COMUNE DI SAVONA

Provincia Di Savona

Oggetto: RECUPERO AMBIENTALE E MESSA IN SICUREZZA RIO ERXO

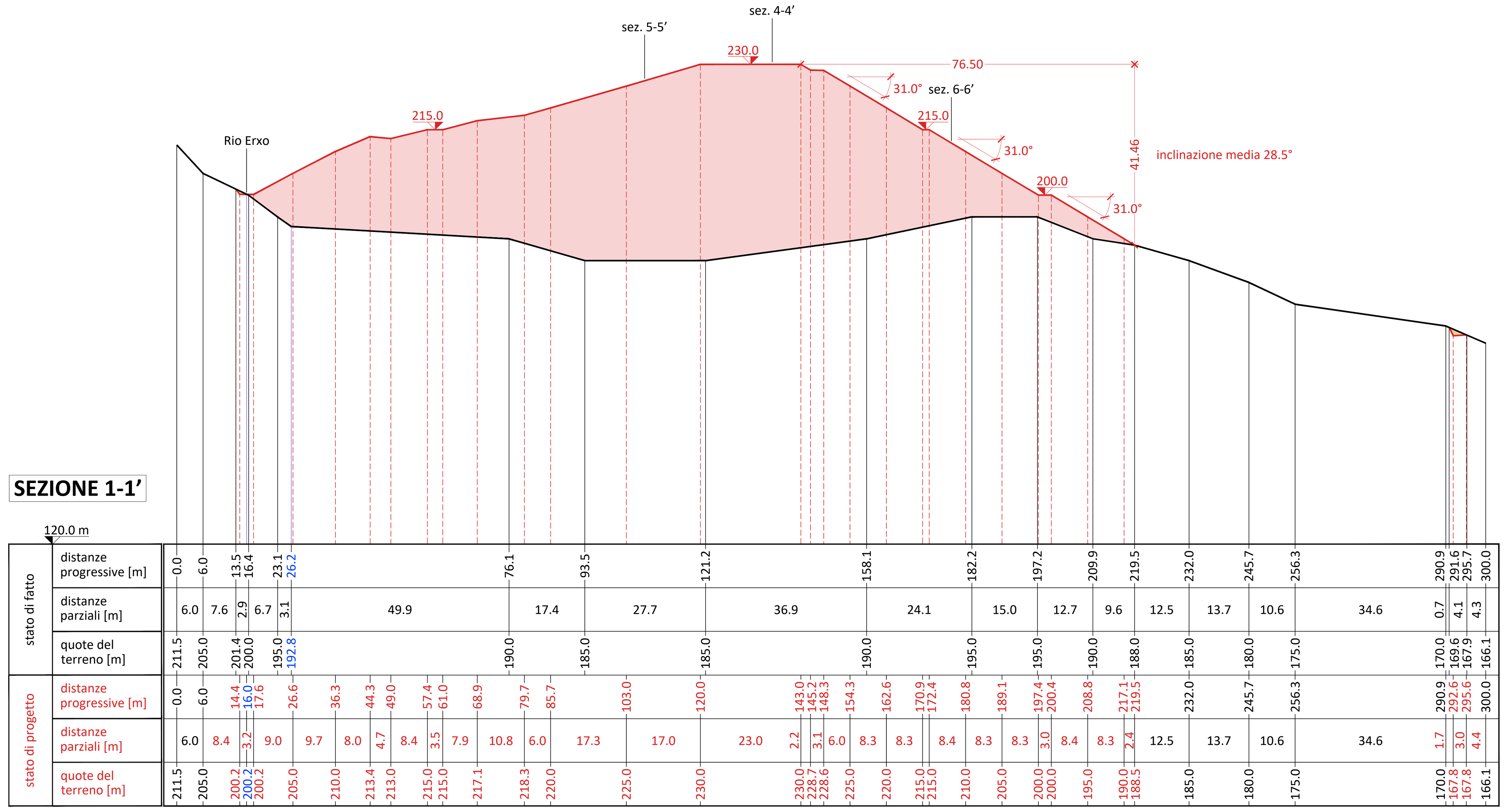
Richiedente: VALECO S.r.l.
Loc. Sansobbia n° 59/1
Stella San Giovanni (Savona)
P.I.: 01487460097

PROGETTO ESECUTIVO
SEZIONI

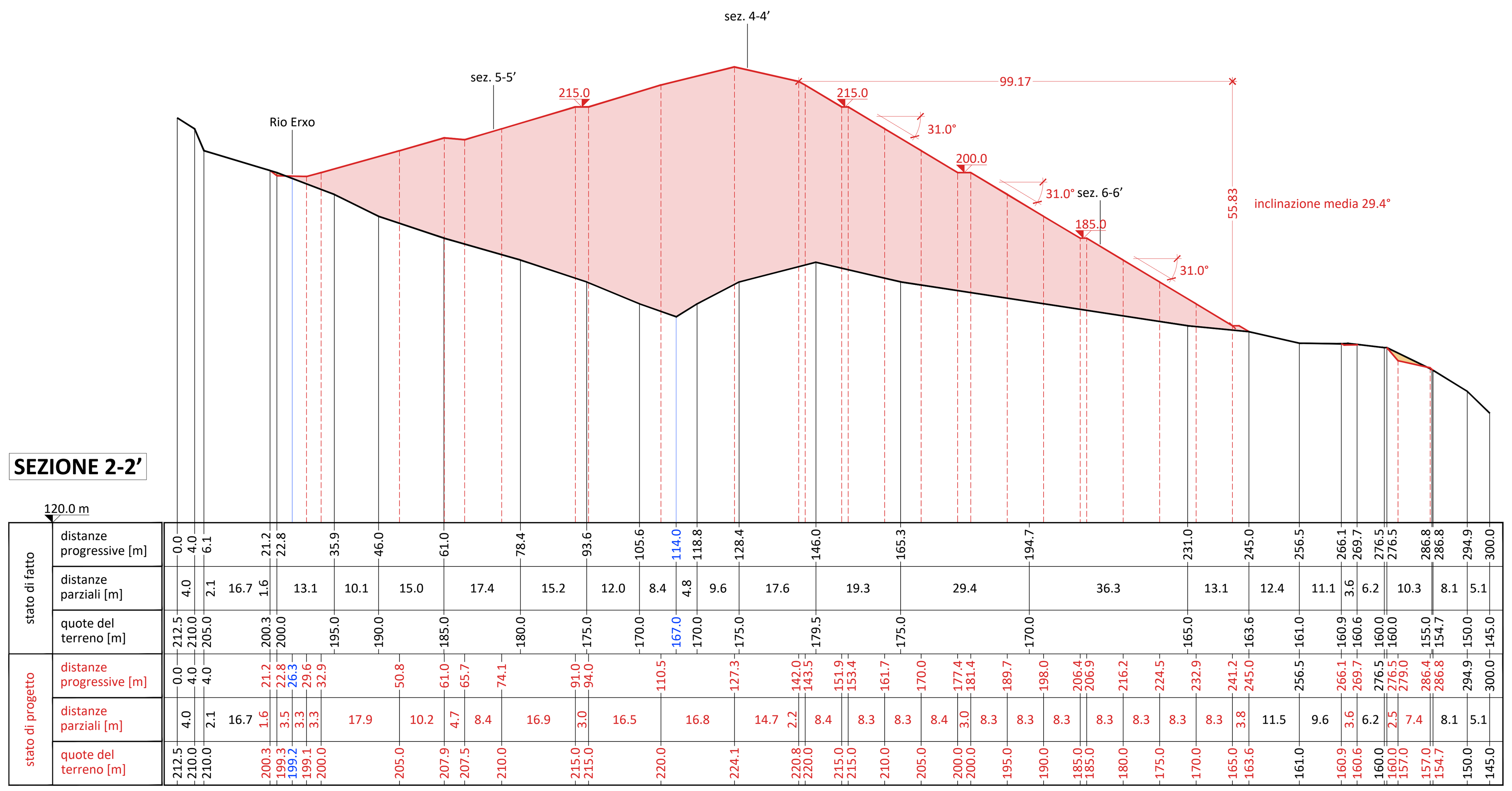


Firmato digitalmente da:
DE FERRARI ROLLERI ARIANNA
Firmato il 17/12/2024 17:16
Seriale Certificato: 2250457
Valido dal 03/03/2023 al 03/03/2026
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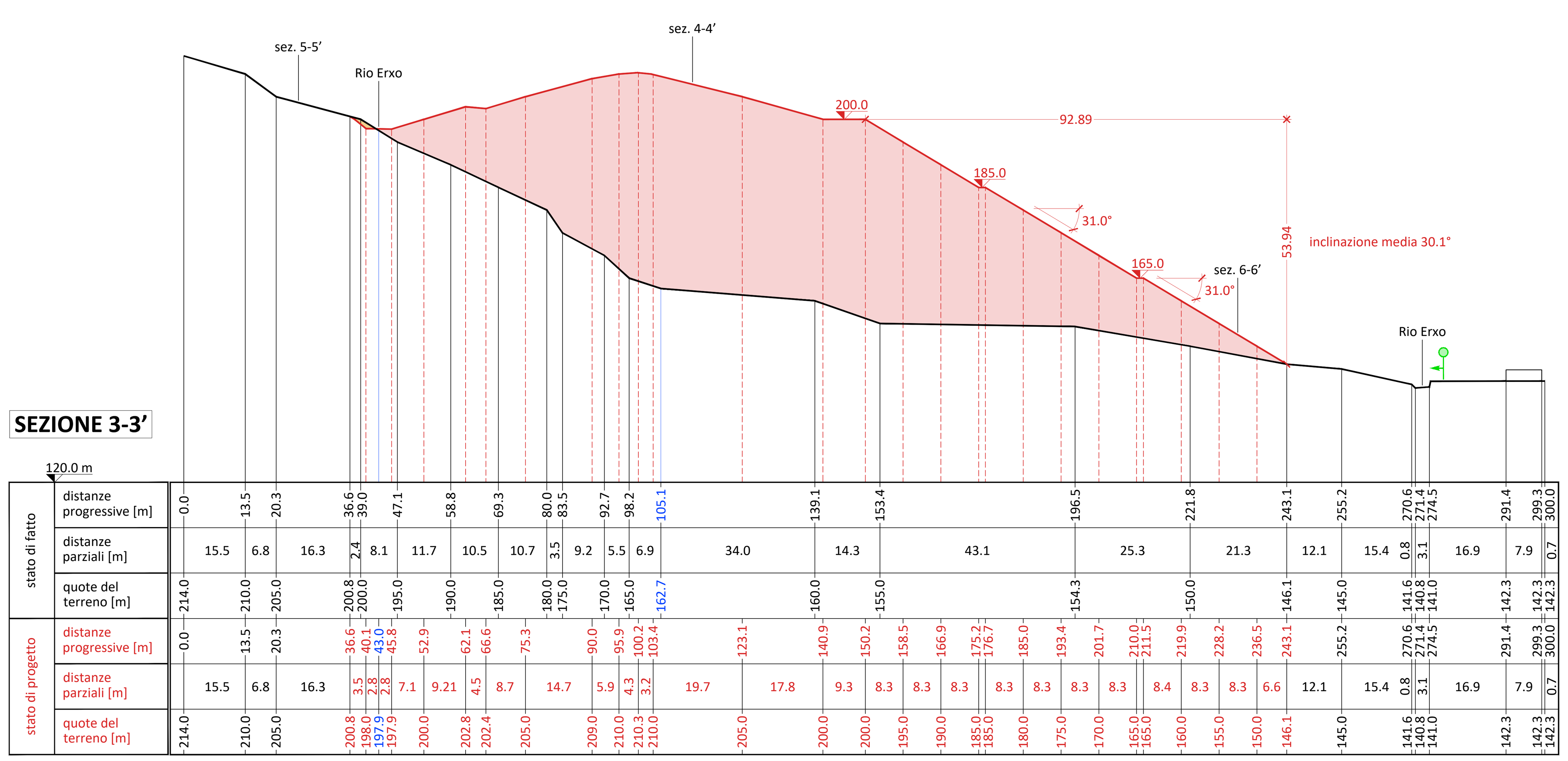
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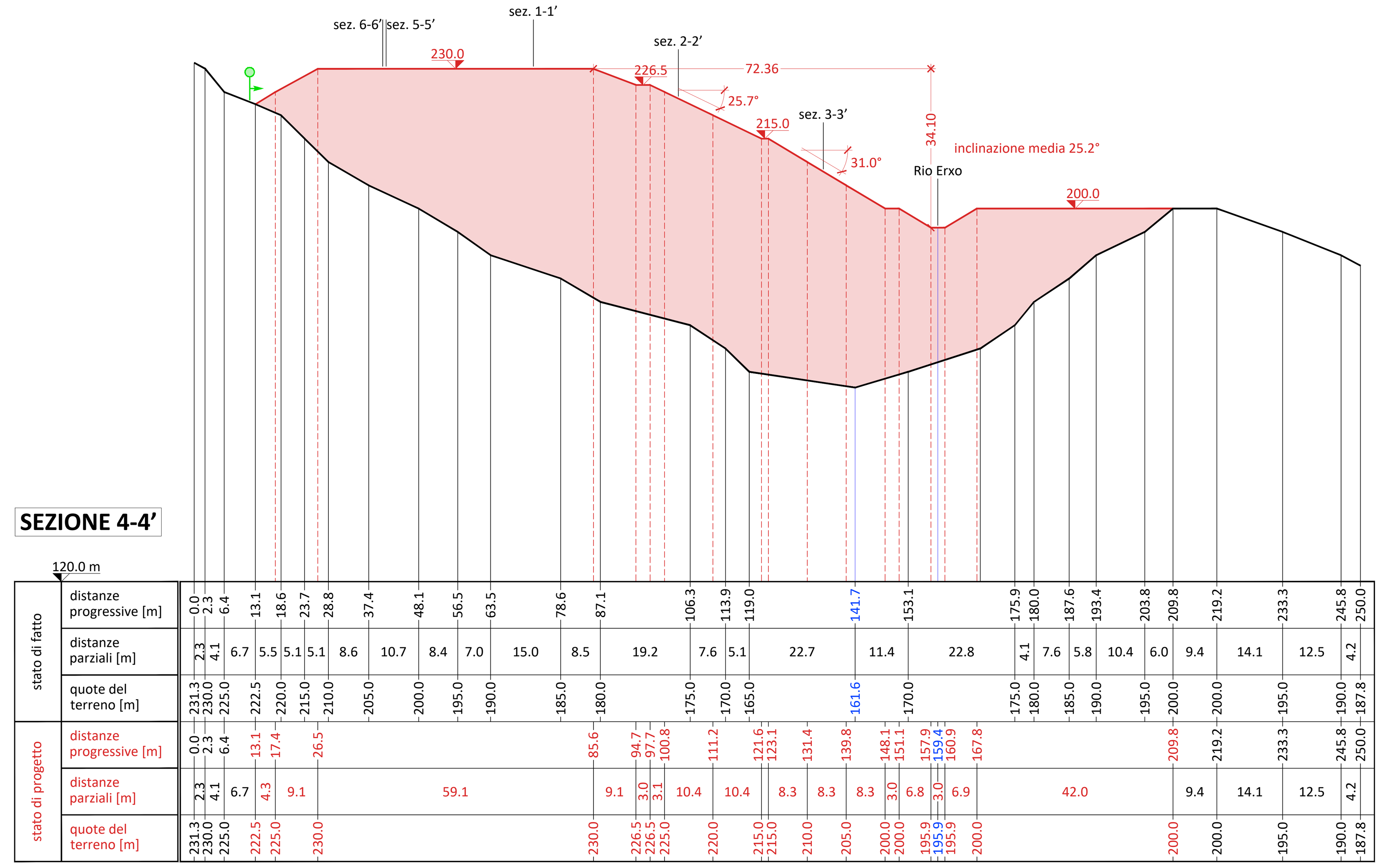
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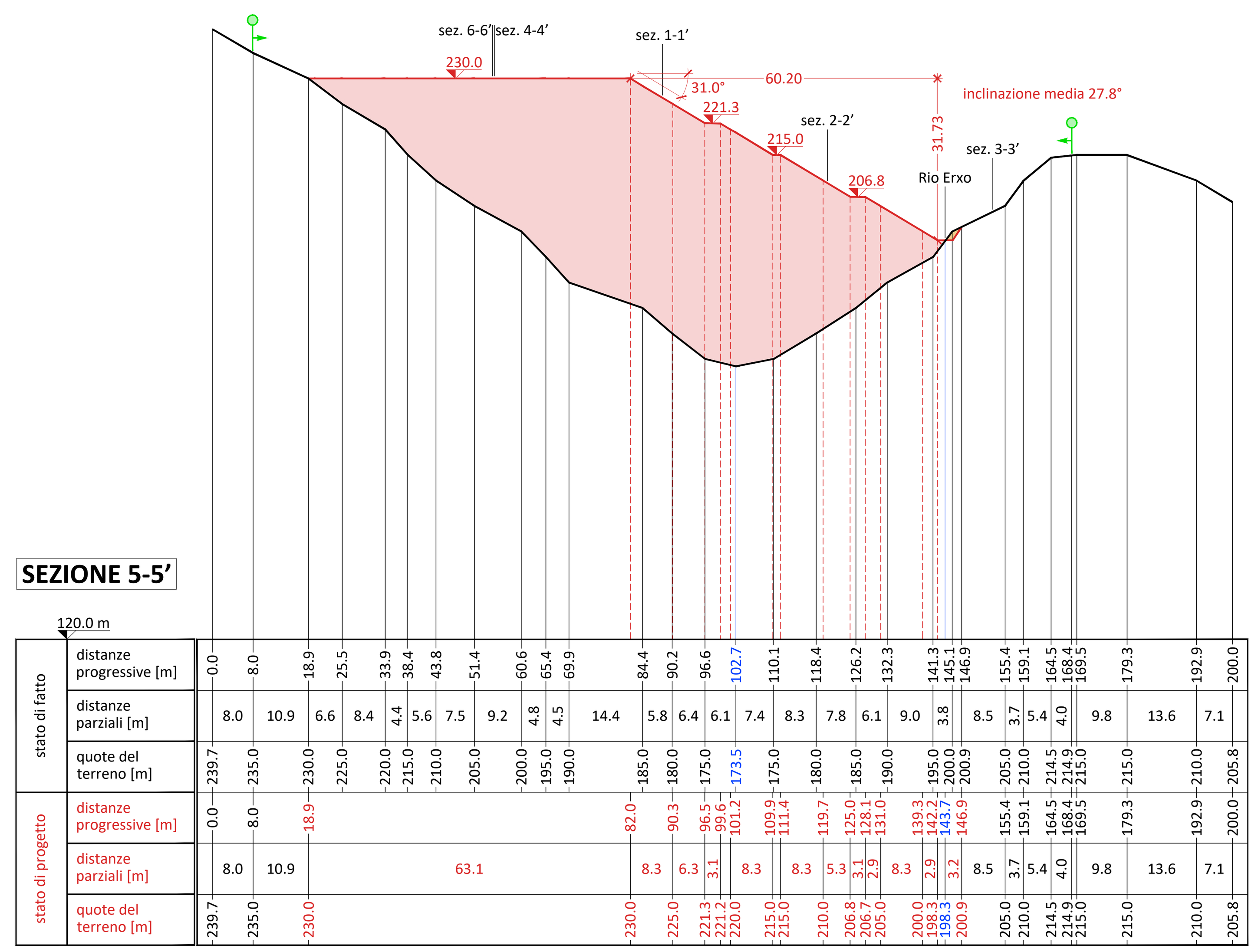
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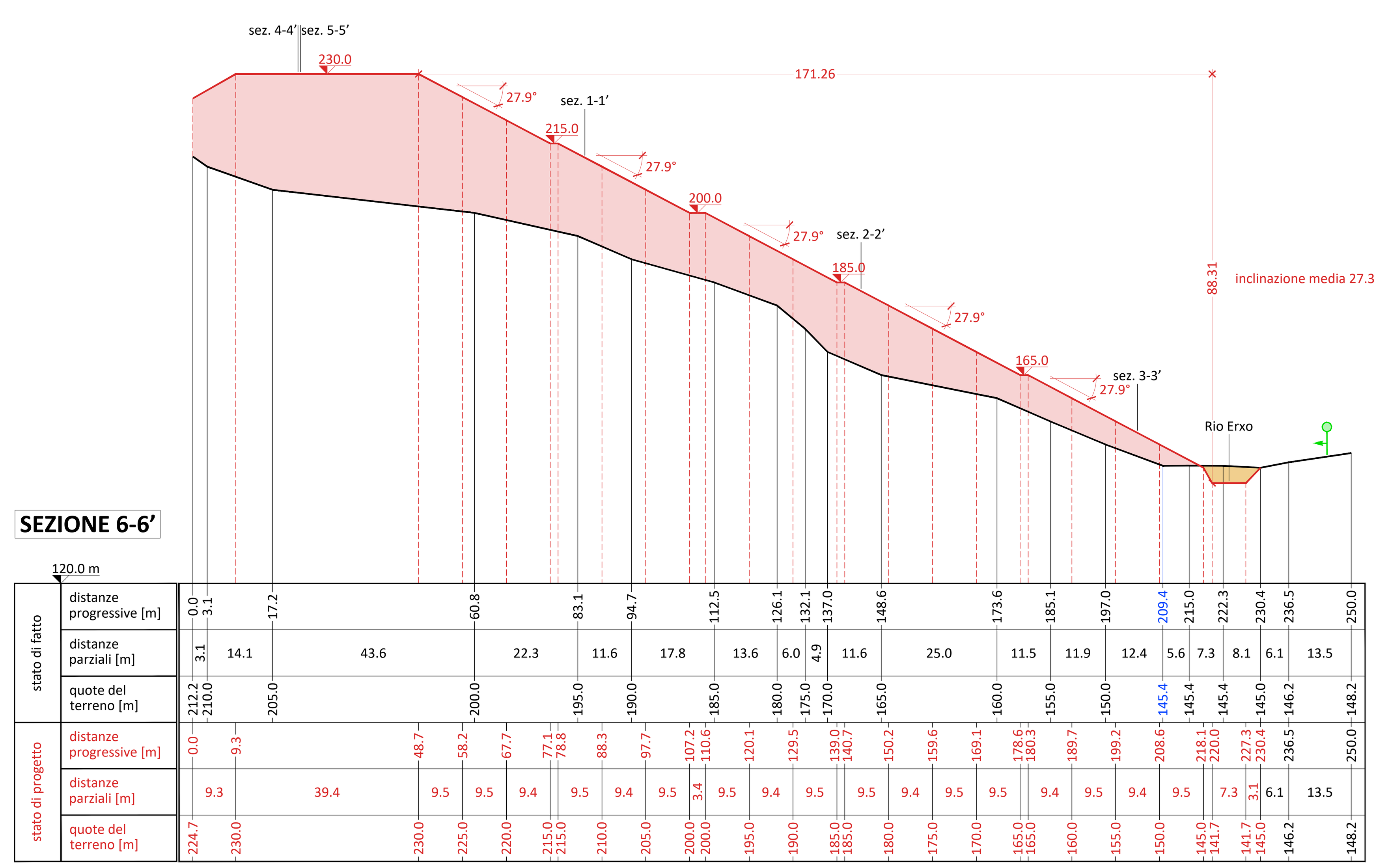
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SEZIONE 5-5’



SEZIONE 6-6’



Legenda

- *profilo topografico stato di fatto (da C.T.R.)*
- *profilo topografico stato di progetto*
- 200.0 *quota altimetrica stato di progetto*
- *abbancamento*
- *scavo*
- *limite di disponibilità*
- *limite del demanio idrico*

Comune di Savona – Provincia di Savona

Intervento di messa in sicurezza e riempimento della valletta del rio Erxo

Progetto esecutivo

Progettazione

progettazione generale
TecGeo – Ingegneria e Geotecnica
geol. Massimo BOCHIOLO
ing. Enrico MASSA
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collaboratori
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via Nazario Sauro, 4/5A – 17100 Savona

studi geotecnici
geol. Massimo BOCHIOLO
ing. Enrico MASSA

studi idraulici
geol. Massimo BOCHIOLO
ing. Enrico MASSA

ORDINE DEGLI INGEGNERI PROVINCIA DI SAVONA – ENRICO MASSA INGEGNERE A 1313
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Committente

VALECO S.r.l.
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e-mail comet@vislink.it
PEC valeco-srl@prontopec.com

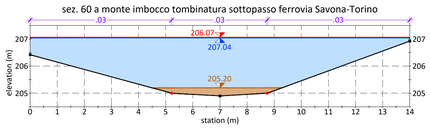
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sig. Massimo SCOCCA
via Pero, 122/1 – 17019 Varazze (SV)
C.F. SCC MSM 73E20 I480J

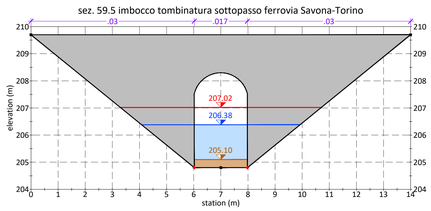
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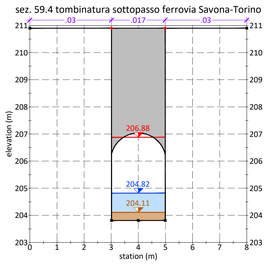
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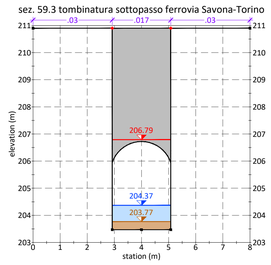
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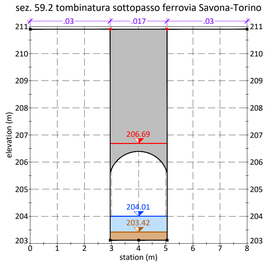
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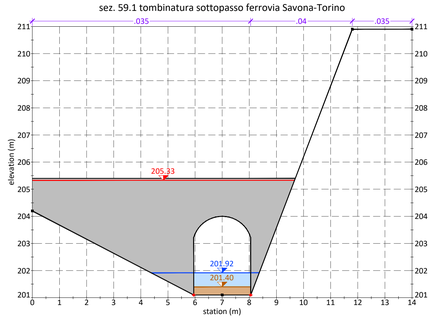


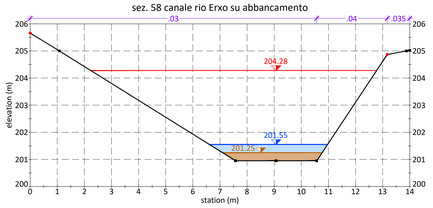


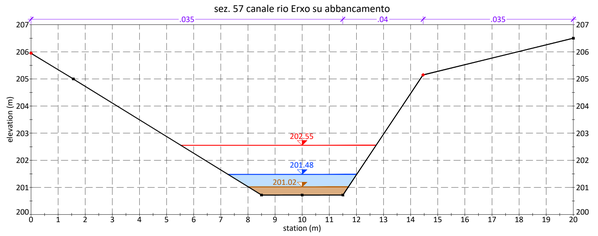


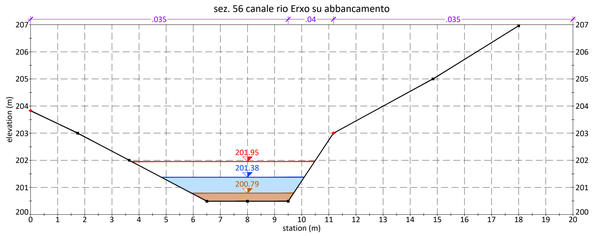


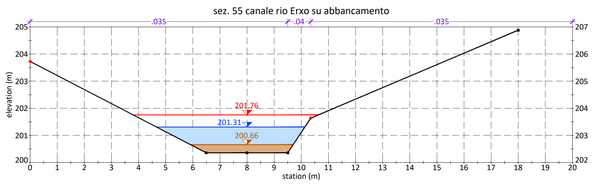


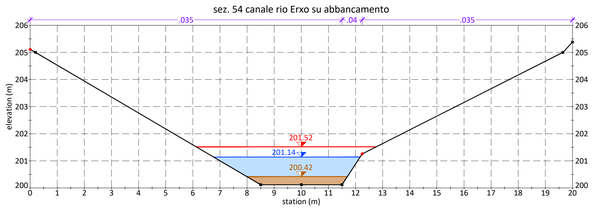


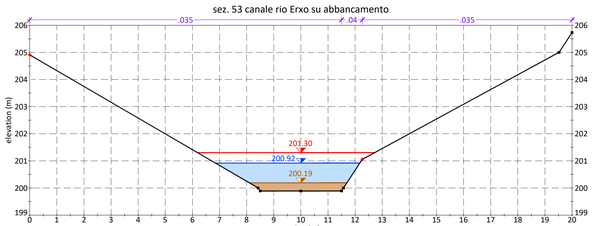


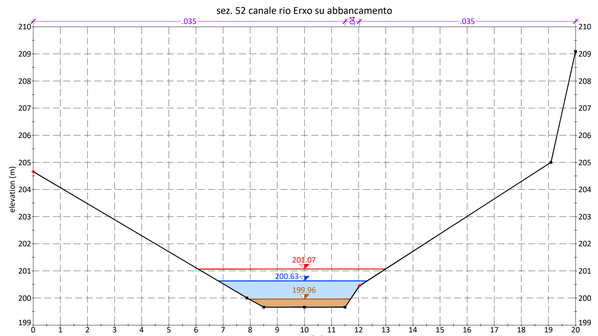


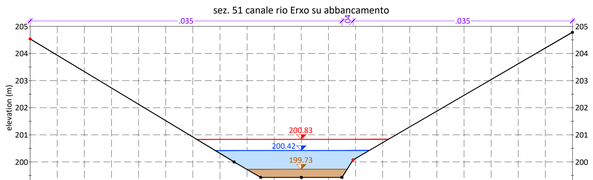


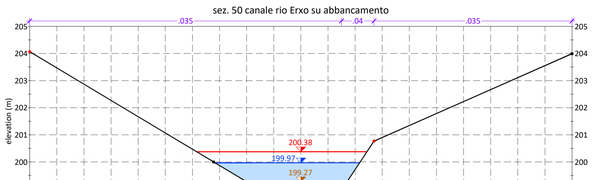


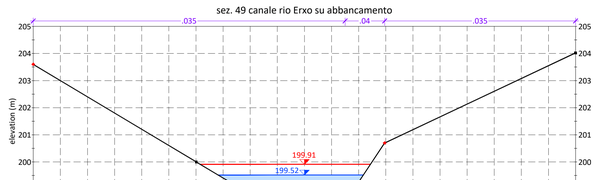


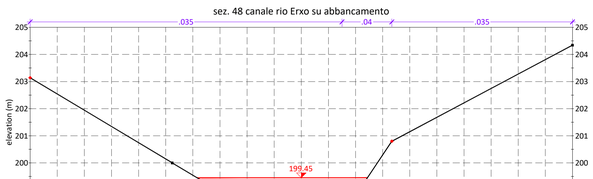


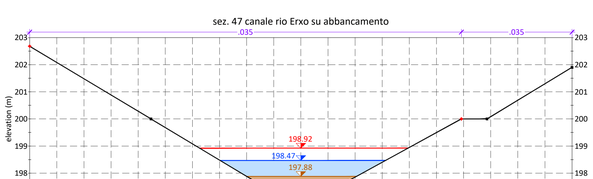


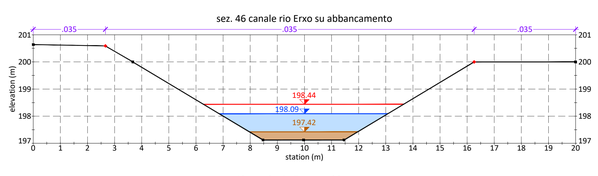


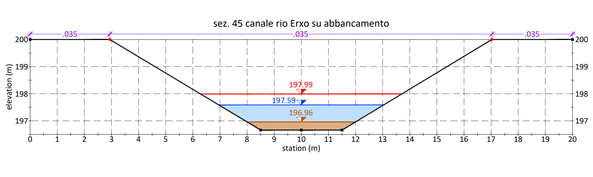


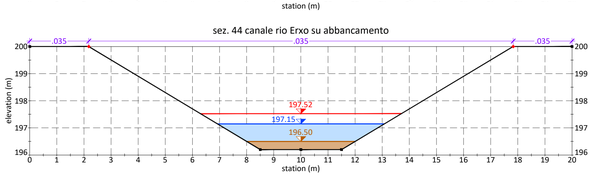


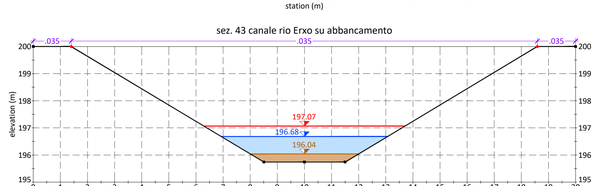












LEGENDA

- *profilo topografico*
- *limite di golena (bank station)*
- *argine (levee)*
- *.04 numero di Manning*
- *sezione di deflusso*
- *sezione d'alveo sottratta al deflusso per accumulo di sedimenti con conseguente innalzamento della quota (fisso) di fondo alveo*
- *copertura in tratto d'alveo in sezione chiusa (lid)*
- *sezione d'alveo interessata da ostruzione (obstructions) per accumulo di materiale flottante in corrispondenza di un'opera di trattenuta*
- 154.25 *livello delle acque e quota del pelo libero per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota del carico energetico per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota (fissa) del fondo alveo nella sezione interessata da accumulo di sedimenti*
- 154.25 *livello delle acque e quota del pelo libero per l'evento di piena con T_R = 200 anni in conseguenza di opere di adeguamento della tombinatura di sottopasso alla SP29*
- 154.25 *quota del carico energetico per l'evento di piena con T_R = 200 anni in conseguenza delle opere di adeguamento della tombinatura di sottopasso alla SP29*

Comune di Savona – Provincia di Savona

Intervento di messa in sicurezza e riempimento della valletta del rio Erxo

Studio idraulico

art. 8, comma 2, lett. b) delle Norme di Piano del Piano di Bacino del Torrente Letimbro e art. 7, comma 2, lett. a) del R.R. 14 luglio 2011, n. 3

Progettazione

progettazione generale
TecGeo – Ingegneria e Geotecnica
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collaboratori
dr. for. Andrea SAMBADO
via Nazario Sauro, 4/5A – 17100 Savona

studi geotecnici
geol. Massimo BOCHIOLO
ing. Enrico MASSA

studi idraulici
geol. Massimo BOCHIOLO
ing. Enrico MASSA

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Data: 2024.04.04 22:52:36 +02'00'

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Data: 2024.04.04 22:56:12 +02'00'

Committente

VALECO S.r.l.
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amministratore unico
sig. Massimo SCOCCA
via Pera, 122/1 – 17019 Varazze (SV)
C.F. SCC MSM 73E20 I480I

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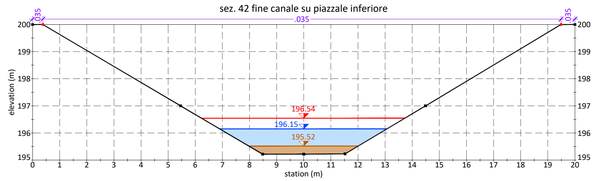
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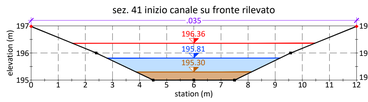
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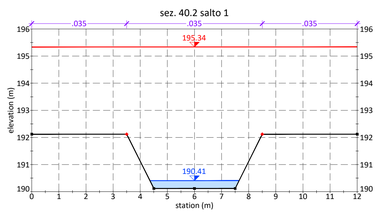
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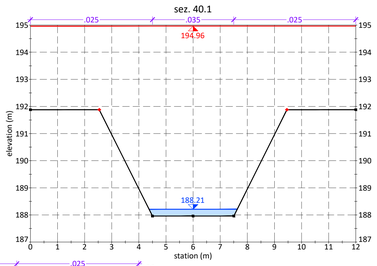
LEGENDA

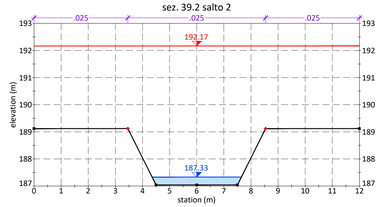
- *profilo topografico*
- *limite di golena (bank station)*
- *argine (levee)*
- .04 *numero di Manning*
- *sezione di deflusso*
- *sezione d'alveo sottratta al deflusso per accumulo di sedimenti con conseguente innalzamento della quota (fissa) di fondo alveo*
- *copertura in tratto d'alveo in sezione chiusa (lid)*
- 154.25 *livello delle acque e quota del pelo libera per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota del carico energetico per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota (fissa) del fondo alveo nella sezione interessata da accumulo di sedimenti*
- 154.25 *livello delle acque e quota del pelo libero per l'evento di piena con T_R = 200 anni in conseguenza di opere di adeguamento della tombinatura di sottopasso alla SP29*
- 154.25 *quota del carico energetico per l'evento di piena con T_R = 200 anni in conseguenza delle opere di adeguamento della tombinatura di sottopasso alla SP29*
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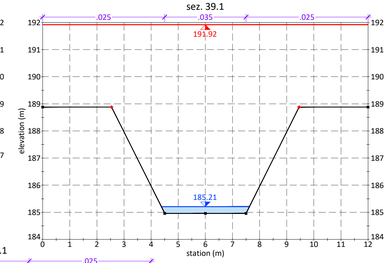


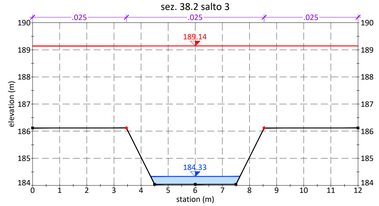


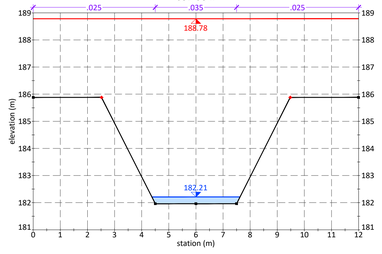


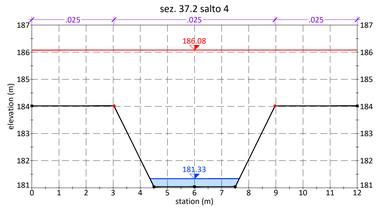


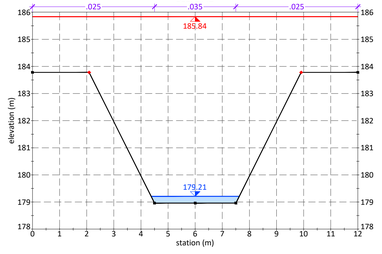


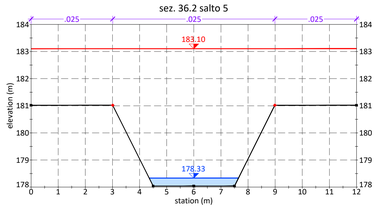


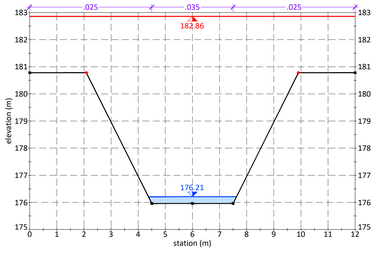


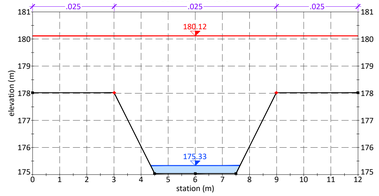


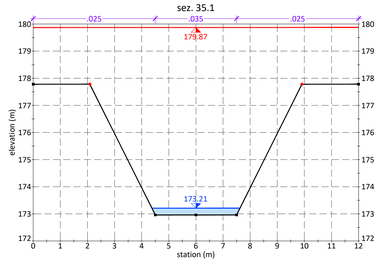


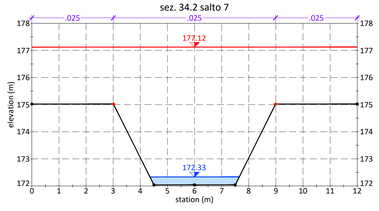


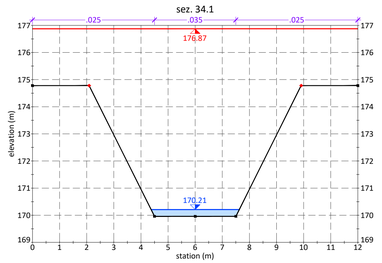


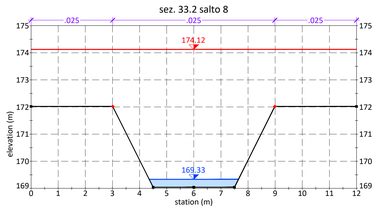


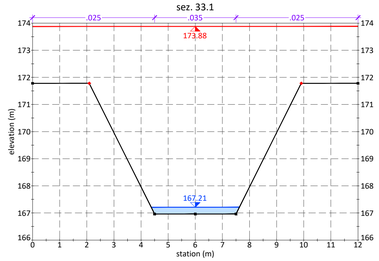


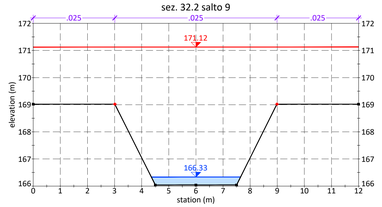


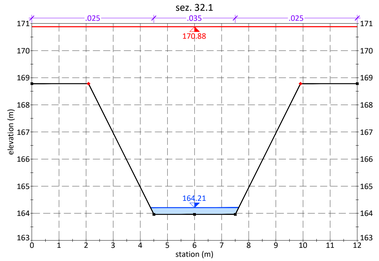


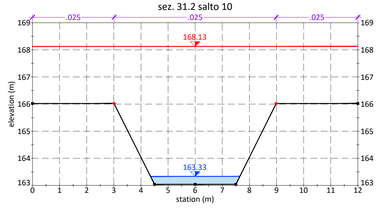


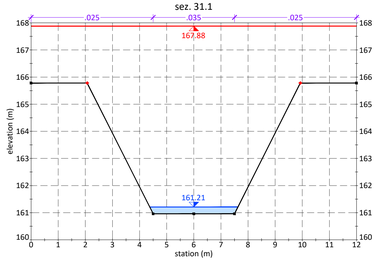


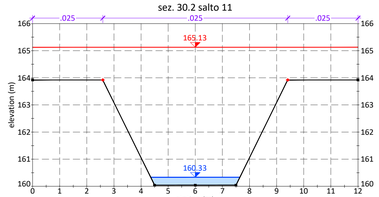


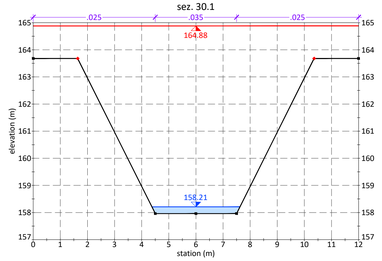


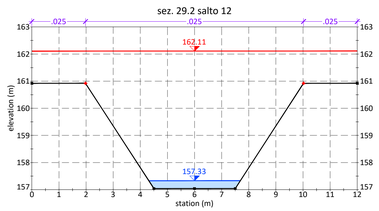


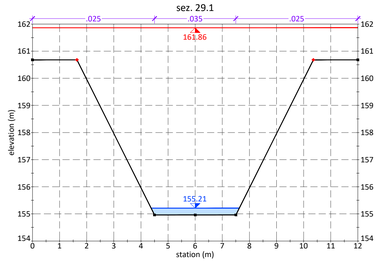


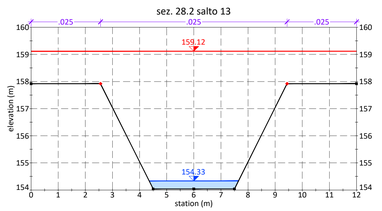












Comune di Savona – Provincia di Savona

Intervento di messa in sicurezza e riempimento della valletta del rio Erxo

Studio idraulico

art. 8, comma 2, lett. b) delle Norme di Piano del Piano di Bacino del Torrente Letimbro e art. 7, comma 2, lett. a) del R.R. 14 luglio 2011, n. 3

Progettazione

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geol. Massimo BOCHIOLO
ing. Enrico MASSA

ORDINE REGIONALE DEI GEOLOGI DELLA LIGURIA – A.P. n. 603 – MASSIMO BOCHIOLO – GEOLOGO – Iscr. Sez. 1B n.603 – 2019

Firmato digitalmente da Bochiolo Massimo
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Firmato digitalmente da Massa Enrico
Data: 2024.04.04 22:56:43 +02'00'

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codice elaborato							*scala*
commessa	*lotto*	*sogg.*	*fase*	*categoria*	*tipo*	*numero*	*revisione*	*1:100*
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rev.	*descrizione*	*data*	*redatto*	*verificato*	*approvato*
4					
3					
2					
1					
0	*emesso ex novo per incarico*	*aprile 2024*	*M.B. – E.M.*	*M.B. – E.M.*	*M.S.*

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sezioni idrauliche da 42 a 28.2

S03

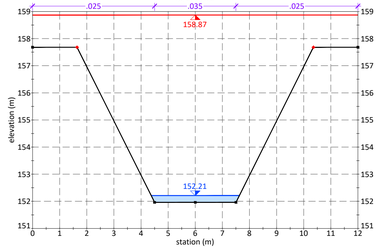
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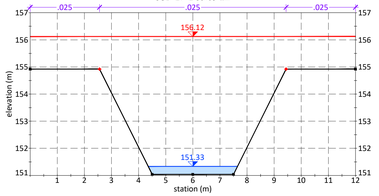
- *profilo topografico*
- *limite di golena (bank station)*
- *argine (levee)*
- .04 *numero di Manning*
- *sezione di deflusso*
- *sezione d'alveo sottratta al deflusso per accumulo di sedimenti con conseguente innalzamento della quota (fisso) di fondo alveo*
- *copertura in tratto d'alveo in sezione chiusa (lid)*
- *sezione d'alveo interessata da ostruzione (obstructions) per accumulo di materiale flottante in corrispondenza di un'opera di trattenuta*

- 154.25 *livello delle acque e quota del pelo libero per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota del carico energetico per l'evento di piena con tempo di ritorno T_R = 200 anni*
- 154.25 *quota (fissa) del fondo alveo nella sezione interessata da accumulo di sedimenti*
- 154.25 *livello delle acque e quota del pelo libero per l'evento di piena con T_R = 200 anni in conseguenza di opere di adeguamento della tombinatura di sottopasso alla SP29*
- 154.25 *quota del carico energetico per l'evento di piena con T_R = 200 anni in conseguenza delle opere di adeguamento della tombinatura di sottopasso alla SP29*

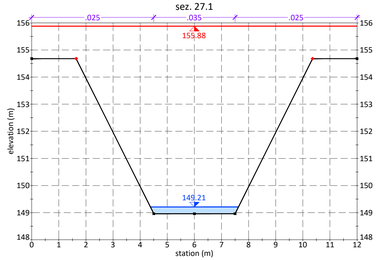
sez. 28.1



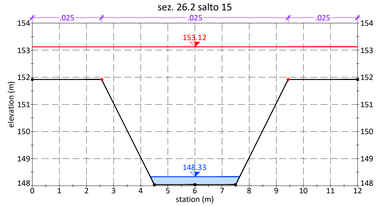
sez. 27.2 salto 14



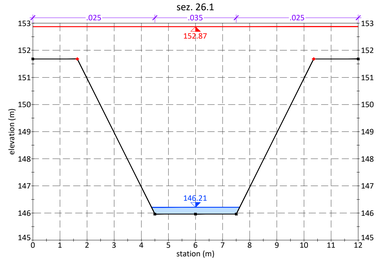
sez. 27.1



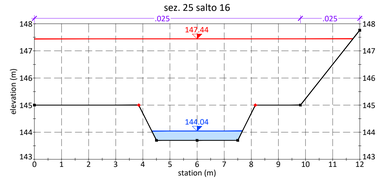
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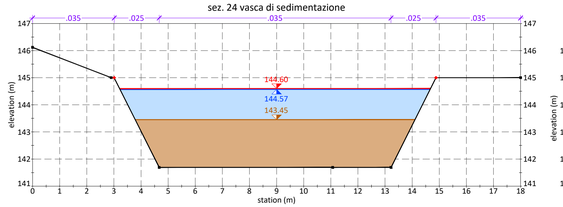
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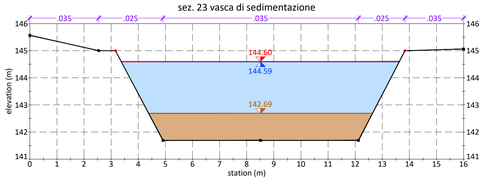
sez. 25 salto 16



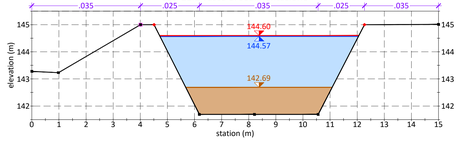
sez. 24 vasca di sedimentazione



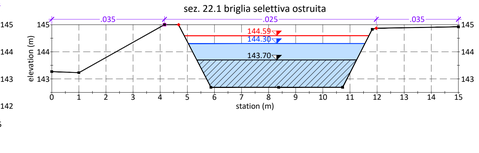
sez. 23 vasca di sedimentazione



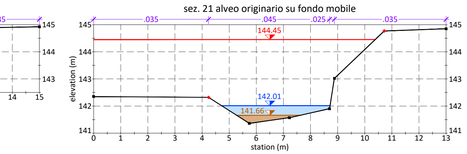
sez. 22.2 vasca di sedimentazione



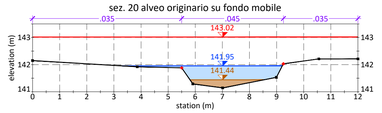
sez. 22.1 briglia selettiva ostruita



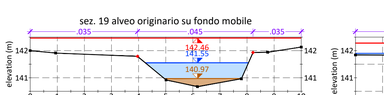
sez. 21 alveo originario su fondo mobile



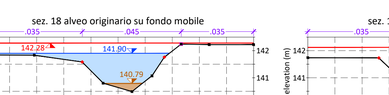
sez. 20 alveo originario su fondo mobile



sez. 19 alveo originario su fondo mobile



sez. 18 alveo originario su fondo mobile



sez. 17.2 a monte di un salto



sez. 17.1 a valle di un salto

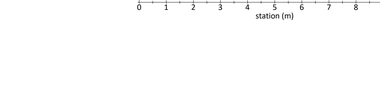


sez. 16 inizio tratto plateato

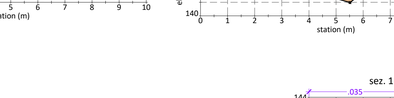


sez. 15 tratto plateato

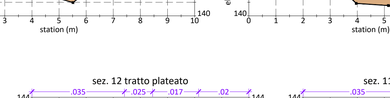
sez. 14 tratto plateato



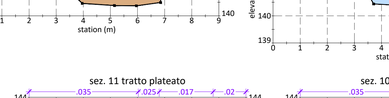
sez. 13 tratto plateato



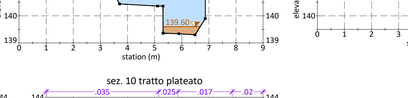
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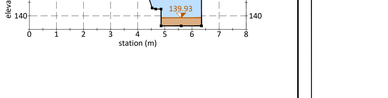
sez. 11 tratto plateato



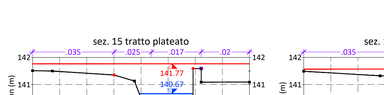
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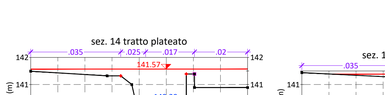
sez. 9 tratto plateato



sez. 8 tratto plateato



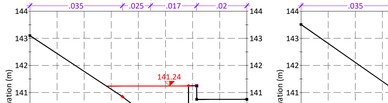
sez. 7 tratto plateato



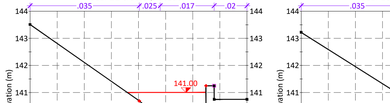
sez. 6 tratto plateato



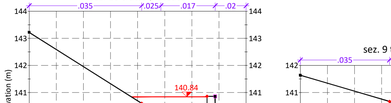
sez. 5 vasca imbocco tombinatura sottopasso SP29



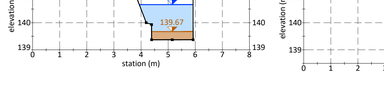
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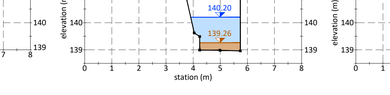
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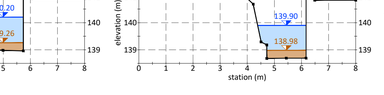
sez. 2.2 immissione imbocco tombinatura sottopasso SP29 (stato attuale)



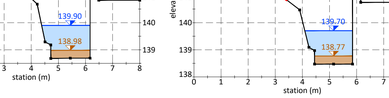
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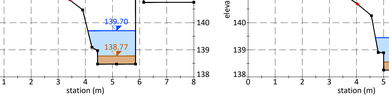
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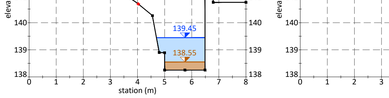
sez. 2.2 immissione imbocco tombinatura sottopasso SP29 (ipotesi di adeguamento)



sez. 2.1 imbocco tombinatura sottopasso SP29 (ipotesi di adeguamento)



sez. 1 sbocco tombinatura sottopasso SP29 (ipotesi di adeguamento)



Comune di Savona – Provincia di Savona

Intervento di messa in sicurezza e riempimento della valletta del rio Erxo

Studio idraulico

art. 8, comma 2, lett. b) delle Norme del Piano di Bacino del Torrente Letimbro e art. 7, comma 2, lett. a) del R.R. 14 luglio 2011, n. 3

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Firmato digitalmente da Bochiolo Massimo
Data: 2024.04.04 22:53:45 +02'00'

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Data: 2024.04.04 22:57:06 +02'00'

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C.F. SCC MSM 73E20 I480I

codice elaborato										*scala*
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rev.	*descrizione*					*data*	*redatto*	*verificato*	*approvato*	

titolo elaborato

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sigla elaborato

S04

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