


# PONTE SULLO STRETTO DI MESSINA



## PROGETTO DEFINITIVO

### EUROLINK S.C.p.A.

IMPREGILO S.p.A. (MANDATARIA)  
 SOCIETÀ ITALIANA PER CONDOTTE D'ACQUA S.p.A. (MANDANTE)  
 COOPERATIVA MURATORI E CEMENTISTI - C.M.C. DI RAVENNA SOC. COOP. A.R.L. (MANDANTE)  
 SACYR S.A.U. (MANDANTE)  
 ISHIKAWAJIMA - HARIMA HEAVY INDUSTRIES CO. LTD (MANDANTE)  
 A.C.I. S.C.P.A. - CONSORZIO STABILE (MANDANTE)

<p><b>IL PROGETTISTA</b></p> <p>Dott. Ing. E. Pagani                  Ordine Ingegneri Milano                  n° 15408</p> 	<p><b>IL CONTRAENTE GENERALE</b></p> <p>Project Manager                  (Ing. P.P. Marcheselli)</p>	<p><b>STRETTO DI MESSINA</b>                  Direttore Generale e                  RUP Validazione                  (Ing. G. Fiammenghi)</p>	<p><b>STRETTO DI MESSINA</b>                  Amministratore Delegato                  (Dott. P. Ciucci)</p>
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<p><i>Unità Funzionale</i> OPERA DI ATTRAVERSAMENTO</p> <p><i>Tipo di sistema</i> CANTIERI</p> <p><i>Raggruppamento di opere/attività</i> ITINERARI</p> <p><i>Opera - tratto d'opera - parte d'opera</i> NUOVI ITINERARI – NI.31.</p> <p><i>Titolo del documento</i> P-CN1 – QUADERNO DELLE SEZIONI PCN1.C</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">CZ0121_F0</div>
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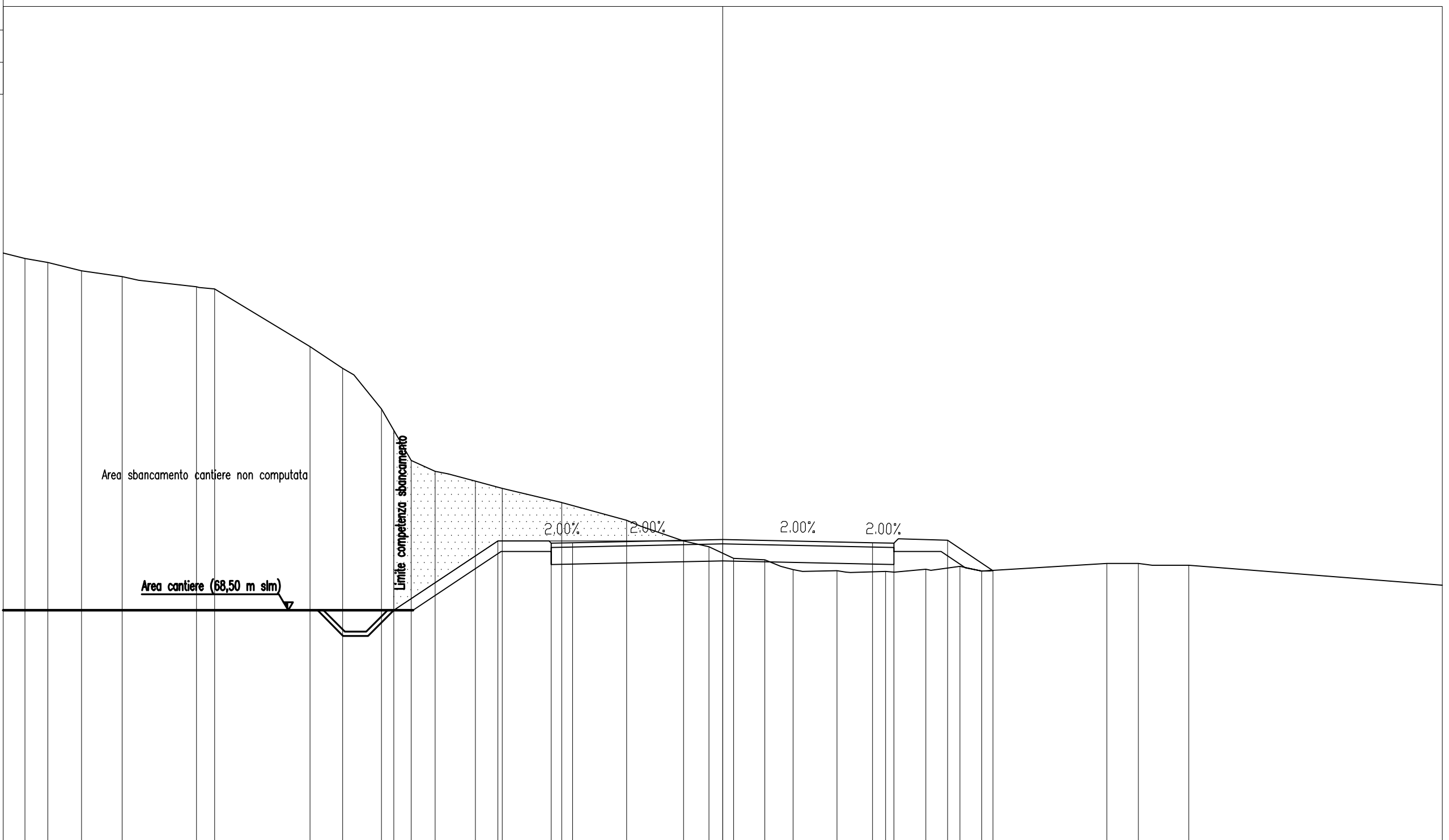
CODICE	<span style="border: 1px solid black; padding: 2px;">C</span> <span style="border: 1px solid black; padding: 2px;">G</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">P</span> <span style="border: 1px solid black; padding: 2px;">W</span> <span style="border: 1px solid black; padding: 2px;">A</span> <span style="border: 1px solid black; padding: 2px;">D</span> <span style="border: 1px solid black; padding: 2px;">P</span> <span style="border: 1px solid black; padding: 2px;">C</span> <span style="border: 1px solid black; padding: 2px;">Z</span> <span style="border: 1px solid black; padding: 2px;">C</span> <span style="border: 1px solid black; padding: 2px;">2</span> <span style="border: 1px solid black; padding: 2px;">N</span> <span style="border: 1px solid black; padding: 2px;">I</span> <span style="border: 1px solid black; padding: 2px;">3</span> <span style="border: 1px solid black; padding: 2px;">1</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">0</span> <span style="border: 1px solid black; padding: 2px;">3</span> <span style="border: 1px solid black; padding: 2px;">F</span> <span style="border: 1px solid black; padding: 2px;">0</span>
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REV	DATA	DESCRIZIONE	REDATTO	VERIFICATO	APPROVATO
F0	20/06/2011	EMISSIONE FINALE	PUGLIESE	FARINA	PAGANI



PROFILO P-CN1.c  
 SEZIONE 2.PCN1.C  
 PROGRESSIVA 20.00

Sbancamento  
 A1 8.92 mq.  
 Rilevato  
 B1 1.09 mq.  
 Vegetale  
 D1 0.63 mq.  
 D2 0.97 mq.  
 Totale: 1.60 mq.  
 Fondazione  
 E1 3.20 mq.  
 Usura  
 a1 8.00 ml.

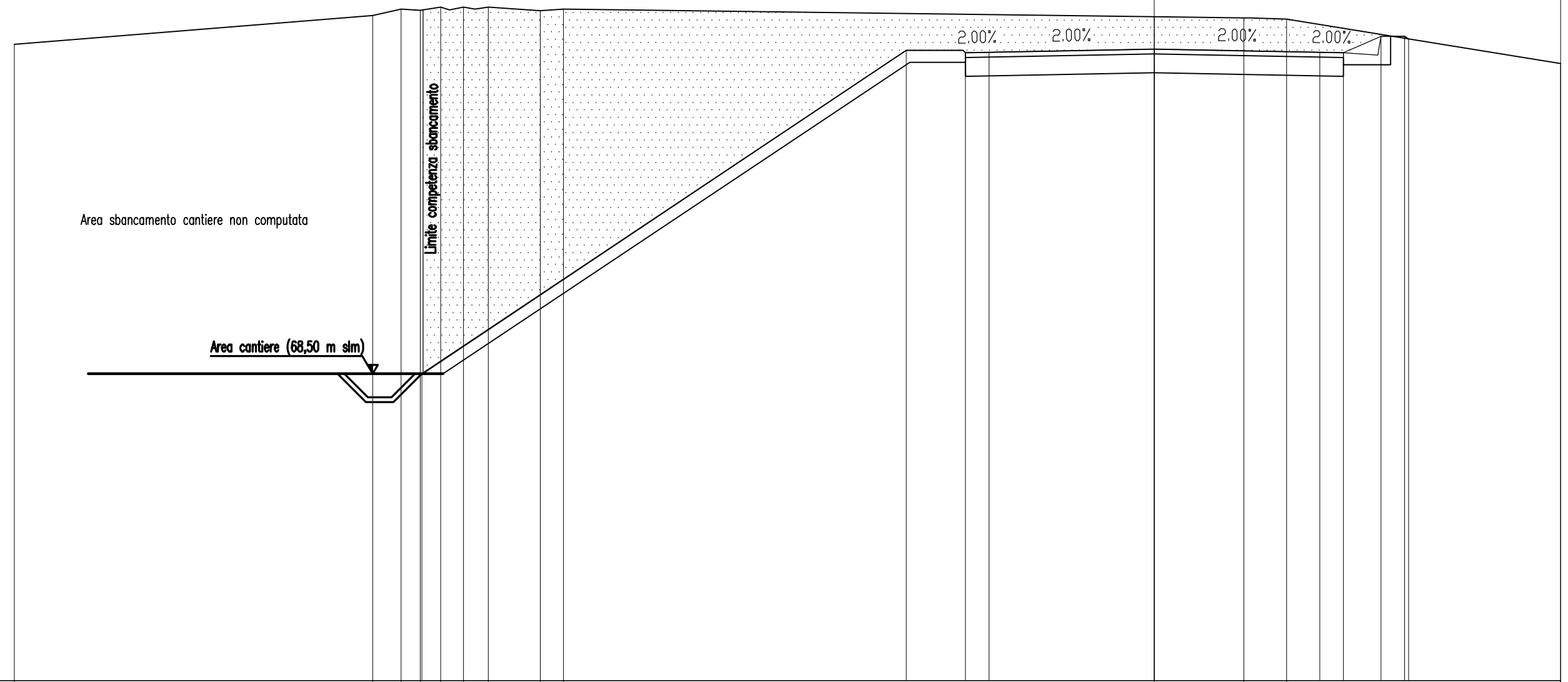


PROGRESSIVE TERRENO	-16.29	-15.76	-14.97	-14.02	-12.28	-11.86	-9.63	-8.87	-7.96	-7.27	-6.71	-5.77	-5.14	-3.76	-2.24	-0.91	-0.32	0.26	0.98	1.65	2.67	3.80	4.74	5.54	6.05	8.97	9.71	10.89	
PARZIALI TERRENO	1.45	0.53	0.79	0.95	1.74	0.42	2.23	0.76	0.91	0.69	0.56	0.94	0.63	1.38	1.52	1.33	0.59	0.58	0.72	0.67	1.02	1.13	0.94	0.80	0.51	2.92	0.74	1.18	6.99
QUOTE TERRENO	76.72	76.62	76.43	76.29	76.05	76.00	74.65	74.15	73.20	72.00	71.74	71.52	71.34	71.01	70.60	70.12	69.98	69.71	69.68	69.44	69.42	69.41	69.46	69.52	69.41	69.59	69.60	69.55	
PROGRESSIVE PROGETTO									-7.68				-5.25	-4.00	-3.50		0.00					3.50	4.00	5.25	6.31				
PARZIALI PROGETTO											2.43		1.25	0.50	3.50			3.50				0.50	1.25	1.06					
QUOTE PROGETTO									68.50			70.12	70.07	70.08		70.15						70.08	70.07	70.13	69.43				



PROFILO P-CN1.c  
 SEZIONE 4.PCN1.C  
 PROGRESSIVA 60.00

Sbancamento  
 A1 126.50 mq.  
 Vegetale  
 D1 3.35 mq.  
 Fondazione  
 E1 3.20 mq.  
 Usura  
 a1 8.00 ml.



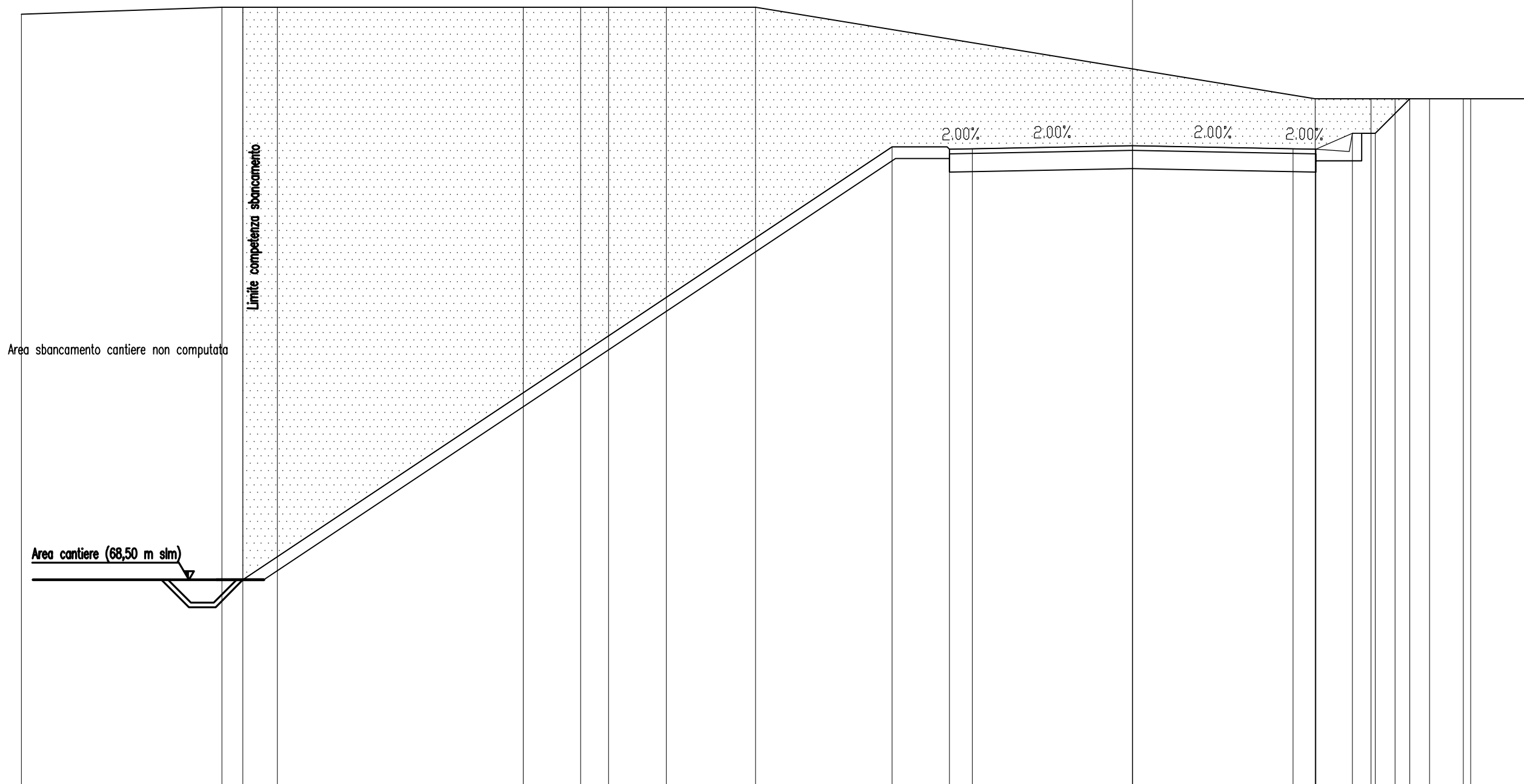
PROGRESSIVE TERRENO	-24.14	-16.55	-15.05	-15.54	-15.11	-14.63	-14.10	-13.00	-12.50	0.00	1.90	2.80	8.60					
PARZIALI TERRENO	7.59	0.60	0.41	0.43	0.48	0.53	1.10	0.50	12.50	1.90	0.90	5.80						
QUOTE TERRENO	75.47	76.08	76.21	76.19	76.26	76.25	76.26	76.18	76.21	76.06	76.03	76.00	75.06					
PROGRESSIVE PROGETTO			-15.51							-5.25	-4.00	-3.50	0.00	3.50	4.00	4.80	5.30	5.39
PARZIALI PROGETTO	10.26									1.25	0.50	3.50	3.50	0.50	0.80	0.50	0.09	
QUOTE PROGETTO			68.50							75.34	75.29	75.30	75.37	75.30	75.29	75.64	75.64	75.58

PROFILO P-CN1.c

SEZIONE 5.PCN1.C

PROGRESSIVA 80.00

Sbancamento  
 A1 127.61 mq.  
 Vegetale  
 D1 4.52 mq.  
 Fondazione  
 E1 3.20 mq.  
 Usura  
 a1 8.00 ml.



PROGRESSIVE TERRENO	-21.26	-19.88	-18.68	-13.30	-12.08	-11.44	-10.18	-8.23				3.99	5.21	5.73	6.49	7.22	7.38		
PARZIALI TERRENO	4.38	1.20	5.38	1.25	0.61	1.26	1.95			12.22		1.22	0.52	0.76	0.73		1.38		
QUOTE TERRENO	80.85	81.00	81.00	81.00	81.00	81.00	81.00	81.00				79.00	79.00	79.00	79.00	79.00	79.00		
PROGRESSIVE PROGETTO		-18.42										0.00	3.50	4.00	4.80	5.30	6.05		
PARZIALI PROGETTO				14.17						1.25	0.50	3.50	3.50	0.50	0.80	0.50	0.75		
QUOTE PROGETTO		68.50								77.95	77.90	77.91		77.98	77.91	77.90	78.25	78.25	79.00



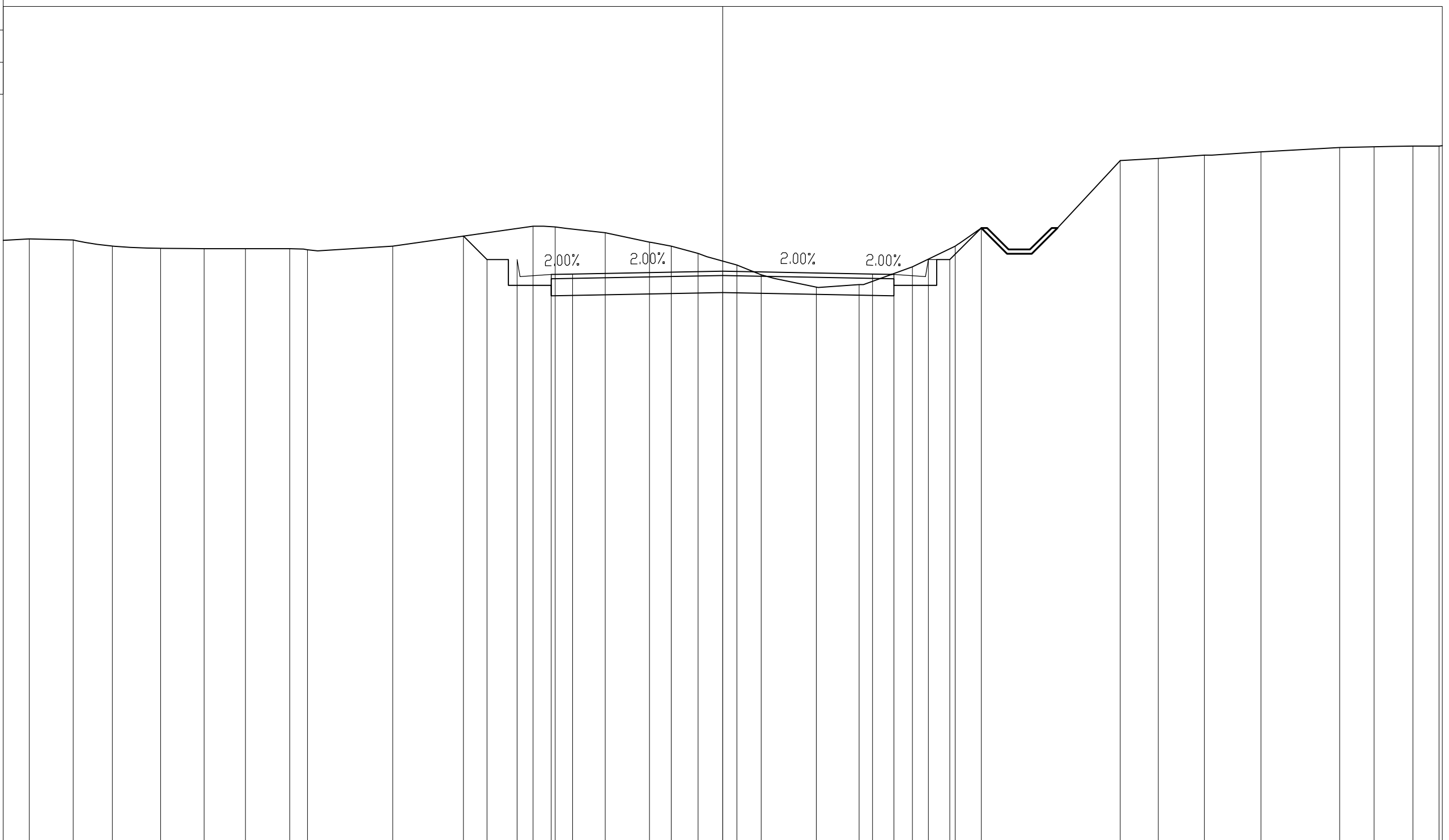






PROFILO P-CN1.c  
 SEZIONE 9.PCN1.C  
 PROGRESSIVA 160.00

Sterro 8.91 mq.  
 C1  
 Fondazione 3.20 mq.  
 E1  
 Usura 8.00 ml.  
 a1

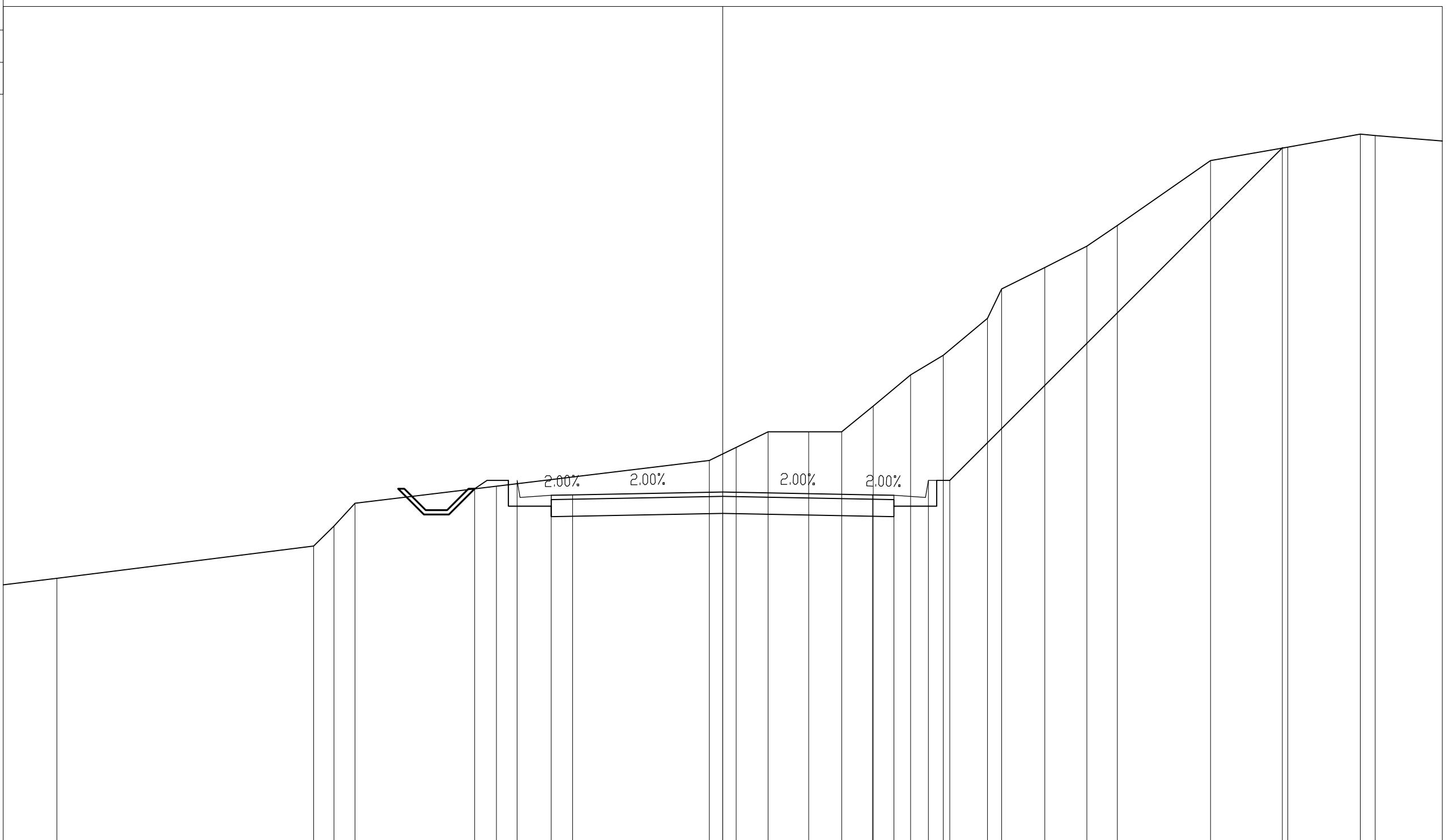


PROGRESSIVE TERRENO	-16.19	-15.16	-14.25	-13.12	-12.11	-11.14	-10.11	-9.70	-7.70	-4.43	-3.91	-2.74	-1.71	-1.20	-0.57	0.34	0.90	2.18	3.18	4.43	5.43	9.28	10.17	11.24	12.57	14.41	15.21	16.12	16.72	
PARZIALI TERRENO	1.04	1.03	0.91	1.13	1.01	0.97	1.03	0.41	2.00	3.27	0.52	1.17	1.03	0.51	0.63	0.91	0.56	1.28	1.00	1.25	1.00	0.89	1.07	1.33	1.84	0.80	0.91	0.60	0.43	
QUOTE TERRENO	89.17	89.15	89.00	88.95	88.95	88.95	88.94	88.92	89.00	89.47	89.45	89.32	89.10	89.00	88.83	88.56	88.34	88.04	88.10	88.52	89.00	91.00	91.05	91.12	91.21	91.30	91.32	91.34	91.34	
PROGRESSIVE PROGETTO											-6.05	-5.50	-4.80	-4.00	-3.50	0.00				3.50	4.00	4.80	5.30	6.04						
PARZIALI PROGETTO											0.55	0.70	0.80	0.50	3.50	3.50				0.50	0.80	0.50	0.74							
QUOTE PROGETTO											89.24	88.69	88.69	88.34	88.35	88.42				88.35	88.34	88.69	88.69	89.42						



PROFILO P-CN1.c  
 SEZIONE 11.PCN1.C  
 PROGRESSIVA 200.00

Rilevato  
 B1 0.09 mq.  
 Sterro  
 C1 32.55 mq.  
 Fondazione  
 E1 3.20 mq.  
 Usura  
 a1 8.00 ml.

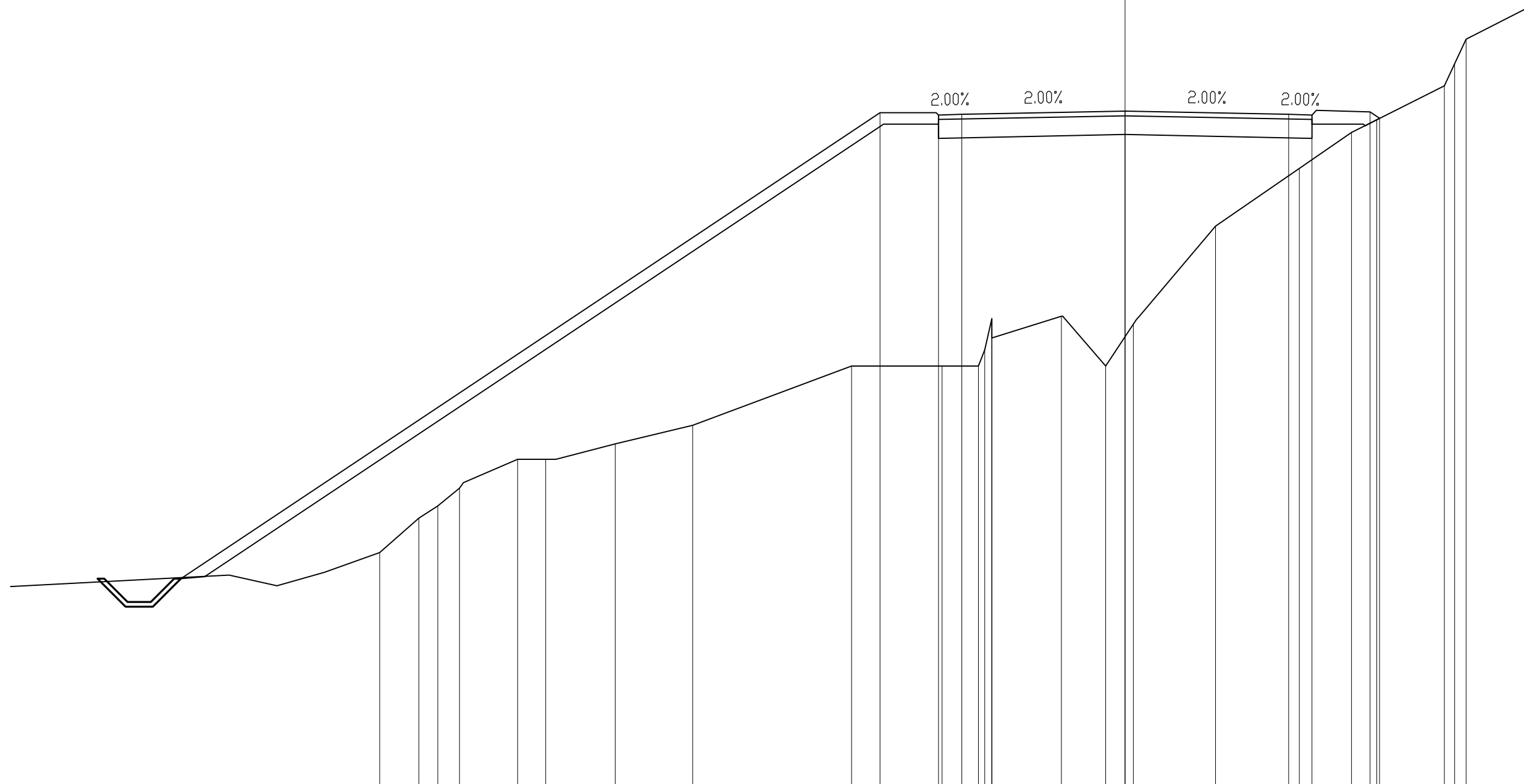


PROGRESSIVE TERRENO	-15.54	-9.55	-9.07	-8.59	-5.28	-0.31	0.32	1.06	2.01	2.78	3.52	4.39	5.15	6.18	6.51	7.52	8.51	9.21	11.39	13.19	14.89	15.24	
PARZIALI TERRENO	1.97	5.99	0.48	0.48	3.31	4.97	0.63	0.74	0.95	0.77	0.74	0.87	0.76	1.03	0.33	1.01	0.99	0.70	2.18	1.80	1.70	5.11	
QUOTE TERRENO	91.25	92.00	92.47	93.00	93.40	94.00	94.30	94.66	94.67	94.67	95.27	96.00	96.46	97.32	98.00	98.50	99.00	99.49	101.00	101.32	101.62	101.59	
PROGRESSIVE PROGETTO					-5.79	-4.80	-4.00	-3.50	0.00		3.50	4.00	4.80	5.30						13.07			
PARZIALI PROGETTO					0.99	0.80	0.50	3.50		3.50	0.50	0.80	0.50					7.77					
QUOTE PROGETTO					93.34	93.53	93.18	93.19	93.26		93.19	93.18	93.53	93.53						101.30			



PROFILO P-CN1.c  
 SEZIONE 13.PCN1.C  
 PROGRESSIVA 240.00

Rilevato B1 71.12 mq.  
 Vegetale D1 0.37 mq.  
 D2 4.77 mq.  
 Totale: 5.14 mq.  
 Fondazione E1 3.20 mq.  
 Usura a1 8.00 ml.



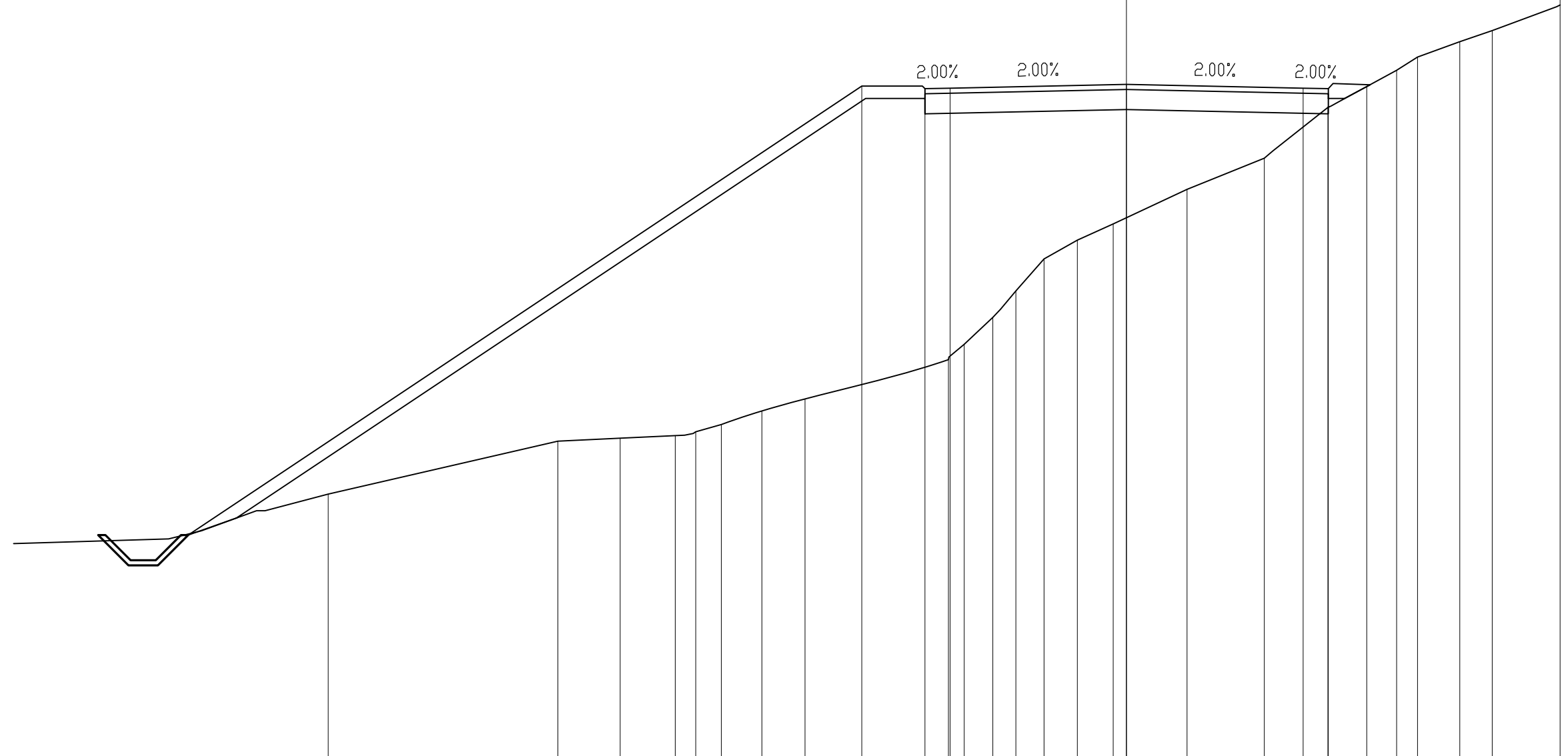
82

100  
 100

PROGRESSIVE TERRENO		-15.97	-15.14	-14.73	-14.26	-13.02	-12.42	-10.92	-9.27	-5.86	-3.92	-3.14	-3.00	-2.85	-2.85	-1.36	-0.42	0.17	1.93	3.73	4.85	5.40	6.84	7.06	7.31
PARZIALI TERRENO		1.19	0.83	0.41	0.47	1.24	0.60	1.50	1.65	3.41	1.94	0.78	0.14	0.15	1.49	0.94	0.59	1.76	1.80	1.12	0.55	1.44	0.22	0.25	1.77
QUOTE TERRENO		87.00	87.74	88.00	88.38	88.99	89.00	89.33	89.73	91.00	91.00	91.00	91.34	92.02	91.60	92.06	91.00	91.90	94.00	95.24	96.00	96.28	97.00	97.47	98.00
PROGRESSIVE PROGETTO										-5.25	-4.00	-3.50					0.00			3.50	4.00	5.25	5.46		
PARZIALI PROGETTO								14.98			1.25	0.50			3.50				3.50	0.50	1.25	0.21			
QUOTE PROGETTO										96.43	96.38	96.39					96.46			96.39	96.38	96.44	96.31		

PROFILO P-CN1.c  
 SEZIONE 14.PCN1.C  
 PROGRESSIVA 260.00

Rilevato  
 B1 60.06 mq.  
 B2 0.03 mq.  
 Totale: 60.09 mq.  
 Vegetale  
 D1 0.16 mq.  
 D2 4.23 mq.  
 Totale: 4.39 mq.  
 Fondazione  
 E1 3.20 mq.  
 Usura  
 a1 8.00 ml.



PROGRESSIVE TERRENO		-15.83		-11.28	-10.05	-8.95	-8.54	-8.03	-7.23	-6.37		-3.54	-3.22	-2.65	-2.20	-1.63	-0.98	-0.26	1.20	2.74	4.00	5.36	5.78	6.61	7.25
PARZIALI TERRENO	1.43		4.55	1.23	1.10	0.41	0.51	0.80	0.86		2.83	0.32	0.57	0.45	0.57	0.65	0.72	1.46	1.54	1.26	1.36	0.42	0.83	0.64	
QUOTE TERRENO	89.33		90.38	90.44	90.49	90.56	90.71	90.98	91.22		92.00	92.31	92.84	93.36	94.00	94.37	94.69	95.38	96.00	97.00	97.74	98.00	98.31	98.53	
PROGRESSIVE PROGETTO											-5.25	-4.00	-3.50				0.00				3.50	4.00	4.77		
PARZIALI PROGETTO			13.36								1.25	0.50		3.50				3.50			0.50	0.77			
QUOTE PROGETTO											97.43	97.38	97.39				97.46				97.39	97.38	97.42		

84

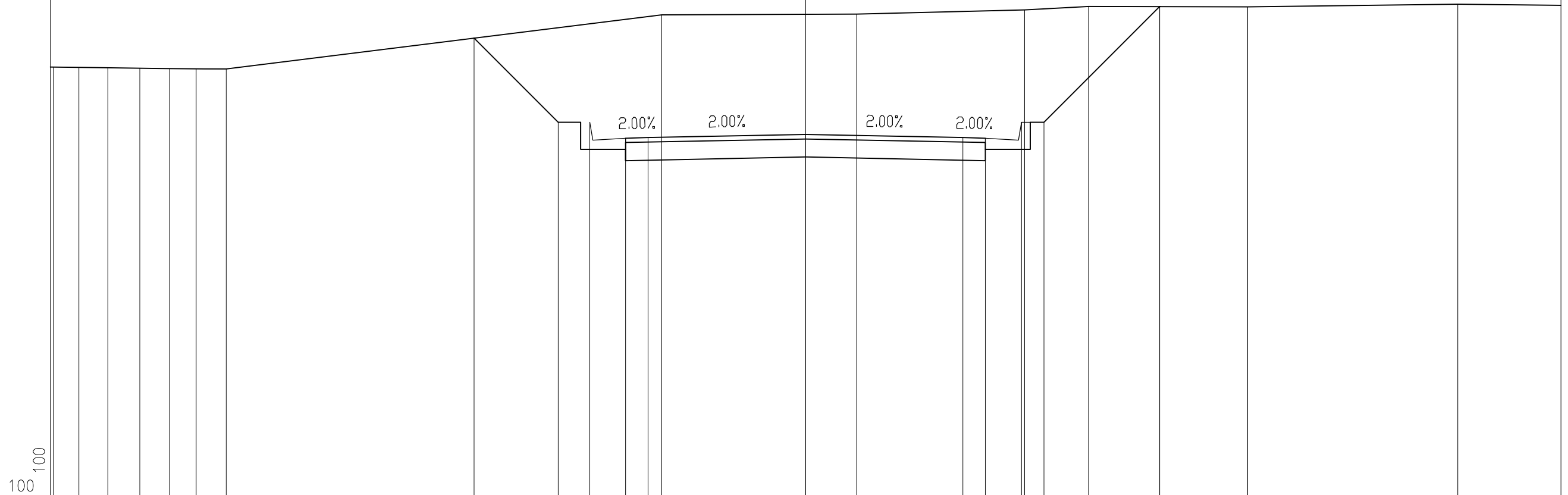
100  
 100

PROFILO P-CN1.c

SEZIONE 15.PCN1.C

PROGRESSIVA 280.00

Sterro  
C1 38.68 mq.  
Fondazione  
E1 3.20 mq.  
Usura  
a1 8.00 ml.



PROGRESSIVE TERRENO	-16.73	-16.16	-15.52	-14.81	-14.15	-13.56	-12.89	-3.20	1.14	4.87	6.30	9.83	14.51					
PARZIALI TERRENO	3.27	0.57	0.64	0.71	0.66	0.59	0.67	9.69	4.34	3.73	1.43	3.53	4.68	4.42				
QUOTE TERRENO	99.55	99.55	99.54	99.53	99.53	99.52	99.51	100.71	100.73	100.83	100.91	100.90	100.96					
PROGRESSIVE PROGETTO								-7.37	-5.50	-4.80	-4.00	-3.50	0.00	3.50	4.00	4.80	5.30	7.88
PARZIALI PROGETTO								1.87	0.70	0.80	0.50	3.50	3.50	0.50	0.80	0.50	2.58	
QUOTE PROGETTO								100.20	98.33	98.33	97.98	97.99	98.06	97.99	97.98	98.33	98.33	100.90



PROFILO P-CN1.c

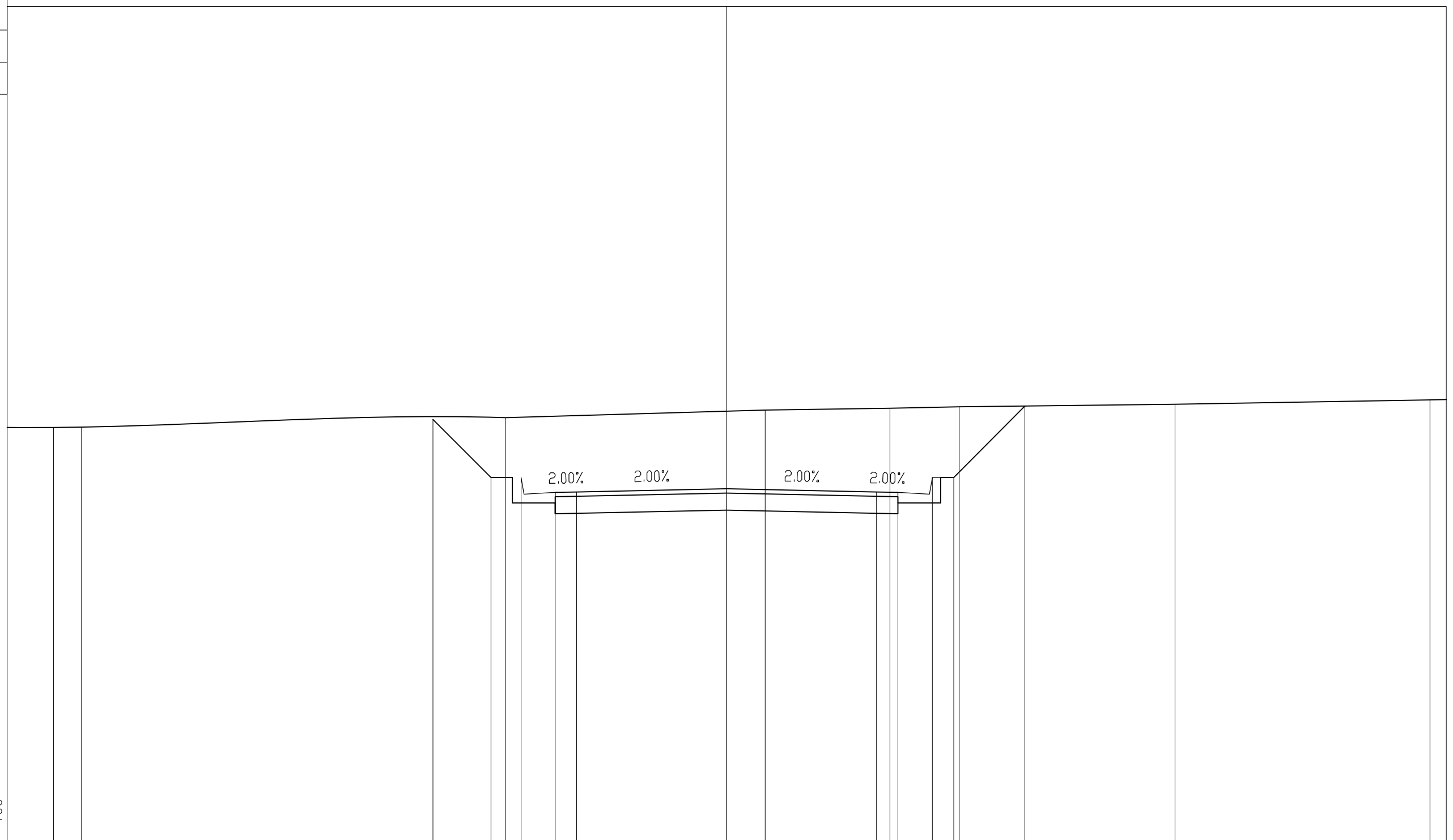
SEZIONE 16.PCN1.C

PROGRESSIVA 300.00

Sterro  
C1 26.51 mq.  
Fondazione  
E1 3.20 mq.  
Usura  
a1 8.00 ml.

100  
100

90



PROGRESSIVE TERRENO		-15.72	-15.06		-5.17		0.90		3.81	5.43		10.47		16.42	
PARZIALI TERRENO	4.28	0.66		9.89		6.07		2.91	1.62		5.04		5.95	2.81	
QUOTE TERRENO	99.77	99.78		99.99		100.17		100.22	100.25		100.31		100.41		
PROGRESSIVE PROGETTO			-6.85	-5.50	-4.80	-4.00	-3.50		0.00		3.50	4.00	4.80	5.30	6.96
PARZIALI PROGETTO			1.35	0.70	0.80	0.50		3.50		3.50	0.50	0.80	0.50	1.66	
QUOTE PROGETTO			99.96	98.60	98.60	98.25	98.26		98.33		98.26	98.25	98.60	98.60	100.27

PROFILO P-CN1.c

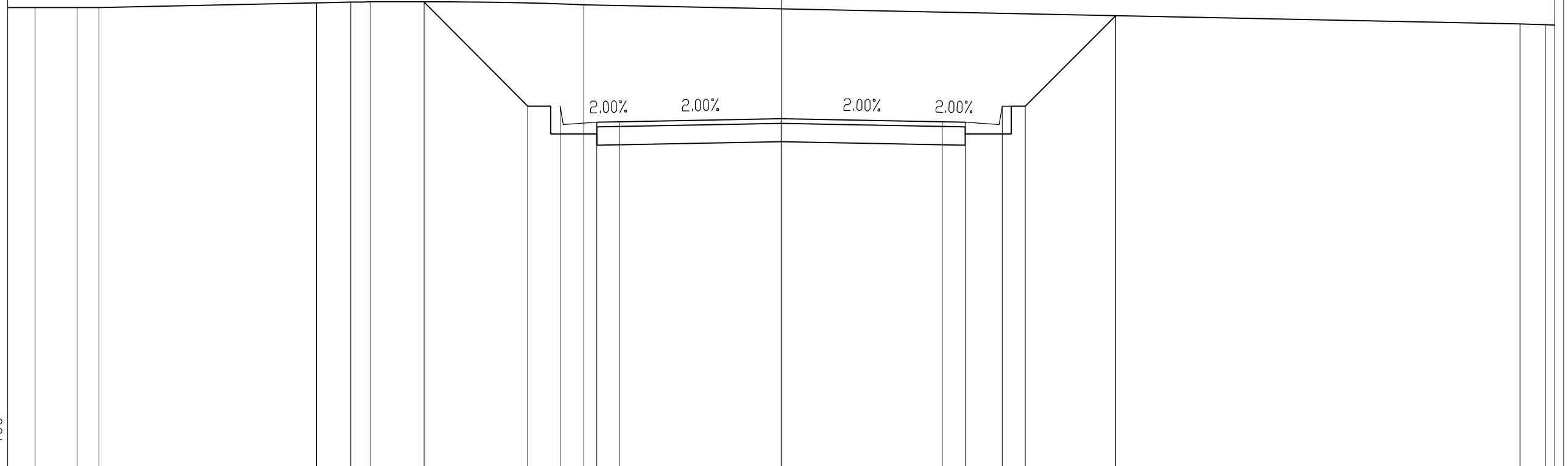
SEZIONE 17.PCN1.C

PROGRESSIVA 320.00

Sterro  
C1 35.05 mq.  
Fondazione  
E1 3.20 mq.  
Usura  
a1 8.00 ml.

100  
100

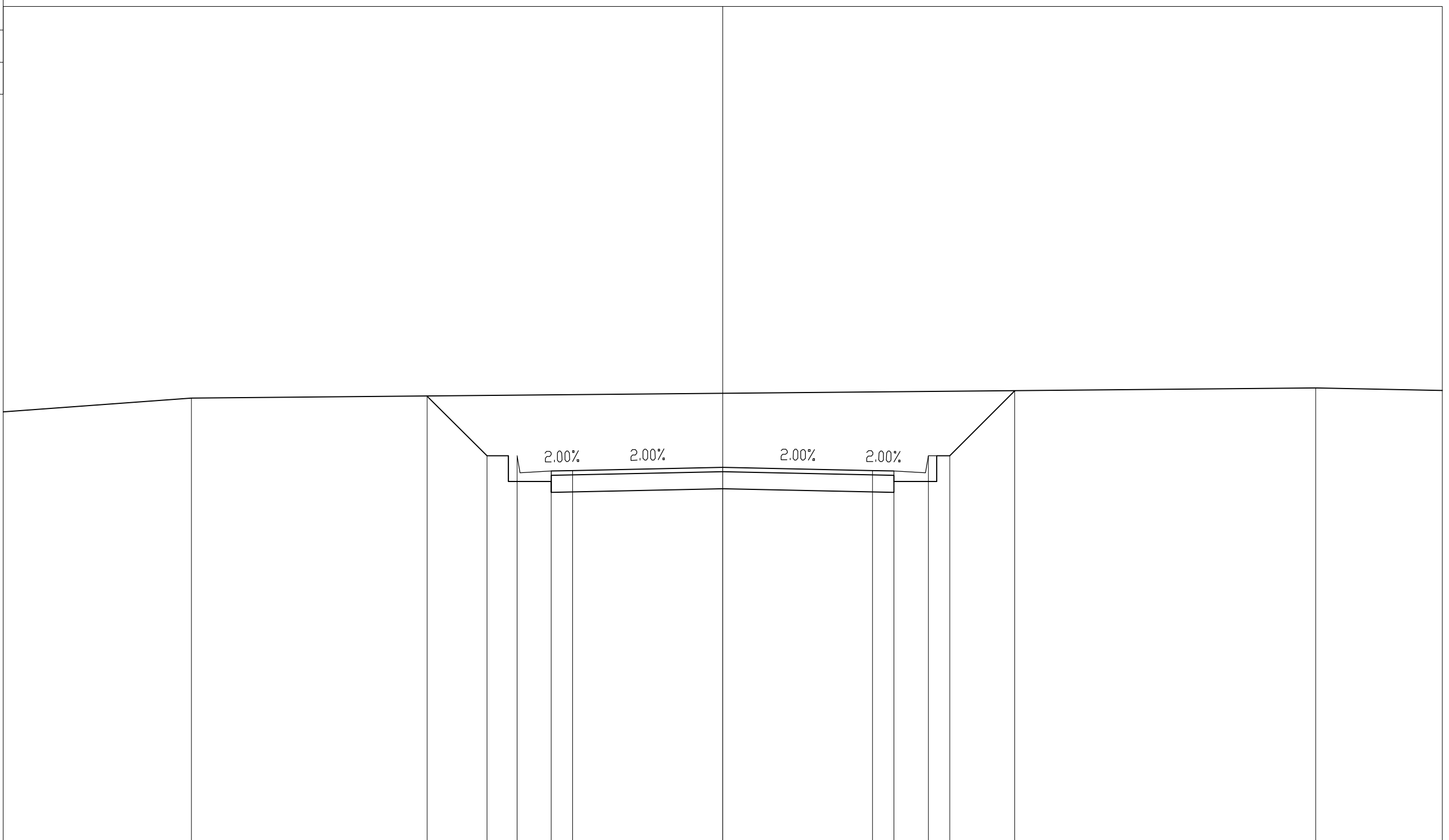
91



PROGRESSIVE TERRENO	-16.20	-15.29	-14.82		-10.09	-9.34	-8.92		-4.28										16.05	16.60		
PARZIALI TERRENO	0.64	0.91	0.47	4.73	0.75	0.42		4.64						20.33				0.55	1.66			
QUOTE TERRENO	101.00	101.00	101.00		101.10	101.11	101.12		101.05									100.64	100.62			
PROGRESSIVE PROGETTO					-7.76				-5.50	-4.80	-4.00	-3.50		0.00				3.50	4.00	4.80	5.30	7.27
PARZIALI PROGETTO					2.26	0.70	0.80	0.50	3.50		3.50		0.50	0.80	0.50	1.97						
QUOTE PROGETTO					101.11	98.85	98.85	98.50	98.51	98.58			98.51	98.50	98.85	98.85	100.82					

PROFILO P-CN1.c  
 SEZIONE 18.PCN1.C  
 PROGRESSIVA 340.00

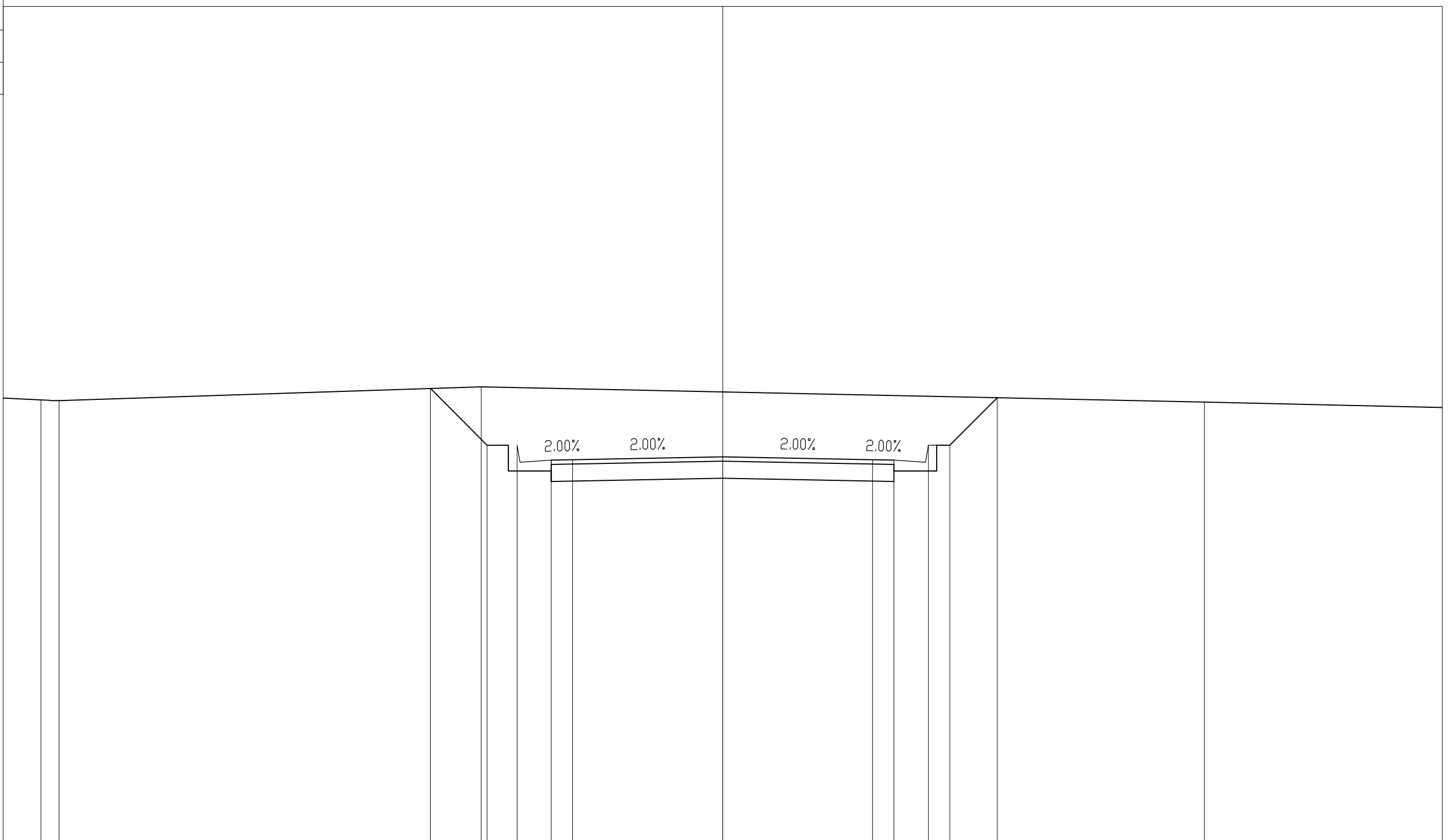
Sterro C1 25.57 mq.  
 Fondazione E1 3.20 mq.  
 Usura a1 8.00 ml.



PROGRESSIVE TERRENO		-12.40													13.84
PARZIALI TERRENO	4.43							26.24							4.52
QUOTE TERRENO		100.45													100.69
PROGRESSIVE PROGETTO			-6.90	-5.50	-4.80	-4.00	-3.50	0.00		3.50	4.00	4.80	5.30	6.82	
PARZIALI PROGETTO			1.40	0.70	0.80	0.50	3.50		3.50	0.50	0.80	0.50	1.52		
QUOTE PROGETTO			100.50	99.10	99.10	98.75	98.76	98.83		98.76	98.75	99.10	99.10	100.62	

PROFILO P-CN1.c  
 SEZIONE 19.PCN1.C  
 PROGRESSIVA 360.00

Sterro C1 22.74 mq.  
 Fondazione E1 3.20 mq.  
 Usura a1 8.00 ml.



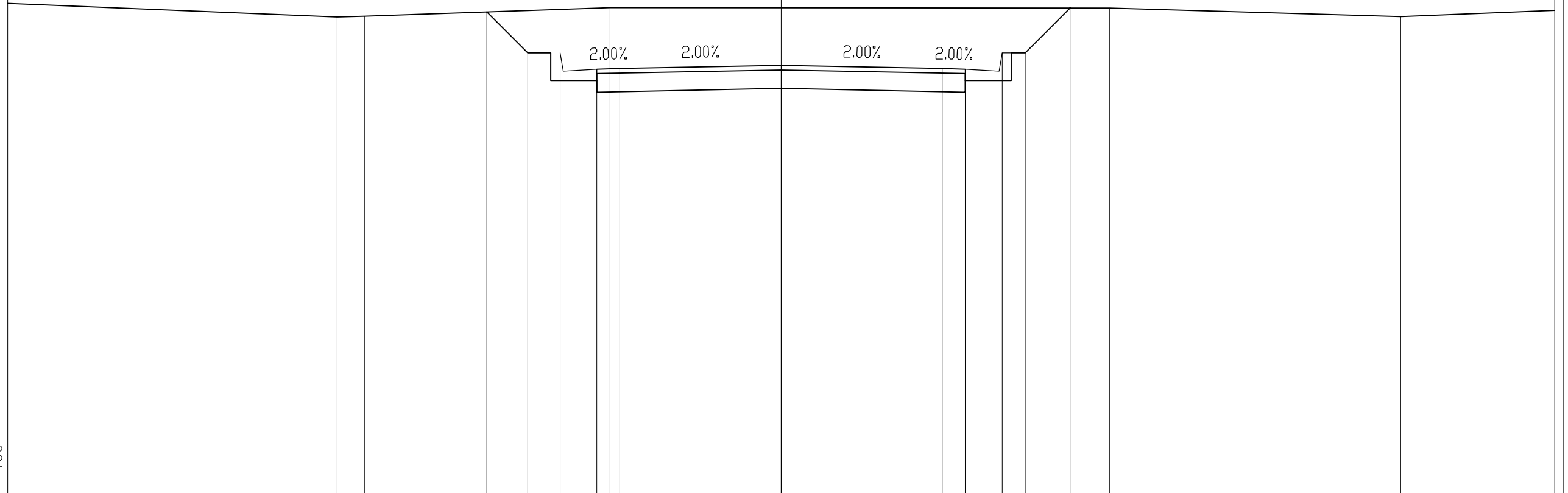
PROGRESSIVE TERRENO		100.41	100.39		100.72							100.36					
PARZIALI TERRENO	4.08	0.43		9.85					16.88			8.76					
QUOTE TERRENO		100.41	100.39		100.72							100.36					
PROGRESSIVE PROGETTO					100.68	99.35	99.35	99.00	99.01		99.08		99.01	99.00	99.35	99.35	100.46
PARZIALI PROGETTO					1.33	0.70	0.80	0.50		3.50			3.50	0.50	0.80	0.50	1.11
QUOTE PROGETTO					100.68	99.35	99.35	99.00	99.01		99.08		99.01	99.00	99.35	99.35	100.46

PROFILO P-CN1.c

SEZIONE 20.PCN1.C

PROGRESSIVA 380.00

Sterro  
C1 19.05 mq.  
Fondazione  
E1 3.20 mq.  
Usura  
a1 8.00 ml.



90

100  
100

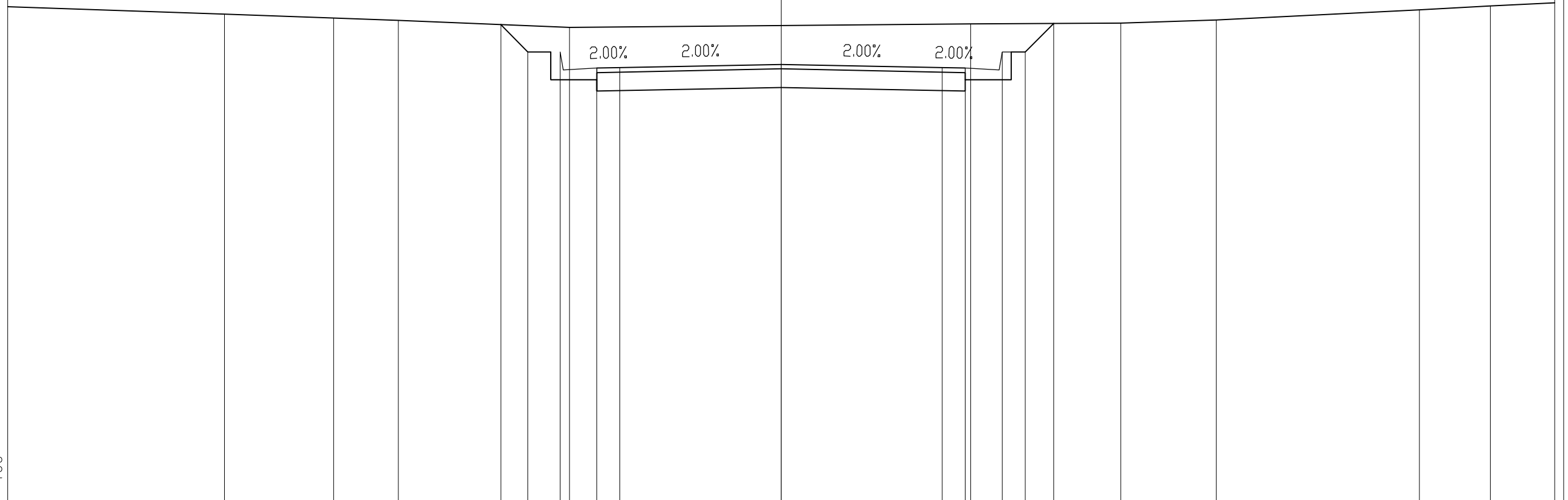
PROGRESSIVE TERRENO			-9.65	-9.05			-3.71					7.13			13.45		
PARZIALI TERRENO	10.35		0.60		5.34				10.84			6.32			6.55		
QUOTE TERRENO		100.39	100.41				100.59					100.58			100.40		
PROGRESSIVE PROGETTO					-6.39	-5.50	-4.80	-4.00	-3.50		0.00		3.50	4.00	4.80	5.30	6.28
PARZIALI PROGETTO					0.89	0.70	0.80	0.50		3.50		3.50	0.50	0.80	0.50	0.98	
QUOTE PROGETTO					100.50	99.61	99.61	99.26	99.27		99.34		99.27	99.26	99.61	99.61	100.58

PROFILO P-CN1.c

SEZIONE 21.PCN1.C

PROGRESSIVA 400.00

Sterro  
C1 14.12 mq.  
Fondazione  
E1 3.20 mq.  
Usura  
a1 8.00 ml.



90

100

PROGRESSIVE TERRENO		-12.09	-9.72	-8.31		-4.59				4.12		7.37	9.45		13.86	15.40
PARZIALI TERRENO	5.29		2.37	1.41		3.72			8.71		3.25	2.08		4.41	1.54	2.28
QUOTE TERRENO		100.67	100.59	100.54		100.38				100.46		100.48	100.55		100.77	100.85
PROGRESSIVE PROGETTO						-6.09	-5.50	-4.80	-4.00	-3.50		0.00				
PARZIALI PROGETTO						0.59	0.70	0.80	0.50		3.50		3.50			
QUOTE PROGETTO						100.44	99.86	99.86	99.51	99.52		99.59				
											99.52	99.51	99.86	99.86	100.47	
											3.50	4.00	4.80	5.30	5.92	
											0.50	0.80	0.50	0.62		

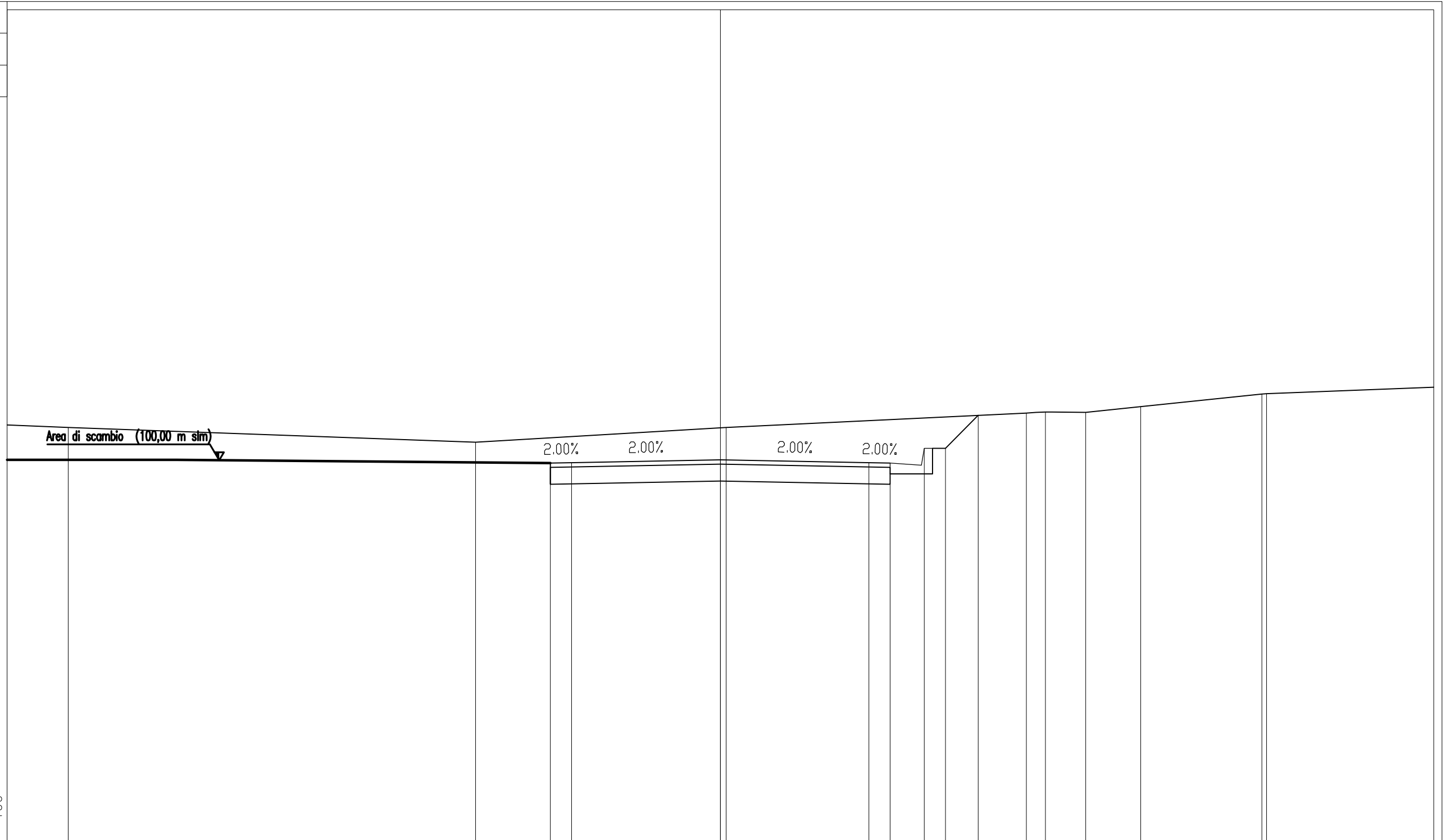


PROFILO P-CN1.c

SEZIONE 23.PCN1.C

PROGRESSIVA 433.10

Sterro C1 13.23 mq.  
 Fondazione E1 3.20 mq.  
 Usura a1 8.00 ml.



91

100  
100

PROGRESSIVE TERRENO	-15.36	-5.76	0.13	7.21	7.66	8.60	9.90	12.76	12.86
PARZIALI TERRENO	4.64	9.60	5.89	7.08	0.45	0.94	1.30	2.86	4.53
QUOTE TERRENO	100.76	100.42	100.76	101.10	101.12	101.12	101.25	101.55	101.56
PROGRESSIVE PROGETTO			0.00	3.50	4.00	4.80	5.30	6.08	
PARZIALI PROGETTO			0.50	3.50	0.50	0.80	0.50	0.78	
QUOTE PROGETTO			99.92	99.92	100.27	100.27	101.05		