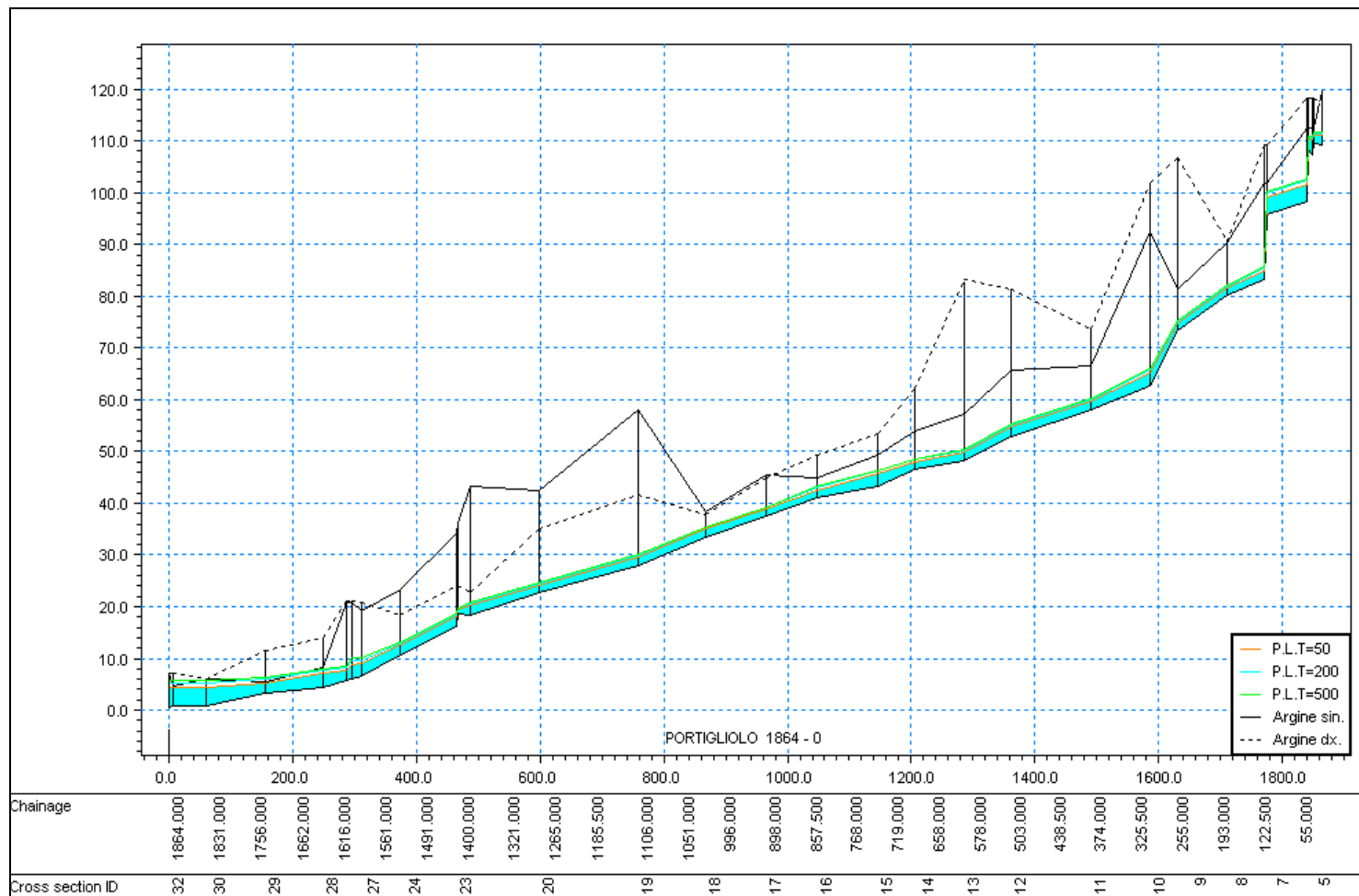


**PROFILI DI RIGURGITO IN CONDIZIONI DI MOTO  
PERMANENTE PER LE PORTATE T=50, 200, 500 ANNI**

**RIO PORTIGLIOLO**





R.Portigliolo/Profili idraulici per i tempi di ritorno di 50, 200, 500 anni



**GEOMETRIA DELLE SEZIONI ED ALTEZZA DEL PELO  
LIBERO IN CONDIZIONI DI MOTO PERMANENTE  
PER LE PORTATE T=50, 200, 500 ANNI**

**RIO PORTIGLIOLO**

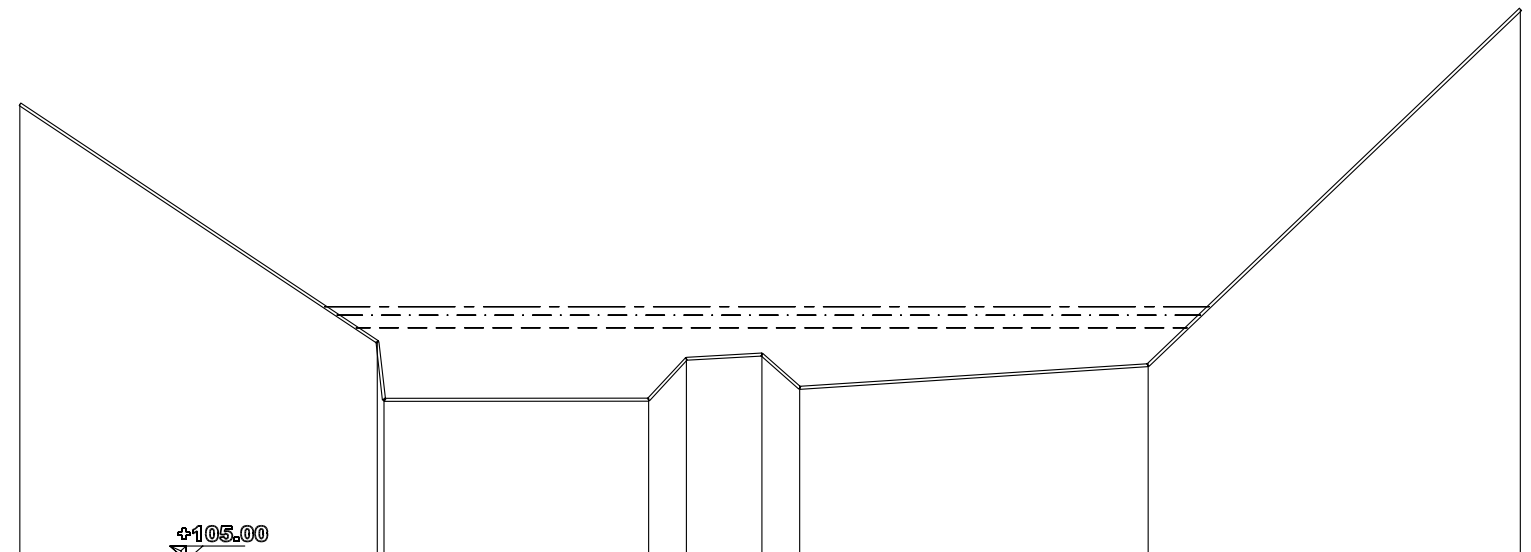
dalla sez. 1  
alla sez. 32



### SEZIONE 1

- Tr=500
- - - - Tr=200
- - - - Tr=50

Scala 1/200  
Scala 1/200

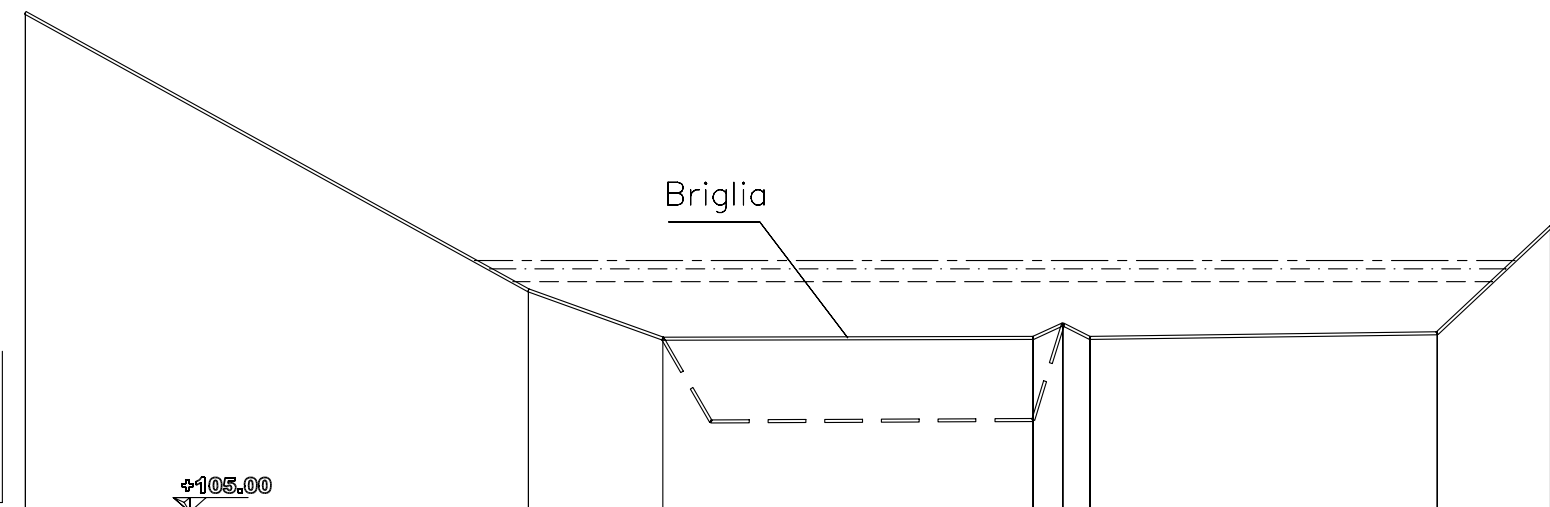


Quote terreno	117.06	110.78	109.24	109.25	110.33	110.44	109.56	110.16	119.57
Distanze parziali		9.46	7.00	1.00	2.00	1.00	9.21	9.86	
Distanze progressive	0.00	9.46	9.63	16.63	17.63	19.63	20.63	29.85	39.70

### SEZIONE 2

- Tr=500
- - - - Tr=200
- - - - Tr=50

Scala 1/200  
Scala 1/200

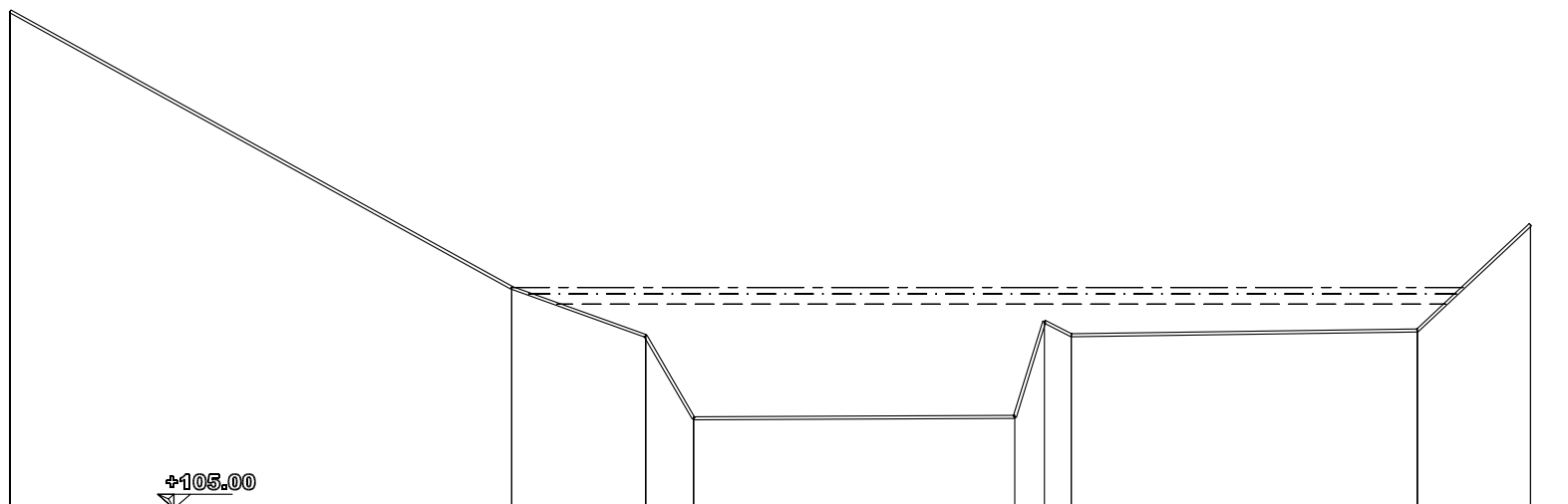


Quote terreno	118.20	110.86	109.58	109.60	109.97	109.60	109.73	112.54
Distanze parziali		13.31	3.56	9.80	0.78	0.72	9.19	3.00
Distanze progressive	0.00	13.31	16.87	26.67	27.45	28.17	37.36	40.36

### SEZIONE 3

- Tr=500
- Tr=200
- Tr=50

Scala 1/200

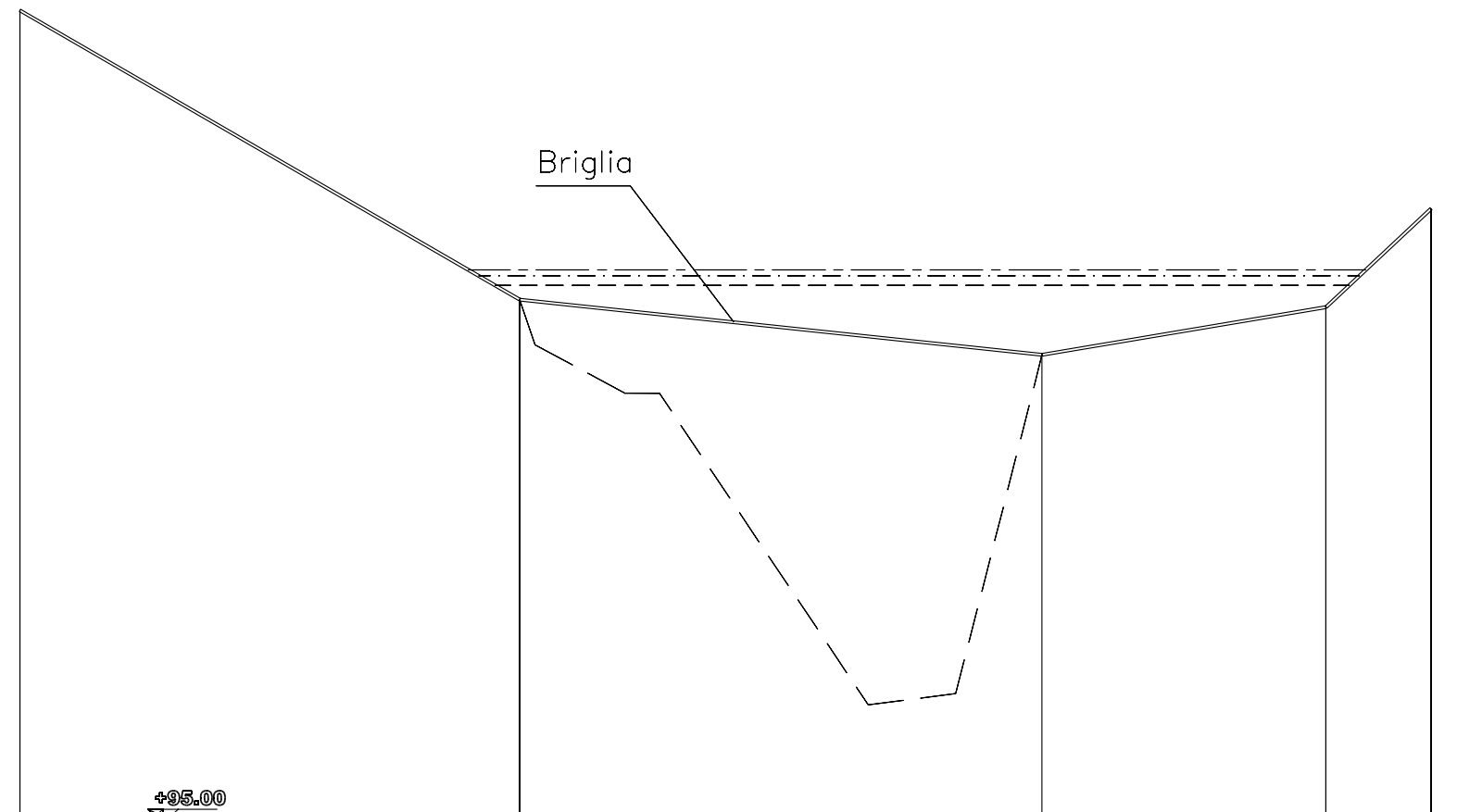


Quote terreno	118.20	110.86	109.58	107.40	107.43	109.97	109.60	109.73	112.54
Distanze parziali		13.31	3.56	1.27	8.53	0.78	0.72	9.19	3.00
Distanze progressive	0.00	13.31	16.87	18.14	26.67	27.45	28.17	37.36	40.36

### SEZIONE 4

- Tr=500
- Tr=200
- Tr=50

Scala 1/200



Quote terreno	118.20	109.94	108.37	109.73	112.54
Distanze parziali		14.28	14.92	8.11	3.00
Distanze progressive	0.00	14.28	29.20	37.31	40.31



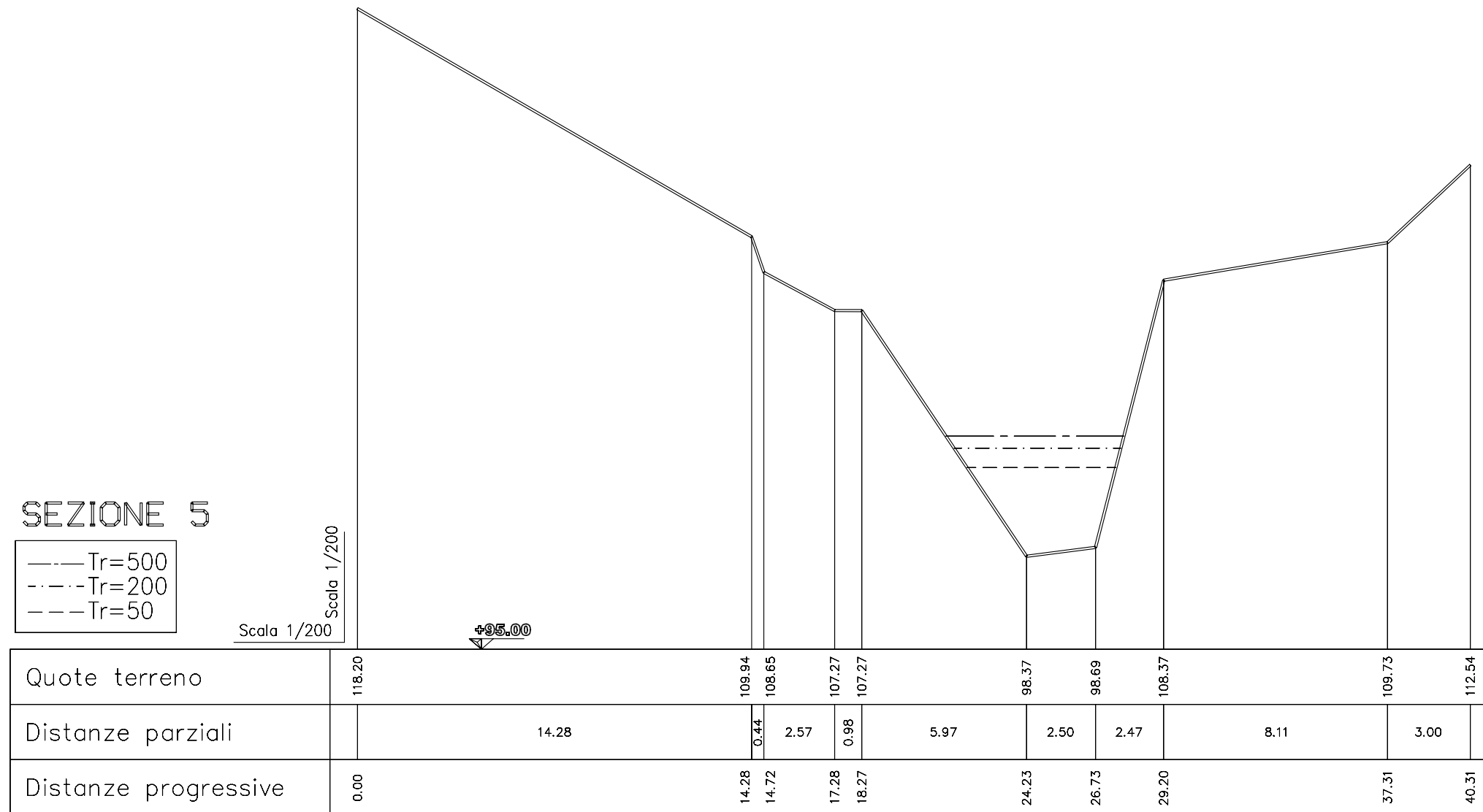
# SEZIONE 5

- Tr=500
- · - · Tr=200
- Tr=50

Scala 1/200

Scala 1/200

↑ +05.00

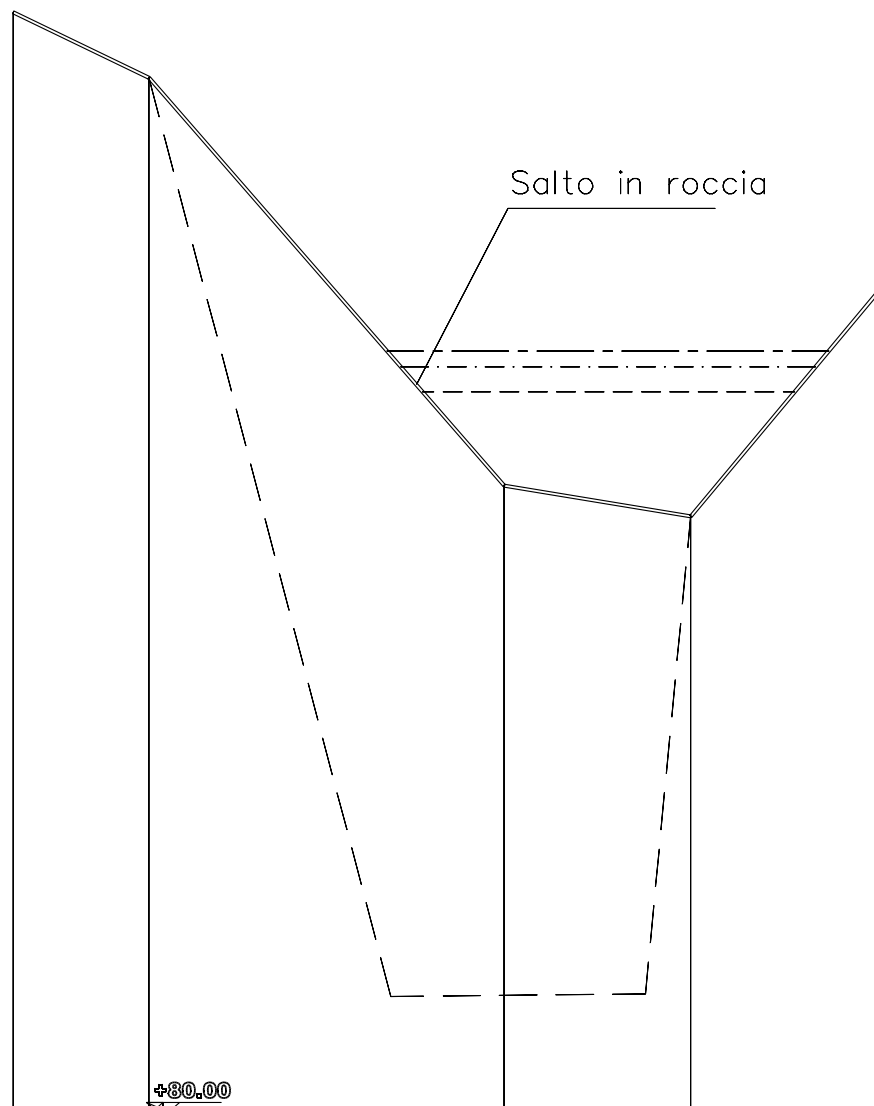


### SEZIONE 6

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200

Scala 1/200



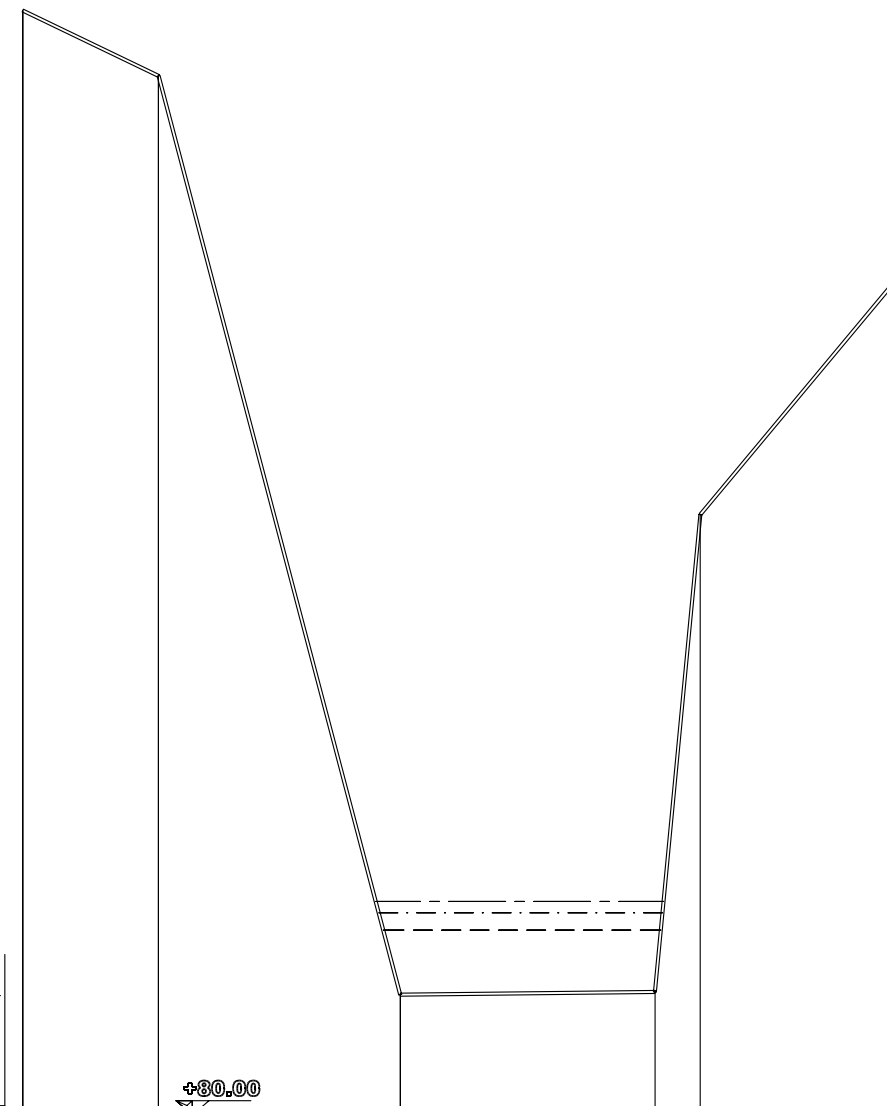
Quote terreno	109.22	107.49	96.70	95.88	101.88
Distanze parziali		3.59	9.40	4.94	5.00
Distanze progressive	0.00	3.59	12.99	17.93	22.93

### SEZIONE 7

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200

Scala 1/200



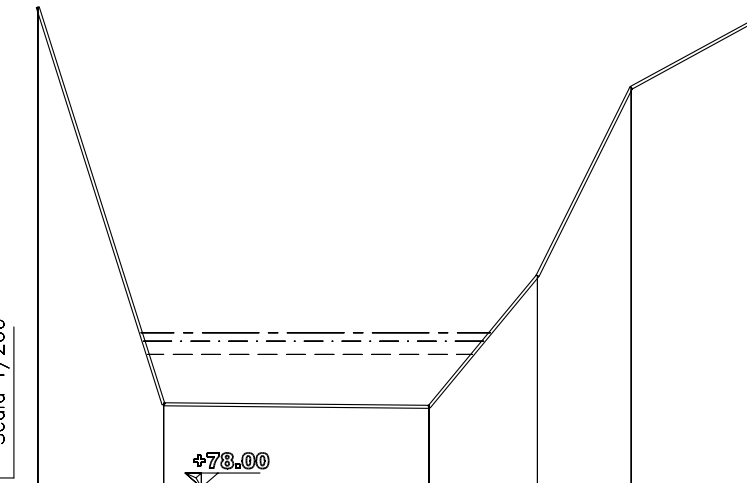
Quote terreno	109.22	107.49	83.19	83.25	95.88	101.88
Distanze parziali		3.59	6.40	6.74	1.20	5.00
Distanze progressive	0.00	3.59	9.99	16.73	17.93	22.93

### SEZIONE 8

- Tr=500
- - - Tr=200
- Tr=50

Scala 1/200

Scala 1/200



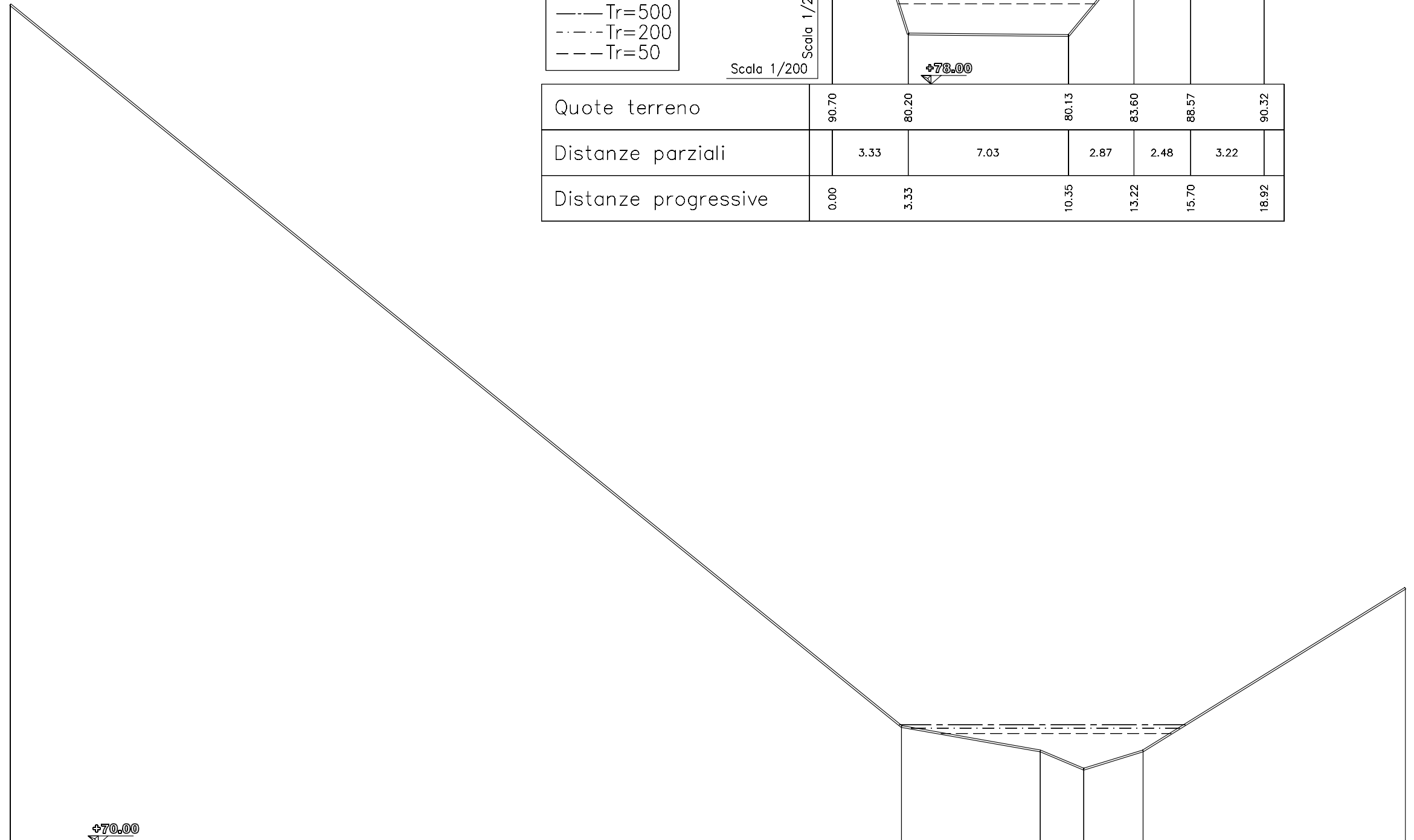
Quote terreno	90.70	80.20	80.13	83.60	88.57	90.32
Distanze parziali		3.33	7.03	2.87	2.48	3.22
Distanze progressive	0.00	3.33	10.35	13.22	15.70	18.92

### SEZIONE 9

- Tr=500
- - - Tr=200
- Tr=50

Scala 1/200

Scala 1/200

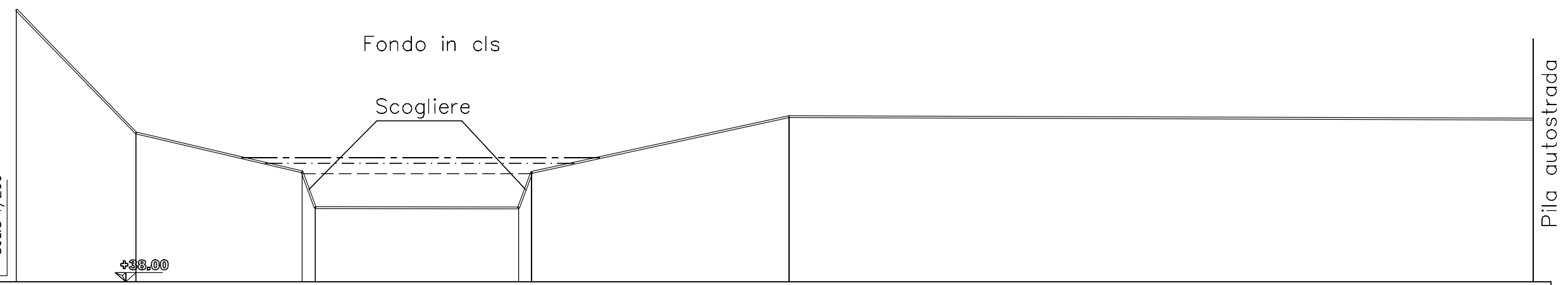


Quote terreno	106.80	75.18	74.11	73.31	74.11	81.23
Distanze parziali		39.04	6.09	1.90	2.60	11.49
Distanze progressive	0.00	39.04	45.13	47.03	49.63	61.12

### SEZIONE 16

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200  
Scala 1/200

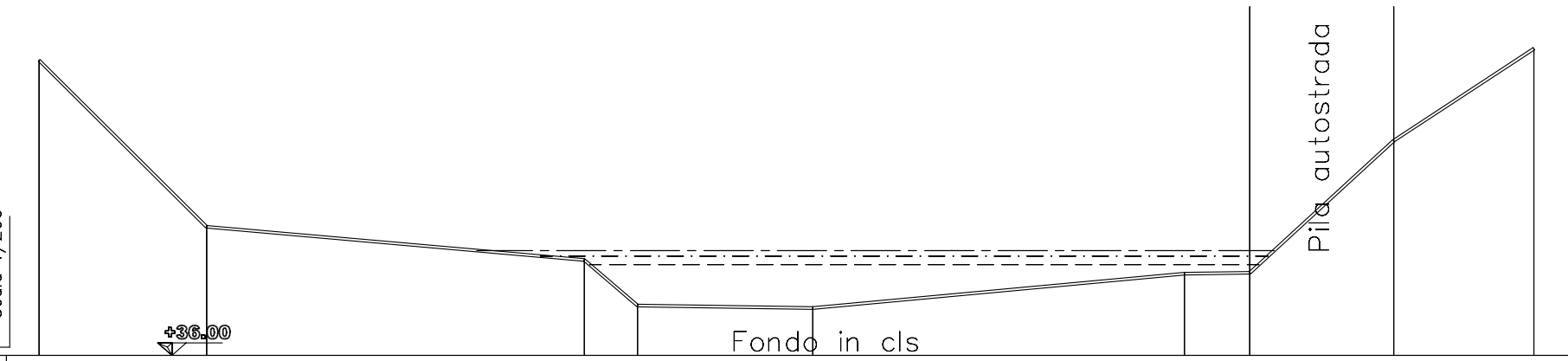


Quote terreno	49.36	44.22	42.59	41.09	41.08	42.57	44.90	44.79
Distanze parziali		5.00	6.95	0.55	8.50	0.55	10.77	31.11
Distanze progressive	0.00	5.00	11.95	12.50	21.00	21.55	32.32	63.43

### SEZIONE 17

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200  
Scala 1/200

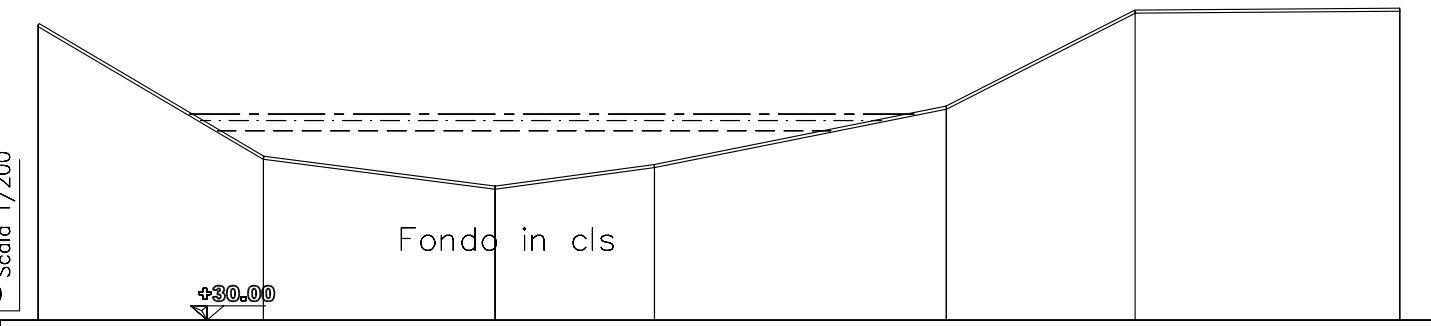


Quote terreno	45.01	39.93	38.91	37.52	37.44	38.49	38.52	42.55	45.37
Distanze parziali		5.12	11.55	1.62	5.36	11.37	2.00	4.39	4.29
Distanze progressive	0.00	5.12	16.67	18.29	23.65	35.02	37.02	41.42	45.71

### SEZIONE 18

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200  
Scala 1/200



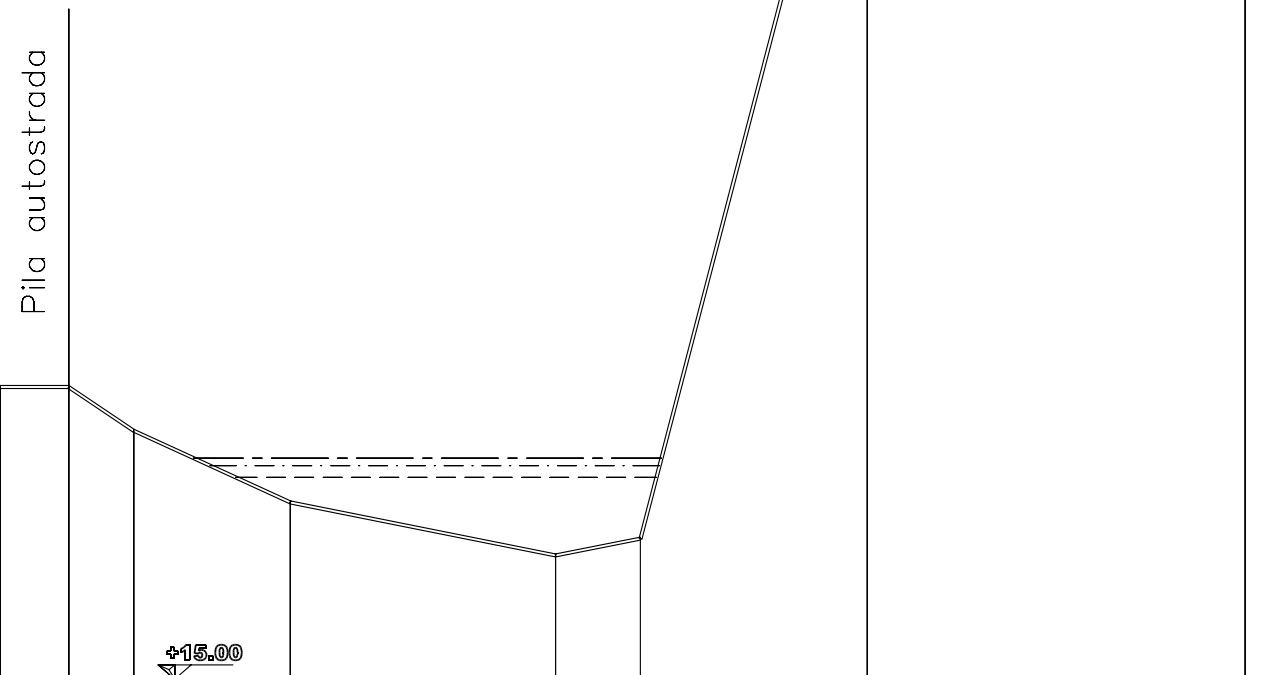
Quote terreno	37.81	34.30	33.51	34.08	35.62	38.16	38.21
Distanze parziali		5.96	6.13	4.21	7.72	5.00	7.00
Distanze progressive	0.00	5.96	12.09	16.30	24.03	29.03	36.03

# SEZIONE 21

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200

Scala 1/200

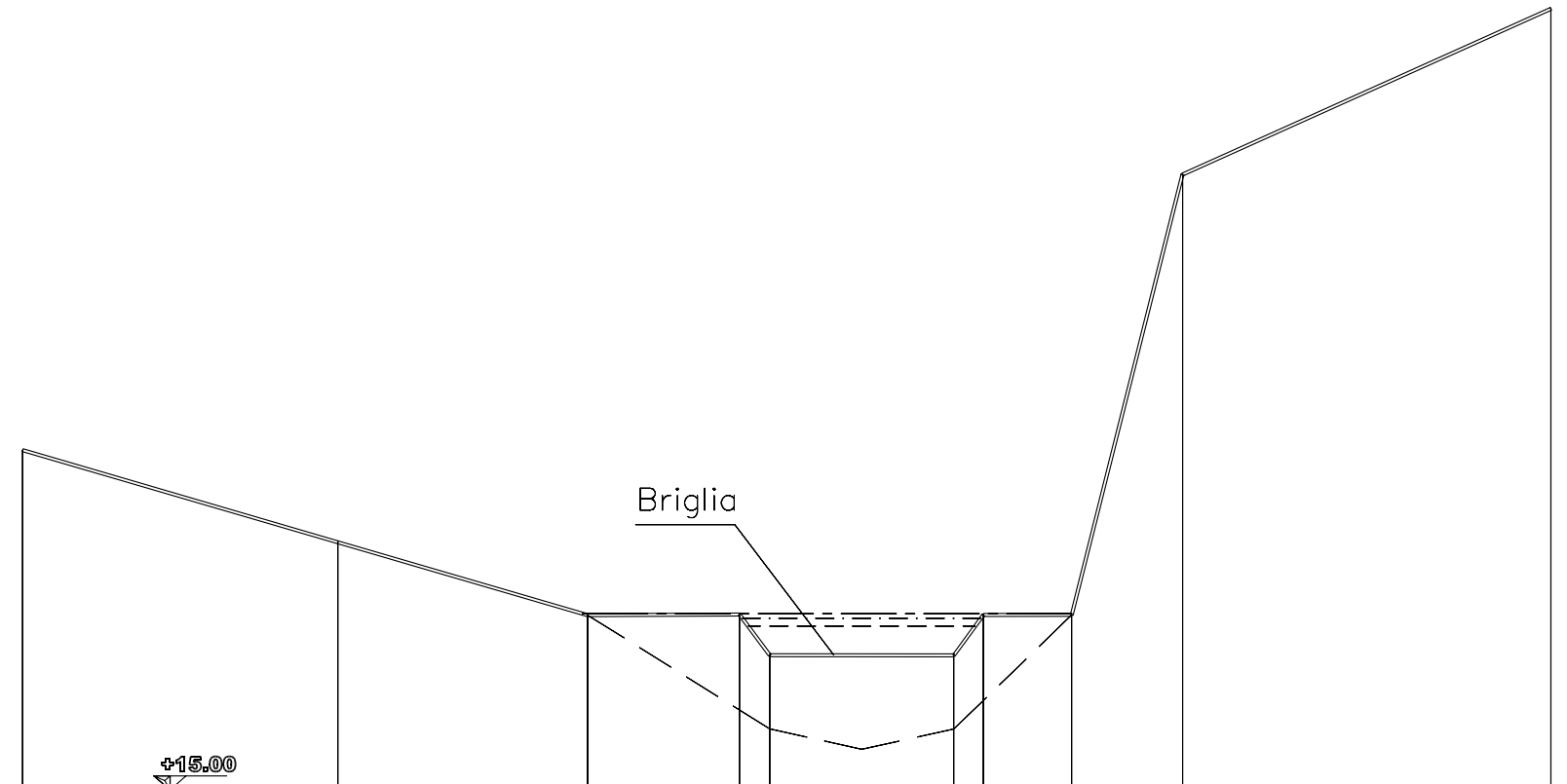


Quote terreno	22.73	22.73	21.57	19.68	18.27	18.72	41.72	43.22
Distanze parziali	1.81	1.72	4.14	7.02	2.25	6.00	10.00	
Distanze progressive	0.00	1.81	3.52	7.66	14.69	16.93	22.93	32.93

### SEZIONE 22

- Tr=500
- - - Tr=200
- Tr=50

Scala 1/200  
Scala 1/200

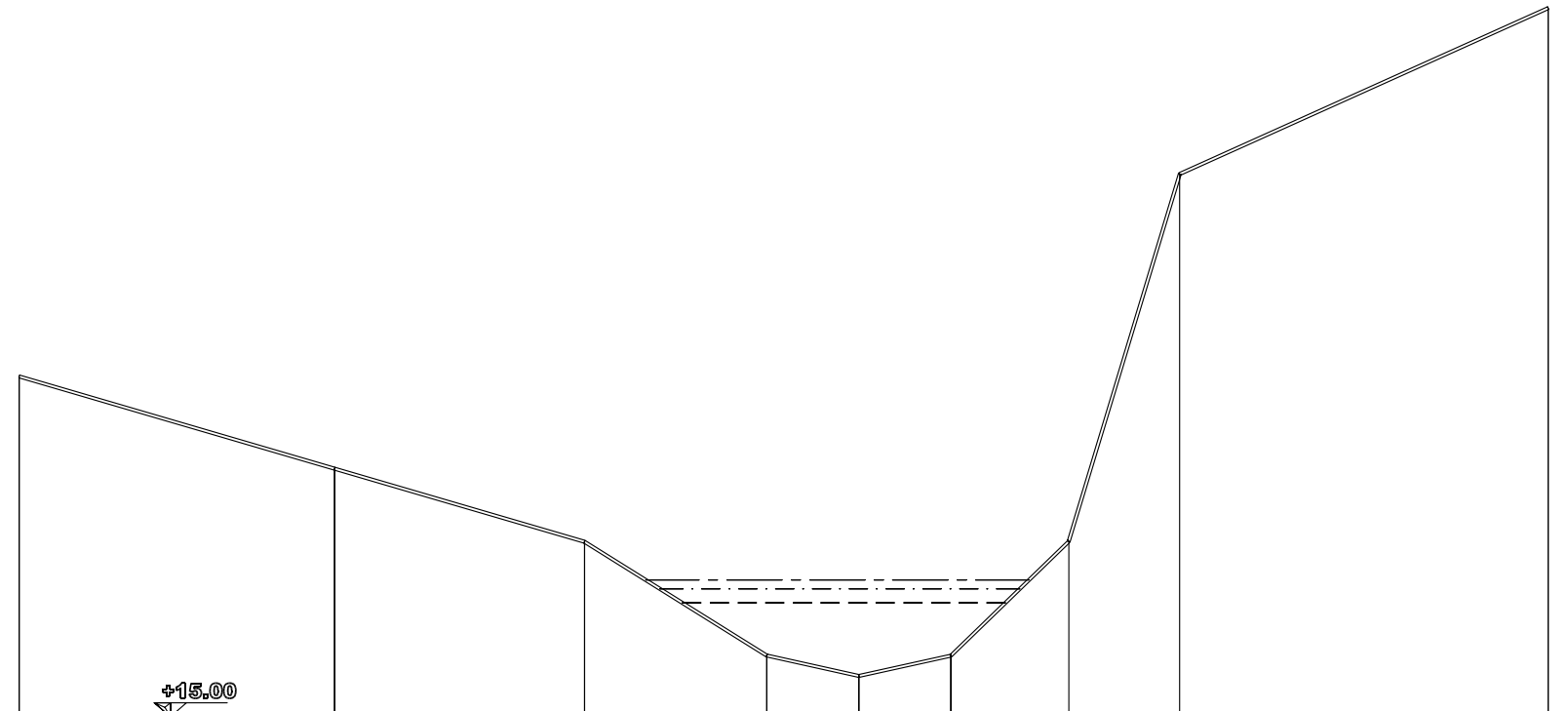


Quote terreno	24.23	21.73	19.75	19.77	18.66	18.66	19.75	19.76	31.72	36.22
Distanze parziali		8.56	6.78	4.12	0.82	5.00	0.80	2.40	3.01	10.00
Distanze progressive	0.00	8.56	15.34	19.46	20.28	25.28	26.08	28.48	31.49	41.49

### SEZIONE 23

- Tr=500
- - - Tr=200
- Tr=50

Scala 1/200  
Scala 1/200

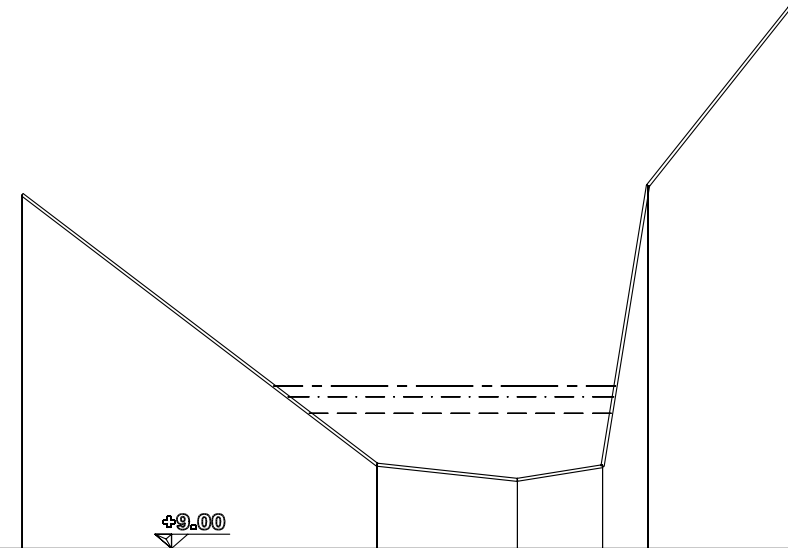


Quote terreno	24.23	21.73	19.75	16.66	16.11	16.66	19.76	29.72	34.22
Distanze parziali		8.56	6.78	4.94	2.50	2.50	3.20	3.01	10.00
Distanze progressive	0.00	8.56	15.34	20.28	22.78	25.28	28.48	31.49	41.49

### SEZIONE 24

- Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200

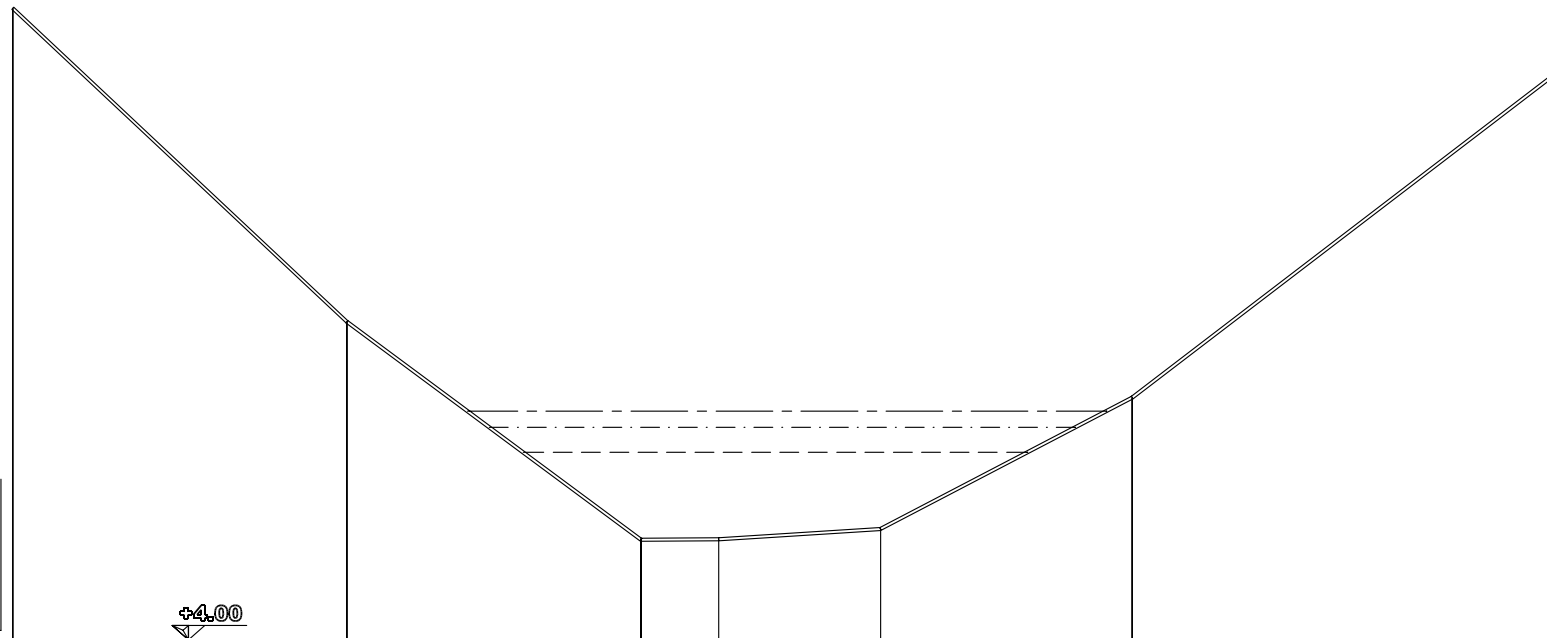


Quote terreno	18.36	11.22	10.82	11.18	18.60	23.30
Distanze parziali		9.38	3.72	2.25	1.20	3.74
Distanze progressive	0.00	9.38	13.10	15.35	16.56	20.30

### SEZIONE 25

- Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200



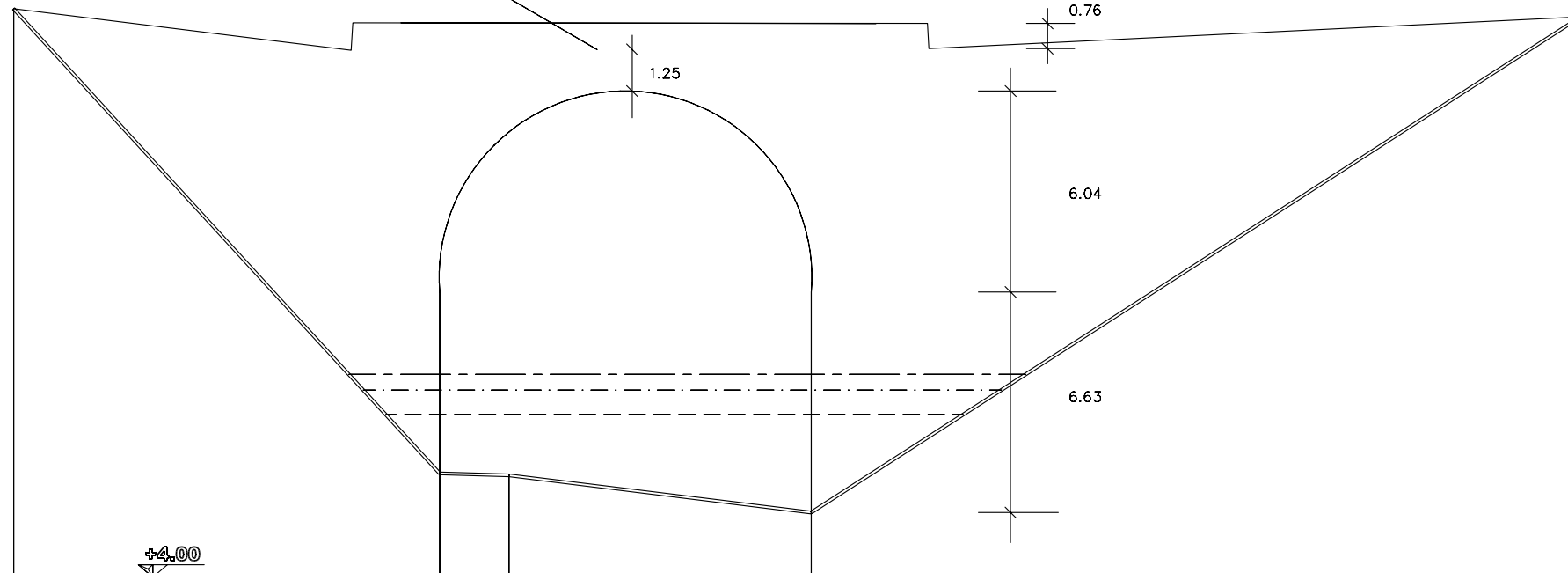
Quote terreno	20.71	12.41	6.65	6.66	6.93	10.41	19.17
Distanze parziali		8.84	7.78	2.06	4.28	6.66	11.47
Distanze progressive	0.00	8.84	16.62	18.68	22.96	29.62	41.09

Strada statale

SEZIONE 26

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200



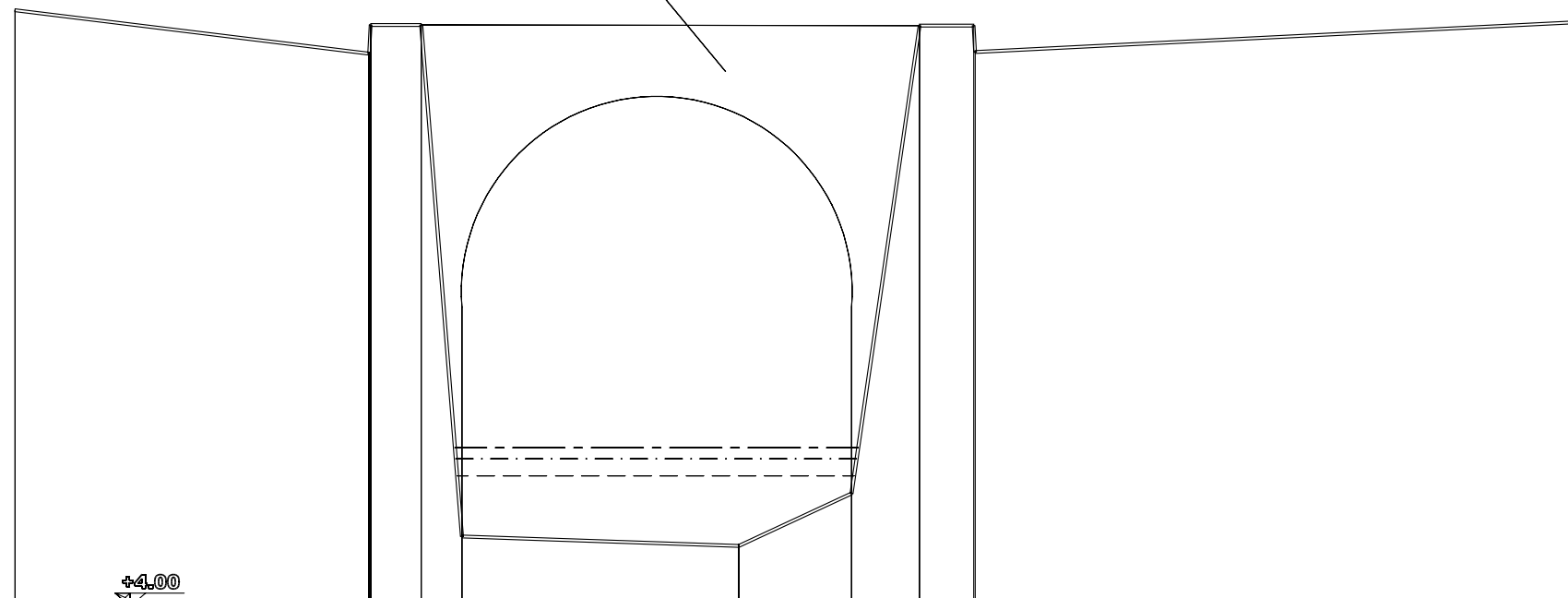
Quote terreno	21.09		7.13	7.06		5.95				20.84
Distanze parziali		12.82		2.09		9.09			23.14	
Distanze progressive	0.00		12.82	14.91		24.00				47.14

Strada statale

SEZIONE 27

- Tr=500
- - - - Tr=200
- Tr=50

Scala 1/200



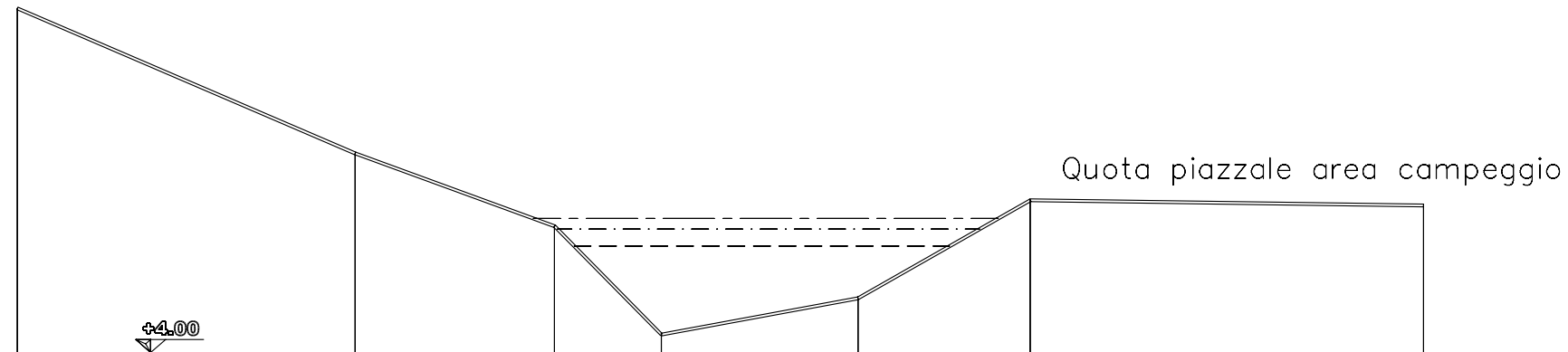
Quote terreno	21.09		19.84	20.67	20.67	6.00		5.73	7.23	20.65	20.65	19.89			20.75
Distanze parziali		10.16		1.45	1.17		7.94		3.24	1.95	1.55		17.44		
Distanze progressive	0.00		10.16	10.20	11.65	12.82		20.76	24.00	25.95	27.50	27.54			44.99



### SEZIONE 28

- Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200

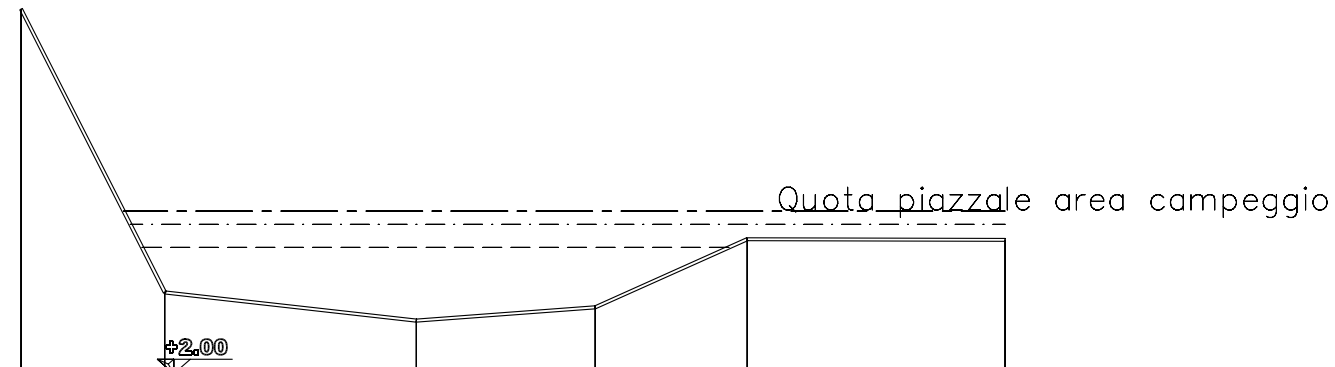


Quote terreno	14.06		9.82		7.69		4.52		5.58		8.45		8.30
Distanze parziali		9.87		5.83		3.12		5.75		5.03		11.49	
Distanze progressive	0.00		9.87		15.70		18.82		24.57		29.60		41.10

### SEZIONE 29

- Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200

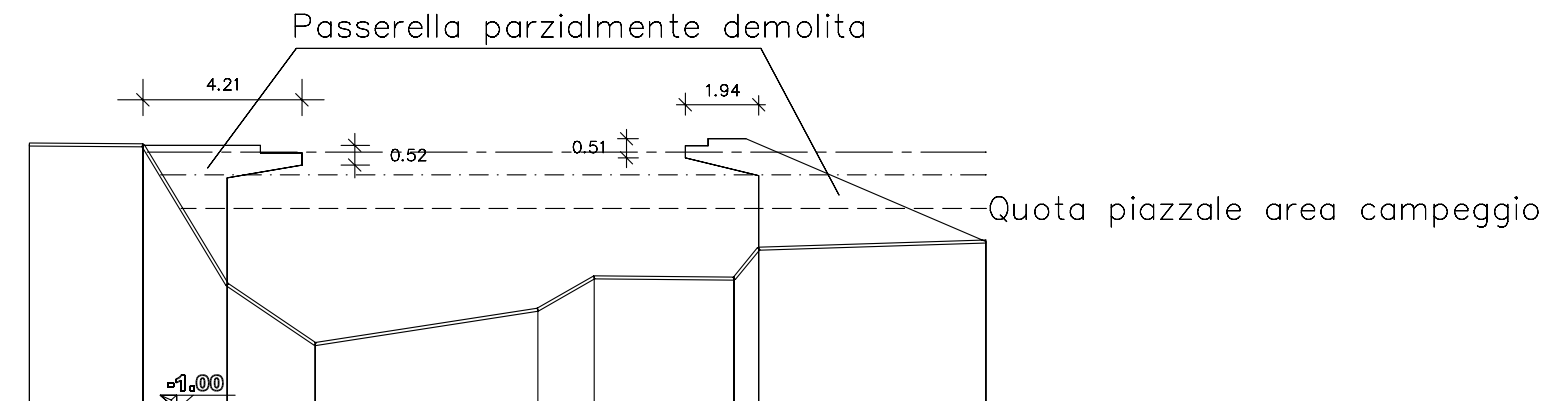


Quote terreno	11.64		4.15		3.40		3.76		5.55		5.54
Distanze parziali		3.81		6.65		4.73		4.02		6.83	
Distanze progressive	0.00		3.81		10.46		15.19		19.21		26.04

### SEZIONE 30

- Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200



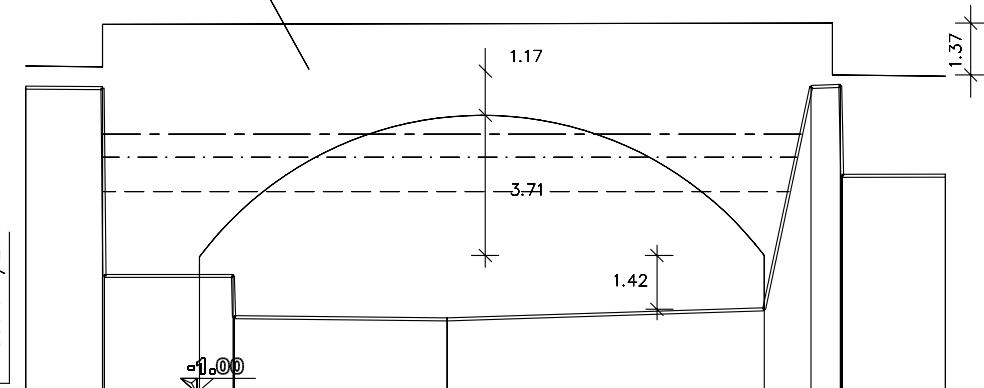
Quote terreno	6.01		5.99		2.31		0.73		1.64		2.50		2.47		3.26		3.45
Distanze parziali		3.00		2.23		2.33		5.89		1.49		3.70		0.65		6.01	
Distanze progressive	0.00		3.00		5.23		7.56		13.45		14.94		18.64		19.29		25.31

Strada statale

### SEZIONE 31

— Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200

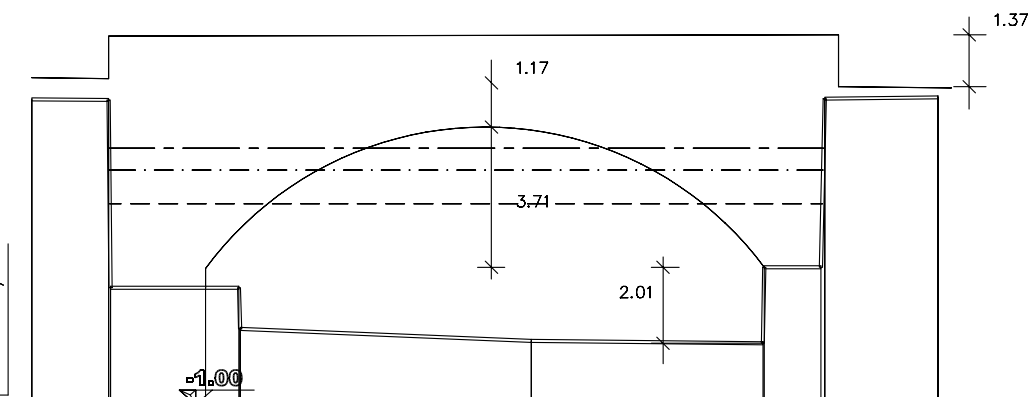


Quote terreno	7.07	7.06	2.09	2.09	2.09	1.00	0.94	1.21	7.09	7.12	4.74	4.74	
Distanze parziali		2.03	2.52	0.88		5.64		8.38	1.24	0.77	2.73		
Distanze progressive	0.00	2.03	2.08	4.60	5.48	5.51	11.15		19.54	20.78	21.55	21.60	24.34

### SEZIONE 32

— Tr=500
- - - Tr=200
- - - Tr=50

Scala 1/200



Quote terreno	7.07	7.06	2.09	2.09	2.09	1.00	0.68	0.62	2.63	2.63	7.09	7.12	
Distanze parziali		2.03	2.52	0.88		7.70		6.13	1.50	3.00			
Distanze progressive	0.00	2.03	2.08	4.60	5.48	5.51	13.21		19.34	19.38	20.88	20.98	23.98

**MODELLAZIONE IDRAULICA IN CONDIZIONI DI MOTO  
PERMANENTE:  
TABELLE DELLE GRANDEZZE IDRAULICHE SIGNIFICATIVE  
PER LE PORTATE T=50, 200, 500 ANNI**

**RIO PORTIGLIOLO**



<b>RIO PORTIGLIOLO – PROFILO DI CORRENTE PER T=50 ANNI</b>							
<b>ID Sez.</b>	<b>Progr. (m)</b>	<b>Quota fondo (m s.m.)</b>	<b>P.L. (m s.m.)</b>	<b>A (m<sup>2</sup>)</b>	<b>b (m)</b>	<b>v (m/s)</b>	<b>Fr (-)</b>
1	0.00	109.24	111.15	29.99	21.98	2.50	0.68
2	13.00	109.58	111.09	33.95	25.92	2.21	0.62
3	15.00	107.39	110.43	38.31	23.59	1.96	0.49
4	21.00	108.36	110.35	28.70	24.39	2.61	0.77
5	23.00	98.36	101.58	12.16	5.39	6.17	1.31
6	87.00	95.88	99.18	21.46	9.85	3.50	0.76
7	92.00	83.18	84.89	11.78	7.34	6.37	1.61
8	153.00	80.13	81.52	10.60	8.59	7.07	2.03
9	233.00	73.30	74.87	7.67	9.83	9.78	3.54
10	277.00	62.66	65.26	11.01	7.36	6.81	1.78
11	374.00	58.04	59.81	16.94	18.54	4.43	1.48
12	503.00	52.77	54.74	11.65	11.66	6.44	2.06
13	578.00	48.11	49.88	21.51	22.38	3.49	1.14
14	658.00	46.44	48.03	15.58	15.78	4.81	1.55
15	719.00	43.20	45.69	15.60	12.33	4.81	1.36
16	817.00	41.08	42.51	12.87	9.65	5.83	1.61
17	898.00	37.44	38.77	17.55	20.46	4.27	1.47
18	996.00	33.50	35.01	14.61	16.25	5.13	1.73
19	1106.00	28.01	29.68	16.22	15.41	4.62	1.44
20	1265.00	22.69	24.12	17.32	18.17	4.33	1.42
21	1377.00	18.27	20.34	14.51	11.13	5.17	1.45
22	1398.00	18.65	19.45	4.49	5.45	6.72	2.88
23	1400.00	16.10	18.09	11.29	8.76	6.64	1.87
24	1491.00	10.81	12.58	10.76	7.99	6.97	1.92
25	1554.00	6.64	8.96	21.58	13.35	3.48	0.87
26	1568.00	5.95	8.89	33.66	17.38	2.23	0.51
27	1578.00	5.73	7.74	19.04	11.39	3.94	0.97
28	1616.00	4.52	7.11	17.17	10.98	4.37	1.12
29	1708.00	3.40	5.34	21.88	15.52	3.43	0.92
30	1804.00	0.73	4.32	36.13	14.06	2.08	0.41
31	1858.00	0.94	4.32	54.82	18.14	1.37	0.25
32	1864.00	0.62	4.31	59.44	18.86	1.26	0.23

Rio Portigliolo/Risultati delle simulazioni idrauliche - T = 50 anni

<b>RIO PORTIGLIOLO – PROFILO DI CORRENTE PER T=200 ANNI</b>							
<b>ID Sez.</b>	<b>Progr. (m)</b>	<b>Quota fondo (m s.m.)</b>	<b>P.L. (m s.m.)</b>	<b>A (m2)</b>	<b>b (m)</b>	<b>v (m/s)</b>	<b>Fr (-)</b>
1	0.00	109.24	111.49	37.65	22.85	2.92	0.73
2	13.00	109.58	111.43	42.95	26.91	2.56	0.65
3	15.00	107.39	110.70	44.84	24.64	2.45	0.58
4	21.00	108.36	110.62	35.42	25.15	3.11	0.84
5	23.00	98.36	102.28	16.21	6.04	6.79	1.32
6	87.00	95.88	99.84	28.37	10.98	3.88	0.77
7	92.00	83.18	85.35	15.18	7.51	7.25	1.63
8	153.00	80.13	81.87	13.67	8.99	7.05	2.08
9	233.00	73.30	75.10	10.25	11.26	7.73	3.59
10	277.00	62.66	65.70	14.45	8.32	7.61	1.84
11	374.00	58.04	60.09	22.55	21.26	4.88	1.51
12	503.00	52.77	55.05	15.44	13.54	7.13	2.13
13	578.00	48.11	50.16	27.67	23.38	3.98	1.17
14	658.00	46.44	48.36	21.04	17.80	5.23	1.54
15	719.00	43.20	46.16	23.19	19.28	4.74	1.38
16	817.00	41.08	42.95	17.69	12.92	6.22	1.70
17	898.00	37.44	39.03	22.91	22.24	4.80	1.51
18	996.00	33.50	35.28	19.24	18.06	5.72	1.77
19	1106.00	28.01	29.98	20.86	16.30	5.27	1.49
20	1265.00	22.69	24.40	22.85	20.19	4.81	1.44
21	1377.00	18.27	20.65	18.23	11.91	6.04	1.56
22	1398.00	18.65	19.66	6.25	7.17	7.59	1.01
23	1400.00	16.10	18.47	15.02	9.76	7.32	1.88
24	1491.00	10.81	13.01	14.36	8.63	7.66	1.90
25	1554.00	6.64	9.62	31.09	15.50	3.54	0.80
26	1568.00	5.95	9.63	47.17	19.21	2.33	0.48
27	1578.00	5.73	8.23	24.70	11.50	4.45	0.97
28	1616.00	4.52	7.61	23.01	12.35	4.78	1.12
29	1708.00	3.40	5.95	34.42	23.15	3.20	0.84
30	1804.00	0.73	5.21	48.62	14.06	2.26	0.39
31	1858.00	0.94	5.23	72.75	21.09	1.51	0.26
32	1864.00	0.62	5.20	76.16	18.89	1.44	0.23

Rio Portigliolo/Risultati delle simulazioni idrauliche – T = 200 anni

<b>RIO PORTIGLIOLO – PROFILO DI CORRENTE PER T=500 ANNI</b>							
<b>ID Sez.</b>	<b>Progr. (m)</b>	<b>Quota fondo (m s.m.)</b>	<b>P.L. (m s.m.)</b>	<b>A (m2)</b>	<b>b (m)</b>	<b>v (m/s)</b>	<b>Fr (-)</b>
1	0.00	109.24	111.71	42.68	23.40	3.16	0.75
2	13.00	109.58	111.65	48.97	27.54	2.76	0.66
3	15.00	107.39	110.87	49.17	25.26	2.75	0.63
4	21.00	108.36	110.79	39.86	25.64	3.39	0.87
5	23.00	98.36	102.72	18.91	6.44	7.14	1.33
6	87.00	95.88	100.26	33.07	11.69	4.08	0.77
7	92.00	83.18	85.65	17.43	7.62	7.74	1.63
8	153.00	80.13	82.09	15.69	9.24	8.60	2.11
9	233.00	73.30	75.25	11.92	12.19	8.32	2.66
10	277.00	62.66	65.96	16.71	8.90	8.08	1.88
11	374.00	58.04	60.26	26.20	22.83	5.15	1.54
12	503.00	52.77	55.22	17.94	14.42	7.52	2.15
13	578.00	48.11	50.33	31.67	24.00	4.26	1.19
14	658.00	46.44	48.54	24.49	18.94	5.51	1.55
15	719.00	43.20	46.36	27.26	21.08	4.95	1.39
16	817.00	41.08	43.18	20.98	15.00	6.44	1.74
17	898.00	37.44	39.20	26.83	24.32	5.03	1.53
18	996.00	33.50	35.45	22.32	19.17	6.05	1.79
19	1106.00	28.01	30.16	23.93	16.86	5.64	1.51
20	1265.00	22.69	24.57	26.23	20.62	5.15	1.46
21	1377.00	18.27	20.85	20.52	12.38	6.58	1.63
22	1398.00	18.65	19.79	7.91	8.48	7.06	3.64
23	1400.00	16.10	18.71	17.44	10.41	7.74	1.91
24	1491.00	10.81	13.30	16.85	9.04	8.01	1.87
25	1554.00	6.64	10.05	38.08	16.91	3.55	0.75
26	1568.00	5.95	10.10	56.47	20.37	2.39	0.46
27	1578.00	5.73	8.55	28.33	11.57	4.77	0.97
28	1616.00	4.52	7.92	27.04	13.61	4.99	1.13
29	1708.00	3.40	6.30	42.67	23.33	3.16	0.75
30	1804.00	0.73	5.81	57.00	14.06	2.37	0.38
31	1858.00	0.94	5.84	85.71	21.24	1.58	0.25
32	1864.00	0.62	5.78	87.14	18.91	1.55	0.23

Rio Portagliolo/Risultati delle simulazioni idrauliche – T = 500 anni