazioni massime:

	SLU	SLE
	kNm	
M22,max	23.84	11.32
M22,min	-6.42	-2.90
M11,max	21.24	9.24
M11,min	-6.51	-2.90

SLU (kN)	
V23,max	36.27
V23,min	-11.42
V13,max	25.71
V13,min	-36.46

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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5.5 VERIFICHE

Le verifiche degli elementi strutturali che compongono l' opera, sono state eseguite mediante il metodo degli Stati Limite.

Verifica materiali:

Stato Limite Ultimo

Coefficiente di sicurezza calcestruzzo γ_c	1.50
Fattore riduzione da resistenza cubica a cilindrica	0.83
Fattore di riduzione per carichi di lungo periodo	0.85
Coefficiente di sicurezza acciaio	1.15

Verifica Taglio - Metodo dell'inclinazione variabile del traliccio

$$V_{Rd} = [0.18 * k * (100.0 * \rho_l * f_{ck})^{1/3} / \gamma_c + 0.15 * \sigma_{cp}] * b_w * d > (v_{min} + 0.15 * \sigma_{cp}) * b_w * d$$

$$V_{Rsd} = 0.9 * d * A_{sw} / s * (ctg \alpha + ctg \theta) * \sin \alpha$$

$$V_{Rcd} = 0.9 * d * b_w * \alpha_c * f_{cd}' * (ctg(\theta) + ctg(\alpha)) / (1.0 + ctg \theta^{1/2})$$

con:

d altezza utile sezione [mm]

b_w larghezza minima sezione [mm]

σ_{cp} tensione media di compressione [N/mm²]

ρ_l rapporto geometrico di armatura

A_{sw} area armatura trasversale [mm²]

S interasse tra due armature trasversali consecutive [mm]

α_c coefficiente maggiorativo, funzione di f_{cd} e σ_{cp}

$$f_{cd}' = 0.5 * f_{cd}$$

$$k = 1 + (200/d)^{1/2}$$

$$v_{min} = 0.035 * k^{3/2} * f_{ck}^{1/2}$$

Stato Limite di Esercizio

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo								
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Criteria di scelta per verifiche tensioni di esercizio:

Ambiente poco aggressivo

Limite tensioni di compressione nel calcestruzzo (comb. rare) 19.2 N/mm²

Limite tensioni di compressione nel calcestruzzo (comb. quasi perm.) 14.8 N/mm²

Limite tensioni di trazione nell'acciaio (comb. rare) 360 N/mm²

Criteria verifiche a fessurazione:

Armatura poco sensibile

Ambiente aggressivo

Apertura limite fessure espresse in [mm]

Apertura limite fessure w1= 0.20 w2 = 0.30 w3 = 0.40

Tutte le Verifiche secondo condotte con :

Norme Tecniche 2005 - Approccio 1

Copriferro sezioni 4.00 [cm]

Le verifiche in oggetto sono risultate tutte soddisfatte, come si vede da uno stralcio dei tabulati di calcolo di seguito riportate, mentre i tabulati completi sono riportati negli "Allegati di calcolo"

5.4.1 Verifiche delle armature

Di seguito si riportano le verifiche di resistenza delle sezioni più sollecitate.

Le sollecitazioni di verifica sono riportate nelle tabelle seguenti.

Sollecitazioni di verifica		
	Mmax (kNm)	Tmax (kN)
SLU : Armature Verticali	23.84	36.27
SLU : Armature Orizzontali	21.24	36.46
SLE -Rara: Armature Verticali	11.32	/
SLE-Rara: Armature Orizzontali	9.24	/

Nota: M positivo se tende le fibre inferiori (contro terra) e N positivo se di compressione.

VERIFICHE DELLE ARMATURE VERTICALI

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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Caratteristiche geometriche della sezione

Larghezza b	100 cm
Altezza h	30 cm
Armatura tesa 1° strato Aa	1Φ14/20 = 7.70 cm ²
Copriferro 1° strato c1	6.10 cm
Armatura tesa 2° strato Aa	
Copriferro 2° strato c2	
Armatura compressa 1° strato A'a	1Φ14/20 = 7.70 cm ²
Copriferro armatura compressa c'	23.9 cm

Le sollecitazioni per l'acciaio sono state ottenute trascurando, a favore di sicurezza, le azioni normali di compressione.

Verifiche allo stato limite ultimo per flessione

Sollecitazioni di verifica:

$$M = 23.84 \text{ kNm}$$

Sollecitazioni ultime:

$$M_u = 78.32 \text{ kNm}$$

$$\text{Coeff. sicurezza} = 3.29$$

Verifiche allo stato limite di esercizio (condizione rara)

Le verifiche da condurre in combinazione rara riguardano le tensioni di esercizio; nello specifico si verifica che le tensioni nei materiali si mantengano nei seguenti limiti:

$$\sigma_c \leq 19.20 \text{ N/mm}^2$$

$$\sigma_f \leq 360 \text{ N/mm}^2$$

Sollecitazioni di verifica:

$$M = 11.32 \text{ kNm}$$

pertanto:

$$\sigma_c = 1.66 \text{ N/mm}^2$$

$$\sigma_f = 69.27 \text{ N/mm}^2$$

Le verifiche sono rispettate.

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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Verifiche allo stato limite di esercizio (condizione frequente)

Le verifiche da condurre in combinazione frequente riguardano l'apertura delle fessure; nello specifico si verifica che l'ampiezza delle fessure si mantenga inferiore al valore limite:

$$w_k \leq w_2 = 0.300 \text{ mm.}$$

Sollecitazioni di verifica:

$$M = 11.32 \text{ kNm} < M_{f,cri} = 47.04 \text{ kNm}$$

$$w_k = 0.00 \text{ mm} \leq w_2 \quad - \text{ Nel caso in esame la sezione non si fessura.}$$

Verifiche allo stato limite di esercizio (condizione quasi permanente)

Le verifiche da condurre in combinazione quasi permanente riguardano sia la tensione di esercizio del calcestruzzo sia l'apertura delle fessure; nello specifico si verifica che la tensione nel calcestruzzo si mantenga nel seguente limite:

$$\sigma_c \leq 14.80 \text{ N/mm}^2$$

e che l'ampiezza delle fessure si mantenga inferiore al valore limite:

$$w_k \leq w_1 = 0.200 \text{ mm.}$$

Sollecitazioni di verifica:

$$M = 11.32 \text{ kNm} < M_{f,cri} = 47.04 \text{ kNm}$$

Nel caso in esame si ha:

$$\sigma_c = 1.66 \text{ N/mm}^2$$

$$w_k = 0.00 \text{ mm} < w_1 \quad - \text{ Nel caso in esame la sezione non si fessura.}$$

Verifiche allo stato limite ultimo per Taglio

Di seguito si riporta la verifica a taglio ultimo della sezione più sollecitata:

Verifica a taglio ultimo

Elementi senza armatura trasversale a taglio

- *Verifica del conglomerato*

$$VRd = [0,18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck})^{1/3} / \gamma_c + 0,15 \cdot \sigma_{cp}] \cdot b_w \cdot d = \quad \mathbf{121.00} \quad \text{kN}$$

$$VEd = \quad \mathbf{36.27} \quad \text{kN} \quad \boxed{\text{ok}}$$

con:

$$K = 1 + (200/d)^{1/2} = \quad 1.915 \quad \leq 2$$

$$R_{ck} = \quad \mathbf{40} \quad \text{N/mm}^2$$

$$v_{\min} = 0,035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = \quad 0.534 \quad \text{N/mm}^2$$

$$f_{ck} = 0,83 \cdot R_{ck} = \quad 33.2 \quad \text{N/mm}^2$$

$$f_{cd} = \alpha_{cc} \cdot f_{ck} / \gamma_c = \quad 18.81 \quad \text{N/mm}^2$$

$$\rho_1 = A_s / (b_w \cdot d) = \quad 0.00322 \quad \leq 0,02$$

$$d = \quad \mathbf{239} \quad \text{mm}$$

$$H = \quad \mathbf{300} \quad \text{mm}$$

$$b_w = \quad \mathbf{1000} \quad \text{mm}$$

$$A_s = \quad \mathbf{770} \quad \text{mm}^2 \quad (5\phi 14/\text{ml})$$

$$N_{Ed} = \quad \mathbf{0.00} \quad \text{kN}$$

$$\sigma_{cp} = N_{Ed} / A_c = \quad 0.000 \quad \text{N/mm}^2 \quad \leq 0,2 \cdot f_{cd}$$

VERIFICHE DELLE ARMATURE ORIZZONTALI

Caratteristiche geometriche della sezione

Larghezza b	100 cm
Altezza h	30 cm
Armatura tesa 1° strato Aa	1Φ12/20 = 5.65 cm ²
Copriferro 1° strato c1	4.60 cm
Armatura tesa 2° strato Aa	
Copriferro 2° strato c2	
Armatura compressa 1° strato A'a	1Φ12/20 = 5.65 cm ²
Copriferro armatura compressa c'	25.4 cm

Le sollecitazioni per l'acciaio sono state ottenute trascurando, a favore di sicurezza, le azioni normali di compressione.

Verifiche allo stato limite ultimo per flessione

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Sollecitazioni di verifica:

$$M = 21.24 \text{ kNm}$$

Sollecitazioni ultime:

$$M_u = 59.23 \text{ kNm}$$

$$\text{Coeff. sicurezza} = 2.79$$

Verifiche allo stato limite di esercizio (condizione rara)

Le verifiche da condurre in combinazione rara riguardano le tensioni di esercizio; nello specifico si verifica che le tensioni nei materiali si mantengano nei seguenti limiti:

$$\sigma_c \leq 19.20 \text{ N/mm}^2$$

$$\sigma_f \leq 360 \text{ N/mm}^2$$

Sollecitazioni di verifica:

$$M = 9.24 \text{ kNm}$$

pertanto:

$$\sigma_c = 1.33 \text{ N/mm}^2$$

$$\sigma_f = 69.89 \text{ N/mm}^2$$

Le verifiche sono rispettate.

Verifiche allo stato limite di esercizio (condizione frequente)

Le verifiche da condurre in combinazione frequente riguardano l'apertura delle fessure; nello specifico si verifica che l'ampiezza delle fessure si mantenga inferiore al valore limite:

$$w_k \leq w_2 = 0.300 \text{ mm.}$$

Sollecitazioni di verifica:

$$M = 9.24 \text{ kNm} < M_{f,cri} = 47.05 \text{ kNm}$$

$$w_k = 0.00 \text{ mm} \leq w_2 \quad - \text{ Nel caso in esame la sezione non si fessura.}$$

Verifiche allo stato limite di esercizio (condizione quasi permanente)

Le verifiche da condurre in combinazione quasi permanente riguardano sia la tensione di esercizio del calcestruzzo sia l'apertura delle fessure; nello specifico si verifica che la tensione nel calcestruzzo si mantenga nel seguente limite:

$$\sigma_c \leq 14.80 \text{ N/mm}^2$$

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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e che l'ampiezza delle fessure si mantenga inferiore al valore limite:

$$w_k \leq w_1 = 0.200 \text{ mm.}$$

Sollecitazioni di verifica:

$$M = 9.24 \text{ kNm} < M_{f,cri} = 47.05 \text{ kNm}$$

Nel caso in esame si ha:

$$\sigma_c = 1.33 \text{ N/mm}^2$$

$$w_k = 0.00 \text{ mm} < w_1$$

- Nel caso in esame la sezione non si fessura.

Verifiche allo stato limite ultimo per Taglio

Di seguito si riporta la verifica a taglio ultimo della sezione più sollecitata:

Verifica a taglio ultimo

Elementi senza armatura trasversale a taglio

- Verifica del conglomerato

$$VRd = [0,18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck})^{1/3} / \gamma_c + 0,15 \cdot \sigma_{cp}] \cdot b_w \cdot d = \mathbf{112.03} \text{ kN}$$

$$VEd = \mathbf{36.46} \text{ kN} \quad \boxed{\text{ok}}$$

con:

$$K = 1 + (200/d)^{1/2} = 1.887 \leq 2$$

$$R_{ck} = 40 \text{ N/mm}^2$$

$$v_{min} = 0,035 \cdot k^{3/2} \cdot f_{ck}^{1/2} = 0.523 \text{ N/mm}^2$$

$$f_{ck} = 0,83 \cdot R_{ck} = 33.2 \text{ N/mm}^2$$

$$f_{cd} = \alpha_{cc} \cdot f_{ck} / \gamma_c = 18.81 \text{ N/mm}^2$$

$$\rho_1 = A_{sl} / (b_w \cdot d) = 0.00222 \leq 0,02$$

$$d = 254 \text{ mm}$$

$$H = 300 \text{ mm}$$

$$b_w = 1000 \text{ mm}$$

$$A_{sl} = 565 \text{ mm}^2 \quad (5\phi 14/ml)$$

$$N_{Ed} = \mathbf{0.00} \text{ kN}$$

$$\sigma_{cp} = N_{Ed} / A_c = 0.000 \text{ N/mm}^2 \leq 0,2 \cdot f_{cd}$$

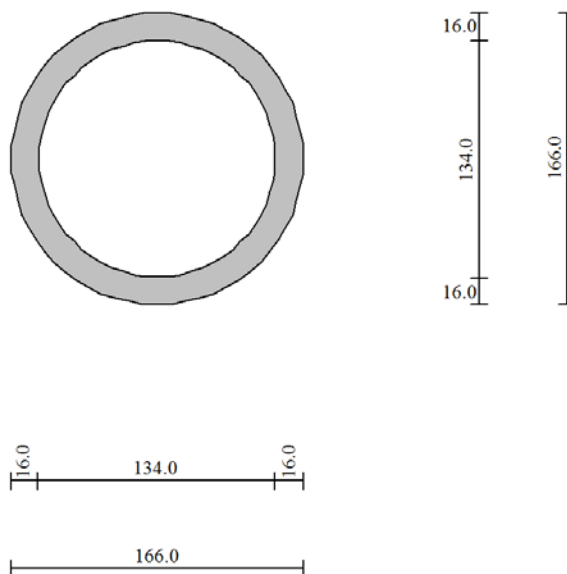
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6. TOMBINO CIRCOLARE DN1500

6.1 GEOMETRIA DELLA STRUTTURA

Sezione lungo l'asse stradale del **TOMBINO CIRCOLARE DN1500**

Diametro nominale 1,5m, spessore pareti 0,16m, ricoprimento medio circa 3.00m.



6.2 PARAMETRI GEOTECNICI DEL TERRENO

Nel calcolo dello scatolare, per quanto riguarda la determinazione della spinta delle terre, della capacità portante del terreno e delle caratteristiche di interazione terreno-struttura, si adottano, a favore di sicurezza, i seguenti parametri geotecnici:

Strato di ricoprimento

Descrizione	Terreno di ricoprimento	
Spessore dello strato	3.00	[m]
Peso di volume	20.0000	[kN/mc]
Peso di volume saturo	20.0000	[kN/mc]
Angolo di attrito	35.00	[°]
Coesione	0.000	[MPa]

Strato di rinfianco

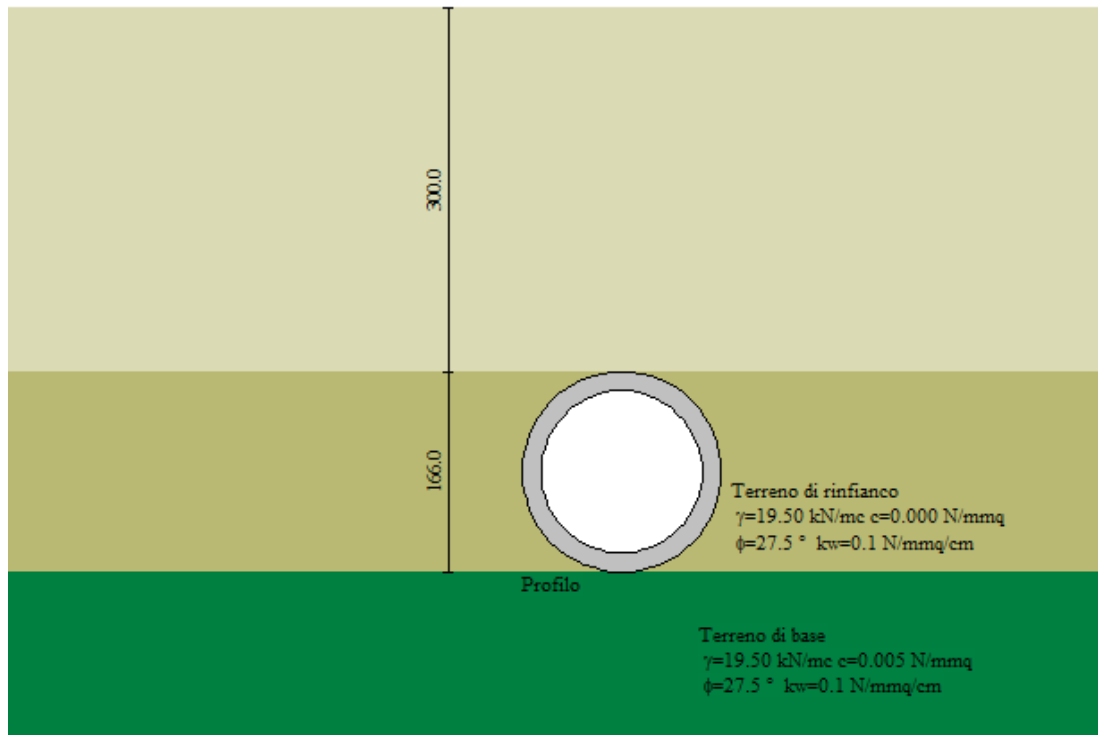
Descrizione	Terreno di rinfianco	
Peso di volume	19.5000	[kN/mc]
Peso di volume saturo	19.5000	[kN/mc]
Angolo di attrito	27.500	[°]
Angolo di attrito terreno struttura	0.00	[°]

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Coesione	0.000	[MPa]
Costante di Winkler	0.050	[MPa/cm]

Strato di base

Descrizione	Terreno di base	
Peso di volume	19.5000	[kN/mc]
Peso di volume saturo	19.5000	[kN/mc]
Angolo di attrito	27.500	[°]
Angolo di attrito terreno struttura	0.00	[°]
Coesione	0.000	[MPa]
Costante di Winkler	0.05	[MPa/cm]
Tensione ammissibile	0.02	[MPa]



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6.3 CRITERI DI VERIFICA

Nella verifica si segue il metodo degli stati limite di cui al *Paragrafo 2.2. "Stati limite"*, così come stabilito al *Paragrafo 5.1. "Costruzioni di conglomerato cementizio" del D.M. 14 settembre 2005.*

I valori di calcolo delle azioni sulle strutture e le loro combinazioni fanno riferimento al *Paragrafo 6.2. "Opere stradali"* ed al *Paragrafo 3.2. "Azione sismica"*.

Per i materiali e i prodotti impiegati, nonché per i valori della resistenza di calcolo, si fa riferimento al *Capitolo 11. "Materiali e prodotti per uso strutturale"*.

Nel modello di calcolo i carichi accidentali sul rilevato, l'azione di frenamento ed il sisma vengono applicati sulla parte sinistra dello scatolare o in direzione da sinistra verso destra, onde massimizzare lo sbilanciamento delle forze per la verifica della struttura scatolare senza aumentare notevolmente il numero delle combinazioni di carico.

Le armature calcolate sul piedritto più sollecitato vengono poi "specchiate" anche sull'altro piedritto.

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6.4 ANALISI DEI CARICHI

6.4.1 Peso proprio

Il peso proprio delle strutture è determinato automaticamente dal programma di calcolo.

6.4.2 Permanenti

Il peso dei carichi permanenti è determinato automaticamente dal programma di calcolo in base ai valori del peso specifico del terreno $\gamma_{\text{ricoprimento}} = 20 \text{ KN/m}^3$ ed all'altezza dello strato di terreno

6.4.2.1 Calcolo del carico sulla calotta - Metodo di Terzaghi

Nei riguardi della forma del diagramma di carico, cioè della modalità di applicazione delle spinte del terreno, il metodo di Terzaghi considera che il carico sul traverso si manifesti come semplice peso di una massa parabolica o ellittica di distacco.

Più in dettaglio Terzaghi fornisce due espressioni differenti della pressione a seconda della maggiore o minore altezza del ricoprimento H_0 . Le due espressioni sono: per $H_0 \leq 5 B_1$

$$P_V = \frac{\gamma \cdot B_1 - C}{k \cdot \text{tg}\phi} \cdot \left[1 - e^{-A} \right]$$

nella quale K è un coefficiente sperimentale, che, secondo misure eseguite dallo stesso Autore è circa uguale ad 1. Inoltre:

$$B_1 = \frac{b}{2} + h \cdot \text{tg}\left(45^\circ - \frac{\phi}{2}\right)$$

In questa espressione b ed h sono la larghezza e l'altezza dello scatolare e ϕ è l'angolo d'attrito del terreno di rinfilo mentre il termine A è espresso dalla relazione :

$$A = k \cdot \frac{H_0}{B_1} \cdot \text{tg}\phi$$

Per grandi profondità, cioè per $H_0 > 5B_1$:

$$P_V = \frac{\gamma \cdot B_1 - C}{k \cdot \text{tg}\phi} \cdot \left[1 - e^{-D} \right] + \gamma \cdot H_2 \cdot e^{-D}$$

Dove :

$$D = k \cdot \frac{H_1}{B_1} \cdot \text{tg}\phi$$

essendo H_1 la distanza, misurata dal piano orizzontale sul quale agisce la pressione, alla quale si estende l'effetto volta e H_2 la residua distanza sino al piano campagna. La somma $H_1 + H_2$ è l'altezza del ricoprimento H_0 .

6.4.3 Spinta del terreno

6.4.3.1 Spinta attiva - Metodo di Coulomb

La teoria di Coulomb considera l'ipotesi di un cuneo di spinta a monte della parete che si muove

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rigidamente lungo una superficie di rottura rettilinea. Dall'equilibrio del cuneo si ricava la spinta che il terreno esercita sull'opera di sostegno. In particolare Coulomb ammette, al contrario della teoria di Rankine, l'esistenza di attrito fra il terreno e la parete, e quindi la retta di spinta risulta inclinata rispetto alla normale alla parete stesso di un angolo di attrito terra-parete.

L'espressione della spinta esercitata da un terrapieno, di peso di volume γ , su una parete di altezza H , risulta espressa secondo la teoria di Coulomb dalla seguente relazione (per terreno incoerente) :

$$S = \frac{1}{2} \cdot \gamma \cdot H^2 \cdot K_a$$

K_a rappresenta il coefficiente di spinta attiva di Coulomb nella versione riveduta da Muller-Breslau, espresso come :

$$K_a = \frac{\sin^2(\alpha + \phi)}{\sin^2 \alpha \cdot \sin(\alpha - \delta) \cdot \left[1 + \frac{\sqrt{\sin(\phi + \delta) \cdot \sin(\phi - \beta)}}{\sqrt{\sin(\alpha - \delta) \cdot \sin(\alpha + \beta)}} \right]^2}$$

dove ϕ è l'angolo d'attrito del terreno, α rappresenta l'angolo che la parete forma con l'orizzontale ($\alpha = 90^\circ$ per parete verticale), δ è l'angolo d'attrito terreno-parete, β è l'inclinazione del terrapieno rispetto all'orizzontale.

La spinta risulta inclinata dell'angolo d'attrito terreno-parete δ rispetto alla normale alla parete.

Il diagramma delle pressioni del terreno sulla parete risulta triangolare con il vertice in alto. Il punto di applicazione della spinta si trova in corrispondenza del baricentro del diagramma delle pressioni ($1/3 H$ rispetto alla base della parete). L'espressione di K_a perde di significato per $\beta > \phi$. Questo coincide con quanto si intuisce fisicamente: la pendenza del terreno a monte della parete non può superare l'angolo di natural declivio del terreno stesso.

Nel caso di terreno dotato di attrito e coesione c l'espressione della pressione del terreno ad una generica profondità z vale :

$$\sigma_a = \gamma \cdot z \cdot K_a - 2 \cdot c \cdot \sqrt{K_a}$$

6.4.3.2 Spinta in presenza di falda

Nel caso in cui a monte della parete sia presente la falda il diagramma delle pressioni sulla parete risulta modificato a causa della sottospinta che l'acqua esercita sul terreno. Il peso di volume del terreno al di sopra della linea di falda non subisce variazioni. Viceversa al di sotto del livello di falda va considerato il peso di volume di galleggiamento :

$$\gamma_a = \gamma_{sat} - \gamma_w$$

dove γ_{sat} è il peso di volume saturo del terreno (dipendente dall'indice dei pori) e γ_w è il peso di volume dell'acqua. Quindi il diagramma delle pressioni al di sotto della linea di falda ha una pendenza minore. Al diagramma così ottenuto va sommato il diagramma triangolare legato alla pressione idrostatica esercitata dall'acqua.

6.4.3.3 Spinta a Riposo

Si assume che sui piedritti agisca la spinta calcolata in condizioni di riposo.

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Il coefficiente di spinta a riposo è espresso dalla relazione :

$$K_0 = 1 - \sin\phi$$

dove ϕ rappresenta l'angolo d'attrito interno del terreno di rinfianco.

Quindi la pressione laterale, ad una generica profondità z e la spinta totale sulla parete di altezza H valgono :

$$\sigma = \gamma \cdot z \cdot K_0 + p_v \cdot K_0$$

$$S = \frac{1}{2} \cdot \gamma \cdot H^2 \cdot K_0 + p_v \cdot K_0 \cdot H$$

dove p_v è la pressione verticale agente in corrispondenza della calotta.

6.4.3.4 Spinta in presenza di sisma

Nell'analisi pseudo-statica, l'azione sismica è rappresentata da un insieme di forze statiche orizzontali e verticali date dal prodotto delle forze di gravità per un coefficiente sismico.

La componente verticale dell'azione sismica deve essere considerata agente verso l'alto o verso il basso, in modo da produrre gli effetti più sfavorevoli.

L'intensità delle forze sismiche equivalenti così introdotte dipende, per un'assegnata zona sismica, dall'entità dello spostamento permanente ammissibile ed allo stesso tempo effettivamente consentito dalla soluzione strutturale adottata.

In assenza di studi specifici, i coefficienti sismici orizzontale (k_h) e verticale (k_v) che interessano tutte le masse devono essere calcolati come:

$$k_h = S \frac{a_g}{g} \cdot r \qquad k_v = 0.5 k_h$$

Al fattore r è stato assegnato il valore unitario. Tali coefficienti sismici si possono assumere costanti lungo l'altezza del muro.

La spinta totale di progetto E_d (statica + dinamica) esercitata dal terrapieno ed agente sull'opera di sostegno a metà dell'altezza, è data da:

$$E_d = \frac{1}{2} \gamma^* (1 \pm k_v) K H^2 + E_{ws}$$

dove:

H è l'altezza del muro;

E_{ws} è la spinta idrostatica;

γ^* è il peso specifico del terreno

K è il coefficiente di spinta del terreno (statico + dinamico)

Il coefficiente di spinta del terreno può essere calcolato mediante la formula di Mononobe e Okabe.

Per stati di spinta attiva:

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$$\beta \leq \phi - \theta \cdot K = \frac{\text{ser}^2(\psi + \phi - \theta)}{\cos\theta \text{ ser}^2\psi \text{ ser}(\psi - \theta - \delta) \left[1 + \sqrt{\frac{\text{ser}(\phi + \delta)\text{ser}(\phi - \beta - \theta)}{\text{ser}(\psi - \theta - \delta)\text{ser}(\psi + \beta)}} \right]^2}$$

$$\beta > \phi - \theta \cdot K = \frac{\text{ser}^2(\psi + \phi - \theta)}{\cos\theta \text{ ser}^2\psi \text{ ser}(\psi - \theta - \delta)}$$

Nelle precedenti equazioni vengono usate le seguenti notazioni:

ϕ è il valore di calcolo dell'angolo di resistenza a taglio del terreno in condizioni di sforzo efficace;

ψ, β è l'angolo di inclinazione rispetto all'orizzontale rispettivamente della parete del muro rivolta a monte e della superficie del terrapieno;

δ è il valore di calcolo dell'angolo di resistenza a taglio tra terreno e muro;

θ è l'angolo definito dalle espressioni da:

$$\tan\theta = \frac{k_h}{1 \pm k_v} \quad (\text{falda assente})$$

6.4.3.5 Strategia di soluzione

A partire dal tipo di terreno, dalla geometria e dai sovraccarichi agenti il programma è in grado di conoscere tutti i carichi agenti sulla struttura per ogni combinazione di carico.

La struttura scatolare viene schematizzata come un telaio piano e viene risolta mediante il metodo degli elementi finiti (*FEM*). Più dettagliatamente il telaio viene discretizzato in una serie di elementi connessi fra di loro nei nodi.

Il terreno di rinfianco e di fondazione viene invece schematizzato con una serie di elementi molle non reagenti a trazione (modello di Winkler). L'area della singola molla è direttamente proporzionale alla costante di Winkler del terreno e all'area di influenza della molla stessa.

A partire dalla matrice di rigidezza del singolo elemento, K_e , si assembla la matrice di rigidezza di tutta la struttura K . Tutti i carichi agenti sulla struttura vengono trasformati in carichi nodali (reazioni di incastro perfetto) ed inseriti nel vettore dei carichi nodali p . Indicando con u il vettore degli spostamenti nodali (incogniti), la relazione risolutiva può essere scritta nella forma :

$$K u = p$$

Da questa equazione matriciale si ricavano gli spostamenti incogniti u :

$$u = K^{-1} p$$

Noti gli spostamenti nodali è possibile risalire alle sollecitazioni nei vari elementi.

La soluzione del sistema viene fatta per ogni combinazione di carico agente sullo scatolare. Il successivo calcolo delle armature nei vari elementi viene condotto tenendo conto delle condizioni più gravose che si possono verificare nelle sezioni fra tutte le combinazioni di carico.

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6.4.4 Variazioni termiche della struttura

- variazione termica variabile linearmente da + 2.5°C all'estradosso della soletta superiore, a - 2.5°C all'intradosso della soletta superiore;
- variazione termica variabile linearmente da - 2.5°C all'estradosso della soletta superiore, a + 2.5°C all'intradosso della soletta superiore;

6.4.5 Ritiro e viscosità

Gli effetti del ritiro del calcestruzzo e della viscosità sono assimilati ad una variazione termica uniforme della soletta superiore. La deformazione totale da ritiro si esprime come:

$$\varepsilon_s = \varepsilon_{ed} + \varepsilon_{ca} \text{ dove}$$

ε_{cs} è la differenza totale per ritiro

ε_{cd} è la differenza per ritiro da essiccamento

ε_{ca} è la differenza per ritiro autogeno

Il ritiro da essiccamento a tempo infino $\varepsilon_{cs} \infty$ è stato valutato in funzione della resistenza caratteristica a compressione, dell'umidità relativa e del parametro: ho utilizzando le tabelle del paragrafo 11.1.10.6 del D.M. 14/09/05. Lo sviluppo nel tempo della deformazione al tempo t è stata valutata con l'espressione

$$\varepsilon_{cd}(t) = \beta_{ds}(t - t_s) \cdot \varepsilon_{cd} \infty$$

dove la funzione di sviluppo temporale assume la forma

$$\beta_{ds}(t - t_s) = \left[\frac{(t - t_s)}{350 \cdot \left(\frac{h_o}{100}\right)^2 + (t - t_s)} \right]^{0.5}$$

in cui

t è l'età del calcestruzzo nel momento considerato (in giorni)

t_s è l'età del calcestruzzo a partire dalla quale si considera l'effetto del ritiro da essiccamento (normalmente il termine del curing – in giorni)

h_o dimensione fittizia (in mm) pari al rapporto $2 A_c/u$ essendo

A_c l'area della sezione in conglomerato

U il perimetro della sezione in conglomerato esposto all'aria

Il valore medio a tempo infinito della deformazione per ritiro autogeno $\varepsilon_{ca\infty}$, può essere valutato mediante l'espressione:

$$\varepsilon_{ca, \infty} = 2.5 \cdot (f_{ck} - 10) \cdot 10^{-6} \text{ confck in MPa}$$

Gli effetti dei fenomeni viscosi sono stati valutati in funzione dell'umidità ambientale delle

dimensioni dell'elemento soletta, del tipo di calcestruzzo utilizzato, dell'età dello stesso al momento della messa in carico e dalla durata e dal livello del carico applicato.

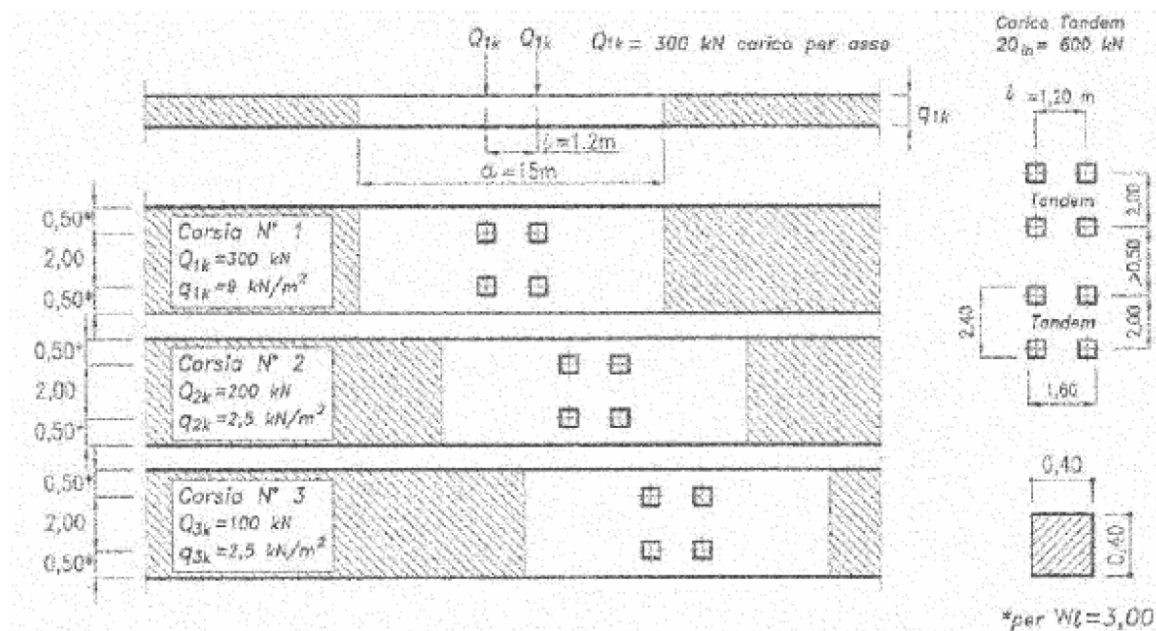
La deformazione viscosa al tempo infino $t = \infty$ è stata quindi riportata al tempo t di riferimento.

In definitiva la deformazione da ritiro totale, tenuto conto degli effetti da deformazione viscosa, è stata globalmente valutata corrispondente ad un carico termico uniforme nella soletta superiore di -10°C .

6.4.6 Azioni antropiche

6.4.6.1 Carichi stradali (q_1)

Le azioni variabili del traffico definite nello Schema di Carico 1 sono costituite da carichi concentrati e da carichi uniformemente distribuiti. Tale schema è da assumere a riferimento sia per le verifiche globali, sia per le verifiche locali.



Il numero delle colonne di carichi mobili e la loro disposizione sono quelli massimi compatibili con la larghezza della carreggiata considerata, per i ponti di 1ª Categoria.

Posizione	Carico asse Q_{ik} [kN]	q_{ik} [kN/m ²]
Corsia Numero 1	300	9
Corsia Numero 2	200	2,5
Corsia Numero 3	100	2,5
Altre corsie	0,00	2,50

6.4.6.2 Incremento Dinamico dei Carichi Mobili dovuto ad Azioni Dinamiche (q_2)

L'entità dei carichi mobili deve essere maggiorata per tener conto degli effetti dinamici. In mancanza di analisi specifiche che prendano in conto le caratteristiche dinamiche della struttura, nonché la velocità di progetto della strada, le caratteristiche delle sospensioni dei

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carichi e la rugosità del manto stradale, l'incremento q_2 è fornito da :

$$q_2 = (\Phi - 1) \cdot q_1$$

dove Φ , coefficiente dinamico, ha la seguente espressione:

- per luci $L \leq 10$ m $\Phi = 1,4$
- per luci $10 \leq L \leq 70$ m $\Phi = 1,4 - (L - 10) / 150$
- per luci $L \geq 70$ m $\Phi = 1,0$

Nel caso in oggetto essendo $L < 10$ m: $\Phi = 1.4$

6.4.6.3 Diffusione dei carichi stradali q_1a

Il carichi concentrati si assumono uniformemente distribuiti sulla superficie della rispettiva impronta. La diffusione attraverso la pavimentazione e lo spessore della soletta si considera avvenire secondo una diffusione a 45° , fino al piano medio della struttura della soletta sottostante.

I due assi da 300 kN vengono ripartiti e trasmessi sulla soletta considerando una diffusione attraverso la pavimentazione, il terreno e la soletta.

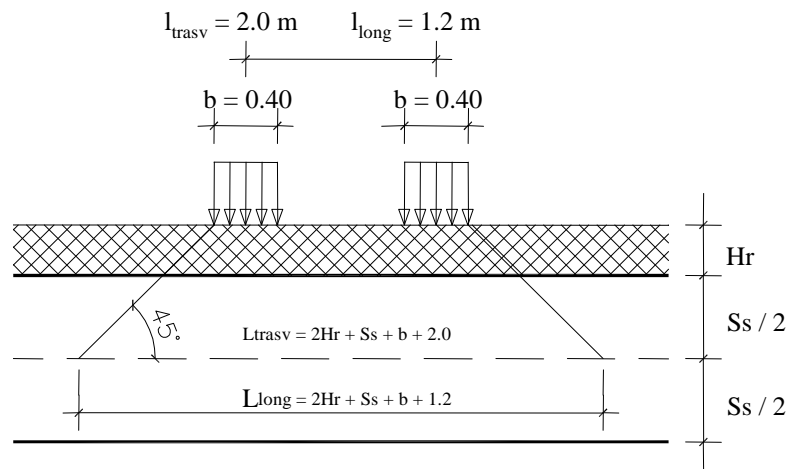
Larghezza di ripartizione in senso trasversale e longitudinale

$$L_{\text{trasv}} = 2 \times Hr + 2 \times (Ss / 2) + b + l_{\text{trasv}}$$

$$L_{\text{long}} = 2 \times Hr + 2 \times (Ss / 2) + b + l_{\text{long}}$$

TOMBINO	DN1500
	Tipo 1
Hr	3.00
Ss	0,16
b	0,4
Ltrasv	8.56
Llong	7.76

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$$q'_{1a} = 2 \times 300 \text{ KN}/(\text{L}_{\text{trasv}} \times \text{L}_{\text{long}})$$

$$q_{1a} = q'_{1a} \times \phi$$

TOMBINO	DN1500
	Tipo 1
ϕ	1,4
q'_{1a}	9.27
q_{1a}	12.98

Per quanto riguarda i tombini circolari DN1500, si evidenzia che la diffusione dei carichi accidentali è stata effettuata rispetto al piano orizzontale tangente superiormente la linea d'asse della sezione dell'opera.

6.4.6.4 Diffusione dei carichi stradali q_{1b}

Il carico distribuito q_{1b} da 9 kN/m² va applicato a partire da 15/2 m dagli assi dei carichi concentrati Q_{1k} .

$$q'_{1b} = 9 \text{ kN/m}^2$$

$$q_{1b} = q'_{1b} \times \Phi = 12.6 \text{ kN/m}^2$$

6.4.6.5 Carichi sul rilevato

La spinta delle terre dovuta all'azione dei sovraccarichi accidentali posti sul rilevato a tergo dei piedritti dello scatolare viene valutata assumendo una volta il carico q_{1b} associato al carico q_{1a} posto sul tombino, e una volta assumendo il carico q'_{1a} ripartito solo in senso trasversale mentre in senso longitudinale viene ripartito automaticamente dal programma di calcolo assumendo una diffusione pari a l'angolo di attrito del rilevato (vedi tabulati).

6.4.6.6 Frenatura (q_3)

Per quanto riguarda l'azione di frenatura, definita al paragrafo 6.2.3.5. del D.M.14/09/05, si considera la frenatura di una carreggiata

Considero il carico totale che può interessare la struttura, tutte le corsie caricate dal solo carico Q_{1a} (600 kN):

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$$Q_{frenatura} = 0.20 \times [(300 \times 2) \times 1.4]$$

e diffondo tale valore sulla superficie dello scatolare

$$q_{frenatura} \text{ (distribuita)} = 168 / (L_{trasv} \times L_{long})$$

TOMBINO	DN1500
	Tipo 1
Ltrasv	8.56
Llong	7.76
ϕ	1,4
Qfrenatura	168
q frenatura distr	2.53

6.4.6.7 Centrifuga (q4)

Poiché la sezione dello scatolare considerata nel modello di calcolo è parallela all'asse stradale, l'azione centrifuga non presenta componente trasversale per lo scatolare.

6.4.7 Vento (q5)

Poiché la sezione dello scatolare considerata nel modello di calcolo è parallela all'asse stradale, l'azione del vento non presenta componente trasversale per lo scatolare.

6.4.8 Sisma (q6)

Le strutture, ai sensi della normativa vigente, sono assunte di Classe 2 (vita utile 100 anni).

Tutte le azioni sono calcolate considerando un periodo di ritorno per i fenomeni naturali pari a 1000 anni, pertanto nella valutazione della accelerazione orizzontale massima a_g si è fatto riferimento alle mappe di pericolosità sismica dell'I.N.G.V. (Istituto Nazionale di Geofisica e Vulcanologia) andando a considerare il parametro a_g/g riferito a una probabilità di superamento non maggiore del 5% in 50 anni, come previsto dal paragrafo 3.2.2.3 del *D.M. 14/09/05*.

La tabella sottostante riporta i valori considerati per la zona in esame

Zona sismica	2
Categoria suolo di fondazione	B/C
Classe della struttura	2
Accelerazione orizzontale massima	0.275
Fattore S che tiene conto della categoria del suolo di fondazione = B/C	1.25

In definitiva l'accelerazione orizzontale massima convenzionale per zona 1, struttura di classe 2 e suolo di categoria B/C = $0.275 \text{ g} \times 1.25 = 0.344 \text{ g}$.

6.5 ANALISI STRUTTURALE

Il calcolo della struttura è eseguito con un programma di calcolo agli elementi finiti che schematizza la struttura come un telaio piano di larghezza unitaria composta dalla soletta superiore, dai 2 ritti e dalla soletta di base che costituisce la fondazione, la cui interazione con il terreno di base è simulata mediante una trave su suolo elastico alla Winkler.

Il programma di calcolo richiede come input la normativa di riferimento, le caratteristiche geometriche della struttura, le caratteristiche dei materiali, i parametri e la conformazione dei terreni, le condizioni di carico, le combinazioni di carico e fornisce sollecitazioni, deformazioni e tensioni e verifiche agli SLU e SLE richieste per le varie condizioni e combinazioni di carico.

Le azioni di carico sono state elencate precedentemente con riferimento al paragrafo 6.2 "Opere stradali: azioni sui ponti stradali" e le relative combinazioni di carico. I coefficienti moltiplicativi delle singole azioni per i diversi tipi di verifica sono riportati nella tabella seguente.

Tabella 6.2.IV – Combinazioni e coefficienti moltiplicativi delle singole azioni per i diversi tipi di verifiche

		g_1	g_2	g_3	ε_1	ε_2	ε_3	ε_4	q_1	q_2	q_3	q_4	q_5	q_6	q_7	q_8	q_9
Verifiche tensionali	T I	1	1	1	1	1	1	1	0	0	0	0	1	0	1	0	1
	T II	1	1	1	1	1	1	1	1	1	0	0	0,6	0	1	1	1
	T III	1	1	1	1	1	1	1	1	1	1	0	0,2	0	1	1	1
	T IV	1	1	1	1	1	1	1	1	1	0	1	0,2	0	1	1	1
	T V	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0
Stati limite di esercizio di fessurazione	QP	1	1	1	1	1	1	1	0	0	0	0	0,4	0	0	0	0
	FR	1	1	1	1	1	1	1	ψ	y	0	0	0	0	0	0	0
Stati limite ultimi	U I	1,4	1,4	1,4	1,2 (0.85)	1,2 (0)	1,2 (0)	1,2(0)	0	0	0	0	1,5	1,5	1,5		
	U II	1,4	1,4	1,4	1,2 (0.85)	1,2 (0)	1,2 (0)	1,2(0)	1,5	1,5	0	0	0,9	1,5	1,5		
	U III	1,4	1,4	1,4	1,2 (0.85)	1,2 (0)	1,2 (0)	1,2(0)	1,5	1,5	1,5	0	0,3	1,5	1,5		
	U IV	1,4	1,4	1,4	1,2 (0.85)	1,2 (0)	1,2 (0)	1,2(0)	1,5	0,5	0	1,5	0,3	1,5	1,5		

Per la definizione delle combinazioni si è tenuto conto delle varie disposizioni dei carichi mobili al fine di realizzare le più gravose, delle distorsioni termiche di tipo triangolare tra esterno ed interno lungo lo spessore della soletta superiore (Positivo/Negativo e Negativo/Positivo).

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Si è inoltre tenuto conto delle due combinazioni di carico (A1 + M1) e (A2+M2) previste per le verifiche agli stati limite ultimi delle opere che interagiscono con il terreno.

L'analisi della struttura scatolare è stata condotta il programma SCAT 9.1 (Aztech Informatica) nella forma originale commercializzata senza alcuna modifica apportata da parte dell'utente. Il software è dedicato all'analisi e al calcolo di strutture scatolari interrato.

La struttura viene schematizzata come un telaio piano e viene risolta mediante il metodo degli elementi finiti (FEM). Più dettagliatamente il telaio viene discretizzato in una serie di elementi connessi fra di loro nei nodi facendo riferimento ad una larghezza unitaria di struttura.

6.5.1 Verifiche di resistenza agli stati limite ultimi

Si è verificato che il valore di progetto degli effetti delle azioni, ovvero delle sollecitazioni flettenti M sia minore dei corrispondenti momenti resistenti (M_u) delle sezioni di progetto.

La verifica allo stato limite ultimo per taglio è stata condotta secondo l'Eurocodice 2 che definisce tre valori limite per il taglio V

V_{rd1} resistenza a taglio di una sezione in elementi strutturali privi di armatura a taglio

V_{rd2} massimo taglio che può essere sopportato senza rottura per schiacciamento dell'anima

V_{rd3} resistenza a taglio di una sezione in elementi strutturali con armatura a taglio.

Dall'esame di tali valori si sono predisposti adeguate armate al taglio composte da barre inclinate a 45° e da staffe per verificare che la resistenza dell'armatura al taglio sia massima della sollecitazione allo stato limite di calcolo.

La verifica di resistenza delle sezioni nei vari elementi strutturali, viene condotta tenendo conto delle condizioni più gravose che si individuano dall'involuppo delle sollecitazioni agenti nelle diverse combinazioni di carico.

Le verifiche si basano sul concetto dei coefficienti di sicurezza parziali e considerano due famiglie di combinazioni (indicate come A1-M1 e A2-M2) generate con le seguenti modalità:

- caso A1-M1: in questo tipo di combinazioni vengono incrementati le azioni permanenti e variabili con i coefficienti (γ_G, γ_Q) e vengono lasciate inalterate le caratteristiche di resistenza del terreno. Le combinazioni ottenute sono rilevanti per stabilire la capacità strutturale delle opere che interagiscono con il terreno.
- caso A2-M2: in questo tipo di combinazioni vengono incrementati i carichi variabili e vengono ridotte le caratteristiche di resistenza del terreno ($tg(\phi), c'$ o c_u) secondo i coefficienti parziali ($\gamma_{tan\phi}, \gamma_c, \gamma_{cu}, \gamma_u$) definiti da normativa. Le combinazioni ottenute sono rilevanti per il dimensionamento geotecnico.

La soluzione si ottiene dalla combinazione dei casi A1-M1 e A2-M2.

Le combinazioni e i coefficienti moltiplicativi delle singole azioni vengono definiti in base a quanto indicato al paragrafo 6.2.3.12. del D.M. 14/09/05.

6.5.2 Verifiche agli stati limite di esercizio

6.5.2.1 Definizione degli stati limite di fessurazione

In ordine di severità crescente si distinguono i seguenti stati limite:

- a) stato limite di decompressione nel quale, per la combinazione di azioni prescelta, la

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tensione normale è ovunque di compressione ed al più uguale a 0 ;

- b) stato limite di formazione delle fessure, nel quale, per la combinazione di azioni prescelta, la tensione normale di trazione nella fibra più sollecitata è:

$$\sigma_t \leq \frac{f_{ctk}}{\gamma_m}$$

- c) stato limite di apertura delle fessure nel quale, per la combinazione di azioni prescelta, il valore limite di apertura della fessura calcolato al livello considerato è pari ad uno dei seguenti valori nominali:

$$w_1 = 0,2 \text{ mm}$$

$$w_2 = 0,3 \text{ mm}$$

$$w_3 = 0,4 \text{ mm}$$

Lo stato limite di fessurazione deve essere fissato in funzione delle condizioni ambientali e della sensibilità delle armature alla corrosione.

6.5.2.2 Condizioni ambientali

Le condizioni ambientali, ai fini della valutazione della durabilità delle strutture in calcestruzzo, possono essere suddivise in ordinarie, aggressive e molto aggressive in relazione a quanto indicato nella tabella seguente:

CONDIZIONI AMBIENTALI	DESCRIZIONE
Ordinarie	Tutte le sollecitazioni escluse le successive
Aggressive	Ambiente aggressivo per cause naturali, caratterizzato da elevata umidità, scarso o nullo soleggiamento.
Molto aggressive	Ambiente molto aggressivo per cause antropiche, caratterizzato da presenza di liquidi o di aeriformi particolarmente corrosivi, ambiente marino.

Nel caso in esame si considera l'opera sottoposta a condizioni ordinarie.

6.5.2.3 Sensibilità delle armature alla corrosione

Le armature si distinguono in due gruppi:

- armature sensibili;
- armature poco sensibili.

Appartengono al primo gruppo gli acciai ordinari e gli acciai da precompresso (con stato tensionale imposto). Appartengono al secondo gruppo gli acciai zincati ed inossidabili.

Le armature dello scatolare, oggetto della relazione, appartengono al gruppo delle armature sensibili.

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6.5.2.4 Scelta degli stati limite di fessurazione

Nella tabella sottostante sono indicati i criteri di scelta dello stato limite di fessurazione con riferimento alle esigenze sopra riportate.

Gruppi di esigenze	Condizioni ambientali	Combinazione di azioni	Armatura			
			Sensibile		Poco sensibile	
			Stato limite	w_d	Stato limite	w_d
a	Ordinarie	frequente	ap. fessure	$\leq w_2$	ap. fessure	$\leq w_3$
		quasi permanente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
b	Aggressive	frequente	ap. fessure	$\leq w_1$	ap. fessure	$\leq w_2$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$
c	Molto aggressive	frequente	formaz. fessure	$\leq w_1$	ap. fessure	$\leq w_1$
		quasi permanente	decompressione	-	ap. fessure	$\leq w_1$

6.5.3 Verifiche allo stato limite di fessurazione per sollecitazioni che provocano tensioni normali

6.5.3.1 Stato limite di decompressione e di formazione delle fessure

Le tensioni sono calcolate in base alle caratteristiche geometriche e meccaniche della sezione omogeneizzata non fessurata.

6.5.3.2 Stato limite di apertura delle fessure

Il valore caratteristico di calcolo di apertura delle fessure (w_d) non deve superare i valori nominali w_1 , w_2 , w_3 secondo quanto riportato nella Tabella riportata in precedenza.

Il valore caratteristico di calcolo è dato da:

$$w_d = 1,7 \cdot w_m$$

dove w_m rappresenta l'ampiezza media delle fessure.

L'ampiezza media delle fessure (w_m) è calcolata come prodotto della deformazione media delle barre d'armatura ϵ_{sm} per la distanza media tra le fessure Δ_{sm} :

$$w_m = \epsilon_{sm} \cdot \Delta_{sm}$$

Per il calcolo di ϵ_{sm} e Δ_{sm} vanno utilizzati criteri consolidati riportati nella letteratura tecnica. ϵ_{sm} può essere calcolato tenendo conto dell'effetto del "tension stiffening" nel rispetto della limitazione:

$$\epsilon_{sm} \geq 0.6 \cdot \frac{\sigma_s}{E_s}$$

con σ_s tensione nell'acciaio dell'armatura tesa (per sezione fessurata) nelle condizioni di carico considerate ed E_s è il modulo elastico dell'acciaio.

6.5.4 Verifiche delle tensioni di esercizio

Valutate le azioni interne nelle varie parti della struttura, dovute alle combinazioni rare e quasi permanenti delle azioni, si calcolano le massime tensioni sia nel conglomerato cementizio sia

nelle armature; si deve verificare che tali tensioni siano inferiori ai massimi valori consentiti di seguito riportati.

6.5.4.1 Verifica della tensione massima di compressione del conglomerato cementizio nelle condizioni di esercizio

La massima tensione di compressione del conglomerato cementizio σ_c , deve rispettare la limitazione seguente:

$$\sigma_c \leq \frac{R_{ck}}{\gamma_{m,c} \cdot \gamma_{Ec}}$$

dove i coefficienti a denominatore vengono adottati in conformità con quanto mostrato nella seguente tabella.

$$R_{ck} = 300 \times 10^2 \text{ KN/mq}$$

Condizioni ambientali	Combinazioni di carico	$\gamma_{m,c}$	γ_{Ec}	σ_{max}
Ordinarie	Rara	1,5	1,4	142×10^2
	Quasi permanente	1,5	1,8	111×10^2
Aggressive	Rara	1,5	1,5	
	Quasi permanente	1,5	1,9	
Molto aggressive	Rara	1,5	1,6	
	Quasi permanente	1,5	2	

6.5.4.2 Verifica della tensione massima dell'acciaio in condizioni di esercizio

Per l'acciaio B450 C (parg. 11.2.2.1), la tensione massima, σ_s , per effetto delle azioni dovute alle combinazioni rare deve rispettare la limitazione seguente:

$$\sigma_s \leq \frac{f_{yk}}{1,25} = \frac{4500 \times 10^2}{1,25} \text{ KN/mq} = 3600 \times 10^2 \text{ KN/mq}$$

dove f_{yk} è la tensione caratteristica di snervamento dell'acciaio.

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6.6 CALCOLO DELLE SOLLECITAZIONI E VERIFICHE DI RESISTENZA DEL TOMBINI

6.6.1 TOMBINO DN1500

Calcolo del carico sulla calotta

Metodo di Terzaghi

Nei riguardi della forma del diagramma di carico, cioè della modalità di applicazione delle spinte del terreno, il metodo di Terzaghi considera che il carico sulla calotta si manifesti come semplice peso di una massa parabolica o ellittica di distacco.

Più in dettaglio Terzaghi fornisce due espressioni differenti della pressione a seconda della maggiore o minore altezza del ricoprimento H_0 . Le due espressioni sono: per $H_0 <= 5 B_1$

$$P_v = \frac{\gamma B_1 - C}{K \operatorname{tg} \phi} [1 - e^{-A}]$$

nella quale K è un coefficiente sperimentale, che, secondo misure eseguite dallo stesso Autore è circa uguale ad 1 . Inoltre:

$$B_1 = \frac{b}{2} + h \operatorname{tg} \left(45^\circ - \frac{\phi}{2} \right)$$

In questa espressione b ed h sono la larghezza e l'altezza dello scotolare e ϕ è l'angolo d'attrito del terreno di rinfianco mentre il termine A è espresso dalla relazione

$$A = K \frac{H_0}{B_1} \operatorname{tg} \phi$$

Per grandi profondità, cioè per $H_0 > 5 B_1$:

$$P_v = \frac{\gamma B_1 - C}{K \operatorname{tg} \phi} [1 - e^{-D}] + \gamma H_2 e^{-D}$$

Dove

$$D = K \frac{H_1}{B_1} \operatorname{tg} \phi$$

essendo H_1 la distanza, misurata dal piano orizzontale sul quale agisce la pressione, alla quale si estende l'effetto volta e H_2 la residua distanza sino al piano campagna. La somma $H_1 + H_2$ è l'altezza del ricoprimento H_0 .

Spinta sui piedritti

Spinta attiva - Metodo di Coulomb

La teoria di Coulomb considera l'ipotesi di un cuneo di spinta a monte della parete che si muove rigidamente lungo una superficie di rottura rettilinea. Dall'equilibrio del cuneo si ricava la spinta che il terreno esercita sull'opera di sostegno. In particolare Coulomb ammette, al contrario della teoria di Rankine, l'esistenza di attrito fra il terreno e la parete, e quindi la retta di spinta risulta inclinata rispetto alla normale alla parete stesso di un angolo di attrito terra-parete.

L'espressione della spinta esercitata da un terrapieno, di peso di volume γ , su una parete di altezza H , risulta espressa secondo la teoria di Coulomb dalla seguente relazione (per terreno incoerente)

$$S = 1/2 \gamma H^2 K_a$$

K_a rappresenta il coefficiente di spinta attiva di Coulomb nella versione riveduta da Muller-Breslau, espresso come

$$K_a = \frac{\sin(\alpha + \phi)}{\sin^2 \alpha \sin(\alpha - \delta) \left[1 + \frac{\sqrt{[\sin(\phi + \delta) \sin(\phi - \beta)]}}{\sqrt{[\sin(\alpha - \delta) \sin(\alpha + \beta)]}} \right]^2}$$

dove ϕ è l'angolo d'attrito del terreno, α rappresenta l'angolo che la parete forma con l'orizzontale ($\alpha = 90^\circ$ per parete verticale), δ è l'angolo d'attrito terreno-parete, β è l'inclinazione del terrapieno rispetto all'orizzontale.

La spinta risulta inclinata dell'angolo d'attrito terreno-parete δ rispetto alla normale alla parete.

Il diagramma delle pressioni del terreno sulla parete risulta triangolare con il vertice in alto. Il punto di applicazione della spinta si trova in corrispondenza del baricentro del diagramma delle pressioni ($1/3 H$ rispetto alla base della parete). L'espressione di K_a perde di significato per $\beta > \phi$. Questo coincide con quanto si intuisce fisicamente: la pendenza del terreno a monte della parete non può superare l'angolo di natural declivio del terreno stesso.

Nel caso di terreno dotato di attrito e coesione c l'espressione della pressione del terreno ad una generica profondità z vale

$$\sigma_a = \gamma z K_a - 2 c \sqrt{K_a}$$

Spinta in presenza di falda

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Nel caso in cui a monte della parete sia presente la falda il diagramma delle pressioni sulla parete risulta modificato a causa della sottospinta che l'acqua esercita sul terreno. Il peso di volume del terreno al di sopra della linea di falda non subisce variazioni. Viceversa al di sotto del livello di falda va considerato il peso di volume di galleggiamento

$$\gamma_a = \gamma_{sat} - \gamma_w$$

dove γ_{sat} è il peso di volume saturo del terreno (dipendente dall'indice dei pori) e γ_w è il peso di volume dell'acqua. Quindi il diagramma delle pressioni al di sotto della linea di falda ha una pendenza minore. Al diagramma così ottenuto va sommato il diagramma triangolare legato alla pressione idrostatica esercitata dall'acqua.

Spinta a Riposo

Si assume che sui piedritti agisca la spinta calcolata in condizioni di riposo. Il coefficiente di spinta a riposo è espresso dalla relazione

$$K_0 = 1 - \sin\phi$$

dove ϕ rappresenta l'angolo d'attrito interno del terreno di rinfianco.

Quindi la pressione laterale, ad una generica profondità z e la spinta totale sulla parete di altezza H valgono

$$\sigma = \gamma z K_0 + p_v K_0$$

$$S = 1/2 \gamma H^2 K_0 + p_v K_0 H$$

dove p_v è la pressione verticale agente in corrispondenza della calotta.

Spinta in presenza di sisma - Formula di Wood

Spinta del terreno nel caso di strutture rigide.

Nel caso di strutture rigide completamente vincolate, in modo tale che non può svilupparsi nel terreno uno stato di spinta attiva, nonché nel caso di muri verticali con terrapieno a superficie orizzontale, l'incremento dinamico di spinta del terreno può essere calcolato come:

$$\Delta P_d = \alpha \gamma H^2$$

$$\alpha = a_g / g * S_s * S_m * S_t$$

H è l'altezza sulla quale agisce la spinta. Il punto di applicazione va preso a metà altezza.

Verifica al carico limite

Il rapporto fra il carico limite in fondazione e la componente normale della risultante dei carichi trasmessi dal muro sul terreno di fondazione deve essere superiore a η_q . Cioè, detto Q_u , il carico limite ed R la risultante verticale dei carichi in fondazione, deve essere:

$$\frac{Q_u}{R} \geq \eta_q$$

Si adotta per il calcolo del carico limite in fondazione il metodo di MEYERHOF.

L'espressione del carico ultimo è data dalla relazione:

$$Q_u = c N_c d_{i,c} + q N_q d_{i,q} + 0.5 \gamma B N_\gamma d_{i,\gamma}$$

In questa espressione

c	coesione del terreno in fondazione;
ϕ	angolo di attrito del terreno in fondazione;
γ	peso di volume del terreno in fondazione;
B	larghezza della fondazione;
D	profondità del piano di posa;
q	pressione geostatica alla quota del piano di posa.

I vari fattori che compaiono nella formula sono dati da:

$$A = e^{\pi \tan \phi}$$

$$N_q = A \tan^2(45^\circ + \phi/2)$$

$$N_c = (N_q - 1) \cot \phi$$

$$N_\gamma = (N_q - 1) \tan(1.4\phi)$$

Indichiamo con K_p il coefficiente di spinta passiva espresso da:

$$K_p = \tan^2(45^\circ + \phi/2)$$

I fattori d e i che compaiono nella formula sono rispettivamente i fattori di profondità ed i fattori di inclinazione del carico espressi dalle seguenti relazioni:

Fattori di profondità

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$$d_q = 1 + 0.2 \frac{D}{B} \sqrt{K_p}$$

$$d_q = d_r = 1 \quad \text{per } \phi = 0$$

$$d_q = d_r = 1 + 0.1 \frac{D}{B} \sqrt{K_p} \quad \text{per } \phi > 0$$

Fattori di inclinazione

Indicando con θ l'angolo che la risultante dei carichi forma con la verticale (espresso in gradi) e con ϕ l'angolo d'attrito del terreno di posa abbiamo:

$$i_c = i_q = (1 - \theta^\circ/90)^\phi$$

$$i_r = \left(1 - \frac{\theta^\circ}{\phi^\circ}\right)^2 \quad \text{per } \phi > 0$$

$$i_r = 0 \quad \text{per } \phi = 0$$

Strategia di soluzione

A partire dal tipo di terreno, dalla geometria e dai sovraccarichi agenti il programma è in grado di conoscere tutti i carichi agenti sulla struttura per ogni combinazione di carico. La struttura scatolare viene schematizzata come un telaio piano e viene risolta mediante il metodo degli elementi finiti (FEM). Più dettagliatamente il telaio viene discretizzato in una serie di elementi connessi fra di loro nei nodi.

Il terreno di rinfianco e di fondazione viene invece schematizzato con una serie di elementi molle non reagenti a trazione (modello di Winkler). L'area della singola molla è direttamente proporzionale alla costante di Winkler del terreno e all'area di influenza della molla stessa.

A partire dalla matrice di rigidezza del singolo elemento, K_e , si assembla la matrice di rigidezza di tutta la struttura K . Tutti i carichi agenti sulla struttura vengono trasformati in carichi nodali (reazioni di incastro perfetto) ed inseriti nel vettore dei carichi nodali p .

Indicando con u il vettore degli spostamenti nodali (incogniti), la relazione risolutiva può essere scritta nella forma

$$K u = p$$

Da questa equazione matriciale si ricavano gli spostamenti incogniti u

$$u = K^{-1} p$$

Noti gli spostamenti nodali è possibile risalire alle sollecitazioni nei vari elementi.

La soluzione del sistema viene fatta per ogni combinazione di carico agente sullo scatolare. Il successivo calcolo delle armature nei vari elementi viene condotto tenendo conto delle condizioni più gravose che si possono verificare nelle sezioni fra tutte le combinazioni di carico.

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Geometria scatolare

Descrizione:	Scatolare circolare	
Diametro esterno verticale	1.66	[m]
Diametro esterno orizzontale	1.66	[m]
Spessore	0.16	[m]

Caratteristiche strati terreno
Strato di ricoprimento

Descrizione	Terreno di ricoprimento	
Spessore dello strato	3.00	[m]
Peso di volume	20.0000	[kN/mc]
Peso di volume saturo	20.0000	[kN/mc]
Angolo di attrito	35.00	[°]
Coesione	0.000	[N/mm ²]

Strato di rinfianco

Descrizione	Terreno di rinfianco	
Peso di volume	19.5000	[kN/mc]
Peso di volume saturo	19.5000	[kN/mc]
Angolo di attrito	27.50	[°]
Angolo di attrito terreno struttura	0.00	[°]
Coesione	0.000	[N/mm ²]
Costante di Winkler	0.050	[N/mm ² /cm]

Strato di base

Descrizione	Terreno di base	
Peso di volume	19.5000	[kN/mc]
Peso di volume saturo	19.5000	[kN/mc]
Angolo di attrito	27.50	[°]
Angolo di attrito terreno struttura	13.75	[°]
Coesione	0.005	[N/mm ²]
Costante di Winkler	0.050	[N/mm ² /cm]
Tensione limite	0.200	[N/mm ²]

Caratteristiche materiali utilizzati
Materiale calcestruzzo

R _{ck} calcestruzzo	40.000	[N/mm ²]
Peso specifico calcestruzzo	24.5170	[kN/mc]
Modulo elastico E	33149.080	[N/mm ²]
Tensione di snervamento acciaio	450.000	[N/mm ²]
Coeff. omogeneizzazione cls tesoro/compresso (n')	0.50	
Coeff. omogeneizzazione acciaio/cls (n)	15.00	
Coefficiente dilatazione termica	0.0000120	

Condizioni di carico
Convenzioni adottate

Origine in corrispondenza dello spigolo inferiore sinistro della struttura
 Carichi verticali positivi se diretti verso il basso
 Carichi orizzontali positivi se diretti verso destra
 Coppie concentrate positive se antiorarie
 Ascisse X (espresse in m) positive verso destra
 Ordinate Y (espresse in m) positive verso l'alto
 Carichi concentrati espressi in kN
 Coppie concentrate espressi in kNm
 Carichi distribuiti espressi in kN/m

Simbologia adottata e unità di misura
Forze concentrate

X ascissa del punto di applicazione dei carichi verticali concentrati
 Y ordinata del punto di applicazione dei carichi orizzontali concentrati
 F_y componente Y del carico concentrato
 F_x componente X del carico concentrato
 M momento

Forze distribuite

X_i, X_f ascisse del punto iniziale e finale per carichi distribuiti verticali
 Y_i, Y_f ordinate del punto iniziale e finale per carichi distribuiti orizzontali
 V_{ni} componente normale del carico distribuito nel punto iniziale
 V_{nf} componente normale del carico distribuito nel punto finale
 V_{ti} componente tangenziale del carico distribuito nel punto iniziale
 V_{tf} componente tangenziale del carico distribuito nel punto finale
 D_{te} variazione termica lembo esterno espressa in gradi centigradi
 D_{ti} variazione termica lembo interno espressa in gradi centigradi

Condizione di carico n°1 (Peso Proprio)
Condizione di carico n°2 (Spinta terreno sinistra)



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Condizione di carico n°3 (Spinta terreno destra)

Condizione di carico n°4 (Sisma da sinistra)

Condizione di carico n°5 (Sisma da destra)

Condizione di carico n°7 (Ritiro)

Term Traverso $D_{te} = -10.00$ $D_{ti} = -10.00$

Condizione di carico n°8 (Termica)

Term Traverso $D_{te} = -2.50$ $D_{ti} = 2.50$

Condizione di carico n°9 (Q Centrato)

Distr	Terreno	$X_i = -10.00$	$X_r = 0.00$	$V_{ni} = 12.60$	$V_{nr} = 12.60$	$V_{ti} = 2.53$	$V_{tr} = 2.53$
Distr	Traverso	$X_i = 0.00$	$X_r = 1.66$	$V_{ni} = 12.98$	$V_{nr} = 12.98$		

Condizione di carico n°10 (Q laterale)

Distr	Terreno	$X_i = -2.00$	$X_r = 0.00$	$V_{ni} = 70.09$	$V_{nr} = 70.09$	$V_{ti} = 2.53$	$V_{tr} = 2.53$
Distr	Traverso	$X_i = 0.00$	$X_r = 1.66$	$V_{ni} = 12.60$	$V_{nr} = 12.60$		

Impostazioni di progetto

Verifica materiali:

Stato Limite Ultimo

Coefficiente di sicurezza calcestruzzo γ_c	1.50
Fattore riduzione da resistenza cubica a cilindrica	0.83
Fattore di riduzione per carichi di lungo periodo	0.85
Coefficiente di sicurezza acciaio	1.15
Coefficiente di sicurezza per la sezione	1.00

Verifica Taglio - Metodo dell'inclinazione variabile del traliccio

$$V_{Rd} = [0.18 \cdot k \cdot (100.0 \cdot \rho_l \cdot f_{ck})^{1/3} / \gamma_c + 0.15 \cdot \sigma_{cp}] \cdot b_w \cdot d > (v_{min} + 0.15 \cdot \sigma_{cp}) \cdot b_w \cdot d$$

$$V_{Rsd} = 0.9 \cdot d \cdot A_{sw} / s \cdot f_{yd} \cdot (\text{ctg} \alpha + \text{ctg} \theta) \cdot \sin \alpha$$

$$V_{Rcd} = 0.9 \cdot d \cdot b_w \cdot \alpha_c \cdot f_{cd} \cdot (\text{ctg}(\theta) + \text{ctg}(\alpha)) / (1.0 + \text{ctg} \theta^2)$$

con:

d	altezza utile sezione [mm]
b_w	larghezza minima sezione [mm]
σ_{cp}	tensione media di compressione [N/mm ²]
ρ_l	rapporto geometrico di armatura
A_{sw}	area armatura trasversale [mm ²]
s	interasse tra due armature trasversali consecutive [mm]
α_c	coefficiente maggiorativo, funzione di fcd e σ_{cp}

$$f_{cd} = 0.5 \cdot f_{ck}$$

$$k = 1 + (200/d)^{1/2}$$

$$v_{min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$$

Stato Limite di Esercizio

Criteri di scelta per verifiche tensioni di esercizio:

Ambiente moderatamente aggressivo

Limite tensioni di compressione nel calcestruzzo (comb. rare)

0.60 f_{ck}

Limite tensioni di compressione nel calcestruzzo (comb. quasi perm.)

0.45 f_{ck}

Limite tensioni di trazione nell'acciaio (comb. rare)

0.80 f_{yk}

Criteri verifiche a fessurazione:

Armatura poco sensibile

Apertura limite fessure espresse in [mm]

Apertura limite fessure $w_1 = 0.20$ $w_2 = 0.30$ $w_3 = 0.40$

Verifiche secondo :

Norme Tecniche 2008 - Approccio 1

Copriferro sezioni 3.00 [cm]

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Descrizione combinazioni di carico

Simbologia adottata

γ	Coefficiente di partecipazione della condizione
Ψ	Coefficiente di combinazione della condizione
C	Coefficiente totale di partecipazione della condizione

Norme Tecniche 2008

Simbologia adottata

γ_{G1sfav}	Coefficiente parziale sfavorevole sulle azioni permanenti
γ_{G1fav}	Coefficiente parziale favorevole sulle azioni permanenti
γ_{G2sfav}	Coefficiente parziale sfavorevole sulle azioni permanenti non strutturali
γ_{G2fav}	Coefficiente parziale favorevole sulle azioni permanenti non strutturali
γ_Q	Coefficiente parziale sulle azioni variabili
$\gamma_{tan\phi}$	Coefficiente parziale di riduzione dell'angolo di attrito drenato
γ_c	Coefficiente parziale di riduzione della coesione drenata
γ_{cu}	Coefficiente parziale di riduzione della coesione non drenata
γ_{qu}	Coefficiente parziale di riduzione del carico ultimo

Coefficienti di partecipazione combinazioni statiche

Coefficienti parziali per le azioni o per l'effetto delle azioni:

<i>Carichi</i>	<i>Effetto</i>		<i>A1</i>	<i>A2</i>
Permanenti	Favorevole	γ_{G1fav}	1.00	1.00
Permanenti	Sfavorevole	γ_{G1sfav}	1.40	1.00
Permanenti non strutturali	Favorevole	γ_{G2fav}	0.00	0.00
Permanenti non strutturali	Sfavorevole	γ_{G2sfav}	1.40	1.30
Variabili	Favorevole	γ_{Qfav}	0.00	0.00
Variabili	Sfavorevole	γ_{Qsfav}	1.50	1.30
Variabili da traffico	Favorevole	γ_{Qfav}	0.00	0.00
Variabili da traffico	Sfavorevole	γ_{Qsfav}	1.50	1.30
Termici	Favorevole	γ_{sfav}	0.00	0.00
Termici	Sfavorevole	γ_{esfav}	1.20	1.20

Coefficienti parziali per i parametri geotecnici del terreno:

<i>Parametri</i>			<i>M1</i>	<i>M2</i>
Tangente dell'angolo di attrito		$\gamma_{tan\phi}$	1.00	1.25
Coesione efficace		γ_c	1.00	1.25
Resistenza non drenata		γ_{cu}	1.00	1.40
Resistenza a compressione uniassiale		γ_{qu}	1.00	1.60
Peso dell'unità di volume		γ_γ	1.00	1.00

Coefficienti di partecipazione combinazioni sismiche

Coefficienti parziali per le azioni o per l'effetto delle azioni:

<i>Carichi</i>	<i>Effetto</i>		<i>A1</i>	<i>A2</i>
Permanenti	Favorevole	γ_{G1fav}	1.00	1.00
Permanenti	Sfavorevole	γ_{G1sfav}	1.00	1.00
Permanenti	Favorevole	γ_{G2fav}	0.00	0.00
Permanenti	Sfavorevole	γ_{G2sfav}	1.00	1.00
Variabili	Favorevole	γ_{Qfav}	0.00	0.00
Variabili	Sfavorevole	γ_{Qsfav}	1.00	1.00
Variabili da traffico	Favorevole	γ_{Qfav}	0.00	0.00
Variabili da traffico	Sfavorevole	γ_{Qsfav}	1.00	1.00
Termici	Favorevole	γ_{sfav}	0.00	0.00
Termici	Sfavorevole	γ_{esfav}	1.00	1.00

Coefficienti parziali per i parametri geotecnici del terreno:

<i>Parametri</i>			<i>M1</i>	<i>M2</i>
Tangente dell'angolo di attrito		$\gamma_{tan\phi}$	1.00	1.25
Coesione efficace		γ_c	1.00	1.25
Resistenza non drenata		γ_{cu}	1.00	1.40
Resistenza a compressione uniassiale		γ_{qu}	1.00	1.60
Peso dell'unità di volume		γ_γ	1.00	1.00

Combinazione n° 1 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40
Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	1.00	1.20
Termica	Sfavorevole	1.20	0.60	0.72
Q_Centrato	Sfavorevole	1.50	0.75	1.12

Combinazione n° 2 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00

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Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	1.00	1.20
Termica	Sfavorevole	1.20	0.60	0.72
Q_Centrato	Sfavorevole	1.30	0.75	0.98

Combinazione n° 3 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40
Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	1.00	1.20
Q_Centrato	Sfavorevole	1.50	0.75	1.12

Combinazione n° 4 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	1.00	1.20
Q_Centrato	Sfavorevole	1.30	0.75	0.98

Combinazione n° 5 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40
Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	0.60	0.72
Q_Centrato	Sfavorevole	1.50	1.00	1.50

Combinazione n° 6 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	0.60	0.72
Q_Centrato	Sfavorevole	1.30	1.00	1.30

Combinazione n° 7 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40
Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	1.00	1.20
Termica	Sfavorevole	1.20	0.60	0.72
Q_laterale	Sfavorevole	1.50	0.75	1.12

Combinazione n° 8 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	1.00	1.20
Termica	Sfavorevole	1.20	0.60	0.72
Q_laterale	Sfavorevole	1.30	0.75	0.98

Combinazione n° 9 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40
Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	1.00	1.20
Q_laterale	Sfavorevole	1.50	0.75	1.12

Combinazione n° 10 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	1.00	1.20
Q_laterale	Sfavorevole	1.30	0.75	0.98

Combinazione n° 11 SLU (Caso A1-M1)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.40	1.00	1.40

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Spinta terreno sinistra	Sfavorevole	1.40	1.00	1.40
Spinta terreno destra	Sfavorevole	1.40	1.00	1.40
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	0.60	0.72
Q_laterale	Sfavorevole	1.50	1.00	1.50

Combinazione n° 12 SLU (Caso A2-M2)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.20	0.60	0.72
Termica	Sfavorevole	1.20	0.60	0.72
Q_laterale	Sfavorevole	1.30	1.00	1.30

Combinazione n° 13 SLU (Caso A1-M1) - Sisma Vert. negativo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 14 SLU (Caso A1-M1) - Sisma Vert. positivo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 15 SLU (Caso A2-M2) - Sisma Vert. positivo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 16 SLU (Caso A2-M2) - Sisma Vert. negativo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 17 SLU (Caso A1-M1) - Sisma Vert. negativo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 18 SLU (Caso A1-M1) - Sisma Vert. positivo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 19 SLU (Caso A2-M2) - Sisma Vert. positivo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 20 SLU (Caso A2-M2) - Sisma Vert. negativo

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Sisma da sinistra	Sfavorevole	1.00	1.00	1.00

Combinazione n° 21 SLE (Quasi Permanente)

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

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	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50

Combinazione n° 22 SLE (Frequente)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50

Combinazione n° 23 SLE (Frequente)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Termica	Sfavorevole	1.00	0.60	0.60
Ritiro	Sfavorevole	1.00	0.50	0.50

Combinazione n° 24 SLE (Frequente)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Q_Centrato	Sfavorevole	1.00	0.75	0.75
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50

Combinazione n° 25 SLE (Frequente)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Q_laterale	Sfavorevole	1.00	0.75	0.75
Ritiro	Sfavorevole	1.00	0.50	0.50
Termica	Sfavorevole	1.00	0.50	0.50

Combinazione n° 26 SLE (Rara)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	1.00	1.00
Termica	Sfavorevole	1.00	0.60	0.60
Q_Centrato	Sfavorevole	1.00	0.75	0.75

Combinazione n° 27 SLE (Rara)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Termica	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.60	0.60
Q_laterale	Sfavorevole	1.00	0.75	0.75

Combinazione n° 28 SLE (Rara)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Q_Centrato	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.60	0.60
Termica	Sfavorevole	1.00	0.60	0.60

Combinazione n° 29 SLE (Rara)

	Effetto	γ	Ψ	C
Peso Proprio	Sfavorevole	1.00	1.00	1.00
Spinta terreno sinistra	Sfavorevole	1.00	1.00	1.00
Spinta terreno destra	Sfavorevole	1.00	1.00	1.00
Q_laterale	Sfavorevole	1.00	1.00	1.00
Ritiro	Sfavorevole	1.00	0.60	0.60
Termica	Sfavorevole	1.00	0.60	0.60

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Analisi della spinta e verifiche

Simbologia adottata ed unità di misura

Origine in corrispondenza dello spigolo inferiore sinistro della struttura
 Le forze orizzontali sono considerate positive se agenti verso destra
 Le forze verticali sono considerate positive se agenti verso il basso
 X ascisse (espresse in m) positive verso destra
 Y ordinate (espresse in m) positive verso l'alto
 M momento espresso in kNm
 V taglio espresso in kN
 SN sforzo normale espresso in kN
 ux spostamento direzione X espresso in cm
 uy spostamento direzione Y espresso in cm
 σ pressione sul terreno espressa in N/mm²

Tipo di analisi

Pressione in calotta
 I carichi applicati sul terreno sono stati diffusi secondo **valore 35.00**
 Metodo di calcolo della portanza

Teoria di Terzaghi

Meyerhof

Spinta sui piedritti

a Riposo [combinazione 1]
 a Riposo [combinazione 2]
 a Riposo [combinazione 3]
 a Riposo [combinazione 4]
 a Riposo [combinazione 5]
 a Riposo [combinazione 6]
 a Riposo [combinazione 7]
 a Riposo [combinazione 8]
 a Riposo [combinazione 9]
 a Riposo [combinazione 10]
 a Riposo [combinazione 11]
 a Riposo [combinazione 12]
 a Riposo [combinazione 13]
 a Riposo [combinazione 14]
 a Riposo [combinazione 15]
 a Riposo [combinazione 16]
 a Riposo [combinazione 17]
 a Riposo [combinazione 18]
 a Riposo [combinazione 19]
 a Riposo [combinazione 20]
 a Riposo [combinazione 21]
 a Riposo [combinazione 22]
 a Riposo [combinazione 23]
 a Riposo [combinazione 24]
 a Riposo [combinazione 25]
 a Riposo [combinazione 26]
 a Riposo [combinazione 27]
 a Riposo [combinazione 28]
 a Riposo [combinazione 29]

Sisma
Identificazione del sito

Provincia
 Regione

Perugia
 Umbria

Punti di interpolazione del reticolo

24301 - 24300 - 24522 - 24523

Tipo di opera

Tipo di costruzione
 Vita nominale
 Classe d'uso
 Vita di riferimento

Opera ordinaria
 50 anni
 III - Affollamenti significativi e industrie non pericolose
 75 anni

Combinazioni SLU

Accelerazione al suolo $a_g =$
 Coefficiente di amplificazione per tipo di sottosuolo (S)
 Coefficiente di amplificazione topografica (St)
 Coefficiente riduzione (β_m)
 Rapporto intensità sismica verticale/orizzontale
 Coefficiente di intensità sismica orizzontale (percento)
 Coefficiente di intensità sismica verticale (percento)

2.70 [m/s²]
 1.25
 1.00
 1.00
 0.50
 $k_h = (a_g/g * \beta_m * St * S_s) = 34.40$
 $k_v = 0.50 * k_h = 17.20$

Combinazioni SLE

Accelerazione al suolo $a_g =$
 Coefficiente di amplificazione per tipo di sottosuolo (S)
 Coefficiente di amplificazione topografica (St)
 Coefficiente riduzione (β_m)
 Rapporto intensità sismica verticale/orizzontale
 Coefficiente di intensità sismica orizzontale (percento)
 Coefficiente di intensità sismica verticale (percento)
 Forma diagramma incremento sismico

0.92 [m/s²]
 1.20
 1.00
 0.20
 0.50
 $k_h = (a_g/g * \beta_m * St * S_s) = 2.26$
 $k_v = 0.50 * k_h = 1.13$
 Rettangolare

Spinta sismica

Wood

Angolo diffusione sovraccarico

35.00 [°]

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Coefficienti di spinta

N°combinazione	Statico	Sismico
1	0.538	0.000
2	0.616	0.000
3	0.538	0.000
4	0.616	0.000
5	0.538	0.000
6	0.616	0.000
7	0.538	0.000
8	0.616	0.000
9	0.538	0.000
10	0.616	0.000
11	0.538	0.000
12	0.616	0.000
13	0.538	1.056
14	0.538	1.056
15	0.616	1.133
16	0.616	1.133
17	0.538	1.056
18	0.538	1.056
19	0.616	1.133
20	0.616	1.133
21	0.538	0.000
22	0.538	0.000
23	0.538	0.000
24	0.538	0.000
25	0.538	0.000
26	0.538	0.000
27	0.538	0.000
28	0.538	0.000
29	0.538	0.000

Discretizzazione strutturale

Numero elementi fondazione	64
Numero elementi traverso	64
Numero molle fondazione	65

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Analisi della combinazione n° 1

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0481398
-12.10	2.10	0.0581213
2.10	12.57	0.0481398

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0312839 [N/mmq]	Pressione inf. 0.0556763 [N/mmq]
Piedritto destro	Pressione sup. 0.0285121 [N/mmq]	Pressione inf. 0.0529045 [N/mmq]

Analisi della combinazione n° 2

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0390255
-12.10	2.10	0.0476762
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0293472 [N/mmq]	Pressione inf. 0.0492726 [N/mmq]
Piedritto destro	Pressione sup. 0.0266000 [N/mmq]	Pressione inf. 0.0465254 [N/mmq]

Analisi della combinazione n° 3

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0481398
-12.10	2.10	0.0581213
2.10	12.57	0.0481398

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0312839 [N/mmq]	Pressione inf. 0.0556763 [N/mmq]
Piedritto destro	Pressione sup. 0.0285121 [N/mmq]	Pressione inf. 0.0529045 [N/mmq]

Analisi della combinazione n° 4

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0390255
-12.10	2.10	0.0476762
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0293472 [N/mmq]	Pressione inf. 0.0492726 [N/mmq]
Piedritto destro	Pressione sup. 0.0266000 [N/mmq]	Pressione inf. 0.0465254 [N/mmq]

Analisi della combinazione n° 5

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0481398
-12.10	2.10	0.0614485
2.10	12.57	0.0481398

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Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0330747 [N/mmq]	Pressione inf. 0.0574672 [N/mmq]
Piedritto destro	Pressione sup. 0.0293790 [N/mmq]	Pressione inf. 0.0537715 [N/mmq]

Analisi della combinazione n° 6

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0390255
-12.10	2.10	0.0505597
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0311222 [N/mmq]	Pressione inf. 0.0510476 [N/mmq]
Piedritto destro	Pressione sup. 0.0274592 [N/mmq]	Pressione inf. 0.0473846 [N/mmq]

Analisi della combinazione n° 7

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0481398
-4.10	2.10	0.0735705
2.10	12.57	0.0481398

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0395994 [N/mmq]	Pressione inf. 0.0639919 [N/mmq]
Piedritto destro	Pressione sup. 0.0325375 [N/mmq]	Pressione inf. 0.0569300 [N/mmq]

Analisi della combinazione n° 8

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0390255
-4.10	2.10	0.0610656
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0375890 [N/mmq]	Pressione inf. 0.0575145 [N/mmq]
Piedritto destro	Pressione sup. 0.0305897 [N/mmq]	Pressione inf. 0.0505151 [N/mmq]

Analisi della combinazione n° 9

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0481398
-4.10	2.10	0.0735705
2.10	12.57	0.0481398

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0395994 [N/mmq]	Pressione inf. 0.0639919 [N/mmq]
Piedritto destro	Pressione sup. 0.0325375 [N/mmq]	Pressione inf. 0.0569300 [N/mmq]

Analisi della combinazione n° 10

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0390255

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-4.10	2.10	0.0610656
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0375890 [N/mmq]	Pressione inf. 0.0575145 [N/mmq]
Piedritto destro	Pressione sup. 0.0305897 [N/mmq]	Pressione inf. 0.0505151 [N/mmq]

Analisi della combinazione n° 11

Pressione in calotta(solo peso terreno) 0.0481398 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0481398
-4.10	2.10	0.0820475
2.10	12.57	0.0481398

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0441622 [N/mmq]	Pressione inf. 0.0685546 [N/mmq]
Piedritto destro	Pressione sup. 0.0347462 [N/mmq]	Pressione inf. 0.0591387 [N/mmq]

Analisi della combinazione n° 12

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0390255
-4.10	2.10	0.0684122
2.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0421113 [N/mmq]	Pressione inf. 0.0620367 [N/mmq]
Piedritto destro	Pressione sup. 0.0327788 [N/mmq]	Pressione inf. 0.0527043 [N/mmq]

Analisi della combinazione n° 13

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0347962 [N/mmq]	Pressione inf. 0.0347962 [N/mmq]
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Analisi della combinazione n° 14

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0347962 [N/mmq]	Pressione inf. 0.0347962 [N/mmq]
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Analisi della combinazione n° 15

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]
Piedritto destro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0379889 [N/mmq]	Pressione inf. 0.0379889 [N/mmq]
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Analisi della combinazione n° 16

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]
Piedritto destro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0379889 [N/mmq]	Pressione inf. 0.0379889 [N/mmq]
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Analisi della combinazione n° 17

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0347962 [N/mmq]	Pressione inf. 0.0347962 [N/mmq]
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Analisi della combinazione n° 18

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0347962 [N/mmq]	Pressione inf. 0.0347962 [N/mmq]
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Analisi della combinazione n° 19

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]
Piedritto destro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0379889 [N/mmq]	Pressione inf. 0.0379889 [N/mmq]
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Analisi della combinazione n° 20

Pressione in calotta(solo peso terreno) 0.0390255 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0390255

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]
Piedritto destro	Pressione sup. 0.0240223 [N/mmq]	Pressione inf. 0.0439477 [N/mmq]

Spinte sismiche sui piedritti

Piedritto sinistro	Pressione sup. 0.0379889 [N/mmq]	Pressione inf. 0.0379889 [N/mmq]
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Analisi della combinazione n° 21

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Analisi della combinazione n° 22

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Analisi della combinazione n° 23

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

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Xi	Xj	Q[N/mmq]
-22.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]
Piedritto destro	Pressione sup. 0.0185081 [N/mmq]	Pressione inf. 0.0359313 [N/mmq]

Analisi della combinazione n° 24

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0343855
-12.10	2.10	0.0410399
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0220898 [N/mmq]	Pressione inf. 0.0395130 [N/mmq]
Piedritto destro	Pressione sup. 0.0202419 [N/mmq]	Pressione inf. 0.0376651 [N/mmq]

Analisi della combinazione n° 25

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0343855
-4.10	2.10	0.0513394
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0276335 [N/mmq]	Pressione inf. 0.0450567 [N/mmq]
Piedritto destro	Pressione sup. 0.0229255 [N/mmq]	Pressione inf. 0.0403487 [N/mmq]

Analisi della combinazione n° 26

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-12.10	0.0343855
-12.10	2.10	0.0410399
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0220898 [N/mmq]	Pressione inf. 0.0395130 [N/mmq]
Piedritto destro	Pressione sup. 0.0202419 [N/mmq]	Pressione inf. 0.0376651 [N/mmq]

Analisi della combinazione n° 27

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

Carichi verticali in calotta

Xi	Xj	Q[N/mmq]
-22.10	-4.10	0.0343855
-4.10	2.10	0.0513394
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0276335 [N/mmq]	Pressione inf. 0.0450567 [N/mmq]
Piedritto destro	Pressione sup. 0.0229255 [N/mmq]	Pressione inf. 0.0403487 [N/mmq]

Analisi della combinazione n° 28

Pressione in calotta(solo peso terreno) 0.0343855 [N/mmq]

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Carichi verticali in calotta

Xi	Xj	Q[N/mm ²]
-22.10	-12.10	0.0343855
-12.10	2.10	0.0432580
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0232837 [N/mm ²]	Pressione inf. 0.0407069 [N/mm ²]
Piedritto destro	Pressione sup. 0.0208199 [N/mm ²]	Pressione inf. 0.0382431 [N/mm ²]

Analisi della combinazione n° 29

 Pressione in calotta(solo peso terreno) 0.0343855 [N/mm²]

Carichi verticali in calotta

Xi	Xj	Q[N/mm ²]
-22.10	-4.10	0.0343855
-4.10	2.10	0.0569907
2.10	12.57	0.0343855

Spinte sui piedritti

Piedritto sinistro	Pressione sup. 0.0306753 [N/mm ²]	Pressione inf. 0.0480985 [N/mm ²]
Piedritto destro	Pressione sup. 0.0243980 [N/mm ²]	Pressione inf. 0.0418212 [N/mm ²]

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Spostamenti

Spostamenti fondazione (Combinazione n° 1)

X [m]	u _x [cm]	u _y [cm]
0.08	0.052	1.802
0.44	0.053	1.799
0.83	0.053	1.797
1.22	0.054	1.801
1.58	0.058	1.805

Spostamenti traverso (Combinazione n° 1)

X [m]	u _x [cm]	u _y [cm]
0.08	0.052	1.802
0.44	0.061	1.820
0.83	0.057	1.827
1.22	0.052	1.822
1.58	0.058	1.805

Spostamenti fondazione (Combinazione n° 2)

X [m]	u _x [cm]	u _y [cm]
0.08	0.055	1.454
0.44	0.054	1.452
0.83	0.054	1.452
1.22	0.055	1.454
1.58	0.056	1.457

Spostamenti traverso (Combinazione n° 2)

X [m]	u _x [cm]	u _y [cm]
0.08	0.055	1.454
0.44	0.062	1.471
0.83	0.058	1.476
1.22	0.053	1.473
1.58	0.056	1.457

Spostamenti fondazione (Combinazione n° 3)

X [m]	u _x [cm]	u _y [cm]
0.08	0.048	1.803
0.44	0.051	1.799
0.83	0.052	1.796
1.22	0.053	1.800
1.58	0.058	1.806

Spostamenti traverso (Combinazione n° 3)

X [m]	u _x [cm]	u _y [cm]
0.08	0.048	1.803
0.44	0.057	1.817
0.83	0.054	1.822
1.22	0.052	1.818
1.58	0.058	1.806

Spostamenti fondazione (Combinazione n° 4)

X [m]	u _x [cm]	u _y [cm]
0.08	0.052	1.455
0.44	0.053	1.453
0.83	0.053	1.451
1.22	0.054	1.454
1.58	0.057	1.458

Spostamenti traverso (Combinazione n° 4)

X [m]	u _x [cm]	u _y [cm]
0.08	0.052	1.455
0.44	0.058	1.467
0.83	0.055	1.471
1.22	0.053	1.468
1.58	0.057	1.458

Spostamenti fondazione (Combinazione n° 5)

X [m]	u _x [cm]	u _y [cm]
0.08	0.064	1.968
0.44	0.069	1.963
0.83	0.070	1.960
1.22	0.071	1.964
1.58	0.077	1.970

Spostamenti traverso (Combinazione n° 5)

X [m]	u _x [cm]	u _y [cm]

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0.08	0.064	1.968
0.44	0.074	1.983
0.83	0.072	1.989
1.22	0.070	1.984
1.58	0.077	1.970

Spostamenti fondazione (Combinazione n° 6)

X [m]	u _x [cm]	u _y [cm]
0.08	0.068	1.598
0.44	0.070	1.595
0.83	0.071	1.593
1.22	0.071	1.596
1.58	0.076	1.600

Spostamenti traverso (Combinazione n° 6)

X [m]	u _x [cm]	u _y [cm]
0.08	0.068	1.598
0.44	0.075	1.611
0.83	0.073	1.616
1.22	0.070	1.612
1.58	0.076	1.600

Spostamenti fondazione (Combinazione n° 7)

X [m]	u _x [cm]	u _y [cm]
0.08	0.136	2.103
0.44	0.138	2.099
0.83	0.138	2.097
1.22	0.139	2.101
1.58	0.144	2.107

Spostamenti traverso (Combinazione n° 7)

X [m]	u _x [cm]	u _y [cm]
0.08	0.136	2.103
0.44	0.146	2.123
0.83	0.142	2.130
1.22	0.137	2.125
1.58	0.144	2.107

Spostamenti fondazione (Combinazione n° 8)

X [m]	u _x [cm]	u _y [cm]
0.08	0.139	1.715
0.44	0.138	1.713
0.83	0.139	1.712
1.22	0.139	1.715
1.58	0.142	1.719

Spostamenti traverso (Combinazione n° 8)

X [m]	u _x [cm]	u _y [cm]
0.08	0.139	1.715
0.44	0.146	1.733
0.83	0.142	1.739
1.22	0.137	1.735
1.58	0.142	1.719

Spostamenti fondazione (Combinazione n° 9)

X [m]	u _x [cm]	u _y [cm]
0.08	0.132	2.105
0.44	0.136	2.099
0.83	0.137	2.096
1.22	0.138	2.101
1.58	0.145	2.107

Spostamenti traverso (Combinazione n° 9)

X [m]	u _x [cm]	u _y [cm]
0.08	0.132	2.105
0.44	0.141	2.120
0.83	0.139	2.125
1.22	0.137	2.121
1.58	0.145	2.107

Spostamenti fondazione (Combinazione n° 10)

X [m]	u _x [cm]	u _y [cm]
0.08	0.135	1.717
0.44	0.137	1.713
0.83	0.137	1.711
1.22	0.138	1.714
1.58	0.142	1.719

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Spostamenti trasverso (Combinazione n° 10)

X [m]	u _x [cm]	u _y [cm]
0.08	0.135	1.717
0.44	0.142	1.729
0.83	0.140	1.734
1.22	0.137	1.730
1.58	0.142	1.719

Spostamenti fondazione (Combinazione n° 11)

X [m]	u _x [cm]	u _y [cm]
0.08	0.176	2.370
0.44	0.182	2.363
0.83	0.183	2.360
1.22	0.184	2.365
1.58	0.193	2.373

Spostamenti trasverso (Combinazione n° 11)

X [m]	u _x [cm]	u _y [cm]
0.08	0.176	2.370
0.44	0.187	2.386
0.83	0.185	2.393
1.22	0.183	2.387
1.58	0.193	2.373

Spostamenti fondazione (Combinazione n° 12)

X [m]	u _x [cm]	u _y [cm]
0.08	0.179	1.946
0.44	0.183	1.942
0.83	0.183	1.939
1.22	0.184	1.943
1.58	0.190	1.949

Spostamenti trasverso (Combinazione n° 12)

X [m]	u _x [cm]	u _y [cm]
0.08	0.179	1.946
0.44	0.188	1.960
0.83	0.186	1.966
1.22	0.183	1.961
1.58	0.190	1.949

Spostamenti fondazione (Combinazione n° 13)

X [m]	u _x [cm]	u _y [cm]
0.08	0.795	0.887
0.44	0.787	0.892
0.83	0.786	0.895
1.22	0.785	0.893
1.58	0.778	0.889

Spostamenti trasverso (Combinazione n° 13)

X [m]	u _x [cm]	u _y [cm]
0.08	0.795	0.887
0.44	0.791	0.889
0.83	0.787	0.889
1.22	0.784	0.890
1.58	0.778	0.889

Spostamenti fondazione (Combinazione n° 14)

X [m]	u _x [cm]	u _y [cm]
0.08	0.794	0.972
0.44	0.787	0.977
0.83	0.785	0.979
1.22	0.784	0.977
1.58	0.778	0.974

Spostamenti trasverso (Combinazione n° 14)

X [m]	u _x [cm]	u _y [cm]
0.08	0.794	0.972
0.44	0.790	0.975
0.83	0.787	0.974
1.22	0.784	0.976
1.58	0.778	0.974

Spostamenti fondazione (Combinazione n° 15)

X [m]	u _x [cm]	u _y [cm]
0.08	0.860	1.065

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0.44	0.852	1.069
0.83	0.850	1.072
1.22	0.849	1.070
1.58	0.841	1.066

Spostamenti trasverso (Combinazione n° 15)

X [m]	u _x [cm]	u _y [cm]
0.08	0.860	1.065
0.44	0.855	1.066
0.83	0.852	1.065
1.22	0.848	1.067
1.58	0.841	1.066

Spostamenti fondazione (Combinazione n° 16)

X [m]	u _x [cm]	u _y [cm]
0.08	0.861	0.980
0.44	0.852	0.985
0.83	0.850	0.988
1.22	0.849	0.986
1.58	0.841	0.981

Spostamenti trasverso (Combinazione n° 16)

X [m]	u _x [cm]	u _y [cm]
0.08	0.861	0.980
0.44	0.855	0.981
0.83	0.852	0.980
1.22	0.848	0.981
1.58	0.841	0.981

Spostamenti fondazione (Combinazione n° 17)

X [m]	u _x [cm]	u _y [cm]
0.08	0.791	0.889
0.44	0.786	0.892
0.83	0.785	0.894
1.22	0.784	0.892
1.58	0.778	0.889

Spostamenti trasverso (Combinazione n° 17)

X [m]	u _x [cm]	u _y [cm]
0.08	0.791	0.889
0.44	0.786	0.886
0.83	0.785	0.884
1.22	0.784	0.886
1.58	0.778	0.889

Spostamenti fondazione (Combinazione n° 18)

X [m]	u _x [cm]	u _y [cm]
0.08	0.790	0.974
0.44	0.786	0.977
0.83	0.784	0.979
1.22	0.783	0.977
1.58	0.779	0.974

Spostamenti trasverso (Combinazione n° 18)

X [m]	u _x [cm]	u _y [cm]
0.08	0.790	0.974
0.44	0.785	0.971
0.83	0.784	0.969
1.22	0.783	0.971
1.58	0.779	0.974

Spostamenti fondazione (Combinazione n° 19)

X [m]	u _x [cm]	u _y [cm]
0.08	0.856	1.066
0.44	0.850	1.070
0.83	0.849	1.072
1.22	0.848	1.070
1.58	0.842	1.066

Spostamenti trasverso (Combinazione n° 19)

X [m]	u _x [cm]	u _y [cm]
0.08	0.856	1.066
0.44	0.850	1.063
0.83	0.849	1.060
1.22	0.848	1.063
1.58	0.842	1.066

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Spostamenti fondazione (Combinazione n° 20)

X [m]	u _x [cm]	u _y [cm]
0.08	0.857	0.981
0.44	0.851	0.985
0.83	0.849	0.988
1.22	0.848	0.985
1.58	0.842	0.981

Spostamenti traverso (Combinazione n° 20)

X [m]	u _x [cm]	u _y [cm]
0.08	0.857	0.981
0.44	0.851	0.977
0.83	0.849	0.975
1.22	0.848	0.977
1.58	0.842	0.981

Spostamenti fondazione (Combinazione n° 21)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.000	0.934
0.83	0.000	0.933
1.22	0.000	0.934
1.58	0.001	0.936

Spostamenti traverso (Combinazione n° 21)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.002	0.943
0.83	0.000	0.945
1.22	-0.002	0.943
1.58	0.001	0.936

Spostamenti fondazione (Combinazione n° 22)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.000	0.934
0.83	0.000	0.933
1.22	0.000	0.934
1.58	0.001	0.936

Spostamenti traverso (Combinazione n° 22)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.002	0.943
0.83	0.000	0.945
1.22	-0.002	0.943
1.58	0.001	0.936

Spostamenti fondazione (Combinazione n° 23)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.000	0.934
0.83	0.000	0.933
1.22	0.000	0.934
1.58	0.001	0.936

Spostamenti traverso (Combinazione n° 23)

X [m]	u _x [cm]	u _y [cm]
0.08	-0.001	0.936
0.44	0.002	0.943
0.83	0.000	0.945
1.22	-0.002	0.943
1.58	0.001	0.936

Spostamenti fondazione (Combinazione n° 24)

X [m]	u _x [cm]	u _y [cm]
0.08	0.032	1.265
0.44	0.034	1.262
0.83	0.035	1.260
1.22	0.035	1.262
1.58	0.039	1.266

Spostamenti traverso (Combinazione n° 24)

X [m]	u _x [cm]	u _y [cm]
0.08	0.032	1.265
0.44	0.038	1.274
0.83	0.036	1.278

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1.22	0.035	1.275
1.58	0.039	1.266

Spostamenti fondazione (Combinazione n° 25)

X [m]	u _x [cm]	u _y [cm]
0.08	0.088	1.466
0.44	0.091	1.462
0.83	0.091	1.460
1.22	0.092	1.463
1.58	0.096	1.467

Spostamenti traverso (Combinazione n° 25)

X [m]	u _x [cm]	u _y [cm]
0.08	0.088	1.466
0.44	0.094	1.476
0.83	0.093	1.480
1.22	0.091	1.477
1.58	0.096	1.467

Spostamenti fondazione (Combinazione n° 26)

X [m]	u _x [cm]	u _y [cm]
0.08	0.036	1.263
0.44	0.036	1.261
0.83	0.036	1.260
1.22	0.036	1.263
1.58	0.038	1.266

Spostamenti traverso (Combinazione n° 26)

X [m]	u _x [cm]	u _y [cm]
0.08	0.036	1.263
0.44	0.042	1.278
0.83	0.039	1.283
1.22	0.035	1.279
1.58	0.038	1.266

Spostamenti fondazione (Combinazione n° 27)

X [m]	u _x [cm]	u _y [cm]
0.08	0.089	1.465
0.44	0.091	1.462
0.83	0.091	1.460
1.22	0.092	1.463
1.58	0.096	1.467

Spostamenti traverso (Combinazione n° 27)

X [m]	u _x [cm]	u _y [cm]
0.08	0.089	1.465
0.44	0.095	1.476
0.83	0.094	1.481
1.22	0.091	1.478
1.58	0.096	1.467

Spostamenti fondazione (Combinazione n° 28)

X [m]	u _x [cm]	u _y [cm]
0.08	0.044	1.374
0.44	0.046	1.371
0.83	0.047	1.369
1.22	0.047	1.372
1.58	0.051	1.376

Spostamenti traverso (Combinazione n° 28)

X [m]	u _x [cm]	u _y [cm]
0.08	0.044	1.374
0.44	0.050	1.385
0.83	0.049	1.390
1.22	0.047	1.386
1.58	0.051	1.376

Spostamenti fondazione (Combinazione n° 29)

X [m]	u _x [cm]	u _y [cm]
0.08	0.118	1.642
0.44	0.122	1.638
0.83	0.122	1.635
1.22	0.123	1.639
1.58	0.128	1.644

Spostamenti traverso (Combinazione n° 29)



QUADRILATERO
Marche Umbria S.p.A.

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X [m]	u _x [cm]	u _y [cm]
0.08	0.118	1.642
0.44	0.126	1.654
0.83	0.124	1.659
1.22	0.122	1.655
1.58	0.128	1.644

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Sollecitazioni

Sollecitazioni fondazione (Combinazione n° 1)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.8551	-2.5974	60.9484
0.44	1.4742	-12.2437	41.3170
0.83	4.2481	0.7632	35.6767
1.22	1.4845	12.5992	43.3685
1.58	-6.8518	2.5913	60.9851

Sollecitazioni traverso (Combinazione n° 1)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.8551	0.3963	61.0025
0.44	0.4811	13.4883	37.5538
0.83	3.3302	0.7075	29.5645
1.22	0.4676	-11.6673	38.1787
1.58	-6.8518	-0.2979	61.0414

Sollecitazioni fondazione (Combinazione n° 2)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.3532	-2.3248	49.8121
0.44	0.7622	-8.8356	35.6613
0.83	2.7516	0.5379	31.7837
1.22	0.7744	9.0097	37.2508
1.58	-5.3521	2.3201	49.8432

Sollecitazioni traverso (Combinazione n° 2)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.3532	0.1221	49.8662
0.44	-0.2221	9.8276	33.0386
0.83	1.8275	0.6522	27.1961
1.22	-0.2338	-8.2316	33.4803
1.58	-5.3521	-0.0249	49.8995

Sollecitazioni fondazione (Combinazione n° 3)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.8724	-5.0604	60.8902
0.44	2.0388	-13.4458	39.1664
0.83	5.0709	0.8313	33.2139
1.22	2.0439	13.9111	41.2905
1.58	-7.8674	5.0416	60.9227

Sollecitazioni traverso (Combinazione n° 3)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.8724	-2.0666	61.0652
0.44	-2.1203	12.2759	39.6985
0.83	0.4667	0.7702	32.0274
1.22	-2.1318	-10.3450	40.2626
1.58	-7.8674	2.1533	61.0993

Sollecitazioni fondazione (Combinazione n° 4)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.3705	-4.7879	49.7539
0.44	1.3268	-10.0377	33.5107
0.83	3.5743	0.6060	29.3210
1.22	1.3337	10.3216	35.1728
1.58	-6.3677	4.7703	49.7808

Sollecitazioni traverso (Combinazione n° 4)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.3705	-2.3408	49.9289
0.44	-2.8235	8.6152	35.1833
0.83	-1.0360	0.7149	29.6590
1.22	-2.8332	-6.9093	35.5642
1.58	-6.3677	2.4264	49.9575

Sollecitazioni fondazione (Combinazione n° 5)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.7542	-3.4911	67.0757
0.44	2.3739	-14.6589	43.1552
0.83	5.6962	0.9095	36.2805
1.22	2.3770	15.1523	45.4711
1.58	-7.7477	3.4506	67.1105

Sollecitazioni traverso (Combinazione n° 5)

X [m]	M [kNm]	V [kN]	N [kN]
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0.08	-7.7542	-0.1957	67.1662
0.44	0.4294	15.3045	40.7608
0.83	3.6757	0.7600	31.6500
1.22	0.4175	-13.3215	41.4699
1.58	-7.7477	0.2957	67.2025

Sollecitazioni fondazione (Combinazione n° 6)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.1010	-3.1982	55.1204
0.44	1.5906	-10.9056	37.2926
0.83	4.0487	0.6642	32.3754
1.22	1.5957	11.1989	39.1104
1.58	-6.0969	3.1592	55.1491

Sollecitazioni traverso (Combinazione n° 6)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.1010	-0.4897	55.2110
0.44	-0.3450	11.2826	36.0289
0.83	2.0219	0.7046	29.2695
1.22	-0.3549	-9.5357	36.5365
1.58	-6.0969	0.5884	55.2411

Sollecitazioni fondazione (Combinazione n° 7)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.7982	-2.8753	72.2095
0.44	1.9185	-14.4316	48.7029
0.83	5.1890	0.8879	41.9169
1.22	1.9278	14.8453	51.0781
1.58	-7.7931	2.7898	72.2518

Sollecitazioni traverso (Combinazione n° 7)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.7982	0.6713	72.2636
0.44	0.9239	15.8889	45.0634
0.83	4.2706	0.8588	35.8007
1.22	0.9094	-13.7189	45.7685
1.58	-7.7931	-0.4935	72.3081

Sollecitazioni fondazione (Combinazione n° 8)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.0253	-2.5654	59.5720
0.44	1.0786	-10.4048	42.6427
0.83	3.4218	0.6267	37.9682
1.22	1.0901	10.6039	44.4908
1.58	-6.0228	2.4820	59.6076

Sollecitazioni traverso (Combinazione n° 8)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.0253	0.3607	59.6261
0.44	0.0931	11.5802	40.1261
0.83	2.4972	0.8025	33.3766
1.22	0.0807	-9.6566	40.6154
1.58	-6.0228	-0.1849	59.6640

Sollecitazioni fondazione (Combinazione n° 9)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-8.8156	-5.3383	72.1513
0.44	2.4831	-15.6337	46.5523
0.83	6.0117	0.9560	39.4541
1.22	2.4871	16.1571	49.0000
1.58	-8.8087	5.2400	72.1894

Sollecitazioni traverso (Combinazione n° 9)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-8.8156	-1.7916	72.3263
0.44	-1.6775	14.6764	47.2082
0.83	1.4072	0.9215	38.2637
1.22	-1.6900	-12.3967	47.8525
1.58	-8.8087	1.9577	72.3661

Sollecitazioni fondazione (Combinazione n° 10)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.0426	-5.0284	59.5138
0.44	1.6432	-11.6069	40.4922
0.83	4.2445	0.6948	35.5054
1.22	1.6494	11.9158	42.4128
1.58	-7.0384	4.9323	59.5452

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Sollecitazioni traverso (Combinazione n° 10)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-7.0426	-2.1022	59.6888
0.44	-2.5083	10.3678	42.2709
0.83	-0.3663	0.8652	35.8395
1.22	-2.5187	-8.3343	42.6993
1.58	-7.0384	2.2663	59.7219

Sollecitazioni fondazione (Combinazione n° 11)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-9.0118	-3.8616	82.0904
0.44	2.9663	-17.5761	53.0031
0.83	6.9507	1.0758	44.6008
1.22	2.9681	18.1470	55.7505
1.58	-9.0027	3.7152	82.1328

Sollecitazioni traverso (Combinazione n° 11)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-9.0118	0.1710	82.1810
0.44	1.0199	18.5053	50.7736
0.83	4.9297	0.9617	39.9651
1.22	1.0066	-16.0571	51.5897
1.58	-9.0027	0.0349	82.2248

Sollecitazioni fondazione (Combinazione n° 12)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.9972	-3.5189	68.1336
0.44	2.0125	-12.9979	46.6011
0.83	4.9423	0.7827	40.6214
1.22	2.0167	13.3245	48.7637
1.58	-6.9911	3.3752	68.1684

Sollecitazioni traverso (Combinazione n° 12)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.9972	-0.1715	68.2242
0.44	0.0753	13.6195	45.4790
0.83	2.9148	0.9052	37.5102
1.22	0.0644	-11.4356	46.0500
1.58	-6.9911	0.3750	68.2604

Sollecitazioni fondazione (Combinazione n° 13)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.3565	-2.0795	29.4078
0.44	-1.9859	7.4838	43.7506
0.83	-3.8359	-0.2464	49.7092
1.22	-2.0493	-8.3024	44.4576
1.58	2.4282	1.3925	29.7551

Sollecitazioni traverso (Combinazione n° 13)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.3565	-0.6340	29.4744
0.44	-3.3330	-7.2387	42.0099
0.83	-5.2066	0.9761	46.4931
1.22	-3.4069	9.1443	41.9894
1.58	2.4282	1.3623	29.8227

Sollecitazioni fondazione (Combinazione n° 14)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.0587	-1.9517	31.0006
0.44	-1.8449	6.6805	44.3974
0.83	-3.5010	-0.1722	49.8779
1.22	-1.9086	-7.4187	45.2165
1.58	2.1309	1.2648	31.3491

Sollecitazioni traverso (Combinazione n° 14)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.0587	-0.4282	31.0590
0.44	-3.1931	-6.6815	42.1338
0.83	-4.9463	0.9714	46.3264
1.22	-3.2674	8.5936	42.1424
1.58	2.1309	1.1570	31.4085

Sollecitazioni fondazione (Combinazione n° 15)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.8046	-2.1427	34.4784

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0.44	-2.1959	8.4401	51.0006
0.83	-4.2729	-0.2788	57.6650
1.22	-2.2586	-9.3602	51.7735
1.58	2.8760	1.3973	34.8254

Sollecitazioni traverso (Combinazione n° 15)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	2.8046	-0.4484	34.5420
0.44	-3.5478	-8.1792	48.4102
0.83	-5.6679	1.1483	53.4738
1.22	-3.6211	10.3816	48.3073
1.58	2.8760	1.2352	34.8901

Sollecitazioni fondazione (Combinazione n° 16)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.1024	-2.2705	32.8856
0.44	-2.3368	9.2433	50.3538
0.83	-4.6077	-0.3530	57.4963
1.22	-2.3993	-10.2439	51.0146
1.58	3.1734	1.5249	33.2315

Sollecitazioni traverso (Combinazione n° 16)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.1024	-0.6541	32.9574
0.44	-3.6878	-8.7364	48.2863
0.83	-5.9282	1.1530	53.6406
1.22	-3.7606	10.9323	48.1543
1.58	3.1734	1.4406	33.3043

Sollecitazioni fondazione (Combinazione n° 17)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.4178	-1.0585	29.4369
0.44	-1.5838	7.9977	44.6334
0.83	-3.5476	-0.2605	50.7306
1.22	-1.6545	-8.8499	45.3266
1.58	3.4916	0.3494	29.7768

Sollecitazioni traverso (Combinazione n° 17)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.4178	0.3872	29.4533
0.44	-1.6132	-6.7318	41.1231
0.83	-3.3762	0.9550	45.4719
1.22	-1.6837	8.6040	41.1288
1.58	3.4916	0.3203	29.7932

Sollecitazioni fondazione (Combinazione n° 18)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.1200	-0.9307	31.0296
0.44	-1.4428	7.1945	45.2802
0.83	-3.2127	-0.1863	50.8993
1.22	-1.5139	-7.9662	46.0855
1.58	3.1943	0.2217	31.3707

Sollecitazioni traverso (Combinazione n° 18)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.1200	0.5930	31.0379
0.44	-1.4732	-6.1746	41.2470
0.83	-3.1159	0.9503	45.3051
1.22	-1.5441	8.0533	41.2818
1.58	3.1943	0.1149	31.3790

Sollecitazioni fondazione (Combinazione n° 19)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.8659	-1.1217	34.5074
0.44	-1.7937	8.9540	51.8834
0.83	-3.9846	-0.2929	58.6864
1.22	-1.8638	-9.9077	52.6425
1.58	3.9394	0.3542	34.8471

Sollecitazioni traverso (Combinazione n° 19)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	3.8659	0.5729	34.5209
0.44	-1.8280	-7.6723	47.5234
0.83	-3.8376	1.1272	52.4526
1.22	-1.8978	9.8413	47.4467
1.58	3.9394	0.1932	34.8605

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Sollecitazioni fondazione (Combinazione n° 20)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	4.1637	-1.2495	32.9147
0.44	-1.9347	9.7573	51.2366
0.83	-4.3194	-0.3671	58.5177
1.22	-2.0045	-10.7914	51.8836
1.58	4.2368	0.4818	33.2531

Sollecitazioni traverso (Combinazione n° 20)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	4.1637	0.3671	32.9363
0.44	-1.9679	-8.2295	47.3995
0.83	-4.0978	1.1319	52.6193
1.22	-2.0374	10.3920	47.2938
1.58	4.2368	0.3986	33.2747

Sollecitazioni fondazione (Combinazione n° 21)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-2.9382	-2.0354	30.3692
0.44	0.4977	-4.5672	23.7297
0.83	1.5116	0.3169	22.0955
1.22	0.4977	4.6436	24.7144
1.58	-2.9382	2.0354	30.3692

Sollecitazioni traverso (Combinazione n° 21)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-2.9382	-0.5428	30.4325
0.44	-0.8564	4.7235	21.7831
0.83	0.1099	0.4601	18.7428
1.22	-0.8564	-3.6490	21.9886
1.58	-2.9382	0.5428	30.4325

Sollecitazioni fondazione (Combinazione n° 22)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-2.9382	-2.0354	30.3692
0.44	0.4977	-4.5672	23.7297
0.83	1.5116	0.3169	22.0955
1.22	0.4977	4.6436	24.7144
1.58	-2.9382	2.0354	30.3692

Sollecitazioni traverso (Combinazione n° 22)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-2.9382	-0.5428	30.4325
0.44	-0.8564	4.7235	21.7831
0.83	0.1099	0.4601	18.7428
1.22	-0.8564	-3.6490	21.9886
1.58	-2.9382	0.5428	30.4325

Sollecitazioni fondazione (Combinazione n° 23)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-3.1503	-2.3942	30.3604
0.44	0.5164	-4.7438	23.4171
0.83	1.5685	0.3256	21.7366
1.22	0.5164	4.8353	24.4109
1.58	-3.1503	2.3942	30.3604

Sollecitazioni traverso (Combinazione n° 23)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-3.1503	-0.9016	30.4413
0.44	-1.2995	4.5466	22.0954
0.83	-0.3714	0.4689	19.1017
1.22	-1.2995	-3.4570	22.2919
1.58	-3.1503	0.9016	30.4413

Sollecitazioni fondazione (Combinazione n° 24)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-4.7370	-2.3339	42.6471
0.44	1.3434	-8.6896	28.7163
0.83	3.3070	0.5472	24.7910
1.22	1.3463	8.9560	30.1689
1.58	-4.7335	2.3193	42.6685

Sollecitazioni traverso (Combinazione n° 24)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-4.7370	-0.2385	42.7103
0.44	-0.0072	9.0785	26.8950
0.83	1.9075	0.5155	21.4257

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1.22	-0.0147	-7.7685	27.3148
1.58	-4.7335	0.2944	42.7327

Sollecitazioni fondazione (Combinazione n° 25)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.3658	-2.5192	50.1545
0.44	1.6396	-10.1481	33.6402
0.83	3.9342	0.6304	28.9512
1.22	1.6418	10.4534	35.3086
1.58	-5.3611	2.4516	50.1796

Sollecitazioni traverso (Combinazione n° 25)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.3658	-0.0552	50.2177
0.44	0.2881	10.6788	31.9014
0.83	2.5345	0.6163	25.5833
1.22	0.2799	-9.1362	32.3747
1.58	-5.3611	0.1640	50.2438

Sollecitazioni fondazione (Combinazione n° 26)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-4.9499	-1.9203	42.6540
0.44	0.8668	-8.4970	29.0827
0.83	2.7912	0.5273	25.2044
1.22	0.8764	8.7379	30.5134
1.58	-4.9484	1.9243	42.6815

Sollecitazioni traverso (Combinazione n° 26)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-4.9499	0.1749	42.6968
0.44	0.0449	9.2795	26.5334
0.83	2.0024	0.5020	21.0123
1.22	0.0345	-7.9953	26.9628
1.58	-4.9484	-0.1017	42.7262

Sollecitazioni fondazione (Combinazione n° 27)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.4265	-4.1581	50.1128
0.44	1.6335	-10.9574	32.2145
0.83	4.1040	0.6672	27.3122
1.22	1.6380	11.3285	33.9214
1.58	-6.4223	4.0984	50.1406

Sollecitazioni traverso (Combinazione n° 27)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.4265	-1.6942	50.2565
0.44	-1.8278	9.8695	33.3271
0.83	0.2431	0.6551	27.2222
1.22	-1.8372	-8.2611	33.7593
1.58	-6.4223	1.8106	50.2857

Sollecitazioni fondazione (Combinazione n° 28)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.5492	-2.6397	46.7362
0.44	1.5459	-10.1662	30.1996
0.83	3.8482	0.6294	25.4834
1.22	1.5496	10.5055	31.8115
1.58	-5.5452	2.6178	46.7617

Sollecitazioni traverso (Combinazione n° 28)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-5.5492	-0.3433	46.8095
0.44	-0.0688	10.4298	28.7792
0.83	2.1406	0.5405	22.5262
1.22	-0.0777	-9.0311	29.2618
1.58	-5.5452	0.4150	46.8361

Sollecitazioni fondazione (Combinazione n° 29)

X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.3876	-2.8867	56.7460
0.44	1.9408	-12.1110	36.7648
0.83	4.6845	0.7403	31.0302
1.22	1.9436	12.5020	38.6644
1.58	-6.3819	2.7942	56.7765

Sollecitazioni traverso (Combinazione n° 29)



QUADRILATERO
Marche Umbria S.p.A.

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

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X [m]	M [kNm]	V [kN]	N [kN]
0.08	-6.3876	-0.0988	56.8193
0.44	0.3249	12.5637	35.4544
0.83	2.9765	0.6750	28.0695
1.22	0.3151	-10.8548	36.0083
1.58	-6.3819	0.2411	56.8510

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Pressioni terreno

Pressioni sul terreno di fondazione (Combinazione n° 1)

X [m]	σ_i [N/mm ²]
0.08	0.090
0.44	0.090
0.83	0.090
1.22	0.090
1.58	0.090

Pressioni sul terreno di fondazione (Combinazione n° 2)

X [m]	σ_i [N/mm ²]
0.08	0.073
0.44	0.073
0.83	0.073
1.22	0.073
1.58	0.073

Pressioni sul terreno di fondazione (Combinazione n° 3)

X [m]	σ_i [N/mm ²]
0.08	0.090
0.44	0.090
0.83	0.090
1.22	0.090
1.58	0.090

Pressioni sul terreno di fondazione (Combinazione n° 4)

X [m]	σ_i [N/mm ²]
0.08	0.073
0.44	0.073
0.83	0.073
1.22	0.073
1.58	0.073

Pressioni sul terreno di fondazione (Combinazione n° 5)

X [m]	σ_i [N/mm ²]
0.08	0.098
0.44	0.098
0.83	0.098
1.22	0.098
1.58	0.099

Pressioni sul terreno di fondazione (Combinazione n° 6)

X [m]	σ_i [N/mm ²]
0.08	0.080
0.44	0.080
0.83	0.080
1.22	0.080
1.58	0.080

Pressioni sul terreno di fondazione (Combinazione n° 7)

X [m]	σ_i [N/mm ²]
0.08	0.105
0.44	0.105
0.83	0.105
1.22	0.105
1.58	0.105

Pressioni sul terreno di fondazione (Combinazione n° 8)

X [m]	σ_i [N/mm ²]
0.08	0.086
0.44	0.086
0.83	0.086
1.22	0.086
1.58	0.086

Pressioni sul terreno di fondazione (Combinazione n° 9)

X [m]	σ_i [N/mm ²]
0.08	0.105
0.44	0.105
0.83	0.105
1.22	0.105
1.58	0.105

Pressioni sul terreno di fondazione (Combinazione n° 10)

X [m]	σ_i [N/mm ²]
0.08	0.086
0.44	0.086
0.83	0.086
1.22	0.086

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1.58 0.086

Pressioni sul terreno di fondazione (Combinazione n° 11)

X [m]	σ_i [N/mm ²]
0.08	0.119
0.44	0.118
0.83	0.118
1.22	0.118
1.58	0.119

Pressioni sul terreno di fondazione (Combinazione n° 12)

X [m]	σ_i [N/mm ²]
0.08	0.097
0.44	0.097
0.83	0.097
1.22	0.097
1.58	0.097

Pressioni sul terreno di fondazione (Combinazione n° 13)

X [m]	σ_i [N/mm ²]
0.08	0.044
0.44	0.045
0.83	0.045
1.22	0.045
1.58	0.044

Pressioni sul terreno di fondazione (Combinazione n° 14)

X [m]	σ_i [N/mm ²]
0.08	0.049
0.44	0.049
0.83	0.049
1.22	0.049
1.58	0.049

Pressioni sul terreno di fondazione (Combinazione n° 15)

X [m]	σ_i [N/mm ²]
0.08	0.053
0.44	0.053
0.83	0.054
1.22	0.054
1.58	0.053

Pressioni sul terreno di fondazione (Combinazione n° 16)

X [m]	σ_i [N/mm ²]
0.08	0.049
0.44	0.049
0.83	0.049
1.22	0.049
1.58	0.049

Pressioni sul terreno di fondazione (Combinazione n° 17)

X [m]	σ_i [N/mm ²]
0.08	0.044
0.44	0.045
0.83	0.045
1.22	0.045
1.58	0.044

Pressioni sul terreno di fondazione (Combinazione n° 18)

X [m]	σ_i [N/mm ²]
0.08	0.049
0.44	0.049
0.83	0.049
1.22	0.049
1.58	0.049

Pressioni sul terreno di fondazione (Combinazione n° 19)

X [m]	σ_i [N/mm ²]
0.08	0.053
0.44	0.053
0.83	0.054
1.22	0.053
1.58	0.053

Pressioni sul terreno di fondazione (Combinazione n° 20)

X [m]	σ_i [N/mm ²]
0.08	0.049
0.44	0.049
0.83	0.049
1.22	0.049

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1.58 0.049

Pressioni sul terreno di fondazione (Combinazione n° 21)

X [m]	σ_i [N/mm ²]
0.08	0.047
0.44	0.047
0.83	0.047
1.22	0.047
1.58	0.047

Pressioni sul terreno di fondazione (Combinazione n° 22)

X [m]	σ_i [N/mm ²]
0.08	0.047
0.44	0.047
0.83	0.047
1.22	0.047
1.58	0.047

Pressioni sul terreno di fondazione (Combinazione n° 23)

X [m]	σ_i [N/mm ²]
0.08	0.047
0.44	0.047
0.83	0.047
1.22	0.047
1.58	0.047

Pressioni sul terreno di fondazione (Combinazione n° 24)

X [m]	σ_i [N/mm ²]
0.08	0.063
0.44	0.063
0.83	0.063
1.22	0.063
1.58	0.063

Pressioni sul terreno di fondazione (Combinazione n° 25)

X [m]	σ_i [N/mm ²]
0.08	0.073
0.44	0.073
0.83	0.073
1.22	0.073
1.58	0.073

Pressioni sul terreno di fondazione (Combinazione n° 26)

X [m]	σ_i [N/mm ²]
0.08	0.063
0.44	0.063
0.83	0.063
1.22	0.063
1.58	0.063

Pressioni sul terreno di fondazione (Combinazione n° 27)

X [m]	σ_i [N/mm ²]
0.08	0.073
0.44	0.073
0.83	0.073
1.22	0.073
1.58	0.073

Pressioni sul terreno di fondazione (Combinazione n° 28)

X [m]	σ_i [N/mm ²]
0.08	0.069
0.44	0.069
0.83	0.068
1.22	0.069
1.58	0.069

Pressioni sul terreno di fondazione (Combinazione n° 29)

X [m]	σ_i [N/mm ²]
0.08	0.082
0.44	0.082
0.83	0.082
1.22	0.082
1.58	0.082

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Verifiche combinazioni SLU

Simbologia adottata ed unità di misura

N°	Indice sezione
X	Ascissa/Ordinata sezione, espresso in cm
M	Momento flettente, espresso in kNm
V	Taglio, espresso in kN
N	Sforzo normale, espresso in kN
N _u	Sforzo normale ultimo, espressa in kN
M _u	Momento ultimo, espressa in kNm
A _{fi}	Area armatura inferiore, espressa in cmq
A _{fs}	Area armatura superiore, espressa in cmq
CS	Coeff. di sicurezza sezione
V _{Rd}	Aliquota taglio assorbita dal calcestruzzo in elementi senza armature trasversali, espressa in kN
V _{Rcd}	Aliquota taglio assorbita dal calcestruzzo in elementi con armature trasversali, espressa in kN
V _{Rsd}	Aliquota taglio assorbita armature trasversali, espressa in kN
A _{sw}	Area armature trasversali nella sezione, espressa in cmq

Verifica sezioni fondazione [Combinazione n° 1 - SLU (Caso A1-M1)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	6.86 (6.86)	60.95	376.11	42.30	3.93	3.93	6.17
2	0.44	-1.47 (-2.91)	41.32	939.49	-66.09	3.93	3.93	22.74
3	0.83	-4.25 (-4.25)	35.68	337.36	-40.17	3.93	3.93	9.46
4	1.22	-1.48 (-2.96)	43.37	987.90	-67.40	3.93	3.93	22.78
5	1.58	6.85 (6.86)	60.99	376.52	42.32	3.93	3.93	6.17

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.60	82.36	0.00	0.00	0.00
2	0.44	-12.24	80.22	0.00	0.00	0.00
3	0.83	0.76	79.28	0.00	0.00	0.00
4	1.22	12.60	79.97	0.00	0.00	0.00
5	1.58	2.59	82.36	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 1 - SLU (Caso A1-M1)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-6.86 (-6.87)	61.00	375.26	-42.26	3.93	3.93	6.15
2	0.44	0.48 (2.06)	37.55	1323.67	72.58	3.93	3.93	35.25
3	0.83	3.33 (3.33)	29.56	375.11	42.25	3.93	3.93	12.69
4	1.22	0.47 (1.83)	38.18	1488.88	71.47	3.93	3.93	39.00
5	1.58	-6.85 (-6.87)	61.04	375.69	-42.28	3.93	3.93	6.15

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.40	82.37	0.00	0.00	0.00
2	0.44	13.49	79.58	0.00	0.00	0.00
3	0.83	0.71	78.53	0.00	0.00	0.00
4	1.22	-11.67	79.51	0.00	0.00	0.00
5	1.58	-0.30	82.37	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 2 - SLU (Caso A2-M2)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	5.35 (5.35)	49.81	408.76	43.93	3.93	3.93	8.21
2	0.44	-0.76 (-1.80)	35.66	1429.88	-72.01	3.93	3.93	40.10
3	0.83	-2.75 (-2.75)	31.78	627.28	-54.31	3.93	3.93	19.74
4	1.22	-0.77 (-1.83)	37.25	1461.96	-71.76	3.93	3.93	39.25
5	1.58	5.35 (5.35)	49.84	409.23	43.95	3.93	3.93	8.21

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.32	81.00	0.00	0.00	0.00
2	0.44	-8.84	79.47	0.00	0.00	0.00
3	0.83	0.54	78.81	0.00	0.00	0.00
4	1.22	9.01	79.28	0.00	0.00	0.00
5	1.58	2.32	81.01	0.00	0.00	0.00

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Verifica sezioni trasverso [Combinazione n° 2 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	-5.35 (-5.37)	49.87	407.55	-43.87	3.93	3.93	8.17
2	0.44	-0.22 (-1.37)	33.04	1668.86	-69.30	3.93	3.93	50.51
3	0.83	1.83 (1.83)	27.20	1013.01	68.07	3.93	3.93	37.25
4	1.22	-0.23 (-1.20)	33.48	1850.05	-66.14	3.93	3.93	55.26
5	1.58	-5.35 (-5.36)	49.90	409.82	-43.98	3.93	3.93	8.21

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.12	81.01	0.00	0.00	0.00
2	0.44	9.83	79.01	0.00	0.00	0.00
3	0.83	0.65	78.25	0.00	0.00	0.00
4	1.22	-8.23	78.96	0.00	0.00	0.00
5	1.58	-0.02	81.01	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 3 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	7.87 (7.87)	60.89	289.03	37.37	3.93	3.93	4.75
2	0.44	-2.04 (-3.61)	39.17	554.07	-51.10	3.93	3.93	14.15
3	0.83	-5.07 (-5.07)	33.21	217.65	-33.23	3.93	3.93	6.55
4	1.22	-2.04 (-3.67)	41.29	594.66	-52.88	3.93	3.93	14.40
5	1.58	7.87 (7.87)	60.92	289.31	37.38	3.93	3.93	4.75

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-5.06	82.35	0.00	0.00	0.00
2	0.44	-13.45	79.96	0.00	0.00	0.00
3	0.83	0.83	78.98	0.00	0.00	0.00
4	1.22	13.91	79.71	0.00	0.00	0.00
5	1.58	5.04	82.36	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 3 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	-7.87 (-8.03)	61.07	280.03	-36.85	3.93	3.93	4.59
2	0.44	-2.12 (-3.56)	39.70	585.91	-52.49	3.93	3.93	14.76
3	0.83	0.47 (0.47)	32.03	2559.46	37.30	3.93	3.93	79.91
4	1.22	-2.13 (-3.34)	40.26	684.34	-56.81	3.93	3.93	17.00
5	1.58	-7.87 (-8.03)	61.10	280.31	-36.86	3.93	3.93	4.59

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.07	82.37	0.00	0.00	0.00
2	0.44	12.28	79.84	0.00	0.00	0.00
3	0.83	0.77	78.83	0.00	0.00	0.00
4	1.22	-10.35	79.78	0.00	0.00	0.00
5	1.58	2.15	82.38	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 4 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	6.37 (6.37)	49.75	294.18	37.67	3.93	3.93	5.91
2	0.44	-1.33 (-2.50)	33.51	842.40	-62.88	3.93	3.93	25.14
3	0.83	-3.57 (-3.57)	29.32	322.42	-39.30	3.93	3.93	11.00
4	1.22	-1.33 (-2.54)	35.17	898.75	-64.94	3.93	3.93	25.55
5	1.58	6.37 (6.37)	49.78	294.47	37.68	3.93	3.93	5.92

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-4.79	81.00	0.00	0.00	0.00
2	0.44	-10.04	79.22	0.00	0.00	0.00

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3	0.83	0.61	78.50	0.00	0.00	0.00
4	1.22	10.32	79.02	0.00	0.00	0.00
5	1.58	4.77	81.00	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 4 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fe}	CS
1	0.08	-6.37 (-6.60)	49.93	277.56	-36.70	3.93	3.93	5.56
2	0.44	-2.82 (-3.83)	35.18	398.85	-43.43	3.93	3.93	11.34
3	0.83	-1.04 (-1.12)	29.66	1785.83	-67.41	3.93	3.93	60.21
4	1.22	-2.83 (-3.64)	35.56	448.16	-45.89	3.93	3.93	12.60
5	1.58	-6.37 (-6.60)	49.96	277.85	-36.72	3.93	3.93	5.56

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.34	81.02	0.00	0.00	0.00
2	0.44	8.62	79.27	0.00	0.00	0.00
3	0.83	0.71	78.55	0.00	0.00	0.00
4	1.22	-6.91	79.22	0.00	0.00	0.00
5	1.58	2.43	81.02	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 5 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fe}	CS
1	0.08	7.75 (7.75)	67.08	357.68	41.35	3.93	3.93	5.33
2	0.44	-2.37 (-4.09)	43.16	524.34	-49.68	3.93	3.93	12.15
3	0.83	-5.70 (-5.70)	36.28	208.12	-32.68	3.93	3.93	5.74
4	1.22	-2.38 (-4.15)	45.47	565.24	-51.59	3.93	3.93	12.43
5	1.58	7.75 (7.75)	67.11	358.05	41.37	3.93	3.93	5.34

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-3.49	83.11	0.00	0.00	0.00
2	0.44	-14.66	80.47	0.00	0.00	0.00
3	0.83	0.91	79.35	0.00	0.00	0.00
4	1.22	15.15	80.20	0.00	0.00	0.00
5	1.58	3.45	83.11	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 5 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fe}	CS
1	0.08	-7.75 (-7.78)	67.17	356.53	-41.28	3.93	3.93	5.31
2	0.44	0.43 (2.22)	40.76	1331.80	72.54	3.93	3.93	32.67
3	0.83	3.68 (3.68)	31.65	354.40	41.16	3.93	3.93	11.20
4	1.22	0.42 (1.98)	41.47	1497.75	71.37	3.93	3.93	36.12
5	1.58	-7.75 (-7.78)	67.20	356.44	-41.28	3.93	3.93	5.30

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-0.20	83.12	0.00	0.00	0.00
2	0.44	15.30	79.98	0.00	0.00	0.00
3	0.83	0.76	78.79	0.00	0.00	0.00
4	1.22	-13.32	79.91	0.00	0.00	0.00
5	1.58	0.30	83.12	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 6 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fe}	CS
1	0.08	6.10 (6.10)	55.12	387.15	42.85	3.93	3.93	7.02
2	0.44	-1.59 (-2.87)	37.29	795.85	-61.17	3.93	3.93	21.34
3	0.83	-4.05 (-4.05)	32.38	307.28	-38.43	3.93	3.93	9.49
4	1.22	-1.60 (-2.91)	39.11	849.94	-63.15	3.93	3.93	21.73
5	1.58	6.10 (6.10)	55.15	387.52	42.87	3.93	3.93	7.03

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Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-3.20	81.65	0.00	0.00	0.00
2	0.44	-10.91	79.70	0.00	0.00	0.00
3	0.83	0.66	78.88	0.00	0.00	0.00
4	1.22	11.20	79.48	0.00	0.00	0.00
5	1.58	3.16	81.65	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 6 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-6.10 (-6.15)	55.21	382.89	-42.64	3.93	3.93	6.94
2	0.44	-0.34 (-1.67)	36.03	1535.47	-70.96	3.93	3.93	42.62
3	0.83	2.02 (2.02)	29.27	967.79	66.85	3.93	3.93	33.06
4	1.22	-0.35 (-1.47)	36.54	1706.59	-68.69	3.93	3.93	46.71
5	1.58	-6.10 (-6.15)	55.24	383.27	-42.66	3.93	3.93	6.94

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-0.49	81.66	0.00	0.00	0.00
2	0.44	11.28	79.38	0.00	0.00	0.00
3	0.83	0.70	78.50	0.00	0.00	0.00
4	1.22	-9.54	79.33	0.00	0.00	0.00
5	1.58	0.59	81.66	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 7 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	7.80 (7.80)	72.21	405.05	43.74	3.93	3.93	5.61
2	0.44	-1.92 (-3.61)	48.70	855.40	-63.35	3.93	3.93	17.56
3	0.83	-5.19 (-5.19)	41.92	313.17	-38.77	3.93	3.93	7.47
4	1.22	-1.93 (-3.66)	51.08	910.24	-65.31	3.93	3.93	17.82
5	1.58	7.79 (7.80)	72.25	405.49	43.76	3.93	3.93	5.61

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.88	83.73	0.00	0.00	0.00
2	0.44	-14.43	81.16	0.00	0.00	0.00
3	0.83	0.89	80.04	0.00	0.00	0.00
4	1.22	14.85	80.87	0.00	0.00	0.00
5	1.58	2.79	83.74	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 7 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-7.80 (-7.81)	72.26	404.62	-43.72	3.93	3.93	5.60
2	0.44	0.92 (2.78)	45.06	1150.50	71.05	3.93	3.93	25.53
3	0.83	4.27 (4.27)	35.80	336.18	40.10	3.93	3.93	9.39
4	1.22	0.91 (2.51)	45.77	1321.33	72.59	3.93	3.93	28.87
5	1.58	-7.79 (-7.81)	72.31	405.08	-43.74	3.93	3.93	5.60

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.67	83.74	0.00	0.00	0.00
2	0.44	15.89	80.51	0.00	0.00	0.00
3	0.83	0.86	79.29	0.00	0.00	0.00
4	1.22	-13.72	80.43	0.00	0.00	0.00
5	1.58	-0.49	83.74	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 8 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	6.03 (6.03)	59.57	459.08	46.43	3.93	3.93	7.71

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2	0.44	-1.08 (-2.30)	42.64	1345.83	-72.46	3.93	3.93	31.56
3	0.83	-3.42 (-3.42)	37.97	579.18	-52.20	3.93	3.93	15.25
4	1.22	-1.09 (-2.33)	44.49	1379.71	-72.28	3.93	3.93	31.01
5	1.58	6.02 (6.03)	59.61	459.62	46.46	3.93	3.93	7.71

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.57	82.19	0.00	0.00	0.00
2	0.44	-10.40	80.36	0.00	0.00	0.00
3	0.83	0.63	79.56	0.00	0.00	0.00
4	1.22	10.60	80.13	0.00	0.00	0.00
5	1.58	2.48	82.20	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 8 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-6.03 (-6.04)	59.63	457.09	-46.33	3.93	3.93	7.67
2	0.44	0.09 (1.45)	40.13	1839.34	66.38	3.93	3.93	45.84
3	0.83	2.50 (2.50)	33.38	838.47	62.73	3.93	3.93	25.12
4	1.22	0.08 (1.21)	40.62	2053.67	61.21	3.93	3.93	50.56
5	1.58	-6.02 (-6.04)	59.66	457.66	-46.36	3.93	3.93	7.67

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.36	82.20	0.00	0.00	0.00
2	0.44	11.58	79.89	0.00	0.00	0.00
3	0.83	0.80	79.00	0.00	0.00	0.00
4	1.22	-9.66	79.83	0.00	0.00	0.00
5	1.58	-0.18	82.20	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 9 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	8.82 (8.82)	72.15	321.03	39.22	3.93	3.93	4.45
2	0.44	-2.48 (-4.31)	46.55	549.40	-50.89	3.93	3.93	11.80
3	0.83	-6.01 (-6.01)	39.45	218.34	-33.27	3.93	3.93	5.53
4	1.22	-2.49 (-4.38)	49.00	589.17	-52.64	3.93	3.93	12.02
5	1.58	8.81 (8.82)	72.19	321.35	39.24	3.93	3.93	4.45

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-5.34	83.72	0.00	0.00	0.00
2	0.44	-15.63	80.91	0.00	0.00	0.00
3	0.83	0.96	79.74	0.00	0.00	0.00
4	1.22	16.16	80.61	0.00	0.00	0.00
5	1.58	5.24	83.73	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 9 - SLU (Caso A1-M1)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-8.82 (-8.96)	72.33	312.93	-38.75	3.93	3.93	4.33
2	0.44	-1.68 (-3.39)	47.21	906.99	-65.22	3.93	3.93	19.21
3	0.83	1.41 (1.41)	38.26	1817.82	66.85	3.93	3.93	47.51
4	1.22	-1.69 (-3.14)	47.85	1054.06	-69.17	3.93	3.93	22.03
5	1.58	-8.81 (-8.96)	72.37	313.25	-38.77	3.93	3.93	4.33

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-1.79	83.75	0.00	0.00	0.00
2	0.44	14.68	80.77	0.00	0.00	0.00
3	0.83	0.92	79.59	0.00	0.00	0.00
4	1.22	-12.40	80.70	0.00	0.00	0.00
5	1.58	1.96	83.75	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 10 - SLU (Caso A2-M2)]

Base sezione B = 100 cm

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Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	7.04 (7.04)	59.51	341.48	40.41	3.93	3.93	5.74
2	0.44	-1.64 (-3.00)	40.49	854.07	-63.30	3.93	3.93	21.09
3	0.83	-4.24 (-4.24)	35.51	334.77	-40.02	3.93	3.93	9.43
4	1.22	-1.65 (-3.04)	42.41	909.97	-65.30	3.93	3.93	21.46
5	1.58	7.04 (7.04)	59.55	341.84	40.43	3.93	3.93	5.74

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-5.03	82.18	0.00	0.00	0.00
2	0.44	-11.61	80.11	0.00	0.00	0.00
3	0.83	0.69	79.26	0.00	0.00	0.00
4	1.22	11.92	79.87	0.00	0.00	0.00
5	1.58	4.93	82.19	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 10 - SLU (Caso A2-M2)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	-7.04 (-7.24)	59.69	325.44	-39.48	3.93	3.93	5.45
2	0.44	-2.51 (-3.72)	42.27	606.53	-53.40	3.93	3.93	14.35
3	0.83	-0.37 (-0.47)	35.84	2574.96	-33.59	3.93	3.93	71.85
4	1.22	-2.52 (-3.49)	42.70	705.71	-57.74	3.93	3.93	16.53
5	1.58	-7.04 (-7.24)	59.72	325.79	-39.50	3.93	3.93	5.46

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-2.10	82.21	0.00	0.00	0.00
2	0.44	10.37	80.14	0.00	0.00	0.00
3	0.83	0.87	79.30	0.00	0.00	0.00
4	1.22	-8.33	80.09	0.00	0.00	0.00
5	1.58	2.27	82.21	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 11 - SLU (Caso A1-M1)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	9.01 (9.01)	82.09	393.00	43.14	3.93	3.93	4.79
2	0.44	-2.97 (-5.02)	53.00	524.20	-49.67	3.93	3.93	9.89
3	0.83	-6.95 (-6.95)	44.60	210.60	-32.82	3.93	3.93	4.72
4	1.22	-2.97 (-5.09)	55.75	564.54	-51.56	3.93	3.93	10.13
5	1.58	9.00 (9.01)	82.13	393.38	43.16	3.93	3.93	4.79

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-3.86	84.94	0.00	0.00	0.00
2	0.44	-17.58	81.73	0.00	0.00	0.00
3	0.83	1.08	80.37	0.00	0.00	0.00
4	1.22	18.15	81.40	0.00	0.00	0.00
5	1.58	3.72	84.94	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 11 - SLU (Caso A1-M1)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	-9.01 (-9.03)	82.18	392.20	-43.10	3.93	3.93	4.77
2	0.44	1.02 (3.18)	50.77	1126.66	70.67	3.93	3.93	22.19
3	0.83	4.93 (4.93)	39.97	315.29	38.89	3.93	3.93	7.89
4	1.22	1.01 (2.89)	51.59	1300.03	72.71	3.93	3.93	25.20
5	1.58	-9.00 (-9.01)	82.22	394.58	-43.22	3.93	3.93	4.80

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.17	84.95	0.00	0.00	0.00
2	0.44	18.51	81.22	0.00	0.00	0.00
3	0.83	0.96	79.80	0.00	0.00	0.00
4	1.22	-16.06	81.13	0.00	0.00	0.00
5	1.58	0.03	84.95	0.00	0.00	0.00

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Verifica sezioni fondazione [Combinazione n° 12 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	7.00 (7.00)	68.13	445.59	45.76	3.93	3.93	6.54
2	0.44	-2.01 (-3.53)	46.60	817.09	-61.95	3.93	3.93	17.53
3	0.83	-4.94 (-4.94)	40.62	323.62	-39.37	3.93	3.93	7.97
4	1.22	-2.02 (-3.58)	48.76	872.49	-63.98	3.93	3.93	17.89
5	1.58	6.99 (7.00)	68.17	446.03	45.78	3.93	3.93	6.54

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Red}	A _{sw}
1	0.08	-3.52	83.24	0.00	0.00	0.00
2	0.44	-13.00	80.88	0.00	0.00	0.00
3	0.83	0.78	79.88	0.00	0.00	0.00
4	1.22	13.32	80.62	0.00	0.00	0.00
5	1.58	3.38	83.24	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 12 - SLU (Caso A2-M2)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-7.00 (-7.02)	68.22	444.27	-45.70	3.93	3.93	6.51
2	0.44	0.08 (1.67)	45.48	1820.36	66.80	3.93	3.93	40.03
3	0.83	2.91 (2.91)	37.51	779.56	60.58	3.93	3.93	20.78
4	1.22	0.06 (1.40)	46.05	2031.20	61.86	3.93	3.93	44.11
5	1.58	-6.99 (-7.04)	68.26	442.55	-45.61	3.93	3.93	6.48

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Red}	A _{sw}
1	0.08	-0.17	83.25	0.00	0.00	0.00
2	0.44	13.62	80.55	0.00	0.00	0.00
3	0.83	0.91	79.50	0.00	0.00	0.00
4	1.22	-11.44	80.49	0.00	0.00	0.00
5	1.58	0.38	83.25	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 13 - SLU (Caso A1-M1) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-2.36 (-2.46)	29.41	672.22	-56.28	3.93	3.93	22.86
2	0.44	1.99 (2.86)	43.75	1060.12	69.34	3.93	3.93	24.23
3	0.83	3.84 (3.84)	49.71	789.95	60.96	3.93	3.93	15.89
4	1.22	2.05 (3.02)	44.46	994.54	67.57	3.93	3.93	22.37
5	1.58	-2.43 (-2.46)	29.76	689.10	-57.02	3.93	3.93	23.16

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Red}	A _{sw}
1	0.08	-2.08	78.52	0.00	0.00	0.00
2	0.44	7.48	80.30	0.00	0.00	0.00
3	0.83	-0.25	80.99	0.00	0.00	0.00
4	1.22	-8.30	80.39	0.00	0.00	0.00
5	1.58	1.39	78.56	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 13 - SLU (Caso A1-M1) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	2.36 (2.43)	29.47	695.43	57.29	3.93	3.93	23.59
2	0.44	-3.33 (-4.18)	42.01	474.26	-47.19	3.93	3.93	11.29
3	0.83	-5.21 (-5.21)	46.49	379.06	-42.45	3.93	3.93	8.15
4	1.22	-3.41 (-4.48)	41.99	414.86	-44.23	3.93	3.93	9.88
5	1.58	2.43 (2.43)	29.82	713.23	58.07	3.93	3.93	23.92

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Red}	A _{sw}
1	0.08	-0.63	78.52	0.00	0.00	0.00

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 87 di 174
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2	0.44	-7.24	80.00	0.00	0.00	0.00
3	0.83	0.98	80.60	0.00	0.00	0.00
4	1.22	9.14	80.18	0.00	0.00	0.00
5	1.58	1.36	78.57	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 14 - SLU (Caso A1-M1) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	-2.06 (-2.16)	31.00	954.41	-66.50	3.93	3.93	30.79
2	0.44	1.84 (2.63)	44.40	1219.22	72.13	3.93	3.93	27.46
3	0.83	3.50 (3.50)	49.88	942.94	66.19	3.93	3.93	18.90
4	1.22	1.91 (2.78)	45.22	1159.27	71.19	3.93	3.93	25.64
5	1.58	-2.13 (-2.16)	31.35	972.01	-66.97	3.93	3.93	31.01

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rd}	V _{Rd}	A _{sw}
1	0.08	-1.95	78.71	0.00	0.00	0.00
2	0.44	6.68	80.40	0.00	0.00	0.00
3	0.83	-0.17	81.01	0.00	0.00	0.00
4	1.22	-7.42	80.47	0.00	0.00	0.00
5	1.58	1.26	78.75	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 14 - SLU (Caso A1-M1) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	2.06 (2.11)	31.06	995.72	67.61	3.93	3.93	32.06
2	0.44	-3.19 (-3.97)	42.13	529.20	-49.92	3.93	3.93	12.56
3	0.83	-4.95 (-4.95)	46.33	413.75	-44.18	3.93	3.93	8.93
4	1.22	-3.27 (-4.27)	42.14	456.89	-46.32	3.93	3.93	10.84
5	1.58	2.13 (2.13)	31.41	997.00	67.64	3.93	3.93	31.74

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rd}	V _{Rd}	A _{sw}
1	0.08	-0.43	78.72	0.00	0.00	0.00
2	0.44	-6.68	80.02	0.00	0.00	0.00
3	0.83	0.97	80.58	0.00	0.00	0.00
4	1.22	8.59	80.19	0.00	0.00	0.00
5	1.58	1.16	78.76	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 15 - SLU (Caso A2-M2) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	-2.80 (-2.91)	34.48	663.12	-55.88	3.93	3.93	19.23
2	0.44	2.20 (3.18)	51.00	1134.16	70.79	3.93	3.93	22.24
3	0.83	4.27 (4.27)	57.66	854.54	63.32	3.93	3.93	14.82
4	1.22	2.26 (3.35)	51.77	1077.69	69.81	3.93	3.93	20.82
5	1.58	-2.88 (-2.91)	34.83	677.19	-56.49	3.93	3.93	19.45

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rd}	V _{Rd}	A _{sw}
1	0.08	-2.14	79.13	0.00	0.00	0.00
2	0.44	8.44	81.20	0.00	0.00	0.00
3	0.83	-0.28	81.96	0.00	0.00	0.00
4	1.22	-9.36	81.27	0.00	0.00	0.00
5	1.58	1.40	79.18	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 15 - SLU (Caso A2-M2) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _R	CS
1	0.08	2.80 (2.86)	34.54	689.57	57.04	3.93	3.93	19.96
2	0.44	-3.55 (-4.50)	48.41	544.68	-50.68	3.93	3.93	11.25
3	0.83	-5.67 (-5.67)	53.47	419.46	-44.46	3.93	3.93	7.84
4	1.22	-3.62 (-4.84)	48.31	468.57	-46.91	3.93	3.93	9.70
5	1.58	2.88 (2.88)	34.89	694.61	57.26	3.93	3.93	19.91

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 88 di 174
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Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rsd}	A _{sw}
1	0.08	-0.45	79.14	0.00	0.00	0.00
2	0.44	-8.18	80.78	0.00	0.00	0.00
3	0.83	1.15	81.45	0.00	0.00	0.00
4	1.22	10.38	80.96	0.00	0.00	0.00
5	1.58	1.24	79.18	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 16 - SLU (Caso A2-M2) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-3.10 (-3.21)	32.89	493.83	-48.16	3.93	3.93	15.02
2	0.44	2.34 (3.42)	50.35	995.98	67.61	3.93	3.93	19.78
3	0.83	4.61 (4.61)	57.50	736.05	58.99	3.93	3.93	12.80
4	1.22	2.40 (3.60)	51.01	935.74	65.99	3.93	3.93	18.34
5	1.58	-3.17 (-3.21)	33.23	504.56	-48.70	3.93	3.93	15.18

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rsd}	A _{sw}
1	0.08	-2.27	78.94	0.00	0.00	0.00
2	0.44	9.24	81.11	0.00	0.00	0.00
3	0.83	-0.35	81.94	0.00	0.00	0.00
4	1.22	-10.24	81.19	0.00	0.00	0.00
5	1.58	1.52	78.98	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 16 - SLU (Caso A2-M2) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	3.10 (3.17)	32.96	507.02	48.82	3.93	3.93	15.38
2	0.44	-3.69 (-4.71)	48.29	493.70	-48.16	3.93	3.93	10.22
3	0.83	-5.93 (-5.93)	53.64	388.23	-42.91	3.93	3.93	7.24
4	1.22	-3.76 (-5.04)	48.15	429.68	-44.97	3.93	3.93	8.92
5	1.58	3.17 (3.17)	33.30	518.20	49.38	3.93	3.93	15.56

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rsd}	A _{sw}
1	0.08	-0.65	78.95	0.00	0.00	0.00
2	0.44	-8.74	80.76	0.00	0.00	0.00
3	0.83	1.15	81.47	0.00	0.00	0.00
4	1.22	10.93	80.94	0.00	0.00	0.00
5	1.58	1.44	78.99	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 17 - SLU (Caso A1-M1) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-3.42 (-3.49)	29.44	339.92	-40.32	3.93	3.93	11.55
2	0.44	1.58 (2.52)	44.63	1289.07	72.77	3.93	3.93	28.88
3	0.83	3.55 (3.55)	50.73	948.68	66.34	3.93	3.93	18.70
4	1.22	1.65 (2.69)	45.33	1214.02	72.05	3.93	3.93	26.78
5	1.58	-3.49 (-3.49)	29.78	347.68	-40.77	3.93	3.93	11.68

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rsd}	A _{sw}
1	0.08	-1.06	78.52	0.00	0.00	0.00
2	0.44	8.00	80.41	0.00	0.00	0.00
3	0.83	-0.26	81.11	0.00	0.00	0.00
4	1.22	-8.85	80.50	0.00	0.00	0.00
5	1.58	0.35	78.56	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 17 - SLU (Caso A1-M1) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
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2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 89 di 174
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1	0.08	3.42 (3.46)	29.45	345.82	40.66	3.93	3.93	11.74
2	0.44	-1.61 (-2.40)	41.12	1241.50	-72.48	3.93	3.93	30.19
3	0.83	-3.38 (-3.38)	45.47	851.14	-63.20	3.93	3.93	18.72
4	1.22	-1.68 (-2.69)	41.13	1059.92	-69.33	3.93	3.93	25.77
5	1.58	3.49 (3.49)	29.79	348.06	40.79	3.93	3.93	11.68

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.39	78.52	0.00	0.00	0.00
2	0.44	-6.73	79.90	0.00	0.00	0.00
3	0.83	0.96	80.47	0.00	0.00	0.00
4	1.22	8.60	80.07	0.00	0.00	0.00
5	1.58	0.32	78.56	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 18 - SLU (Caso A1-M1) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	-3.12 (-3.19)	31.03	443.54	-45.66	3.93	3.93	14.29
2	0.44	1.44 (2.28)	45.28	1427.51	72.02	3.93	3.93	31.53
3	0.83	3.21 (3.21)	50.90	1117.39	70.53	3.93	3.93	21.95
4	1.22	1.51 (2.45)	46.09	1363.52	72.37	3.93	3.93	29.59
5	1.58	-3.19 (-3.19)	31.37	453.08	-46.13	3.93	3.93	14.44

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-0.93	78.71	0.00	0.00	0.00
2	0.44	7.19	80.50	0.00	0.00	0.00
3	0.83	-0.19	81.13	0.00	0.00	0.00
4	1.22	-7.97	80.57	0.00	0.00	0.00
5	1.58	0.22	78.75	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 18 - SLU (Caso A1-M1) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	3.12 (3.19)	31.04	445.09	45.74	3.93	3.93	14.34
2	0.44	-1.47 (-2.20)	41.25	1359.85	-72.39	3.93	3.93	32.97
3	0.83	-3.12 (-3.12)	45.31	974.80	-67.04	3.93	3.93	21.52
4	1.22	-1.54 (-2.49)	41.28	1189.97	-71.67	3.93	3.93	28.83
5	1.58	3.19 (3.19)	31.38	453.32	46.15	3.93	3.93	14.45

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	0.59	78.71	0.00	0.00	0.00
2	0.44	-6.17	79.92	0.00	0.00	0.00
3	0.83	0.95	80.45	0.00	0.00	0.00
4	1.22	8.05	80.08	0.00	0.00	0.00
5	1.58	0.11	78.76	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 19 - SLU (Caso A2-M2) - Sisma Vert. positivo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _n	A _s	CS
1	0.08	-3.87 (-3.94)	34.51	366.25	-41.81	3.93	3.93	10.61
2	0.44	1.79 (2.84)	51.88	1325.18	72.57	3.93	3.93	25.54
3	0.83	3.98 (3.98)	58.69	995.73	67.61	3.93	3.93	16.97
4	1.22	1.86 (3.02)	52.64	1269.01	72.87	3.93	3.93	24.11
5	1.58	-3.94 (-3.94)	34.85	372.70	-42.13	3.93	3.93	10.70

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sw}
1	0.08	-1.12	79.14	0.00	0.00	0.00
2	0.44	8.95	81.30	0.00	0.00	0.00
3	0.83	-0.29	82.08	0.00	0.00	0.00
4	1.22	-9.91	81.38	0.00	0.00	0.00
5	1.58	0.35	79.18	0.00	0.00	0.00

Verifica sezioni trasverso [Combinazione n° 19 - SLU (Caso A2-M2) - Sisma Vert. positivo]

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Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	3.87 (3.93)	34.52	367.58	41.88	3.93	3.93	10.65
2	0.44	-1.83 (-2.73)	47.52	1270.48	-72.87	3.93	3.93	26.73
3	0.83	-3.84 (-3.84)	52.45	876.39	-64.12	3.93	3.93	16.71
4	1.22	-1.90 (-3.05)	47.45	1090.98	-70.11	3.93	3.93	22.99
5	1.58	3.94 (3.94)	34.86	372.95	42.15	3.93	3.93	10.70

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sv}
1	0.08	0.57	79.14	0.00	0.00	0.00
2	0.44	-7.67	80.67	0.00	0.00	0.00
3	0.83	1.13	81.32	0.00	0.00	0.00
4	1.22	9.84	80.85	0.00	0.00	0.00
5	1.58	0.19	79.18	0.00	0.00	0.00

Verifica sezioni fondazione [Combinazione n° 20 - SLU (Caso A2-M2) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	-4.16 (-4.24)	32.91	291.35	-37.50	3.93	3.93	8.85
2	0.44	1.93 (3.08)	51.24	1194.99	71.75	3.93	3.93	23.32
3	0.83	4.32 (4.32)	58.52	861.06	63.56	3.93	3.93	14.71
4	1.22	2.00 (3.27)	51.88	1120.91	70.58	3.93	3.93	21.60
5	1.58	-4.24 (-4.24)	33.25	296.85	-37.82	3.93	3.93	8.93

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sv}
1	0.08	-1.25	78.94	0.00	0.00	0.00
2	0.44	9.76	81.21	0.00	0.00	0.00
3	0.83	-0.37	82.06	0.00	0.00	0.00
4	1.22	-10.79	81.30	0.00	0.00	0.00
5	1.58	0.48	78.98	0.00	0.00	0.00

Verifica sezioni traverso [Combinazione n° 20 - SLU (Caso A2-M2) - Sisma Vert. negativo]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	N _u	M _u	A _{fi}	A _{fs}	CS
1	0.08	4.16 (4.21)	32.94	295.53	37.74	3.93	3.93	8.97
2	0.44	-1.97 (-2.93)	47.40	1148.59	-71.02	3.93	3.93	24.23
3	0.83	-4.10 (-4.10)	52.62	776.37	-60.46	3.93	3.93	14.75
4	1.22	-2.04 (-3.25)	47.29	974.54	-67.04	3.93	3.93	20.61
5	1.58	4.24 (4.24)	33.27	297.21	37.84	3.93	3.93	8.93

Verifiche taglio

N°	X	V	V _{Rd}	V _{Rsd}	V _{Rcd}	A _{sv}
1	0.08	0.37	78.95	0.00	0.00	0.00
2	0.44	-8.23	80.65	0.00	0.00	0.00
3	0.83	1.13	81.34	0.00	0.00	0.00
4	1.22	10.39	80.84	0.00	0.00	0.00
5	1.58	0.40	78.99	0.00	0.00	0.00

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Verifiche combinazioni SLE

Simbologia adottata ed unità di misura

N°	Indice sezione
X	Ascissa/Ordinata sezione, espresso in m
M	Momento flettente, espresso in kNm
V	Taglio, espresso in kN
N	Sforzo normale, espresso in kN
A _{fi}	Area armatura inferiore, espressa in cmq
A _{fs}	Area armatura superiore, espressa in cmq
σ _{fi}	Tensione nell'armatura disposta in corrispondenza del lembo inferiore, espressa in N/mmq
σ _{fs}	Tensione nell'armatura disposta in corrispondenza del lembo superiore, espressa in N/mmq
σ _c	Tensione nel calcestruzzo, espressa in N/mmq
τ _c	Tensione tangenziale nel calcestruzzo, espressa in N/mmq
A _{sw}	Area armature trasversali nella sezione, espressa in cmq

Verifica sezioni fondazione [Combinazione n° 21 - SLE (Quasi Permanente)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fi}	σ _{fs}	σ _c
1	0.08	2.94	30.37	3.93	3.93	9.17	25.63	1.31
2	0.44	-0.50	23.73	3.93	3.93	1.07	3.08	0.25
3	0.83	-1.51	22.10	3.93	3.93	7.16	5.50	0.62
4	1.22	-0.50	24.71	3.93	3.93	1.15	3.16	0.25
5	1.58	2.94	30.37	3.93	3.93	9.17	25.63	1.31

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-2.04	-0.018	0.00
2	0.44	-4.57	-0.041	0.00
3	0.83	0.32	0.003	0.00
4	1.22	4.64	0.042	0.00
5	1.58	2.04	0.018	0.00

Verifica sezioni traverso [Combinazione n° 21 - SLE (Quasi Permanente)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fi}	σ _{fs}	σ _c
1	0.08	-2.94	30.43	3.93	3.93	25.56	9.18	1.31
2	0.44	-0.86	21.78	3.93	3.93	0.18	3.71	0.33
3	0.83	0.11	18.74	3.93	3.93	1.86	1.41	0.13
4	1.22	-0.86	21.99	3.93	3.93	0.15	3.73	0.33
5	1.58	-2.94	30.43	3.93	3.93	25.56	9.18	1.31

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-0.54	-0.005	0.00
2	0.44	4.72	0.043	0.00
3	0.83	0.46	0.004	0.00
4	1.22	-3.65	-0.033	0.00
5	1.58	0.54	0.005	0.00

Verifica sezioni fondazione [Combinazione n° 22 - SLE (Frequente)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fi}	σ _{fs}	σ _c
1	0.08	2.94	30.37	3.93	3.93	9.17	25.63	1.31
2	0.44	-0.50	23.73	3.93	3.93	1.07	3.08	0.25
3	0.83	-1.51	22.10	3.93	3.93	7.16	5.50	0.62
4	1.22	-0.50	24.71	3.93	3.93	1.15	3.16	0.25
5	1.58	2.94	30.37	3.93	3.93	9.17	25.63	1.31

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-2.04	-0.018	0.00
2	0.44	-4.57	-0.041	0.00
3	0.83	0.32	0.003	0.00
4	1.22	4.64	0.042	0.00
5	1.58	2.04	0.018	0.00

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Verifica sezioni trasverso [Combinazione n° 22 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	-2.94	30.43	3.93	3.93	25.56	9.18	1.31
2	0.44	-0.86	21.78	3.93	3.93	0.18	3.71	0.33
3	0.83	0.11	18.74	3.93	3.93	1.86	1.41	0.13
4	1.22	-0.86	21.99	3.93	3.93	0.15	3.73	0.33
5	1.58	-2.94	30.43	3.93	3.93	25.56	9.18	1.31

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-0.54	-0.005	0.00
2	0.44	4.72	0.043	0.00
3	0.83	0.46	0.004	0.00
4	1.22	-3.65	-0.033	0.00
5	1.58	0.54	0.005	0.00

Verifica sezioni fondazione [Combinazione n° 23 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	3.15	30.36	3.93	3.93	9.48	29.87	1.42
2	0.44	-0.52	23.42	3.93	3.93	1.00	3.09	0.25
3	0.83	-1.57	21.74	3.93	3.93	8.39	5.59	0.65
4	1.22	-0.52	24.41	3.93	3.93	1.09	3.18	0.25
5	1.58	3.15	30.36	3.93	3.93	9.48	29.87	1.42

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-2.39	-0.022	0.00
2	0.44	-4.74	-0.043	0.00
3	0.83	0.33	0.003	0.00
4	1.22	4.84	0.044	0.00
5	1.58	2.39	0.022	0.00

Verifica sezioni trasverso [Combinazione n° 23 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	-3.15	30.44	3.93	3.93	29.78	9.49	1.42
2	0.44	-1.30	22.10	3.93	3.93	4.05	4.96	0.51
3	0.83	0.37	19.10	3.93	3.93	0.92	2.42	0.19
4	1.22	-1.30	22.29	3.93	3.93	3.93	4.98	0.51
5	1.58	-3.15	30.44	3.93	3.93	29.78	9.49	1.42

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-0.90	-0.008	0.00
2	0.44	4.55	0.041	0.00
3	0.83	0.47	0.004	0.00
4	1.22	-3.46	-0.031	0.00
5	1.58	0.90	0.008	0.00

Verifica sezioni fondazione [Combinazione n° 24 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	4.74	42.65	3.93	3.93	13.73	48.27	2.16
2	0.44	-1.34	28.72	3.93	3.93	1.62	5.48	0.51
3	0.83	-3.31	24.79	3.93	3.93	39.48	8.64	1.54
4	1.22	-1.35	30.17	3.93	3.93	1.21	5.58	0.51
5	1.58	4.73	42.67	3.93	3.93	13.73	48.17	2.15

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-2.33	-0.021	0.00
2	0.44	-8.69	-0.079	0.00

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3	0.83	0.55	0.005	0.00
4	1.22	8.96	0.081	0.00
5	1.58	2.32	0.021	0.00

Verifica sezioni trasverso [Combinazione n° 24 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	-4.74	42.71	3.93	3.93	48.20	13.75	2.16
2	0.44	-0.01	26.89	3.93	3.93	2.33	2.36	0.16
3	0.83	1.91	21.43	3.93	3.93	6.21	14.86	0.83
4	1.22	-0.01	27.31	3.93	3.93	2.36	2.41	0.16
5	1.58	-4.73	42.73	3.93	3.93	48.10	13.74	2.15

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-0.24	-0.002	0.00
2	0.44	9.08	0.082	0.00
3	0.83	0.52	0.005	0.00
4	1.22	-7.77	-0.070	0.00
5	1.58	0.29	0.003	0.00

Verifica sezioni fondazione [Combinazione n° 25 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	5.37	50.15	3.93	3.93	15.88	52.60	2.43
2	0.44	-1.64	33.64	3.93	3.93	2.45	6.61	0.62
3	0.83	-3.93	28.95	3.93	3.93	47.61	10.17	1.83
4	1.22	-1.64	35.31	3.93	3.93	1.91	6.71	0.62
5	1.58	5.36	50.18	3.93	3.93	15.88	52.48	2.43

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-2.52	-0.023	0.00
2	0.44	-10.15	-0.092	0.00
3	0.83	0.63	0.006	0.00
4	1.22	10.45	0.095	0.00
5	1.58	2.45	0.022	0.00

Verifica sezioni trasverso [Combinazione n° 25 - SLE (Frequente)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	-5.37	50.22	3.93	3.93	52.53	15.89	2.43
2	0.44	0.29	31.90	3.93	3.93	3.37	2.20	0.25
3	0.83	2.53	25.58	3.93	3.93	7.81	22.77	1.13
4	1.22	0.28	32.37	3.93	3.93	3.39	2.26	0.25
5	1.58	-5.36	50.24	3.93	3.93	52.41	15.89	2.43

Verifiche taglio

N°	X	V	τ _c	A _{sw}
1	0.08	-0.06	0.000	0.00
2	0.44	10.68	0.097	0.00
3	0.83	0.62	0.006	0.00
4	1.22	-9.14	-0.083	0.00
5	1.58	0.16	0.001	0.00

Verifica sezioni fondazione [Combinazione n° 26 - SLE (Rara)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A _{fi}	A _{fs}	σ _{fs}	σ _{fi}	σ _c
1	0.08	4.95	42.65	3.93	3.93	14.01	52.61	2.27
2	0.44	-0.87	29.08	3.93	3.93	0.77	4.30	0.36
3	0.83	-2.79	25.20	3.93	3.93	28.36	8.11	1.27
4	1.22	-0.88	30.51	3.93	3.93	0.88	4.44	0.37
5	1.58	4.95	42.68	3.93	3.93	14.01	52.55	2.27

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Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-1.92	-0.017	0.00
2	0.44	-8.50	-0.077	0.00
3	0.83	0.53	0.005	0.00
4	1.22	8.74	0.079	0.00
5	1.58	1.92	0.017	0.00

Verifica sezioni trasverso [Combinazione n° 26 - SLE (Rara)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	-4.95	42.70	3.93	3.93	52.56	14.01	2.27
2	0.44	0.04	26.53	3.93	3.93	2.41	2.23	0.16
3	0.83	2.00	21.01	3.93	3.93	6.30	17.13	0.89
4	1.22	0.03	26.96	3.93	3.93	2.42	2.28	0.16
5	1.58	-4.95	42.73	3.93	3.93	52.50	14.02	2.26

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	0.17	0.002	0.00
2	0.44	9.28	0.084	0.00
3	0.83	0.50	0.005	0.00
4	1.22	-8.00	-0.072	0.00
5	1.58	-0.10	-0.001	0.00

Verifica sezioni fondazione [Combinazione n° 27 - SLE (Rara)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	6.43	50.11	3.93	3.93	17.18	74.43	2.98
2	0.44	-1.63	32.21	3.93	3.93	2.93	6.51	0.62
3	0.83	-4.10	27.31	3.93	3.93	53.15	10.01	1.93
4	1.22	-1.64	33.92	3.93	3.93	2.33	6.62	0.62
5	1.58	6.42	50.14	3.93	3.93	17.18	74.31	2.98

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-4.16	-0.038	0.00
2	0.44	-10.96	-0.099	0.00
3	0.83	0.67	0.006	0.00
4	1.22	11.33	0.103	0.00
5	1.58	4.10	0.037	0.00

Verifica sezioni trasverso [Combinazione n° 27 - SLE (Rara)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	-6.43	50.26	3.93	3.93	74.26	17.21	2.98
2	0.44	-1.83	33.33	3.93	3.93	4.48	7.12	0.71
3	0.83	0.24	27.22	3.93	3.93	2.87	1.89	0.21
4	1.22	-1.84	33.76	3.93	3.93	4.38	7.17	0.71
5	1.58	-6.42	50.29	3.93	3.93	74.14	17.21	2.97

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-1.69	-0.015	0.00
2	0.44	9.87	0.089	0.00
3	0.83	0.66	0.006	0.00
4	1.22	-8.26	-0.075	0.00
5	1.58	1.81	0.016	0.00

Verifica sezioni fondazione [Combinazione n° 28 - SLE (Rara)]

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
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1	0.08	5.55	46.74	3.93	3.93	15.50	60.23	2.55
2	0.44	-1.55	30.20	3.93	3.93	2.89	6.14	0.59
3	0.83	-3.85	25.48	3.93	3.93	49.99	9.36	1.81
4	1.22	-1.55	31.81	3.93	3.93	2.31	6.25	0.59
5	1.58	5.55	46.76	3.93	3.93	15.50	60.12	2.55

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-2.64	-0.024	0.00
2	0.44	-10.17	-0.092	0.00
3	0.83	0.63	0.006	0.00
4	1.22	10.51	0.095	0.00
5	1.58	2.62	0.024	0.00

Verifica sezioni trasverso [Combinazione n° 28 - SLE (Rara)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	-5.55	46.81	3.93	3.93	60.14	15.52	2.55
2	0.44	-0.07	28.78	3.93	3.93	2.37	2.65	0.18
3	0.83	2.14	22.53	3.93	3.93	6.74	18.25	0.95
4	1.22	-0.08	29.26	3.93	3.93	2.40	2.71	0.19
5	1.58	-5.55	46.84	3.93	3.93	60.03	15.52	2.55

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-0.34	-0.003	0.00
2	0.44	10.43	0.094	0.00
3	0.83	0.54	0.005	0.00
4	1.22	-9.03	-0.082	0.00
5	1.58	0.41	0.004	0.00

Verifica sezioni fondazione [Combinazione n° 29 - SLE (Rara)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	6.39	56.75	3.93	3.93	18.38	65.95	2.91
2	0.44	-1.94	36.76	3.93	3.93	4.12	7.64	0.74
3	0.83	-4.68	31.03	3.93	3.93	60.84	11.39	2.20
4	1.22	-1.94	38.66	3.93	3.93	3.35	7.76	0.74
5	1.58	6.38	56.78	3.93	3.93	18.38	65.80	2.91

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-2.89	-0.026	0.00
2	0.44	-12.11	-0.110	0.00
3	0.83	0.74	0.007	0.00
4	1.22	12.50	0.113	0.00
5	1.58	2.79	0.025	0.00

Verifica sezioni trasverso [Combinazione n° 29 - SLE (Rara)]

 Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

Verifiche presso-flessione

N°	X	M	N	A_{fi}	A_{fs}	σ_{fs}	σ_{fi}	σ_c
1	0.08	-6.39	56.82	3.93	3.93	65.87	18.40	2.91
2	0.44	0.32	35.45	3.93	3.93	3.75	2.44	0.28
3	0.83	2.98	28.07	3.93	3.93	8.85	28.90	1.35
4	1.22	0.32	36.01	3.93	3.93	3.78	2.51	0.28
5	1.58	-6.38	56.85	3.93	3.93	65.71	18.40	2.91

Verifiche taglio

N°	X	V	τ_c	A_{sw}
1	0.08	-0.10	-0.001	0.00
2	0.44	12.56	0.114	0.00
3	0.83	0.67	0.006	0.00
4	1.22	-10.85	-0.098	0.00
5	1.58	0.24	0.002	0.00

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Verifiche fessurazione

Simbologia adottata ed unità di misura

N°	Indice sezione
X_i	Ascissa/Ordinata sezione, espresso in m
M_p	Momento, espresso in kNm
M_n	Momento, espresso in kNm
w_x	Ampiezza fessure, espresso in mm
w_{lim}	Apertura limite fessure, espresso in mm
s	Distanza media tra le fessure, espresso in mm
ϵ_{sm}	Deformazione nelle fessure, espresso in [%]

Verifica fessurazione fondazione [Combinazione n° 21 - SLE (Quasi Permanente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	2.94	0.00	0.20	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.50	0.00	0.20	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-1.51	0.00	0.20	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.50	0.00	0.20	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	2.94	0.00	0.20	0.00	0.000000

Verifica fessurazione traverso [Combinazione n° 21 - SLE (Quasi Permanente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	-2.94	0.00	0.20	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.86	0.00	0.20	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	0.11	0.00	0.20	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.86	0.00	0.20	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-2.94	0.00	0.20	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 22 - SLE (Frequente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	2.94	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.50	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-1.51	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.50	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	2.94	0.00	0.30	0.00	0.000000

Verifica fessurazione traverso [Combinazione n° 22 - SLE (Frequente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	-2.94	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.86	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	0.11	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.86	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-2.94	0.00	0.30	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 23 - SLE (Frequente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	3.15	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.52	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-1.57	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.52	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	3.15	0.00	0.30	0.00	0.000000

Verifica fessurazione traverso [Combinazione n° 23 - SLE (Frequente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	-3.15	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.30	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-0.37	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.30	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-3.15	0.00	0.30	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 24 - SLE (Frequente)]

N°	X	A_n	A_s	M_p	M_n	M	w	w_{lim}	S_m	ϵ_{sm}
1	0.08	3.93	3.93	13.90	-13.90	4.74	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.34	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-3.31	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.35	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	4.73	0.00	0.30	0.00	0.000000

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 97 di 174
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Verifica fessurazione trasverso [Combinazione n° 24 - SLE (Frequente)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-4.74	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.01	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	1.91	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.01	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-4.73	0.00	0.30	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 25 - SLE (Frequente)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	5.37	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.64	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-3.93	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.64	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	5.36	0.00	0.30	0.00	0.000000

Verifica fessurazione trasverso [Combinazione n° 25 - SLE (Frequente)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-5.37	0.00	0.30	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	0.29	0.00	0.30	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	2.53	0.00	0.30	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	0.28	0.00	0.30	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-5.36	0.00	0.30	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 26 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	4.95	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.87	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-2.79	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.88	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	4.95	0.00	100.00	0.00	0.000000

Verifica fessurazione trasverso [Combinazione n° 26 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-4.95	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	0.04	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	2.00	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	0.03	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-4.95	0.00	100.00	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 27 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	6.43	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.63	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-4.10	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.64	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	6.42	0.00	100.00	0.00	0.000000

Verifica fessurazione trasverso [Combinazione n° 27 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-6.43	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.83	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	0.24	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.84	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-6.42	0.00	100.00	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 28 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	Mp	Mn	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	5.55	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.55	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-3.85	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.55	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	5.55	0.00	100.00	0.00	0.000000

Verifica fessurazione trasverso [Combinazione n° 28 - SLE (Rara)]

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N°	X	A _{fl}	A _{fs}	M _p	M _n	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-5.55	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-0.07	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	2.14	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-0.08	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-5.55	0.00	100.00	0.00	0.000000

Verifica fessurazione fondazione [Combinazione n° 29 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	M _p	M _n	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	6.39	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	-1.94	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	-4.68	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	-1.94	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	6.38	0.00	100.00	0.00	0.000000

Verifica fessurazione traverso [Combinazione n° 29 - SLE (Rara)]

N°	X	A _{fl}	A _{fs}	M _p	M _n	M	w	W _{lim}	S _m	S _{sm}
1	0.08	3.93	3.93	13.90	-13.90	-6.39	0.00	100.00	0.00	0.000000
2	0.44	3.93	3.93	13.90	-13.90	0.32	0.00	100.00	0.00	0.000000
3	0.83	3.93	3.93	13.90	-13.90	2.98	0.00	100.00	0.00	0.000000
4	1.22	3.93	3.93	13.90	-13.90	0.32	0.00	100.00	0.00	0.000000
5	1.58	3.93	3.93	13.90	-13.90	-6.38	0.00	100.00	0.00	0.000000

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 99 di 174
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Inviluppo spostamenti nodali

Inviluppo spostamenti fondazione

X [m]	uxmin [cm]	uxmax [cm]	uymin [cm]	uymax [cm]
0.08	-0.0005	0.8610	0.8874	2.3703
0.44	-0.0002	0.8520	0.8918	2.3634
0.83	0.0000	0.8504	0.8942	2.3597
1.22	0.0002	0.8491	0.8921	2.3646
1.58	0.0005	0.8419	0.8889	2.3725

Inviluppo spostamenti traverso

X [m]	uxmin [cm]	uxmax [cm]	uymin [cm]	uymax [cm]
0.08	-0.0005	0.8610	0.8874	2.3703
0.44	0.0019	0.8554	0.8858	2.3863
0.83	0.0000	0.8519	0.8838	2.3928
1.22	-0.0020	0.8483	0.8857	2.3875
1.58	0.0005	0.8419	0.8889	2.3725

Inviluppo sollecitazioni nodali

Inviluppo sollecitazioni fondazione

X [m]	Mmin [kNm]	Mmax [kNm]	Vmin [kN]	Vmax [kN]	Nmin [kN]	Nmax [kN]
0.08	-9.01	4.16	-5.34	-0.93	29.41	82.09
0.44	-2.34	2.97	-17.58	9.76	23.42	53.00
0.83	-4.61	6.95	-0.37	1.08	21.74	58.69
1.22	-2.40	2.97	-10.79	18.15	24.41	55.75
1.58	-9.00	4.24	0.22	5.24	29.76	82.13

Inviluppo sollecitazioni traverso

X [m]	Mmin [kNm]	Mmax [kNm]	Vmin [kN]	Vmax [kN]	Nmin [kN]	Nmax [kN]
0.08	-9.01	4.16	-2.34	0.67	29.45	82.18
0.44	-3.69	1.02	-8.74	18.51	21.78	50.77
0.83	-5.93	4.93	0.46	1.15	18.74	53.64
1.22	-3.76	1.01	-16.06	10.93	21.99	51.59
1.58	-9.00	4.24	-0.49	2.43	29.79	82.22

Inviluppo pressioni terreno

Inviluppo pressioni sul terreno di fondazione

X [m]	σmin [N/mm ²]	σmax [N/mm ²]
0.08	0.044	0.119
0.44	0.045	0.118
0.83	0.045	0.118
1.22	0.045	0.118
1.58	0.044	0.119

Inviluppo verifiche stato limite ultimo (SLU)

Verifica sezioni fondazione (Inviluppo)

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

X	A _{f1}	A _{f2}	CS
0.08	3.93	3.93	4.45
0.44	3.93	3.93	9.89
0.83	3.93	3.93	4.72
1.22	3.93	3.93	10.13
1.58	3.93	3.93	4.45

X	V _{Red}	V _{Red}	A _{sw}
0.08	82.36	0.00	0.00
0.44	80.22	0.00	0.00
0.83	79.28	0.00	0.00
1.22	79.97	0.00	0.00
1.58	82.36	0.00	0.00

Verifica sezioni traverso (Inviluppo)

Base sezione B = 100 cm
 Altezza sezione H = 16.00 cm

X	A _{f1}	A _{f2}	CS
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2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 100 di 174
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0.08	3.93	3.93	4.33
0.44	3.93	3.93	10.22
0.83	3.93	3.93	7.24
1.22	3.93	3.93	8.92
1.58	3.93	3.93	4.33

X	V_{Rd}	V_{Rsd}	V_{Red}	A_{sw}
0.08	82.37	0.00	0.00	0.00
0.44	79.58	0.00	0.00	0.00
0.83	78.53	0.00	0.00	0.00
1.22	79.51	0.00	0.00	0.00
1.58	82.37	0.00	0.00	0.00

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 101 di 174
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Verifiche geotecniche

Simbologia adottata

<i>IC</i>	Indice della combinazione
<i>N_c, N_q, N_γ</i>	Fattori di capacità portante
<i>N_c, N_q, N_γ</i>	Fattori di capacità portante corretti per effetto forma, inclinazione del carico, affondamento, etc.
<i>q_u</i>	Portanza ultima del terreno, espressa in [N/mm ²]
<i>Q_v</i>	Portanza ultima del terreno, espressa in [kN]/m
<i>Q_v</i>	Carico verticale al piano di posa, espressa in [kN]/m
<i>FS</i>	Fattore di sicurezza a carico limite

IC	N _c	N _q	N _γ	N' _c	N' _q	N' _γ	q _u	Q _v	Q _v	FS
1	24.85	13.94	10.29	45.98	19.59	13.18	2.184	3624.64	134.96	26.86
2	17.58	8.32	4.51	30.84	11.26	5.24	1.201	1994.32	108.98	18.30
3	24.85	13.94	10.29	45.98	19.59	13.18	2.184	3624.64	134.96	26.86
4	17.58	8.32	4.51	30.84	11.26	5.24	1.201	1994.32	108.98	18.30
5	24.85	13.94	10.29	45.58	19.42	12.78	2.145	3559.92	147.25	24.18
6	17.58	8.32	4.51	30.52	11.14	5.01	1.176	1952.04	119.63	16.32
7	24.85	13.94	10.29	43.84	18.68	11.13	1.982	3289.63	157.50	20.89
8	17.58	8.32	4.51	29.11	10.63	4.04	1.069	1773.85	128.51	13.80
9	24.85	13.94	10.29	43.84	18.68	11.13	1.982	3289.63	157.50	20.89
10	17.58	8.32	4.51	29.11	10.63	4.04	1.069	1773.85	128.51	13.80
11	24.85	13.94	10.29	43.12	18.37	10.48	1.916	3181.13	177.30	17.94
12	17.58	8.32	4.51	28.55	10.43	3.68	1.028	1705.82	145.67	11.71
13	24.85	13.94	10.29	14.07	5.99	3.74	0.085	141.46	66.88	2.12
14	24.85	13.94	10.29	15.58	6.64	2.47	0.147	243.35	73.24	3.32
15	17.58	8.32	4.51	10.69	3.90	3.09	0.095	158.13	80.20	1.97
16	17.58	8.32	4.51	9.75	3.56	4.07	0.062	102.36	73.84	1.39
17	24.85	13.94	10.29	14.07	5.99	3.74	0.085	141.46	66.88	2.12
18	24.85	13.94	10.29	15.58	6.64	2.47	0.147	243.35	73.24	3.32
19	17.58	8.32	4.51	10.69	3.90	3.09	0.095	158.13	80.20	1.97
20	17.58	8.32	4.51	9.75	3.56	4.07	0.062	102.36	73.84	1.39



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 102 di 174
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Schema Strutturale

Area ed Inerzia elementi

Destinazione	Area [cmq]	Inerzia [cm ⁴]
Fondazione	1600.00	34133.33
Piedritto sinistro	3000.00	225000.00
Piedritto destro	3000.00	225000.00
Traverso	1600.00	34133.33

Simbologia adottata ed unità di misura

N	indice elemento
N_i	indice nodo iniziale elemento
N_j	indice nodo finale elemento
(X_i, Y_i)	coordinate nodo iniziale, espresse in cm
(X_j, Y_j)	coordinate nodo finale, espresse in cm
Dest	appartenenza elemento

N	N_i	N_j	X_i	Y_i	X_j	Y_j	Dest
1	1	4	8.00	83.00	8.09	79.32	PiedR
2	4	10	8.09	79.32	8.36	75.65	PiedR
3	10	16	8.36	75.65	8.81	72.00	PiedR
4	16	22	8.81	72.00	9.44	68.37	PiedR
5	22	28	9.44	68.37	10.25	64.78	PiedR
6	28	34	10.25	64.78	11.23	61.23	PiedR
7	34	40	11.23	61.23	12.38	57.73	PiedR
8	40	46	12.38	57.73	13.71	54.30	PiedR
9	46	52	13.71	54.30	15.20	50.93	PiedR
10	52	58	15.20	50.93	16.86	47.65	PiedR
11	58	64	16.86	47.65	18.67	44.44	PiedR
12	64	70	18.67	44.44	20.64	41.33	PiedR
13	70	76	20.64	41.33	22.76	38.32	PiedR
14	76	82	22.76	38.32	25.02	35.42	PiedR
15	82	88	25.02	35.42	27.43	32.63	PiedR
16	88	94	27.43	32.63	29.97	29.97	PiedR
17	94	100	29.97	29.97	32.63	27.43	PiedR
18	100	106	32.63	27.43	35.42	25.02	PiedR
19	106	112	35.42	25.02	38.32	22.76	PiedR
20	112	118	38.32	22.76	41.33	20.64	PiedR
21	118	124	41.33	20.64	44.44	18.67	PiedR
22	124	130	44.44	18.67	47.65	16.86	PiedR
23	130	136	47.65	16.86	50.93	15.20	PiedR
24	136	142	50.93	15.20	54.30	13.71	PiedR
25	142	148	54.30	13.71	57.73	12.38	PiedR
26	148	154	57.73	12.38	61.23	11.23	PiedR
27	154	160	61.23	11.23	64.78	10.25	PiedR
28	160	166	64.78	10.25	68.37	9.44	PiedR
29	166	172	68.37	9.44	72.00	8.81	PiedR
30	172	178	72.00	8.81	75.65	8.36	PiedR
31	178	184	75.65	8.36	79.32	8.09	PiedR
32	184	190	79.32	8.09	83.00	8.00	PiedR
33	190	196	83.00	8.00	86.68	8.09	PiedR
34	196	202	86.68	8.09	90.35	8.36	PiedR
35	202	208	90.35	8.36	94.00	8.81	PiedR
36	208	214	94.00	8.81	97.63	9.44	PiedR
37	214	220	97.63	9.44	101.22	10.25	PiedR
38	220	226	101.22	10.25	104.77	11.23	PiedR
39	226	232	104.77	11.23	108.27	12.38	PiedR
40	232	238	108.27	12.38	111.70	13.71	PiedR
41	238	244	111.70	13.71	115.07	15.20	PiedR
42	244	250	115.07	15.20	118.35	16.86	PiedR
43	250	256	118.35	16.86	121.56	18.67	PiedR
44	256	262	121.56	18.67	124.67	20.64	PiedR
45	262	268	124.67	20.64	127.68	22.76	PiedR
46	268	274	127.68	22.76	130.58	25.02	PiedR
47	274	280	130.58	25.02	133.37	27.43	PiedR
48	280	286	133.37	27.43	136.03	29.97	PiedR
49	286	292	136.03	29.97	138.57	32.63	PiedR
50	292	298	138.57	32.63	140.98	35.42	PiedR
51	298	304	140.98	35.42	143.24	38.32	PiedR
52	304	310	143.24	38.32	145.36	41.33	PiedR
53	310	316	145.36	41.33	147.33	44.44	PiedR
54	316	322	147.33	44.44	149.14	47.65	PiedR
55	322	328	149.14	47.65	150.80	50.93	PiedR
56	328	334	150.80	50.93	152.29	54.30	PiedR
57	334	340	152.29	54.30	153.62	57.73	PiedR
58	340	346	153.62	57.73	154.77	61.23	PiedR
59	346	352	154.77	61.23	155.75	64.78	PiedR
60	352	358	155.75	64.78	156.56	68.37	PiedR
61	358	364	156.56	68.37	157.19	72.00	PiedR
62	364	370	157.19	72.00	157.64	75.65	PiedR
63	370	376	157.64	75.65	157.91	79.32	PiedR
64	376	382	157.91	79.32	158.00	83.00	PiedR
65	1	7	8.00	83.00	8.09	86.68	Trav
66	7	13	8.09	86.68	8.36	90.35	Trav
67	13	19	8.36	90.35	8.81	94.00	Trav
68	19	25	8.81	94.00	9.44	97.63	Trav
69	25	31	9.44	97.63	10.25	101.22	Trav

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

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70	31	37	10.25	101.22	11.23	104.77	Trav	
71	37	43	11.23	104.77	12.38	108.27	Trav	
72	43	49	12.38	108.27	13.71	111.70	Trav	
73	49	55	13.71	111.70	15.20	115.07	Trav	
74	55	61	15.20	115.07	16.86	118.35	Trav	
75	61	67	16.86	118.35	18.67	121.56	Trav	
76	67	73	18.67	121.56	20.64	124.67	Trav	
77	73	79	20.64	124.67	22.76	127.68	Trav	
78	79	85	22.76	127.68	25.02	130.58	Trav	
79	85	91	25.02	130.58	27.43	133.37	Trav	
80	91	97	27.43	133.37	29.97	136.03	Trav	
81	97	103	29.97	136.03	32.63	138.57	Trav	
82	103	109	32.63	138.57	35.42	140.98	Trav	
83	109	115	35.42	140.98	38.32	143.24	Trav	
84	115	121	38.32	143.24	41.33	145.36	Trav	
85	121	127	41.33	145.36	44.44	147.33	Trav	
86	127	133	44.44	147.33	47.65	149.14	Trav	
87	133	139	47.65	149.14	50.93	150.80	Trav	
88	139	145	50.93	150.80	54.30	152.29	Trav	
89	145	151	54.30	152.29	57.73	153.62	Trav	
90	151	157	57.73	153.62	61.23	154.77	Trav	
91	157	163	61.23	154.77	64.78	155.75	Trav	
92	163	169	64.78	155.75	68.37	156.56	Trav	
93	169	175	68.37	156.56	72.00	157.19	Trav	
94	175	181	72.00	157.19	75.65	157.64	Trav	
95	181	187	75.65	157.64	79.32	157.91	Trav	
96	187	193	79.32	157.91	83.00	158.00	Trav	
97	193	199	83.00	158.00	86.68	157.91	Trav	
98	199	205	86.68	157.91	90.35	157.64	Trav	
99	205	211	90.35	157.64	94.00	157.19	Trav	
100	211	217	94.00	157.19	97.63	156.56	Trav	
101	217	223	97.63	156.56	101.22	155.75	Trav	
102	223	229	101.22	155.75	104.77	154.77	Trav	
103	229	235	104.77	154.77	108.27	153.62	Trav	
104	235	241	108.27	153.62	111.70	152.29	Trav	
105	241	247	111.70	152.29	115.07	150.80	Trav	
106	247	253	115.07	150.80	118.35	149.14	Trav	
107	253	259	118.35	149.14	121.56	147.33	Trav	
108	259	265	121.56	147.33	124.67	145.36	Trav	
109	265	271	124.67	145.36	127.68	143.24	Trav	
110	271	277	127.68	143.24	130.58	140.98	Trav	
111	277	283	130.58	140.98	133.37	138.57	Trav	
112	283	289	133.37	138.57	136.03	136.03	Trav	
113	289	295	136.03	136.03	138.57	133.37	Trav	
114	295	301	138.57	133.37	140.98	130.58	Trav	
115	301	307	140.98	130.58	143.24	127.68	Trav	
116	307	313	143.24	127.68	145.36	124.67	Trav	
117	313	319	145.36	124.67	147.33	121.56	Trav	
118	319	325	147.33	121.56	149.14	118.35	Trav	
119	325	331	149.14	118.35	150.80	115.07	Trav	
120	331	337	150.80	115.07	152.29	111.70	Trav	
121	337	343	152.29	111.70	153.62	108.27	Trav	
122	343	349	153.62	108.27	154.77	104.77	Trav	
123	349	355	154.77	104.77	155.75	101.22	Trav	
124	355	361	155.75	101.22	156.56	97.63	Trav	
125	361	367	156.56	97.63	157.19	94.00	Trav	
126	367	373	157.19	94.00	157.64	90.35	Trav	
127	373	379	157.64	90.35	157.91	86.68	Trav	
128	379	382	157.91	86.68	158.00	83.00	Trav	
129	1	2	8.00	83.00	-92.00	83.00	MollaPR	
130	1	3	8.00	83.00	8.00	-17.00	MollaPR	
131	4	5	8.09	79.32	-91.91	79.32	MollaPR	
132	4	6	8.09	79.32	8.09	-20.68	MollaPR	
133	7	8	8.09	86.68	-91.91	86.68	MollaPR	
134	7	9	8.09	86.68	8.09	186.68	MollaPR	
135	10	11	8.36	75.65	-91.64	75.65	MollaPR	
136	10	12	8.36	75.65	8.36	-24.35	MollaPR	
137	13	14	8.36	90.35	-91.64	90.35	MollaPR	
138	13	15	8.36	90.35	8.36	190.35	MollaPR	
139	16	17	8.81	72.00	-91.19	72.00	MollaPR	
140	16	18	8.81	72.00	8.81	-28.00	MollaPR	
141	19	20	8.81	94.00	-91.19	94.00	MollaPR	
142	19	21	8.81	94.00	8.81	194.00	MollaPR	
143	22	23	9.44	68.37	-90.56	68.37	MollaPR	
144	22	24	9.44	68.37	9.44	-31.63	MollaPR	
145	25	26	9.44	97.63	-90.56	97.63	MollaPR	
146	25	27	9.44	97.63	9.44	197.63	MollaPR	
147	28	29	10.25	64.78	-89.75	64.78	MollaPR	
148	28	30	10.25	64.78	10.25	-35.22	MollaPR	
149	31	32	10.25	101.22	-89.75	101.22	MollaPR	
150	31	33	10.25	101.22	10.25	201.22	MollaPR	
151	34	35	11.23	61.23	-88.77	61.23	MollaPR	
152	34	36	11.23	61.23	11.23	-38.77	MollaPR	
153	37	38	11.23	104.77	-88.77	104.77	MollaPR	
154	37	39	11.23	104.77	11.23	204.77	MollaPR	
155	40	41	12.38	57.73	-87.62	57.73	MollaPR	
156	40	42	12.38	57.73	12.38	-42.27	MollaPR	
157	43	44	12.38	108.27	-87.62	108.27	MollaPR	
158	43	45	12.38	108.27	12.38	208.27	MollaPR	
159	46	47	13.71	54.30	-86.29	54.30	MollaPR	
160	46	48	13.71	54.30	13.71	-45.70	MollaPR	

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

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161	49	50	13.71	111.70	-86.29	111.70	MollaPR	
162	49	51	13.71	111.70	13.71	211.70	MollaPR	
163	52	53	15.20	50.93	-84.80	50.93	MollaPR	
164	52	54	15.20	50.93	15.20	-49.07	MollaPR	
165	55	56	15.20	115.07	-84.80	115.07	MollaPR	
166	55	57	15.20	115.07	15.20	215.07	MollaPR	
167	58	59	16.86	47.65	-83.14	47.65	MollaPR	
168	58	60	16.86	47.65	16.86	-52.35	MollaPR	
169	61	62	16.86	118.35	-83.14	118.35	MollaPR	
170	61	63	16.86	118.35	16.86	218.35	MollaPR	
171	64	65	18.67	44.44	-81.33	44.44	MollaPR	
172	64	66	18.67	44.44	18.67	-55.56	MollaPR	
173	67	68	18.67	121.56	-81.33	121.56	MollaPR	
174	67	69	18.67	121.56	18.67	221.56	MollaPR	
175	70	71	20.64	41.33	-79.36	41.33	MollaPR	
176	70	72	20.64	41.33	20.64	-58.67	MollaPR	
177	73	74	20.64	124.67	-79.36	124.67	MollaPR	
178	73	75	20.64	124.67	20.64	224.67	MollaPR	
179	76	77	22.76	38.32	-77.24	38.32	MollaPR	
180	76	78	22.76	38.32	22.76	-61.68	MollaPR	
181	79	80	22.76	127.68	-77.24	127.68	MollaPR	
182	79	81	22.76	127.68	22.76	227.68	MollaPR	
183	82	83	25.02	35.42	-74.98	35.42	MollaPR	
184	82	84	25.02	35.42	25.02	-64.58	MollaPR	
185	85	86	25.02	130.58	-74.98	130.58	MollaPR	
186	85	87	25.02	130.58	25.02	230.58	MollaPR	
187	88	89	27.43	32.63	-72.57	32.63	MollaPR	
188	88	90	27.43	32.63	27.43	-67.37	MollaPR	
189	91	92	27.43	133.37	-72.57	133.37	MollaPR	
190	91	93	27.43	133.37	27.43	233.37	MollaPR	
191	94	95	29.97	29.97	-70.03	29.97	MollaPR	
192	94	96	29.97	29.97	29.97	-70.03	MollaPR	
193	97	98	29.97	136.03	-70.03	136.03	MollaPR	
194	97	99	29.97	136.03	29.97	236.03	MollaPR	
195	100	101	32.63	27.43	-67.37	27.43	MollaPR	
196	100	102	32.63	27.43	32.63	-72.57	MollaPR	
197	103	104	32.63	138.57	-67.37	138.57	MollaPR	
198	103	105	32.63	138.57	32.63	238.57	MollaPR	
199	106	107	35.42	25.02	-64.58	25.02	MollaPR	
200	106	108	35.42	25.02	35.42	-74.98	MollaPR	
201	109	110	35.42	140.98	-64.58	140.98	MollaPR	
202	109	111	35.42	140.98	35.42	240.98	MollaPR	
203	112	113	38.32	22.76	-61.68	22.76	MollaPR	
204	112	114	38.32	22.76	38.32	-77.24	MollaPR	
205	115	116	38.32	143.24	-61.68	143.24	MollaPR	
206	115	117	38.32	143.24	38.32	243.24	MollaPR	
207	118	119	41.33	20.64	-58.67	20.64	MollaPR	
208	118	120	41.33	20.64	41.33	-79.36	MollaPR	
209	121	122	41.33	145.36	-58.67	145.36	MollaPR	
210	121	123	41.33	145.36	41.33	245.36	MollaPR	
211	124	125	44.44	18.67	-55.56	18.67	MollaPR	
212	124	126	44.44	18.67	44.44	-81.33	MollaPR	
213	127	128	44.44	147.33	-55.56	147.33	MollaPR	
214	127	129	44.44	147.33	44.44	247.33	MollaPR	
215	130	131	47.65	16.86	-52.35	16.86	MollaPR	
216	130	132	47.65	16.86	47.65	-83.14	MollaPR	
217	133	134	47.65	149.14	-52.35	149.14	MollaPR	
218	133	135	47.65	149.14	47.65	249.14	MollaPR	
219	136	137	50.93	15.20	-49.07	15.20	MollaPR	
220	136	138	50.93	15.20	50.93	-84.80	MollaPR	
221	139	140	50.93	150.80	-49.07	150.80	MollaPR	
222	139	141	50.93	150.80	50.93	250.80	MollaPR	
223	142	143	54.30	13.71	-45.70	13.71	MollaPR	
224	142	144	54.30	13.71	54.30	-86.29	MollaPR	
225	145	146	54.30	152.29	-45.70	152.29	MollaPR	
226	145	147	54.30	152.29	54.30	252.29	MollaPR	
227	148	149	57.73	12.38	-42.27	12.38	MollaPR	
228	148	150	57.73	12.38	57.73	-87.62	MollaPR	
229	151	152	57.73	153.62	-42.27	153.62	MollaPR	
230	151	153	57.73	153.62	57.73	253.62	MollaPR	
231	154	155	61.23	11.23	-38.77	11.23	MollaPR	
232	154	156	61.23	11.23	61.23	-88.77	MollaPR	
233	157	158	61.23	154.77	-38.77	154.77	MollaPR	
234	157	159	61.23	154.77	61.23	254.77	MollaPR	
235	160	161	64.78	10.25	-35.22	10.25	MollaPR	
236	160	162	64.78	10.25	64.78	-89.75	MollaPR	
237	163	164	64.78	155.75	-35.22	155.75	MollaPR	
238	163	165	64.78	155.75	64.78	255.75	MollaPR	
239	166	167	68.37	9.44	-31.63	9.44	MollaPR	
240	166	168	68.37	9.44	68.37	-90.56	MollaPR	
241	169	170	68.37	156.56	-31.63	156.56	MollaPR	
242	169	171	68.37	156.56	68.37	256.56	MollaPR	
243	172	173	72.00	8.81	-28.00	8.81	MollaPR	
244	172	174	72.00	8.81	72.00	-91.19	MollaPR	
245	175	176	72.00	157.19	-28.00	157.19	MollaPR	
246	175	177	72.00	157.19	72.00	257.19	MollaPR	
247	178	179	75.65	8.36	-24.35	8.36	MollaPR	
248	178	180	75.65	8.36	75.65	-91.64	MollaPR	
249	181	182	75.65	157.64	-24.35	157.64	MollaPR	
250	181	183	75.65	157.64	75.65	257.64	MollaPR	
251	184	185	79.32	8.09	-20.68	8.09	MollaPR	

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
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Relazione di calcolo

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252	184	186	79.32	8.09	79.32	-91.91	MollaPR
253	187	188	79.32	157.91	-20.68	157.91	MollaPR
254	187	189	79.32	157.91	79.32	257.91	MollaPR
255	190	191	83.00	8.00	183.00	8.00	MollaPR
256	190	192	83.00	8.00	83.00	-92.00	MollaPR
257	193	194	83.00	158.00	183.00	158.00	MollaPR
258	193	195	83.00	158.00	83.00	258.00	MollaPR
259	196	197	86.68	8.09	186.68	8.09	MollaPR
260	196	198	86.68	8.09	86.68	-91.91	MollaPR
261	199	200	86.68	157.91	186.68	157.91	MollaPR
262	199	201	86.68	157.91	86.68	257.91	MollaPR
263	202	203	90.35	8.36	190.35	8.36	MollaPR
264	202	204	90.35	8.36	90.35	-91.64	MollaPR
265	205	206	90.35	157.64	190.35	157.64	MollaPR
266	205	207	90.35	157.64	90.35	257.64	MollaPR
267	208	209	94.00	8.81	194.00	8.81	MollaPR
268	208	210	94.00	8.81	94.00	-91.19	MollaPR
269	211	212	94.00	157.19	194.00	157.19	MollaPR
270	211	213	94.00	157.19	94.00	257.19	MollaPR
271	214	215	97.63	9.44	197.63	9.44	MollaPR
272	214	216	97.63	9.44	97.63	-90.56	MollaPR
273	217	218	97.63	156.56	197.63	156.56	MollaPR
274	217	219	97.63	156.56	97.63	256.56	MollaPR
275	220	221	101.22	10.25	201.22	10.25	MollaPR
276	220	222	101.22	10.25	101.22	-89.75	MollaPR
277	223	224	101.22	155.75	201.22	155.75	MollaPR
278	223	225	101.22	155.75	101.22	255.75	MollaPR
279	226	227	104.77	11.23	204.77	11.23	MollaPR
280	226	228	104.77	11.23	104.77	-88.77	MollaPR
281	229	230	104.77	154.77	204.77	154.77	MollaPR
282	229	231	104.77	154.77	104.77	254.77	MollaPR
283	232	233	108.27	12.38	208.27	12.38	MollaPR
284	232	234	108.27	12.38	108.27	-87.62	MollaPR
285	235	236	108.27	153.62	208.27	153.62	MollaPR
286	235	237	108.27	153.62	108.27	253.62	MollaPR
287	238	239	111.70	13.71	211.70	13.71	MollaPR
288	238	240	111.70	13.71	111.70	-86.29	MollaPR
289	241	242	111.70	152.29	211.70	152.29	MollaPR
290	241	243	111.70	152.29	111.70	252.29	MollaPR
291	244	245	115.07	15.20	215.07	15.20	MollaPR
292	244	246	115.07	15.20	115.07	-84.80	MollaPR
293	247	248	115.07	150.80	215.07	150.80	MollaPR
294	247	249	115.07	150.80	115.07	250.80	MollaPR
295	250	251	118.35	16.86	218.35	16.86	MollaPR
296	250	252	118.35	16.86	118.35	-83.14	MollaPR
297	253	254	118.35	149.14	218.35	149.14	MollaPR
298	253	255	118.35	149.14	118.35	249.14	MollaPR
299	256	257	121.56	18.67	221.56	18.67	MollaPR
300	256	258	121.56	18.67	121.56	-81.33	MollaPR
301	259	260	121.56	147.33	221.56	147.33	MollaPR
302	259	261	121.56	147.33	121.56	247.33	MollaPR
303	262	263	124.67	20.64	224.67	20.64	MollaPR
304	262	264	124.67	20.64	124.67	-79.36	MollaPR
305	265	266	124.67	145.36	224.67	145.36	MollaPR
306	265	267	124.67	145.36	124.67	245.36	MollaPR
307	268	269	127.68	22.76	227.68	22.76	MollaPR
308	268	270	127.68	22.76	127.68	-77.24	MollaPR
309	271	272	127.68	143.24	227.68	143.24	MollaPR
310	271	273	127.68	143.24	127.68	243.24	MollaPR
311	274	275	130.58	25.02	230.58	25.02	MollaPR
312	274	276	130.58	25.02	130.58	-74.98	MollaPR
313	277	278	130.58	140.98	230.58	140.98	MollaPR
314	277	279	130.58	140.98	130.58	240.98	MollaPR
315	280	281	133.37	27.43	233.37	27.43	MollaPR
316	280	282	133.37	27.43	133.37	-72.57	MollaPR
317	283	284	133.37	138.57	233.37	138.57	MollaPR
318	283	285	133.37	138.57	133.37	238.57	MollaPR
319	286	287	136.03	29.97	236.03	29.97	MollaPR
320	286	288	136.03	29.97	136.03	-70.03	MollaPR
321	289	290	136.03	136.03	236.03	136.03	MollaPR
322	289	291	136.03	136.03	136.03	236.03	MollaPR
323	292	293	138.57	32.63	238.57	32.63	MollaPR
324	292	294	138.57	32.63	138.57	-67.37	MollaPR
325	295	296	138.57	133.37	238.57	133.37	MollaPR
326	295	297	138.57	133.37	138.57	233.37	MollaPR
327	298	299	140.98	35.42	240.98	35.42	MollaPR
328	298	300	140.98	35.42	140.98	-64.58	MollaPR
329	301	302	140.98	130.58	240.98	130.58	MollaPR
330	301	303	140.98	130.58	140.98	230.58	MollaPR
331	304	305	143.24	38.32	243.24	38.32	MollaPR
332	304	306	143.24	38.32	143.24	-61.68	MollaPR
333	307	308	143.24	127.68	243.24	127.68	MollaPR
334	307	309	143.24	127.68	143.24	227.68	MollaPR
335	310	311	145.36	41.33	245.36	41.33	MollaPR
336	310	312	145.36	41.33	145.36	-58.67	MollaPR
337	313	314	145.36	124.67	245.36	124.67	MollaPR
338	313	315	145.36	124.67	145.36	224.67	MollaPR
339	316	317	147.33	44.44	247.33	44.44	MollaPR
340	316	318	147.33	44.44	147.33	-55.56	MollaPR
341	319	320	147.33	121.56	247.33	121.56	MollaPR
342	319	321	147.33	121.56	147.33	221.56	MollaPR

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

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343	322	323	149.14	47.65	249.14	47.65	MollaPR
344	322	324	149.14	47.65	149.14	-52.35	MollaPR
345	325	326	149.14	118.35	249.14	118.35	MollaPR
346	325	327	149.14	118.35	149.14	218.35	MollaPR
347	328	329	150.80	50.93	250.80	50.93	MollaPR
348	328	330	150.80	50.93	150.80	-49.07	MollaPR
349	331	332	150.80	115.07	250.80	115.07	MollaPR
350	331	333	150.80	115.07	150.80	215.07	MollaPR
351	334	335	152.29	54.30	252.29	54.30	MollaPR
352	334	336	152.29	54.30	152.29	-45.70	MollaPR
353	337	338	152.29	111.70	252.29	111.70	MollaPR
354	337	339	152.29	111.70	152.29	211.70	MollaPR
355	340	341	153.62	57.73	253.62	57.73	MollaPR
356	340	342	153.62	57.73	153.62	-42.27	MollaPR
357	343	344	153.62	108.27	253.62	108.27	MollaPR
358	343	345	153.62	108.27	153.62	208.27	MollaPR
359	346	347	154.77	61.23	254.77	61.23	MollaPR
360	346	348	154.77	61.23	154.77	-38.77	MollaPR
361	349	350	154.77	104.77	254.77	104.77	MollaPR
362	349	351	154.77	104.77	154.77	204.77	MollaPR
363	352	353	155.75	64.78	255.75	64.78	MollaPR
364	352	354	155.75	64.78	155.75	-35.22	MollaPR
365	355	356	155.75	101.22	255.75	101.22	MollaPR
366	355	357	155.75	101.22	155.75	201.22	MollaPR
367	358	359	156.56	68.37	256.56	68.37	MollaPR
368	358	360	156.56	68.37	156.56	-31.63	MollaPR
369	361	362	156.56	97.63	256.56	97.63	MollaPR
370	361	363	156.56	97.63	156.56	197.63	MollaPR
371	364	365	157.19	72.00	257.19	72.00	MollaPR
372	364	366	157.19	72.00	157.19	-28.00	MollaPR
373	367	368	157.19	94.00	257.19	94.00	MollaPR
374	367	369	157.19	94.00	157.19	194.00	MollaPR
375	370	371	157.64	75.65	257.64	75.65	MollaPR
376	370	372	157.64	75.65	157.64	-24.35	MollaPR
377	373	374	157.64	90.35	257.64	90.35	MollaPR
378	373	375	157.64	90.35	157.64	190.35	MollaPR
379	376	377	157.91	79.32	257.91	79.32	MollaPR
380	376	378	157.91	79.32	157.91	-20.68	MollaPR
381	379	380	157.91	86.68	257.91	86.68	MollaPR
382	379	381	157.91	86.68	157.91	186.68	MollaPR
383	382	383	158.00	83.00	258.00	83.00	MollaPR
384	382	384	158.00	83.00	158.00	-17.00	MollaPR

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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7. ORIGINE E CARATTERISTICHE DEI CODICI DI CALCOLO

Nell'ambito del presente paragrafo si riporta una descrizione delle caratteristiche dei Software utilizzati per l'effettuazione delle Analisi e Verifiche strutturali e geotecniche esposte nel presente documento.

7.1 SOFTWARE PER ANALISI E VERIFICA DELLE VASCHE

Denominazione ed Estremi di Licenza del Software

Titolo SAP2000
 Versione 14
 Produttore CSI Italia Srl
 Utente TECNOSTRUTTURE S.R.L.
 Licenza 4546

7.2 SOFTWARE PER ANALISI E VERIFICA TOMBINI

Denominazione ed Estremi di Licenza del Software

Titolo SCAT - Analisi Strutture Scatolari
 Versione 11.0
 Produttore Aztec Informatica srl, Casole Bruzio (CS)
 Utente TECNOSTRUTTURE S.R.L.
 Licenza U3163LJ

Tipo di analisi svolta

L'analisi strutturale e le verifiche sono condotte con l'ausilio di un codice di calcolo automatico. La verifica della sicurezza degli elementi strutturali è stata valutata con i metodi della scienza delle costruzioni.

La struttura viene discretizzata in elementi tipo trave. Per simulare il comportamento del terreno di fondazione e di rinfianco vengono inserite delle molle alla Winkler non reagenti a trazione

L'analisi che viene effettuata è un'analisi al passo per tener conto delle molle che devono essere eliminate (molle in trazione). L'analisi fornisce i risultati in termini di spostamenti. Dagli spostamenti si risale alle sollecitazioni nodali ed alle pressioni sul terreno.

Il calcolo degli scatolari viene eseguito secondo le seguenti fasi:

- Calcolo delle pressioni in calotta (per gli scatolari ricoperti da terreno);
- Calcolo della spinta del terreno;
- Calcolo delle sollecitazioni sugli elementi strutturali (fondazione, piedritti e traverso);
- Progetto delle armature e relative verifiche dei materiali.

L'analisi strutturale sotto le azioni sismiche è condotta con il metodo dell'analisi statica equivalente

La verifica delle sezioni degli elementi strutturali è eseguita con il metodo degli Stati Limite. Le combinazioni di carico adottate sono esaustive relativamente agli scenari di carico più gravosi cui l'opera sarà soggetta.

	2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1 Tratto Fabriano - Matelica Nord Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita Relazione di calcolo							
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7.3 AFFIDABILITÀ E CONTROLLO DEI RISULTATI

Affidabilità dei codici di calcolo

Un attento esame preliminare della documentazione a corredo dei software impiegati ha consentito di valutarne l'affidabilità. La documentazione fornita dal produttore dei software contiene un'esauriente descrizione delle basi teoriche, degli algoritmi impiegati e l'individuazione dei campi d'impiego. Le stesse società produttrici hanno verificato l'affidabilità e la robustezza dei codice di calcolo attraverso un numero significativo di casi prova in cui i risultati sono contenuti in apposita documentazione fornita a corredo dell'acquisto del prodotto, che per brevità espositiva si omette di allegare al presente documento.

Giudizio motivato di accettabilità dei risultati

I risultati delle elaborazioni esposte nel documento sono state inoltre sottoposte a controlli dal sottoscritto utente del software.

Tale valutazione ha compreso il confronto con i risultati di semplici calcoli, eseguiti con metodi tradizionali, che per brevità espositiva si omette dall'allegare al presente documento.

Inoltre sulla base di considerazioni riguardanti gli stati tensionali e deformativi determinati, si è valutata la validità delle scelte operate in sede di schematizzazione e di modellazione della struttura e delle azioni.

In base a quanto sopra, Il Progettista dichiara pertanto che l'elaborazione è corretta ed idonea al caso specifico, validando conseguentemente i risultati dei calcoli esposti nella presente

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ALLEGATO 1 : TABULATI DI CALCOLO DEL POZZETTO

TABLE: Element Forces - Area Shells

Area Text	Joint Text	OutputCase Text	StepType Text	F11 KN/m	F22 KN/m	F12 KN/m	M11 KN-m/m	M22 KN-m/m	M12 KN-m/m	V13 KN/m	V23 KN/m
1	41	SLE-INV	Max	-1.82	-0.36	-1.22	0.4194	-0.0705	0.0976	4.9	-0.15
1	1	SLE-INV	Max	-2.48E-11	2.249E-10	1.988E-11	0.2386	0.2393	-0.0627	-0.15	-0.15
1	2	SLE-INV	Max	-0.67	-3.37	-0.9	-0.0777	0.39	0.0975	-0.15	4.58
1	42	SLE-INV	Max	-2.49	-3.74	-2.12	0.0658	0.0412	0.2927	4.9	4.58
1	41	SLE-INV	Min	-1.82	-0.36	-1.22	0.2719	-0.1077	0.0612	3.26	-0.24
1	1	SLE-INV	Min	-2.48E-11	2.249E-10	1.988E-11	0.1599	0.1569	-0.0976	-0.22	-0.24
1	2	SLE-INV	Min	-0.67	-3.37	-0.9	-0.1128	0.2542	0.0642	-0.22	3.05
1	42	SLE-INV	Min	-2.49	-3.74	-2.12	0.0417	0.0183	0.188	3.26	3.05
1	41	SLE-INV	Max	-1.82	-0.36	-1.22	0.757	-0.0952	0.1806	8.69	-0.21
1	1	SLE-INV	Max	-2.48E-11	3.036E-10	2.684E-11	0.4195	0.4284	-0.0846	-0.2	-0.21
1	2	SLE-INV	Max	-0.67	-3.37	-0.9	-0.1048	0.7008	0.1739	-0.2	8.11
1	42	SLE-INV	Max	-2.49	-3.74	-2.12	0.1202	0.0927	0.5318	8.69	8.11
1	41	SLE-INV	Min	-2.45	-0.49	-1.64	0.367	-0.1931	0.0826	4.4	-0.43
1	1	SLE-INV	Min	-3.348E-11	2.249E-10	1.988E-11	0.2158	0.2118	-0.1773	-0.249	-0.43
1	2	SLE-INV	Min	-0.91	-4.55	-1.22	-0.1936	0.3432	0.0866	-0.39	4.11
1	42	SLE-INV	Min	-3.36	-5.04	-2.86	0.0563	0.0248	0.2539	4.4	4.11
2	2	SLE-INV	Max	-0.67	-3.37	-0.9	0.3187	0.7435	-0.0304	-0.13	4.25
2	3	SLE-INV	Max	-1.05	-5.26	-0.86	0.0876	1.2879	0.0666	-0.13	7.4
2	43	SLE-INV	Max	-1.65	-5.38	-1.49	0.0761	0.3464	0.581	3.15	7.4
2	42	SLE-INV	Max	-1.28	-3.49	-1.54	0.2898	-0.1272	0.451	3.15	4.25
2	2	SLE-INV	Min	-0.67	-3.37	-0.9	0.2037	0.4785	-0.0634	-0.2	2.84
2	3	SLE-INV	Min	-1.05	-5.26	-0.86	0.054	0.8103	0.0337	-0.2	4.83
2	43	SLE-INV	Min	-1.65	-5.38	-1.49	0.0225	0.1877	0.3451	1.99	4.83
2	42	SLE-INV	Min	-1.28	-3.49	-1.54	0.1535	-0.1812	0.2811	1.99	2.84
2	2	SLE-INV	Max	-0.67	-3.37	-0.9	0.5827	1.3513	-0.041	-0.17	7.49
2	3	SLE-INV	Max	-1.05	-5.26	-0.86	0.1641	2.3828	0.1427	-0.17	13.31
2	43	SLE-INV	Max	-1.65	-5.38	-1.49	0.1995	0.7089	1.1222	5.82	13.31
2	42	SLE-INV	Max	-1.28	-3.49	-1.54	0.6031	-0.1718	0.84	5.82	7.49
2	2	SLE-INV	Min	-0.91	-4.55	-1.22	0.275	0.6459	-0.1396	-0.36	3.84
2	3	SLE-INV	Min	-1.42	-7.09	-1.16	0.073	1.094	0.0455	-0.36	6.52
2	43	SLE-INV	Min	-2.23	-7.26	-2.02	0.0304	0.2534	0.4659	2.69	6.52
2	42	SLE-INV	Min	-1.73	-4.72	-2.08	0.2073	-0.3059	0.3795	2.69	3.84
3	3	SLE-INV	Max	-1.05	-5.26	-0.86	0.4719	1.5363	-0.0094	-0.12	7.19
3	4	SLE-INV	Max	-1.32	-6.59	-0.88	0.2979	2.313	0.0346	-0.12	9.52
3	44	SLE-INV	Max	-1.47	-6.62	-1.59	0.1284	0.9603	0.7375	2.28	9.52
3	43	SLE-INV	Max	-1.2	-5.29	-1.57	0.2687	0.2134	0.6743	2.28	7.19
3	3	SLE-INV	Min	-1.05	-5.26	-0.86	0.2909	0.9612	-0.0286	-0.19	4.7
3	4	SLE-INV	Min	-1.32	-6.59	-0.88	0.1816	1.4013	0.014	-0.19	6.12
3	44	SLE-INV	Min	-1.47	-6.62	-1.59	0.0521	0.5232	0.4107	1.39	6.12
3	43	SLE-INV	Min	-1.2	-5.29	-1.57	0.1343	0.1066	0.3873	1.39	4.7
3	3	SLE-INV	Max	-1.05	-5.26	-0.86	0.8879	2.8553	-0.0126	-0.16	12.91
3	4	SLE-INV	Max	-1.32	-6.59	-0.88	0.5644	4.4061	0.0823	-0.16	17.33
3	44	SLE-INV	Max	-1.47	-6.62	-1.59	0.3051	1.9628	1.4897	4.33	17.33
3	43	SLE-INV	Max	-1.2	-5.29	-1.57	0.5785	0.4569	1.3339	4.33	12.91
3	3	SLE-INV	Min	-1.42	-7.09	-1.16	0.3927	1.2976	-0.0734	-0.37	6.35
3	4	SLE-INV	Min	-1.78	-8.9	-1.19	0.2452	1.8918	0.0189	-0.37	8.26
3	44	SLE-INV	Min	-1.98	-8.94	-2.14	0.0703	0.7064	0.5544	1.87	8.26
3	43	SLE-INV	Min	-1.62	-7.13	-2.12	0.1813	0.1439	0.5228	1.87	6.35
4	4	SLE-INV	Max	-1.32	-6.59	-0.88	0.6601	2.5053	0.0019	-0.11	9.37
4	5	SLE-INV	Max	-1.53	-7.63	-0.82	0.5182	3.3865	0.0148	-0.11	11.18
4	45	SLE-INV	Max	-1.46	-7.62	-1.47	0.2416	1.7196	0.7973	1.74	11.18
4	44	SLE-INV	Max	-1.25	-6.58	-1.53	0.3333	0.8814	0.7764	1.74	9.37
4	4	SLE-INV	Min	-1.32	-6.59	-0.88	0.3935	1.5135	-0.0061	-0.19	6.03
4	5	SLE-INV	Min	-1.53	-7.63	-0.82	0.3069	1.9885	0.004	-0.19	7.1
4	45	SLE-INV	Min	-1.46	-7.62	-1.47	0.1169	0.9225	0.4242	1.03	7.1
4	44	SLE-INV	Min	-1.25	-6.58	-1.53	0.1691	0.4768	0.4222	1.03	6.03
4	4	SLE-INV	Max	-1.32	-6.59	-0.88	1.2733	4.7828	0.0026	-0.14	17.04
4	5	SLE-INV	Max	-1.53	-7.63	-0.82	1.0034	6.6007	0.0403	-0.14	20.57
4	45	SLE-INV	Max	-1.46	-7.62	-1.47	0.5296	3.5519	1.6581	3.38	20.57
4	44	SLE-INV	Max	-1.25	-6.58	-1.53	0.7121	1.8093	1.5927	3.38	17.04
4	4	SLE-INV	Min	-1.78	-8.9	-1.19	0.5312	2.0432	-0.0251	-0.37	8.14
4	5	SLE-INV	Min	-2.04	-10.3	-1.11	0.4144	2.6845	0.0054	-0.37	9.58
4	45	SLE-INV	Min	-1.97	-10.28	-1.99	0.1578	1.2454	0.5727	1.39	9.58
4	44	SLE-INV	Min	-1.69	-8.88	-2.07	0.2282	0.6437	0.5699	1.39	8.14
5	5	SLE-INV	Max	-1.53	-7.63	-0.82	0.8585	3.5404	0.0069	-0.09738	11.08
5	6	SLE-INV	Max	-1.69	-8.46	-0.75	0.7397	4.4505	0.0043	-0.09738	12.53
5	46	SLE-INV	Max	-1.51	-8.42	-1.35	0.3899	2.5358	0.8047	1.37	12.53
5	45	SLE-INV	Max	-1.34	-7.59	-1.42	0.4501	1.6754	0.8061	1.37	11.08
5	5	SLE-INV	Min	-1.53	-7.63	-0.82	0.4978	2.0752	0.0057	-0.18	7.04
5	6	SLE-INV	Min	-1.69	-8.46	-0.75	0.4269	2.5485	-0.0004954	-0.18	7.88
5	46	SLE-INV	Min	-1.51	-8.42	-1.35	0.1978	1.3383	0.4141	0.79	7.88
5	45	SLE-INV	Min	-1.34	-7.59	-1.42	0.2312	0.8968	0.4215	0.79	7.04
5	5	SLE-INV	Max	-1.53	-7.63	-0.82	1.6888	6.9093	0.0093	-0.13	20.36
5	6	SLE-INV	Max	-1.69	-8.46	-0.75	1.459	8.8294	0.0161	-0.13	23.23
5	46	SLE-INV	Max	-1.51	-8.42	-1.35	0.8338	5.2934	1.708	2.69	23.23
5	45	SLE-INV	Max	-1.34	-7.59	-1.42	0.9553	3.4655	1.6945	2.69	20.36
5	5	SLE-INV	Min	-2.06	-10.3	-1.11	0.6721	2.8015	0.0025	-0.36	9.51
5	6	SLE-INV	Min	-2.28	-11.42	-1.01	0.5763	3.4404	-0.0006688	-0.36	10.63
5	46	SLE-INV	Min	-2.04	-11.37	-1.82	0.2671	1.8067	0.559	1.07	10.63
5	45	SLE-INV	Min	-1.81	-10.25	-1.92	0.3122	1.2107	0.569	1.07	9.51
6	7	SLE-INV	Max	-1.83	-9.13	-0.75	1.0554	4.5742	0.0162	-0.0888	12.46
6	6	SLE-INV	Max	-1.83	-9.13	-0.66	0.9523	5.4643	-0.0041	-0.0888	13.64
6	47	SLE-INV	Max	-1.58	-9.08	-1.2	0.5414	3.3469	0.7715	1.09	13.64
6	46	SLE-INV	Max	-1.45	-8.41	-1.28	0.5782	2.5128	0.7927	1.09	12.46
6	6	SLE-INV	Min	-1.69	-8.46	-0.75	0.5986	2.6163	0.011	-0.17	7.84
6	7	SLE-INV	Min	-1.83	-9.13	-0.66	0.5382	3.0676	-0.0049	-0.17	8.51
6	47	SLE-INV	Min	-1.58	-9.08	-1.2	0.2779	1.7421	0.3879	0.62	8.51
6	46	SLE-INV	Min	-1.45	-8.41	-1.28	0.2981	1.3248	0.403	0.62	7.84
6	6	SLE-INV	Max	-1.69	-8.46	-0.75	2.1085	9.0819	0.028	-0.12	23.09
6	7	SLE-INV	Max	-1.83	-9.13	-0.66	1.9058	10.9894	-0.0055	-0.12	25.46
6	47	SLE-INV	Max	-1.58	-9.08	-1.2	1.1505	7.0483	1.661	2.19	25.46
6	46	SLE-INV	Max	-1.45	-8.41	-1.28	1.2251	5.249	1.6951	2.19	23.09
6	6	SLE-INV	Min	-2.28	-11.42	-1.01	0.8081	3.532	0.0148	-0.34	10.58
6	7	SLE-INV	Min	-2.47	-12.33	-0.89	0.7266	4.1412	-0.0068	-0.34	11.48
6	47	SLE-INV	Min	-2.13	-12.26	-1.61	0.3752	2.3519	0.5237	0.84	11.48
7	46	SLE-INV	Min	-1.95	-11.35	-1.73	0.4024	1.7885	0.544	0.84	10.58
7	7	SLE-INV	Max	-1.83	-9.13	-0.66	1.2419	5.5658	0.0192	-0.07998	13.59
7	8	SLE-INV	Max	-1.94	-9.68	-0.57	1.1525	6.4061	-0.0047	-0.07998	14.57



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 110 di 174			
7	48	SLE-INV	Max	-1.66	-9.62	-1.03	0.7021	4.123	0.7216	0.89	14.57
7	47	SLE-INV	Max	-1.55	-9.08	-1.12	0.7237	3.3397	0.7485	0.89	13.59
7	7	SLE-INV	Min	-1.83	-9.13	-0.66	0.6921	3.122	0.0115	-0.15	8.48
7	8	SLE-INV	Min	-1.94	-9.68	-0.57	0.6404	3.5405	-0.0077	-0.15	9.03
7	47	SLE-INV	Min	-1.66	-9.62	-1.03	0.3598	2.1221	0.3569	0.5	9.03
7	47	SLE-INV	Max	-1.55	-9.08	-1.12	0.3716	1.7372	0.3732	0.5	8.48
7	7	SLU-INV	Max	-1.83	-9.13	-0.66	2.511	11.1999	0.0364	-0.11	25.36
7	8	SLU-INV	Max	-1.94	-9.68	-0.57	2.3332	13.0211	-0.0064	-0.11	27.35
7	48	SLU-INV	Max	-1.66	-9.62	-1.03	1.4941	8.7449	1.5702	1.79	27.35
7	47	SLU-INV	Max	-1.55	-9.08	-1.12	1.538	7.0363	1.6202	1.79	25.36
7	7	SLU-INV	Min	-2.47	-12.33	-0.89	0.9344	4.2147	0.0156	-0.32	11.45
7	8	SLU-INV	Min	-2.61	-13.06	-0.77	0.8645	4.7797	-0.0136	-0.32	12.19
7	48	SLU-INV	Min	-2.24	-12.99	-1.39	0.4858	2.8648	0.4818	0.68	12.19
7	47	SLU-INV	Min	-2.1	-12.25	-1.52	0.5016	2.3452	0.5038	0.68	11.45
8	8	SLE-INV	Max	-1.94	-9.68	-0.57	1.4146	6.4883	0.0238	-0.07184	14.54
8	9	SLE-INV	Max	-2.02	-10.11	-0.48	1.3354	7.2618	-0.0062	-0.07184	15.35
8	49	SLE-INV	Max	-1.74	-10.06	-0.87	0.8466	4.8396	0.6556	0.73	15.35
8	48	SLE-INV	Max	-1.65	-9.62	-0.96	0.8566	4.1242	0.6914	0.73	14.54
8	8	SLE-INV	Min	-1.94	-9.68	-0.57	0.7775	3.5839	0.013	-0.14	9.01
8	9	SLE-INV	Min	-2.02	-10.11	-0.48	0.7322	3.9646	-0.012	-0.14	9.46
8	49	SLE-INV	Min	-1.74	-10.06	-0.87	0.4324	2.4691	0.3209	0.41	9.46
8	48	SLE-INV	Min	-1.65	-9.62	-0.96	0.4379	2.1217	0.3401	0.41	9.01
8	9	SLU-INV	Max	-1.94	-9.68	-0.57	2.8871	13.1931	0.0482	-0.09698	27.28
8	9	SLU-INV	Max	-2.02	-10.11	-0.48	2.7282	14.8833	-0.0084	-0.09698	28.95
8	49	SLU-INV	Max	-1.74	-10.06	-0.87	1.8063	10.3234	1.4374	1.48	28.95
8	48	SLU-INV	Max	-1.65	-9.62	-0.96	1.8261	8.75	1.5103	1.48	27.28
8	8	SLU-INV	Min	-2.61	-13.06	-0.77	1.0496	4.8383	0.0175	-0.29	12.16
8	9	SLU-INV	Min	-2.73	-13.65	-0.65	0.9885	5.3523	-0.0246	-0.29	12.77
8	49	SLU-INV	Min	-2.35	-13.58	-1.17	0.5837	3.3332	0.4332	0.55	12.77
8	48	SLU-INV	Min	-2.23	-12.99	-1.29	0.5912	2.8643	0.4592	0.55	12.16
9	9	SLE-INV	Max	-2.02	-10.11	-0.48	1.5702	7.3297	0.023	-0.06376	15.33
9	10	SLE-INV	Max	-2.09	-10.46	-0.39	1.5011	8.0268	-0.0057	-0.06376	16.02
9	50	SLE-INV	Max	-1.82	-10.41	-0.71	0.9887	5.4893	0.5878	0.6	16.02
9	49	SLE-INV	Max	-1.75	-10.06	-0.8	0.9919	4.8477	0.6226	0.6	15.33
9	9	SLE-INV	Min	-2.02	-10.11	-0.48	0.8538	4.0001	0.0121	-0.12	9.45
9	10	SLE-INV	Min	-2.09	-10.46	-0.39	0.8144	4.3409	-0.0118	-0.12	9.83
9	50	SLE-INV	Min	-1.82	-10.41	-0.71	0.5023	2.7816	0.286	0.34	9.83
9	49	SLE-INV	Min	-1.75	-10.06	-0.8	0.5041	2.4723	0.3039	0.34	9.45
9	9	SLU-INV	Max	-2.02	-10.11	-0.48	3.2286	15.0269	0.0476	-0.08608	28.9
9	10	SLU-INV	Max	-2.09	-10.46	-0.39	3.0989	16.5596	-0.0077	-0.08608	30.31
9	50	SLU-INV	Max	-1.82	-10.41	-0.71	2.1174	11.7632	1.2965	1.23	30.31
9	49	SLU-INV	Max	-1.75	-10.06	-0.8	2.1228	10.3432	1.3689	1.23	28.9
9	9	SLU-INV	Min	-2.73	-13.65	-0.65	1.1527	5.4001	0.0163	-0.26	12.76
9	10	SLU-INV	Min	-2.82	-14.12	-0.53	1.0994	5.8603	-0.0248	-0.26	13.27
9	50	SLU-INV	Min	-2.46	-14.05	-0.96	0.6781	3.7551	0.3861	0.46	13.27
9	49	SLU-INV	Min	-2.37	-13.58	-1.08	0.6806	3.3376	0.4102	0.46	12.76
10	10	SLE-INV	Max	-2.09	-10.46	-0.39	1.7087	8.0816	0.0244	-0.05645	16
10	11	SLE-INV	Max	-2.15	-10.73	-0.32	1.6476	8.6996	-0.0063	-0.05645	16.58
10	51	SLE-INV	Max	-1.9	-10.68	-0.57	1.11	6.0647	0.5157	0.5	16.58
10	50	SLE-INV	Max	-1.84	-10.41	-0.65	1.1079	5.4998	0.5538	0.5	16
10	10	SLE-INV	Min	-2.09	-10.46	-0.39	0.9215	4.3694	0.0123	-0.11	9.82
10	11	SLE-INV	Min	-2.15	-10.73	-0.32	0.8866	4.671	-0.0136	-0.11	10.14
10	51	SLE-INV	Min	-1.9	-10.68	-0.57	0.5618	3.0577	0.2507	0.28	10.14
10	50	SLE-INV	Min	-1.84	-10.41	-0.65	0.5608	2.7862	0.2693	0.28	9.82
10	10	SLU-INV	Max	-2.09	-10.46	-0.39	3.534	16.6763	0.0517	-0.0762	30.28
10	11	SLU-INV	Max	-2.15	-10.73	-0.32	3.4095	18.0414	-0.0085	-0.0762	31.46
10	51	SLU-INV	Max	-1.9	-10.68	-0.57	2.3842	13.0438	1.1424	1.02	31.46
10	50	SLU-INV	Max	-1.84	-10.41	-0.65	2.3784	11.7878	1.0238	1.02	30.28
10	10	SLU-INV	Min	-2.82	-14.12	-0.53	1.244	5.8988	0.0166	-0.24	13.26
10	11	SLU-INV	Min	-2.9	-14.49	-0.43	1.1969	6.3058	-0.0296	-0.24	13.69
10	51	SLU-INV	Min	-2.56	-14.42	-0.77	0.7584	4.1279	0.3384	0.38	13.69
10	50	SLU-INV	Min	-2.49	-14.05	-0.88	0.7571	3.7614	0.3635	0.38	13.26
11	11	SLE-INV	Max	-2.15	-10.73	-0.32	1.8294	8.7449	0.0223	-0.04941	16.57
11	12	SLE-INV	Max	-2.19	-10.95	-0.24	1.7763	9.2835	-0.0055	-0.04941	17.05
11	52	SLE-INV	Max	-1.97	-10.9	-0.45	1.2235	6.5675	0.4476	0.42	17.05
11	51	SLE-INV	Max	-1.93	-10.69	-0.52	1.2188	6.0774	0.4824	0.42	16.57
11	11	SLE-INV	Min	-2.15	-10.73	-0.32	0.9805	4.6945	0.0111	-0.09533	10.14
11	12	SLE-INV	Min	-2.19	-10.95	-0.24	0.95	4.9579	-0.0125	-0.09533	10.41
11	52	SLE-INV	Min	-1.97	-10.9	-0.45	0.6169	3.2995	0.2183	0.24	10.41
11	51	SLE-INV	Min	-1.93	-10.69	-0.52	0.6146	3.0636	0.2349	0.24	10.14
11	11	SLU-INV	Max	-2.15	-10.73	-0.32	3.8014	18.1384	0.0477	-0.0667	31.45
11	12	SLU-INV	Max	-2.19	-10.95	-0.24	3.6927	19.3323	-0.0074	-0.0667	32.44
11	52	SLU-INV	Max	-1.97	-10.9	-0.45	2.6358	14.167	0.995	0.85	32.44
11	51	SLU-INV	Max	-1.93	-10.69	-0.52	2.6247	13.0733	1.0701	0.85	31.45
11	11	SLU-INV	Min	-2.9	-14.49	-0.43	1.3237	6.3376	0.0149	-0.21	13.69
11	12	SLU-INV	Min	-2.96	-14.78	-0.33	1.2825	6.6932	-0.0274	-0.21	14.05
11	52	SLU-INV	Min	-2.66	-14.72	-0.6	0.8329	4.4543	0.2947	0.32	14.05
11	51	SLU-INV	Min	-2.6	-14.43	-0.7	0.8298	4.1358	0.317	0.32	13.69
12	12	SLE-INV	Max	-2.19	-10.95	-0.24	1.9334	9.3199	0.0221	-0.04312	17.05
12	13	SLE-INV	Max	-2.22	-11.11	-0.19	1.887	9.7821	-0.0056	-0.04312	17.45
12	53	SLE-INV	Max	-2.03	-11.07	-0.34	1.3173	6.9977	0.3804	0.35	17.45
12	52	SLE-INV	Max	-2	-10.91	-0.4	1.3107	6.5799	0.4156	0.35	17.05
12	12	SLU-INV	Min	-2.19	-10.95	-0.24	1.0317	4.977	0.0107	-0.08241	10.4
12	13	SLU-INV	Min	-2.22	-11.11	-0.19	1.0047	5.2048	-0.0131	-0.08241	10.63
12	53	SLU-INV	Min	-2.03	-11.07	-0.34	0.6628	3.5078	0.1872	0.2	10.63
12	52	SLU-INV	Min	-2	-10.91	-0.4	0.6596	3.3053	0.2035	0.2	10.4
12	12	SLU-INV	Max	-2.19	-10.95	-0.24	4.0325	19.4105	0.0478	-0.05821	32.44
12	13	SLU-INV	Max	-2.22	-11.11	-0.19	3.9372	20.438	-0.0076	-0.05821	33.28
12	53	SLU-INV	Max	-2.03	-11.07	-0.34	2.8441	15.1308	0.8478	0.71	33.28
12	52	SLU-INV	Max	-2	-10.91	-0.4	2.8292	14.1955	0.9247	0.71	32.44
12	12	SLU-INV	Min	-2.96	-14.78	-0.33	1.3927	6.7189	0.0144	-0.18	14.05
12	13	SLU-INV	Min	-3	-15	-0.25	1.3563	7.0265	-0.0291	-0.18	14.36
12	53	SLU-INV	Min	-2.74	-14.94	-0.46	0.8948	4.7356	0.2528	0.27	14.36
12	52	SLU-INV	Min	-2.7	-14.72	-0.54	0.8904	4.4621	0.2748	0.27	14.05
13	13	SLE-INV	Max	-2.22	-11.11	-0.19	2.0212	9.8121	0.0198	-0.03719	17.45
13	14	SLE-INV	Max	-2.25	-11.23	-0.14	1.9814	10.2011	-0.0049	-0.03719	17.79
13	54	SLE-INV	Max	-2.08	-11.2	-0.25	1.4009	7.3602	0.3185	0.29	17.79
13	53	SLE-INV	Max	-2.06	-11.08	-0.3	1.3942	7.01	0.3503	0.29	17.45
13	13	SLU-INV	Min	-2.22	-11.11	-0.19	1.0754	5.2207	0.0095	-0.06982	10.63
13	14	SLU-INV	Min	-2.25	-11.23	-0.14	1.0518	5.4153	-0.012	-0.06982	10.83
13	54	SLU-INV	Min	-2.08	-11.2	-0.25	0.7039	3.6857	0.1594	0.17	10.83
13	53	SLU-INV	Min	-2.06	-11.08	-0.3	0.7005	3.5137	0.1738	0.17	10.63
13	13	SLU-INV	Max	-2.22	-11.11	-0.19	4.228	20.5024	0.0431	-0.05021	33.28
13	14	SLU-INV	Max	-2.25	-11.23	-0.14	4.1463	21.369	-0.0066	-0.05021	33.97
13	54	SLU-INV	Max	-2.08	-11.2	-0.25	3.0309	15.9446	0.7113	0.59	33.97
13	53	SLU-INV	Max	-2.06	-11.08						

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
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Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 111 di 174
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14	15	SLE-INV	Max	-2.27	-11.33	-0.09544	2.0601	10.5457	-0.0048	-0.03195	18.07
14	55	SLE-INV	Max	-2.13	-11.3	-0.17	1.4678	7.6575	0.2595	0.24	18.07
14	54	SLE-INV	Max	-2.11	-11.2	-0.21	1.4612	7.3709	0.2905	0.24	17.79
14	14	SLE-INV	Min	-2.25	-11.23	-0.14	1.1125	5.4284	0.0089	-0.05834	10.83
14	15	SLE-INV	Min	-2.27	-11.33	-0.09544	1.0917	5.5927	-0.012	-0.05834	11
14	55	SLE-INV	Min	-2.13	-11.3	-0.17	0.7375	3.835	0.1334	0.15	11.1
14	54	SLE-INV	Min	-2.11	-11.2	-0.21	0.7341	3.6909	0.1471	0.15	10.83
14	14	SLU-INV	Max	-2.25	-11.23	-0.14	4.3905	21.4204	0.0414	-0.04313	33.98
14	15	SLU-INV	Max	-2.27	-11.33	-0.09544	4.3207	22.1354	-0.0065	-0.04313	34.56
14	55	SLU-INV	Max	-2.13	-11.3	-0.17	3.1803	16.6131	0.5801	0.49	34.56
14	54	SLU-INV	Max	-2.11	-11.2	-0.21	3.1655	15.9689	0.6486	0.49	33.98
14	14	SLU-INV	Min	-3.03	-15.16	-0.18	1.5019	7.3283	0.012	-0.13	14.62
14	15	SLU-INV	Min	-3.06	-15.29	-0.13	1.4738	7.5501	-0.0271	-0.13	14.85
14	55	SLU-INV	Min	-2.88	-15.25	-0.24	0.9957	5.1772	0.1801	0.2	14.85
14	54	SLU-INV	Min	-2.85	-15.13	-0.29	0.9911	4.9827	0.1986	0.2	14.62
15	15	SLE-INV	Max	-2.27	-11.33	-0.09544	2.1528	10.5651	0.017	-0.02706	18.07
15	16	SLE-INV	Max	-2.28	-11.4	-0.06095	2.1245	10.8212	-0.0043	-0.02706	18.3
15	56	SLE-INV	Max	-2.17	-11.38	-0.11	1.524	7.8947	0.2052	0.2	18.3
15	55	SLE-INV	Max	-2.15	-11.3	-0.15	1.5185	7.6668	0.2335	0.2	18.07
15	15	SLE-INV	Min	-2.27	-11.33	-0.09544	1.1434	5.6037	0.0079	-0.0473	11
15	16	SLE-INV	Min	-2.28	-11.4	-0.06095	1.1253	5.7402	-0.0113	-0.0473	11.15
15	56	SLE-INV	Min	-2.17	-11.38	-0.11	0.7664	3.9585	0.1102	0.13	11.15
15	55	SLE-INV	Min	-2.15	-11.3	-0.15	0.7635	3.8396	0.1224	0.13	11
15	15	SLU-INV	Max	-2.27	-11.33	-0.09544	4.5214	22.1777	0.0374	-0.03654	34.56
15	16	SLU-INV	Max	-2.28	-11.4	-0.06095	4.4635	22.7479	-0.0058	-0.03654	35.04
15	56	SLU-INV	Max	-2.17	-11.38	-0.11	3.3061	17.1465	0.4584	0.4	35.04
15	55	SLU-INV	Max	-2.15	-11.3	-0.15	3.2937	16.6343	0.5214	0.4	34.56
15	15	SLU-INV	Min	-3.06	-15.29	-0.13	1.5436	7.565	0.0106	-0.1	14.85
15	16	SLU-INV	Min	-3.08	-15.39	-0.08229	1.5192	7.7492	-0.0256	-0.1	15.05
15	56	SLU-INV	Min	-2.93	-15.36	-0.15	1.0346	5.344	0.1488	0.17	15.05
15	55	SLU-INV	Min	-2.91	-15.26	-0.2	1.0307	5.1834	0.1653	0.17	14.85
16	16	SLE-INV	Max	-2.28	-11.4	-0.06095	2.1986	10.8365	0.0158	-0.02277	18.31
16	17	SLE-INV	Max	-2.29	-11.45	-0.03382	2.1753	11.0325	-0.0041	-0.02277	18.49
16	57	SLE-INV	Max	-2.2	-11.43	-0.06346	1.5666	8.0748	0.154	0.16	18.49
16	56	SLE-INV	Max	-2.19	-11.38	-0.09059	1.5622	7.9019	0.181	0.16	18.31
16	16	SLE-INV	Min	-2.28	-11.4	-0.06095	1.169	5.7494	0.0072	-0.03721	11.15
16	17	SLE-INV	Min	-2.29	-11.45	-0.03382	1.1531	5.8607	-0.0112	-0.03721	11.27
16	57	SLE-INV	Min	-2.2	-11.43	-0.06346	0.7895	4.0582	0.089	0.11	11.27
16	56	SLE-INV	Min	-2.19	-11.38	-0.09059	0.7872	3.9621	0.1003	0.11	11.15
16	16	SLU-INV	Max	-2.28	-11.4	-0.06095	4.6234	22.7905	0.0352	-0.03073	35.04
16	17	SLU-INV	Max	-2.29	-11.45	-0.03382	4.576	23.2162	-0.0056	-0.03073	35.43
16	57	SLU-INV	Max	-2.2	-11.43	-0.06346	3.401	17.5507	0.3428	0.33	35.43
16	56	SLU-INV	Max	-2.19	-11.38	-0.09059	3.3913	17.1628	0.4034	0.33	35.04
16	16	SLU-INV	Min	-3.08	-15.39	-0.08229	1.5781	7.7617	0.0097	-0.08	15.05
16	17	SLU-INV	Min	-3.09	-15.46	-0.04566	1.5566	7.912	-0.0255	-0.08	15.22
16	57	SLU-INV	Min	-2.97	-15.44	-0.08567	1.0658	5.4786	0.1201	0.15	15.22
16	56	SLU-INV	Min	-2.95	-15.36	-0.12	1.0627	5.3489	0.1354	0.15	15.05
17	17	SLE-INV	Max	-2.29	-11.45	-0.03382	2.232	11.0446	0.0145	-0.01877	18.49
17	18	SLE-INV	Max	-2.3	-11.5	-0.01011	2.2137	11.1836	-0.0039	-0.01877	18.65
17	58	SLE-INV	Max	-2.22	-11.48	-0.02156	1.5981	8.2015	0.1059	0.13	18.65
17	57	SLE-INV	Max	-2.21	-11.44	-0.04528	1.5956	8.0798	0.1314	0.13	18.49
17	17	SLE-INV	Min	-2.29	-11.45	-0.03382	1.1895	5.8688	0.0064	-0.02746	11.27
17	18	SLE-INV	Min	-2.3	-11.5	-0.01011	1.1757	5.9569	-0.011	-0.02746	11.39
17	58	SLE-INV	Min	-2.22	-11.48	-0.02156	0.8079	4.1363	0.0697	0.1	11.39
17	57	SLE-INV	Min	-2.21	-11.44	-0.04528	0.8066	4.0609	0.0801	0.1	11.27
17	17	SLU-INV	Max	-2.29	-11.45	-0.03382	4.6973	23.2417	0.0323	-0.02534	35.43
17	18	SLU-INV	Max	-2.3	-11.5	-0.01011	4.6606	23.5481	-0.0053	-0.02534	35.73
17	58	SLU-INV	Max	-2.22	-11.48	-0.02156	3.312	17.3333	0.2374	0.27	35.73
17	57	SLU-INV	Max	-2.21	-11.44	-0.04528	3.4656	17.5623	0.2909	0.27	35.43
17	17	SLU-INV	Min	-3.09	-15.46	-0.04566	1.6058	7.9229	0.0087	-0.05831	15.22
17	18	SLU-INV	Min	-3.1	-15.52	-0.01365	1.5871	8.0419	-0.0252	-0.05831	15.37
17	58	SLU-INV	Min	-3	-15.5	-0.02911	1.0907	5.5841	0.0941	0.14	15.37
17	57	SLU-INV	Min	-2.99	-15.44	-0.06113	1.0889	5.4822	0.1081	0.14	15.22
18	18	SLE-INV	Max	-2.3	-11.5	-0.01011	2.2541	11.1929	0.0133	-0.01528	18.65
18	19	SLE-INV	Max	-2.31	-11.53	0.01081	2.2401	11.2781	-0.0037	-0.01528	18.76
18	59	SLE-INV	Max	-2.24	-11.52	0.01452	1.6188	8.2772	0.0604	0.11	18.76
18	58	SLE-INV	Max	-2.23	-11.48	-0.006401	1.6182	8.2042	0.0846	0.11	18.65
18	18	SLE-INV	Min	-2.3	-11.5	-0.01011	1.2056	5.9642	0.0058	-0.01847	11.39
18	19	SLE-INV	Min	-2.31	-11.53	0.01081	1.1934	6.0312	-0.0109	-0.01847	11.49
18	59	SLE-INV	Min	-2.24	-11.52	0.01452	0.822	4.1945	0.0522	0.09432	11.49
18	58	SLE-INV	Min	-2.23	-11.48	-0.006401	0.8218	4.1379	0.0616	0.09432	11.39
18	18	SLU-INV	Max	-2.3	-11.5	-0.01011	4.7454	23.5674	0.0301	-0.02062	35.73
18	19	SLU-INV	Max	-2.31	-11.53	0.0146	4.7182	23.7505	-0.005	-0.02062	35.96
18	59	SLU-INV	Max	-2.24	-11.52	0.0196	3.5163	17.9986	0.1286	0.21	35.96
18	58	SLU-INV	Max	-2.23	-11.48	-0.006401	3.5147	17.8396	0.1839	0.21	35.73
18	18	SLU-INV	Min	-3.1	-15.52	-0.01365	1.6276	8.0516	0.0078	-0.03805	15.37
18	19	SLU-INV	Min	-3.11	-15.57	0.01081	1.6112	8.1421	-0.0252	-0.03805	15.51
18	59	SLU-INV	Min	-3.02	-15.55	0.01452	1.1097	5.6626	0.0704	0.13	15.51
18	58	SLU-INV	Min	-3.01	-15.5	-0.008641	1.1094	5.5861	0.0832	0.13	15.37
19	19	SLE-INV	Max	-2.31	-11.53	0.01081	2.2651	11.2852	0.0126	-0.009627	18.76
19	20	SLE-INV	Max	-2.31	-11.57	0.03154	2.2556	11.3182	-0.0037	-0.009627	18.85
19	60	SLE-INV	Max	-2.24	-11.55	0.04965	1.628	8.3039	0.0358	0.09061	18.85
19	59	SLE-INV	Max	-2.24	-11.52	0.02892	1.6298	8.2773	0.0448	0.09061	18.76
19	19	SLE-INV	Min	-2.31	-11.53	0.01081	1.2177	6.0379	0.0053	-0.01201	11.49
19	20	SLE-INV	Min	-2.31	-11.57	0.03154	1.207	6.0853	-0.0113	-0.01201	11.58
19	60	SLE-INV	Min	-2.24	-11.55	0.04965	0.8315	4.2341	0.0162	0.08523	11.58
19	59	SLE-INV	Min	-2.24	-11.52	0.02892	0.8327	4.1947	0.04	0.08523	11.49
19	19	SLU-INV	Max	-2.31	-11.53	0.0146	4.7679	23.7645	0.0287	-0.01264	35.96
19	20	SLU-INV	Max	-2.31	-11.57	0.04259	4.7504	23.8269	-0.005	-0.01264	36.13
19	60	SLU-INV	Max	-2.24	-11.55	0.06703	3.535	18.0499	0.0483	0.16	36.13
19	59	SLU-INV	Max	-2.24	-11.52	0.03905	3.5388	17.9991	0.0808	0.16	35.96
19	19	SLU-INV	Min	-3.11	-15.57	0.01081	1.6438	8.1512	0.0072	-0.01788	15.51
19	20	SLU-INV	Min	-3.12	-15.61	0.03154	1.6294	8.2152	-0.0264	-0.01788	15.64
19	60	SLU-INV	Min	-3.03	-15.59	0.04965	1.1225	5.7161	0.0189	0.11	15.64
19	59	SLU-INV	Min	-3.02	-15.55	0.02892	1.1241	5.6629	0.0533	0.11	15.51
20	20	SLE-INV	Max	-2.31	-11.57	0.03154	2.2659	11.3237	0.0116	-0.001351	18.85
20	21	SLE-INV	Max	-2.32	-11.59	0.0546	2.2601	11.306	-0.0036	-0.001351	18.91
20	61	SLE-INV	Max	-2.24	-11.57	0.08741	1.6283	8.2826	0.0206	0.09145	18.91
20	60	SLE-INV	Max	-2.24	-11.55	0.06436	1.6325	8.3015	0.0289	0.09145	18.85
20	20	SLE-INV	Min	-2.31	-11.57	0.03154	1.2261	6.0921	0.0047	-0.00918	11.58
20	21	SLE-INV	Min	-2.32	-11.59	0.0546	1.2165	6.121	-0.0113	-0.00918	11.68
20	61	SLE-INV	Min	-2.24	-11.57	0.08741	0.8377	4.2562	-0.0266	0.0681	11.68
20	60	SLE-INV									

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1**Tratto Fabriano - Matelica Nord****Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita****Relazione di calcolo**

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.progr.	REV.	Pag.di Pag.			
L0703	211	E	16	O16700	REL	01	A	112 di 174			
21	21	SLE-INV	Max	-2.32	-11.59	0.0546	2.2562	11.31	0.0114	0.006976	18.91
21	22	SLE-INV	Max	-2.32	-11.61	0.08149	2.2542	11.2417	-0.0039	0.006976	18.95
21	62	SLE-INV	Max	-2.23	-11.59	0.13	1.6162	8.2132	0.0058	0.09819	18.95
21	61	SLE-INV	Max	-2.23	-11.57	0.1	1.6237	8.2769	0.0142	0.09819	18.91
21	21	SLE-INV	Min	-2.32	-11.59	0.0546	1.2312	6.1262	0.0045	-0.006533	11.67
21	22	SLE-INV	Min	-2.32	-11.61	0.08149	1.2224	6.1394	-0.0123	-0.006533	11.77
21	62	SLE-INV	Min	-2.23	-11.59	0.13	0.8389	4.2611	-0.07	0.05625	11.77
21	61	SLE-INV	Min	-2.23	-11.57	0.1	0.8439	4.2532	-0.0462	0.05625	11.67
21	21	SLU-INV	Max	-2.32	-11.59	0.0737	4.7394	23.7855	0.0268	0.02103	36.22
21	22	SLU-INV	Max	-2.32	-11.61	0.11	4.7394	23.6086	-0.0053	0.02103	36.27
21	62	SLU-INV	Max	-2.23	-11.59	0.18	3.5015	17.8116	0.0078	0.13	36.27
21	61	SLU-INV	Max	-2.23	-11.57	0.14	3.5169	17.9758	0.0192	0.13	36.22
21	21	SLU-INV	Min	-3.13	-15.65	0.0546	1.6621	8.2731	0.0061	-0.008819	15.76
21	22	SLU-INV	Min	-3.13	-15.67	0.08149	1.6502	8.2881	-0.0294	-0.008819	15.89
21	62	SLU-INV	Min	-3.01	-15.64	0.13	1.1325	5.7525	-0.1793	0.06965	15.89
21	61	SLU-INV	Min	-3	-15.62	0.1	1.1393	5.7418	-0.123	0.06965	15.76
22	22	SLE-INV	Max	-2.32	-11.61	0.08149	2.2366	11.2452	0.0107	0.01482	18.94
22	23	SLE-INV	Max	-2.32	-11.61	0.12	2.2376	11.1256	-0.0039	0.01482	18.98
22	63	SLE-INV	Max	-2.21	-11.59	0.19	1.5958	8.0947	-0.0086	0.11	18.98
22	62	SLE-INV	Max	-2.21	-11.58	0.15	1.6068	8.2044	-0.0005788	0.11	18.94
22	22	SLE-INV	Min	-2.32	-11.61	0.08149	1.2333	6.1478	0.0041	-0.004364	11.76
22	23	SLE-INV	Min	-2.32	-11.61	0.12	1.2245	6.1413	-0.0127	-0.004364	11.87
22	63	SLE-INV	Min	-2.21	-11.59	0.19	0.8372	4.2487	-0.1134	0.0517	11.87
22	62	SLE-INV	Min	-2.21	-11.58	0.15	0.8449	4.256	-0.09	0.0517	11.76
22	22	SLU-INV	Max	-2.32	-11.61	0.11	4.6886	23.6114	0.0257	0.04009	36.26
22	23	SLU-INV	Max	-2.32	-11.61	0.16	4.6959	23.311	-0.0053	0.04009	36.27
22	63	SLU-INV	Max	-2.21	-11.59	0.25	3.4504	17.5167	-0.0116	0.15	36.27
22	62	SLU-INV	Max	-2.21	-11.58	0.21	3.4723	17.7928	-0.0007814	0.15	36.26
22	22	SLU-INV	Min	-3.13	-15.67	0.08149	1.6649	8.2995	0.0055	-0.005892	15.88
22	23	SLU-INV	Min	-3.13	-15.67	0.12	1.6531	8.2908	-0.0306	-0.005892	16.03
22	63	SLU-INV	Min	-2.98	-15.64	0.19	1.1302	5.7357	-0.2848	0.05719	16.03
22	62	SLU-INV	Min	-2.98	-15.64	0.15	1.1405	5.7457	-0.2285	0.05719	15.88
22	23	SLU-INV	Max	-2.32	-11.61	0.12	2.2068	11.129	0.0109	0.02273	18.96
23	24	SLE-INV	Max	-2.32	-11.59	0.16	2.2103	10.9565	-0.0046	0.02273	19
23	64	SLE-INV	Max	-2.18	-11.57	0.26	1.562	7.9252	-0.0237	0.14	19
23	63	SLE-INV	Max	-2.18	-11.58	0.21	1.5778	8.0817	-0.0149	0.14	18.96
23	23	SLE-INV	Min	-2.32	-11.61	0.12	1.2326	6.1518	0.0042	-0.002496	11.86
23	24	SLE-INV	Min	-2.32	-11.59	0.16	1.2232	6.1272	-0.0142	-0.002496	12
23	64	SLE-INV	Min	-2.18	-11.57	0.26	0.8296	4.2179	-0.1588	0.05861	11.86
23	63	SLE-INV	Min	-2.18	-11.58	0.21	0.8413	4.2407	-0.1338	0.05861	11.86
23	23	SLU-INV	Max	-2.32	-11.61	0.16	4.6321	23.3113	-0.0062	0.05979	36.25
23	24	SLU-INV	Max	-2.32	-11.59	0.21	4.6266	22.8822	-0.0062	0.05979	36.24
23	64	SLU-INV	Max	-2.18	-11.57	0.35	3.3681	17.0979	-0.0319	0.19	36.24
23	63	SLU-INV	Max	-2.18	-11.58	0.29	3.399	17.4893	-0.0201	0.19	36.25
23	23	SLU-INV	Min	-3.13	-15.67	0.12	1.664	8.3049	0.0056	-0.003369	16.01
23	24	SLU-INV	Min	-3.13	-15.65	0.16	1.6514	8.2717	-0.0342	-0.003369	16.2
23	64	SLU-INV	Min	-2.94	-15.61	0.26	1.12	5.6942	-0.3963	0.04825	16.2
23	63	SLU-INV	Min	-2.94	-15.63	0.21	1.1357	5.7249	-0.3357	0.04825	16.01
24	24	SLE-INV	Max	-2.32	-11.59	0.16	2.1671	10.9615	0.0115	0.03078	18.98
24	25	SLE-INV	Max	-2.31	-11.55	0.21	2.1705	10.7263	-0.0055	0.03078	19.04
24	65	SLE-INV	Max	-2.14	-11.52	0.35	1.5163	7.6939	-0.0412	0.2	19.04
24	64	SLE-INV	Max	-2.15	-11.56	0.3	1.538	7.9068	-0.0311	0.2	18.98
24	24	SLE-INV	Min	-2.32	-11.59	0.16	1.2299	6.1417	0.0046	-0.00164	11.98
24	25	SLE-INV	Min	-2.31	-11.55	0.21	1.2175	6.0953	-0.0158	-0.00164	12.17
24	65	SLE-INV	Min	-2.14	-11.52	0.35	0.8162	4.1638	-0.2087	0.08857	12.17
24	64	SLE-INV	Min	-2.15	-11.56	0.3	0.8339	4.2056	-0.1814	0.08857	11.98
24	24	SLU-INV	Max	-2.32	-11.59	0.21	4.5098	22.8826	0.0279	0.0811	36.2
24	25	SLU-INV	Max	-2.31	-11.55	0.28	4.5277	22.3113	-0.0075	0.0811	36.2
24	65	SLU-INV	Max	-2.14	-11.52	0.47	3.2586	16.5304	-0.0556	0.27	36.2
24	64	SLU-INV	Max	-2.15	-11.56	0.4	3.2993	17.0604	-0.042	0.27	36.2
24	24	SLU-INV	Min	-3.13	-15.65	0.16	1.6603	8.2913	0.0062	-0.002214	16.17
24	25	SLU-INV	Min	-3.12	-15.59	0.21	1.6437	8.2286	-0.038	-0.002214	16.43
24	65	SLU-INV	Min	-2.88	-15.55	0.35	1.1019	5.6212	-0.5184	0.07205	16.43
24	64	SLU-INV	Min	-2.9	-15.61	0.3	1.1258	5.6776	-0.4524	0.07205	16.17
25	65	SLU-INV	Max	-2.1	-11.51	0.38	1.4913	7.6719	-0.0496	0.27	19.01
25	25	SLE-INV	Max	-2.31	-11.55	0.21	2.1172	10.7327	0.0097	0.02981	19.01
25	26	SLE-INV	Max	-2.3	-11.49	0.27	2.1276	10.4914	-0.0062	0.02981	19.1
25	66	SLE-INV	Max	-2.09	-11.45	0.44	1.4595	7.4512	-0.0604	0.27	19.1
25	65	SLE-INV	Max	-2.1	-11.51	0.38	0.8203	4.1479	-0.2313	0.14	12.15
25	25	SLE-INV	Min	-2.31	-11.55	0.21	1.2225	6.1131	0.0046	0.0004209	12.15
25	26	SLE-INV	Min	-2.3	-11.49	0.27	1.2112	6.0553	-0.0154	0.0004209	12.37
25	65	SLE-INV	Min	-2.09	-11.45	0.44	0.7972	4.0958	-0.2564	0.14	12.37
25	66	SLE-INV	Max	-2.1	-11.51	0.52	3.1857	16.4869	-0.0669	0.37	36.16
25	25	SLU-INV	Max	-2.31	-11.55	0.28	4.3837	22.3014	0.0232	0.07735	36.16
25	26	SLU-INV	Max	-2.3	-11.49	0.36	4.4184	21.7089	-0.0084	0.07735	36.2
25	66	SLU-INV	Max	-2.09	-11.45	0.6	3.1251	15.9409	-0.0816	0.37	36.2
25	65	SLU-INV	Min	-2.84	-15.54	0.38	1.1074	5.5996	-0.5736	0.13	16.4
25	25	SLU-INV	Min	-3.12	-15.59	0.21	1.6504	8.2526	0.0063	0.0005682	16.4
25	26	SLU-INV	Min	-3.1	-15.51	0.27	1.6351	8.1747	-0.0359	0.0005682	16.69
25	66	SLU-INV	Min	-2.82	-15.45	0.44	1.0762	5.5293	-0.6327	0.13	16.69
26	26	SLE-INV	Max	-2.3	-11.49	0.27	2.0638	10.4982	0.0115	0.03634	19.07
26	27	SLE-INV	Max	-2.28	-11.39	0.33	2.0771	10.2065	-0.0085	0.03634	19.16
26	67	SLE-INV	Max	-2.04	-11.34	0.54	1.3969	7.1586	-0.0864	0.3	19.16
26	66	SLE-INV	Max	-2.06	-11.44	0.48	1.4329	7.4263	-0.0714	0.3	19.07
26	26	SLU-INV	Min	-2.3	-11.49	0.27	1.2125	6.0751	0.0064	0.002848	12.34
26	27	SLU-INV	Min	-2.28	-11.39	0.33	1.2012	5.9935	-0.0181	0.002848	12.58
26	67	SLU-INV	Min	-2.04	-11.34	0.54	0.7724	4.0028	-0.3102	0.14	12.58
26	66	SLU-INV	Min	-2.06	-11.44	0.48	0.7997	4.0768	-0.2807	0.14	12.34
26	26	SLU-INV	Max	-2.3	-11.49	0.36	4.2495	21.7077	0.026	0.09283	36.15
26	27	SLU-INV	Max	-2.28	-11.39	0.44	4.2918	20.9988	-0.0115	0.09283	36.16
26	67	SLU-INV	Max	-2.04	-11.34	0.73	2.9806	15.2376	-0.1166	0.41	36.16
26	66	SLU-INV	Max	-2.06	-11.44	0.65	3.0479	15.8929	-0.0964	0.41	36.15
26	26	SLU-INV	Min	-3.1	-15.51	0.27	1.6369	8.2014	0.0087	0.003845	16.66
26	27	SLU-INV	Min	-3.07	-15.37	0.33	1.6216	8.0912	-0.0407	0.003845	16.98
26	67	SLU-INV	Min	-2.76	-15.31	0.54	1.0428	5.4038	-0.7564	0.1	16.98
26	66	SLU-INV	Min	-2.78	-15.44	0.48	1.0797	5.5036	-0.6897	0.1	16.66
27	27	SLE-INV	Max	-2.28	-11.39	0.33	1.997	10.2114	0.0134	0.04677	19.13
27	28	SLE-INV	Max	-2.25	-11.24	0.4	2.0158	9.8528	-0.0114	0.04677	19.17
27	68	SLE-INV	Max	-1.99	-11.19	0.66	1.3238	6.8019	-0.1216	0.29	19.17
27	67	SLE-INV	Max	-2.02	-11.33	0.59	1.3621	7.1307	-0.1016	0.29	19.13
27	27	SLU-INV	Min	-2.28	-11.39	0.33	1.1957	6.014	0.0086	0.007712	12.55
27	28	SLU-INV	Min	-2.25	-11.24	0.4	1.1867	5.8978	-0.0213	0.007712	12.78
27	68	SLU-INV	Min	-1.99	-11.19	0.66	0.7418	3.8757	-0.3736	0.1	12.78
27	67	SLU-INV	Min	-2.02	-11.33	0.59	0.7718	3.981	-0.3388	0.1	12.55



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.
L0703	211	E	16	O16700	REL	01	A	113 di 174

27	67	SLU-INV	Min	-2.72	-15.3	0.59	1.042	5.3744	-0.8207	0.00797	16.94
28	28	SLE-INV	Max	-2.25	-11.24	0.4	1.9142	9.8524	0.0154	0.05794	19.15
28	29	SLE-INV	Max	-2.21	-11.05	0.47	1.9411	9.4239	-0.0144	0.05794	19.12
28	69	SLE-INV	Max	-1.93	-10.99	0.79	1.2383	6.3778	-0.1672	0.25	19.12
28	68	SLE-INV	Max	-1.97	-11.19	0.72	1.2761	6.7724	-0.142	0.25	19.15
28	28	SLE-INV	Min	-2.25	-11.24	0.4	1.1694	5.9161	0.0108	0.01456	12.75
28	29	SLE-INV	Min	-2.21	-11.05	0.47	1.1654	5.7576	-0.0243	0.01456	12.94
28	69	SLE-INV	Min	-1.93	-10.99	0.79	0.7043	3.7076	-0.4474	0.02628	12.94
28	68	SLE-INV	Min	-1.97	-11.19	0.72	0.7346	3.8524	-0.4076	0.02628	12.75
28	28	SLU-INV	Max	-2.25	-11.24	0.53	3.8866	20.1125	0.032	0.14	35.98
28	29	SLU-INV	Max	-2.21	-11.05	0.64	3.9568	19.1045	-0.0194	0.14	35.74
28	69	SLU-INV	Max	-1.93	-10.99	1.07	2.6182	13.3995	-0.2257	0.34	35.74
28	68	SLU-INV	Max	-1.97	-11.19	0.97	2.6864	14.3349	-0.1917	0.34	35.98
28	28	SLU-INV	Min	-3.04	-15.18	0.4	1.5786	7.9868	0.0146	0.01966	17.22
28	29	SLU-INV	Min	-2.98	-14.91	0.47	1.5733	7.7728	-0.0511	0.01966	17.47
28	69	SLU-INV	Min	-2.6	-14.84	0.79	0.9507	5.0053	-1.0529	-0.16	17.47
28	68	SLU-INV	Min	-2.66	-15.1	0.72	0.9918	5.2008	-0.9697	-0.16	17.22
29	29	SLE-INV	Max	-2.21	-11.05	0.47	1.8149	9.4153	0.0155	0.06713	19.1
29	30	SLE-INV	Max	-2.16	-10.8	0.55	1.8548	8.9334	-0.0164	0.06713	18.98
29	70	SLE-INV	Max	-1.86	-10.74	0.93	1.144	5.9034	-0.2197	0.18	18.98
29	69	SLE-INV	Max	-1.91	-10.99	0.85	1.1817	6.3499	-0.1915	0.18	19.1
29	29	SLE-INV	Min	-2.21	-11.05	0.47	1.1317	5.7706	0.0119	0.02229	12.92
29	30	SLE-INV	Min	-2.16	-10.8	0.55	1.1367	5.5714	-0.0256	0.02229	13.04
29	70	SLE-INV	Min	-1.86	-10.74	0.93	0.6609	3.5016	-0.5255	-0.08461	13.04
29	69	SLE-INV	Min	-1.91	-10.99	0.85	0.6906	3.6852	-0.4844	-0.08461	12.92
29	29	SLU-INV	Max	-2.21	-11.05	0.64	3.6546	19.0676	0.0308	0.16	35.71
29	30	SLU-INV	Max	-2.16	-10.8	0.74	3.7499	17.955	-0.0221	0.16	35.3
29	70	SLU-INV	Max	-1.86	-10.74	1.25	2.4054	12.309	-0.2966	0.24	35.3
29	69	SLU-INV	Max	-1.91	-10.99	1.15	2.4733	13.347	-0.2585	0.24	35.71
29	29	SLU-INV	Min	-2.98	-14.91	0.47	1.5279	7.7904	0.016	0.03009	17.44
29	30	SLU-INV	Min	-2.92	-14.58	0.55	1.5345	7.5214	-0.0521	0.03009	17.6
29	70	SLU-INV	Min	-2.52	-14.5	0.93	0.8922	4.7272	-1.2125	-0.38	17.6
29	69	SLU-INV	Min	-2.58	-14.83	0.85	0.9324	4.975	-1.1296	-0.38	17.44
30	30	SLE-INV	Max	-2.16	-10.8	0.55	1.7012	8.9136	0.0168	0.08016	18.96
30	31	SLE-INV	Max	-2.1	-10.49	0.63	1.7526	8.3553	-0.019	0.08016	18.72
30	71	SLE-INV	Max	-1.8	-10.43	1.07	1.0392	5.3582	-0.2806	0.07577	18.72
30	70	SLE-INV	Max	-1.86	-10.74	0.99	1.072	5.8781	-0.2479	0.07577	18.96
30	30	SLE-INV	Min	-2.16	-10.8	0.55	1.0831	5.5766	0.0137	0.03182	13.02
30	31	SLE-INV	Min	-2.1	-10.49	0.63	1.0968	5.323	-0.0278	0.03182	13.05
30	70	SLE-INV	Min	-1.8	-10.43	1.07	0.6093	3.2456	-0.6101	-0.23	13.05
30	70	SLE-INV	Min	-1.86	-10.74	0.99	0.6363	3.4808	-0.5655	-0.23	13.02
30	30	SLE-INV	Max	-2.16	-10.8	0.74	3.3945	17.8961	0.0319	0.18	35.27
30	31	SLU-INV	Max	-2.1	-10.49	0.85	3.5112	16.6321	-0.0256	0.18	34.62
30	71	SLU-INV	Max	-1.8	-10.43	1.44	2.1735	11.0774	-0.3789	0.1	34.62
30	70	SLU-INV	Max	-1.86	-10.74	1.33	2.2306	12.2619	-0.3347	0.1	35.27
30	30	SLU-INV	Min	-2.92	-14.58	0.55	1.4622	7.5284	0.0185	0.04296	17.57
30	31	SLU-INV	Min	-2.83	-14.17	0.63	1.4807	7.186	-0.0546	0.04296	17.62
30	71	SLU-INV	Min	-2.43	-14.08	1.07	0.8225	4.3816	-1.3787	-0.66	17.62
30	70	SLU-INV	Min	-2.51	-14.5	0.99	0.859	4.6991	-1.2922	-0.66	17.57
31	31	SLE-INV	Max	-2.1	-10.49	0.63	1.5663	8.3215	0.0175	0.0981	18.71
31	32	SLE-INV	Max	-2.02	-10.1	0.71	1.6314	7.6671	-0.0215	0.0981	18.3
31	72	SLE-INV	Max	-1.72	-10.04	1.21	0.9243	4.726	-0.3499	-0.0642	18.3
31	71	SLE-INV	Max	-1.8	-10.43	1.13	0.9483	5.3366	-0.3131	-0.0642	18.71
31	31	SLE-INV	Min	-2.1	-10.49	0.63	1.0193	5.3184	0.0154	0.04461	13.04
31	32	SLE-INV	Min	-2.02	-10.1	0.71	1.0435	4.9955	-0.0294	0.04461	12.95
31	72	SLE-INV	Min	-1.72	-10.04	1.21	0.5494	2.9267	-0.6998	-0.42	12.95
31	71	SLE-INV	Min	-1.8	-10.43	1.13	0.5711	3.2217	-0.6529	-0.42	13.04
31	31	SLU-INV	Max	-2.1	-10.49	0.85	3.0934	16.2145	0.0221	0.24	34.62
31	32	SLU-INV	Max	-2.02	-10.1	0.96	3.2347	15.0951	-0.0291	0.22	33.64
31	72	SLU-INV	Max	-1.72	-10.04	1.64	1.9227	9.676	-0.4724	-0.08667	33.64
31	71	SLU-INV	Max	-1.8	-10.43	1.53	1.9612	11.0381	-0.4226	-0.08667	34.62
31	31	SLU-INV	Min	-2.83	-14.17	0.63	1.376	7.1798	0.0207	0.06022	17.6
31	32	SLU-INV	Min	-2.73	-13.64	0.71	1.4087	6.7439	-0.0555	0.06022	17.48
31	72	SLU-INV	Min	-2.33	-13.56	1.21	0.7417	3.9511	-1.5471	-1.03	17.48
31	71	SLU-INV	Min	-2.43	-14.09	1.13	0.771	4.3566	-1.4603	-1.03	17.6
32	32	SLE-INV	Max	-2.02	-10.1	0.71	1.4082	7.6148	0.0172	0.11	18.31
32	33	SLE-INV	Max	-1.92	-9.62	0.8	1.4898	6.8757	-0.0233	0.11	17.69
32	73	SLE-INV	Max	-1.65	-9.56	1.36	0.797	4.0172	-0.4258	-0.25	17.69
32	72	SLE-INV	Max	-1.74	-10.05	1.28	0.8084	4.7106	-0.3861	-0.25	18.31
32	32	SLE-INV	Min	-2.02	-10.1	0.71	0.9374	4.9775	0.0164	0.05814	12.94
32	33	SLE-INV	Min	-1.92	-9.62	0.8	0.9751	4.5851	-0.0297	0.05814	12.7
32	73	SLE-INV	Min	-1.65	-9.56	1.36	0.4796	2.545	-0.7913	-0.67	12.7
32	72	SLE-INV	Min	-1.74	-10.05	1.28	0.493	2.9123	-0.7444	-0.67	12.94
32	32	SLU-INV	Max	-2.02	-10.1	0.96	2.7494	14.973	0.0285	0.24	33.66
32	33	SLU-INV	Max	-1.92	-9.62	1.07	2.9194	13.3707	-0.0314	0.24	32.29
32	73	SLU-INV	Max	-1.65	-9.56	1.83	1.6505	8.137	-0.5748	-0.34	32.29
32	72	SLU-INV	Max	-1.74	-10.05	1.72	1.6632	9.6492	-0.5212	-0.34	33.66
32	32	SLU-INV	Min	-2.73	-13.64	0.71	1.2655	6.7196	0.0222	0.07849	17.47
32	33	SLU-INV	Min	-2.6	-12.99	0.8	1.3164	6.1899	-0.0531	0.07849	17.15
32	73	SLU-INV	Min	-2.22	-12.91	1.36	0.6475	3.4358	-1.7095	-1.49	17.15
32	72	SLU-INV	Min	-2.35	-13.56	1.28	0.6656	3.9316	-1.6279	-1.49	17.47
33	33	SLE-INV	Max	-1.92	-9.62	0.8	1.2273	6.8005	0.0163	0.13	17.71
33	34	SLE-INV	Max	-1.81	-9.03	0.87	1.3291	5.9812	-0.0238	0.13	16.83
33	74	SLE-INV	Max	-1.57	-8.99	1.49	0.6642	3.24	-0.5038	-0.49	16.83
33	73	SLE-INV	Max	-1.69	-9.57	1.42	0.658	4.0121	-0.4637	-0.49	17.71
33	33	SLE-INV	Min	-1.92	-9.62	0.8	0.8363	4.5497	0.015	0.07346	12.71
33	34	SLE-INV	Min	-1.81	-9.03	0.87	0.8908	4.0855	-0.0279	0.07346	12.26
33	74	SLE-INV	Min	-1.57	-8.99	1.49	0.4032	2.1009	-0.8772	-0.98	12.26
33	73	SLE-INV	Min	-1.69	-9.57	1.42	0.4045	2.5376	-0.8343	-0.98	12.71
33	33	SLU-INV	Max	-1.92	-9.62	1.07	2.3653	13.2063	0.022	0.27	32.35
33	34	SLU-INV	Max	-1.81	-9.03	1.17	2.5702	11.4712	-0.0321	0.27	30.5
33	74	SLU-INV	Max	-1.57	-8.99	2.01	1.3711	6.4858	-0.6801	-0.67	30.5
33	73	SLU-INV	Max	-1.69	-9.57	1.92	1.3493	8.1304	-0.626	-0.67	32.35
33	33	SLU-INV	Min	-2.6	-12.99	0.8	1.129	6.1422	0.0201	0.09916	17.16
33	34	SLU-INV	Min	-2.44	-12.2	0.87	1.2025	5.5154	-0.0465	0.09916	16.55
33	74	SLU-INV	Min	-2.12	-12.13	1.49	0.5443	2.8362	-1.8498	-2.06	16.55
33	73	SLU-INV	Min	-2.28	-12.92	1.42	0.546	3.4258	-1.7816	-2.06	17.16
34	34	SLE-INV	Max	-1.81	-9.03	0.87	1.0242	5.8774	0.0147	0.15	16.88
34	35	SLE-INV	Max	-1.66	-8.32	0.94	1.1495	4.9911	-0.0225	0.15	15.66
34	75	SLE-INV	Max	-1.49	-8.28	1.61	0.5313	2.4099	-0.5781	-0.81	15.66
34	74	SLE-INV	Max	-1.63	-9	1.55	0.4995	3.2498	-0.5409	-0.81	16.88
34	34	SLE-INV	Min	-1.81	-9.03	0.87	0.715	4.0278	0.0107	0.09002	12.28
34	35	SLE-INV	Min	-1.66	-8.32	0.94	0.7896	3.4951	-0.0233	0.09002	11.57
34	75	SLE-INV	Min	-1.49	-8.28	1.61	0.3233	1.5999	-0.9488	-1.39	11.57
34	74	SLE-INV	Min	-1.63	-9	1.55	0.3064	2.104	-0.9147	-1.39	12.28
34	34	SLU-INV	Max	-1.81</							



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	114 di 174			
34	75	SLU-INV	Min	-2.01	-11.18	1.61	0.4364	2.1598	-1.9493	-2.79	15.62
34	74	SLU-INV	Min	-2.21	-12.15	1.55	0.4136	2.8405	-1.9054	-2.79	16.58
35	35	SLE-INV	Max	-1.66	-8.32	0.94	0.8001	4.8515	0.01	0.17	15.74
35	36	SLE-INV	Max	-1.49	-7.45	0.97	0.9552	3.9253	-0.014	0.17	14.09
35	76	SLE-INV	Max	-1.42	-7.43	1.7	0.4103	1.5597	-0.6373	-1.23	14.09
35	75	SLE-INV	Max	-1.6	-8.31	1.66	0.3432	2.442	-0.6096	-1.23	15.74
35	35	SLE-INV	Min	-1.66	-8.32	0.94	0.5729	3.4089	0.0021	0.11	11.62
35	36	SLE-INV	Min	-1.49	-7.45	0.97	0.6729	2.8205	-0.0177	0.11	10.56
35	76	SLE-INV	Min	-1.42	-7.43	1.7	0.2479	1.0593	-0.9896	-1.92	10.56
35	75	SLE-INV	Min	-1.6	-8.31	1.66	0.2051	1.6191	-0.9736	-1.92	11.62
35	35	SLU-INV	Max	-1.66	-8.32	1.26	1.4962	9.1446	0.0135	0.33	28.33
35	36	SLU-INV	Max	-1.49	-7.45	1.32	1.7894	7.2831	-0.0121	0.33	25.12
35	76	SLU-INV	Max	-1.42	-7.43	2.3	0.8533	3.0446	-0.8603	-1.67	25.12
35	75	SLU-INV	Max	-1.6	-8.31	2.25	0.7157	4.8281	-0.8229	-1.67	28.33
35	35	SLU-INV	Min	-2.25	-11.23	0.94	0.7735	4.602	-0.0091	0.15	15.69
35	36	SLU-INV	Min	-2.01	-10.05	0.97	0.9085	3.8077	-0.024	0.15	14.26
35	76	SLU-INV	Min	-1.92	-10.04	1.7	0.3346	1.43	-1.9766	-3.73	14.26
35	75	SLU-INV	Min	-2.15	-11.21	1.66	0.2769	2.1857	-1.9736	-3.73	15.69
36	36	SLE-INV	Max	-1.49	-7.45	0.97	0.5599	3.7403	-0.0000919	0.19	14.22
36	37	SLE-INV	Max	-1.27	-6.35	1.01	0.753	2.8244	0.0032	0.19	11.98
36	77	SLE-INV	Max	-1.38	-6.38	1.76	0.3222	0.7467	-0.6616	-1.81	11.98
36	76	SLE-INV	Max	-1.6	-7.47	1.73	0.2044	1.6244	-0.6547	-1.81	14.22
36	36	SLE-INV	Min	-1.49	-7.45	0.97	0.4117	2.6975	-0.0135	0.13	10.65
36	37	SLE-INV	Min	-1.27	-6.35	1.01	0.5446	2.084	-0.007	0.13	9.11
36	77	SLE-INV	Min	-1.38	-6.38	1.76	0.1923	0.5157	-0.9739	-2.64	9.11
36	76	SLE-INV	Min	-1.6	-7.47	1.73	0.1116	1.1028	-0.9906	-2.64	10.65
36	36	SLU-INV	Max	-1.49	-7.45	1.32	1.029	6.9248	-0.0001241	0.35	25.36
36	37	SLU-INV	Max	-1.27	-6.35	1.36	1.3839	5.1397	0.0242	0.35	21.16
36	77	SLU-INV	Max	-1.38	-6.38	2.38	0.6777	1.4479	-0.8932	-2.45	21.16
36	76	SLU-INV	Max	-1.6	-7.47	2.34	0.4473	3.1697	-0.8838	-2.45	25.36
36	36	SLU-INV	Min	-2.01	-10.05	0.97	0.5558	3.6416	-0.0413	0.17	14.37
36	37	SLU-INV	Min	-1.72	-8.58	1.01	0.7352	2.8134	-0.0095	0.17	12.3
36	77	SLU-INV	Min	-1.86	-8.61	1.76	0.2596	0.6962	-1.8839	-4.97	12.3
36	76	SLU-INV	Min	-2.15	-10.08	1.73	0.1506	1.4888	-1.9493	-4.97	14.37
37	37	SLE-INV	Max	-1.27	-6.35	1.01	0.3104	2.5796	-0.0195	0.2	12.17
37	38	SLE-INV	Max	-0.99	-4.96	0.92	0.5579	1.7618	0.0323	0.2	9.12
37	78	SLE-INV	Max	-1.39	-5.04	1.72	0.299	0.0725	-0.6165	-2.64	9.12
37	77	SLE-INV	Max	-1.67	-6.43	1.81	0.109	0.8604	-0.6496	-2.64	12.17
37	37	SLE-INV	Min	-1.27	-6.35	1.01	0.2348	1.9117	-0.0403	0.15	9.25
37	38	SLE-INV	Min	-0.99	-4.96	0.92	0.4143	1.3399	0.0136	0.15	7.04
37	78	SLE-INV	Min	-1.39	-5.04	1.72	0.1831	0.0412	-0.8592	-3.65	7.04
37	77	SLE-INV	Min	-1.67	-6.43	1.81	0.0461	0.5969	-0.9317	-3.65	9.25
37	37	SLU-INV	Max	-1.27	-6.35	1.36	0.5605	4.6798	-0.0264	0.37	21.52
37	38	SLU-INV	Max	-0.99	-4.96	1.24	1.0038	3.1417	0.0794	0.37	15.93
37	78	SLU-INV	Max	-1.39	-5.04	2.33	0.622	0.1671	-0.8322	-3.57	15.93
37	77	SLU-INV	Max	-1.67	-6.43	2.44	0.2639	1.6603	-0.877	-3.57	21.52
37	37	SLU-INV	Min	-1.72	-8.58	1.01	0.317	2.5808	-0.0914	0.2	12.48
37	38	SLU-INV	Min	-1.34	-6.7	0.92	0.5593	1.8008	0.0184	0.2	9.51
37	78	SLU-INV	Min	-1.88	-6.81	1.72	0.2472	0.0556	-1.6009	-6.69	9.51
37	77	SLU-INV	Min	-2.26	-8.69	1.81	0.0623	0.8058	-1.7717	-6.69	12.48
38	38	SLE-INV	Max	-0.99	-4.96	0.92	0.0631	1.4328	-0.0575	0.22	9.4
38	39	SLE-INV	Max	-0.59	-2.97	0.97	0.3965	0.8655	0.0827	0.22	5.09
38	79	SLE-INV	Max	-1.59	-3.16	1.67	0.4072	-0.2252	-0.4356	-3.95	5.09
38	78	SLE-INV	Max	-1.99	-5.16	1.62	0.1054	0.2638	-0.5468	-3.95	9.4
38	38	SLE-INV	Min	-0.99	-4.96	0.92	0.0496	1.0916	-0.0873	0.17	7.25
38	39	SLE-INV	Min	-0.59	-2.97	0.97	0.3023	0.6675	0.0537	0.17	4
38	79	SLE-INV	Min	-1.59	-3.16	1.67	0.2793	-0.285	-0.572	-5.23	4
38	78	SLE-INV	Min	-1.99	-5.16	1.62	0.0517	0.2425	-0.7421	-5.23	7.25
38	38	SLU-INV	Max	-0.99	-4.96	1.24	0.1152	2.542	-0.0776	0.39	16.45
38	39	SLU-INV	Max	-0.59	-2.97	1.31	0.6975	1.5212	0.1669	0.39	8.77
38	79	SLU-INV	Max	-1.59	-3.16	2.26	0.7922	-0.3041	-0.588	-5.33	8.77
38	78	SLU-INV	Max	-1.99	-5.16	2.19	0.2424	0.5132	-0.7382	-5.33	16.45
38	38	SLU-INV	Min	-1.34	-6.7	0.92	0.0669	1.4737	-0.1719	0.22	9.79
38	39	SLU-INV	Min	-0.8	-4	0.97	0.4081	0.9011	0.0725	0.22	5.39
38	79	SLU-INV	Min	-2.14	-4.27	1.67	0.3757	-0.4871	-1.0163	-9.32	5.39
38	78	SLU-INV	Min	-2.68	-6.97	1.62	0.0698	0.2487	-1.355	-9.32	9.79
39	39	SLE-INV	Max	-0.59	-2.97	0.97	-0.1186	0.4229	-0.097	0.21	5.5
39	40	SLE-INV	Max	-1.092E-10	-1.867E-10	1.032E-10	0.2947	0.2982	0.1226	0.21	-0.23
39	80	SLE-INV	Max	-2.22	-0.44	1.32	0.6203	-0.0901	-0.094	-0.23	-0.23
39	79	SLE-INV	Max	-2.81	-3.41	2.29	0.1843	0.0031	-0.2866	-6.17	5.5
39	39	SLE-INV	Min	-0.59	-2.97	0.97	-0.1505	0.3302	-0.1241	0.16	4.31
39	40	SLE-INV	Min	-1.092E-10	-1.867E-10	1.032E-10	0.2313	0.2332	0.0955	0.16	-0.3
39	80	SLE-INV	Min	-2.22	-0.44	1.32	0.4839	-0.1152	-0.1211	-7.89	-0.3
39	79	SLE-INV	Min	-2.81	-3.41	2.29	0.144	0.009825	-0.3677	-7.89	4.31
39	39	SLU-INV	Max	-0.59	-2.97	1.31	-0.1601	0.7342	-0.131	0.35	9.51
39	40	SLU-INV	Max	-1.092E-10	-1.867E-10	1.393E-10	0.5036	0.518	0.2136	0.35	-0.31
39	80	SLU-INV	Max	-2.22	-0.44	1.78	1.0808	-0.1217	-0.1269	-8.33	-0.31
39	79	SLU-INV	Max	-2.81	-3.41	3.09	0.3125	0.0138	-0.3869	-8.33	9.51
39	39	SLU-INV	Min	-0.8	-4	0.97	-0.2532	0.4458	-0.213	0.22	5.81
39	40	SLU-INV	Min	-1.474E-10	-2.52E-10	1.032E-10	0.3122	0.3148	0.129	0.22	-0.52
39	80	SLU-INV	Min	-2.99	-0.6	1.32	0.6532	-0.2011	-0.2143	-13.64	-0.52
39	79	SLU-INV	Min	-3.79	-4.6	2.29	0.1944	0.0013	-0.641	-13.64	5.81
40	81	SLE-INV	Max	-2.14	-0.43	-1.7	1.3731	0.1136	0.06	7.6	-0.12
40	41	SLE-INV	Max	-1.82	-0.36	-1.22	0.7613	0.3133	-0.0261	4.61	-0.12
40	42	SLE-INV	Max	-2.22	-2.39	-2.15	-0.1032	0.2561	0.4454	4.61	2.62
40	82	SLE-INV	Max	-2.54	-2.45	-2.63	0.4456	0.0687	0.5627	7.6	2.62
40	81	SLE-INV	Min	-2.14	-0.43	-1.7	0.8529	0.0763	0.0262	4.86	-0.2
40	41	SLE-INV	Min	-1.82	-0.36	-1.22	0.4923	0.1927	-0.0573	3.06	-0.2
40	42	SLE-INV	Min	-2.22	-2.39	-2.15	-0.149	0.1328	0.2742	3.06	1.57
40	82	SLE-INV	Min	-2.54	-2.45	-2.63	0.2563	0.0161	0.3264	4.86	1.57
40	81	SLU-INV	Max	-2.14	-0.43	-1.7	2.5657	0.1989	0.1381	13.9	-0.16
40	41	SLU-INV	Max	-1.82	-0.36	-1.22	1.3793	0.5899	-0.0352	8.15	-0.16
40	42	SLU-INV	Max	-2.22	-2.39	-2.15	-0.1393	0.5399	0.8376	8.15	5.02
40	82	SLU-INV	Max	-2.54	-2.45	-2.63	0.8786	0.1897	1.1051	13.9	5.02
40	81	SLU-INV	Min	-2.88	-0.58	-2.29	1.1514	0.103	0.0353	6.56	-0.39
40	41	SLU-INV	Min	-2.45	-0.49	-1.64	0.6646	0.2602	-0.1294	4.13	-0.39
40	42	SLU-INV	Min	-3	-3.22	-2.91	-0.2551	0.1793	0.3701	4.13	2.12
40	82	SLU-INV	Min	-3.43	-3.31	-3.55	0.346	0.0218	0.4406	6.56	2.12
41	83	SLE-INV	Max	-2.03	-4.28	-1.36	0.2602	0.1898	0.96	5.63	4.93
41	82	SLE-INV	Max	-1.63	-2.27	-1.69	0.9066	-0.0082	0.6478	5.63	2.41
41	42	SLE-INV	Max	-1.01	-2.14	-1.57	0.6239	0.5797	0.3584	2.94	2.41
41	43	SLE-INV	Max	-1.41	-4.16	-1.24	-0.0197	0.7772	0.6706	2.94	4.93
41	83	SLE-INV	Min	-2.03	-4.28	-1.36	0.0853	0.0338	0.5245	3.48	2.98
41	82	SLE-INV	Min	-1.63	-2.27	-1.69	0.4832	-0.0326	0.3662	3.48	1.46
41	42	SLE-INV	Min	-1.01	-2.14	-1.57	0.3557	0.3187	0.2331	1.86	1.46
41	43	SLE-INV	Min	-1.41	-4.16	-1.24	-0.0495	0.3923	0.3914	1.86	2.98
41	83	SLU-INV	Max	-2.03	-						

**2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo**

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 115 di 174			
41	82	SLU-INV	Min	-2.2	-3.06	-2.29	0.6524	-0.044	0.4944	4.69	1.97
41	42	SLU-INV	Min	-1.36	-2.89	-2.13	0.4802	0.4303	0.3148	2.51	1.97
41	43	SLU-INV	Min	-1.91	-5.61	-1.67	-0.0669	0.5296	0.5284	2.51	4.02
42	84	SLU-INV	Max	-1.57	-5.55	-1.26	0.12	0.454	1.1806	4.28	6.79
42	83	SLU-INV	Max	-1.28	-4.13	-1.28	0.5946	0.1167	1.0093	4.28	4.76
42	43	SLU-INV	Max	-0.96	-4.07	-1.31	0.5681	1.0347	0.6189	2.12	4.76
42	44	SLU-INV	Max	-1.24	-5.49	-1.29	0.0784	1.3859	0.7902	2.12	6.79
42	84	SLU-INV	Min	-1.57	-5.55	-1.26	-0.0061	0.1414	0.6234	2.56	4.08
42	83	SLU-INV	Min	-1.28	-4.13	-1.28	0.2758	-0.0074	0.5521	2.56	2.88
42	43	SLU-INV	Min	-0.96	-4.07	-1.31	0.3041	0.5424	0.3625	1.29	2.88
42	44	SLU-INV	Min	-1.24	-5.49	-1.29	0.0059	0.7056	0.4338	1.29	4.08
42	84	SLU-INV	Max	-1.57	-5.55	-1.26	0.4157	1.1789	2.4658	8.24	13.04
42	83	SLU-INV	Max	-1.28	-4.13	-1.28	1.3333	0.4056	2.062	8.24	9.08
42	43	SLU-INV	Max	-0.96	-4.07	-1.31	1.1778	2.17	1.2072	4.03	9.08
42	44	SLU-INV	Max	-1.24	-5.49	-1.29	0.2472	2.9569	1.611	4.03	13.04
42	84	SLU-INV	Min	-2.12	-7.5	-1.7	-0.0083	0.1908	0.8416	3.46	5.5
42	83	SLU-INV	Min	-1.73	-5.58	-1.73	0.3723	-0.01	0.7454	3.46	3.89
42	43	SLU-INV	Min	-1.29	-5.49	-1.77	0.4106	0.7322	0.4894	1.74	3.89
42	44	SLU-INV	Min	-1.68	-7.41	-1.74	0.0079	0.9526	0.5857	1.74	5.5
43	85	SLU-INV	Max	-1.36	-6.56	-1.11	0.071	0.8585	1.2982	3.36	8.31
43	84	SLU-INV	Max	-1.14	-5.47	-1.17	0.4316	0.4085	1.2224	3.36	6.66
43	44	SLU-INV	Max	-1.03	-5.44	-1.23	0.5873	1.5954	0.7472	1.61	6.66
43	45	SLU-INV	Max	-1.25	-6.54	-1.17	0.2022	2.0687	0.823	1.61	8.31
43	85	SLU-INV	Min	-1.36	-6.56	-1.11	-0.0287	0.3287	0.6665	1.96	4.95
43	84	SLU-INV	Min	-1.14	-5.47	-1.17	0.1792	0.1181	0.6452	1.96	4
43	44	SLU-INV	Min	-1.03	-5.44	-1.23	0.306	0.826	0.4116	0.95	4
43	45	SLU-INV	Min	-1.25	-6.54	-1.17	0.0763	1.0553	0.4329	0.95	4.95
43	85	SLU-INV	Max	-1.36	-6.56	-1.11	0.3076	2.0874	2.7586	6.59	16.03
43	84	SLU-INV	Max	-1.14	-5.47	-1.17	1.0193	1.0829	2.5544	6.59	12.77
43	44	SLU-INV	Max	-1.03	-5.44	-1.23	1.2381	3.3717	1.5195	3.12	12.77
43	45	SLU-INV	Max	-1.25	-6.54	-1.17	0.4878	4.4106	1.7238	3.12	16.03
43	85	SLU-INV	Min	-1.84	-8.86	-1.5	-0.0388	0.4437	0.8998	2.64	6.69
43	84	SLU-INV	Min	-1.54	-7.38	-1.58	0.242	0.1594	0.871	2.64	5.41
43	44	SLU-INV	Min	-1.39	-7.35	-1.66	0.4131	1.1151	0.5556	1.28	5.41
43	45	SLU-INV	Min	-1.68	-8.83	-1.59	0.103	1.4246	0.5844	1.28	6.69
44	86	SLU-INV	Max	-1.28	-7.38	-0.98	0.0794	1.3382	1.3178	2.69	9.57
44	85	SLU-INV	Max	-1.11	-6.51	-1.04	0.3569	0.8346	1.3168	2.69	8.21
44	45	SLU-INV	Max	-1.13	-6.51	-1.12	0.6589	2.2414	0.8033	1.25	8.21
44	46	SLU-INV	Max	-1.3	-7.38	-1.07	0.3428	2.778	0.8044	1.25	9.57
44	86	SLU-INV	Min	-1.28	-7.38	-0.98	-0.016	0.557	0.6627	1.54	5.67
44	85	SLU-INV	Min	-1.11	-6.51	-1.04	0.1407	0.3179	0.6757	1.54	4.9
44	45	SLU-INV	Min	-1.13	-6.51	-1.12	0.3395	1.1526	0.4234	0.72	4.9
44	46	SLU-INV	Min	-1.3	-7.38	-1.07	0.156	1.4147	0.4105	0.72	5.67
44	86	SLU-INV	Max	-1.28	-7.38	-0.98	0.3067	3.151	2.836	5.36	18.54
44	85	SLU-INV	Max	-1.11	-6.51	-1.04	0.8629	2.034	2.7995	5.36	15.83
44	45	SLU-INV	Max	-1.13	-6.51	-1.12	1.3989	4.7573	1.6799	2.47	15.83
44	46	SLU-INV	Max	-1.3	-7.38	-1.07	0.7762	5.9315	1.7163	2.47	18.54
44	86	SLU-INV	Min	-1.73	-9.96	-1.33	-0.0216	0.752	0.8947	2.08	7.65
44	85	SLU-INV	Min	-1.49	-8.79	-1.4	0.1899	0.4291	0.9121	2.08	6.62
44	45	SLU-INV	Min	-1.52	-8.8	-1.52	0.4584	1.556	0.5717	0.97	6.62
44	46	SLU-INV	Min	-1.76	-9.97	-1.44	0.2106	1.9098	0.5542	0.97	7.65
45	87	SLU-INV	Max	-1.27	-8.04	-0.85	0.1398	1.8582	1.2894	2.19	10.62
45	86	SLU-INV	Max	-1.13	-7.35	-0.91	0.3573	1.3306	1.3244	2.19	9.49
45	46	SLU-INV	Max	-1.24	-7.37	-1	0.7453	2.9217	0.7979	0.99	9.49
45	47	SLU-INV	Max	-1.38	-8.06	-0.94	0.484	3.4867	0.7628	0.99	10.62
45	87	SLU-INV	Min	-1.27	-8.04	-0.85	0.0226	0.638	0.638	1.23	6.26
45	86	SLU-INV	Min	-1.13	-7.35	-0.91	0.1433	0.5548	0.6653	1.23	5.63
45	46	SLU-INV	Min	-1.24	-7.37	-1	0.3824	1.4941	0.3882	0.56	5.63
45	47	SLU-INV	Min	-1.38	-8.06	-0.94	0.2329	1.7694	0.381	0.56	6.26
45	87	SLU-INV	Max	-1.27	-8.04	-0.85	0.4187	4.3027	2.8028	4.4	20.66
45	86	SLU-INV	Max	-1.13	-7.35	-0.91	0.8595	3.1316	2.8526	4.4	18.39
45	46	SLU-INV	Max	-1.24	-7.37	-1	1.5873	6.2237	1.6993	1.98	18.39
45	47	SLU-INV	Max	-1.38	-8.06	-0.94	1.0662	7.4632	1.6495	1.98	20.66
45	87	SLU-INV	Min	-1.72	-10.86	-1.14	0.0305	1.0876	0.8614	1.66	8.45
45	86	SLU-INV	Min	-1.53	-9.92	-1.23	0.1934	0.7489	0.8981	1.66	7.6
45	46	SLU-INV	Min	-1.67	-9.95	-1.35	0.5162	2.017	0.5511	0.76	7.6
45	47	SLU-INV	Min	-1.86	-10.88	-1.27	0.3144	2.3887	0.5143	0.76	8.45
46	88	SLU-INV	Max	-1.31	-8.57	-0.72	0.2152	2.3809	1.2116	1.8	11.5
46	87	SLU-INV	Max	-1.2	-8.03	-0.77	0.3857	1.8612	1.283	1.8	10.56
46	47	SLU-INV	Max	-1.35	-8.06	-0.87	0.8541	3.6068	0.7693	0.8	10.56
46	48	SLU-INV	Max	-1.46	-8.61	-0.81	0.6341	4.1683	0.698	0.8	11.5
46	88	SLU-INV	Min	-1.31	-8.57	-0.72	0.0672	1.0555	0.5933	1	6.75
46	87	SLU-INV	Min	-1.2	-8.03	-0.77	0.1609	0.8086	0.6344	1	6.23
46	47	SLU-INV	Min	-1.35	-8.06	-0.87	0.4362	1.8347	0.3849	0.45	6.23
46	48	SLU-INV	Min	-1.46	-8.61	-0.81	0.3118	2.1074	0.3437	0.45	6.75
46	88	SLU-INV	Max	-1.31	-8.57	-0.72	0.5663	5.4623	2.6533	3.65	22.47
46	87	SLU-INV	Max	-1.2	-8.03	-0.77	0.9147	4.3064	2.7909	3.65	20.55
46	47	SLU-INV	Max	-1.35	-8.06	-0.87	1.8251	7.7105	1.661	1.61	20.55
46	48	SLU-INV	Max	-1.46	-8.61	-0.81	1.3822	8.9463	1.5234	1.61	22.47
46	88	SLU-INV	Min	-1.76	-11.58	-0.97	0.0908	1.4249	0.8009	1.35	9.11
46	87	SLU-INV	Min	-1.61	-10.83	-1.05	0.2172	1.0917	0.8564	1.35	8.41
46	47	SLU-INV	Min	-1.82	-10.88	-1.17	0.5888	2.4769	0.5196	0.6	8.41
46	48	SLU-INV	Min	-1.97	-11.62	-1.09	0.421	2.845	0.4641	0.6	9.11
47	89	SLU-INV	Max	-1.37	-9	-0.59	0.3146	2.8879	1.1193	1.49	12.25
47	88	SLU-INV	Max	-1.28	-8.57	-0.65	0.45	2.3915	1.1988	1.49	11.46
47	48	SLU-INV	Max	-1.45	-8.6	-0.74	0.9556	4.269	0.7119	0.64	11.46
47	49	SLU-INV	Max	-1.54	-9.04	-0.67	0.7701	4.8075	0.6323	0.64	12.25
47	89	SLU-INV	Min	-1.37	-9	-0.59	0.1212	1.2973	0.5442	0.82	7.16
47	88	SLU-INV	Min	-1.28	-8.57	-0.65	0.1951	1.062	0.5867	0.82	6.73
47	48	SLU-INV	Min	-1.45	-8.6	-0.74	0.4865	2.1614	0.3511	0.36	6.73
47	49	SLU-INV	Min	-1.54	-9.04	-0.67	0.3823	2.4223	0.3085	0.36	7.16
47	89	SLU-INV	Max	-1.37	-9	-0.59	0.7723	6.5901	2.4656	3.04	24.01
47	88	SLU-INV	Max	-1.28	-8.57	-0.65	1.0508	5.4829	2.627	3.04	22.38
47	48	SLU-INV	Max	-1.45	-8.6	-0.74	2.0469	9.1555	1.5514	1.31	22.38
47	49	SLU-INV	Max	-1.54	-9.04	-0.67	1.6709	10.345	1.3899	1.31	24.01
47	89	SLU-INV	Min	-1.85	-12.15	-0.79	0.1636	1.7514	0.7346	1.11	9.67
47	88	SLU-INV	Min	-1.73	-11.57	-0.88	0.2634	1.4337	0.792	1.11	9.08
47	48	SLU-INV	Min	-1.96	-11.62	-0.99	0.6568	2.9179	0.4739	0.49	9.08
47	49	SLU-INV	Min	-2.07	-12.2	-0.91	0.5161	3.27	0.4165	0.49	9.67
48	90	SLU-INV	Max	-1.44	-9.34	-0.47	0.4095	3.3624	1.0066	1.24	12.89
48	89	SLU-INV	Max	-1.37	-9	-0.52	0.5167	2.9026	1.1012	1.24	12.22
48	49	SLU-INV	Max	-1.55	-9.04	-0.6	1.0642	4.892	0.6514	0.53	12.22
48	50	SLU-INV	Max	-1.62	-9.37	-0.55	0.9063	5.3944	0.5568	0.53	12.89
48	89	SLU-INV	Min	-1.44	-9.34	-0.47	0.1716	1.5237	0.488	0.68	7.52
48	90	SLU-INV	Min	-1.37	-9	-0.52	0.2301	1.3057	0.5354	0.68	7.15
48	49	SLU-INV	Min	-1.55	-9.04	-0.6	0.5399	2.4672	0.318	0.29	7.15
48	50	SLU-INV	Min	-1.62	-9.37	-0.55	0.4513	2.7103	0.2707	0.29	7.52
48	90	SLU-INV	Max	-1.44	-9.34	-0.47	0.9722	7.6486	2.2272	2.54	25.32



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS 016700	Id.doc REL	N.progr. 01	REV. A	Pag.di Pag. 116 di 174
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48	90	SLU-INV	Min	-1.95	-12.61	-0.64	0.2316	2.0569	0.6588	0.92	10.15
48	89	SLU-INV	Min	-1.86	-12.15	-0.71	0.3106	1.7627	0.7228	0.92	9.65
48	49	SLU-INV	Min	-2.09	-12.2	-0.82	0.7288	3.3307	0.4293	0.4	9.65
48	50	SLU-INV	Min	-2.18	-12.65	-0.74	0.6093	3.659	0.3654	0.4	10.15
49	91	SLE-INV	Max	-1.52	-9.6	-0.36	0.5116	3.7964	0.8947	1.03	13.43
49	50	SLE-INV	Max	-1.47	-9.34	-0.42	0.5975	3.3797	0.9859	1.03	12.87
49	51	SLE-INV	Max	-1.64	-9.38	-0.49	1.1583	5.4651	0.5792	0.43	12.87
49	50	SLE-INV	Max	-1.69	-9.63	-0.44	1.0243	5.9223	0.488	0.43	13.43
49	91	SLE-INV	Min	-1.52	-9.6	-0.36	0.2239	1.731	0.4341	0.57	7.82
49	90	SLE-INV	Min	-1.47	-9.34	-0.42	0.2709	1.5331	0.4783	0.57	7.5
49	50	SLE-INV	Min	-1.64	-9.38	-0.49	0.5863	2.7478	0.2815	0.24	7.5
49	51	SLE-INV	Min	-1.69	-9.63	-0.44	0.5109	2.9694	0.2373	0.24	7.82
49	91	SLU-INV	Max	-1.52	-9.6	-0.36	1.1921	8.6194	1.987	2.12	26.44
49	90	SLU-INV	Max	-1.47	-9.34	-0.42	1.3695	7.685	2.1824	2.12	25.27
49	50	SLU-INV	Max	-1.64	-9.38	-0.49	2.4938	11.7843	1.2782	0.88	25.27
49	51	SLU-INV	Max	-1.69	-9.63	-0.44	2.2194	12.8001	1.0828	0.88	26.44
49	91	SLU-INV	Min	-2.06	-12.96	-0.49	0.3022	2.3369	0.586	0.77	10.55
49	90	SLU-INV	Min	-1.99	-12.61	-0.56	0.3657	2.0697	0.6457	0.77	10.13
49	50	SLU-INV	Min	-2.21	-12.66	-0.66	0.7915	3.7095	0.38	0.33	10.13
49	51	SLU-INV	Min	-2.28	-13	-0.59	0.6898	4.0088	0.3204	0.33	10.55
50	92	SLE-INV	Max	-1.6	-9.8	-0.28	0.6018	4.1843	0.7776	0.86	13.89
50	91	SLE-INV	Max	-1.57	-9.61	-0.32	0.6701	3.8143	0.8728	0.86	13.42
50	51	SLE-INV	Max	-1.71	-9.64	-0.38	1.251	5.9815	0.5116	0.35	13.42
50	52	SLE-INV	Max	-1.75	-9.83	-0.34	1.1367	6.39	0.4165	0.35	13.89
50	92	SLE-INV	Min	-1.6	-9.8	-0.28	0.2698	1.9172	0.3793	0.48	8.07
50	91	SLE-INV	Min	-1.57	-9.61	-0.32	0.3077	1.7406	0.4239	0.48	7.81
50	51	SLE-INV	Min	-1.71	-9.64	-0.38	0.6319	3.0008	0.2484	0.2	7.81
50	52	SLE-INV	Min	-1.75	-9.83	-0.34	0.5672	3.1998	0.2038	0.2	8.07
50	92	SLU-INV	Max	-1.6	-9.8	-0.28	1.3874	9.4887	1.7316	1.77	27.39
50	91	SLU-INV	Max	-1.57	-9.61	-0.32	1.5286	8.6575	1.9389	1.77	26.41
50	51	SLU-INV	Max	-1.71	-9.64	-0.38	2.6996	12.9254	1.1341	0.73	26.41
50	52	SLU-INV	Max	-1.75	-9.83	-0.34	2.4649	13.8351	0.9269	0.73	27.39
50	92	SLU-INV	Min	-2.17	-13.23	-0.37	0.3643	2.5882	0.512	0.65	10.9
50	91	SLU-INV	Min	-2.11	-12.97	-0.43	0.4154	2.3499	0.5723	0.65	10.54
50	51	SLU-INV	Min	-2.31	-13.01	-0.51	0.8531	4.0511	0.3354	0.27	10.54
50	52	SLU-INV	Min	-2.37	-13.27	-0.46	0.7657	4.3198	0.2751	0.27	10.9
51	93	SLE-INV	Max	-1.68	-9.95	-0.2	0.6897	4.5235	0.6669	0.72	14.28
51	92	SLE-INV	Max	-1.65	-9.81	-0.24	0.7447	4.2019	0.755	0.72	13.88
51	51	SLE-INV	Max	-1.78	-9.83	-0.29	1.3281	6.4392	0.4412	0.29	13.88
51	52	SLE-INV	Max	-1.81	-9.98	-0.25	1.2314	6.7956	0.3531	0.29	14.28
51	93	SLE-INV	Min	-1.68	-9.95	-0.2	0.3141	2.0814	0.3287	0.41	8.29
51	92	SLE-INV	Min	-1.65	-9.81	-0.24	0.3451	1.9266	0.3691	0.41	8.07
51	52	SLE-INV	Min	-1.78	-9.83	-0.29	0.6704	3.2261	0.2152	0.17	8.07
51	53	SLE-INV	Min	-1.81	-9.98	-0.25	0.6148	3.4014	0.1747	0.17	8.29
51	93	SLU-INV	Max	-1.68	-9.95	-0.2	1.5799	10.2505	1.4885	1.48	28.2
51	92	SLU-INV	Max	-1.65	-9.81	-0.24	1.6937	9.5267	1.6817	1.48	27.37
51	52	SLU-INV	Max	-1.78	-9.83	-0.29	2.8708	13.9396	0.9809	0.6	27.37
51	53	SLU-INV	Max	-1.81	-9.98	-0.25	2.672	14.7347	0.7877	0.6	28.2
51	93	SLU-INV	Min	-2.27	-13.43	-0.27	0.424	2.8098	0.4437	0.55	11.2
51	92	SLU-INV	Min	-2.23	-13.24	-0.32	0.4659	2.6009	0.4983	0.55	10.89
51	52	SLU-INV	Min	-2.41	-13.28	-0.39	0.9051	4.3552	0.2905	0.23	10.89
51	53	SLU-INV	Min	-2.44	-13.47	-0.34	0.83	4.5919	0.2359	0.23	11.2
52	94	SLE-INV	Max	-1.75	-10.07	-0.14	0.7637	4.8133	0.5578	0.6	14.61
52	93	SLE-INV	Max	-1.73	-9.96	-0.17	0.8077	4.5399	0.6447	0.6	14.27
52	54	SLE-INV	Max	-1.84	-9.98	-0.21	1.3993	6.8364	0.3773	0.24	14.27
52	53	SLE-INV	Max	-1.86	-10.09	-0.18	1.3174	7.1415	0.2903	0.24	14.61
52	94	SLE-INV	Min	-1.75	-10.07	-0.14	0.3517	2.2236	0.2799	0.35	8.48
52	93	SLE-INV	Min	-1.73	-9.96	-0.17	0.3772	2.0902	0.3188	0.12	8.29
52	53	SLE-INV	Min	-1.84	-9.98	-0.21	0.7063	3.4235	0.1857	0.14	8.29
52	54	SLE-INV	Min	-1.86	-10.09	-0.18	0.6582	3.5758	0.1467	0.14	8.48
52	94	SLU-INV	Max	-1.75	-10.07	-0.14	1.7424	10.9023	1.2466	1.23	28.88
52	93	SLU-INV	Max	-1.73	-9.96	-0.17	1.8332	10.2858	1.4391	1.23	28.18
52	53	SLU-INV	Max	-1.84	-9.98	-0.21	3.0297	14.8216	0.841	0.49	28.18
52	54	SLU-INV	Max	-1.86	-10.09	-0.18	2.8612	15.503	0.6485	0.49	28.88
52	94	SLU-INV	Min	-2.36	-13.59	-0.19	0.4747	3.0019	0.3778	0.47	11.45
52	93	SLU-INV	Min	-2.34	-13.45	-0.23	0.5093	2.8218	0.4304	0.47	11.19
52	53	SLU-INV	Min	-2.48	-13.48	-0.28	0.9535	4.6217	0.2507	0.19	11.19
52	54	SLU-INV	Min	-2.51	-13.62	-0.25	0.8885	4.8273	0.1981	0.19	11.45
53	95	SLE-INV	Max	-1.81	-10.15	-0.08818	0.8306	5.0538	0.4557	0.49	14.88
53	94	SLE-INV	Max	-1.8	-10.08	-0.11	0.8664	4.828	0.5359	0.49	14.6
53	54	SLE-INV	Max	-1.89	-10.09	-0.15	1.4562	7.175	0.3145	0.2	14.6
53	55	SLE-INV	Max	-1.9	-10.17	-0.12	1.3878	7.4281	0.2343	0.2	14.88
53	95	SLE-INV	Min	-1.81	-10.15	-0.08818	0.3858	2.3443	0.2353	0.3	8.65
53	94	SLE-INV	Min	-1.8	-10.08	-0.11	0.4074	2.2317	0.2703	0.3	8.48
53	54	SLE-INV	Min	-1.89	-10.09	-0.15	0.7359	3.5944	0.1575	0.12	8.48
53	55	SLE-INV	Min	-1.9	-10.17	-0.12	0.6943	3.7238	0.1224	0.12	8.65
53	95	SLU-INV	Max	-1.81	-10.15	-0.08818	1.89	11.4439	1.0194	1.02	29.44
53	94	SLU-INV	Max	-1.8	-10.08	-0.11	1.9636	10.9342	1.1976	1.02	28.87
53	54	SLU-INV	Max	-1.89	-10.09	-0.15	3.1565	15.5744	0.7021	0.41	28.87
53	55	SLU-INV	Max	-1.9	-10.17	-0.12	3.0158	16.1402	0.5238	0.41	29.44
53	95	SLU-INV	Min	-2.45	-13.71	-0.12	0.5208	3.1648	0.3176	0.4	11.67
53	94	SLU-INV	Min	-2.43	-13.6	-0.15	0.55	3.0127	0.365	0.4	11.45
53	54	SLU-INV	Min	-2.55	-13.63	-0.2	0.9934	4.8525	0.2126	0.16	11.45
53	55	SLU-INV	Min	-2.57	-13.73	-0.17	0.9372	5.0272	0.1653	0.16	11.67
54	96	SLE-INV	Max	-1.86	-10.22	-0.05091	0.8844	5.2462	0.3577	0.41	15.11
54	95	SLE-INV	Max	-1.85	-10.16	-0.0693	0.9133	5.0664	0.4348	0.41	14.88
54	55	SLE-INV	Max	-1.93	-10.18	-0.09644	1.505	7.4555	0.2575	0.16	14.88
54	56	SLE-INV	Max	-1.94	-10.23	-0.07806	1.448	7.6588	0.1804	0.16	15.11
54	96	SLE-INV	Min	-1.86	-10.22	-0.05091	0.4139	2.4442	0.1934	0.26	8.79
54	95	SLE-INV	Min	-1.85	-10.16	-0.0693	0.4324	2.3514	0.2263	0.26	8.65
54	55	SLE-INV	Min	-1.93	-10.18	-0.09644	0.762	3.7396	0.1326	0.11	8.65
54	56	SLE-INV	Min	-1.94	-10.23	-0.07806	0.7257	3.8474	0.0996	0.11	8.79
54	96	SLU-INV	Max	-1.86	-10.22	-0.05091	2.0083	11.8772	0.7994	0.84	29.91
54	95	SLU-INV	Max	-1.85	-10.16	-0.0693	2.0674	11.4711	0.9723	0.84	29.44
54	55	SLU-INV	Max	-1.93	-10.18	-0.09644	3.2653	16.1983	0.5754	0.33	29.44
54	56	SLU-INV	Max	-1.94	-10.23	-0.07806	3.1485	16.6527	0.4025	0.33	29.91
54	96	SLU-INV	Min	-2.52	-13.79	-0.06873	0.5588	3.2997	0.2611	0.35	11.87
54	95	SLU-INV	Min	-2.5	-13.72	-0.09355	0.5838	3.1743	0.3055	0.35	11.67
54	55	SLU-INV	Min	-2.6	-13.74	-0.13	1.0287	5.0485	0.179	0.14	11.67
54	56	SLU-INV	Min	-2.62	-13.82	-0.11	0.9797	5.1941	0.1345	0.14	11.87
55	97	SLE-INV	Max	-1.91	-10.27	-0.02009	0.9285	5.3915	0.2652	0.33	15.29
55	96	SLE-INV	Max	-1.9	-10.22	-0.03582	0.9523	5.2565	0.3373	0.33	15.11
55	56	SLE-INV	Max	-1.96	-10.24	-0.05624	1.5415	7.6807	0.2031	0.13	15.11
55	57	SLE-INV	Max	-1.97	-10.28	-0.04051	1.4951	7.8346	0.131	0.13	15.29
55	97	SLE-INV	Min	-1.91	-10.27	-0.02009	0.4377	2.5241	0.1548	0.23	8.91
55	96	SLE-INV	Min	-1.9	-						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
 Tratto Fabriano - Matelica Nord
 Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
 Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 117 di 174
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55	57	SLU-INV	Max	-1.97	-10.28	-0.04051	3.2517	17.0423	0.2909	0.27	30.29
55	97	SLU-INV	Min	-2.57	-13.86	-0.02712	0.5909	3.4075	0.209	0.31	12.03
55	96	SLU-INV	Min	-2.56	-13.8	-0.04835	0.6131	3.3078	0.2495	0.31	11.86
55	56	SLU-INV	Min	-2.64	-13.82	-0.07592	1.0571	5.2123	0.1477	0.13	11.86
55	57	SLU-INV	Min	-2.66	-13.88	-0.05469	1.0142	5.3293	0.1072	0.13	12.03
56	98	SLU-INV	Max	-1.94	-10.31	0.002613	0.9611	5.491	0.1769	0.27	15.44
56	97	SLU-INV	Max	-1.93	-10.27	-0.009413	0.9806	5.3992	0.2457	0.27	15.29
56	57	SLU-INV	Max	-1.98	-10.29	-0.02233	1.5684	7.8519	0.1528	0.11	15.29
56	58	SLU-INV	Max	-1.99	-10.32	-0.0103	1.5311	7.9585	0.084	0.11	15.44
56	98	SLU-INV	Min	-1.94	-10.31	0.002613	0.4564	2.5847	0.119	0.2	9.02
56	97	SLU-INV	Min	-1.93	-10.27	-0.009413	0.4715	2.5289	0.1468	0.2	8.91
56	57	SLU-INV	Min	-1.98	-10.29	-0.02233	0.8002	3.9593	0.0887	0.08486	8.91
56	58	SLU-INV	Min	-1.99	-10.32	-0.0103	0.7719	4.0261	0.0608	0.08486	9.02
56	98	SLU-INV	Max	-1.94	-10.31	0.003527	2.1759	12.4268	0.3895	0.54	30.58
56	97	SLU-INV	Max	-1.93	-10.27	-0.009413	2.2151	12.2205	0.5462	0.54	30.28
56	57	SLU-INV	Max	-1.98	-10.29	-0.02233	3.4057	17.0785	0.34	0.22	30.28
56	58	SLU-INV	Max	-1.99	-10.32	-0.0103	3.3307	17.3148	0.1833	0.22	30.58
56	98	SLU-INV	Min	-2.61	-13.92	0.002613	0.6161	3.4893	0.1606	0.27	12.18
56	97	SLU-INV	Min	-2.6	-13.87	-0.01271	0.6365	3.414	0.1982	0.27	12.03
56	57	SLU-INV	Min	-2.68	-13.89	-0.03014	1.0803	5.3451	0.1197	0.11	12.03
56	58	SLU-INV	Min	-2.69	-13.94	-0.01391	1.0421	5.4352	0.0821	0.11	12.18
57	99	SLU-INV	Max	-1.95	-10.35	0.02236	0.9823	5.5454	0.0914	0.21	15.55
57	98	SLU-INV	Max	-1.95	-10.31	0.01159	0.999	5.0261	0.1578	0.21	15.44
57	58	SLU-INV	Max	-2	-10.32	0.004857	1.5851	7.9717	0.1055	0.09029	15.44
57	59	SLU-INV	Max	-2	-10.36	0.01563	1.5562	8.0313	0.0437	0.09029	15.55
57	99	SLU-INV	Min	-1.95	-10.35	0.02236	0.47	2.6266	0.0851	0.19	9.12
57	98	SLU-INV	Min	-1.95	-10.31	0.01159	0.4847	2.5883	0.1112	0.19	9.02
57	58	SLU-INV	Min	-2	-10.32	0.004857	0.8133	4.0364	0.0699	0.07976	9.02
57	59	SLU-INV	Min	-2	-10.36	0.01563	0.788	4.0835	0.0391	0.07976	9.12
57	99	SLU-INV	Max	-1.95	-10.35	0.03019	2.2209	12.5468	0.1934	0.42	30.81
57	98	SLU-INV	Max	-1.95	-10.31	0.01564	2.2538	12.4373	0.3458	0.42	30.58
57	58	SLU-INV	Max	-2	-10.32	0.006557	3.4413	17.3419	0.2321	0.18	30.58
57	59	SLU-INV	Max	-2	-10.36	0.02111	3.3847	17.4713	0.0796	0.18	30.81
57	99	SLU-INV	Min	-2.64	-13.97	0.02236	0.6345	3.5459	0.1149	0.25	12.31
57	98	SLU-INV	Min	-2.63	-13.92	0.01159	0.6543	3.4942	0.1502	0.25	12.18
57	58	SLU-INV	Min	-2.7	-13.94	0.004857	1.098	5.4491	0.0943	0.11	12.18
57	59	SLU-INV	Min	-2.7	-13.98	0.01563	1.0638	5.5128	0.052	0.11	12.31
58	100	SLU-INV	Max	-1.96	-10.38	0.03994	0.9934	5.5556	0.0534	0.18	15.63
58	99	SLU-INV	Max	-1.95	-10.35	0.02945	1.0078	5.5478	0.0777	0.18	15.55
58	59	SLU-INV	Max	-2	-10.36	0.03004	1.5912	8.0411	0.061	0.07837	15.63
58	60	SLU-INV	Max	-2.01	-10.39	0.04052	1.5995	8.0549	0.0281	0.07837	15.63
58	100	SLU-INV	Min	-1.96	-10.38	0.03994	0.4792	2.6501	0.0089	0.17	9.21
58	99	SLU-INV	Min	-1.95	-10.35	0.02945	0.4941	2.6289	0.0728	0.17	9.12
58	59	SLU-INV	Min	-2	-10.36	0.03004	0.8223	4.0929	0.0524	0.07471	9.12
58	60	SLU-INV	Min	-2.01	-10.39	0.04052	0.7989	4.1211	-0.0039	0.07471	9.21
58	100	SLU-INV	Max	-1.96	-10.38	0.05392	2.2425	12.565	0.072	0.31	30.96
58	99	SLU-INV	Max	-1.95	-10.35	0.03976	2.2699	12.5512	0.1505	0.31	30.8
58	59	SLU-INV	Max	-2	-10.36	0.04055	3.4527	17.4904	0.1274	0.14	30.8
58	60	SLU-INV	Max	-2.01	-10.39	0.05471	3.4123	17.5152	0.0379	0.14	30.96
58	100	SLU-INV	Min	-2.65	-14.01	0.03994	0.6469	3.5776	0.0021	0.22	12.44
58	99	SLU-INV	Min	-2.64	-13.97	0.02945	0.6671	3.549	0.0975	0.22	12.31
58	59	SLU-INV	Min	-2.7	-13.98	0.03004	1.1101	5.5254	0.0707	0.1	12.31
58	60	SLU-INV	Min	-2.71	-14.03	0.04052	1.0785	5.5635	-0.021	0.1	12.44
59	101	SLU-INV	Max	-1.96	-10.41	0.05926	0.9915	5.5215	0.0219	0.18	15.69
59	100	SLU-INV	Max	-1.95	-10.38	0.04792	1.0051	5.555	0.046	0.18	15.63
59	60	SLU-INV	Max	-2	-10.39	0.05524	1.5886	8.0617	0.0368	0.08131	15.63
59	61	SLU-INV	Max	-2.01	-10.42	0.0658	1.5736	8.0295	0.0127	0.08131	15.69
59	101	SLU-INV	Min	-1.96	-10.41	0.05926	0.4824	2.6551	-0.074	0.13	9.3
59	100	SLU-INV	Min	-1.95	-10.38	0.04792	0.4988	2.651	-0.0095	0.13	9.21
59	60	SLU-INV	Min	-2	-10.39	0.05524	0.8282	4.13	0.0171	0.06333	9.21
59	61	SLU-INV	Min	-2.01	-10.42	0.06558	0.8059	4.1391	-0.0474	0.06333	9.3
59	101	SLU-INV	Max	-1.96	-10.41	0.08	2.2349	12.4812	0.0296	0.24	31.05
59	100	SLU-INV	Max	-1.95	-10.38	0.06469	2.2592	12.5628	0.0621	0.24	30.95
59	60	SLU-INV	Max	-2	-10.39	0.07457	3.4434	17.527	0.0496	0.11	30.95
59	61	SLU-INV	Max	-2.01	-10.42	0.08988	3.4185	17.4458	0.0171	0.11	31.05
59	101	SLU-INV	Min	-2.64	-14.05	0.05926	0.6512	3.5844	-0.1919	0.16	12.55
59	100	SLU-INV	Min	-2.63	-14.01	0.04792	0.6734	3.5788	-0.0407	0.16	12.43
59	60	SLU-INV	Min	-2.7	-14.03	0.05524	1.1181	5.5755	0.0201	0.0828	12.43
59	61	SLU-INV	Min	-2.71	-14.07	0.06558	1.088	5.5878	-0.1241	0.0828	12.55
60	102	SLU-INV	Max	-1.94	-10.43	0.08356	0.9804	5.4421	-0.0086	0.19	15.72
60	101	SLU-INV	Max	-1.93	-10.4	0.06868	0.9939	5.5179	0.0144	0.19	15.68
60	61	SLU-INV	Max	-1.99	-10.42	0.08394	1.5747	8.0337	0.0215	0.08988	15.68
60	62	SLU-INV	Max	-2	-10.44	0.09882	1.5649	7.9549	-0.0015	0.08988	15.72
60	102	SLU-INV	Min	-1.94	-10.43	0.08356	0.4813	2.6408	-0.1561	0.0972	9.38
60	101	SLU-INV	Min	-1.93	-10.4	0.06868	0.5028	2.6545	-0.0928	0.0972	9.38
60	61	SLU-INV	Min	-1.99	-10.42	0.08394	0.8298	4.148	-0.0263	0.05703	9.29
60	62	SLU-INV	Min	-2	-10.44	0.09882	0.8073	4.1374	-0.0896	0.05703	9.38
60	102	SLU-INV	Max	-1.94	-10.43	0.11	2.2058	12.2926	-0.0116	0.25	31.09
60	101	SLU-INV	Max	-1.93	-10.4	0.09272	2.2278	12.4723	0.0194	0.25	31.05
60	61	SLU-INV	Max	-1.99	-10.42	0.11	3.4076	17.4511	0.029	0.12	31.05
60	62	SLU-INV	Max	-2	-10.44	0.13	3.3961	17.2627	-0.0021	0.12	31.09
60	102	SLU-INV	Min	-2.61	-14.08	0.08356	0.6497	3.5651	-0.3861	0.12	12.67
60	101	SLU-INV	Min	-2.61	-14.05	0.06868	0.6752	3.5836	-0.2357	0.12	12.54
60	61	SLU-INV	Min	-2.69	-14.06	0.08394	1.1202	5.5998	-0.0755	0.07206	12.54
60	62	SLU-INV	Min	-2.7	-14.1	0.09882	1.0898	5.5855	-0.226	0.07206	12.67
61	103	SLU-INV	Max	-1.9	-10.44	0.12	0.9547	5.3166	-0.041	0.21	15.74
61	102	SLU-INV	Max	-1.9	-10.42	0.09715	0.9699	5.4353	-0.0164	0.21	15.72
61	62	SLU-INV	Max	-1.98	-10.44	0.12	1.553	7.9573	0.0077	0.11	15.72
61	63	SLU-INV	Max	-1.98	-10.46	0.14	1.5475	7.8306	-0.0169	0.11	15.74
61	103	SLU-INV	Min	-1.9	-10.44	0.12	0.4726	2.6061	-0.2418	0.07992	9.47
61	102	SLU-INV	Min	-1.9	-10.42	0.09715	0.496	2.6384	-0.175	0.07992	9.38
61	62	SLU-INV	Min	-1.98	-10.44	0.12	0.8289	4.1471	-0.0681	0.05758	9.38
61	63	SLU-INV	Min	-1.98	-10.46	0.14	0.8047	4.1155	-0.1349	0.05758	9.47
61	103	SLU-INV	Max	-1.9	-10.44	0.16	2.1445	11.9974	-0.0553	0.28	31.07
61	102	SLU-INV	Max	-1.9	-10.42	0.13	2.1671	12.2766	-0.0222	0.28	31.08
61	62	SLU-INV	Max	-1.98	-10.44	0.16	3.3525	17.2621	0.0104	0.14	31.08
61	63	SLU-INV	Max	-1.98	-10.46	0.19	3.3534	16.9634	-0.0228	0.14	31.07
61	103	SLU-INV	Min	-2.57	-14.1	0.12	0.638	3.5182	-0.5903	0.06942	12.79
61	102	SLU-INV	Min	-2.56	-14.07	0.09715	0.6696	3.5619	-0.4305	0.06942	12.66
61	62	SLU-INV	Min	-2.67	-14.09	0.12	1.119	5.5985	-0.1763	0.0704	12.66
61	63	SLU-INV	Min	-2.68	-14.12	0.14	1.0863	5.556	-0.3361	0.0704	12.79
62	104	SLU-INV	Max	-1.86	-10.44	0.16	0.9184	5.1404	-0.0755	0.26	15.74
62	103	SLU-INV	Max	-1.85	-10.43	0.13	0.9371	5.3064	-0.05	0.26	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.progr.	REV.	Pag.di Pag.
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62	63	SLU-INV	Max	-1.96	-10.45	0.22	3.27	16.9579	-0.0087	0.18	31.06
62	64	SLU-INV	Max	-1.96	-10.46	0.26	3.2794	16.541	-0.0432	0.18	31.01
62	104	SLU-INV	Min	-2.5	-14.09	0.16	0.6175	3.439	-0.8026	0.02713	12.93
62	103	SLU-INV	Min	-2.5	-14.09	0.13	0.6583	3.5124	-0.6384	0.02713	12.78
62	63	SLU-INV	Min	-2.64	-14.11	0.17	1.112	5.571	-0.2831	0.07727	12.78
62	64	SLU-INV	Min	-2.64	-14.12	0.19	1.0733	5.4959	-0.4473	0.07727	12.93
63	105	SLE-INV	Max	-1.79	-10.41	0.22	0.8614	4.9062	-0.1173	0.33	15.73
63	104	SLE-INV	Max	-1.8	-10.43	0.19	0.888	5.1261	-0.0857	0.33	15.73
63	64	SLE-INV	Max	-1.92	-10.45	0.23	1.4769	7.6538	-0.0203	0.19	15.73
63	65	SLE-INV	Max	-1.92	-10.43	0.26	1.4711	7.4156	-0.0519	0.19	15.73
63	105	SLE-INV	Min	-1.79	-10.41	0.22	0.4279	2.4591	-0.4293	0.11	9.7
63	104	SLE-INV	Min	-1.8	-10.43	0.19	0.4706	2.5404	-0.3521	0.11	9.56
63	64	SLE-INV	Min	-1.92	-10.45	0.23	0.8155	4.0848	-0.1561	0.1	9.56
63	65	SLE-INV	Min	-1.92	-10.43	0.26	0.7776	3.9993	-0.2333	0.1	9.7
63	105	SLU-INV	Max	-1.79	-10.41	0.29	1.9353	11.0445	-0.1583	0.45	30.91
63	104	SLU-INV	Max	-1.8	-10.43	0.25	1.9687	11.5549	-0.1157	0.45	30.99
63	64	SLU-INV	Max	-1.92	-10.45	0.31	3.1643	16.5311	-0.0274	0.26	30.99
63	65	SLU-INV	Max	-1.92	-10.43	0.35	3.1775	15.9794	-0.07	0.26	30.91
63	105	SLU-INV	Min	-2.42	-14.05	0.22	0.5776	3.3197	-1.0356	0.02083	13.1
63	104	SLU-INV	Min	-2.43	-14.08	0.19	0.6352	3.4295	-0.8519	0.02083	12.91
63	64	SLU-INV	Min	-2.6	-14.11	0.23	1.1009	5.5144	-0.3926	0.11	12.91
63	65	SLU-INV	Min	-2.59	-14.09	0.26	1.0497	5.3991	-0.5764	0.11	13.1
64	105	SLE-INV	Max	-1.74	-10.4	0.25	0.8322	4.8912	-0.1288	0.43	15.72
64	65	SLE-INV	Max	-1.89	-10.43	0.3	1.4232	7.4152	-0.0389	0.27	15.72
64	66	SLE-INV	Max	-1.88	-10.38	0.34	1.4204	7.1722	-0.0708	0.27	15.71
64	106	SLE-INV	Max	-1.73	-10.35	0.29	0.7963	4.6644	-0.1607	0.43	15.71
64	105	SLE-INV	Min	-1.74	-10.4	0.25	0.4421	2.4511	-0.4519	0.15	9.69
64	65	SLE-INV	Min	-1.89	-10.43	0.3	0.7971	4.014	-0.2085	0.16	9.69
64	66	SLE-INV	Min	-1.88	-10.38	0.34	0.758	3.9176	-0.278	0.16	9.81
64	106	SLE-INV	Min	-1.73	-10.35	0.29	0.3933	2.3593	-0.5214	0.15	9.81
64	105	SLU-INV	Max	-1.74	-10.4	0.34	1.8443	11.0123	-0.1739	0.57	30.89
64	65	SLU-INV	Max	-1.89	-10.43	0.4	3.0382	15.9656	-0.0526	0.36	30.89
64	66	SLU-INV	Max	-1.88	-10.38	0.45	3.0617	15.4079	-0.0956	0.36	30.77
64	106	SLU-INV	Max	-1.73	-10.35	0.39	1.7947	10.4905	-0.2169	0.57	30.77
64	105	SLU-INV	Min	-2.35	-14.04	0.25	0.5969	3.309	-1.0866	0.03316	13.08
64	65	SLU-INV	Min	-2.55	-14.08	0.3	1.076	5.419	-0.5209	0.17	13.08
64	66	SLU-INV	Min	-2.54	-14.01	0.34	1.0232	5.2887	-0.6826	0.17	13.24
64	106	SLU-INV	Min	-2.34	-13.98	0.29	0.531	3.185	-1.2483	0.03316	13.24
65	107	SLE-INV	Max	-1.67	-10.26	0.36	0.7217	4.3829	-0.2125	0.46	15.67
65	106	SLE-INV	Max	-1.68	-10.34	0.32	0.7606	4.6482	-0.1717	0.46	15.7
65	66	SLE-INV	Max	-1.85	-10.38	0.37	1.361	7.1693	-0.0544	0.3	15.7
65	67	SLE-INV	Max	-1.83	-10.3	0.41	1.3626	6.8841	-0.0992	0.3	15.67
65	107	SLE-INV	Min	-1.67	-10.26	0.36	0.3479	2.2362	-0.6203	0.13	9.92
65	106	SLE-INV	Min	-1.68	-10.34	0.32	0.403	2.3501	-0.5415	0.13	9.8
65	66	SLE-INV	Min	-1.85	-10.38	0.37	0.773	3.9317	-0.2556	0.16	9.8
65	67	SLE-INV	Min	-1.83	-10.3	0.41	0.7318	3.8111	-0.3343	0.16	9.92
65	107	SLU-INV	Max	-1.67	-10.26	0.49	1.6388	9.8491	-0.2869	0.62	30.58
65	106	SLU-INV	Max	-1.68	-10.34	0.44	1.6892	10.4565	-0.2318	0.62	30.75
65	66	SLU-INV	Max	-1.85	-10.38	0.51	2.895	15.3875	-0.0788	0.41	30.75
65	67	SLU-INV	Max	-1.83	-10.3	0.56	2.9323	14.7372	-0.1339	0.41	30.58
65	107	SLU-INV	Min	-2.25	-13.85	0.36	0.4696	3.0189	-1.4714	-0.05732	13.39
65	106	SLU-INV	Min	-2.27	-13.96	0.32	0.544	3.1726	-1.2936	-0.05732	13.23
65	66	SLU-INV	Min	-2.5	-14.01	0.37	1.0435	5.3078	-0.6328	0.16	13.23
65	67	SLU-INV	Min	-2.48	-13.9	0.41	0.988	5.145	-0.8106	0.16	13.39
66	108	SLE-INV	Max	-1.6	-10.13	0.45	0.6404	4.0514	-0.2779	0.43	15.59
66	107	SLE-INV	Max	-1.63	-10.25	0.41	0.6739	4.3646	-0.2253	0.43	15.66
66	67	SLE-INV	Max	-1.81	-10.29	0.46	1.2858	6.8774	-0.0851	0.29	15.66
66	68	SLE-INV	Max	-1.78	-10.16	0.51	1.2971	6.5407	-0.377	0.29	15.59
66	108	SLE-INV	Min	-1.6	-10.13	0.45	0.2969	2.0845	-0.7336	0.04043	10.02
66	107	SLE-INV	Min	-1.63	-10.25	0.41	0.3525	2.2254	-0.6426	0.04043	9.91
66	67	SLE-INV	Min	-1.81	-10.29	0.46	0.7402	3.8245	-0.3099	0.13	9.91
66	68	SLE-INV	Min	-1.78	-10.16	0.51	0.7019	3.6746	-0.4009	0.13	10.02
66	108	SLU-INV	Max	-1.6	-10.13	0.61	1.4711	9.0986	-0.3752	0.58	30.28
66	107	SLU-INV	Max	-1.63	-10.25	0.55	1.5062	9.8114	-0.3042	0.58	30.56
66	67	SLU-INV	Max	-1.81	-10.29	0.62	2.7251	14.7069	-0.1149	0.4	30.56
66	68	SLU-INV	Max	-1.78	-10.16	0.69	2.7853	13.9441	-0.1859	0.4	30.28
66	108	SLU-INV	Min	-2.16	-13.67	0.45	0.4009	2.8141	-1.7189	-0.27	13.52
66	107	SLU-INV	Min	-2.2	-13.84	0.41	0.4758	3.0043	-1.5206	-0.27	13.37
66	67	SLU-INV	Min	-2.44	-13.89	0.46	0.9992	5.1631	-0.7575	0.07613	13.37
66	68	SLU-INV	Min	-2.41	-13.72	0.51	0.9476	4.9607	-0.9558	0.07613	13.52
67	109	SLE-INV	Max	-1.53	-9.94	0.55	0.5554	3.6791	-0.3544	0.34	15.43
67	108	SLE-INV	Max	-1.57	-10.12	0.5	0.5777	4.0318	-0.2913	0.34	15.58
67	68	SLE-INV	Max	-1.76	-10.16	0.56	1.1949	6.5273	-0.1228	0.26	15.58
67	69	SLE-INV	Max	-1.72	-9.98	0.61	1.2244	6.1473	-0.1859	0.26	15.43
67	109	SLE-INV	Min	-1.53	-9.94	0.55	0.2435	1.9071	-0.8548	-0.12	10.07
67	108	SLE-INV	Min	-1.57	-10.12	0.5	0.2933	2.0725	-0.7553	-0.12	10
67	68	SLE-INV	Min	-1.76	-10.16	0.56	0.6965	3.6847	-0.377	0.0616	10
67	69	SLE-INV	Min	-1.72	-9.98	0.61	0.6689	3.5078	-0.4764	0.0616	10.07
67	109	SLU-INV	Max	-1.53	-9.94	0.74	1.2964	8.2604	-0.4784	0.46	29.84
67	108	SLU-INV	Max	-1.57	-10.12	0.68	1.3064	9.0587	-0.3932	0.46	30.27
67	68	SLU-INV	Max	-1.76	-10.16	0.76	2.5241	13.8988	-0.1658	0.35	30.27
67	69	SLU-INV	Max	-1.72	-9.98	0.83	2.6221	13.0437	-0.2509	0.35	29.84
67	109	SLU-INV	Min	-2.07	-13.42	0.55	0.3288	2.5746	-1.9754	-0.61	13.59
67	108	SLU-INV	Min	-2.12	-13.66	0.5	0.3959	2.7979	-1.7658	-0.61	13.5
67	68	SLU-INV	Min	-2.38	-13.71	0.56	0.9403	4.9744	-0.9046	-0.07345	13.5
67	69	SLU-INV	Min	-2.33	-13.47	0.61	0.903	4.7355	-1.1142	-0.07345	13.59
68	110	SLE-INV	Max	-1.47	-9.7	0.66	0.4683	3.2829	-0.4402	0.2	15.19
68	109	SLE-INV	Max	-1.52	-9.93	0.6	0.4745	3.66	-0.3692	0.2	15.42
68	69	SLE-INV	Max	-1.71	-9.97	0.67	1.0953	6.1244	-0.1696	0.19	15.42
68	70	SLE-INV	Max	-1.66	-9.74	0.72	1.1487	5.72	-0.2407	0.19	15.19
68	110	SLE-INV	Min	-1.47	-9.7	0.66	0.1893	1.7112	-0.9816	-0.34	10.06
68	109	SLE-INV	Min	-1.52	-9.93	0.6	0.2271	1.8951	-0.8775	-0.34	10.06
68	69	SLE-INV	Min	-1.71	-9.97	0.67	0.6449	3.5117	-0.4518	-0.0415	10.06
68	70	SLE-INV	Min	-1.66	-9.74	0.72	0.6347	3.3152	-0.5559	-0.0415	10.06
68	110	SLU-INV	Max	-1.47	-9.7	0.89	1.1189	7.3747	-0.5943	0.27	29.24
68	109	SLU-INV	Max	-1.52	-9.93	0.81	1.097	8.2223	-0.4984	0.27	29.84
68	69	SLU-INV	Max	-1.71	-9.97	0.9	2.3074	12.979	-0.229	0.26	29.84
68	70	SLU-INV	Max	-1.66	-9.74	0.98	2.451	12.0756	-0.3249	0.26	29.24
68	110	SLU-INV	Min	-1.98	-13.09	0.66	0.2556	2.3101	-2.2343	-1.05	13.58
68	109	SLU-INV	Min	-2.05	-13.41	0.6	0.3066	2.5584	-2.0232	-1.05	13.58
68	69	SLU-INV	Min	-2.31	-13.46	0.67	0.8706	4.7408	-1.063	-0.28	13.58
68	70	SLU-INV	Min	-2.24	-13.14	0.72	0.8568	4.4756	-1.2742	-0.28	13.58
69	111	SLE-INV	Max	-1.41	-9.39	0.76	0.3865	2.8537	-0.5343	-0.004824	14.85
69	110	SLE-INV	Max	-1.47	-9.7	0.71	0.3692	3.2652	-0.4552	-0.004824	15.19
69	70	SLE-INV	Max	-1.66	-9.74	0.78	0.9835	5.6848	-0.2242	0.09448	15.19
69	71	SLE-INV	Max	-1.6	-9.43	0.83	1.0661	5.2434	-0.3033	0.0	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	119 di 174

69	110	SLU-INV	Max	-1.47	-9.7	0.96	0.8854	7.3402	-0.6146	-0.006512	29.25
69	70	SLU-INV	Max	-1.66	-9.74	1.06	2.0679	11.9868	-0.3027	0.13	29.25
69	71	SLU-INV	Max	-1.6	-9.43	1.13	2.2675	11.0087	-0.4095	0.13	28.43
69	111	SLU-INV	Min	-1.9	-12.68	0.76	0.1841	2.0133	-2.4876	-1.62	13.47
69	110	SLU-INV	Min	-1.99	-13.09	0.71	0.2134	2.2946	-2.2772	-1.62	13.57
69	70	SLU-INV	Min	-2.24	-13.14	0.78	0.7892	4.4691	-1.2277	-0.55	13.57
69	71	SLU-INV	Min	-2.15	-12.73	0.83	0.8035	4.1679	-1.4381	-0.55	13.47
70	112	SLE-INV	Max	-1.36	-9	0.88	0.3088	2.3848	-0.6385	-0.28	14.35
70	111	SLE-INV	Max	-1.44	-9.4	0.82	0.2556	2.8377	-0.5499	-0.28	14.86
70	71	SLE-INV	Max	-1.6	-9.43	0.9	0.8603	5.192	-0.2865	-0.0376	14.86
70	72	SLE-INV	Max	-1.52	-9.03	0.95	0.9796	4.7065	-0.3751	-0.0376	14.35
70	112	SLE-INV	Min	-1.36	-9	0.88	0.0847	1.2432	-1.2435	-1	9.79
70	111	SLE-INV	Min	-1.44	-9.4	0.82	0.0822	1.4807	-1.1308	-1	9.98
70	71	SLE-INV	Min	-1.6	-9.43	0.9	0.5149	3.0711	-0.6186	-0.36	9.98
70	72	SLE-INV	Min	-1.52	-9.03	0.95	0.5523	2.8164	-0.7313	-0.36	9.79
70	112	SLU-INV	Max	-1.36	-9	1.18	0.8024	5.3898	-0.8619	-0.37	27.32
70	111	SLU-INV	Max	-1.44	-9.4	1.11	0.6622	6.3918	-0.7423	-0.37	28.46
70	71	SLU-INV	Max	-1.6	-9.43	1.21	1.8071	10.8883	-0.3868	-0.05076	28.46
70	72	SLU-INV	Max	-1.52	-9.03	1.29	2.076	9.8227	-0.5064	-0.05076	27.32
70	112	SLU-INV	Min	-1.83	-12.15	0.88	0.1144	1.6783	-2.7372	-2.33	13.21
70	111	SLU-INV	Min	-1.94	-12.69	0.82	0.111	1.9989	-2.5275	-2.33	13.47
70	71	SLU-INV	Min	-2.16	-12.73	0.9	0.6952	4.146	-1.3957	-0.9	13.47
70	72	SLU-INV	Min	-2.05	-12.2	0.95	0.7456	3.8022	-1.6055	-0.9	13.21
71	113	SLE-INV	Max	-1.31	-8.52	0.99	0.2435	1.8956	-0.7448	-0.64	13.68
71	112	SLE-INV	Max	-1.41	-9.01	0.94	0.1463	2.3727	-0.653	-0.64	14.37
71	72	SLE-INV	Max	-1.54	-9.04	1.02	0.723	4.6348	-0.3593	-0.21	14.37
71	73	SLE-INV	Max	-1.44	-8.54	1.07	0.8886	4.1239	-0.4511	-0.21	13.68
71	113	SLE-INV	Min	-1.31	-8.52	0.99	0.0405	0.9759	-1.3679	-1.48	9.46
71	112	SLE-INV	Min	-1.41	-9.01	0.94	0.0057	1.2347	-1.2606	-1.48	9.79
71	72	SLE-INV	Min	-1.54	-9.04	1.02	0.4334	2.7853	-0.7127	-0.6	9.79
71	73	SLE-INV	Min	-1.44	-8.54	1.07	0.5064	2.5077	-0.82	-0.6	9.46
71	113	SLU-INV	Max	-1.31	-8.52	1.34	0.677	4.3219	-1.0055	-0.86	25.88
71	112	SLU-INV	Max	-1.41	-9.01	1.27	0.4526	5.3684	-0.8816	-0.86	27.38
71	72	SLU-INV	Max	-1.54	-9.04	1.37	1.5229	9.6634	-0.4851	-0.29	27.38
71	73	SLU-INV	Max	-1.44	-8.54	1.44	1.8768	8.5528	-0.6089	-0.29	25.88
71	113	SLU-INV	Min	-1.77	-11.5	0.99	0.0546	1.3175	-2.9558	-3.23	12.77
71	112	SLU-INV	Min	-1.91	-12.17	0.94	0.0077	1.6668	-2.7684	-3.23	13.22
71	72	SLU-INV	Min	-2.08	-12.2	1.02	0.5851	3.7602	-1.5718	-1.34	13.22
71	73	SLU-INV	Min	-1.95	-11.53	1.07	0.6836	3.3854	-1.7592	-1.34	12.77
72	114	SLE-INV	Max	-1.29	-7.93	1.11	0.2007	1.4003	-0.8468	-1.1	12.77
72	113	SLE-INV	Max	-1.41	-8.54	1.05	0.0753	1.8902	-0.6	-1.1	13.72
72	73	SLE-INV	Max	-1.48	-8.55	1.13	0.5781	4.0276	-0.4379	-0.45	13.72
72	74	SLE-INV	Max	-1.36	-7.94	1.18	0.8002	3.5045	-0.5277	-0.45	12.78
72	114	SLE-INV	Min	-1.29	-7.93	1.11	0.0103	0.6978	-1.4742	-2.08	8.97
72	113	SLE-INV	Min	-1.41	-8.54	1.05	-0.0677	0.9715	-1.38	-2.08	9.48
72	73	SLE-INV	Min	-1.48	-8.55	1.13	0.3434	2.4579	-0.8069	-0.9	9.48
72	74	SLE-INV	Min	-1.36	-7.94	1.18	0.461	2.1645	-0.9011	-0.9	8.97
72	114	SLU-INV	Max	-1.29	-7.93	1.49	0.6	3.2491	-1.1432	-1.48	24.04
72	113	SLU-INV	Max	-1.41	-8.54	1.42	0.2662	4.3149	-1.022	-1.48	25.97
72	73	SLU-INV	Max	-1.48	-8.55	1.52	1.2279	8.3479	-0.5911	-0.6	25.97
72	74	SLU-INV	Max	-1.36	-7.94	1.6	1.6831	7.2217	-0.7123	-0.6	24.04
72	114	SLU-INV	Min	-1.74	-10.7	1.11	0.014	0.9421	-3.1228	-4.33	12.1
72	113	SLU-INV	Min	-1.91	-11.53	1.05	-0.0914	1.3116	-2.9755	-4.33	12.8
72	73	SLU-INV	Min	-2	-11.55	1.13	0.4636	3.3181	-1.7384	-1.89	12.8
72	74	SLU-INV	Min	-1.84	-10.72	1.18	0.6224	2.9221	-1.8857	-1.89	12.1
72	115	SLE-INV	Max	-1.29	-7.21	1.21	0.1985	0.9221	-0.9312	-1.69	11.61
72	114	SLE-INV	Max	-1.44	-7.96	1.17	-0.0317	1.4051	-0.8539	-1.69	12.84
73	74	SLE-INV	Max	-1.43	-7.21	1.24	0.4238	3.3784	-0.5198	-0.75	12.84
73	75	SLE-INV	Max	-1.28	-7.21	1.28	0.7203	2.8638	-0.5971	-0.75	11.61
73	115	SLE-INV	Min	-1.29	-7.21	1.21	0.0077	0.4237	-1.5431	-2.84	8.26
73	114	SLE-INV	Min	-1.44	-7.96	1.17	-0.1274	0.7002	-1.4775	-2.84	9
73	74	SLE-INV	Min	-1.43	-7.96	1.24	0.2458	2.0915	-0.8972	-1.29	9
73	75	SLE-INV	Min	-1.28	-7.21	1.28	0.4204	1.7952	-0.9627	-1.29	8.26
73	115	SLU-INV	Max	-1.29	-7.21	1.64	0.6025	2.2197	-1.2571	-2.28	21.71
73	114	SLU-INV	Max	-1.44	-7.96	1.58	0.1311	3.2632	-1.1528	-2.28	24.17
73	74	SLU-INV	Max	-1.43	-7.96	1.67	0.9273	6.9627	-0.7017	-1.01	24.17
73	75	SLU-INV	Max	-1.28	-7.21	1.73	1.5086	5.864	-0.806	-1.01	21.71
73	115	SLU-INV	Min	-1.74	-9.73	1.21	0.0104	0.572	-3.2011	-5.71	11.15
73	114	SLU-INV	Min	-1.94	-10.74	1.17	-0.172	0.9453	-3.1233	-5.71	12.15
73	74	SLU-INV	Min	-1.92	-10.74	1.24	0.3318	2.8235	-1.8847	-2.6	12.15
73	75	SLU-INV	Min	-1.72	-9.73	1.28	0.5676	2.4236	-1.9626	-2.6	11.15
74	116	SLE-INV	Max	-1.33	-6.33	1.32	0.2618	0.4931	-0.979	-2.46	10.11
74	115	SLE-INV	Max	-1.52	-7.26	1.28	-0.0671	0.9423	-0.9302	-2.46	11.7
74	74	SLE-INV	Max	-1.38	-7.23	1.33	0.2777	2.702	-0.5978	-1.16	11.7
74	76	SLE-INV	Max	-1.2	-6.3	1.38	0.0409	2.2254	-0.6466	-1.16	10.11
74	116	SLE-INV	Min	-1.33	-6.33	1.32	0.0522	0.176	-1.5496	-3.81	7.28
74	115	SLE-INV	Min	-1.52	-7.26	1.28	-0.1593	0.4367	-1.5341	-3.81	8.31
74	75	SLE-INV	Min	-1.38	-7.23	1.33	0.1457	1.6939	-0.9719	-1.8	8.31
74	76	SLE-INV	Min	-1.2	-6.3	1.38	0.3934	1.4149	-0.9873	-1.8	7.28
74	116	SLU-INV	Max	-1.33	-6.33	1.78	0.73	1.2952	-1.3216	-3.33	18.78
74	115	SLU-INV	Max	-1.52	-7.26	1.72	0.0804	2.2638	-1.2558	-3.33	21.89
74	75	SLU-INV	Max	-1.38	-7.23	1.8	0.6356	5.5408	-0.807	-1.56	21.89
74	76	SLU-INV	Max	-1.2	-6.3	1.86	1.3725	4.5277	-0.8729	-1.56	18.78
74	116	SLU-INV	Min	-1.8	-8.54	1.32	0.0705	0.2376	-3.1435	-7.43	9.83
74	115	SLU-INV	Min	-2.05	-9.8	1.28	-0.215	0.5896	-3.177	-7.43	11.22
74	75	SLU-INV	Min	-1.86	-9.76	1.33	0.1967	2.2868	-1.9878	-3.5	11.22
74	76	SLU-INV	Min	-1.61	-8.5	1.38	0.5311	1.9101	-1.9543	-3.5	9.83
75	117	SLE-INV	Max	-1.45	-5.24	1.44	0.4282	0.1582	-0.9601	-3.48	8.19
75	116	SLE-INV	Max	-1.68	-6.4	1.4	-0.0309	0.5353	-0.9659	-3.48	10.23
75	76	SLE-INV	Max	-1.37	-6.33	1.41	0.1398	2.0205	-0.6598	-1.72	10.23
75	77	SLE-INV	Max	-1.14	-5.18	1.45	0.641	1.6217	-0.654	-1.72	8.19
75	117	SLE-INV	Min	-1.45	-5.24	1.44	0.1758	-0.0122	-1.4559	-5.08	5.96
75	116	SLE-INV	Min	-1.68	-6.4	1.4	-0.1385	0.205	-1.5235	-5.08	7.36
75	76	SLE-INV	Min	-1.37	-6.33	1.41	0.0504	1.2792	-1.0141	-2.49	7.36
75	77	SLE-INV	Min	-1.14	-5.18	1.45	0.3949	1.0465	-0.9465	-2.49	5.96
75	117	SLU-INV	Max	-1.45	-5.24	1.95	1.0408	0.559	-1.2961	-4.7	15.11
75	116	SLU-INV	Max	-1.68	-6.4	1.89	0.1613	1.3807	-1.304	-4.7	19.02
75	76	SLU-INV	Max	-1.37	-6.33	1.9	0.3717	4.1282	-0.8907	-2.32	19.02
75	77	SLU-INV	Max	-1.14	-5.18	1.96	1.3105	3.2751	-0.8828	-2.32	15.11
75	117	SLU-INV	Min	-1.96	-7.08	1.44	0.2374	-0.0164	-2.8852	-9.64	8.05
75	116	SLU-INV	Min	-2.27	-8.64	1.4	-0.187	0.2767	-3.0864	-9.64	9.94
75	76	SLU-INV	Min	-1.85	-8.55	1.41	0.068	1.7269	-2.0134	-4.7	9.94
75	77	SLU-INV	Min	-1.54	-6.99	1.45	0.5332	1.4128	-1.8122	-4.7	8.05
76	118	SLE-INV	Max	-1.69	-3.86	1.55	0.7558	-0.0282	-0.8286	-4.86	5.74
76	117	SLE-INV	Max	-1.99	-5.35	1.54	0.1183	0.2304	-0.9317	-4.86	8.35
76	77	SLE-INV	Max	-1.43	-5.24	1.5	0.0259	1.3646	-0.6832	-2.51	8.35
76	78	SLE-INV	Max	-1.13	-3.74	1.51	0.6871	1.093	-0.5802	-2.51	5.74
76	118	SLE-INV	Min	-1.69	-3.86	1.55	0.4306	-0.0974	-1.2084	-6.77	4.22
76	117	SLE-INV									



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 120 di 174			
76	118	SLU-INV	Max	-1.69	-3.86	2.1	1.6244	0.106	-1.1186	-6.56	10.54
76	117	SLU-INV	Max	-1.99	-5.35	2.08	0.4362	0.6983	-1.2577	-6.56	15.43
76	117	SLU-INV	Max	-1.43	-5.24	2.02	0.1524	2.7832	-0.9224	-3.39	15.43
76	78	SLU-INV	Max	-1.13	-3.74	2.04	1.3603	2.1784	-0.7832	-3.39	10.54
76	118	SLU-INV	Min	-2.28	-5.2	1.55	0.5813	-0.1315	-2.3376	-12.54	5.69
76	117	SLU-INV	Min	-2.68	-7.22	1.54	-0.0365	0.0538	-2.7917	-12.54	8.2
76	77	SLU-INV	Min	-1.93	-7.07	1.5	-0.0387	1.1733	-1.9095	-6.36	8.2
76	78	SLU-INV	Min	-1.53	-5.05	1.51	0.6054	0.9737	-1.4555	-6.36	5.69
77	119	SLE-INV	Max	-2.1	-2.03	2.08	1.3105	-0.0231	-0.5328	-6.78	2.69
77	118	SLE-INV	Max	-2.5	-4.02	1.64	0.419	0.0787	-0.791	-6.78	5.95
77	78	SLE-INV	Max	-1.73	-3.86	1.41	-0.0446	0.7724	-0.6192	-3.77	5.95
77	79	SLE-INV	Max	-1.33	-1.88	1.85	0.8494	0.6674	-0.3609	-3.77	2.69
77	119	SLE-INV	Min	-2.1	-2.03	2.08	0.8877	-0.044	-0.754	-9.1	1.99
77	118	SLE-INV	Min	-2.5	-4.02	1.64	0.2223	-0.0163	-1.1499	-9.1	4.37
77	78	SLE-INV	Min	-1.73	-3.86	1.41	-0.0706	0.4946	-0.8534	-4.98	4.37
77	79	SLE-INV	Min	-1.33	-1.88	1.85	0.6003	0.4627	-0.4575	-4.98	1.99
77	119	SLU-INV	Max	-2.1	-2.03	2.81	2.551	0.0084	-0.7192	-9.15	4.95
77	118	SLU-INV	Max	-2.5	-4.02	2.22	0.9338	0.3029	-1.0678	-9.15	10.95
77	78	SLU-INV	Max	-1.73	-3.86	1.9	0.003	1.5719	-0.8359	-5.08	10.95
77	79	SLU-INV	Max	-1.33	-1.88	2.49	1.5978	1.2848	-0.4872	-5.08	4.95
77	119	SLU-INV	Min	-2.84	-2.74	2.08	1.1983	-0.0594	-1.4322	-16.46	2.68
77	118	SLU-INV	Min	-3.38	-5.42	1.64	0.3001	-0.022	-2.2207	-16.46	5.9
77	78	SLU-INV	Min	-2.33	-5.22	1.41	-0.0954	0.6677	-1.5768	-8.87	5.9
77	79	SLU-INV	Min	-1.8	-2.53	1.85	0.8104	0.6247	-0.7884	-8.87	2.68
78	80	SLE-INV	Max	-2.22	-0.44	1.32	1.0423	0.4156	0.0601	-5.96	-0.19
78	120	SLE-INV	Max	-2.6	-0.52	1.89	2.0272	0.1983	-0.0357	-9.23	-0.19
78	119	SLE-INV	Max	-2.94	-2.2	3.04	0.8867	0.0823	-0.4829	-9.23	2.93
78	79	SLE-INV	Max	-2.55	-2.12	2.47	-0.0585	0.2927	-0.4128	-5.96	2.93
78	80	SLE-INV	Min	-2.22	-0.44	1.32	0.8064	0.3132	0.0343	-7.61	-0.26
78	120	SLE-INV	Min	-2.6	-0.52	1.89	1.5309	0.1543	-0.0629	-12.05	-0.26
78	119	SLE-INV	Min	-2.94	-2.2	3.04	0.653	0.0422	-0.6687	-12.05	2.15
78	79	SLE-INV	Min	-2.55	-2.12	2.47	-0.0736	0.1978	-0.5457	-7.61	2.15
78	80	SLU-INV	Max	-2.22	-0.44	1.78	1.8188	0.7488	0.1299	-8.04	-0.25
78	120	SLU-INV	Max	-2.6	-0.52	2.56	3.6369	0.3424	-0.0482	-12.46	-0.25
78	119	SLU-INV	Max	-2.94	-2.2	4.1	1.6165	0.1898	-0.6519	-12.46	5.4
78	79	SLU-INV	Max	-2.55	-2.12	3.33	-0.079	0.5722	-0.5573	-8.04	5.4
78	80	SLU-INV	Min	-2.99	-0.6	1.32	1.0887	0.4228	0.0463	-13.16	-0.48
78	120	SLU-INV	Min	-3.51	-0.7	1.89	2.0667	0.2083	-0.1388	-21.37	-0.48
78	119	SLU-INV	Min	-3.96	-2.97	3.04	0.8816	0.057	-1.2473	-21.37	2.91
78	79	SLU-INV	Min	-3.44	-2.86	2.47	-0.1238	0.267	-0.9787	-13.16	2.91
79	121	SLE-INV	Max	-2.07	-0.41	-2.13	2.4242	0.3364	0.0265	9.3644	-0.09458
79	81	SLE-INV	Max	-2.14	-0.43	-1.7	1.5848	0.4655	-0.0022	7.44	-0.09458
79	82	SLE-INV	Max	-2.43	-1.89	-3.05	0.3406	0.2507	0.6401	7.44	1.61
79	122	SLE-INV	Max	-2.36	-1.88	-3.49	1.1417	0.1521	0.6868	9.34	1.61
79	121	SLE-INV	Min	-2.07	-0.41	-2.13	1.4247	0.2086	0.0041	5.74	-0.18
79	81	SLE-INV	Min	-2.14	-0.43	-1.7	0.9766	0.2716	-0.0202	4.76	-0.18
79	82	SLE-INV	Min	-2.43	-1.89	-3.05	0.1918	0.1167	0.3536	4.76	0.83
79	122	SLE-INV	Min	-2.36	-1.88	-3.49	0.6288	0.0623	0.3599	5.74	0.83
79	121	SLU-INV	Max	-2.07	-0.41	-2.13	4.7197	0.6295	0.0788	17.62	-0.13
79	81	SLU-INV	Max	-2.14	-0.43	-1.7	2.9802	0.9105	-0.003	13.59	-0.13
79	82	SLU-INV	Max	-2.43	-1.89	-3.05	0.6805	0.56	1.2988	13.59	3.4
79	122	SLU-INV	Max	-2.36	-1.88	-3.49	2.3196	0.3596	1.4396	17.62	3.4
79	121	SLU-INV	Min	-2.79	-0.56	-2.88	1.9234	0.2816	0.0055	7.75	-0.39
79	81	SLU-INV	Min	-2.88	-0.58	-2.29	1.3184	0.3667	-0.062	6.42	-0.39
79	82	SLU-INV	Min	-3.28	-2.55	-4.12	0.2589	0.1576	0.4773	6.42	1.12
79	122	SLU-INV	Min	-3.19	-2.54	-4.71	0.8488	0.0841	0.4859	7.75	1.12
80	123	SLE-INV	Max	-1.94	-3.3	-1.86	0.6268	0.0957	1.1388	7.37	3.25
80	122	SLE-INV	Max	-1.63	-1.73	-2.38	1.3222	0.1356	0.7269	7.37	1.47
80	82	SLE-INV	Max	-1.52	-1.71	-2.12	1.143	0.5198	0.597	5.48	1.47
80	83	SLE-INV	Max	-1.83	-3.28	-1.59	0.1849	0.4669	1.0089	5.48	3.25
80	123	SLE-INV	Min	-1.94	-3.3	-1.86	0.2601	-0.0279	0.5804	4.41	1.73
80	122	SLE-INV	Min	-1.63	-1.73	-2.38	0.8472	0.0544	0.3715	4.41	0.76
80	82	SLE-INV	Min	-1.52	-1.71	-2.12	0.6201	0.2539	0.3404	3.38	0.76
80	83	SLE-INV	Min	-1.83	-3.28	-1.59	0.0334	0.1721	0.5494	3.38	1.73
80	123	SLU-INV	Max	-1.94	-3.3	-1.86	1.4767	0.3857	2.4275	14.16	6.74
80	122	SLU-INV	Max	-1.63	-1.73	-2.38	3.3447	0.3245	1.546	14.16	3.1
80	82	SLU-INV	Max	-1.52	-1.71	-2.12	2.3485	1.1337	1.1857	10.28	3.1
80	83	SLU-INV	Max	-1.83	-3.28	-1.59	0.5364	1.1511	2.0672	10.28	6.74
80	123	SLU-INV	Min	-2.62	-4.45	-2.51	0.3512	-0.0376	0.7836	5.96	2.34
80	122	SLU-INV	Min	-2.2	-2.34	-3.21	1.1437	0.0735	0.5015	5.96	1.03
80	82	SLU-INV	Min	-2.05	-2.31	-2.86	0.8371	0.3428	0.4595	4.57	1.03
80	83	SLU-INV	Min	-2.47	-4.42	-2.15	0.0451	0.2323	0.7416	4.57	2.34
81	124	SLE-INV	Max	-1.56	-4.54	-1.52	0.275	0.1661	1.4386	5.86	4.72
81	123	SLE-INV	Max	-1.29	-3.17	-1.68	1.0307	0.0713	1.1812	5.86	3.12
81	83	SLE-INV	Max	-1.09	-3.13	-1.51	0.8253	0.7002	0.9649	4.15	3.12
81	84	SLE-INV	Max	-1.36	-4.5	-1.36	0.0738	0.7927	1.2223	4.15	4.72
81	124	SLE-INV	Min	-1.56	-4.54	-1.52	0.0449	-0.0437	0.7206	3.43	2.55
81	123	SLE-INV	Min	-1.29	-3.17	-1.68	0.4867	-0.0354	0.6014	3.43	1.67
81	83	SLE-INV	Min	-1.08	-3.13	-1.51	0.405	0.2993	0.5275	2.48	1.67
81	84	SLE-INV	Min	-1.36	-4.5	-1.36	-0.043	0.2968	0.6467	2.48	2.55
81	124	SLU-INV	Max	-1.56	-4.54	-1.52	0.815	0.6596	3.0985	11.46	9.73
81	123	SLU-INV	Max	-1.29	-3.17	-1.68	2.293	0.3232	2.5195	11.46	6.46
81	83	SLU-INV	Max	-1.08	-3.13	-1.51	1.7986	1.6293	1.9715	7.99	9.73
81	84	SLU-INV	Max	-1.36	-4.5	-1.36	0.3483	1.945	2.5505	7.99	6.46
81	124	SLU-INV	Min	-2.11	-6.14	-2.06	0.0606	-0.059	0.9729	4.63	3.44
81	123	SLU-INV	Min	-1.74	-4.27	-2.26	0.6571	-0.0478	0.8119	4.63	2.25
81	83	SLU-INV	Min	-1.46	-4.22	-2.04	0.5468	0.404	0.7121	3.35	2.25
81	84	SLU-INV	Min	-1.83	-6.08	-1.84	-0.0581	0.4007	0.873	3.35	3.44
82	125	SLE-INV	Max	-1.27	-5.54	-1.24	0.0313	0.3211	1.5839	4.73	6.01
82	124	SLE-INV	Max	-1.05	-4.44	-1.35	0.6261	0.1488	1.4611	4.73	4.62
82	84	SLE-INV	Max	-0.93	-4.42	-1.27	0.6445	0.9944	1.1978	3.25	4.62
82	85	SLE-INV	Max	-1.15	-5.52	-1.17	0.0389	1.1766	1.3206	3.25	6.01
82	125	SLE-INV	Min	-1.27	-5.54	-1.24	-0.0822	-0.0033	0.7838	2.71	3.26
82	124	SLE-INV	Min	-1.05	-4.44	-1.35	0.2573	-0.0461	0.7354	2.71	2.5
82	84	SLE-INV	Min	-0.93	-4.42	-1.27	0.2942	0.4092	0.6311	1.89	2.5
82	85	SLE-INV	Min	-1.15	-5.52	-1.17	-0.0585	0.4635	0.6795	1.89	3.26
82	125	SLE-INV	Max	-1.27	-5.54	-1.24	0.3055	1.0841	3.4375	9.38	12.33
82	124	SLU-INV	Max	-1.05	-4.44	-1.35	1.4885	0.6087	3.1393	9.38	9.5
82	84	SLU-INV	Max	-0.93	-4.42	-1.27	1.4596	2.3528	2.5051	6.37	9.5
82	85	SLU-INV	Max	-1.15	-5.52	-1.17	0.2708	2.8351	2.8033	6.37	12.33
82	125	SLU-INV	Min	-1.72	-7.48	-1.68	-0.1109	-0.0044	1.0581	3.65	4.4
82	124	SLU-INV	Min	-1.42	-6	-1.82	0.3474	-0.0623	0.9927	3.65	3.37
82	84	SLU-INV	Min	-1.26	-5.96	-1.72	0.3971	0.5524	0.852	2.55	3.37
82	85	SLU-INV	Min	-1.55	-7.45	-1.58	-0.079	0.6257	0.9173	2.55	4.4
83	126	SLE-INV	Max	-1.12	-6.35	-1.02	-0.1007	0.5611	1.6446	3.86	7.1
83	125	SLE-INV	Max	-0.94	-5.48	-1.12	0.3752	0.3166	1.6068	3.86	5.92
83	85	SLE-INV	Max	-0.9	-5.47	-1.09	0.5445	1.3509	1.297	2.59	5.92
83	86	SLE-INV	Max	-1.07	-6.35	-0.99	0.0498	1.6119	1.3347	2.59	7.1
83	126	SLE-INV	Min	-1.12	-6.35	-1.02	-0.1402	0.0889	0.8051	2.17	3.87
83	12										



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	121 di 174			
83	86	SLE-INV	Min	-1.07	-6.35	-0.99	-0.0443	0.6631	0.6719	1.48	3.87
83	126	SLU-INV	Max	-1.12	-6.35	-1.02	0.0049	1.6709	3.5938	7.75	14.57
83	125	SLU-INV	Max	-0.94	-5.48	-1.12	0.9644	1.0607	3.4807	7.75	12.14
83	85	SLU-INV	Max	-0.9	-5.47	-1.09	1.2592	3.188	2.7581	5.16	12.14
83	86	SLU-INV	Max	-1.07	-6.35	-0.99	0.275	3.8205	2.8712	5.16	14.57
83	126	SLU-INV	Min	-1.51	-8.58	-1.38	-0.1893	0.1201	1.0868	2.93	5.22
83	125	SLU-INV	Min	-1.27	-7.39	-1.51	0.1703	0.001	1.0774	2.93	4.34
83	85	SLU-INV	Min	-1.21	-7.38	-1.47	0.3223	0.7568	0.8977	2	4.34
83	86	SLU-INV	Min	-1.45	-8.57	-1.34	-0.0599	0.8952	0.9071	2	5.22
84	127	SLE-INV	Max	-1.05	-7.01	-0.84	-0.1627	0.8464	1.6149	3.18	8.05
84	126	SLE-INV	Max	-0.91	-6.31	-0.92	0.2138	0.567	1.6535	3.18	7.04
84	86	SLE-INV	Max	-0.93	-6.32	-0.92	0.5181	1.7626	1.325	2.1	7.04
84	87	SLE-INV	Max	-1.07	-7.02	-0.84	0.107	2.0659	1.2864	2.1	8.05
84	127	SLE-INV	Min	-1.05	-7.01	-0.84	-0.1694	0.2107	0.7847	1.77	4.38
84	126	SLE-INV	Min	-0.91	-6.31	-0.92	0.0488	0.0974	0.812	1.77	3.83
84	86	SLE-INV	Min	-0.93	-6.32	-0.92	0.2252	0.7463	0.6647	1.18	3.83
84	87	SLE-INV	Min	-1.07	-7.02	-0.84	-0.0067	0.877	0.6374	1.18	4.38
84	127	SLU-INV	Max	-1.05	-7.01	-0.84	-0.1688	2.3399	3.5477	6.44	16.5
84	126	SLU-INV	Max	-0.91	-6.31	-0.92	0.6114	1.6714	3.6076	6.44	14.42
84	86	SLU-INV	Max	-0.93	-6.32	-0.92	1.2053	4.1273	2.8552	4.23	14.42
84	87	SLU-INV	Max	-1.07	-7.02	-0.84	0.3787	4.836	2.7953	4.23	16.5
84	127	SLU-INV	Min	-1.41	-9.47	-1.13	-0.2296	0.2844	1.0593	2.38	5.92
84	126	SLU-INV	Min	-1.22	-8.52	-1.24	0.0659	0.1315	1.0952	2.38	5.17
84	86	SLU-INV	Min	-1.25	-8.53	-1.24	0.304	1.0075	0.8974	1.59	5.17
84	87	SLU-INV	Min	-1.44	-9.47	-1.14	-0.009	1.1839	0.8604	1.59	5.92
85	128	SLE-INV	Max	-1.05	-7.54	-0.67	-0.1527	1.1619	1.5459	2.63	8.85
85	127	SLE-INV	Max	-0.94	-6.99	-0.75	0.1416	0.861	1.619	2.63	7.99
85	87	SLE-INV	Max	-0.99	-7	-0.77	0.5198	2.1961	1.2825	1.72	7.99
85	88	SLE-INV	Max	-1.1	-7.55	-0.69	0.1766	2.5238	1.2094	1.72	8.85
85	128	SLE-INV	Min	-1.05	-7.54	-0.67	-0.1702	0.3517	0.747	1.45	4.82
85	127	SLE-INV	Min	-0.94	-6.99	-0.75	0.0176	0.2226	0.7884	1.45	4.35
85	87	SLE-INV	Min	-0.99	-7	-0.77	0.2279	0.9481	0.6339	0.95	4.35
85	88	SLE-INV	Min	-1.1	-7.55	-0.69	0.0361	1.0954	0.5924	0.95	4.82
85	128	SLU-INV	Max	-1.05	-7.54	-0.67	-0.1928	3.0659	3.412	5.38	18.16
85	127	SLU-INV	Max	-0.94	-6.99	-0.75	0.4471	2.3616	3.5532	5.38	16.38
85	87	SLU-INV	Max	-0.99	-7	-0.77	1.2073	5.1032	2.7898	3.49	16.38
85	88	SLU-INV	Max	-1.1	-7.55	-0.69	0.5117	5.8551	2.6485	3.49	18.16
85	128	SLU-INV	Min	-1.41	-10.17	-0.9	-0.2324	0.4748	1.0084	1.96	6.51
85	127	SLU-INV	Min	-1.27	-9.44	-1.01	0.0238	0.3005	1.0643	1.96	5.88
85	87	SLU-INV	Min	-1.34	-9.45	-1.04	0.3077	1.2799	0.8577	1.29	5.88
85	88	SLU-INV	Min	-1.48	-10.19	-0.93	0.0487	1.4788	0.7998	1.29	6.51
86	129	SLE-INV	Max	-1.09	-7.95	-0.52	-0.1316	1.4848	1.4331	2.19	9.55
86	128	SLE-INV	Max	-1	-7.53	-0.59	0.1086	1.1818	1.5427	2.19	8.81
86	88	SLE-INV	Max	-1.08	-7.54	-0.62	0.5596	2.6363	1.2128	1.41	8.81
86	89	SLE-INV	Max	-1.16	-7.96	-0.56	0.2703	2.9693	1.1032	1.41	9.55
86	129	SLE-INV	Min	-1.09	-7.95	-0.52	-0.1453	0.4994	0.6907	1.2	5.2
86	128	SLE-INV	Min	-1	-7.53	-0.59	0.0065	0.3653	0.7468	1.2	4.8
86	88	SLE-INV	Min	-1.08	-7.54	-0.62	0.2492	1.1563	0.5929	0.78	4.8
86	89	SLE-INV	Min	-1.16	-7.96	-0.56	0.0884	1.3097	0.5368	0.78	5.2
86	129	SLU-INV	Max	-1.09	-7.95	-0.52	-0.1574	3.8018	3.1744	4.51	19.59
86	128	SLU-INV	Max	-1	-7.53	-0.59	0.3665	3.1011	3.4025	4.51	18.07
86	88	SLU-INV	Max	-1.08	-7.54	-0.62	1.2926	6.088	2.658	2.89	18.07
86	89	SLU-INV	Max	-1.16	-7.96	-0.56	0.7024	6.8449	2.43	2.89	19.59
86	129	SLU-INV	Min	-1.47	-10.73	-0.7	-0.1982	0.6742	0.9325	1.63	7.02
86	128	SLU-INV	Min	-1.35	-10.16	-0.79	0.0087	0.4931	1.0081	1.63	6.48
86	88	SLU-INV	Min	-1.45	-10.18	-0.84	0.3365	1.561	0.8004	1.05	6.48
86	89	SLU-INV	Min	-1.57	-10.75	-0.75	0.1193	1.7681	0.7247	1.05	7.02
87	130	SLE-INV	Max	-1.15	-8.39	-0.39	-0.0862	1.8023	1.3077	1.83	10.14
87	129	SLE-INV	Max	-1.09	-7.95	-0.45	0.1221	1.5083	1.4255	1.83	9.51
87	89	SLE-INV	Max	-1.17	-7.96	-0.5	0.6041	3.0661	1.1116	1.17	9.51
87	90	SLE-INV	Max	-1.23	-8.28	-0.43	0.3603	3.3901	0.9939	1.17	10.14
87	130	SLE-INV	Min	-1.15	-8.27	-0.39	-0.0962	0.6468	0.6302	1.01	5.52
87	129	SLE-INV	Min	-1.09	-7.95	-0.45	0.017	0.5141	0.6881	1.01	5.18
87	89	SLE-INV	Min	-1.17	-7.96	-0.5	0.2731	1.3617	0.5401	0.64	5.18
87	90	SLE-INV	Min	-1.23	-8.28	-0.43	0.1376	1.5133	0.4822	0.64	5.52
87	130	SLU-INV	Max	-1.15	-8.27	-0.39	-0.0413	4.5221	2.906	3.78	20.81
87	129	SLU-INV	Max	-1.09	-7.95	-0.45	0.3904	3.8467	3.1562	3.78	19.51
87	89	SLU-INV	Max	-1.17	-7.96	-0.5	1.3882	7.0466	2.4498	2.4	19.51
87	90	SLU-INV	Max	-1.23	-8.28	-0.43	0.8886	7.7794	2.1996	2.4	20.81
87	130	SLU-INV	Min	-1.56	-11.16	-0.53	-0.1298	0.8732	0.8508	1.36	7.46
87	129	SLU-INV	Min	-1.47	-10.73	-0.61	0.0229	0.694	0.9289	1.36	7
87	89	SLU-INV	Min	-1.58	-10.75	-0.67	0.3687	1.8383	0.7291	0.87	7
87	90	SLU-INV	Min	-1.66	-11.18	-0.58	0.1858	2.043	0.651	0.87	7.46
88	131	SLE-INV	Max	-1.23	-8.51	-0.29	-0.0225	2.1039	1.1658	1.53	10.64
88	130	SLE-INV	Max	-1.19	-8.27	-0.33	0.1481	1.9277	1.2974	1.53	10.51
88	90	SLE-INV	Max	-1.26	-8.29	-0.38	0.6656	3.4733	1.0052	0.97	10.11
88	91	SLE-INV	Max	-1.31	-8.52	-0.33	0.4591	3.7805	0.8736	0.97	10.64
88	131	SLE-INV	Min	-1.23	-8.51	-0.29	-0.0599	0.7884	0.5636	0.85	5.8
88	130	SLE-INV	Min	-1.19	-8.27	-0.33	0.0331	0.6615	0.626	0.85	5.51
88	90	SLE-INV	Min	-1.26	-8.29	-0.38	0.3046	1.5578	0.4869	0.54	5.51
88	91	SLE-INV	Min	-1.31	-8.52	-0.33	0.1895	1.7033	0.4245	0.54	5.8
88	131	SLU-INV	Max	-1.23	-8.51	-0.29	0.0885	5.205	2.5971	3.17	21.86
88	130	SLU-INV	Max	-1.19	-8.27	-0.33	0.4427	4.5713	2.882	3.17	20.76
88	90	SLU-INV	Max	-1.26	-8.29	-0.38	1.5227	7.9539	2.2252	2	20.76
88	91	SLU-INV	Max	-1.31	-8.52	-0.33	1.0981	8.6469	1.9403	2	21.86
88	131	SLU-INV	Min	-1.67	-11.49	-0.39	-0.0808	1.0644	0.7608	1.14	7.83
88	130	SLU-INV	Min	-1.6	-11.17	-0.45	0.0447	0.8931	0.8451	1.14	7.44
88	90	SLU-INV	Min	-1.7	-11.19	-0.51	0.4113	2.1031	0.6573	0.72	7.44
88	91	SLU-INV	Min	-1.77	-11.51	-0.44	0.2559	2.2995	0.5731	0.72	7.83
89	132	SLE-INV	Max	-1.32	-8.69	-0.19	0.0539	2.3812	1.0243	1.28	11.07
89	131	SLE-INV	Max	-1.29	-8.52	-0.24	0.1943	2.1288	1.1525	1.28	10.62
89	91	SLE-INV	Max	-1.35	-8.53	-0.28	0.7215	3.8514	0.8884	0.8	10.62
89	92	SLE-INV	Max	-1.39	-8.7	-0.24	0.5473	4.1322	0.7602	0.8	11.07
89	132	SLU-INV	Min	-1.32	-8.69	-0.19	-0.019	0.92	0.4984	0.71	6.04
89	131	SLU-INV	Min	-1.29	-8.52	-0.24	0.0583	0.8029	0.558	0.71	5.79
89	91	SLU-INV	Min	-1.35	-8.53	-0.28	0.3337	1.7414	0.4309	0.45	5.79
89	92	SLU-INV	Min	-1.39	-8.7	-0.24	0.2357	1.8759	0.3714	0.45	6.04
89	132	SLU-INV	Max	-1.32	-8.69	-0.19	0.25	5.8323	2.2867	2.66	22.76
89	131	SLU-INV	Max	-1.29	-8.52	-0.24	0.5421	5.2558	2.5668	2.66	21.82
89	91	SLU-INV	Max	-1.35	-8.53	-0.28	1.6454	8.7963	1.9733	1.66	21.82
89	92	SLU-INV	Max	-1.39	-8.7	-0.24	1.2864	9.4292	1.6932	1.66	22.76
89	132	SLU-INV	Min	-1.78	-11.73	-0.26	-0.0256	1.242	0.6729	0.96	8.15
89	131	SLU-INV	Min	-1.74	-11.5	-0.32	0.0787	1.0839	0.7532	0.96	7.82
89	91	SLU-INV	Min	-1.82	-11.52	-0.38	0.4505	2.3508	0.5817	0.61	7.82
89	92	SLU-INV	Min	-1.87	-11.75	-0.32	0.3182	2.5325	0.5014	0.61	8.15
90	133	SLE-INV	Max	-1.4	-8.82	-0.13	0.1247	2.6302	0.8797	1.07	11.44
90	132	SLE-INV	Max	-1.38	-8.7	-0.16	0.2397	2			



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 122 di 174			
90	92	SLE-INV	Min	-1.43	-8.71	-0.2	0.3647	1.9085	0.3782	0.38	6.03
90	93	SLE-INV	Min	-1.46	-8.84	-0.17	0.2807	2.0309	0.3188	0.38	6.25
90	133	SLU-INV	Max	-1.4	-8.82	-0.13	0.4009	6.3954	1.9671	2.23	23.52
90	132	SLU-INV	Max	-1.38	-8.7	-0.16	0.6403	5.8814	2.255	2.23	22.73
90	93	SLU-INV	Max	-1.43	-8.71	-0.2	1.779	9.5567	1.7275	1.38	22.73
90	93	SLU-INV	Min	-1.46	-8.84	-0.17	1.4753	10.1247	1.4396	1.38	23.52
90	133	SLU-INV	Min	-1.89	-11.91	-0.17	0.0251	1.4033	0.5847	0.82	8.43
90	132	SLU-INV	Min	-1.86	-11.75	-0.22	0.112	1.2604	0.6648	0.82	8.15
90	92	SLU-INV	Min	-1.94	-11.76	-0.27	0.4924	2.5765	0.5105	0.51	8.15
90	93	SLU-INV	Min	-1.97	-11.93	-0.23	0.379	2.7417	0.4304	0.51	8.43
91	134	SLE-INV	Max	-1.48	-8.93	-0.07209	0.1958	2.8458	0.7403	0.89	11.75
91	133	SLE-INV	Max	-1.46	-8.84	-0.09962	0.2904	2.6522	0.8639	0.89	11.43
91	93	SLE-INV	Max	-1.51	-8.85	-0.14	0.8329	4.4953	0.6624	0.55	11.43
91	94	SLE-INV	Max	-1.53	-8.93	-0.11	0.7096	4.7131	0.5387	0.55	11.75
91	134	SLE-INV	Min	-1.48	-8.93	-0.07209	0.0557	1.1447	0.3713	0.52	6.43
91	133	SLE-INV	Min	-1.46	-8.84	-0.09962	0.11	1.0522	0.4264	0.52	6.24
91	93	SLE-INV	Min	-1.51	-8.85	-0.14	0.3916	2.0587	0.3265	0.32	6.24
91	94	SLE-INV	Min	-1.53	-8.93	-0.11	0.3195	2.1662	0.2715	0.32	6.43
91	134	SLU-INV	Max	-1.48	-8.93	-0.07209	0.5547	6.8835	1.6575	1.85	24.16
91	133	SLU-INV	Max	-1.46	-8.84	-0.09962	0.7515	6.4415	1.9316	1.85	23.49
91	93	SLU-INV	Max	-1.51	-8.85	-0.14	1.8918	10.2321	1.4784	1.15	23.49
91	94	SLU-INV	Max	-1.53	-8.93	-0.11	1.6371	10.7227	1.2043	1.15	24.16
91	134	SLU-INV	Min	-2	-12.05	-0.09732	0.0752	1.5453	0.5012	0.7	8.67
91	133	SLU-INV	Min	-1.97	-11.93	-0.13	0.1484	1.4204	0.5756	0.7	8.43
91	93	SLU-INV	Min	-2.04	-11.94	-0.18	0.5287	2.7793	0.4408	0.43	8.43
91	94	SLU-INV	Min	-2.06	-12.06	-0.15	0.4313	2.9244	0.3665	0.43	8.67
92	135	SLE-INV	Max	-1.55	-9	-0.03427	0.2572	3.0273	0.6037	0.74	12
92	134	SLE-INV	Max	-1.53	-8.94	-0.05305	0.3344	2.8656	0.7248	0.74	11.74
92	94	SLE-INV	Max	-1.57	-8.94	-0.08328	0.8813	4.7554	0.5558	0.46	11.74
92	95	SLE-INV	Max	-1.58	-9.01	-0.0645	0.7782	4.939	0.4348	0.46	12
92	135	SLE-INV	Min	-1.55	-9	-0.03427	0.088	1.235	0.3117	0.44	6.58
92	134	SLE-INV	Min	-1.53	-8.94	-0.05305	0.134	1.1561	0.3646	0.44	6.42
92	94	SLE-INV	Min	-1.57	-8.94	-0.08328	0.4175	2.1901	0.279	0.28	6.42
92	95	SLE-INV	Min	-1.58	-9.01	-0.0645	0.3551	2.2828	0.2261	0.28	6.58
92	135	SLU-INV	Max	-1.55	-9	-0.03427	0.6872	7.2945	1.3524	1.53	24.69
92	134	SLU-INV	Max	-1.53	-8.94	-0.05305	0.8477	6.9247	1.6226	1.53	24.14
92	94	SLU-INV	Max	-1.57	-8.94	-0.08328	1.9992	10.8125	1.2425	0.94	24.14
92	95	SLU-INV	Max	-1.58	-9.01	-0.0645	1.7865	11.226	0.9723	0.94	24.69
92	135	SLU-INV	Min	-2.09	-12.15	-0.04626	0.1187	1.6673	0.4208	0.6	8.88
92	134	SLU-INV	Min	-2.07	-12.06	-0.07162	0.1809	1.5607	0.4927	0.6	8.67
92	94	SLU-INV	Min	-2.12	-12.07	-0.1	0.5636	2.9566	0.3766	0.37	8.67
92	95	SLU-INV	Min	-2.14	-12.16	-0.08707	0.4793	3.0817	0.3052	0.37	8.88
93	136	SLE-INV	Max	-1.6	-9.05	-0.004593	0.3122	3.1719	0.4728	0.61	12.22
93	135	SLE-INV	Max	-1.59	-9.01	-0.01981	0.3755	3.0444	0.5873	0.61	12
93	95	SLE-INV	Max	-1.62	-9.01	-0.04562	0.9195	4.9738	0.453	0.38	12
93	96	SLE-INV	Max	-1.63	-9.06	-0.0304	0.8343	5.1197	0.3386	0.38	12.22
93	136	SLE-INV	Min	-1.6	-9.05	-0.004593	0.1171	1.3094	0.2556	0.38	6.71
93	135	SLE-INV	Min	-1.59	-9.01	-0.01981	0.1568	1.2452	0.3046	0.38	6.58
93	95	SLE-INV	Min	-1.62	-9.01	-0.04562	0.439	2.3031	0.2341	0.24	6.58
93	96	SLE-INV	Min	-1.63	-9.06	-0.0304	0.3848	2.3794	0.1851	0.24	6.71
93	136	SLU-INV	Max	-1.6	-9.05	-0.004593	0.8067	7.6222	1.0587	1.26	25.13
93	135	SLU-INV	Max	-1.59	-9.01	-0.01981	0.9376	7.3302	1.3153	1.26	24.68
93	95	SLU-INV	Max	-1.62	-9.01	-0.04562	2.0833	11.2997	1.0131	0.77	24.68
93	96	SLU-INV	Max	-1.63	-9.06	-0.0304	1.9083	11.6287	0.7564	0.77	25.13
93	136	SLU-INV	Min	-2.16	-12.22	-0.0062	0.158	1.7677	0.3451	0.52	9.06
93	135	SLU-INV	Min	-2.15	-12.16	-0.02675	0.2116	1.6811	0.4113	0.52	8.88
93	95	SLU-INV	Min	-2.19	-12.17	-0.06158	0.5926	3.1092	0.3161	0.32	8.68
93	96	SLU-INV	Min	-2.2	-12.23	-0.04104	0.5195	3.2122	0.2498	0.32	9.06
94	137	SLE-INV	Max	-1.65	-9.1	0.01333	0.3564	3.28	0.3465	0.5	12.39
94	136	SLE-INV	Max	-1.64	-9.06	0.003629	0.4076	3.1861	0.457	0.5	12.21
94	96	SLE-INV	Max	-1.66	-9.07	-0.0153	0.951	5.1479	0.3562	0.31	12.21
94	97	SLE-INV	Max	-1.67	-9.1	-0.005595	0.8813	5.2573	0.2457	0.31	12.39
94	137	SLE-INV	Min	-1.65	-9.1	0.01333	0.141	1.3678	0.2024	0.34	6.83
94	136	SLE-INV	Min	-1.64	-9.06	0.003629	0.1757	1.3182	0.2488	0.34	6.71
94	96	SLE-INV	Min	-1.66	-9.07	-0.0153	0.4577	2.3969	0.1928	0.21	6.71
94	97	SLE-INV	Min	-1.67	-9.1	-0.005595	0.4101	2.4572	0.1464	0.21	6.83
94	137	SLU-INV	Max	-1.65	-9.1	0.018	0.9016	7.8673	0.7733	1.02	25.49
94	136	SLU-INV	Max	-1.64	-9.06	0.004899	1.0068	7.6516	1.0228	1.02	25.12
94	96	SLU-INV	Max	-1.66	-9.07	-0.0153	2.1526	11.6881	0.796	0.63	25.12
94	97	SLU-INV	Max	-1.67	-9.1	-0.005595	2.0103	11.9349	0.5465	0.63	25.49
94	137	SLU-INV	Min	-2.23	-12.28	0.01333	0.1903	1.8465	0.2733	0.45	9.22
94	136	SLU-INV	Min	-2.22	-12.23	0.003629	0.2372	1.7796	0.3359	0.45	9.06
94	96	SLU-INV	Min	-2.25	-12.24	-0.02066	0.1179	3.2358	0.2603	0.28	9.06
94	97	SLU-INV	Min	-2.26	-12.29	-0.07554	0.5537	3.3172	0.1977	0.28	9.22
95	138	SLE-INV	Max	-1.68	-9.13	0.02632	0.3905	3.3498	0.2238	0.4	12.53
95	137	SLE-INV	Max	-1.68	-9.1	0.01898	0.4319	3.2911	0.33	0.4	12.39
95	97	SLE-INV	Max	-1.69	-9.11	0.005083	0.9726	5.2795	0.2641	0.25	12.39
95	98	SLE-INV	Max	-1.7	-9.14	0.01242	0.9169	5.3501	0.158	0.25	12.53
95	138	SLE-INV	Min	-1.68	-9.13	0.02632	0.1601	1.4094	0.1516	0.3	6.93
95	137	SLE-INV	Min	-1.68	-9.1	0.01898	0.1913	1.3752	0.1953	0.3	6.83
95	97	SLE-INV	Min	-1.69	-9.11	0.005083	0.4724	2.4723	0.1545	0.19	6.83
95	98	SLE-INV	Min	-1.7	-9.14	0.01242	0.4303	2.5155	0.1109	0.19	6.93
95	138	SLU-INV	Max	-1.68	-9.13	0.03553	0.9743	8.0259	0.4951	0.81	25.77
95	137	SLU-INV	Max	-1.68	-9.1	0.02562	1.0585	7.8901	0.736	0.81	25.48
95	97	SLU-INV	Max	-1.69	-9.11	0.006862	2.1991	11.9812	0.5878	0.5	25.48
95	98	SLU-INV	Max	-1.7	-9.14	0.01677	2.0868	12.1407	0.3468	0.5	25.77
95	138	SLU-INV	Min	-2.27	-12.33	0.02632	0.2161	1.9026	0.2047	0.4	9.36
95	137	SLU-INV	Min	-2.26	-12.29	0.01898	0.2583	1.8566	0.2637	0.4	9.22
95	97	SLU-INV	Min	-2.29	-12.29	0.005083	0.6378	3.3376	0.2086	0.25	9.22
95	98	SLU-INV	Min	-2.3	-12.34	0.01242	0.5809	3.396	0.1497	0.25	9.36
96	139	SLE-INV	Max	-1.7	-9.17	0.03306	0.4138	3.3819	0.1053	0.31	12.63
96	138	SLE-INV	Max	-1.7	-9.14	0.02805	0.4468	3.3578	0.2079	0.31	12.52
96	98	SLE-INV	Max	-1.71	-9.14	0.02139	0.985	5.367	0.1758	0.2	12.52
96	99	SLE-INV	Max	-1.72	-9.17	0.0264	0.9414	5.4	0.0774	0.2	12.63
96	139	SLE-INV	Min	-1.7	-9.17	0.03306	0.174	1.4342	0.1034	0.27	7.02
96	138	SLE-INV	Min	-1.7	-9.14	0.02805	0.2029	1.4154	0.1447	0.27	6.93
96	98	SLE-INV	Min	-1.71	-9.14	0.02139	0.4833	2.5286	0.1187	0.17	6.93
96	99	SLE-INV	Min	-1.72	-9.17	0.0264	0.4451	2.5551	0.0732	0.17	7.02
96	139	SLU-INV	Max	-1.7	-9.17	0.04463	1.0221	8.0994	0.2241	0.62	25.97
96	138	SLU-INV	Max	-1.7	-9.14	0.03787	1.0877	8.0417	0.4589	0.62	25.76
96	98	SLU-INV	Max	-1.71	-9.14	0.02888	2.2245	12.1751	0.3868	0.39	25.76
96	99	SLU-INV	Max	-1.72	-9.17	0.03564	2.1385	12.2499	0.1519	0.39	25.97
96	139	SLU-INV	Min	-2.3	-12.38	0.03306	0.2349	1.9362	0.1396	0.37	9.48
96	138	SLU-INV	Min	-2.29	-12.33	0.02805	0.2739	1.9108	0.1954	0.37	9.36
96	98	SLU-INV	Min	-2.31	-1						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
 Tratto Fabriano - Matelica Nord
 Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
 Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.progr.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	123 di 174

97	139	SLE-INV	Min	-1.7	-9.17	0.03428	0.2096	1.4389	0.0889	0.24	7.02
97	99	SLE-INV	Min	-1.72	-9.17	0.03349	0.4906	2.5667	0.0856	0.16	7.02
97	100	SLE-INV	Min	-1.73	-9.2	0.03778	0.4553	2.5752	-0.0101	0.16	7.1
97	140	SLU-INV	Max	-1.71	-9.2	0.05206	1.0412	8.0849	0.0752	0.45	26.12
97	139	SLU-INV	Max	-1.7	-9.17	0.04627	1.0916	8.108	0.1868	0.45	25.97
97	99	SLU-INV	Max	-1.72	-9.17	0.04521	2.2285	12.2733	0.1933	0.29	25.97
97	100	SLU-INV	Max	-1.73	-9.2	0.051	2.1672	12.2594	0.061	0.29	26.12
97	140	SLU-INV	Min	-2.31	-12.42	0.03857	0.2451	1.9459	-0.0475	0.32	9.59
97	139	SLU-INV	Min	-2.3	-12.38	0.03428	0.283	1.9425	0.1189	0.32	9.48
97	99	SLU-INV	Min	-2.32	-12.38	0.03349	0.6623	3.465	0.1156	0.21	9.48
97	100	SLU-INV	Min	-2.33	-12.42	0.03778	0.6146	3.4765	-0.041	0.21	9.59
98	141	SLE-INV	Max	-1.7	-9.23	0.04435	0.4242	3.3292	0.0092	0.25	12.75
98	140	SLE-INV	Max	-1.69	-9.2	0.03858	0.4454	3.3767	0.0484	0.25	12.7
98	100	SLE-INV	Max	-1.71	-9.2	0.04576	0.9804	5.4131	0.0535	0.17	12.7
98	101	SLE-INV	Max	-1.72	-9.24	0.05152	0.957	5.3676	0.0144	0.17	12.75
98	141	SLE-INV	Min	-1.7	-9.23	0.04435	0.1837	1.4303	-0.1288	0.17	7.18
98	140	SLE-INV	Min	-1.69	-9.2	0.03858	0.2123	1.4447	-0.0291	0.17	7.1
98	100	SLE-INV	Min	-1.71	-9.2	0.04576	0.4932	2.5856	0.0081	0.12	7.1
98	101	SLE-INV	Min	-1.72	-9.24	0.05152	0.4591	2.5758	-0.0915	0.12	7.18
98	141	SLU-INV	Max	-1.7	-9.23	0.05987	1.0365	7.9822	0.0124	0.34	26.19
98	140	SLU-INV	Max	-1.69	-9.2	0.05209	1.0734	8.0862	0.0653	0.34	26.11
98	100	SLU-INV	Max	-1.71	-9.2	0.06177	2.2068	12.2725	0.0723	0.23	26.11
98	101	SLU-INV	Max	-1.72	-9.24	0.06955	2.1671	12.1708	0.0194	0.23	26.19
98	141	SLU-INV	Min	-2.3	-12.47	0.04435	0.2479	1.931	-0.3165	0.22	9.59
98	140	SLU-INV	Min	-2.29	-12.42	0.03858	0.2866	1.9504	-0.0845	0.22	9.59
98	100	SLU-INV	Min	-2.31	-12.42	0.04576	0.6658	3.4906	-0.0001075	0.16	9.59
98	101	SLU-INV	Min	-2.32	-12.47	0.05152	0.6198	3.4774	-0.2322	0.16	9.69
99	142	SLE-INV	Max	-1.68	-9.27	0.05461	0.4087	3.2433	-0.0393	0.26	12.77
99	141	SLE-INV	Max	-1.67	-9.23	0.04687	0.4265	3.3275	0.0014	0.26	12.75
99	101	SLE-INV	Max	-1.7	-9.23	0.06094	0.9644	5.3713	0.0232	0.18	12.75
99	102	SLE-INV	Max	-1.7	-9.27	0.06868	0.9491	5.285	-0.0175	0.18	12.77
99	142	SLE-INV	Min	-1.68	-9.27	0.05461	0.1773	1.3997	-0.2484	0.12	7.25
99	141	SLE-INV	Min	-1.67	-9.23	0.04687	0.2085	1.4322	-0.1454	0.12	7.17
99	101	SLE-INV	Min	-1.7	-9.23	0.06094	0.4925	2.5856	-0.0729	0.09752	7.17
99	102	SLE-INV	Min	-1.7	-9.27	0.06868	0.4581	2.5559	-0.1758	0.09752	7.25
99	142	SLU-INV	Max	-1.68	-9.27	0.07372	0.9979	7.7895	-0.053	0.35	26.21
99	141	SLU-INV	Max	-1.67	-9.23	0.06327	1.0243	7.9759	0.002	0.35	26.19
99	101	SLU-INV	Max	-1.7	-9.23	0.08227	2.1655	12.1743	0.0313	0.24	26.19
99	102	SLU-INV	Max	-1.7	-9.27	0.09272	2.1464	11.9818	-0.0236	0.24	26.21
99	142	SLU-INV	Min	-2.27	-12.51	0.05461	0.2394	1.8896	-0.595	0.15	9.79
99	141	SLU-INV	Min	-2.25	-12.46	0.04687	0.2814	1.9335	-0.3542	0.15	9.69
99	101	SLU-INV	Min	-2.29	-12.46	0.06094	0.6649	3.4906	-0.1903	0.12	9.69
99	102	SLU-INV	Min	-2.3	-12.52	0.06868	0.6185	3.4505	-0.4311	0.12	9.79
100	143	SLE-INV	Max	-1.64	-9.29	0.0743	0.3828	3.1148	-0.0895	0.28	12.77
100	142	SLE-INV	Max	-1.63	-9.26	0.06036	0.3988	3.2385	-0.0479	0.28	12.77
100	102	SLE-INV	Max	-1.67	-9.26	0.08227	0.936	5.2852	-0.0078	0.2	12.77
100	103	SLE-INV	Max	-1.67	-9.3	0.0962	0.9264	5.1562	-0.0495	0.2	12.77
100	143	SLE-INV	Min	-1.64	-9.29	0.0743	0.1639	1.3472	-0.3697	0.08539	7.32
100	142	SLE-INV	Min	-1.63	-9.26	0.06036	0.1999	1.4002	-0.266	0.08539	7.24
100	102	SLE-INV	Min	-1.67	-9.26	0.08227	0.4864	2.5656	-0.1563	0.08493	7.24
100	103	SLE-INV	Min	-1.67	-9.3	0.0962	0.4491	2.5137	-0.26	0.08493	7.32
100	143	SLU-INV	Max	-1.64	-9.29	0.1	0.937	7.502	-0.1208	0.38	26.17
100	142	SLU-INV	Max	-1.63	-9.26	0.08149	0.9547	7.7763	-0.0646	0.38	26.21
100	102	SLU-INV	Max	-1.67	-9.26	0.11	2.096	11.9763	-0.0106	0.28	26.21
100	103	SLU-INV	Max	-1.67	-9.3	0.13	2.0939	11.6891	-0.0668	0.28	26.17
100	143	SLU-INV	Min	-2.21	-12.54	0.0743	0.2213	1.8187	-0.879	0.04757	9.88
100	142	SLU-INV	Min	-2.2	-12.5	0.06036	0.2699	1.8903	-0.6346	0.04757	9.78
100	102	SLU-INV	Min	-2.25	-12.5	0.08227	0.5566	3.4635	-0.3876	0.08356	9.78
100	103	SLU-INV	Min	-2.26	-12.55	0.0962	0.6063	3.3935	-0.632	0.08356	9.88
101	144	SLE-INV	Max	-1.58	-9.3	0.11	0.338	2.9441	-0.1453	0.33	12.74
101	143	SLE-INV	Max	-1.57	-9.28	0.08664	0.3555	3.1068	-0.0985	0.33	12.76
101	103	SLE-INV	Max	-1.63	-9.29	0.12	0.8995	5.1534	-0.0393	0.25	12.76
101	104	SLE-INV	Max	-1.63	-9.31	0.14	0.8936	4.981	-0.0862	0.25	12.74
101	144	SLE-INV	Min	-1.58	-9.3	0.11	0.1378	1.2712	-0.4985	0.06626	7.39
101	143	SLE-INV	Min	-1.57	-9.28	0.08664	0.1822	1.3462	-0.387	0.06626	7.31
101	103	SLE-INV	Min	-1.63	-9.29	0.12	0.4763	2.5237	-0.2406	0.08941	7.31
101	104	SLE-INV	Min	-1.63	-9.31	0.14	0.4332	2.4477	-0.3521	0.08941	7.39
101	144	SLU-INV	Max	-1.58	-9.3	0.14	0.8383	7.1215	-0.1962	0.45	26.08
101	143	SLU-INV	Max	-1.57	-9.28	0.12	0.8515	7.4817	-0.1329	0.45	26.17
101	103	SLU-INV	Max	-1.63	-9.29	0.16	2.0076	11.6751	-0.0531	0.34	26.17
101	104	SLU-INV	Max	-1.63	-9.31	0.18	2.0205	11.2932	-0.1163	0.34	26.08
101	144	SLU-INV	Min	-2.13	-12.56	0.11	0.186	1.7161	-1.1796	-0.04841	9.98
101	143	SLU-INV	Min	-2.13	-12.53	0.08664	0.2459	1.8174	-0.9178	-0.04841	9.87
101	103	SLU-INV	Min	-2.19	-12.54	0.12	0.643	3.407	-0.5889	0.05053	9.87
101	104	SLU-INV	Min	-2.2	-12.57	0.14	0.5848	3.4545	-0.8507	0.05053	9.98
102	145	SLE-INV	Max	-1.51	-9.29	0.16	0.2769	2.7206	-0.2101	0.41	12.69
102	144	SLE-INV	Max	-1.51	-9.29	0.13	0.2993	2.933	-0.156	0.41	12.74
102	104	SLE-INV	Max	-1.57	-9.3	0.16	0.8476	4.9752	-0.0744	0.33	12.74
102	105	SLE-INV	Max	-1.57	-9.31	0.19	0.8403	4.7493	-0.1284	0.33	12.69
102	145	SLE-INV	Min	-1.51	-9.29	0.16	0.0962	1.1647	-0.6377	0.07184	7.46
102	144	SLE-INV	Min	-1.51	-9.29	0.13	0.1549	1.2688	-0.5181	0.07184	7.38
102	104	SLE-INV	Min	-1.57	-9.3	0.16	0.4579	2.4586	-0.3305	0.12	7.38
102	105	SLE-INV	Min	-1.57	-9.31	0.19	0.4026	2.3516	-0.4501	0.12	7.46
102	145	SLU-INV	Max	-1.51	-9.29	0.21	0.7114	6.6266	-0.2836	0.56	25.9
102	144	SLU-INV	Max	-1.51	-9.29	0.17	0.7233	7.0945	-0.2107	0.56	26.07
102	104	SLU-INV	Max	-1.57	-9.3	0.22	1.8857	11.2703	-0.1004	0.44	26.07
102	105	SLU-INV	Max	-1.57	-9.31	0.26	1.9071	10.7728	-0.1733	0.44	25.9
102	145	SLU-INV	Min	-2.04	-12.55	0.16	0.1298	1.5724	-1.5018	-0.12	10.07
102	144	SLU-INV	Min	-2.04	-12.54	0.13	0.2091	1.7128	-1.2231	-0.12	9.97
102	104	SLU-INV	Min	-2.12	-12.56	0.16	0.6182	3.3191	-0.8033	0.05455	9.97
102	105	SLU-INV	Min	-2.12	-12.56	0.19	0.5436	3.1747	-1.082	0.05455	10.07
103	145	SLE-INV	Max	-1.44	-9.28	0.19	0.2308	2.7091	-0.2193	0.5	12.68
103	105	SLE-INV	Max	-1.52	-9.3	0.22	0.7862	4.7408	-0.118	0.42	12.68
103	106	SLE-INV	Max	-1.51	-9.27	0.26	0.7834	4.5208	-0.1713	0.42	12.62
103	146	SLE-INV	Max	-1.43	-9.25	0.22	0.2019	2.5018	-0.2726	0.5	12.62
103	145	SLE-INV	Min	-1.44	-9.28	0.19	0.1094	1.1618	-0.6537	0.08386	7.45
103	105	SLE-INV	Min	-1.52	-9.3	0.22	0.4254	2.3618	-0.4321	0.17	7.45
103	106	SLE-INV	Min	-1.51	-9.27	0.26	0.3707	2.2519	-0.5403	0.17	7.51
103	146	SLE-INV	Min	-1.43	-9.25	0.22	0.0468	1.0558	-0.7619	0.08386	7.51
103	145	SLU-INV	Max	-1.44	-9.28	0.25	0.5795	6.5991	-0.2961	0.68	25.9
103	105	SLU-INV	Max	-1.52	-9.3	0.3	1.7523	10.743	-0.1593	0.57	25.9
103	106	SLU-INV	Max	-1.51	-9.27	0.35	1.7869	10.2606	-0.2312	0.57	25.7
103	146	SLU-INV	Max	-1.43	-9.25	0.3	0.5583	6.144	-0.368	0.68	25.7
103	145	SLU-INV	Min	-1.94	-12.53	0.19	0.1477	1.5684	-		



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag. di Pag.
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L0703	211	E	16	016700	REL	01	A	124 di 174			
104	147	SLE-INV	Min	-1.36	-9.18	0.29	-0.0131	0.9268	-0.8947	0.02633	7.55
104	146	SLE-INV	Min	-1.37	-9.24	0.25	0.0544	1.0519	-0.7785	0.02633	7.51
104	106	SLE-INV	Min	-1.47	-9.26	0.29	0.3842	2.2601	-0.5222	0.15	7.51
104	107	SLE-INV	Min	-1.45	-9.2	0.33	0.3274	2.1298	-0.6383	0.15	7.55
104	147	SLU-INV	Max	-1.36	-9.18	0.4	0.4069	5.5931	-0.465	0.7	25.42
104	146	SLU-INV	Max	-1.37	-9.24	0.34	0.4151	6.1153	-0.3809	0.7	25.7
104	106	SLU-INV	Max	-1.47	-9.26	0.44	1.5952	10.2222	-0.217	0.62	29.7
104	107	SLU-INV	Max	-1.45	-9.2	0.45	1.65	9.6691	-0.3011	0.62	25.42
104	147	SLU-INV	Min	-1.84	-12.39	0.29	-0.0177	1.2512	-2.0823	-0.36	10.2
104	146	SLU-INV	Min	-1.86	-12.48	0.25	0.0734	1.4201	-1.822	-0.36	10.13
104	106	SLU-INV	Min	-1.98	-12.5	0.29	0.5187	3.0511	-1.2508	-0.007139	10.13
104	107	SLU-INV	Min	-1.96	-12.42	0.33	0.4419	2.8752	-1.5112	-0.007139	10.2
105	148	SLE-INV	Max	-1.29	-9.06	0.38	0.0419	1.9722	-0.4262	0.46	12.36
105	147	SLE-INV	Max	-1.31	-9.17	0.34	0.0559	2.2371	-0.3521	0.46	12.52
105	107	SLE-INV	Max	-1.41	-9.19	0.38	0.6243	4.2377	-0.2143	0.43	12.52
105	108	SLE-INV	Max	-1.39	-9.08	0.42	0.6452	3.9545	-0.2885	0.43	12.36
105	148	SLE-INV	Min	-1.29	-9.06	0.38	-0.0782	0.7802	-1.0341	-0.12	7.57
105	147	SLE-INV	Min	-1.31	-9.17	0.34	-0.0132	0.9217	-0.9072	-0.12	7.55
105	107	SLE-INV	Min	-1.41	-9.19	0.38	0.3315	2.1357	-0.624	0.06677	7.55
105	108	SLE-INV	Min	-1.39	-9.08	0.42	0.2804	1.9868	-0.7509	0.06677	7.57
105	148	SLU-INV	Max	-1.29	-9.06	0.52	0.2531	4.9798	-0.5754	0.63	25.02
105	147	SLU-INV	Max	-1.31	-9.17	0.46	0.2298	5.5613	-0.4753	0.63	25.42
105	107	SLU-INV	Max	-1.41	-9.19	0.51	1.4119	9.6178	-0.2893	0.59	25.42
105	108	SLU-INV	Max	-1.39	-9.08	0.57	1.5067	8.9985	-0.3894	0.59	25.02
105	148	SLU-INV	Min	-1.74	-12.23	0.38	-0.1056	1.0532	-2.3879	-0.7	10.22
105	147	SLU-INV	Min	-1.77	-12.38	0.34	-0.0178	1.2443	-2.1105	-0.7	10.19
105	107	SLU-INV	Min	-1.91	-12.41	0.38	0.4475	2.8832	-1.4795	-0.21	10.19
105	108	SLU-INV	Min	-1.88	-12.26	0.42	0.3785	2.6822	-1.757	-0.21	10.22
106	149	SLE-INV	Max	-1.22	-8.88	0.49	-0.0384	1.6703	-0.5201	0.33	12.15
106	148	SLE-INV	Max	-1.26	-9.05	0.44	-0.0479	1.9565	-0.4341	0.33	12.37
106	108	SLE-INV	Max	-1.36	-9.07	0.47	0.5267	3.9285	-0.2795	0.35	12.37
106	109	SLE-INV	Max	-1.33	-8.9	0.52	0.5744	3.6222	-0.3655	0.35	12.15
106	149	SLE-INV	Min	-1.22	-8.88	0.49	-0.1435	0.6195	-1.1835	-0.36	7.55
106	148	SLE-INV	Min	-1.26	-9.05	0.44	-0.0913	0.7739	-1.0474	-0.36	7.57
106	108	SLE-INV	Min	-1.36	-9.07	0.47	0.2695	1.9883	-0.7361	-0.08472	7.57
106	109	SLE-INV	Min	-1.33	-8.9	0.52	0.234	1.8251	-0.8722	-0.08472	7.55
106	149	SLU-INV	Max	-1.22	-8.88	0.66	0.1061	4.3157	-0.7022	0.44	24.49
106	148	SLU-INV	Max	-1.26	-9.05	0.59	0.0318	4.9457	-0.5861	0.44	25.03
106	108	SLU-INV	Max	-1.36	-9.07	0.64	1.2129	8.9297	-0.3773	0.47	25.03
106	109	SLU-INV	Max	-1.33	-8.9	0.71	1.3638	8.2592	-0.4834	0.47	24.49
106	149	SLU-INV	Min	-1.65	-11.99	0.49	-0.1937	0.8363	-2.7062	-1.21	10.19
106	148	SLU-INV	Min	-1.7	-12.22	0.44	-0.1232	1.0447	-2.178	-1.21	10.22
106	108	SLU-INV	Min	-1.84	-12.25	0.47	0.3638	2.6842	-1.7244	-0.53	10.22
106	109	SLU-INV	Min	-1.79	-12.02	0.52	0.316	2.4639	-2.0128	-0.53	10.19
107	150	SLE-INV	Max	-1.16	-8.65	0.61	-0.1079	1.3697	-0.6169	0.12	11.86
107	149	SLE-INV	Max	-1.21	-8.88	0.55	-0.1461	1.6543	-0.5257	0.12	12.15
107	109	SLE-INV	Max	-1.31	-8.9	0.58	0.4222	3.5862	-0.3588	0.21	12.15
107	110	SLE-INV	Max	-1.26	-8.67	0.63	0.5055	3.2809	-0.45	0.21	11.86
107	150	SLE-INV	Min	-1.16	-8.65	0.61	-0.2018	0.4582	-1.326	-0.68	7.48
107	149	SLE-INV	Min	-1.21	-8.88	0.55	-0.1708	0.6124	-1.1923	-0.68	7.55
107	109	SLE-INV	Min	-1.31	-8.9	0.58	0.1999	1.8199	-0.8618	-0.3	7.55
107	110	SLE-INV	Min	-1.26	-8.67	0.63	0.1904	1.6558	-0.9955	-0.3	7.48
107	150	SLU-INV	Max	-1.16	-8.65	0.82	-0.0168	3.6528	-0.8329	0.16	23.81
107	149	SLU-INV	Max	-1.21	-8.88	0.74	-0.1482	4.2822	-0.7097	0.16	24.51
107	109	SLU-INV	Max	-1.31	-8.9	0.78	1.0053	8.1701	-0.4843	0.28	24.51
107	110	SLU-INV	Max	-1.26	-8.67	0.86	-0.2724	7.5001	-0.6074	0.28	23.81
107	150	SLU-INV	Min	-1.57	-11.68	0.61	-0.0728	0.6185	-3.0022	-1.86	10.09
107	149	SLU-INV	Min	-1.63	-11.99	0.55	-0.2305	0.9668	-2.7266	-1.86	10.19
107	109	SLU-INV	Min	-1.77	-12.02	0.58	0.2699	2.4569	-2.4569	-0.97	10.19
107	110	SLU-INV	Min	-1.71	-11.71	0.63	0.257	2.2354	-2.2641	-0.97	10.09
108	151	SLE-INV	Max	-1.12	-8.35	0.73	-0.1629	1.0637	-0.721	-0.17	11.47
108	150	SLE-INV	Max	-1.18	-8.66	0.67	-0.2433	1.3535	-0.6215	-0.17	11.87
108	110	SLE-INV	Max	-1.27	-8.67	0.69	0.3177	3.2325	-0.4445	0.0135	11.87
108	111	SLE-INV	Max	-1.21	-8.37	0.75	0.4449	2.9211	-0.5441	0.0135	11.47
108	151	SLE-INV	Min	-1.12	-8.35	0.73	-0.2525	0.2934	-1.4695	-1.09	7.34
108	150	SLE-INV	Min	-1.18	-8.66	0.67	-0.2502	0.4504	-1.3331	-1.09	7.48
108	110	SLE-INV	Min	-1.27	-8.67	0.69	0.1288	1.6416	-0.9872	-0.58	7.48
108	111	SLE-INV	Min	-1.21	-8.37	0.75	0.1505	1.4737	-1.1236	-0.58	7.34
108	151	SLU-INV	Max	-1.12	-8.35	0.98	-0.1049	2.9754	-0.9733	-0.23	22.95
108	150	SLU-INV	Max	-1.18	-8.66	0.9	-0.3207	3.6206	-0.839	-0.23	23.85
108	110	SLU-INV	Max	-1.27	-8.67	0.93	0.7999	7.3866	-0.6001	0.01823	23.85
108	111	SLU-INV	Max	-1.21	-8.37	1.01	1.105	6.7002	-0.7345	0.01823	22.95
108	151	SLU-INV	Min	-1.51	-11.28	0.73	-0.3408	0.3961	-3.2873	-2.68	9.9
108	150	SLU-INV	Min	-1.6	-11.69	0.67	-0.3378	0.608	-3.0179	-2.68	10.1
108	110	SLU-INV	Min	-1.71	-11.71	0.69	0.1739	2.2162	-2.2453	-1.52	10.1
108	111	SLU-INV	Min	-1.63	-11.3	0.75	0.2031	1.9895	-2.5147	-1.52	9.9
109	152	SLE-INV	Max	-1.09	-7.97	0.86	-0.1909	0.7571	-0.8282	-0.55	10.95
109	151	SLE-INV	Max	-1.17	-8.36	0.8	-0.3256	1.0477	-0.723	-0.55	11.49
109	111	SLE-INV	Max	-1.23	-8.38	0.81	0.2063	2.856	-0.5411	-0.25	11.49
109	112	SLE-INV	Max	-1.15	-7.98	0.87	0.3931	2.5418	-0.6462	-0.25	10.95
109	152	SLE-INV	Min	-1.09	-7.97	0.86	-0.2874	0.1288	-1.6052	-1.62	7.1
109	151	SLE-INV	Min	-1.17	-8.36	0.8	-0.3299	0.285	-1.4723	-1.62	7.34
109	111	SLE-INV	Min	-1.23	-8.38	0.81	0.0517	1.4477	-1.1196	-0.95	7.34
109	112	SLE-INV	Min	-1.15	-7.98	0.87	0.1158	1.2787	-1.2525	-0.95	7.1
109	152	SLU-INV	Max	-1.09	-7.97	1.16	-0.1349	2.2914	-1.118	-0.75	21.82
109	151	SLU-INV	Max	-1.17	-8.36	1.08	-0.4396	2.9452	-0.9761	-0.75	23
109	111	SLU-INV	Max	-1.23	-8.38	1.09	0.5854	6.5542	-0.7304	-0.34	23
109	112	SLU-INV	Max	-1.15	-7.98	1.18	1.005	5.8567	-0.8724	-0.34	21.82
109	152	SLU-INV	Min	-1.48	-10.75	0.86	-0.388	0.1739	-3.5455	-3.71	9.59
109	151	SLU-INV	Min	-1.58	-11.29	0.8	-0.4663	0.3848	-3.2952	-3.71	9.91
109	111	SLU-INV	Min	-1.66	-11.31	0.81	0.0698	1.9544	-2.5047	-2.22	9.91
109	112	SLU-INV	Min	-1.56	-10.77	0.87	0.1563	1.7263	-2.7551	-2.22	9.59
110	153	SLE-INV	Max	-1.09	-7.48	1	-0.1865	0.4674	-0.9319	-1.05	10.29
110	152	SLE-INV	Max	-1.19	-7.98	0.93	-0.3919	0.7423	-0.8276	-1.05	10.98
110	112	SLE-INV	Max	-1.21	-7.99	0.93	0.1004	2.4565	-0.6461	-0.6	10.98
110	113	SLE-INV	Max	-1.11	-7.49	1	0.3587	2.1585	-0.7504	-0.6	10.29
110	153	SLE-INV	Min	-1.09	-7.48	1	-0.3004	-0.0243	-1.724	-2.3	6.76
110	152	SLE-INV	Min	-1.19	-7.98	0.93	-0.3983	0.1204	-1.604	-2.3	7.12
110	112	SLE-INV	Min	-1.21	-7.99	0.93	-0.0254	1.238	-1.2529	-1.41	7.12
110	113	SLE-INV	Min	-1.11	-7.49	1	0.093	1.0799	-1.373	-1.41	6.76
110	153	SLU-INV	Max	-1.09	-7.48	1.35	-0.0963	1.6371	-1.2581	-1.42	20.41
110	152	SLU-INV	Max	-1.19	-7.98	1.26	-0.5291	2.2661	-1.1172	-1.42	21.89
110	112	SLU-INV	Max	-1.21	-7.99	1.26	0.387	5.672	-0.8722	-0.81	21.89
110	113	SLU-INV	Max	-1.11	-7.49	1.35	0.9395	5.0021	-1.013	-0.81	20.41
110	153	SLU-INV	Min	-1.47	-10.1	1	-0.4055	-0.0328	-3.7559	-4.97	9.13
110	152	SLU-INV	Min	-1.61	-10.78	0.93	-0.5668	0.1626	-3.5456	-4.97	9.61
110	112	SLU-INV	Min	-1.63	-10.78	0.93	-0.0343	1.6713	-2.7541	-	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	125 di 174			
111	114	SLE-INV	Max	-1.08	-6.89	1.13	0.3511	1.7839	-0.8479	-1.06	9.44
111	154	SLE-INV	Min	-1.11	-6.89	1.15	-0.2753	-0.1538	-1.8089	-3.13	6.28
111	153	SLE-INV	Min	-1.24	-7.51	1.08	-0.4356	-0.0312	-1.7167	-3.13	6.78
111	113	SLE-INV	Min	-1.21	-7.51	1.06	-0.0987	1.0215	-1.3797	-2	6.78
111	114	SLE-INV	Min	-1.08	-6.89	1.13	0.0888	0.8854	-1.4719	-2	6.28
111	154	SLE-INV	Max	-1.11	-6.89	1.55	0.0519	1.0461	-1.3779	-2.28	18.65
111	153	SLE-INV	Max	-1.24	-7.51	1.46	-0.5796	1.6211	-1.2518	-2.28	20.5
111	113	SLE-INV	Max	-1.21	-7.51	1.43	0.2125	4.774	-1.0185	-1.42	20.5
111	114	SLE-INV	Max	-1.08	-6.89	1.53	0.9281	4.1618	-1.1447	-1.42	18.65
111	154	SLE-INV	Min	-1.5	-9.31	1.15	-0.3716	-0.2076	-3.8846	-6.52	8.48
111	153	SLE-INV	Min	-1.67	-10.14	1.08	-0.5897	-0.0422	-3.7437	-6.52	9.16
111	113	SLE-INV	Min	-1.63	-10.13	1.06	-0.1332	1.379	-2.9759	-4.18	9.16
111	114	SLE-INV	Min	-1.46	-9.3	1.13	0.1199	1.1953	-3.1168	-4.18	8.48
112	155	SLE-INV	Max	-1.18	-6.17	1.32	0.0124	0.0102	-1.0809	-2.49	8.39
112	154	SLE-INV	Max	-1.34	-6.94	1.24	-0.4071	0.2071	-1.0114	-2.49	9.5
112	114	SLE-INV	Max	-1.23	-6.92	1.19	-0.0698	1.6487	-0.857	-1.64	9.5
112	115	SLE-INV	Max	-1.08	-6.15	1.27	0.3875	1.4326	-0.9265	-1.64	8.39
112	155	SLE-INV	Min	-1.18	-6.17	1.32	-0.1929	-0.2456	-1.8416	-4.16	5.64
112	154	SLE-INV	Min	-1.34	-6.94	1.24	-0.4423	-0.1575	-1.7952	-4.16	6.32
112	114	SLE-INV	Min	-1.23	-6.92	1.19	-0.1582	0.8063	-1.4856	-2.75	6.32
112	115	SLE-INV	Min	-1.08	-6.15	1.27	0.1161	0.7056	-1.532	-2.75	5.64
112	155	SLE-INV	Max	-1.18	-6.17	1.78	0.3538	0.5528	-1.4592	-3.36	16.51
112	154	SLE-INV	Max	-1.34	-6.94	1.67	-0.502	1.0445	-1.3654	-3.36	18.79
112	114	SLE-INV	Max	-1.23	-6.92	1.61	0.0877	3.8843	-1.1569	-2.21	18.79
112	115	SLE-INV	Max	-1.08	-6.15	1.72	0.9997	3.3635	-1.2508	-2.21	16.51
112	155	SLE-INV	Min	-1.6	-8.34	1.32	-0.2605	-0.3315	-3.8958	-8.41	7.62
112	154	SLE-INV	Min	-1.8	-9.37	1.24	-0.5971	-0.2127	-3.8605	-8.41	8.53
112	114	SLE-INV	Min	-1.66	-9.34	1.19	-0.2136	1.0885	-3.1415	-5.54	8.53
112	115	SLE-INV	Min	-1.46	-8.31	1.27	0.1568	0.9526	-3.1768	-5.54	7.62
113	156	SLE-INV	Max	-1.31	-5.31	1.51	0.2676	-0.115	-1.0911	-3.51	7.09
113	155	SLE-INV	Max	-1.49	-6.24	1.42	-0.2987	0.0147	-1.0661	-3.51	8.47
113	115	SLE-INV	Max	-1.31	-6.2	1.33	-0.105	1.2675	-0.9413	-2.4	8.47
113	116	SLE-INV	Max	-1.12	-5.27	1.42	0.4906	1.1227	-0.9663	-2.4	7.09
113	156	SLE-INV	Min	-1.31	-5.31	1.51	-0.023	-0.2818	-1.7938	-5.46	4.82
113	155	SLE-INV	Min	-1.49	-6.24	1.42	-0.3868	-0.2434	-1.8203	-5.46	5.69
113	115	SLE-INV	Min	-1.31	-6.2	1.33	-0.1916	0.6032	-1.5537	-3.71	5.69
113	116	SLE-INV	Min	-1.12	-5.27	1.42	0.1934	0.5539	-1.5272	-3.71	4.82
113	156	SLE-INV	Max	-1.31	-5.31	2.04	0.8681	0.2008	-1.473	-4.74	13.92
113	155	SLE-INV	Max	-1.49	-6.24	1.92	-0.2529	0.5718	-1.4393	-4.74	16.68
113	115	SLE-INV	Max	-1.31	-6.2	1.8	0.2307	3.0307	-1.2707	-3.24	16.68
113	116	SLE-INV	Max	-1.12	-5.27	1.92	1.195	2.6404	-1.3044	-3.24	13.92
113	156	SLE-INV	Min	-1.77	-7.17	1.51	-0.031	-0.3804	-3.7384	-10.73	6.5
113	155	SLE-INV	Min	-2.02	-8.42	1.42	-0.5221	-0.3286	-3.8571	-10.73	7.69
113	115	SLE-INV	Min	-1.77	-8.37	1.33	-0.2586	0.8143	-3.2168	-7.24	7.69
113	116	SLE-INV	Min	-1.52	-7.12	1.42	0.2611	0.7478	-3.0981	-7.24	6.5
114	157	SLE-INV	Max	-1.51	-4.25	1.76	0.6886	-0.1403	-1.0235	-4.8	5.52
114	156	SLE-INV	Max	-1.74	-5.39	1.64	-0.0663	-0.0971	-1.0717	-4.8	7.19
114	116	SLE-INV	Max	-1.47	-5.34	1.5	-0.0762	0.9246	-0.9862	-3.4	7.19
114	117	SLE-INV	Max	-1.24	-4.2	1.62	0.6943	0.8727	-0.938	-3.4	5.52
114	157	SLE-INV	Min	-1.51	-4.25	1.76	0.2777	-0.2441	-1.6311	-7.08	3.77
114	156	SLE-INV	Min	-1.74	-5.39	1.64	-0.2351	-0.2704	-1.7663	-7.08	4.88
114	116	SLE-INV	Min	-1.47	-5.34	1.5	-0.1769	0.4261	-1.5559	-4.96	4.88
114	117	SLE-INV	Min	-1.24	-4.2	1.62	0.3499	0.445	-1.4207	-4.96	3.77
114	157	SLE-INV	Max	-1.51	-4.25	2.37	1.6751	0.0304	-1.3817	-6.48	10.83
114	156	SLE-INV	Max	-1.74	-5.39	2.21	0.2191	0.2466	-1.4467	-6.48	14.13
114	117	SLE-INV	Max	-1.47	-5.34	2.02	0.1038	2.2465	-1.3314	-4.59	14.13
114	116	SLE-INV	Max	-1.24	-4.2	2.19	1.5648	2.0246	-1.2664	-4.59	10.83
114	157	SLE-INV	Min	-2.04	-5.74	1.76	-0.3749	-0.3295	-3.5077	-13.6	5.09
114	156	SLE-INV	Min	-2.35	-7.28	1.64	-0.3174	-0.3651	-3.6879	-13.6	6.59
114	116	SLE-INV	Min	-1.98	-7.21	1.5	-0.2388	0.5752	-3.1514	-9.42	6.59
114	117	SLE-INV	Min	-1.68	-5.67	1.62	0.4723	0.6007	-2.8142	-9.42	5.09
115	158	SLE-INV	Max	-1.81	-3	2.12	1.3395	-0.0476	-0.844	-6.45	3.67
115	157	SLE-INV	Max	-2.09	-4.37	1.96	0.3409	-0.106	-1.0034	-6.45	5.65
115	117	SLE-INV	Max	-1.78	-4.31	1.72	0.0518	0.6404	-0.9591	-4.76	5.65
115	118	SLE-INV	Max	-1.5	-2.93	1.88	1.0495	0.698	-0.7997	-4.76	3.67
115	158	SLE-INV	Min	-1.81	-3	2.12	0.7698	-0.1189	-1.312	-9.12	2.52
115	157	SLE-INV	Min	-2.09	-4.37	1.96	0.0614	-0.2201	-1.6011	-9.12	3.86
115	117	SLE-INV	Min	-1.78	-4.31	1.72	-0.0806	0.2916	-1.4524	-6.63	3.86
115	118	SLE-INV	Min	-1.5	-2.93	1.88	0.6319	0.3899	-1.1633	-6.63	2.52
115	158	SLE-INV	Max	-1.81	-3	2.87	2.862	0.077	-1.1394	-8.71	7.23
115	157	SLE-INV	Max	-2.09	-4.37	2.65	0.9814	0.106	-1.3546	-8.71	11.09
115	117	SLE-INV	Max	-1.78	-4.31	2.32	0.3362	1.5659	-1.2947	-6.42	11.09
115	118	SLE-INV	Max	-1.5	-2.93	2.54	2.1866	1.5493	-1.0796	-6.42	7.23
115	158	SLE-INV	Min	-2.45	-4.05	2.12	1.0393	-0.1606	-2.6641	-17.16	3.4
115	157	SLE-INV	Min	-2.82	-5.9	1.96	0.0829	-0.2971	-3.2923	-17.16	5.21
115	117	SLE-INV	Min	-2.4	-5.81	1.72	-0.1088	0.3937	-2.8762	-12.27	5.21
115	118	SLE-INV	Min	-2.03	-3.96	1.88	0.8531	0.5264	-2.248	-12.27	3.4
116	159	SLE-INV	Max	-2.19	-1.65	2.89	2.2958	0.1831	-0.5057	-8.55	1.64
116	158	SLE-INV	Max	-2.49	-3.13	2.29	0.9765	-0.0002755	-0.8246	-8.55	3.82
116	118	SLE-INV	Max	-2.32	-3.1	1.97	0.3169	0.4315	-0.8206	-6.65	3.82
116	119	SLE-INV	Max	-2.02	-1.61	2.57	1.6129	0.625	-0.5018	-6.65	1.64
116	159	SLE-INV	Min	-2.19	-1.65	2.89	1.5313	0.1042	-0.7772	-11.7	1.12
116	158	SLE-INV	Min	-2.49	-3.13	2.29	0.5627	-0.0824	-1.2772	-11.7	2.61
116	118	SLE-INV	Min	-2.32	-3.1	1.97	0.1437	0.2143	-1.2007	-8.93	2.61
116	119	SLE-INV	Min	-2.02	-1.61	2.57	1.1022	0.4049	-0.7007	-8.93	1.12
116	159	SLE-INV	Max	-2.19	-1.65	3.9	4.5225	0.3892	-0.6827	-11.54	3.24
116	158	SLE-INV	Max	-2.49	-3.13	3.09	2.0919	0.1712	-1.1132	-11.54	7.53
116	118	SLE-INV	Max	-2.32	-3.1	2.66	0.7628	1.0164	-1.1078	-8.98	7.53
116	119	SLE-INV	Max	-2.02	-1.61	3.46	3.1168	1.2692	-0.6774	-8.98	3.24
116	159	SLE-INV	Min	-2.96	-2.23	2.89	2.0672	0.1407	-1.5712	-21.59	1.51
116	158	SLE-INV	Min	-3.36	-4.23	2.29	0.7597	-0.1112	-2.5861	-21.59	3.53
116	118	SLE-INV	Min	-3.13	-4.18	1.97	0.1939	0.2893	-2.3312	-16.16	3.53
116	119	SLE-INV	Min	-2.73	-2.18	2.57	1.4879	0.5466	-1.3163	-16.16	1.51
117	120	SLE-INV	Max	-2.6	-0.52	1.89	2.2783	0.6458	0.0041	-9.12	-0.16
117	160	SLE-INV	Max	-2.64	-0.53	2.37	3.5171	0.5132	0.0036	-11.03	-0.16
117	159	SLE-INV	Max	-2.89	-1.79	4.01	1.9608	0.2299	-0.4994	-11.03	1.78
117	119	SLE-INV	Max	-2.85	-1.78	3.53	0.7776	0.3441	-0.5102	-9.12	1.78
117	120	SLE-INV	Min	-2.6	-0.52	1.89	1.7125	0.4711	-0.0072	-11.91	-0.24
117	160	SLE-INV	Min	-2.64	-0.53	2.37	2.5543	0.3822	-0.0105	-14.72	-0.24
117	159	SLE-INV	Min	-2.89	-1.79	4.01	1.3823	0.1472	-0.7478	-14.72	1.21
117	119	SLE-INV	Min	-2.85	-1.78	3.53	0.5715	0.226	-0.7332	-11.91	1.21
117	120	SLE-INV	Max	-2.6	-0.52	2.56	4.099	1.1983	0.0289	-12.32	-0.22
117	160	SLE-INV	Max	-2.64	-0.53	3.2	6.5326	0.9281	0.0048	-14.89	-0.22
117	159	SLE-INV	Max	-2.89	-1.79	5.41	3.7152	0.4684	-0.6742	-14.89	3.54
117	119	SLE-INV	Max	-2.85	-1.78	4.76	1.4257	0.6903	-0.6888	-12.32	3.54
117	120	SLE-INV	Min	-3.51	-0.7	1.89	2.3119	0.636	-0.0097	-21.12	-0.47
117	160	SLE-INV	Min</								

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag.di Pag.		
L0703	211	E	16	016700	REL	01	A	126 di 174		
118	122	SLE-INV Max	-2.29	-1.53	-3.76	1.103	0.3358	0.711	9.26	0.95
118	162	SLE-INV Max	-2.02	-1.47	-4.07	1.9714	0.2934	0.7168	10.45	0.95
118	161	SLE-INV Min	-1.79	-0.36	-2.44	1.94	0.3287	-0.0056	6.16	-0.17
118	121	SLE-INV Min	-2.07	-0.41	-2.13	1.4933	0.3579	0.0013	5.7	-0.17
118	162	SLE-INV Min	-2.29	-1.53	-3.76	0.6091	0.1577	0.3555	5.7	0.36
118	162	SLE-INV Min	-2.02	-1.47	-4.07	1.0398	0.1414	0.3416	6.16	0.36
118	161	SLE-INV Max	-1.79	-0.36	-2.44	7.023	1.0999	0.0371	20.32	-0.09948
118	121	SLE-INV Max	-2.07	-0.41	-2.13	5.0154	1.3077	0.0112	17.44	-0.09948
118	122	SLE-INV Max	-2.29	-1.53	-3.76	2.2371	0.7471	1.5309	17.44	2.32
118	162	SLE-INV Max	-2.02	-1.47	-4.07	4.116	0.6444	1.5835	20.32	2.32
118	161	SLE-INV Min	-2.42	-0.48	-3.3	2.619	0.4438	-0.0076	8.31	-0.38
118	121	SLE-INV Min	-2.79	-0.56	-2.88	2.0159	0.4832	-0.0155	7.69	-0.38
118	122	SLE-INV Min	-3.09	-2.06	-5.08	0.8223	0.2129	0.4799	7.69	0.48
118	162	SLE-INV Min	-2.72	-1.99	-5.5	1.4038	0.1909	0.4611	8.31	0.48
119	163	SLE-INV Max	-1.69	-2.59	-2.27	1.153	0.1286	1.2262	8.56	2.07
119	162	SLE-INV Max	-1.44	-1.36	-2.86	2.3618	0.2961	0.7378	8.56	0.86
119	122	SLE-INV Max	-1.56	-1.38	-2.65	1.768	0.5441	0.6876	7.27	0.86
119	123	SLE-INV Max	-1.8	-2.62	-2.06	0.5934	0.3491	1.176	7.27	2.07
119	163	SLE-INV Min	-1.69	-2.59	-2.27	0.5199	-0.0028	0.5806	4.95	0.88
119	162	SLE-INV Min	-1.44	-1.36	-2.86	1.2249	0.1507	0.3405	4.95	0.32
119	122	SLE-INV Min	-1.56	-1.38	-2.65	0.9333	0.2503	0.3554	4.36	0.32
119	123	SLE-INV Min	-1.8	-2.62	-2.06	0.2368	0.0903	0.5956	4.36	0.88
119	163	SLE-INV Max	-1.69	-2.59	-2.27	2.6209	0.4384	2.7198	16.86	4.81
119	162	SLE-INV Max	-1.44	-1.36	-2.86	4.9895	0.6339	1.6565	16.86	2.08
119	122	SLE-INV Max	-1.56	-1.38	-2.65	3.6943	1.2235	1.4527	13.97	2.08
119	123	SLE-INV Max	-1.8	-2.62	-2.06	1.4202	0.9523	2.5161	13.97	4.81
119	163	SLE-INV Min	-2.28	-3.5	-3.07	0.7019	-0.0038	0.7838	6.68	1.19
119	162	SLE-INV Min	-1.95	-1.83	-3.86	1.6536	0.2034	0.4597	6.68	0.44
119	122	SLE-INV Min	-2.1	-1.86	-3.58	1.26	0.3379	0.4798	5.88	0.44
119	123	SLE-INV Min	-2.44	-3.53	-2.78	0.3196	0.1219	0.804	5.88	1.19
120	164	SLE-INV Max	-1.37	-3.66	-1.84	0.5461	0.036	1.5445	7.04	3.17
120	163	SLE-INV Max	-1.14	-2.48	-2.05	1.5182	0.1275	1.2417	7.04	1.98
120	123	SLE-INV Max	-1.15	-2.48	-1.88	1.2058	0.5457	1.1578	5.77	1.98
120	124	SLE-INV Max	-1.39	-3.66	-1.67	0.2499	0.4417	1.4606	5.77	3.17
120	164	SLE-INV Min	-1.37	-3.66	-1.84	0.1731	-0.1038	0.7331	4	1.43
120	163	SLE-INV Min	-1.14	-2.48	-2.05	0.728	0.0078	0.5872	4	0.84
120	123	SLE-INV Min	-1.15	-2.48	-1.88	0.578	0.1896	0.5877	3.37	0.84
120	124	SLE-INV Min	-1.39	-3.66	-1.67	0.0231	0.0785	0.7337	3.37	1.43
120	164	SLE-INV Max	-1.37	-3.66	-1.84	1.4213	0.3714	3.4245	14.03	7.17
120	163	SLE-INV Max	-1.14	-2.48	-2.05	3.3535	0.4113	2.7564	14.03	4.59
120	123	SLE-INV Max	-1.15	-2.48	-1.88	2.662	1.3743	2.4734	11.28	4.59
120	124	SLE-INV Max	-1.39	-3.66	-1.67	0.7828	1.2921	3.1416	11.28	7.17
120	164	SLE-INV Min	-1.85	-4.94	-2.48	0.2337	-0.1401	0.9898	5.4	1.93
120	163	SLE-INV Min	-1.53	-3.35	-2.77	0.9828	0.0105	0.7927	5.4	1.14
120	123	SLE-INV Min	-1.55	-3.35	-2.54	0.7803	0.2559	0.7934	4.55	1.14
120	124	SLE-INV Min	-1.87	-4.95	-2.25	0.0311	0.1059	0.9905	4.55	1.93
121	165	SLE-INV Max	-1.12	-4.6	-1.41	0.1192	0.0374	1.746	5.81	4.18
121	164	SLE-INV Max	-0.91	-3.57	-1.6	0.9085	0.038	1.5702	5.81	3.08
121	124	SLE-INV Max	-0.88	-3.56	-1.49	0.7972	0.6217	1.4335	4.64	3.08
121	125	SLE-INV Max	-1.08	-4.59	-1.3	0.014	0.6169	1.6092	4.64	4.18
121	165	SLE-INV Min	-1.12	-4.6	-1.41	-0.0487	-0.1487	0.8292	3.25	1.95
121	164	SLE-INV Min	-0.91	-3.57	-1.6	0.3936	-0.0913	0.7479	3.25	1.39
121	124	SLE-INV Min	-0.88	-3.56	-1.49	0.3455	0.1745	0.7183	2.65	1.39
121	125	SLE-INV Min	-1.08	-4.59	-1.3	-0.1013	0.1213	0.7997	2.65	1.95
121	165	SLE-INV Max	-1.12	-4.6	-1.41	0.5252	0.4862	3.874	11.7	9.32
121	164	SLE-INV Max	-0.91	-3.57	-1.6	2.1144	0.3498	3.4761	11.7	6.97
121	124	SLE-INV Max	-0.88	-3.56	-1.49	1.8519	1.6661	3.087	9.21	6.97
121	125	SLE-INV Max	-1.08	-4.59	-1.3	0.2926	0.7792	3.4849	9.21	9.32
121	165	SLE-INV Min	-1.51	-6.21	-1.9	-0.0657	-0.2008	1.1195	4.39	2.32
121	164	SLE-INV Min	-1.23	-4.82	-2.15	0.5313	-0.1232	1.0097	4.39	1.88
121	124	SLE-INV Min	-1.18	-4.81	-2.01	0.4665	0.2356	0.9698	3.58	1.88
121	125	SLE-INV Min	-1.46	-6.2	-1.76	-0.1368	0.1637	1.0795	3.58	2.64
122	166	SLE-INV Max	-0.94	-5.38	-1.1	-0.1885	0.0929	1.811	4.82	5.1
122	165	SLE-INV Max	-0.77	-4.53	-1.23	0.4558	0.0459	1.7562	4.82	4.11
122	125	SLE-INV Max	-0.75	-4.53	-1.18	0.5359	0.7801	1.5975	3.78	4.11
122	126	SLE-INV Max	-0.92	-5.38	-1.05	-0.1143	0.8329	1.6523	3.78	5.1
122	166	SLE-INV Min	-0.94	-5.38	-1.1	-0.194	-0.1555	0.8608	2.67	2.43
122	165	SLE-INV Min	-0.77	-4.53	-1.23	0.1618	-0.1339	0.8384	2.67	1.92
122	125	SLE-INV Min	-0.75	-4.53	-1.18	0.2076	0.2104	0.7899	2.12	1.92
122	126	SLE-INV Min	-0.92	-5.38	-1.05	-0.158	0.1973	0.8123	2.12	2.43
122	166	SLE-INV Max	-0.94	-5.38	-1.1	-0.1544	0.692	4.0213	9.81	11.24
122	165	SLE-INV Max	-0.77	-4.53	-1.23	1.1562	0.4808	3.887	9.81	9.16
122	126	SLE-INV Max	-0.92	-5.38	-1.05	1.3096	2.1142	3.4683	7.59	9.16
122	127	SLE-INV Max	-1.27	-7.27	-1.48	0.0012	2.325	3.6027	7.59	11.24
122	165	SLE-INV Min	-1.04	-6.12	-1.66	0.2619	-0.2099	1.1621	3.6	3.28
122	125	SLE-INV Min	-1.01	-6.11	-1.6	0.2184	-0.1808	1.1318	3.6	2.59
122	126	SLE-INV Min	-1.01	-6.11	-1.6	0.2802	0.284	1.0663	2.87	2.59
122	126	SLE-INV Min	-1.24	-7.26	-1.42	-0.2133	0.2664	1.0967	2.87	3.28
123	167	SLE-INV Max	-0.86	-6.01	-0.83	-0.2708	0.2066	1.8117	4.02	5.9
123	166	SLE-INV Max	-0.72	-5.34	-0.95	0.1629	0.1104	1.8238	4.02	5.03
123	126	SLE-INV Max	-0.71	-5.34	-0.94	0.3587	0.9803	1.6391	3.1	5.03
123	127	SLE-INV Max	-0.85	-6.01	-0.82	-0.1807	1.0868	1.627	3.1	5.9
123	167	SLE-INV Min	-0.86	-6.01	-0.83	-0.3677	-0.1251	0.8612	2.21	2.86
123	166	SLE-INV Min	-0.72	-5.34	-0.95	0.0189	-0.1378	0.8706	2.21	2.4
123	126	SLE-INV Min	-0.71	-5.34	-0.94	0.121	0.2781	0.8025	1.72	2.4
123	127	SLE-INV Min	-0.85	-6.01	-0.82	-0.1836	0.3011	0.793	1.72	2.86
123	167	SLE-INV Max	-0.86	-6.01	-0.83	-0.3656	1.0047	4.0288	8.24	12.92
123	166	SLE-INV Max	-0.72	-5.34	-0.95	0.5205	0.7098	4.0413	8.24	11.1
123	126	SLE-INV Max	-0.71	-5.34	-0.94	0.9262	2.6271	3.5815	6.3	11.1
123	127	SLE-INV Max	-0.85	-6.01	-0.82	-0.1738	2.9331	3.5689	6.3	12.92
123	167	SLE-INV Min	-1.15	-8.12	-1.13	-0.5678	-0.1689	1.1626	2.98	3.86
123	166	SLE-INV Min	-0.97	-7.21	-1.29	0.0256	-0.186	1.1753	2.98	3.24
123	126	SLE-INV Min	-0.96	-7.2	-1.27	0.1634	0.3754	1.0833	2.33	3.24
123	127	SLE-INV Min	-1.14	-8.12	-1.11	-0.2482	0.4065	1.0706	2.33	3.86
124	168	SLE-INV Max	-0.84	-6.51	-0.62	-0.3121	0.3544	1.738	3.37	6.6
124	167	SLE-INV Max	-0.73	-5.99	-0.71	-0.0398	0.2303	1.8171	3.37	5.85
124	127	SLE-INV Max	-0.74	-5.99	-0.73	0.2693	1.2192	1.6211	2.57	5.85
124	128	SLE-INV Max	-0.84	-6.51	-0.64	-0.1716	1.3591	1.542	2.57	6.6
124	168	SLE-INV Min	-0.84	-6.51	-0.62	-0.4775	-0.0711	0.8269	1.84	3.23
124	167	SLE-INV Min	-0.73	-5.99	-0.71	-0.0748	-0.106	0.8669	1.84	2.83
124	127	SLE-INV Min	-0.74	-5.99	-0.73	0.0805	0.3733	0.7872	1.41	2.83
124	128	SLE-INV Min	-0.84	-6.51	-0.64	-0.1868	0.4207	0.7472	1.41	3.23
124	168	SLE-INV Max	-0.84	-6.51	-0.62	-0.4213	1.3764	3.8702	6.94	14.39
124	167	SLE-INV Max	-0.73	-5.99	-0.71	0.0696	1.0401	4.0338	6.94	12.81
124	127	SLE-INV Max	-0.74	-5.99	-0.73	0.7273	3.2055	3.5625	5.25	12.81
124	128	SLE-INV Max	-0.84	-6.51	-0.64	-0.2041	3.5666	3.9989	5.25	14.39
124	168	SLE-INV Min	-1.13	-8.79	-0.84	-0.8335	-0.096	1.1164	2.48	4.36
124	167	SLE-INV Min	-0.99	-8.09	-0.96	-0.101	-0.143	1.1703	2.48	3.82
124	127	SLE-INV Min	-1	-8.09	-0.99	0.1086	0.504	1.0627	1.91	3.82
124	128	SLE-INV Min	-1.14	-8.79	-0.87	-0.2545	0.5679	1.0088	1.91	4.36
125	169	SLE-INV Max	-0.87	-6.9	-0.44	-0.3179	0.5264	1.6344	2.83	7.21



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag. di Pag.			
L0703	211	E	16	016700	REL	01	A	127 di 174			
125	168	SLE-INV	Max	-0.79	-6.5	-0.52	-0.1217	0.3834	1.7405	2.83	6.56
125	128	SLE-INV	Max	-0.8	-6.51	-0.56	0.2185	1.4771	1.5398	2.13	6.56
125	129	SLE-INV	Max	-0.88	-6.9	-0.48	-0.1515	1.6378	1.4338	2.13	7.21
125	169	SLE-INV	Min	-0.87	-6.9	-0.44	-0.5106	-0.0004132	0.7788	1.54	3.56
125	168	SLE-INV	Min	-0.79	-6.5	-0.52	-0.1474	-0.0508	0.8304	1.54	3.21
125	128	SLE-INV	Min	-0.8	-6.51	-0.56	0.0644	0.4847	0.744	1.17	3.21
125	129	SLE-INV	Min	-0.88	-6.9	-0.48	-0.1655	0.5481	0.6924	1.17	3.56
125	169	SLU-INV	Max	-0.87	-6.9	-0.44	-0.4291	1.7906	3.6454	5.85	15.67
125	168	SLU-INV	Max	-0.79	-6.5	-0.52	-0.1643	1.4268	3.8707	5.85	14.3
125	128	SLU-INV	Max	-0.8	-6.51	-0.56	0.6097	3.8108	3.3988	4.39	14.3
125	129	SLU-INV	Max	-0.88	-6.9	-0.48	-0.1781	4.2043	3.1735	4.39	15.67
125	169	SLU-INV	Min	-1.18	-9.32	-0.59	-0.9272	-0.0005578	1.0514	2.08	4.8
125	168	SLU-INV	Min	-1.07	-8.78	-0.71	-0.2028	-0.0685	1.1211	2.08	4.33
125	128	SLU-INV	Min	-1.08	-8.78	-0.76	0.081	0.6544	1.0044	1.58	4.33
125	129	SLU-INV	Min	-1.18	-9.32	-0.64	-0.2255	0.7399	0.9347	1.58	4.8
126	170	SLE-INV	Max	-0.94	-7.19	-0.3	-0.3094	0.7108	1.4969	2.38	7.74
126	169	SLE-INV	Max	-0.88	-6.9	-0.36	-0.1467	0.5579	1.6341	2.38	7.18
126	129	SLE-INV	Max	-0.88	-6.9	-0.41	0.215	1.7425	1.4343	1.78	7.18
126	130	SLE-INV	Max	-0.94	-7.19	-0.34	-0.1097	1.9154	1.2972	1.78	7.74
126	170	SLE-INV	Min	-0.94	-7.19	-0.3	-0.5114	0.0799	0.7157	1.3	3.84
126	169	SLE-INV	Min	-0.88	-6.9	-0.36	-0.2103	0.02	0.7804	1.3	3.54
126	129	SLE-INV	Min	-0.88	-6.9	-0.41	0.062	0.6046	0.691	0.97	3.54
126	130	SLE-INV	Min	-0.94	-7.19	-0.34	-0.1169	0.6782	0.6263	0.97	3.84
126	170	SLU-INV	Max	-0.94	-7.19	-0.3	-0.4177	2.2242	3.3436	4.93	16.77
126	169	SLU-INV	Max	-0.88	-6.9	-0.36	-0.198	1.8491	3.641	4.93	15.59
126	129	SLU-INV	Max	-0.88	-6.9	-0.41	0.5976	4.4223	3.178	3.67	15.59
126	130	SLU-INV	Max	-0.94	-7.19	-0.34	-0.0712	4.8336	2.8805	3.67	16.77
126	170	SLU-INV	Min	-1.27	-9.71	-0.41	-0.9469	0.1079	0.9662	1.75	5.19
126	169	SLU-INV	Min	-1.19	-9.32	-0.49	-0.3206	0.027	1.0535	1.75	4.78
126	129	SLU-INV	Min	-1.19	-9.32	-0.55	0.0838	0.8162	0.9329	1.31	4.78
126	130	SLU-INV	Min	-1.27	-9.71	-0.47	-0.1578	0.9156	0.8456	1.31	5.19
127	171	SLE-INV	Max	-1.02	-7.41	-0.18	-0.2847	0.8955	1.3489	2	8.2
127	170	SLE-INV	Max	-0.98	-7.2	-0.24	-0.1488	0.7435	1.4924	2	7.71
127	130	SLE-INV	Max	-0.97	-7.2	-0.29	0.2254	2.0073	1.3024	1.48	7.71
127	131	SLE-INV	Max	-1.01	-7.41	-0.23	-0.0487	2.1793	1.1589	1.48	8.2
127	171	SLE-INV	Min	-1.02	-7.41	-0.18	-0.4744	0.1632	0.6484	1.09	4.09
127	170	SLE-INV	Min	-0.98	-7.2	-0.24	-0.2239	0.1	0.7149	1.09	3.83
127	130	SLE-INV	Min	-0.97	-7.2	-0.29	0.0707	0.6277	0.6276	0.82	3.83
127	131	SLE-INV	Min	-1.01	-7.41	-0.23	-0.0811	0.8041	0.5611	0.82	4.09
127	171	SLU-INV	Max	-1.02	-7.41	-0.18	-0.384	2.6533	3.0173	4.15	17.72
127	170	SLU-INV	Max	-0.98	-7.2	-0.24	-0.2009	2.2876	3.3311	4.15	16.71
127	130	SLU-INV	Max	-0.97	-7.2	-0.29	0.6163	5.0258	2.8944	3.07	16.71
127	131	SLU-INV	Max	-1.01	-7.41	-0.23	0.0505	5.4283	2.5807	3.07	17.72
127	171	SLU-INV	Min	-1.38	-10.01	-0.25	-0.8785	0.2203	0.8753	1.48	5.52
127	170	SLU-INV	Min	-1.32	-9.72	-0.32	-0.3562	0.135	0.9651	1.48	5.17
127	130	SLU-INV	Min	-1.31	-9.72	-0.39	0.0954	0.9824	0.8473	1.1	5.17
127	131	SLU-INV	Min	-1.37	-10.01	-0.32	-0.1094	1.0856	0.7574	1.1	5.52
128	172	SLE-INV	Max	-1.1	-7.57	-0.1	-0.2564	1.075	1.1888	1.61	8.59
128	171	SLE-INV	Max	-1.07	-7.42	-0.14	-0.1426	0.9275	1.3435	1.68	8.18
128	131	SLE-INV	Max	-1.07	-7.42	-0.19	0.2575	2.2594	1.165	1.24	8.18
128	132	SLE-INV	Max	-1.1	-7.57	-0.15	0.026	2.4271	1.1013	1.24	8.59
128	172	SLE-INV	Min	-1.1	-7.57	-0.1	-0.4274	0.246	0.5763	0.93	4.31
128	171	SLE-INV	Min	-1.07	-7.42	-0.14	-0.2198	0.1823	0.6468	0.93	4.08
128	131	SLE-INV	Min	-1.07	-7.42	-0.19	0.0893	0.8475	0.5631	0.69	4.08
128	132	SLE-INV	Min	-1.1	-7.57	-0.15	-0.0402	0.9242	0.4926	0.69	4.31
128	172	SLU-INV	Max	-1.1	-7.57	-0.1	-0.3462	3.067	2.6626	3.49	18.54
128	171	SLU-INV	Max	-1.07	-7.42	-0.14	-0.1925	2.717	3.0037	3.49	17.67
128	131	SLU-INV	Max	-1.07	-7.42	-0.19	0.685	2.5969	2.5967	5.57	17.67
128	132	SLU-INV	Max	-1.1	-7.57	-0.15	0.2059	5.2854	2.2547	2.57	18.54
128	172	SLU-INV	Min	-1.49	-10.22	-0.14	-0.7854	0.332	0.778	1.25	5.82
128	171	SLU-INV	Min	-1.45	-10.02	-0.19	-0.3518	0.2461	0.8732	1.25	5.51
128	131	SLU-INV	Min	-1.44	-10.02	-0.25	0.1205	1.1441	0.7601	0.93	5.51
128	132	SLU-INV	Min	-1.48	-10.22	-0.2	-0.0542	1.2477	0.665	0.93	5.82
129	173	SLE-INV	Max	-1.19	-7.69	-0.0393	-0.2226	1.2398	1.0281	1.41	8.92
129	172	SLE-INV	Max	-1.17	-7.58	-0.07027	-0.1266	1.1055	1.18	1.41	8.57
129	132	SLE-INV	Max	-1.15	-7.58	-0.12	0.2906	2.4962	1.0202	1.03	8.57
129	133	SLE-INV	Max	-1.17	-7.69	-0.08415	0.0958	2.6493	0.8683	1.03	8.92
129	173	SLE-INV	Min	-1.19	-7.69	-0.0393	-0.3664	0.3235	0.5047	0.79	4.49
129	172	SLE-INV	Min	-1.17	-7.58	-0.07027	-0.194	0.264	0.573	0.79	4.3
129	132	SLE-INV	Min	-1.15	-7.58	-0.12	0.1083	0.9619	0.4965	0.58	4.3
129	133	SLE-INV	Min	-1.17	-7.69	-0.08415	-0.0023	1.0336	0.4283	0.58	4.49
129	173	SLU-INV	Max	-1.19	-7.69	-0.0393	-0.3005	3.4453	2.3054	2.93	19.23
129	172	SLU-INV	Max	-1.17	-7.58	-0.07027	-0.1709	3.1288	2.6418	2.93	18.5
129	132	SLU-INV	Max	-1.15	-7.58	-0.12	0.756	6.1311	2.2777	2.15	18.5
129	133	SLU-INV	Max	-1.17	-7.69	-0.08415	0.3529	6.4839	1.9413	2.15	19.23
129	173	SLU-INV	Min	-1.6	-10.38	-0.05305	-0.6581	0.4367	0.6814	1.07	6.07
129	172	SLU-INV	Min	-1.58	-10.24	-0.09486	-0.2978	0.3564	0.7735	1.07	5.8
129	132	SLU-INV	Min	-1.56	-10.24	-0.16	0.1462	1.2986	0.6703	0.79	5.8
129	133	SLU-INV	Min	-1.59	-10.38	-0.11	-0.0031	1.3954	0.5782	0.79	6.07
130	174	SLE-INV	Max	-1.26	-7.77	0.001069	-0.1903	1.3875	0.8659	1.17	9.2
130	173	SLE-INV	Max	-1.25	-7.7	-0.01838	-0.1091	1.2678	1.0192	1.17	8.91
130	133	SLE-INV	Max	-1.23	-7.7	-0.05615	0.3305	2.7085	0.8782	0.86	8.91
130	134	SLE-INV	Max	-1.25	-7.77	-0.0367	0.167	2.8459	0.7249	0.86	9.2
130	174	SLU-INV	Min	-1.26	-7.77	0.001069	-0.3074	0.3942	0.4334	0.68	4.66
130	173	SLU-INV	Min	-1.25	-7.7	-0.01838	-0.1651	0.34	0.5012	0.68	4.49
130	133	SLU-INV	Min	-1.23	-7.7	-0.05615	0.1305	1.0663	0.4324	0.5	4.49
130	134	SLU-INV	Min	-1.25	-7.77	-0.0367	0.0354	1.1321	0.3646	0.5	4.66
130	174	SLU-INV	Max	-1.26	-7.77	0.001443	-0.257	3.7838	1.9435	2.44	19.82
130	173	SLU-INV	Max	-1.25	-7.7	-0.01838	-0.1472	3.5027	2.2848	2.44	19.2
130	133	SLU-INV	Max	-1.23	-7.7	-0.05615	0.8432	6.6089	1.964	1.78	19.2
130	134	SLU-INV	Max	-1.25	-7.77	-0.0367	0.5048	6.9248	1.6227	1.78	19.82
130	174	SLU-INV	Min	-1.7	-10.49	0.001069	-0.5337	0.5322	0.5851	0.91	6.29
130	173	SLU-INV	Min	-1.69	-10.4	-0.02481	-0.2365	0.459	0.6766	0.91	6.06
130	133	SLU-INV	Min	-1.67	-10.39	-0.0758	0.1762	1.4396	0.5838	0.67	6.06
130	134	SLU-INV	Min	-1.69	-10.49	-0.04954	0.0479	1.5284	0.4922	0.67	6.29
131	175	SLE-INV	Max	-1.33	-7.83	0.03085	-0.1584	1.5115	0.7069	0.97	9.44
131	174	SLE-INV	Max	-1.32	-7.78	0.01612	-0.0889	1.4126	0.8546	0.97	9.19
131	134	SLE-INV	Max	-1.3	-7.78	-0.01766	0.3652	2.8958	0.7376	0.71	9.19
131	135	SLE-INV	Max	-1.31	-7.83	-0.00293	0.2291	3.0104	0.5899	0.71	9.44
131	175	SLE-INV	Min	-1.33	-7.83	0.03085	-0.2477	0.4549	0.3642	0.58	4.8
131	174	SLE-INV	Min	-1.32	-7.78	0.01612	-0.1304	0.4092	0.4286	0.58	4.65
131	134	SLE-INV	Min	-1.3	-7.78	-0.01766	0.1505	1.1604	0.3701	0.43	4.65
131	135	SLE-INV	Min	-1.31	-7.83	-0.00293	0.0686	1.2165	0.3057	0.43	4.8
131	175	SLU-INV	Max	-1.33	-7.83	0.04164	-0.2138	4.0681	1.5876	2.02	20.31
131	174	SLU-INV	Max	-1.32	-7.78	0.02176	-0.1201	3.8355	1.9176	2.02	19.79
131	134	SLU-INV	Max	-1.3	-7.78	-0.01766	0.9186	7.0302	1.6513</		

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 128 di 174
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132	176	SLE-INV	Max	-1.38	-7.88	0.0449	-0.1304	1.6112	0.5508	0.8	9.63
132	175	SLE-INV	Max	-1.38	-7.84	0.0375	-0.0707	1.5333	0.6958	0.8	9.43
132	175	SLE-INV	Max	-1.36	-7.84	0.01153	0.398	3.0519	0.6022	0.58	9.43
132	136	SLE-INV	Max	-1.37	-7.87	0.01893	0.2856	3.1438	0.4572	0.58	9.63
132	176	SLE-INV	Min	-1.38	-7.88	0.0449	-0.1957	0.5049	0.297	0.5	4.92
132	175	SLE-INV	Min	-1.38	-7.84	0.0375	-0.1	0.4683	0.3594	0.5	4.79
132	135	SLE-INV	Min	-1.36	-7.84	0.01153	0.1699	1.2409	0.3111	0.37	4.79
132	136	SLE-INV	Min	-1.37	-7.87	0.01893	0.0986	1.2872	0.2487	0.37	4.92
132	176	SLU-INV	Max	-1.38	-7.88	0.06062	-0.176	4.2971	1.2369	1.65	20.71
132	175	SLU-INV	Max	-1.38	-7.84	0.05062	-0.0954	4.113	1.5625	1.65	20.29
132	135	SLU-INV	Max	-1.36	-7.84	0.01556	0.9902	7.3812	1.349	1.21	20.29
132	136	SLU-INV	Max	-1.37	-7.87	0.02555	0.7584	7.593	1.0233	1.21	20.71
132	176	SLU-INV	Min	-1.87	-10.63	0.0449	-0.296	0.6816	0.401	0.68	6.64
132	175	SLU-INV	Min	-1.86	-10.59	0.0375	-0.1394	0.6321	0.4852	0.68	6.47
132	135	SLU-INV	Min	-1.84	-10.58	0.01153	0.2293	1.6752	0.42	0.5	6.47
132	136	SLU-INV	Min	-1.85	-10.63	0.01893	0.1332	1.7377	0.3358	0.5	6.64
133	177	SLE-INV	Max	-1.43	-7.91	0.05247	-0.1061	1.6819	0.3978	0.65	9.79
133	176	SLE-INV	Max	-1.42	-7.88	0.04831	-0.0539	1.6295	0.538	0.65	9.62
133	136	SLE-INV	Max	-1.41	-7.88	0.02715	0.423	3.1775	0.4714	0.47	9.62
133	137	SLE-INV	Max	-1.41	-7.91	0.03131	0.3315	3.2416	0.3313	0.47	9.79
133	177	SLE-INV	Min	-1.43	-7.91	0.05247	-0.1506	0.5418	0.2319	0.44	5.02
133	136	SLE-INV	Min	-1.42	-7.88	0.04831	-0.073	0.5166	0.2913	0.44	4.91
133	136	SLE-INV	Min	-1.41	-7.88	0.02715	0.1859	1.3081	0.2551	0.32	4.91
133	137	SLE-INV	Min	-1.41	-7.91	0.03131	0.1236	1.3418	0.1957	0.32	5.02
133	177	SLU-INV	Max	-1.43	-7.91	0.07083	-0.1432	4.4607	0.892	1.34	21.03
133	176	SLU-INV	Max	-1.42	-7.88	0.06522	-0.0399	4.3346	1.2079	1.34	20.69
133	136	SLU-INV	Max	-1.41	-7.88	0.03665	1.0437	7.6638	1.0552	0.97	20.69
133	137	SLU-INV	Max	-1.41	-7.91	0.04226	0.8563	7.8127	0.7394	0.97	21.03
133	177	SLU-INV	Min	-1.93	-10.68	0.05247	-0.2099	0.7315	0.313	0.59	6.78
133	176	SLU-INV	Min	-1.92	-10.64	0.04831	-0.1014	0.6975	0.3933	0.59	6.64
133	136	SLU-INV	Min	-1.9	-10.64	0.02715	0.2509	1.766	0.3444	0.43	6.64
133	137	SLU-INV	Min	-1.9	-10.68	0.03131	0.1669	1.8114	0.2642	0.43	6.78
134	178	SLE-INV	Max	-1.46	-7.94	0.05026	-0.0869	1.7239	0.2488	0.52	9.91
134	177	SLE-INV	Max	-1.46	-7.92	0.05026	-0.0407	1.6966	0.3854	0.52	9.78
134	137	SLE-INV	Max	-1.44	-7.91	0.03695	0.4411	3.2681	0.345	0.38	9.78
134	138	SLE-INV	Max	-1.44	-7.94	0.03695	0.3678	3.305	0.2084	0.38	9.91
134	178	SLE-INV	Min	-1.46	-7.94	0.05026	-0.1155	0.5655	0.169	0.39	5.12
134	177	SLE-INV	Min	-1.46	-7.92	0.05026	-0.0538	0.552	0.2263	0.39	5.02
134	137	SLE-INV	Min	-1.44	-7.91	0.03695	0.1989	1.3588	0.202	0.29	5.02
134	138	SLE-INV	Min	-1.44	-7.94	0.03695	0.1437	1.3909	0.1447	0.29	5.12
134	178	SLU-INV	Max	-1.46	-7.94	0.06786	-0.1173	4.5597	0.5845	0.95	21.29
134	177	SLU-INV	Max	-1.46	-7.92	0.06786	-0.0013	4.4903	0.8642	1.05	21.02
134	137	SLU-INV	Max	-1.44	-7.91	0.04988	1.0814	7.868	0.77	0.77	21.02
134	138	SLU-INV	Max	-1.44	-7.94	0.04988	0.9329	7.9562	0.4603	0.77	21.29
134	178	SLU-INV	Min	-1.97	-10.72	0.05026	-0.1603	0.7635	0.2282	0.52	6.91
134	177	SLU-INV	Min	-1.97	-10.69	0.05026	-0.0746	0.7452	0.3055	0.52	6.78
134	137	SLU-INV	Min	-1.94	-10.68	0.03695	0.2685	1.8357	0.2726	0.39	6.78
134	138	SLU-INV	Min	-1.95	-10.72	0.03695	0.194	1.8642	0.1954	0.39	6.91
135	179	SLE-INV	Max	-1.48	-7.97	0.04444	-0.0738	1.7336	0.1068	0.4	10
135	178	SLE-INV	Max	-1.48	-7.94	0.04654	-0.0316	1.7348	0.235	0.4	9.91
135	138	SLE-INV	Max	-1.46	-7.94	0.03869	0.4503	3.3249	0.2236	0.3	9.91
135	139	SLE-INV	Max	-1.46	-7.97	0.03659	0.3935	3.3308	0.096	0.3	10
135	179	SLE-INV	Min	-1.48	-7.97	0.04444	-0.092	0.574	0.1006	0.35	5.2
135	178	SLE-INV	Min	-1.48	-7.94	0.04654	-0.0436	0.5741	0.1626	0.35	5.11
135	138	SLE-INV	Min	-1.46	-7.94	0.03869	0.2082	1.3963	0.1519	0.26	5.11
135	139	SLE-INV	Min	-1.46	-7.97	0.03659	0.1585	1.4024	0.0892	0.26	5.2
135	179	SLU-INV	Max	-1.48	-7.97	0.05999	-0.0801	4.5868	0.2177	0.8	21.47
135	178	SLU-INV	Max	-1.48	-7.94	0.06282	0.0167	4.5811	0.2727	0.8	21.28
135	138	SLU-INV	Max	-1.46	-7.94	0.05223	1.0984	7.9968	0.4941	0.59	21.28
135	139	SLU-INV	Max	-1.46	-7.97	0.04939	0.9857	8.016	0.1882	0.59	21.47
135	179	SLU-INV	Min	-2	-10.76	0.04444	-0.127	0.7748	0.1349	0.47	7.01
135	178	SLU-INV	Min	-1.99	-10.72	0.04654	-0.0607	0.775	0.2196	0.47	6.9
135	138	SLU-INV	Min	-1.97	-10.72	0.03869	0.281	1.8849	0.205	0.35	6.9
135	139	SLU-INV	Min	-1.97	-10.76	0.03659	0.214	1.8933	0.1194	0.35	7.01
136	180	SLE-INV	Max	-1.49	-8	0.03394	-0.0666	1.7118	0.046	0.32	10.06
136	179	SLE-INV	Max	-1.48	-7.97	0.03705	-0.0271	1.7409	0.1004	0.32	10
136	139	SLE-INV	Max	-1.46	-7.97	0.0378	0.449	3.3444	0.1039	0.25	10
136	140	SLE-INV	Max	-1.47	-8	0.0347	0.4064	3.3202	0.0486	0.25	10.06
136	180	SLE-INV	Min	-1.49	-8	0.03394	-0.0795	0.5668	-0.0445	0.3	5.26
136	179	SLE-INV	Min	-1.48	-7.97	0.03705	-0.0428	0.581	0.0873	0.3	5.19
136	139	SLE-INV	Min	-1.46	-7.97	0.0378	0.2127	1.4156	0.1031	0.23	5.19
136	140	SLE-INV	Min	-1.47	-8	0.0347	0.1668	1.4067	-0.0279	0.23	5.26
136	180	SLU-INV	Max	-1.49	-8	0.04582	-0.0579	4.5436	0.062	0.57	21.59
136	179	SLU-INV	Max	-1.48	-7.97	0.05001	0.0124	4.5998	0.1882	0.57	21.47
136	139	SLU-INV	Max	-1.46	-7.97	0.05104	1.0914	8.046	0.2207	0.43	21.47
136	140	SLU-INV	Max	-1.47	-8	0.04684	1.0105	7.9953	0.0657	0.43	21.59
136	180	SLU-INV	Min	-2.01	-10.81	0.03394	-0.1092	0.7651	-0.1138	0.4	7.11
136	179	SLU-INV	Min	-2	-10.76	0.03705	-0.0601	0.7843	0.1158	0.4	7.01
136	139	SLU-INV	Min	-1.98	-10.76	0.0378	0.2872	1.911	0.1392	0.31	7.01
136	140	SLU-INV	Min	-1.98	-10.8	0.0347	0.2252	1.899	-0.0814	0.31	7.11
137	181	SLE-INV	Max	-1.48	-8.04	0.02374	-0.0683	1.6559	-0.0167	0.31	10.1
137	180	SLE-INV	Max	-1.47	-8	0.02706	-0.0292	1.7153	0.0389	0.31	10.06
137	140	SLE-INV	Max	-1.45	-8	0.03471	0.4389	3.328	0.0565	0.24	10.06
137	141	SLE-INV	Max	-1.46	-8.04	0.03139	0.4092	3.2706	0.0009382	0.24	10.1
137	181	SLE-INV	Min	-1.48	-8.04	0.02374	-0.0824	0.5421	-0.1926	0.21	5.33
137	180	SLE-INV	Min	-1.47	-8	0.02706	-0.0552	0.5722	-0.0588	0.21	5.26
137	140	SLE-INV	Min	-1.45	-8	0.03471	0.2133	1.418	-0.0121	0.17	5.26
137	141	SLE-INV	Min	-1.46	-8.04	0.03139	0.1696	1.3917	-0.1458	0.17	5.33
137	181	SLU-INV	Max	-1.48	-8.04	0.03204	-0.0697	4.4252	-0.0226	0.42	21.66
137	180	SLU-INV	Max	-1.47	-8	0.03653	-0.0222	4.548	0.0525	0.42	21.59
137	140	SLU-INV	Max	-1.45	-8	0.04686	1.0633	8.0087	0.0763	0.33	21.59
137	141	SLU-INV	Max	-1.46	-8.04	0.04238	1.0124	7.889	0.0013	0.33	21.66
137	181	SLU-INV	Min	-2	-10.86	0.02374	-0.1134	0.7318	-0.453	0.26	7.19
137	180	SLU-INV	Min	-1.99	-10.8	0.02706	-0.0784	0.7725	-0.1454	0.26	7.1
137	140	SLU-INV	Min	-1.96	-10.8	0.03471	0.288	1.9142	-0.0466	0.22	7.1
137	141	SLU-INV	Min	-1.97	-10.85	0.03139	0.2289	1.8788	-0.3542	0.22	7.19
138	182	SLE-INV	Max	-1.46	-8.08	0.01687	-0.0773	1.5656	-0.0802	0.31	10.1
138	181	SLE-INV	Max	-1.45	-8.03	0.0164	-0.0367	1.6559	-0.0242	0.31	10.09
138	141	SLE-INV	Max	-1.43	-8.03	0.03391	0.4155	3.2729	0.0091	0.25	10.09
138	142	SLE-INV	Max	-1.44	-8.08	0.03438	0.3966	3.1824	-0.0469	0.25	10.1
138	182	SLE-INV	Min	-1.46	-8.08	0.01687	-0.0964	0.4988	-0.3401	0.13	5.38
138	181	SLE-INV	Min	-1.45	-8.03	0.0164	-0.0772	0.5462	-0.2069	0.13	5.32
138	141	SLE-INV	Min	-1.43	-8.03	0.03391	0.2075	1.4015	-0.1301	0.12	5.32
138	142	SLE-INV	Min	-1.44	-8.08						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS 016700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 129 di 174			
138	142	SLU-INV	Min	-1.94	-10.91	0.03438	0.2209	1.8318	-0.6284	0.15	7.26
139	183	SLE-INV	Max	-1.41	-8.12	0.01847	-0.0989	1.4409	-0.1489	0.33	10.08
139	182	SLE-INV	Max	-1.4	-8.07	0.01438	-0.054	1.5621	-0.0881	0.33	10.1
139	142	SLE-INV	Max	-1.39	-8.07	0.04013	0.3837	3.1795	-0.0382	0.28	10.1
139	143	SLE-INV	Max	-1.4	-8.12	0.04423	0.3741	3.0549	-0.0391	0.28	10.08
139	183	SLE-INV	Min	-1.41	-8.12	0.01847	-0.1296	0.4355	-0.4947	0.0661	5.42
139	182	SLE-INV	Min	-1.4	-8.07	0.01438	-0.1159	0.5015	-0.3544	0.0661	5.38
139	142	SLE-INV	Min	-1.39	-8.07	0.04013	0.197	1.3655	-0.2475	0.08953	5.38
139	143	SLE-INV	Min	-1.4	-8.12	0.04423	0.1506	1.3007	-0.3878	0.08953	5.42
139	183	SLE-INV	Max	-1.41	-8.12	0.02493	-0.1335	3.9635	-0.2011	0.44	21.59
139	182	SLE-INV	Max	-1.4	-8.07	0.01941	-0.0729	4.2197	-0.1189	0.44	21.66
139	142	SLE-INV	Max	-1.39	-8.07	0.05418	0.9283	7.6863	-0.0516	0.38	21.66
139	143	SLE-INV	Max	-1.4	-8.12	0.0597	0.9294	7.4221	-0.1338	0.38	21.59
139	183	SLE-INV	Min	-1.91	-10.97	0.01847	-0.1813	0.588	-1.1487	-0.008117	7.32
139	182	SLE-INV	Min	-1.89	-10.9	0.01438	-0.1727	0.6771	-0.8238	-0.008117	7.26
139	142	SLE-INV	Min	-1.88	-10.89	0.04013	0.2659	1.8434	-0.5939	0.05814	7.26
139	143	SLE-INV	Min	-1.89	-10.96	0.04423	0.2033	1.756	-0.9188	0.05814	7.32
140	184	SLE-INV	Max	-1.35	-8.16	0.03716	-0.1317	1.2785	-0.2226	0.37	10.03
140	183	SLE-INV	Max	-1.34	-8.11	0.02207	-0.0791	1.4344	-0.1578	0.37	10.08
140	143	SLE-INV	Max	-1.34	-8.11	0.05657	0.3367	3.047	-0.0894	0.33	10.08
140	144	SLE-INV	Max	-1.35	-8.15	0.07166	0.3331	2.8854	-0.1542	0.33	10.03
140	184	SLE-INV	Min	-1.35	-8.16	0.03716	-0.1744	0.3496	-0.6534	0.01909	5.46
140	183	SLE-INV	Min	-1.34	-8.11	0.02207	-0.1639	0.4372	-0.5103	0.01909	5.42
140	143	SLE-INV	Min	-1.34	-8.11	0.05657	0.1774	1.3083	-0.3708	0.0748	5.42
140	144	SLE-INV	Min	-1.35	-8.15	0.07166	0.1249	1.2207	-0.5139	0.0748	5.46
140	184	SLE-INV	Max	-1.35	-8.16	0.05017	-0.1778	3.615	-0.3005	0.5	21.46
140	183	SLE-INV	Max	-1.34	-8.11	0.02979	-0.1068	3.9446	-0.213	0.5	21.6
140	143	SLE-INV	Max	-1.34	-8.11	0.07636	0.8188	7.3982	-0.1207	0.44	21.6
140	144	SLE-INV	Max	-1.35	-8.15	0.09674	0.8413	7.0559	-0.2082	0.44	21.46
140	184	SLE-INV	Min	-1.83	-11.01	0.03716	-0.2777	0.472	-1.5139	-0.17	7.32
140	183	SLE-INV	Min	-1.81	-10.95	0.02207	-0.2849	0.5903	-1.1824	-0.17	7.32
140	143	SLE-INV	Min	-1.81	-10.95	0.05657	0.2395	1.7663	-0.8821	-0.02839	7.32
140	144	SLE-INV	Min	-1.82	-11.01	0.07166	0.1686	1.6479	-1.2136	-0.02839	7.37
141	185	SLE-INV	Max	-1.27	-8.17	0.0739	-0.1859	1.0799	-0.3058	0.44	9.94
141	184	SLE-INV	Max	-1.27	-8.14	0.05368	-0.1194	1.2689	-0.2305	0.44	10.03
141	144	SLE-INV	Max	-1.28	-8.14	0.09443	0.2776	2.8724	-0.1453	0.41	10.03
141	145	SLE-INV	Max	-1.28	-8.17	0.11	0.2772	2.6738	-0.2206	0.41	9.94
141	185	SLE-INV	Min	-1.27	-8.17	0.0739	-0.2332	0.2399	-0.8231	-0.009519	5.46
141	184	SLE-INV	Min	-1.27	-8.14	0.05368	-0.2321	0.3501	-0.6664	-0.009519	5.49
141	144	SLE-INV	Min	-1.28	-8.14	0.09443	0.1485	1.2274	-0.4992	0.08418	5.46
141	145	SLE-INV	Min	-1.28	-8.17	0.11	0.0843	1.1451	-0.6559	0.08418	5.49
141	185	SLE-INV	Max	-1.27	-8.17	0.09977	-0.2509	3.1894	-0.4128	0.59	21.25
141	184	SLE-INV	Max	-1.27	-8.14	0.07247	-0.1611	3.589	-0.3112	0.59	21.47
141	144	SLE-INV	Max	-1.28	-8.14	0.13	0.6859	7.0192	-0.1962	0.55	21.47
141	145	SLE-INV	Max	-1.28	-8.17	0.15	0.7283	6.5995	-0.2978	0.55	21.25
141	185	SLE-INV	Min	-1.72	-11.03	0.0739	-0.416	0.3239	-1.9027	-0.32	7.41
141	184	SLE-INV	Min	-1.71	-10.99	0.05368	-0.4357	0.4727	-1.5425	-0.32	7.37
141	144	SLE-INV	Min	-1.73	-10.99	0.09443	0.2005	1.6569	-1.1815	-0.08772	7.37
141	145	SLE-INV	Min	-1.73	-11.03	0.11	0.1138	1.5055	-1.5417	-0.08772	7.41
142	185	SLE-INV	Max	-1.19	-8.15	0.1	-0.177	1.0698	-0.3143	0.52	9.94
142	145	SLE-INV	Max	-1.21	-8.16	0.14	0.2053	2.6571	-0.2114	0.5	9.94
142	146	SLE-INV	Max	-1.21	-8.15	0.18	0.2096	2.4647	-0.2801	0.5	9.84
142	186	SLE-INV	Max	-1.19	-8.15	0.14	-0.244	0.8859	-0.383	0.52	9.84
142	185	SLE-INV	Min	-1.19	-8.15	0.1	-0.3055	0.24	-0.8375	-0.03363	5.48
142	145	SLE-INV	Min	-1.21	-8.16	0.14	0.1001	1.12	-0.6402	0.0998	5.48
142	146	SLE-INV	Min	-1.21	-8.15	0.18	0.0382	1.1082	-0.7743	0.0998	5.5
142	186	SLE-INV	Min	-1.19	-8.15	0.14	-0.3182	0.1306	-0.9716	-0.03363	5.5
142	185	SLE-INV	Max	-1.19	-8.15	0.14	-0.23	0.3129	-0.4243	0.7	21.26
142	145	SLE-INV	Max	-1.21	-8.16	0.19	0.5369	6.5542	-0.2854	0.68	21.26
142	146	SLE-INV	Max	-1.21	-8.15	0.24	0.5929	6.1485	-0.3781	0.68	21
142	186	SLE-INV	Max	-1.19	-8.15	0.18	-0.3294	2.7744	-0.5171	0.7	21
142	185	SLE-INV	Min	-1.61	-11.01	0.1	-0.5833	0.324	-1.934	-0.46	7.4
142	145	SLE-INV	Min	-1.64	-11.01	0.14	0.1352	1.5121	-1.5077	-0.14	7.4
142	146	SLE-INV	Min	-1.64	-11.01	0.18	0.0516	1.3611	-1.8126	-0.14	7.42
142	186	SLE-INV	Min	-1.61	-11	0.14	-0.5624	0.1763	-2.2389	-0.46	7.42
143	187	SLE-INV	Max	-1.11	-8.1	0.21	-0.3135	0.6802	-0.4638	0.51	9.7
143	186	SLE-INV	Max	-1.12	-8.14	0.17	-0.2438	0.8749	-0.3874	0.51	9.84
143	146	SLE-INV	Max	-1.15	-8.14	0.21	0.1225	2.4438	-0.2749	0.52	9.84
143	147	SLE-INV	Max	-1.15	-8.1	0.25	0.1392	2.2384	-0.3513	0.52	9.7
143	187	SLE-INV	Min	-1.11	-8.1	0.21	-0.3958	0.0116	-1.1179	-0.14	5.49
143	186	SLE-INV	Min	-1.12	-8.14	0.17	-0.3906	0.1296	-0.9782	-0.14	5.49
143	146	SLE-INV	Min	-1.15	-8.14	0.21	0.0436	1.0104	-0.7663	0.04548	5.49
143	147	SLE-INV	Min	-1.15	-8.1	0.25	-0.0182	0.8885	-0.906	0.04548	5.49
143	187	SLE-INV	Max	-1.11	-8.1	0.28	-0.4233	2.334	-0.6261	0.69	20.68
143	186	SLE-INV	Max	-1.12	-8.14	0.23	-0.3291	2.7467	-0.5229	0.69	21.01
143	146	SLE-INV	Max	-1.15	-8.14	0.29	0.3709	6.0944	-0.3711	0.71	21.01
143	147	SLE-INV	Max	-1.15	-8.1	0.34	0.4604	5.6602	-0.4743	0.71	20.68
143	187	SLE-INV	Min	-1.5	-10.93	0.21	-0.7032	0.0157	-2.5679	-0.75	7.41
143	186	SLE-INV	Min	-1.51	-10.98	0.17	-0.7489	0.1749	-2.2544	-0.75	7.42
143	146	SLE-INV	Min	-1.56	-10.99	0.21	0.0588	1.364	-1.7942	-0.32	7.42
143	147	SLE-INV	Min	-1.55	-10.94	0.25	-0.0246	1.1995	-2.1078	-0.32	7.41
144	188	SLE-INV	Max	-1.04	-8	0.31	-0.3864	0.455	-0.5553	0.43	9.5
144	187	SLE-INV	Max	-1.06	-8.09	0.26	-0.3235	0.6672	-0.4688	0.43	9.7
144	147	SLE-INV	Max	-1.1	-8.09	0.3	0.0277	2.2107	-0.3456	0.47	9.7
144	148	SLE-INV	Max	-1.08	-8.01	0.35	0.0676	1.9861	-0.4321	0.47	9.5
144	188	SLE-INV	Min	-1.04	-8	0.31	-0.4707	-0.1192	-1.2748	-0.34	5.45
144	187	SLE-INV	Min	-1.06	-8.09	0.26	-0.487	0.0094	-1.1268	-0.34	5.49
144	147	SLE-INV	Min	-1.1	-8.09	0.3	-0.0252	0.8873	-0.8959	-0.09549	5.49
144	148	SLE-INV	Min	-1.08	-8.01	0.35	-0.0784	0.7537	-1.0439	-0.09549	5.45
144	188	SLE-INV	Max	-1.04	-8	0.42	-0.5216	1.8506	-0.7496	0.58	20.24
144	187	SLE-INV	Max	-1.06	-8.09	0.35	-0.4367	2.3032	-0.6329	0.58	20.69
144	147	SLE-INV	Max	-1.1	-8.09	0.4	0.1862	5.5912	-0.4665	0.63	20.69
144	148	SLE-INV	Max	-1.08	-8.01	0.47	0.3296	5.1144	-0.5833	0.63	20.24
144	188	SLE-INV	Min	-1.4	-10.8	0.31	-0.8304	-0.1609	-2.9141	-1.21	7.36
144	187	SLE-INV	Min	-1.43	-10.92	0.26	-0.9279	0.0127	-2.5887	-1.21	7.41
144	147	SLE-INV	Min	-1.48	-10.93	0.3	-0.034	1.1979	-2.0849	-0.65	7.41
144	148	SLE-INV	Min	-1.46	-10.81	0.35	-0.1058	1.0175	-2.4103	-0.65	7.36
145	189	SLE-INV	Max	-0.98	-7.84	0.42	-0.4535	0.2317	-0.649	0.25	9.25
145	188	SLE-INV	Max	-1.01	-7.99	0.37	-0.4094	0.4403	-0.5561	0.25	9.51
145	148	SLE-INV	Max	-1.05	-8	0.4	-0.0766	1.9498	-0.4304	0.34	9.51
145	149	SLE-INV	Max	-1.01	-7.85	0.46	0.000207	1.7267	-0.5233	0.34	9.25
145	189	SLE-INV	Min	-0.98	-7.84	0.42	-0.5326	-0.249	-1.4241	-0.65	5.38
145	188	SLE-INV	Min	-1.01	-7.99	0.37	-0.582	-0.1228	-1.2764	-0.65	5.45
145	148	SLE-INV	Min	-1.05	-8	0.4	-0.1047	0.7475	-1.0409	-0.33	5.45
145	149	SLE-INV	Min	-1.01	-7.85	0.46	-0.1363	0.6147	-1.1886	-0.33	5.38
145	189	SLE-INV	Max	-0.98	-7.84						

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 130 di 174			
145	148	SLU-INV	Min	-1.41	-10.8	0.4	-0.1413	1.0091	-2.4015	-1.14	7.36
145	149	SLU-INV	Min	-1.37	-10.59	0.46	-0.1841	0.8298	-2.7195	-1.14	7.26
146	190	SLE-INV	Max	-0.93	-7.62	0.56	-0.5108	0.0229	-0.7441	-0.01801	8.95
146	189	SLE-INV	Max	-0.97	-7.84	0.49	-0.4963	0.2154	-0.6485	-0.01801	9.27
146	149	SLE-INV	Max	-1	-7.84	0.52	-0.1744	1.6803	-0.5231	0.13	9.27
146	150	SLE-INV	Max	-0.96	-7.63	0.58	-0.0536	1.4738	-0.6188	0.13	8.95
146	190	SLE-INV	Min	-0.93	-7.62	0.56	-0.5804	-0.3668	-1.5577	-1.06	5.27
146	189	SLE-INV	Min	-0.97	-7.84	0.49	-0.6709	-0.2543	-1.4246	-1.06	5.38
146	149	SLE-INV	Min	-1	-7.84	0.52	-0.1854	0.6016	-1.1871	-0.65	5.38
146	150	SLE-INV	Min	-0.96	-7.63	0.58	-0.1849	0.4803	-1.3295	-0.65	5.27
146	190	SLU-INV	Max	-0.93	-7.62	0.75	-0.6896	0.9084	-1.0046	-0.02431	18.98
146	189	SLU-INV	Max	-0.97	-7.84	0.66	-0.6701	1.3321	-0.8755	-0.02431	19.7
146	149	SLU-INV	Max	-1	-7.84	0.7	-0.1864	4.441	-0.7062	0.18	19.7
146	150	SLU-INV	Max	-0.96	-7.63	0.79	0.121	3.9917	-0.8353	0.18	18.98
146	190	SLU-INV	Min	-1.25	-10.29	0.56	-0.9862	-0.4978	-3.5407	-2.72	7.11
146	189	SLU-INV	Min	-1.31	-10.58	0.49	-1.2382	-0.3434	-3.2431	-2.72	7.27
146	149	SLU-INV	Min	-1.35	-10.59	0.52	-0.2503	0.8122	-2.7131	-1.79	7.27
146	150	SLU-INV	Min	-1.3	-10.3	0.58	-0.2496	0.6484	-3.0108	-1.79	7.11
147	191	SLE-INV	Max	-0.9	-7.33	0.7	-0.5491	-0.1665	-0.8372	-0.38	8.56
147	190	SLE-INV	Max	-0.96	-7.63	0.63	-0.5733	0.0055	-0.74	-0.38	8.96
147	151	SLE-INV	Max	-0.98	-7.63	0.64	-0.2654	1.4157	-0.6222	-0.15	8.96
147	150	SLE-INV	Max	-0.92	-7.34	0.71	-0.0907	1.2287	-0.7194	-0.15	8.56
147	191	SLE-INV	Min	-0.9	-7.33	0.7	-0.5944	-0.4746	-1.6957	-1.58	5.1
147	190	SLE-INV	Min	-0.96	-7.63	0.63	-0.7413	-0.3758	-1.5619	-1.58	5.27
147	150	SLE-INV	Min	-0.98	-7.63	0.64	-0.27	0.4587	-1.3336	-1.05	5.27
147	151	SLE-INV	Min	-0.92	-7.34	0.71	-0.224	0.3519	-1.4674	-1.05	5.1
147	191	SLU-INV	Max	-0.9	-7.33	0.95	-0.7413	0.4835	-1.1302	-0.51	18.13
147	190	SLU-INV	Max	-0.96	-7.63	0.85	-0.7739	0.8739	-0.999	-0.51	19.02
147	150	SLU-INV	Max	-0.98	-7.63	0.87	-0.3532	3.861	-0.84	-0.21	19.02
147	151	SLU-INV	Max	-0.92	-7.34	0.96	0.0695	3.444	-0.9712	-0.21	18.13
147	191	SLU-INV	Min	-1.21	-9.9	0.7	-0.9731	-0.6408	-3.8055	-3.75	6.89
147	190	SLU-INV	Min	-1.29	-10.3	0.63	-1.3384	-0.5073	-3.5344	-3.75	7.12
147	150	SLU-INV	Min	-1.32	-10.3	0.64	-0.3652	0.6193	-3.0153	-2.6	7.12
147	151	SLU-INV	Min	-1.24	-9.91	0.71	-0.3024	0.4751	-3.2863	-2.6	6.89
148	192	SLE-INV	Max	-0.9	-6.96	0.86	-0.5624	-0.331	-0.9289	-0.85	8.07
148	191	SLE-INV	Max	-0.97	-7.35	0.79	-0.6409	-0.1855	-0.8303	-0.85	8.58
148	151	SLE-INV	Max	-0.97	-7.35	0.78	-0.3407	1.1549	-0.7258	-0.53	8.58
148	152	SLE-INV	Max	-0.89	-6.96	0.86	-0.0975	0.9941	-0.8244	-0.53	8.07
148	192	SLE-INV	Min	-0.9	-6.96	0.86	-0.5684	-0.5612	-1.8122	-2.23	4.86
148	191	SLE-INV	Min	-0.97	-7.35	0.79	-0.7946	-0.4837	-1.6973	-2.23	5.11
148	151	SLE-INV	Min	-0.97	-7.35	0.78	-0.3544	0.3192	-1.5193	-2.23	5.11
148	152	SLE-INV	Min	-0.89	-6.96	0.86	-0.2446	0.2331	-1.6002	-1.58	4.86
148	192	SLU-INV	Max	-0.9	-6.96	1.17	-0.7592	0.0998	-1.254	-1.14	17.06
148	191	SLU-INV	Max	-0.97	-7.35	1.06	-0.8652	0.4484	-1.1209	-1.14	18.19
148	151	SLU-INV	Max	-0.97	-7.35	1.06	-0.46	3.2824	-0.9798	-0.72	18.19
148	152	SLU-INV	Max	-0.89	-6.96	1.16	0.0817	2.9082	-1.1129	-0.72	17.06
148	192	SLU-INV	Min	-1.21	-9.39	0.86	-0.8726	-0.7576	-4.0345	-5.04	6.57
148	191	SLU-INV	Min	-1.31	-9.92	0.79	-1.3954	-0.653	-3.7934	-5.04	6.9
148	151	SLU-INV	Min	-1.31	-9.92	0.78	-0.492	0.431	-3.2976	-3.61	6.9
148	152	SLU-INV	Min	-1.2	-9.39	0.86	-0.3303	0.3146	-3.5387	-3.61	6.57
149	193	SLE-INV	Max	-0.92	-6.49	1.04	-0.4846	-0.4526	-1.0081	-1.45	7.46
149	192	SLE-INV	Max	-1.02	-6.98	0.96	-0.6841	-0.3506	-0.9184	-1.45	8.1
149	152	SLE-INV	Max	-0.99	-6.98	0.94	-0.4067	0.9019	-0.8344	-1.03	8.1
149	153	SLE-INV	Max	-0.89	-6.48	1.02	-0.0695	0.7851	-0.924	-1.03	7.46
149	193	SLE-INV	Min	-0.92	-6.49	1.04	-0.5363	-0.6158	-1.8989	-3.05	4.54
149	192	SLE-INV	Min	-1.02	-6.98	0.96	-0.8053	-0.5719	-1.7988	-3.05	4.88
149	153	SLE-INV	Min	-0.99	-6.98	0.94	-0.4198	0.187	-1.613	-2.24	4.88
149	152	SLE-INV	Min	-0.89	-6.48	1.02	-0.2407	0.3148	-1.7131	-2.24	4.54
149	193	SLU-INV	Max	-0.92	-6.49	1.41	-0.6465	-0.2078	-1.3609	-1.96	15.75
149	192	SLU-INV	Max	-1.02	-6.98	1.29	-0.9235	0.0667	-1.2399	-1.96	17.14
149	152	SLU-INV	Max	-0.99	-6.98	1.26	-0.549	2.7109	-1.1265	-1.38	17.14
149	153	SLU-INV	Max	-0.89	-6.48	1.38	0.1657	2.4131	-1.2475	-1.38	15.75
149	193	SLU-INV	Min	-1.24	-8.76	1.04	-0.724	-0.8313	-4.1924	-6.61	6.14
149	192	SLU-INV	Min	-1.38	-9.43	0.96	-1.3589	-0.772	-4.0134	-6.61	6.59
149	152	SLU-INV	Min	-1.33	-9.42	0.94	-0.5846	0.2525	-3.5591	-4.87	6.59
149	153	SLU-INV	Min	-1.2	-8.75	1.02	-0.3249	0.1809	-3.7382	-4.87	6.14
150	194	SLE-INV	Max	-0.99	-5.92	1.25	-0.3197	-0.5185	-1.0662	-2.21	6.72
150	193	SLE-INV	Max	-1.11	-6.53	1.15	-0.6892	-0.4712	-0.9944	-2.21	7.5
150	153	SLE-INV	Max	-1.04	-6.51	1.1	-0.4485	0.6731	-0.9375	-1.65	7.5
150	154	SLE-INV	Max	-0.92	-5.9	1.2	0.0154	0.6131	-1.0093	-1.65	6.72
150	194	SLE-INV	Min	-0.99	-5.92	1.25	-0.453	-0.6283	-1.9445	-4.06	4.13
150	193	SLE-INV	Min	-1.11	-6.53	1.15	-0.7585	-0.6273	-1.8817	-4.06	4.57
150	153	SLE-INV	Min	-1.04	-6.51	1.1	-0.4498	0.0731	-1.7303	-3.07	4.57
150	154	SLE-INV	Min	-0.92	-5.9	1.2	-0.1962	0.0636	-1.7932	-3.07	4.13
150	194	SLE-INV	Min	-0.99	-5.92	1.66	-0.2549	-0.4167	-1.4393	-2.98	14.19
150	193	SLU-INV	Max	-1.11	-6.53	1.55	-0.9304	-0.2354	-1.3425	-2.98	15.85
150	153	SLU-INV	Max	-1.04	-6.51	1.49	-0.6004	2.1779	-1.2656	-2.23	15.85
150	154	SLU-INV	Max	-0.92	-5.9	1.62	-0.3606	1.9796	-1.3625	-2.23	14.19
150	194	SLU-INV	Min	-1.33	-7.99	1.25	-0.6116	-0.8482	-4.2558	-8.5	5.58
150	193	SLU-INV	Min	-1.5	-8.81	1.15	-1.2022	-0.8469	-4.1648	-8.5	6.17
150	153	SLU-INV	Min	-1.4	-8.79	1.1	-0.6073	0.0987	-3.7663	-6.4	6.17
150	154	SLU-INV	Min	-1.24	-7.97	1.2	-0.2656	0.0859	-3.8574	-6.4	5.58
151	195	SLE-INV	Max	-1.1	-5.23	1.48	-0.0397	-0.5136	-1.0887	-3.15	5.83
151	194	SLE-INV	Max	-1.24	-5.97	1.37	-0.6241	-0.5341	-1.0494	-3.15	6.77
151	154	SLE-INV	Max	-1.14	-5.95	1.29	-0.4239	0.4799	-1.026	-2.45	6.77
151	155	SLE-INV	Max	-0.99	-5.21	1.4	0.1798	0.4903	-1.0652	-2.45	5.83
151	195	SLE-INV	Min	-1.1	-5.23	1.48	-0.2856	-0.5868	-1.9288	-5.28	3.61
151	194	SLE-INV	Min	-1.24	-5.97	1.37	-0.6328	-0.6391	-1.9233	-5.28	4.16
151	154	SLE-INV	Min	-1.14	-5.95	1.29	-0.4565	-0.0134	-1.8147	-4.09	4.16
151	155	SLE-INV	Min	-0.99	-5.21	1.4	-0.0946	0.0313	-1.8202	-4.09	3.61
151	195	SLU-INV	Max	-1.1	-5.23	1.85	0.3256	-0.4993	-1.4697	-4.25	12.34
151	194	SLU-INV	Max	-1.24	-5.97	1.2	-0.8412	-0.4346	-1.4167	-4.25	14.32
151	154	SLU-INV	Max	-1.14	-5.95	1.74	-0.5087	1.7038	-1.3591	-3.31	14.32
151	155	SLU-INV	Max	-0.99	-5.21	1.89	0.7076	1.6293	-1.438	-3.31	12.34
151	195	SLU-INV	Min	-1.48	-7.06	1.48	-0.3855	-0.7922	-4.1859	-10.77	4.87
151	194	SLU-INV	Min	-1.68	-8.06	1.37	-0.8731	-0.8628	-4.2206	-10.77	5.62
151	154	SLU-INV	Min	-1.53	-8.03	1.29	-0.6162	-0.0181	-3.8934	-8.28	5.62
151	155	SLU-INV	Min	-1.34	-7.03	1.4	-0.1277	0.0423	-3.8587	-8.28	4.87
152	196	SLE-INV	Max	-1.26	-4.42	1.77	0.3979	-0.4256	-1.0588	-4.31	4.8
152	195	SLE-INV	Max	-1.44	-5.3	1.63	-0.3672	-0.5234	-1.0703	-4.31	5.9
152	155	SLE-INV	Max	-1.3	-5.27	1.51	-0.3164	0.3354	-1.0838	-3.46	5.9
152	156	SLE-INV	Max	-1.13	-4.39	1.65	0.458	0.428	-1.0723	-3.46	4.8
152	196	SLE-INV	Min	-1.26	-4.42	1.77	0.0013	-0.4813	-1.8296	-6.77	2.98
152	195	SLE-INV	Min	-1.44	-5.3	1.63	-0.4857	-0.595	-1.9057	-6.77	3.65
152	155	SLE-INV	Min	-1.3	-5.27	1.51	-0.4024	-0.0621	-1.8441	-5.37	3.65
152	156	SLE-INV	Min	-1.13	-4.39	1.65	0.0946	0.0463	-1.768	-5.37	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS 016700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 131 di 174			
152	195	SLU-INV	Min	-1.94	-7.16	1.63	-0.6557	-0.8032	-4.1473	-13.5	4.93
152	155	SLU-INV	Min	-1.76	-7.12	1.51	-0.5433	-0.0839	-3.8994	-10.58	4.93
152	156	SLU-INV	Min	-1.52	-5.93	1.65	0.1277	0.0625	-3.6917	-10.58	4.02
153	197	SLE-INV	Max	-1.49	-3.48	2.15	1.049	-0.2433	-0.9546	-5.74	3.61
153	196	SLE-INV	Max	-1.69	-4.51	1.95	0.0608	-0.4268	-1.0412	-5.74	4.88
153	156	SLE-INV	Max	-1.56	-4.48	1.77	-0.0889	0.2523	-1.0904	-4.74	4.88
153	157	SLE-INV	Max	-1.35	-3.46	1.98	0.8964	0.4364	-1.0038	-4.74	3.61
153	197	SLE-INV	Min	-1.49	-3.48	2.15	0.4566	-0.3038	-1.6172	-8.58	2.24
153	196	SLE-INV	Min	-1.69	-4.51	1.95	-0.2056	-0.4842	-1.8063	-8.58	3.02
153	156	SLE-INV	Min	-1.56	-4.48	1.77	-0.2547	-0.0621	-1.7924	-6.98	3.02
153	157	SLE-INV	Min	-1.35	-3.46	1.98	0.411	0.1161	-1.6033	-6.98	2.24
153	197	SLU-INV	Max	-1.49	-3.48	2.91	2.4852	-0.1993	-1.2887	-7.74	7.72
153	196	SLU-INV	Max	-1.69	-4.51	2.64	0.5547	-0.4192	-1.4056	-7.74	10.37
153	156	SLU-INV	Max	-1.56	-4.48	2.4	0.1989	1.0212	-1.4721	-6.4	10.37
153	157	SLU-INV	Max	-1.35	-3.46	2.67	2.0954	1.2561	-1.3551	-6.4	7.72
153	197	SLU-INV	Min	-2.01	-4.7	2.15	0.6164	-0.4102	-3.4621	-16.77	3.02
153	196	SLU-INV	Min	-2.29	-6.08	1.95	-0.2776	-0.6536	-3.8984	-16.77	4.08
153	156	SLU-INV	Min	-2.1	-6.05	1.77	-0.3439	-0.0839	-3.7356	-13.43	4.08
153	157	SLU-INV	Min	-1.83	-4.67	1.98	0.5548	0.1567	-3.2993	-13.43	3.02
154	198	SLE-INV	Max	-1.77	-2.46	2.62	1.9835	0.0392	-0.7515	-7.49	2.31
154	197	SLE-INV	Max	-2	-3.59	2.42	0.7182	-0.2337	-0.9413	-7.49	3.71
154	157	SLE-INV	Max	-1.93	-3.57	2.18	0.3098	0.2434	-1.0182	-6.38	3.71
154	158	SLE-INV	Max	-1.7	-2.44	2.39	1.5551	0.5253	-0.8284	-6.38	2.31
154	198	SLE-INV	Min	-1.77	-2.46	2.62	1.1436	-0.0514	-1.2579	-10.78	1.42
154	197	SLE-INV	Min	-2	-3.59	2.42	0.2613	-0.2986	-1.5971	-10.78	2.29
154	157	SLE-INV	Min	-1.93	-3.57	2.18	0.0359	-0.0032	-1.6254	-9.02	2.29
154	158	SLE-INV	Min	-1.7	-2.44	2.39	0.9119	0.2465	-1.2862	-9.02	1.42
154	198	SLU-INV	Max	-1.77	-2.46	3.54	4.2366	0.2222	-1.0146	-10.11	5.01
154	197	SLU-INV	Max	-2	-3.59	3.26	1.8143	-0.1638	-1.2707	-10.11	7.94
154	157	SLU-INV	Max	-1.93	-3.57	2.94	0.9415	0.8557	-1.3745	-8.62	7.94
154	158	SLU-INV	Max	-1.7	-2.44	3.22	3.2915	1.2752	-1.1184	-8.62	5.01
154	198	SLU-INV	Min	-2.4	-3.32	2.62	1.5438	-0.0694	-2.686	-20.67	1.91
154	197	SLU-INV	Min	-2.7	-4.84	2.42	0.3528	-0.4031	-3.4215	-20.67	3.09
154	157	SLU-INV	Min	-2.6	-4.82	2.18	0.0484	-0.0044	-3.3441	-16.98	3.09
154	158	SLU-INV	Min	-2.3	-3.3	2.39	1.231	0.3328	-2.6086	-16.98	1.91
155	199	SLE-INV	Max	-2.12	-1.38	3.49	3.2992	0.4193	-0.4158	-9.62	0.96
155	198	SLE-INV	Max	-2.36	-2.57	2.8	1.6924	0.0611	-0.7496	-9.62	2.41
155	158	SLE-INV	Max	-2.38	-2.58	2.55	0.9368	0.3215	-0.8319	-8.48	2.41
155	159	SLE-INV	Max	-2.14	-1.39	3.23	2.503	0.6987	-0.4981	-8.48	0.96
155	199	SLE-INV	Min	-2.12	-1.38	3.49	2.1526	0.0679	-0.6993	-13.43	0.57
155	198	SLE-INV	Min	-2.36	-2.57	2.8	0.9964	-0.0348	-1.2463	-13.43	1.47
155	158	SLE-INV	Min	-2.38	-2.58	2.55	0.5321	0.1246	-1.3001	-11.6	1.47
155	159	SLE-INV	Min	-2.14	-1.39	3.23	1.6696	0.436	-0.7531	-11.6	0.57
155	199	SLU-INV	Max	-2.12	-1.38	4.71	6.6097	0.8399	-0.5613	-12.98	2.14
155	198	SLU-INV	Max	-2.36	-2.57	3.78	3.5904	0.2763	-1.0119	-12.98	5.24
155	158	SLU-INV	Max	-2.38	-2.58	3.44	2.0292	0.8394	-1.123	-11.45	5.24
155	159	SLU-INV	Max	-2.14	-1.39	4.36	4.9326	1.4578	-0.6725	-11.45	2.14
155	199	SLU-INV	Min	-2.86	-1.87	3.49	2.9061	0.3617	-1.5047	-25.32	0.77
155	198	SLU-INV	Min	-3.18	-3.47	2.8	1.3451	-0.047	-2.6498	-25.32	1.99
155	158	SLU-INV	Min	-3.21	-3.48	2.55	0.7184	0.1682	-2.6497	-21.4	1.99
155	159	SLU-INV	Min	-2.89	-1.88	3.23	2.254	0.5886	-1.5047	-21.4	0.77
156	160	SLE-INV	Max	-2.64	-0.53	2.37	3.6781	0.8997	-0.0171	-10.98	-0.13
156	200	SLE-INV	Max	-2.48	-0.5	2.76	4.9142	0.8188	0.0156	-12.03	-0.13
156	199	SLE-INV	Max	-2.68	-1.5	4.74	3.0943	0.4538	-0.44	-12.03	1.06
156	159	SLE-INV	Max	-2.84	-1.53	4.35	1.9329	0.5092	-0.4758	-10.98	1.06
156	160	SLE-INV	Min	-2.64	-0.53	2.37	2.6624	0.6333	-0.0202	-14.65	-0.2
156	200	SLE-INV	Min	-2.48	-0.5	2.76	3.4374	0.5867	0.0083	-16.41	-0.2
156	199	SLE-INV	Min	-2.68	-1.5	4.74	2.0976	0.2989	-0.715	-16.41	0.63
156	159	SLE-INV	Min	-2.84	-1.53	4.35	1.3614	0.3324	-0.7405	-14.65	0.63
156	160	SLU-INV	Max	-2.64	-0.53	3.2	6.8491	1.7207	-0.0152	-14.82	-0.17
156	200	SLU-INV	Max	-2.48	-0.5	3.72	9.4227	1.5337	0.0211	-16.24	-0.17
156	199	SLU-INV	Max	-2.68	-1.5	6.4	6.0508	0.906	-0.594	-16.24	2.36
156	159	SLU-INV	Max	-2.84	-1.53	5.88	3.669	1.0272	-0.6424	-14.82	2.36
156	160	SLU-INV	Min	-3.56	-0.71	2.37	3.5942	0.8549	-0.0273	-26.59	-0.44
156	200	SLU-INV	Min	-3.35	-0.67	2.76	4.6405	0.792	-0.0074	-30.5	-0.44
156	199	SLU-INV	Min	-3.62	-2.02	4.74	2.8318	0.4035	-1.5041	-30.5	0.84
156	159	SLU-INV	Min	-3.83	-2.06	4.35	1.8379	0.4487	-1.5118	-26.59	0.84
157	201	SLE-INV	Max	-1.37	-0.27	-2.68	4.5049	0.7804	0.0067	11.1	-0.05679
157	161	SLE-INV	Max	-1.79	-0.36	-2.44	3.5662	0.8339	0.0087	10.42	-0.05679
157	162	SLE-INV	Max	-1.96	-1.19	-4.3	1.9784	0.4873	0.7187	10.42	0.49
157	202	SLE-INV	Max	-1.54	-1.11	-4.54	2.8535	0.4862	0.7213	11.1	0.49
157	161	SLE-INV	Min	-1.37	-0.27	-2.68	2.3882	0.4322	-0.0052	6.25	-0.15
157	162	SLE-INV	Min	-1.79	-0.36	-2.44	1.971	0.4397	0.0041	6.15	-0.15
157	202	SLE-INV	Min	-1.96	-1.19	-4.3	1.0485	0.229	0.327	6.15	0.04065
157	201	SLU-INV	Max	-1.54	-1.11	-4.54	1.4444	0.239	0.3131	6.25	0.04086
157	161	SLU-INV	Max	-1.37	-0.27	-2.68	9.382	1.5821	0.0346	22.25	-0.07666
157	162	SLU-INV	Max	-1.79	-0.36	-2.44	7.2361	1.7415	0.0118	20.23	-0.07666
157	202	SLU-INV	Max	-1.96	-1.19	-4.3	4.1192	1.0845	1.6247	20.23	1.53
157	201	SLU-INV	Min	-1.54	-1.11	-4.54	6.1038	1.0578	1.6669	22.25	1.53
157	161	SLU-INV	Min	-1.85	-0.37	-3.62	3.224	0.5834	-0.007	8.44	-0.37
157	162	SLU-INV	Min	-2.42	-0.48	-3.3	2.6609	0.5935	-0.0075	8.3	-0.37
157	202	SLU-INV	Min	-2.65	-1.61	-5.8	1.4154	0.3091	0.4414	8.3	0.05515
158	203	SLE-INV	Max	-2.08	-1.5	-6.13	1.95	0.3226	0.4227	8.44	0.05515
158	202	SLE-INV	Max	-1.3	-2.01	-2.61	1.7625	0.2262	1.2292	9.36	1.22
158	162	SLE-INV	Max	-1.11	-1.02	-3.25	3.1287	0.4895	0.713	9.36	0.42
158	163	SLE-INV	Max	-1.39	-1.08	-3.09	2.4749	0.6383	0.7237	8.51	0.42
158	203	SLE-INV	Min	-1.58	-2.07	-2.45	1.1508	0.3405	1.2399	8.51	1.22
158	163	SLE-INV	Min	-1.3	-2.01	-2.61	0.8156	0.0637	0.5429	5.21	0.29
158	202	SLE-INV	Min	-1.11	-1.02	-3.25	1.5845	0.2554	0.2997	5.21	0.02549
158	162	SLE-INV	Min	-1.39	-1.08	-3.09	1.2731	0.2855	0.3389	4.93	0.02549
158	163	SLE-INV	Min	-1.58	-2.07	-2.45	0.516	0.0841	0.5821	4.93	0.29
158	203	SLU-INV	Max	-1.3	-2.01	-2.61	3.9595	0.6087	2.821	18.9	3.36
158	202	SLU-INV	Max	-1.11	-1.02	-3.25	6.6996	1.0328	1.6712	18.9	1.34
158	162	SLU-INV	Max	-1.39	-1.08	-3.09	5.2512	1.4551	1.6127	16.76	1.34
158	163	SLU-INV	Max	-1.58	-2.07	-2.45	2.6227	0.9397	2.7624	16.76	3.36
158	203	SLU-INV	Min	-1.76	-2.71	-3.52	1.101	0.086	0.7329	7.03	0.39
158	202	SLU-INV	Min	-1.49	-1.38	-4.38	2.1391	0.3448	0.4046	7.03	0.03441
158	162	SLU-INV	Min	-1.87	-1.46	-4.17	1.7187	0.3854	0.4575	6.65	0.03441
158	163	SLU-INV	Min	-2.14	-2.79	-3.31	0.6967	0.1136	0.7859	6.65	0.39
159	204	SLE-INV	Max	-1.06	-2.92	-2.12	0.9259	0.0573	1.6009	7.87	1.99
159	203	SLE-INV	Max	-0.87	-1.92	-2.38	2.0586	0.2307	1.2503	7.87	1.15
159	163	SLE-INV	Max	-1.03	-1.95	-2.23	1.6463	0.4944	1.217	6.97	1.15
159	164	SLE-INV	Max	-1.23	-2.95	-1.97	0.5436	0.2966	1.5676	6.97	1.99
159	204	SLE-INV	Min	-1.06	-2.92	-2.12	0.3647	-0.0684	0.7198	4.34	0.62
159	203	SLE-INV	Min	-0.87	-1.92	-2.38	0.9931	0.082	0.5496	4.34	0.27
159	163	SLE-INV	Min	-1.03	-1.95	-2.23	0.7865	0.1554	0.5747	3.97	0.27
159	164	SLE-INV	Min	-1.23	-2.95	-1					

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	132 di 174			
159	204	SU-INV	Min	-1.44	-3.94	-2.86	0.4923	-0.0924	0.9717	5.85	0.83
159	203	SU-INV	Min	-1.17	-2.59	-3.22	1.3406	0.1107	0.7419	5.85	0.36
159	163	SU-INV	Min	-1.39	-2.64	-3.01	1.0617	0.2099	0.7758	5.35	0.36
159	164	SU-INV	Min	-1.66	-3.99	-2.66	0.2225	-0.0004428	1.0057	5.35	0.83
160	204	SLE-INV	Max	-0.86	-3.76	-1.6	0.2751	-0.0718	1.7896	6.63	2.76
160	164	SLE-INV	Max	-0.67	-2.84	-1.83	1.2148	0.065	1.6023	6.63	1.93
160	164	SLE-INV	Max	-0.77	-2.86	-1.73	1.0429	0.4466	1.564	5.75	1.93
160	165	SLE-INV	Max	-0.95	-3.78	-1.5	0.1185	0.2977	1.7513	5.75	2.76
160	205	SLE-INV	Min	-0.86	-3.76	-1.6	0.0367	-0.1733	0.8164	3.62	0.97
160	204	SLE-INV	Min	-0.67	-2.84	-1.83	0.5517	-0.0493	0.7224	3.62	0.59
160	164	SLE-INV	Min	-0.77	-2.86	-1.73	0.4566	0.0763	0.7413	3.22	0.59
160	165	SLE-INV	Min	-0.95	-3.78	-1.5	-0.058	-0.0478	0.8353	3.22	0.97
160	205	SU-INV	Max	-0.86	-3.76	-1.6	0.8501	0.1839	4.0533	13.58	6.89
160	204	SU-INV	Max	-0.67	-2.84	-1.83	2.7691	0.3443	3.6458	13.58	5.01
160	164	SU-INV	Max	-0.77	-2.86	-1.73	2.4143	1.3164	3.4703	11.58	5.01
160	165	SU-INV	Max	-0.95	-3.78	-1.5	0.5446	1.1164	3.8778	11.58	6.89
160	205	SU-INV	Min	-1.15	-5.08	-2.16	0.0496	-0.234	1.1022	4.89	1.31
160	204	SU-INV	Min	-0.91	-3.83	-2.47	0.7448	-0.0665	0.9753	4.89	0.8
160	164	SU-INV	Min	-1.04	-3.86	-2.34	0.6164	0.103	1.0008	4.34	0.8
160	165	SU-INV	Min	-1.29	-5.11	-2.03	-0.0783	-0.0645	1.1277	4.34	1.31
161	206	SLE-INV	Max	-0.72	-4.48	-1.18	-0.174	-0.1335	1.8944	5.59	3.48
161	205	SLE-INV	Max	-0.57	-3.71	-1.38	0.6096	-0.0554	1.803	5.59	2.7
161	165	SLE-INV	Max	-0.6	-3.71	-1.32	0.5876	0.4421	1.737	4.76	2.7
161	166	SLE-INV	Max	-0.76	-4.49	-1.13	-0.188	0.358	1.8284	4.76	3.48
161	206	SU-INV	Min	-0.72	-4.48	-1.18	-0.1783	-0.2377	0.8731	3.03	1.32
161	205	SLE-INV	Min	-0.57	-3.71	-1.38	0.2469	-0.1517	0.8258	3.03	0.95
161	165	SLE-INV	Min	-0.6	-3.71	-1.32	0.2242	0.0291	0.8255	2.63	0.95
161	166	SLE-INV	Min	-0.76	-4.49	-1.13	-0.2036	-0.0545	0.8728	2.63	1.32
161	206	SU-INV	Max	-0.72	-4.48	-1.18	-0.1355	0.1352	4.2749	11.51	8.45
161	205	SU-INV	Max	-0.57	-3.71	-1.38	1.4759	0.189	4.0762	11.51	6.73
161	165	SU-INV	Max	-0.6	-3.71	-1.32	1.4489	1.4174	3.8528	9.68	6.73
161	166	SU-INV	Max	-0.76	-4.49	-1.13	-0.1305	1.3383	4.0515	9.68	8.45
161	206	SU-INV	Min	-0.98	-6.05	-1.6	-0.2407	-0.3209	1.1787	4.09	1.79
161	205	SU-INV	Min	-0.77	-5	-1.86	0.3333	-0.2048	1.1149	4.09	1.28
161	165	SU-INV	Min	-0.82	-5.01	-1.79	0.3027	0.0392	1.1144	3.55	1.28
161	166	SU-INV	Min	-1.03	-6.06	-1.53	-0.2748	-0.0736	1.1782	3.55	1.79
162	207	SLE-INV	Max	-0.66	-5.07	-0.85	-0.3259	-0.1536	1.8896	4.72	4.14
162	206	SLE-INV	Max	-0.53	-4.45	-1	0.1539	-0.1097	1.8996	4.72	3.43
162	166	SLE-INV	Max	-0.54	-4.45	-0.99	0.288	-0.495	1.8221	3.97	3.43
162	167	SLE-INV	Max	-0.67	-5.07	-0.84	-0.3804	-0.4526	1.8121	3.97	4.14
162	207	SLE-INV	Min	-0.66	-5.07	-0.85	-0.4998	-0.2734	0.8783	2.55	1.66
162	206	SLE-INV	Min	-0.53	-4.45	-1	0.0263	-0.2145	0.8793	2.55	1.3
162	166	SLE-INV	Min	-0.54	-4.45	-0.99	0.0783	0.0196	0.8661	2.17	1.3
162	167	SLE-INV	Min	-0.67	-5.07	-0.84	-0.3668	-0.0337	0.8649	2.17	1.66
162	207	SU-INV	Max	-0.66	-5.07	-0.85	-0.44	0.1576	4.2532	9.76	9.87
162	206	SU-INV	Max	-0.53	-4.45	-1	0.4819	0.1612	4.2777	9.76	8.33
162	166	SU-INV	Max	-0.54	-4.45	-0.99	0.7988	1.6216	4.0459	8.13	8.33
162	167	SU-INV	Max	-0.67	-5.07	-0.84	-0.3785	1.6106	4.0215	8.13	9.87
162	207	SU-INV	Min	-0.89	-6.84	-1.15	-0.8697	-0.3691	1.1854	3.44	2.24
162	206	SU-INV	Min	-0.72	-6	-1.34	0.0356	-0.2896	1.187	3.44	1.76
162	166	SU-INV	Min	-0.73	-6.01	-1.33	0.1057	0.0265	1.1692	2.93	1.76
162	167	SU-INV	Min	-0.9	-6.84	-1.13	-0.5426	-0.0455	1.1677	2.93	2.24
163	208	SLE-INV	Max	-0.67	-5.52	-0.57	-0.4066	-0.1314	1.8391	3.99	4.72
163	207	SLE-INV	Max	-0.57	-5.05	-0.7	-0.1127	-0.122	1.8963	3.99	4.09
163	167	SLE-INV	Max	-0.54	-5.04	-0.72	0.075	0.5809	1.8052	3.32	4.09
163	168	SLE-INV	Max	-0.64	-5.52	-0.59	-0.3221	-0.5761	1.7481	3.32	4.72
163	208	SU-INV	Min	-0.67	-5.52	-0.57	-0.689	-0.282	0.8601	2.15	1.96
163	207	SU-INV	Min	-0.77	-5.45	-0.7	-0.1412	-0.284	0.8844	2.15	1.64
163	167	SU-INV	Min	-0.54	-5.04	-0.72	-0.0204	0.036	0.8586	1.81	1.64
163	168	SLE-INV	Min	-0.64	-5.52	-0.59	-0.4778	0.009	0.8343	1.81	1.96
163	208	SU-INV	Max	-0.67	-5.52	-0.57	-0.5489	0.2579	4.1345	8.28	11.11
163	207	SU-INV	Max	-0.57	-5.05	-0.7	-0.1521	0.2059	4.2608	8.28	9.75
163	167	SU-INV	Max	-0.54	-5.04	-0.72	0.3256	1.8762	4.0132	6.83	9.75
163	168	SU-INV	Max	-0.64	-5.52	-0.59	-0.4348	1.9289	3.8868	6.83	11.11
163	208	SU-INV	Min	-0.9	-7.46	-0.77	-1.3067	-0.3807	1.1612	2.9	2.64
163	207	SU-INV	Min	-0.77	-6.82	-0.94	-0.1949	-0.3353	1.194	2.9	2.21
163	167	SU-INV	Min	-0.73	-6.81	-0.97	-0.0275	0.0485	1.1591	2.44	2.21
163	168	SU-INV	Min	-0.86	-7.45	-0.8	-0.8118	0.0122	1.1263	2.44	2.64
164	209	SLE-INV	Max	-0.71	-5.87	-0.37	-0.4529	-0.0763	1.7342	3.38	5.24
164	208	SLE-INV	Max	-0.64	-5.52	-0.46	-0.2072	-0.0953	1.8448	3.38	4.68
164	168	SLE-INV	Max	-0.6	-5.51	-0.49	-0.044	0.6949	1.7421	2.78	4.68
164	169	SLE-INV	Max	-0.67	-5.86	-0.4	-0.3281	0.7227	1.6314	2.78	5.24
164	209	SU-INV	Min	-0.71	-5.87	-0.37	-0.8073	-0.2695	0.8161	1.82	2.23
164	208	SU-INV	Min	-0.64	-5.52	-0.46	-0.3488	-0.2566	0.8654	1.82	1.94
164	168	SU-INV	Min	-0.6	-5.51	-0.49	-0.0728	0.0733	0.8289	1.51	1.94
164	169	SLE-INV	Min	-0.67	-5.86	-0.4	-0.5124	0.0686	0.7796	1.51	2.23
164	209	SU-INV	Max	-0.71	-5.87	-0.37	-0.6115	0.4186	3.8961	7.02	12.22
164	208	SU-INV	Max	-0.64	-5.52	-0.46	-0.2797	0.32	4.1413	7.02	11.03
164	168	SU-INV	Max	-0.6	-5.51	-0.49	0.0572	2.1753	3.879	5.75	11.03
164	169	SU-INV	Max	-0.67	-5.86	-0.4	-0.443	2.2847	3.6339	5.75	12.22
164	209	SU-INV	Min	-0.96	-7.92	-0.5	-1.5884	-0.3638	1.1017	2.45	3.01
164	208	SU-INV	Min	-0.87	-7.45	-0.62	-0.6331	-0.3464	1.1683	2.45	2.62
164	168	SU-INV	Min	-0.8	-7.44	-0.67	-0.0983	0.099	1.119	2.04	2.62
164	169	SU-INV	Min	-0.9	-7.91	-0.54	-0.91	0.0926	1.0524	2.04	3.01
165	210	SLE-INV	Max	-0.79	-6.13	-0.2	-0.4647	-0.0006051	1.6052	2.85	5.7
165	209	SLE-INV	Max	-0.74	-5.87	-0.28	-0.2581	-0.0372	1.7358	2.85	5.21
165	169	SLE-INV	Max	-0.67	-5.86	-0.33	-0.1034	0.8307	1.63	2.33	5.21
165	170	SLE-INV	Max	-0.72	-6.11	-0.25	-0.32	0.8772	1.4993	2.33	5.7
165	210	SU-INV	Min	-0.79	-6.13	-0.2	-0.8503	-0.2431	0.7603	1.54	2.47
165	209	SU-INV	Min	-0.74	-5.87	-0.28	-0.4655	-0.2439	0.8189	1.54	2.21
165	169	SLE-INV	Min	-0.67	-5.86	-0.33	-0.1188	0.127	0.7769	1.27	2.21
165	170	SLE-INV	Min	-0.72	-6.11	-0.25	-0.5151	0.1363	0.7183	1.27	2.47
165	210	SU-INV	Max	-0.79	-6.13	-0.2	-0.6274	0.6155	3.5065	5.94	13.17
165	209	SU-INV	Max	-0.74	-5.87	-0.28	-0.3485	0.4909	3.8955	5.94	12.14
165	169	SU-INV	Max	-0.67	-5.86	-0.33	-0.1151	2.5098	3.6349	4.84	12.14
165	170	SU-INV	Max	-0.72	-6.11	-0.25	-0.432	2.6489	3.3459	4.84	13.17
165	210	SU-INV	Min	-1.07	-8.27	-0.28	-1.7004	-0.3281	1.0264	2.08	3.34
165	209	SU-INV	Min	-1	-7.93	-0.38	-0.8967	-0.3293	1.1055	2.08	2.99
165	169	SU-INV	Min	-0.91	-7.91	-0.44	-0.1627	0.1715	1.0489	1.71	2.99
165	170	SU-INV	Min	-0.97	-8.25	-0.34	-0.9353	0.1841	0.9697	1.71	3.34
166	211	SLE-INV	Max	-0.87	-6.31	-0.09418	-0.4611	0.0911	1.452	2.41	6.09
166	210	SLE-INV	Max	-0.84	-6.14	-0.14	-0.2872	0.039	1.6072	2.41	5.67
166	170	SLE-INV	Max	-0.76	-6.12	-0.19	-0.1109	0.9745	1.4976	1.96	5.67
166	171	SLE-INV	Max	-0.8	-6.3	-0.14	-0.2954	1.0384	1.3424	1.96	6.09
166	211	SU-INV	Min	-0.87	-6.31	-0.09418	-0.8588	-0.206	0.6931	1.31	2.68
166	210	SU-INV	Min	-0.84	-6.14						

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.progr. 01	REV. A	Pag.di Pag. 133 di 174
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166	171	SLU-INV	Max	-0.8	-6.3	-0.14	-0.3988	3.022	3.0004	4.07	14
166	211	SLU-INV	Min	-1.18	-8.52	-0.13	-1.7339	-0.2781	0.9357	1.77	3.62
166	210	SLU-INV	Min	-1.13	-8.28	-0.19	-1.0605	-0.2948	1.0296	1.77	3.32
166	170	SLU-INV	Min	-1.03	-8.26	-0.26	-0.1993	0.2551	0.9666	1.44	3.32
166	171	SLU-INV	Min	-1.08	-8.5	-0.19	-0.872	0.2839	0.8728	1.44	3.62
167	212	SLU-INV	Max	-0.96	-6.45	-0.009896	-0.4418	0.186	1.2889	2.03	6.43
167	213	SLU-INV	Max	-0.93	-6.32	-0.04931	-0.2946	0.13	1.4493	2.03	6.07
167	171	SLU-INV	Max	-0.85	-6.31	-0.09625	-0.1096	1.1246	1.3456	1.64	6.07
167	172	SLU-INV	Max	-0.88	-6.43	-0.05684	-0.267	1.1923	1.1852	1.64	6.43
167	212	SLU-INV	Min	-0.96	-6.45	-0.009896	-0.8314	-0.1651	0.6215	1.12	2.87
167	211	SLU-INV	Min	-0.93	-6.32	-0.04931	-0.5619	-0.1824	0.693	1.12	2.67
167	171	SLU-INV	Min	-0.85	-6.31	-0.09625	-0.1506	0.2571	0.6469	0.91	2.67
167	172	SLU-INV	Min	-0.88	-6.43	-0.05684	-0.4338	0.283	0.5754	0.91	2.87
167	212	SLU-INV	Max	-0.96	-6.45	-0.009896	-0.5964	1.0696	2.8981	4.24	14.72
167	211	SLU-INV	Max	-0.93	-6.32	-0.04931	-0.3977	0.9184	3.2548	4.24	13.95
167	171	SLU-INV	Max	-0.85	-6.31	-0.09625	-0.148	3.2033	3.0099	3.42	13.95
167	172	SLU-INV	Max	-0.88	-6.43	-0.05684	-0.3605	3.3747	2.6532	3.42	14.72
167	212	SLU-INV	Min	-1.29	-8.71	-0.01336	-1.6848	-0.2229	0.839	1.51	3.88
167	211	SLU-INV	Min	-1.26	-8.54	-0.06656	-1.1203	-0.2462	0.9355	1.51	3.61
167	171	SLU-INV	Min	-1.15	-8.52	-0.13	-0.2094	0.3471	0.8733	1.22	3.61
167	172	SLU-INV	Min	-1.18	-8.68	-0.07674	-0.7832	0.3821	0.7768	1.22	3.88
168	213	SLU-INV	Max	-1.03	-6.54	0.03975	-0.4176	0.2817	1.1174	1.7	6.72
168	212	SLU-INV	Max	-1.02	-6.46	0.01643	-0.2929	0.2227	1.2866	1.7	6.41
168	172	SLU-INV	Max	-0.94	-6.44	-0.02326	-0.0981	1.2681	1.188	1.37	6.41
168	173	SLU-INV	Max	-0.96	-6.53	0.00005399	-0.2329	1.3391	1.0189	1.37	6.72
168	213	SLU-INV	Min	-1.03	-6.54	0.03975	-0.7921	-0.1222	0.5464	0.95	3.03
168	212	SLU-INV	Min	-1.02	-6.46	0.01643	-0.5676	-0.1431	0.6212	0.95	2.86
168	172	SLU-INV	Min	-0.94	-6.44	-0.02326	-0.1347	0.3246	0.576	0.77	2.86
168	173	SLU-INV	Min	-0.96	-6.53	0.00005399	-0.3734	0.354	0.5011	0.77	3.03
168	213	SLU-INV	Max	-1.03	-6.54	0.05366	-0.5637	1.2962	2.5142	3.56	15.33
168	212	SLU-INV	Max	-1.02	-6.46	0.02218	-0.3955	1.1434	2.8914	3.56	14.67
168	172	SLU-INV	Max	-0.94	-6.44	-0.02326	-0.1324	3.5345	2.661	2.86	14.67
168	173	SLU-INV	Max	-0.96	-6.53	0.00007289	-0.3144	3.709	2.2837	2.86	15.33
168	213	SLU-INV	Min	-1.39	-8.83	0.03975	-1.6072	-0.165	0.7376	1.29	4.09
168	212	SLU-INV	Min	-1.37	-8.72	0.01643	-1.1369	-0.1932	0.8387	1.29	3.86
168	172	SLU-INV	Min	-1.27	-8.7	-0.03141	-0.1873	0.4382	0.7775	1.04	3.86
168	173	SLU-INV	Min	-1.29	-8.81	0.00005399	-0.6589	0.478	0.6765	1.04	4.09
169	214	SLU-INV	Max	-1.1	-6.61	0.07448	-0.3884	0.368	0.9438	1.42	6.97
169	213	SLU-INV	Max	-1.09	-6.55	0.05799	-0.2822	0.3156	1.1113	1.42	6.71
169	173	SLU-INV	Max	-1.02	-6.54	0.02097	-0.0844	1.4047	1.0258	1.14	6.71
169	174	SLU-INV	Max	-1.03	-6.59	0.03746	-0.2002	1.4682	0.9582	0.77	6.97
169	214	SLU-INV	Min	-1.1	-6.61	0.07448	-0.7402	-0.0825	0.4706	0.82	3.17
169	213	SLU-INV	Min	-1.09	-6.55	0.05799	-0.5535	-0.1019	0.5441	0.82	3.03
169	173	SLU-INV	Min	-1.02	-6.54	0.02097	-0.1145	0.3905	0.5037	0.66	3.03
169	174	SLU-INV	Min	-1.03	-6.59	0.03746	-0.3144	0.4179	0.4302	0.66	3.17
169	214	SLU-INV	Max	-1.1	-6.61	0.1	-0.5243	1.4993	2.1251	2.97	15.84
169	213	SLU-INV	Max	-1.09	-6.55	0.07829	-0.3809	1.365	2.4995	2.97	15.29
169	173	SLU-INV	Max	-1.02	-6.54	0.02831	-0.114	3.8474	2.3001	2.38	15.29
169	174	SLU-INV	Max	-1.03	-6.59	0.05057	-0.2702	4.0021	1.9257	2.38	15.84
169	214	SLU-INV	Min	-1.48	-8.92	0.07448	-1.4998	-0.1114	0.6353	1.1	4.29
169	213	SLU-INV	Min	-1.47	-8.85	0.05799	-1.1089	-0.1375	0.7346	1.1	4.08
169	173	SLU-INV	Min	-1.37	-8.83	0.02097	-0.1591	0.5272	0.68	0.89	4.08
169	174	SLU-INV	Min	-1.39	-8.9	0.03746	-0.5363	0.5642	0.5808	0.89	4.29
170	215	SLU-INV	Max	-1.16	-6.65	0.08817	-0.36	0.4439	0.7694	1.18	7.17
170	214	SLU-INV	Max	-1.15	-6.62	0.08134	-0.2693	0.3983	0.9381	1.18	6.96
170	174	SLU-INV	Max	-1.08	-6.6	0.05251	-0.0677	1.5242	0.8646	0.95	6.96
170	175	SLU-INV	Max	-1.09	-6.64	0.05934	-0.1676	1.5805	0.696	0.95	7.17
170	215	SLU-INV	Min	-1.16	-6.65	0.08817	-0.489	-0.0469	0.3949	0.7	3.3
170	214	SLU-INV	Min	-1.15	-6.62	0.08134	-0.5351	-0.0641	0.4683	0.7	3.17
170	174	SLU-INV	Min	-1.08	-6.6	0.05251	-0.0877	0.4498	0.4328	0.56	3.17
170	175	SLU-INV	Min	-1.09	-6.64	0.05934	-0.2542	0.4746	0.3594	0.56	3.3
170	215	SLU-INV	Max	-1.16	-6.65	0.12	-0.4861	1.6776	1.7336	2.46	16.27
170	214	SLU-INV	Max	-1.15	-6.62	0.11	-0.3636	1.5612	2.1116	2.46	15.82
170	174	SLU-INV	Max	-1.08	-6.6	0.07089	-0.0641	4.1203	1.9407	1.97	15.82
170	175	SLU-INV	Max	-1.09	-6.64	0.08011	-0.2262	4.2567	1.5627	1.97	16.27
170	215	SLU-INV	Min	-1.56	-8.98	0.08817	-1.393	-0.0633	0.5331	0.95	4.45
170	214	SLU-INV	Min	-1.55	-8.93	0.08134	-1.0713	-0.0865	0.6322	0.95	4.28
170	174	SLU-INV	Min	-1.46	-8.92	0.05251	-0.1214	0.6072	0.5843	0.76	4.28
170	175	SLU-INV	Min	-1.47	-8.96	0.05934	-0.4094	0.6407	0.4852	0.76	4.45
171	216	SLU-INV	Max	-1.2	-6.69	0.09371	-0.3328	0.5017	0.5955	0.97	7.34
171	215	SLU-INV	Max	-1.2	-6.66	0.09107	-0.2546	0.4704	0.7607	0.97	7.16
171	175	SLU-INV	Max	-1.14	-6.65	0.06599	-0.0523	1.6272	0.7055	0.78	7.16
171	176	SLU-INV	Max	-1.14	-6.67	0.06863	-0.1389	1.668	0.5403	0.78	7.34
171	216	SLU-INV	Min	-1.2	-6.69	0.09371	-0.6386	-0.0193	0.3197	0.61	3.4
171	215	SLU-INV	Min	-1.2	-6.66	0.09107	-0.5126	-0.0304	0.3911	0.61	3.29
171	175	SLU-INV	Min	-1.14	-6.65	0.06599	-0.0642	0.5022	0.3636	0.49	3.29
171	176	SLU-INV	Min	-1.14	-6.67	0.06863	-0.2014	0.5203	0.2923	0.49	3.4
171	216	SLU-INV	Max	-1.2	-6.69	0.13	-0.4493	1.8145	1.3428	2.02	16.63
171	215	SLU-INV	Max	-1.2	-6.66	0.12	-0.3437	1.7317	1.7139	2.02	16.25
171	175	SLU-INV	Max	-1.14	-6.65	0.08909	-0.0146	4.3553	1.5844	1.61	16.25
171	176	SLU-INV	Max	-1.14	-6.67	0.09265	-0.1875	4.4558	1.2132	1.61	16.63
171	216	SLU-INV	Min	-1.62	-9.03	0.09371	-1.287	-0.0261	0.4316	0.82	4.6
171	215	SLU-INV	Min	-1.62	-8.99	0.09107	-1.0243	-0.041	0.528	0.82	4.44
171	175	SLU-INV	Min	-1.54	-8.98	0.06599	-0.0884	0.678	0.4909	0.66	4.44
171	176	SLU-INV	Min	-1.54	-9.01	0.06863	-0.2982	0.7023	0.3946	0.66	4.6
172	217	SLU-INV	Max	-1.24	-6.71	0.0864	-0.3095	0.5413	0.4238	0.78	7.48
172	216	SLU-INV	Max	-1.24	-6.69	0.08943	-0.2417	0.5241	0.5873	0.78	7.34
172	176	SLU-INV	Max	-1.18	-6.68	0.07204	-0.0381	1.7062	0.5494	0.63	7.34
172	177	SLU-INV	Max	-1.19	-6.7	0.06901	-0.1137	1.732	0.3859	0.63	7.48
172	217	SLU-INV	Min	-1.24	-6.71	0.0864	-0.5953	-0.0003254	0.2459	0.53	3.5
172	216	SLU-INV	Min	-1.24	-6.69	0.08943	-0.4939	-0.0048	0.316	0.53	3.4
172	176	SLU-INV	Min	-1.18	-6.68	0.07204	-0.0433	0.544	0.2965	0.43	3.4
172	177	SLU-INV	Min	-1.19	-6.7	0.06901	-0.1549	0.555	0.2264	0.43	3.5
172	217	SLU-INV	Max	-1.24	-6.71	0.12	-0.4179	1.9103	0.956	1.62	16.92
172	216	SLU-INV	Max	-1.24	-6.69	0.12	-0.3263	1.8598	1.3244	1.62	16.61
172	176	SLU-INV	Max	-1.18	-6.68	0.09725	0.029	4.536	1.2336	1.3	16.61
172	177	SLU-INV	Max	-1.19	-6.7	0.09316	-0.1535	4.6026	0.8652	1.3	16.92
172	217	SLU-INV	Min	-1.67	-9.06	0.0864	-1.197	-0.0004392	0.332	0.71	4.72
172	216	SLU-INV	Min	-1.67	-9.04	0.08943	-0.9865	-0.0064	0.4266	0.71	4.59
172	176	SLU-INV	Min	-1.6	-9.02	0.07204	-0.0592	0.7345	0.4002	0.57	4.72
172	177	SLU-INV	Min	-1.6	-9.05	0.06901	-0.2153	0.7492	0.3056	0.57	4.72
173	218	SLU-INV	Max	-1.27	-6.74	0.07428	-0.2911	0.5569	0.2521	0.62	7.59
173	217										

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag.	Pag. di 174		
173	177	SLU-INV	Max	-1.21	-6.71	0.09019	0.056	4.665	0.8908	1.02	16.9
173	178	SLU-INV	Max	-1.22	-6.73	0.08213	-0.1248	4.6842	0.5268	1.02	17.14
173	218	SLU-INV	Min	-1.71	-9.09	0.07428	-1.1256	0.0094	0.2322	0.63	4.83
173	217	SLU-INV	Min	-1.71	-9.07	0.08024	-0.9605	0.0167	0.3252	0.63	4.71
173	177	SLU-INV	Min	-1.64	-9.05	0.0668	-0.0402	0.7766	0.3131	0.51	4.71
173	178	SLU-INV	Min	-1.64	-9.08	0.06084	-0.1633	0.7771	0.2202	0.51	4.83
174	219	SLE-INV	Max	-1.29	-6.76	0.05386	-0.2786	0.5489	0.0992	0.48	7.66
174	218	SLE-INV	Max	-1.28	-6.74	0.06294	-0.2251	0.5707	0.2421	0.48	7.58
174	178	SLE-INV	Max	-1.23	-6.73	0.05711	-0.0201	1.7886	0.2472	0.39	7.58
174	179	SLE-INV	Max	-1.24	-6.75	0.04803	-0.0798	1.7727	0.1007	0.39	7.66
174	219	SLE-INV	Min	-1.29	-6.76	0.05386	-0.5361	0.0022	0.083	0.41	3.64
174	218	SLE-INV	Min	-1.28	-6.74	0.06294	-0.4745	0.0178	0.167	0.41	3.57
174	178	SLE-INV	Min	-1.23	-6.73	0.05711	-0.0242	0.5927	0.1685	0.34	3.57
174	179	SLE-INV	Min	-1.24	-6.75	0.04803	-0.0929	0.5823	0.0882	0.34	3.64
174	219	SLU-INV	Max	-1.29	-6.76	0.07271	-0.3761	1.9428	0.186	0.96	17.3
174	218	SLU-INV	Max	-1.28	-6.74	0.08497	-0.3038	1.9792	0.5466	0.96	17.13
174	178	SLU-INV	Max	-1.23	-6.73	0.0771	0.0635	4.7296	0.5508	0.78	17.13
174	179	SLU-INV	Max	-1.24	-6.75	0.06484	-0.0737	4.7042	0.1903	0.78	17.3
174	219	SLU-INV	Min	-1.73	-9.13	0.05386	-1.0776	0.003	0.1096	0.56	4.92
174	218	SLU-INV	Min	-1.73	-9.1	0.06294	-0.9534	0.024	0.2255	0.56	4.82
174	178	SLU-INV	Min	-1.66	-9.08	0.05711	-0.0333	0.8002	0.2275	0.46	4.82
174	179	SLU-INV	Min	-1.67	-9.11	0.04803	-0.1273	0.7862	0.1172	0.46	4.92
175	220	SLE-INV	Max	-1.29	-6.79	0.0304	-0.2741	0.5129	0.0246	0.38	7.71
175	219	SLE-INV	Max	-1.29	-6.76	0.04166	-0.2248	0.5585	0.0931	0.38	7.66
175	179	SLE-INV	Max	-1.24	-6.75	0.04064	-0.0175	1.7874	0.1073	0.31	7.66
175	180	SLE-INV	Max	-1.24	-6.78	0.02939	-0.072	1.746	0.0388	0.31	7.71
175	220	SLE-INV	Min	-1.29	-6.79	0.0304	-0.5253	-0.0173	-0.0886	0.34	3.7
175	219	SLE-INV	Min	-1.29	-6.76	0.04166	-0.48	0.0113	0.0711	0.34	3.64
175	179	SLE-INV	Min	-1.24	-6.75	0.04064	-0.0279	0.5965	0.1012	0.29	3.64
175	180	SLE-INV	Min	-1.24	-6.78	0.02939	-0.0782	0.5723	-0.0585	0.29	3.7
175	220	SLU-INV	Max	-1.29	-6.79	0.04105	-0.37	1.8716	0.0332	0.67	17.4
175	219	SLU-INV	Max	-1.29	-6.76	0.05624	-0.3034	1.9597	0.1601	0.67	17.29
175	179	SLU-INV	Max	-1.24	-6.75	0.05487	0.0499	4.7331	0.2184	0.56	17.29
175	180	SLU-INV	Max	-1.24	-6.78	0.03967	-0.047	4.6526	0.0524	0.56	17.4
175	220	SLU-INV	Min	-1.75	-9.17	0.0304	-1.0599	-0.0234	-0.2027	0.46	4.99
175	219	SLU-INV	Min	-1.74	-9.13	0.04166	-0.9721	0.0152	0.0927	0.46	4.91
175	179	SLU-INV	Min	-1.67	-9.11	0.04064	-0.0392	0.8053	0.1356	0.39	4.91
175	180	SLU-INV	Min	-1.68	-9.15	0.02939	-0.1065	0.7726	-0.1443	0.39	4.99
176	221	SLE-INV	Max	-1.29	-6.83	0.003199	-0.2772	0.4501	-0.0501	0.35	7.73
176	220	SLE-INV	Max	-1.28	-6.79	0.01418	-0.2303	0.5182	0.0186	0.35	7.71
176	180	SLE-INV	Max	-1.23	-6.78	0.02251	-0.0215	1.7534	0.0454	0.3	7.71
176	181	SLE-INV	Max	-1.24	-6.82	0.01153	-0.0729	1.6882	-0.0233	0.3	7.73
176	221	SLE-INV	Min	-1.29	-6.83	0.003199	-0.5261	-0.0519	-0.2581	0.23	3.74
176	220	SLE-INV	Min	-1.28	-6.79	0.01418	-0.4955	-0.0099	-0.0998	0.23	3.7
176	180	SLE-INV	Min	-1.23	-6.78	0.02251	-0.0447	0.5837	-0.0464	0.2	3.7
176	181	SLE-INV	Min	-1.24	-6.82	0.01153	-0.0788	0.5455	-0.2048	0.2	3.74
176	221	SLU-INV	Max	-1.29	-6.83	0.004318	-0.3743	1.7427	-0.0677	0.47	17.44
176	220	SLU-INV	Max	-1.28	-6.79	0.01914	-0.3109	1.8789	0.025	0.47	17.4
176	180	SLU-INV	Max	-1.23	-6.78	0.03039	0.0067	4.6652	0.0613	0.41	17.4
176	181	SLU-INV	Max	-1.24	-6.82	0.01556	-0.0533	4.5342	-0.0314	0.41	17.44
176	221	SLU-INV	Min	-1.74	-9.22	0.003199	-1.0682	-0.07	-0.5879	0.29	5.05
176	220	SLU-INV	Min	-1.73	-9.16	0.01418	-1.0143	-0.0134	-0.2266	0.29	4.99
176	180	SLU-INV	Min	-1.66	-9.15	0.02251	-0.0638	0.7881	-0.1183	0.26	4.99
176	181	SLU-INV	Min	-1.67	-9.21	0.01153	-0.1073	0.7364	-0.4796	0.26	5.05
177	222	SLE-INV	Max	-1.27	-6.88	-0.02201	-0.2926	0.3579	-0.1298	0.34	7.73
177	221	SLE-INV	Max	-1.26	-6.82	-0.01151	-0.2456	0.4511	-0.057	0.34	7.74
177	181	SLE-INV	Max	-1.2	-6.81	0.004195	-0.031	1.6884	-0.0158	0.3	7.74
177	182	SLE-INV	Max	-1.21	-6.87	-0.006307	-0.0822	1.5961	-0.0886	0.3	7.73
177	222	SLE-INV	Min	-1.27	-6.88	-0.02201	-0.5459	-0.1037	-0.4342	0.12	3.78
177	221	SLE-INV	Min	-1.26	-6.82	-0.01151	-0.5277	-0.0461	-0.2704	0.12	3.74
177	181	SLE-INV	Min	-1.2	-6.81	0.004195	-0.0708	0.5545	-0.1914	0.13	3.74
177	182	SLE-INV	Min	-1.21	-6.87	-0.006307	-0.0902	0.4996	-0.3553	0.13	3.78
177	222	SLU-INV	Max	-1.27	-6.88	-0.02201	-0.395	1.5509	-0.1752	0.46	17.43
177	221	SLU-INV	Max	-1.26	-6.82	-0.01151	-0.3316	1.74	-0.077	0.46	17.44
177	181	SLU-INV	Max	-1.2	-6.81	0.005663	-0.0418	4.5309	-0.0214	0.41	17.44
177	182	SLU-INV	Max	-1.21	-6.87	-0.006307	-0.0828	4.343	-0.1196	0.41	17.43
177	222	SLU-INV	Min	-1.71	-9.29	-0.02972	-1.117	-0.1399	-0.9881	0.13	5.1
177	221	SLU-INV	Min	-1.7	-9.21	-0.01554	-1.0937	-0.0623	-0.6139	0.13	5.05
177	181	SLU-INV	Min	-1.62	-9.2	0.004195	-0.1016	0.7485	-0.4511	0.15	5.05
177	182	SLU-INV	Min	-1.64	-9.27	-0.008514	-0.1231	0.6745	-0.8253	0.15	5.1
178	223	SLE-INV	Max	-1.23	-6.94	-0.03898	-0.3178	0.2365	-0.2121	0.35	7.68
178	222	SLE-INV	Max	-1.21	-6.87	-0.03591	-0.2683	0.3552	-0.137	0.35	7.73
178	182	SLE-INV	Max	-1.16	-6.86	-0.008797	-0.0503	1.5893	-0.0809	0.33	7.73
178	183	SLE-INV	Max	-1.17	-6.92	-0.01186	-0.1021	1.4701	-0.156	0.33	7.68
178	223	SLE-INV	Min	-1.23	-6.94	-0.03898	-0.5765	-0.1736	-0.645	0.02423	3.8
178	222	SLE-INV	Min	-1.21	-6.87	-0.03591	-0.5692	-0.0992	-0.4464	0.02423	3.78
178	182	SLE-INV	Min	-1.16	-6.86	-0.008797	-0.1137	0.5062	-0.3422	0.07002	3.78
178	183	SLE-INV	Min	-1.17	-6.92	-0.01186	-0.1205	0.4337	-0.5063	0.07002	3.8
178	223	SLU-INV	Max	-1.23	-6.94	-0.03898	-0.429	1.2976	-0.2863	0.47	17.34
178	222	SLU-INV	Max	-1.21	-6.87	-0.03591	-0.3623	1.5394	-0.1849	0.47	17.43
178	182	SLU-INV	Max	-1.16	-6.86	-0.008797	-0.0679	4.324	-0.1092	0.44	17.43
178	183	SLU-INV	Max	-1.17	-6.92	-0.01186	-0.1378	4.081	-0.2106	0.44	17.34
178	223	SLU-INV	Min	-1.66	-9.36	-0.05262	-1.1875	-0.2343	-1.3897	-0.09083	5.13
178	222	SLU-INV	Min	-1.64	-9.27	-0.04848	-1.1936	-0.1339	-0.1037	-0.09083	5.1
178	182	SLU-INV	Min	-1.57	-9.26	-0.01188	-0.1629	0.6833	-0.7976	0.0001346	5.13
178	183	SLU-INV	Min	-1.58	-9.35	-0.01601	-0.1655	0.5855	-1.1736	0.0001346	5.13
179	224	SLE-INV	Max	-1.17	-6.99	-0.03948	-0.3607	0.0893	-0.3018	0.37	7.61
179	223	SLE-INV	Max	-1.15	-6.92	-0.04428	-0.3052	0.2302	-0.2188	0.37	7.69
179	183	SLE-INV	Max	-1.1	-6.91	-0.008261	-0.0774	1.4566	-0.1486	0.37	7.69
179	184	SLE-INV	Max	-1.12	-6.98	-0.003468	-0.1336	1.3129	-0.2316	0.37	7.61
179	224	SLU-INV	Min	-1.17	-6.99	-0.03948	-0.63	-0.261	-0.7951	-0.0572	3.8
179	223	SLU-INV	Min	-1.15	-6.92	-0.04428	-0.6306	-0.1703	-0.621	-0.0572	3.8
179	183	SLU-INV	Min	-1.1	-6.91	-0.008261	-0.1655	0.438	-0.4945	0.02645	3.8
179	184	SLU-INV	Min	-1.12	-6.98	-0.003468	-0.1615	0.3479	-0.6686	0.02645	3.8
179	224	SLU-INV	Max	-1.17	-6.99	-0.03948	-0.4869	0.9903	-0.4074	0.51	17.2
179	223	SLU-INV	Max	-1.15	-6.92	-0.04428	-0.412	1.2776	-0.2954	0.51	17.36
179	183	SLU-INV	Max	-1.1	-6.91	-0.008261	-0.1044	4.0467	-0.2006	0.5	17.36
179	184	SLU-INV	Max	-1.12	-6.98	-0.003468	-0.1804	3.7535	-0.3127	0.5	17.2
179	224	SLU-INV	Min	-1.57	-9.44	-0.0533	-1.3012	-0.3524	-1.8101	-0.32	5.14
179	223	SLU-INV	Min	-1.56	-9.34	-0.05977	-1.3336	-0.23	-1.4121	-0.32	5.13
179	183	SLU-INV	Min	-1.49	-9.33	-0.01115	-0.2769	0.5913	-1.1486	-0.15	5.13
179	184	SLU-INV	Min	-1.51	-9.43	-0.004682	-0.2376	0.4697	-1.5465	-0.15	5.14
180	225	SLE-INV	Max	-1.09	-7.04	-0.01241	-0.4196	-0.0916	-0.399	0.43	7.5
180	224	SLE-INV	Max	-1.07	-6.97	-0.0307	-0.3527	0.0804	-0.3096	0.43	7.62
180	184	SLE-INV	Max	-1.03	-6.97						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	135 di 174

180	224	SLU-INV	Max	-1.07	-6.97	-0.0307	-0.4761	0.964	-0.4179	0.58	17.21
180	184	SLU-INV	Max	-1.03	-6.97	0.01762	-0.1616	3.7038	-0.3014	0.6	17.21
180	185	SLU-INV	Max	-1.04	-7.03	0.04232	-0.2514	3.3442	-0.4221	0.6	16.96
180	225	SLU-INV	Min	-1.47	-9.5	-0.01675	-1.4254	-0.501	-2.2452	-0.55	5.12
180	224	SLU-INV	Min	-1.45	-9.41	-0.04145	-1.4252	-0.349	-1.8371	-0.55	5.14
180	184	SLU-INV	Min	-1.39	-9.4	0.01305	-0.4336	0.4723	-1.5175	-0.29	5.14
180	185	SLU-INV	Min	-1.41	-9.49	0.03135	-0.3642	0.3199	-1.9256	-0.29	5.12
181	225	SLE-INV	Max	-0.99	-7.02	0.01176	-0.4204	-0.1015	-0.4026	0.48	7.5
181	185	SLE-INV	Max	-0.96	-7.01	0.05844	-0.1797	1.0916	-0.3085	0.52	7.5
181	186	SLE-INV	Max	-0.97	-7.04	0.08961	-0.2414	0.9366	-0.3885	0.52	7.37
181	226	SLE-INV	Max	-1	-7.05	0.04294	-0.4851	-0.2514	-0.4826	0.48	7.37
181	225	SLE-INV	Min	-0.99	-7.02	0.01176	-0.7777	-0.3694	-0.9912	-0.19	3.79
181	185	SLE-INV	Min	-0.96	-7.01	0.05844	-0.3139	0.2364	-0.8278	-0.02042	3.79
181	186	SLE-INV	Min	-0.97	-7.04	0.08961	-0.2953	0.1337	-0.9804	-0.02042	3.77
181	226	SLE-INV	Min	-1	-7.05	0.04294	-0.7696	-0.4706	-1.1437	-0.19	3.77
181	225	SLU-INV	Max	-0.99	-7.02	0.01588	-0.5675	0.5852	-0.5435	0.65	16.98
181	185	SLU-INV	Max	-0.96	-7.01	0.07889	-0.2425	3.2853	-0.4164	0.7	16.98
181	186	SLU-INV	Max	-0.97	-7.04	0.12	-0.3259	2.9695	-0.5245	0.7	16.7
181	226	SLU-INV	Max	-1	-7.05	0.05797	-0.6549	0.2792	-0.6515	0.65	16.7
181	225	SLU-INV	Min	-1.34	-9.47	0.01176	-1.6385	-0.4986	-2.2561	-0.79	5.12
181	185	SLU-INV	Min	-1.3	-9.47	0.05844	-0.585	0.3191	-1.9123	-0.44	5.12
181	186	SLU-INV	Min	-1.31	-9.51	0.08961	-0.4972	0.1805	-2.2587	-0.44	5.08
181	226	SLU-INV	Min	-1.35	-9.51	0.04294	-1.5706	-0.6353	-2.6025	-0.79	5.08
182	227	SLE-INV	Max	-0.92	-7.02	0.12	-0.5566	-0.425	-0.571	0.46	7.21
182	226	SLE-INV	Max	-0.92	-7.03	0.07941	-0.4927	-0.2621	-0.4873	0.46	7.38
182	186	SLE-INV	Max	-0.9	-7.03	0.12	-0.248	0.9083	-0.3834	0.52	7.38
182	187	SLE-INV	Max	-0.9	-7.02	0.17	-0.3078	0.7396	-0.4672	0.52	7.21
182	227	SLE-INV	Min	-0.92	-7.02	0.12	-0.8362	-0.5799	-1.304	-0.33	3.72
182	226	SLE-INV	Min	-0.92	-7.03	0.07941	-0.859	-0.47	-1.152	-0.33	3.77
182	186	SLE-INV	Min	-0.9	-7.03	0.12	-0.4012	0.1302	-0.9714	-0.12	3.77
182	187	SLE-INV	Min	-0.9	-7.02	0.17	-0.3666	0.0183	-1.1234	-0.12	3.72
182	227	SLU-INV	Max	-0.92	-7.02	0.17	-0.7514	-0.0836	-0.7709	0.62	16.35
182	226	SLU-INV	Max	-0.92	-7.03	0.11	-0.6651	0.2508	-0.6578	0.62	16.71
182	186	SLU-INV	Max	-0.9	-7.03	0.17	-0.3349	2.9029	-0.5176	0.7	16.71
182	187	SLU-INV	Max	-0.9	-7.02	0.23	-0.4155	2.5579	-0.6307	0.7	16.35
182	227	SLU-INV	Min	-1.24	-9.48	0.12	-1.6819	-0.7829	-2.9639	-1.17	5.02
182	226	SLU-INV	Min	-1.24	-9.49	0.07941	-1.7903	-0.6345	-2.6212	-1.17	5.09
182	186	SLU-INV	Min	-1.21	-9.49	0.12	-0.7528	0.1758	-2.2385	-0.71	5.09
182	187	SLU-INV	Min	-1.21	-9.48	0.17	-0.6232	0.0246	-2.5811	-0.71	5.02
182	228	SLU-INV	Max	-0.84	-6.95	0.23	-0.6269	-0.5324	-0.6569	0.34	7
183	227	SLE-INV	Max	-0.85	-7.01	0.18	-0.4736	-0.4375	-0.6959	0.43	7.22
183	187	SLE-INV	Max	-0.84	-7.01	0.22	-0.3293	0.7044	-0.4681	0.43	7.22
183	188	SLE-INV	Max	-0.83	-6.95	0.27	-0.3762	0.5416	-0.5555	0.43	7
183	228	SLE-INV	Min	-0.84	-6.95	0.23	-0.8906	-0.6871	-1.451	-0.59	3.65
183	227	SLE-INV	Min	-0.85	-7.01	0.18	-0.9418	-0.5805	-1.3011	-0.59	3.72
183	187	SLE-INV	Min	-0.84	-7.01	0.22	-0.4996	0.0111	-1.1253	-0.32	3.72
183	188	SLE-INV	Min	-0.83	-6.95	0.27	-0.4335	-0.099	-1.2752	-0.32	3.65
183	228	SLU-INV	Max	-0.84	-6.95	0.31	-0.8463	-0.4361	-0.8869	0.46	15.91
183	227	SLU-INV	Max	-0.85	-7.01	0.24	-0.7744	-0.1148	-0.7689	0.46	16.38
183	187	SLU-INV	Max	-0.84	-7.01	0.29	-0.4446	2.4765	-0.6319	0.59	16.38
183	188	SLU-INV	Max	-0.83	-6.95	0.37	-0.5078	2.1409	-0.75	0.59	15.91
183	228	SLU-INV	Min	-1.14	-9.38	0.23	-1.7582	-0.9276	-3.2952	-1.75	4.92
183	227	SLU-INV	Min	-1.15	-9.47	0.18	-1.934	-0.7836	-2.9602	-1.75	5.02
183	187	SLU-INV	Min	-1.14	-9.46	0.22	-0.934	0.0149	-2.5827	-1.17	5.02
183	188	SLU-INV	Min	-1.12	-9.38	0.27	-0.7316	-0.1337	-2.9178	-1.17	4.92
184	229	SLU-INV	Max	-0.78	-6.82	0.37	-0.6904	-0.7508	-1.7455	0.13	6.74
184	228	SLU-INV	Max	-0.81	-6.94	0.3	-0.6618	-0.6075	-0.6555	0.13	7.01
184	188	SLE-INV	Max	-0.8	-6.94	0.33	-0.4563	0.4975	-0.557	0.26	7.01
184	189	SLE-INV	Max	-0.77	-6.81	0.4	-0.4373	0.3457	-0.6474	0.26	6.74
184	229	SLE-INV	Min	-0.78	-6.82	0.37	-0.9304	-0.7877	-1.596	-0.96	3.54
184	228	SLE-INV	Min	-0.81	-6.94	0.3	-1.0248	-0.6896	-1.4493	-0.96	3.65
184	188	SLE-INV	Min	-0.8	-6.94	0.33	-0.5953	-0.1116	-1.2762	-0.62	3.65
184	189	SLE-INV	Min	-0.77	-6.81	0.4	-0.485	-0.2137	-1.4229	-0.62	3.54
184	229	SLU-INV	Max	-0.78	-6.82	0.5	-0.932	-0.7746	-1.0064	0.17	15.35
184	228	SLU-INV	Max	-0.81	-6.94	0.41	-0.8934	-0.471	-0.8843	0.17	15.94
184	188	SLU-INV	Max	-0.8	-6.94	0.45	-0.562	2.0407	-0.7519	0.35	15.94
184	189	SLU-INV	Max	-0.77	-6.81	0.54	-0.5903	1.7229	-0.8741	0.35	15.35
184	229	SLU-INV	Min	-1.05	-9.2	0.37	-1.7953	-1.0633	-3.6176	-2.55	4.79
184	228	SLU-INV	Min	-1.09	-9.37	0.3	-2.0652	-0.931	-3.2951	-2.55	4.93
184	188	SLU-INV	Min	-1.07	-9.37	0.33	-1.0998	-0.1506	-2.9166	-1.82	4.93
184	189	SLU-INV	Min	-1.04	-9.2	0.4	-0.8035	-0.2884	-3.239	-1.82	4.79
185	230	SLE-INV	Max	-0.74	-6.62	0.53	-0.7342	-0.8662	-0.8228	-0.18	6.44
185	229	SLE-INV	Max	-0.78	-6.81	0.45	-0.7409	-0.7678	-0.7385	-0.18	6.76
185	189	SLE-INV	Max	-0.77	-6.81	0.47	-0.504	0.2926	-0.6539	-0.005806	6.76
185	190	SLE-INV	Max	-0.73	-6.62	0.54	-0.4872	0.1751	-0.7381	-0.005806	6.44
185	230	SLU-INV	Min	-0.74	-6.62	0.53	-0.9385	-0.8765	-1.7132	-1.44	3.41
185	229	SLU-INV	Min	-0.78	-6.81	0.45	-1.0821	-0.7923	-1.5863	-1.44	3.55
185	189	SLU-INV	Min	-0.77	-6.81	0.47	-0.6841	-0.2325	-1.4317	-1.03	3.55
185	190	SLE-INV	Min	-0.73	-6.62	0.54	-0.5214	-0.3111	-1.5586	-1.03	3.41
185	230	SLU-INV	Max	-0.74	-6.62	0.71	-0.9911	-1.0509	-1.1107	-0.25	14.7
185	229	SLU-INV	Max	-0.78	-6.81	0.61	-1.0002	-0.811	-0.997	-0.25	15.39
185	189	SLU-INV	Max	-0.77	-6.81	0.63	-0.6805	1.6043	-0.8827	-0.007839	15.39
185	190	SLU-INV	Max	-0.73	-6.62	0.74	-0.6578	1.3501	-0.9965	-0.007839	14.7
185	230	SLU-INV	Min	-1	-8.94	0.53	-1.7623	-1.1847	-3.8765	-3.55	4.61
185	229	SLU-INV	Min	-1.05	-9.2	0.45	-2.1324	-1.0696	-3.6018	-3.55	4.79
185	189	SLU-INV	Min	-1.03	-9.2	0.47	-1.2411	-0.3139	-3.2532	-2.66	4.79
185	190	SLU-INV	Min	-0.98	-8.93	0.54	-0.8405	-0.42	-3.5278	-2.66	4.61
186	231	SLE-INV	Max	-0.72	-6.35	0.71	-0.7559	-0.9208	-0.8955	-0.59	6.08
186	230	SLE-INV	Max	-0.78	-6.63	0.62	-0.8095	-0.8736	-0.8134	-0.59	6.46
186	190	SLU-INV	Max	-0.76	-6.62	0.62	-0.5811	0.1115	-0.7471	-0.36	6.46
186	191	SLE-INV	Max	-0.7	-6.35	0.71	-0.5167	0.0302	-0.8292	-0.36	6.08
186	231	SLE-INV	Min	-0.72	-6.35	0.71	-0.9099	-0.9687	-1.8162	-2.04	3.24
186	230	SLE-INV	Min	-0.78	-6.63	0.62	-1.1228	-0.896	-1.701	-2.04	3.42
186	190	SLE-INV	Min	-0.76	-6.62	0.62	-0.7533	-0.3376	-1.5704	-1.54	3.42
186	191	SLE-INV	Min	-0.7	-6.35	0.71	-0.5219	-0.3898	-1.6856	-1.54	3.24
186	231	SLU-INV	Max	-0.72	-6.35	0.95	-1.0204	-1.2431	-1.2089	-0.8	13.91
186	230	SLU-INV	Max	-0.78	-6.63	0.83	-1.0928	-1.0896	-1.0981	-0.8	14.75
186	190	SLU-INV	Max	-0.76	-6.62	0.83	-0.7844	1.2105	-1.0087	-0.49	14.75
186	191	SLU-INV	Max	-0.7	-6.35	0.95	-0.6976	1.0213	-1.1195	-0.49	13.91
186	231	SLU-INV	Min	-0.98	-8.57	0.71	-1.6464	-1.3149	-4.099	-4.77	4.38
186	230	SLU-INV	Min	-1.05	-8.95	0.62	-2.1575	-1.213	-3.8567	-4.77	4.62
186	190	SLU-INV	Min	-1.02	-8.94	0.62	-1.3372	-0.4557	-3.5471	-3.69	4.62
186	191	SLU-INV	Min	-0.95	-8.57	0.71	-0.7994	-0.5263	-3.7894	-3.69	4.38
187	232	SLE-INV	Max	-0.74	-5.99	0.91	-0.7391	-0.9425	-0.9575	-1.12	5.63
187	231	SLE-INV	Max	-0.81	-6.37	0.81	-0.8568	-0.9313	-0.8825	-1.12	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 136 di 174			
187	232	SLU-INV	Max	-0.74	-5.99	1.22	-0.9979	-1.2723	-1.2926	-1.51	12.95
187	231	SLU-INV	Max	-0.81	-6.37	1.09	-1.1567	-1.2572	-1.1914	-1.51	13.97
187	191	SLU-INV	Max	-0.78	-6.36	1.07	-0.8756	0.8535	-1.1364	-1.12	13.97
187	192	SLU-INV	Max	-0.7	-5.99	1.2	-0.6426	0.7482	-1.2376	-1.12	12.95
187	232	SLU-INV	Min	-0.99	-8.09	0.91	-1.3991	-1.4005	-4.2622	-6.26	4.08
187	231	SLU-INV	Min	-1.09	-8.6	0.81	-2.0987	-1.3468	-4.071	-6.26	4.39
187	191	SLU-INV	Min	-1.05	-8.59	0.79	-1.3901	-0.5751	-3.8168	-4.96	4.39
187	192	SLU-INV	Min	-0.95	-8.08	0.89	-0.7013	-0.5979	-4.0081	-4.96	4.08
188	233	SLE-INV	Max	-0.78	-5.55	1.13	-0.6569	-0.9215	-1.0029	-1.79	5.11
188	232	SLE-INV	Max	-0.88	-6.02	1.02	-0.871	-0.956	-0.9418	-1.79	5.66
188	192	SLE-INV	Max	-0.83	-6.01	0.98	-0.6912	-0.1745	-0.9323	-1.43	5.66
188	193	SLE-INV	Max	-0.73	-5.54	1.09	-0.3802	-0.1478	-0.9934	-1.43	5.11
188	233	SLE-INV	Min	-0.78	-5.55	1.13	-0.6725	-1.0063	-1.9375	-3.71	2.75
188	232	SLE-INV	Min	-0.88	-6.02	1.02	-1.0753	-1.0405	-1.8735	-3.71	3.04
188	192	SLE-INV	Min	-0.83	-6.01	0.98	-0.8135	-0.4901	-1.816	-3.01	3.04
188	193	SLE-INV	Min	-0.73	-5.54	1.09	-0.4819	-0.4611	-1.8801	-3.01	2.75
188	233	SLU-INV	Max	-0.78	-5.55	1.53	-0.8845	-1.2441	-1.3539	-2.42	11.81
188	232	SLU-INV	Max	-0.88	-6.02	1.38	-1.1758	-1.2905	-1.2714	-2.42	13.02
188	192	SLU-INV	Max	-0.83	-6.01	1.32	-0.9331	0.5494	-1.2586	-1.93	13.02
188	193	SLU-INV	Max	-0.73	-5.54	1.47	-0.4168	0.5517	-1.3411	-1.93	11.81
188	233	SLU-INV	Min	-1.06	-7.5	1.13	-1.0019	-1.4324	-4.349	-8.06	3.71
188	232	SLU-INV	Min	-1.18	-8.13	1.02	-1.9196	-1.442	-4.2293	-8.06	4.1
188	192	SLU-INV	Min	-1.12	-8.12	0.98	-1.348	-0.6616	-4.0413	-6.53	4.1
188	193	SLU-INV	Min	-0.99	-7.48	1.09	-0.522	-0.5893	-4.2189	-8.41	3.71
189	234	SLE-INV	Max	-0.87	-5.02	1.39	-0.3886	-0.8491	-1.0223	-2.62	4.5
189	233	SLE-INV	Max	-0.98	-5.59	1.27	-0.8303	-0.9373	-0.9849	-2.62	5.15
189	193	SLE-INV	Max	-0.92	-5.58	1.2	-0.6956	-0.2564	-1.0112	-2.18	5.15
189	194	SLE-INV	Max	-0.8	-5.01	1.33	-0.199	-0.1595	-1.0486	-2.18	4.5
189	234	SLE-INV	Min	-0.87	-5.02	1.39	-0.5311	-0.9288	-1.9346	-4.82	2.42
189	233	SLE-INV	Min	-0.98	-5.59	1.27	-0.9426	-1.0317	-1.915	-4.82	2.77
189	193	SLE-INV	Min	-0.92	-5.58	1.2	-0.7644	-0.5197	-1.9026	-4.01	2.77
189	194	SLE-INV	Min	-0.8	-5.01	1.33	-0.3867	-0.4365	-1.9222	-4.01	2.42
189	234	SLU-INV	Max	-0.87	-5.02	1.88	-0.395	-1.1463	-1.3801	-3.54	10.48
189	233	SLU-INV	Max	-0.98	-5.59	1.71	-1.1209	-1.2653	-1.3297	-3.54	11.9
189	193	SLU-INV	Max	-0.92	-5.58	1.62	-0.9391	0.3221	-1.3652	-2.94	11.9
189	194	SLU-INV	Max	-0.8	-5.01	1.79	-0.0051	0.4491	-1.4157	-2.94	10.48
189	234	SLU-INV	Min	-1.17	-6.78	1.39	-0.717	-1.3416	-4.332	-10.2	3.26
189	233	SLU-INV	Min	-1.33	-7.55	1.27	-1.5731	-1.4709	-4.3117	-10.2	3.74
189	193	SLU-INV	Min	-1.24	-7.53	1.2	-1.1862	-0.7016	-4.1987	-8.41	3.74
189	194	SLU-INV	Min	-1.09	-6.76	1.33	-0.522	-0.5893	-4.2189	-8.41	3.26
190	235	SLE-INV	Max	-0.99	-4.39	1.7	0.0215	-0.7183	-1.0063	-3.63	3.81
190	234	SLE-INV	Max	-1.13	-5.07	1.55	-0.6983	-0.8659	-1.0038	-3.63	4.55
190	194	SLE-INV	Max	-1.06	-5.06	1.45	-0.6282	-0.283	-1.0674	-3.11	4.55
190	195	SLE-INV	Max	-0.92	-4.38	1.6	0.0957	-0.1083	-1.07	-3.11	3.81
190	235	SLE-INV	Min	-0.99	-4.39	1.7	-0.2867	-0.7758	-1.8715	-6.16	2.03
190	234	SLE-INV	Min	-1.13	-5.07	1.55	-0.7108	-0.953	-1.9119	-6.16	2.44
190	194	SLE-INV	Min	-1.06	-5.06	1.45	-0.6388	-0.5061	-1.9455	-5.23	2.44
190	195	SLE-INV	Min	-0.92	-4.38	1.6	-0.2079	-0.3621	-1.9051	-5.23	2.03
190	235	SLU-INV	Max	-0.99	-4.39	2.29	0.4868	-0.9698	-1.3585	-4.9	8.96
190	234	SLU-INV	Max	-1.13	-5.07	2.09	-0.9408	-1.1689	-1.3551	-4.9	10.6
190	194	SLU-INV	Max	-1.06	-5.06	1.95	-0.8464	0.189	-1.441	-4.2	10.6
190	195	SLU-INV	Max	-0.92	-4.38	2.16	0.6217	0.453	-1.4445	-4.2	8.96
190	235	SLU-INV	Min	-1.34	-5.93	1.7	-0.3871	-1.1158	-4.1829	-12.73	2.74
190	234	SLU-INV	Min	-1.53	-6.85	1.55	-1.0044	-1.3732	-4.2949	-12.73	3.3
190	194	SLU-INV	Min	-1.43	-6.83	1.45	-0.8624	-0.6832	-4.2576	-10.67	3.3
190	195	SLU-INV	Min	-1.25	-5.91	1.6	-0.2807	-0.4888	-4.1456	-10.67	2.74
191	236	SLE-INV	Max	-1.17	-3.67	2.07	0.6206	-0.5236	-0.9414	-4.86	3.03
191	235	SLE-INV	Max	-1.32	-4.46	1.88	-0.2987	-0.3942	-0.9887	-4.86	3.86
191	195	SLE-INV	Max	-1.27	-4.45	1.74	-0.3706	-0.2452	-1.0879	-4.27	3.86
191	196	SLE-INV	Max	-1.11	-3.66	1.93	0.5447	0.013	-1.0407	-4.27	3.03
191	236	SLE-INV	Min	-1.17	-3.67	2.07	0.1	-0.5396	-1.7282	-7.76	1.59
191	235	SLE-INV	Min	-1.32	-4.46	1.88	-0.477	-0.7962	-1.8495	-7.76	2.06
191	195	SLE-INV	Min	-1.27	-4.45	1.74	-0.4919	-0.4411	-1.9277	-6.71	2.06
191	196	SLE-INV	Min	-1.11	-3.66	1.93	0.0881	-0.2322	-1.8064	-6.71	1.59
191	236	SLU-INV	Max	-1.17	-3.67	2.79	1.7211	-0.7069	-1.2709	-6.56	7.25
191	235	SLU-INV	Max	-1.32	-4.46	2.54	-0.1414	-0.9912	-1.3347	-6.56	9.09
191	195	SLU-INV	Max	-1.27	-4.45	2.36	-0.293	0.1645	-1.4687	-5.76	9.09
191	196	SLU-INV	Max	-1.11	-3.66	2.61	1.5336	0.5771	-1.4049	-5.76	7.25
191	236	SLU-INV	Min	-1.58	-4.96	2.07	0.135	-0.7397	-3.8622	-15.71	2.15
191	235	SLU-INV	Min	-1.79	-6.02	1.88	-0.644	-1.1359	-4.1462	-15.71	2.78
191	195	SLU-INV	Min	-1.71	-6	1.74	-0.6641	-0.5955	-4.1842	-13.39	2.78
191	196	SLU-INV	Min	-1.5	-4.94	1.93	0.1189	-0.3135	-3.9003	-13.39	2.15
192	237	SLE-INV	Max	-1.38	-2.88	2.53	1.4687	-0.2197	-0.8145	-6.33	2.2
192	236	SLE-INV	Max	-1.56	-3.75	2.29	0.3079	-0.5359	-0.9282	-6.33	3.09
192	196	SLE-INV	Max	-1.54	-3.75	2.11	0.0573	-0.1335	-1.0546	-5.7	3.09
192	197	SLE-INV	Max	-1.37	-2.87	2.35	1.2014	0.2076	-0.9409	-5.7	2.2
192	237	SLE-INV	Min	-1.38	-2.88	2.53	0.6789	-0.2644	-1.4851	-9.66	1.12
192	236	SLE-INV	Min	-1.56	-3.75	2.29	-0.0853	-0.5531	-1.7115	-9.66	1.62
192	196	SLE-INV	Min	-1.54	-3.75	2.11	-0.2122	-0.317	-1.8245	-8.52	1.62
192	197	SLE-INV	Min	-1.37	-2.87	2.35	0.5486	-0.0442	-1.598	-8.52	1.12
192	237	SLU-INV	Max	-1.38	-2.88	3.41	3.4087	-0.2107	-1.0996	-8.55	5.38
192	236	SLU-INV	Max	-1.56	-3.75	3.09	1.1032	-0.7235	-1.2531	-8.55	7.4
192	196	SLU-INV	Max	-1.54	-3.75	2.85	0.5711	0.2646	-1.4237	-7.69	7.4
192	197	SLU-INV	Max	-1.37	-2.87	3.18	2.811	0.828	-1.2702	-7.69	5.38
192	237	SLU-INV	Min	-1.87	-3.88	2.53	0.9165	-0.357	-3.3261	-19.21	1.51
192	236	SLU-INV	Min	-2.11	-5.06	2.29	-0.1151	-0.7493	-3.8331	-19.21	2.19
192	196	SLU-INV	Min	-2.08	-5.06	2.11	-0.2865	-0.428	-3.9325	-16.65	2.19
192	197	SLU-INV	Min	-1.84	-3.88	2.35	0.7406	-0.0596	-3.4255	-16.65	1.51
193	238	SLE-INV	Max	-1.64	-2.03	3.06	2.6411	0.1819	-0.609	-8.09	1.33
193	237	SLE-INV	Max	-1.83	-2.97	2.82	1.1915	-0.2226	-0.8096	-8.09	2.26
193	197	SLE-INV	Max	-1.88	-2.98	2.61	0.7146	0.0578	-0.9467	-7.45	2.26
193	198	SLE-INV	Max	-1.69	-2.04	2.85	2.1329	0.477	-0.7462	-7.45	1.33
193	238	SLE-INV	Min	-1.64	-2.03	3.06	1.5156	0.0547	-1.1337	-11.9	0.64
193	237	SLE-INV	Min	-1.83	-2.97	2.82	0.5248	-0.2695	-1.4762	-11.9	1.15
193	197	SLE-INV	Min	-1.88	-2.98	2.61	0.2549	-0.1286	-1.6085	-10.72	1.15
193	198	SLE-INV	Min	-1.69	-2.04	2.85	1.2344	0.2009	-1.246	-10.72	0.64
193	238	SLU-INV	Max	-1.64	-2.03	4.13	5.6659	0.4753	-0.8222	-10.93	3.39
193	237	SLU-INV	Max	-1.83	-2.97	3.81	2.8376	-0.1928	-1.0929	-10.93	5.55
193	197	SLU-INV	Max	-1.88	-2.98	3.53	1.8262	0.4989	-1.2781	-10.06	5.55
193	198	SLU-INV	Max	-1.69	-2.04	3.85	4.5556	1.214	-1.0073	-10.06	3.39
193	238	SLU-INV	Min	-2.22	-2.74	3.06	2.046	0.0739	-2.512	-23.29	0.87
193	237	SLU-INV	Min	-2.47	-4.01	2.82	0.7085	-0.3639	-3.3055	-23.29	1.55
193	197	SLU-INV	Min	-2.54	-4.02	2.61	0.3442	-0.1736	-3.4498	-20.56	1.55
193	198	SLU-INV	Min	-2.28	-2.75	2.85	1.6664	0.2712	-2.6563	-20.56	0.87
194	239	SLE-INV	Max	-1.93	-1.17	3.99	4.2311	0.6428	-0.3183	-10.17	0.5
194	238	SLE-INV	Max	-2.13	-2.13	3.25	2.4371	0.195	-0.6218	-10.17	1.4
194	198	SLE-INV	Max	-2.27	-2.16	3.03	1.6903	0.3346	-0.7347	-9.58	1.4

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
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Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di Pag.
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194	199	SLE-INV	Min	-2.08	-1.2	3.78	2.2334	0.4897	-0.7083	-13.38	0.21
194	239	SLU-INV	Max	-1.93	-1.17	5.39	8.6414	1.2872	-0.4297	-13.73	1.36
194	238	SLU-INV	Max	-2.13	-2.13	4.39	5.1962	0.5218	-0.8395	-13.73	3.57
194	198	SLU-INV	Max	-2.27	-2.16	4.1	3.5973	0.8819	-0.9918	-12.94	3.57
194	239	SLU-INV	Max	-2.08	-1.2	5.1	6.8992	1.716	-0.5821	-12.94	1.36
194	239	SLU-INV	Min	-2.61	-1.58	3.99	3.6325	0.5589	-1.3671	-28.01	0.28
194	238	SLU-INV	Min	-2.87	-2.87	3.25	1.9274	0.084	-2.5203	-28.01	0.91
194	198	SLU-INV	Min	-3.07	-2.91	3.03	1.3397	0.172	-2.6534	-25.22	0.91
194	199	SLU-INV	Min	-2.81	-1.61	3.78	3.0151	0.6611	-1.5002	-25.22	0.28
195	200	SLE-INV	Max	-2.48	-0.5	2.76	5.009	1.1366	-0.0262	-12.01	-0.09116
195	240	SLE-INV	Max	-2.24	-0.45	3.07	6.1305	1.0913	0.0216	-12.47	-0.09116
195	239	SLE-INV	Max	-2.4	-1.26	5.34	4.1507	0.6759	-0.3516	-12.47	0.56
195	199	SLE-INV	Max	-2.65	-1.31	5.03	3.1109	0.693	-0.3994	-12.01	0.56
195	200	SLE-INV	Min	-2.48	-0.5	2.76	3.4933	0.772	-0.0295	-16.39	-0.17
195	240	SLE-INV	Min	-2.24	-0.45	3.07	4.1359	0.7539	0.0199	-17.4	-0.17
195	239	SLE-INV	Min	-2.4	-1.26	5.34	2.7117	0.4391	-0.6286	-17.4	0.23
195	199	SLE-INV	Min	-2.65	-1.31	5.03	2.1078	0.4438	-0.678	-16.39	0.23
195	200	SLU-INV	Max	-2.48	-0.5	3.72	9.6289	2.2378	-0.0354	-16.22	-0.12
195	240	SLU-INV	Max	-2.24	-0.45	4.14	12.1046	2.1089	0.0292	-16.83	-0.12
195	239	SLU-INV	Max	-2.4	-1.26	7.21	8.3481	1.3639	-0.4747	-16.83	1.53
195	199	SLU-INV	Max	-2.65	-1.31	6.79	6.0879	1.4184	-0.5392	-16.22	1.53
195	200	SLU-INV	Min	-3.35	-0.67	2.76	4.7159	1.0422	-0.044	-30.45	-0.39
195	240	SLU-INV	Min	-3.02	-0.6	3.07	5.5834	1.0177	0.0187	-33.14	-0.39
195	239	SLU-INV	Min	-3.24	-1.7	5.34	3.6608	0.5927	-1.4051	-33.14	0.32
195	199	SLU-INV	Min	-3.57	-1.77	5.03	2.8455	0.5991	-1.4679	-30.45	0.32
196	241	SLE-INV	Max	-0.8	-0.16	-2.83	5.482	0.9882	-0.0007881	11.43	-0.04299
196	201	SLE-INV	Max	-1.37	-0.27	-2.68	4.5497	1.0181	0.012	11.11	-0.04299
196	202	SLE-INV	Max	-1.49	-0.87	-4.7	2.8866	0.6376	0.7166	11.11	0.17
196	242	SLE-INV	Max	-0.92	-0.75	-4.85	3.7524	0.6627	0.7038	11.43	0.17
196	241	SLE-INV	Min	-0.8	-0.16	-2.83	2.7736	0.5205	-0.0065	6.13	-0.14
196	201	SLE-INV	Min	-1.37	-0.27	-2.68	2.3915	0.5126	0.0102	6.27	-0.14
196	202	SLE-INV	Min	-1.49	-0.87	-4.7	1.4691	0.2984	0.2983	6.27	-0.17
196	242	SLE-INV	Min	-0.92	-0.75	-4.85	1.8294	0.3245	0.2817	6.13	-0.17
196	241	SLU-INV	Max	-0.8	-0.16	-2.83	11.7316	2.0669	0.013	23.61	-0.05804
196	201	SLU-INV	Max	-1.37	-0.27	-2.68	9.5226	2.184	0.0165	22.24	-0.05804
196	202	SLU-INV	Max	-1.49	-0.87	-4.7	6.1565	1.4221	1.6868	22.24	0.94
196	242	SLU-INV	Max	-0.92	-0.75	-4.85	8.1958	1.4452	1.6842	23.61	0.94
196	241	SLU-INV	Min	-1.08	-0.22	-3.82	3.7444	0.7026	-0.0087	8.28	-0.35
196	201	SLU-INV	Min	-1.85	-0.37	-3.62	3.2285	0.6919	0.0137	8.46	-0.35
196	202	SLU-INV	Min	-2.01	-1.17	-6.34	1.9832	0.4028	0.4027	8.46	-0.23
196	242	SLU-INV	Min	-1.24	-1.02	-6.55	2.4977	0.4381	0.3802	8.28	-0.23
197	243	SLE-INV	Max	-0.79	-1.48	-2.88	2.4323	0.4075	1.2544	9.84	0.59
197	242	SLE-INV	Max	-0.63	-0.69	-3.54	3.9019	0.6571	0.7166	9.84	0.12
197	202	SLE-INV	Max	-1.06	-0.78	-3.41	3.2003	0.7358	0.7018	9.33	0.12
197	203	SLE-INV	Max	-1.22	-1.57	-2.75	1.7834	0.4427	1.2396	9.33	0.59
197	243	SLE-INV	Min	-0.79	-1.48	-2.88	1.1306	0.1689	0.5215	5.26	-0.12
197	242	SLE-INV	Min	-0.63	-0.69	-3.54	1.9267	0.3428	0.2792	5.26	-0.17
197	202	SLE-INV	Min	-1.06	-0.78	-3.41	1.6044	0.3266	0.3	5.2	-0.17
197	203	SLE-INV	Min	-1.22	-1.57	-2.75	0.825	0.139	0.5423	5.2	-0.12
197	243	SLU-INV	Max	-0.79	-1.48	-2.88	5.4546	0.967	2.9583	20.37	2.23
197	242	SLU-INV	Max	-0.63	-0.69	-3.54	8.4745	1.3862	1.7334	20.37	0.79
197	202	SLU-INV	Max	-1.06	-0.78	-3.41	6.8908	1.6837	1.6326	18.84	0.79
197	203	SLU-INV	Max	-1.22	-1.57	-2.75	4.0073	1.1521	2.8574	18.84	2.23
197	243	SLU-INV	Min	-1.06	-2	-3.88	1.5263	0.2281	0.704	7.1	-0.16
197	242	SLU-INV	Min	-0.85	-0.94	-4.78	2.601	0.4628	0.3769	7.1	-0.23
197	202	SLU-INV	Min	-1.43	-1.05	-4.6	2.1659	0.441	0.405	7.02	-0.23
197	203	SLU-INV	Min	-1.64	-2.12	-3.71	1.1137	0.1876	0.7321	7.02	-0.16
198	244	SLE-INV	Max	-0.63	-2.38	-2.34	1.3758	0.1515	1.5704	8.45	1.34
198	243	SLE-INV	Max	-0.45	-1.42	-2.62	2.5774	0.4024	1.2385	8.45	0.55
198	203	SLE-INV	Max	-0.78	-1.48	-2.52	2.15	0.5501	1.2546	7.84	0.55
198	204	SLE-INV	Max	-0.95	-2.34	-2.24	0.941	0.2706	1.5966	7.84	1.12
198	244	SLE-INV	Min	-0.63	-2.28	-2.34	0.5746	0.0116	0.677	4.51	0.04909
198	243	SLE-INV	Min	-0.45	-1.42	-2.62	1.2439	0.1864	0.5109	4.51	-0.12
198	203	SLE-INV	Min	-0.78	-1.48	-2.52	1.0261	0.1843	0.5517	4.32	-0.12
198	204	SLE-INV	Min	-0.95	-2.34	-2.24	0.3662	0.0019	0.7177	4.32	0.04909
198	244	SLU-INV	Max	-0.63	-2.28	-2.34	3.1108	0.4895	3.6764	17.54	3.59
198	243	SLU-INV	Max	-0.45	-1.42	-2.62	5.6785	0.9108	2.9238	17.54	2.1
198	203	SLU-INV	Max	-0.78	-1.48	-2.52	4.7616	1.404	2.8853	15.95	2.1
198	204	SLU-INV	Max	-0.95	-2.34	-2.24	2.2876	0.9059	3.6379	15.95	3.59
198	244	SLU-INV	Min	-0.85	-3.08	-3.16	0.7758	0.0157	0.9139	6.08	0.06627
198	243	SLU-INV	Min	-0.61	-1.91	-3.54	1.6793	0.2517	0.6898	6.08	-0.17
198	203	SLU-INV	Min	-1.05	-2	-3.4	1.3852	0.2489	0.7448	5.84	-0.17
198	204	SLU-INV	Min	-1.28	-3.16	-3.02	0.4943	0.0026	0.9689	5.84	0.06627
199	245	SLE-INV	Max	-0.51	-3.03	-1.74	0.5112	-0.0367	1.808	7.23	1.66
199	244	SLE-INV	Max	-0.35	-2.22	-2.02	1.5651	0.1569	1.5883	7.23	1.07
199	204	SLE-INV	Max	-0.56	-2.26	-1.95	1.315	0.3863	1.5855	6.59	1.07
199	205	SLE-INV	Max	-0.72	-3.07	-1.66	0.2877	0.171	1.8052	6.59	1.66
199	245	SLE-INV	Min	-0.51	-3.03	-1.74	0.1711	-0.1122	0.7949	3.85	0.27
199	244	SLE-INV	Min	-0.35	-2.22	-2.02	0.7349	0.0321	0.6817	3.85	0.03426
199	204	SLE-INV	Min	-0.56	-2.26	-1.95	0.5921	0.0587	0.7125	3.6	0.03426
199	205	SLE-INV	Min	-0.72	-3.07	-1.66	0.0345	-0.0905	0.8257	3.6	0.27
199	245	SLU-INV	Max	-0.51	-3.03	-1.74	1.3275	0.1592	4.1692	15.04	4.89
199	244	SLU-INV	Max	-0.35	-2.22	-2.02	3.5122	0.4611	3.6986	15.04	3.45
199	204	SLU-INV	Max	-0.56	-2.26	-1.95	3.0078	1.1587	3.6129	13.5	3.45
199	205	SLU-INV	Max	-0.72	-3.07	-1.66	0.8968	0.7966	4.0835	13.5	4.89
199	245	SLU-INV	Min	-0.69	-4.09	-2.35	0.231	-0.1514	1.0731	5.19	0.36
199	244	SLU-INV	Min	-0.48	-3	-2.73	0.9921	0.0433	0.9203	5.19	0.04625
199	204	SLU-INV	Min	-0.75	-3.06	-2.63	0.7993	0.0792	0.9619	4.86	0.04625
199	205	SLU-INV	Min	-0.97	-4.14	-2.25	0.0466	-0.1222	1.1147	4.86	0.36
200	246	SLE-INV	Max	-0.45	-3.67	-1.24	-0.1262	-0.1956	1.8854	6.18	2.21
200	245	SLE-INV	Max	-0.31	-2.99	-1.46	0.7647	-0.0213	1.8039	6.18	1.62
200	205	SLE-INV	Max	-0.43	-3.01	-1.44	0.7141	0.2915	1.8076	5.55	1.62
200	206	SLE-INV	Max	-0.57	-3.69	-1.22	-0.1614	0.1048	1.8892	5.55	2.21
200	246	SLE-INV	Min	-0.45	-3.67	-1.24	-0.1313	-0.2161	0.8449	3.28	0.51
200	245	SLE-INV	Min	-0.31	-2.99	-1.46	0.3433	-0.0893	0.7954	3.28	0.25
200	205	SLE-INV	Min	-0.43	-3.01	-1.44	0.2914	-0.0276	0.8245	3.01	0.25
200	206	SLE-INV	Min	-0.57	-3.69	-1.22	-0.1816	-0.1556	0.874	3.01	0.51
200	246	SLU-INV	Max	-0.45	-3.67	-1.24	-0.0793	-0.1203	4.3151	12.87	6.14
200	245	SLU-INV	Max	-0.31	-2.99	-1.46	1.7737	0.1584	4.1543	12.87	4.78
200	205	SLU-INV	Max	-0.43	-3.01	-1.44	1.7194	1.0511	4.0945	11.43	4.78
200	206	SLU-INV	Max	-0.57	-3.69	-1.22	-0.0867	0.7344	4.2553	11.43	6.14
200	246	SLU-INV	Min	-0.61	-4.95	-1.68	-0.1773	-0.2918	1.1407	4.43	0.69
200	245	SLU-INV	Min	-0.42	-4.03	-1.97	0.4634	-0.1205	1.0738	4.43	0.34
200	205	SLU-INV	Min	-0.58	-4.07	-1.94	0.3934	-0.0373	1.1131	4.06	0.34
200	206	SLU-INV	Min	-0.76	-4.98	-1.64	-0.2451				



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.progr. 01	REV. A	Pag.di Pag. 138 di 174			
201	206	SLE-INV	Min	-0.38	-3.65	-1.03	0.0714	-0.0901	0.8689	2.53	0.49
201	207	SLE-INV	Min	-0.48	-4.18	-0.83	-0.488	-0.1915	0.8877	2.53	0.75
201	247	SLE-INV	Max	-0.48	-4.18	-0.82	-0.4396	-0.3046	4.3489	11.01	7.26
201	246	SLU-INV	Max	-0.37	-3.65	-1.01	0.5604	-0.0872	4.3197	11.01	6.02
201	206	SLE-INV	Max	-0.38	-3.65	-1.03	0.7177	0.9901	4.2493	9.68	6.02
201	207	SLU-INV	Max	-0.48	-4.18	-0.83	-0.4452	0.7445	4.2785	9.68	7.26
201	247	SLU-INV	Min	-0.64	-5.64	-1.11	-1.0147	-0.4147	1.1726	3.78	1.02
201	246	SLE-INV	Min	-0.5	-4.93	-1.37	0.1018	-0.256	1.1473	3.78	0.66
201	206	SLU-INV	Min	-0.51	-4.93	-1.39	0.0964	-0.1216	1.173	3.41	0.66
201	207	SLE-INV	Min	-0.65	-5.64	-1.13	-0.8223	-0.2586	1.1984	3.41	1.02
202	248	SLE-INV	Max	-0.54	-4.57	-0.51	-0.4606	-0.3404	1.8595	4.5	3.19
202	247	SLE-INV	Max	-0.46	-4.18	-0.65	-0.1218	-0.2634	1.9173	4.5	2.68
202	207	SLE-INV	Max	-0.4	-4.16	-0.68	-0.0429	0.2014	1.8961	3.95	2.68
202	208	SLE-INV	Max	-0.47	-4.55	-0.55	-0.4101	0.097	1.8383	3.95	3.19
202	248	SLE-INV	Min	-0.54	-4.57	-0.51	-0.8466	-0.3713	0.8555	2.39	0.99
202	247	SLE-INV	Min	-0.46	-4.18	-0.65	-0.2085	-0.2698	0.8744	2.39	0.74
202	207	SLE-INV	Min	-0.4	-4.16	-0.68	-0.0686	-0.1266	0.8815	2.13	0.74
202	208	SLE-INV	Min	-0.47	-4.55	-0.55	-0.6769	-0.2012	0.8625	2.13	0.99
202	248	SLU-INV	Max	-0.54	-4.57	-0.51	-0.6217	-0.4028	4.2179	9.39	8.29
202	247	SLU-INV	Max	-0.46	-4.18	-0.65	-0.1644	-0.2494	4.3586	9.39	7.17
202	207	SLU-INV	Max	-0.4	-4.16	-0.68	0.0556	0.9956	4.2669	8.2	7.17
202	208	SLU-INV	Max	-0.47	-4.55	-0.55	-0.5537	0.8271	4.1262	8.2	8.29
202	248	SLU-INV	Min	-0.72	-6.16	-0.69	-1.6957	-0.5059	1.1549	3.23	1.33
202	247	SLU-INV	Min	-0.62	-5.64	-0.88	-0.3614	-0.3653	1.1805	3.23	1
202	207	SLU-INV	Min	-0.53	-5.62	-0.92	-0.0927	-0.1709	1.19	2.87	1
202	208	SLU-INV	Min	-0.64	-6.15	-0.74	-1.2595	-0.2716	1.1643	2.87	1.33
203	249	SLE-INV	Max	-0.62	-4.86	-0.27	-0.5353	-0.3694	1.7717	3.83	3.61
203	248	SLE-INV	Max	-0.57	-4.57	-0.39	-0.2482	-0.3112	1.8632	3.83	3.15
203	208	SLE-INV	Max	-0.45	-4.55	-0.43	-0.1654	0.2122	1.8344	3.34	3.15
203	209	SLE-INV	Max	-0.51	-4.83	-0.32	-0.4561	0.1365	1.743	3.34	3.61
203	249	SLE-INV	Min	-0.62	-4.86	-0.27	-1.0209	-0.4042	0.8231	2.04	1.2
203	248	SLE-INV	Min	-0.57	-4.57	-0.39	-0.4807	-0.3293	0.8594	2.04	0.97
203	208	SLE-INV	Min	-0.45	-4.55	-0.43	-0.2566	-0.139	0.8585	1.8	0.97
203	209	SLE-INV	Min	-0.51	-4.83	-0.32	-0.7954	-0.194	0.8222	1.8	1.2
203	249	SLU-INV	Max	-0.62	-4.86	-0.27	-0.7227	-0.4387	4.0096	8.01	9.19
203	248	SLU-INV	Max	-0.57	-4.57	-0.39	-0.3351	-0.3295	4.221	8.01	8.2
203	208	SLU-INV	Max	-0.45	-4.55	-0.43	-0.2233	1.0673	4.1227	6.95	8.2
203	209	SLU-INV	Max	-0.51	-4.83	-0.32	-0.6158	0.9487	3.9114	6.95	9.19
203	249	SLU-INV	Min	-0.84	-6.55	-0.37	-2.0966	-0.5509	1.1112	2.76	1.62
203	248	SLU-INV	Min	-0.77	-6.17	-0.52	-0.9648	-0.4473	1.1602	2.76	1.31
203	208	SLU-INV	Min	-0.61	-6.14	-0.58	-0.4233	-0.1876	1.159	2.43	1.31
203	209	SLU-INV	Min	-0.68	-6.52	-0.43	-1.5428	-0.262	1.11	2.43	1.62
204	250	SLE-INV	Max	-0.71	-5.06	-0.12	-0.5777	-0.3793	1.646	3.25	3.98
204	249	SLE-INV	Max	-0.67	-4.86	-0.19	-0.3344	-0.3403	1.7783	3.25	3.58
204	209	SLE-INV	Max	-0.53	-4.84	-0.23	-0.2192	0.2448	1.7361	2.82	3.58
204	210	SLE-INV	Max	-0.57	-5.03	-0.16	-0.4674	0.2023	1.6038	2.82	3.98
204	250	SLE-INV	Min	-0.71	-5.06	-0.12	-1.127	-0.4041	0.772	1.74	1.4
204	249	SLE-INV	Min	-0.67	-4.86	-0.19	-0.6712	-0.3595	0.828	1.74	1.19
204	209	SLE-INV	Min	-0.53	-4.84	-0.23	-0.3804	-0.1356	0.8172	1.52	1.19
204	210	SLE-INV	Min	-0.57	-5.03	-0.16	-0.8385	-0.1704	0.7613	1.52	1.4
204	250	SLU-INV	Max	-0.71	-5.06	-0.12	-0.7799	-0.4093	3.7201	6.8	9.99
204	249	SLU-INV	Max	-0.67	-4.86	-0.19	-0.4514	-0.3557	4.0204	6.8	9.12
204	209	SLU-INV	Max	-0.53	-4.84	-0.23	-0.296	1.1749	3.8999	5.88	9.12
204	210	SLU-INV	Max	-0.57	-5.03	-0.16	-0.631	1.1195	3.5995	5.88	9.99
204	250	SLU-INV	Min	-0.96	-6.83	-0.16	-2.3467	-0.5492	1.0422	2.35	1.88
204	249	SLU-INV	Min	-0.91	-6.57	-0.26	-1.3905	-0.4882	1.1178	2.35	1.6
204	209	SLU-INV	Min	-0.77	-6.53	-0.31	-0.7032	-0.1831	1.1033	2.05	1.6
204	210	SLU-INV	Min	-0.77	-6.53	-0.22	-1.5644	-0.23	1.0277	2.05	1.88
205	251	SLE-INV	Max	-0.8	-5.21	0.0004891	-0.5893	-0.3783	1.4994	2.76	4.4
205	250	SLE-INV	Max	-0.77	-5.07	-0.05395	-0.3825	-0.3508	1.6472	2.76	3.95
205	210	SLE-INV	Max	-0.62	-5.04	-0.1	-0.2513	0.3016	1.6028	2.38	3.95
205	211	SLE-INV	Max	-0.65	-5.18	-0.04662	-0.4633	0.2762	1.4549	2.38	4.31
205	251	SLE-INV	Min	-0.8	-5.21	0.0004891	-1.1662	-0.3869	0.7102	1.49	1.57
205	250	SLE-INV	Min	-0.77	-5.07	-0.05395	-0.7815	-0.3583	0.774	1.49	1.38
205	210	SLE-INV	Min	-0.62	-5.04	-0.1	-0.4589	-0.1166	0.7594	1.29	1.38
205	211	SLE-INV	Min	-0.65	-5.18	-0.04662	-0.8472	-0.1397	0.6956	1.29	1.57
205	251	SLU-INV	Max	-0.8	-5.21	0.0006603	-0.7956	-0.3488	3.3863	5.77	10.68
205	250	SLU-INV	Max	-0.77	-5.07	-0.05395	-0.5163	-0.3213	3.7195	5.77	9.92
205	210	SLU-INV	Max	-0.62	-5.04	-0.1	-0.3393	1.3277	3.6004	4.96	9.92
205	211	SLU-INV	Max	-0.65	-5.18	-0.04662	-0.6255	1.3013	3.2672	4.96	10.68
205	251	SLU-INV	Min	-1.08	-7.04	0.0004891	-2.4462	-0.5237	0.9588	2.01	2.12
205	250	SLU-INV	Min	-1.04	-6.85	-0.07283	-1.6383	-0.4849	1.0449	2.01	1.87
205	210	SLU-INV	Min	-0.83	-6.81	-0.14	-0.8833	-0.1575	1.0252	1.74	1.87
205	211	SLU-INV	Min	-0.87	-6.99	-0.06294	-1.6919	-0.1886	0.9391	1.74	2.12
206	252	SLE-INV	Max	-0.87	-5.31	0.06766	-0.5857	-0.3527	1.3356	2.33	4.59
206	251	SLE-INV	Max	-0.85	-5.22	0.03621	-0.4099	-0.3423	1.5024	2.33	4.29
206	211	SLE-INV	Max	-0.7	-5.19	-0.00175	-0.262	0.3662	1.4519	2	4.29
206	212	SLE-INV	Max	-0.72	-5.28	0.0297	-0.4435	0.3605	1.2851	2	4.59
206	252	SLE-INV	Min	-0.87	-5.31	0.06766	-1.1721	-0.3672	0.6402	1.27	1.72
206	251	SLE-INV	Min	-0.85	-5.22	0.03621	-0.8488	-0.3511	0.7127	1.27	1.56
206	211	SLE-INV	Min	-0.7	-5.19	-0.00175	-0.4913	-0.0908	0.6932	1.1	1.56
206	212	SLE-INV	Min	-0.72	-5.28	0.0297	-0.8199	-0.102	0.6206	1.1	1.72
206	252	SLU-INV	Max	-0.87	-5.31	0.09134	-0.7907	-0.2549	3.0159	4.88	11.28
206	251	SLU-INV	Max	-0.85	-5.22	0.04888	-0.5534	-0.2608	3.3909	4.88	10.63
206	211	SLU-INV	Max	-0.7	-5.19	-0.00175	-0.3537	1.4906	3.2627	4.18	10.63
206	212	SLU-INV	Max	-0.72	-5.28	0.04009	-0.5987	1.5018	2.8877	4.18	11.28
206	252	SLU-INV	Min	-1.18	-7.17	0.06766	-2.4704	-0.4957	0.8642	1.72	2.33
206	251	SLU-INV	Min	-1.15	-7.05	0.03621	-1.7915	-0.474	0.9622	1.72	2.1
206	211	SLU-INV	Min	-0.95	-7.01	-0.002362	-0.9598	-0.1225	0.9358	1.48	2.1
206	212	SLU-INV	Min	-0.98	-7.13	0.0297	-1.6445	-0.1377	0.8379	1.48	2.33
207	253	SLE-INV	Max	-0.93	-5.38	0.11	-0.5686	-0.315	1.162	1.96	4.84
207	252	SLE-INV	Max	-0.92	-5.32	0.0922	-0.4186	-0.3103	1.3338	1.96	4.57
207	212	SLE-INV	Max	-0.78	-5.3	0.05602	-0.2632	0.4405	1.2873	1.68	4.57
207	213	SLE-INV	Max	-0.79	-5.36	0.07723	-0.4188	0.4408	1.1155	1.68	4.84
207	253	SLE-INV	Min	-0.93	-5.38	0.11	-1.1473	-0.3529	0.5653	1.09	1.86
207	252	SLE-INV	Min	-0.92	-5.32	0.0922	-0.8763	-0.3417	0.6401	1.09	1.71
207	212	SLE-INV	Min	-0.78	-5.3	0.05602	-0.5037	-0.058	0.6209	0.94	1.71
207	213	SLE-INV	Min	-0.79	-5.36	0.07723	-0.7805	-0.0645	0.5461	0.94	1.86
207	253	SLU-INV	Max	-0.93	-5.38	0.15	-0.7675	-0.157	2.6245	4.1	11.79
207	252	SLU-INV	Max	-0.92	-5.32	0.12	-0.5652	-0.17	3.01	4.1	11.23
207	212	SLU-INV	Max	-0.78	-5.3	0.07563	-0.3553	1.6704	2.8943	3.51	11.23
207	213	SLU-INV	Max	-0.79	-5.36	0.1	-0.5653	1.6899	2.5088	3.51	11.79
207	253	SLU-INV	Min	-1.26	-7.27	0.11	-2.4248	-0.4764	0.7631	1.47	2.51
207	252	SLU-INV	Min	-1.24	-7.19	0.0922	-1.8555	-0.4613	0.8641	1.47	2.31
207	212	SLU-INV	Min	-1.06	-7.15	0.05602	-0.9917	-0.0784	0.8382	1.27	2.31
207	213	SLU-INV	Min	-1.07	-7.23	0.07723	-1.5683	-0.087	0.7372	1.27	2.51
208											

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag. di Pag.
L0703	211	E	16	O16700	REL	01	A	139 di 174

208	253	SLE-INV	Min	-0.98	-5.39	0.12	-0.8854	-0.3293	0.5654	0.94	1.85
208	213	SLE-INV	Min	-0.85	-5.37	0.09548	-0.4962	-0.0253	0.546	0.8	1.85
208	214	SLE-INV	Min	-0.86	-5.41	0.1	-0.7283	-0.0271	0.4681	0.8	1.98
208	254	SLU-INV	Max	-0.98	-5.43	0.18	-0.7379	-0.0538	2.2202	3.43	12.23
208	253	SLU-INV	Max	-0.98	-5.39	0.17	-0.5652	-0.078	2.2219	3.43	11.76
208	213	SLU-INV	Max	-0.85	-5.37	0.13	-0.3445	1.838	2.512	2.93	11.76
208	214	SLU-INV	Max	-0.86	-5.41	0.14	-0.5251	1.8706	2.1104	2.93	12.23
208	254	SLU-INV	Min	-1.33	-7.33	0.13	-2.3527	-0.4536	0.6582	1.26	2.67
208	253	SLU-INV	Min	-1.32	-7.28	0.12	-1.8791	-0.4446	0.7634	1.26	2.5
208	213	SLU-INV	Min	-1.15	-7.25	0.09548	-0.9782	-0.0342	0.7371	1.08	2.5
208	214	SLU-INV	Min	-1.16	-7.3	0.1	-1.4616	-0.0365	0.632	1.08	2.67
209	255	SLE-INV	Max	-1.02	-5.46	0.14	-0.5212	-0.2397	0.7989	1.36	5.22
209	254	SLE-INV	Max	-1.02	-5.44	0.13	-0.4115	-0.2387	0.9778	1.36	5.03
209	214	SLE-INV	Max	-0.91	-5.42	0.11	-0.2447	0.579	0.9427	1.16	5.03
209	215	SLE-INV	Max	-0.91	-5.44	0.11	-0.36	0.5834	0.7638	1.16	5.22
209	255	SLE-INV	Min	-1.02	-5.46	0.14	-1.0656	-0.3218	0.408	0.81	2.08
209	254	SLE-INV	Min	-1.02	-5.44	0.13	-0.8789	-0.3145	0.4857	0.81	1.97
209	214	SLE-INV	Min	-0.91	-5.42	0.11	-0.4835	0.0074	0.4702	0.69	1.97
209	215	SLE-INV	Min	-0.91	-5.44	0.11	-0.6766	0.0048	0.3925	0.69	2.08
209	255	SLU-INV	Max	-1.02	-5.46	0.19	-0.7036	0.0318	1.8072	2.84	12.59
209	254	SLU-INV	Max	-1.02	-5.44	0.18	-0.5555	0.0175	2.2091	2.84	12.2
209	214	SLU-INV	Max	-0.91	-5.42	0.15	-0.3304	1.9979	2.1226	2.42	12.2
209	215	SLU-INV	Max	-0.91	-5.44	0.15	-0.486	2.0207	1.7207	2.42	12.59
209	255	SLU-INV	Min	-1.38	-7.37	0.14	-2.2591	-0.4344	0.5508	1.09	2.81
209	254	SLU-INV	Min	-1.38	-7.34	0.13	-1.8677	-0.4246	0.6558	1.09	2.66
209	214	SLU-INV	Min	-1.23	-7.31	0.11	-0.9535	0.0099	0.6348	0.93	2.66
209	215	SLU-INV	Min	-1.23	-7.34	0.11	-1.3549	0.0065	0.5298	0.93	2.81
210	256	SLE-INV	Max	-1.06	-5.48	0.13	-0.497	-0.2125	0.6145	1.12	5.36
210	255	SLE-INV	Max	-1.05	-5.47	0.13	-0.4027	-0.209	0.795	1.12	5.21
210	215	SLE-INV	Max	-0.96	-5.45	0.12	-0.2322	0.6342	0.7681	0.95	5.21
210	216	SLE-INV	Max	-0.96	-5.46	0.11	-0.332	0.6362	0.5875	0.95	5.36
210	256	SLE-INV	Min	-1.06	-5.48	0.13	-1.0214	-0.3107	0.328	0.69	2.17
210	255	SLE-INV	Min	-1.05	-5.47	0.13	-0.8688	-0.3025	0.4063	0.69	2.07
210	215	SLE-INV	Min	-0.96	-5.45	0.12	-0.4662	0.0348	0.3943	0.59	2.07
210	216	SLE-INV	Min	-0.96	-5.46	0.11	-0.6253	0.0313	0.3161	0.59	2.17
210	256	SLU-INV	Max	-1.06	-5.48	0.17	-0.671	0.101	1.3923	2.33	12.89
210	255	SLU-INV	Max	-1.05	-5.47	0.18	-0.5436	0.0941	1.7983	2.33	12.57
210	215	SLU-INV	Max	-0.96	-5.45	0.16	-0.3135	2.1278	1.7306	1.98	12.57
210	216	SLU-INV	Max	-0.96	-5.46	0.15	-0.4482	2.144	1.3247	1.98	12.89
210	256	SLU-INV	Min	-1.42	-7.4	0.13	-2.1677	-0.4195	0.4429	0.94	2.93
210	255	SLU-INV	Min	-1.42	-7.38	0.13	-1.8488	-0.4084	0.5489	0.94	2.8
210	215	SLU-INV	Min	-1.29	-7.36	0.12	-0.9182	0.047	0.5324	0.8	2.8
210	216	SLU-INV	Min	-1.29	-7.38	0.11	-1.248	0.0422	0.4267	0.8	2.93
211	257	SLE-INV	Max	-1.08	-5.5	0.12	-0.4754	-0.2004	0.4276	0.9	5.47
211	256	SLE-INV	Max	-1.08	-5.49	0.12	-0.3936	-0.1865	0.6074	0.9	5.35
211	216	SLE-INV	Max	-0.99	-5.47	0.11	-0.2211	0.6777	0.5952	0.77	5.35
211	217	SLE-INV	Max	-0.99	-5.48	0.1	-0.308	0.6689	0.4154	0.77	5.47
211	257	SLE-INV	Min	-1.08	-5.5	0.12	-0.9805	-0.3071	0.2468	0.6	2.24
211	256	SLE-INV	Min	-1.08	-5.49	0.12	-0.8576	-0.2937	0.3247	0.6	2.16
211	216	SLE-INV	Min	-0.99	-5.47	0.11	-0.452	0.0571	0.3197	0.52	2.16
211	217	SLE-INV	Min	-0.99	-5.48	0.1	-0.5809	0.048	0.2418	0.52	2.24
211	257	SLU-INV	Max	-1.08	-5.5	0.16	-0.6418	0.1362	0.9719	1.87	13.13
211	256	SLU-INV	Max	-1.08	-5.49	0.17	-0.5314	0.1535	1.3764	1.87	12.87
211	216	SLU-INV	Max	-0.99	-5.47	0.15	-0.2985	2.2311	1.3418	1.6	13.13
211	217	SLU-INV	Max	-0.99	-5.48	0.14	-0.4158	2.2224	0.9373	1.6	13.13
211	257	SLU-INV	Min	-1.46	-7.43	0.12	-2.0832	-0.4146	0.3331	0.81	3.03
211	256	SLU-INV	Min	-1.45	-7.41	0.12	-1.8275	-0.3965	0.4383	0.81	2.92
211	216	SLU-INV	Min	-1.34	-7.39	0.11	-0.7116	-0.3914	0.3716	0.77	2.92
211	217	SLU-INV	Min	-1.34	-7.4	0.1	-1.1564	0.0648	0.3264	0.77	3.03
212	258	SLE-INV	Max	-1.1	-5.52	0.09112	-0.4586	-0.2028	0.2416	0.71	5.56
212	257	SLE-INV	Max	-1.09	-5.5	0.1	-0.3872	-0.1793	0.4212	0.71	5.47
212	217	SLE-INV	Max	-1.02	-5.49	0.09457	-0.2125	0.7013	0.4223	0.61	5.47
212	218	SLE-INV	Max	-1.02	-5.5	0.08298	-0.2888	0.6827	0.2427	0.61	5.56
212	258	SLE-INV	Min	-1.1	-5.52	0.09112	-0.9473	-0.3111	0.1655	0.53	2.31
212	257	SLE-INV	Min	-1.09	-5.5	0.1	-0.851	-0.2923	0.2435	0.53	2.24
212	217	SLE-INV	Min	-1.02	-5.49	0.09457	-0.4425	0.0699	0.2453	0.45	2.24
212	218	SLE-INV	Min	-1.02	-5.5	0.08298	-0.5447	0.0553	0.1673	0.45	2.31
212	258	SLU-INV	Max	-1.1	-5.52	0.12	-0.619	0.1392	0.5532	1.46	13.32
212	257	SLU-INV	Max	-1.09	-5.5	0.14	-0.5227	0.1783	0.9579	1.46	13.12
212	217	SLU-INV	Max	-1.02	-5.49	0.13	-0.2868	2.2901	0.9525	1.25	13.12
212	218	SLU-INV	Max	-1.02	-5.5	0.11	-0.3899	2.2599	0.5479	1.25	13.32
212	258	SLU-INV	Min	-1.48	-7.45	0.09112	-2.0164	-0.42	0.2235	0.71	3.12
212	257	SLU-INV	Min	-1.48	-7.43	0.1	-1.8175	-0.3945	0.3287	0.71	3.03
212	217	SLU-INV	Min	-1.37	-7.41	0.1	-0.09457	0.0944	0.3311	0.61	3.03
212	218	SLU-INV	Min	-1.38	-7.43	0.08298	-1.0826	0.0746	0.2259	0.61	3.12
213	259	SLE-INV	Max	-1.11	-5.54	0.06336	-0.4484	-0.2268	0.0819	0.54	5.62
213	258	SLE-INV	Max	-1.1	-5.52	0.07785	-0.3852	-0.1866	0.2323	0.54	5.56
213	218	SLE-INV	Max	-1.03	-5.5	0.07164	-0.2077	0.7063	0.2526	0.47	5.56
213	219	SLE-INV	Max	-1.04	-5.52	0.05715	-0.2755	0.6705	0.0936	0.47	5.62
213	259	SLE-INV	Min	-1.11	-5.54	0.06336	-0.925	-0.3267	0.0519	0.46	2.36
213	258	SLE-INV	Min	-1.1	-5.52	0.07785	-0.8521	-0.2984	0.1607	0.46	2.31
213	218	SLE-INV	Min	-1.03	-5.5	0.07164	-0.4405	0.0735	0.1724	0.41	2.31
213	219	SLE-INV	Min	-1.04	-5.52	0.05715	-0.5186	0.0491	0.0722	0.41	2.36
213	259	SLU-INV	Max	-1.11	-5.54	0.08554	-0.6054	0.0953	1.266	1.09	13.45
213	258	SLU-INV	Max	-1.1	-5.52	0.11	-0.5201	0.1705	0.5332	1.09	13.31
213	218	SLU-INV	Max	-1.03	-5.5	0.09672	-0.2804	2.3085	0.5693	0.94	13.31
213	219	SLU-INV	Max	-1.04	-5.52	0.07716	-0.3719	2.2412	0.1627	0.94	13.45
213	259	SLU-INV	Min	-1.49	-7.47	0.06336	-1.9734	-0.441	0.0655	0.63	3.19
213	258	SLU-INV	Min	-1.49	-7.45	0.07785	-1.8252	-0.4029	0.217	0.63	3.11
213	218	SLU-INV	Min	-1.4	-7.43	0.07164	-0.874	0.0992	0.2328	0.55	3.11
213	219	SLU-INV	Min	-1.4	-7.45	0.05715	-1.0315	0.0663	0.0943	0.55	3.19
214	260	SLE-INV	Max	-1.11	-5.56	0.02754	-0.4455	-0.2708	-0.0023	0.42	5.66
214	259	SLE-INV	Max	-1.11	-5.54	0.04477	-0.3887	-0.2154	0.0772	0.42	5.62
214	219	SLE-INV	Max	-1.04	-5.52	0.04495	-0.2089	0.6855	0.0986	0.37	5.62
214	220	SLE-INV	Max	-1.04	-5.55	0.02773	-0.2701	0.6343	0.0191	0.37	5.66
214	260	SLE-INV	Min	-1.11	-5.56	0.02754	-0.9134	-0.3538	-0.1365	0.38	2.4
214	259	SLE-INV	Min	-1.11	-5.54	0.04477	-0.8621	-0.316	0.0434	0.38	2.36
214	219	SLE-INV	Min	-1.04	-5.52	0.04495	-0.4497	0.0637	0.0812	0.34	2.36
214	220	SLE-INV	Min	-1.04	-5.55	0.02773	-0.506	0.0297	-0.0987	0.34	2.4
214	260	SLU-INV	Max	-1.11	-5.56	0.03718	-0.6014	0.0083	-0.003	0.75	13.53
214	259	SLU-INV	Max	-1.11	-5.54	0.06043	-0.5247	0.1157	0.1087	0.75	13.44
214	219	SLU-INV	Max	-1.04	-5.52	0.06068	-0.282	2.271	0.1819	0.66	13.44
214	220	SLU-INV	Max	-1.04	-5.55	0.03743	-0.3647	2.1713	0.0258	0.66	13.53
214	260	SLU-INV	Min	-1.5	-7.51	0.02754	-1.955	-0.4776	-0.2975	0.5	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	140 di 174			
215	261	SLE-INV	Min	-1.11	-5.6	-0.01205	-0.9181	-0.3958	-0.3309	0.23	2.44
215	260	SLE-INV	Min	-1.11	-5.56	0.008057	-0.886	-0.3451	-0.1474	0.23	2.4
215	220	SLE-INV	Min	-1.03	-5.54	0.0115	-0.4687	0.0408	-0.0871	0.22	2.4
215	221	SLE-INV	Min	-1.04	-5.58	-0.008601	-0.5048	-0.0067	-0.2707	0.22	2.44
215	261	SLE-INV	Max	-1.11	-5.6	-0.01205	-0.6119	-0.1339	-0.1228	0.51	13.55
215	260	SLE-INV	Max	-1.11	-5.56	0.01088	-0.541	0.0175	-0.0113	0.51	13.53
215	220	SLE-INV	Max	-1.03	-5.54	0.01553	-0.2915	2.1825	0.0344	0.47	13.53
215	221	SLE-INV	Max	-1.04	-5.58	-0.008601	-0.3678	2.0374	-0.0771	0.47	13.55
215	261	SLE-INV	Min	-1.5	-7.56	-0.01626	-1.9721	-0.5343	-0.7348	0.29	3.29
215	260	SLE-INV	Min	-1.49	-7.5	0.008057	-1.9143	-0.4658	-0.3204	0.29	3.25
215	220	SLE-INV	Min	-1.39	-7.48	0.0115	-0.9487	0.055	-0.2	0.28	3.25
215	221	SLE-INV	Min	-1.4	-7.54	-0.01161	-1.0141	-0.009	-0.6143	0.28	3.29
216	262	SLE-INV	Max	-1.1	-5.65	-0.05551	-0.4707	-0.4332	-0.1809	0.35	5.64
216	261	SLE-INV	Max	-1.09	-5.59	-0.03725	-0.4206	-0.339	-0.0966	0.35	5.67
216	221	SLE-INV	Max	-1.01	-5.58	-0.02331	-0.2331	0.5653	-0.0512	0.34	5.67
216	222	SLE-INV	Max	-1.02	-5.64	-0.04157	-0.2869	0.474	-0.1355	0.34	5.64
216	262	SLE-INV	Min	-1.1	-5.65	-0.05551	-0.9346	-0.452	-0.5228	0.09172	2.45
216	261	SLE-INV	Min	-1.09	-5.59	-0.03725	-0.9205	-0.3889	-0.3402	0.09172	2.44
216	221	SLE-INV	Min	-1.01	-5.58	-0.02331	-0.5049	0.0008117	-0.2608	0.12	2.44
216	222	SLE-INV	Min	-1.02	-5.64	-0.04157	-0.5226	-0.0593	-0.4434	0.12	2.45
216	262	SLE-INV	Max	-1.1	-5.65	-0.05551	-0.6355	-0.3229	-0.2442	0.48	13.52
216	261	SLE-INV	Max	-1.09	-5.59	-0.03725	-0.5678	-0.1356	-0.1305	0.48	13.56
216	221	SLE-INV	Max	-1.01	-5.58	-0.02331	-0.3147	2.0295	-0.0691	0.46	13.56
216	222	SLE-INV	Max	-1.02	-5.64	-0.04157	-0.3873	1.8482	-0.1829	0.46	13.52
216	262	SLE-INV	Min	-1.49	-7.63	-0.07494	-2.015	-0.6102	-1.1671	0.08462	3.31
216	261	SLE-INV	Min	-1.47	-7.55	-0.05029	-1.999	-0.525	-0.7539	0.08462	3.29
216	221	SLE-INV	Min	-1.36	-7.53	-0.03147	-1.035	0.0011	-0.5939	0.13	3.29
216	222	SLE-INV	Min	-1.37	-7.61	-0.05611	-1.0582	-0.08	-1.0072	0.13	3.31
217	263	SLE-INV	Max	-1.07	-5.73	-0.09433	-0.5048	-0.5245	-0.2789	0.34	5.59
217	262	SLE-INV	Max	-1.06	-5.64	-0.07787	-0.4545	-0.4361	-0.1873	0.34	5.65
217	222	SLE-INV	Max	-0.97	-5.62	-0.05547	-0.2578	0.463	-0.1287	0.35	5.65
217	223	SLE-INV	Max	-0.98	-5.71	-0.07193	-0.311	0.3503	-0.2203	0.35	5.59
217	263	SLE-INV	Min	-1.07	-5.73	-0.09433	-0.9743	-0.5505	-0.7249	-0.03677	2.45
217	262	SLE-INV	Min	-1.06	-5.64	-0.07787	-0.9761	-0.4468	-0.5331	-0.03677	2.45
217	222	SLE-INV	Min	-0.97	-5.62	-0.05547	-0.5505	-0.0554	-0.4323	0.02749	2.45
217	223	SLE-INV	Min	-0.98	-5.71	-0.07193	-0.5509	-0.1307	-0.6241	0.02749	2.45
217	263	SLE-INV	Max	-1.07	-5.73	-0.09433	-0.6815	-0.5639	-0.3765	0.46	13.44
217	262	SLE-INV	Max	-1.06	-5.64	-0.07787	-0.6135	-0.3358	-0.2529	0.46	13.54
217	222	SLE-INV	Max	-0.97	-5.62	-0.05547	-0.3481	1.8215	-0.1738	0.47	13.54
217	223	SLE-INV	Max	-0.98	-5.71	-0.07193	-0.4199	1.5973	-0.2973	0.47	13.44
217	263	SLE-INV	Min	-1.45	-7.73	-0.13	-2.056	-0.7472	-1.6223	-0.19	3.31
217	262	SLE-INV	Min	-1.43	-7.62	-0.11	-2.1289	-0.6032	-1.1884	-0.19	3.31
217	222	SLE-INV	Min	-1.3	-7.59	-0.07488	-1.1416	-0.0748	-0.9842	-0.08573	3.31
217	223	SLE-INV	Min	-1.33	-7.7	-0.09711	-1.1231	-0.1764	-1.4181	-0.08573	3.31
218	264	SLE-INV	Max	-1.02	-5.81	-0.11	-0.5493	-0.6137	-0.3793	0.35	5.5
218	263	SLE-INV	Max	-1	-5.71	-0.11	-0.4961	-0.5203	-0.2855	0.35	5.6
218	223	SLE-INV	Max	-0.91	-5.69	-0.07723	-0.2972	0.3309	-0.2133	0.37	5.6
218	224	SLE-INV	Max	-0.93	-5.79	-0.0788	-0.3528	0.1968	-0.307	0.37	5.5
218	264	SLE-INV	Min	-1.02	-5.81	-0.11	-1.02	-0.6922	-0.9244	-0.16	2.43
218	263	SLE-INV	Min	-1	-5.71	-0.11	-1.0364	-0.5568	-0.7353	-0.16	2.45
218	223	SLE-INV	Min	-0.91	-5.69	-0.07723	-0.6168	-0.1304	-0.6131	-0.04978	2.45
218	224	SLE-INV	Min	-0.93	-5.79	-0.0788	-0.6021	-0.2217	-0.8022	-0.04978	2.43
218	264	SLE-INV	Max	-1.02	-5.81	-0.11	-0.7416	-0.8285	-0.512	0.47	13.28
218	263	SLE-INV	Max	-1	-5.71	-0.11	-0.6697	-0.5851	-0.3855	0.47	13.45
218	223	SLE-INV	Max	-0.91	-5.69	-0.07723	-0.4012	1.5528	-0.288	0.51	13.45
218	224	SLE-INV	Max	-0.93	-5.79	-0.0788	-0.4763	1.2865	-0.4145	0.51	13.28
218	264	SLE-INV	Min	-1.38	-7.85	-0.15	-2.2044	-0.9463	-2.0733	-0.49	3.28
218	263	SLE-INV	Min	-1.35	-7.71	-0.15	-2.0571	-0.7571	-1.8113	-0.49	3.31
218	223	SLE-INV	Min	-1.22	-7.68	-0.1	-1.2895	-0.176	-1.3955	-0.31	3.31
218	224	SLE-INV	Min	-1.25	-7.82	-0.11	-1.231	-0.2994	-1.825	-0.31	3.28
219	265	SLE-INV	Max	-0.94	-5.9	-0.11	-0.6162	-0.7169	-0.4874	0.38	5.36
219	264	SLE-INV	Max	-0.92	-5.79	-0.12	-0.5549	-0.6104	-0.3836	0.38	5.51
219	224	SLE-INV	Max	-0.83	-5.77	-0.07002	-0.3476	0.1691	-0.3022	0.43	5.51
219	225	SLE-INV	Max	-0.85	-5.88	-0.06053	-0.4099	0.0201	-0.4061	0.43	5.36
219	265	SLE-INV	Min	-0.94	-5.9	-0.11	-1.0884	-0.8501	-1.1318	-0.27	2.38
219	264	SLE-INV	Min	-0.92	-5.79	-0.12	-1.1172	-0.7018	-0.9299	-0.27	2.43
219	224	SLE-INV	Min	-0.83	-5.77	-0.07002	-0.6913	-0.2251	-0.7959	-0.11	2.43
219	225	SLE-INV	Min	-0.85	-5.88	-0.06053	-0.6619	-0.3307	-0.9977	-0.11	2.38
219	265	SLE-INV	Max	-0.94	-5.9	-0.11	-0.8319	-0.9679	-0.658	0.51	13.03
219	264	SLE-INV	Max	-0.92	-5.79	-0.12	-0.7491	-0.8241	-0.5179	0.51	13.3
219	224	SLE-INV	Max	-0.83	-5.77	-0.07002	-0.4692	1.2243	-0.408	0.58	13.3
219	225	SLE-INV	Max	-0.85	-5.88	-0.06053	-0.5534	0.9293	-0.5482	0.58	13.03
219	265	SLE-INV	Min	-1.27	-7.96	-0.14	-2.3399	-1.1789	-2.5434	-0.81	3.22
219	264	SLE-INV	Min	-1.24	-7.82	-0.16	-2.4428	-0.9611	-2.0852	-0.81	3.29
219	224	SLE-INV	Min	-1.13	-7.8	-0.15453	-1.4489	-0.0308	-1.8113	-0.53	3.29
219	225	SLE-INV	Min	-1.15	-7.94	-0.08172	-1.3463	-0.4465	-2.2694	-0.53	3.22
220	265	SLE-INV	Max	-0.84	-5.88	-0.08539	-0.6228	-0.714	-0.4935	0.41	5.37
220	225	SLE-INV	Max	-0.76	-5.86	-0.03636	-0.4177	-0.0112	-0.3997	0.48	5.37
220	226	SLE-INV	Max	-0.77	-5.93	-0.002749	-0.4745	-0.152	-0.485	0.48	5.22
220	266	SLE-INV	Max	-0.85	-5.95	-0.05178	-0.679	-0.8145	-0.5789	0.41	5.22
220	265	SLE-INV	Min	-0.84	-5.88	-0.08539	-1.1834	-0.8599	-1.1421	-0.37	2.39
220	225	SLE-INV	Min	-0.76	-5.86	-0.03636	-0.7724	-0.3365	-0.9869	-0.18	2.39
220	226	SLE-INV	Min	-0.77	-5.93	-0.002749	-0.737	-0.4368	-1.1468	-0.18	2.33
220	266	SLE-INV	Min	-0.85	-5.95	-0.05178	-1.1495	-0.9999	-1.3019	-0.37	2.33
220	265	SLE-INV	Max	-0.84	-5.88	-0.08539	-0.8408	-0.9639	-0.6662	0.55	13.06
220	225	SLE-INV	Max	-0.76	-5.86	-0.03636	-0.5639	0.8598	-0.5396	0.65	13.06
220	226	SLE-INV	Max	-0.77	-5.93	-0.002749	-0.6405	0.5804	-0.6548	0.65	12.77
220	266	SLE-INV	Max	-0.85	-5.95	-0.05178	-0.9166	-1.0995	-0.7815	0.55	12.77
220	265	SLE-INV	Min	-1.13	-7.93	-0.12	-2.5713	-1.2078	-2.5655	-1.12	3.23
220	225	SLE-INV	Min	-1.03	-7.91	-0.04909	-1.6068	-0.4543	-2.2462	-0.77	3.23
220	226	SLE-INV	Min	-1.05	-8.01	-0.003711	-1.4871	-0.5897	-2.6099	-0.77	3.14
220	266	SLE-INV	Min	-1.15	-8.03	-0.0699	-2.4513	-1.4871	-2.9292	-1.12	3.14
221	267	SLE-INV	Max	-0.77	-5.96	0.03283	-0.7454	-0.9075	-0.6506	0.36	5.05
221	266	SLE-INV	Max	-0.76	-5.93	-0.01357	-0.6927	-0.8125	-0.5765	0.36	5.23
221	226	SLE-INV	Max	-0.7	-5.92	0.03373	-0.4926	-0.186	-0.4869	0.46	5.23
221	227	SLE-INV	Max	-0.7	-5.95	0.08013	-0.5438	-0.3135	-0.571	0.46	5.05
221	267	SLE-INV	Min	-0.77	-5.96	0.03283	-1.197	-1.1353	-1.4482	-0.56	2.25
221	266	SLE-INV	Min	-0.76	-5.93	-0.01357	-1.2502	-1.0102	-1.2963	-0.56	2.33
221	226	SLE-INV	Min	-0.7	-5.92	0.03373	-0.8578	-0.4452	-1.1516	-0.32	2.33
221	227	SLE-INV	Min	-0.7	-5.95	0.08013	-0.7999	-0.541	-1.3035	-0.32	2.25
221	267	SLE-INV	Max	-0.77	-5.96	0.04433	-1.0063	-1.2252	-0.8919	0.48	12.44
221	266	SLE-INV	Max	-0.76	-5.93	-0.01357	-0.9352	-1.0969	-0.7783	0.48	12.8
221	226	SLE-INV	Max	-0.7	-5.92	0.04553	-0.6651	0.5056	-0.6573	0.62	12.8
221	227	SLE-INV	Max	-0.7	-5.95	0.11	-0.7342	0.2533	-0.7709	0.62	12.44
221	267	SLE-INV	Min	-1.03	-8.05	0.032					



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N. progr.	REV.	Pag. di Pag.			
L0703	211	E	16	O16700	REL	01	A	141 di 174			
222	228	SLE-INV	Max	-0.63	-5.92	0.2	-0.6113	-0.4795	-0.655	0.35	4.83
222	268	SLE-INV	Min	-0.69	-5.93	0.16	-1.2272	-1.2702	-1.5955	-0.85	2.15
222	267	SLE-INV	Min	-0.69	-5.95	0.0945	-1.3168	-1.1474	-1.4491	-0.85	2.26
222	227	SLE-INV	Min	-0.64	-5.94	0.13	-0.9438	-0.5532	-1.3022	-0.57	2.26
222	228	SLE-INV	Min	-0.63	-5.92	0.2	-0.8494	-0.648	-1.4486	-0.57	2.15
222	268	SLU-INV	Max	-0.69	-5.93	0.22	-1.0903	-1.3504	-1.0051	0.29	12.02
222	267	SLU-INV	Max	-0.69	-5.95	0.13	-1.0396	-1.224	-0.8917	0.29	12.47
222	227	SLU-INV	Max	-0.64	-5.94	0.18	-0.7775	0.1646	-0.7708	0.47	12.47
222	228	SLU-INV	Max	-0.63	-5.92	0.27	-0.8253	-0.0857	-0.8842	0.47	12.02
222	268	SLU-INV	Min	-0.93	-8	0.16	-2.5407	-2.0445	-3.6026	-2.27	2.9
222	267	SLU-INV	Min	-0.93	-8.03	0.0945	-2.7967	-1.7966	-3.2697	-2.27	3.05
222	227	SLU-INV	Min	-0.86	-8.02	0.13	-1.9132	-0.7468	-2.9598	-1.71	3.05
222	228	SLU-INV	Min	-0.86	-7.99	0.2	-1.653	-0.8748	-3.2928	-1.71	2.9
223	269	SLE-INV	Max	-0.62	-5.82	0.32	-0.8511	-1.073	-0.8111	-0.02637	4.58
223	268	SLE-INV	Max	-0.64	-5.92	0.24	-0.842	-1.0012	-0.7364	-0.02637	4.85
223	228	SLE-INV	Max	-0.6	-5.91	0.27	-0.6662	-0.5278	-0.6627	0.14	4.85
223	229	SLE-INV	Max	-0.58	-5.82	0.35	-0.6713	-0.6193	-0.7374	0.14	4.58
223	269	SLE-INV	Min	-0.62	-5.82	0.32	-1.2196	-1.3718	-1.7051	-1.27	2.03
223	268	SLE-INV	Min	-0.64	-5.92	0.24	-1.3588	-1.2843	-1.5825	-1.27	2.16
223	228	SLE-INV	Min	-0.6	-5.91	0.27	-1.0298	-0.665	-1.4609	-0.94	2.16
223	229	SLE-INV	Min	-0.58	-5.82	0.35	-0.8832	-0.739	-1.5835	-0.94	2.03
223	269	SLU-INV	Max	-0.62	-5.82	0.44	-1.149	-1.4485	-1.095	-0.0356	11.5
223	268	SLU-INV	Max	-0.64	-5.92	0.33	-1.1368	-1.3516	-0.9941	-0.0356	12.05
223	228	SLU-INV	Max	-0.6	-5.91	0.37	-0.8994	-0.1907	-0.8946	0.38	12.05
223	229	SLU-INV	Max	-0.58	-5.82	0.47	-0.9062	-0.3754	-0.9955	0.18	11.5
223	269	SLU-INV	Min	-0.84	-7.86	0.32	-2.4726	-2.2584	-3.8595	-3.19	2.74
223	268	SLU-INV	Min	-0.87	-7.99	0.24	-2.8376	-2.078	-3.579	-3.19	2.91
223	228	SLU-INV	Min	-0.81	-7.98	0.27	-2.0487	-0.8977	-3.315	-2.51	2.91
223	229	SLU-INV	Min	-0.78	-7.85	0.35	-1.676	-0.9977	-3.5955	-2.51	2.74
224	270	SLE-INV	Max	-0.59	-5.66	0.52	-0.8787	-1.1194	-0.8675	-0.36	4.3
224	269	SLE-INV	Max	-0.62	-5.82	0.42	-0.9095	-1.077	-0.8011	-0.36	4.6
224	229	SLE-INV	Max	-0.58	-5.81	0.43	-0.7464	-0.6758	-0.7471	-0.17	4.6
224	230	SLE-INV	Max	-0.54	-5.65	0.53	-0.7106	-0.7244	-0.8135	-0.17	4.3
224	270	SLE-INV	Min	-0.59	-5.66	0.52	-1.1901	-1.4345	-1.794	-1.8	1.89
224	269	SLE-INV	Min	-0.62	-5.82	0.42	-1.3861	-1.3895	-1.6908	-1.8	2.04
224	229	SLE-INV	Min	-0.58	-5.81	0.43	-1.0876	-0.7617	-1.5975	-1.42	2.04
224	230	SLE-INV	Min	-0.54	-5.65	0.53	-0.8842	-0.8063	-1.7008	-1.42	1.89
224	270	SLU-INV	Max	-0.59	-5.66	0.7	-1.1862	-1.5111	-1.1711	-0.49	10.92
224	269	SLU-INV	Max	-0.62	-5.82	0.57	-1.2278	-1.454	-1.0815	-0.49	11.54
224	229	SLU-INV	Max	-0.58	-5.81	0.58	-1.0076	-0.4876	-1.0086	-0.23	11.54
224	230	SLU-INV	Max	-0.54	-5.65	0.71	-0.9593	-0.6004	-1.0982	-0.23	10.92
224	270	SLU-INV	Min	-0.79	-7.63	0.52	-2.3521	-2.3967	-4.0687	-4.32	2.55
224	269	SLU-INV	Min	-0.84	-7.86	0.42	-2.8349	-2.2965	-3.8341	-4.32	2.75
224	229	SLU-INV	Min	-0.78	-7.85	0.43	-2.1149	-1.0283	-3.6205	-3.51	2.75
224	230	SLU-INV	Min	-0.73	-7.62	0.53	-1.627	-1.0886	-3.8551	-3.51	2.55
225	271	SLE-INV	Max	-0.58	-5.41	0.73	-0.8729	-1.1335	-0.9088	-0.8	3.97
225	270	SLE-INV	Max	-0.63	-5.66	0.62	-0.9554	-1.1267	-0.854	-0.8	4.32
225	230	SLE-INV	Max	-0.58	-5.65	0.62	-0.8156	-0.7897	-0.8267	-0.58	4.32
225	231	SLE-INV	Max	-0.53	-5.4	0.72	-0.727	-0.7882	-0.8816	-0.58	3.97
225	271	SLE-INV	Min	-0.58	-5.41	0.73	-1.1038	-1.4498	-1.8526	-2.46	1.72
225	270	SLE-INV	Min	-0.63	-5.66	0.62	-1.3769	-1.4553	-1.7751	-2.46	1.9
225	230	SLE-INV	Min	-0.58	-5.65	0.62	-1.1283	-0.8353	-1.7193	-2.01	1.9
225	231	SLE-INV	Min	-0.53	-5.4	0.72	-0.847	-0.845	-1.7968	-2.01	1.72
225	271	SLU-INV	Max	-0.58	-5.41	0.98	-1.1785	-1.5302	-1.2269	-1.08	10.22
225	270	SLU-INV	Max	-0.63	-5.66	0.84	-1.2898	-1.5211	-1.1528	-1.08	10.96
225	230	SLU-INV	Max	-0.58	-5.65	0.83	-1.0101	-0.7411	-1.1161	-0.78	10.96
225	231	SLU-INV	Max	-0.53	-5.4	0.97	-0.9814	-0.7498	-1.1902	-0.78	10.22
225	271	SLU-INV	Min	-0.73	-7.11	0.73	-2.1073	-2.4443	-4.2118	-5.67	2.33
225	270	SLU-INV	Min	-0.85	-7.65	0.62	-2.7496	-2.438	-4.0348	-5.67	2.56
225	230	SLU-INV	Min	-0.79	-7.63	0.62	-2.1388	-1.1277	-3.8882	-4.72	2.56
225	231	SLU-INV	Min	-0.72	-7.3	0.72	-1.4921	-1.1407	-4.0652	-4.72	2.33
226	272	SLE-INV	Max	-0.6	-5.09	0.97	-0.8251	-1.107	-0.936	-1.36	3.6
226	271	SLE-INV	Max	-0.67	-5.43	0.85	-0.9786	-1.1449	-0.8924	-1.36	4
226	231	SLE-INV	Max	-0.62	-5.42	0.82	-0.8632	-0.8654	-0.8979	-1.1	4
226	232	SLE-INV	Max	-0.55	-5.08	0.94	-0.7039	-0.8014	-0.9415	-1.1	3.6
226	272	SLE-INV	Min	-0.6	-5.09	0.97	-0.9516	-1.4076	-1.8835	-3.27	1.53
226	271	SLE-INV	Min	-0.67	-5.43	0.85	-1.3303	-1.4748	-1.8303	-3.27	1.74
226	231	SLE-INV	Min	-0.62	-5.42	0.82	-1.1313	-0.8819	-1.8191	-2.76	1.74
226	232	SLE-INV	Min	-0.55	-5.08	0.94	-0.7465	-0.847	-1.8723	-2.76	1.53
226	272	SLU-INV	Max	-0.6	-5.09	1.31	-1.1139	-1.4944	-1.2636	-1.84	9.4
226	271	SLU-INV	Max	-0.67	-5.43	1.11	-1.3211	-1.5456	-1.2047	-1.84	10.28
226	231	SLU-INV	Max	-0.62	-5.42	1.11	-1.1653	-0.9152	-1.2122	-1.49	10.28
226	232	SLU-INV	Max	-0.55	-5.08	1.27	-0.9502	-0.8078	-1.271	-1.49	9.4
226	272	SLU-INV	Min	-0.81	-6.87	0.87	-1.7189	-2.3835	-4.293	-7.32	2.07
226	271	SLU-INV	Min	-0.9	-7.33	0.85	-2.5771	-2.4901	-4.1923	-7.32	2.34
226	231	SLU-INV	Min	-0.84	-7.32	0.82	-2.0782	-1.1906	-4.1049	-6.2	2.34
226	232	SLU-INV	Min	-0.75	-6.86	0.94	-1.2227	-1.1434	-4.2256	-6.2	2.07
227	273	SLE-INV	Max	-0.65	-4.68	1.25	-0.7108	-1.0325	-0.9424	-2.07	3.17
227	272	SLE-INV	Max	-0.74	-5.12	1.11	-0.9571	-1.1225	-0.9177	-2.07	3.62
227	232	SLE-INV	Max	-0.69	-5.11	1.06	-0.8768	-0.8911	-0.9597	-1.77	3.62
227	233	SLE-INV	Max	-0.61	-4.67	1.2	-0.574	-0.7569	-0.9844	-1.77	3.17
227	273	SLE-INV	Min	-0.65	-4.68	1.25	-0.7166	-1.2995	-1.8766	-4.25	1.31
227	272	SLE-INV	Min	-0.74	-5.12	1.11	-1.2111	-1.4361	-1.8594	-4.25	1.54
227	232	SLE-INV	Min	-0.69	-5.11	1.06	-1.0786	-0.8925	-1.8964	-3.68	1.54
227	233	SLE-INV	Min	-0.61	-4.67	1.2	-0.6307	-0.8055	-1.9136	-3.68	1.31
227	273	SLU-INV	Max	-0.65	-4.68	1.68	-0.9587	-1.3939	-1.2722	-2.79	8.45
227	272	SLU-INV	Max	-0.74	-5.12	1.5	-1.2921	-1.5154	-1.2389	-2.79	9.47
227	232	SLU-INV	Max	-0.69	-5.11	1.43	-1.1837	-0.9995	-1.2956	-2.39	9.47
227	233	SLU-INV	Max	-0.61	-4.67	1.61	-0.7663	-0.7631	-1.329	-2.39	8.45
227	273	SLU-INV	Min	-0.88	-6.32	1.25	-1.1477	-2.1995	-4.2917	-9.28	1.77
227	272	SLU-INV	Min	-1	-6.91	1.11	-2.2477	-2.432	-4.251	-9.28	2.08
227	232	SLU-INV	Min	-0.94	-6.89	1.06	-1.895	-1.2048	-4.2677	-8	2.08
227	233	SLU-INV	Min	-0.82	-6.31	1.2	-0.8514	-1.0874	-4.3084	-8	1.77
228	274	SLE-INV	Max	-0.74	-4.2	1.56	-0.3494	-0.9047	-0.9237	-2.92	2.7
228	273	SLE-INV	Max	-0.85	-4.72	1.4	-0.8717	-1.0514	-0.9236	-2.92	3.2
228	233	SLE-INV	Max	-0.81	-4.71	1.33	-0.8354	-0.8575	-1.0033	-2.6	3.2
228	234	SLE-INV	Max	-0.7	-4.19	1.48	-0.2965	-0.6475	-1.0034	-2.6	2.7
228	274	SLE-INV	Min	-0.74	-4.2	1.56	-0.5237	-1.1199	-1.8256	-5.42	1.07
228	273	SLE-INV	Min	-0.85	-4.72	1.4	-0.997	-1.33	-1.8527	-5.42	1.33
228	233	SLE-INV	Min	-0.81	-4.71	1.33	-0.9436	-0.8586	-1.9378	-4.79	1.33
228	234	SLE-INV	Min	-0.7	-4.19	1.48	-0.4833	-0.7141	-1.9107	-4.79	1.07
228	274	SLU-INV	Max	-0.74	-4.2	2.1	-0.3318	-1.2214	-1.247	-3.95	7.38
228	273	SLU-INV	Max	-0.85	-4.72	1.89	-1.1769	-1.4194	-1.2469	-3.95	8.54
228	233	SLU-INV	Max	-0.81	-4.71	1.79	-1.1278	-0.9781	-1.3545	-3.51	8.54
228	234	SLU-INV	Max	-0.7	-4.19	2	-0.1782	-0.604	-1.3546	-3.51	7.38
228	274	SLU-INV	Min	-1	-5.67	1.56	-0.7071	-1.8833	-4.1923	-11.59	1.44
228	273	SLU-INV	Min	-1.14	-6.37	1.4	-1.7203	-2.2469	-4.2512	-11.59	1.79
228	233	SLU-INV	Min	-1.09	-6.36	1.33	-1.5439	-1.1591	-4.3501		

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS 016700	Id.doc REL	N.prog. 01	REV. A	Pag.di.Pag. 142 di 174			
229	234	SLE-INV	Max	-0.97	-4.25	1.64	-0.6967	-0.7572	-1.0216	-3.61	2.74
229	235	SLE-INV	Max	-0.84	-3.64	1.82	0.1206	-0.4681	-0.9882	-3.61	2.19
229	275	SLE-INV	Min	-0.87	-3.65	1.92	-0.2147	-0.8637	-1.7182	-6.82	0.81
229	274	SLE-INV	Min	-0.99	-4.25	1.74	-0.6933	-1.1503	-1.803	-6.82	1.08
229	234	SLE-INV	Min	-0.97	-4.25	1.64	-0.7148	-0.7734	-1.9337	-6.13	1.08
229	235	SLE-INV	Min	-0.84	-3.64	1.82	-0.2341	-0.5681	-1.8489	-6.13	0.81
229	275	SLU-INV	Max	-0.87	-3.65	2.6	0.7997	-0.9708	-1.1774	-5.34	6.19
229	274	SLU-INV	Max	-0.99	-4.25	2.35	-0.8704	-1.2495	-1.2226	-5.34	7.48
229	234	SLU-INV	Max	-0.97	-4.25	2.21	-0.9379	-0.8396	-1.3792	-4.87	7.48
229	235	SLU-INV	Max	-0.84	-3.64	2.46	0.7187	-0.3223	-1.334	-4.87	6.19
229	275	SLU-INV	Min	-1.17	-4.92	1.92	-0.2898	-1.4253	-3.9689	-14.29	1.09
229	274	SLU-INV	Min	-1.34	-5.74	1.74	-0.9359	-1.9253	-4.1541	-14.29	1.46
229	234	SLU-INV	Min	-1.3	-5.73	1.64	-0.9709	-1.0441	-4.3307	-12.66	1.46
229	235	SLU-INV	Min	-1.14	-4.91	1.82	-0.3161	-0.767	-4.1455	-12.66	1.09
230	276	SLE-INV	Max	-1.03	-3.03	2.35	0.9074	-0.4754	-0.7815	-5.19	1.66
230	275	SLE-INV	Max	-1.17	-3.71	2.13	-0.1249	-0.74	-0.8577	-5.19	2.23
230	235	SLE-INV	Max	-1.17	-3.71	2	-0.2945	-0.5834	-1.0031	-4.84	2.23
230	236	SLE-INV	Max	-1.04	-3.03	2.22	0.7234	-0.2172	-0.9269	-4.84	1.66
230	276	SLE-INV	Min	-1.03	-3.03	2.35	0.2496	-0.5317	-1.5432	-8.45	0.54
230	275	SLE-INV	Min	-1.17	-3.71	2.13	-0.3868	-0.8911	-1.7007	-8.45	0.83
230	235	SLE-INV	Min	-1.17	-3.71	2	-0.4797	-0.6308	-1.8673	-7.72	0.83
230	236	SLE-INV	Min	-1.04	-3.03	2.22	0.155	-0.3655	-1.7098	-7.72	0.54
230	276	SLU-INV	Max	-1.03	-3.03	3.17	2.3378	-0.6417	-1.055	-7.01	4.9
230	275	SLU-INV	Max	-1.17	-3.71	2.88	0.213	-0.9989	-1.1579	-7.01	6.3
230	235	SLU-INV	Max	-1.17	-3.71	2.7	-0.1042	-0.5733	-1.3542	-6.53	6.3
230	236	SLU-INV	Max	-1.04	-3.03	2.99	1.9612	0.0838	-1.2513	-6.53	4.9
230	276	SLU-INV	Min	-1.39	-4.09	2.35	0.337	-0.8272	-3.5932	-17.41	0.73
230	275	SLU-INV	Min	-1.58	-5	2.13	-0.5222	-1.4562	-3.94	-17.41	1.11
230	235	SLU-INV	Min	-1.59	-5	2	-0.6476	-0.8516	-4.1768	-15.64	1.11
230	236	SLU-INV	Min	-1.4	-4.09	2.22	0.2092	-0.4934	-3.83	-15.64	0.73
231	277	SLE-INV	Max	-1.23	-2.36	2.86	1.9123	-0.1252	-0.6436	-6.65	1.11
231	276	SLE-INV	Max	-1.37	-3.1	2.59	0.6335	-0.4934	-0.7728	-6.65	1.7
231	236	SLE-INV	Max	-1.43	-3.11	2.44	0.3156	-0.3329	-0.936	-6.31	1.7
231	237	SLE-INV	Max	-1.28	-2.37	2.71	1.5702	0.1056	-0.8069	-6.31	1.11
231	277	SLE-INV	Min	-1.23	-2.36	2.86	0.9183	-0.1758	-1.2851	-10.36	0.29
231	276	SLE-INV	Min	-1.37	-3.1	2.59	0.0935	-0.5523	-1.5323	-10.36	0.56
231	236	SLE-INV	Min	-1.43	-3.11	2.44	-0.0857	-0.4268	-1.7219	-9.62	0.56
231	237	SLE-INV	Min	-1.28	-2.37	2.71	0.7328	-0.1064	-1.4747	-9.62	0.29
231	277	SLU-INV	Max	-1.23	-2.36	3.86	4.3804	-0.0877	-0.8689	-8.98	3.54
231	276	SLU-INV	Max	-1.37	-3.1	3.5	1.7934	-0.6661	-1.0433	-8.98	5.02
231	236	SLU-INV	Max	-1.43	-3.11	3.29	1.1438	-0.1752	-1.2637	-8.52	5.02
231	237	SLU-INV	Max	-1.28	-2.37	3.66	3.6474	0.6175	-1.0893	-8.52	3.54
231	277	SLU-INV	Min	-1.65	-3.18	2.86	1.2397	-0.2374	-3.0277	-21.02	0.39
231	276	SLU-INV	Min	-1.85	-4.18	2.59	0.1262	-0.8406	-3.5736	-21.02	0.76
231	236	SLU-INV	Min	-1.93	-4.19	2.44	-0.1157	-0.5762	-3.8524	-19.14	0.76
231	237	SLU-INV	Min	-1.73	-3.2	2.71	0.9892	-0.1436	-3.3065	-19.14	0.39
232	278	SLE-INV	Max	-1.45	-1.67	3.43	3.2633	0.3403	-0.4569	-8.36	0.6
232	277	SLE-INV	Max	-1.6	-2.43	3.18	1.6948	-0.134	-0.6468	-8.36	1.16
232	237	SLE-INV	Max	-1.73	-2.46	3	1.2039	-0.0023	-0.8045	-8.08	1.16
232	238	SLE-INV	Max	-1.58	-1.69	3.25	2.7343	0.4903	-0.6146	-8.08	0.6
232	278	SLE-INV	Min	-1.45	-1.67	3.43	1.8521	0.1678	-0.9343	-12.58	0.07967
232	277	SLE-INV	Min	-1.6	-2.43	3.18	0.8037	-0.1869	-1.289	-12.58	0.31
232	237	SLE-INV	Min	-1.73	-2.46	3	0.5283	-0.1591	-1.4725	-11.87	0.31
232	238	SLE-INV	Min	-1.58	-1.69	3.25	1.5636	0.2017	-1.1178	-11.87	0.07967
232	278	SLU-INV	Max	-1.45	-1.67	4.63	7.059	0.7681	-0.6168	-11.29	2.14
232	277	SLU-INV	Max	-1.6	-2.43	4.29	3.9341	-0.0748	-0.8732	-11.29	3.67
232	237	SLU-INV	Max	-1.73	-2.46	4.05	2.882	0.3623	-1.0861	-10.9	3.67
232	238	SLU-INV	Max	-1.58	-1.69	4.39	5.898	0.0515	-0.8298	-10.9	2.14
232	278	SLU-INV	Min	-1.95	-2.25	3.43	2.5003	0.2265	-2.2393	-25.15	0.11
232	277	SLU-INV	Min	-2.16	-3.29	3.18	1.085	-0.2523	-3.0327	-25.15	0.41
232	237	SLU-INV	Min	-2.34	-3.32	3	0.7132	-0.2148	-3.3054	-23.23	0.41
232	238	SLU-INV	Min	-2.13	-2.29	3.25	2.1109	0.2723	-2.5121	-23.23	0.11
233	279	SLE-INV	Max	-1.69	-0.97	4.41	5.0477	0.8502	-0.2201	-10.34	0.16
233	278	SLE-INV	Max	-1.84	-1.75	3.62	3.1432	0.35	-0.4746	-10.34	0.64
233	238	SLE-INV	Max	-2.06	-1.79	3.44	2.4576	0.4013	-0.5979	-10.16	0.64
233	239	SLE-INV	Max	-1.9	-1.01	4.23	4.3088	0.9273	-0.3434	-10.16	0.16
233	279	SLE-INV	Min	-1.69	-0.97	4.41	3.1237	0.5408	-0.4761	-15.12	-0.051
233	278	SLE-INV	Min	-1.84	-1.75	3.62	1.8136	0.1693	-0.9541	-15.12	0.09174
233	238	SLE-INV	Min	-2.06	-1.79	3.44	1.4386	0.1675	-1.0998	-14.51	0.09174
233	239	SLE-INV	Min	-1.9	-1.01	4.23	2.7279	0.5491	-0.6218	-14.51	-0.051
233	279	SLU-INV	Max	-1.69	-0.97	5.95	10.5152	1.7233	-0.2971	-13.96	0.78
233	278	SLU-INV	Max	-1.84	-1.75	4.88	6.7732	0.8178	-0.6407	-13.96	2.28
233	238	SLU-INV	Max	-2.06	-1.79	4.65	5.2469	1.026	-0.8072	-13.72	2.28
233	239	SLU-INV	Max	-1.9	-1.01	5.71	8.8352	2.0957	-0.4636	-13.72	0.78
233	279	SLU-INV	Min	-2.27	-1.31	4.41	4.217	0.7301	-1.1777	-29.86	-0.06885
233	278	SLU-INV	Min	-2.49	-2.36	3.62	2.4484	0.2285	-2.2668	-29.86	0.12
233	238	SLU-INV	Min	-2.78	-2.42	3.44	1.9421	0.2261	-2.489	-27.97	0.12
233	239	SLU-INV	Min	-2.57	-1.36	4.23	3.6827	0.7413	-1.3999	-27.97	-0.06885
234	240	SLE-INV	Max	-2.24	-0.45	3.07	6.177	1.3406	-0.0257	-12.47	-0.05949
234	280	SLE-INV	Max	-1.93	-0.39	3.32	7.1308	1.321	0.0229	-12.5	-0.05949
234	279	SLE-INV	Max	-2.06	-1.04	5.83	5.0657	0.8835	-0.2586	-12.5	0.2
234	239	SLE-INV	Max	-2.37	-1.1	5.58	4.1937	0.8746	-0.3061	-12.47	0.2
234	240	SLE-INV	Min	-2.24	-0.45	3.07	4.1549	0.8787	-0.0326	-17.41	-0.13
234	280	SLE-INV	Min	-1.93	-0.39	3.32	4.6434	0.881	0.0217	-17.87	-0.13
234	279	SLE-INV	Min	-2.06	-1.04	5.83	3.1934	0.5601	-0.5224	-17.87	-0.04335
234	239	SLE-INV	Min	-2.37	-1.1	5.58	2.739	0.5459	-0.5779	-17.41	-0.04335
234	240	SLU-INV	Max	-2.24	-0.45	4.14	12.2283	2.7132	-0.0348	-16.84	-0.08031
234	280	SLU-INV	Max	-1.93	-0.39	4.48	14.4741	2.6273	0.0311	-16.87	-0.08031
234	279	SLU-INV	Max	-2.06	-1.04	7.87	10.4574	1.8151	-0.3491	-16.87	0.92
234	239	SLU-INV	Max	-2.37	-1.1	7.53	8.437	1.8226	-0.4132	-16.84	0.92
234	240	SLU-INV	Min	-3.02	-0.6	3.07	5.6091	1.1862	-0.0552	-33.14	-0.33
234	280	SLU-INV	Min	-2.6	-0.52	3.32	6.2686	1.1893	0.0287	-34.89	-0.33
234	279	SLU-INV	Min	-2.78	-1.1	5.83	4.3111	0.7562	-1.2496	-34.89	-0.05852
234	239	SLU-INV	Min	-3.2	-1.49	5.58	3.6976	0.737	-1.3335	-33.14	-0.05852
235	281	SLE-INV	Max	-0.02897	-0.005794	-2.9	6.4612	1.1891	0.0199	11.52	-0.03638
235	241	SLE-INV	Max	-0.8	-0.16	-2.83	5.5047	1.2041	-0.0003756	11.46	-0.03638
235	242	SLE-INV	Max	-0.87	-0.51	-4.96	3.8121	0.8588	0.7103	11.46	-0.06798
235	282	SLE-INV	Max	-0.0997	-0.36	-5.03	4.6944	0.9054	0.7376	11.52	-0.06798
235	281	SLE-INV	Min	-0.02897	-0.005794	-2.9	3.132	0.5976	0.0046	5.88	-0.13
235	241	SLE-INV	Min	-0.8	-0.16	-2.83	2.7617	0.5812	-0.0074	6.16	-0.13
235	242	SLE-INV	Min	-0.87	-0.51	-4.96	1.8676	0.3954	0.2757	6.16	-0.3
235	282	SLE-INV	Min	-0.0997	-0.36	-5.03	2.213	0.4328	0.2807	5.88	-0.3
235	281	SLU-INV	Max	-0.02897	-0.005794	-2.9	14.1544	2.5552	0.0559	24.5	-0.04911
235	241	SLU-INV	Max	-0.8	-0.16	-2.83	11.8345	2.6425	-0.000507	23.63	-0.04911
235	242	SLU-INV	Max	-0.87							



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 143 di 174				
236	282	SLE-INV	Max	0.05131	-0.33	-3.7	4.6228	0.8748	0.7138	10.12	-0.09208	-0.09208
236	242	SLE-INV	Max	-0.58	-0.46	-3.65	3.9455	0.9017	0.7305	9.85	-0.09208	-0.09208
236	243	SLE-INV	Max	-0.71	-1.12	-2.97	2.4684	0.5614	1.2416	9.85	0.16	0.16
236	282	SLE-INV	Min	-0.08154	-0.99	-3.03	1.4331	0.2663	0.4869	5.2	-0.36	-0.36
236	282	SLE-INV	Min	0.05131	-0.33	-3.7	2.2298	0.4445	0.2652	5.2	-0.29	-0.29
236	242	SLE-INV	Min	-0.58	-0.46	-3.65	1.9282	0.3921	0.2898	5.27	-0.29	-0.29
236	243	SLE-INV	Min	-0.71	-1.12	-2.97	1.148	0.2072	0.5114	5.27	-0.36	-0.36
236	283	SLU-INV	Max	-0.08154	-0.99	-3.03	6.9531	1.3048	2.9441	21.44	1.37	1.37
236	282	SLU-INV	Max	0.06927	-0.33	-3.7	10.1677	1.8732	1.7588	21.44	0.36	0.36
236	242	SLU-INV	Max	-0.58	-0.46	-3.65	8.6153	2.067	1.7545	20.37	0.36	0.36
236	243	SLU-INV	Max	-0.71	-1.12	-2.97	5.5343	1.3883	2.9398	20.37	1.37	1.37
236	283	SLU-INV	Min	-0.11	-1.34	-4.09	1.9347	0.3595	0.6573	7.02	-0.49	-0.49
236	282	SLU-INV	Min	0.05131	-0.44	-5	3.0103	0.6	0.3581	7.02	-0.39	-0.39
236	242	SLU-INV	Min	-0.79	-0.62	-4.92	2.6031	0.5388	0.3912	7.12	-0.39	-0.39
236	243	SLU-INV	Min	-0.96	-1.51	-4.01	1.5498	0.2797	0.6904	7.12	-0.49	-0.49
237	284	SLE-INV	Max	-0.06238	-1.72	-2.47	1.787	0.3246	1.5974	8.81	0.48	0.48
237	283	SLE-INV	Max	0.0898	-0.96	-2.79	3.1069	0.5542	1.2378	8.81	0.13	0.13
237	243	SLE-INV	Max	-0.38	-1.05	-2.72	2.636	0.6206	1.2274	8.43	0.13	0.13
237	244	SLE-INV	Max	-0.53	-1.81	-2.4	1.3593	0.3554	1.587	8.43	0.48	0.48
237	284	SLE-INV	Min	-0.06238	-1.72	-2.47	0.8049	0.1271	0.6616	4.56	-0.31	-0.31
237	283	SLE-INV	Min	0.0898	-0.96	-2.79	1.4935	0.2779	0.4899	4.56	-0.36	-0.36
237	243	SLE-INV	Min	-0.38	-1.05	-2.72	1.2566	0.2294	0.508	4.5	-0.36	-0.36
237	244	SLE-INV	Min	-0.53	-1.81	-2.4	0.5816	0.0672	0.6797	4.5	-0.31	-0.31
237	284	SLE-INV	Max	-0.06238	-1.72	-2.47	4.0865	0.796	3.7788	18.62	2.31	2.31
237	283	SLU-INV	Max	0.12	-0.96	-2.79	6.8613	1.2024	2.9804	18.62	1.25	1.25
237	243	SLU-INV	Max	-0.38	-1.05	-2.72	5.8432	1.5342	2.9003	17.5	1.25	1.25
237	244	SLU-INV	Max	-0.53	-1.81	-2.4	3.18	1.0358	3.6988	17.5	2.31	2.31
237	284	SLU-INV	Min	-0.08421	-2.32	-3.34	1.0866	0.1715	0.8932	6.15	-0.42	-0.42
237	283	SLU-INV	Min	0.0898	-1.29	-3.77	2.0163	0.3752	0.6613	6.15	-0.49	-0.49
237	243	SLU-INV	Min	-0.52	-1.42	-3.67	1.6965	0.3096	0.6857	6.08	-0.49	-0.49
237	244	SLU-INV	Min	-0.72	-2.45	-3.24	0.7852	0.0908	0.9176	6.08	-0.42	-0.42
238	285	SLE-INV	Max	-0.05602	-2.39	-1.77	0.7218	0.0614	1.7477	7.65	0.86	0.86
238	284	SLE-INV	Max	0.08413	-1.69	-2.08	1.8552	0.316	1.5719	7.65	0.45	0.45
238	244	SLE-INV	Max	-0.26	-1.76	-2.08	1.6369	0.4331	1.6104	7.21	0.45	0.45
238	245	SLE-INV	Max	-0.4	-2.46	-1.78	0.5329	0.1542	1.7863	7.21	0.86	0.86
238	285	SLE-INV	Min	-0.05602	-2.39	-1.77	0.3004	-0.0168	0.7466	3.97	-0.19	-0.19
238	284	SLE-INV	Min	0.08413	-1.69	-2.08	0.8926	0.1422	0.6503	3.97	-0.32	-0.32
238	244	SLE-INV	Min	-0.26	-1.76	-2.08	0.7573	0.1048	0.6901	3.84	-0.32	-0.32
238	245	SLE-INV	Min	-0.4	-2.46	-1.78	0.1735	-0.0609	0.7865	3.84	-0.19	-0.19
238	285	SLE-INV	Max	-0.05602	-2.39	-1.77	1.734	0.2624	4.0848	16.13	3.29	3.29
238	284	SLU-INV	Max	0.11	-1.99	-2.08	4.1142	0.7385	3.7205	16.13	2.22	2.22
238	244	SLU-INV	Max	-0.26	-1.76	-2.08	3.6977	1.2073	2.7521	15	2.22	2.22
238	245	SLU-INV	Max	-0.4	-2.46	-1.78	1.3937	0.6716	4.1165	15	3.29	3.29
238	285	SLU-INV	Min	-0.07563	-3.23	-2.39	0.4056	-0.0226	1.0079	5.36	-0.26	-0.26
238	284	SLU-INV	Min	0.08413	-2.28	-2.81	1.205	0.1919	0.8779	5.36	-0.43	-0.43
238	244	SLU-INV	Min	-0.35	-2.38	-2.81	1.0224	0.1415	0.9317	5.18	-0.43	-0.43
238	245	SLU-INV	Min	-0.54	-3.32	-2.4	0.2342	-0.0822	1.0617	5.18	-0.26	-0.26
239	286	SLE-INV	Max	-0.19	-2.93	-1.17	-0.0076	-0.1364	1.8606	6.61	1.24	1.24
239	285	SLE-INV	Max	-0.08069	-2.4	-1.45	0.966	0.0755	1.7463	6.61	0.82	0.82
239	245	SLE-INV	Max	-0.2	-2.42	-1.5	0.8406	0.2505	1.7871	6.16	0.82	0.82
239	246	SLE-INV	Max	-0.31	-2.95	-1.22	-0.1082	0.0025	1.9013	6.16	1.24	1.24
239	286	SLE-INV	Min	-0.19	-2.93	-1.17	-0.0441	-0.1522	0.8151	3.45	-0.03837	-0.03837
239	285	SLE-INV	Min	-0.08069	-2.4	-1.45	0.465	0.0057	0.747	3.45	-0.21	-0.21
239	245	SLE-INV	Min	-0.2	-2.42	-1.5	0.3708	-0.0111	0.7858	3.27	-0.21	-0.21
239	246	SLE-INV	Min	-0.31	-2.95	-1.22	-0.1317	-0.1586	0.854	3.27	-0.03837	-0.03837
239	286	SLU-INV	Max	-0.19	-2.93	-1.17	0.1183	-0.1632	4.3055	13.93	4.21	4.21
239	285	SLU-INV	Max	-0.08069	-2.4	-1.45	2.1659	0.2581	4.0792	13.93	3.17	3.17
239	245	SLU-INV	Max	-0.2	-2.42	-1.5	1.8615	0.8764	4.1205	12.83	3.17	3.17
239	246	SLU-INV	Max	-0.31	-2.95	-1.22	-0.0194	0.4003	4.3469	12.83	4.21	4.21
239	286	SLU-INV	Min	-0.25	-3.95	-1.58	-0.0595	-0.2079	1.1004	4.65	-0.0518	-0.0518
239	285	SLU-INV	Min	-0.11	-3.24	-1.96	0.6278	0.0077	1.0084	4.65	-0.28	-0.28
239	245	SLU-INV	Min	-0.27	-3.27	-2.03	0.5006	-0.0149	1.0609	4.42	-0.28	-0.28
239	246	SLU-INV	Min	-0.41	-3.98	-1.64	-0.1777	-0.2141	1.1529	4.42	-0.0518	-0.0518
240	287	SLE-INV	Max	-0.34	-3.33	-0.74	-0.3043	-0.2293	1.8775	5.69	1.62	1.62
240	286	SLE-INV	Max	-0.26	-2.94	-0.94	0.2657	-0.1101	1.8664	5.69	1.21	1.21
240	246	SLE-INV	Max	-0.23	-2.93	-0.99	0.2881	0.109	1.8944	5.25	1.21	1.21
240	247	SLE-INV	Max	-0.3	-3.32	-0.79	-0.3258	-0.0941	1.9055	5.25	1.62	1.62
240	287	SLE-INV	Min	-0.34	-3.33	-0.74	-0.5665	-0.3138	0.8385	2.98	0.13	0.13
240	286	SLE-INV	Min	-0.26	-2.94	-0.94	0.1316	-0.1248	0.8192	2.98	-0.04965	-0.04965
240	246	SLE-INV	Min	-0.23	-2.93	-0.99	0.1065	-0.1021	0.8494	2.79	-0.04965	-0.04965
240	247	SLE-INV	Min	-0.3	-3.32	-0.79	-0.5268	-0.2243	0.8686	2.79	0.13	0.13
240	287	SLU-INV	Max	-0.34	-3.33	-0.74	-0.4109	-0.3095	4.3136	11.98	5.08	5.08
240	286	SLU-INV	Max	-0.26	-2.94	-0.94	0.6245	-0.132	4.3153	11.98	4.12	4.12
240	246	SLU-INV	Max	-0.23	-2.93	-0.99	0.7493	0.6241	4.3346	10.96	4.12	4.12
240	247	SLU-INV	Max	-0.3	-3.32	-0.79	-0.4398	0.2378	4.3399	10.96	5.08	5.08
240	287	SLU-INV	Min	-0.46	-4.49	-0.99	-1.1263	-0.4786	1.1319	4.02	0.18	0.18
240	286	SLU-INV	Min	-0.35	-3.97	-1.26	0.1777	-0.1707	1.1059	4.02	-0.06703	-0.06703
240	246	SLU-INV	Min	-0.31	-3.96	-1.33	0.1437	-0.1378	1.1467	3.76	-0.06703	-0.06703
240	247	SLU-INV	Min	-0.41	-4.49	-1.06	-0.9529	-0.3028	1.1727	3.76	0.18	0.18
241	288	SLE-INV	Max	-0.49	-3.63	-0.4	-0.4724	-0.3021	1.8459	4.89	1.98	1.98
241	287	SLE-INV	Max	-0.44	-3.35	-0.56	-0.0987	-0.1997	1.8785	4.89	1.58	1.58
241	247	SLE-INV	Max	-0.29	-3.32	-0.62	-0.0889	0.0158	1.9041	4.47	1.58	1.58
241	248	SLE-INV	Max	-0.34	-3.6	-0.46	-0.4598	-0.1595	1.8715	4.47	1.98	1.98
241	288	SLE-INV	Min	-0.49	-3.63	-0.4	-0.9321	-0.4387	0.837	2.57	0.3	0.3
241	287	SLE-INV	Min	-0.44	-3.35	-0.56	-0.2206	-0.275	0.8406	2.57	0.12	0.12
241	247	SLE-INV	Min	-0.29	-3.32	-0.62	-0.1292	-0.1654	0.8664	2.38	0.12	0.12
241	248	SLE-INV	Min	-0.34	-3.6	-0.46	-0.8264	-0.2699	0.8628	2.38	0.3	0.3
241	288	SLU-INV	Max	-0.49	-3.63	-0.4	-0.6377	-0.4078	4.2193	10.28	5.86	5.86
241	287	SLU-INV	Max	-0.44	-3.35	-0.56	-0.1333	-0.2696	4.3122	10.28	4.98	4.98
241	247	SLU-INV	Max	-0.29	-3.32	-0.62	-0.12	0.4677	4.3334	9.35	4.98	4.98
241	248	SLU-INV	Max	-0.34	-3.6	-0.46	-0.6207	0.1323	4.2405	9.35	5.86	5.86
241	288	SLU-INV	Min	-0.67	-4.9	-0.53	-1.944	-0.7191	1.1299	3.47	0.4	0.4
241	287	SLU-INV	Min	-0.59	-4.52	-0.75	-0.4464	-0.4169	1.1348	3.47	0.16	0.16
241	247	SLU-INV	Min	-0.39	-4.48	-0.84	-0.1804	-0.2233	1.1697	3.21	0.16	0.16
241	248	SLU-INV	Min	-0.46	-4.86	-0.62	-1.6318	-0.3644	1.1648	3.21	0.4	0.4
242	289	SLE-INV	Max	-0.62	-3.84	-0.18	-0.5867	-0.3508	1.764	4.18	2.3	2.3
242	288	SLE-INV	Max	-0.58	-3.65	-0.28	-0.2673	-0.271	1.8545	4.18	1.94	1.94
242	248	SLE-INV	Max	-0.37	-3.61	-0.33	-0.2148	-0.0499	1.8622	3.8	1.94	1.94

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	144 di 174			
243	290	SLE-INV	Max	-0.72	-4	-0.01813	-0.6501	-0.3854	1.6487	3.57	2.59
243	289	SLE-INV	Max	-0.7	-3.86	-0.09371	-0.3767	-0.3192	1.7656	3.57	2.27
243	249	SLE-INV	Max	-0.46	-3.81	-0.14	-0.3012	-0.0771	1.77	3.23	2.27
243	250	SLE-INV	Max	-0.49	-3.95	-0.06839	-0.5742	-0.1873	1.6531	3.23	2.59
243	290	SLE-INV	Min	-0.72	-4	-0.01813	-1.3337	-0.5729	0.7651	1.9	0.61
243	289	SLE-INV	Min	-0.7	-3.86	-0.09371	-0.8183	-0.4689	0.8123	1.9	0.45
243	249	SLE-INV	Min	-0.46	-3.81	-0.14	-0.5953	-0.2348	0.8227	1.73	0.45
243	250	SLE-INV	Min	-0.49	-3.95	-0.06839	-1.1031	-0.3012	0.7766	1.73	0.61
243	290	SLE-INV	Max	-0.72	-4	-0.01813	-0.8777	-0.5203	3.7465	7.5	7.19
243	289	SLE-INV	Max	-0.7	-3.86	-0.09371	-0.5086	-0.4309	4.0183	7.5	6.49
243	249	SLE-INV	Max	-0.46	-3.81	-0.14	-0.4067	0.3328	4.0048	6.76	6.49
243	250	SLE-INV	Max	-0.49	-3.95	-0.06839	-0.7751	0.1241	3.7329	6.76	7.19
243	290	SLE-INV	Min	-0.98	-5.4	-0.02448	-2.8549	-0.9616	1.0343	2.56	0.82
243	289	SLE-INV	Min	-0.94	-5.21	-0.13	-1.7692	-0.7723	1.0965	2.56	0.6
243	249	SLE-INV	Min	-0.62	-5.15	-0.19	-1.2155	-0.317	1.1107	2.33	0.6
243	250	SLE-INV	Min	-0.66	-5.33	-0.09233	-2.2772	-0.4067	1.0484	2.33	0.82
244	291	SLE-INV	Max	-0.8	-4.1	0.07265	-0.6838	-0.404	1.5076	3.03	2.84
244	290	SLE-INV	Max	-0.78	-4.01	0.0291	-0.4502	-0.3543	1.6551	3.03	2.56
244	250	SLE-INV	Max	-0.55	-3.96	-0.005605	-0.3503	-0.0881	1.6465	2.73	2.56
244	251	SLE-INV	Max	-0.57	-4.05	0.03794	-0.5845	-0.167	1.499	2.73	2.84
244	291	SLE-INV	Min	-0.8	-4.1	0.07265	-1.4178	-0.5978	0.7088	1.63	0.74
244	290	SLE-INV	Min	-0.78	-4.01	0.0291	-0.9812	-0.5227	0.7701	1.63	0.6
244	250	SLE-INV	Min	-0.55	-3.96	-0.005605	-0.7089	-0.2476	0.7725	1.48	0.6
244	251	SLE-INV	Min	-0.57	-4.05	0.03794	-1.1408	-0.2966	0.7112	1.48	0.74
244	291	SLE-INV	Max	-0.8	-4.1	0.09808	-0.9232	-0.5453	3.4208	6.38	7.74
244	290	SLE-INV	Max	-0.78	-4.01	0.03929	-0.6078	-0.4783	3.7583	6.38	7.13
244	250	SLE-INV	Max	-0.55	-3.96	-0.005605	-0.4729	0.3325	3.7205	5.73	7.13
244	251	SLE-INV	Max	-0.57	-4.05	0.05122	-0.7891	0.1865	3.3829	5.73	7.74
244	291	SLE-INV	Min	-1.08	-5.53	0.07265	-3.0517	-0.9968	0.9569	2.2	1
244	290	SLE-INV	Min	-1.05	-5.41	0.0291	-2.132	-0.8643	1.0397	2.2	0.8
244	250	SLE-INV	Min	-0.74	-5.35	-0.007567	-1.4718	-0.3342	1.0428	1.99	0.8
244	251	SLE-INV	Min	-0.76	-5.47	0.03794	-2.3748	-0.4004	0.9601	1.99	1
245	292	SLE-INV	Max	-0.85	-4.17	0.13	-0.6917	-0.4148	1.3473	2.57	3.07
245	291	SLE-INV	Max	-0.84	-4.11	0.11	-0.4918	-0.374	1.5079	2.57	2.82
245	251	SLE-INV	Max	-0.62	-4.06	0.07366	-0.3789	-0.0759	1.4987	2.31	2.82
245	252	SLE-INV	Max	-0.63	-4.13	0.1	-0.5798	-0.1402	1.3381	2.31	3.07
245	292	SLE-INV	Min	-0.85	-4.17	0.13	-1.4462	-0.6101	0.6417	1.4	0.86
245	291	SLE-INV	Min	-0.84	-4.11	0.11	-1.0771	-0.5484	0.7098	1.4	0.73
245	251	SLE-INV	Min	-0.62	-4.06	0.07366	-0.7797	-0.247	0.7102	1.26	0.73
245	252	SLE-INV	Min	-0.63	-4.13	0.1	-1.1454	-0.287	0.6421	1.26	0.86
245	292	SLE-INV	Max	-0.85	-4.17	0.18	-0.9338	-0.56	3.0549	5.4	8.21
245	291	SLE-INV	Max	-0.84	-4.11	0.14	-0.6639	-0.5049	3.4194	5.4	7.68
245	251	SLE-INV	Max	-0.62	-4.06	0.09945	-0.5115	0.3782	3.3843	4.84	7.68
245	252	SLE-INV	Max	-0.63	-4.13	0.14	-0.7828	0.2587	3.0198	4.84	8.21
245	292	SLE-INV	Min	-1.15	-5.63	0.13	-3.1237	-1.0082	0.8663	1.89	1.16
245	291	SLE-INV	Min	-1.14	-5.54	0.11	-2.3463	-0.8991	0.9583	1.89	0.99
245	251	SLE-INV	Min	-0.84	-5.48	0.07366	-1.6334	-0.3335	0.9587	1.7	0.99
245	252	SLE-INV	Min	-0.85	-5.57	0.1	-2.398	-0.3874	0.8668	1.7	1.16
246	293	SLE-INV	Max	-0.89	-4.21	0.16	-0.686	-0.4174	1.1752	2.17	3.26
246	292	SLE-INV	Max	-0.88	-4.18	0.15	-0.515	-0.3866	1.3504	2.17	3.05
246	252	SLE-INV	Max	-0.68	-4.14	0.13	-0.3891	-0.058	1.335	1.94	3.05
246	253	SLE-INV	Max	-0.69	-4.17	0.14	-0.5617	-0.1029	1.1598	1.94	3.26
246	293	SLE-INV	Min	-0.89	-4.21	0.16	-1.4448	-0.6071	0.5685	1.2	0.97
246	292	SLE-INV	Min	-0.88	-4.18	0.15	-1.1347	-0.5632	0.6437	1.2	0.85
246	252	SLE-INV	Min	-0.68	-4.14	0.13	-0.811	-0.2417	0.64	1.08	0.85
246	253	SLE-INV	Min	-0.69	-4.17	0.14	-1.1196	-0.2711	0.5648	1.08	0.97
246	293	SLE-INV	Max	-0.89	-4.21	0.21	-0.9261	-0.5635	2.6642	4.55	8.61
246	292	SLE-INV	Max	-0.88	-4.18	0.2	-0.794	-0.5219	3.0603	4.55	8.16
246	252	SLE-INV	Max	-0.68	-4.14	0.17	-0.5253	0.4323	3.0143	4.07	8.16
246	253	SLE-INV	Max	-0.69	-4.17	0.19	-0.7583	0.3516	2.6182	4.07	8.61
246	293	SLE-INV	Min	-1.2	-5.69	0.16	-3.1293	-0.9886	0.7675	1.62	1.31
246	292	SLE-INV	Min	-1.19	-5.64	0.15	-2.4764	-0.9141	0.8691	1.62	1.15
246	252	SLE-INV	Min	-0.92	-5.58	0.13	-1.7066	-0.3263	0.864	1.46	1.15
246	253	SLE-INV	Min	-0.93	-5.64	0.14	-2.3515	-0.3659	0.7625	1.46	1.31
247	294	SLE-INV	Max	-0.91	-4.24	0.17	-0.6697	-0.4181	0.9929	1.82	3.42
247	293	SLE-INV	Max	-0.91	-4.22	0.17	-0.5232	-0.3912	1.1734	1.82	3.24
247	253	SLE-INV	Max	-0.73	-4.18	0.15	-0.3905	-0.0302	1.1616	1.62	3.24
247	254	SLE-INV	Max	-0.74	-4.21	0.15	-0.5389	-0.0688	0.9812	1.62	3.42
247	294	SLE-INV	Min	-0.91	-4.24	0.17	-1.4197	-0.602	0.4902	1.03	1.06
247	293	SLE-INV	Min	-0.91	-4.22	0.17	-1.1604	-0.5637	0.5682	1.03	0.96
247	253	SLE-INV	Min	-0.73	-4.18	0.15	-0.8238	-0.2304	0.5652	0.93	0.96
247	254	SLE-INV	Min	-0.74	-4.21	0.15	-1.0825	-0.2557	0.4873	0.93	1.06
247	294	SLE-INV	Max	-0.91	-4.24	0.23	-0.9042	-0.5645	2.2524	3.81	8.96
247	293	SLE-INV	Max	-0.91	-4.22	0.22	-0.7063	-0.5282	2.6593	3.81	8.58
247	253	SLE-INV	Max	-0.73	-4.18	0.2	-0.5272	0.5051	2.6234	3.4	8.58
247	254	SLE-INV	Max	-0.74	-4.21	0.21	-0.7276	0.4352	2.2165	3.4	8.96
247	294	SLE-INV	Min	-1.23	-5.73	0.17	-3.081	-0.9666	0.6618	1.39	1.43
247	293	SLE-INV	Min	-1.22	-5.69	0.17	-2.5356	-0.9008	0.767	1.39	1.29
247	253	SLE-INV	Min	-0.99	-5.65	0.15	-1.7386	-0.311	0.763	1.25	1.29
247	254	SLE-INV	Min	-1	-5.68	0.15	-2.2788	-0.3452	0.6578	1.25	1.43
248	295	SLE-INV	Max	-0.92	-4.26	0.16	-0.6499	-0.4169	0.8062	1.51	3.56
248	294	SLE-INV	Max	-0.92	-4.25	0.17	-0.5242	-0.3943	0.9929	1.51	3.41
248	254	SLE-INV	Max	-0.78	-4.22	0.16	-0.3847	-0.0057	0.9813	1.35	3.41
248	255	SLE-INV	Max	-0.78	-4.23	0.15	-0.5127	-0.0351	0.7946	1.35	3.56
248	295	SLE-INV	Min	-0.92	-4.26	0.16	-1.3854	-0.5932	0.4095	0.89	1.14
248	294	SLE-INV	Min	-0.92	-4.25	0.17	-1.1709	-0.563	0.4904	0.89	1.05
248	254	SLE-INV	Min	-0.78	-4.22	0.16	-0.8209	-0.2196	0.4871	0.8	1.05
248	255	SLE-INV	Min	-0.78	-4.23	0.15	-1.0362	-0.2402	0.4062	0.8	1.14
248	294	SLE-INV	Max	-0.92	-4.26	0.22	-0.8774	-0.5628	1.8312	3.16	9.25
248	295	SLE-INV	Max	-0.92	-4.25	0.22	-0.7077	-0.5323	2.2516	3.16	8.93
248	254	SLE-INV	Max	-0.78	-4.22	0.21	-0.5193	0.5685	2.2175	2.82	8.93
248	255	SLE-INV	Max	-0.78	-4.23	0.21	-0.6921	0.5165	1.7972	2.82	9.25
248	295	SLE-INV	Min	-1.25	-5.75	0.16	-3.0123	-0.9381	0.5528	1.2	1.54
248	294	SLE-INV	Min	-1.24	-5.73	0.17	-2.5616	-0.8874	0.662	1.2	1.42
248	254	SLE-INV	Min	-1.05	-5.69	0.16	-1.7354	-0.2965	0.6576	1.07	1.42
248	255	SLE-INV	Min	-1.05	-5.71	0.15	-2.1842	-0.3243	0.5483	1.07	1.54
249	296	SLE-INV	Max	-0.93	-4.27	0.15	-0.6288	-0.4187	0.6135	1.24	3.67
249	295	SLE-INV	Max	-0.93	-4.26	0.16	-0.5206	-0.3954	0.8022	1.24	3.55
249	255	SLE-INV	Max	-0.81	-4.24	0.15	-0.3771	0.0181	0.7988	1.1	3.55
249	256	SLE-INV	Max	-0.81	-4.25	0.14	-0.4877	-0.0125	0.61	1.1	3.67
249	296	SLE-INV	Min	-0.93	-4.27	0.15	-1.3465	-0.5911	0.3255	0.77	1.21
249	295	SLE-INV	Min	-0.93	-4.26	0.16	-1.171	-0.5591	0.4077	0.77	1.14
249	255	SLE-INV	Min	-0.81	-4.24	0.15	-0.8139	-0.2087	0.408	0.69	1.14
249	256	SLE-INV	Min	-0.81	-4.25	0.14	-0.9909	-0.2299	0.3259	0.69	1.21
249	296	SLE-INV	Max	-0.93	-4.27	0.2	-0.8489	-0.5653	1.3975	2.58	9.49
249	295	SLE-INV	Max	-0.93	-4.26						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 145 di 174
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249	256	SLU-INV	Min	-1.09	-5.74	0.14	-2.0916	-0.3103	0.44	0.93	1.63
250	297	SLE-INV	Max	-0.93	-4.28	0.13	-0.6102	-0.4237	0.4191	0.99	3.76
250	296	SLE-INV	Max	-0.93	-4.27	0.14	-0.5169	-0.3998	0.6106	0.99	3.66
250	256	SLE-INV	Max	-0.83	-4.25	0.13	-0.3691	0.031	0.613	0.89	3.66
250	257	SLE-INV	Max	-0.83	-4.26	0.12	-0.4652	0.0011	0.4215	0.89	3.76
250	297	SLE-INV	Min	-0.93	-4.28	0.13	-1.3105	-0.5943	0.2403	0.66	1.27
250	296	SLE-INV	Min	-0.93	-4.27	0.14	-1.1699	-0.5622	0.324	0.66	1.21
250	256	SLE-INV	Min	-0.83	-4.25	0.13	-0.8055	-0.2027	0.3274	0.6	1.21
250	257	SLE-INV	Min	-0.83	-4.26	0.12	-0.9487	-0.2242	0.2437	0.6	1.27
250	297	SLE-INV	Max	-0.93	-4.28	0.17	-0.8238	-0.572	0.9607	2.07	1.27
250	296	SLU-INV	Max	-0.93	-4.27	0.19	-0.6978	-0.5397	1.3912	2.07	9.47
250	256	SLU-INV	Max	-0.83	-4.25	0.18	-0.4982	0.6644	1.3889	1.85	9.47
250	257	SLU-INV	Max	-0.83	-4.26	0.17	-0.628	0.6094	0.9584	1.85	9.67
250	297	SLU-INV	Min	-1.26	-5.78	0.13	-2.8593	-0.9244	0.3245	0.89	1.71
250	296	SLU-INV	Min	-1.26	-5.77	0.14	-2.5655	-0.8668	0.4375	0.89	1.63
250	256	SLU-INV	Min	-1.12	-5.74	0.13	-1.7086	-0.2737	0.442	0.8	1.63
250	257	SLU-INV	Min	-1.12	-5.75	0.12	-2.0053	-0.3027	0.329	0.8	1.71
251	298	SLE-INV	Max	-0.93	-4.29	0.1	-0.5962	-0.4362	0.2191	0.78	3.83
251	297	SLE-INV	Max	-0.93	-4.28	0.12	-0.5153	-0.4072	0.4128	0.78	3.76
251	257	SLE-INV	Max	-0.84	-4.26	0.11	-0.3635	0.035	0.428	0.7	3.76
251	258	SLE-INV	Max	-0.85	-4.27	0.09678	-0.4474	-0.0031	0.2343	0.7	3.83
251	298	SLE-INV	Min	-0.93	-4.29	0.1	-1.2811	-0.6114	0.1517	0.58	1.32
251	297	SLE-INV	Min	-0.93	-4.28	0.12	-1.1713	-0.5708	0.2371	0.58	1.27
251	257	SLE-INV	Min	-0.84	-4.26	0.11	-0.8044	-0.2014	0.247	0.52	1.27
251	258	SLE-INV	Min	-0.85	-4.27	0.09678	-0.9142	-0.2278	0.1617	0.52	1.32
251	298	SLU-INV	Max	-0.93	-4.29	0.14	-0.8049	-0.5888	0.5121	1.61	9.82
251	297	SLU-INV	Max	-0.93	-4.28	0.16	-0.6956	-0.5497	0.9471	1.61	9.66
251	257	SLU-INV	Max	-0.84	-4.26	0.15	-0.4907	0.6802	0.9726	1.44	9.66
251	258	SLU-INV	Max	-0.85	-4.27	0.13	-0.6041	0.6073	0.5376	1.44	9.82
251	298	SLU-INV	Min	-1.26	-5.79	0.1	-2.8005	-0.9543	0.2048	0.78	1.78
251	297	SLU-INV	Min	-1.26	-5.78	0.12	-2.5727	-0.8776	0.32	0.78	1.71
251	257	SLU-INV	Min	-1.14	-5.75	0.11	-1.7038	-0.2719	0.3335	0.7	1.71
251	258	SLU-INV	Min	-1.14	-5.77	0.09678	-1.9361	-0.3076	0.2183	0.7	1.78
252	299	SLE-INV	Max	-0.93	-4.3	0.06709	-0.5886	-0.4561	0.0616	0.58	3.87
252	298	SLE-INV	Max	-0.93	-4.29	0.08447	-0.518	-0.4221	0.2138	0.58	3.83
252	258	SLE-INV	Max	-0.85	-4.27	0.08351	-0.3623	0.0212	0.2398	0.53	3.83
252	259	SLE-INV	Max	-0.86	-4.28	0.06614	-0.4363	-0.0232	0.0777	0.53	3.87
252	299	SLE-INV	Min	-0.93	-4.3	0.06709	-1.2609	-0.6412	0.0181	0.5	1.36
252	298	SLE-INV	Min	-0.93	-4.29	0.08447	-1.1795	-0.5935	0.1487	0.5	1.32
252	258	SLE-INV	Min	-0.85	-4.27	0.0531	-0.2092	-0.6848	0.2468	0.46	1.32
252	259	SLE-INV	Min	-0.86	-4.28	0.06614	-0.8901	-0.2404	0.0442	0.46	1.36
252	299	SLU-INV	Max	-0.93	-4.3	0.09057	-0.7946	-0.6158	0.0831	1.19	9.92
252	298	SLU-INV	Max	-0.93	-4.29	0.11	-0.6993	-0.5699	0.5007	1.19	9.81
252	258	SLU-INV	Max	-0.85	-4.27	0.11	-0.4891	0.6575	0.5494	1.08	9.81
252	259	SLU-INV	Max	-0.86	-4.28	0.08928	-0.589	0.5714	0.1101	1.08	9.92
252	299	SLU-INV	Min	-1.26	-5.8	0.06709	-2.7627	-1.0112	0.0179	0.68	1.84
252	298	SLU-INV	Min	-1.26	-5.79	0.08447	-2.5956	-0.9194	0.2007	0.68	1.78
252	258	SLU-INV	Min	-1.15	-5.77	0.08351	-1.716	-0.2824	0.2225	0.62	1.78
252	259	SLU-INV	Min	-1.16	-5.78	0.06614	-1.89	-0.3245	0.0546	0.62	1.84
253	300	SLE-INV	Max	-0.94	-4.32	0.02909	-0.59	-0.4881	-0.0339	0.44	3.9
253	299	SLE-INV	Max	-0.93	-4.3	0.04996	-0.5276	-0.4444	0.0566	0.44	3.87
253	259	SLE-INV	Max	-0.86	-4.28	0.04754	-0.3664	-0.0085	0.0827	0.41	3.87
253	260	SLE-INV	Max	-0.86	-4.3	0.02667	-0.4323	-0.0681	-0.0078	0.41	3.9
253	253	SLE-INV	Min	-0.94	-4.32	0.02909	-1.2539	-0.692	-0.1907	0.4	1.39
253	299	SLE-INV	Min	-0.93	-4.3	0.04996	-1.1983	-0.6287	0.0091	0.4	1.36
253	259	SLE-INV	Min	-0.86	-4.28	0.04754	-0.8168	-0.2259	0.0534	0.37	1.36
253	260	SLE-INV	Min	-0.66	-4.3	0.02667	-0.8768	-0.2666	-0.1465	0.37	1.39
253	300	SLU-INV	Max	-0.94	-4.32	0.03928	-0.7957	-0.5589	-0.0457	0.8	9.98
253	299	SLU-INV	Max	-0.93	-4.3	0.06745	-0.7123	-0.6	0.0764	0.8	9.92
253	259	SLU-INV	Max	-0.86	-4.28	0.06418	-0.4947	0.601	0.1296	0.74	9.92
253	260	SLU-INV	Max	-0.86	-4.3	0.03601	-0.5836	0.4833	-0.0106	0.74	9.98
253	300	SLU-INV	Min	-1.27	-5.83	0.02909	-2.754	-1.1131	-0.4054	0.53	1.87
253	299	SLU-INV	Min	-1.26	-5.8	0.04996	-2.6427	-0.9885	0.0052	0.53	1.83
253	259	SLU-INV	Min	-1.16	-5.78	0.04754	-1.7487	-0.305	0.0677	0.5	1.83
253	260	SLU-INV	Min	-1.16	-5.81	0.02667	-1.8683	-0.3599	-0.3184	0.5	1.87
254	301	SLE-INV	Max	-0.94	-4.35	-0.01911	-0.6005	-0.5316	-0.1316	0.39	3.89
254	300	SLE-INV	Max	-0.94	-4.32	0.005523	-0.5448	-0.4786	-0.0385	0.39	3.9
254	260	SLE-INV	Max	-0.85	-4.3	0.007186	-0.3794	-0.0632	-0.0031	0.37	3.9
254	261	SLE-INV	Max	-0.86	-4.33	-0.01745	-0.4389	-0.1356	-0.0962	0.37	3.89
254	301	SLE-INV	Min	-0.94	-4.35	-0.01911	-1.2584	-0.7617	-0.3998	0.22	1.41
254	300	SLE-INV	Min	-0.94	-4.32	0.005523	-1.2273	-0.6849	-0.1986	0.22	1.39
254	260	SLE-INV	Min	-0.85	-4.3	0.007186	-0.8432	-0.2565	-0.1385	0.23	1.39
254	261	SLE-INV	Min	-0.86	-4.33	-0.01745	-0.8796	-0.3062	-0.3396	0.23	1.41
254	301	SLU-INV	Max	-0.94	-4.35	-0.01911	-0.8106	-0.7177	-0.1776	0.53	9.99
254	300	SLU-INV	Max	-0.94	-4.32	0.007456	-0.7355	-0.6461	-0.052	0.53	9.98
254	260	SLU-INV	Max	-0.85	-4.3	0.009702	-0.5122	0.4919	-0.0042	0.5	9.98
254	261	SLU-INV	Max	-0.86	-4.33	-0.01745	-0.5926	0.3487	-0.1298	0.5	9.99
254	301	SLU-INV	Min	-1.27	-5.87	-0.0258	-2.7713	-1.2547	-0.8725	0.27	1.9
254	300	SLU-INV	Min	-1.26	-5.83	0.005523	-2.7134	-1.1026	-0.4215	0.27	1.88
254	260	SLU-INV	Min	-1.15	-5.81	0.007186	-1.8132	-0.3462	-0.3018	0.28	1.88
254	261	SLU-INV	Min	-1.16	-5.85	-0.02356	-1.8817	-0.4134	-0.7528	0.28	1.9
255	302	SLE-INV	Max	-0.95	-4.4	-0.07451	-0.6243	-0.5915	-0.2368	0.35	3.86
255	301	SLE-INV	Max	-0.94	-4.35	-0.04487	-0.5736	-0.5244	-0.1382	0.35	3.9
255	261	SLE-INV	Max	-0.84	-4.33	-0.04265	-0.4008	-0.1405	-0.0895	0.35	3.9
255	262	SLE-INV	Max	-0.85	-4.38	-0.07229	-0.4554	-0.2348	-0.188	0.35	3.86
255	302	SLE-INV	Min	-0.95	-4.4	-0.07451	-1.2806	-0.8588	-0.6187	0.05358	1.41
255	301	SLE-INV	Min	-0.94	-4.35	-0.04487	-1.2725	-0.7599	-0.4114	0.05358	1.41
255	261	SLE-INV	Min	-0.84	-4.33	-0.04265	-0.881	-0.3005	-0.3277	0.09162	1.41
255	262	SLE-INV	Min	-0.85	-4.38	-0.07229	-0.8947	-0.3644	-0.535	0.09162	1.41
255	302	SLU-INV	Max	-0.95	-4.4	-0.07451	-0.8428	-0.7985	-0.3196	0.47	9.96
255	301	SLU-INV	Max	-0.94	-4.35	-0.04487	-0.7743	-0.7079	-0.1865	0.47	10
255	261	SLU-INV	Max	-0.84	-4.33	-0.04265	-0.541	0.3364	-0.1208	0.47	10
255	262	SLU-INV	Max	-0.85	-4.38	-0.07229	-0.6148	0.1489	-0.2539	0.47	9.96
255	302	SLU-INV	Min	-1.28	-5.94	-0.1	-2.8272	-1.4536	-1.3602	0.02789	1.9
255	301	SLU-INV	Min	-1.27	-5.87	-0.06057	-2.8203	-1.2565	-0.8964	0.02789	1.9
255	261	SLU-INV	Min	-1.13	-5.84	-0.05758	-1.9033	-0.4057	-0.7282	0.08488	1.9
255	262	SLU-INV	Min	-1.15	-5.92	-0.09759	-1.9219	-0.4919	-1.1921	0.08488	1.9
256	303	SLE-INV	Max	-0.94	-4.49	-0.14	-0.6594	-0.6645	-0.3424	0.32	3.8
256	302	SLE-INV	Max	-0.93	-4.4	-0.11	-0.612	-0.5861	-0.242	0.32	3.82
256	262	SLE-INV	Max	-0.8	-4.37	-0.09465	-0.437	-0.2504	-0.1828	0.34	3.87
256	263	SLE-INV	Max	-0.82	-4.46	-0.12	-0.4885	-0.3584	-0.2832	0.34	3.8
256	303	SLE-INV	Min	-0.94	-4.49	-0.14	-1.313	-0.975	-0.8305	-0.11	1.39
256	302	SLE-INV	Min	-0.93	-4.4	-0.11	-1.3274	-0.8619	-0.6267	-0.11	1.41
256	262	SLE-INV	Min	-0.8	-4.37	-0.09465	-0.9414	-0.3636	-0.5268	-0.03422	1.41
256	263	SLE-INV	Min	-0.82	-4.46	-0.12	-0.9334	-0.4386	-0.7306	-0.03422	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	146 di 174			
256	262	SLU-INV	Min	-1.09	-5.9	-0.13	-2.041	-0.4909	-1.1757	-0.19	1.91
256	263	SLU-INV	Min	-1.11	-6.02	-0.16	-2.0104	-0.5921	-1.6336	-0.19	1.87
257	304	SLE-INV	Max	-0.91	-4.61	-0.19	-0.7156	-0.7529	-0.4595	0.3	3.69
257	303	SLE-INV	Max	-0.89	-4.48	-0.17	-0.6689	-0.6607	-0.3486	0.3	3.81
257	303	SLE-INV	Max	-0.75	-4.45	-0.14	-0.4816	-0.3843	-0.2768	0.35	3.81
257	264	SLE-INV	Max	-0.78	-4.58	-0.16	-0.532	-0.5102	-0.3878	0.35	3.69
257	304	SLE-INV	Min	-0.91	-4.61	-0.19	-1.3734	-1.1135	-1.0578	-0.27	1.35
257	303	SLE-INV	Min	-0.89	-4.48	-0.17	-1.4082	-0.9829	-0.84	-0.27	1.4
257	263	SLE-INV	Min	-0.75	-4.45	-0.14	-1.0073	-0.4428	-0.7207	-0.15	1.4
257	264	SLE-INV	Min	-0.78	-4.58	-0.16	-0.9782	-0.532	-0.9385	-0.15	1.35
257	304	SLU-INV	Max	-0.91	-4.61	-0.19	-0.966	-1.0164	-0.6204	0.4	9.71
257	303	SLU-INV	Max	-0.89	-4.48	-0.17	-0.903	-0.892	-0.4706	0.4	9.89
257	263	SLU-INV	Max	-0.75	-4.45	-0.14	-0.6502	-0.1541	-0.3737	0.47	9.89
257	264	SLU-INV	Max	-0.78	-4.58	-0.16	-0.7182	-0.4026	-0.5235	0.47	9.71
257	304	SLU-INV	Min	-1.23	-6.22	-0.25	-3.0383	-1.9764	-2.343	-0.68	1.82
257	303	SLU-INV	Min	-1.2	-6.04	-0.23	-3.1324	-1.7172	-1.8536	-0.68	1.88
257	263	SLU-INV	Min	-1.01	-6.01	-0.19	-2.188	-0.5978	-1.6131	-0.49	1.88
257	264	SLU-INV	Min	-1.05	-6.18	-0.21	-2.1069	-0.7182	-2.1025	-0.49	1.82
258	305	SLE-INV	Max	-0.85	-4.75	-0.2	-0.7763	-0.8606	-0.5769	0.29	3.54
258	304	SLE-INV	Max	-0.81	-4.59	-0.2	-0.7263	-0.749	-0.4669	0.29	3.71
258	264	SLE-INV	Max	-0.67	-4.56	-0.16	-0.5451	-0.5407	-0.3803	0.38	3.71
258	265	SLE-INV	Max	-0.71	-4.72	-0.15	-0.5985	-0.6493	-0.4903	0.38	3.54
258	305	SLE-INV	Min	-0.85	-4.75	-0.2	-1.4201	-1.28	-1.2777	-0.43	1.27
258	304	SLE-INV	Min	-0.81	-4.59	-0.2	-1.4754	-1.0228	-1.0697	-0.43	1.35
258	264	SLE-INV	Min	-0.67	-4.56	-0.16	-1.0965	-0.545	-0.9264	-0.25	1.35
258	265	SLE-INV	Min	-0.71	-4.72	-0.15	-1.0471	-0.697	-1.1344	-0.25	1.27
258	305	SLU-INV	Max	-0.85	-4.75	-0.2	-1.0479	-1.1618	-0.7789	0.39	9.47
258	304	SLU-INV	Max	-0.81	-4.59	-0.2	-0.9805	-1.0111	-0.6303	0.39	9.73
258	264	SLU-INV	Max	-0.67	-4.56	-0.16	-0.7359	-0.4754	-0.5134	0.51	9.73
258	265	SLU-INV	Max	-0.71	-4.72	-0.15	-0.808	-0.7754	-0.6619	0.51	9.47
258	305	SLU-INV	Min	-1.14	-6.41	-0.27	-3.1324	-2.3188	-2.8395	-1.06	1.71
258	304	SLU-INV	Min	-1.1	-6.19	-0.27	-3.2815	-2.0064	-2.3677	-1.06	1.83
258	264	SLU-INV	Min	-0.91	-6.16	-0.21	-2.3776	-0.7363	-2.0773	-0.79	1.83
258	265	SLU-INV	Min	-0.96	-6.38	-0.21	-2.2427	-0.9482	-2.549	-0.79	1.71
259	305	SLE-INV	Max	-0.72	-4.73	-0.19	-0.7957	-0.8568	-0.5767	0.29	3.56
259	265	SLE-INV	Max	-0.6	-4.7	-0.13	-0.6162	-0.6605	-0.4903	0.41	3.56
259	266	SLE-INV	Max	-0.63	-4.83	-0.1	-0.6621	-0.7507	-0.5818	0.41	3.39
259	305	SLE-INV	Max	-0.75	-4.85	-0.16	-0.8388	-0.9484	-0.6681	0.29	3.39
259	306	SLE-INV	Min	-0.72	-4.73	-0.19	-1.5372	-1.2897	-1.2742	-0.58	1.28
259	265	SLE-INV	Min	-0.6	-4.7	-0.13	-1.1677	-0.7349	-1.1372	-0.36	1.28
259	266	SLE-INV	Min	-0.63	-4.83	-0.1	-1.107	-0.8519	-1.3051	-0.36	1.38
259	306	SLE-INV	Min	-0.75	-4.85	-0.16	-1.4754	-1.409	-1.4431	-0.58	1.38
259	305	SLU-INV	Max	-0.72	-4.73	-0.19	-1.0742	-1.1567	-0.7785	0.39	9.5
259	265	SLU-INV	Max	-0.6	-4.7	-0.13	-0.8319	-0.8538	-0.6619	0.55	9.5
259	266	SLU-INV	Max	-0.63	-4.83	-0.1	-0.8939	-1.0135	-0.7854	0.55	9.22
259	306	SLU-INV	Max	-0.75	-4.85	-0.16	-1.1324	-1.2803	-0.902	0.39	9.22
259	305	SLU-INV	Min	-0.98	-6.38	-0.25	-3.4042	-2.349	-2.8333	-1.46	1.72
259	265	SLU-INV	Min	-0.81	-6.35	-0.18	-2.5137	-1.0032	-2.5539	-1.11	1.72
259	266	SLU-INV	Min	-0.85	-6.52	-0.14	-2.3574	-1.1653	-2.9393	-1.11	1.6
259	306	SLU-INV	Min	-1.01	-6.55	-0.21	-3.2342	-2.585	-3.2186	-1.46	1.6
260	307	SLE-INV	Max	-0.66	-4.92	-0.06022	-0.8904	-1.0444	-0.7567	0.22	3.21
260	306	SLE-INV	Max	-0.64	-4.83	-0.12	-0.8546	-0.9445	-0.6732	0.22	3.4
260	266	SLE-INV	Max	-0.53	-4.81	-0.06492	-0.6904	-0.7633	-0.5766	0.36	3.4
260	267	SLE-INV	Max	-0.55	-4.9	-0.01001	-0.7289	-0.8619	-0.66	0.36	3.21
260	307	SLE-INV	Min	-0.66	-4.92	-0.06022	-1.491	-1.5508	-1.6037	-0.79	1.08
260	306	SLE-INV	Min	-0.64	-4.83	-0.12	-1.5781	-1.4176	-1.4529	-0.79	1.19
260	266	SLE-INV	Min	-0.53	-4.81	-0.06492	-1.241	-0.8899	-1.2962	-0.54	1.19
260	267	SLE-INV	Min	-0.55	-4.9	-0.01001	-1.592	-1.0206	-1.447	-0.54	1.08
260	307	SLU-INV	Max	-0.66	-4.92	-0.06022	-1.202	-1.4099	-1.0215	0.3	8.92
260	306	SLU-INV	Max	-0.64	-4.83	-0.12	-1.1537	-1.2751	-0.9089	0.3	9.25
260	266	SLU-INV	Max	-0.53	-4.81	-0.06492	-0.932	-1.0305	-0.7784	0.49	9.25
260	267	SLU-INV	Max	-0.55	-4.9	-0.01001	-0.984	-1.1636	-0.891	0.49	8.92
260	307	SLU-INV	Min	-0.89	-6.65	-0.0813	-3.2361	-2.8772	-3.5878	-1.99	1.46
260	306	SLU-INV	Min	-0.86	-6.52	-0.16	-3.4698	-2.6115	-3.2404	-1.99	1.61
260	266	SLU-INV	Min	-0.72	-6.49	-0.08764	-2.6443	-1.2204	-2.9172	-1.57	1.61
260	267	SLU-INV	Min	-0.75	-6.62	-0.01352	-2.427	-1.4192	-3.2646	-1.57	1.46
261	308	SLE-INV	Max	-0.57	-4.94	0.08673	-0.9237	-1.1214	-0.8155	0.057	2.99
261	307	SLE-INV	Max	-0.56	-4.91	0.01066	-0.9058	-1.0406	-0.7479	0.057	3.22
261	267	SLE-INV	Max	-0.48	-4.89	0.05165	-0.7724	-0.8774	-0.6685	0.22	3.22
261	268	SLE-INV	Max	-0.48	-4.92	0.13	-0.7909	-0.9579	-0.7361	0.22	2.99
261	308	SLE-INV	Min	-0.57	-4.94	0.08673	-1.4618	-1.6547	-1.7043	-1.12	0.95
261	307	SLE-INV	Min	-0.56	-4.91	0.01066	-1.5897	-1.5594	-1.5869	-1.12	1.09
261	267	SLE-INV	Min	-0.48	-4.89	0.05165	-1.3151	-1.0629	-1.4632	-0.84	1.09
261	268	SLE-INV	Min	-0.48	-4.92	0.13	-1.1894	-1.1572	-1.5805	-0.84	0.95
261	308	SLU-INV	Max	-0.57	-4.94	0.12	-1.289	-1.5139	-1.1019	0.07695	8.53
261	307	SLU-INV	Max	-0.56	-4.91	0.01439	-1.2228	-1.4048	-1.0096	0.07695	8.94
261	267	SLU-INV	Max	-0.48	-4.89	0.06973	-1.0427	-1.1845	-0.9025	0.3	8.94
261	268	SLU-INV	Max	-0.48	-4.92	0.17	-1.0678	-1.2932	-0.9938	0.3	8.53
261	308	SLU-INV	Min	-0.77	-6.66	0.08673	-3.1313	-3.0912	-3.8326	-2.75	1.29
261	307	SLU-INV	Min	-0.76	-6.62	0.01066	-3.4606	-2.9024	-3.5447	-2.75	1.47
261	267	SLU-INV	Min	-0.65	-6.6	0.05165	-2.7633	-1.5062	-3.2964	-2.25	1.47
261	268	SLU-INV	Min	-0.65	-6.64	0.13	-2.445	-1.6895	-3.5742	-2.25	1.29
262	309	SLE-INV	Max	-0.5	-4.87	0.28	-0.9474	-1.1778	-0.8646	-0.2	2.75
262	308	SLE-INV	Max	-0.51	-4.92	0.19	-0.9617	-1.1202	-0.8069	-0.2	3.01
262	268	SLE-INV	Max	-0.44	-4.91	0.21	-0.8476	-0.9781	-0.7446	-0.01613	3.01
262	269	SLE-INV	Max	-0.43	-4.86	0.31	-0.8335	-1.0356	-0.8023	-0.01613	2.75
262	309	SLE-INV	Min	-0.5	-4.87	0.28	-1.4162	-1.7246	-1.7887	-1.57	0.81
262	308	SLE-INV	Min	-0.51	-4.92	0.19	-1.6004	-1.6671	-1.6905	-1.57	0.96
262	268	SLE-INV	Min	-0.44	-4.91	0.21	-1.3615	-1.2069	-1.5941	-1.25	0.96
262	269	SLE-INV	Min	-0.43	-4.86	0.31	-1.1797	-1.2633	-1.6923	-1.25	0.81
262	309	SLU-INV	Max	-0.5	-4.87	0.38	-1.279	-1.59	-1.1672	-0.27	8.08
262	308	SLU-INV	Max	-0.51	-4.92	0.25	-1.2983	-1.5123	-1.0893	-0.27	8.57
262	268	SLU-INV	Max	-0.44	-4.91	0.28	-1.1442	-1.3204	-1.0052	-0.02178	8.57
262	269	SLU-INV	Max	-0.43	-4.86	0.41	-1.1252	-1.3981	-1.0831	-0.02178	8.08
262	309	SLU-INV	Min	-0.68	-6.58	0.28	-2.9798	-3.2362	-4.0423	-3.76	1.1
262	308	SLU-INV	Min	-0.69	-6.65	0.19	-3.4343	-3.1221	-3.8064	-3.76	1.3
262	268	SLU-INV	Min	-0.59	-6.63	0.21	-2.8113	-1.7925	-3.6001	-3.16	1.3
262	269	SLU-INV	Min	-0.58	-6.56	0.31	-2.3701	-1.8999	-3.836	-3.16	1.1
263	310	SLE-INV	Max	-0.46	-4.74	0.51	-0.9413	-1.2007	-0.8874	-0.55	2.49
263	309	SLE-INV	Max	-0.49	-4.87	0.4	-0.997	-1.1798	-0.8508	-0.55	2.77
263	269	SLE-INV	Max	-0.43	-4.86	0.4	-0.9172	-1.0603	-0.8158	-0.35	2.77
263	270	SLE-INV	Max	-0.4	-4.72	0.52	-0.8602	-1.0819	-0.8524	-0.35	2.49
263	310	SLE-INV	Min	-0.46	-4.74	0.51	-1.3211	-1.7421	-1.8248	-2.14	0.67
263	309	SLE-INV	Min	-0.49	-4.87	0.4	-1.5648	-1.7403	-1.7673	-2.14	0.82
263	269	SLE-INV	Min	-0.43	-4.86	0.4	-1.3912	-1.3195	-1.7132	-1.79	0.82
263	270	SLE-INV	Min	-0.4	-4.72	0.52	-1.1483	-1.3211	-1.7707	-1.79	0.67
263	310	SLU-INV	Max	-0.46	-4.74	0.69	-1.2707	-1.621	-1.198	-0.75	7.58
263	309										

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di			
L0703	211	E	16	016700	REL	01	A	Pag. 147 di 174			
263	309	SLU-INV	Min	-0.66	-6.58	0.4	-3.2995	-3.2711	-4.0014	-4.99	1.11
263	269	SLU-INV	Min	-0.58	-6.56	0.4	-2.8119	-2.0173	-3.8762	-4.29	1.11
263	270	SLU-INV	Min	-0.54	-6.38	0.52	-2.2431	-2.0161	-4.0248	-4.29	0.9
264	311	SLE-INV	Max	-0.45	-4.53	0.76	-0.9081	-1.1853	-0.8934	-1	2.21
264	310	SLE-INV	Max	-0.5	-4.74	0.63	-1.0187	-1.2073	-0.8702	-1	2.51
264	270	SLE-INV	Max	-0.44	-4.73	0.62	-0.9644	-1.1177	-0.8695	-0.79	2.51
264	271	SLE-INV	Max	-0.4	-4.52	0.75	-0.8524	-1.0904	-0.8927	-0.79	2.21
264	311	SLE-INV	Min	-0.45	-4.53	0.76	-1.1828	-1.6996	-1.831	-2.83	0.51
264	310	SLE-INV	Min	-0.5	-4.74	0.63	-1.5102	-1.763	-1.7984	-2.83	0.68
264	270	SLE-INV	Min	-0.44	-4.73	0.62	-1.3831	-1.385	-1.797	-2.44	0.68
264	271	SLE-INV	Min	-0.4	-4.52	0.75	-1.0577	-1.3208	-1.8296	-2.44	0.51
264	311	SLE-INV	Max	-0.45	-4.53	1.03	-1.2259	-1.6001	-1.2061	-1.36	7
264	310	SLE-INV	Max	-0.5	-4.74	0.86	-1.3752	-1.6298	-1.1747	-1.36	7.63
264	270	SLE-INV	Max	-0.44	-4.73	0.84	-1.3019	-1.5007	-1.1738	-1.07	7.63
264	271	SLE-INV	Max	-0.4	-4.52	1.01	-1.1507	-1.4721	-1.2052	-1.07	7
264	311	SLE-INV	Min	-0.61	-6.11	0.76	-2.3573	-3.1941	-4.1934	-6.45	0.69
264	310	SLE-INV	Min	-0.67	-6.4	0.63	-3.1158	-3.3174	-4.0995	-6.45	0.92
264	270	SLE-INV	Min	-0.59	-6.39	0.62	-2.7277	-2.1505	-4.0753	-5.64	0.92
264	271	SLE-INV	Min	-0.54	-6.1	0.75	-1.9868	-2.0196	-4.1692	-5.64	0.69
265	312	SLE-INV	Max	-0.47	-4.24	1.04	-0.8268	-1.1257	-0.882	-1.57	1.9
265	311	SLE-INV	Max	-0.53	-4.54	0.9	-1.0111	-1.1968	-0.8753	-1.57	2.24
265	271	SLE-INV	Max	-0.49	-4.53	0.87	-0.9881	-1.1267	-0.9107	-1.35	2.24
265	272	SLE-INV	Max	-0.43	-4.23	1.01	-0.8018	-1.0566	-0.9173	-1.35	1.19
265	312	SLE-INV	Min	-0.47	-4.24	1.04	-0.9684	-1.5915	-1.8076	-3.67	0.35
265	311	SLE-INV	Min	-0.53	-4.54	0.9	-1.4074	-1.726	-1.8052	-3.67	0.52
265	271	SLE-INV	Min	-0.49	-4.53	0.87	-1.3366	-1.395	-1.8553	-3.24	0.52
265	272	SLE-INV	Min	-0.43	-4.23	1.01	-0.8998	-1.2597	-1.8577	-3.24	0.35
265	312	SLE-INV	Max	-0.47	-4.24	1.41	-1.1161	-1.5196	-1.1906	-2.12	6.33
265	311	SLE-INV	Max	-0.53	-4.54	1.22	-1.365	-1.6157	-1.1817	-2.12	7.05
265	271	SLE-INV	Max	-0.49	-4.53	1.18	-1.334	-1.521	-1.2294	-1.82	7.05
265	272	SLE-INV	Max	-0.43	-4.23	1.37	-1.0824	-1.4264	-1.2384	-1.82	6.33
265	312	SLE-INV	Min	-0.64	-5.72	1.04	-1.8317	-2.9838	-4.1745	-8.2	0.47
265	311	SLE-INV	Min	-0.72	-6.14	0.9	-2.823	-3.2433	-4.1452	-8.2	0.71
265	271	SLE-INV	Min	-0.66	-6.12	0.87	-2.5546	-2.1771	-4.2172	-7.28	0.71
265	272	SLE-INV	Min	-0.57	-5.71	1.01	-1.5836	-1.9081	-4.2465	-7.28	0.47
266	313	SLE-INV	Max	-0.52	-3.88	1.36	-0.6591	-1.0176	-0.8506	-2.28	1.58
266	312	SLE-INV	Max	-0.6	-4.26	1.2	-0.9551	-1.1421	-0.8632	-2.28	1.93
266	272	SLE-INV	Max	-0.57	-4.26	1.15	-0.9664	-1.0988	-0.9362	-2.05	1.93
266	273	SLE-INV	Max	-0.49	-3.87	1.31	-0.6542	-0.9751	-0.9235	-2.05	1.58
266	313	SLE-INV	Min	-0.52	-3.88	1.36	-0.6812	-1.4147	-1.75	-4.67	0.18
266	312	SLE-INV	Min	-0.6	-4.26	1.2	-1.2259	-1.6226	-1.7819	-4.67	0.18
266	272	SLE-INV	Min	-0.57	-4.26	1.15	-1.2158	-1.3433	-1.8835	-4.23	0.36
266	273	SLE-INV	Min	-0.49	-3.87	1.31	-0.6912	-1.133	-1.8516	-4.23	0.18
266	313	SLE-INV	Max	-0.52	-3.88	1.84	-0.8865	-1.3738	-1.1482	-3.08	5.58
266	312	SLE-INV	Max	-0.6	-4.26	1.63	-1.2894	-1.5418	-1.1653	-3.08	6.39
266	272	SLE-INV	Max	-0.57	-4.26	1.56	-1.3046	-1.4834	-1.2638	-2.77	6.39
266	273	SLE-INV	Max	-0.49	-3.87	1.77	-0.8776	-1.3164	-1.2468	-2.77	5.58
266	313	SLE-INV	Min	-0.71	-5.24	1.36	-1.1047	-2.64	-4.0808	-10.27	0.24
266	312	SLE-INV	Min	-0.81	-5.76	1.2	-2.3565	-3.0376	-4.1278	-10.27	0.48
266	272	SLE-INV	Min	-0.77	-5.75	1.15	-2.2217	-2.0869	-4.294	-9.24	0.48
266	273	SLE-INV	Min	-0.66	-5.23	1.31	-0.9998	-1.6752	-4.247	-9.24	0.24
267	314	SLE-INV	Max	-0.61	-3.45	1.72	-0.2176	-0.8573	-0.7954	-3.13	1.23
267	313	SLE-INV	Max	-0.7	-3.91	1.54	-0.8271	-1.0381	-0.8322	-3.13	1.6
267	273	SLE-INV	Max	-0.68	-3.91	1.47	-0.88	-1.0215	-0.9419	-2.91	1.6
267	274	SLE-INV	Max	-0.59	-3.45	1.65	-0.2891	-0.8411	-0.9052	-2.91	1.23
267	314	SLE-INV	Min	-0.61	-3.45	1.72	-0.4446	-1.165	-1.6513	-5.87	0.01492
267	313	SLE-INV	Min	-0.7	-3.91	1.54	-0.9357	-1.4486	-1.7256	-5.87	0.19
267	273	SLE-INV	Min	-0.68	-3.91	1.47	-0.9993	-1.2234	-1.4761	-5.4	0.19
267	274	SLE-INV	Min	-0.59	-3.45	1.65	-0.4968	-0.9361	-1.8017	-5.4	0.01492
267	314	SLE-INV	Max	-0.61	-3.45	2.33	-0.1075	-1.1573	-1.0738	-4.23	4.76
267	313	SLE-INV	Max	-0.7	-3.91	2.08	-1.1166	-1.4014	-1.1235	-4.23	5.65
267	273	SLE-INV	Max	-0.68	-3.91	1.98	-1.188	-1.3791	-1.2716	-3.93	5.65
267	274	SLE-INV	Max	-0.59	-3.45	2.23	-0.1734	-1.1355	-1.222	-3.93	4.76
267	314	SLE-INV	Min	-0.82	-4.66	1.72	-0.6002	-2.1556	-3.897	-12.68	0.02014
267	313	SLE-INV	Min	-0.95	-5.28	1.54	-1.6626	-2.6942	-4.0372	-12.68	0.26
267	273	SLE-INV	Min	-0.92	-5.28	1.47	-1.6895	-1.8705	-4.2913	-11.55	0.26
267	274	SLE-INV	Min	-0.8	-4.66	1.65	-0.6707	-1.3134	-4.1511	-11.55	0.02014
268	315	SLE-INV	Max	-0.72	-2.97	2.13	0.3962	-0.6439	-0.7148	-4.15	0.89
268	314	SLE-INV	Max	-0.83	-3.5	1.92	-0.5014	-0.8805	-0.7796	-4.15	1.26
268	274	SLE-INV	Max	-0.84	-3.5	1.83	-0.6485	-0.8896	-0.9213	-3.94	1.26
268	275	SLE-INV	Max	-0.74	-2.97	2.03	0.2355	-0.6524	-0.8564	-3.94	0.89
268	315	SLE-INV	Min	-0.72	-2.97	2.13	-0.0869	-0.8433	-1.507	-7.26	-0.13
268	314	SLE-INV	Min	-0.83	-3.5	1.92	-0.6004	-1.1995	-1.6311	-7.26	0.02467
268	274	SLE-INV	Min	-0.84	-3.5	1.83	-0.6988	-1.0303	-1.8225	-6.79	0.02467
268	275	SLE-INV	Min	-0.74	-2.97	2.03	-0.1874	-0.6575	-1.6983	-6.79	-0.13
268	315	SLE-INV	Max	-0.72	-2.97	2.88	1.2378	-0.8693	-0.9649	-5.6	3.88
268	314	SLE-INV	Max	-0.83	-3.5	2.6	-0.6621	-1.1887	-1.0524	-5.6	4.84
268	274	SLE-INV	Max	-0.84	-3.5	2.47	-0.8677	-1.201	-1.2437	-5.33	4.84
268	275	SLE-INV	Max	-0.74	-2.97	2.75	0.9647	-0.8219	-1.1562	-5.33	3.88
268	315	SLE-INV	Min	-0.97	-4.01	2.13	-0.1173	-1.5331	-3.6082	-15.45	-0.18
268	314	SLE-INV	Min	-1.12	-4.72	1.92	-0.8105	-2.2051	-3.862	-15.45	0.0333
268	274	SLE-INV	Min	-1.13	-4.72	1.83	-0.9447	-1.5202	-4.1879	-14.25	0.0333
268	275	SLE-INV	Min	-0.99	-4.02	2.03	-0.2533	-0.9035	-3.9341	-14.25	-0.18
269	316	SLE-INV	Max	-0.86	-2.45	2.6	1.2313	-0.3788	-0.606	-5.35	0.56
269	315	SLE-INV	Max	-0.98	-3.02	2.36	0.1241	-0.6679	-0.7032	-5.35	0.92
269	275	SLE-INV	Max	-1.03	-3.03	2.24	-0.1191	-0.6994	-0.8683	-5.18	0.92
269	276	SLE-INV	Max	-0.92	-2.46	2.48	0.9684	-0.3279	-0.7711	-5.18	0.56
269	316	SLE-INV	Min	-0.86	-2.45	2.6	0.4302	-0.4515	-1.3103	-8.88	-0.26
269	315	SLE-INV	Min	-0.98	-3.02	2.36	-0.2388	-0.8752	-1.4928	-8.88	-0.13
269	275	SLE-INV	Min	-1.03	-3.03	2.24	-0.3905	-0.761	-1.7133	-8.43	-0.13
269	276	SLE-INV	Min	-0.92	-2.46	2.48	0.2748	-0.4087	-1.5308	-8.43	-0.26
269	316	SLE-INV	Max	-0.86	-2.45	3.51	3.0172	-0.5114	-0.8181	-7.22	2.97
269	315	SLE-INV	Max	-0.98	-3.02	3.19	0.6988	-0.9017	-0.9493	-7.22	3.97
269	275	SLE-INV	Max	-1.03	-3.03	3.03	0.2567	-0.9442	-1.1722	-6.99	3.97
269	276	SLE-INV	Max	-0.92	-2.46	3.35	2.5037	-0.2019	-1.041	-6.99	2.97
269	316	SLE-INV	Min	-1.16	-3.3	2.6	0.5807	-0.7746	-3.1953	-18.64	-0.35
269	315	SLE-INV	Min	-1.32	-4.08	2.36	-0.3223	-1.5714	-3.5833	-18.64	-0.17
269	275	SLE-INV	Min	-1.39	-4.1	2.24	-0.5272	-1.0366	-3.9607	-17.38	-0.17
269	276	SLE-INV	Min	-1.24	-3.32	2.48	0.371	-0.5517	-3.5726	-17.38	-0.35
270	317	SLE-INV	Max	-1.02	-1.9	3.14	2.3506	-0.0005602	-0.4697	-6.75	0.27
270	316	SLE-INV	Max	-1.14	-2.5	2.86	0.9988	-0.4005	-0.6026	-6.75	0.59
270	276	SLE-INV	Max	-1.26	-2.53	2.73	0.6453	-0.4142	-0.7749	-6.64	0.59
270	277	SLE-INV	Max	-1.14	-1.92	3.01	1.9682	0.0755	-0.642	-6.64	0.27
270	317	SLE-INV	Min	-1.02	-1.9	3.14	1.1537	-0.0692	-1.0559	-10.75	-0.33
270	316	SLE-INV	Min	-1.14	-2.5	2.86	0.3013	-0.4763	-1.3075	-10.75	-0.25
270	276	SLE-INV	Min	-1.26	-2.53	2.73	0.094	-0.4489			



**2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo**

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di.Pag.
L0703	211	E	16	016700	REL	01	A	148 di 174

270	317	SLU-INV	Min	-1.38	-2.56	3.14	1.5575	-0.0935	-2.6356	-22.27	-0.45
270	316	SLU-INV	Min	-1.55	-3.38	2.86	0.4068	-0.7929	-3.1918	-22.27	-0.34
270	276	SLU-INV	Min	-1.7	-3.41	2.73	0.1269	-0.6061	-3.5789	-20.99	-0.34
270	277	SLU-INV	Min	-1.54	-2.59	3.01	1.2676	-0.1541	-3.0227	-20.99	-0.45
271	317	SLU-INV	Max	-1.2	-1.33	3.73	3.8203	0.5006	-0.3077	-8.37	0.03954
271	277	SLU-INV	Max	-1.33	-1.96	3.47	2.1868	-0.013	-0.4758	-8.37	0.3
271	277	SLU-INV	Max	-1.51	-1.99	3.33	1.7152	0.0046	-0.6364	-8.36	0.3
271	278	SLU-INV	Max	-1.39	-1.37	3.59	3.31	0.537	-0.4683	-8.36	0.03954
271	318	SLU-INV	Min	-1.2	-1.33	3.73	2.137	0.2766	-0.7371	-12.9	-0.34
271	317	SLU-INV	Min	-1.33	-1.96	3.47	1.071	-0.0847	-1.0643	-12.9	-0.33
271	277	SLU-INV	Min	-1.51	-1.99	3.33	0.8111	-0.1408	-1.2758	-12.57	-0.33
271	278	SLU-INV	Min	-1.39	-1.37	3.59	1.8656	0.2262	-0.9486	-12.57	-0.34
271	318	SLU-INV	Max	-1.2	-1.33	5.03	8.3471	1.0771	-0.4154	-11.3	1.15
271	317	SLU-INV	Max	-1.33	-1.96	4.69	5.0201	0.1104	-0.6423	-11.3	2.15
271	277	SLU-INV	Max	-1.51	-1.99	4.49	3.9961	0.3452	-0.8592	-11.29	2.15
271	278	SLU-INV	Max	-1.39	-1.37	4.84	7.2015	1.3707	-0.6322	-11.29	1.15
271	318	SLU-INV	Min	-1.62	-1.8	3.73	2.8849	0.3735	-1.8996	-26.4	-0.45
271	317	SLU-INV	Min	-1.79	-2.64	3.47	1.4458	-0.1143	-2.6495	-26.4	-0.45
271	277	SLU-INV	Min	-2.04	-2.69	3.33	1.095	-0.1901	-3.0119	-25.14	-0.45
271	278	SLU-INV	Min	-1.87	-1.85	3.59	2.5185	0.3053	-2.262	-25.14	-0.45
272	319	SLU-INV	Max	-1.39	-0.78	4.74	5.7244	1.0243	-0.1332	-10.22	-0.09423
272	318	SLU-INV	Max	-1.51	-1.4	3.92	3.7679	0.5078	-0.3302	-10.22	0.06323
272	278	SLU-INV	Max	-1.78	-1.45	3.78	3.176	0.4926	-0.4466	-10.35	0.06323
272	279	SLU-INV	Max	-1.66	-0.83	4.6	5.0803	1.0345	-0.2496	-10.35	-0.09423
272	319	SLU-INV	Min	-1.39	-0.78	4.74	3.444	0.6392	-0.3609	-15.33	-0.24
272	318	SLU-INV	Min	-1.51	-1.4	3.92	2.1312	0.2726	-0.7679	-15.33	-0.34
272	278	SLU-INV	Min	-1.78	-1.45	3.78	1.8319	0.2223	-0.9195	-15.13	-0.34
272	279	SLU-INV	Min	-1.66	-0.83	4.6	3.1273	0.5973	-0.5125	-15.13	-0.24
272	319	SLU-INV	Max	-1.39	-0.78	6.4	12.1641	2.1088	-0.1799	-13.8	0.34
272	318	SLU-INV	Max	-1.51	-1.4	5.29	8.2264	1.1318	-0.4458	-13.8	1.26
272	278	SLU-INV	Max	-1.78	-1.45	5.1	6.8491	1.2213	-0.6028	-13.98	1.26
272	279	SLU-INV	Max	-1.66	-0.83	6.21	10.6302	2.2743	-0.3369	-13.98	0.34
272	319	SLU-INV	Min	-1.88	-1.05	4.74	4.6493	0.8629	-0.9778	-31.03	-0.32
272	318	SLU-INV	Min	-2.04	-1.88	3.92	2.8771	0.368	-1.9541	-31.03	-0.46
272	278	SLU-INV	Min	-2.41	-1.96	3.78	2.473	0.3001	-2.2118	-29.87	-0.46
272	279	SLU-INV	Min	-2.24	-1.12	4.6	4.2219	0.8064	-1.2354	-29.87	-0.32
273	280	SLU-INV	Max	-1.93	-0.39	3.32	7.1403	1.5043	-0.0245	-12.52	-0.03114
273	320	SLU-INV	Max	-1.58	-0.32	3.52	7.906	1.5049	0.0258	-12.52	-0.03114
273	319	SLU-INV	Max	-1.68	-0.83	6.22	5.8135	1.0558	-0.1688	-12.52	-0.07494
273	279	SLU-INV	Max	-2.03	-0.91	6.02	5.122	1.0292	-0.2147	-12.52	-0.07494
273	280	SLU-INV	Min	-1.93	-0.39	3.32	4.6352	0.9519	-0.0519	-17.89	-0.09541
273	320	SLU-INV	Min	-1.58	-0.32	3.52	4.9714	0.9694	0.0231	-17.92	-0.09541
273	319	SLU-INV	Min	-1.68	-0.83	6.22	3.5389	0.6512	-0.4073	-17.92	-0.24
273	279	SLU-INV	Min	-2.03	-0.91	6.02	3.2286	0.6245	-0.4677	-17.89	-0.24
273	280	SLU-INV	Max	-1.93	-0.39	4.48	14.5321	3.126	-0.033	-16.9	-0.04204
273	320	SLU-INV	Max	-1.58	-0.32	4.75	16.4745	3.0753	0.0393	-16.5	-0.04204
273	319	SLU-INV	Max	-1.68	-0.83	8.4	12.2994	2.2118	-0.2279	-16.5	0.44
273	279	SLU-INV	Max	-2.03	-0.91	8.13	10.5735	2.187	-0.2898	-16.9	0.44
273	280	SLU-INV	Min	-2.6	-0.52	3.32	6.2576	1.2851	-0.0648	-34.94	-0.27
273	320	SLU-INV	Min	-2.13	-0.43	3.52	6.7114	1.3087	0.0289	-35.93	-0.27
273	319	SLU-INV	Min	-2.27	-1.13	6.22	4.7775	0.8791	-1.0566	-35.93	-0.33
273	279	SLU-INV	Min	-2.74	-1.22	6.02	4.3586	0.8431	-1.1608	-34.94	-0.33
274	321	SLU-INV	Max	1.13	0.23	-2.89	7.4541	1.391	0.0052	11.49	-0.0336
274	281	SLU-INV	Max	-0.02897	-0.005794	-2.9	6.4608	1.392	0.006	11.57	-0.0336
274	282	SLU-INV	Max	-0.0527	-0.12	-5.03	4.7577	1.0171	0.754	11.57	-0.21
274	322	SLU-INV	Max	1.11	0.11	-5.01	5.685	1.0711	0.7533	11.49	-0.21
274	321	SLU-INV	Min	1.13	0.23	-2.89	3.4819	0.6697	0.0001767	5.92	-0.13
274	281	SLU-INV	Min	-0.02897	-0.005794	-2.9	3.1082	0.6483	0.0079	5.92	-0.13
274	282	SLU-INV	Min	-0.0527	-0.12	-5.03	2.2528	0.4623	-0.0646	5.92	-0.35
274	322	SLU-INV	Min	1.11	0.11	-5.01	2.6046	0.5022	0.2795	5.99	-0.35
274	321	SLU-INV	Max	1.53	0.31	-2.89	16.6456	3.059	0.0174	25.07	-0.04537
274	281	SLU-INV	Max	-0.02897	-0.005794	-2.9	14.2083	3.1118	0.0111	24.57	-0.04537
274	282	SLU-INV	Max	-0.0527	-0.12	-5.03	10.5555	2.3031	1.8516	24.57	0.13
274	322	SLU-INV	Max	1.5	0.15	-5.01	12.8243	2.3901	1.8579	25.07	0.13
274	321	SLU-INV	Min	1.13	0.23	-3.89	4.7005	0.9041	0.0002385	7.54	-0.34
274	281	SLU-INV	Min	-0.03911	-0.007822	-3.91	4.1961	0.8752	0.0048	7.99	-0.34
274	282	SLU-INV	Min	-0.07114	-0.17	-6.79	3.0413	0.6241	0.3819	7.99	-0.47
274	322	SLU-INV	Min	1.11	0.11	-6.77	3.5162	0.678	0.3773	7.54	-0.47
275	323	SLU-INV	Max	0.89	-0.54	-3.12	3.7791	0.8158	1.3172	10.22	-0.12
275	322	SLU-INV	Max	1.01	0.08873	-3.76	5.3394	0.9996	0.7966	10.22	-0.21
275	282	SLU-INV	Max	0.09831	-0.09423	-3.7	4.6413	0.9962	0.7092	10.12	-0.21
275	283	SLU-INV	Max	-0.02751	-0.72	-3.06	3.1374	0.7656	1.2298	10.13	-0.12
275	323	SLU-INV	Min	0.89	-0.54	-3.12	1.737	0.385	0.5149	5.07	-0.47
275	322	SLU-INV	Min	1.01	0.08873	-3.76	2.5205	0.4986	0.2955	5.07	-0.33
275	282	SLU-INV	Min	0.09831	-0.09423	-3.7	2.0318	0.4421	0.2644	5.21	-0.33
275	283	SLU-INV	Min	-0.02751	-0.72	-3.06	1.4537	0.3125	0.4858	5.21	-0.47
275	323	SLU-INV	Max	1.2	-0.54	-3.12	8.5278	1.821	3.1883	22.1	0.68
275	322	SLU-INV	Max	1.37	0.12	-3.76	11.8768	2.1623	1.9653	22.1	0.06786
275	282	SLU-INV	Max	0.13	-0.09423	-3.7	10.2561	2.2815	1.7403	21.44	0.06786
275	283	SLU-INV	Max	-0.02751	-0.72	-3.06	7.0498	1.8221	2.9633	21.44	0.68
275	323	SLU-INV	Min	0.89	-0.73	-4.21	2.3449	0.5197	0.695	6.84	-0.64
275	322	SLU-INV	Min	1.01	0.08873	-5.08	3.4027	0.6731	0.399	6.84	-0.45
275	282	SLU-INV	Min	0.09831	-0.13	-5	2.9944	0.5969	0.3597	7.04	-0.45
275	283	SLU-INV	Min	-0.03713	-0.98	-4.13	1.9625	0.4218	0.6558	7.04	-0.64
276	324	SLU-INV	Max	0.8	-1.28	-2.38	2.1178	0.4555	1.5013	9.04	0.07474
276	323	SLU-INV	Max	0.95	-0.53	-2.72	3.4819	0.7554	1.251	9.04	-0.13
276	283	SLU-INV	Max	0.14	-0.69	-2.82	3.1419	0.7675	1.2932	8.82	-0.13
276	284	SLU-INV	Max	-0.006441	-1.44	-2.48	1.8169	0.4353	1.5436	8.82	0.07474
276	324	SLU-INV	Min	0.8	-1.28	-2.38	0.9788	0.2155	0.6074	4.55	-0.48
276	323	SLU-INV	Min	0.95	-0.53	-2.72	1.671	0.381	0.4848	4.55	-0.46
276	283	SLU-INV	Min	0.14	-0.69	-2.82	1.4931	0.3111	0.5147	4.56	-0.46
276	284	SLU-INV	Min	-0.006441	-1.44	-2.48	0.8136	0.1352	0.6374	4.56	-0.48
276	324	SLU-INV	Max	1.08	-1.28	-2.38	4.7851	1.0238	3.5883	19.39	1.35
276	323	SLU-INV	Max	1.29	-0.53	-2.72	7.6982	1.6307	3.0383	19.39	0.65
276	283	SLU-INV	Max	0.19	-0.69	-2.82	6.9779	1.832	3.1065	18.64	0.65
276	284	SLU-INV	Max	-0.006441	-1.44	-2.48	4.1651	1.1422	3.6565	18.64	1.35
276	324	SLU-INV	Min	0.8	-1.73	-3.21	1.3214	0.291	0.82	6.14	-0.64
276	323	SLU-INV	Min	0.95	-0.71	-3.68	2.2558	0.5143	0.6544	6.14	-0.62
276	283	SLU-INV	Min	0.14	-0.93	-3.81	2.0157	0.4201	0.6949	6.16	-0.62
276	284	SLU-INV	Min	-0.008695	-1.94	-3.35	1.0983	0.1825	0.8605	6.16	-0.64
277	325	SLU-INV	Max	0.37	-1.82	-1.52	0.9986	0.1602	1.7176	7.93	0.31
277	324	SLU-INV	Max	0.47	-1.35	-1.93	2.1893	0.4391	1.4957	7.93	0.03441
277	284	SLU-INV	Max	0.14	-1.41	-2.09	1.8935				



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	149 di 174

277	285	SLU-INV	Max	0.0603	-1.89	-1.68	1.7865	0.6029	4.1369	16.12	2
277	325	SLU-INV	Min	0.37	-2.46	-2.05	0.6193	0.0969	0.9745	5.45	-0.57
277	324	SLU-INV	Min	0.47	-1.82	-2.6	1.4412	0.3059	0.8165	5.45	-0.66
277	284	SLU-INV	Min	0.14	-1.91	-2.82	1.2117	0.2142	0.8638	5.36	-0.66
278	285	SLU-INV	Min	0.04467	-2.55	-2.27	0.4061	-0.0082	1.0217	5.36	-0.57
278	326	SLU-INV	Max	-0.03504	-2.21	-0.97	0.0932	-0.0409	1.8142	6.9	0.57
278	325	SLU-INV	Max	0.02888	-1.89	-1.23	1.1239	0.1655	1.7271	6.9	0.28
278	285	SLU-INV	Max	0.02	-1.89	-1.36	1.0121	0.246	1.7599	6.6	0.28
278	286	SLU-INV	Max	-0.04393	-2.21	-1.09	0.0098	-0.0057	1.847	6.6	0.57
278	326	SLU-INV	Min	-0.03504	-2.21	-0.97	0.0366	-0.0618	0.7835	3.54	-0.33
278	325	SLU-INV	Min	0.02888	-1.89	-1.23	0.567	0.0899	0.726	3.54	-0.43
278	285	SLU-INV	Min	0.02	-1.89	-1.36	0.4768	0.0326	0.7522	3.44	-0.43
278	286	SLU-INV	Min	-0.04393	-2.21	-1.09	-0.0444	-0.1058	0.8097	3.44	-0.33
278	326	SLU-INV	Max	-0.03504	-2.21	-0.97	0.2714	-0.0552	4.2274	14.67	2.65
278	325	SLU-INV	Max	0.03899	-1.89	-1.23	2.4592	0.3619	4.0666	14.67	1.93
278	285	SLU-INV	Max	0.027	-1.89	-1.36	2.2905	0.7579	4.1122	13.91	1.93
278	286	SLU-INV	Max	-0.04393	-2.21	-1.09	0.1757	0.247	4.2729	13.91	2.65
278	326	SLU-INV	Min	-0.04731	-2.98	-1.3	0.0494	-0.0888	1.0577	4.78	-0.45
278	325	SLU-INV	Min	0.02888	-2.55	-1.66	0.7655	0.1214	0.9801	4.78	-0.58
278	285	SLU-INV	Min	0.02	-2.56	-1.84	0.6437	0.0441	1.0155	4.65	-0.58
278	286	SLU-INV	Min	-0.0593	-2.99	-1.48	-0.06	-0.1428	1.0932	4.65	-0.45
279	327	SLU-INV	Max	-0.37	-2.5	-0.53	-0.2559	-0.1384	1.8464	5.99	0.82
279	326	SLU-INV	Max	-0.32	-2.27	-0.74	0.359	-0.016	1.8084	5.99	0.53
279	286	SLU-INV	Max	-0.12	-2.23	-0.86	0.3191	0.0832	1.8525	5.58	0.53
279	287	SLU-INV	Max	-0.16	-2.46	-0.65	-0.3033	-0.1525	1.8905	5.58	0.82
279	327	SLU-INV	Min	-0.37	-2.5	-0.53	-0.5319	-0.25	0.8144	3.1	-0.23
279	326	SLU-INV	Min	-0.32	-2.27	-0.74	0.2052	-0.0356	0.7811	3.1	-0.34
279	286	SLU-INV	Min	-0.12	-2.23	-0.86	0.1493	-0.0582	0.8119	2.97	-0.34
279	287	SLU-INV	Min	-0.16	-2.46	-0.65	-0.546	-0.1877	0.8452	2.97	-0.23
279	327	SLU-INV	Max	-0.37	-2.5	-0.53	-0.3454	-0.1869	4.2688	12.69	3.24
279	326	SLU-INV	Max	-0.32	-2.27	-0.74	0.7708	-0.0216	4.2135	12.69	2.56
279	286	SLU-INV	Max	-0.12	-2.23	-0.86	0.7599	0.4332	4.2859	11.95	2.56
279	287	SLU-INV	Max	-0.16	-2.46	-0.65	-0.4094	-0.0459	4.3412	11.95	3.24
279	327	SLU-INV	Min	-0.5	-3.37	-0.71	-1.1173	-0.483	1.0995	4.18	-0.31
279	326	SLU-INV	Min	-0.44	-3.06	-1	0.277	-0.0583	1.0545	4.18	-0.46
279	286	SLU-INV	Min	-0.16	-3.01	-1.16	0.2015	-0.0786	1.0961	4.01	-0.46
279	287	SLU-INV	Min	-0.22	-3.31	-0.87	-1.0621	-0.2533	1.1411	4.01	-0.31
280	328	SLU-INV	Max	-0.6	-2.69	-0.26	-0.4705	-0.209	1.8191	5.16	1.07
280	327	SLU-INV	Max	-0.57	-2.54	-0.39	-0.0719	-0.1094	1.856	5.16	0.79
280	287	SLU-INV	Max	-0.26	-2.48	-0.47	-0.099	-0.0537	1.8803	4.87	0.79
280	288	SLU-INV	Max	-0.29	-2.63	-0.33	-0.4687	-0.2398	1.8434	4.87	1.07
280	328	SLU-INV	Min	-0.6	-2.69	-0.26	-0.9942	-0.3806	0.8161	2.69	-0.11
280	327	SLU-INV	Min	-0.57	-2.54	-0.39	-0.2282	-0.2112	0.8193	2.69	-0.24
280	287	SLU-INV	Min	-0.26	-2.48	-0.47	-0.1621	-0.1347	0.8401	2.56	-0.24
280	288	SLU-INV	Min	-0.29	-2.63	-0.33	-0.9067	-0.2406	0.837	2.56	-0.11
280	328	SLU-INV	Max	-0.6	-2.69	-0.26	-0.6352	-0.2821	4.1813	10.92	3.8
280	327	SLU-INV	Max	-0.57	-2.54	-0.39	-0.0971	-0.1477	4.2893	10.92	3.17
280	287	SLU-INV	Max	-0.26	-2.48	-0.47	-0.1039	0.161	4.3191	10.25	3.17
280	288	SLU-INV	Max	-0.29	-2.63	-0.33	-0.6328	-0.2133	4.2111	10.25	3.8
280	328	SLU-INV	Min	-0.81	-3.63	-0.35	-2.1467	-0.7492	1.1018	3.63	-0.15
280	327	SLU-INV	Min	-0.77	-3.42	-0.53	-0.5257	-0.42	1.106	3.63	-0.32
280	287	SLU-INV	Min	-0.35	-3.34	-0.63	-0.3037	-0.1818	1.1342	3.46	-0.32
280	288	SLU-INV	Min	-0.39	-3.54	-0.45	-1.87	-0.325	1.1299	3.46	-0.15
281	329	SLU-INV	Max	-0.75	-2.82	-0.05846	-0.6098	-0.2669	1.7436	4.44	1.29
281	328	SLU-INV	Max	-0.73	-2.71	-0.16	-0.2656	-0.1773	1.8159	4.44	1.04
281	288	SLU-INV	Max	-0.38	-2.64	-0.22	-0.2423	-0.1393	1.8454	4.17	1.04
281	289	SLU-INV	Max	-0.4	-2.75	-0.12	-0.5804	-0.2799	1.7721	4.17	1.29
281	329	SLU-INV	Min	-0.75	-2.82	-0.05846	-1.2971	-0.4871	0.7936	2.33	-0.004915
281	328	SLU-INV	Min	-0.73	-2.71	-0.16	-0.6397	-0.3334	0.8159	2.33	-0.13
281	288	SLU-INV	Min	-0.38	-2.64	-0.22	-0.5185	-0.1853	0.8371	2.2	-0.13
281	289	SLU-INV	Min	-0.4	-2.75	-0.12	-1.1569	-0.3086	0.8149	2.2	-0.004915
281	329	SLU-INV	Max	-0.75	-2.82	-0.05846	-0.8232	-0.3603	3.9909	9.38	4.3
281	328	SLU-INV	Max	-0.73	-2.71	-0.16	-0.3586	-0.2393	4.1744	9.38	3.73
281	288	SLU-INV	Max	-0.38	-2.64	-0.22	-0.3271	-0.0008985	4.2173	8.77	3.73
281	289	SLU-INV	Max	-0.4	-2.75	-0.12	-0.7835	-0.342	4.0338	8.77	4.3
281	329	SLU-INV	Min	-1.01	-3.81	-0.07892	-2.8233	-0.9648	1.0713	3.15	-0.006635
281	328	SLU-INV	Min	-0.98	-3.66	-0.21	-1.4329	-0.6638	1.1014	3.15	-0.17
281	288	SLU-INV	Min	-0.51	-3.57	-0.3	-1.0948	-0.2501	1.1301	2.97	-0.17
281	289	SLU-INV	Min	-0.54	-3.72	-0.17	-2.4363	-0.4209	1.1001	2.97	-0.006635
282	330	SLU-INV	Max	-0.84	-2.91	0.05181	-0.7006	-0.3055	1.6352	3.8	1.5
282	329	SLU-INV	Max	-0.82	-2.84	-0.004083	-0.4043	-0.2341	1.7507	3.8	1.27
282	289	SLU-INV	Max	-0.48	-2.77	-0.03765	-0.35	-0.2078	1.7644	3.55	1.27
282	290	SLU-INV	Max	-0.49	-2.84	0.01824	-0.6413	-0.3009	1.6489	3.55	1.5
282	330	SLU-INV	Min	-0.84	-2.91	0.05181	-1.499	-0.5549	0.7541	2.01	0.09847
282	329	SLU-INV	Min	-0.82	-2.84	-0.004083	-0.9375	-0.4354	0.7976	2.01	-0.01554
282	289	SLU-INV	Min	-0.48	-2.77	-0.03765	-0.7537	-0.2255	0.8107	1.89	-0.01554
282	290	SLU-INV	Min	-0.49	-2.84	0.01824	-1.2995	-0.3401	0.7672	1.89	0.09847
282	330	SLU-INV	Max	-0.84	-2.91	0.06995	-0.9458	-0.4124	3.7319	8.02	4.75
282	329	SLU-INV	Max	-0.82	-2.84	-0.004083	-0.5459	-0.316	4.0055	8.02	4.24
282	289	SLU-INV	Max	-0.48	-2.77	-0.03765	-0.4724	-0.1302	4.0182	7.48	4.24
282	290	SLU-INV	Max	-0.49	-2.84	0.02463	-0.8657	-0.394	3.7446	7.48	4.75
282	330	SLU-INV	Min	-1.13	-3.93	0.05181	-3.2774	-1.0968	1.018	2.72	0.13
282	329	SLU-INV	Min	-1.11	-3.83	-0.005512	-2.0906	-0.8664	1.0767	2.72	-0.02098
282	289	SLU-INV	Min	-0.65	-3.74	-0.05083	-1.618	-0.3044	1.0944	2.55	-0.02098
282	290	SLU-INV	Min	-0.67	-3.84	0.01824	-2.7642	-0.4651	1.0357	2.55	0.13
283	331	SLU-INV	Max	-0.89	-2.97	0.13	-0.7497	-0.3354	1.4971	3.24	1.68
283	330	SLU-INV	Max	-0.87	-2.92	0.09176	-0.4948	-0.2728	1.6345	3.24	1.47
283	290	SLU-INV	Max	-0.55	-2.85	0.06548	-0.4222	-0.2437	1.6494	3.02	1.47
283	291	SLU-INV	Max	-0.56	-2.91	0.1	-0.6728	-0.3146	1.5121	3.02	1.68
283	331	SLU-INV	Min	-0.89	-2.97	0.13	-1.6128	-0.607	0.6994	1.73	0.19
283	330	SLU-INV	Min	-0.87	-2.92	0.09176	-1.1342	-0.5015	0.7544	1.73	0.08775
283	290	SLU-INV	Min	-0.55	-2.85	0.06548	-0.9154	-0.2486	0.7657	1.62	0.08775
283	291	SLU-INV	Min	-0.56	-2.91	0.1	-1.3803	-0.3603	0.7116	1.52	0.19
283	331	SLU-INV	Max	-0.89	-2.97	0.17	-1.0122	-0.4527	3.4102	6.84	5.14
283	330	SLU-INV	Max	-0.87	-2.92	0.12	-0.668	-0.3683	3.7285	6.84	4.69
283	290	SLU-INV	Max	-0.55	-2.85	0.0884	-0.5699	-0.191	3.7475	6.36	4.69
283	291	SLU-INV	Max	-0.56	-2.91	0.14	-0.9083	-0.4248	3.4292	6.36	5.14
283	331	SLU-INV	Min	-1.2	-4.01	0.13	-3.5362	-1.1975	0.9441	2.34	0.26
283	330	SLU-INV	Min	-1.18	-3.94	0.09176	-2.5254	-0.9925	1.0185	2.34	0.12
283	290	SLU-INV	Min	-0.74	-3.85	0.06548	-1.9796	-0.3356	1.035	2.19	0.12
283	291	SLU-INV	Min	-0.76	-3.93	0.1	-2.9551	-0.4933	0.9607	2.19	0.26
284	332	SLU-INV	Max	-0.9	-3.01	0.16	-0.7729	-0.3532	1.3419	2.75	1.84
284	331	SLU-INV	Max	-0.89	-2.98	0.14	-0.554	-0.3036	1.5018	2.75	1.66
284	291	SLU-INV	Max	-0.6	-2.92	0.14	-0.4633	-0.2653	1.5071	2.56	1.66
284	292	SLU-INV	Max	-0.61	-2						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N. progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	150 di 174			
284	291	SLU-INV	Max	-0.6	-2.92	0.18	-0.6255	-0.2345	3.4192	5.38	5.09
284	292	SLU-INV	Max	-0.61	-2.95	0.2	-0.9166	-0.414	3.053	5.38	5.48
284	332	SLU-INV	Min	-1.21	-4.06	0.16	-3.6736	-1.2484	0.858	2.02	0.38
284	331	SLU-INV	Min	-1.2	-4.02	0.14	-2.8175	-1.0926	0.9478	2.02	0.25
284	291	SLU-INV	Min	-0.81	-3.94	0.14	-2.1955	-0.3651	0.9568	1.88	0.25
284	292	SLU-INV	Min	-0.82	-3.98	0.15	-3.0227	-0.4926	0.867	1.88	0.38
285	333	SLU-INV	Max	-0.89	-3.03	0.18	-0.7757	-0.3667	1.1697	2.33	1.98
285	332	SLE-INV	Max	-0.89	-3.01	0.17	-0.5876	-0.3231	1.341	2.33	1.82
285	292	SLE-INV	Max	-0.64	-2.96	0.16	-0.4864	-0.2721	1.3479	2.16	1.82
285	293	SLE-INV	Max	-0.64	-2.98	0.17	-0.6718	-0.3179	1.1766	2.16	1.98
285	333	SLE-INV	Min	-0.89	-3.03	0.18	-1.6866	-0.6567	0.563	1.29	0.35
285	332	SLE-INV	Min	-0.89	-3.01	0.17	-1.3444	-0.5853	0.6356	1.29	0.27
285	292	SLE-INV	Min	-0.64	-2.96	0.16	-1.0697	-0.2777	0.6421	1.2	0.27
285	293	SLE-INV	Min	-0.64	-2.98	0.17	-1.4026	-0.3566	0.5696	1.2	0.35
285	333	SLU-INV	Max	-0.89	-3.03	0.24	-1.0472	-0.495	2.6606	4.89	5.77
285	332	SLU-INV	Max	-0.89	-3.01	0.23	-0.7933	-0.4362	3.05	4.89	5.44
285	292	SLU-INV	Max	-0.64	-2.96	0.22	-0.6566	-0.2398	3.0558	4.53	5.44
285	293	SLU-INV	Max	-0.64	-2.98	0.23	-0.9069	-0.3979	2.6664	4.53	5.77
285	333	SLU-INV	Min	-1.2	-4.1	0.18	-3.7136	-1.2854	0.7601	1.74	0.48
285	332	SLU-INV	Min	-1.2	-4.06	0.17	-2.9917	-1.1471	0.858	1.74	0.36
285	292	SLU-INV	Min	-0.86	-3.99	0.16	-2.3275	-0.3757	0.8669	1.61	0.36
285	293	SLU-INV	Min	-0.87	-4.03	0.17	-3.0252	-0.4872	0.7689	1.61	0.48
286	334	SLE-INV	Max	-0.87	-3.04	0.17	-0.7675	-0.3743	0.9893	1.95	2.09
286	333	SLE-INV	Max	-0.87	-3.03	0.17	-0.6061	-0.3387	1.1719	1.95	1.96
286	293	SLE-INV	Max	-0.66	-2.99	0.18	-0.4947	-0.2766	1.1741	1.81	1.96
286	294	SLE-INV	Max	-0.66	-3	0.18	-0.6544	-0.3136	0.9914	1.81	2.09
286	334	SLE-INV	Min	-0.87	-3.04	0.17	-1.6773	-0.6662	0.486	1.11	0.42
286	333	SLE-INV	Min	-0.87	-3.03	0.17	-1.391	-0.6102	0.5643	1.11	0.35
286	293	SLE-INV	Min	-0.66	-2.99	0.18	-1.0965	-0.2828	0.5681	1.03	0.35
286	294	SLE-INV	Min	-0.66	-3	0.18	-1.3759	-0.3445	0.4898	1.03	0.42
286	334	SLU-INV	Max	-0.87	-3.04	0.23	-1.0362	-0.5053	2.2516	4.1	6.02
286	333	SLU-INV	Max	-0.87	-3.03	0.23	-0.8183	-0.4572	2.665	4.1	5.74
286	293	SLU-INV	Max	-0.66	-2.99	0.24	-0.6679	-0.2419	2.6616	3.79	5.74
286	294	SLU-INV	Max	-0.66	-3	0.24	-0.8834	-0.3643	2.2482	3.79	6.02
286	334	SLU-INV	Min	-1.18	-4.11	0.17	-3.6996	-1.298	0.6561	1.49	0.57
286	333	SLU-INV	Min	-1.17	-4.09	0.17	-3.0962	-1.1909	0.7618	1.49	0.47
286	293	SLU-INV	Min	-0.89	-4.03	0.18	-2.3898	-0.3827	0.767	1.39	0.47
286	294	SLU-INV	Min	-0.9	-4.05	0.18	-2.9746	-0.4697	0.6612	1.39	0.57
287	335	SLE-INV	Max	-0.85	-3.05	0.16	-0.7524	-0.3817	0.7998	1.62	2.19
287	334	SLE-INV	Max	-0.84	-3.04	0.17	-0.6137	-0.2987	0.9873	1.62	2.08
287	294	SLE-INV	Max	-0.67	-3	0.17	-0.4959	-0.2768	0.9933	1.5	2.08
287	295	SLE-INV	Max	-0.68	-3.02	0.17	-0.6335	-0.3108	0.8049	1.5	2.19
287	335	SLE-INV	Min	-0.85	-3.05	0.16	-1.6517	-0.676	0.4036	0.95	0.48
287	334	SLE-INV	Min	-0.84	-3.04	0.17	-1.4143	-0.6244	0.4852	0.95	0.41
287	294	SLE-INV	Min	-0.67	-3	0.17	-1.108	-0.2802	0.4905	0.88	0.41
287	295	SLE-INV	Min	-0.68	-3.02	0.17	-1.3403	-0.336	0.4089	0.88	0.48
287	335	SLU-INV	Max	-0.85	-3.05	0.22	-1.0158	-0.5154	1.8216	3.4	6.23
287	334	SLU-INV	Max	-0.84	-3.04	0.23	-0.8285	-0.4707	2.2465	3.4	5.99
287	294	SLU-INV	Max	-0.67	-3	0.23	-0.6695	-0.2284	2.253	3.14	5.99
287	295	SLU-INV	Max	-0.68	-3.02	0.22	-0.8552	-0.3398	1.828	3.14	6.23
287	335	SLU-INV	Min	-1.14	-4.12	0.16	-3.649	-1.3124	0.5449	1.28	0.65
287	334	SLU-INV	Min	-1.14	-4.1	0.17	-3.1492	-1.2127	0.655	1.28	0.56
287	294	SLU-INV	Min	-0.91	-4.06	0.17	-2.4185	-0.3788	0.6621	1.19	0.56
287	295	SLU-INV	Min	-0.91	-4.07	0.17	-2.904	-0.4574	0.552	1.19	0.65
288	336	SLE-INV	Max	-0.82	-3.05	0.14	-0.7358	-0.3882	0.6045	1.33	2.27
288	335	SLE-INV	Max	-0.82	-3.05	0.15	-0.6167	-0.3587	0.7989	1.33	2.18
288	295	SLE-INV	Max	-0.68	-3.02	0.16	-0.4925	-0.2784	0.9477	1.23	2.18
288	296	SLE-INV	Max	-0.68	-3.03	0.15	-0.6114	-0.3082	0.6103	1.23	2.27
288	336	SLE-INV	Min	-0.82	-3.05	0.14	-1.6209	-0.6831	0.3188	0.82	0.53
288	335	SLE-INV	Min	-0.82	-3.05	0.15	-1.427	-0.6394	0.4036	0.82	0.47
288	295	SLE-INV	Min	-0.68	-3.02	0.16	-1.1092	-0.2815	0.4088	0.76	0.47
288	296	SLE-INV	Min	-0.68	-3.03	0.15	-1.3	-0.3277	0.324	0.76	0.53
288	336	SLU-INV	Max	-0.82	-3.05	0.19	-0.9933	-0.5241	1.384	2.78	6.4
288	335	SLU-INV	Max	-0.82	-3.05	0.21	-0.8325	-0.4843	1.8214	2.78	6.21
288	295	SLU-INV	Max	-0.68	-3.02	0.22	-0.6649	-0.2246	1.8279	2.57	6.21
288	296	SLU-INV	Max	-0.68	-3.03	0.2	-0.8254	-0.3161	1.3904	2.57	6.4
288	336	SLU-INV	Min	-1.11	-4.12	0.14	-3.5868	-1.3216	0.4304	1.11	0.71
288	335	SLU-INV	Min	-1.1	-4.11	0.15	-3.1795	-1.2378	0.5449	1.11	0.64
288	295	SLU-INV	Min	-0.92	-4.08	0.16	-2.4242	-0.3804	0.5519	1.03	0.64
288	296	SLU-INV	Min	-0.92	-4.09	0.15	-2.8222	-0.4453	0.4374	1.03	0.71
289	337	SLE-INV	Max	-0.79	-3.06	0.12	-0.7207	-0.3985	0.4023	1.06	2.34
289	336	SLE-INV	Max	-0.79	-3.05	0.13	-0.6182	-0.3679	0.6009	1.06	2.27
289	296	SLE-INV	Max	-0.68	-3.03	0.14	-0.4889	-0.2804	0.6139	0.99	2.27
289	297	SLE-INV	Max	-0.68	-3.04	0.13	-0.5918	-0.3107	0.4153	0.99	2.34
289	337	SLE-INV	Min	-0.79	-3.06	0.12	-1.5904	-0.6972	0.2295	0.71	0.57
289	336	SLE-INV	Min	-0.79	-3.05	0.13	-1.4352	-0.6522	0.317	0.71	0.52
289	296	SLE-INV	Min	-0.68	-3.03	0.14	-1.1089	-0.2832	0.3257	0.66	0.52
289	297	SLE-INV	Min	-0.68	-3.04	0.13	-1.2627	-0.3293	0.2383	0.66	0.57
289	337	SLU-INV	Max	-0.79	-3.06	0.16	-0.973	-0.538	0.9301	2.22	6.54
289	336	SLU-INV	Max	-0.79	-3.05	0.18	-0.8345	-0.4967	1.3759	2.22	6.38
289	296	SLU-INV	Max	-0.68	-3.03	0.19	-0.66	-0.2224	1.3983	2.06	6.38
289	297	SLU-INV	Max	-0.68	-3.04	0.17	-0.7989	-0.3142	0.9525	2.06	6.54
289	337	SLU-INV	Min	-1.07	-4.13	0.12	-3.5252	-1.3464	0.3099	0.95	0.77
289	336	SLU-INV	Min	-1.07	-4.12	0.13	-3.2	-1.2589	0.4279	0.95	0.71
289	296	SLU-INV	Min	-0.92	-4.09	0.14	-2.427	-0.3827	0.4398	0.89	0.71
289	297	SLU-INV	Min	-0.92	-4.1	0.13	-2.747	-0.4473	0.3217	0.89	0.77
290	338	SLE-INV	Max	-0.77	-3.06	0.09408	-0.7102	-0.4119	0.1971	0.83	2.38
290	337	SLE-INV	Max	-0.77	-3.05	0.11	-0.6219	-0.3809	0.4002	0.83	2.33
290	297	SLE-INV	Max	-0.68	-3.03	0.12	-0.4871	-0.2875	0.4173	0.77	2.33
290	298	SLE-INV	Max	-0.68	-3.04	0.1	-0.5767	-0.3175	0.2143	0.77	2.38
290	338	SLE-INV	Min	-0.77	-3.06	0.09408	-1.5659	-0.7159	0.1378	0.61	0.61
290	337	SLE-INV	Min	-0.77	-3.05	0.11	-1.4458	-0.6722	0.2282	0.61	0.57
290	297	SLE-INV	Min	-0.68	-3.03	0.12	-1.111	-0.295	0.2395	0.57	0.57
290	298	SLE-INV	Min	-0.68	-3.04	0.1	-1.2316	-0.3381	0.1491	0.57	0.61
290	338	SLU-INV	Max	-0.77	-3.06	0.13	-0.9588	-0.5561	0.4705	1.72	6.64
290	337	SLU-INV	Max	-0.77	-3.05	0.15	-0.8396	-0.5143	0.9255	1.72	6.52
290	297	SLU-INV	Max	-0.68	-3.03	0.16	-0.6577	-0.2423	0.9568	1.6	6.52
290	298	SLU-INV	Max	-0.68	-3.04	0.14	-0.7785	-0.3276	0.5017	1.6	6.64
290	338	SLU-INV	Min	-1.04	-4.13	0.09408	-3.4769	-1.3813	0.186	0.82	0.82
290	337	SLU-INV	Min	-1.04	-4.12	0.11	-3.2266	-1.2964	0.3081	0.82	0.77
290	297	SLU-INV	Min	-0.92	-4.1	0.12	-2.4356	-0.3993	0.3233	0.77	0.77
290	298	SLU-INV	Min	-0.92	-4.1	0.1	-2.6853	-0.4595	0.2012	0.77	0.82
291	339	SLE-INV	Max	-0.75	-3.06	0.06559	-0.707	-0.4332	0.0402	0.61	2.41
291	338	SLE-INV	Max	-0.75	-3.05	0.08201	-0.6308	-0.3971	0.1912	0.61	2.38
291	298	SLE-INV	Max	-0.68	-3.04	0.0841	-0.4896	-0.299	0.2202	0.57	2.38
291	299	SLE-INV	Max	-0.68	-3.05	0.06769	-0.5678	-0.3335	0.0579	0.57	2.41
291	339	SLE-INV	Min	-0.75	-3.06	0.06559	-1.5515	-0.7485	-0.0175	0.53</	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS OI6700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 151 di 174
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291	338	SLU-INV	Max	-0.75	-3.05	0.11	-0.8515	-0.5361	0.4579	1.26	6.63
291	298	SLU-INV	Max	-0.68	-3.04	0.11	-0.661	-0.2777	0.5141	1.18	6.63
291	299	SLU-INV	Max	-0.68	-3.05	0.09138	-0.7665	-0.3763	0.0781	1.18	6.71
291	339	SLU-INV	Min	-1.02	-4.13	0.06559	-3.4512	-1.446	-0.0323	0.71	0.85
291	338	SLU-INV	Min	-1.02	-4.12	0.08201	-3.2693	-1.3444	0.1817	0.71	0.82
291	298	SLU-INV	Min	-0.92	-4.1	0.0841	-2.4587	-0.4262	0.2055	0.67	0.82
291	299	SLU-INV	Min	-0.92	-4.12	0.06769	-2.6442	-0.4953	0.0086	0.67	0.85
292	340	SLE-INV	Max	-0.75	-3.07	0.02924	-0.7125	-0.4619	-0.0611	0.46	2.43
292	339	SLE-INV	Max	-0.75	-3.06	0.04901	-0.6467	-0.4211	0.0374	0.46	2.42
292	299	SLE-INV	Max	-0.68	-3.05	0.05056	-0.499	-0.3197	0.0606	0.44	2.42
292	300	SLE-INV	Max	-0.69	-3.06	0.0308	-0.5677	-0.3581	-0.0379	0.44	2.43
292	340	SLE-INV	Max	-0.75	-3.07	0.02924	-1.5486	-0.793	-0.2362	0.4	0.65
292	339	SLE-INV	Min	-0.75	-3.06	0.04901	-1.491	-0.7358	-0.0223	0.4	0.63
292	299	SLE-INV	Min	-0.68	-3.05	0.05056	-1.1384	-0.35	0.0162	0.39	0.63
292	300	SLE-INV	Min	-0.69	-3.06	0.0308	-1.2004	-0.4035	-0.1977	0.39	0.65
292	340	SLE-INV	Max	-0.75	-3.07	0.03948	-0.9619	-0.6236	-0.0825	0.83	6.75
292	339	SLU-INV	Max	-0.75	-3.06	0.06616	-0.873	-0.5685	0.0505	0.83	6.71
292	299	SLU-INV	Max	-0.68	-3.05	0.06825	-0.6737	-0.3488	0.0818	0.79	6.71
292	300	SLU-INV	Max	-0.69	-3.06	0.04157	-0.7664	-0.455	-0.0512	0.79	6.75
292	340	SLU-INV	Min	-1.01	-4.14	0.02924	-3.4514	-1.5358	-0.4957	0.54	0.88
292	339	SLU-INV	Min	-1.01	-4.13	0.04901	-3.3342	-1.4225	-0.0391	0.54	0.85
292	299	SLU-INV	Min	-0.92	-4.12	0.05056	-2.5057	-0.477	0.0152	0.52	0.85
292	300	SLU-INV	Min	-0.93	-4.13	0.0308	-2.6314	-0.5515	-0.4199	0.52	0.88
293	341	SLE-INV	Max	-0.75	-3.09	-0.01247	-0.7297	-0.5041	-0.1715	0.39	2.42
293	340	SLE-INV	Max	-0.75	-3.07	0.01214	-0.6727	-0.4525	-0.0665	0.39	2.43
293	300	SLE-INV	Max	-0.68	-3.06	0.007225	-0.516	-0.3492	-0.0326	0.39	2.43
293	301	SLE-INV	Max	-0.69	-3.08	-0.01738	-0.5766	-0.3977	-0.1375	0.39	2.42
293	341	SLE-INV	Min	-0.75	-3.09	-0.01247	-1.5614	-0.8611	-0.4688	0.21	0.66
293	340	SLE-INV	Min	-0.75	-3.07	0.01214	-1.5325	-0.7862	-0.2462	0.21	0.65
293	300	SLE-INV	Min	-0.68	-3.06	0.007225	-1.1677	-0.4005	-0.1878	0.22	0.65
293	301	SLE-INV	Min	-0.69	-3.08	-0.01738	-1.2027	-0.4702	-0.4104	0.22	0.66
293	341	SLU-INV	Max	-0.75	-3.09	-0.01247	-0.9851	-0.6805	-0.2315	0.53	6.75
293	340	SLU-INV	Max	-0.75	-3.07	0.01639	-0.9082	-0.6109	-0.0898	0.53	6.75
293	300	SLU-INV	Max	-0.68	-3.06	0.009753	-0.6966	-0.4499	-0.044	0.52	6.75
293	301	SLU-INV	Max	-0.69	-3.08	-0.01738	-0.7784	-0.5369	-0.1857	0.52	6.75
293	341	SLU-INV	Min	-1.02	-4.17	-0.01683	-3.4864	-1.6757	-1.0117	0.25	0.89
293	340	SLU-INV	Min	-1.01	-4.14	0.01214	-3.4304	-1.5257	-0.5166	0.25	0.88
293	300	SLU-INV	Min	-0.92	-4.13	0.007225	-2.5762	-0.5483	-0.3993	0.27	0.88
293	301	SLU-INV	Min	-0.93	-4.15	-0.02346	-2.6448	-0.6456	-0.8944	0.27	0.89
294	342	SLE-INV	Max	-0.77	-3.12	-0.07073	-0.7593	-0.5596	-0.287	0.33	2.39
294	341	SLE-INV	Max	-0.77	-3.09	-0.038	-0.7091	-0.4972	-0.168	0.33	2.43
294	301	SLE-INV	Max	-0.68	-3.08	-0.04314	-0.5452	-0.3942	-0.1323	0.35	2.43
294	302	SLE-INV	Max	-0.69	-3.11	-0.07587	-0.5989	-0.4527	-0.2425	0.35	2.39
294	342	SLE-INV	Min	-0.77	-3.12	-0.07073	-1.586	-0.9515	-0.7056	0.007408	0.65
294	341	SLE-INV	Min	-0.77	-3.09	-0.038	-1.5858	-0.8602	-0.4783	0.007408	0.66
294	301	SLE-INV	Min	-0.68	-3.08	-0.04314	-1.2145	-0.4783	-0.4012	0.05117	0.66
294	302	SLE-INV	Min	-0.69	-3.11	-0.07587	-1.2231	-0.5628	-0.6285	0.05117	0.65
294	342	SLU-INV	Max	-0.77	-3.12	-0.07073	-1.0235	-0.7555	-0.3875	0.45	6.71
294	341	SLU-INV	Max	-0.77	-3.09	-0.038	-0.9573	-0.6713	-0.2387	0.45	6.76
294	301	SLU-INV	Max	-0.68	-3.08	-0.04314	-0.7361	-0.5321	-0.1786	0.47	6.76
294	302	SLU-INV	Max	-0.69	-3.11	-0.07587	-0.8085	-0.6112	-0.3274	0.47	6.71
294	342	SLU-INV	Min	-1.04	-4.22	-0.09549	-3.5486	-1.8628	-1.536	-0.03913	0.88
294	341	SLU-INV	Min	-1.03	-4.17	-0.0513	-3.5536	-1.679	-1.0311	-0.03913	0.89
294	301	SLU-INV	Min	-0.92	-4.15	-0.05824	-2.6847	-0.6584	-0.02472	0.89	0.89
294	302	SLU-INV	Min	-0.93	-4.2	-0.1	-2.6976	-0.7766	-1.3803	0.02472	0.88
295	343	SLE-INV	Max	-0.81	-3.21	-0.15	-0.8017	-0.6378	-0.4146	0.28	2.32
295	342	SLE-INV	Max	-0.8	-3.13	-0.11	-0.7595	-0.5551	-0.2965	0.28	2.4
295	302	SLE-INV	Max	-0.67	-3.1	-0.11	-0.5858	-0.5449	-0.32	0.32	2.4
295	303	SLE-INV	Max	-0.68	-3.19	-0.16	-0.6332	-0.5333	-0.3511	0.22	2.32
295	343	SLE-INV	Min	-0.81	-3.21	-0.15	-1.627	-1.0831	-0.9593	-0.2	0.62
295	342	SLE-INV	Min	-0.8	-3.13	-0.1	-1.6551	-0.9559	-0.7237	-0.2	0.66
295	302	SLE-INV	Min	-0.67	-3.1	-0.11	-1.2739	-0.5823	-0.6105	-0.11	0.66
295	303	SLE-INV	Min	-0.68	-3.19	-0.16	-1.2558	-0.7013	-0.8462	-0.11	0.62
295	343	SLU-INV	Max	-0.81	-3.21	-0.15	-1.0823	-0.861	-0.5597	0.38	6.63
295	342	SLU-INV	Max	-0.8	-3.13	-0.1	-1.0254	-0.7493	-0.4003	0.38	6.73
295	302	SLU-INV	Max	-0.67	-3.1	-0.11	-0.7908	-0.6142	-0.3146	0.43	6.73
295	303	SLU-INV	Max	-0.68	-3.19	-0.16	-0.8548	-0.72	-0.474	0.43	6.63
295	343	SLU-INV	Min	-1.1	-4.33	-0.2	-3.6472	-2.1367	-2.0961	-0.42	0.84
295	342	SLU-INV	Min	-1.07	-4.22	-0.14	-3.7126	-1.879	-1.5732	-0.42	0.89
295	302	SLU-INV	Min	-0.9	-4.19	-0.15	-2.8207	-0.8179	-1.3431	-0.31	0.89
295	303	SLU-INV	Min	-0.92	-4.3	-0.21	-2.777	-1.0577	-1.8659	-0.31	0.84
296	344	SLE-INV	Max	-0.83	-3.37	-0.23	-0.8543	-0.7296	-0.5371	0.22	2.2
296	343	SLE-INV	Max	-0.8	-3.21	-0.2	-0.8183	-0.6349	-0.4203	0.22	2.33
296	303	SLE-INV	Max	-0.62	-3.17	-0.19	-0.6473	-0.5424	-0.3455	0.3	2.33
296	304	SLE-INV	Max	-0.66	-3.33	-0.22	-0.893	-0.6322	-0.4622	0.3	2.2
296	344	SLE-INV	Min	-0.83	-3.37	-0.23	-1.6688	-1.2344	-1.1905	-0.41	0.56
296	343	SLE-INV	Min	-0.8	-3.21	-0.2	-1.7261	-1.0919	-0.9683	-0.41	0.63
296	303	SLE-INV	Min	-0.62	-3.17	-0.19	-1.364	-0.7339	-0.8373	-0.27	0.63
296	304	SLE-INV	Min	-0.66	-3.33	-0.22	-1.3185	-0.8667	-1.0596	-0.27	0.56
296	344	SLU-INV	Max	-0.83	-3.37	-0.23	-1.1533	-0.9849	-0.7251	0.3	6.47
296	343	SLU-INV	Max	-0.8	-3.21	-0.2	-1.1048	-0.8571	-0.5675	0.3	6.66
296	303	SLU-INV	Max	-0.62	-3.17	-0.19	-0.8739	-0.7323	-0.4664	0.4	6.66
296	304	SLU-INV	Max	-0.66	-3.33	-0.22	-0.9306	-0.8534	-0.624	0.4	6.47
296	344	SLU-INV	Min	-1.12	-4.55	-0.31	-3.749	-2.4525	-2.6126	-0.87	0.75
296	343	SLU-INV	Min	-1.08	-4.33	-0.27	-3.8781	-2.1646	-2.1142	-0.87	0.85
296	303	SLU-INV	Min	-0.84	-4.28	-0.25	-3.0189	-1.1244	-1.8481	-0.67	0.85
296	304	SLU-INV	Min	-0.89	-4.5	-0.29	-2.9161	-1.3907	-2.3465	-0.67	0.75
297	345	SLE-INV	Max	-0.79	-3.58	-0.29	-0.9311	-0.8398	-0.6782	0.17	2.03
297	344	SLE-INV	Max	-0.74	-3.35	-0.28	-0.8977	-0.7271	-0.5444	0.17	2.22
297	304	SLE-INV	Max	-0.56	-3.31	-0.23	-0.7113	-0.6477	-0.4548	0.3	2.22
297	305	SLE-INV	Max	-0.6	-3.55	-0.25	-0.7501	-0.7558	-0.5887	0.3	2.03
297	345	SLE-INV	Min	-0.79	-3.58	-0.29	-1.7423	-1.4113	-1.4506	-0.62	0.45
297	344	SLE-INV	Min	-0.74	-3.35	-0.28	-1.8275	-1.2466	-1.2013	-0.62	0.57
297	304	SLE-INV	Min	-0.56	-3.31	-0.23	-1.4424	-0.911	-1.0486	-0.42	0.57
297	305	SLE-INV	Min	-0.6	-3.55	-0.25	-1.368	-1.0662	-1.298	-0.42	0.45
297	345	SLU-INV	Max	-0.79	-3.58	-0.29	-1.257	-1.1337	-0.9156	0.23	6.25
297	344	SLU-INV	Max	-0.74	-3.35	-0.28	-1.2118	-0.9816	-0.7349	0.23	6.52
297	304	SLU-INV	Max	-0.56	-3.31	-0.23	-0.9602	-0.8744	-0.614	0.4	6.52
297	305	SLU-INV	Max	-0.6	-3.55	-0.25	-1.0127	-1.0203	-0.7947	0.4	6.25
297	345	SLU-INV	Min	-1.07	-4.84	-0.39	-3.9093	-2.8255	-3.1968	-1.32	0.61
297	344	SLU-INV	Min	-1	-4.52	-0.37	-4.1041	-2.4897	-2.636	-1.32	0.77
297	304	SLU-INV	Min	-0.75	-4.47	-0.31	-3.1864	-1.4786	-2.3225	-1.05	0.77
297	305	SLU-INV	Min	-0.82	-4.79	-0.33	-3.0166	-1.7925	-2.8832	-1.05	0.61
298	345	SLE-INV	Max	-0.66	-3.56	-0.29	-0.9445	-0.8338	-0.6915	0.14	2.05
298	305	SLE-INV	Max	-0.48	-3.52	-0.24	-0.7867	-0.7718	-0.5755	0.3	2.05
298	306	SLE-INV	Max	-0.53	-3.73	-0.21	-0.8183	-0.8857	-0.6687	0.3	1.86
298	346	SLE-INV									



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	152 di 174			
298	345	SLU-INV	Max	-0.66	-3.56	-0.29	-1.2751	-1.1256	-0.9335	0.19	6.28
298	305	SLU-INV	Max	-0.48	-3.52	-0.24	-1.0621	-1.0419	-0.7769	0.4	6.28
298	306	SLU-INV	Max	-0.53	-3.73	-0.21	-1.1047	-1.1957	-0.9027	0.4	6.03
298	346	SLU-INV	Max	-0.7	-3.77	-0.26	-1.3076	-1.2842	-1.0593	0.19	6.03
298	345	SLU-INV	Min	-0.89	-4.8	-0.39	-4.1266	-2.8499	-3.2481	-1.76	0.62
298	305	SLU-INV	Min	-0.65	-4.76	-0.32	-3.3274	-1.8737	-2.832	-1.45	0.62
298	306	SLU-INV	Min	-0.71	-5.04	-0.28	-3.1428	-2.2194	-3.2171	-1.45	0.45
298	346	SLU-INV	Min	-0.95	-5.09	-0.36	-3.9052	-3.2134	-3.6332	-1.76	0.45
299	347	SLE-INV	Max	-0.6	-3.91	-0.16	-0.989	-1.0394	-0.847	0.03715	1.66
299	346	SLE-INV	Max	-0.57	-3.74	-0.22	-0.9748	-0.9436	-0.7745	0.03715	1.88
299	306	SLE-INV	Max	-0.41	-3.71	-0.17	-0.8535	-0.9016	-0.6785	0.23	1.88
299	307	SLE-INV	Max	-0.45	-3.88	-0.11	-0.873	-0.9948	-0.7511	0.23	1.66
299	347	SLE-INV	Min	-0.6	-3.91	-0.16	-1.7012	-1.7241	-1.7459	-1.05	0.19
299	346	SLE-INV	Min	-0.57	-3.74	-0.22	-1.823	-1.5977	-1.6191	-1.05	0.35
299	306	SLE-INV	Min	-0.41	-3.71	-0.17	-1.5683	-1.3171	-1.4646	-0.78	0.35
299	307	SLE-INV	Min	-0.45	-3.88	-0.11	-1.4581	-1.4379	-1.5914	-0.78	0.19
299	347	SLU-INV	Max	-0.6	-3.91	-0.16	-1.3352	-1.4031	-1.1435	0.05015	5.75
299	346	SLU-INV	Max	-0.57	-3.74	-0.22	-1.3159	-1.2739	-1.0456	0.05015	6.05
299	306	SLU-INV	Max	-0.41	-3.71	-0.17	-1.1522	-1.2171	-0.916	0.31	6.05
299	307	SLU-INV	Max	-0.45	-3.88	-0.11	-1.1785	-1.343	-1.0139	0.31	5.75
299	347	SLU-INV	Min	-0.81	-5.28	-0.22	-3.7864	-3.4883	-3.8862	-2.36	0.26
299	346	SLU-INV	Min	-0.76	-5.05	-0.3	-4.0763	-3.2297	-3.5857	-2.36	0.47
299	306	SLU-INV	Min	-0.56	-5.01	-0.23	-3.4172	-2.2921	-3.2631	-1.98	0.47
299	307	SLU-INV	Min	-0.61	-5.24	-0.15	-3.1567	-2.5365	-3.5536	-1.98	0.26
300	348	SLE-INV	Max	-0.5	-3.98	0.10147	-0.9961	-1.1223	-0.9033	-0.14	1.45
300	347	SLE-INV	Max	-0.49	-3.89	-0.08242	-1.0032	-1.0317	-0.8455	-0.14	1.68
300	307	SLE-INV	Max	-0.35	-3.86	-0.03832	-0.911	-1.013	-0.7525	0.06755	1.68
300	308	SLE-INV	Max	-0.37	-3.96	0.05457	-0.9089	-1.1011	-0.8103	0.06755	1.45
300	348	SLE-INV	Min	-0.5	-3.98	0.10147	-1.6297	-1.8437	-1.8459	-1.39	0.04132
300	347	SLE-INV	Min	-0.49	-3.89	-0.08242	-1.7974	-1.7277	-1.7434	-1.39	0.21
300	307	SLE-INV	Min	-0.35	-3.86	-0.03832	-1.5891	-1.4797	-1.5938	-1.11	0.21
300	308	SLE-INV	Min	-0.37	-3.96	0.05457	-1.4333	-1.5896	-1.6963	-1.11	0.04132
300	348	SLU-INV	Max	-0.5	-3.98	0.101414	-1.3448	-1.5151	-1.2195	-0.19	5.43
300	347	SLU-INV	Max	-0.49	-3.89	-0.08242	-1.3544	-1.3927	-1.1415	-0.19	5.78
300	307	SLU-INV	Max	-0.35	-3.86	-0.03832	-1.2298	-1.3675	-1.0159	0.09119	5.78
300	308	SLU-INV	Max	-0.37	-3.96	0.07367	-1.227	-1.4864	-1.0939	0.09119	5.43
300	348	SLU-INV	Min	-0.68	-5.38	0.10147	-3.5926	-3.7413	-4.1317	-3.16	0.05578
300	347	SLU-INV	Min	-0.66	-5.25	-0.11	-3.99	-3.5043	-3.8821	-3.16	0.28
300	307	SLU-INV	Min	-0.48	-5.21	-0.05173	-3.4246	-2.6147	-3.5677	-2.73	0.28
300	308	SLU-INV	Min	-0.5	-5.34	0.05457	-3.0586	-2.8355	-3.8172	-2.73	0.05578
301	349	SLE-INV	Max	-0.43	-3.97	0.23	-0.9628	-1.169	-0.9078	-0.4	1.23
301	348	SLE-INV	Max	-0.43	-3.97	0.12	-1.003	-1.1156	-0.8878	-0.4	1.47
301	308	SLE-INV	Max	-0.32	-3.95	0.15	-0.9729	-1.1219	-0.8256	-0.19	1.47
301	309	SLE-INV	Max	-0.32	-3.94	0.26	-0.9358	-1.1738	-0.8455	-0.19	1.23
301	349	SLE-INV	Min	-0.43	-3.97	0.23	-1.4776	-1.8983	-1.8497	-1.86	-0.12
301	348	SLE-INV	Min	-0.43	-3.97	0.12	-1.7032	-1.8482	-1.8183	-1.86	0.0514
301	308	SLE-INV	Min	-0.32	-3.95	0.15	-1.609	-1.6349	-1.7235	-1.56	0.0514
301	309	SLE-INV	Min	-0.32	-3.94	0.26	-1.3924	-1.6805	-1.7549	-1.56	-0.12
301	349	SLU-INV	Max	-0.43	-3.97	0.32	-1.2998	-1.5782	-1.2255	-0.55	5.06
301	348	SLU-INV	Max	-0.43	-3.97	0.17	-1.354	-1.5061	-1.1985	-0.55	5.46
301	308	SLU-INV	Max	-0.32	-3.95	0.21	-1.3134	-1.5145	-1.1145	-0.26	5.46
301	309	SLU-INV	Max	-0.32	-3.94	0.36	-1.2633	-1.5846	-1.1415	-0.26	5.06
301	349	SLU-INV	Min	-0.58	-5.36	0.23	-3.2178	-3.8567	-4.1761	-4.23	-0.16
301	348	SLU-INV	Min	-0.58	-5.36	0.12	-3.7474	-3.7568	-4.0749	-4.23	0.06939
301	308	SLU-INV	Min	-0.43	-5.33	0.15	-3.4154	-2.9222	-3.873	-3.74	0.06939
301	309	SLU-INV	Min	-0.43	-5.33	0.26	-2.9131	-3.008	-3.9743	-3.74	-0.16
302	350	SLE-INV	Max	-0.38	-3.87	0.5	-0.9293	-1.1703	-0.8898	-0.76	1
302	349	SLE-INV	Max	-0.4	-3.96	0.37	-1.0117	-1.1682	-0.8662	-0.76	1.25
302	309	SLE-INV	Max	-0.3	-3.94	0.38	-1.0109	-1.1994	-0.8671	-0.55	1.25
302	310	SLE-INV	Max	-0.29	-3.85	0.51	-0.9312	-1.2003	-0.8707	-0.55	1
302	350	SLE-INV	Min	-0.38	-3.87	0.5	-1.3363	-1.8737	-1.8162	-2.45	-0.27
302	349	SLE-INV	Min	-0.4	-3.96	0.37	-1.6248	-1.9113	-1.8114	-2.45	-0.11
302	309	SLE-INV	Min	-0.3	-3.94	0.38	-1.5766	-1.7338	-1.7932	-2.13	-0.11
302	310	SLE-INV	Min	-0.29	-3.85	0.51	-1.2978	-1.6919	-1.798	-2.13	-0.27
302	350	SLU-INV	Max	-0.38	-3.87	0.67	-1.2546	-1.58	-1.2012	-1.03	4.65
302	349	SLU-INV	Max	-0.4	-3.96	0.5	-1.3658	-1.5771	-1.1963	-1.03	5.1
302	309	SLU-INV	Max	-0.3	-3.94	0.51	-1.3647	-1.6191	-1.1706	-0.74	5.1
302	310	SLU-INV	Max	-0.29	-3.85	0.69	-1.2571	-1.6204	-1.1754	-0.74	4.65
302	350	SLU-INV	Min	-0.51	-5.22	0.5	-2.8564	-3.805	-4.141	-5.56	-0.37
302	349	SLU-INV	Min	-0.53	-5.35	0.37	-3.5248	-3.8869	-4.0974	-5.56	-0.14
302	309	SLU-INV	Min	-0.41	-5.32	0.38	-3.2858	-3.1138	-4.0529	-4.97	-0.14
302	310	SLU-INV	Min	-0.39	-5.2	0.51	-2.6487	-3.0178	-4.0965	-4.97	-0.37
302	351	SLE-INV	Max	-0.36	-3.7	0.79	-0.8677	-1.1346	-0.8605	-1.21	0.76
302	350	SLE-INV	Max	-0.39	-3.87	0.64	-1.005	-1.1755	-0.8726	-1.21	1.02
302	310	SLE-INV	Max	-0.32	-3.86	0.64	-1.034	-1.2009	-0.8977	-0.99	1.02
302	311	SLE-INV	Max	-0.28	-3.68	0.78	-0.8984	-1.1894	-0.8756	-0.99	0.76
302	351	SLE-INV	Min	-0.36	-3.7	0.79	-1.1504	-1.7899	-1.7694	-3.15	-0.43
302	350	SLE-INV	Min	-0.39	-3.87	0.64	-1.5245	-1.8942	-1.7895	-3.15	-0.26
302	310	SLE-INV	Min	-0.32	-3.86	0.64	-1.5228	-1.754	-1.8245	-2.81	-0.26
302	311	SLE-INV	Min	-0.28	-3.68	0.78	-1.1576	-1.6457	-1.8044	-2.81	-0.43
302	351	SLU-INV	Max	-0.36	-3.7	1.06	-1.1714	-1.5317	-1.1617	-1.63	4.18
302	350	SLU-INV	Max	-0.39	-3.87	0.86	-1.3568	-1.5869	-1.1781	-1.63	4.69
302	310	SLU-INV	Max	-0.32	-3.86	0.86	-1.3959	-1.6617	-1.1984	-1.34	4.69
302	311	SLU-INV	Max	-0.28	-3.68	1.05	-1.2128	-1.6056	-1.182	-1.34	4.18
302	351	SLU-INV	Min	-0.48	-4.99	0.79	-2.3942	-3.6299	-4.0805	-7.09	-0.58
302	350	SLU-INV	Min	-0.53	-5.23	0.64	-3.249	-3.8475	-4.0878	-7.09	-0.35
302	310	SLU-INV	Min	-0.43	-5.21	0.64	-3.1024	-3.1446	-4.1495	-6.43	-0.35
302	311	SLU-INV	Min	-0.38	-4.97	0.78	-2.2798	-2.9127	-4.1422	-6.43	-0.58
304	352	SLE-INV	Max	-0.36	-3.44	1.11	-0.7548	-1.0547	-0.812	-1.76	0.51
304	351	SLE-INV	Max	-0.41	-3.71	0.95	-0.9663	-1.1451	-0.8424	-1.76	0.78
304	311	SLE-INV	Max	-0.36	-3.7	0.92	-1.0274	-1.2243	-0.8937	-1.56	0.78
304	312	SLE-INV	Max	-0.31	-3.44	1.08	-0.8176	-1.1332	-0.8632	-1.56	0.51
304	352	SLE-INV	Min	-0.36	-3.44	1.11	-0.8797	-1.6376	-1.6916	-3.99	-0.57
304	351	SLE-INV	Min	-0.41	-3.71	0.95	-1.3691	-1.8164	-1.7424	-3.99	-0.41
304	311	SLE-INV	Min	-0.36	-3.7	0.92	-1.4205	-1.7156	-1.8315	-3.65	-0.41
304	312	SLE-INV	Min	-0.31	-3.44	1.08	-0.9413	-1.532	-1.7807	-3.65	-0.57
304	352	SLU-INV	Max	-0.36	-3.44	1.5	-1.0189	-1.4239	-1.0961	-2.38	3.65
304	351	SLU-INV	Max	-0.41	-3.71	1.28	-1.3045	-1.5459	-1.1373	-2.38	4.23
304	311	SLU-INV	Max	-0.36	-3.7	1.25	-1.3869	-1.6529	-1.2065	-2.11	4.23
304	312	SLU-INV	Max	-0.31	-3.44	1.46	-1.1037	-1.5299	-1.1654	-2.11	3.65
304	352	SLU-INV	Min	-0.49	-4.65	1.11	-1.7437	-3.3146	-3.956	-8.91	-0.77
304	351	SLU-INV	Min	-0.56	-5	0.95	-2.8454	-3.6804	-4.0281	-8.91	-0.56
304	311	SLU-INV	Min	-0.49	-4.99	0.92	-2.81	-3.0585	-4.1952	-8.18	-0.56
304	312	SLU-INV	Min	-0.42	-4.64	1.08	-1.7459	-2.6746	-4.1231	-8.18	-0.77
304	353	SLE-INV	Max	-0.4	-3.13	1.47	-0.5098	-0.9273	-0.7428	-2.44	0.27
304	352	SLE-INV	Max	-0.46	-3.47						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 153 di 174			
305	313	SLE-INV	Min	-0.37	-3.12	1.42	-0.6732	-1.347	-1.7234	-4.66	-0.7
305	353	SLU-INV	Max	-0.4	-3.13	1.98	-0.6783	-1.2518	-1.0027	-3.3	3.09
305	352	SLU-INV	Max	-0.46	-3.47	1.74	-1.1815	-1.4457	-1.0708	-3.3	3.71
305	312	SLU-INV	Max	-0.44	-3.46	1.68	-1.3109	-1.582	-1.1907	-3.06	3.71
305	313	SLU-INV	Max	-0.37	-3.12	1.92	-0.8457	-1.3873	-1.1226	-3.06	3.09
305	353	SLU-INV	Min	-0.54	-4.22	1.47	-0.6802	-2.853	-3.758	-11.03	-0.94
305	352	SLU-INV	Min	-0.63	-4.68	1.29	-2.2502	-3.3718	-3.9029	-11.03	-0.76
305	312	SLE-INV	Min	-0.6	-4.67	1.24	-2.3402	-2.8376	-4.1765	-10.25	-0.76
305	313	SLU-INV	Min	-0.51	-4.22	1.42	-1.0127	-2.2984	-4.0315	-10.25	-0.94
306	354	SLE-INV	Max	-0.46	-2.76	1.87	-0.0084	-0.7517	-0.6562	-3.26	0.04225
306	353	SLE-INV	Max	-0.54	-3.16	1.67	-0.7134	-0.9484	-0.7259	-3.26	0.29
306	313	SLE-INV	Max	-0.55	-3.16	1.6	-0.8417	-1.0677	-0.8486	-3.12	0.29
306	314	SLE-INV	Max	-0.47	-2.76	1.8	-0.1896	-0.87	-0.7789	-3.12	0.04225
306	354	SLE-INV	Min	-0.46	-2.76	1.87	-0.308	-1.1195	-1.4377	-6.17	-0.8
306	353	SLE-INV	Min	-0.54	-3.16	1.67	-0.7775	-1.45	-1.5559	-6.17	-0.69
306	313	SLE-INV	Min	-0.55	-3.16	1.6	-0.9442	-1.4268	-1.7474	-5.85	-0.69
306	314	SLE-INV	Min	-0.47	-2.76	1.8	-0.4385	-1.0895	-1.6292	-5.85	-0.8
306	354	SLU-INV	Max	-0.46	-2.76	2.52	0.2611	-1.0148	-0.8859	-4.4	2.51
306	353	SLU-INV	Max	-0.54	-3.16	2.25	-0.9631	-1.2803	-0.98	-4.4	3.15
306	313	SLU-INV	Max	-0.55	-3.16	2.16	-1.1363	-1.4414	-1.1456	-4.21	3.15
306	314	SLU-INV	Max	-0.47	-2.76	2.43	-0.0108	-1.1744	-1.0515	-4.21	2.51
306	354	SLU-INV	Min	-0.62	-3.73	1.87	-0.4158	-2.2492	-3.4919	-13.47	-1.07
306	353	SLU-INV	Min	-0.73	-4.26	1.67	-1.4218	-2.9128	-3.7132	-13.47	-0.93
306	313	SLU-INV	Min	-0.74	-4.27	1.6	-1.6404	-2.4724	-4.0774	-12.66	-0.93
306	314	SLU-INV	Min	-0.63	-3.73	1.8	-0.592	-1.7831	-3.8561	-12.66	-1.07
307	355	SLE-INV	Max	-0.55	-2.35	2.31	0.6694	-0.5291	-0.5525	-4.22	-0.15
307	354	SLE-INV	Max	-0.64	-2.79	2.08	-0.2761	-0.7763	-0.6428	-4.22	0.06273
307	314	SLE-INV	Max	-0.69	-2.8	2	-0.5053	-0.9086	-0.7924	-4.14	0.06273
307	315	SLE-INV	Max	-0.6	-2.36	2.23	0.4226	-0.6601	-0.7021	-4.14	-0.15
307	355	SLE-INV	Min	-0.55	-2.35	2.31	0.081	-0.7588	-1.2642	-7.53	-0.86
307	354	SLE-INV	Min	-0.64	-2.79	2.08	-0.4505	-1.157	-1.4201	-7.53	-0.79
307	314	SLE-INV	Min	-0.69	-2.8	2	-0.6123	-1.1686	-1.6471	-7.25	-0.79
307	315	SLE-INV	Min	-0.6	-2.36	2.23	-0.0838	-0.7619	-1.4912	-7.25	-0.86
307	355	SLU-INV	Max	-0.55	-2.35	3.11	1.7646	-0.7143	-0.7459	-5.7	1.92
307	354	SLU-INV	Max	-0.64	-2.79	2.81	-0.2767	-1.0479	-0.8678	-5.7	2.57
307	314	SLU-INV	Max	-0.69	-2.8	2.7	-0.6418	-1.2267	-1.0698	-5.59	2.57
307	315	SLU-INV	Max	-0.6	-2.36	3.01	1.3359	-0.8912	-0.9479	-5.59	1.92
307	355	SLU-INV	Min	-0.74	-3.17	2.31	0.1093	-1.5107	-3.1503	-16.27	-1.15
307	354	SLU-INV	Min	-0.86	-3.77	2.08	-0.6081	-2.3052	-3.4593	-16.27	-1.07
307	314	SLU-INV	Min	-0.93	-3.79	2	-0.8267	-1.9609	-3.8897	-15.44	-1.07
307	315	SLU-INV	Min	-0.81	-3.18	2.23	-0.1131	-1.1356	-3.8808	-15.44	-1.15
308	356	SLE-INV	Max	-0.66	-1.91	2.8	1.5752	-0.2632	-0.4331	-5.35	-0.31
308	355	SLE-INV	Max	-0.76	-2.39	2.55	0.4244	-0.555	-0.5444	-5.35	-0.14
308	315	SLE-INV	Max	-0.85	-2.41	2.46	0.1264	-0.6935	-0.7105	-5.34	-0.14
308	316	SLE-INV	Max	-0.76	-1.93	2.71	1.2538	-0.3677	-0.5991	-5.34	-0.31
308	356	SLE-INV	Min	-0.66	-1.91	2.8	0.6275	-0.3378	-1.0552	-9.09	-0.86
308	355	SLE-INV	Min	-0.76	-2.39	2.55	-0.0527	-0.7938	-1.2547	-9.09	-0.85
308	315	SLE-INV	Min	-0.85	-2.41	2.46	-0.2467	-0.8351	-1.5014	-8.88	-0.85
308	316	SLE-INV	Min	-0.76	-1.93	2.71	0.4289	-0.3994	-1.302	-8.88	-0.86
308	356	SLU-INV	Max	-0.66	-1.91	3.78	3.7348	-0.3553	-0.5847	-7.23	1.34
308	355	SLU-INV	Max	-0.76	-2.39	3.44	1.281	-0.7492	-0.735	-7.23	1.99
308	315	SLU-INV	Max	-0.85	-2.41	3.32	0.7388	-0.9362	-0.9591	-7.21	1.99
308	316	SLU-INV	Max	-0.76	-1.93	3.66	3.1119	-0.3646	-0.8088	-7.21	1.34
308	356	SLU-INV	Min	-0.89	-2.58	2.8	0.8471	-0.6507	-2.7148	-19.45	-1.16
308	355	SLU-INV	Min	-1.02	-3.23	2.55	-0.0711	-1.5548	-3.1339	-19.45	-1.15
308	315	SLU-INV	Min	-1.15	-3.25	2.46	-0.3331	-1.3077	-3.5992	-18.63	-1.15
308	316	SLU-INV	Min	-1.02	-2.61	2.71	0.579	-0.5392	-3.1801	-18.63	-1.16
309	357	SLE-INV	Max	-0.78	-1.46	3.37	2.7596	-0.4566	-0.4033	-6.67	-0.39
309	356	SLE-INV	Max	-0.88	-1.96	3.07	1.3733	-0.2878	-0.4317	-6.67	-0.29
309	316	SLE-INV	Max	-1.04	-1.99	2.97	1.0097	-0.4226	-0.6008	-6.75	-0.29
309	317	SLE-INV	Max	-0.94	-1.49	3.27	2.3671	0.0885	-0.4724	-6.75	-0.4
309	357	SLE-INV	Min	-0.78	-1.46	3.37	1.3712	0.0409	-0.8127	-10.89	-0.8
309	356	SLE-INV	Min	-0.88	-1.96	3.07	0.5179	-0.3662	-1.0546	-10.89	-0.87
309	316	SLE-INV	Min	-1.04	-1.99	2.97	0.2996	-0.4284	-1.3032	-10.76	-0.87
309	317	SLE-INV	Min	-0.94	-1.49	3.27	1.1467	-0.0908	-1.0613	-10.76	-0.8
309	357	SLU-INV	Max	-0.78	-1.46	4.55	6.2617	0.3205	-0.4094	-9	0.81
309	356	SLU-INV	Max	-0.88	-1.96	4.15	3.3405	-0.3885	-0.5828	-9	1.42
309	316	SLU-INV	Max	-1.04	-1.99	4.01	2.6118	-0.5199	-0.811	-9.11	1.42
309	317	SLU-INV	Max	-0.94	-1.49	4.41	5.4359	0.522	-0.6377	-9.11	0.81
309	357	SLU-INV	Min	-1.06	-1.97	3.37	1.8511	0.0552	-2.1783	-23.05	-1.08
309	356	SLU-INV	Min	-1.19	-2.64	3.07	0.6991	-0.6743	-2.7141	-23.05	-1.17
309	316	SLU-INV	Min	-1.41	-2.68	2.97	0.4045	-0.5793	-3.1827	-22.28	-1.17
309	317	SLU-INV	Min	-1.27	-2.02	3.27	1.548	-0.1225	-2.6469	-22.28	-1.08
310	358	SLE-INV	Max	-0.92	-1.02	3.97	4.2957	0.6431	-0.1733	-8.17	-0.4
310	357	SLE-INV	Max	-1.02	-1.51	3.71	2.6395	0.1208	-0.3136	-8.17	-0.39
310	317	SLE-INV	Max	-1.25	-1.55	3.59	2.2094	0.0488	-0.4624	-8.38	-0.39
310	318	SLE-INV	Max	-1.15	-1.06	3.85	3.8279	0.5895	-0.3222	-8.38	-0.4
310	358	SLE-INV	Min	-0.92	-1.02	3.97	2.3633	0.3698	-0.5421	-12.93	-0.64
310	357	SLE-INV	Min	-1.02	-1.51	3.71	1.3099	0.0214	-0.8297	-12.93	-0.81
310	317	SLE-INV	Min	-1.25	-1.55	3.59	1.0785	-0.0971	-1.0453	-12.91	-0.81
310	318	SLE-INV	Min	-1.15	-1.06	3.85	2.1228	0.2559	-0.7576	-12.91	-0.64
310	358	SLU-INV	Max	-0.92	-1.02	5.35	9.4904	1.3599	-0.234	-11.03	0.34
310	357	SLU-INV	Max	-1.02	-1.51	5	6.0384	0.3301	-0.4233	-11.03	0.88
310	317	SLU-INV	Max	-1.25	-1.55	4.85	5.0883	0.3981	-0.6243	-11.31	0.88
310	318	SLU-INV	Max	-1.15	-1.06	5.2	8.4185	1.4871	-0.4349	-11.31	0.34
310	358	SLU-INV	Min	-1.24	-1.37	3.97	3.1905	0.4992	-1.5333	-27.09	-0.87
310	357	SLU-INV	Min	-1.37	-2.04	3.71	1.7684	0.0288	-2.2127	-27.09	-1.09
310	317	SLU-INV	Min	-1.68	-2.1	3.59	1.4559	-0.1311	-2.6155	-26.41	-1.09
310	318	SLU-INV	Min	-1.55	-1.44	3.85	2.8658	0.3454	-1.9362	-26.41	-0.87
311	359	SLE-INV	Max	-1.06	-0.59	4.99	6.2507	1.1711	-0.0548	-9.88	-0.29
311	358	SLE-INV	Max	-1.15	-1.06	4.15	4.2898	0.6463	-0.1937	-9.88	-0.39
311	318	SLE-INV	Max	-1.46	-1.13	4.04	3.8064	0.5807	-0.3021	-10.24	-0.39
311	319	SLE-INV	Max	-1.36	-0.65	4.89	5.7212	1.1281	-0.1631	-10.24	-0.29
311	359	SLE-INV	Min	-1.06	-0.59	4.99	3.6553	0.7141	-0.2451	-15.22	-0.37
311	358	SLE-INV	Min	-1.15	-1.06	4.15	2.3738	0.3596	-0.5718	-15.22	-0.66
311	318	SLE-INV	Min	-1.46	-1.13	4.04	2.1523	0.2741	-0.729	-15.35	-0.66
311	319	SLE-INV	Min	-1.36	-0.65	4.89	3.4222	0.6345	-0.4022	-15.35	-0.37
311	359	SLU-INV	Max	-1.06	-0.59	6.74	13.5431	2.4542	-0.074	-13.34	-0.02117
311	358	SLU-INV	Max	-1.15	-1.06	5.6	9.497	1.4159	-0.2616	-13.34	0.41
311	318	SLU-INV	Max	-1.46	-1.13	5.46	8.3146	1.4117	-0.4078	-13.83	0.41
311	319	SLU-INV	Max	-1.36	-0.65	6.6	12.2144	2.5212	-0.2202	-13.83	-0.02117
311	359	SLU-INV	Min	-1.43	-0.79	4.99	4.9347	0.9641	-0.7566	-31.62	-0.5
311	358	SLU-INV	Min	-1.56	-1.44	4.15	3.2046	0.4854	-1.5884	-31.62	-0.89
311	318	SLU-INV	Min	-1.97	-1.52	4.04	2.9057	0.37	-1.8841	-31.07	-0.89
311	319	SLU-INV	Min	-1.84	-0.87	4.89	4.62	0.8566	-1.0523	-31.07	-0.5
312	320	SLE-INV	Max	-1.58</							

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.
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312	359	SLE-INV	Min	-1.27	-0.63	6.52	3.7566	0.7175	-0.2962	-17.65	-0.39
312	319	SLE-INV	Min	-1.66	-0.71	6.37	3.5775	0.6825	-0.3525	-17.96	-0.39
312	320	SLU-INV	Max	-1.58	-0.32	4.75	16.4825	3.4678	-0.0281	-16.54	-0.009049
312	360	SLU-INV	Max	-1.19	-0.24	4.95	18.0855	3.4458	0.0403	-15.81	-0.009049
312	359	SLU-INV	Max	-1.27	-0.63	8.8	13.8312	2.5624	-0.1207	-15.81	0.04788
312	319	SLU-INV	Max	-1.66	-0.71	8.6	12.4303	2.5137	-0.1741	-16.54	0.04788
312	320	SLU-INV	Min	-2.13	-0.43	3.52	6.6743	1.3419	-0.0641	-36.01	-0.23
312	360	SLU-INV	Min	-1.61	-0.32	3.67	6.9391	1.3808	0.0253	-36.37	-0.21
312	359	SLU-INV	Min	-1.71	-0.85	6.52	5.0714	0.9687	-0.8542	-36.37	-0.53
312	319	SLU-INV	Min	-2.24	-0.95	6.37	4.8297	0.9213	-0.9587	-36.01	-0.53
313	425	SLE-INV	Max	-0.89	-0.67	-0.68	-1.3227	-1.2127	-1.4562	-0.52	-0.37
313	426	SLE-INV	Max	-0.87	-0.57	-0.6	-1.3575	-0.9207	-1.0756	-0.52	-0.37
313	441	SLE-INV	Max	-1	-0.6	-0.63	-1.0892	-1.0223	-0.9182	-0.52	-0.37
313	425	SLE-INV	Min	-0.89	-0.67	-0.68	-2.5436	-2.5487	-3.0395	-1.67	-0.81
313	426	SLE-INV	Min	-0.87	-0.57	-0.6	-2.545	-1.8295	-2.1314	-1.67	-0.81
313	441	SLE-INV	Min	-1	-0.6	-0.63	-1.9086	-2.0914	-1.7524	-1.67	-0.81
313	425	SLU-INV	Max	-0.89	-0.67	-0.68	-1.7856	-1.6372	-1.9659	-0.71	-0.5
313	426	SLU-INV	Max	-0.87	-0.57	-0.6	-1.8326	-1.2429	-1.4521	-0.71	-0.5
313	441	SLU-INV	Max	-1	-0.6	-0.63	-1.4704	-1.3801	-1.2395	-0.71	-0.5
313	425	SLU-INV	Min	-1.2	-0.91	-0.92	-5.6814	-5.4741	-6.6139	-2.76	-1.17
313	426	SLU-INV	Min	-1.17	-0.78	-0.81	-5.8121	-3.978	-4.7238	-2.76	-1.17
313	441	SLU-INV	Min	-1.35	-0.81	-0.84	-4.5033	-4.6011	-3.9222	-2.76	-1.17
314	456	SLE-INV	Max	-1.01	-0.51	-0.68	-0.6672	-0.9267	-0.8033	-1.41	-0.92
314	442	SLE-INV	Max	-0.89	-0.72	-0.73	-1.0664	-1.177	-1.2709	-1.41	-0.92
314	443	SLE-INV	Max	-0.84	-0.48	-0.62	-0.9191	-0.9024	-0.9323	-1.41	-0.92
314	456	SLE-INV	Min	-1.01	-0.51	-0.68	-1.0824	-1.8998	-1.5093	-2.89	-1.64
314	442	SLE-INV	Min	-0.89	-0.72	-0.73	-1.9112	-2.4037	-2.534	-2.89	-1.64
314	443	SLE-INV	Min	-0.84	-0.48	-0.62	-1.6198	-1.797	-1.7982	-2.89	-1.64
314	456	SLE-INV	Max	-1.01	-0.51	-0.68	-0.9007	-1.2511	-1.0844	-1.9	-1.24
314	442	SLU-INV	Max	-0.89	-0.72	-0.73	-1.4396	-1.5889	-1.7157	-1.9	-1.24
314	443	SLU-INV	Max	-0.84	-0.48	-0.62	-1.2407	-1.2183	-1.2586	-1.9	-1.24
314	456	SLU-INV	Min	-1.37	-0.69	-0.92	-2.7305	-4.3082	-3.4707	-5.33	-2.74
314	442	SLU-INV	Min	-1.19	-0.98	-0.98	-4.3224	-5.2845	-5.6485	-5.33	-2.74
314	443	SLU-INV	Min	-1.13	-0.64	-0.83	-3.8479	-4.0042	-4.0949	-5.33	-2.74
315	361	SLE-INV	Max	3.1	0.62	-2.52	8.5969	1.6092	0.0591	11.38	-0.04093
315	321	SLE-INV	Max	1.13	0.23	-2.89	7.4648	1.6031	-0.0196	11.53	-0.04093
315	322	SLE-INV	Max	1.15	0.29	-5.11	5.773	1.3525	0.8078	11.53	-0.28
315	361	SLE-INV	Min	3.1	0.62	-2.52	6.8394	1.4132	0.915	11.38	-0.28
315	362	SLE-INV	Min	1.13	0.23	-2.89	3.8895	0.7453	0.0235	5.32	-0.14
315	321	SLE-INV	Min	1.15	0.29	-5.11	3.8946	0.7955	-0.048	5.62	-0.14
315	322	SLE-INV	Min	1.15	0.29	-5.11	2.6526	0.6001	0.2997	5.62	-0.33
315	362	SLE-INV	Min	3.12	0.68	-4.75	3.0547	0.6392	0.3428	5.32	-0.33
315	361	SLU-INV	Max	4.19	0.84	-2.52	19.5025	3.6094	0.1423	25.33	-0.05525
315	321	SLU-INV	Max	1.53	0.31	-2.89	16.7213	3.6353	-0.0264	25.13	-0.05525
315	322	SLU-INV	Max	1.55	0.38	-5.11	13.0054	3.098	1.9928	25.13	-0.17
315	362	SLU-INV	Max	4.21	0.92	-4.75	15.6214	3.2094	2.2494	25.33	-0.17
315	361	SLU-INV	Min	3.1	0.62	-3.41	5.2509	1.0062	0.0317	7.18	-0.36
315	321	SLU-INV	Min	1.13	0.23	-3.89	4.6772	0.9794	-0.1143	7.59	-0.36
315	322	SLU-INV	Min	1.15	0.29	-6.9	3.581	0.8102	0.4046	7.59	-0.44
315	362	SLU-INV	Min	3.12	0.68	-6.41	4.1239	0.8629	0.4628	7.18	-0.44
316	363	SLE-INV	Max	2.93	-0.29	-2.6	4.1833	0.8344	1.1083	10.29	-0.21
316	362	SLE-INV	Max	3.12	0.68	-3.41	5.751	1.2404	0.8091	10.29	-0.23
316	322	SLE-INV	Max	1.05	0.27	-3.86	5.3426	1.2215	0.9093	10.28	-0.23
316	323	SLE-INV	Max	0.85	-0.7	-3.05	3.8138	0.7832	1.2085	10.28	-0.21
316	363	SLE-INV	Min	2.93	-0.29	-2.6	1.9138	0.3925	0.4193	4.97	-0.42
316	362	SLE-INV	Min	3.12	0.68	-3.41	2.6778	0.5928	0.2963	4.97	-0.29
316	322	SLE-INV	Min	1.05	0.27	-3.86	2.5032	0.5413	0.3445	5.1	-0.29
316	323	SLE-INV	Min	0.85	-0.7	-3.05	1.7519	0.3303	0.4675	5.1	-0.42
316	363	SLU-INV	Max	3.95	-0.29	-2.6	9.4639	1.8646	2.7176	22.56	0.27
316	362	SLU-INV	Max	4.22	0.92	-3.41	12.8827	2.7438	2.006	22.56	-0.07609
316	322	SLU-INV	Max	1.42	0.36	-3.86	11.9274	2.8003	2.2257	22.19	-0.07609
316	323	SLU-INV	Max	1.15	-0.7	-3.05	8.6083	1.8385	2.9374	22.19	0.27
316	363	SLU-INV	Min	2.93	-0.39	-3.51	2.5837	0.5299	0.566	6.7	-0.56
316	362	SLU-INV	Min	3.12	0.68	-4.6	3.615	0.8003	0.4	6.7	-0.39
316	322	SLU-INV	Min	1.05	0.27	-5.21	3.3793	0.7307	0.4651	6.88	-0.39
316	323	SLU-INV	Min	0.85	-0.95	-4.12	2.3651	0.4459	0.6311	6.88	-0.56
317	364	SLE-INV	Max	1.52	-0.87	-1.58	2.5808	0.4355	1.5043	9.19	-0.13
317	363	SLE-INV	Max	1.58	-0.56	-2.13	3.9749	0.7601	1.1287	9.19	-0.25
317	323	SLE-INV	Max	0.92	-0.69	-2.65	3.4686	0.7468	1.1886	9.05	-0.25
317	324	SLE-INV	Max	0.86	-1.01	-2.1	2.1158	0.388	1.5642	9.05	-0.13
317	364	SLE-INV	Min	1.52	-0.87	-1.58	1.2067	0.2204	0.6078	4.54	-0.45
317	363	SLE-INV	Min	1.58	-0.56	-2.13	1.8986	0.3817	0.4299	4.54	-0.43
317	323	SLE-INV	Min	0.92	-0.69	-2.65	1.65	0.3177	0.4572	4.56	-0.43
317	324	SLE-INV	Min	0.86	-1.01	-2.1	0.9729	0.1441	0.6351	4.56	-0.45
317	364	SLU-INV	Max	2.05	-0.87	-1.58	5.7976	0.9427	3.5978	19.42	0.62
317	363	SLU-INV	Max	2.13	-0.56	-2.13	8.8105	1.6436	2.7604	19.92	0.15
317	323	SLU-INV	Max	1.24	-0.69	-2.65	7.7022	1.7476	2.8954	19.42	0.15
317	324	SLU-INV	Max	1.16	-1.01	-2.1	4.7921	0.9616	3.7328	19.42	0.62
317	364	SLU-INV	Min	1.52	-1.18	-2.13	1.629	0.2976	0.8206	6.12	-0.61
317	363	SLU-INV	Min	1.58	-0.76	-2.88	2.5631	0.5153	0.5804	6.12	-0.58
317	323	SLU-INV	Min	0.92	-0.93	-3.58	2.2275	0.4288	0.6172	6.15	-0.58
317	324	SLU-INV	Min	0.86	-1.36	-2.84	1.3134	0.1945	0.8574	6.15	-0.61
318	365	SLE-INV	Max	0.45	-1.23	-0.99	1.2026	0.2036	1.7186	8.08	0.008758
318	364	SLE-INV	Max	0.48	-1.08	-1.32	2.4257	0.4009	1.5465	8.08	-0.13
318	324	SLE-INV	Max	0.52	-1.07	-1.65	2.1864	0.4056	1.5211	7.93	-0.13
318	325	SLE-INV	Max	0.49	-1.22	-1.32	0.9985	0.1791	1.6932	7.93	0.008758
318	365	SLE-INV	Min	0.45	-1.23	-0.99	0.5789	0.1157	0.7197	4.06	-0.43
318	364	SLE-INV	Min	0.48	-1.08	-1.32	1.1945	0.2215	0.626	4.06	-0.45
318	324	SLE-INV	Min	0.52	-1.07	-1.65	1.0545	0.157	0.6166	4.04	-0.45
318	325	SLE-INV	Min	0.49	-1.22	-1.32	0.4517	0.0406	0.7104	4.04	-0.43
318	365	SLU-INV	Max	0.61	-1.23	-0.99	2.6906	0.4189	4.0537	17.38	1.02
318	364	SLU-INV	Max	0.65	-1.08	-1.32	5.3166	0.8267	3.6959	17.38	0.59
318	324	SLU-INV	Max	0.7	-1.07	-1.65	4.8416	0.9914	3.6325	16.92	0.59
318	325	SLU-INV	Max	0.66	-1.22	-1.32	2.3031	0.5112	3.9904	16.92	1.02
318	365	SLU-INV	Min	0.45	-1.66	-1.34	0.7815	0.1562	0.9716	5.48	-0.58
318	364	SLU-INV	Min	0.48	-1.46	-1.78	1.6125	0.299	0.8451	5.48	-0.6
318	324	SLU-INV	Min	0.52	-1.45	-2.23	1.4235	0.2119	0.8325	5.45	-0.6
318	325	SLU-INV	Min	0.49	-1.65	-1.79	0.6098	0.0548	0.959	5.45	-0.58
319	366	SLE-INV	Max	-0.27	-1.47	-0.53	0.2308	0.0164	1.8156	7.08	0.15
319	365	SLE-INV	Max	-0.25	-1.37	-0.78	1.3011	0.2026	1.6994	7.08	-0.01901
319	325	SLE-INV	Max	0.15	-1.29	-1.04	1.1375	0.2275	1.7123	6.9	-0.01901
319	326	SLE-INV	Max	0.13	-1.39	-0.79	0.1019	-0.0116	1.8285	6.9	0.15
319	366	SLU-INV	Min	-0.27	-1.47	-0.53	0.1284	-0.0078	0.7802	3.6	-0.38
319	365	SLU-INV	Min	-0.25	-1.37	-0.78	0.6726	0.1288	0.7104	3.6	-0.43
319	325	SLU-INV	Min	0.15	-1.29	-1.04	0.5639	0.0687	0.7197	3	



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.progr. 01	REV. A	Pag.di Pag. 155 di 174			
319	365	SLU-INV	Min	-0.34	-1.85	-1.05	0.908	0.1738	0.9591	4.86	-0.59
319	325	SLU-INV	Min	0.15	-1.74	-1.4	0.7613	0.0928	0.9716	4.78	-0.59
319	326	SLU-INV	Min	0.13	-1.88	-1.07	0.0442	-0.0734	1.0658	4.78	-0.52
320	367	SLE-INV	Max	-0.7	-1.61	-0.28	-0.2161	-0.0506	1.8492	6.16	0.3
320	366	SLE-INV	Max	-0.69	-1.56	-0.43	0.422	0.038	1.8273	6.16	0.13
320	326	SLE-INV	Max	-0.16	-1.45	-0.56	0.3853	0.0614	1.8163	5.98	0.13
320	327	SLE-INV	Max	-0.17	-1.5	-0.42	-0.255	-0.1126	1.8382	5.98	0.3
320	367	SLE-INV	Min	-0.7	-1.61	-0.28	-0.5077	-0.1429	0.8112	3.16	-0.32
320	366	SLE-INV	Min	-0.69	-1.56	-0.43	0.2607	0.0141	0.7849	3.16	-0.39
320	326	SLE-INV	Min	-0.16	-1.45	-0.56	0.2098	-0.0141	0.7846	3.09	-0.39
320	327	SLE-INV	Min	-0.17	-1.5	-0.42	-0.5131	-0.1216	0.8108	3.09	-0.32
320	367	SLE-INV	Max	-0.7	-1.61	-0.28	-0.2918	-0.0683	4.2865	13.12	1.75
320	366	SLE-INV	Max	-0.69	-1.56	-0.43	0.8577	0.0513	4.2685	13.12	1.33
320	326	SLE-INV	Max	-0.16	-1.45	-0.56	0.8455	0.2524	4.232	12.68	1.33
320	327	SLE-INV	Max	-0.17	-1.5	-0.42	-0.3443	-0.1258	4.25	12.68	1.75
320	367	SLE-INV	Min	-0.94	-2.17	-0.38	-1.1228	-0.3401	1.0951	4.27	-0.44
320	366	SLE-INV	Min	-0.93	-2.1	-0.58	0.3519	-0.0252	1.0597	4.27	-0.53
320	326	SLE-INV	Min	-0.22	-1.96	-0.76	0.2833	-0.0191	1.0592	4.17	-0.53
320	327	SLE-INV	Min	-0.23	-2.03	-0.56	-1.0584	-0.1655	1.0945	4.17	-0.44
321	368	SLE-INV	Max	-0.94	-1.71	-0.08471	-0.4575	-0.1121	1.8123	5.34	0.44
321	367	SLE-INV	Max	-0.93	-1.66	-0.19	-0.0414	-0.0233	1.8375	5.34	0.27
321	327	SLE-INV	Max	-0.37	-1.54	-0.28	-0.0601	-0.0362	1.8497	5.16	0.27
321	328	SLE-INV	Max	-0.38	-1.6	-0.18	-0.4647	-0.1644	1.8245	5.16	0.44
321	368	SLE-INV	Min	-0.94	-1.71	-0.08471	-1.0239	-0.265	0.8085	2.76	-0.26
321	367	SLE-INV	Min	-0.93	-1.66	-0.19	-0.2185	-0.1058	0.8057	2.76	-0.33
321	327	SLE-INV	Min	-0.37	-1.54	-0.28	-0.1898	-0.066	0.8161	2.69	-0.33
321	328	SLE-INV	Min	-0.38	-1.6	-0.18	-0.9655	-0.2201	0.8188	2.69	-0.26
321	368	SLE-INV	Max	-0.94	-1.71	-0.08471	-0.6177	-0.1513	4.1775	11.34	2.07
321	367	SLE-INV	Max	-0.93	-1.66	-0.19	-0.0559	-0.0314	4.2601	11.34	1.68
321	327	SLE-INV	Max	-0.37	-1.54	-0.28	-0.0812	0.0518	4.2757	10.92	1.68
321	328	SLE-INV	Max	-0.38	-1.6	-0.18	-0.6274	-0.2219	4.1931	10.92	2.07
321	368	SLE-INV	Min	-1.27	-2.31	-0.11	-2.2684	-0.6004	1.0914	3.73	-0.35
321	367	SLE-INV	Min	-1.26	-2.24	-0.25	-0.5567	-0.2782	1.0878	3.73	-0.45
321	327	SLE-INV	Min	-0.5	-2.08	-0.38	-0.4273	-0.0891	1.1017	3.63	-0.45
321	328	SLE-INV	Min	-0.51	-2.16	-0.24	-2.0669	-0.3301	1.1054	3.63	-0.35
322	369	SLE-INV	Max	-1.05	-1.76	0.01518	-0.6272	-0.1535	1.7399	4.6	0.58
322	368	SLE-INV	Max	-1.05	-1.73	-0.04399	-0.2659	-0.081	1.8177	4.6	0.42
322	328	SLE-INV	Max	-0.51	-1.62	-0.07606	-0.2488	-0.114	1.8187	4.43	0.42
322	329	SLE-INV	Max	-0.52	-1.66	-0.01689	-0.5996	-0.1952	1.7409	4.43	0.58
322	369	SLE-INV	Min	-1.05	-1.76	0.01518	-1.3887	-0.2436	0.7876	2.4	-0.2
322	368	SLE-INV	Min	-1.05	-1.73	-0.04399	-0.6949	-0.2177	0.811	2.4	-0.27
322	328	SLE-INV	Min	-0.51	-1.62	-0.07606	-0.5931	-0.1271	0.8161	2.33	-0.2
322	329	SLE-INV	Min	-0.52	-1.66	-0.01689	-1.2601	-0.275	0.7928	2.33	-0.2
322	369	SLE-INV	Max	-1.05	-1.76	0.02049	-0.8467	-0.2072	3.9935	9.75	2.37
322	368	SLE-INV	Max	-1.05	-1.73	-0.04399	-0.3589	-0.1093	4.1896	9.75	2.01
322	328	SLE-INV	Max	-0.51	-1.62	-0.07606	-0.3359	-0.1355	4.1799	9.37	2.01
322	329	SLE-INV	Max	-0.52	-1.66	-0.01689	-0.8094	-0.2635	3.9838	9.37	2.37
322	369	SLE-INV	Min	-1.42	-2.38	0.01518	-3.079	-0.7628	1.0633	3.25	-0.27
322	368	SLE-INV	Min	-1.41	-2.34	-0.05939	-1.607	-0.5132	1.0948	3.25	-0.36
322	328	SLE-INV	Min	-0.69	-2.19	-0.1	-1.319	-0.1736	1.1018	3.14	-0.36
322	329	SLE-INV	Min	-0.7	-2.24	-0.0228	-2.7264	-0.4386	1.0703	3.14	-0.27
323	370	SLE-INV	Max	-1.08	-1.81	0.0895	-0.7361	-0.1893	1.6256	3.95	0.7
323	369	SLE-INV	Max	-1.07	-1.77	0.05118	-0.4231	-0.1206	1.7339	3.95	0.55
323	329	SLE-INV	Max	-0.59	-1.67	0.03749	-0.3834	-0.1441	1.7466	3.8	0.55
323	330	SLE-INV	Max	-0.6	-1.71	0.07581	-0.6866	-0.2209	1.6383	3.8	0.7
323	370	SLE-INV	Min	-1.08	-1.81	0.0895	-1.6256	-0.4115	0.7459	2.08	-0.14
323	369	SLE-INV	Min	-1.07	-1.77	0.05118	-1.0297	-0.2908	0.7852	2.08	-0.21
323	329	SLE-INV	Min	-0.59	-1.67	0.03749	-0.8838	-0.1807	0.7951	2.01	-0.21
323	330	SLE-INV	Min	-0.6	-1.71	0.07581	-1.4551	-0.3217	0.7559	2.01	-0.14
323	370	SLE-INV	Max	-1.08	-1.81	0.12	-0.9938	-0.2556	3.7197	8.37	2.64
323	369	SLE-INV	Max	-1.07	-1.77	0.06909	-0.5712	-0.1628	3.9792	8.37	2.31
323	329	SLE-INV	Max	-0.59	-1.67	0.05061	-0.5176	-0.1945	3.9974	8.02	2.31
323	330	SLE-INV	Max	-0.6	-1.71	0.1	-0.9269	-0.2982	3.7378	8.02	2.64
323	370	SLE-INV	Min	-1.46	-2.44	0.0895	-3.6067	-0.9034	1.007	2.81	-0.18
323	369	SLE-INV	Min	-1.45	-2.39	0.05118	-2.3438	-0.6612	1.06	2.81	-0.28
323	329	SLE-INV	Min	-0.8	-2.26	0.03749	-1.9629	-0.2494	1.0734	2.71	-0.28
323	330	SLE-INV	Min	-0.81	-2.31	0.07581	-3.1668	-0.5316	1.0204	2.71	-0.18
324	371	SLE-INV	Max	-1.06	-1.82	0.12	-0.8029	-0.2122	1.4912	3.38	0.81
324	370	SLE-INV	Max	-1.05	-1.8	0.1	-0.5326	-0.1559	1.6291	3.38	0.68
324	330	SLE-INV	Max	-0.63	-1.72	0.12	-0.4711	-0.1704	1.6343	3.24	0.68
324	331	SLE-INV	Max	-0.64	-1.74	0.13	-0.7327	-0.2339	1.4963	3.24	0.81
324	371	SLE-INV	Min	-1.06	-1.82	0.12	-1.7742	-0.4527	0.6934	1.8	-0.08031
324	370	SLE-INV	Min	-1.05	-1.8	0.1	-1.2651	-0.3564	0.7478	1.8	-0.15
324	330	SLE-INV	Min	-0.63	-1.72	0.12	-1.0761	-0.2289	0.7538	1.73	-0.15
324	331	SLE-INV	Min	-0.64	-1.74	0.13	-1.5636	-0.3431	0.6994	1.73	-0.08031
324	371	SLE-INV	Max	-1.06	-1.82	0.16	-1.0839	-0.2865	3.4049	7.14	2.87
324	370	SLE-INV	Max	-1.05	-1.8	0.14	-0.719	-0.2105	3.7271	7.14	2.58
324	330	SLE-INV	Max	-0.63	-1.72	0.16	-0.636	-0.2301	3.7294	6.83	2.58
324	331	SLE-INV	Max	-0.64	-1.74	0.18	-0.9892	-0.3158	3.4073	6.83	2.87
324	371	SLE-INV	Min	-1.42	-2.46	0.12	-3.9399	-0.9856	0.936	2.43	-0.11
324	370	SLE-INV	Min	-1.42	-2.43	0.1	-2.862	-0.7945	1.0095	2.43	-0.2
324	330	SLE-INV	Min	-0.86	-2.32	0.12	-2.3895	-0.3361	1.0176	2.34	-0.2
324	331	SLE-INV	Min	-0.86	-2.35	0.13	-3.4154	-0.5702	0.9442	2.34	-0.11
325	372	SLE-INV	Max	-1	-1.84	0.14	-0.8369	-0.2313	1.3323	2.88	0.9
325	371	SLE-INV	Max	-0.99	-1.81	0.13	-0.6037	-0.1795	1.4879	2.88	0.79
325	331	SLE-INV	Max	-0.64	-1.74	0.15	-0.5281	-0.1859	1.4992	2.75	0.79
325	332	SLE-INV	Max	-0.65	-1.77	0.16	-0.7534	-0.2441	1.3435	2.75	0.9
325	372	SLE-INV	Min	-1	-1.84	0.14	-1.8536	-0.4874	0.6284	1.55	-0.02978
325	371	SLE-INV	Min	-0.99	-1.81	0.13	-1.4204	-0.3981	0.6922	1.55	-0.08966
325	331	SLE-INV	Min	-0.64	-1.74	0.15	-1.2043	-0.2551	0.7004	1.49	-0.08966
325	332	SLE-INV	Min	-0.65	-1.77	0.16	-1.6184	-0.3602	0.6366	1.49	-0.02978
325	372	SLE-INV	Max	-1	-1.84	0.19	-1.1298	-0.3123	3.0386	6.07	3.08
325	371	SLE-INV	Max	-0.99	-1.81	0.17	-0.815	-0.2424	3.3969	6.07	2.82
325	331	SLE-INV	Max	-0.64	-1.74	0.2	-0.7129	-0.2509	3.4144	5.8	2.82
325	332	SLE-INV	Max	-0.65	-1.77	0.21	-1.0171	-0.3296	3.0561	5.8	3.08
325	372	SLE-INV	Min	-1.35	-2.48	0.14	-4.12	-1.055	0.8483	2.1	-0.0402
325	371	SLE-INV	Min	-1.34	-2.45	0.13	-3.2036	-0.8759	0.9345	2.1	-0.12
325	331	SLE-INV	Min	-0.87	-2.35	0.15	-2.6748	-0.3846	0.9455	2.01	-0.12
325	332	SLE-INV	Min	-0.88	-2.39	0.16	-3.5453	-0.6017	0.8594	2.01	-0.0402
326	373	SLE-INV	Max	-0.93	-1.84	0.13	-0.8495	-0.2428	1.163	2.43	0.98
326	372	SLE-INV	Max	-0.92	-1.82	0.14	-0.6487	-0.2001	1.3347	2.43	0.88
326	332	SLE-INV	Max	-0.64	-1.77	0.17	-0.5603	-0.1991	1.3407	2.32	0.88
326	333	SLE-INV	Max	-0.64	-1.78	0.17	-0.7544	-0.2474	1.169	2.32	0.98
326	373	SLE-INV	Min	-0.93	-1.84	0.13	-1.8876	-0.5064	0.5576	1.34	0.01545
326	372	SLE-INV	Min	-0.92	-1.82	0.14	-1.5216	-0.4349	0.6297	1.34	-0.03809
326	332	SLE-INV	Min								



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 156 di 174			
326	373	SLU-INV	Min	-1.25	-2.48	0.13	-4.2002	-1.0908	0.7527	1.81	0.02085
326	372	SLU-INV	Min	-1.25	-2.46	0.14	-3.4266	-0.9487	0.8501	1.81	-0.05143
326	332	SLU-INV	Min	-0.86	-2.38	0.17	-2.8453	-0.4293	0.8574	1.73	-0.05143
326	333	SLU-INV	Min	-0.87	-2.41	0.17	-3.58	-0.6037	0.76	1.73	0.02085
327	374	SLE-INV	Max	-0.85	-1.84	0.13	-0.8474	-0.253	0.9795	2.04	1.05
327	373	SLE-INV	Max	-0.85	-1.82	0.13	-0.6747	-0.2136	1.1608	2.04	0.97
327	333	SLE-INV	Max	-0.62	-1.78	0.16	-0.5776	-0.2062	1.1708	1.95	0.97
327	334	SLE-INV	Max	-0.62	-1.8	0.16	-0.7447	-0.2502	0.9895	1.95	1.05
327	374	SLE-INV	Min	-0.85	-1.84	0.13	-1.8896	-0.5234	0.4793	1.15	0.05515
327	373	SLE-INV	Min	-0.85	-1.82	0.13	-1.5826	-0.4578	0.5567	1.15	0.007938
327	333	SLE-INV	Min	-0.62	-1.78	0.16	-1.3255	-0.2903	0.5636	1.1	0.007938
327	334	SLE-INV	Min	-0.62	-1.8	0.16	-1.619	-0.3671	0.4862	1.1	0.05515
327	374	SLU-INV	Max	-0.85	-1.84	0.18	-1.144	-0.3415	2.2347	4.3	3.4
327	373	SLU-INV	Max	-0.85	-1.82	0.18	-0.9108	-0.2884	2.6461	4.3	3.21
327	333	SLU-INV	Max	-0.62	-1.78	0.22	-0.7798	-0.2784	2.663	4.1	3.21
327	334	SLU-INV	Max	-0.62	-1.8	0.22	-1.0054	-0.3378	2.2516	4.1	3.4
327	374	SLU-INV	Min	-1.15	-2.49	0.13	-4.2096	-1.1233	0.647	1.56	0.07445
327	373	SLU-INV	Min	-1.14	-2.46	0.13	-3.5612	-0.9916	0.7516	1.56	0.01072
327	333	SLU-INV	Min	-0.84	-2.4	0.16	-2.9467	-0.4484	0.7609	1.49	0.01072
327	334	SLU-INV	Min	-0.84	-2.43	0.16	-3.5624	-0.6072	0.6563	1.49	0.07445
328	375	SLE-INV	Max	-0.77	-1.84	0.12	-0.8378	-0.2596	0.7906	1.69	1.11
328	374	SLE-INV	Max	-0.77	-1.83	0.12	-0.6894	-0.2262	0.9808	1.69	1.04
328	334	SLE-INV	Max	-0.59	-1.79	0.16	-0.5844	-0.2133	0.9878	1.62	1.04
328	335	SLE-INV	Max	-0.6	-1.8	0.15	-0.7284	-0.2503	0.7976	1.62	1.11
328	375	SLE-INV	Min	-0.77	-1.84	0.12	-1.8742	-0.5328	0.3977	0.99	0.08976
328	374	SLE-INV	Min	-0.77	-1.83	0.12	-1.6196	-0.4795	0.48	0.99	0.04883
328	334	SLE-INV	Min	-0.59	-1.79	0.16	-1.3477	-0.3027	0.4853	0.95	0.04883
328	335	SLE-INV	Min	-0.6	-1.8	0.15	-1.5917	-0.3647	0.4031	0.95	0.08976
328	375	SLU-INV	Max	-0.77	-1.84	0.16	-1.131	-0.3505	1.8078	3.56	3.53
328	374	SLU-INV	Max	-0.77	-1.83	0.17	-0.9306	-0.3054	2.2374	3.56	3.37
328	334	SLU-INV	Max	-0.59	-1.79	0.21	-0.7889	-0.288	2.2481	3.4	3.37
328	335	SLU-INV	Max	-0.6	-1.8	0.2	-0.9833	-0.3379	1.8185	3.4	3.53
328	375	SLU-INV	Min	-1.05	-2.48	0.12	-4.1805	-1.1395	0.537	1.34	0.12
328	374	SLU-INV	Min	-1.04	-2.47	0.12	-3.6436	-1.0336	0.6479	1.34	0.06592
328	334	SLU-INV	Min	-0.8	-2.42	0.16	-2.9979	-0.4708	0.6551	1.28	0.06592
328	335	SLU-INV	Min	-0.81	-2.43	0.15	-3.509	-0.5981	0.5441	1.28	0.12
329	376	SLE-INV	Max	-0.7	-1.84	0.1	-0.8251	-0.2675	0.5921	1.39	1.16
329	375	SLE-INV	Max	-0.7	-1.82	0.11	-0.6977	-0.2356	0.7883	1.39	1.1
329	335	SLE-INV	Max	-0.57	-1.8	0.14	-0.5865	-0.2179	0.7995	1.32	1.1
329	336	SLE-INV	Max	-0.57	-1.81	0.13	-0.7127	-0.2525	0.6023	1.32	1.16
329	376	SLE-INV	Min	-0.7	-1.84	0.1	-1.8501	-0.5446	0.3109	0.85	0.12
329	375	SLE-INV	Min	-0.7	-1.82	0.11	-1.6421	-0.4945	0.3967	0.85	0.08456
329	335	SLE-INV	Min	-0.57	-1.8	0.14	-1.3593	-0.3101	0.4039	0.82	0.08456
329	336	SLE-INV	Min	-0.57	-1.81	0.13	-1.5594	-0.3666	0.3181	0.82	0.12
329	376	SLU-INV	Max	-0.7	-1.84	0.14	-1.1139	-0.3612	1.3608	2.91	3.63
329	375	SLU-INV	Max	-0.7	-1.82	0.15	-0.9418	-0.3181	1.8026	2.91	3.5
329	335	SLU-INV	Max	-0.57	-1.8	0.19	-0.7918	-0.2942	1.8229	2.78	3.5
329	336	SLU-INV	Max	-0.57	-1.81	0.17	-0.9594	-0.3409	1.3811	2.78	3.63
329	376	SLU-INV	Min	-0.95	-2.48	0.1	-4.1323	-1.1616	0.4197	1.15	0.16
329	375	SLU-INV	Min	-0.95	-2.46	0.11	-3.6943	-1.0613	0.5355	1.15	0.11
329	335	SLU-INV	Min	-0.77	-2.43	0.14	-3.0261	-0.4825	0.5453	1.1	0.11
329	336	SLU-INV	Min	-0.77	-2.44	0.13	-3.4446	-0.5989	0.4294	1.1	0.16
330	377	SLE-INV	Max	-0.64	-1.83	0.0846	-0.814	-0.2751	0.3897	1.11	1.2
330	376	SLE-INV	Max	-0.64	-1.82	0.09496	-0.7046	-0.2464	0.5922	1.11	1.15
330	336	SLE-INV	Max	-0.54	-1.8	0.12	-0.5871	-0.2248	0.6026	1.06	1.15
330	337	SLE-INV	Max	-0.54	-1.81	0.11	-0.6945	-0.2551	0.4001	1.06	1.2
330	377	SLE-INV	Min	-0.64	-1.83	0.0846	-1.826	-0.5548	0.2213	0.73	0.14
330	376	SLE-INV	Min	-0.64	-1.82	0.09496	-1.6201	-0.5125	0.3179	0.73	0.12
330	336	SLE-INV	Min	-0.54	-1.8	0.12	-1.3665	-0.3222	0.3179	0.7	0.12
330	337	SLE-INV	Min	-0.54	-1.81	0.11	-1.5274	-0.3685	0.2283	0.7	0.14
330	377	SLU-INV	Max	-0.64	-1.83	0.11	-1.0989	-0.3714	0.9067	2.32	3.71
330	376	SLU-INV	Max	-0.64	-1.82	0.13	-0.9513	-0.3327	1.3612	2.32	3.61
330	336	SLU-INV	Max	-0.54	-1.8	0.16	-0.7926	-0.3035	1.3797	2.22	3.61
330	337	SLU-INV	Max	-0.54	-1.81	0.15	-0.9375	-0.3444	0.9252	2.22	3.71
330	377	SLU-INV	Min	-0.87	-2.47	0.0846	-4.0838	-1.1801	0.2988	0.99	0.19
330	376	SLU-INV	Min	-0.86	-2.46	0.09496	-3.7355	-1.0961	0.4197	0.99	0.16
330	336	SLU-INV	Min	-0.73	-2.44	0.12	-3.0446	-0.5051	0.4291	0.95	0.16
330	337	SLU-INV	Min	-0.73	-2.45	0.11	-3.3804	-0.5995	0.3082	0.95	0.19
331	378	SLE-INV	Max	-0.59	-1.83	0.06793	-0.8076	-0.2867	0.1776	0.86	1.23
331	377	SLE-INV	Max	-0.59	-1.82	0.07889	-0.7139	-0.2571	0.3865	0.86	1.19
331	337	SLE-INV	Max	-0.52	-1.81	0.09676	-0.5898	-0.2323	0.4029	0.82	1.19
331	338	SLE-INV	Max	-0.52	-1.82	0.0858	-0.6827	-0.2625	0.194	0.82	1.23
331	378	SLE-INV	Min	-0.59	-1.83	0.06793	-1.8076	-0.572	0.126	0.63	0.16
331	377	SLE-INV	Min	-0.59	-1.82	0.07889	-1.68	-0.5291	0.2197	0.63	0.14
331	337	SLE-INV	Min	-0.52	-1.81	0.09676	-1.3757	-0.3446	0.2297	0.61	0.14
331	338	SLE-INV	Min	-0.52	-1.82	0.0858	-1.5012	-0.3792	0.136	0.61	0.16
331	378	SLU-INV	Max	-0.59	-1.83	0.09171	-1.0903	-0.3871	0.4325	1.79	3.77
331	377	SLU-INV	Max	-0.59	-1.82	0.11	-0.9638	-0.3471	0.8998	1.79	3.7
331	337	SLU-INV	Max	-0.52	-1.81	0.13	-0.7963	-0.3135	0.9313	1.72	3.7
331	338	SLU-INV	Max	-0.52	-1.82	0.12	-0.9217	-0.3544	0.4639	1.72	3.77
331	378	SLU-INV	Min	-0.8	-2.47	0.06793	-4.0482	-1.2141	0.1701	0.85	0.22
331	377	SLU-INV	Min	-0.8	-2.46	0.07889	-3.7811	-1.1284	0.2966	0.85	0.19
331	337	SLU-INV	Min	-0.7	-2.44	0.09676	-3.0683	-0.5283	0.3101	0.82	0.19
331	338	SLU-INV	Min	-0.7	-2.45	0.0858	-3.3292	-0.619	0.1836	0.82	0.22
332	379	SLE-INV	Max	-0.55	-1.83	0.04674	-0.8089	-0.301	0.0267	0.62	1.24
332	378	SLE-INV	Max	-0.55	-1.82	0.05902	-0.7289	-0.2718	0.1764	0.62	1.22
332	338	SLE-INV	Max	-0.5	-1.81	0.07373	-0.5974	-0.2446	0.1948	0.6	1.22
332	339	SLE-INV	Max	-0.51	-1.82	0.06146	-0.6779	-0.2733	0.0381	0.6	1.24
332	379	SLE-INV	Min	-0.55	-1.83	0.04674	-1.7993	-0.5928	-0.0397	0.54	0.18
332	378	SLE-INV	Min	-0.55	-1.82	0.05902	-1.7074	-0.5531	0.1252	0.54	0.16
332	338	SLE-INV	Min	-0.5	-1.81	0.07373	-1.3916	-0.3561	0.1366	0.52	0.16
332	339	SLE-INV	Min	-0.51	-1.82	0.06146	-1.4846	-0.395	-0.0213	0.52	0.18
332	379	SLU-INV	Max	-0.55	-1.83	0.06311	-1.092	-0.4063	0.036	1.3	3.81
332	378	SLU-INV	Max	-0.55	-1.82	0.07967	-0.9841	-0.3669	0.43	1.3	3.76
332	338	SLU-INV	Max	-0.5	-1.81	0.09953	-0.8065	-0.3303	0.4655	1.25	3.76
332	339	SLU-INV	Max	-0.51	-1.82	0.08297	-0.9152	-0.3689	0.0514	1.25	3.81
332	379	SLU-INV	Min	-0.74	-2.47	0.04674	-4.0352	-1.2555	-0.0636	0.73	0.24
332	378	SLU-INV	Min	-0.74	-2.46	0.05902	-3.8439	-1.1767	0.169	0.73	0.22
332	338	SLU-INV	Min	-0.68	-2.45	0.07373	-3.1071	-0.5711	0.1844	0.71	0.22
332	339	SLU-INV	Min	-0.68	-2.46	0.06146	-3.2994	-0.6491	-0.0376	0.71	0.24
333	380	SLE-INV	Max	-0.53	-1.83	0.02577	-0.8208	-0.323	-0.0815	0.46	1.25
333	379	SLE-INV	Max	-0.53	-1.82	0.03966	-0.7529	-0.2892	0.0238	0.46	1.24
333	339	SLE-INV	Max	-0.5	-1.82	0.04487	-0.6117	-0.2606	0.0407	0.45	1.24
333	340	SLE-INV	Max	-0.5	-1.82	0.03098	-0.6815				

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	157 di 174

333	340	SLU-INV	Max	-0.5	-1.82	0.04182	-0.92	-0.3951	-0.0871	0.82	3.82
333	380	SLU-INV	Min	-0.71	-2.47	0.02577	-4.0546	-1.3263	-0.5665	0.53	0.25
333	379	SLU-INV	Min	-0.71	-2.46	0.03966	-3.9344	-1.2329	-0.0715	0.53	0.24
333	339	SLU-INV	Min	-0.67	-2.45	0.04487	-3.1666	-0.6249	-0.0303	0.53	0.24
333	340	SLU-INV	Min	-0.67	-2.46	0.03098	-3.2946	-0.7118	-0.5085	0.53	0.25
334	381	SLE-INV	Max	-0.52	-1.83	-0.003075	-0.845	-0.3518	-0.197	0.39	1.24
334	380	SLE-INV	Max	-0.52	-1.83	0.01483	-0.7883	-0.3145	-0.0839	0.39	1.25
334	340	SLE-INV	Max	-0.5	-1.83	0.01387	-0.636	-0.2855	-0.0624	0.39	1.25
334	341	SLE-INV	Max	-0.5	-1.83	-0.00403	-0.6962	-0.3199	-0.1756	0.39	1.24
334	381	SLE-INV	Min	-0.52	-1.83	-0.003075	-1.8276	-0.6732	-0.5135	0.18	0.19
334	380	SLE-INV	Min	-0.52	-1.83	0.01483	-1.8025	-0.6223	-0.2759	0.18	0.19
334	340	SLE-INV	Min	-0.5	-1.83	0.01387	-1.4557	-0.4261	-0.2386	0.2	0.19
334	341	SLE-INV	Min	-0.5	-1.83	-0.00403	-1.4882	-0.4708	-0.4762	0.2	0.19
334	381	SLE-INV	Max	-0.52	-1.83	-0.003075	-1.1407	-0.475	-0.2659	0.52	3.82
334	380	SLU-INV	Max	-0.52	-1.83	0.02001	-1.0642	-0.4246	-0.1132	0.52	3.84
334	340	SLU-INV	Max	-0.5	-1.83	0.01873	-0.8586	-0.3854	-0.0843	0.53	3.84
334	341	SLU-INV	Max	-0.5	-1.83	-0.00403	-0.9399	-0.4319	-0.237	0.53	3.82
334	381	SLU-INV	Min	-0.7	-2.48	-0.004152	-4.1092	-1.4211	-1.1016	0.22	0.26
334	380	SLU-INV	Min	-0.7	-2.47	0.01483	-4.0584	-1.3188	-0.5754	0.22	0.26
334	340	SLU-INV	Min	-0.67	-2.46	0.01387	-3.2565	-0.7124	-0.5007	0.24	0.26
334	341	SLU-INV	Min	-0.68	-2.47	-0.005441	-3.3228	-0.8018	-1.027	0.24	0.26
335	382	SLE-INV	Max	-0.54	-1.85	-0.03877	-0.8849	-0.3968	-0.3283	0.32	1.21
335	381	SLE-INV	Max	-0.54	-1.84	-0.01466	-0.8387	-0.3466	-0.2034	0.32	1.25
335	341	SLE-INV	Max	-0.51	-1.83	-0.02956	-0.6707	-0.3188	-0.1694	0.33	1.25
335	342	SLE-INV	Max	-0.52	-1.85	-0.05367	-0.7219	-0.3648	-0.2943	0.33	1.21
335	382	SLE-INV	Min	-0.54	-1.85	-0.03877	-1.8692	-0.7491	-0.7817	-0.03867	0.18
335	381	SLE-INV	Min	-0.54	-1.84	-0.01466	-1.8773	-0.675	-0.5263	-0.03867	0.19
335	341	SLE-INV	Min	-0.51	-1.83	-0.02956	-1.5065	-0.4827	-0.464	0.002336	0.19
335	342	SLE-INV	Min	-0.52	-1.85	-0.05367	-1.5091	-0.5479	-0.7195	0.002336	0.18
335	382	SLU-INV	Max	-0.54	-1.85	-0.03877	-1.1946	-0.5357	-0.4432	0.43	3.79
335	381	SLU-INV	Max	-0.54	-1.84	-0.01466	-1.1322	-0.4679	-0.2746	0.43	3.84
335	341	SLU-INV	Max	-0.51	-1.83	-0.02956	-0.9055	-0.4303	-0.2287	0.45	3.84
335	342	SLU-INV	Max	-0.52	-1.85	-0.05367	-0.9746	-0.4924	-0.3973	0.45	3.79
335	382	SLU-INV	Min	-0.73	-2.5	-0.05234	-4.2081	-1.5802	-1.6917	-0.11	0.24
335	381	SLU-INV	Min	-0.73	-2.48	-0.01979	-4.2258	-1.4288	-1.1282	-0.11	0.26
335	341	SLU-INV	Min	-0.69	-2.47	-0.03991	-3.373	-0.8275	-1.0014	-0.04622	0.26
335	342	SLU-INV	Min	-0.7	-2.49	-0.07246	-3.3783	-0.9599	-1.5648	-0.04622	0.24
336	383	SLE-INV	Max	-0.6	-1.89	-0.1	-0.9409	-0.462	-0.4746	0.24	1.15
336	382	SLE-INV	Max	-0.59	-1.86	-0.05869	-0.9056	-0.3948	-0.3366	0.24	1.22
336	342	SLE-INV	Max	-0.54	-1.85	-0.08539	-0.7205	-0.3706	-0.2864	0.28	1.22
336	343	SLE-INV	Max	-0.54	-1.88	-0.13	-0.7627	-0.4321	-0.4244	0.28	1.25
336	383	SLE-INV	Min	-0.6	-1.89	-0.1	-1.928	-0.8626	-1.0726	-0.28	0.15
336	382	SLE-INV	Min	-0.59	-1.86	-0.05869	-1.9712	-0.7575	-0.798	-0.28	0.19
336	342	SLE-INV	Min	-0.54	-1.85	-0.08539	-1.5754	-0.5732	-0.7038	-0.2	0.19
336	343	SLE-INV	Min	-0.54	-1.88	-0.13	-1.5468	-0.6663	-0.9784	-0.2	0.15
336	383	SLU-INV	Max	-0.6	-1.89	-0.1	-1.2702	-0.6237	-0.6407	0.32	3.72
336	382	SLU-INV	Max	-0.59	-1.86	-0.05869	-1.2226	-0.533	-0.4544	0.32	3.82
336	342	SLU-INV	Max	-0.54	-1.85	-0.08539	-0.9727	-0.5003	-0.3867	0.37	3.82
336	343	SLU-INV	Max	-0.54	-1.88	-0.13	-1.0296	-0.5833	-0.573	0.37	3.72
336	383	SLU-INV	Min	-0.81	-2.55	-0.14	-4.3477	-1.821	-2.3303	-0.53	0.2
336	382	SLU-INV	Min	-0.8	-2.51	-0.07923	-4.4361	-1.6032	-1.7261	-0.53	0.25
336	342	SLU-INV	Min	-0.73	-2.5	-0.12	-3.5284	-1.0125	-1.5318	-0.43	0.25
336	343	SLU-INV	Min	-0.74	-2.53	-0.18	-3.4716	-1.2041	-2.136	-0.43	0.2
337	384	SLE-INV	Max	-0.74	-2.05	-0.22	-1.0146	-0.5819	-0.6541	0.15	1.04
337	383	SLE-INV	Max	-0.71	-1.91	-0.14	-0.9911	-0.4626	-0.4986	0.15	1.18
337	343	SLE-INV	Max	-0.53	-1.87	-0.19	-0.7843	-0.4458	-0.4008	0.22	1.18
337	344	SLE-INV	Max	-0.56	-2.01	-0.26	-0.8163	-0.5582	-0.5563	0.22	1.04
337	384	SLE-INV	Min	-0.74	-2.05	-0.22	-2.0013	-1.0853	-1.4197	-0.54	0.0894
337	383	SLE-INV	Min	-0.71	-1.91	-0.14	-2.0817	-0.8759	-1.1216	-0.54	0.16
337	343	SLE-INV	Min	-0.53	-1.87	-0.19	-1.6566	-0.7057	-0.9299	-0.41	0.16
337	344	SLE-INV	Min	-0.56	-2.01	-0.26	-1.5942	-0.9002	-1.2281	-0.41	0.0894
337	384	SLU-INV	Max	-0.74	-2.05	-0.22	-1.3697	-0.7856	-0.883	0.2	3.61
337	383	SLU-INV	Max	-0.71	-1.91	-0.14	-1.338	-0.6245	-0.673	0.2	3.76
337	343	SLU-INV	Max	-0.53	-1.87	-0.19	-1.0588	-0.6019	-0.541	0.3	3.76
337	344	SLU-INV	Max	-0.56	-2.01	-0.26	-1.102	-0.7536	-0.751	0.3	3.61
337	384	SLU-INV	Min	-0.99	-2.77	-0.29	-4.5261	-2.2973	-3.0916	-1.02	0.12
337	383	SLU-INV	Min	-0.96	-2.58	-0.19	-4.6876	-1.8576	-2.4338	-1.02	0.22
337	343	SLU-INV	Min	-0.72	-2.53	-0.25	-3.7103	-1.2833	-2.0335	-0.86	0.22
337	344	SLU-INV	Min	-0.76	-2.72	-0.36	-3.5882	-1.6905	-2.6913	-0.86	0.12
338	385	SLE-INV	Max	-0.81	-2.39	-0.34	-1.0635	-0.7299	-0.803	0.01298	0.82
338	384	SLE-INV	Max	-0.74	-2.05	-0.31	-1.0531	-0.5797	-0.6674	0.01298	1.06
338	344	SLE-INV	Max	-0.47	-2	-0.31	-0.8781	-0.5805	-0.5432	0.18	1.06
338	345	SLE-INV	Max	-0.54	-2.33	-0.34	-0.8979	-0.7226	-0.6788	0.18	0.82
338	385	SLE-INV	Min	-0.81	-2.39	-0.34	-2.0027	-1.3551	-1.6825	-0.86	-0.06154
338	384	SLE-INV	Min	-0.74	-2.05	-0.31	-2.125	-1.0952	-1.4428	-0.86	0.1
338	344	SLE-INV	Min	-0.47	-2	-0.31	-1.7851	-0.9533	-1.2054	-0.6	0.1
338	345	SLE-INV	Min	-0.54	-2.33	-0.34	-1.6829	-1.1956	-1.4451	-0.6	-0.06154
338	385	SLU-INV	Max	-0.81	-2.39	-0.34	-1.4357	-0.9854	-1.0841	0.01752	3.35
338	384	SLU-INV	Max	-0.74	-2.05	-0.31	-1.4216	-0.7826	-0.901	0.01752	3.64
338	344	SLU-INV	Max	-0.47	-2	-0.31	-1.1854	-0.7837	-0.7333	0.25	3.64
338	345	SLU-INV	Max	-0.54	-2.33	-0.34	-1.2122	-0.9755	-0.9164	0.25	3.35
338	385	SLU-INV	Min	-1.09	-3.22	-0.46	-4.5548	-2.8808	-3.6865	-1.61	-0.08308
338	384	SLU-INV	Min	-1	-2.77	-0.42	-4.8005	-2.331	-3.1414	-1.61	0.14
338	344	SLU-INV	Min	-0.64	-2.69	-0.42	-3.9851	-1.791	-2.6423	-1.3	0.14
338	345	SLU-INV	Min	-0.73	-3.15	-0.46	-3.7837	-2.3018	-3.1874	-1.3	-0.08308
339	385	SLE-INV	Max	-0.67	-2.36	-0.4	-1.1173	-0.7236	-0.8036	-0.08423	0.85
339	345	SLE-INV	Max	-0.41	-2.31	-0.34	-0.9347	-0.747	-0.678	0.15	0.85
339	346	SLE-INV	Max	-0.48	-2.63	-0.32	-0.9437	-0.8647	-0.7978	0.15	0.61
339	385	SLE-INV	Max	-0.73	-2.68	-0.38	-1.1162	-0.8461	-0.9234	-0.08423	0.61
339	386	SLE-INV	Min	-0.67	-2.36	-0.4	-2.1701	-1.3611	-1.6751	-1.1	-0.03991
339	345	SLE-INV	Min	-0.41	-2.31	-0.34	-1.8133	-1.2492	-1.452	-0.79	-0.03991
339	346	SLE-INV	Min	-0.48	-2.63	-0.32	-1.7047	-1.4319	-1.6645	-0.79	-0.22
339	386	SLE-INV	Min	-0.73	-2.68	-0.38	-2.0396	-1.5544	-1.8876	-1.1	-0.22
339	385	SLU-INV	Max	-0.67	-2.36	-0.4	-1.5083	-0.9769	-1.0849	-0.11	3.4
339	345	SLU-INV	Max	-0.41	-2.31	-0.34	-1.2619	-1.0085	-0.9153	0.2	3.4
339	346	SLU-INV	Max	-0.48	-2.63	-0.32	-1.274	-1.1673	-1.077	0.2	3.12
339	386	SLU-INV	Max	-0.73	-2.68	-0.38	-1.5068	-1.1422	-1.2465	-0.11	3.12
339	385	SLU-INV	Min	-0.9	-3.18	-0.54	-4.9039	-2.9068	-3.6755	-2.11	-0.05388
339	345	SLU-INV	Min	-0.56	-3.11	-0.46	-4.0384	-2.3965	-3.1972	-1.76	-0.05388
339	346	SLU-INV	Min	-0.64	-3.55	-0.43	-3.8179	-2.7896	-3.6827	-1.76	-0.3
339	386	SLU-INV	Min	-0.99	-3.62	-0.51	-4.6338	-3.3241	-4.1609	-2.11	-0.3
340	387	SLE-INV	Max	-0.64	-2.93	-0.28	-1.0709	-0.9962	-1.0215	-0.19	0.42
340	386	SLE-INV	Max	-0.58	-2.65	-0.34	-1.0852	-0.8299	-0.9478	-0.19	0.63
340	346	SLE-INV	Max	-0.34	-2.6	-0.28	-0.9777	-0.8815	-0.7735	0.05174	0.63
340	347	SLE-INV	Max	-0.39	-2.88	-0.21	-0.9743	-1.0426	-0.8473	0.05174	0.42
340	387	SLE-INV	Min	-0.64	-2						

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 158 di 174			
340	346	SLU-INV	Max	-0.34	-2.6	-0.28	-1.3199	-1.19	-1.0443	0.06985	3.13
340	347	SLU-INV	Max	-0.39	-2.88	-0.21	-1.3153	-1.4075	-1.1438	0.06985	2.94
340	387	SLU-INV	Min	-0.86	-3.95	-0.38	-4.2723	-3.9078	-4.5653	-2.58	-0.54
340	386	SLU-INV	Min	-0.79	-3.58	-0.46	-4.6118	-3.3119	-4.2616	-2.58	-0.28
340	346	SLU-INV	Min	-0.46	-3.51	-0.37	-4.0264	-2.8391	-3.5826	-2.34	-0.28
340	347	SLU-INV	Min	-0.53	-3.89	-0.29	-3.7421	-3.4082	-3.8963	-2.34	-0.54
341	388	SLE-INV	Max	-0.52	-3.07	-0.08183	-0.9573	-1.0779	-0.9893	-0.38	0.21
341	387	SLE-INV	Max	-0.49	-2.9	-0.18	-0.9937	-0.9756	-0.9893	-0.38	0.42
341	347	SLE-INV	Max	-0.28	-2.86	-0.13	-1.02	-1.0569	-0.8791	-0.13	0.42
341	348	SLE-INV	Max	-0.31	-3.03	-0.03161	-0.9911	-1.1555	-0.8695	-0.13	0.21
341	388	SLE-INV	Min	-0.52	-3.07	-0.08183	-1.5809	-1.9485	-1.9642	-1.64	-0.6
341	387	SLE-INV	Min	-0.49	-2.9	-0.18	-1.785	-1.8025	-1.9969	-1.64	-0.4
341	347	SLE-INV	Min	-0.28	-2.86	-0.13	-1.8149	-1.7569	-1.8108	-1.38	-0.4
341	348	SLE-INV	Min	-0.31	-3.03	-0.03161	-1.6281	-1.894	-1.7781	-1.38	-0.6
341	388	SLU-INV	Max	-0.52	-3.07	-0.08183	-1.2924	-1.4552	-1.3227	-0.51	2.7
341	387	SLU-INV	Max	-0.49	-2.9	-0.18	-1.3414	-1.317	-1.3356	-0.51	2.92
341	347	SLU-INV	Max	-0.28	-2.86	-0.13	-1.377	-1.4268	-1.1868	-0.17	2.92
341	348	SLU-INV	Max	-0.31	-3.03	-0.03161	-1.3379	-1.5599	-1.1739	-0.17	2.7
341	388	SLU-INV	Min	-0.7	-4.15	-0.11	-3.5963	-4.1939	-4.3891	-3.43	-0.81
341	387	SLU-INV	Min	-0.66	-3.91	-0.24	-4.0437	-3.879	-4.4254	-3.43	-0.53
341	347	SLU-INV	Min	-0.38	-3.86	-0.18	-3.9865	-3.4401	-4.0245	-3.15	-0.53
341	348	SLU-INV	Min	-0.42	-4.09	-0.04267	-3.5816	-3.7329	-3.9882	-3.15	-0.81
342	389	SLE-INV	Max	-0.42	-3.11	0.18	-0.9096	-1.0911	-0.9263	-0.65	-0.004185
342	388	SLE-INV	Max	-0.41	-3.05	0.04624	-0.9807	-1.057	-0.9432	-0.65	0.23
342	348	SLE-INV	Max	-0.24	-3.01	0.08162	-1.0244	-1.1777	-0.906	-0.4	0.23
342	349	SLE-INV	Max	-0.25	-3.07	0.21	-0.9597	-1.1986	-0.8891	-0.4	-0.004185
342	389	SLE-INV	Min	-0.42	-3.11	0.18	-1.4193	-1.9399	-1.856	-2.15	-0.79
342	388	SLE-INV	Min	-0.41	-3.05	0.04624	-1.6862	-1.9487	-1.891	-2.15	-0.58
342	348	SLE-INV	Min	-0.24	-3.01	0.08162	-1.7263	-1.9345	-1.8511	-1.85	-0.58
342	349	SLE-INV	Min	-0.25	-3.07	0.21	-1.4756	-1.9173	-1.8161	-1.85	-0.79
342	389	SLU-INV	Max	-0.42	-3.11	0.24	-1.2279	-1.4729	-1.2505	-0.88	2.41
342	388	SLU-INV	Max	-0.41	-3.05	0.06242	-1.324	-1.4404	-1.2733	-0.88	2.74
342	348	SLU-INV	Max	-0.24	-3.01	0.11	-1.383	-1.59	-1.2232	-0.53	2.74
342	349	SLU-INV	Max	-0.25	-3.07	0.29	-1.2956	-1.6181	-1.2003	-0.53	2.41
342	389	SLU-INV	Min	-0.57	-4.2	0.18	-3.2028	-4.183	-4.1926	-4.64	-1.06
342	388	SLU-INV	Min	-0.56	-4.12	0.04624	-3.7982	-4.2017	-4.2324	-4.64	-0.78
342	348	SLU-INV	Min	-0.32	-4.07	0.08162	-3.7539	-3.8	-4.1446	-4.23	-0.78
342	349	SLU-INV	Min	-0.33	-4.15	0.21	-3.2004	-3.7596	-4.1049	-4.23	-1.06
343	390	SLE-INV	Max	-0.35	-3.05	0.46	-0.8562	-1.0798	-0.8873	-1	-0.22
343	389	SLE-INV	Max	-0.36	-3.09	0.32	-0.9579	-1.0883	-0.9141	-1	0.02176
343	349	SLE-INV	Max	-0.22	-3.07	0.35	-1.0341	-1.2279	-0.9012	-0.75	0.02176
343	350	SLE-INV	Max	-0.21	-3.02	0.49	-0.9282	-1.2169	-0.8744	-0.75	-0.22
343	390	SLE-INV	Min	-0.35	-3.05	0.46	-1.2561	-1.8944	-1.7948	-2.75	-0.96
343	389	SLE-INV	Min	-0.36	-3.09	0.32	-1.5858	-1.9528	-1.8372	-2.75	-0.77
343	349	SLE-INV	Min	-0.22	-3.07	0.35	-1.6468	-1.972	-1.8347	-2.44	-0.77
343	350	SLE-INV	Min	-0.21	-3.02	0.49	-1.333	-1.9066	-1.7923	-2.44	-0.96
343	390	SLU-INV	Max	-0.35	-3.05	0.63	-1.1559	-1.4577	-1.1979	-1.35	2.08
343	389	SLU-INV	Max	-0.36	-3.09	0.43	-1.3064	-1.4692	-1.234	-1.35	2.46
343	349	SLU-INV	Max	-0.22	-3.07	0.47	-1.396	-1.6577	-1.2166	-1.02	2.46
343	350	SLU-INV	Max	-0.21	-3.02	0.67	-1.2531	-1.6429	-1.1805	-1.02	2.08
343	390	SLU-INV	Min	-0.47	-4.12	0.46	-2.8017	-4.089	-4.1018	-6.04	-1.3
343	389	SLU-INV	Min	-0.48	-4.18	0.32	-3.5426	-4.2146	-4.153	-6.04	-1.04
343	349	SLU-INV	Min	-0.29	-4.14	0.35	-3.5276	-3.8614	-4.1443	-5.55	-1.04
343	350	SLU-INV	Min	-0.28	-4.08	0.49	-2.8306	-3.7161	-4.0931	-5.55	-1.3
344	391	SLE-INV	Max	-0.29	-2.92	0.79	-0.7569	-1.0311	-0.8204	-1.42	-0.43
344	390	SLE-INV	Max	-0.32	-3.04	0.63	-0.9217	-1.0818	-0.8704	-1.42	-0.2
344	350	SLE-INV	Max	-0.22	-3.03	0.63	-1.0295	-1.2483	-0.8914	-1.2	-0.2
344	351	SLE-INV	Max	-0.2	-2.9	0.8	-0.899	-1.052	-0.859	-1.2	-0.43
344	391	SLE-INV	Min	-0.29	-2.92	0.79	-1.0049	-1.7854	-1.6864	-3.44	-1.12
344	390	SLE-INV	Min	-0.32	-3.04	0.63	-1.421	-1.9117	-1.7675	-3.44	-0.95
344	350	SLE-INV	Min	-0.22	-3.03	0.63	-1.5486	-1.9655	-1.8197	-3.14	-0.95
344	351	SLE-INV	Min	-0.2	-2.9	0.8	-1.1489	-1.8319	-1.7386	-3.14	-1.12
344	391	SLU-INV	Max	-0.29	-2.92	1.06	-1.0218	-1.3919	-1.1076	-1.92	1.71
344	390	SLU-INV	Max	-0.32	-3.04	0.85	-1.2443	-1.4605	-1.175	-1.92	2.12
344	350	SLU-INV	Max	-0.22	-3.03	0.86	-1.3898	-1.6852	-1.2034	-1.62	2.12
344	351	SLU-INV	Max	-0.2	-2.9	1.07	-1.1744	-1.6136	-1.136	-1.62	1.71
344	391	SLU-INV	Min	-0.39	-3.94	0.79	-2.2003	-3.8586	-3.9143	-7.62	-1.51
344	390	SLU-INV	Min	-0.43	-4.11	0.63	-3.136	-4.126	-4.0458	-7.62	-1.28
344	350	SLU-INV	Min	-0.3	-4.08	0.63	-3.2551	-3.8309	-4.1493	-7.09	-1.28
344	351	SLU-INV	Min	-0.27	-3.91	0.8	-2.3671	-3.542	-4.0177	-7.09	-1.51
345	392	SLE-INV	Max	-0.27	-2.7	1.15	-0.6151	-0.9356	-0.7308	-1.94	-0.63
345	391	SLE-INV	Max	-0.31	-2.92	0.97	-0.851	-1.0398	-0.8001	-1.94	-0.41
345	351	SLE-INV	Max	-0.25	-2.91	0.96	-0.9918	-1.2297	-0.8617	-1.75	-0.41
345	352	SLE-INV	Max	-0.21	-2.69	1.14	-0.7599	-1.1235	-0.7925	-1.75	-0.63
345	392	SLE-INV	Min	-0.27	-2.7	1.15	-0.8957	-1.5963	-1.581	-4.26	-1.25
345	391	SLE-INV	Min	-0.31	-2.92	0.97	-1.2161	-1.8111	-1.6523	-4.26	-1.11
345	351	SLE-INV	Min	-0.25	-2.91	0.96	-1.3938	-1.8975	-1.7725	-3.98	-1.11
345	352	SLE-INV	Min	-0.21	-2.69	1.14	-0.8789	-1.6754	-1.6613	-3.98	-1.25
345	392	SLU-INV	Max	-0.27	-2.7	1.55	-0.8304	-1.263	-0.9866	-2.62	1.31
345	391	SLU-INV	Max	-0.31	-2.92	1.31	-1.1489	-1.4038	-1.0801	-2.62	1.75
345	351	SLU-INV	Max	-0.25	-2.91	1.29	-1.3389	-1.66	-1.1634	-2.37	1.75
345	352	SLU-INV	Max	-0.21	-2.69	1.54	-1.0259	-1.5167	-1.0698	-2.37	1.31
345	392	SLU-INV	Min	-0.36	-3.65	1.15	-1.4437	-3.455	-3.6495	-9.46	-1.69
345	391	SLU-INV	Min	-0.42	-3.94	0.97	-2.6312	-3.9088	-3.8433	-9.46	-1.49
345	351	SLU-INV	Min	-0.34	-3.93	0.96	-2.8523	-3.675	-4.0887	-8.9	-1.49
345	352	SLU-INV	Min	-0.28	-3.63	1.14	-1.7125	-3.1982	-3.8949	-8.9	-1.69
346	393	SLE-INV	Max	-0.27	-2.43	1.54	-0.2812	-0.7985	-0.6316	-2.57	-0.8
346	392	SLE-INV	Max	-0.33	-2.71	1.35	-0.7352	-0.9512	-0.7142	-2.57	-0.61
346	352	SLE-INV	Max	-0.31	-2.71	1.32	-0.8999	-1.1599	-0.8092	-2.43	-0.61
346	353	SLE-INV	Max	-0.26	-2.43	1.52	-0.5103	-1.0053	-0.7266	-2.43	-0.8
346	393	SLE-INV	Min	-0.27	-2.43	1.54	-0.4158	-1.3419	-1.385	-5.23	-1.35
346	392	SLE-INV	Min	-0.33	-2.71	1.35	-0.9374	-1.6298	-1.5156	-5.23	-1.24
346	352	SLE-INV	Min	-0.31	-2.71	1.32	-1.1494	-1.7462	-1.687	-4.99	-1.24
346	353	SLE-INV	Min	-0.26	-2.43	1.52	-0.5846	-1.4501	-1.5564	-4.99	-1.35
346	393	SLU-INV	Max	-0.27	-2.43	2.08	-0.3595	-1.078	-0.8526	-3.47	0.92
346	392	SLU-INV	Max	-0.33	-2.71	1.82	-0.9925	-1.2841	-0.9641	-3.47	1.36
346	352	SLU-INV	Max	-0.31	-2.71	1.78	-1.2149	-1.5658	-1.0924	-3.29	1.36
346	353	SLU-INV	Max	-0.26	-2.43	2.05	-0.6777	-1.3571	-0.9809	-3.29	0.92
346	393	SLU-INV	Min	-0.37	-3.28	1.54	-0.5613	-2.9106	-3.3612	-11.59	-1.83
346	392	SLU-INV	Min	-0.44	-3.66	1.35	-1.9579	-3.5168	-3.5971	-11.59	-1.68
346	352	SLU-INV	Min	-0.42	-3.66	1.32	-2.2519	-3.3472	-3.9481	-11.03	-1.68
346	353	SLU-INV	Min	-0.35	-3.28	1.52	-0.846	-2.7145	-3.7122	-11.03	-1.83
347	394	SLE-INV	Max	-0.3	-2.11	1.97	0.2651	-0.6206	-0.6177	-3.33	-0.93
347	393	SLE-INV	Max	-0.37	-2.45	1.76	-0.5371	-0.8195	-0.6177	-3.33	-0.78
347	353	SLE-INV	Max	-0.4	-2.45	1.71	-0.7362	-1.0404	-0.7405	-3.25	-0.78
347	354	SLE-INV	Max	-0.33	-2.12	1.93	-0.0118	-0.8397	-0.6417	-3.25	

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 159 di 174			
347	393	SLU-INV	Max	-0.37	-2.45	2.37	-0.7239	-1.1063	-0.8339	-4.49	0.97
347	353	SLU-INV	Max	-0.4	-2.45	2.31	-0.9939	-1.4045	-0.9996	-4.39	0.97
347	354	SLU-INV	Max	-0.33	-2.12	2.6	0.2951	-1.1336	-0.8664	-4.39	0.55
347	394	SLU-INV	Min	-0.41	-2.85	1.97	-0.1696	-2.2338	-3.0234	-14.01	-1.89
347	393	SLU-INV	Min	-0.5	-3.31	1.71	-1.0181	-2.9752	-3.3219	-14.01	-1.82
347	353	SLU-INV	Min	-0.54	-3.31	1.71	-1.4165	-2.8682	-3.752	-13.47	-1.82
347	354	SLU-INV	Min	-0.45	-2.86	1.93	-0.4336	-2.0976	-3.4534	-13.47	-1.89
348	395	SLE-INV	Max	-0.35	-1.76	2.44	0.9854	-0.4007	-0.395	-4.21	-1
348	394	SLE-INV	Max	-0.43	-2.14	2.21	0.0132	-0.6457	-0.5071	-4.21	-0.91
348	354	SLE-INV	Max	-0.51	-2.15	2.15	-0.289	-0.8707	-0.6538	-4.22	-0.91
348	355	SLE-INV	Max	-0.44	-1.78	2.38	0.662	-0.6236	-0.5418	-4.22	-1
348	395	SLE-INV	Min	-0.35	-1.76	2.44	0.2794	-0.645	-1.0035	-7.64	-1.4
348	394	SLE-INV	Min	-0.43	-2.14	2.21	-0.2573	-1.0652	-1.1895	-7.64	-1.4
348	354	SLE-INV	Min	-0.51	-2.15	2.15	-0.47	-1.2239	-1.4353	-7.53	-1.4
348	355	SLE-INV	Min	-0.44	-1.78	2.38	0.0627	-0.7934	-1.2493	-7.53	-1.4
348	395	SLU-INV	Max	-0.35	-1.76	3.3	2.3782	-0.5409	-0.5333	-5.69	0.21
348	394	SLU-INV	Max	-0.43	-2.14	2.98	0.2489	-0.8717	-0.6845	-5.69	0.6
348	354	SLU-INV	Max	-0.51	-2.15	2.9	-0.2621	-1.1754	-0.8826	-5.7	0.6
348	355	SLU-INV	Max	-0.44	-1.78	3.22	1.7961	-0.8419	-0.7314	-5.7	0.21
348	395	SLU-INV	Min	-0.48	-2.38	2.44	0.3771	-1.4195	-2.6197	-16.76	-1.88
348	394	SLU-INV	Min	-0.58	-2.88	2.21	-0.3474	-2.2959	-2.9886	-16.76	-1.89
348	354	SLU-INV	Min	-0.69	-2.91	2.15	-0.6344	-2.248	-3.4895	-16.27	-1.89
348	355	SLU-INV	Min	-0.59	-2.4	2.38	0.0846	-1.3371	-3.1206	-16.27	-1.88
349	396	SLE-INV	Max	-0.43	-1.4	2.96	1.9177	-0.1439	-0.2705	-5.25	-1.01
349	395	SLE-INV	Max	-0.5	-1.79	2.7	0.7507	-0.4285	-0.3887	-5.25	-0.99
349	355	SLE-INV	Max	-0.64	-1.82	2.63	0.4197	-0.6468	-0.5482	-5.36	-0.99
349	356	SLE-INV	Max	-0.56	-1.43	2.89	1.5632	-0.3601	-0.43	-5.36	-1.01
349	396	SLE-INV	Min	-0.43	-1.4	2.96	0.8284	-0.2098	-0.7906	-9.12	-1.32
349	395	SLE-INV	Min	-0.5	-1.79	2.7	0.154	-0.6838	-0.9954	-9.12	-1.4
349	355	SLE-INV	Min	-0.64	-1.82	2.63	-0.0667	-0.85	-1.2577	-9.1	-1.4
349	356	SLE-INV	Min	-0.56	-1.43	2.89	0.6037	-0.3646	-1.0529	-9.1	-1.32
349	396	SLU-INV	Max	-0.43	-1.4	3.99	4.4454	-0.1942	-0.3652	-7.09	-0.05996
349	395	SLU-INV	Max	-0.5	-1.79	3.64	1.9117	-0.5784	-0.5248	-7.09	0.27
349	355	SLU-INV	Max	-0.64	-1.82	3.55	1.3094	-0.8731	-0.74	-7.23	0.27
349	356	SLU-INV	Max	-0.56	-1.43	3.9	3.7625	-0.45	-0.5804	-7.23	-0.05996
349	396	SLU-INV	Min	-0.58	-1.89	2.96	1.1184	-0.4862	-2.1775	-19.88	-1.78
349	395	SLU-INV	Min	-0.68	-2.42	2.7	0.2078	-1.4722	-2.6033	-19.88	-1.89
349	355	SLU-INV	Min	-0.87	-2.46	2.63	-0.09	-1.4751	-3.1382	-19.46	-1.89
349	356	SLU-INV	Min	-0.76	-1.93	2.89	0.8151	-0.4928	-2.7124	-19.46	-1.78
350	397	SLE-INV	Max	-0.51	-1.04	3.54	3.1307	0.2639	-0.1526	-6.45	-0.93
350	396	SLE-INV	Max	-0.59	-1.43	3.24	1.7402	-0.1714	-0.6277	-6.45	-1.01
350	356	SLE-INV	Max	-0.79	-1.47	3.16	1.3795	-0.3705	-0.428	-6.68	-1.01
350	357	SLE-INV	Max	-0.71	-1.08	3.46	2.7416	0.1156	-0.3078	-6.68	-0.93
350	397	SLE-INV	Min	-0.51	-1.04	3.54	1.5655	0.1408	-0.5699	-10.81	-1.15
350	396	SLE-INV	Min	-0.59	-1.43	3.24	0.7311	-0.2422	-0.7966	-10.81	-1.33
350	356	SLE-INV	Min	-0.79	-1.47	3.16	0.5119	-0.4044	-1.0476	-10.9	-1.33
350	357	SLE-INV	Min	-0.71	-1.08	3.46	1.3413	-0.0558	-0.8209	-10.9	-1.15
350	397	SLU-INV	Max	-0.51	-1.04	4.78	7.1021	0.5306	-0.206	-8.71	-0.26
350	396	SLU-INV	Max	-0.59	-1.43	4.37	4.1092	-0.2313	-0.3682	-8.71	-0.01105
350	356	SLU-INV	Max	-0.79	-1.47	4.27	3.3856	-0.5002	-0.5777	-9.01	-0.01105
350	357	SLU-INV	Max	-0.71	-1.08	4.68	6.2816	0.5327	-0.4156	-9.01	-0.26
350	397	SLU-INV	Min	-0.69	-1.41	3.54	2.1135	0.1901	-1.6853	-23.38	-1.55
350	396	SLU-INV	Min	-0.79	-1.94	3.24	0.987	-0.5169	-2.1915	-23.38	-1.79
350	356	SLU-INV	Min	-1.06	-1.99	3.16	0.691	-0.5619	-2.7004	-23.07	-1.79
350	357	SLU-INV	Min	-0.96	-1.46	3.46	1.8108	-0.0753	-2.1943	-23.07	-1.55
351	398	SLE-INV	Max	-0.6	-0.71	4.14	4.6754	0.7694	-0.0523	-7.82	-0.75
351	397	SLE-INV	Max	-0.67	-1.08	3.88	3.0322	0.243	-0.1617	-7.82	-0.93
351	357	SLE-INV	Max	-0.94	-1.13	3.6	2.6601	-0.1105	-0.2988	-8.19	-0.93
351	358	SLE-INV	Max	-0.87	-0.76	4.06	4.2709	0.6429	-0.1894	-8.19	-0.75
351	398	SLE-INV	Min	-0.6	-0.71	4.14	2.5286	0.448	-0.347	-12.72	-0.87
351	397	SLE-INV	Min	-0.67	-1.08	3.88	1.5112	0.1166	-0.5852	-12.72	-1.16
351	357	SLE-INV	Min	-0.94	-1.13	3.6	1.3153	-0.0476	-0.806	-12.95	-1.16
351	358	SLE-INV	Min	-0.87	-0.76	4.06	2.3275	0.2865	-0.5678	-12.95	-0.87
351	398	SLU-INV	Max	-0.6	-0.71	5.58	10.4449	1.6218	-0.0706	-10.56	-0.35
351	397	SLU-INV	Max	-0.67	-1.08	5.23	6.938	0.5334	-0.2183	-10.56	-0.21
351	357	SLU-INV	Max	-0.94	-1.13	5.13	6.1041	0.4615	-0.4034	-11.06	-0.21
351	358	SLU-INV	Max	-0.87	-0.76	5.48	9.4998	1.6042	-0.2557	-11.06	-0.35
351	398	SLU-INV	Min	-0.81	-0.95	4.14	3.4136	0.6048	-1.1355	-27.32	-1.18
351	397	SLU-INV	Min	-0.91	-1.45	3.88	2.0401	0.1574	-1.716	-27.32	-1.57
351	357	SLU-INV	Min	-1.27	-1.53	3.8	1.7756	-0.0643	-2.1653	-27.14	-1.57
351	358	SLU-INV	Min	-1.17	-1.02	4.06	3.1422	0.3868	-1.5848	-27.14	-1.18
352	399	SLE-INV	Max	-0.68	-0.39	5.18	6.6271	1.2782	0.01	-9.37	-0.44
352	398	SLE-INV	Max	-0.75	-0.74	4.31	4.6988	0.7669	-0.0745	-9.37	-0.76
352	358	SLE-INV	Max	-1.1	-0.81	4.24	4.3294	0.6618	-0.1674	-9.41	-0.76
352	359	SLE-INV	Max	-1.03	-0.46	5.1	6.2185	1.1925	-0.0929	-9.41	-0.44
352	399	SLE-INV	Min	-0.68	-0.39	5.18	3.7673	0.7614	-0.1402	-14.86	-0.47
352	398	SLE-INV	Min	-0.75	-0.74	4.31	2.5419	0.4308	-0.3841	-14.86	-0.9
352	358	SLE-INV	Min	-1.1	-0.81	4.24	2.395	0.3198	-0.5316	-15.26	-0.9
352	359	SLE-INV	Min	-1.03	-0.46	5.1	3.6141	0.6537	-0.2877	-15.26	-0.47
352	399	SLU-INV	Max	-0.68	-0.39	6.99	14.6323	2.725	0.0136	-12.65	-0.32
352	398	SLU-INV	Max	-0.75	-0.74	5.82	10.5488	1.6735	-0.1006	-12.65	-0.31
352	358	SLU-INV	Max	-1.1	-0.81	5.72	9.5881	1.5908	-0.226	-13.38	-0.31
352	359	SLU-INV	Max	-1.03	-0.46	6.89	13.5377	2.7077	-0.1118	-13.38	-0.32
352	399	SLU-INV	Min	-0.92	-0.53	5.18	5.0859	1.0278	-0.542	-31.69	-0.63
352	398	SLU-INV	Min	-1.02	-0.99	4.31	3.4316	0.5816	-1.2129	-31.69	-1.21
352	358	SLU-INV	Min	-1.49	-1.09	4.24	3.2332	0.4318	-1.5104	-31.68	-1.21
352	359	SLU-INV	Min	-1.39	-0.62	5.1	4.879	0.8825	-0.8395	-31.68	-0.63
353	360	SLE-INV	Max	-1.19	-0.24	3.67	8.4232	1.7086	-0.0186	-11.75	0.01421
353	400	SLE-INV	Max	-0.76	-0.15	3.77	8.8102	1.7381	0.0261	-11.03	0.01421
353	399	SLE-INV	Max	-0.82	-0.42	6.73	6.787	1.2982	-0.0183	-11.03	-0.45
353	359	SLE-INV	Max	-1.24	-0.51	6.63	6.4504	1.2509	-0.0545	-11.75	-0.45
353	360	SLE-INV	Min	-1.19	-0.24	3.67	5.0982	1.008	-0.0321	-17.7	-0.03043
353	400	SLE-INV	Min	-0.76	-0.15	3.77	5.1698	1.0456	0.0177	-17.12	-0.03043
353	399	SLE-INV	Min	-0.82	-0.42	6.73	3.8595	0.755	-0.1852	-17.12	-0.5
353	359	SLE-INV	Min	-1.24	-0.51	6.63	3.7949	0.7147	-0.2433	-17.7	-0.5
353	360	SLU-INV	Max	-1.19	-0.24	4.95	18.0512	3.7318	-0.0251	-15.86	0.01918
353	400	SLU-INV	Max	-0.76	-0.15	5.09	19.2873	3.7359	0.0493	-14.89	0.01918
353	399	SLU-INV	Max	-0.82	-0.42	9.08	15.026	2.8308	-0.0247	-14.89	-0.28
353	359	SLU-INV	Max	-1.24	-0.51	8.95	13.9633	2.7659	-0.0736	-15.86	-0.28
353	360	SLU-INV	Min	-1.61	-0.32	3.67	6.8826	1.3608	-0.0697	-36.46	-0.15
353	400	SLU-INV	Min	-1.03	-0.21	3.77	6.9792	1.4115	0.0239	-36.29	-0.15
353	399	SLU-INV	Min	-1.1	-0.57	6.73	5.2103	1.0192	-0.6324	-36.29	-0.68
353	359	SLU-INV	Min	-1.68	-0.68	6.63	5.1232	0.9648	-0.7514	-36.46	-0.68
354	469	SLE-INV	Max	-0.75	-0.27	-0.45	-0.1666	-0.7752	-0.5466	-2.36	-1.53
354	457	SLE-INV	Max	-0.59	-0.57	-0.5	-0.8078	-1.1347	-1.1095	-2.36	-1.53
354	458	SLE-INV	Max	-0.53	-0.22	-0.37	-0.5071				



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 160 di 174
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354	458	SLU-INV	Max	-0.53	-0.22	-0.37	-0.6846	-1.0661	-0.9405	-3.19	-2.06
354	469	SLU-INV	Min	-1.01	-0.36	-0.61	-0.7436	-3.9124	-2.5044	-8.81	-4.92
354	457	SLU-INV	Min	-0.8	-0.77	-0.68	-3.1584	-5.3181	-5.1549	-8.81	-4.92
354	458	SLU-INV	Min	-0.71	-0.3	-0.49	-2.1536	-3.7141	-3.2433	-8.81	-4.92
355	401	SLU-INV	Max	10.41	2.08	-2.36	9.2411	1.7836	-0.1013	11.44	-0.03965
355	361	SLU-INV	Max	3.1	0.62	-2.52	8.545	1.7736	0.2233	11.48	-0.03965
355	362	SLU-INV	Max	2.91	-0.36	-3.66	6.826	0.9224	0.7608	11.48	-0.11
355	402	SLE-INV	Max	10.22	1.1	-3.5	7.5086	0.9436	0.3166	11.44	-0.11
355	401	SLE-INV	Min	10.41	2.08	-2.36	4.0677	0.7977	-0.2209	5.25	-0.08018
355	361	SLE-INV	Min	3.1	0.62	-2.52	3.8511	0.7861	0.1017	5.37	-0.08018
355	362	SLE-INV	Min	2.91	-0.36	-3.66	3.0528	0.3965	0.2686	5.37	-0.14
355	402	SLE-INV	Min	10.22	1.1	-3.5	3.2673	0.41	0.0656	5.25	-0.14
355	401	SLU-INV	Max	14.06	2.81	-2.36	21.2375	4.0689	-0.1368	25.71	-0.02652
355	361	SLU-INV	Max	4.19	0.84	-2.52	19.4198	4.0626	0.5054	25.54	-0.02652
355	362	SLU-INV	Max	3.93	-0.36	-3.66	15.5816	2.1434	1.91	25.54	-0.06335
355	402	SLU-INV	Max	13.79	1.49	-3.5	17.3595	2.1827	0.9061	25.71	-0.06335
355	401	SLU-INV	Min	10.41	2.08	-3.18	5.4914	1.0769	-0.4985	7.08	-0.22
355	361	SLU-INV	Min	3.1	0.62	-3.41	5.1989	1.0612	0.1373	7.25	-0.22
355	362	SLU-INV	Min	2.91	-0.48	-4.94	4.1213	0.5353	0.3626	7.25	-0.19
355	402	SLU-INV	Min	10.22	1.1	-4.72	4.4108	0.5535	0.0885	7.08	-0.19
356	403	SLE-INV	Max	3.76	0.07133	-0.91	5.0495	0.3436	1.2584	10.32	-0.15
356	402	SLE-INV	Max	3.71	-0.2	-1.65	6.6199	0.73	0.5004	10.32	-0.16
356	362	SLE-INV	Max	2.91	-0.36	-2.32	5.6302	0.7191	0.5806	10.31	-0.16
356	363	SLE-INV	Max	2.97	-0.08673	-1.58	4.0938	0.3044	1.3386	10.31	-0.15
356	403	SLE-INV	Min	3.76	0.07133	-0.91	2.3031	0.1584	0.4846	4.93	-0.2
356	402	SLE-INV	Min	3.71	-0.2	-1.65	3.0557	0.3499	0.1468	4.93	-0.16
356	362	SLE-INV	Min	2.91	-0.36	-2.32	2.6124	0.3262	0.1891	4.98	-0.16
356	363	SLE-INV	Min	2.97	-0.08673	-1.58	1.8723	0.1242	0.527	4.98	-0.2
356	403	SLU-INV	Max	5.07	0.0963	-0.91	11.4392	0.7752	3.0626	22.73	-0.03669
356	402	SLU-INV	Max	5	-0.2	-1.65	14.8936	1.612	1.3275	22.73	-0.16
356	362	SLU-INV	Max	3.93	-0.36	-2.32	12.633	1.6311	1.4966	22.6	-0.16
356	363	SLU-INV	Max	4.01	-0.08673	-1.58	9.263	0.7241	3.2318	22.6	-0.03669
356	403	SLU-INV	Min	3.76	0.07133	-1.22	3.1092	0.2138	0.6542	6.66	-0.22
356	402	SLU-INV	Min	3.71	-0.27	-2.23	4.1252	0.4724	0.1982	6.66	-0.22
356	362	SLU-INV	Min	2.91	-0.48	-3.13	3.5268	0.4404	0.2554	6.72	-0.22
356	363	SLU-INV	Min	2.97	-0.12	-2.13	2.5275	0.1677	0.7114	6.72	-0.27
357	404	SLE-INV	Max	0.98	-0.33	-0.65	2.8672	0.2414	1.7054	9.19	-0.08781
357	403	SLE-INV	Max	0.95	-0.49	-0.79	4.2673	0.2254	1.4216	9.19	-0.11
357	363	SLE-INV	Max	1.62	-0.36	-1.11	3.8845	0.2242	1.1757	9.17	-0.11
357	364	SLE-INV	Max	1.55	-0.19	-0.96	2.5192	0.2113	1.4594	9.17	-0.08781
357	404	SLE-INV	Min	0.98	-0.33	-0.65	1.3486	0.1191	0.6987	4.51	-0.2
357	403	SLE-INV	Min	0.95	-0.49	-0.79	2.0358	0.1244	0.5613	4.51	-0.18
357	363	SLE-INV	Min	1.62	-0.36	-1.11	1.8476	0.0997	0.4505	4.53	-0.18
357	364	SLE-INV	Min	1.65	-0.19	-0.96	1.1738	0.0834	0.5879	4.53	-0.2
357	404	SLU-INV	Max	1.32	-0.33	-0.65	6.4224	0.528	4.0531	20	0.17
357	403	SLU-INV	Max	1.28	-0.49	-0.79	9.4664	0.4621	3.4265	20	0.05851
357	363	SLU-INV	Max	2.19	-0.36	-1.11	8.6276	0.5156	2.8684	19.88	0.05851
357	364	SLU-INV	Max	2.23	-0.19	-0.96	5.6685	0.5109	3.495	19.88	0.17
357	404	SLU-INV	Min	0.98	-0.44	-0.87	1.8206	0.1608	0.9433	6.09	-0.27
357	403	SLU-INV	Min	0.95	-0.66	-1.07	2.7483	0.168	0.7577	6.09	-0.24
357	363	SLU-INV	Min	1.62	-0.48	-1.49	2.4943	0.1347	0.6082	6.12	-0.24
357	364	SLU-INV	Min	1.65	-0.26	-1.29	1.5846	0.1125	0.7937	6.12	-0.27
358	405	SLE-INV	Max	-0.41	-0.51	-0.3	1.417	0.0765	1.8352	8.14	-0.05259
358	404	SLE-INV	Max	-0.43	-0.61	-0.42	2.6583	0.1897	1.6336	8.14	-0.1
358	364	SLE-INV	Max	0.61	-0.4	-0.7	2.3792	0.1933	1.5319	8.09	-0.1
358	365	SLE-INV	Max	0.63	-0.31	-0.58	1.1795	0.0481	1.7335	8.09	-0.05259
358	405	SLE-INV	Min	-0.41	-0.51	-0.3	0.6943	0.0473	0.7732	4.07	-0.2
358	404	SLE-INV	Min	-0.43	-0.61	-0.42	1.3137	0.1096	1.4072	4.07	-0.2
358	364	SLE-INV	Min	0.61	-0.4	-0.7	1.1643	0.084	0.6198	4.06	-0.2
358	365	SLE-INV	Min	0.63	-0.31	-0.58	0.5603	0.0089	0.7259	4.06	-0.2
358	405	SLU-INV	Max	-0.41	-0.51	-0.3	3.1388	0.148	4.3154	17.56	0.28
358	404	SLU-INV	Max	-0.43	-0.61	-0.42	5.8164	0.3794	3.888	17.56	0.13
358	364	SLU-INV	Max	0.83	-0.4	-0.7	5.231	0.4508	3.6616	17.4	0.13
358	365	SLU-INV	Max	0.86	-0.31	-0.58	2.6458	0.1426	4.0891	17.4	0.28
358	405	SLU-INV	Min	-0.56	-0.69	-0.4	0.9373	0.0639	1.0438	5.49	-0.27
358	404	SLU-INV	Min	-0.58	-0.83	-0.57	1.7735	0.148	0.9007	5.49	-0.27
358	364	SLU-INV	Min	0.61	-0.54	-0.95	1.5717	0.1134	0.8368	5.48	-0.27
358	365	SLU-INV	Min	0.63	-0.41	-0.78	0.7564	0.012	0.9799	5.48	-0.27
359	406	SLE-INV	Max	-1.12	-0.58	-0.18	0.3085	0.0196	1.9279	7.15	0.0007368
359	405	SLE-INV	Max	-1.14	-0.66	-0.24	1.3993	0.0654	1.8501	7.15	-0.06441
359	365	SLE-INV	Max	-0.06358	-0.44	-0.36	1.2796	0.0763	1.7187	7.08	-0.06441
359	366	SLE-INV	Max	-0.04808	-0.37	-0.3	0.2275	-0.0053	1.7965	7.08	0.0007368
359	406	SLE-INV	Min	-1.12	-0.58	-0.18	0.1836	0.0158	0.8312	3.62	-0.18
359	405	SLE-INV	Min	-1.14	-0.66	-0.24	0.7347	0.0536	0.7796	3.62	-0.2
359	365	SLE-INV	Min	-0.06358	-0.44	-0.36	0.6548	0.0296	0.7195	3.6	-0.2
359	366	SLE-INV	Min	-0.04808	-0.37	-0.3	0.1196	-0.0175	0.7711	3.6	-0.18
359	406	SLU-INV	Max	-1.12	-0.58	-0.18	0.655	0.0265	4.4939	15.33	0.42
359	405	SLU-INV	Max	-1.14	-0.66	-0.24	2.9948	0.098	4.3501	15.33	0.25
359	365	SLU-INV	Max	-0.06358	-0.44	-0.36	2.776	0.1898	4.0544	15.14	0.25
359	366	SLU-INV	Max	-0.04808	-0.37	-0.3	0.5281	0.0275	4.1982	15.14	0.42
359	406	SLU-INV	Min	-1.51	-0.79	-0.24	0.2478	0.0118	1.1222	4.88	-0.24
359	405	SLU-INV	Min	-1.54	-0.89	-0.32	0.9919	0.0723	1.0525	4.88	-0.27
359	365	SLU-INV	Min	-0.08583	-0.6	-0.49	0.884	0.04	0.9713	4.86	-0.27
359	366	SLU-INV	Min	-0.06491	-0.5	-0.41	0.1614	-0.0236	1.041	4.86	-0.24
360	407	SLE-INV	Max	-1.46	-0.64	-0.05721	-0.1879	-0.0179	1.9128	6.24	0.04663
360	406	SLE-INV	Max	-1.47	-0.65	-0.1	0.4661	0.0368	1.8952	6.24	-0.02106
360	366	SLE-INV	Max	-0.47	-0.45	-0.2	0.4247	0.0498	1.8292	6.17	-0.02106
360	367	SLE-INV	Max	-0.46	-0.44	-0.15	-0.2154	-0.0529	1.8467	6.17	0.04663
360	407	SLE-INV	Min	-1.46	-0.64	-0.05721	-0.4876	-0.0642	0.8398	3.19	-0.16
360	406	SLE-INV	Min	-1.47	-0.65	-0.1	0.2987	0.0317	0.8163	3.19	-0.19
360	366	SLE-INV	Min	-0.47	-0.45	-0.2	0.255	0.0154	0.7861	3.16	-0.19
360	367	SLE-INV	Min	-0.46	-0.44	-0.15	-0.4903	-0.0783	0.8096	3.16	-0.16
360	407	SLU-INV	Max	-1.46	-0.64	-0.05721	-0.2537	-0.0242	4.4301	13.32	0.53
360	406	SLU-INV	Max	-1.47	-0.65	-0.1	0.9216	0.0497	4.4202	13.32	0.37
360	366	SLU-INV	Max	-0.47	-0.45	-0.2	0.8776	0.1362	4.2719	13.14	0.37
360	367	SLU-INV	Max	-0.46	-0.44	-0.15	-0.2908	-0.0714	4.2819	13.14	0.53
360	407	SLU-INV	Min	-1.98	-0.86	-0.07723	-1.1161	-0.1663	1.1337	4.31	-0.27
360	406	SLU-INV	Min	-1.98	-0.88	-0.14	0.4033	0.0263	1.102	4.31	-0.26
360	366	SLU-INV	Min	-0.63	-0.61	-0.27	0.3442	0.0208	1.0612	4.27	-0.26
360	367	SLU-INV	Min	-0.62	-0.59	-0.21	-1.0688	-0.132	1.093	4.27	-0.22
361	408	SLE-INV	Max	-1.57	-0.65	-0.01249	-0.46	-0.0367	1.8686	5.42	0.0959
361	407	SLE-INV	Max	-1.57	-0.66	-0.0354	-0.0333	0.007	1.9127	5.42	0.02524
361	367	SLE-INV	Max	-0.7	-0.48	-0.06338	-0.0386	-0.0047	1.8466	5.34	0.02524
361	368	SLE-INV	Max	-0.7	-0.47	-0.04047	-0.4493	-0.0685	1.8025	5.34	0.0959
361	408	SLE-INV	Min	-1.57	-0.65	-0.01249	-1.068	-0.1017	0.8333	2.8	-0.14
361											

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1**Tratto Fabriano - Matelica Nord****Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita****Relazione di calcolo**

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.
L0703	211	E	16	016700	REL	01	A	161 di 174

361	368	SLU-INV	Max	-0.7	-0.47	-0.04047	-0.6065	-0.0924	4.1556	11.35	0.65
361	408	SLU-INV	Min	-2.12	-0.88	-0.01686	-2.4027	-0.2461	1.1249	3.78	-0.19
361	407	SLU-INV	Min	-2.12	-0.89	-0.04779	-0.6368	-0.1079	1.1331	3.78	-0.23
361	367	SLU-INV	Min	-0.94	-0.65	-0.08556	-0.5026	-0.0155	1.0934	3.73	-0.23
361	368	SLU-INV	Min	-0.94	-0.64	-0.05463	-2.1814	-0.1919	1.0852	3.73	-0.19
362	409	SLU-INV	Max	-1.54	-0.66	0.03289	-0.6484	-0.0582	1.7686	4.68	0.14
362	408	SLU-INV	Max	-1.54	-0.64	0.01765	-0.276	-0.0071	1.8512	4.68	0.07225
362	368	SLE-INV	Max	-0.8	-0.5	0.0002532	-0.2555	-0.0225	1.8196	4.61	0.07225
362	369	SLE-INV	Max	-0.8	-0.52	0.01549	-0.6125	-0.0865	1.7371	4.61	0.14
362	409	SLE-INV	Min	-1.54	-0.66	0.03289	-1.4699	-0.1452	0.7998	2.44	-0.12
362	408	SLE-INV	Min	-1.54	-0.64	0.01765	-0.7524	-0.0558	0.8253	2.44	-0.15
362	368	SLE-INV	Min	-0.8	-0.5	0.0002532	-0.6614	-0.0242	0.8118	2.41	-0.15
362	369	SLE-INV	Min	-0.8	-0.52	0.01549	-1.3433	-0.143	0.7863	2.41	-0.12
362	409	SLU-INV	Max	-1.54	-0.66	0.0444	-0.8753	-0.0786	4.0598	9.94	0.74
362	408	SLU-INV	Max	-1.54	-0.64	0.02383	-0.3726	-0.0096	4.2666	9.94	0.59
362	368	SLU-INV	Max	-0.8	-0.5	0.0003418	-0.3449	-0.0189	4.1939	9.78	0.59
362	369	SLU-INV	Max	-0.8	-0.52	0.02091	-0.8268	-0.1168	3.9872	9.78	0.74
362	409	SLU-INV	Min	-2.08	-0.9	0.03289	-3.2921	-0.3401	1.0797	3.29	-0.16
362	408	SLU-INV	Min	-2.08	-0.87	0.01765	-1.7666	-0.1601	1.1141	3.29	-0.2
362	368	SLU-INV	Min	-1.08	-0.67	0.0002532	-1.5227	-0.0329	1.0959	3.25	-0.2
362	369	SLU-INV	Min	-1.08	-0.7	0.01549	-2.9654	-0.2676	1.0615	3.25	-0.16
363	410	SLE-INV	Max	-1.44	-0.66	0.0444	-0.7751	-0.0693	1.6499	4.03	0.18
363	409	SLE-INV	Max	-1.43	-0.64	0.03754	-0.4514	-0.0259	1.7673	4.03	0.12
363	369	SLE-INV	Max	-0.82	-0.52	0.05148	-0.4073	-0.0385	1.738	3.96	0.12
363	370	SLE-INV	Max	-0.83	-0.54	0.05835	-0.7164	-0.0939	1.6206	3.96	0.18
363	410	SLE-INV	Min	-1.44	-0.66	0.0444	-1.742	-0.1658	0.7558	2.12	-0.1
363	409	SLE-INV	Min	-1.43	-0.64	0.03754	-1.1242	-0.0925	0.799	2.12	-0.13
363	369	SLE-INV	Min	-0.82	-0.52	0.05148	-0.9861	-0.0551	0.7868	2.09	-0.1
363	370	SLE-INV	Min	-0.83	-0.54	0.05835	-1.5709	-0.1558	0.7437	2.09	-0.1
363	410	SLU-INV	Max	-1.44	-0.66	0.05994	-1.0464	-0.0935	3.7765	8.53	0.83
363	409	SLU-INV	Max	-1.43	-0.64	0.05068	-0.6094	-0.0349	4.0571	8.53	0.69
363	369	SLU-INV	Max	-0.82	-0.52	0.0695	-0.5499	-0.0519	3.9888	8.38	0.69
363	370	SLU-INV	Max	-0.83	-0.54	0.07877	-0.9672	-0.1268	3.7081	8.38	0.83
363	410	SLU-INV	Min	-1.94	-0.89	0.0444	-3.8949	-0.3825	1.0204	2.86	-0.14
363	409	SLU-INV	Min	-1.93	-0.87	0.03754	-2.5832	-0.2371	1.0787	2.86	-0.18
363	369	SLU-INV	Min	-1.11	-0.7	0.05148	-2.2388	-0.0834	1.0622	2.82	-0.18
363	370	SLU-INV	Min	-1.12	-0.73	0.05835	-3.474	-0.2922	1.0039	2.82	-0.14
364	411	SLE-INV	Max	-1.29	-0.66	0.05863	-0.8534	-0.081	1.5	3.45	0.21
364	410	SLE-INV	Max	-1.29	-0.63	0.05507	-0.5728	-0.036	1.6402	3.45	0.16
364	370	SLE-INV	Max	-0.8	-0.53	0.09221	-0.4522	-0.0459	1.6287	3.39	0.16
364	371	SLE-INV	Max	-0.8	-0.56	0.07277	-0.7793	-0.1021	1.4895	3.39	0.21
364	411	SLE-INV	Min	-1.29	-0.66	0.05863	-1.9125	-0.1886	0.6962	1.83	-0.08333
364	410	SLE-INV	Min	-1.29	-0.63	0.05507	-1.3828	-0.1102	0.7514	1.83	-0.11
364	370	SLE-INV	Min	-0.8	-0.53	0.06921	-1.2129	-0.0679	0.7479	1.8	-0.11
364	371	SLE-INV	Min	-0.8	-0.56	0.07277	-1.7124	-0.1713	0.6927	1.8	-0.08333
364	411	SLU-INV	Max	-1.29	-0.66	0.07916	-1.1521	-0.1093	3.4267	7.3	0.91
364	410	SLU-INV	Max	-1.29	-0.63	0.07434	-0.7733	-0.0485	3.7547	7.3	0.78
364	370	SLU-INV	Max	-0.8	-0.53	0.09343	-0.6915	-0.062	3.7288	7.16	0.78
364	371	SLU-INV	Max	-0.8	-0.56	0.09824	-1.052	-0.1379	3.4009	7.16	0.91
364	411	SLU-INV	Min	-1.75	-0.89	0.05863	-4.2734	-0.4307	0.9399	2.48	-0.11
364	410	SLU-INV	Min	-1.74	-0.85	0.05507	-3.1501	-0.2716	1.0144	2.48	-0.15
364	370	SLU-INV	Min	-1.08	-0.72	0.06921	-2.7394	-0.1072	1.0096	2.44	-0.15
364	371	SLU-INV	Min	-1.08	-0.76	0.07277	-3.7928	-0.3243	0.9351	2.44	-0.11
365	412	SLE-INV	Max	-1.13	-0.65	0.05623	-0.8974	-0.0864	1.3397	2.94	0.25
365	411	SLE-INV	Max	-1.13	-0.63	0.05615	-0.6548	-0.0479	1.4994	2.94	0.19
365	371	SLE-INV	Max	-0.74	-0.55	0.08363	-0.58	-0.0556	1.4895	2.88	0.19
365	372	SLE-INV	Max	-0.75	-0.57	0.0837	-0.8103	-0.1042	1.3288	2.88	0.25
365	412	SLE-INV	Min	-1.13	-0.65	0.05623	-2.0111	-0.0789	1.5806	1.58	-0.0665
365	411	SLE-INV	Min	-1.13	-0.63	0.05615	-1.5596	-0.1329	0.696	1.88	-0.09242
365	371	SLE-INV	Min	-0.74	-0.55	0.08363	-1.3622	-0.0864	0.6927	1.56	-0.09242
365	372	SLE-INV	Min	-0.75	-0.57	0.0837	-1.7867	-0.1738	0.6273	1.56	-0.0665
365	412	SLU-INV	Max	-1.13	-0.65	0.07591	-1.2114	-0.1166	3.0573	6.21	0.98
365	411	SLU-INV	Max	-1.13	-0.63	0.07581	-0.884	-0.0647	3.4255	6.21	0.86
365	371	SLU-INV	Max	-0.74	-0.55	0.11	-0.783	-0.0751	3.4008	6.09	0.86
365	372	SLU-INV	Max	-0.75	-0.57	0.11	-1.0939	-0.1406	3.0326	6.09	0.98
365	412	SLU-INV	Min	-1.53	-0.88	0.05623	-4.4938	-0.449	0.8513	2.14	-0.08978
365	411	SLU-INV	Min	-1.52	-0.84	0.05615	-3.5371	-0.318	0.9396	2.14	-0.12
365	371	SLU-INV	Min	-1	-0.74	0.08363	-3.0688	-0.1449	0.9351	2.1	-0.12
365	372	SLU-INV	Min	-1.01	-0.77	0.0837	-3.9631	-0.3277	0.8469	2.1	-0.08978
366	413	SLE-INV	Max	-0.97	-0.65	0.05755	-0.9165	-0.0923	1.1618	2.49	0.27
366	412	SLE-INV	Max	-0.97	-0.62	0.05864	-0.7071	-0.0546	1.3343	2.49	0.23
366	372	SLE-INV	Max	-0.67	-0.56	0.08168	-0.6223	-0.0603	1.3346	2.44	0.23
366	373	SLE-INV	Max	-0.68	-0.59	0.08059	-0.8208	-0.107	1.1621	2.44	0.27
366	413	SLE-INV	Min	-0.97	-0.65	0.05755	-2.0571	-0.2088	0.5559	1.37	-0.05198
366	412	SLE-INV	Min	-0.97	-0.62	0.05864	-1.6747	-0.1443	0.6282	1.37	-0.075
366	372	SLE-INV	Min	-0.67	-0.56	0.08168	-1.4583	-0.0945	0.6295	1.34	-0.075
366	373	SLE-INV	Min	-0.68	-0.59	0.08059	-1.8171	-0.1786	0.5572	1.34	-0.05198
366	413	SLU-INV	Max	-0.97	-0.65	0.0777	-1.2372	-0.1246	2.6509	5.25	1.03
366	412	SLU-INV	Max	-0.97	-0.62	0.07916	-0.9546	-0.0737	3.045	5.25	0.93
366	372	SLU-INV	Max	-0.67	-0.56	0.11	-0.8401	-0.0814	3.0435	5.14	0.93
366	373	SLU-INV	Max	-0.68	-0.59	0.11	-1.108	-0.1444	2.6494	5.14	1.03
366	413	SLU-INV	Min	-1.32	-0.87	0.05755	-4.5986	-0.4716	0.7504	1.84	-0.07017
366	412	SLU-INV	Min	-1.31	-0.83	0.05864	-3.7889	-0.3397	0.848	1.84	-0.1
366	372	SLU-INV	Min	-0.91	-0.75	0.08168	-3.2816	-0.1596	0.8498	1.81	-0.1
366	373	SLU-INV	Min	-0.91	-0.79	0.08059	-4.0366	-0.3368	0.7522	1.81	-0.07017
367	414	SLE-INV	Max	-0.82	-0.64	0.05031	-0.9199	-0.0945	0.9789	2.09	0.3
367	413	SLE-INV	Max	-0.82	-0.61	0.05272	-0.7396	-0.0625	1.1621	2.09	0.26
367	373	SLE-INV	Max	-0.6	-0.57	0.08064	-0.6462	-0.0665	1.1613	2.05	0.26
367	374	SLE-INV	Max	-0.6	-0.59	0.07823	-0.8171	-0.1062	0.9781	2.05	0.3
367	414	SLU-INV	Min	-0.82	-0.64	0.05031	-2.0694	-0.2118	0.478	1.18	-0.03893
367	413	SLU-INV	Min	-0.82	-0.61	0.05272	-1.7483	-0.1589	0.556	1.18	-0.0595
367	373	SLU-INV	Min	-0.6	-0.57	0.08064	-1.5157	-0.1064	0.5568	1.16	-0.0595
367	374	SLU-INV	Min	-0.6	-0.59	0.07823	-1.8167	-0.1759	0.4787	1.16	-0.03893
367	414	SLU-INV	Max	-0.82	-0.64	0.06792	-1.2418	-0.1275	2.2354	4.4	1.08
367	413	SLU-INV	Max	-0.82	-0.61	0.07117	-0.9985	-0.0843	2.6513	4.4	1
367	373	SLU-INV	Max	-0.6	-0.57	0.11	-0.8724	-0.0897	2.6475	4.31	1
367	374	SLU-INV	Max	-0.6	-0.59	0.11	-1.1031	-0.1434	2.2315	4.31	1.08
367	414	SLU-INV	Min	-1.11	-0.86	0.05031	-4.629	-0.4766	0.6452	1.59	-0.05255
367	413	SLU-INV	Min	-1.11	-0.83	0.05272	-3.9499	-0.3693	0.7506	1.59	-0.08033
367	373	SLU-INV	Min	-0.81	-0.77	0.08064	-3.4089	-0.1838	0.7516	1.56	-0.08033
367	374	SLU-INV	Min	-0.81	-0.8	0.07823	-4.0416	-0.3295	0.6462	1.56	-0.05255
368	415	SLE-INV	Max	-0.69	-0.63	0.04684	-0.9141	-0.0977	0.7852	1.73	0.31
368	414	SLE-INV	Max	-0.68	-0.61	0.04949	-0.7591	-0.0672	0.9758	1.73	0.28
368	374	SLE-INV									

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di Pag.
L0703	211	E	16	O16700	REL	01	A	162 di 174

368	374	SLU-INV	Max	-0.52	-0.58	0.09641	-0.8897	-0.0942	2.2371	3.58	1.05
368	375	SLU-INV	Max	-0.53	-0.6	0.09284	-1.0884	-0.1442	1.8064	3.58	1.12
368	415	SLU-INV	Min	-0.93	-0.85	0.04684	-4.6133	-0.4869	0.5322	1.37	-0.03772
368	414	SLU-INV	Min	-0.92	-0.82	0.04949	-4.0503	-0.3843	0.6434	1.37	-0.06137
368	375	SLU-INV	Min	-0.7	-0.78	0.07142	-3.4847	-0.1947	0.6477	1.34	-0.06137
368	416	SLU-INV	Min	-0.71	-0.81	0.06877	-4.0096	-0.329	0.5366	1.34	-0.03772
369	416	SLE-INV	Max	-0.57	-0.62	0.03859	-0.905	-0.0989	0.5886	1.42	0.34
369	415	SLE-INV	Max	-0.57	-0.61	0.04166	-0.772	-0.0732	0.786	1.42	0.3
369	375	SLE-INV	Max	-0.45	-0.58	0.06463	-0.6657	-0.0748	0.7886	1.39	0.3
369	376	SLE-INV	Max	-0.46	-0.6	0.06157	-0.7925	-0.1056	0.5912	1.39	0.33
369	416	SLE-INV	Min	-0.57	-0.62	0.03859	-2.0425	-0.2178	0.3083	0.87	-0.01841
369	415	SLE-INV	Min	-0.57	-0.61	0.04166	-1.8251	-0.1779	0.3946	0.87	-0.03325
369	375	SLE-INV	Min	-0.45	-0.58	0.06463	-1.5692	-0.1221	0.3967	0.85	-0.03325
369	376	SLE-INV	Min	-0.46	-0.6	0.06157	-1.7741	-0.1724	0.3104	0.85	-0.01841
369	416	SLU-INV	Max	-0.57	-0.62	0.0521	-1.2217	-0.1336	1.3548	2.98	1.15
369	415	SLU-INV	Max	-0.57	-0.61	0.05624	-1.0422	-0.0988	1.7993	2.98	1.1
369	375	SLU-INV	Max	-0.45	-0.58	0.08726	-0.8987	-0.1009	1.8032	2.92	1.1
369	376	SLU-INV	Max	-0.46	-0.6	0.08311	-1.0699	-0.1426	1.3588	2.92	1.15
369	416	SLU-INV	Min	-0.77	-0.84	0.03859	-4.5771	-0.4875	0.4163	1.18	-0.02485
369	415	SLU-INV	Min	-0.76	-0.82	0.04166	-4.1184	-0.4066	0.5328	1.18	-0.04489
369	375	SLU-INV	Min	-0.61	-0.79	0.06463	-3.5298	-0.2144	0.5356	1.15	-0.04489
369	376	SLU-INV	Min	-0.62	-0.81	0.06157	-3.9591	-0.3197	0.4191	1.15	-0.02485
370	417	SLE-INV	Max	-0.47	-0.62	0.03367	-0.8971	-0.102	0.3829	1.13	0.34
370	416	SLE-INV	Max	-0.47	-0.6	0.0367	-0.7833	-0.0776	0.5865	1.13	0.32
370	376	SLE-INV	Max	-0.39	-0.59	0.05334	-0.671	-0.0783	0.5925	1.11	0.32
370	377	SLE-INV	Max	-0.4	-0.61	0.05031	-0.7803	-0.1065	0.3889	1.11	0.34
370	417	SLE-INV	Min	-0.47	-0.62	0.03367	-2.0235	-0.222	0.2173	0.75	-0.01075
370	416	SLE-INV	Min	-0.47	-0.6	0.0367	-1.8504	-0.1852	0.3075	0.75	-0.02242
370	376	SLE-INV	Min	-0.39	-0.59	0.05334	-1.5842	-0.1286	0.311	0.74	-0.02242
370	377	SLE-INV	Min	-0.4	-0.61	0.05031	-1.7486	-0.1727	0.2209	0.74	-0.01075
370	417	SLU-INV	Max	-0.47	-0.62	0.04546	-1.2111	-0.1376	0.8935	2.37	1.18
370	416	SLU-INV	Max	-0.47	-0.6	0.04954	-1.0574	-0.1047	1.3503	2.37	1.13
370	376	SLU-INV	Max	-0.39	-0.59	0.07201	-0.9058	-0.1058	1.3618	2.33	1.13
370	377	SLU-INV	Max	-0.4	-0.61	0.06792	-1.0534	-0.1438	0.905	2.33	1.18
370	417	SLU-INV	Min	-0.63	-0.84	0.03367	-4.5389	-0.4957	0.2934	1.01	-0.01452
370	416	SLU-INV	Min	-0.63	-0.81	0.0367	-4.1746	-0.4207	0.4151	1.01	-0.03027
370	376	SLU-INV	Min	-0.53	-0.79	0.05334	-3.5648	-0.2271	0.4198	0.99	-0.03027
370	377	SLU-INV	Min	-0.54	-0.82	0.05031	-3.9085	-0.3193	0.2982	0.99	-0.01452
371	418	SLE-INV	Max	-0.38	-0.61	0.02553	-0.8944	-0.1042	0.1733	0.87	0.35
371	417	SLE-INV	Max	-0.38	-0.6	0.0287	-0.7974	-0.0839	0.3839	0.87	0.34
371	377	SLE-INV	Max	-0.34	-0.59	0.04461	-0.6784	-0.0842	0.3872	0.86	0.34
371	378	SLE-INV	Max	-0.35	-0.61	0.04144	-0.7726	-0.1058	0.1766	0.86	0.35
371	418	SLE-INV	Min	-0.38	-0.61	0.02553	-2.0107	-0.2241	0.1233	0.64	-0.004602
371	417	SLE-INV	Min	-0.38	-0.6	0.0287	-1.8783	-0.1964	0.2179	0.64	-0.01331
371	377	SLE-INV	Min	-0.34	-0.59	0.04461	-1.6009	-0.1397	0.22	0.63	-0.01331
371	378	SLE-INV	Min	-0.35	-0.61	0.04144	-1.7286	-0.1713	0.1254	0.63	-0.004602
371	418	SLU-INV	Max	-0.38	-0.61	0.03447	-1.2075	-0.1407	0.4251	1.82	1.19
371	417	SLU-INV	Max	-0.38	-0.6	0.03875	-1.0765	-0.1133	0.8958	1.82	1.17
371	377	SLU-INV	Max	-0.34	-0.59	0.06022	-0.9158	-0.1137	0.9011	1.79	1.17
371	378	SLU-INV	Max	-0.35	-0.61	0.05594	-1.0431	-0.1442	0.4304	1.79	1.19
371	418	SLU-INV	Min	-0.52	-0.83	0.02553	-4.5144	-0.4991	0.1665	0.86	-0.006213
371	417	SLU-INV	Min	-0.52	-0.81	0.0287	-4.2368	-0.4437	0.2941	0.86	-0.01797
371	377	SLU-INV	Min	-0.46	-0.8	0.04461	-3.6039	-0.25	0.297	0.85	-0.01797
371	378	SLU-INV	Min	-0.47	-0.82	0.04144	-3.8699	-0.3151	0.1693	0.85	-0.006213
372	419	SLE-INV	Max	-0.32	-0.61	0.02008	-0.9005	-0.1094	0.0223	0.63	0.35
372	418	SLE-INV	Max	-0.32	-0.6	0.02327	-0.8184	-0.0897	0.1713	0.63	0.35
372	378	SLE-INV	Max	-0.31	-0.6	0.0325	-0.691	-0.0898	0.1779	0.62	0.35
372	379	SLE-INV	Max	-0.31	-0.61	0.02934	-0.7723	-0.1103	0.0257	0.52	0.35
372	419	SLE-INV	Min	-0.32	-0.61	0.02008	-2.0096	-0.2317	-0.048	0.55	-0.0004952
372	418	SLE-INV	Min	-0.32	-0.6	0.02327	-1.9155	-0.2059	0.1225	0.55	-0.00554
372	378	SLE-INV	Min	-0.31	-0.6	0.03252	-1.6246	-0.1497	0.1259	0.54	-0.00554
372	379	SLE-INV	Min	-0.31	-0.61	0.02934	-1.7181	-0.176	-0.0415	0.54	-0.0004952
372	419	SLU-INV	Max	-0.32	-0.61	0.02711	-1.2156	-0.1477	0.0302	1.31	1.2
372	418	SLU-INV	Max	-0.32	-0.6	0.03141	-1.1048	-0.1211	0.4208	1.31	1.19
372	378	SLU-INV	Max	-0.31	-0.6	0.0439	-0.9329	-0.1212	0.433	1.29	1.19
372	379	SLU-INV	Max	-0.31	-0.61	0.0396	-1.0425	-0.1489	0.0347	1.29	1.2
372	419	SLU-INV	Min	-0.43	-0.82	0.02008	-4.5161	-0.5145	-0.0754	0.74	-0.0006685
372	418	SLU-INV	Min	-0.43	-0.81	0.02327	-4.3193	-0.4627	0.1654	0.74	-0.00748
372	378	SLU-INV	Min	-0.41	-0.81	0.03252	-3.6585	-0.2701	0.17	0.73	-0.00748
372	379	SLU-INV	Min	-0.42	-0.82	0.02934	-3.853	-0.3239	-0.0661	0.73	-0.0006685
373	420	SLE-INV	Max	-0.27	-0.61	0.01157	-0.9183	-0.1149	-0.0844	0.46	0.35
373	419	SLE-INV	Max	-0.27	-0.6	0.01511	-0.8498	-0.0986	0.0229	0.46	0.35
373	379	SLE-INV	Max	-0.28	-0.6	0.02225	-0.7121	-0.0989	0.0248	0.46	0.35
373	380	SLE-INV	Max	-0.28	-0.61	0.01871	-0.7818	-0.1143	-0.0826	0.46	0.35
373	420	SLE-INV	Min	-0.27	-0.61	0.01157	-2.0248	-0.2391	-0.2776	0.39	0.001563
373	419	SLE-INV	Min	-0.27	-0.6	0.01511	-1.9673	-0.2213	-0.0471	0.39	0.0003434
373	379	SLE-INV	Min	-0.28	-0.6	0.02225	-1.6598	-0.1663	-0.0432	0.4	0.0003434
373	380	SLE-INV	Min	-0.28	-0.61	0.01871	-1.721	-0.181	-0.2737	0.4	0.001563
373	420	SLU-INV	Max	-0.27	-0.61	0.01562	-1.2397	-0.1552	-0.114	0.82	1.21
373	419	SLU-INV	Max	-0.27	-0.6	0.02039	-1.1472	-0.1331	0.031	0.82	1.21
373	379	SLU-INV	Max	-0.28	-0.6	0.03004	-0.9614	-0.1336	0.0334	0.82	1.21
373	380	SLU-INV	Max	-0.28	-0.61	0.02526	-1.0554	-0.1543	-0.1115	0.82	1.21
373	420	SLU-INV	Min	-0.36	-0.82	0.01157	-4.5537	-0.5293	-0.577	0.52	0.00211
373	419	SLU-INV	Min	-0.36	-0.81	0.01511	-4.434	-0.4947	-0.074	0.52	0.0004636
373	379	SLU-INV	Min	-0.38	-0.81	0.02225	-3.7388	-0.3045	-0.0685	0.52	0.0004636
373	380	SLU-INV	Min	-0.38	-0.82	0.01871	-3.8658	-0.333	-0.5708	0.52	0.00211
374	421	SLE-INV	Max	-0.24	-0.6	0.004677	-0.9517	-0.1258	-0.2037	0.38	0.35
374	420	SLE-INV	Max	-0.24	-0.6	0.008549	-0.8959	-0.1081	-0.0859	0.38	0.36
374	380	SLE-INV	Max	-0.28	-0.61	0.007772	-0.7438	-0.1091	-0.0815	0.38	0.36
374	381	SLE-INV	Max	-0.28	-0.61	0.0039	-0.8028	-0.1241	-0.1993	0.38	0.35
374	421	SLE-INV	Min	-0.24	-0.6	0.004677	-2.0611	-0.2567	-0.5284	0.16	0.0003887
374	420	SLE-INV	Min	-0.24	-0.6	0.008549	-2.0399	-0.2368	-0.2811	0.16	0.004582
374	380	SLE-INV	Min	-0.28	-0.61	0.007772	-1.7088	-0.1838	-0.2	0.18	0.004582
374	381	SLE-INV	Min	-0.28	-0.61	0.0039	-1.7383	-0.1968	-0.5183	0.18	0.0003887
374	421	SLU-INV	Max	-0.24	-0.6	0.006313	-1.2847	-0.1698	-0.275	0.51	1.2
374	420	SLU-INV	Max	-0.24	-0.6	0.01154	-1.2095	-0.146	-0.1159	0.51	1.22
374	380	SLU-INV	Max	-0.28	-0.61	0.01049	-1.0041	-0.1472	-0.1101	0.52	1.22
374	381	SLU-INV	Max	-0.28	-0.61	0.005265	-1.0838	-0.1675	-0.2691	0.52	1.2
374	421	SLU-INV	Min	-0.32	-0.82	0.004677	-4.6384	-0.5661	-1.1304	0.19	0.0005248
374	420	SLU-INV	Min	-0.32	-0.81	0.008549	-4.594	-0.5268	-0.5843	0.19	0.006186
374	380	SLU-INV	Min	-0.37	-0.82	0.007772	-3.8495	-0.3403	-0.5653	0.21	0.006186
374	381	SLU-INV	Min	-0.37	-0.83	0.0039	-3.9113	-0.3651	-1.1113	0.21	0.0005248

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.prog. 01	REV. A	Pag.di Pag. 163 di 174			
375	421	SLU-INV	Max	-0.23	-0.6	-0.001068	-1.2975	-0.1666	-0.2751	0.4	1.22
375	381	SLU-INV	Max	-0.29	-0.61	-0.007683	-1.0658	-0.1697	-0.2696	0.42	1.22
375	382	SLU-INV	Max	-0.29	-0.61	-0.014	-1.1312	-0.185	-0.4481	0.42	1.18
375	422	SLU-INV	Min	-0.31	-0.81	-0.009965	-4.7799	-0.6131	-1.7275	-0.16	-0.007045
375	381	SLU-INV	Min	-0.31	-0.81	-0.001442	-4.8118	-0.5821	-1.1319	-0.16	0.008034
375	382	SLU-INV	Min	-0.4	-0.83	-0.01037	-3.9987	-0.4013	-1.1177	-0.12	0.008034
375	382	SLU-INV	Min	-0.4	-0.83	-0.01889	-3.9953	-0.4086	-1.7073	-0.12	-0.007045
376	423	SLE-INV	Max	-0.26	-0.61	-0.02363	-1.0819	-0.1672	-0.4969	0.2	0.3
376	422	SLE-INV	Max	-0.25	-0.6	-0.01596	-1.0533	-0.1421	-0.3409	0.2	0.35
376	382	SLE-INV	Max	-0.34	-0.62	-0.03391	-0.8503	-0.1467	-0.3275	0.23	0.35
376	383	SLE-INV	Max	-0.35	-0.63	-0.04158	-0.8872	-0.165	-0.4834	0.23	0.3
376	423	SLE-INV	Min	-0.26	-0.61	-0.02363	-2.2193	-0.329	-1.1226	-0.34	-0.01982
376	422	SLE-INV	Min	-0.25	-0.6	-0.01596	-2.2762	-0.2948	-0.811	-0.34	0.00415
376	382	SLE-INV	Min	-0.34	-0.62	-0.03391	-1.8586	-0.25	-0.7792	-0.29	0.00415
376	383	SLE-INV	Min	-0.35	-0.63	-0.04158	-1.8204	-0.2687	-1.0908	-0.29	-0.01982
376	423	SLU-INV	Max	-0.26	-0.61	-0.02363	-1.4606	-0.2257	-0.6708	0.28	1.15
376	422	SLU-INV	Max	-0.25	-0.6	-0.01596	-1.4219	-0.1918	-0.4602	0.28	1.22
376	382	SLU-INV	Max	-0.34	-0.62	-0.03391	-1.1479	-0.1981	-0.4421	0.31	1.22
376	383	SLU-INV	Max	-0.35	-0.63	-0.04158	-1.1977	-0.2228	-0.6527	0.31	1.15
376	423	SLU-INV	Min	-0.34	-0.82	-0.0319	-5.0017	-0.7205	-2.4329	-0.65	-0.02676
376	422	SLU-INV	Min	-0.34	-0.82	-0.02155	-5.1133	-0.6495	-1.7506	-0.65	0.005603
376	382	SLU-INV	Min	-0.47	-0.84	-0.04578	-4.1842	-0.4767	-1.6863	-0.57	0.005603
376	383	SLU-INV	Min	-0.47	-0.84	-0.05613	-4.1129	-0.5142	-2.3686	-0.57	-0.02676
377	424	SLE-INV	Max	-0.34	-0.61	-0.07509	-1.201	-0.219	-0.7077	0.08326	0.25
377	423	SLE-INV	Max	-0.34	-0.63	-0.03222	-1.1903	-0.1764	-0.5058	0.08326	0.34
377	383	SLE-INV	Max	-0.46	-0.65	-0.07761	-0.9278	-0.1856	-0.4751	0.14	0.34
377	384	SLE-INV	Max	-0.45	-0.63	-0.12	-0.9499	-0.2188	-0.677	0.14	0.25
377	424	SLE-INV	Min	-0.34	-0.61	-0.07509	-2.3788	-0.4296	-1.5402	-0.66	-0.05268
377	423	SLE-INV	Min	-0.34	-0.63	-0.03222	-2.4833	-0.3569	-1.143	-0.66	-0.003788
377	383	SLE-INV	Min	-0.46	-0.65	-0.07761	-1.9544	-0.3204	-1.0715	-0.56	-0.003788
377	384	SLE-INV	Min	-0.45	-0.63	-0.12	-1.8749	-0.3724	-1.4687	-0.56	-0.05268
377	424	SLU-INV	Max	-0.34	-0.61	-0.07509	-1.6214	-0.2957	-0.9554	0.11	1.08
377	423	SLU-INV	Max	-0.34	-0.63	-0.03222	-1.6069	-0.2381	-0.6829	0.11	1.21
377	383	SLU-INV	Max	-0.46	-0.65	-0.07761	-1.2525	-0.2506	-0.6414	0.18	1.21
377	384	SLU-INV	Max	-0.45	-0.63	-0.12	-1.2824	-0.2954	-0.914	0.18	1.08
377	424	SLU-INV	Min	-0.46	-0.82	-0.1	-5.3694	-0.9372	-3.3418	-1.22	-0.07112
377	423	SLU-INV	Min	-0.46	-0.84	-0.0435	-5.5691	-0.783	-2.4756	-1.22	-0.005114
377	384	SLU-INV	Min	-0.62	-0.87	-0.1	-4.3994	-0.6225	-2.3284	-1.07	-0.005114
377	383	SLU-INV	Min	-0.61	-0.85	-0.16	-4.2541	-0.7316	-3.1947	-1.07	-0.07112
378	425	SLE-INV	Max	-0.83	-0.99	-0.3	-1.4383	-0.5516	-1.1781	-0.15	-0.05883
378	424	SLE-INV	Max	-0.77	-0.7	-0.18	-1.4542	-0.2388	-0.8265	-0.15	0.33
378	384	SLE-INV	Max	-0.46	-0.63	-0.21	-1.0104	-0.2618	-0.559	0.0369	0.33
378	385	SLE-INV	Max	-0.52	-0.92	-0.33	-1.0089	-0.5618	-0.9107	0.0369	-0.05883
378	425	SLE-INV	Min	-0.83	-0.99	-0.3	-2.7266	-1.0961	-2.4519	-1.21	-0.19
378	424	SLE-INV	Min	-0.77	-0.7	-0.18	-2.8978	-0.4733	-1.7829	-1.21	-0.01369
378	384	SLE-INV	Min	-0.46	-0.63	-0.21	-2.0412	-0.4658	-1.2273	-0.81	-0.01369
378	385	SLE-INV	Min	-0.52	-0.92	-0.33	-1.9017	-1.0609	-1.8963	-0.81	-0.19
378	425	SLU-INV	Max	-0.83	-0.99	-0.3	-1.9414	-0.7446	-1.5905	-0.2	0.73
378	424	SLU-INV	Max	-0.77	-0.7	-0.18	-1.9631	-0.3223	-1.1157	-0.2	1.23
378	384	SLU-INV	Max	-0.46	-0.63	-0.21	-1.364	-0.3534	-0.7546	0.04982	1.23
378	385	SLU-INV	Max	-0.52	-0.92	-0.33	-1.3621	-0.7584	-1.2294	0.04982	0.73
378	425	SLU-INV	Min	-1.12	-1.33	-0.41	-6.1993	-2.3995	-5.3499	-2.04	-0.26
378	424	SLU-INV	Min	-1.04	-0.94	-0.25	-6.508	-1.0451	-3.8683	-2.04	-0.01848
378	384	SLU-INV	Min	-0.62	-0.86	-0.29	-4.5895	-0.9184	-2.6713	-1.53	-0.01848
378	385	SLU-INV	Min	-0.7	-1.25	-0.45	-4.3496	-2.2124	-4.1529	-1.53	-0.26
379	425	SLE-INV	Max	-1	-1.02	-0.47	-1.2088	-0.5147	-1.2547	-0.42	-0.09319
379	385	SLE-INV	Max	-0.37	-0.9	-0.39	-1.1234	-0.5757	-0.8344	-0.05012	-0.09319
379	386	SLE-INV	Max	-0.5	-1.51	-0.46	-1.4641	-0.9639	-0.8913	-0.0812	-0.4
379	426	SLE-INV	Max	-1.12	-1.64	-0.54	-1.1688	-0.9128	-1.3116	-0.42	-0.4
379	425	SLE-INV	Min	-1	-1.02	-0.47	-2.276	-1.0355	-2.5976	-1.43	-0.2
379	385	SLE-INV	Min	-0.37	-0.9	-0.39	-2.1739	-1.0859	-1.7511	-1.04	-0.2
379	386	SLE-INV	Min	-0.5	-1.51	-0.46	-2.0394	-1.8477	-1.809	-1.04	-0.5
379	426	SLE-INV	Min	-1.12	-1.64	-0.54	-2.0971	-1.8188	-2.6555	-1.43	-0.5
379	425	SLU-INV	Max	-1	-1.02	-0.47	-1.6319	-0.6949	-1.6938	-0.57	0.62
379	385	SLU-INV	Max	-0.37	-0.9	-0.39	-1.5166	-0.7772	-1.1264	-0.06766	0.62
379	386	SLU-INV	Max	-0.5	-1.51	-0.46	-1.4904	-1.3013	-1.2032	-0.06766	0.46
379	426	SLU-INV	Max	-1.12	-1.64	-0.54	-1.5779	-1.2323	-1.7706	-0.57	0.46
379	425	SLU-INV	Min	-1.35	-1.38	-0.63	-5.1829	-2.2879	-5.6708	-2.22	-0.28
379	385	SLU-INV	Min	-0.5	-1.21	-0.52	-4.8678	-2.2244	-3.8331	-2.02	-0.28
379	386	SLU-INV	Min	-0.67	-2.04	-0.62	-4.647	-3.8923	-3.9977	-2.02	-0.67
379	426	SLU-INV	Min	-1.52	-2.21	-0.73	-4.866	-4.0027	-5.8354	-2.22	-0.67
380	427	SLE-INV	Max	-0.87	-1.99	-0.4	-0.9246	-1.0008	-1.0853	-0.51	-0.59
380	426	SLE-INV	Max	-0.79	-1.57	-0.47	-0.9744	-0.8697	-1.1731	-0.51	-0.41
380	386	SLE-INV	Max	-0.35	-1.48	-0.42	-1.1217	-0.9717	-1.0286	-0.18	-0.41
380	387	SLE-INV	Max	-0.43	-1.9	-0.35	-1.0831	-1.0974	-0.9408	-0.18	-0.59
380	427	SLE-INV	Min	-0.87	-1.99	-0.4	-1.5841	-1.9757	-2.1483	-1.52	-0.75
380	426	SLE-INV	Min	-0.79	-1.57	-0.47	-1.7754	-1.7637	-2.3582	-1.52	-0.49
380	386	SLE-INV	Min	-0.35	-1.48	-0.42	-2.0973	-1.85	-2.1037	-1.3	-0.49
380	387	SLE-INV	Min	-0.43	-1.9	-0.35	-1.9309	-2.0499	-1.8938	-1.3	-0.75
380	427	SLU-INV	Max	-0.87	-1.99	-0.4	-1.2482	-1.3511	-1.4652	-0.69	0.41
380	426	SLU-INV	Max	-0.79	-1.57	-0.47	-1.3154	-1.1741	-1.5837	-0.69	0.4
380	386	SLU-INV	Max	-0.35	-1.48	-0.42	-1.5143	-1.3117	-1.3886	-0.25	0.4
380	387	SLU-INV	Max	-0.43	-1.9	-0.35	-1.4622	-1.4815	-1.2701	-0.25	0.41
380	427	SLU-INV	Min	-1.17	-2.69	-0.54	-3.7244	-4.3923	-4.776	-2.61	-1.01
380	426	SLU-INV	Min	-1.06	-2.12	-0.64	-4.0835	-3.8988	-5.2013	-2.61	-0.66
380	386	SLU-INV	Min	-0.47	-2	-0.57	-4.688	-3.8479	-4.6263	-2.62	-0.66
380	387	SLU-INV	Min	-0.59	-2.57	-0.47	-4.3845	-4.3142	-4.201	-2.62	-1.01
381	428	SLE-INV	Max	-0.7	-2.2	-0.2	-0.8731	-0.9844	-0.984	-0.67	-0.71
381	427	SLE-INV	Max	-0.65	-1.95	-0.33	-0.9456	-0.9772	-1.0224	-0.67	-0.54
381	387	SLE-INV	Max	-0.28	-1.87	-0.25	-1.0245	-1.1134	-1.0036	-0.37	-0.54
381	388	SLE-INV	Max	-0.33	-2.13	-0.12	-0.9617	-1.1157	-0.9652	-0.37	-0.71
381	428	SLE-INV	Min	-0.7	-2.2	-0.2	-1.4464	-1.9136	-1.9308	-1.86	-0.95
381	427	SLE-INV	Min	-0.65	-1.95	-0.33	-1.6852	-1.9591	-2.018	-1.86	-0.72
381	387	SLE-INV	Min	-0.28	-1.87	-0.25	-1.8236	-2.0653	-2.0239	-1.65	-0.72
381	388	SLE-INV	Min	-0.33	-2.13	-0.12	-1.6069	-2.0084	-1.9368	-1.65	-0.95
381	428	SLU-INV	Max	-0.7	-2.2	-0.2	-1.1787	-1.329	-1.3284	-0.9	0.42
381	427	SLU-INV	Max	-0.65	-1.95	-0.33	-1.2765	-1.3193	-1.3803	-0.9	0.48
381	387	SLU-INV	Max	-0.28	-1.87	-0.25	-1.383	-1.5031	-1.3549	-0.51	0.48
381	388	SLU-INV	Max	-0.33	-2.13	-0.12	-1.2983	-1.5062	-1.3031	-0.51	0.42
381	428	SLU-INV	Min	-0.94	-2.97	-0.26	-3.3996	-4.2921	-4.3288	-3.56	-1.29
381	427	SLU-INV	Min	-0.87	-2.63	-0.44	-3.8809	-4.3675	-4.4893	-3.56	-0.97
381	387	SLU-INV	Min	-0.38	-2.53	-0.34	-4.0794	-4.3093	-4.4871	-3.48	-0.97
381	388	SLU-INV	Min	-0.45	-2.87	-0.17	-3.6494	-4.2071	-4.3266	-3.48	-1.29
382	429	SLE-INV	Max	-0.53	-2.29	0.04941	-0.8268	-1.0043	-0.9686	-0.98	-0.96
382	428	SLE-INV	Max	-0.51	-2.16	-0.07936	-0.9365				

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 164 di 174
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382	429	SLU-INV	Max	-0.53	-2.29	0.0667	-1.1162	-1.3558	-1.3076	-1.32	0.13
382	428	SLU-INV	Max	-0.51	-2.16	0.007936	-1.2643	-1.3161	-1.3491	-1.32	0.47
382	388	SLU-INV	Max	-0.22	-2.1	0.007824	-1.3654	-1.5496	-1.2824	-0.86	0.47
382	389	SLU-INV	Max	-0.25	-2.23	0.18	-1.2303	-1.5827	-1.2409	-0.86	0.13
382	429	SLU-INV	Min	-0.72	-3.09	0.04941	-3.1029	-4.3683	-4.3427	-5.06	-1.62
382	428	SLU-INV	Min	-0.68	-2.92	-0.11	-3.7583	-4.3197	-4.4102	-5.06	-1.25
382	388	SLU-INV	Min	-0.3	-2.84	0.005796	-3.8213	-4.2857	-4.2456	-4.64	-1.25
382	389	SLU-INV	Min	-0.34	-3.01	0.13	-3.221	-4.3057	-4.1781	-4.64	-1.62
383	430	SLE-INV	Max	-0.37	-2.28	0.39	-0.701	-0.9775	-0.8725	-1.29	-1.19
383	429	SLE-INV	Max	-0.37	-2.26	0.23	-0.8468	-0.9943	-0.9489	-1.29	-0.94
383	389	SLE-INV	Max	-0.18	-2.22	0.27	-1.0025	-1.2046	-0.9388	-0.99	-0.94
383	390	SLE-INV	Max	-0.19	-2.25	0.43	-0.8655	-1.1839	-0.8623	-0.99	-1.19
383	430	SLE-INV	Min	-0.37	-2.28	0.39	-1.0209	-1.8728	-1.7479	-3.06	-1.42
383	429	SLE-INV	Min	-0.37	-2.26	0.23	-1.3921	-1.9393	-1.884	-3.06	-1.19
383	389	SLE-INV	Min	-0.18	-2.22	0.27	-1.6258	-2.1146	-1.8838	-2.74	-1.19
383	390	SLE-INV	Min	-0.19	-2.25	0.43	-1.2772	-2.0379	-1.7477	-2.74	-1.42
383	430	SLU-INV	Max	-0.37	-2.28	0.52	-0.9464	-1.3196	-1.1778	-1.74	-0.19
383	429	SLU-INV	Max	-0.37	-2.26	0.3	-1.1432	-1.3424	-1.281	-1.74	0.15
383	389	SLU-INV	Max	-0.18	-2.22	0.37	-1.3534	-1.6262	-1.2673	-1.34	0.15
383	390	SLU-INV	Max	-0.19	-2.25	0.59	-1.1684	-1.5982	-1.1642	-1.34	-0.19
383	430	SLU-INV	Min	-0.5	-3.08	0.39	-2.4097	-4.2473	-4.015	-6.48	-1.91
383	429	SLU-INV	Min	-0.49	-3.05	0.23	-3.2154	-4.376	-4.2675	-6.48	-1.6
383	389	SLU-INV	Min	-0.24	-3	0.27	-3.5789	-4.392	-4.2531	-6.05	-1.6
383	390	SLU-INV	Min	-0.25	-3.03	0.43	-2.8306	-4.2373	-4.0006	-6.05	-1.91
384	431	SLE-INV	Max	-0.27	-2.18	0.75	-0.5843	-0.901	-0.7593	-1.66	-1.38
384	430	SLE-INV	Max	-0.29	-2.27	0.56	-0.7786	-0.9771	-0.846	-1.66	-1.16
384	390	SLE-INV	Max	-0.16	-2.24	0.6	-0.9572	-1.2181	-0.8887	-1.41	-1.16
384	391	SLE-INV	Max	-0.14	-2.16	0.78	-0.7702	-1.1387	-0.802	-1.41	-1.38
384	431	SLE-INV	Min	-0.27	-2.18	0.75	-0.7518	-1.7088	-1.5516	-3.72	-1.59
384	430	SLE-INV	Min	-0.29	-2.27	0.56	-1.2057	-1.8883	-1.6962	-3.72	-1.4
384	390	SLE-INV	Min	-0.16	-2.24	0.6	-1.4602	-2.0959	-1.7991	-3.44	-1.4
384	391	SLE-INV	Min	-0.14	-2.16	0.78	-1.0269	-1.9071	-1.6545	-3.44	-1.59
384	431	SLU-INV	Max	-0.27	-2.18	1.01	-0.7888	-1.2164	-1.025	-2.25	-0.47
384	430	SLU-INV	Max	-0.29	-2.27	0.76	-1.0511	-1.3191	-1.1421	-2.25	-0.14
384	390	SLU-INV	Max	-0.16	-2.24	0.81	-1.2922	-1.6444	-1.1998	-1.91	-0.14
384	391	SLU-INV	Max	-0.14	-2.16	1.06	-1.0398	-1.5373	-1.0827	-1.91	-0.47
384	431	SLU-INV	Min	-0.36	-2.95	0.75	-1.7704	-3.9014	-3.6314	-8.06	-2.15
384	430	SLU-INV	Min	-0.39	-3.06	0.56	-2.7708	-4.2817	-3.9007	-8.06	-1.89
384	390	SLU-INV	Min	-0.21	-3.03	0.6	-3.1703	-4.3431	-4.1145	-7.63	-1.89
384	391	SLU-INV	Min	-0.19	-2.91	0.78	-2.2254	-3.9277	-3.8453	-7.63	-2.15
385	432	SLE-INV	Max	-0.19	-2.01	1.14	-0.4298	-0.7992	-0.6548	-2.13	-1.5
385	431	SLE-INV	Max	-0.23	-2.18	0.95	-0.6942	-0.9092	-0.7489	-2.13	-1.35
385	391	SLE-INV	Max	-0.16	-2.16	0.97	-0.8863	-1.1757	-0.8124	-1.93	-1.35
385	392	SLE-INV	Max	-0.12	-1.99	1.16	-0.6324	-1.0624	-0.7183	-1.93	-1.54
385	432	SLE-INV	Min	-0.19	-2.01	1.14	-0.4333	-1.5047	-1.3905	-4.5	-1.73
385	431	SLE-INV	Min	-0.23	-2.18	0.95	-0.9957	-1.7366	-1.5367	-4.5	-1.58
385	391	SLE-INV	Min	-0.16	-2.16	0.97	-1.2531	-1.9734	-1.6696	-4.26	-1.58
385	392	SLE-INV	Min	-0.12	-1.99	1.16	-0.7084	-1.7313	-1.5234	-4.26	-1.73
385	432	SLU-INV	Max	-0.19	-2.01	1.54	-0.5797	-1.079	-0.884	-2.88	-0.76
385	431	SLU-INV	Max	-0.23	-2.18	1.28	-0.9372	-1.2275	-1.011	-2.88	-0.42
385	391	SLU-INV	Max	-0.16	-2.16	1.3	-1.1965	-1.5872	-1.0967	-2.61	-0.42
385	392	SLU-INV	Max	-0.12	-1.99	1.56	-0.8537	-1.4342	-0.9697	-2.61	-0.76
385	432	SLU-INV	Min	-0.26	-2.71	1.14	-1.01	-3.4607	-3.3314	-9.9	-2.34
385	431	SLU-INV	Min	-0.3	-2.94	0.95	-2.2671	-3.9584	-3.598	-9.9	-2.13
385	391	SLU-INV	Min	-0.21	-2.92	0.97	-2.6605	-4.0671	-3.8794	-9.46	-2.13
385	392	SLU-INV	Min	-0.17	-2.69	1.16	-1.4631	-3.5405	-3.6128	-9.46	-2.34
386	433	SLE-INV	Max	-0.14	-1.77	1.57	0.0312	-0.6636	-0.5264	-2.69	-1.66
386	432	SLE-INV	Max	-0.18	-2.01	1.36	-0.5405	-0.8268	-0.4423	-2.69	-1.53
386	392	SLE-INV	Max	-0.19	-2.01	1.36	-0.77	-1.0978	-0.7308	-2.57	-1.53
386	393	SLE-INV	Max	-0.14	-1.77	1.57	-0.3097	-0.9459	-0.6149	-2.57	-1.66
386	433	SLE-INV	Min	-0.14	-1.77	1.57	-0.2044	-1.2448	-1.1873	-5.4	-1.82
386	432	SLE-INV	Min	-0.18	-2.01	1.36	-0.653	-1.5366	-1.3715	-5.4	-1.72
386	392	SLE-INV	Min	-0.19	-2.01	1.36	-0.9731	-1.797	-1.5424	-5.23	-1.72
386	393	SLE-INV	Min	-0.14	-1.77	1.57	-0.4398	-1.4952	-1.3582	-5.23	-1.82
386	433	SLU-INV	Max	-0.14	-1.77	2.12	0.0774	-0.8959	-0.7106	-3.63	-1.01
386	432	SLU-INV	Max	-0.18	-2.01	1.83	-0.7297	-1.0972	-0.8671	-3.63	-0.72
386	392	SLU-INV	Max	-0.19	-2.01	1.83	-1.0395	-1.4821	-0.9866	-3.47	-0.72
386	393	SLU-INV	Max	-0.14	-1.77	2.12	-0.3985	-1.2769	-0.8301	-3.47	-1.01
386	433	SLU-INV	Min	-0.19	-2.39	1.57	-0.2759	-2.8935	-2.9423	-11.96	-2.46
386	432	SLU-INV	Min	-0.25	-2.71	1.36	-1.4595	-3.5209	-3.2909	-11.96	-2.33
386	392	SLU-INV	Min	-0.25	-2.71	1.36	-1.9851	-3.6746	-3.6535	-11.6	-2.33
386	393	SLU-INV	Min	-0.19	-2.39	1.57	-0.5937	-3.0173	-3.305	-11.6	-2.46
387	434	SLE-INV	Max	-0.12	-1.5	2.03	0.6034	-0.4852	-0.3837	-3.36	-1.72
387	433	SLE-INV	Max	-0.18	-1.78	1.8	-0.2187	-0.6839	-0.5039	-3.36	-1.65
387	393	SLE-INV	Max	-0.24	-1.79	1.78	-0.5689	-0.9781	-0.8315	-3.32	-1.65
387	394	SLE-INV	Max	-0.18	-1.51	2.01	0.2316	-0.7767	-0.5053	-3.32	-1.72
387	434	SLE-INV	Min	-0.12	-1.5	2.03	0.0966	-0.9092	-0.9558	-6.45	-1.84
387	433	SLE-INV	Min	-0.18	-1.78	1.8	-0.3298	-1.2834	-1.1583	-6.45	-1.81
387	393	SLE-INV	Min	-0.24	-1.79	1.78	-0.577	-1.5583	-1.3874	-6.36	-1.81
387	394	SLE-INV	Min	-0.18	-1.51	2.01	-0.1559	-1.1736	-1.1849	-6.36	-1.84
387	434	SLU-INV	Max	-0.12	-1.5	2.74	1.3908	-0.655	-0.518	-4.54	-1.2
387	433	SLU-INV	Max	-0.18	-1.78	2.43	-0.2786	-0.9233	-0.6883	-4.54	-0.97
387	393	SLU-INV	Max	-0.24	-1.79	2.41	-0.7668	-1.3204	-0.8525	-4.49	-0.97
387	394	SLU-INV	Max	-0.18	-1.51	2.72	0.7239	-1.0486	-0.6822	-4.49	-1.2
387	434	SLU-INV	Min	-0.16	-2.02	2.03	0.1304	-2.1526	-2.4833	-14.32	-2.49
387	433	SLU-INV	Min	-0.24	-2.4	1.8	-0.4453	-2.9623	-2.8779	-14.32	-2.45
387	393	SLU-INV	Min	-0.32	-2.42	1.78	-1.0388	-3.1524	-3.3702	-14.02	-2.45
387	394	SLU-INV	Min	-0.24	-2.04	2.01	-0.2105	-2.31	-2.9756	-14.02	-2.49
388	435	SLE-INV	Max	-0.13	-1.2	2.52	1.3209	-0.2745	-0.2492	-4.15	-1.7
388	434	SLE-INV	Max	-0.19	-1.51	2.28	0.3405	-0.5115	-0.3749	-4.15	-1.71
388	394	SLE-INV	Max	-0.31	-1.54	2.25	-0.0109	-0.8033	-0.5141	-4.22	-1.71
388	395	SLE-INV	Max	-0.25	-1.23	2.49	0.9475	-0.5642	-0.3884	-4.22	-1.7
388	435	SLE-INV	Min	-0.13	-1.2	2.52	0.4939	-0.5219	-0.7395	-7.64	-1.79
388	434	SLE-INV	Min	-0.19	-1.51	2.28	-0.0387	-0.9529	-0.9425	-7.64	-1.84
388	394	SLE-INV	Min	-0.31	-1.54	2.25	-0.2853	-1.231	-1.1983	-7.65	-1.84
388	395	SLE-INV	Min	-0.25	-1.23	2.49	0.2431	-0.7892	-0.9953	-7.65	-1.79
388	435	SLU-INV	Max	-0.13	-1.2	3.41	3.0319	-0.3706	-0.3365	-5.6	-1.31
388	434	SLU-INV	Max	-0.19	-1.51	3.07	0.8561	-0.6905	-0.5061	-5.6	-1.16
388	394	SLU-INV	Max	-0.31	-1.54	3.03	0.242	-1.0845	-0.694	-5.69	-1.16
388	395	SLU-INV	Max	-0.25	-1.23	3.37	2.346	-0.7617	-0.5243	-5.69	-1.31
388	435	SLU-INV	Min	-0.17	-1.63	2.52	0.6668	-1.2909	-2.0507	-16.98	-2.42
388	434	SLU-INV	Min	-0.26	-2.04	2.28	-0.0523	-2.2256	-2.4532	-16.98	-2.49
388	394	SLU-INV	Min	-0.42	-2.07	2.25	-0.3851	-2.4403	-3.0062	-16.79	-2.49
388	395	SLU-INV	Min	-0.33	-1.66	2.49	0.3281	-1.4706	-2.6036	-16.79	-2.42
389	436	SLE-INV	Max	-0.15	-0.91	3.06	2.2593	-0.0359	-0.1222	-5.07	-1.59
389	435	SLE-INV	Max	-0.22	-1.22	2.79					



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	165 di 174			
389	396	SLE-INV	Min	-0.34	-0.95	3.02	0.7858	-0.3484	-0.7878	-9.14	-1.65
389	436	SLU-INV	Max	-0.15	-0.91	4.13	5.1595	-0.0485	-0.165	-6.85	-1.32
389	435	SLU-INV	Max	-0.22	-1.22	3.76	2.5914	-0.4105	-0.332	-6.85	-1.27
389	395	SLU-INV	Max	-0.4	-1.26	3.71	1.9212	-0.7841	-0.5288	-7.1	-1.27
389	396	SLU-INV	Max	-0.34	-0.95	4.07	4.408	-0.4194	-0.3619	-7.1	-1.32
389	436	SLU-INV	Min	-0.21	-1.23	3.06	1.3911	-0.3295	-1.6022	-19.97	-2.22
389	435	SLU-INV	Min	-0.29	-1.65	2.79	0.5042	-1.3538	-2.0436	-19.97	-2.43
389	395	SLU-INV	Min	-0.54	-1.7	2.75	0.1792	-1.5808	-2.612	-19.91	-2.43
389	396	SLU-INV	Min	-0.45	-1.28	3.02	1.0608	-0.5167	-2.1706	-19.91	-2.22
390	437	SLE-INV	Max	-0.19	-0.63	3.65	3.4491	0.3792	-0.0158	-6.14	-1.37
390	436	SLE-INV	Max	-0.25	-0.93	3.34	2.0808	-0.067	-0.1233	-6.14	-1.59
390	396	SLE-INV	Max	-0.5	-0.98	3.29	1.7391	-0.3128	-0.2669	-6.47	-1.59
390	397	SLE-INV	Max	-0.44	-0.68	3.6	3.0826	0.1485	-0.1594	-6.47	-1.37
390	437	SLE-INV	Min	-0.19	-0.63	3.65	1.7306	0.2281	-0.3254	-10.56	-1.4
390	436	SLE-INV	Min	-0.25	-0.93	3.34	0.9303	-0.1298	-0.5277	-10.56	-1.66
390	396	SLE-INV	Min	-0.5	-0.98	3.29	0.7196	-0.3728	-0.7851	-10.84	-1.66
390	397	SLE-INV	Min	-0.44	-0.68	3.6	1.5173	-0.0163	-0.5829	-10.84	-1.4
390	437	SLU-INV	Max	-0.19	-0.63	4.92	7.8315	0.7287	-0.0214	-8.29	-1.2
390	436	SLU-INV	Max	-0.25	-0.93	4.51	4.8235	-0.0904	-0.1665	-8.29	-1.28
390	396	SLU-INV	Max	-0.5	-0.98	4.45	4.1399	-0.4223	-0.3603	-8.73	-1.28
390	397	SLU-INV	Max	-0.44	-0.68	4.86	7.0602	0.5511	-0.2152	-8.73	-1.2
390	437	SLU-INV	Min	-0.25	-0.86	3.65	2.3363	0.308	-1.1534	-23.33	-1.89
390	436	SLU-INV	Min	-0.33	-1.25	3.34	1.256	-0.3733	-1.6068	-23.33	-2.24
390	396	SLU-INV	Min	-0.67	-1.32	3.29	0.9715	-0.5937	-2.1668	-23.43	-2.24
390	397	SLU-INV	Min	-0.59	-0.92	3.6	2.0483	-0.022	-1.7135	-23.43	-1.89
391	438	SLE-INV	Max	-0.23	-0.39	4.24	4.9613	0.8645	0.0529	-7.36	-1.03
391	437	SLE-INV	Max	-0.28	-0.65	3.98	3.3587	0.3513	-0.0275	-7.36	-1.38
391	397	SLE-INV	Max	-0.6	-0.72	3.94	3.0482	0.1514	-0.1478	-7.85	-1.38
391	398	SLE-INV	Max	-0.55	-0.45	4.2	4.6229	0.6784	-0.0674	-7.85	-1.03
391	438	SLE-INV	Min	-0.23	-0.39	4.24	2.6378	0.5045	-0.159	-12.31	-1.04
391	437	SLE-INV	Min	-0.28	-0.65	3.98	1.6732	0.1985	-0.3475	-12.31	-1.42
391	397	SLE-INV	Min	-0.6	-0.72	3.94	1.513	0.0009341	-0.5613	-12.75	-1.42
391	398	SLE-INV	Min	-0.55	-0.45	4.2	2.4757	0.3081	-0.3728	-12.75	-1.04
391	438	SLU-INV	Max	-0.23	-0.39	5.73	11.2069	1.8245	0.0714	-9.93	-0.96
391	437	SLU-INV	Max	-0.28	-0.65	5.38	7.703	0.7186	-0.0371	-9.93	-1.18
391	397	SLU-INV	Max	-0.6	-0.72	5.32	6.9946	0.5223	-0.1995	-10.59	-1.18
391	398	SLU-INV	Max	-0.55	-0.45	5.66	10.3973	1.6778	-0.091	-10.59	-0.96
391	438	SLU-INV	Min	-0.31	-0.53	4.24	3.5611	0.6811	-0.7242	-27.11	-1.4
391	437	SLU-INV	Min	-0.38	-0.88	3.98	2.2588	0.268	-1.2019	-27.11	-1.92
391	397	SLU-INV	Min	-0.61	-0.97	3.94	2.0425	0.0013	-1.6667	-27.38	-1.92
391	398	SLU-INV	Min	-0.74	-0.71	4.2	3.3421	0.416	-1.1889	-27.38	-1.4
392	439	SLE-INV	Max	-0.26	-0.19	5.28	6.85	1.3597	0.0689	-8.74	-0.54
392	438	SLE-INV	Max	-0.3	-0.41	4.41	4.9858	0.8531	0.0355	-8.74	-1.05
392	398	SLE-INV	Max	-0.7	-0.49	4.37	4.7364	0.7174	-0.0498	-9.41	-1.05
392	399	SLE-INV	Max	-0.66	-0.27	5.24	6.5716	1.2385	-0.0164	-9.41	-0.54
392	439	SLE-INV	Min	-0.26	-0.19	5.28	3.7881	0.7898	-0.0328	-14.28	-0.56
392	438	SLE-INV	Min	-0.3	-0.41	4.41	2.6378	0.4794	-0.1898	-14.28	-1.07
392	398	SLE-INV	Min	-0.7	-0.49	4.37	2.5615	0.3504	-0.3421	-14.9	-1.07
392	399	SLE-INV	Min	-0.66	-0.27	5.24	3.7117	0.6612	-0.185	-14.9	-0.56
392	439	SLU-INV	Max	-0.26	-0.19	7.13	15.3984	2.9515	0.093	-11.8	-0.57
392	438	SLU-INV	Max	-0.3	-0.41	5.96	11.3446	1.8632	0.0479	-11.8	-0.94
392	398	SLU-INV	Max	-0.7	-0.49	5.9	10.6363	1.7144	-0.0673	-12.7	-0.94
392	399	SLU-INV	Max	-0.66	-0.27	7.08	14.5793	2.857	-0.0222	-12.7	-0.57
392	439	SLU-INV	Min	-0.35	-0.26	5.28	5.1139	1.0662	-0.3026	-31.31	-0.75
392	438	SLU-INV	Min	-0.41	-0.55	4.41	3.5611	0.6471	-0.79	-31.31	-1.44
392	398	SLU-INV	Min	-0.95	-0.66	4.37	3.458	0.4731	-1.1243	-31.78	-1.44
392	399	SLU-INV	Min	-0.89	-0.36	5.24	5.0108	0.8926	-0.6968	-31.78	-0.75
393	400	SLE-INV	Max	-0.76	-0.15	3.77	8.7545	1.7516	-0.0155	-10.06	0.0315
393	440	SLE-INV	Max	-0.29	-0.05744	3.82	8.9618	1.7916	0.0233	-10.21	0.0315
393	439	SLE-INV	Max	-0.32	-0.2	6.84	7.019	1.3704	0.0408	-10.21	-0.58
393	399	SLE-INV	Max	-0.79	-0.3	6.79	6.8491	1.317	0.0117	-11.06	-0.58
393	400	SLE-INV	Min	-0.76	-0.15	3.77	5.1181	0.9981	-0.0278	-17.17	-0.001525
393	440	SLE-INV	Min	-0.29	-0.05744	3.82	5.0823	1.042	0.0146	-16.36	-0.001525
393	439	SLE-INV	Min	-0.32	-0.2	6.84	3.8619	0.7732	-0.0836	-16.36	-0.58
393	399	SLE-INV	Min	-0.79	-0.3	6.79	3.8966	0.7295	-0.1347	-17.17	-0.58
393	400	SLU-INV	Max	-0.76	-0.15	5.09	19.221	3.9165	-0.0196	-14.94	0.04252
393	440	SLU-INV	Max	-0.29	-0.05744	5.15	20.0792	3.9435	0.0468	-13.79	0.04252
393	439	SLU-INV	Max	-0.32	-0.2	9.24	15.8686	3.0481	0.0551	-13.79	-0.57
393	399	SLU-INV	Max	-0.79	-0.3	9.17	15.1562	2.9698	0.0159	-14.94	-0.57
393	400	SLU-INV	Min	-1.03	-0.21	3.77	6.9095	1.3475	-0.064	-36.39	-0.09173
393	440	SLU-INV	Min	-0.39	-0.07755	3.82	6.8611	1.4066	0.0197	-35.72	-0.09173
393	439	SLU-INV	Min	-0.43	-0.27	6.84	5.2136	1.0438	-0.4155	-35.72	-0.79
393	399	SLU-INV	Min	-1.07	-0.4	6.79	5.2604	0.9848	-0.5262	-36.39	-0.79
394	480	SLE-INV	Max	0.009128	0.15	0.08913	1.1334	-0.5229	-0.1451	-3.27	-2.06
394	470	SLE-INV	Max	0.15	-0.18	0.04408	0.7952	-0.7055	-0.7755	-3.27	-2.06
394	471	SLE-INV	Max	0.23	0.19	0.18	0.3877	-0.5709	-0.3093	-3.27	-2.06
394	480	SLE-INV	Min	0.009128	0.15	0.08913	0.5069	-1.2221	-0.2997	-5.95	-3.53
394	470	SLE-INV	Min	0.15	-0.18	0.04408	-0.3689	-2.0648	-1.6442	-5.95	-3.53
394	471	SLE-INV	Min	0.23	0.19	0.18	0.1438	-1.2258	-0.6618	-5.95	-3.53
394	480	SLU-INV	Max	0.01232	0.2	0.12	2.1838	-0.7059	-0.1959	-4.41	-2.79
394	470	SLU-INV	Max	0.21	-0.18	0.05951	-0.3985	-1.3101	-1.0469	-4.41	-2.79
394	471	SLU-INV	Max	0.31	0.26	0.25	0.5599	-0.7707	-0.4176	-4.41	-2.79
394	480	SLU-INV	Min	0.009128	0.15	0.08913	0.6844	-3.0808	-0.9322	-12.48	-7.15
394	470	SLU-INV	Min	0.15	-0.24	0.04408	-1.0227	-4.8893	-4.0064	-12.48	-7.15
394	471	SLU-INV	Min	0.23	0.19	0.18	0.1942	-2.9872	-1.7727	-12.48	-7.15
395	426	SLE-INV	Max	-0.59	-0.6	-0.51	-0.9409	-0.81	-1.1653	-0.52	-0.47
395	427	SLE-INV	Max	-0.64	-0.93	-0.53	-0.8374	-0.5737	-1.159	-0.52	-1.09
395	442	SLE-INV	Max	-1.16	-1.03	-0.62	-1.0699	-1.3881	-1.0503	-0.91	-1.09
395	441	SLE-INV	Max	-1.14	-0.71	-0.69	-1.2018	-1.2395	-0.9404	-1.3	-0.47
395	426	SLE-INV	Min	-0.59	-0.6	-0.51	-1.6679	-1.6136	-2.34	-1.57	-1.01
395	427	SLE-INV	Min	-0.64	-0.93	-0.53	-1.4179	-1.0425	-2.3166	-1.57	-1.88
395	442	SLE-INV	Min	-1.16	-1.03	-0.62	-1.9413	-2.8979	-2.0465	-2.12	-1.88
395	441	SLE-INV	Min	-1.14	-0.71	-0.69	-2.2695	-2.5942	-1.8027	-2.67	-1.01
395	426	SLU-INV	Max	-0.59	-0.6	-0.51	-1.2702	-1.0935	-1.5732	-0.7	-0.64
395	427	SLU-INV	Max	-0.64	-0.93	-0.53	-1.1305	-0.7745	-1.5646	-0.7	-1.47
395	442	SLU-INV	Max	-1.16	-1.03	-0.62	-1.4443	-1.8739	-1.4179	-1.23	-1.47
395	441	SLU-INV	Max	-1.14	-0.71	-0.69	-1.6224	-1.6733	-1.2696	-1.75	-0.64
395	426	SLU-INV	Min	-0.79	-0.8	-0.69	-3.8084	-3.4772	-5.1868	-2.73	-1.44
395	427	SLU-INV	Min	-0.86	-1.25	-0.71	-3.3819	-2.3042	-5.1211	-2.73	-2.98
395	442	SLU-INV	Min	-1.56	-1.39	-0.84	-4.5344	-6.4245	-4.6069	-3.7	-2.98
395	441	SLU-INV	Min	-1.54	-0.95	-0.93	-5.153	-5.6586	-4.0168	-4.67	-1.44
396	427	SLE-INV	Max	-0.43	-0.86	-0.42	-0.9895	-1.0346	-1.0128	-0.64	-0.52
396	428	SLE-INV	Max	-0.51	-1.24	-0.32	-0.867	-1.1163	-0.9929	-0.64	-1.11
396	443	SLE-INV	Max	-1.07	-1.35	-0.45	-0.8036	-0.9898	-1.1081	-1.38	-1.11
396	442	SLE-INV	Max	-0.99	-0.97	-0.55	-0.942	-0.9002	-1.1279	-1.38	-0.52
396	427	SLE-INV	Min	-0.43	-0.86	-0.42	-1.7407	-2.031	-1.9897	-1.82	-0.67
396	428	SLE-INV	Min	-0.51	-1.24						



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N. progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	166 di 174			
396	443	SLU-INV	Max	-1.07	-1.35	-0.45	-1.0849	-1.3362	-1.4959	-1.86	-1.5
396	442	SLU-INV	Max	-0.99	-0.97	-0.55	-1.2716	-1.2153	-1.5226	-1.86	-0.42
396	427	SLU-INV	Min	-0.58	-1.16	-0.57	-3.9451	-4.3662	-4.4234	-3.49	-0.93
396	428	SLU-INV	Min	-0.68	-1.68	-0.44	-3.4278	-4.7556	-4.3916	-3.49	-2.01
396	443	SLU-INV	Min	-1.44	-1.83	-0.6	-3.3079	-4.6055	-4.9279	-5.09	-2.01
396	442	SLU-INV	Min	-1.34	-1.31	-0.74	-3.9027	-4.1763	-4.9577	-5.09	-0.93
397	443	SLE-INV	Max	-0.65	-1.27	-0.29	-0.7615	-0.9583	-1.056	-1.4	-1.08
397	428	SLE-INV	Max	-0.31	-1.2	-0.21	-0.9775	-1.162	-1.0449	-0.98	-1.08
397	429	SLE-INV	Max	-0.37	-1.47	-0.03883	-0.8519	-1.1429	-0.9233	-0.98	-1.42
397	444	SLE-INV	Max	-0.7	-1.54	-0.12	-0.6271	-0.9452	-0.9353	-1.4	-1.43
397	443	SLE-INV	Min	-0.65	-1.27	-0.29	-1.2745	-1.9862	-2.0772	-2.87	-1.43
397	428	SLE-INV	Min	-0.31	-1.2	-0.21	-1.6744	-2.2454	-2.0652	-2.51	-1.43
397	429	SLE-INV	Min	-0.37	-1.47	-0.03883	-1.393	-2.1877	-1.8249	-2.51	-1.72
397	444	SLE-INV	Min	-0.7	-1.54	-0.12	-0.9727	-1.9427	-1.8339	-2.87	-1.72
397	443	SLU-INV	Max	-0.65	-1.27	-0.29	-1.028	-1.2937	-1.4256	-1.89	-1.46
397	428	SLU-INV	Max	-0.31	-1.2	-0.21	-1.3197	-1.5687	-1.4106	-1.89	-1.46
397	429	SLU-INV	Max	-0.37	-1.47	-0.03883	-1.1501	-1.543	-1.2465	-1.32	-1.92
397	444	SLU-INV	Max	-0.7	-1.54	-0.12	-0.8466	-1.276	-1.2627	-1.89	-1.93
397	443	SLU-INV	Min	-0.88	-1.72	-0.39	-3.0229	-4.5354	-4.6986	-5.48	-1.98
397	428	SLU-INV	Min	-0.42	-1.63	-0.28	-3.7908	-4.8434	-4.6206	-5.14	-1.98
397	429	SLU-INV	Min	-0.49	-1.98	-0.05241	-3.2589	-4.7799	-4.1338	-5.14	-2.36
397	444	SLU-INV	Min	-0.95	-2.08	-0.17	-2.441	-4.5035	-4.1986	-5.48	-2.37
398	430	SLE-INV	Max	-0.22	-1.51	0.34	-0.7067	-1.0844	-0.8636	-1.28	-1.65
398	445	SLE-INV	Max	-0.51	-1.56	0.23	-0.5072	-0.8421	-0.8056	-1.6	-1.65
398	444	SLE-INV	Max	-0.49	-1.49	0.03035	-0.7131	-0.9345	-0.9022	-1.6	-1.4
398	429	SLE-INV	Max	-0.2	-1.42	0.14	-0.8983	-1.1793	-0.957	-1.28	-1.39
398	430	SLE-INV	Min	-0.22	-1.51	0.34	-1.0365	-2.0115	-1.7312	-3.05	-1.89
398	445	SLE-INV	Min	-0.51	-1.56	0.23	-0.7083	-1.7286	-1.5915	-3.31	-1.89
398	444	SLE-INV	Min	-0.49	-1.49	0.03035	-1.1681	-1.946	-1.7605	-3.31	-1.69
398	429	SLE-INV	Min	-0.2	-1.42	0.14	-1.4621	-2.2357	-1.899	-3.05	-1.69
398	430	SLU-INV	Max	-0.22	-1.51	0.46	-0.9541	-1.4639	-1.1659	-1.72	-2.09
398	445	SLU-INV	Max	-0.51	-1.56	0.32	-0.6847	-1.1369	-1.0875	-2.16	-2.09
398	444	SLU-INV	Max	-0.49	-1.49	0.04097	-0.9627	-1.2616	-1.218	-2.16	-1.89
398	429	SLU-INV	Max	-0.2	-1.42	0.19	-1.2127	-1.592	-1.2919	-1.72	-1.88
398	430	SLU-INV	Min	-0.29	-2.03	0.34	-2.4269	-4.3848	-3.9718	-6.48	-2.59
398	445	SLU-INV	Min	-0.68	-2.11	0.23	-1.8216	-4.0728	-3.6945	-6.69	-2.59
398	444	SLU-INV	Min	-0.66	-2.01	0.03035	-2.7926	-4.516	-4.0248	-6.69	-2.33
398	429	SLU-INV	Min	-0.27	-1.92	0.14	-3.3183	-4.8463	-4.3074	-6.48	-2.32
399	430	SLE-INV	Max	-0.13	-1.49	0.52	-0.8222	-1.1289	-0.8462	-1.65	-1.62
399	431	SLE-INV	Max	-0.13	-1.47	0.7	-0.603	-1.051	-0.7587	-1.65	-1.87
399	446	SLE-INV	Max	-0.3	-1.5	0.61	-0.406	-0.7839	-0.7866	-1.98	-1.87
399	445	SLE-INV	Max	-0.31	-1.53	0.42	-0.6365	-0.8469	-0.824	-1.98	-1.62
399	430	SLE-INV	Min	-0.13	-1.49	0.52	-1.2539	-2.0833	-1.6897	-3.71	-1.85
399	431	SLE-INV	Min	-0.13	-1.47	0.7	-0.7869	-1.9303	-1.5575	-3.71	-2.12
399	446	SLE-INV	Min	-0.3	-1.5	0.61	-0.5043	-1.6191	-1.5031	-4.05	-2.12
399	445	SLE-INV	Min	-0.31	-1.53	0.42	-0.9998	-1.7592	-1.6353	-4.05	-1.85
399	430	SLU-INV	Max	-0.13	-1.49	0.7	-1.11	-1.5241	-1.1423	-2.23	-2.03
399	431	SLU-INV	Max	-0.13	-1.47	0.95	-0.814	-1.4323	-1.0243	-2.23	-2.4
399	446	SLU-INV	Max	-0.3	-1.5	0.82	-0.5481	-1.0583	-0.9944	-2.67	-2.4
399	445	SLU-INV	Max	-0.31	-1.53	0.57	-0.8593	-1.1433	-1.1124	-2.67	-2.03
399	430	SLU-INV	Min	-0.18	-2.01	0.52	-2.8204	-4.5133	-3.8853	-8.06	-2.54
399	431	SLU-INV	Min	-0.17	-1.98	0.7	-1.8267	-4.1994	-3.6455	-8.06	-2.89
399	446	SLU-INV	Min	-0.41	-2.03	0.61	-1.3485	-3.861	-3.5461	-8.54	-2.89
399	445	SLU-INV	Min	-0.41	-2.06	0.42	-2.4134	-4.1427	-3.786	-8.54	-2.54
400	431	SLE-INV	Max	-0.08169	-1.46	0.9	-0.7417	-1.0997	-0.7726	-2.12	-1.86
400	432	SLE-INV	Max	-0.06121	-1.36	1.11	-0.4627	-0.9934	-0.631	-2.12	-2.04
400	447	SLE-INV	Max	-0.11	-1.37	1.06	-0.0345	-0.5809	-0.5809	-2.35	-2.04
400	446	SLE-INV	Max	-0.13	-1.47	0.84	-0.692	-0.856	-0.7225	-2.55	-1.66
400	431	SLE-INV	Min	-0.08169	-1.46	0.9	-1.051	-1.9925	-1.5828	-4.5	-2.1
400	432	SLE-INV	Min	-0.06121	-1.36	1.11	-0.4787	-1.7698	-1.3444	-4.5	-2.28
400	447	SLE-INV	Min	-0.11	-1.37	1.06	-0.1811	-1.4248	-1.2393	-4.73	-2.28
400	446	SLE-INV	Min	-0.13	-1.47	0.84	-0.6319	-1.6353	-1.4776	-4.73	-2.1
400	431	SLU-INV	Max	-0.08169	-1.46	1.21	-1.0013	-1.4846	-1.0431	-2.86	-2.39
400	432	SLU-INV	Max	-0.06121	-1.36	1.5	-0.6246	-1.341	-0.8519	-2.86	-2.64
400	447	SLU-INV	Max	-0.11	-1.37	1.43	-0.0245	-0.9228	-0.7843	-3.18	-2.64
400	446	SLU-INV	Max	-0.13	-1.47	1.14	-0.6334	-1.0605	-0.9754	-3.18	-2.39
400	431	SLU-INV	Min	-0.11	-1.97	0.9	-2.3333	-4.312	-3.7018	-9.91	-2.88
400	432	SLU-INV	Min	-0.08263	-1.83	1.11	-1.0903	-3.8395	-3.2277	-9.91	-3.12
400	447	SLU-INV	Min	-0.15	-1.84	1.06	-0.2575	-3.4534	-3.0154	-10.23	-3.12
400	446	SLU-INV	Min	-0.18	-1.98	0.84	-1.567	-3.8935	-3.4896	-10.23	-2.88
401	432	SLE-INV	Max	-0.05466	-1.35	1.33	-0.5867	-1.0303	-0.6572	-2.69	-2.02
401	433	SLE-INV	Max	-0.01682	-1.16	1.57	-0.0236	-0.8615	-0.5115	-2.69	-2.13
401	448	SLE-INV	Max	0.007885	-1.16	1.53	0.4241	-0.5308	-0.4092	-2.82	-2.13
401	447	SLE-INV	Max	-0.02996	-1.35	1.3	-0.2822	-0.6958	-0.5548	-2.82	-2.02
401	432	SLE-INV	Min	-0.05466	-1.35	1.33	-0.7056	-1.8328	-1.3986	-5.41	-2.36
401	433	SLE-INV	Min	-0.01682	-1.16	1.57	-0.2413	-1.4856	-1.1602	-5.41	-2.37
401	448	SLE-INV	Min	0.007885	-1.16	1.53	0.0499	-1.1212	-0.9467	-5.54	-2.37
401	447	SLE-INV	Min	-0.02996	-1.35	1.3	-0.3033	-1.4567	-1.1851	-5.54	-2.26
401	432	SLU-INV	Max	-0.05466	-1.35	1.8	-0.7921	-1.3909	-0.8872	-3.63	-2.59
401	433	SLU-INV	Max	-0.01682	-1.16	2.12	0.0007545	-1.1631	-0.6906	-3.63	-2.77
401	448	SLU-INV	Max	0.01064	-1.16	2.07	0.822	-0.7165	-0.5524	-3.81	-2.77
401	447	SLU-INV	Max	-0.02996	-1.35	1.75	-0.3778	-0.9393	-0.749	-3.81	-2.59
401	432	SLU-INV	Min	-0.07379	-1.83	1.33	-1.5218	-3.9613	-3.3554	-11.99	-3.09
401	433	SLU-INV	Min	-0.0227	-1.57	1.57	-0.3258	-3.1947	-2.8781	-11.99	-3.23
401	448	SLU-INV	Min	0.007885	-1.57	1.53	0.0674	-2.7819	-2.4106	-12.21	-3.23
401	447	SLU-INV	Min	-0.04044	-1.82	1.3	-0.7459	-3.5155	-2.888	-12.21	-3.09
402	433	SLE-INV	Max	-0.05596	-1.17	1.8	-0.2638	-0.8954	-0.5163	-3.36	-2.12
402	434	SLE-INV	Max	-0.009226	-0.94	2.04	0.5444	-0.702	-0.3774	-3.36	-2.15
402	449	SLE-INV	Max	0.09132	-0.92	2.02	0.9632	-0.362	-0.2654	-3.39	-2.15
402	448	SLE-INV	Max	0.04458	-1.15	1.78	0.1311	-0.5522	-0.4043	-3.39	-2.12
402	433	SLE-INV	Min	-0.05596	-1.17	1.8	-0.3719	-1.5485	-1.1665	-6.45	-2.35
402	434	SLE-INV	Min	-0.009226	-0.94	2.04	0.0529	-1.1643	-0.9479	-6.45	-2.37
402	449	SLE-INV	Min	0.09132	-0.92	2.02	0.3351	-0.7925	-0.7219	-6.49	-2.37
402	448	SLE-INV	Min	0.04458	-1.15	1.78	-0.0962	-1.165	-0.9405	-6.49	-2.35
402	433	SLU-INV	Max	-0.05596	-1.17	2.43	-0.3399	-1.2088	-0.697	-4.54	-2.72
402	434	SLU-INV	Max	-0.009226	-0.94	2.76	1.3034	-0.9477	-0.5095	-4.54	-2.81
402	449	SLU-INV	Max	0.12	-0.92	2.73	2.0802	-0.4888	-0.3583	-4.58	-2.81
402	448	SLU-INV	Max	0.06019	-1.15	2.4	0.2194	-0.7455	-0.5458	-4.58	-2.72
402	433	SLU-INV	Min	-0.07555	-1.58	1.8	-0.502	-3.325	-2.8963	-14.35	-3.2
402	434	SLU-INV	Min	-0.01245	-1.27	2.04	0.0715	-2.4654	-2.4657	-14.35	-3.24
402	449	SLU-INV	Min	0.09132	-1.24	2.02	0.4524	-2.0399	-1.9623	-14.46	-3.24
402	448	SLU-INV	Min	0.04458	-1.56	1.78	-0.1299	-2.8652	-2.3929	-14.46	-3.2
403	434	SLE-INV	Max	-0.07863	-0.95	2.29	0.3025	-0.7271	-0.3838	-4.16	-2.15
403	435	SLE-INV	Max	-0.02894	-0.7	2.54	1.2541	-0.5033	-0.2406	-4.16	-2.07
403	450	SLE-INV</									



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	167 di 174			
403	435	SLU-INV	Max	-0.02894	-0.7	3.43	2.9345	-0.6795	-0.3248	-5.61	-2.72
403	450	SLU-INV	Max	0.2	-0.67	3.43	3.7851	-0.2259	-0.1563	-5.48	-2.72
403	449	SLU-INV	Max	0.13	-0.92	3.08	1.596	-0.5245	-0.3496	-5.48	-2.79
403	434	SLU-INV	Min	-0.11	-1.29	2.29	-0.1024	-2.579	-2.4916	-17.01	-3.23
403	435	SLU-INV	Min	-0.03907	-0.95	2.54	0.597	-1.6046	-2.0135	-17.01	-3.11
403	450	SLU-INV	Min	0.15	-0.9	2.54	0.9848	-1.182	-1.459	-16.94	-3.11
403	449	SLU-INV	Min	0.0994	-1.24	2.28	0.2781	-2.1198	-1.9371	-16.94	-3.23
404	435	SLE-INV	Max	-0.12	-0.72	2.81	1.0706	-0.5172	-0.2472	-5.09	-2.07
404	436	SLE-INV	Max	-0.06633	-0.48	3.08	2.1874	-0.2595	-0.1216	-5.09	-1.88
404	451	SLE-INV	Max	0.18	-0.43	3.09	2.591	0.0566	0.0167	-4.85	-1.88
404	450	SLE-INV	Max	0.13	-0.67	2.82	1.452	-0.1996	-0.109	-4.85	-2.07
404	435	SLE-INV	Min	-0.12	-0.72	2.81	0.3443	-0.8197	-0.7376	-9.03	-2.28
404	436	SLE-INV	Min	-0.06633	-0.48	3.08	0.9723	-0.329	-0.5246	-9.03	-2.07
404	451	SLE-INV	Min	0.18	-0.43	3.09	1.2276	0.0135	-0.2507	-8.77	-2.07
404	450	SLE-INV	Min	0.13	-0.67	2.82	0.5966	-0.4663	-0.4637	-8.77	-2.28
404	435	SLU-INV	Max	-0.12	-0.72	3.79	2.5748	-0.6983	-0.3338	-6.87	-2.7
404	436	SLU-INV	Max	-0.06633	-0.48	4.16	5.058	-0.3503	-0.1641	-6.87	-2.48
404	451	SLU-INV	Max	0.24	-0.43	4.17	5.8589	0.0764	0.0225	-6.54	-2.48
404	450	SLU-INV	Max	0.17	-0.67	3.8	3.3007	-0.2694	-0.1471	-6.54	-2.7
404	435	SLU-INV	Min	-0.16	-0.97	2.81	0.4648	-1.6943	-2.0486	-20.02	-3.1
404	436	SLU-INV	Min	-0.08954	-0.64	3.08	1.3126	-0.5797	-1.6	-20.02	-2.82
404	451	SLU-INV	Min	0.18	-0.58	3.09	1.6573	-0.1833	-0.9753	-19.75	-2.82
404	450	SLU-INV	Min	0.13	-0.91	2.82	0.8055	-1.2612	-1.424	-19.75	-3.1
404	436	SLE-INV	Max	-0.16	-0.5	3.37	2.0704	-0.2586	-0.1178	-6.16	-1.9
405	437	SLE-INV	Max	-0.12	-0.28	3.67	3.3743	0.1681	-0.0221	-6.16	-1.59
405	452	SLE-INV	Max	0.2	-0.22	3.68	3.7179	0.4678	0.1086	-5.76	-1.59
405	451	SLE-INV	Max	0.15	-0.43	3.38	2.3915	0.0208	0.013	-5.76	-1.9
405	436	SLE-INV	Min	-0.16	-0.5	3.37	0.9128	-0.3449	-0.5167	-10.59	-2.08
405	437	SLE-INV	Min	-0.12	-0.28	3.67	1.6676	0.0168	-0.3378	-10.59	-1.74
405	452	SLE-INV	Min	0.2	-0.22	3.68	1.869	0.2953	-0.0799	-10.16	-1.74
405	451	SLE-INV	Min	0.15	-0.43	3.38	1.1128	-0.0339	-0.2588	-10.16	-2.08
405	436	SLU-INV	Max	-0.16	-0.5	4.54	4.8344	-0.3491	-0.159	-8.31	-2.47
405	437	SLU-INV	Max	-0.12	-0.28	4.96	7.7298	0.5351	-0.0299	-8.31	-2.09
405	452	SLU-INV	Max	0.26	-0.22	4.97	8.4592	0.8805	0.1466	-7.78	-2.09
405	451	SLU-INV	Max	0.21	-0.43	4.56	5.4824	0.0281	0.0175	-7.78	-2.47
405	436	SLU-INV	Min	-0.22	-0.67	3.37	1.2322	-0.6341	-1.5847	-23.4	-2.83
405	437	SLU-INV	Min	-0.16	-0.38	3.67	2.2512	0.0226	-1.1787	-23.4	-2.37
405	452	SLU-INV	Min	0.2	-0.3	3.68	2.5231	0.3986	-0.5856	-22.93	-2.37
405	451	SLU-INV	Min	0.15	-0.59	3.38	1.5022	-0.2488	-0.9916	-22.93	-2.83
406	437	SLE-INV	Max	-0.21	-0.3	4.01	3.3683	0.1832	-0.0123	-7.39	-1.61
406	438	SLE-INV	Max	-0.18	-0.14	4.27	4.8851	0.7007	0.0364	-7.39	-1.16
406	453	SLE-INV	Max	0.21	-0.06574	4.28	5.1385	0.9375	0.1477	-6.81	-1.16
406	452	SLE-INV	Max	0.18	-0.22	4.02	3.6012	0.4292	0.099	-6.81	-1.61
406	437	SLE-INV	Min	-0.21	-0.3	4.01	1.6708	0.0379	-0.3186	-12.36	-1.76
406	438	SLE-INV	Min	-0.18	-0.14	4.27	2.5718	0.3229	-0.1901	-12.36	-1.27
406	453	SLE-INV	Min	0.21	-0.06574	4.28	2.689	0.5447	0.0295	-11.74	-1.27
406	452	SLE-INV	Min	0.18	-0.22	4.02	1.7898	0.259	-0.0989	-11.74	-1.76
406	437	SLU-INV	Max	-0.21	-0.3	5.42	7.746	0.5367	-0.0166	-9.97	-2.09
406	438	SLU-INV	Max	-0.18	-0.14	5.76	11.1067	1.7203	0.0492	-9.97	-1.53
406	453	SLU-INV	Max	0.28	-0.06574	5.77	11.7264	1.9899	0.1995	-9.2	-1.53
406	452	SLU-INV	Max	0.24	-0.22	5.43	8.2832	0.847	0.1337	-9.2	-2.09
406	437	SLU-INV	Min	-0.28	-0.41	4.01	2.2556	0.0511	-1.1373	-27.19	-2.39
406	438	SLU-INV	Min	-0.24	-0.19	4.27	3.4719	0.4359	-0.7941	-27.19	-1.73
406	453	SLU-INV	Min	0.21	-0.08875	4.28	3.6301	0.7353	-0.2841	-26.49	-1.73
406	452	SLU-INV	Min	0.18	-0.3	4.02	2.4163	0.3497	-0.6273	-26.49	-2.39
407	438	SLE-INV	Max	-0.25	-0.16	4.44	5.0191	0.7535	0.0565	-8.78	-1.19
407	439	SLE-INV	Max	-0.24	-0.06638	5.31	6.7739	1.245	0.0463	-8.78	-0.58
407	454	SLE-INV	Max	0.23	-0.02667	5.31	6.1167	1.3959	0.0777	-9.3	-0.59
407	453	SLE-INV	Max	0.21	-0.06556	4.44	5.1559	0.915	0.1279	-8.01	-1.19
407	438	SLE-INV	Min	-0.25	-0.16	4.44	2.6546	0.3693	-0.1508	-14.33	-1.3
407	439	SLE-INV	Min	-0.24	-0.06638	5.31	3.721	0.6486	-0.0743	-14.33	-0.65
407	454	SLE-INV	Min	0.23	0.02667	5.31	3.7318	0.7921	0.0667	-13.52	-0.65
407	453	SLE-INV	Min	0.21	-0.06556	4.44	2.6698	0.511	-0.0099	-13.52	-1.3
407	438	SLU-INV	Max	-0.25	-0.16	5.99	11.4228	1.7967	0.0763	-11.85	-1.55
407	439	SLU-INV	Max	-0.24	-0.06638	7.16	15.2992	2.9132	0.0625	-11.85	-0.8
407	454	SLU-INV	Max	0.31	0.03601	7.17	15.8506	3.0796	0.1589	-10.82	-0.8
407	453	SLU-INV	Max	0.29	-0.06556	6	11.883	2.008	0.1727	-10.82	-1.55
407	438	SLU-INV	Min	-0.34	-0.21	4.44	3.5837	0.4985	-0.7035	-31.4	-1.77
407	439	SLU-INV	Min	-0.32	-0.08962	5.31	5.0234	0.8756	-0.395	-31.4	-0.89
407	454	SLU-INV	Min	0.23	0.02667	5.31	5.038	1.0694	-0.0672	-30.48	-0.89
407	453	SLU-INV	Min	0.21	-0.08851	4.44	3.6042	0.6899	-0.3758	-30.48	-1.77
408	439	SLE-INV	Max	-0.29	-0.07752	6.87	7.0753	1.3369	0.0675	-10.25	-0.63
408	440	SLE-INV	Max	-0.29	-0.05744	3.82	8.8916	1.7561	-0.0142	-10.25	0.04649
408	455	SLE-INV	Max	0.26	0.05171	3.81	8.9166	1.8055	0.0283	-9.3	0.04649
408	454	SLE-INV	Max	0.25	0.03164	6.87	7.0797	1.3939	0.097	-9.3	-0.63
408	439	SLE-INV	Min	-0.29	-0.07752	6.87	3.8957	0.7192	-0.0332	-16.42	-0.69
408	440	SLE-INV	Min	-0.29	-0.05744	3.82	5.0228	0.967	-0.0308	-16.42	0.02703
408	455	SLE-INV	Min	0.26	0.05171	3.81	4.8903	1.0156	0.0153	-15.41	0.02703
408	454	SLE-INV	Min	0.25	0.03164	6.87	3.7731	0.7646	0.0259	-15.41	-0.69
408	439	SLU-INV	Max	-0.29	-0.07752	9.27	15.9858	3.0688	0.0911	-13.84	-0.83
408	440	SLU-INV	Max	-0.29	-0.05744	5.15	19.9804	4.0155	-0.0192	-13.84	0.06276
408	455	SLU-INV	Max	0.35	0.06981	5.15	20.4238	4.0654	0.0637	-12.56	0.06276
408	454	SLU-INV	Max	0.34	0.04271	9.27	16.324	3.156	0.131	-12.56	-0.83
408	439	SLU-INV	Min	-0.39	-0.1	6.87	5.2592	0.971	-0.3011	-35.83	-0.94
408	440	SLU-INV	Min	-0.39	-0.07755	3.82	6.7808	1.3055	-0.0761	-35.83	-0.0257
408	455	SLU-INV	Min	0.26	0.05171	3.81	6.6019	1.371	0.0207	-34.7	-0.94
408	454	SLU-INV	Min	0.25	0.03164	6.87	5.0937	1.0323	-0.1613	-34.7	-2.44
409	489	SLE-INV	Max	1.28	0.74	0.97	2.7277	-0.2052	0.6322	-3.96	-2.44
409	481	SLE-INV	Max	1.4	0.45	0.94	0.96	-0.7139	-0.3094	-3.96	-2.44
409	482	SLE-INV	Max	1.46	0.77	1.05	1.9222	-0.2814	0.2532	-3.96	-2.44
409	489	SLE-INV	Min	1.28	0.74	0.97	1.3587	-0.6405	0.3522	-7.19	-4.22
409	481	SLE-INV	Min	1.4	0.45	0.94	0.4134	-1.6029	-0.7957	-7.19	-4.22
409	482	SLE-INV	Min	1.46	0.77	1.05	0.9701	-0.6909	0.183	-7.19	-4.22
409	489	SLU-INV	Max	1.73	0.99	1.31	5.9276	-0.277	1.1933	-5.34	-3.29
409	481	SLU-INV	Max	1.88	0.6	1.26	1.9779	-0.9638	-0.4177	-5.34	-3.29
409	482	SLU-INV	Max	1.97	1.04	1.42	4.0439	-0.3799	0.3524	-5.34	-3.29
409	489	SLU-INV	Min	1.28	0.74	0.97	1.8343	-1.8333	0.4754	-15.84	-9.08
409	481	SLU-INV	Min	1.4	0.45	0.94	0.5581	-3.9959	-2.1998	-15.84	-9.08
409	482	SLU-INV	Min	1.46	0.77	1.05	1.3096	-1.8487	0.2471	-15.84	-9.08
410	457	SLE-INV	Max	-1.14	-0.84	-0.49	-0.7598	-1.3013	-0.8742	-1.82	-1.72
410	456	SLE-INV	Max	-1.01	-0.62	-0.6	-0.9392	-1.1964	-0.8329	-2.24	-1.05
410	443	SLE-INV	Max	-0.52	-0.52	-0.39	-0.7306	-0.7946	-1.012	-1.38	-1.05
410	444	SLE-INV	Max	-0.55	-0.72	-0.32	-0.507	-0.524	-1.0474	-1.38	-1.71
410	457	SLE-INV	Min	-1.14	-0.84	-0.49	-1.3321	-2.7913	-1.7183	-3.52	-2.9

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.progr. 01	REV. A	Pag.di Pag. 168 di 174
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410	457	SLU-INV	Min	-1.54	-1.13	-0.66	-3.2883	-6.4208	-4.0137	-6.74	-5.27
410	456	SLU-INV	Min	-1.36	-0.84	-0.81	-3.9705	-5.6294	-3.5681	-7.98	-3.3
410	443	SLU-INV	Min	-0.7	-0.71	-0.53	-2.7226	-3.4077	-4.5504	-5.47	-3.3
410	444	SLU-INV	Min	-0.74	-0.97	-0.44	-1.8961	-2.1651	-4.7078	-5.47	-5.24
411	496	SLU-INV	Max	3.03	1.45	2.14	4.2437	0.1081	1.5276	-4.2	-2.5
411	496	SLU-INV	Max	3.08	1.28	2.14	2.3698	-0.402	0.1738	-4.2	-2.5
411	491	SLU-INV	Max	3.11	1.47	2.19	3.4514	0.0184	1.1633	-4.2	-2.5
411	496	SLE-INV	Min	3.03	1.45	2.14	2.1312	-0.0017	0.7962	-7.78	-4.46
411	490	SLE-INV	Min	3.08	1.28	2.14	1.1484	-0.9913	0.14	-7.78	-4.46
411	491	SLE-INV	Min	3.11	1.47	2.19	1.7604	-0.0832	0.6392	-7.78	-4.46
411	496	SLE-INV	Max	4.09	1.96	2.89	9.7391	0.1459	3.4063	-5.67	-3.37
411	490	SLE-INV	Max	4.15	1.73	2.89	5.3339	-0.5427	0.2346	-5.67	-3.37
411	491	SLE-INV	Max	4.2	1.98	2.96	7.7958	0.0249	2.4881	-5.67	-3.37
411	496	SLE-INV	Min	3.03	1.45	2.14	2.8771	-0.3174	1.0748	-18.08	-10.2
411	490	SLE-INV	Min	3.08	1.28	2.14	1.5504	-2.6596	-0.0463	-18.08	-10.2
411	491	SLE-INV	Min	3.11	1.47	2.19	2.3765	-0.4238	0.8629	-18.08	-10.2
412	445	SLE-INV	Max	-0.36	-0.83	0.06441	-0.5051	-1.0422	-0.8163	-1.56	-1.74
412	458	SLE-INV	Max	-0.73	-0.91	-0.09321	-0.3366	-0.8178	-0.8843	-2.33	-1.74
412	457	SLE-INV	Max	-0.7	-0.72	-0.29	-0.6306	-0.8036	-0.9623	-2.33	-1.13
412	444	SLE-INV	Max	-0.32	-0.64	-0.13	-0.7757	-1.0365	-0.8905	-1.56	-1.11
412	445	SLE-INV	Min	-0.36	-0.83	0.06441	-0.7152	-2.0769	-1.6195	-3.25	-2.49
412	458	SLE-INV	Min	-0.73	-0.91	-0.09321	-0.4585	-1.7568	-1.7813	-4.33	-2.49
412	457	SLE-INV	Min	-0.7	-0.72	-0.29	-1.0448	-1.7018	-1.8981	-4.33	-1.64
412	444	SLE-INV	Min	-0.32	-0.64	-0.13	-1.2499	-2.0422	-1.7307	-3.25	-1.62
412	445	SLE-INV	Max	-0.36	-0.83	0.08695	-0.6819	-1.407	-1.1021	-2.1	-2.35
412	458	SLE-INV	Max	-0.73	-0.91	-0.09321	-0.4544	-1.104	-1.1938	-3.15	-2.35
412	457	SLE-INV	Max	-0.7	-0.72	-0.29	-0.8513	-1.0848	-1.2992	-3.15	-1.52
412	444	SLE-INV	Max	-0.32	-0.64	-0.13	-1.0472	-1.3993	-1.2021	-2.1	-1.5
412	445	SLE-INV	Min	-0.49	-1.12	0.06441	-1.8277	-4.6872	-3.7578	-6.59	-4
412	458	SLE-INV	Min	-0.99	-1.22	-0.13	-1.3733	-4.1952	-4.1849	-8.54	-4
412	457	SLE-INV	Min	-0.94	-0.97	-0.39	-2.5716	-3.9869	-4.3929	-8.54	-2.46
412	444	SLE-INV	Min	-0.44	-0.86	-0.17	-2.9106	-4.5277	-3.9578	-6.59	-2.43
413	459	SLE-INV	Max	-0.27	-0.89	0.39	0.0379	-0.7169	-0.654	-2.37	-2.02
413	458	SLE-INV	Max	-0.25	-0.81	0.14	-0.372	-0.8026	-0.8317	-2.37	-1.71
413	445	SLE-INV	Max	-0.16	-0.79	0.25	-0.701	-1.104	-0.8692	-1.96	-1.71
413	446	SLE-INV	Max	-0.18	-0.87	0.51	-0.4386	-1.0128	-0.6914	-1.96	-2.02
413	459	SLE-INV	Min	-0.27	-0.89	0.39	-0.0971	-1.5832	-1.3335	-4.42	-2.76
413	458	SLE-INV	Min	-0.25	-0.81	0.14	-0.5021	-1.746	-1.6658	-4.42	-2.47
413	445	SLE-INV	Min	-0.16	-0.79	0.25	-1.0858	-2.171	-1.7355	-4.05	-2.47
413	446	SLE-INV	Min	-0.18	-0.87	0.51	-0.5758	-1.9947	-1.4032	-4.05	-2.76
413	459	SLE-INV	Max	-0.27	-0.89	0.53	0.0714	-0.9678	-0.8828	-2.73	-2.73
413	458	SLE-INV	Max	-0.25	-0.81	0.18	-0.5022	-1.0835	-1.1228	-3.2	-2.31
413	445	SLE-INV	Max	-0.16	-0.79	0.34	-0.9464	-1.4904	-1.1734	-2.65	-2.31
413	446	SLE-INV	Max	-0.18	-0.87	0.69	-0.5922	-1.3673	-0.9334	-2.65	-2.73
413	459	SLE-INV	Min	-0.36	-1.2	0.39	-0.2293	-3.8821	-3.2182	-8.99	-4.32
413	458	SLE-INV	Min	-0.34	-1.1	0.14	-1.354	-4.1713	-3.9242	-8.99	-3.98
413	445	SLE-INV	Min	-0.22	-1.07	0.25	-2.5447	-4.8514	-4.0194	-8.56	-3.98
413	446	SLE-INV	Min	-0.24	-1.18	0.51	-1.4926	-4.5293	-3.3134	-8.56	-4.32
414	460	SLE-INV	Max	-0.04865	-0.78	0.87	0.4029	-0.5509	-0.4605	-2.58	-2.18
414	459	SLE-INV	Max	-0.06303	-0.85	0.62	-0.2214	-0.7186	-0.6159	-2.58	-1.99
414	446	SLE-INV	Max	-0.060046	-0.84	0.74	-0.5256	-1.0548	-0.7294	-2.35	-1.99
414	447	SLE-INV	Max	0.008333	-0.77	1	-0.103	-0.882	-0.574	-2.35	-2.18
414	460	SLE-INV	Min	-0.04865	-0.78	0.87	0.0895	-1.2529	-0.979	-4.89	-2.83
414	459	SLE-INV	Min	-0.06303	-0.85	0.62	-0.2286	-1.6021	-1.2451	-4.89	-2.71
414	446	SLE-INV	Min	-0.060046	-0.84	0.74	-0.6998	-2.0525	-1.4915	-4.74	-2.71
414	447	SLE-INV	Min	0.008333	-0.77	1	-0.2182	-1.6999	-1.2255	-4.74	-2.83
414	460	SLE-INV	Max	-0.04865	-0.78	1.17	0.6263	-0.7437	-0.6216	-3.49	-2.94
414	459	SLE-INV	Max	-0.06303	-0.85	0.83	-0.8978	-0.9701	-0.849	-3.49	-2.69
414	446	SLE-INV	Max	-0.060046	-0.84	1	-0.7096	-1.424	-0.9847	-3.17	-2.69
414	447	SLE-INV	Max	0.01125	-0.77	1.35	-0.1218	-1.1907	-0.7749	-3.17	-2.94
414	460	SLE-INV	Min	-0.06568	-1.05	0.87	0.1208	-3.1746	-2.4454	-10.34	-4.28
414	459	SLE-INV	Min	-0.08509	-1.15	0.62	-0.7154	-3.9214	-3.0011	-10.34	-4.24
414	446	SLE-INV	Min	-0.008163	-1.13	0.74	-1.6599	-4.6207	-3.5306	-10.28	-4.24
414	447	SLE-INV	Min	0.008333	-1.03	1	-0.3875	-3.84	-2.975	-10.28	-4.28
415	461	SLE-INV	Max	0.18	-0.59	1.38	0.7906	-0.43	-0.3423	-3.01	-2.31
415	460	SLE-INV	Max	0.15	-0.74	1.14	0.0616	-0.5671	-0.4826	-3.01	-2.16
415	447	SLE-INV	Max	0.08997	-0.75	1.24	-0.3449	-0.9272	-0.5521	-2.82	-2.16
415	448	SLE-INV	Max	0.12	-0.61	1.48	0.3545	-0.7849	-0.4118	-2.82	-2.31
415	461	SLE-INV	Min	0.18	-0.59	1.38	0.2963	-1.0244	-0.8132	-5.73	-2.94
415	460	SLE-INV	Min	0.15	-0.74	1.14	-0.0785	-1.2965	-1.0305	-5.73	-2.8
415	447	SLE-INV	Min	0.08997	-0.75	1.24	-0.3572	-1.763	-1.1744	-5.54	-2.8
415	448	SLE-INV	Min	0.12	-0.61	1.48	0.0068	-1.4766	-0.9571	-5.54	-2.94
415	461	SLE-INV	Max	0.24	-0.59	1.86	1.5299	-0.5805	-0.4621	-4.07	-3.12
415	460	SLE-INV	Max	0.21	-0.74	1.54	0.1041	-0.7656	-0.6515	-4.07	-2.91
415	447	SLE-INV	Max	0.12	-0.75	1.67	-0.4638	-1.2517	-0.7453	-3.8	-2.91
415	448	SLE-INV	Max	0.16	-0.61	1.99	0.6986	-1.0596	-0.5559	-3.8	-3.12
415	461	SLE-INV	Min	0.18	-0.8	1.38	0.4	-2.6796	-2.1253	-12.49	-4.43
415	460	SLE-INV	Min	0.15	-0.99	1.14	-0.106	-3.266	-2.5567	-12.49	-4.22
415	447	SLE-INV	Min	0.08997	-1.01	1.24	-0.829	-3.9772	-2.8649	-12.23	-4.22
415	448	SLE-INV	Min	0.12	-0.82	1.48	0.0092	-3.353	-2.4335	-12.23	-4.43
416	462	SLE-INV	Max	0.38	-0.38	1.93	1.4391	-0.2741	-0.1531	-3.44	-2.34
416	461	SLE-INV	Max	0.35	-0.56	1.66	0.6028	-0.4469	-0.3304	-3.44	-2.3
416	448	SLE-INV	Max	0.16	-0.6	1.72	0.0666	-0.8208	-0.4236	-3.39	-2.3
416	449	SLE-INV	Max	0.19	-0.42	1.99	0.8757	-0.6438	-0.2462	-3.39	-2.34
416	462	SLE-INV	Min	0.38	-0.38	1.93	0.6263	-0.7191	-0.4879	-6.48	-2.93
416	461	SLE-INV	Min	0.35	-0.56	1.66	0.189	-1.06	-0.7886	-6.48	-2.94
416	448	SLE-INV	Min	0.16	-0.6	1.72	-0.1499	-1.5362	-0.9816	-6.5	-2.94
416	449	SLE-INV	Min	0.19	-0.42	1.99	0.2787	-1.182	-0.6809	-6.5	-2.93
416	462	SLE-INV	Max	0.51	-0.38	2.61	3.0604	-0.3701	-0.2066	-4.64	-3.16
416	461	SLE-INV	Max	0.47	-0.56	2.25	1.1896	-0.6033	-0.446	-4.64	-3.11
416	448	SLE-INV	Max	0.21	-0.6	2.33	0.1283	-1.108	-0.5718	-4.58	-3.11
416	449	SLE-INV	Max	0.26	-0.42	2.69	1.9232	-0.8691	-0.3324	-4.58	-3.16
416	462	SLE-INV	Min	0.38	-0.51	1.93	0.8454	-1.9914	-1.4329	-14.43	-4.37
416	461	SLE-INV	Min	0.35	-0.76	1.66	0.2552	-2.746	-2.0649	-14.43	-4.42
416	448	SLE-INV	Min	0.16	-0.81	1.72	-0.2023	-3.4686	-2.4939	-14.49	-4.42
416	449	SLE-INV	Min	0.19	-0.57	1.99	0.3763	-2.6769	-1.8619	-14.49	-4.37
417	463	SLE-INV	Max	0.5	-0.15	2.49	2.1026	-0.0763	0.0236	-3.96	-2.25
417	462	SLE-INV	Max	0.46	-0.37	2.21	1.1426	-0.3025	-0.1331	-3.96	-2.34
417	449	SLE-INV	Max	0.2	-0.42	2.25	0.6654	-0.6712	-0.2659	-4.07	-2.34
417	450	SLE-INV	Max	0.24	-0.21	2.53	1.6016	-0.442	-0.1092	-4.07	-2.25
417	463	SLE-INV	Min	0.5	-0.15	2.49	0.979	-0.3179	-0.1801	-7.39	-2.78
417	462	SLE-INV	Min	0.46	-0.37	2.21	0.4671	-0.7705	-0.4425	-7.39	-2.92
417	449	SLE-INV	Min	0.2	-0.42	2.25	0.1589	-1.232	-0.7261	-7.57	-2.92
417	450	SLE-INV	Min	0.24	-0.21	2.53	0.6651	-0.7677	-0.4636	-7.57	-2.78
417	463	SLE-INV	Max	0.68	-0.15	3.36	4.6336				



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.prog.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	169 di 174			
417	450	SLU-INV	Min	0.24	-0.28	2.53	0.8978	-1.7115	-1.4216	-17	-4.1
418	464	SLE-INV	Max	0.6	0.0463	3.05	2.8972	0.1271	0.1428	-4.6	-2.05
418	463	SLE-INV	Max	0.56	-0.14	2.77	1.793	-0.1136	0.0215	-4.6	-2.26
418	450	SLE-INV	Max	0.22	-0.21	2.8	1.4133	-0.4593	-0.107	-4.86	-2.26
418	451	SLE-INV	Max	0.26	-0.02116	3.08	2.4946	-0.2166	0.0143	-4.86	-2.05
418	464	SLE-INV	Min	0.6	0.0463	3.05	1.4124	0.0935	0.0174	-8.44	-2.49
418	463	SLE-INV	Min	0.56	-0.14	2.77	0.8109	-0.3789	-0.185	-8.44	-2.77
418	450	SLE-INV	Min	0.22	-0.21	2.8	0.56	-0.8062	-0.4588	-8.8	-2.77
418	451	SLE-INV	Min	0.26	-0.02116	3.08	1.1577	-0.3225	-0.2564	-8.8	-2.49
418	464	SLE-INV	Max	0.81	0.06251	4.12	6.5148	0.1715	0.1928	-6.21	-2.77
418	463	SLE-INV	Max	0.75	-0.14	3.74	3.9998	-0.1534	0.0291	-6.21	-3.05
418	450	SLE-INV	Max	0.3	-0.21	3.78	3.2566	-0.6201	-0.1444	-6.56	-3.05
418	451	SLE-INV	Max	0.35	-0.02116	4.16	5.6975	-0.2925	0.0193	-6.56	-2.77
418	464	SLE-INV	Min	0.6	0.0463	3.05	1.9067	-0.071	-0.3349	-19.28	-3.65
418	463	SLE-INV	Min	0.56	-0.19	2.77	1.0947	-1.1639	-0.7679	-19.28	-4.08
418	450	SLE-INV	Min	0.22	-0.29	2.8	0.756	-1.8007	-1.4172	-19.82	-4.08
418	451	SLE-INV	Min	0.26	-0.02856	3.08	1.5629	-0.6714	-0.9842	-19.82	-3.65
419	465	SLE-INV	Max	0.67	0.19	3.65	3.9331	0.5238	0.221	-5.34	-1.72
419	464	SLE-INV	Max	0.65	0.05601	3.34	2.6666	0.0859	0.1384	-5.34	-2.07
419	451	SLE-INV	Max	0.23	-0.02621	3.37	2.3701	-0.2168	0.0191	-5.78	-2.07
419	465	SLE-INV	Max	0.26	0.11	3.68	3.618	0.1626	0.1017	-5.78	-1.72
419	452	SLE-INV	Min	0.67	0.19	3.65	1.9795	0.3398	0.1617	-9.64	-2.06
419	464	SLE-INV	Min	0.65	0.05601	3.34	1.2745	0.0353	0.0082	-9.64	-2.51
419	451	SLE-INV	Min	0.23	-0.02621	3.37	1.0888	-0.3353	-0.2469	-10.2	-2.51
419	452	SLE-INV	Min	0.26	0.11	3.68	1.7938	0.0373	-0.0934	-10.2	-2.06
419	465	SLE-INV	Max	0.91	0.26	4.93	8.9697	0.9728	0.2983	-7.21	-2.32
419	464	SLE-INV	Max	0.87	0.07561	4.51	6.0725	0.116	0.1868	-7.21	-2.79
419	451	SLE-INV	Max	0.32	-0.02621	4.54	5.4683	-0.2927	0.0258	-7.81	-2.79
419	452	SLE-INV	Max	0.35	0.15	4.96	8.2962	0.4586	0.1373	-7.81	-2.32
419	465	SLE-INV	Min	0.67	0.19	3.65	2.6723	0.4588	-0.0013	-22.16	-2.98
419	464	SLE-INV	Min	0.65	0.05601	3.34	1.7205	-0.1642	-0.3525	-22.16	-3.65
419	451	SLE-INV	Min	0.23	-0.03538	3.37	1.4698	-0.7125	-0.9661	-23.01	-3.65
419	452	SLE-INV	Min	0.26	0.11	3.68	2.4217	0.0503	-0.6149	-23.01	-2.98
420	466	SLE-INV	Max	0.74	0.27	4.24	5.237	0.9718	0.2417	-6.21	-1.24
420	465	SLE-INV	Max	0.73	0.21	3.99	3.7837	0.4715	0.2139	-6.21	-1.74
420	452	SLE-INV	Max	0.25	0.11	4.01	3.6016	0.1817	0.1091	-6.85	-1.74
420	453	SLE-INV	Max	0.26	0.18	4.27	5.0392	0.6901	0.1368	-6.85	-1.24
420	466	SLE-INV	Min	0.74	0.27	4.24	2.6997	0.5615	0.2355	-11.02	-1.48
420	465	SLE-INV	Min	0.73	0.21	3.99	1.8738	0.296	0.1479	-11.02	-2.09
420	452	SLE-INV	Min	0.25	0.11	4.01	1.7822	0.0577	-0.0794	-11.79	-2.09
420	453	SLE-INV	Min	0.26	0.18	4.27	2.6117	0.3217	0.0082	-11.79	-1.48
420	466	SLE-INV	Max	1	0.37	5.73	12.0707	2.0736	0.3262	-8.39	-1.68
420	465	SLE-INV	Max	0.98	0.28	5.38	8.7375	0.9069	0.2888	-8.39	-2.35
420	452	SLE-INV	Max	0.33	0.15	5.42	8.3051	0.4799	0.1472	-9.24	-2.35
420	453	SLE-INV	Max	0.35	0.24	5.76	11.5692	1.6809	0.1846	-9.24	-1.68
420	466	SLE-INV	Min	0.74	0.27	4.24	3.6446	0.758	0.2224	-25.46	-2.12
420	465	SLE-INV	Min	0.73	0.21	3.99	2.5297	0.3996	-0.0315	-25.46	-3
420	452	SLE-INV	Min	0.25	0.11	4.01	2.406	0.0779	-0.5848	-26.58	-3
420	453	SLE-INV	Min	0.26	0.18	4.27	3.5259	0.4344	-0.331	-26.58	-2.12
421	467	SLE-INV	Max	0.82	0.26	5.26	6.8428	1.4177	0.1813	-7.22	-0.62
421	466	SLE-INV	Max	0.82	0.29	4.41	5.1789	0.9312	0.2276	-7.22	-1.28
421	453	SLE-INV	Max	0.26	0.18	4.44	5.1844	0.7482	0.1515	-8.06	-1.28
421	454	SLE-INV	Max	0.25	0.15	5.29	6.8386	1.2399	0.0926	-8.06	-0.62
421	467	SLE-INV	Min	0.82	0.26	5.26	3.5931	0.7845	0.1687	-12.6	-0.74
421	466	SLE-INV	Min	0.82	0.29	4.41	2.6294	0.5169	0.2054	-12.6	-1.52
421	453	SLE-INV	Min	0.26	0.18	4.44	2.8837	0.3666	0.039	-13.58	-1.52
421	454	SLE-INV	Min	0.25	0.15	5.29	3.6567	0.6301	0.0149	-13.58	-0.74
421	467	SLE-INV	Max	1.1	0.36	7.1	15.969	3.183	0.2466	-9.75	-0.64
421	466	SLE-INV	Max	1.11	0.39	5.95	12.0753	2.0513	0.3072	-9.75	-1.73
421	453	SLE-INV	Max	0.35	0.24	5.99	11.9507	1.7804	0.2045	-10.87	-1.73
421	454	SLE-INV	Max	0.34	0.2	7.14	15.7101	2.9429	0.125	-10.87	-0.84
421	467	SLE-INV	Min	0.82	0.26	5.26	4.8507	1.0591	0.2207	-29.21	-1.05
421	466	SLE-INV	Min	0.82	0.29	4.41	3.5497	0.6979	0.1518	-29.21	-2.14
421	453	SLE-INV	Min	0.26	0.18	4.44	3.6229	0.495	-0.2595	-30.59	-2.14
421	454	SLE-INV	Min	0.25	0.15	5.29	4.9365	0.8506	-0.1906	-30.59	-1.05
422	455	SLE-INV	Max	0.26	0.05171	3.81	8.8366	1.7237	-0.0096	-9.34	0.05881
422	468	SLE-INV	Max	0.9	0.18	3.76	8.687	1.781	0.0228	-8.32	0.05881
422	467	SLE-INV	Max	0.92	0.28	6.79	6.975	1.4018	0.1414	-8.32	-0.67
422	454	SLE-INV	Max	0.28	0.16	6.85	7.1328	1.3411	0.1204	-9.34	-0.67
422	455	SLE-INV	Min	0.26	0.05171	3.81	4.826	0.9178	-0.0238	-15.47	0.05369
422	468	SLE-INV	Min	0.9	0.18	3.76	4.6102	0.9695	0.0114	-14.29	0.05369
422	467	SLE-INV	Min	0.92	0.28	6.79	3.6045	0.7466	0.1215	-14.29	-0.79
422	454	SLE-INV	Min	0.28	0.16	6.85	3.8048	0.6999	0.0749	-15.47	-0.79
422	455	SLE-INV	Max	0.35	0.06981	5.15	20.301	4.0263	-0.013	-12.61	0.07939
422	468	SLE-INV	Max	1.21	0.24	5.08	20.3125	4.0984	0.0534	-11.23	0.07939
422	467	SLE-INV	Max	1.24	0.38	9.17	16.383	3.2333	0.1909	-11.23	-0.91
422	454	SLE-INV	Max	0.38	0.21	9.24	16.4347	3.1349	0.1625	-12.61	-0.91
422	455	SLE-INV	Min	0.26	0.05171	3.81	6.5152	1.239	-0.0621	-34.81	0.04062
422	468	SLE-INV	Min	0.9	0.18	3.76	6.2238	1.3088	0.0154	-33.21	0.04062
422	467	SLE-INV	Min	0.92	0.28	6.79	4.8661	1.0079	0.0726	-33.21	-1.11
422	454	SLE-INV	Min	0.28	0.16	6.85	5.1365	0.9449	-0.0429	-34.81	-1.11
423	501	SLE-INV	Max	5.11	2.19	3.45	4.8895	0.4739	1.8324	-3.7	-2.07
423	497	SLE-INV	Max	4.97	2.14	3.54	3.2662	-0.0846	0.9841	-3.7	-2.07
423	498	SLE-INV	Max	4.97	2.16	3.45	4.3728	0.3134	1.6231	-3.7	-2.07
423	501	SLE-INV	Min	5.11	2.19	3.45	2.3856	0.2975	0.8961	-7.19	-3.91
423	497	SLE-INV	Min	4.97	2.14	3.54	1.5703	-0.3052	0.5524	-7.19	-3.91
423	498	SLE-INV	Min	4.97	2.16	3.45	2.1619	0.1834	0.8173	-7.19	-3.91
423	501	SLE-INV	Max	6.9	2.95	4.65	11.8079	0.9718	4.4039	-5	-2.79
423	497	SLE-INV	Max	6.71	2.89	4.78	7.7367	-0.1142	2.127	-5	-2.79
423	498	SLE-INV	Max	6.71	2.91	4.66	10.4462	0.6269	3.8318	-5	-2.79
423	501	SLE-INV	Min	5.11	2.19	3.45	3.2205	0.4016	1.2097	-17.85	-9.66
423	497	SLE-INV	Min	4.97	2.14	3.54	2.1199	-1.0013	0.7457	-17.85	-9.66
423	498	SLE-INV	Min	4.97	2.16	3.45	2.9185	0.2475	1.1033	-17.85	-9.66
424	470	SLE-INV	Max	-0.62	-0.42	-0.05785	-0.1761	-1.1073	-0.5188	-2.78	-2.32
424	469	SLE-INV	Max	-0.35	-0.31	-0.23	-0.4905	-1.077	-0.5947	-3.2	-1.66
424	458	SLE-INV	Max	-0.18	-0.28	-0.0236	-0.3485	-0.6751	-0.7693	-2.35	-1.66
424	459	SLE-INV	Max	-0.2	-0.34	0.14	0.2938	-0.3226	-0.7893	-2.35	-2.32
424	470	SLE-INV	Min	-0.62	-0.42	-0.05785	-0.2405	-2.5133	-1.0864	-5.11	-3.97
424	469	SLE-INV	Min	-0.35	-0.31	-0.23	-0.846	-2.3365	-1.1019	-5.78	-2.9
424	458	SLE-INV	Min	-0.18	-0.28	-0.0236	-0.3887	-1.3247	-1.5671	-4.41	-2.9
424	459	SLE-INV	Min	-0.2	-0.34	0.14	0.023	-0.5723	-1.6054	-4.41	-3.97
424	470	SLE-INV	Max	-0.62	-0.42	-0.05785	-0.2378	-1.4949	-0.7004	-3.76	-3.14
424	469	SLE-INV	Max	-0.35	-0.31	-0.23	-0.6622	-1.4539	-0.8028	-4.32	-2.24
424	458	SLE-INV	Max	-0.18	-0.28	-0.0236	-0.4705	-0.9114	-1.0385	-3.17	-2.24
424	459	SLE-INV	Max	-0.2	-0.34	0.19	0.4372	-0.4355	-1.0655	-3.17	-3.14
424	470	SLE-INV	Min	-0.83	-0.57	-0.0781	-0.9288	-6.0503	-2.733	-10.43	-7.77
424	469										



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 170 di 174
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425	459	SLE-INV	Max	0.04996	-0.28	0.4	-0.2971	-0.8991	-0.6034	-2.55	-1.68
425	460	SLE-INV	Max	0.05069	-0.28	0.7	0.3498	-0.8482	-0.4723	-2.55	-2.24
425	471	SLE-INV	Min	0.06493	-0.28	0.53	0.3331	-1.2859	-1.1	-5.9	-3.38
425	470	SLE-INV	Min	0.06421	-0.28	0.23	-0.0447	-1.3257	-1.3036	-5.9	-2.55
425	459	SLE-INV	Min	0.04996	-0.28	0.4	-0.3096	-1.8107	-1.2131	-4.85	-2.55
425	460	SLE-INV	Min	0.05069	-0.28	0.7	0.0624	-1.7505	-1.0095	-4.85	-3.38
425	471	SLE-INV	Max	0.08766	-0.28	0.71	1.37	-0.727	-0.676	-4.4	-3.03
425	470	SLE-INV	Max	0.08668	-0.28	0.31	0.1158	-0.7841	-0.853	-4.4	-2.27
425	459	SLE-INV	Max	0.06745	-0.28	0.54	-0.4011	-1.2137	-0.8146	-3.45	-2.27
425	460	SLE-INV	Max	0.06843	-0.28	0.94	0.5261	-1.1451	-0.6376	-3.45	-3.03
425	471	SLE-INV	Min	0.06493	-0.37	0.53	0.4497	-3.2891	-2.7936	-12.31	-6.15
425	470	SLE-INV	Min	0.06421	-0.38	0.23	-0.1112	-3.2872	-3.2038	-12.31	-4.53
425	459	SLE-INV	Min	0.04996	-0.38	0.4	-0.8534	-4.1667	-2.9268	-10.26	-4.53
425	460	SLE-INV	Min	0.05069	-0.38	0.7	0.0843	-4.12	-2.5166	-10.26	-6.15
426	472	SLE-INV	Max	0.55	-0.09394	1.14	1.4418	-0.3833	-0.2197	-3.27	-2.42
426	471	SLE-INV	Max	0.53	-0.18	0.82	0.6871	-0.5351	-0.4465	-3.27	-2.22
426	460	SLE-INV	Max	0.25	-0.24	0.96	-0.0422	-0.9097	-0.5259	-3.01	-2.22
426	461	SLE-INV	Max	0.27	-0.15	1.28	0.6809	-0.752	-0.2991	-3.01	-2.42
426	472	SLE-INV	Min	0.55	-0.09394	1.14	0.6627	-1.0007	-0.558	-5.92	-3.51
426	471	SLE-INV	Min	0.53	-0.18	0.82	0.2587	-1.2874	-0.9768	-5.92	-3.36
426	460	SLE-INV	Min	0.25	-0.24	0.96	-0.1533	-1.845	-1.1314	-5.73	-3.36
426	461	SLE-INV	Min	0.27	-0.15	1.28	0.2382	-1.543	-0.7126	-5.73	-3.51
426	472	SLE-INV	Max	0.74	-0.09394	1.53	2.9472	-0.5175	-0.2966	-4.41	-3.27
426	471	SLE-INV	Max	0.71	-0.18	1.1	1.3107	-0.7223	-0.6028	-4.41	-2.99
426	460	SLE-INV	Max	0.34	-0.24	1.3	-0.0403	-1.2281	-0.71	-4.06	-2.99
426	461	SLE-INV	Max	0.36	-0.15	1.73	1.3042	-1.0152	-0.4037	-4.06	-3.27
426	472	SLE-INV	Min	0.55	-0.13	1.14	0.8946	-2.6971	-1.5763	-12.68	-6.25
426	471	SLE-INV	Min	0.53	-0.25	0.82	0.3493	-3.2832	-2.5028	-12.68	-6.13
426	460	SLE-INV	Min	0.25	-0.32	0.96	-0.2528	-4.2935	-2.8048	-12.52	-6.13
426	461	SLE-INV	Min	0.27	-0.2	1.28	0.3215	-3.6687	-1.8783	-12.52	-6.25
427	473	SLE-INV	Max	0.75	0.11	1.73	1.9377	-0.1756	-0.0005407	-3.48	-2.43
427	472	SLE-INV	Max	0.72	-0.05984	1.43	1.1062	-0.4025	-0.1847	-3.48	-2.4
427	461	SLE-INV	Max	0.43	-0.12	1.57	0.5251	-0.7916	-0.3339	-3.45	-2.4
427	462	SLE-INV	Max	0.47	0.0537	1.86	1.3291	-0.5599	-0.1498	-3.45	-2.43
427	473	SLE-INV	Min	0.75	0.11	1.73	0.9229	-0.5764	-0.1518	-6.39	-3.38
427	472	SLE-INV	Min	0.72	-0.05984	1.43	0.4793	-1.0432	-0.4717	-6.39	-3.48
427	461	SLE-INV	Min	0.43	-0.12	1.57	0.1276	-1.5989	-0.7985	-6.52	-3.48
427	462	SLE-INV	Min	0.47	0.0537	1.86	0.5615	-1.1186	-0.4786	-6.52	-3.38
427	473	SLE-INV	Max	1.02	0.15	2.33	4.1368	-0.2371	-0.0007299	-4.69	-3.28
427	472	SLE-INV	Max	0.97	-0.05984	1.94	2.2878	-0.5434	-0.2493	-4.69	-3.24
427	461	SLE-INV	Max	0.59	-0.12	2.11	1.067	-1.0686	-0.507	-4.69	-3.24
427	462	SLE-INV	Max	0.63	0.07249	2.51	2.843	-0.7559	-0.2022	-4.65	-3.28
427	473	SLE-INV	Min	0.75	0.11	1.73	1.2459	-1.7278	-0.6512	-14.09	-5.85
427	472	SLE-INV	Min	0.72	-0.08078	1.43	0.647	-2.7816	-1.3532	-14.09	-6.19
427	461	SLE-INV	Min	0.43	-0.16	1.57	0.1723	-3.7636	-2.1008	-14.51	-6.19
427	462	SLE-INV	Min	0.47	0.0537	1.86	0.7581	-2.674	-1.3988	-14.51	-5.85
428	474	SLE-INV	Max	0.97	0.33	2.33	2.4575	-0.0191	0.1165	-3.91	-2.37
428	473	SLE-INV	Max	0.94	0.15	2.05	1.514	-0.212	-0.0249	-3.91	-2.42
428	462	SLE-INV	Max	0.55	0.06989	2.14	1.0777	-0.5976	-0.1254	-3.97	-2.42
428	463	SLE-INV	Max	0.59	0.25	2.42	1.9923	-0.4002	0.016	-3.97	-2.37
428	474	SLE-INV	Min	0.97	0.33	2.33	1.2042	-0.2608	0.022	-7.25	-3.24
428	473	SLE-INV	Min	0.94	0.15	2.05	0.7002	-0.6475	-0.2057	-7.25	-3.36
428	462	SLE-INV	Min	0.55	0.06989	2.14	0.4137	-1.1826	-0.4251	-7.41	-3.36
428	463	SLE-INV	Min	0.59	0.25	2.42	0.9086	-0.7816	-0.1975	-7.41	-3.24
428	474	SLE-INV	Max	1.32	0.44	3.15	5.3834	-0.0258	0.1573	-5.28	-3.2
428	473	SLE-INV	Max	1.27	0.2	2.77	3.2424	-0.2862	-0.0336	-5.28	-3.26
428	462	SLE-INV	Max	0.74	0.09435	2.89	2.3645	-0.6067	-0.1693	-5.36	-3.26
428	463	SLE-INV	Max	0.79	0.34	3.27	4.4248	-0.3403	-0.1693	-5.36	-3.2
428	474	SLE-INV	Min	0.97	0.33	2.33	1.6256	-0.9847	-0.2821	-16.4	-5.55
428	473	SLE-INV	Min	0.94	0.15	2.05	0.9453	-1.8738	-0.7678	-16.4	-5.81
428	462	SLE-INV	Min	0.55	0.06989	2.14	0.5585	-2.8026	-1.2835	-16.74	-5.81
428	463	SLE-INV	Min	0.59	0.25	2.42	1.2267	-1.8739	-0.7977	-16.74	-5.55
429	475	SLE-INV	Max	1.16	0.51	2.94	3.2595	0.1587	0.2835	-4.35	-2.17
429	474	SLE-INV	Max	1.13	0.36	2.64	2.2014	-0.0571	0.121	-4.35	-2.38
429	463	SLE-INV	Max	0.64	0.26	2.71	1.7361	-0.4223	0.0119	-4.61	-2.38
429	464	SLE-INV	Max	0.67	0.41	3.01	2.7716	-0.2041	0.1521	-4.61	-2.17
429	475	SLE-INV	Min	1.16	0.51	2.94	1.6182	0.1107	0.2612	-8.04	-2.9
429	474	SLE-INV	Min	1.13	0.36	2.64	1.0478	-0.3234	0.0341	-8.04	-3.25
429	463	SLE-INV	Min	0.64	0.26	2.71	0.7648	-0.8214	-0.2089	-8.48	-3.25
429	464	SLE-INV	Min	0.67	0.41	3.01	1.3305	-0.3761	0.0405	-8.48	-2.9
429	475	SLE-INV	Max	1.56	0.68	3.97	7.3278	0.2143	0.386	-5.87	-2.93
429	474	SLE-INV	Max	1.52	0.48	3.56	4.8924	-0.077	0.1633	-5.87	-3.21
429	463	SLE-INV	Max	0.86	0.35	3.65	3.9118	-0.5701	0.0161	-6.23	-3.21
429	464	SLE-INV	Max	0.9	0.55	4.06	6.2772	-0.2756	0.2054	-6.23	-2.33
429	475	SLE-INV	Min	1.16	0.51	2.94	2.1846	-0.0839	0.3106	-18.52	-4.91
429	474	SLE-INV	Min	1.13	0.36	2.64	1.4146	-1.1019	-0.2465	-18.52	-5.57
429	463	SLE-INV	Min	0.64	0.26	2.71	1.0325	-1.9574	-0.8322	-19.35	-5.57
429	464	SLE-INV	Min	0.67	0.41	3.01	1.7962	-0.9049	-0.273	-19.35	-4.91
430	476	SLE-INV	Max	1.29	0.62	3.55	4.1344	0.562	0.4713	-4.9	-1.81
430	475	SLE-INV	Max	1.27	0.53	3.23	2.9406	0.1097	0.3171	-4.9	-2.18
430	464	SLE-INV	Max	0.72	0.42	3.3	2.6306	-0.2104	0.1389	-5.37	-2.18
430	465	SLE-INV	Max	0.74	0.51	3.61	3.8071	0.1421	0.22	-5.37	-1.81
430	476	SLE-INV	Min	1.29	0.62	3.55	2.0807	0.3686	0.356	-9.01	-2.38
430	475	SLE-INV	Min	1.27	0.53	3.23	1.4297	0.0357	0.2749	-9.01	-2.92
430	464	SLE-INV	Min	0.72	0.42	3.3	1.2429	-0.393	0.0073	-9.69	-2.92
430	465	SLE-INV	Min	0.74	0.51	3.61	1.8936	0.0488	0.1615	-9.69	-2.38
430	476	SLE-INV	Max	1.74	0.84	4.79	9.4705	1.0401	0.7723	-6.62	-2.45
430	475	SLE-INV	Max	1.71	0.71	4.37	6.6931	0.1481	0.4345	-6.62	-2.95
430	464	SLE-INV	Max	0.97	0.56	4.46	6.0226	-0.284	0.1875	-7.25	-2.95
430	465	SLE-INV	Max	0.99	0.69	4.88	8.7376	0.3448	0.297	-7.25	-2.45
430	476	SLE-INV	Min	1.29	0.62	3.55	2.8089	0.4976	0.4806	-21.06	-3.96
430	475	SLE-INV	Min	1.27	0.53	3.23	1.93	-0.2202	0.3711	-21.06	-4.92
430	464	SLE-INV	Min	0.72	0.42	3.3	1.6779	-0.9465	-0.3629	-22.27	-4.92
430	465	SLE-INV	Min	0.74	0.51	3.61	2.5564	0.0659	0.0061	-22.27	-3.96
431	477	SLE-INV	Max	1.41	0.63	4.14	5.1831	0.986	0.4375	-5.58	-1.31
431	476	SLE-INV	Max	1.41	0.65	3.89	3.8319	0.4839	0.4411	-5.58	-1.84
431	465	SLE-INV	Max	0.79	0.52	3.95	3.7768	0.1536	0.2347	-6.25	-1.84
431	466	SLE-INV	Max	0.79	0.51	4.19	5.1181	0.6609	0.2201	-6.25	-1.31
431	477	SLE-INV	Min	1.41	0.63	4.14	2.6399	0.5648	0.3274	-10.17	-1.69
431	476	SLE-INV	Min	1.41	0.65	3.89	1.8931	0.3122	0.342	-10.17	-2.41
431	465	SLE-INV	Min	0.79	0.52	3.95	1.8622	0.0615	0.1926	-11.07	-2.41
431	466	SLE-INV	Min	0.79	0.51	4.19	2.6144	0.3118	0.189	-11.07	-1.69
431	477	SLE-INV	Max	1.9	0.85	5.58	12.0481	2.1223	0.7406	-7.53	-1.77
431	476	SLE-INV	Max	1.9	0.87	5.25	8.8789	0.9094	0.7047	-7.53	-2.48
431	465	SLE-INV	Max	1.07	0.7	5.33	8.742	0.358	0.3168	-8.43	-2.48
431	466	SLE-INV	Max	1.06	0.69	5.66	11.861				

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1

Tratto Fabriano - Matelica Nord

Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita

Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 171 di 174			
432	477	SLE-INV	Max	1.56	0.66	4.3	5.0946	0.9261	0.3873	-6.38	-1.35
432	466	SLE-INV	Max	0.87	0.52	4.36	5.1998	0.7195	0.2431	-7.27	-1.35
432	467	SLE-INV	Max	0.84	0.39	5.2	6.7294	1.1663	0.1522	-7.27	-0.65
432	478	SLE-INV	Min	1.53	0.52	5.14	3.3981	0.7434	0.2141	-11.5	-0.83
432	477	SLE-INV	Min	1.56	0.66	4.3	2.5389	0.5096	0.305	-11.5	-1.74
432	466	SLE-INV	Min	0.87	0.52	4.36	2.6393	0.3518	0.2399	-12.66	-1.74
432	467	SLE-INV	Min	0.84	0.39	5.2	3.5094	0.5807	0.1447	-12.66	-0.83
432	478	SLU-INV	Max	2.07	0.71	6.94	15.6283	3.1204	0.5097	-8.61	-0.88
432	477	SLU-INV	Max	2.11	0.89	5.8	12.0094	2.0534	0.6157	-8.61	-1.83
432	466	SLU-INV	Max	1.17	0.71	5.88	12.1256	1.7103	0.3282	-9.81	-1.83
432	467	SLU-INV	Max	1.13	0.52	7.02	15.7013	2.7993	0.2054	-9.81	-0.88
432	478	SLU-INV	Min	1.53	0.52	5.14	4.5874	1.0036	0.289	-27.43	-1.32
432	477	SLU-INV	Min	1.56	0.66	4.3	3.4275	0.6879	0.4117	-27.43	-2.83
432	466	SLU-INV	Min	0.87	0.52	4.36	3.563	0.475	0.2366	-29.33	-2.83
432	467	SLU-INV	Min	0.84	0.39	5.2	4.7377	0.784	0.1305	-29.33	-1.32
433	468	SLE-INV	Max	0.9	0.18	3.76	8.5919	1.6499	-0.0156	-8.36	0.08469
433	479	SLE-INV	Max	1.67	0.33	3.65	8.2336	1.7152	0.04	-7.28	0.08469
433	478	SLE-INV	Max	1.72	0.56	6.62	6.6685	1.3326	0.2587	-7.28	-0.7
433	467	SLE-INV	Max	0.94	0.41	6.73	7.0176	1.2701	0.1797	-8.36	-0.7
433	468	SLE-INV	Min	0.9	0.18	3.76	4.5397	0.8503	-0.039	-14.35	0.07159
433	479	SLE-INV	Min	1.67	0.33	3.65	4.233	0.9043	0.0182	-13	0.07159
433	478	SLE-INV	Min	1.72	0.56	6.62	3.3465	0.6924	0.2068	-13	-0.88
433	467	SLE-INV	Min	0.94	0.41	6.73	3.631	0.6457	0.1668	-14.35	-0.88
433	468	SLE-INV	Max	1.21	0.24	5.08	20.1595	3.9324	-0.0211	-11.29	0.12
433	479	SLU-INV	Max	2.26	0.45	4.93	19.651	4.0297	0.1001	-9.83	0.12
433	478	SLU-INV	Max	2.32	0.76	8.94	15.9358	3.1207	0.423	-9.83	-0.95
433	467	SLU-INV	Max	1.28	0.55	9.09	16.469	3.014	0.2445	-11.29	-0.95
433	468	SLU-INV	Min	0.9	0.18	3.76	6.1286	1.1478	-0.103	-33.33	0.09665
433	479	SLU-INV	Min	1.67	0.33	3.65	5.7146	1.2208	0.0245	-31.2	0.09665
433	478	SLU-INV	Min	1.72	0.56	6.62	4.5178	0.9348	0.2707	-31.2	-1.4
433	467	SLU-INV	Min	0.94	0.41	6.73	4.9019	0.8718	0.2199	-33.33	-1.4
434	503	SLE-INV	Max	5.67	1.13	3.43	3.0609	0.2147	0.1573	-1.86	0.12
434	504	SLE-INV	Max	7.73	1.55	3.43	2.3652	0.4877	-0.1174	-1.86	0.12
434	502	SLE-INV	Max	5.67	1.13	4.74	2.0148	0.7858	1.1466	-1.86	0.12
434	503	SLE-INV	Min	5.67	1.13	3.43	1.3868	0.0933	0.0728	-4.06	0.05344
434	504	SLE-INV	Min	7.73	1.55	3.43	1.065	0.22	-0.2536	-4.06	0.05344
434	502	SLE-INV	Min	5.67	1.13	4.74	0.9065	0.3584	0.5306	-4.06	0.05344
434	503	SLU-INV	Max	7.65	1.53	4.64	7.8931	0.5841	0.3952	-2.51	0.29
434	504	SLU-INV	Max	10.43	2.09	4.64	6.1328	1.2521	-0.1584	-2.51	0.29
434	502	SLU-INV	Max	7.65	1.53	6.4	5.0642	1.982	2.8938	-2.51	0.29
434	503	SLU-INV	Min	5.67	1.13	3.43	1.8722	0.1259	0.0983	-11.34	0.07215
434	504	SLU-INV	Min	7.73	1.55	3.43	1.4377	0.297	-0.6389	-11.34	0.07215
434	502	SLU-INV	Min	5.67	1.13	4.74	1.2238	0.4838	0.7163	-11.34	0.07215
435	481	SLE-INV	Max	0.44	0.18	0.68	1.2352	-0.8054	-0.0304	-3.61	-2.78
435	480	SLE-INV	Max	0.85	0.2	0.44	0.4465	-0.8323	-0.2187	-3.98	-2.2
435	471	SLE-INV	Max	0.54	0.14	0.62	0.7878	-0.4626	-0.3618	-3.25	-2.2
435	472	SLE-INV	Max	0.55	0.2	0.87	1.6867	-0.0464	-0.3786	-3.25	-2.78
435	481	SLE-INV	Min	0.44	0.18	0.68	0.6201	-2.0062	-0.2009	-6.53	-4.79
435	480	SLE-INV	Min	0.85	0.2	0.44	0.2073	-1.9296	-0.4045	-7.15	-3.82
435	471	SLE-INV	Min	0.54	0.14	0.62	0.271	-0.949	-0.849	-5.91	-3.82
435	472	SLE-INV	Min	0.55	0.2	0.87	0.7739	-0.0568	-0.8641	-5.91	-4.79
435	481	SLU-INV	Max	0.6	0.24	0.92	2.4049	-1.0874	-0.041	-4.87	-3.75
435	480	SLU-INV	Max	1.14	0.27	0.59	0.6847	-1.1237	-0.2953	-5.37	-2.97
435	471	SLU-INV	Max	0.73	0.19	0.83	1.6126	-0.6245	-0.4884	-4.38	-2.97
435	472	SLU-INV	Max	0.74	0.27	1.18	3.5378	-0.0626	-0.5112	-4.38	-3.75
435	481	SLU-INV	Min	0.44	0.18	0.68	0.8371	-5.1095	-0.8075	-14.03	-9.98
435	480	SLU-INV	Min	0.85	0.2	0.44	0.2798	-4.7408	-1.1485	-15.38	-7.83
435	471	SLU-INV	Min	0.54	0.14	0.62	0.3659	-2.278	-0.2594	-12.67	-7.83
435	472	SLU-INV	Min	0.55	0.2	0.87	1.0448	-0.2456	-2.2621	-12.67	-9.98
436	482	SLE-INV	Max	1.35	0.51	1.42	2.3609	-0.1914	-0.0113	-3.96	-2.51
436	481	SLE-INV	Max	1.32	0.35	1.04	1.4824	-0.2841	-0.1664	-3.96	-2.11
436	472	SLE-INV	Max	0.78	0.24	1.19	1.0067	-0.6588	-0.1698	-3.46	-2.11
436	473	SLE-INV	Max	0.81	0.4	1.57	1.8411	-0.5574	-0.0146	-3.46	-2.51
436	482	SLE-INV	Min	1.35	0.51	1.42	1.1861	-0.6455	-0.1981	-7.15	-3.94
436	481	SLE-INV	Min	1.32	0.35	1.04	0.7069	-0.7935	-0.4499	-7.15	-3.31
436	472	SLE-INV	Min	0.78	0.24	1.19	0.4068	-1.3845	-0.4369	-6.36	-3.31
436	473	SLE-INV	Min	0.81	0.4	1.57	0.8677	-1.2153	-0.1852	-6.36	-3.94
436	482	SLU-INV	Max	1.82	0.69	1.91	5.0567	-0.2584	-0.0152	-5.34	-3.39
436	481	SLU-INV	Max	1.78	0.47	1.4	3.117	-0.3836	-0.2246	-5.34	-2.86
436	472	SLU-INV	Max	1.05	0.33	1.61	2.1118	-0.8894	-0.2292	-4.67	-2.86
436	473	SLU-INV	Max	1.09	0.54	2.12	3.9425	-0.7525	-0.0198	-4.67	-3.39
436	482	SLU-INV	Min	1.35	0.51	1.42	1.6013	-1.9049	-0.8086	-15.72	-7.79
436	481	SLU-INV	Min	1.32	0.35	1.04	0.9544	-2.1768	-1.3572	-15.72	-6.45
436	472	SLU-INV	Min	0.78	0.24	1.19	0.5492	-3.343	-1.2749	-14.03	-6.45
436	473	SLU-INV	Min	0.81	0.4	1.57	1.1714	-3.0186	-0.7263	-14.03	-7.79
437	483	SLE-INV	Max	1.74	0.78	2.09	3.0803	-0.0161	0.3425	-3.9	-2.49
437	482	SLE-INV	Max	1.71	0.58	1.74	2.1553	-0.2123	0.04	-3.9	-2.5
437	473	SLE-INV	Max	1	0.44	1.89	1.4077	-0.6143	-0.0651	-3.92	-2.5
437	474	SLE-INV	Max	1.04	0.63	2.25	2.3031	-0.4129	0.1565	-3.92	-2.49
437	483	SLE-INV	Min	1.74	0.78	2.09	1.5391	-0.2948	0.2617	-7.09	-3.78
437	482	SLE-INV	Min	1.71	0.58	1.74	1.0379	-0.6819	-0.0788	-7.09	-3.93
437	473	SLE-INV	Min	1	0.44	1.89	0.6274	-1.3066	-0.3028	-7.28	-3.93
437	474	SLE-INV	Min	1.04	0.63	2.25	1.1178	-0.9049	0.1185	-7.28	-3.78
437	483	SLU-INV	Max	2.35	1.05	2.83	6.8258	-0.0217	0.4745	-5.27	-3.36
437	482	SLU-INV	Max	2.3	0.79	2.35	4.734	-0.2866	0.054	-5.27	-3.38
437	473	SLU-INV	Max	1.35	0.59	2.56	3.0427	-0.8293	-0.0879	-5.29	-3.38
437	474	SLU-INV	Max	1.4	0.86	3.03	5.0563	-0.5574	0.2113	-5.29	-3.36
437	483	SLU-INV	Min	1.74	0.78	2.09	2.0778	-1.102	0.3532	-15.92	-7.34
437	482	SLU-INV	Min	1.71	0.58	1.74	1.4012	-1.969	-0.5147	-15.92	-7.78
437	473	SLU-INV	Min	1	0.44	1.89	0.8469	-3.199	-1.0166	-16.47	-7.78
437	474	SLU-INV	Min	1.04	0.63	2.25	1.5091	-2.2934	-0.0352	-16.47	-7.34
438	484	SLE-INV	Max	1.89	0.96	2.73	3.6272	0.2107	0.6919	-4.08	-2.25
438	483	SLE-INV	Max	1.86	0.8	2.44	2.6265	-0.0623	0.4328	-4.08	-2.48
438	474	SLE-INV	Max	1.19	0.66	2.56	2.132	-0.4428	0.121	-4.37	-2.48
438	475	SLE-INV	Max	1.22	0.82	2.85	3.1094	-0.1664	0.288	-4.37	-2.25
438	484	SLU-INV	Min	1.89	0.96	2.73	1.8196	0.1987	0.4378	-7.51	-3.3
438	483	SLU-INV	Min	1.86	0.8	2.44	1.2806	-0.3764	0.2976	-7.51	-3.77
438	474	SLU-INV	Min	1.19	0.66	2.56	0.9957	-0.9483	0.0289	-8.1	-3.77
438	475	SLU-INV	Min	1.22	0.82	2.85	1.5282	-0.3616	0.2611	-8.1	-3.3
438	484	SLU-INV	Max	2.55	1.29	3.69	8.2047	0.2845	1.3253	-5.51	-3.04
438	483	SLU-INV	Max	2.51	1.08	3.29	5.8898	-0.0841	0.7088	-5.51	-3.35
438	474	SLU-INV	Max	1.61	0.9	3.45	4.7712	-0.5978	0.1633	-5.9	-3.35
438	475	SLU-INV	Max	1.65	1.11	3.85	7.0189	-0.2247	0.3929	-5.9	-3.04
438	484	SLU-INV	Min	1.89	0.96	2.73	2.4565	0.1063	0.591	-17.34	-6.27
438	483	SLU-INV	Min	1.86	0.8	2.44	1.7289	-1.2677	0.4018		



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS 016700	Id.doc REL	N.prog. 01	REV. A	Pag.di Pag. 172 di 174
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439	485	SLE-INV	Min	2.08	1.05	3.38	2.1157	0.3654	0.4418	-8.34	-2.74
439	484	SLE-INV	Min	2.07	0.99	3.07	1.5182	0.087	0.4032	-8.34	-3.31
439	475	SLE-INV	Min	1.33	0.84	3.15	1.3945	-0.4016	0.296	-9.06	-3.31
439	476	SLE-INV	Min	1.34	0.9	3.46	1.9892	0.0333	0.3347	-9.06	-2.74
439	485	SLE-INV	Max	2.81	1.41	4.57	9.639	0.9963	1.3172	-6.05	-2.57
439	484	SLE-INV	Max	2.8	1.34	4.14	7.0161	0.1964	1.1594	-6.05	-3.05
439	475	SLE-INV	Max	1.8	1.14	4.25	6.6242	-0.254	0.5074	-6.65	-3.05
439	476	SLE-INV	Max	1.81	1.21	4.68	9.1852	0.1	0.6662	-6.65	-2.57
439	485	SLE-INV	Min	2.08	1.05	3.38	2.8562	0.4933	0.5965	-19.73	-5.13
439	484	SLE-INV	Min	2.07	0.99	3.07	2.0496	-0.1238	0.5443	-19.73	-6.26
439	475	SLE-INV	Min	1.33	0.84	3.15	1.8826	-1.051	0.3996	-21.16	-6.26
439	476	SLE-INV	Min	1.34	0.9	3.46	2.6854	0.045	0.4518	-21.16	-5.13
440	486	SLE-INV	Max	2.26	1.02	3.97	5.1383	0.9256	0.6924	-4.91	-1.38
440	485	SLE-INV	Max	2.27	1.08	3.71	3.9046	0.4492	0.6769	-4.91	-1.93
440	476	SLE-INV	Max	1.46	0.92	3.8	3.81	0.0682	0.431	-5.61	-1.93
440	477	SLE-INV	Max	1.45	0.85	4.06	5.0345	0.5495	0.4466	-5.61	-1.38
440	486	SLE-INV	Min	2.26	1.02	3.97	2.5846	0.5311	0.4331	-9.17	-1.94
440	485	SLE-INV	Min	2.27	1.08	3.71	1.9195	0.3005	0.4395	-9.17	-2.79
440	476	SLE-INV	Min	1.46	0.92	3.8	1.8744	0.0361	0.3377	-10.23	-2.79
440	477	SLE-INV	Min	1.45	0.85	4.06	2.5435	0.2651	0.3313	-10.23	-1.94
440	486	SLE-INV	Max	3.05	1.37	5.36	12.0558	1.9943	1.4007	-6.63	-1.86
440	485	SLE-INV	Max	3.07	1.46	5	9.1027	0.8182	1.3097	-6.63	-2.61
440	476	SLE-INV	Max	1.98	1.25	5.13	8.8461	0.103	0.6756	-7.58	-2.61
440	477	SLE-INV	Max	1.96	1.15	5.49	11.7555	1.3014	0.7666	-7.58	-1.86
440	486	SLE-INV	Min	2.26	1.02	3.97	3.4892	0.717	0.5846	-22.09	-3.58
440	485	SLE-INV	Min	2.27	1.08	3.71	2.5913	0.4056	0.5933	-22.09	-5.22
440	476	SLE-INV	Min	1.46	0.92	3.8	2.5304	0.0487	0.4559	-24.16	-5.22
440	477	SLE-INV	Min	1.45	0.85	4.06	3.4337	0.3579	0.4472	-24.16	-3.58
441	487	SLE-INV	Max	2.43	0.82	4.93	6.206	1.3394	0.4738	-5.49	-0.67
441	486	SLE-INV	Max	2.47	1.06	4.12	4.8261	0.8296	0.6928	-5.49	-1.41
441	477	SLE-INV	Max	1.61	0.88	4.23	5.1087	0.5978	0.448	-6.43	-1.41
441	478	SLE-INV	Max	1.56	0.65	5.03	6.495	1.1052	0.2289	-6.43	-0.67
441	487	SLE-INV	Min	2.43	0.82	4.93	3.1137	0.7093	0.2885	-10.24	-0.93
441	486	SLE-INV	Min	2.47	1.06	4.12	2.3653	0.4584	0.4338	-10.24	-1.99
441	477	SLE-INV	Min	1.61	0.88	4.23	2.5455	0.2943	0.3317	-11.58	-1.99
441	478	SLE-INV	Min	1.56	0.65	5.03	3.3075	0.5389	0.1864	-11.58	-0.93
441	487	SLE-INV	Max	3.27	1.11	6.65	14.8358	3.1009	0.9876	-7.41	-0.91
441	486	SLE-INV	Max	3.34	1.43	5.57	11.4913	1.8338	1.4037	-7.41	-1.91
441	477	SLE-INV	Max	2.17	1.19	5.7	12.0441	1.4067	0.7673	-8.67	-1.91
441	478	SLE-INV	Max	2.1	0.87	6.79	15.3764	2.6809	0.3512	-8.67	-0.67
441	487	SLE-INV	Min	2.43	0.82	4.93	4.2035	0.9575	0.3895	-25.08	-1.65
441	486	SLE-INV	Min	2.47	1.06	4.12	3.1932	0.6189	0.5856	-25.08	-3.64
441	477	SLE-INV	Min	1.61	0.88	4.23	3.4364	0.3973	0.4477	-27.59	-3.64
441	478	SLE-INV	Min	1.56	0.65	5.03	4.4651	0.7275	0.2517	-27.59	-1.65
442	479	SLE-INV	Max	1.67	0.33	3.65	8.1289	1.5311	-0.0093	-7.32	0.12
442	488	SLE-INV	Max	2.62	0.52	3.5	7.5465	1.6039	0.0291	-6.19	0.12
442	487	SLE-INV	Max	2.69	0.87	6.36	6.1449	1.2715	0.38	-6.19	-0.73
442	478	SLE-INV	Max	1.74	0.68	6.51	6.7107	1.2039	0.3237	-7.32	-0.73
442	479	SLE-INV	Min	1.67	0.33	3.65	4.1594	0.7644	-0.0272	-13.06	0.08372
442	488	SLE-INV	Min	2.62	0.52	3.5	3.7617	0.8198	0.012	-11.51	0.08372
442	487	SLE-INV	Min	2.69	0.87	6.36	2.9982	0.643	0.2485	-11.51	-0.99
442	478	SLE-INV	Min	1.74	0.68	6.51	3.3727	0.5951	0.2272	-13.06	-0.99
442	479	SLE-INV	Max	2.26	0.45	4.93	19.4586	3.7199	-0.0126	-9.88	0.21
442	488	SLE-INV	Max	3.53	0.71	4.73	18.3602	3.8439	0.0766	-8.35	0.21
442	487	SLE-INV	Max	3.63	1.18	8.59	14.9246	3.0268	0.7467	-8.35	-0.98
442	478	SLE-INV	Max	2.35	0.92	8.79	16.0225	2.9019	0.5935	-9.88	-0.98
442	479	SLE-INV	Min	1.67	0.33	3.65	5.6151	1.0319	-0.0766	-31.32	0.11
442	488	SLE-INV	Min	2.62	0.52	3.5	5.0783	1.1068	0.0162	-26.56	0.11
442	487	SLE-INV	Min	2.69	0.87	6.36	4.0475	0.868	0.3355	-28.56	-1.77
442	478	SLE-INV	Min	1.74	0.68	6.51	4.5532	0.8034	0.3067	-31.32	-1.77
443	490	SLE-INV	Max	2.03	0.95	1.72	2.8371	-0.4608	0.7757	-4.12	-2.93
443	489	SLE-INV	Max	2.55	0.91	1.42	1.9288	-0.5331	0.5225	-4.36	-2.56
443	482	SLE-INV	Max	1.68	0.73	1.53	2.2547	-0.1812	0.1359	-3.89	-2.56
443	483	SLE-INV	Max	1.71	0.88	1.86	3.3043	0.5625	0.0915	-3.89	-2.93
443	490	SLE-INV	Min	2.03	0.95	1.72	1.4623	-1.3473	0.4782	-7.52	-5.19
443	489	SLE-INV	Min	2.55	0.91	1.42	0.9956	-1.3827	0.2704	-7.96	-4.5
443	482	SLE-INV	Min	1.68	0.73	1.53	1.0486	-0.4267	0.0629	-7.08	-4.5
443	483	SLE-INV	Min	1.71	0.88	1.86	1.6385	0.2713	0.022	-7.08	-5.19
443	490	SLE-INV	Max	2.75	1.28	2.32	6.2304	-0.6221	1.4775	-5.57	-3.96
443	489	SLE-INV	Max	3.44	1.22	1.92	4.1409	-0.7197	0.9641	-5.88	-3.46
443	482	SLE-INV	Max	2.27	0.99	2.07	5.0376	-0.2446	0.1834	-5.25	-3.46
443	483	SLE-INV	Max	2.3	1.19	2.52	7.3871	1.2101	0.1235	-5.25	-3.96
443	490	SLE-INV	Min	2.03	0.95	1.72	1.9741	-3.6895	0.6455	-16.98	-11.42
443	489	SLE-INV	Min	2.55	0.91	1.42	1.344	-3.6187	0.365	-18.03	-9.76
443	482	SLE-INV	Min	1.68	0.73	1.53	1.4156	-1.1484	-0.2285	-15.93	-9.76
443	483	SLE-INV	Min	1.71	0.88	1.86	2.2119	0.3662	-0.2689	-15.93	-11.42
444	491	SLE-INV	Max	3.07	1.36	2.51	3.9069	0.1417	0.6927	-4.21	-2.39
444	490	SLE-INV	Max	3.02	1.13	2.09	2.9192	0.0277	0.5065	-4.21	-2.29
444	483	SLE-INV	Max	1.88	0.9	2.2	2.5354	-0.3507	0.47	-4.08	-2.29
444	484	SLE-INV	Max	1.92	1.13	2.63	3.4825	-0.2288	0.6562	-4.08	-2.39
444	491	SLE-INV	Min	3.07	1.36	2.51	1.9819	0.0409	0.4358	-7.76	-3.91
444	490	SLE-INV	Min	3.02	1.13	2.09	1.4487	-0.1769	0.3282	-7.76	-3.71
444	483	SLE-INV	Min	1.88	0.9	2.2	1.2189	-0.797	0.3143	-7.5	-3.71
444	484	SLE-INV	Min	1.92	1.13	2.63	1.7358	-0.5594	0.4219	-7.5	-3.91
444	491	SLE-INV	Max	4.14	1.84	3.39	8.8931	0.1913	1.3199	-5.68	-3.23
444	490	SLE-INV	Max	4.08	1.53	2.82	6.6024	0.0373	0.8672	-5.68	-3.09
444	483	SLE-INV	Max	2.54	1.22	2.97	5.7106	-0.4734	0.7923	-5.5	-3.09
444	484	SLE-INV	Max	2.6	1.53	3.55	7.8967	-0.3089	1.245	-5.5	-3.23
444	491	SLE-INV	Min	3.07	1.36	2.51	2.6755	-0.2634	0.5883	-17.99	-8.32
444	490	SLE-INV	Min	3.02	1.13	2.09	1.9558	-0.7558	0.443	-17.99	-7.79
444	483	SLE-INV	Min	1.88	0.9	2.2	1.6455	-2.0703	0.4243	-17.33	-7.79
444	484	SLE-INV	Min	1.92	1.13	2.63	2.3433	-1.527	0.5696	-17.33	-8.32
445	492	SLE-INV	Max	3.23	1.52	3.16	4.5311	0.445	1.1043	-4.07	-2.06
445	491	SLE-INV	Max	3.21	1.39	2.82	3.5075	0.0824	0.8359	-4.07	-2.4
445	484	SLE-INV	Max	2.11	1.17	2.96	2.9958	-0.2757	0.5152	-4.51	-2.4
445	485	SLE-INV	Max	2.14	1.3	3.3	3.998	-0.0336	0.7836	-4.51	-2.06
445	492	SLE-INV	Min	3.23	1.52	3.16	2.2692	0.3213	0.6239	-7.58	-3.28
445	491	SLE-INV	Min	3.21	1.39	2.82	1.7223	-0.0564	0.4989	-7.58	-3.93
445	484	SLE-INV	Min	2.11	1.17	2.96	1.4644	-0.6394	0.36	-8.4	-3.93
445	485	SLE-INV	Min	2.14	1.3	3.3	2.0055	-0.1272	0.485	-8.4	-3.28
445	492	SLE-INV	Max	4.37	2.06	4.26	10.5446	0.7572	2.3803	-5.5	-2.77
445	491	SLE-INV	Max	4.33	1.88	3.8	8.1125	0.1112	1.6821	-5.5	-3.24
445	484	SLE-INV	Max	2.85	1.58	4	6.8408	-0.3722	0.8878	-6.09	-3.24
445	485	SLE-INV	Max	2.88	1.76	4.46	9.2107	-0.0454	1.586	-6.09	-2.77
445	492	SLE-INV	Min	3.23	1.52	3.16	3.0635	0.4338	0.8423	-18.01	-6.89
445	491	SLE-INV	Min	3.21	1.39	2.82	2.3251	-0.4606	0.6735	-18.01	-8.36
445	484	SLE-INV	Min								

2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera	Tratto	Settore	CEE	WBS	Id.doc.	N.progr.	REV.	Pag.di Pag.			
L0703	211	E	16	016700	REL	01	A	173 di 174			
446	486	SLE-INV	Max	2.3	1.23	3.83	4.9618	0.4918	0.6433	-4.96	-1.46
446	493	SLE-INV	Min	3.31	1.43	3.72	2.4531	0.5257	0.5938	-7.94	-2.25
446	492	SLE-INV	Min	3.33	1.54	3.51	1.8747	0.2344	0.6471	-7.94	-3.29
446	485	SLE-INV	Min	2.33	1.34	3.62	1.8979	-0.1454	0.4628	-9.25	-3.29
446	486	SLE-INV	Min	2.3	1.23	3.83	2.4792	0.2432	0.4095	-9.25	-2.25
446	493	SLU-INV	Max	4.46	1.93	5.03	11.6814	2.0479	2.4236	-5.66	-1.97
446	492	SLU-INV	Max	4.49	2.08	4.74	9.0229	0.4507	2.5524	-5.66	-2.79
446	485	SLU-INV	Max	3.14	1.81	4.89	9.0493	-0.0636	1.4177	-6.69	-2.79
446	486	SLU-INV	Max	3.11	1.66	5.18	11.6781	1.1351	1.2888	-6.69	-1.97
446	493	SLU-INV	Min	3.31	1.43	3.72	3.3117	0.7097	0.8016	-19.42	-4.61
446	492	SLU-INV	Min	3.33	1.54	3.51	2.5308	0.3164	0.8736	-19.42	-6.89
446	485	SLU-INV	Min	2.33	1.34	3.62	2.5621	-0.478	0.6248	-22.29	-6.89
446	486	SLU-INV	Min	2.3	1.23	3.83	3.3469	0.3283	0.5528	-22.29	-4.61
447	494	SLE-INV	Max	3.56	1.15	4.68	5.5546	1.2097	0.6038	-4.55	-0.72
447	493	SLE-INV	Max	3.62	1.49	3.88	4.3467	0.7768	0.9644	-4.55	-1.5
447	486	SLE-INV	Max	2.52	1.27	3.99	4.838	0.507	0.7633	-5.54	-1.5
447	487	SLE-INV	Max	2.45	0.93	4.79	6.0494	0.9389	0.4027	-5.54	-0.72
447	494	SLE-INV	Min	3.56	1.15	4.68	2.7363	0.6296	0.3371	-8.77	-1.08
447	493	SLE-INV	Min	3.62	1.49	3.88	2.1018	0.4259	0.5409	-8.77	-2.3
447	486	SLE-INV	Min	2.52	1.27	3.99	2.3708	0.251	0.4631	-10.32	-2.3
447	487	SLE-INV	Min	2.45	0.93	4.79	3.015	0.4504	0.2592	-10.32	-1.08
447	494	SLU-INV	Max	4.8	1.55	6.31	13.4428	2.8396	1.3479	-6.15	-0.97
447	493	SLU-INV	Max	4.89	2.01	5.23	10.4403	1.7284	2.1292	-6.15	-2.02
447	486	SLU-INV	Max	3.4	1.71	5.39	11.5216	1.1751	1.585	-7.47	-2.02
447	487	SLU-INV	Max	3.3	1.25	6.47	14.5123	2.2936	0.8038	-7.47	-0.97
447	494	SLU-INV	Min	3.56	1.15	4.68	3.694	0.85	0.4551	-22.04	-2.17
447	493	SLU-INV	Min	3.62	1.49	3.88	2.8374	0.575	0.7302	-22.04	-4.7
447	486	SLU-INV	Min	2.52	1.27	3.99	3.2006	0.3388	0.6251	-25.24	-4.7
447	487	SLU-INV	Min	2.45	0.93	4.79	4.0703	0.608	0.35	-25.24	-2.17
448	488	SLE-INV	Max	2.62	0.52	3.5	7.4167	1.3562	-0.019	-6.23	0.16
448	495	SLE-INV	Max	3.77	0.75	3.28	6.5736	1.4418	0.0523	-5.01	0.16
448	494	SLE-INV	Max	3.86	1.21	6	5.3665	1.1057	0.5552	-5.01	-0.77
448	487	SLE-INV	Max	2.71	0.98	6.22	6.1771	1.0308	0.4545	-6.23	-0.77
448	488	SLE-INV	Min	2.62	0.52	3.5	3.6783	0.6563	-0.0485	-11.58	0.09848
448	495	SLE-INV	Min	3.77	0.75	3.28	3.177	0.7148	0.0222	-9.74	0.09848
448	494	SLE-INV	Min	3.86	1.21	6	2.5454	0.5461	0.3196	-9.74	-1.16
448	487	SLE-INV	Min	2.71	0.98	6.22	3.0196	0.4966	0.2784	-11.58	-1.16
448	488	SLE-INV	Max	3.53	0.71	4.73	18.096	3.3554	-0.0257	-8.41	0.33
448	495	SLU-INV	Max	5.09	1.02	4.43	16.2988	3.5235	0.1368	-6.77	0.33
448	494	SLU-INV	Max	5.21	1.64	8.1	13.2424	2.6702	1.2132	-6.77	-1.04
448	487	SLU-INV	Max	3.66	1.32	8.4	14.9894	2.5183	0.9455	-8.41	-1.04
448	488	SLU-INV	Min	2.62	0.52	3.5	4.9657	0.8859	-0.1309	-2.7	0.13
448	495	SLU-INV	Min	3.77	0.75	3.28	4.289	0.965	0.0299	-25	0.13
448	494	SLU-INV	Min	3.86	1.21	6	3.4363	0.7373	0.4315	-25	-2.33
448	487	SLU-INV	Min	2.71	0.98	6.22	4.0765	0.6704	0.3759	-28.7	-2.33
449	497	SLE-INV	Max	4.06	1.78	2.98	4.0732	-0.1217	1.5085	-4.06	-2.6
449	496	SLE-INV	Max	4.62	1.74	2.64	3.1685	-0.2257	1.4318	-4.07	-2.59
449	491	SLE-INV	Max	3.18	1.45	2.63	3.5892	0.0961	0.9793	-4.06	-2.59
449	492	SLE-INV	Max	3.22	1.61	3.01	4.7086	1.0642	0.8012	-4.06	-2.6
449	497	SLE-INV	Min	4.06	1.78	2.98	2.0537	-0.598	0.8102	-7.64	-4.78
449	496	SLE-INV	Min	4.62	1.74	2.64	1.6059	-0.7401	0.724	-7.71	-4.68
449	491	SLE-INV	Min	3.18	1.45	2.63	1.7299	0.0784	0.5923	-7.58	-4.68
449	492	SLE-INV	Min	3.22	1.61	3.01	2.3455	0.5078	0.4644	-7.58	-4.78
449	497	SLU-INV	Max	5.48	2.4	4.02	9.5002	-0.1643	3.4032	-5.49	-3.51
449	496	SLU-INV	Max	6.23	2.35	3.56	7.2941	-0.3047	3.1901	-5.49	-3.5
449	491	SLU-INV	Max	4.29	1.96	3.56	8.3649	0.1323	1.9946	-5.48	-3.5
449	492	SLU-INV	Max	4.35	2.17	4.07	11.6083	2.5015	1.5652	-5.48	-3.51
449	497	SLU-INV	Min	4.06	1.78	2.98	2.7725	-1.8699	0.0938	-19.3	-11.2
449	496	SLU-INV	Min	4.62	1.74	2.64	2.168	-2.1255	0.9774	-18.58	-10.75
449	491	SLU-INV	Min	3.18	1.45	2.63	2.3354	0.0836	0.7996	-18.02	-10.75
449	492	SLU-INV	Min	3.22	1.61	3.01	3.1664	0.6855	0.627	-18.02	-11.2
450	498	SLE-INV	Max	4.98	1.98	3.59	4.7333	0.6631	1.2317	-3.73	-1.67
450	497	SLE-INV	Max	4.98	1.95	3.27	3.7555	0.3405	1.3082	-3.73	-2.06
450	492	SLE-INV	Max	3.35	1.62	3.33	3.7834	-0.0528	1.1634	-4.22	-2.06
450	493	SLE-INV	Max	3.35	1.66	3.65	4.7327	0.1574	1.0869	-4.22	-1.67
450	498	SLE-INV	Min	4.98	1.98	3.59	2.3313	0.3926	0.6454	-7.22	-2.9
450	497	SLE-INV	Min	4.98	1.95	3.27	1.8225	0.2481	0.6948	-7.22	-3.5
450	492	SLE-INV	Min	3.35	1.62	3.33	1.8429	-0.1795	0.6458	-7.98	-3.5
450	493	SLE-INV	Min	3.35	1.66	3.65	2.3417	0.0969	0.5964	-7.98	-2.9
450	498	SLU-INV	Max	6.73	2.68	4.84	11.3634	1.4199	2.843	-5.04	-2.26
450	497	SLU-INV	Max	6.72	2.63	4.41	8.952	0.5857	2.9384	-5.04	-2.77
450	492	SLU-INV	Max	4.52	2.19	4.49	8.9022	-0.0713	2.5379	-5.69	-2.77
450	493	SLU-INV	Max	4.53	2.24	4.92	11.2353	0.2691	2.4426	-5.69	-2.26
450	498	SLU-INV	Min	4.98	1.98	3.59	3.1473	0.53	0.8713	-17.92	-6.8
450	497	SLU-INV	Min	4.98	1.95	3.27	2.4603	0.335	0.938	-17.92	-7.94
450	492	SLU-INV	Min	3.35	1.62	3.33	2.488	-0.6042	0.8718	-19.51	-7.94
450	493	SLU-INV	Min	3.35	1.66	3.65	3.1612	0.1308	0.8051	-19.51	-6.68
451	499	SLE-INV	Max	4.82	1.55	4.33	4.8448	1.0263	0.9918	-3.51	-0.82
451	498	SLE-INV	Max	4.9	1.97	3.65	3.8469	0.4538	1.357	-3.51	-1.7
451	493	SLE-INV	Max	3.67	1.72	3.8	4.328	0.1084	0.9661	-4.61	-1.7
451	494	SLE-INV	Max	3.59	1.3	4.47	5.3333	0.6782	0.6009	-4.61	-0.82
451	499	SLE-INV	Min	4.82	1.55	4.33	2.3405	0.5293	0.5005	-6.92	-1.39
451	498	SLE-INV	Min	4.9	1.97	3.65	1.8299	0.2699	0.7036	-6.92	-2.94
451	493	SLE-INV	Min	3.67	1.72	3.8	2.0936	0.0697	0.5405	-8.88	-2.94
451	494	SLE-INV	Min	3.59	1.3	4.47	2.6124	0.3256	0.3373	-8.88	-1.39
451	499	SLU-INV	Max	6.51	2.09	5.84	11.8843	2.4385	2.3668	-4.74	-1.11
451	498	SLU-INV	Max	6.62	2.66	4.93	9.3505	0.9552	3.162	-4.74	-2.29
451	493	SLU-INV	Max	4.95	2.33	5.13	10.3953	0.1632	2.1339	-6.23	-2.29
451	494	SLU-INV	Max	4.84	1.76	6.04	12.9359	1.6453	1.3387	-6.23	-1.11
451	499	SLU-INV	Min	4.82	1.55	4.33	3.1596	0.7146	0.6756	-17.73	-3.14
451	498	SLU-INV	Min	4.9	1.97	3.65	2.4704	0.3644	0.9499	-17.73	-6.76
451	493	SLU-INV	Min	3.67	1.72	3.8	2.8264	0.0941	0.7296	-22.3	-6.76
451	494	SLU-INV	Min	3.59	1.3	4.47	3.5268	0.4396	0.4554	-22.3	-3.14
452	495	SLE-INV	Max	3.77	0.75	3.28	6.4036	1.0962	-0.0382	-5.06	0.23
452	500	SLE-INV	Max	5.12	1.02	3.05	5.0731	1.1992	0.9885	-3.68	0.23
452	499	SLE-INV	Max	5.25	1.63	5.57	4.0961	0.8296	0.8941	-3.68	-0.87
452	494	SLE-INV	Max	3.89	1.36	5.8	5.3937	0.7372	0.701	-5.06	-0.87
452	495	SLE-INV	Min	3.77	0.75	3.28	3.078	0.514	-0.0946	-9.83	0.13
452	500	SLE-INV	Min	5.12	1.02	3.05	2.3774	0.577	0.0409	-7.49	0.13
452	499	SLE-INV	Min	5.25	1.63	5.57	1.8873	0.4052	0.4591	-7.49	-1.45
452	494	SLE-INV	Min	3.89	1.36	5.8	2.565	0.3496	0.38	-9.83	-1.45
452	495	SLU-INV	Max	5.09	1.02	4.43	15.9184	2.7599	-0.0516	-6.84	0.52
452	500	SLU-INV	Max	6.92	1.38	4.12	12.8269	2.9891	0.2603	-4.97	0.52
452	499	SLU-INV	Max	7.08	2.21	7.52	10.27	2.0213	2.1122	-4.97	-1.17
452	494	SLU-INV	Max	5.25	1.84	7.83	13.2985	1.8122	1.599	-6.84	-1.17



2.1.1 PEDEMONTANA DELLE MARCHE- Lotto funzionale del Sub lotto 2.1
Tratto Fabriano - Matelica Nord
Tombino Ø1500 Pr. 3+979 in destra su viabilità interferita
Relazione di calcolo

Opera L0703	Tratto 211	Settore E	CEE 16	WBS O16700	Id.doc. REL	N.progr. 01	REV. A	Pag.di Pag. 174 di 174
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453	498	SLE-INV	Max	4.95	2.14	3.55	3.9082	0.3054	1.3536	-3.51	-2.08
453	499	SLE-INV	Max	4.96	1.96	4.21	4.8937	1.1692	0.9074	-3.51	-1.37
453	502	SLE-INV	Min	5.84	2.14	4.26	1.8431	0.2209	0.6553	-6.18	-2.75
453	501	SLE-INV	Min	6.84	2.52	3.58	1.4963	-0.1869	0.9228	-5.41	-3.97
453	498	SLE-INV	Min	4.95	2.14	3.55	1.8399	0.1551	0.7189	-6.95	-3.97
453	499	SLE-INV	Min	4.96	1.96	4.21	2.3544	0.5183	0.4519	-6.95	-2.75
453	502	SLU-INV	Max	7.89	2.89	5.75	9.6617	0.4781	3.469	-4.14	-1.85
453	501	SLU-INV	Max	9.24	3.4	4.83	7.6483	-0.0099	4.6233	-3.54	-2.81
453	498	SLU-INV	Max	6.69	2.89	4.79	9.5391	0.6819	3.1328	-4.74	-2.81
453	499	SLU-INV	Max	6.7	2.65	5.68	12.0357	2.975	2.1538	-4.74	-1.85
453	502	SLU-INV	Min	5.84	2.14	4.26	2.4881	0.2982	0.8846	-16.06	-7.04
453	501	SLU-INV	Min	6.84	2.52	3.58	2.02	-0.6799	1.2458	-14.3	-9.83
453	498	SLU-INV	Min	4.95	2.14	3.55	2.4839	0.2094	0.9705	-17.82	-9.83
453	499	SLU-INV	Min	4.96	1.96	4.21	3.1784	0.6997	0.6101	-17.82	-7.04
454	500	SLE-INV	Max	5.12	1.02	3.05	4.8375	0.6997	-0.0358	-3.74	0.33
454	503	SLE-INV	Max	6.36	1.27	2.57	2.8543	0.8386	0.1024	-1.96	0.33
454	502	SLE-INV	Max	6.56	2.31	4.91	2.1807	0.5253	1.2961	-1.96	-1.11
454	499	SLE-INV	Max	5.33	2.06	5.4	4.1443	0.3921	1.0936	-3.74	-1.11
454	500	SLE-INV	Min	5.12	1.02	3.05	2.2516	0.3166	-0.1001	-7.6	0.17
454	503	SLE-INV	Min	6.36	1.27	2.57	1.3011	0.3939	0.0372	-4.31	0.17
454	502	SLE-INV	Min	6.56	2.31	4.91	0.9798	0.2641	0.6096	-4.31	-2.03
454	499	SLE-INV	Min	5.33	2.06	5.4	1.9181	0.1904	0.5367	-7.6	-2.03
454	500	SLU-INV	Max	6.92	1.38	4.12	12.2533	1.7886	-0.0483	-5.05	0.82
454	503	SLU-INV	Max	8.58	1.72	3.46	7.3619	2.1344	0.2916	-2.65	0.82
454	502	SLU-INV	Max	8.86	3.12	6.63	5.5359	1.263	3.2379	-2.65	-1.5
454	499	SLU-INV	Max	7.2	2.78	7.29	10.385	0.9288	2.6598	-5.05	-1.5
454	500	SLU-INV	Min	5.12	1.02	3.05	3.0396	0.4274	-0.2866	-20.2	0.22
454	503	SLU-INV	Min	6.36	1.27	2.57	1.7565	0.5318	0.0502	-11.99	0.22
454	502	SLU-INV	Min	6.56	2.31	4.91	1.3227	0.3565	0.823	-11.99	-5.07
454	499	SLU-INV	Min	5.33	2.06	5.4	2.5894	0.257	0.7246	-20.2	-5.07