REGIONE PIEMONTE PROVINCIA DI ALESSANDRIA

COMUNE DI ACQUI TERME

VERIFICA DI COMPATIBILITA' IDRAULICA DI PREVISIONE DEGLI STRUMENTI URBANISTICI

Torino, Ottobre 2011	Agg. Luglio 2013	S.2011.03
il tecnico incaricato Ing. Pietro CAVALLERO		Studio Associato Ingegneri Architetti Cavallero C.so Vittorio Emanuele II, 167 10139 Torino tel. 011 – 0364820 Fax. 011 – 0364822 e-mail cavallerosiacitk@virgilio.it
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ELAB. N. 2.2	TABULATI DI CALCOLO RIO MEDRIO	

<u>Scenario A1)</u>

Rio Medrio Tempo di ritorno Tr = 20 anni

Portata a monte dello scolmatore Q = 63 mc/s

Portata a valle dello scolmatore Q = 37 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	A1_Tr 20	63.00	159.08	161.76	160.84	161.95	0.000744	1.91	32.92	17.74	0.45
Acqui _monte	71	A1_Tr 20	63.00	158.82	161.26	161.04	161.81	0.002769	3.28	19.23	11.87	0.82
Acqui _monte	70	A1_Tr 20	63.00	158.68	161.27	161.02	161.71	0.004158	2.93	21.48	22.72	0.96
Acqui _monte	69.50	A1_Tr 20	63.00	158.34	161.35	160.32	161.54	0.000768	1.95	32.29	18.96	0.46
Acqui _monte	69	A1_Tr 20	63.00	158.27	161.09	160.71	161.45	0.001996	2.69	23.39	21.90	0.71
Acqui _monte	68.5	A1_Tr 20	63.00	158.06	161.08	160.67	161.39	0.001743	2.46	25.60	19.69	0.65
Acqui _monte	68	A1_Tr 20	63.00	157.85	161.04	160.50	161.35	0.001733	2.45	25.74	23.28	0.65
Acqui _monte	67.1	A1_Tr 20	63.00	157.75	161.06	160.13	161.30	0.001030	2.19	28.76	22.47	0.51
Acqui _monte	66.1	A1_Tr 20	63.00	157.75	161.06	160.13	161.30	0.001035	2.19	28.71	22.46	0.51
Acqui _monte	66	A1_Tr 20	63.00	157.62	161.05	160.08	161.29	0.000995	2.16	29.19	22.62	0.50
Acqui _monte	65	A1_Tr 20	63.00	157.56	161.05	159.67	161.26	0.000646	2.04	30.94	12.40	0.41
Acqui _monte	64	A1_Tr 20	63.00	157.56	161.07	159.55	161.25	0.000525	1.88	33.53	13.08	0.37
Acqui _monte	63.1	A1_Tr 20	63.00	157.25	161.09	159.19	161.23	0.000359	1.64	38.53	13.66	0.31
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	A1_Tr 20	63.00	157.25	159.58	159.19	160.09	0.002159	3.13	20.10	10.82	0.73
Acqui _monte	62	A1_Tr 20	63.00	157.24	159.08	159.08	160.01	0.005356	4.27	14.75	8.00	1.00
Acqui _monte	61.7	A1_Tr 20	63.00	156.80	158.17	158.65	159.86	0.012894	5.75	10.95	8.00	1.57
Acqui _monte	61.6	A1_Tr 20	63.00	156.20	157.11	157.83	159.75	0.028869	7.20	8.75	10.21	2.48
Acqui _monte	61.5	A1_Tr 20	63.00	155.58	157.90	157.92	158.78	0.005014	4.16	15.15	9.08	1.03
Acqui _monte	61.4	A1_Tr 20	63.00	155.50	158.05	157.67	158.61	0.002646	3.31	19.02	9.81	0.76
Acqui _monte	61.3	A1_Tr 20	63.00	155.45	157.63	157.63	158.48	0.004719	4.09	15.41	9.15	1.01
Acqui _monte	61.2	A1_Tr 20	63.00	155.40	157.74	157.30	158.26	0.002358	3.20	19.70	9.86	0.72
Acqui _monte	61.1	A1_Tr 20	63.00	155.40	157.48	157.24	158.21	0.003763	3.78	16.66	8.00	0.84
Acqui _monte	61	A1_Tr 20	63.00	155.10	156.94	156.94	157.87	0.005354	4.27	14.75	8.00	1.00
Acqui _monte	60.4	A1_Tr 20	63.00	154.20	155.66	156.04	157.14	0.010669	5.40	11.67	8.00	1.43
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	A1_Tr 20	63.00	154.15	155.91	155.99	156.93	0.006148	4.48	14.06	8.00	1.08
Acqui _monte	60.2	A1_Tr 20	63.00	153.25	154.71	155.09	156.19	0.010595	5.39	11.70	8.00	1.42
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	A1_Tr 20	63.00	153.20	155.05	155.04	155.97	0.005308	4.26	14.79	8.00	1.00
Acqui _monte	60	A1_Tr 20	63.00	151.62	153.02	153.46	154.63	0.012077	5.63	11.19	8.00	1.52
Acqui _monte	59	A1_Tr 20	63.00	151.30	152.79	153.14	154.22	0.010065	5.29	11.90	8.00	1.39
Acqui _monte	58.1	A1_Tr 20	63.00	151.25	153.16	153.16	154.11	0.005464	4.34	14.53	7.62	1.00
Acqui _monte	58	A1_Tr 20	63.00	150.27	151.89	152.18	153.22	0.008777	5.10	12.35	7.62	1.28
Acqui _monte	57	A1_Tr 20	63.00	150.19	152.09	152.09	153.05	0.005485	4.34	14.51	7.62	1.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	56	A1_Tr 20	63.00	150.00	151.58	151.87	152.88	0.008654	5.04	12.49	7.90	1.28
Acqui _monte	55.3	A1_Tr 20	63.00	150.00	151.60	151.86	152.86	0.008283	4.97	12.68	7.90	1.25
Acqui _monte	55.2	A1_Tr 20	63.00	149.68	151.12	151.54	152.68	0.011335	5.52	11.40	7.90	1.47
Acqui _monte	55.1	A1_Tr 20	63.00	149.67	151.11	151.54	152.67	0.011325	5.52	11.41	7.90	1.47
Acqui _monte	55	A1_Tr 20	63.00	149.60	151.87	151.38	152.41	0.002519	3.26	19.32	8.50	0.69
Acqui _monte	54	A1_Tr 20	63.00	149.30	151.69	151.18	152.27	0.002716	3.38	18.61	7.80	0.70
Acqui _monte	53.1	A1_Tr 20	63.00	149.14	151.72	151.02	152.22	0.002168	3.12	20.16	7.80	0.62
Acqui _monte	53	A1_Tr 20	63.00	149.10	151.13	151.13	152.15	0.005707	4.46	14.13	6.95	1.00
Acqui _monte	52	A1_Tr 20	63.00	148.82	150.50	150.85	151.98	0.009833	5.39	11.69	6.95	1.33
Acqui _monte	51	A1_Tr 20	63.00	148.55	150.12	150.57	151.79	0.011751	5.72	11.01	7.00	1.46
Acqui _monte	50.1	A1_Tr 20	63.00	148.48	149.95	150.46	151.75	0.013280	5.94	10.61	7.20	1.56
Acqui _monte	50	A1_Tr 20	63.00	148.15	149.91	150.13	151.17	0.007968	4.98	12.64	7.20	1.20
Acqui _monte	49	A1_Tr 20	63.00	148.04	149.85	150.02	151.04	0.007345	4.85	13.00	7.20	1.15
Acqui _monte	48	A1_Tr 20	63.00	147.92	149.71	149.90	150.93	0.007518	4.88	12.90	7.20	1.17
Acqui _monte	47	A1_Tr 20	63.00	147.80	149.58	149.78	150.81	0.007607	4.91	12.84	7.20	1.17
Acqui _monte	46	A1_Tr 20	63.00	147.68	149.48	149.66	150.68	0.007389	4.86	12.97	7.20	1.15
Acqui _monte	45	A1_Tr 20	63.00	147.60	149.39	149.58	150.61	0.007527	4.89	12.89	7.20	1.17
Acqui _monte	44.1	A1_Tr 20	63.00	147.52	149.22	149.50	150.57	0.008718	5.14	12.25	7.20	1.26
Acqui _monte	44	A1_Tr 20	63.00	147.40	149.09	149.38	150.45	0.008848	5.17	12.19	7.20	1.27
Acqui_valle	43	A1_Tr 20	63.00	147.30	149.08	149.29	150.32	0.007665	4.92	12.80	7.18	1.18
Acqui_valle	42	A1_Tr 20	63.00	147.20	149.42	149.19	150.22	0.004078	3.95	15.97	7.18	0.84
Acqui_valle	41	A1_Tr 20	63.00	147.08	149.41	149.07	150.13	0.003565	3.76	16.75	7.18	0.79
Acqui_valle	40	A1_Tr 20	63.00	146.95	149.41	148.94	150.06	0.003072	3.57	17.66	7.18	0.73
Acqui_valle	39	A1_Tr 20	63.00	146.90	149.40	148.89	150.03	0.002936	3.51	17.96	7.18	0.71
Acqui_valle	38.4	A1_Tr 20	63.00	146.80	148.90	148.90	149.95	0.005939	4.55	13.85	6.60	1.00
Acqui_valle	38.3	A1_Tr 20	63.00	146.22	147.85	148.32	149.59	0.012170	5.85	10.77	6.60	1.46
Acqui_valle	38.2	A1_Tr 20	63.00	146.07	147.68	148.17	149.48	0.012759	5.95	10.60	6.60	1.50
Acqui_valle	38.1	A1_Tr 20	63.00	146.08	147.73	148.18	149.44	0.011824	5.79	10.88	6.60	1.44
Acqui_valle	38	A1_Tr 20	63.00	146.00	147.62	148.10	149.38	0.012330	5.88	10.72	6.60	1.47
Acqui_valle	37.4	A1_Tr 20	63.00	145.93	147.54	148.03	149.33	0.012604	5.92	10.64	6.60	1.49
Acqui_valle	37.3	A1_Tr 20	63.00	145.78	147.31	147.88	149.29	0.014683	6.24	10.10	6.60	1.61
Acqui_valle	37.2	A1_Tr 20	63.00	145.63	147.25	147.72	149.00	0.012304	5.86	10.74	6.65	1.47
Acqui_valle	37.1	A1_Tr 20	63.00	145.40	147.06	147.42	148.56	0.009993	5.41	11.64	7.00	1.34
Acqui_valle	37	A1_Tr 20	63.00	144.99	146.64	147.01	148.15	0.010166	5.45	11.57	7.00	1.35
Acqui_valle	36	A1_Tr 20	63.00	144.82	146.50	146.84	147.96	0.009625	5.34	11.79	7.00	1.31

HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	35	A1_Tr 20	63.00	144.43	145.53	146.11	147.49	0.017950	6.19	10.17	9.24	1.88
Acqui_valle	34.1	A1_Tr 20	63.00	144.39	145.48	146.06	147.47	0.018361	6.24	10.10	9.24	1.91
Acqui_valle	34	A1_Tr 20	37.00	143.50	144.04	144.68	146.85	0.058231	7.43	4.98	9.24	3.23
Acqui_valle	33.3	A1_Tr 20	37.00	143.28	144.01	144.46	145.55	0.022528	5.51	6.72	9.24	2.06
Acqui_valle	33.2	A1_Tr 20	37.00	143.07	144.62	144.25	144.96	0.002197	2.59	14.30	9.24	0.66
Acqui_valle	33.1	A1_Tr 20	37.00	142.86	144.63	144.04	144.89	0.001484	2.27	16.31	9.24	0.54
Acqui_valle	33.0	A1_Tr 20	37.00	142.65	144.07	144.07	144.78	0.005487	3.73	9.93	7.00	1.00
Acqui_valle	32.3	A1_Tr 20	37.00	142.28	143.51	143.70	144.45	0.008300	4.28	8.64	7.00	1.23
Acqui_valle	32.2	A1_Tr 20	37.00	141.92	143.88	143.34	144.25	0.002155	2.70	13.70	7.00	0.62
Acqui_valle	32.1	A1_Tr 20	37.00	141.55	143.88	142.97	144.14	0.001320	2.27	16.29	7.00	0.48
Acqui_valle	32	A1_Tr 20	37.00	141.19	143.87	142.61	144.07	0.000888	1.97	18.79	7.00	0.38
Acqui_valle	31.1	A1_Tr 20	37.00	141.19	143.87	142.60	144.07	0.000889	1.97	18.78	7.00	0.38
Acqui_valle	31	A1_Tr 20	37.00	140.19	143.87	141.60	143.97	0.000379	1.44	25.75	7.00	0.24
Acqui_valle	30.1		Bridge									
Acqui_valle	30	A1_Tr 20	37.00	140.02	143.69	141.43	143.80	0.000381	1.44	25.69	7.00	0.24

HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20

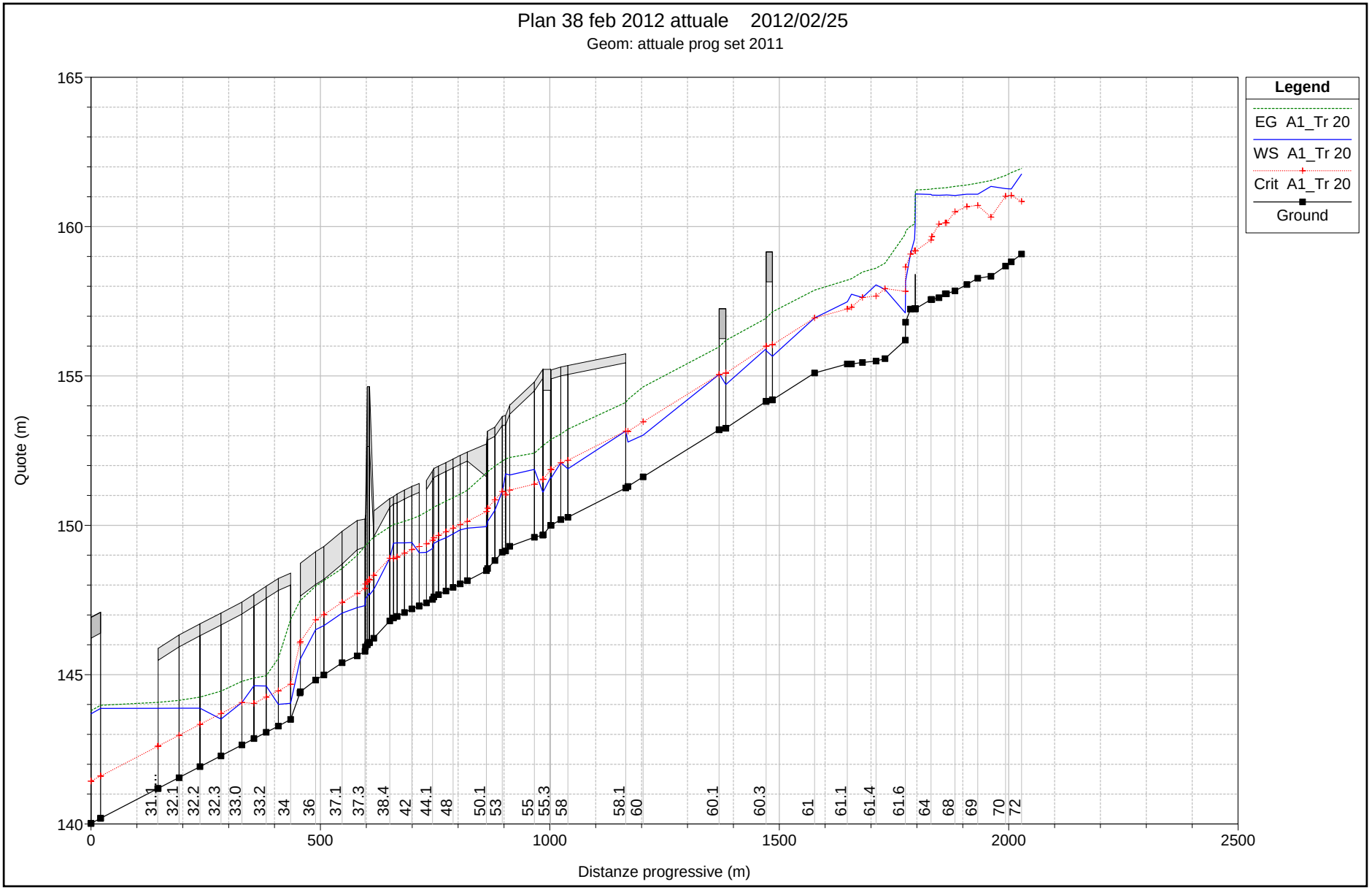
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	A1_Tr 20	161.95	161.76	0.19	0.03	0.11		63.00		17.74
Acqui _monte	71	A1_Tr 20	161.81	161.26	0.55	0.04	0.05		63.00		11.87
Acqui _monte	70	A1_Tr 20	161.71	161.27	0.44	0.05	0.12		63.00		22.72
Acqui _monte	69.50	A1_Tr 20	161.54	161.35	0.19	0.03	0.05		63.00		18.96
Acqui _monte	69	A1_Tr 20	161.45	161.09	0.37	0.04	0.02		63.00		21.90
Acqui _monte	68.5	A1_Tr 20	161.39	161.08	0.31	0.05	0.00		63.00		19.69
Acqui _monte	68	A1_Tr 20	161.35	161.04	0.31	0.02	0.02		63.00		23.28
Acqui _monte	67.1	A1_Tr 20	161.30	161.06	0.24	0.00	0.00		63.00		22.47
Acqui _monte	66.1	A1_Tr 20	161.30	161.06	0.25	0.01	0.00		63.00		22.46
Acqui _monte	66	A1_Tr 20	161.29	161.05	0.24	0.01	0.01		63.00		22.62
Acqui _monte	65	A1_Tr 20	161.26	161.05	0.21	0.00	0.01		63.00		12.40
Acqui _monte	64	A1_Tr 20	161.25	161.07	0.18	0.01	0.01		63.00		13.08
Acqui _monte	63.1	A1_Tr 20	161.23	161.09	0.14				63.00		13.66
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	A1_Tr 20	160.09	159.58	0.50	0.03	0.04		63.00		10.82
Acqui _monte	62	A1_Tr 20	160.01	159.08	0.93	0.06	0.00		63.00		8.00
Acqui _monte	61.7	A1_Tr 20	159.86	158.17	1.69	0.08	0.08		63.00		8.00
Acqui _monte	61.6	A1_Tr 20	159.75	157.11	2.64	0.01	0.10		63.00		10.21
Acqui _monte	61.5	A1_Tr 20	158.78	157.90	0.88	0.44	0.53		63.00		9.08
Acqui _monte	61.4	A1_Tr 20	158.61	158.05	0.56	0.10	0.03		63.00		9.81
Acqui _monte	61.3	A1_Tr 20	158.48	157.63	0.85	0.08	0.10		63.00		9.15
Acqui _monte	61.2	A1_Tr 20	158.26	157.74	0.52	0.03	0.02		63.00		9.86
Acqui _monte	61.1	A1_Tr 20	158.21	157.48	0.73	0.32	0.02		63.00		8.00
Acqui _monte	61	A1_Tr 20	157.87	156.94	0.93	0.39	0.07		63.00		8.00
Acqui _monte	60.4	A1_Tr 20	157.14	155.66	1.48	0.67	0.06		63.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	A1_Tr 20	156.93	155.91	1.02	0.00	0.05		63.00		8.00
Acqui _monte	60.2	A1_Tr 20	156.19	154.71	1.48	0.69	0.05		63.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	A1_Tr 20	155.97	155.05	0.92	0.00	0.00		63.00		8.00
Acqui _monte	60	A1_Tr 20	154.63	153.02	1.61	1.27	0.07		63.00		8.00
Acqui _monte	59	A1_Tr 20	154.22	152.79	1.43	0.36	0.06		63.00		8.00
Acqui _monte	58.1	A1_Tr 20	154.11	153.16	0.96	0.64	0.03		63.00		7.62
Acqui _monte	58	A1_Tr 20	153.22	151.89	1.33	0.86	0.04		63.00		7.62
Acqui _monte	57	A1_Tr 20	153.05	152.09	0.96	0.10	0.05		63.00		7.62

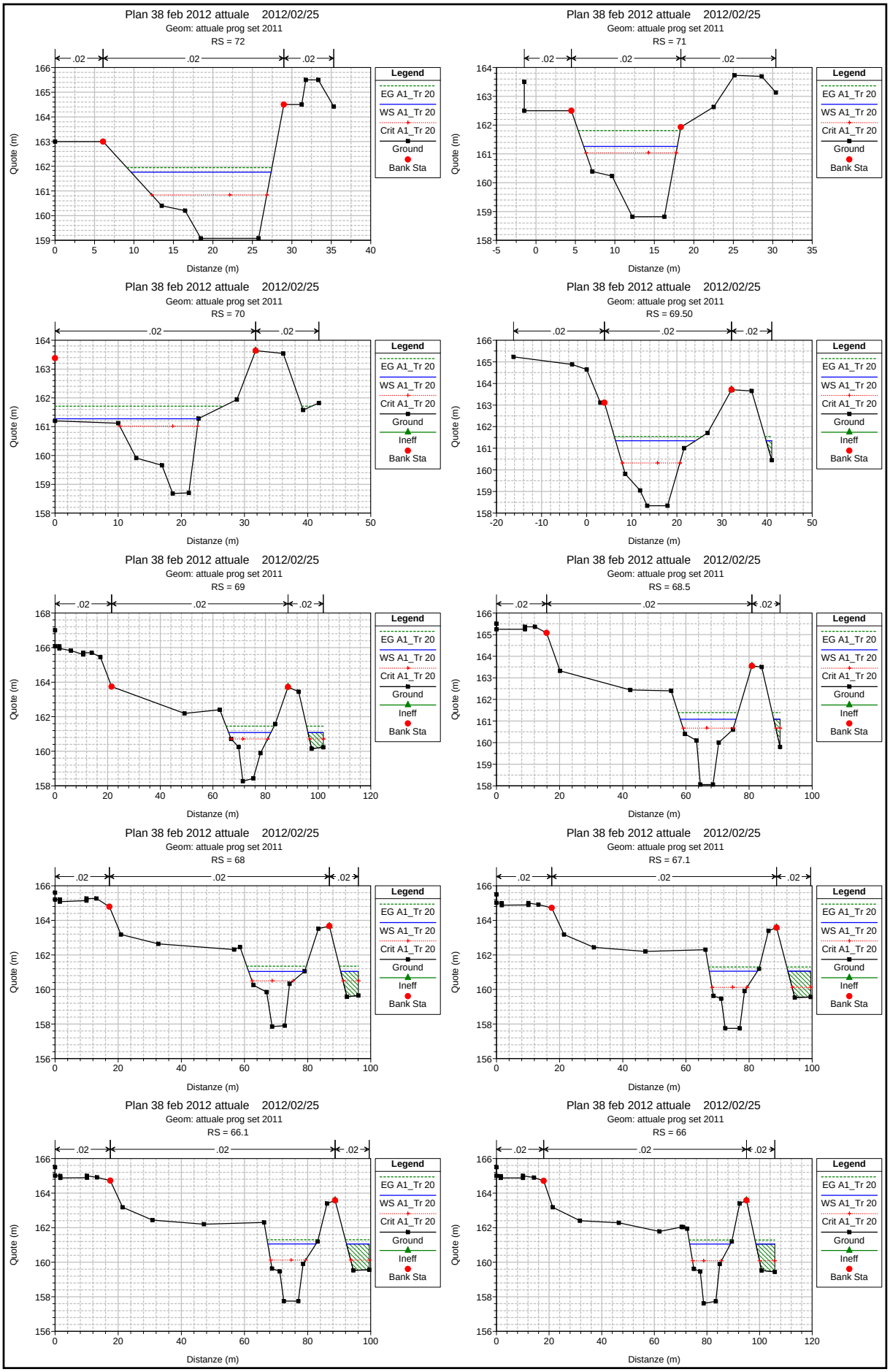
HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	56	A1_Tr 20	152.88	151.58	1.30	0.14	0.03		63.00		7.90
Acqui _monte	55.3	A1_Tr 20	152.86	151.60	1.26	0.01	0.11		63.00		7.90
Acqui _monte	55.2	A1_Tr 20	152.68	151.12	1.55	0.15	0.03		63.00		7.90
Acqui _monte	55.1	A1_Tr 20	152.67	151.11	1.55	0.01	0.00		63.00		7.90
Acqui _monte	55	A1_Tr 20	152.41	151.87	0.54	0.14	0.00		63.00		8.50
Acqui _monte	54	A1_Tr 20	152.27	151.69	0.58	0.02	0.03		63.00		7.80
Acqui _monte	53.1	A1_Tr 20	152.22	151.72	0.50	0.02	0.05		63.00		7.80
Acqui _monte	53	A1_Tr 20	152.15	151.13	1.01	0.09	0.00		63.00		6.95
Acqui _monte	52	A1_Tr 20	151.98	150.50	1.48	0.12	0.05		63.00		6.95
Acqui _monte	51	A1_Tr 20	151.79	150.12	1.67	0.17	0.02		63.00		7.00
Acqui _monte	50.1	A1_Tr 20	151.75	149.95	1.80	0.03	0.01		63.00		7.20
Acqui _monte	50	A1_Tr 20	151.17	149.91	1.27	0.42	0.16		63.00		7.20
Acqui _monte	49	A1_Tr 20	151.04	149.85	1.20	0.10	0.08		63.00		7.20
Acqui _monte	48	A1_Tr 20	150.93	149.71	1.22	0.12	0.00		63.00		7.20
Acqui _monte	47	A1_Tr 20	150.81	149.58	1.23	0.12	0.00		63.00		7.20
Acqui _monte	46	A1_Tr 20	150.68	149.48	1.20	0.11	0.07		63.00		7.20
Acqui _monte	45	A1_Tr 20	150.61	149.39	1.22	0.07	0.00		63.00		7.20
Acqui _monte	44.1	A1_Tr 20	150.57	149.22	1.35	0.02	0.01		63.00		7.20
Acqui _monte	44	A1_Tr 20	150.45	149.09	1.36	0.11	0.00		63.00		7.20
Acqui_valle	43	A1_Tr 20	150.32	149.08	1.23	0.11	0.11		63.00		7.18
Acqui_valle	42	A1_Tr 20	150.22	149.42	0.79	0.06	0.02		63.00		7.18
Acqui_valle	41	A1_Tr 20	150.13	149.41	0.72	0.05	0.02		63.00		7.18
Acqui_valle	40	A1_Tr 20	150.06	149.41	0.65	0.02	0.01		63.00		7.18
Acqui_valle	39	A1_Tr 20	150.03	149.40	0.63	0.03	0.04		63.00		7.18
Acqui_valle	38.4	A1_Tr 20	149.95	148.90	1.05	0.21	0.00		63.00		6.60
Acqui_valle	38.3	A1_Tr 20	149.59	147.85	1.74	0.29	0.07		63.00		6.60
Acqui_valle	38.2	A1_Tr 20	149.48	147.68	1.80	0.11	0.01		63.00		6.60
Acqui_valle	38.1	A1_Tr 20	149.44	147.73	1.71	0.01	0.03		63.00		6.60
Acqui_valle	38	A1_Tr 20	149.38	147.62	1.76	0.05	0.01		63.00		6.60
Acqui_valle	37.4	A1_Tr 20	149.33	147.54	1.79	0.05	0.00		63.00		6.60
Acqui_valle	37.3	A1_Tr 20	149.29	147.31	1.98	0.01	0.02		63.00		6.60
Acqui_valle	37.2	A1_Tr 20	149.00	147.25	1.75	0.23	0.07		63.00		6.65
Acqui_valle	37.1	A1_Tr 20	148.56	147.06	1.49	0.36	0.08		63.00		7.00
Acqui_valle	37	A1_Tr 20	148.15	146.64	1.51	0.40	0.00		63.00		7.00
Acqui_valle	36	A1_Tr 20	147.96	146.50	1.45	0.18	0.02		63.00		7.00

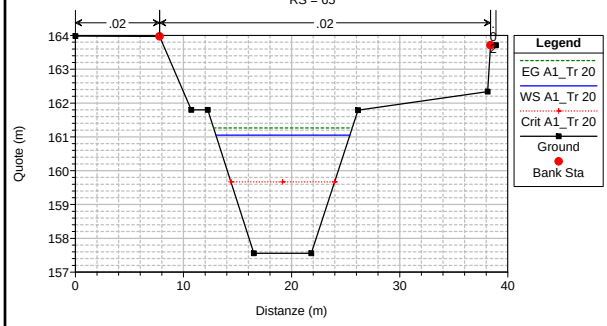
HEC-RAS Plan: Plan 38 feb 12 a Profile: A1_Tr 20 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	35	A1_Tr 20	147.49	145.53	1.95	0.42	0.05		63.00		9.24
Acqui_valle	34.1	A1_Tr 20	147.47	145.48	1.98	0.02	0.00		63.00		9.24
Acqui_valle	34	A1_Tr 20	146.85	144.04	2.81	0.54	0.08		37.00		9.24
Acqui_valle	33.3	A1_Tr 20	145.55	144.01	1.54	0.92	0.38		37.00		9.24
Acqui_valle	33.2	A1_Tr 20	144.96	144.62	0.34	0.05	0.02		37.00		9.24
Acqui_valle	33.1	A1_Tr 20	144.89	144.63	0.26	0.07	0.04		37.00		9.24
Acqui_valle	33.0	A1_Tr 20	144.78	144.07	0.71	0.21	0.04		37.00		7.00
Acqui_valle	32.3	A1_Tr 20	144.45	143.51	0.94	0.30	0.02		37.00		7.00
Acqui_valle	32.2	A1_Tr 20	144.25	143.88	0.37	0.08	0.03		37.00		7.00
Acqui_valle	32.1	A1_Tr 20	144.14	143.88	0.26	0.05	0.02		37.00		7.00
Acqui_valle	32	A1_Tr 20	144.07	143.87	0.20	0.00	0.00		37.00		7.00
Acqui_valle	31.1	A1_Tr 20	144.07	143.87	0.20	0.07	0.03		37.00		7.00
Acqui_valle	31	A1_Tr 20	143.97	143.87	0.11				37.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	A1_Tr 20	143.80	143.69	0.11				37.00		7.00

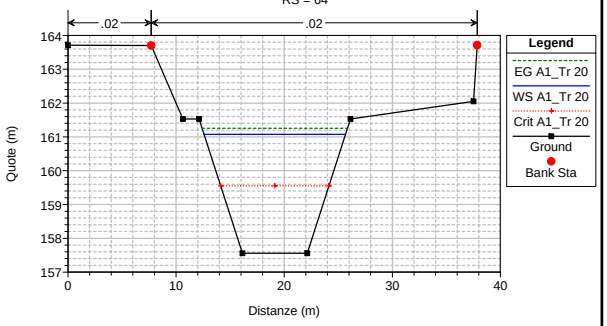

Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
68
69
70
72


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 72
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 71
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 70
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69.50
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68.5
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 67.1
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66.1
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66
Quote (m)
Distanze (m)
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Ineff
Bank Sta

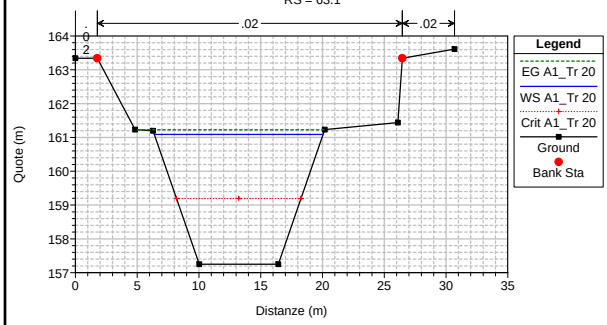
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 65



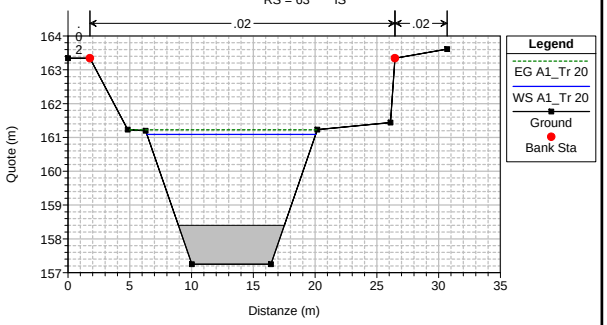
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 64



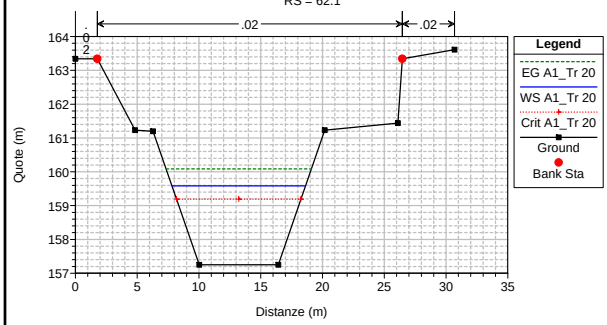
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63.1



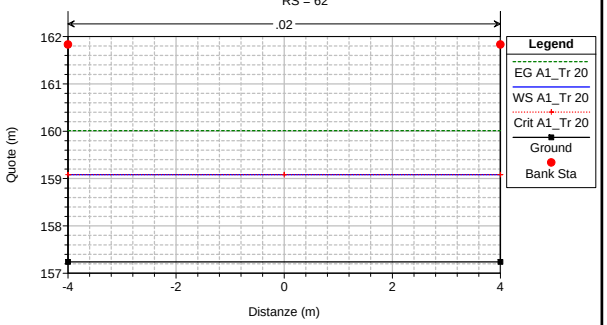
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63 IS



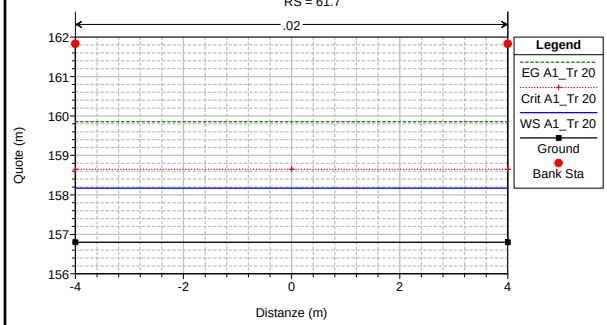
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62.1



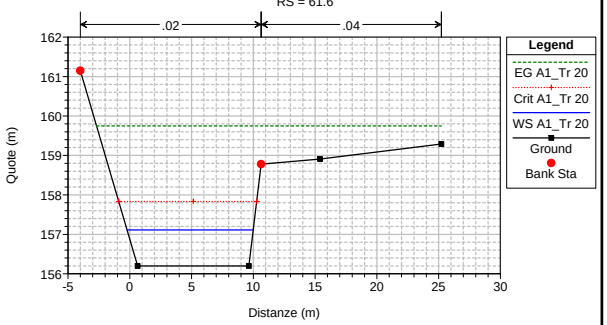
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62



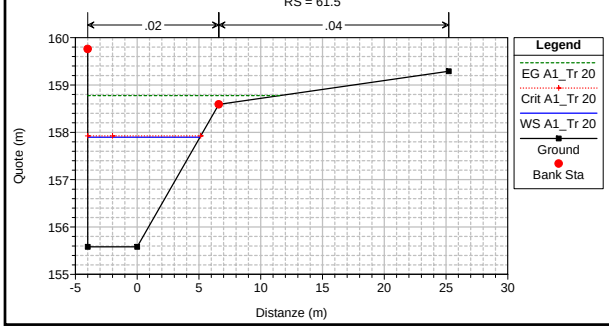
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.7



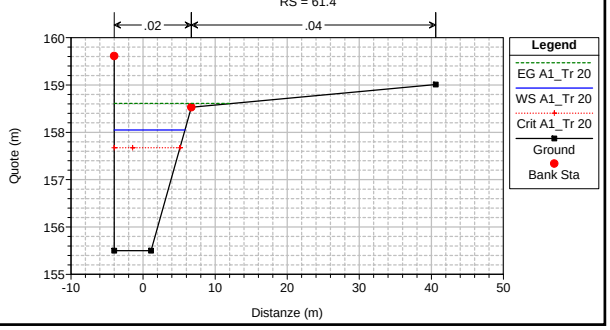
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.6

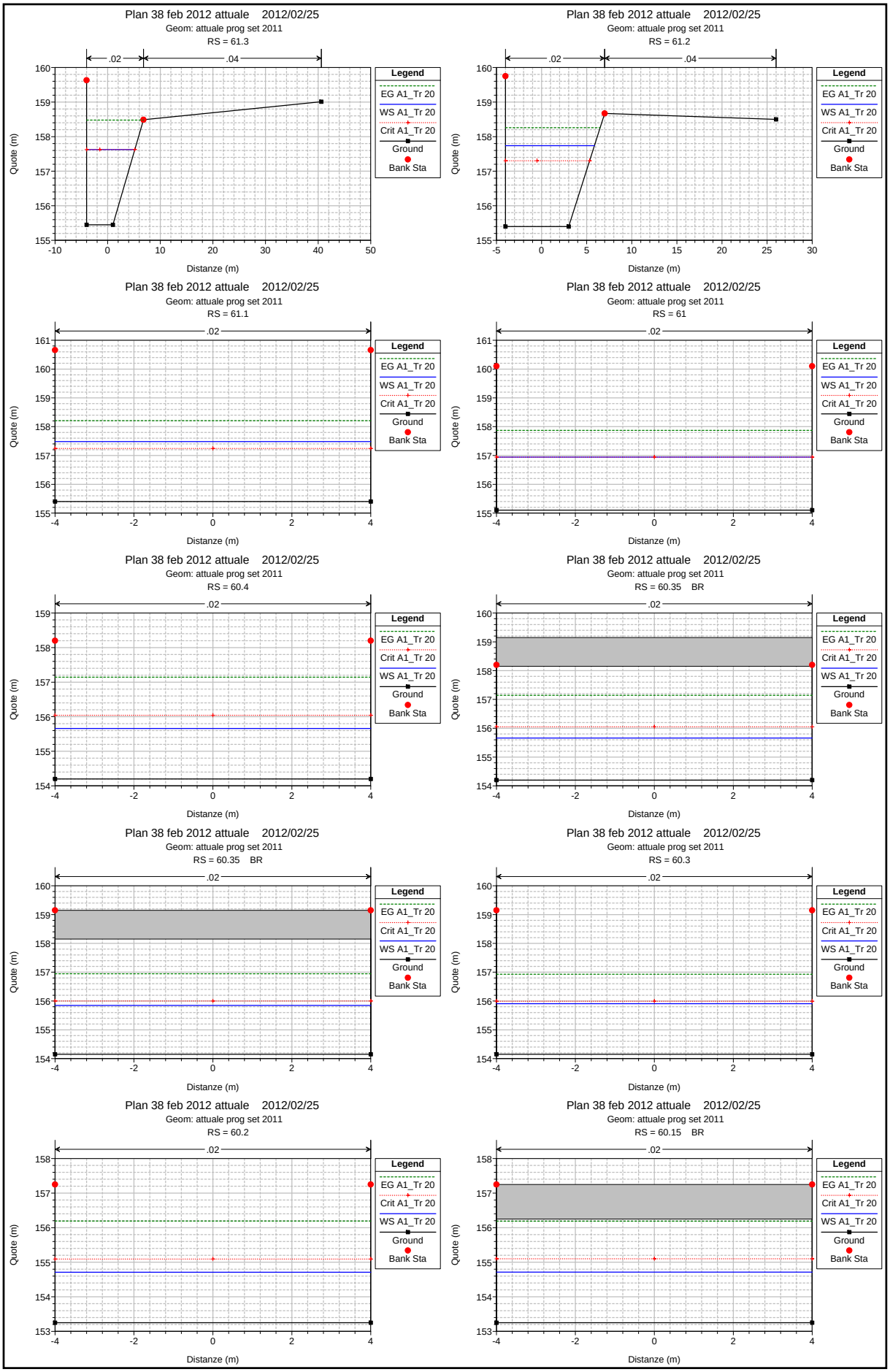


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.5

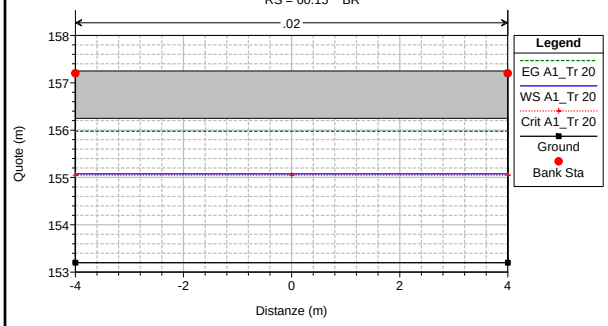


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.4

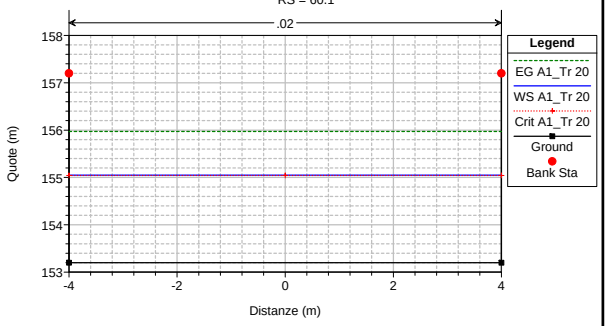



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.3
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.2
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.4
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.3
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.2
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR
Legend
EG A1_Tr 20
WS A1_Tr 20
Crit A1_Tr 20
Ground
Bank Sta
Quote (m)
Distanze (m)
.02
.04

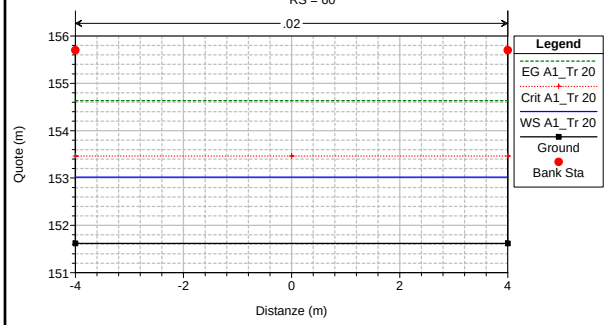
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



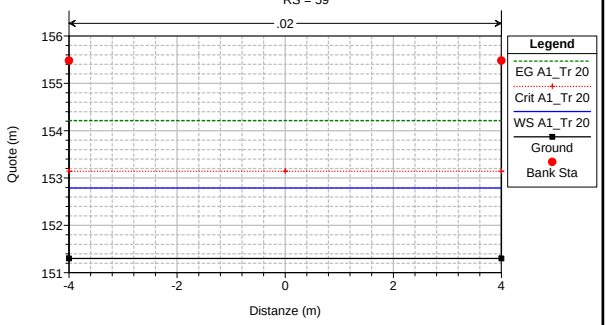
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.1



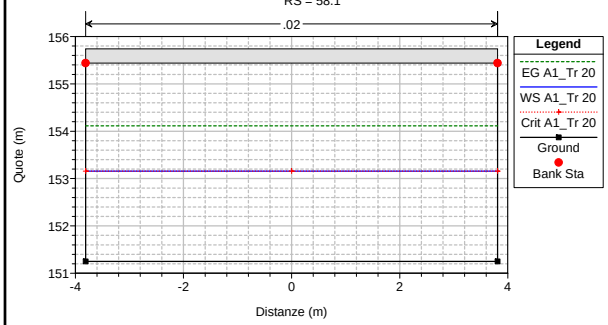
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60



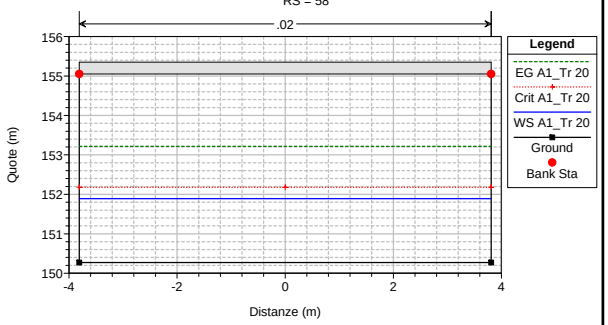
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 59



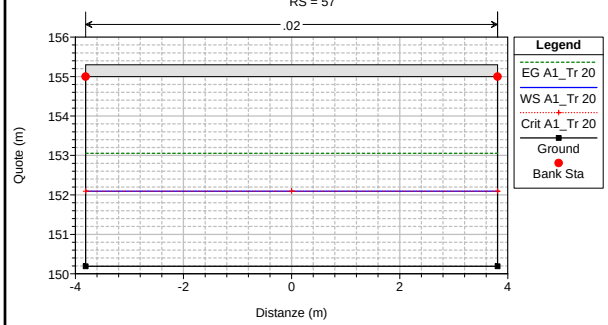
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58.1



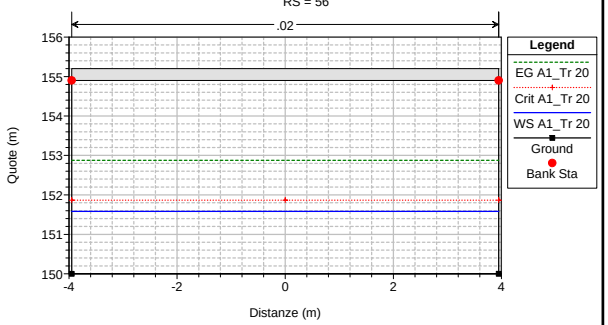
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58



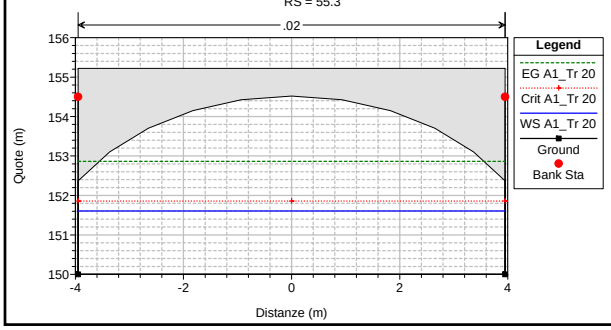
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 57



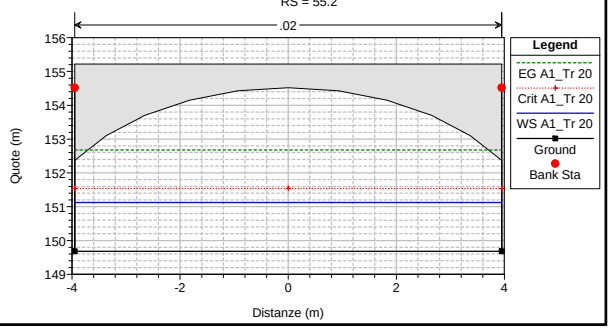
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 56



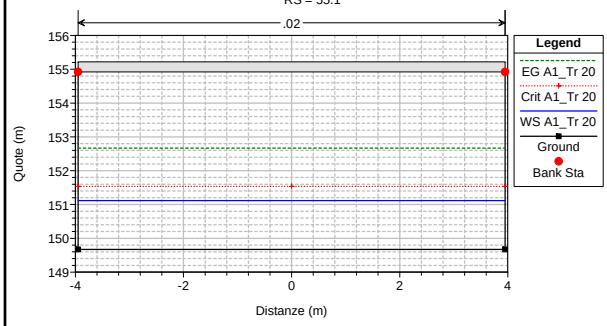
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.3



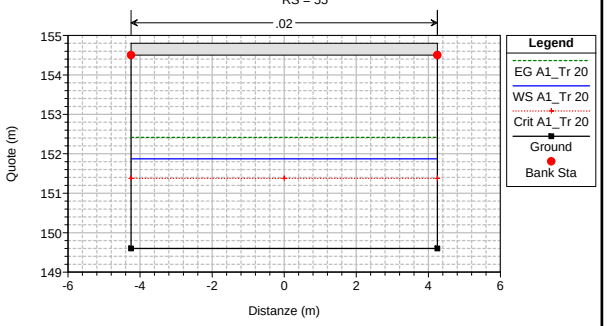
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.2



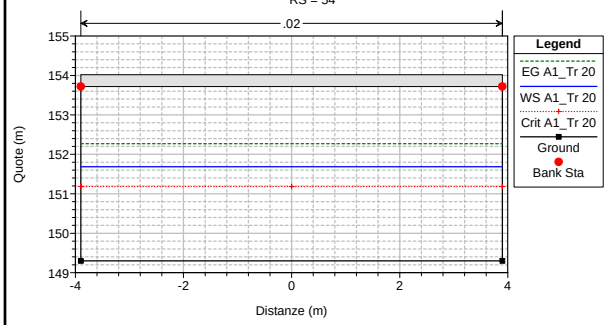
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.1



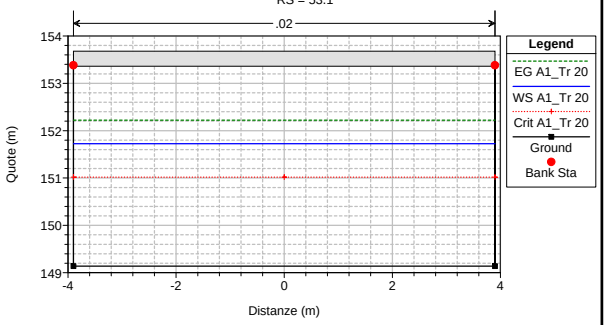
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55



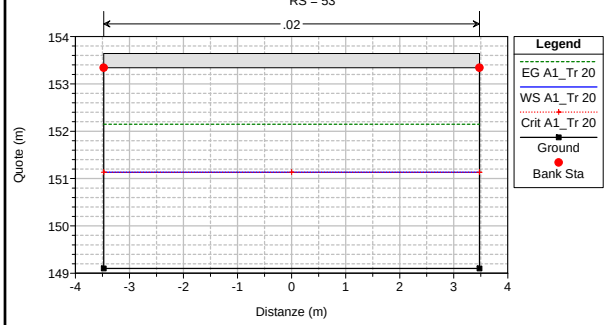
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 54



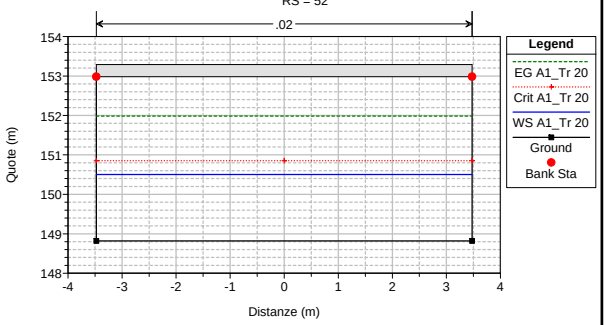
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53.1



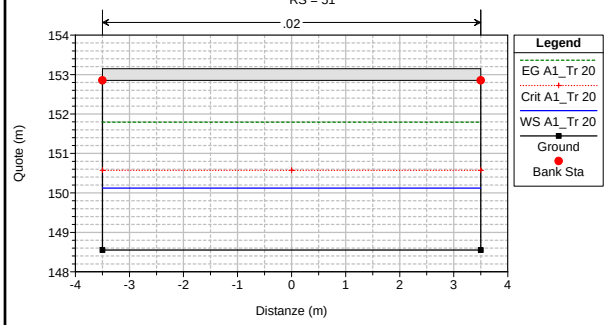
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53



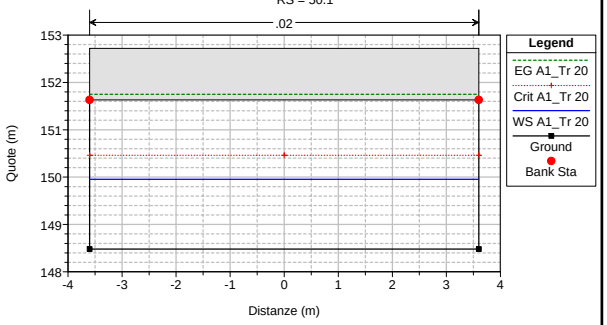
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 52



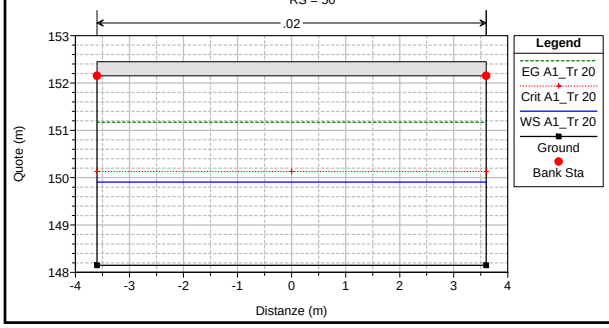
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 51



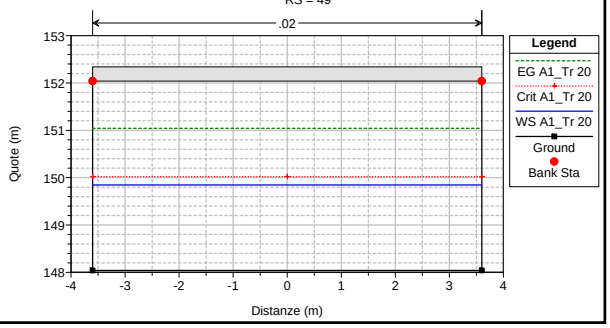
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50.1



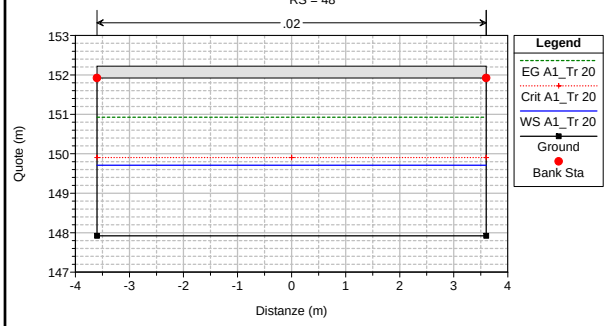
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50



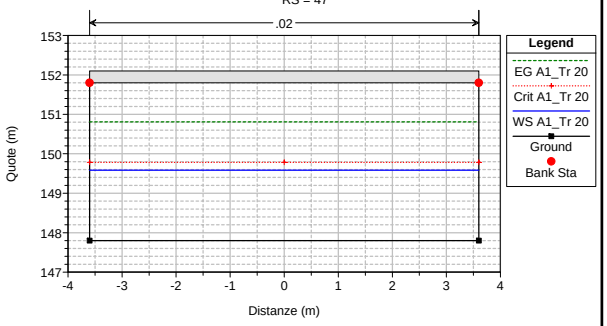
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 49



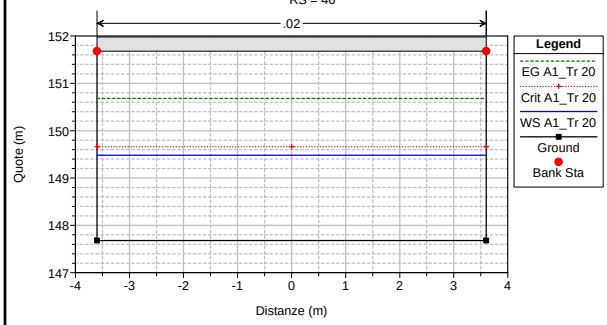
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 48



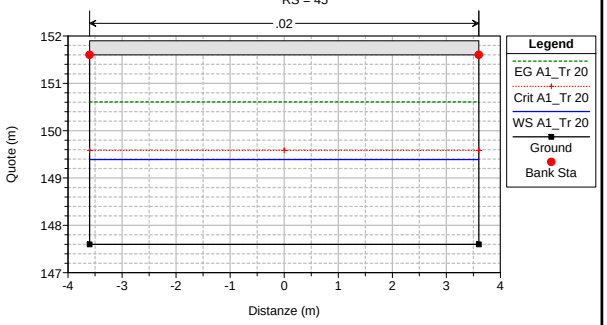
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 47



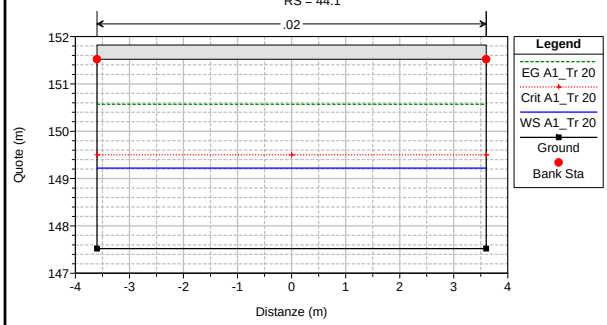
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 46



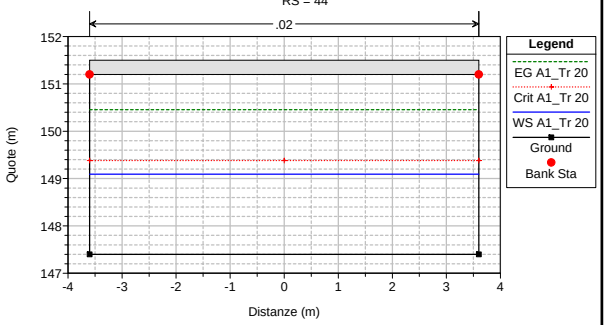
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 45



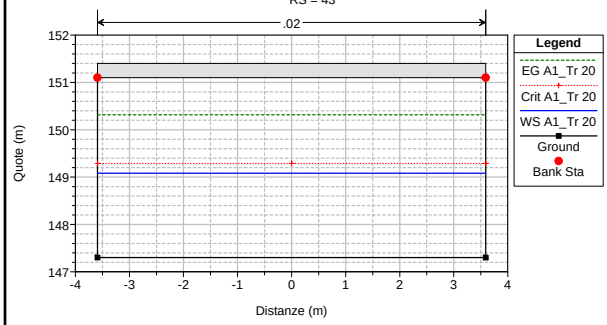
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44.1



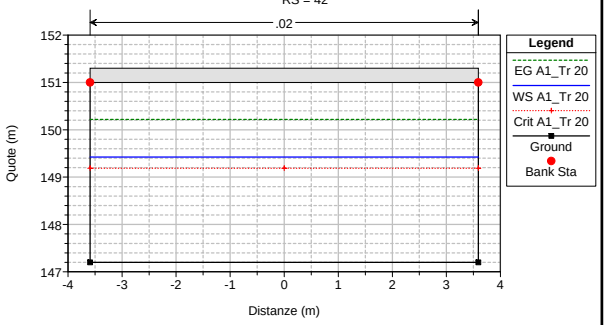
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44



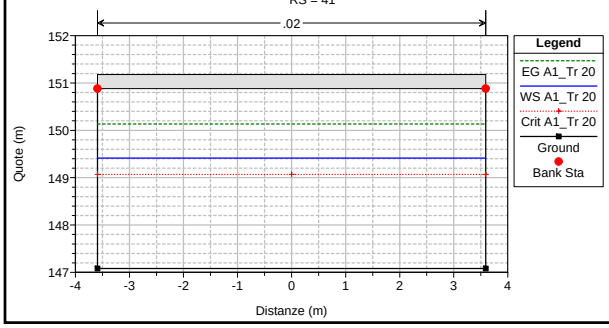
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 43



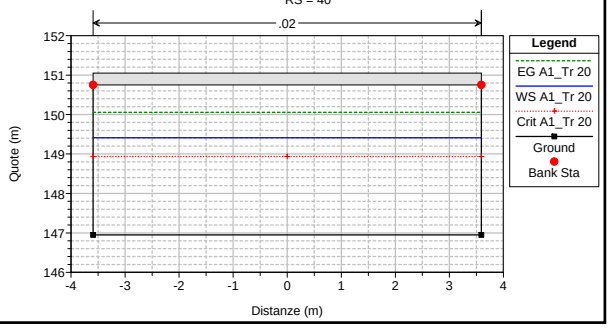
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 42



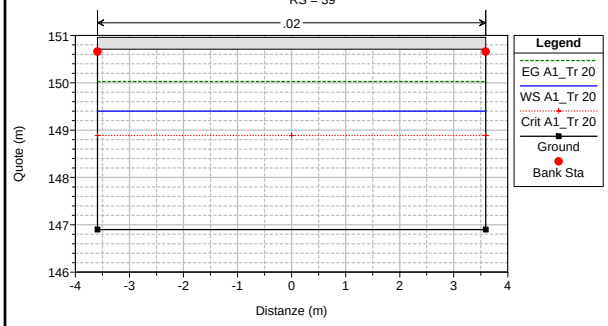
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 41



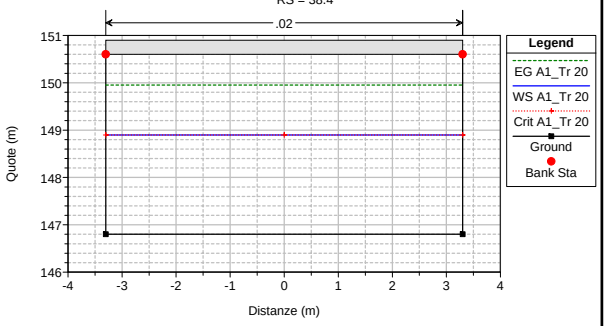
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 40



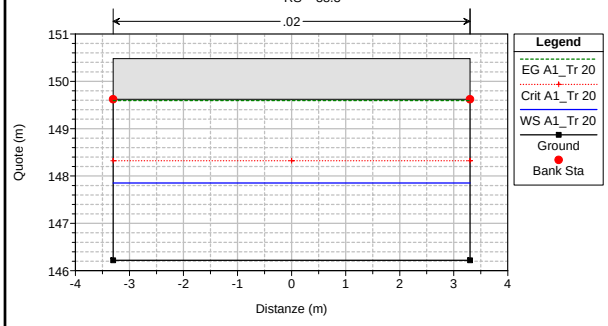
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 39



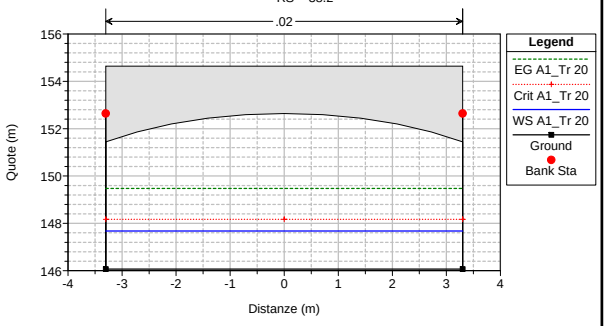
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.4



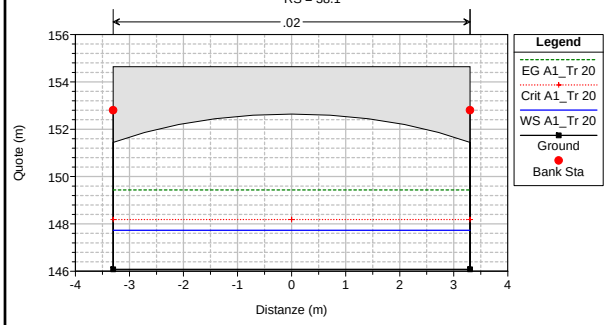
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.3



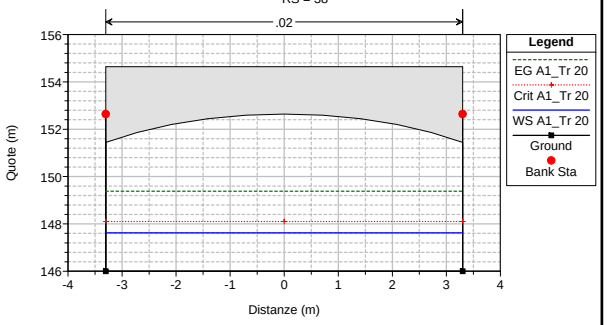
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.2



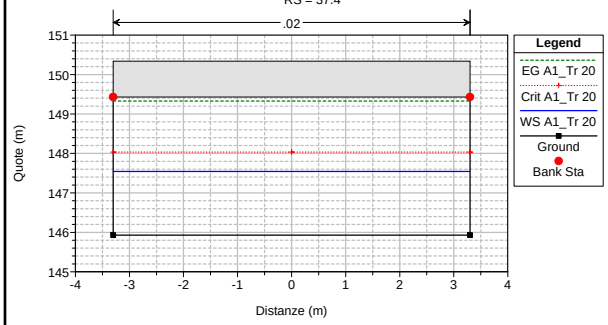
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.1



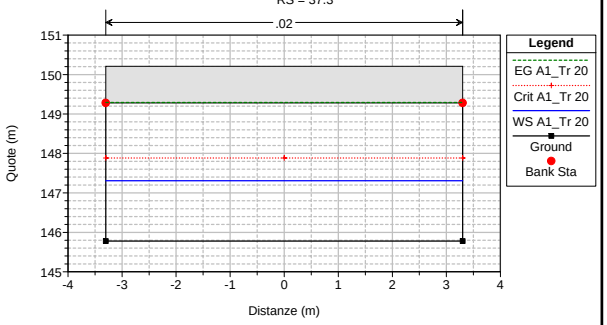
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38



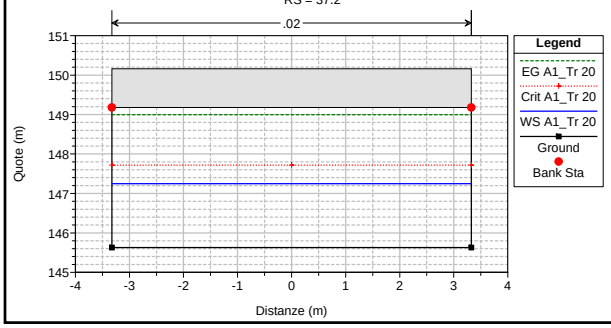
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.4



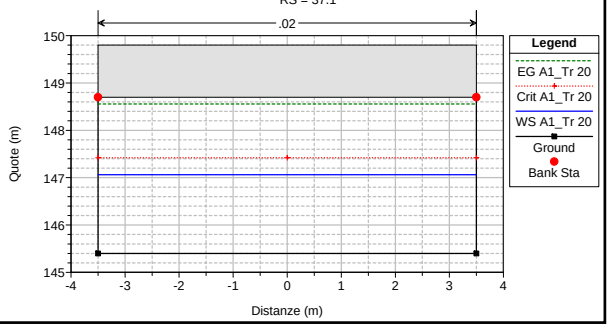
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.3



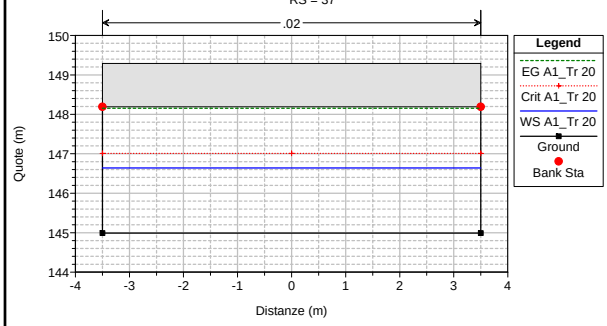
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.2



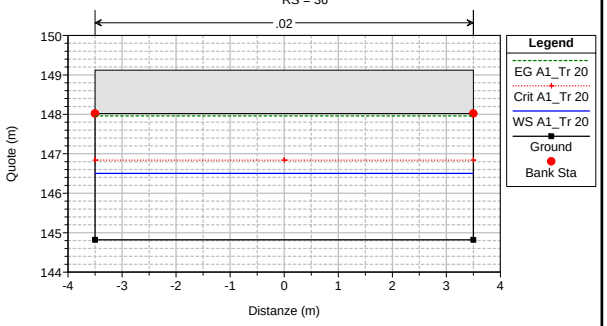
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.1



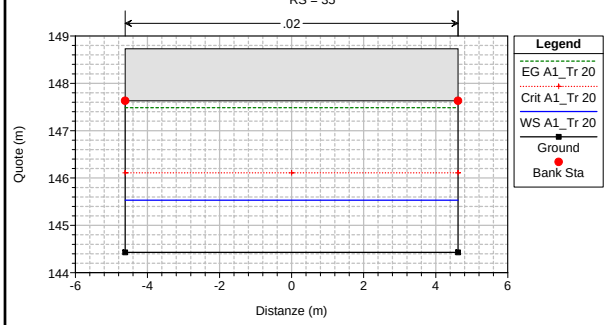
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37



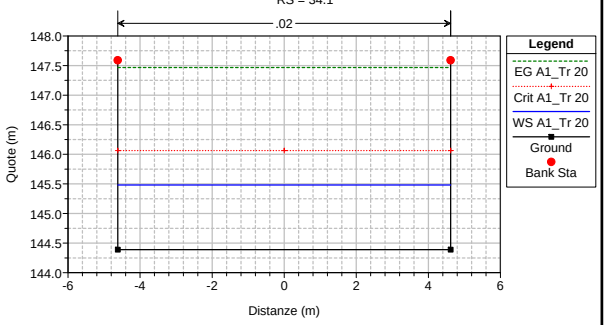
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 36



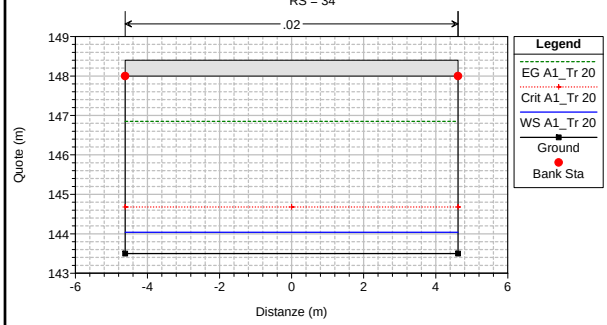
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 35



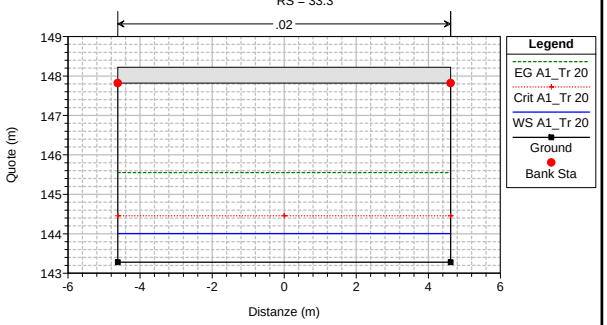
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34.1



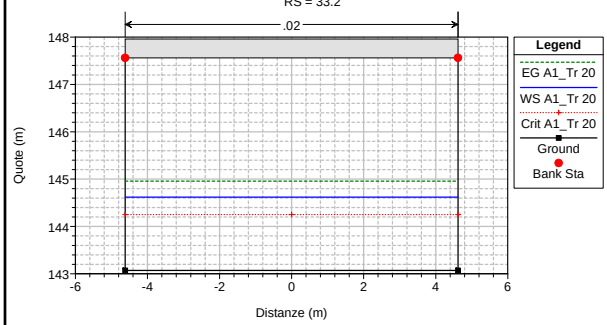
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34



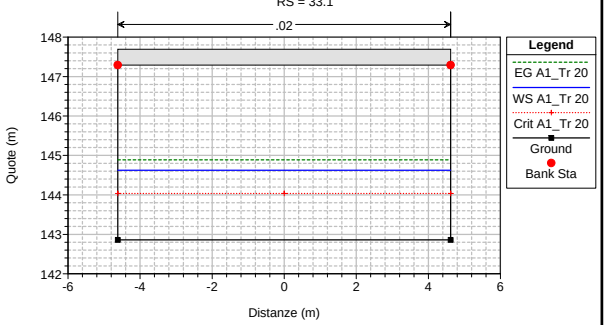
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.3



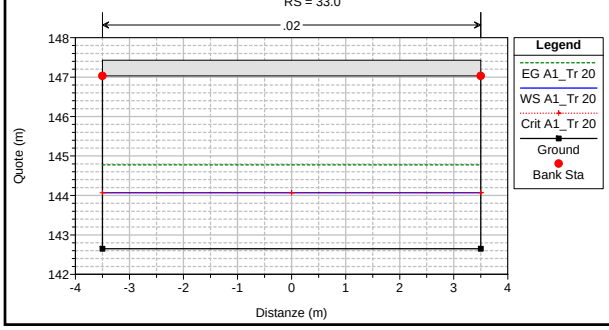
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.2



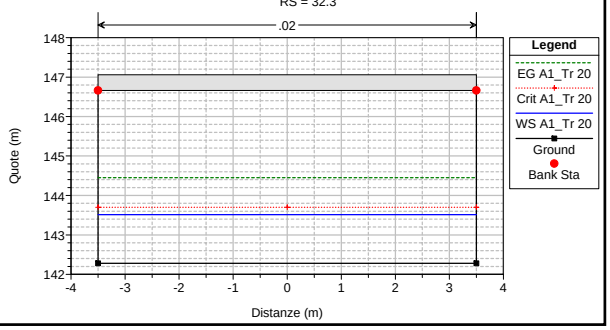
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.1



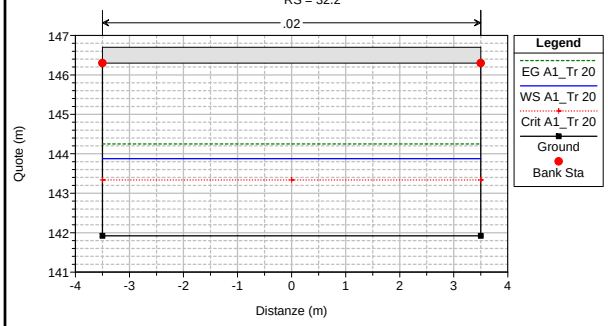
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.0



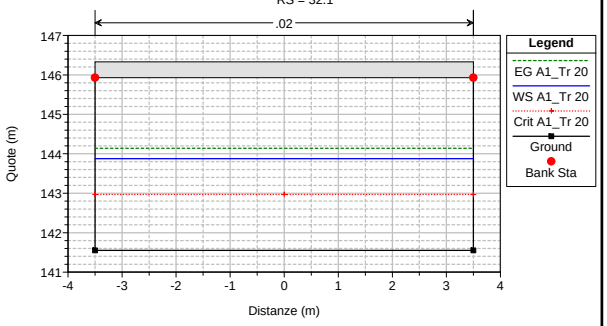
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.3



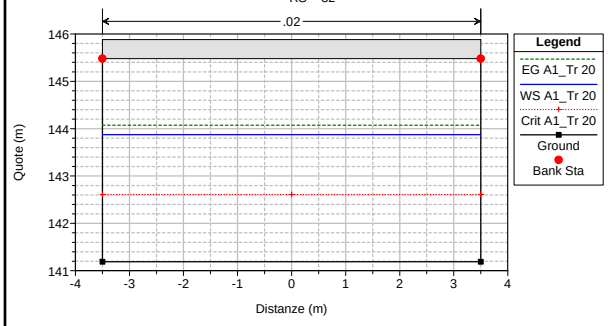
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.2



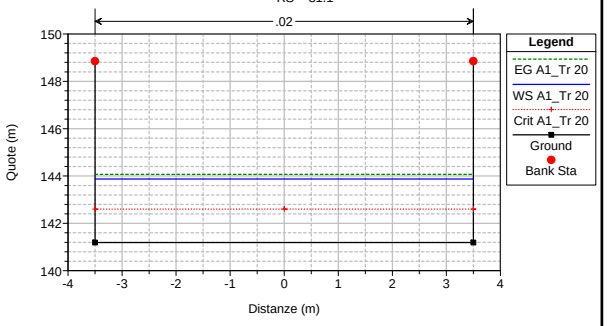
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.1



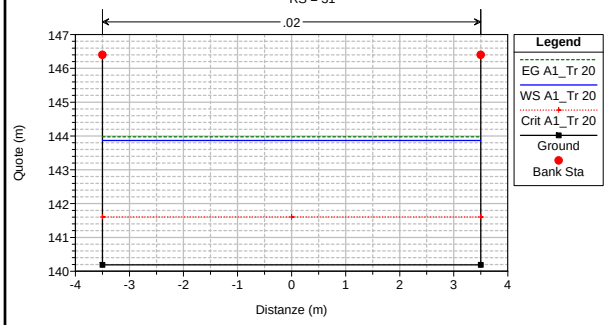
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32



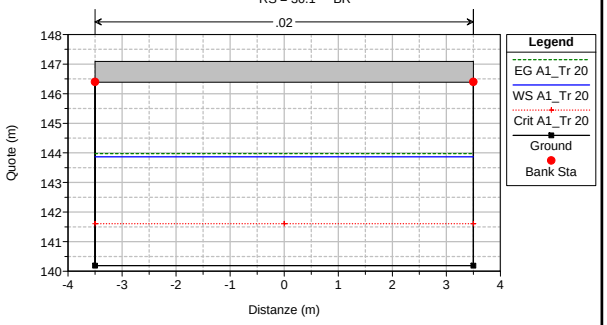
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31.1



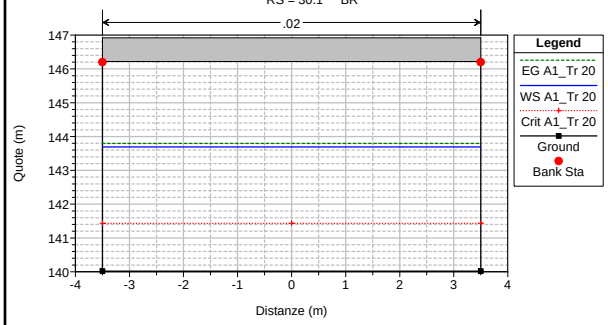
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31



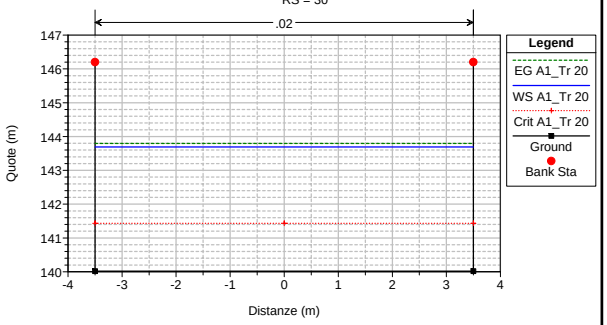
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30



Scenario A2)

Rio Medrio Tempo di ritorno Tr = 200 anni

Portata a monte confluenza rio Usignolo Q = 107 mc/s

Portata a valle confluenza rio Usignolo Q = 120 mc/s

Portata a valle dello scolmatore Q = 94 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	A2_Tr 200	107.00	159.08	162.66	161.40	162.89	0.000657	2.13	50.35	20.85	0.44
Acqui _monte	71	A2_Tr 200	107.00	158.82	161.79	161.69	162.67	0.003466	4.16	25.72	12.88	0.94
Acqui _monte	70	A2_Tr 200	107.00	158.68	162.02	161.68	162.37	0.001943	2.61	40.99	32.13	0.70
Acqui _monte	69.50	A2_Tr 200	107.00	158.34	162.02	160.93	162.29	0.000920	2.33	45.89	24.33	0.52
Acqui _monte	69	A2_Tr 200	107.00	158.27	161.69	161.32	162.19	0.002102	3.14	34.09	26.21	0.76
Acqui _monte	68.5	A2_Tr 200	107.00	158.06	161.70	161.20	162.12	0.001720	2.87	37.25	23.24	0.68
Acqui _monte	68	A2_Tr 200	107.00	157.85	161.65	161.15	162.07	0.001711	2.87	37.28	26.42	0.67
Acqui _monte	67.1	A2_Tr 200	107.00	157.75	161.64	160.85	162.04	0.001336	2.80	38.18	24.95	0.60
Acqui _monte	66.1	A2_Tr 200	107.00	157.75	161.64	160.85	162.04	0.001344	2.81	38.10	24.93	0.60
Acqui _monte	66	A2_Tr 200	107.00	157.62	161.63	160.80	162.02	0.001302	2.77	38.68	25.18	0.59
Acqui _monte	65	A2_Tr 200	107.00	157.56	161.59	160.42	162.00	0.001080	2.83	37.87	13.49	0.54
Acqui _monte	64	A2_Tr 200	107.00	157.56	161.63	160.28	161.97	0.001093	2.58	41.42	17.90	0.54
Acqui _monte	63.1	A2_Tr 200	107.00	157.25	161.67	159.90	161.91	0.000785	2.17	49.40	21.95	0.46
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	A2_Tr 200	107.00	157.25	160.81	159.90	161.29	0.001365	3.07	34.80	13.14	0.60
Acqui _monte	62	A2_Tr 200	107.00	157.24	159.86	159.86	161.19	0.005625	5.10	20.99	8.00	1.00
Acqui _monte	61.7	A2_Tr 200	107.00	156.80	158.85	159.42	161.02	0.011372	6.53	16.39	8.00	1.46
Acqui _monte	61.6	A2_Tr 200	107.00	156.20	157.53	158.49	160.89	0.023947	8.12	13.18	10.77	2.34
Acqui _monte	61.5	A2_Tr 200	107.00	155.58	158.92	158.71	159.80	0.003340	4.18	26.84	19.26	0.86
Acqui _monte	61.4	A2_Tr 200	107.00	155.50	159.11	158.44	159.65	0.001784	3.35	41.70	44.60	0.64
Acqui _monte	61.3	A2_Tr 200	107.00	155.45	158.93	158.39	159.58	0.002217	3.63	35.01	39.31	0.71
Acqui _monte	61.2	A2_Tr 200	107.00	155.40	159.02	158.04	159.49	0.001408	3.08	41.54	30.00	0.57
Acqui _monte	61.1	A2_Tr 200	107.00	155.40	158.39	158.02	159.41	0.003902	4.47	23.94	8.00	0.82
Acqui _monte	61	A2_Tr 200	107.00	155.10	157.72	157.72	159.05	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.4	A2_Tr 200	107.00	154.20	156.36	156.83	158.32	0.009812	6.20	17.25	8.00	1.35
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	A2_Tr 200	107.00	154.15	156.77	156.77	158.10	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.2	A2_Tr 200	107.00	153.25	155.38	155.87	157.38	0.010104	6.27	17.08	8.00	1.37
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	A2_Tr 200	107.00	153.20	155.83	155.82	157.15	0.005587	5.08	21.04	8.00	1.00
Acqui _monte	60	A2_Tr 200	107.00	151.62	153.70	154.24	155.81	0.010936	6.44	16.61	8.00	1.43
Acqui _monte	59	A2_Tr 200	107.00	151.30	154.52	153.92	155.40	0.003197	4.16	25.74	8.00	0.74
Acqui _monte	58.1	A2_Tr 200	107.00	151.25	153.97	153.97	155.33	0.005772	5.17	20.71	7.62	1.00
Acqui _monte	58	A2_Tr 200	107.00	150.27	152.65	152.99	154.42	0.008323	5.89	18.17	7.62	1.22
Acqui _monte	57	A2_Tr 200	107.00	150.19	152.90	152.90	154.27	0.005802	5.18	20.67	7.62	1.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	56	A2_Tr 200	107.00	150.00	152.28	152.66	154.08	0.008622	5.94	18.02	7.90	1.25
Acqui _monte	55.3	A2_Tr 200	107.00	150.00	152.31	152.62	154.06	0.008316	5.86	18.25	7.90	1.23
Acqui _monte	55.2	A2_Tr 200	107.00	149.68	152.95	152.34	153.84	0.003368	4.18	25.57	6.97	0.74
Acqui _monte	55.1	A2_Tr 200	107.00	149.67	152.97	152.33	153.83	0.003077	4.10	26.09	7.90	0.72
Acqui _monte	55	A2_Tr 200	107.00	149.60	153.05	152.13	153.73	0.002261	3.65	29.30	8.50	0.63
Acqui _monte	54	A2_Tr 200	107.00	149.30	152.80	151.97	153.58	0.002710	3.92	27.32	7.80	0.67
Acqui _monte	53.1	A2_Tr 200	107.00	149.14	152.84	151.82	153.54	0.002347	3.71	28.82	7.80	0.62
Acqui _monte	53	A2_Tr 200	107.00	149.10	151.99	151.99	153.44	0.006187	5.33	20.08	6.95	1.00
Acqui _monte	52	A2_Tr 200	107.00	148.82	151.30	151.71	153.26	0.009409	6.21	17.24	6.95	1.26
Acqui _monte	51	A2_Tr 200	107.00	148.55	150.88	151.43	153.07	0.011036	6.57	16.29	7.00	1.37
Acqui _monte	50.1	A2_Tr 200	107.00	148.48	150.66	151.31	153.03	0.012398	6.82	15.68	7.20	1.48
Acqui _monte	50	A2_Tr 200	107.00	148.15	150.69	150.98	152.43	0.008016	5.84	18.32	7.20	1.17
Acqui _monte	49	A2_Tr 200	107.00	148.04	150.60	150.87	152.32	0.007922	5.82	18.39	7.20	1.16
Acqui _monte	48	A2_Tr 200	107.00	147.92	150.49	150.75	152.19	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	47	A2_Tr 200	107.00	147.80	150.37	150.63	152.07	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	46	A2_Tr 200	107.00	147.68	150.24	150.51	151.96	0.007885	5.81	18.43	7.20	1.16
Acqui _monte	45	A2_Tr 200	107.00	147.60	150.17	150.43	151.87	0.007785	5.78	18.51	7.20	1.15
Acqui _monte	44.1	A2_Tr 200	107.00	147.52	149.99	150.35	151.84	0.008715	6.02	17.78	7.20	1.22
Acqui _monte	44	A2_Tr 200	107.00	147.40	149.86	150.23	151.72	0.008818	6.04	17.70	7.20	1.23
Acqui_valle	43	A2_Tr 200	120.00	147.30	151.06	150.35	152.07	0.003515	4.45	26.99	7.18	0.73
Acqui_valle	42	A2_Tr 200	120.00	147.20	151.00	150.25	151.99	0.005794	4.40	27.28		0.72
Acqui_valle	41	A2_Tr 200	120.00	147.08	150.91	150.13	151.90	0.005794	4.40	27.28		0.72
Acqui_valle	40	A2_Tr 200	120.00	146.95	150.82	150.00	151.80	0.005792	4.40	27.29		0.71
Acqui_valle	39	A2_Tr 200	120.00	146.90	150.78	149.96	151.76	0.005750	4.39	27.36		0.71
Acqui_valle	38.4	A2_Tr 200	120.00	146.80	150.03	150.03	151.64	0.006574	5.62	21.34	6.60	1.00
Acqui_valle	38.3	A2_Tr 200	120.00	146.22	148.87	149.45	151.27	0.011303	6.87	17.47	6.60	1.35
Acqui_valle	38.2	A2_Tr 200	120.00	146.07	148.67	149.30	151.16	0.011823	6.98	17.19	6.60	1.38
Acqui_valle	38.1	A2_Tr 200	120.00	146.08	148.76	149.31	151.11	0.010971	6.79	17.66	6.60	1.33
Acqui_valle	38	A2_Tr 200	120.00	146.00	148.64	149.23	151.06	0.011386	6.89	17.42	6.60	1.35
Acqui_valle	37.4	A2_Tr 200	120.00	145.93	148.55	149.16	151.01	0.011675	6.95	17.27	6.60	1.37
Acqui_valle	37.3	A2_Tr 200	120.00	145.78	148.28	149.01	150.97	0.013214	7.27	16.51	6.60	1.47
Acqui_valle	37.2	A2_Tr 200	120.00	145.63	148.21	148.84	150.70	0.011856	6.99	17.18	6.65	1.39
Acqui_valle	37.1	A2_Tr 200	120.00	145.40	147.91	148.51	150.28	0.011198	6.82	17.60	7.00	1.37
Acqui_valle	37	A2_Tr 200	120.00	144.99	147.57	148.10	149.82	0.010412	6.64	18.07	7.00	1.32
Acqui_valle	36	A2_Tr 200	120.00	144.82	147.46	147.93	149.61	0.009770	6.49	18.49	7.00	1.27

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	35	A2_Tr 200	120.00	144.43	146.13	147.01	149.10	0.017460	7.64	15.71	9.24	1.87
Acqui_valle	34.1	A2_Tr 200	120.00	144.39	146.08	146.97	149.08	0.017680	7.67	15.65	9.24	1.88
Acqui_valle	34	A2_Tr 200	94.00	143.50	144.67	145.69	148.53	0.033223	8.70	10.80	9.24	2.57
Acqui_valle	33.3	A2_Tr 200	94.00	143.28	144.63	145.47	147.53	0.021588	7.55	12.44	9.24	2.08
Acqui_valle	33.2	A2_Tr 200	94.00	143.07	146.32	145.26	146.82	0.001653	3.13	30.05	9.24	0.55
Acqui_valle	33.1	A2_Tr 200	94.00	142.86	146.32	145.05	146.76	0.001389	2.94	32.00	9.24	0.50
Acqui_valle	33.0	A2_Tr 200	94.00	142.65	145.29	145.29	146.61	0.005997	5.09	18.49	7.00	1.00
Acqui_valle	32.3	A2_Tr 200	94.00	142.28	144.69	144.92	146.27	0.007733	5.57	16.87	7.00	1.15
Acqui_valle	32.2	A2_Tr 200	94.00	141.92	144.32	144.56	145.91	0.007806	5.59	16.81	7.00	1.15
Acqui_valle	32.1	A2_Tr 200	94.00	141.55	143.93	144.19	145.55	0.007988	5.64	16.67	7.00	1.17
Acqui_valle	32	A2_Tr 200	94.00	141.19	143.58	143.83	145.19	0.007868	5.61	16.76	7.00	1.16
Acqui_valle	31.1	A2_Tr 200	94.00	141.19	143.59	143.83	145.18	0.007806	5.59	16.81	7.00	1.15
Acqui_valle	31	A2_Tr 200	94.00	140.19	143.94	142.83	144.59	0.002327	3.58	26.24	7.00	0.59
Acqui_valle	30.1		Bridge									
Acqui_valle	30	A2_Tr 200	94.00	140.02	143.69	142.66	144.37	0.002461	3.66	25.69	7.00	0.61

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200

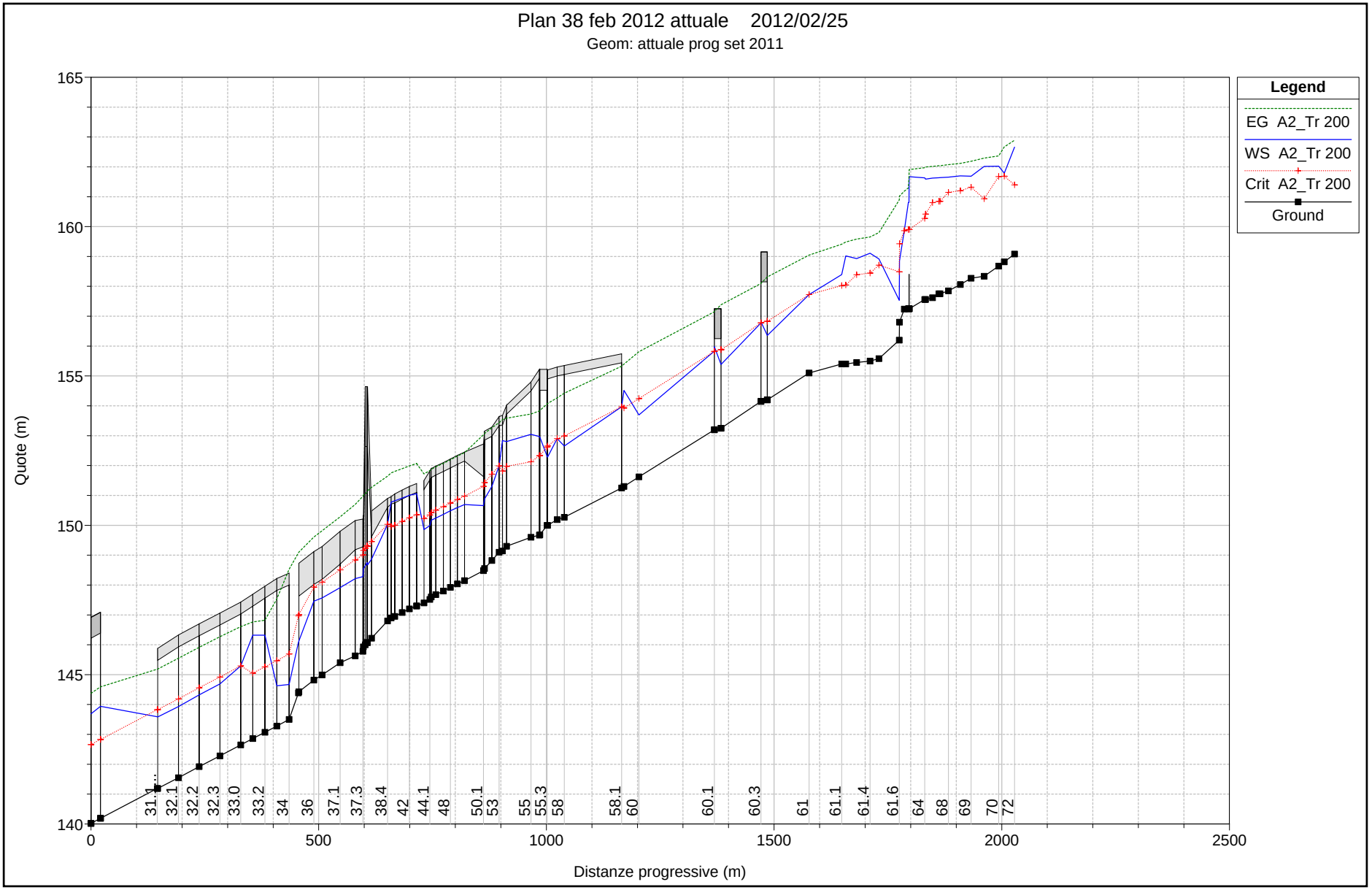
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	A2_Tr 200	162.89	162.66	0.23	0.03	0.20		107.00		20.85
Acqui _monte	71	A2_Tr 200	162.67	161.79	0.88	0.03	0.27		107.00		12.88
Acqui _monte	70	A2_Tr 200	162.37	162.02	0.35	0.04	0.04		107.00		32.13
Acqui _monte	69.50	A2_Tr 200	162.29	162.02	0.28	0.04	0.07		107.00		24.33
Acqui _monte	69	A2_Tr 200	162.19	161.69	0.50	0.04	0.02		107.00		26.21
Acqui _monte	68.5	A2_Tr 200	162.12	161.70	0.42	0.04	0.00		107.00		23.24
Acqui _monte	68	A2_Tr 200	162.07	161.65	0.42	0.03	0.01		107.00		26.42
Acqui _monte	67.1	A2_Tr 200	162.04	161.64	0.40	0.00	0.00		107.00		24.95
Acqui _monte	66.1	A2_Tr 200	162.04	161.64	0.40	0.02	0.00		107.00		24.93
Acqui _monte	66	A2_Tr 200	162.02	161.63	0.39	0.02	0.00		107.00		25.18
Acqui _monte	65	A2_Tr 200	162.00	161.59	0.41	0.00	0.02		107.00		13.49
Acqui _monte	64	A2_Tr 200	161.97	161.63	0.34	0.03	0.03		107.00		17.90
Acqui _monte	63.1	A2_Tr 200	161.91	161.67	0.24				107.00		21.95
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	A2_Tr 200	161.29	160.81	0.48	0.02	0.08		107.00		13.14
Acqui _monte	62	A2_Tr 200	161.19	159.86	1.32	0.06	0.00		107.00		8.00
Acqui _monte	61.7	A2_Tr 200	161.02	158.85	2.17	0.08	0.08		107.00		8.00
Acqui _monte	61.6	A2_Tr 200	160.89	157.53	3.36	0.01	0.12		107.00		10.77
Acqui _monte	61.5	A2_Tr 200	159.80	158.92	0.89	0.05	0.10		106.39	0.61	19.26
Acqui _monte	61.4	A2_Tr 200	159.65	159.11	0.54	0.06	0.01		101.06	5.94	44.60
Acqui _monte	61.3	A2_Tr 200	159.58	158.93	0.65	0.04	0.06		104.32	2.68	39.31
Acqui _monte	61.2	A2_Tr 200	159.49	159.02	0.47	0.02	0.06		102.63	4.37	30.00
Acqui _monte	61.1	A2_Tr 200	159.41	158.39	1.02	0.33	0.03		107.00		8.00
Acqui _monte	61	A2_Tr 200	159.05	157.72	1.32	0.43	0.09		107.00		8.00
Acqui _monte	60.4	A2_Tr 200	158.32	156.36	1.96	0.67	0.06		107.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	A2_Tr 200	158.10	156.77	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60.2	A2_Tr 200	157.38	155.38	2.00	0.65	0.07		107.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	A2_Tr 200	157.15	155.83	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60	A2_Tr 200	155.81	153.70	2.11	1.26	0.08		107.00		8.00
Acqui _monte	59	A2_Tr 200	155.40	154.52	0.88	0.02	0.05		107.00		8.00
Acqui _monte	58.1	A2_Tr 200	155.33	153.97	1.36	0.65	0.06		107.00		7.62
Acqui _monte	58	A2_Tr 200	154.42	152.65	1.77	0.87	0.04		107.00		7.62
Acqui _monte	57	A2_Tr 200	154.27	152.90	1.36	0.10	0.09		107.00		7.62

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	56	A2_Tr 200	154.08	152.28	1.80	0.15	0.04		107.00		7.90
Acqui _monte	55.3	A2_Tr 200	154.06	152.31	1.75	0.01	0.13		107.00		7.90
Acqui _monte	55.2	A2_Tr 200	153.84	152.95	0.89	0.00	0.01		107.00		6.97
Acqui _monte	55.1	A2_Tr 200	153.83	152.97	0.86	0.05	0.05		107.00		7.90
Acqui _monte	55	A2_Tr 200	153.73	153.05	0.68	0.13	0.01		107.00		8.50
Acqui _monte	54	A2_Tr 200	153.58	152.80	0.78	0.02	0.02		107.00		7.80
Acqui _monte	53.1	A2_Tr 200	153.54	152.84	0.70	0.03	0.07		107.00		7.80
Acqui _monte	53	A2_Tr 200	153.44	151.99	1.45	0.10	0.00		107.00		6.95
Acqui _monte	52	A2_Tr 200	153.26	151.30	1.96	0.12	0.05		107.00		6.95
Acqui _monte	51	A2_Tr 200	153.07	150.88	2.20	0.16	0.02		107.00		7.00
Acqui _monte	50.1	A2_Tr 200	153.03	150.66	2.37	0.03	0.02		107.00		7.20
Acqui _monte	50	A2_Tr 200	152.43	150.69	1.74	0.41	0.19		107.00		7.20
Acqui _monte	49	A2_Tr 200	152.32	150.60	1.72	0.11	0.10		107.00		7.20
Acqui _monte	48	A2_Tr 200	152.19	150.49	1.71	0.12	0.01		107.00		7.20
Acqui _monte	47	A2_Tr 200	152.07	150.37	1.71	0.12	0.00		107.00		7.20
Acqui _monte	46	A2_Tr 200	151.96	150.24	1.72	0.11	0.09		107.00		7.20
Acqui _monte	45	A2_Tr 200	151.87	150.17	1.70	0.08	0.00		107.00		7.20
Acqui _monte	44.1	A2_Tr 200	151.84	149.99	1.85	0.02	0.01		107.00		7.20
Acqui _monte	44	A2_Tr 200	151.72	149.86	1.86	0.11	0.00		107.00		7.20
Acqui_valle	43	A2_Tr 200	152.07	151.06	1.01	0.07	0.01		120.00		7.18
Acqui_valle	42	A2_Tr 200	151.99	151.00	0.99	0.09	0.00		120.00		
Acqui_valle	41	A2_Tr 200	151.90	150.91	0.99	0.09	0.00		120.00		
Acqui_valle	40	A2_Tr 200	151.80	150.82	0.99	0.05	0.00		120.00		
Acqui_valle	39	A2_Tr 200	151.76	150.78	0.98	0.05	0.06		120.00		
Acqui_valle	38.4	A2_Tr 200	151.64	150.03	1.61	0.22	0.03		120.00		6.60
Acqui_valle	38.3	A2_Tr 200	151.27	148.87	2.40	0.30	0.08		120.00		6.60
Acqui_valle	38.2	A2_Tr 200	151.16	148.67	2.48	0.10	0.01		120.00		6.60
Acqui_valle	38.1	A2_Tr 200	151.11	148.76	2.35	0.01	0.04		120.00		6.60
Acqui_valle	38	A2_Tr 200	151.06	148.64	2.42	0.04	0.01		120.00		6.60
Acqui_valle	37.4	A2_Tr 200	151.01	148.55	2.46	0.05	0.00		120.00		6.60
Acqui_valle	37.3	A2_Tr 200	150.97	148.28	2.69	0.01	0.02		120.00		6.60
Acqui_valle	37.2	A2_Tr 200	150.70	148.21	2.49	0.21	0.06		120.00		6.65
Acqui_valle	37.1	A2_Tr 200	150.28	147.91	2.37	0.38	0.04		120.00		7.00
Acqui_valle	37	A2_Tr 200	149.82	147.57	2.25	0.43	0.04		120.00		7.00
Acqui_valle	36	A2_Tr 200	149.61	147.46	2.15	0.18	0.03		120.00		7.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: A2_Tr 200 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	35	A2_Tr 200	149.10	146.13	2.97	0.42	0.08		120.00		9.24
Acqui_valle	34.1	A2_Tr 200	149.08	146.08	3.00	0.02	0.00		120.00		9.24
Acqui_valle	34	A2_Tr 200	148.53	144.67	3.86	0.47	0.09		94.00		9.24
Acqui_valle	33.3	A2_Tr 200	147.53	144.63	2.91	0.71	0.29		94.00		9.24
Acqui_valle	33.2	A2_Tr 200	146.82	146.32	0.50	0.04	0.02		94.00		9.24
Acqui_valle	33.1	A2_Tr 200	146.76	146.32	0.44	0.07	0.09		94.00		9.24
Acqui_valle	33.0	A2_Tr 200	146.61	145.29	1.32	0.27	0.00		94.00		7.00
Acqui_valle	32.3	A2_Tr 200	146.27	144.69	1.58	0.31	0.03		94.00		7.00
Acqui_valle	32.2	A2_Tr 200	145.91	144.32	1.59	0.35	0.00		94.00		7.00
Acqui_valle	32.1	A2_Tr 200	145.55	143.93	1.62	0.36	0.00		94.00		7.00
Acqui_valle	32	A2_Tr 200	145.19	143.58	1.60	0.36	0.01		94.00		7.00
Acqui_valle	31.1	A2_Tr 200	145.18	143.59	1.59	0.01	0.08		94.00		7.00
Acqui_valle	31	A2_Tr 200	144.59	143.94	0.65				94.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	A2_Tr 200	144.37	143.69	0.68				94.00		7.00


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
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60
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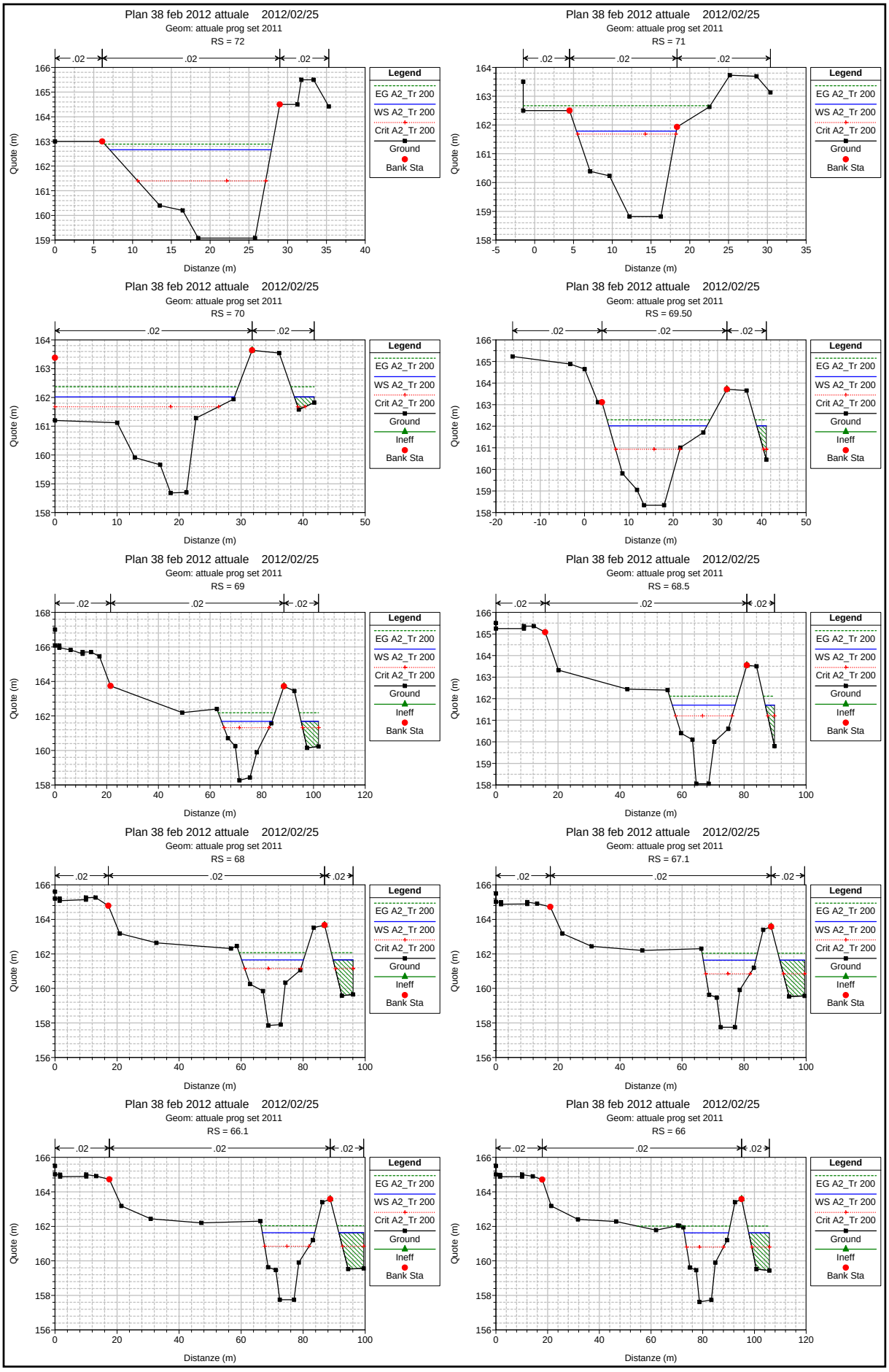
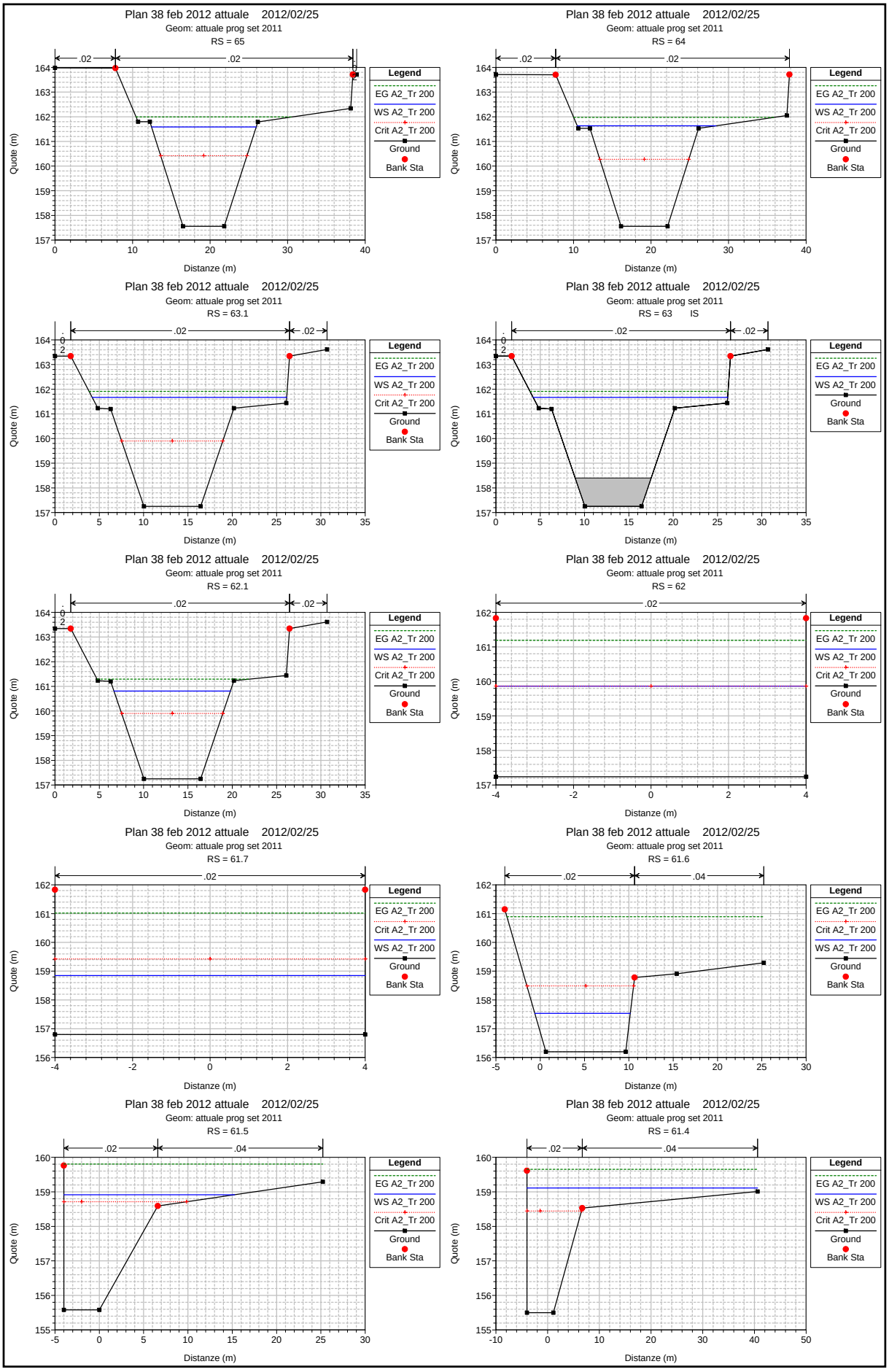
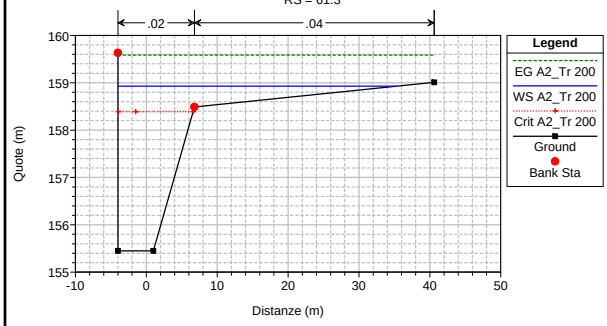
61.1
61.4
61.6
64
68
69
70
72

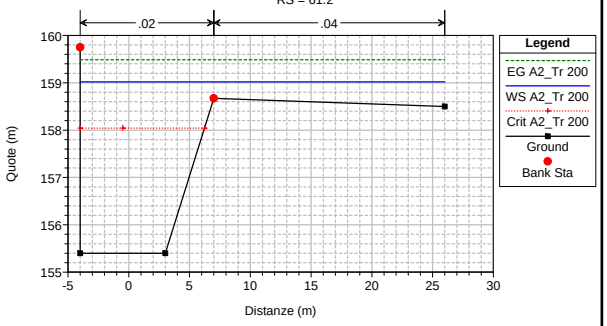

Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 72
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 71
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 70
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69.50
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68.5
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 67.1
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66.1
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Ineff
Bank Sta


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 65
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 64
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63 IS
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.7
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.6
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.5
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.4
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)

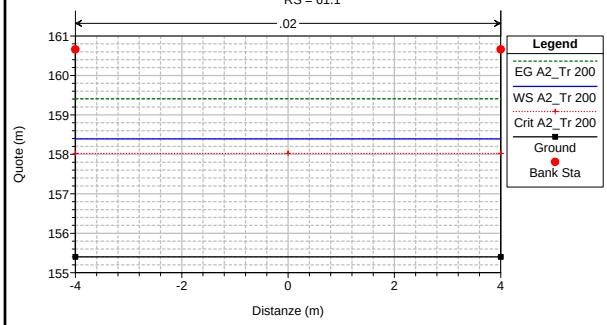
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.3



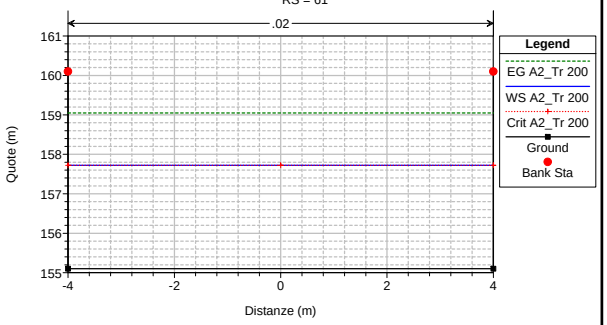
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.2



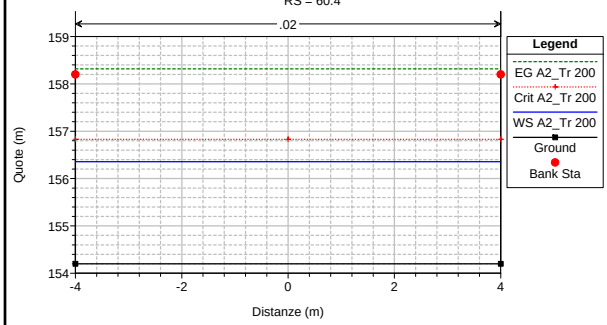
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.1



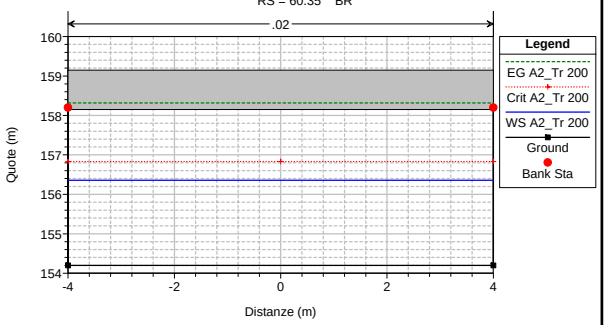
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61



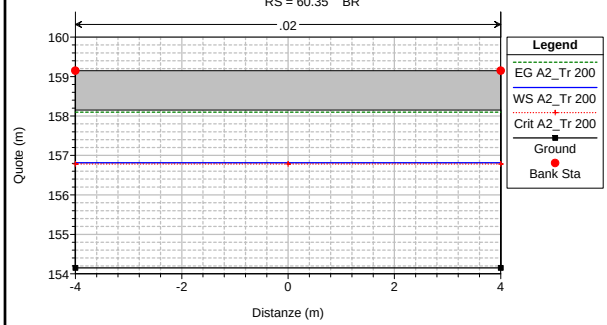
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.4



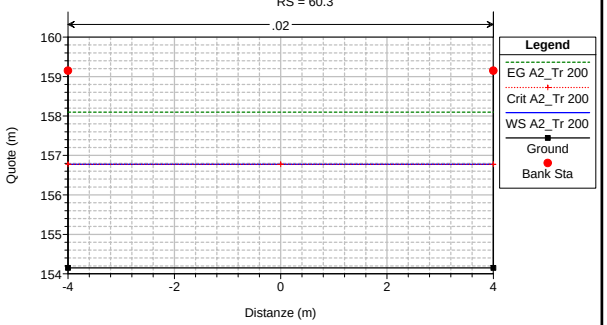
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



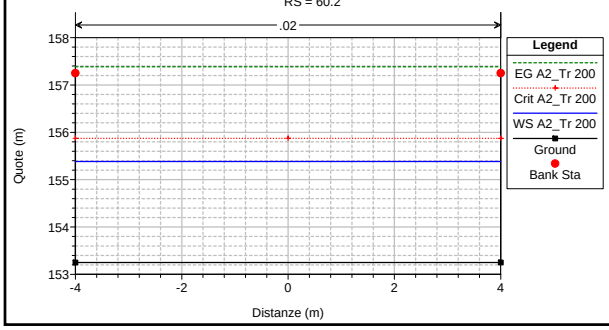
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



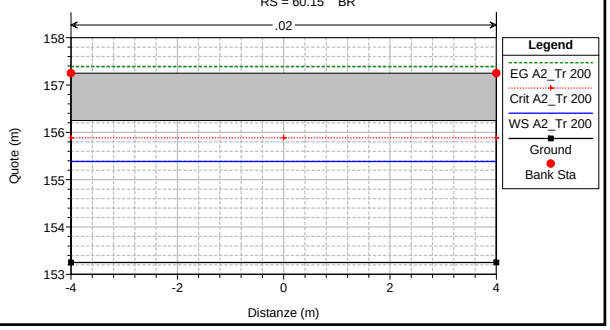
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.3



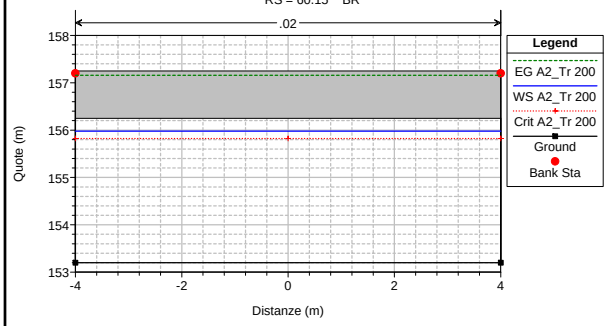
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.2



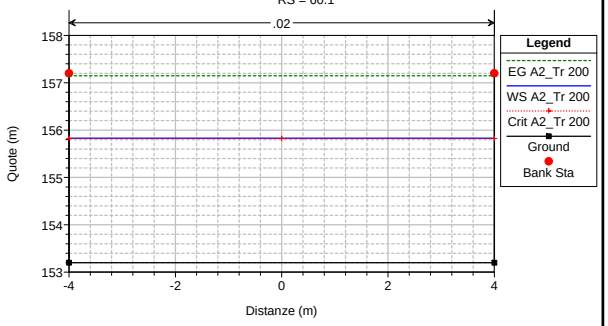
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



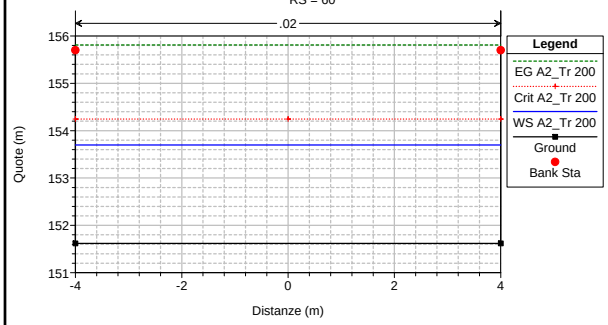
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



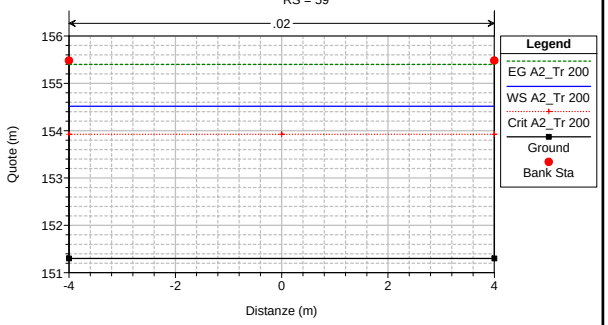
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.1



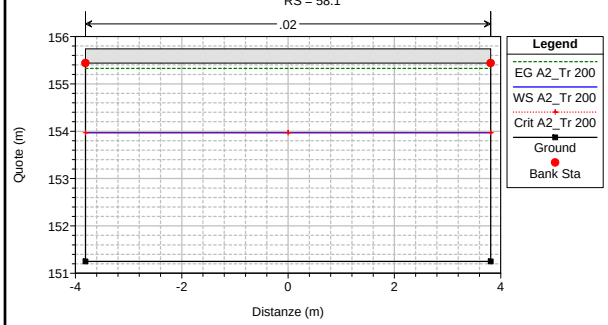
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60



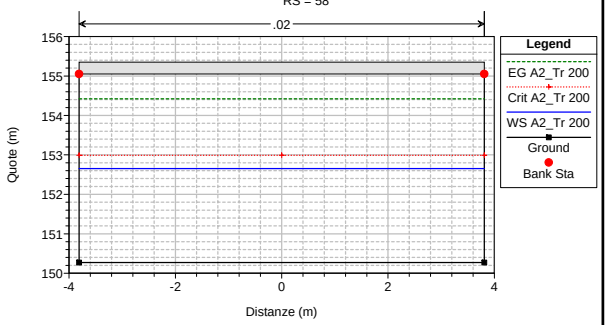
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 59



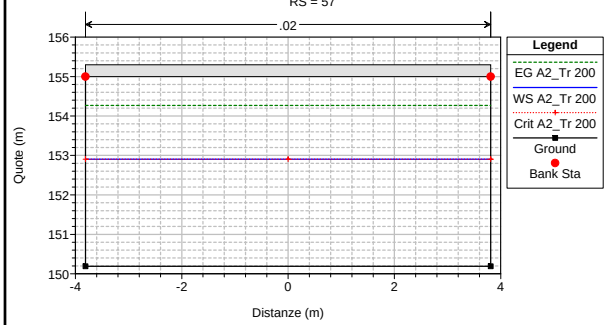
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58.1



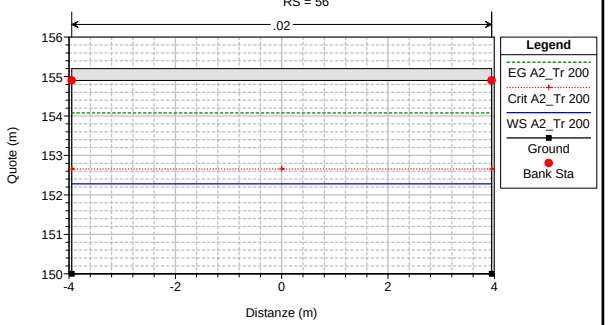
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58



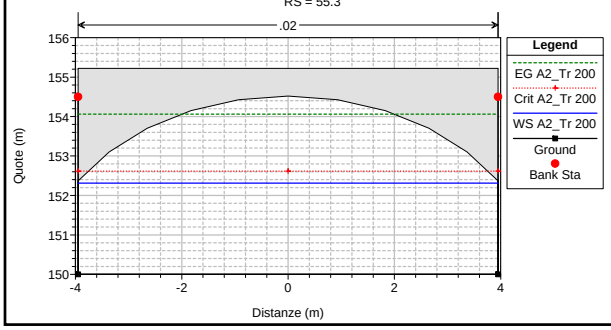
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 57



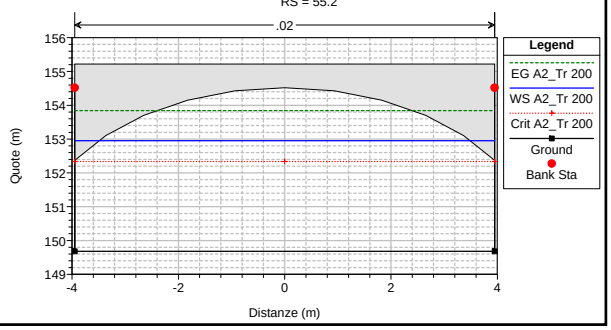
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 56



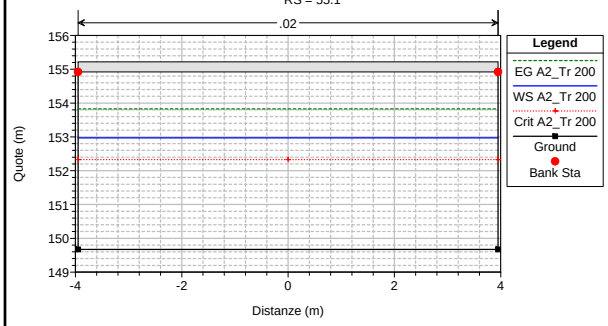
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.3



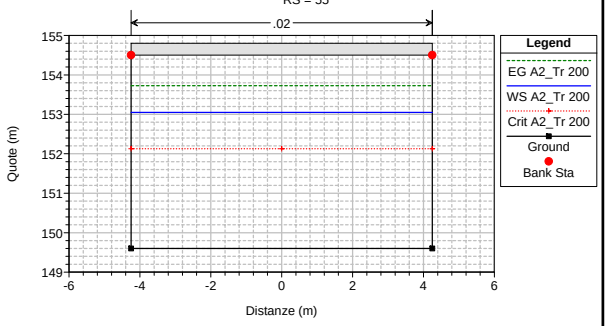
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.2



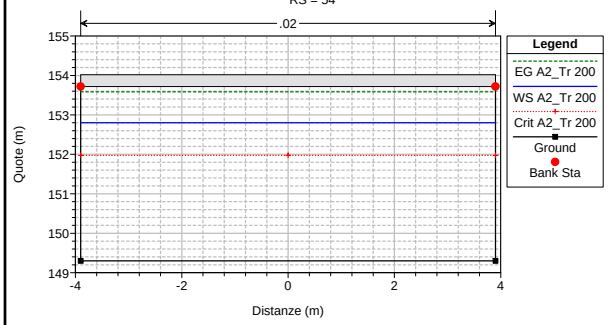
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.1



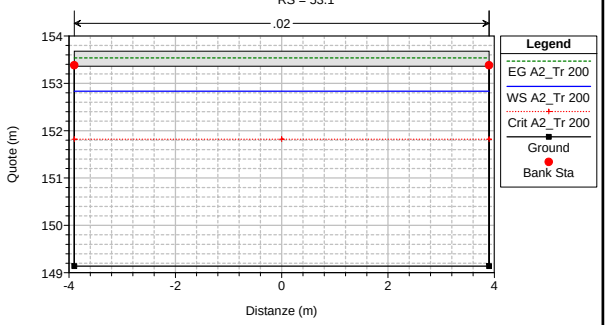
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55



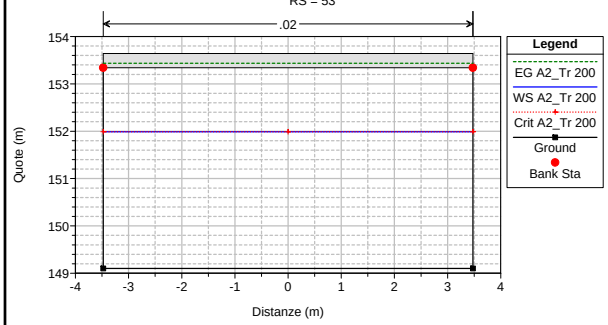
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 54



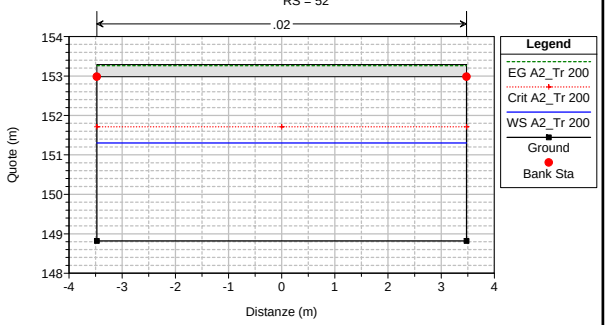
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53.1



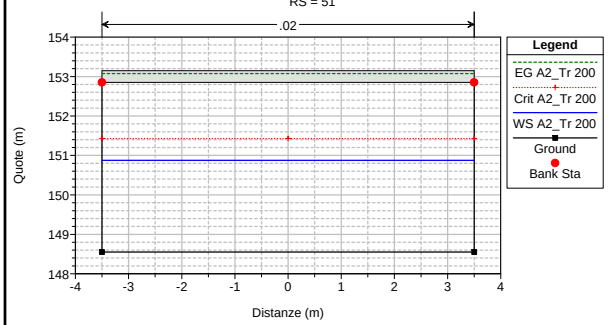
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53



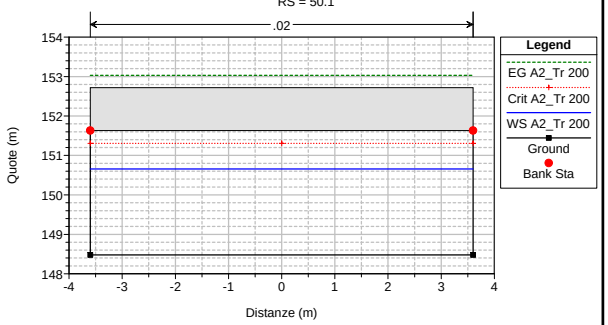
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 52



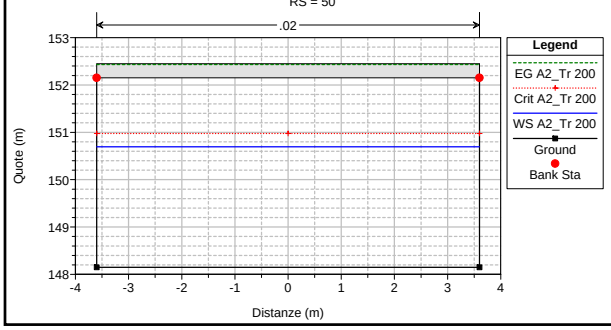
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 51



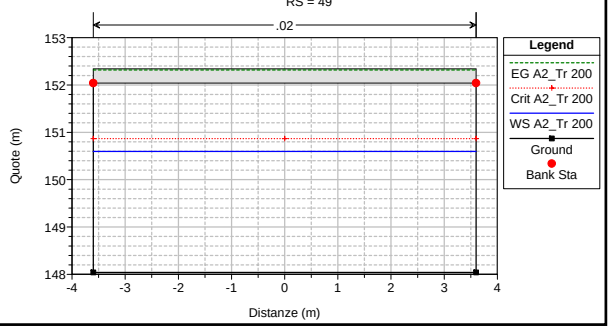
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50.1



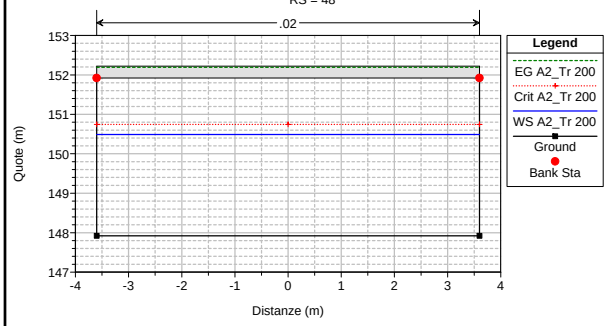
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50



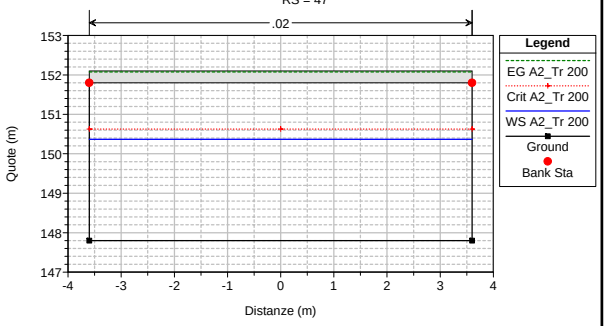
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 49



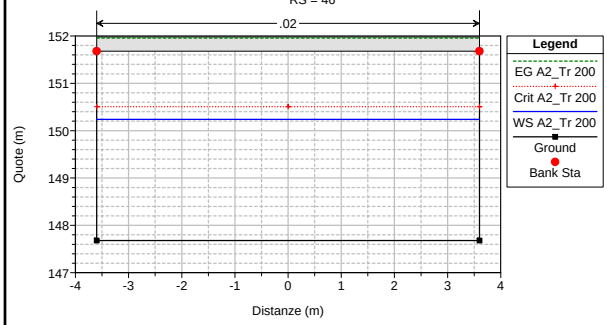
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 48



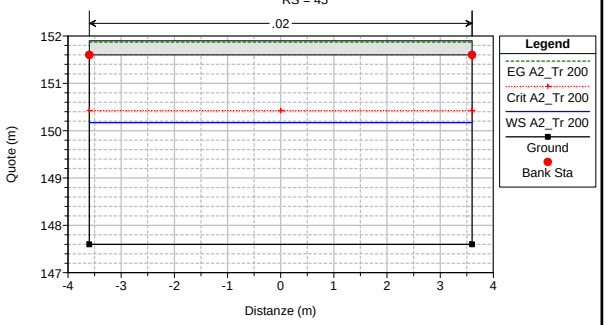
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 47



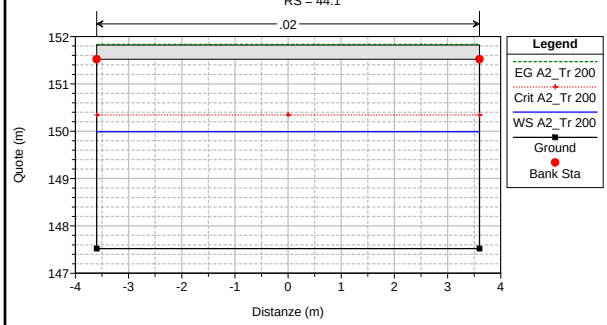
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 46



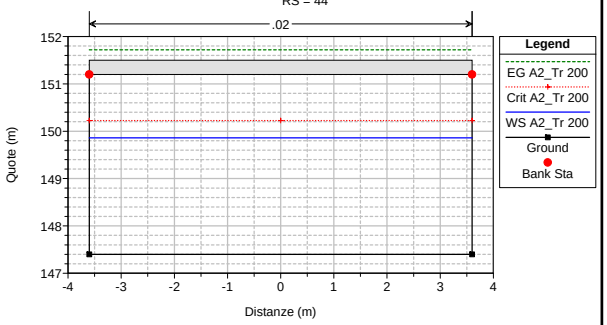
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 45



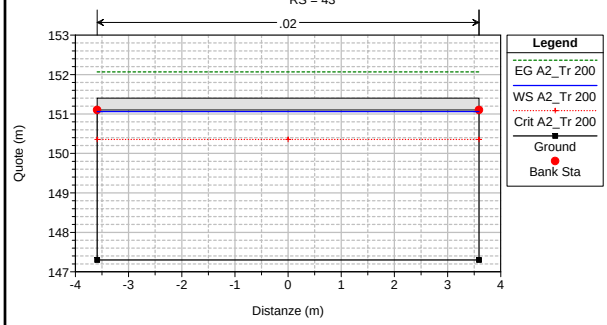
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44.1



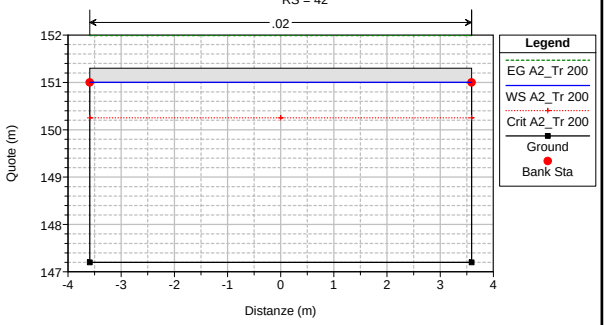
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44



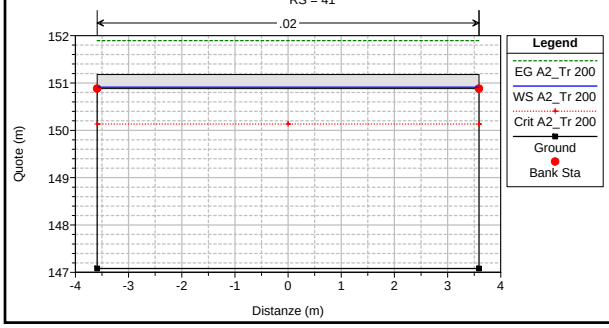
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 43



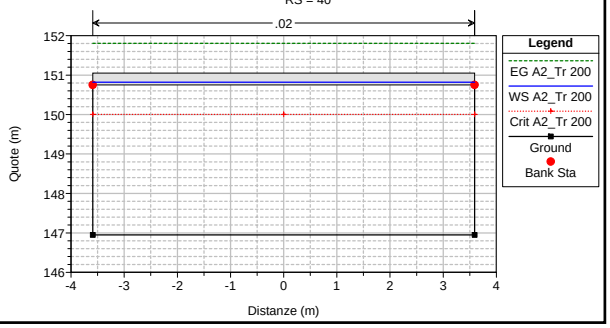
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 42

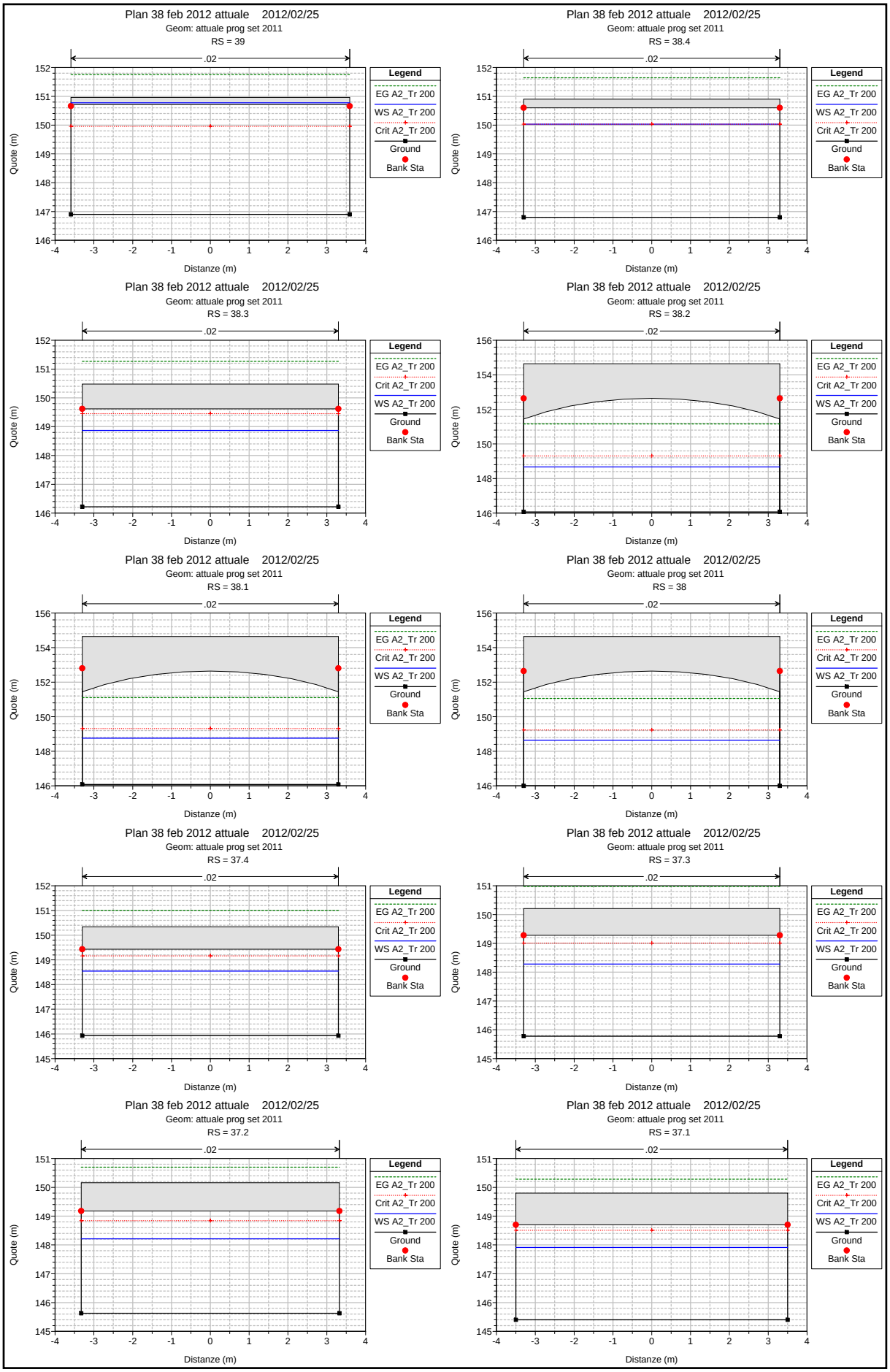


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 41

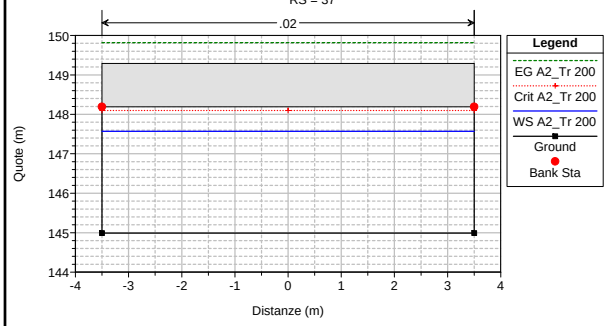


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 40

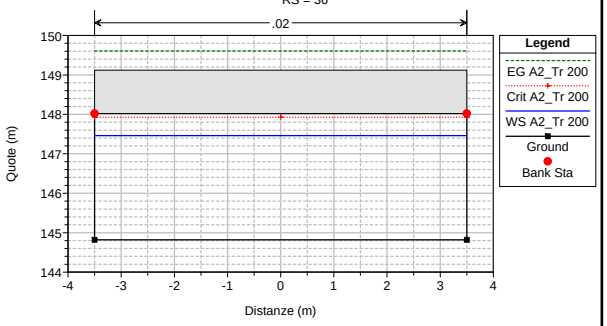



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 39
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.4
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.3
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.2
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.4
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.3
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.2
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.1
.02
Quote (m)
Distanze (m)
Legend
EG A2_Tr 200
WS A2_Tr 200
Crit A2_Tr 200
Ground
Bank Sta

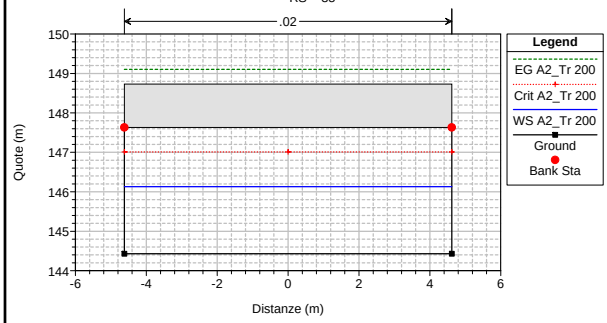
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37



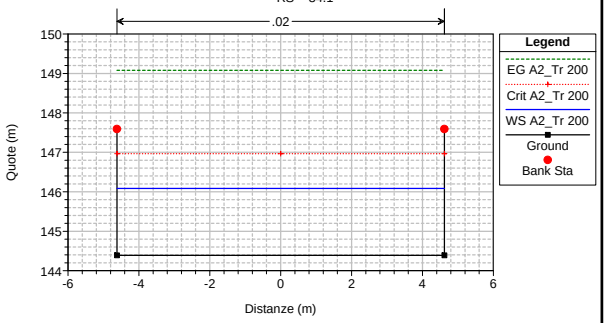
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 36



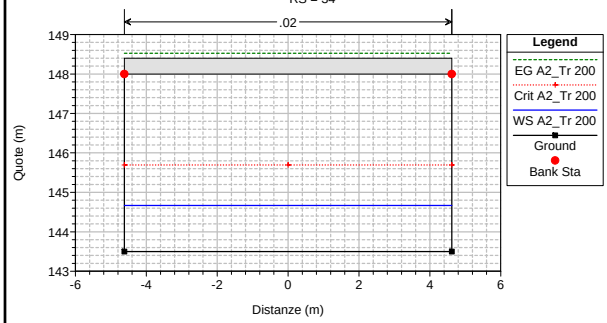
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 35



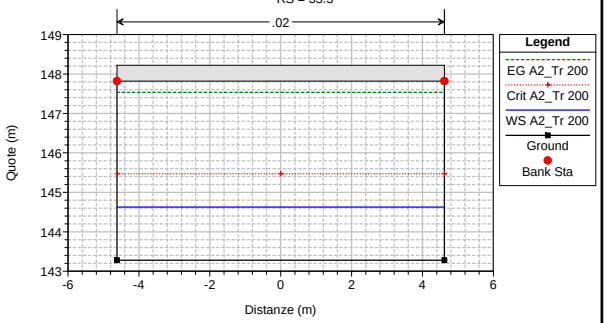
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34.1



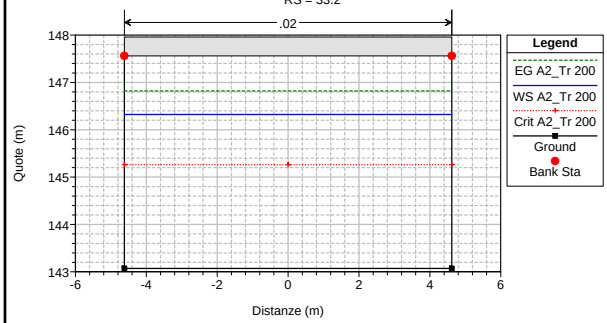
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34



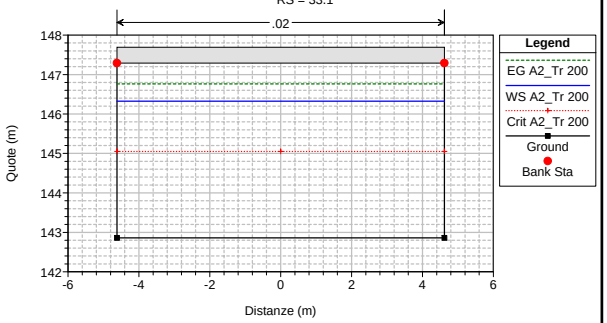
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.3



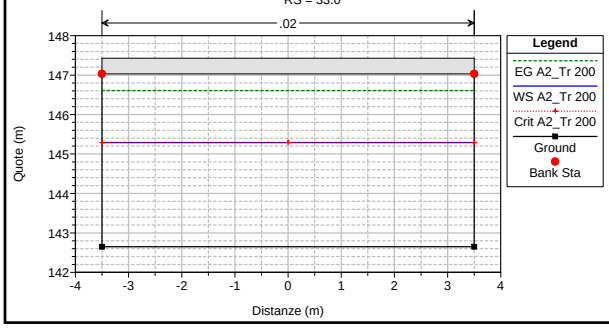
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.2



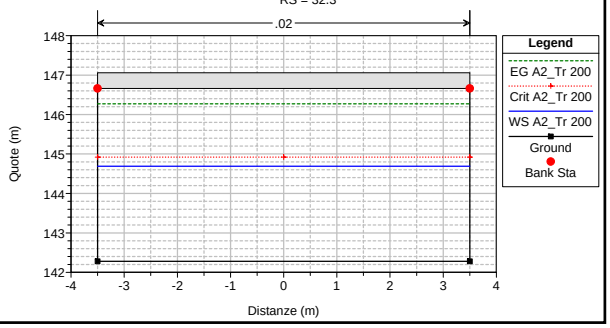
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.1

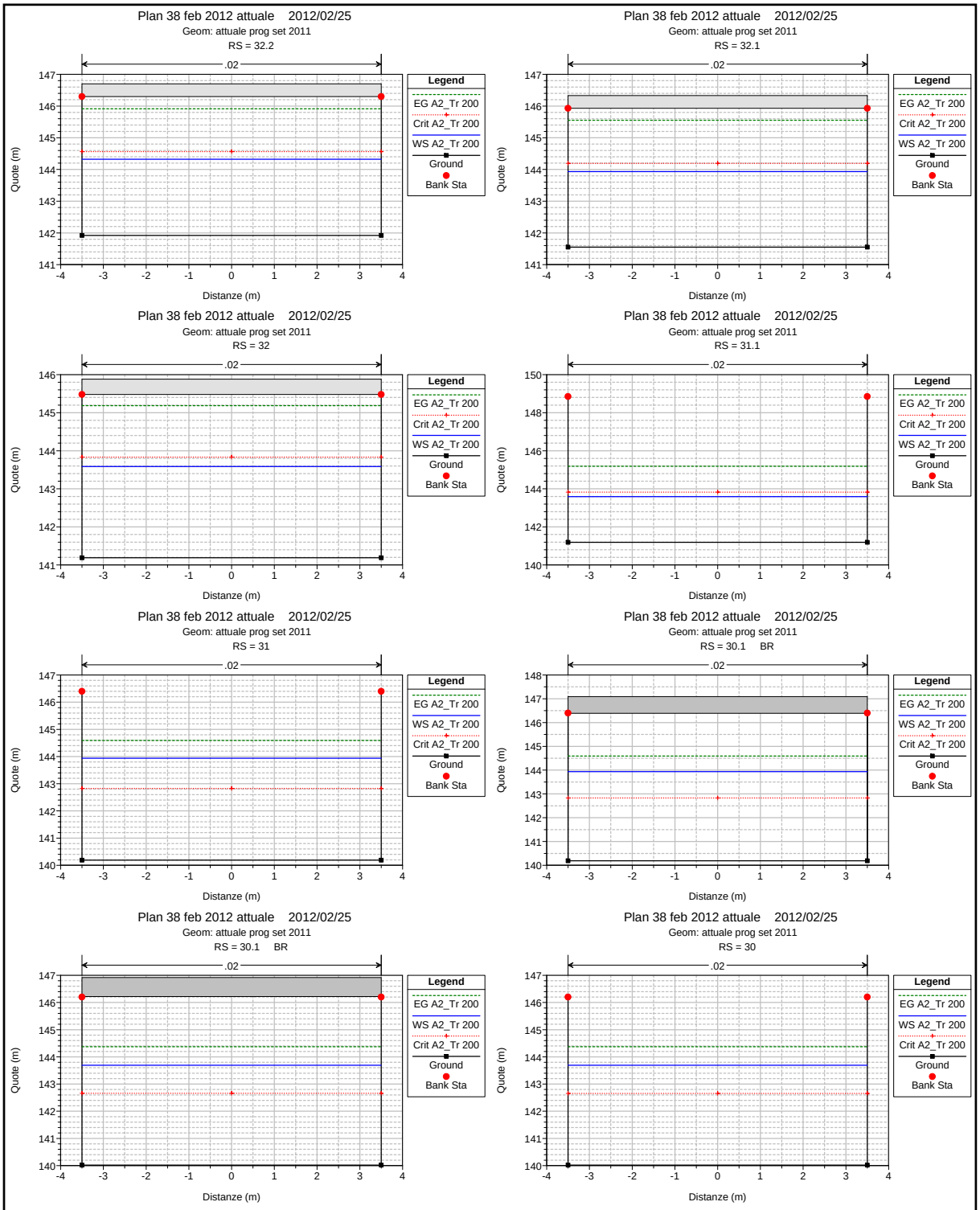


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.0



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.3




Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.2
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30
.02
Legend
EG A2_Tr 200
Crit A2_Tr 200
WS A2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)

<u>Scenario C1</u>)

Rio Medrio Tempo di ritorno Tr = 20 anni

Portata a monte dello scolmatore Q = 63 mc/s

Portata a valle dello scolmatore Q = 37 mc/s

Fiume Bormida Tempo di ritorno Tr = 200 anni

Q = 2980 mc/s livello idrico 145.55 m

HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	C1_Tr 20	63.00	159.08	161.76	160.84	161.95	0.000744	1.91	32.92	17.74	0.45
Acqui _monte	71	C1_Tr 20	63.00	158.82	161.26	161.04	161.81	0.002769	3.28	19.23	11.87	0.82
Acqui _monte	70	C1_Tr 20	63.00	158.68	161.27	161.02	161.71	0.004158	2.93	21.48	22.72	0.96
Acqui _monte	69.50	C1_Tr 20	63.00	158.34	161.35	160.32	161.54	0.000768	1.95	32.29	18.96	0.46
Acqui _monte	69	C1_Tr 20	63.00	158.27	161.09	160.71	161.45	0.001996	2.69	23.39	21.90	0.71
Acqui _monte	68.5	C1_Tr 20	63.00	158.06	161.08	160.67	161.39	0.001743	2.46	25.60	19.69	0.65
Acqui _monte	68	C1_Tr 20	63.00	157.85	161.04	160.50	161.35	0.001733	2.45	25.74	23.28	0.65
Acqui _monte	67.1	C1_Tr 20	63.00	157.75	161.06	160.13	161.30	0.001030	2.19	28.76	22.47	0.51
Acqui _monte	66.1	C1_Tr 20	63.00	157.75	161.06	160.13	161.30	0.001035	2.19	28.71	22.46	0.51
Acqui _monte	66	C1_Tr 20	63.00	157.62	161.05	160.08	161.29	0.000995	2.16	29.19	22.62	0.50
Acqui _monte	65	C1_Tr 20	63.00	157.56	161.05	159.67	161.26	0.000646	2.04	30.94	12.40	0.41
Acqui _monte	64	C1_Tr 20	63.00	157.56	161.07	159.55	161.25	0.000525	1.88	33.53	13.08	0.37
Acqui _monte	63.1	C1_Tr 20	63.00	157.25	161.09	159.19	161.23	0.000359	1.64	38.53	13.66	0.31
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	C1_Tr 20	63.00	157.25	159.58	159.19	160.09	0.002159	3.13	20.10	10.82	0.73
Acqui _monte	62	C1_Tr 20	63.00	157.24	159.08	159.08	160.01	0.005356	4.27	14.75	8.00	1.00
Acqui _monte	61.7	C1_Tr 20	63.00	156.80	158.17	158.65	159.86	0.012894	5.75	10.95	8.00	1.57
Acqui _monte	61.6	C1_Tr 20	63.00	156.20	157.11	157.83	159.75	0.028869	7.20	8.75	10.21	2.48
Acqui _monte	61.5	C1_Tr 20	63.00	155.58	157.90	157.92	158.78	0.005014	4.16	15.15	9.08	1.03
Acqui _monte	61.4	C1_Tr 20	63.00	155.50	158.05	157.67	158.61	0.002646	3.31	19.02	9.81	0.76
Acqui _monte	61.3	C1_Tr 20	63.00	155.45	157.63	157.63	158.48	0.004719	4.09	15.41	9.15	1.01
Acqui _monte	61.2	C1_Tr 20	63.00	155.40	157.74	157.30	158.26	0.002358	3.20	19.70	9.86	0.72
Acqui _monte	61.1	C1_Tr 20	63.00	155.40	157.48	157.24	158.21	0.003763	3.78	16.66	8.00	0.84
Acqui _monte	61	C1_Tr 20	63.00	155.10	156.94	156.94	157.87	0.005354	4.27	14.75	8.00	1.00
Acqui _monte	60.4	C1_Tr 20	63.00	154.20	155.66	156.04	157.14	0.010669	5.40	11.67	8.00	1.43
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	C1_Tr 20	63.00	154.15	155.91	155.99	156.93	0.006148	4.48	14.06	8.00	1.08
Acqui _monte	60.2	C1_Tr 20	63.00	153.25	154.71	155.09	156.19	0.010595	5.39	11.70	8.00	1.42
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	C1_Tr 20	63.00	153.20	155.05	155.04	155.97	0.005308	4.26	14.79	8.00	1.00
Acqui _monte	60	C1_Tr 20	63.00	151.62	153.02	153.46	154.63	0.012077	5.63	11.19	8.00	1.52
Acqui _monte	59	C1_Tr 20	63.00	151.30	152.79	153.14	154.22	0.010065	5.29	11.90	8.00	1.39
Acqui _monte	58.1	C1_Tr 20	63.00	151.25	153.16	153.16	154.11	0.005464	4.34	14.53	7.62	1.00
Acqui _monte	58	C1_Tr 20	63.00	150.27	151.89	152.18	153.22	0.008777	5.10	12.35	7.62	1.28
Acqui _monte	57	C1_Tr 20	63.00	150.19	152.09	152.09	153.05	0.005485	4.34	14.51	7.62	1.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	56	C1_Tr 20	63.00	150.00	151.58	151.87	152.88	0.008654	5.04	12.49	7.90	1.28
Acqui _monte	55.3	C1_Tr 20	63.00	150.00	151.60	151.86	152.86	0.008283	4.97	12.68	7.90	1.25
Acqui _monte	55.2	C1_Tr 20	63.00	149.68	151.12	151.54	152.68	0.011335	5.52	11.40	7.90	1.47
Acqui _monte	55.1	C1_Tr 20	63.00	149.67	151.11	151.54	152.67	0.011325	5.52	11.41	7.90	1.47
Acqui _monte	55	C1_Tr 20	63.00	149.60	151.87	151.38	152.41	0.002519	3.26	19.32	8.50	0.69
Acqui _monte	54	C1_Tr 20	63.00	149.30	151.69	151.18	152.27	0.002716	3.38	18.61	7.80	0.70
Acqui _monte	53.1	C1_Tr 20	63.00	149.14	151.72	151.02	152.22	0.002168	3.12	20.16	7.80	0.62
Acqui _monte	53	C1_Tr 20	63.00	149.10	151.13	151.13	152.15	0.005707	4.46	14.13	6.95	1.00
Acqui _monte	52	C1_Tr 20	63.00	148.82	150.50	150.85	151.98	0.009833	5.39	11.69	6.95	1.33
Acqui _monte	51	C1_Tr 20	63.00	148.55	150.12	150.57	151.79	0.011751	5.72	11.01	7.00	1.46
Acqui _monte	50.1	C1_Tr 20	63.00	148.48	149.95	150.46	151.75	0.013280	5.94	10.61	7.20	1.56
Acqui _monte	50	C1_Tr 20	63.00	148.15	149.91	150.13	151.17	0.007968	4.98	12.64	7.20	1.20
Acqui _monte	49	C1_Tr 20	63.00	148.04	149.85	150.02	151.04	0.007345	4.85	13.00	7.20	1.15
Acqui _monte	48	C1_Tr 20	63.00	147.92	149.71	149.90	150.93	0.007518	4.88	12.90	7.20	1.17
Acqui _monte	47	C1_Tr 20	63.00	147.80	149.58	149.78	150.81	0.007607	4.91	12.84	7.20	1.17
Acqui _monte	46	C1_Tr 20	63.00	147.68	149.48	149.66	150.68	0.007389	4.86	12.97	7.20	1.15
Acqui _monte	45	C1_Tr 20	63.00	147.60	149.39	149.58	150.61	0.007527	4.89	12.89	7.20	1.17
Acqui _monte	44.1	C1_Tr 20	63.00	147.52	149.22	149.50	150.57	0.008718	5.14	12.25	7.20	1.26
Acqui _monte	44	C1_Tr 20	63.00	147.40	149.09	149.38	150.45	0.008848	5.17	12.19	7.20	1.27
Acqui_valle	43	C1_Tr 20	63.00	147.30	149.08	149.29	150.32	0.007665	4.92	12.80	7.18	1.18
Acqui_valle	42	C1_Tr 20	63.00	147.20	149.42	149.19	150.22	0.004078	3.95	15.97	7.18	0.84
Acqui_valle	41	C1_Tr 20	63.00	147.08	149.41	149.07	150.13	0.003565	3.76	16.75	7.18	0.79
Acqui_valle	40	C1_Tr 20	63.00	146.95	149.41	148.94	150.06	0.003072	3.57	17.66	7.18	0.73
Acqui_valle	39	C1_Tr 20	63.00	146.90	149.40	148.89	150.03	0.002936	3.51	17.96	7.18	0.71
Acqui_valle	38.4	C1_Tr 20	63.00	146.80	148.90	148.90	149.95	0.005939	4.55	13.85	6.60	1.00
Acqui_valle	38.3	C1_Tr 20	63.00	146.22	147.85	148.32	149.59	0.012170	5.85	10.77	6.60	1.46
Acqui_valle	38.2	C1_Tr 20	63.00	146.07	147.68	148.17	149.48	0.012759	5.95	10.60	6.60	1.50
Acqui_valle	38.1	C1_Tr 20	63.00	146.08	147.73	148.18	149.44	0.011824	5.79	10.88	6.60	1.44
Acqui_valle	38	C1_Tr 20	63.00	146.00	147.62	148.10	149.38	0.012330	5.88	10.72	6.60	1.47
Acqui_valle	37.4	C1_Tr 20	63.00	145.93	147.54	148.03	149.33	0.012604	5.92	10.64	6.60	1.49
Acqui_valle	37.3	C1_Tr 20	63.00	145.78	147.31	147.88	149.29	0.014683	6.24	10.10	6.60	1.61
Acqui_valle	37.2	C1_Tr 20	63.00	145.63	147.25	147.72	149.00	0.012304	5.86	10.74	6.65	1.47
Acqui_valle	37.1	C1_Tr 20	63.00	145.40	147.06	147.42	148.56	0.009993	5.41	11.64	7.00	1.34
Acqui_valle	37	C1_Tr 20	63.00	144.99	146.64	147.01	148.15	0.010166	5.45	11.57	7.00	1.35
Acqui_valle	36	C1_Tr 20	63.00	144.82	146.50	146.84	147.96	0.009625	5.34	11.79	7.00	1.31

HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	35	C1_Tr 20	63.00	144.43	145.53	146.11	147.49	0.017950	6.19	10.17	9.24	1.88
Acqui_valle	34.1	C1_Tr 20	63.00	144.39	145.48	146.06	147.47	0.018361	6.24	10.10	9.24	1.91
Acqui_valle	34	C1_Tr 20	37.00	143.50	145.81	144.68	145.96	0.000675	1.73	21.35	9.24	0.36
Acqui_valle	33.3	C1_Tr 20	37.00	143.28	145.81	144.46	145.94	0.000519	1.58	23.40	9.24	0.32
Acqui_valle	33.2	C1_Tr 20	37.00	143.07	145.81	144.25	145.92	0.000413	1.46	25.35	9.24	0.28
Acqui_valle	33.1	C1_Tr 20	37.00	142.86	145.81	144.04	145.91	0.000335	1.36	27.30	9.24	0.25
Acqui_valle	33.0	C1_Tr 20	37.00	142.65	145.74	144.07	145.89	0.000604	1.71	21.64	7.00	0.31
Acqui_valle	32.3	C1_Tr 20	37.00	142.28	145.74	143.70	145.86	0.000446	1.53	24.22	7.00	0.26
Acqui_valle	32.2	C1_Tr 20	37.00	141.92	145.74	143.34	145.83	0.000344	1.39	26.71	7.00	0.23
Acqui_valle	32.1	C1_Tr 20	37.00	141.55	145.73	142.97	145.82	0.000270	1.26	29.29	7.00	0.20
Acqui_valle	32	C1_Tr 20	37.00	141.19	145.72	142.61	145.80	0.000415	1.23	30.03		0.18
Acqui_valle	31.1	C1_Tr 20	37.00	141.19	145.73	142.60	145.80	0.000219	1.16	31.76	7.00	0.17
Acqui_valle	31	C1_Tr 20	37.00	140.19	145.72	141.60	145.77	0.000132	0.96	38.73	7.00	0.13
Acqui_valle	30.1		Bridge									
Acqui_valle	30	C1_Tr 20	37.00	140.02	145.55	141.43	145.60	0.000132	0.96	38.71	7.00	0.13

HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20

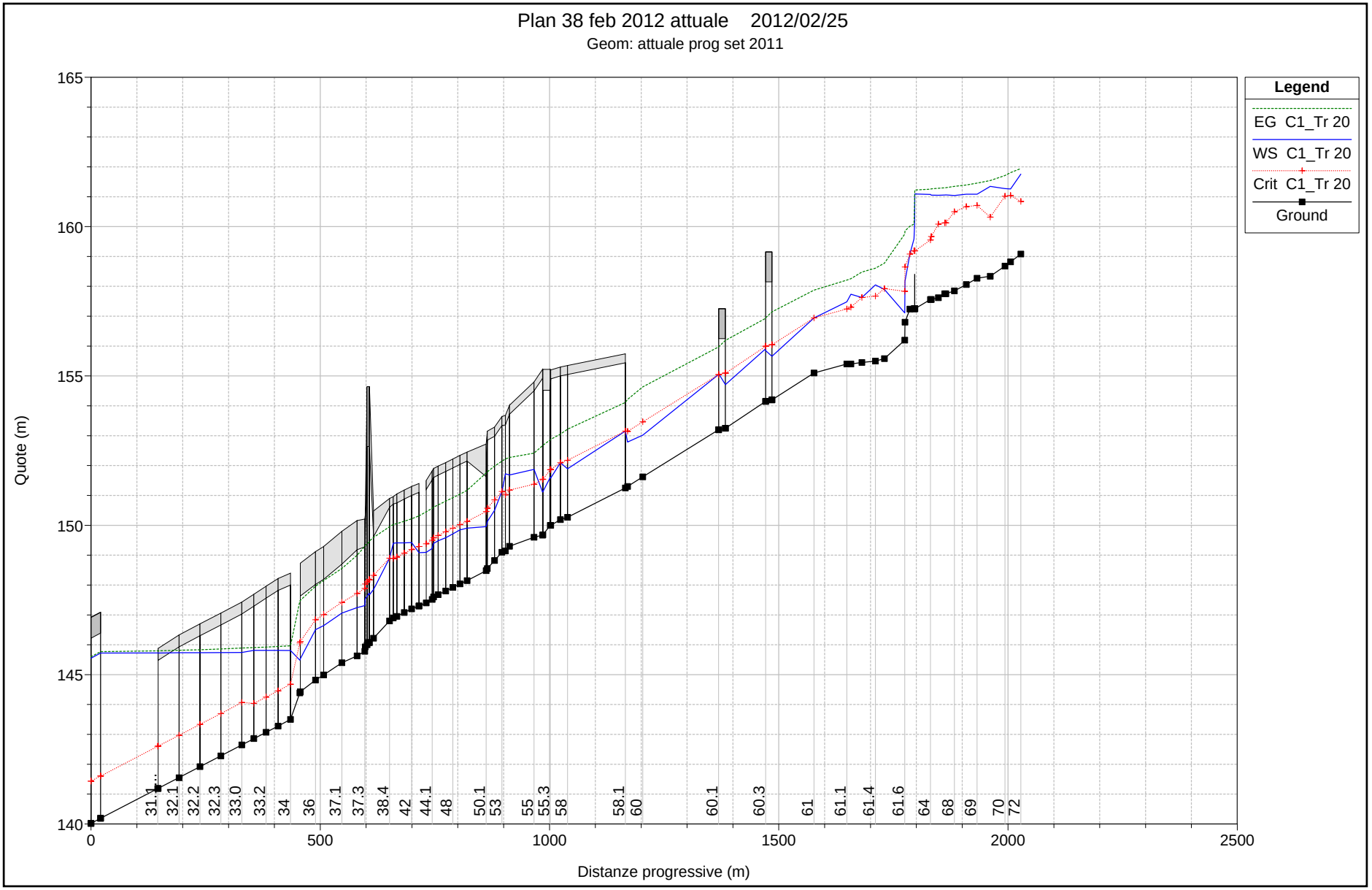
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	C1_Tr 20	161.95	161.76	0.19	0.03	0.11		63.00		17.74
Acqui _monte	71	C1_Tr 20	161.81	161.26	0.55	0.04	0.05		63.00		11.87
Acqui _monte	70	C1_Tr 20	161.71	161.27	0.44	0.05	0.12		63.00		22.72
Acqui _monte	69.50	C1_Tr 20	161.54	161.35	0.19	0.03	0.05		63.00		18.96
Acqui _monte	69	C1_Tr 20	161.45	161.09	0.37	0.04	0.02		63.00		21.90
Acqui _monte	68.5	C1_Tr 20	161.39	161.08	0.31	0.05	0.00		63.00		19.69
Acqui _monte	68	C1_Tr 20	161.35	161.04	0.31	0.02	0.02		63.00		23.28
Acqui _monte	67.1	C1_Tr 20	161.30	161.06	0.24	0.00	0.00		63.00		22.47
Acqui _monte	66.1	C1_Tr 20	161.30	161.06	0.25	0.01	0.00		63.00		22.46
Acqui _monte	66	C1_Tr 20	161.29	161.05	0.24	0.01	0.01		63.00		22.62
Acqui _monte	65	C1_Tr 20	161.26	161.05	0.21	0.00	0.01		63.00		12.40
Acqui _monte	64	C1_Tr 20	161.25	161.07	0.18	0.01	0.01		63.00		13.08
Acqui _monte	63.1	C1_Tr 20	161.23	161.09	0.14				63.00		13.66
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	C1_Tr 20	160.09	159.58	0.50	0.03	0.04		63.00		10.82
Acqui _monte	62	C1_Tr 20	160.01	159.08	0.93	0.06	0.00		63.00		8.00
Acqui _monte	61.7	C1_Tr 20	159.86	158.17	1.69	0.08	0.08		63.00		8.00
Acqui _monte	61.6	C1_Tr 20	159.75	157.11	2.64	0.01	0.10		63.00		10.21
Acqui _monte	61.5	C1_Tr 20	158.78	157.90	0.88	0.44	0.53		63.00		9.08
Acqui _monte	61.4	C1_Tr 20	158.61	158.05	0.56	0.10	0.03		63.00		9.81
Acqui _monte	61.3	C1_Tr 20	158.48	157.63	0.85	0.08	0.10		63.00		9.15
Acqui _monte	61.2	C1_Tr 20	158.26	157.74	0.52	0.03	0.02		63.00		9.86
Acqui _monte	61.1	C1_Tr 20	158.21	157.48	0.73	0.32	0.02		63.00		8.00
Acqui _monte	61	C1_Tr 20	157.87	156.94	0.93	0.39	0.07		63.00		8.00
Acqui _monte	60.4	C1_Tr 20	157.14	155.66	1.48	0.67	0.06		63.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	C1_Tr 20	156.93	155.91	1.02	0.00	0.05		63.00		8.00
Acqui _monte	60.2	C1_Tr 20	156.19	154.71	1.48	0.69	0.05		63.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	C1_Tr 20	155.97	155.05	0.92	0.00	0.00		63.00		8.00
Acqui _monte	60	C1_Tr 20	154.63	153.02	1.61	1.27	0.07		63.00		8.00
Acqui _monte	59	C1_Tr 20	154.22	152.79	1.43	0.36	0.06		63.00		8.00
Acqui _monte	58.1	C1_Tr 20	154.11	153.16	0.96	0.64	0.03		63.00		7.62
Acqui _monte	58	C1_Tr 20	153.22	151.89	1.33	0.86	0.04		63.00		7.62
Acqui _monte	57	C1_Tr 20	153.05	152.09	0.96	0.10	0.05		63.00		7.62

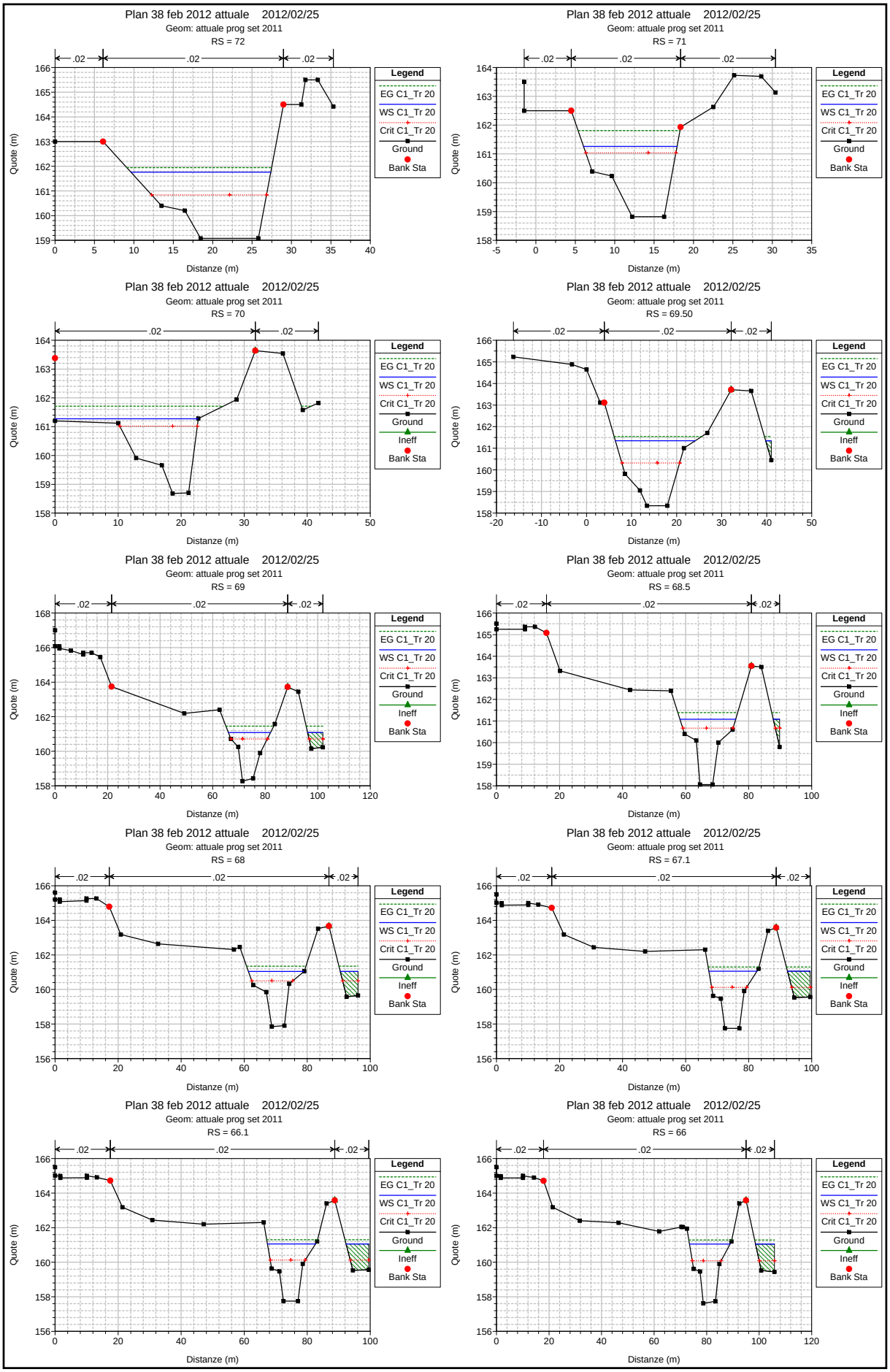
HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	56	C1_Tr 20	152.88	151.58	1.30	0.14	0.03		63.00		7.90
Acqui _monte	55.3	C1_Tr 20	152.86	151.60	1.26	0.01	0.11		63.00		7.90
Acqui _monte	55.2	C1_Tr 20	152.68	151.12	1.55	0.15	0.03		63.00		7.90
Acqui _monte	55.1	C1_Tr 20	152.67	151.11	1.55	0.01	0.00		63.00		7.90
Acqui _monte	55	C1_Tr 20	152.41	151.87	0.54	0.14	0.00		63.00		8.50
Acqui _monte	54	C1_Tr 20	152.27	151.69	0.58	0.02	0.03		63.00		7.80
Acqui _monte	53.1	C1_Tr 20	152.22	151.72	0.50	0.02	0.05		63.00		7.80
Acqui _monte	53	C1_Tr 20	152.15	151.13	1.01	0.09	0.00		63.00		6.95
Acqui _monte	52	C1_Tr 20	151.98	150.50	1.48	0.12	0.05		63.00		6.95
Acqui _monte	51	C1_Tr 20	151.79	150.12	1.67	0.17	0.02		63.00		7.00
Acqui _monte	50.1	C1_Tr 20	151.75	149.95	1.80	0.03	0.01		63.00		7.20
Acqui _monte	50	C1_Tr 20	151.17	149.91	1.27	0.42	0.16		63.00		7.20
Acqui _monte	49	C1_Tr 20	151.04	149.85	1.20	0.10	0.08		63.00		7.20
Acqui _monte	48	C1_Tr 20	150.93	149.71	1.22	0.12	0.00		63.00		7.20
Acqui _monte	47	C1_Tr 20	150.81	149.58	1.23	0.12	0.00		63.00		7.20
Acqui _monte	46	C1_Tr 20	150.68	149.48	1.20	0.11	0.07		63.00		7.20
Acqui _monte	45	C1_Tr 20	150.61	149.39	1.22	0.07	0.00		63.00		7.20
Acqui _monte	44.1	C1_Tr 20	150.57	149.22	1.35	0.02	0.01		63.00		7.20
Acqui _monte	44	C1_Tr 20	150.45	149.09	1.36	0.11	0.00		63.00		7.20
Acqui_valle	43	C1_Tr 20	150.32	149.08	1.23	0.11	0.11		63.00		7.18
Acqui_valle	42	C1_Tr 20	150.22	149.42	0.79	0.06	0.02		63.00		7.18
Acqui_valle	41	C1_Tr 20	150.13	149.41	0.72	0.05	0.02		63.00		7.18
Acqui_valle	40	C1_Tr 20	150.06	149.41	0.65	0.02	0.01		63.00		7.18
Acqui_valle	39	C1_Tr 20	150.03	149.40	0.63	0.03	0.04		63.00		7.18
Acqui_valle	38.4	C1_Tr 20	149.95	148.90	1.05	0.21	0.00		63.00		6.60
Acqui_valle	38.3	C1_Tr 20	149.59	147.85	1.74	0.29	0.07		63.00		6.60
Acqui_valle	38.2	C1_Tr 20	149.48	147.68	1.80	0.11	0.01		63.00		6.60
Acqui_valle	38.1	C1_Tr 20	149.44	147.73	1.71	0.01	0.03		63.00		6.60
Acqui_valle	38	C1_Tr 20	149.38	147.62	1.76	0.05	0.01		63.00		6.60
Acqui_valle	37.4	C1_Tr 20	149.33	147.54	1.79	0.05	0.00		63.00		6.60
Acqui_valle	37.3	C1_Tr 20	149.29	147.31	1.98	0.01	0.02		63.00		6.60
Acqui_valle	37.2	C1_Tr 20	149.00	147.25	1.75	0.23	0.07		63.00		6.65
Acqui_valle	37.1	C1_Tr 20	148.56	147.06	1.49	0.36	0.08		63.00		7.00
Acqui_valle	37	C1_Tr 20	148.15	146.64	1.51	0.40	0.00		63.00		7.00
Acqui_valle	36	C1_Tr 20	147.96	146.50	1.45	0.18	0.02		63.00		7.00

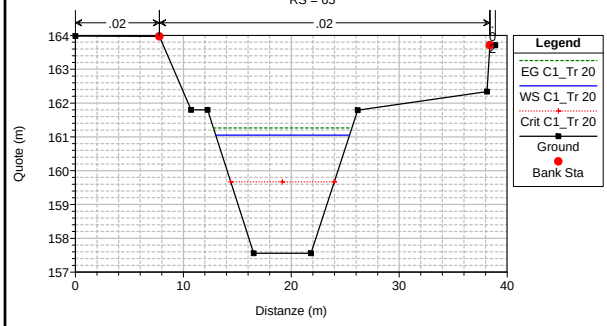
HEC-RAS Plan: Plan 38 feb 12 a Profile: C1_Tr 20 (Continued)

Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	35	C1_Tr 20	147.49	145.53	1.95	0.42	0.05		63.00		9.24
Acqui_valle	34.1	C1_Tr 20	147.47	145.48	1.98	0.02	0.00		63.00		9.24
Acqui_valle	34	C1_Tr 20	145.96	145.81	0.15	0.02	0.01		37.00		9.24
Acqui_valle	33.3	C1_Tr 20	145.94	145.81	0.13	0.01	0.01		37.00		9.24
Acqui_valle	33.2	C1_Tr 20	145.92	145.81	0.11	0.01	0.00		37.00		9.24
Acqui_valle	33.1	C1_Tr 20	145.91	145.81	0.09	0.01	0.01		37.00		9.24
Acqui_valle	33.0	C1_Tr 20	145.89	145.74	0.15	0.02	0.01		37.00		7.00
Acqui_valle	32.3	C1_Tr 20	145.86	145.74	0.12	0.02	0.01		37.00		7.00
Acqui_valle	32.2	C1_Tr 20	145.83	145.74	0.10	0.01	0.00		37.00		7.00
Acqui_valle	32.1	C1_Tr 20	145.82	145.73	0.08	0.02	0.00		37.00		7.00
Acqui_valle	32	C1_Tr 20	145.80	145.72	0.08	0.00	0.00		37.00		
Acqui_valle	31.1	C1_Tr 20	145.80	145.73	0.07	0.02	0.01		37.00		7.00
Acqui_valle	31	C1_Tr 20	145.77	145.72	0.05				37.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	C1_Tr 20	145.60	145.55	0.05				37.00		7.00

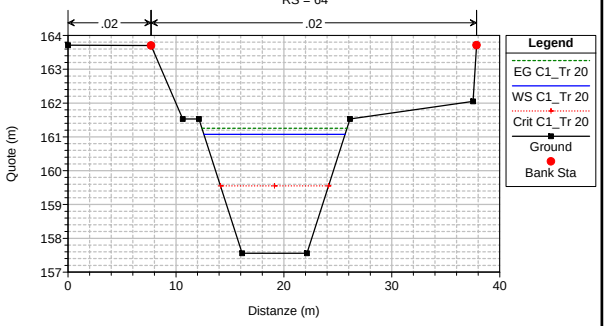

Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
68
69
70
72


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 72
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 71
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 70
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69.50
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68.5
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 67.1
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66.1
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66
Quote (m)
Distanze (m)
Legend
EG C1_Tr 20
WS C1_Tr 20
Crit C1_Tr 20
Ground
Ineff
Bank Sta

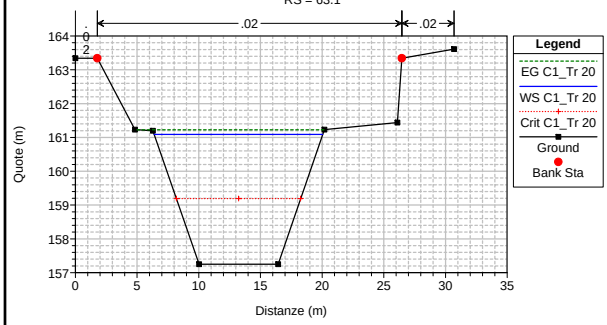
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 65



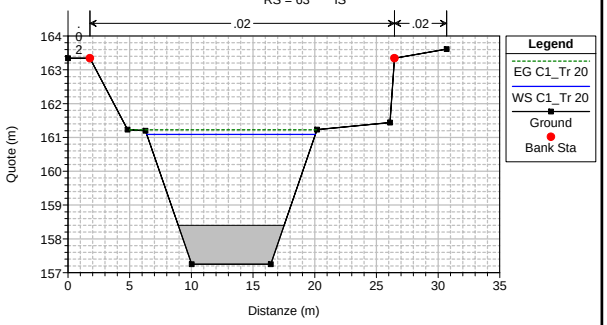
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 64



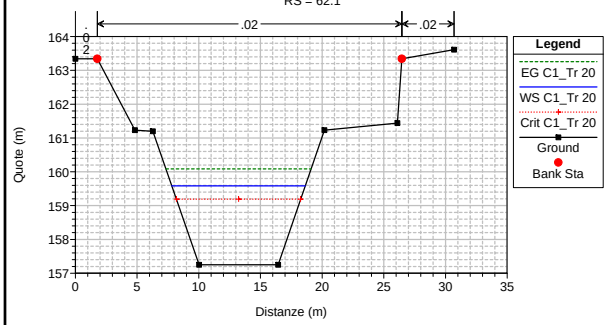
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63.1



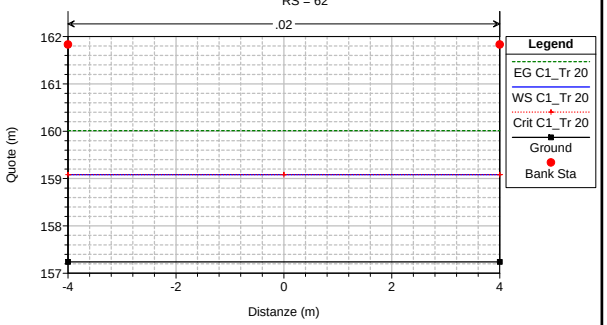
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63 IS



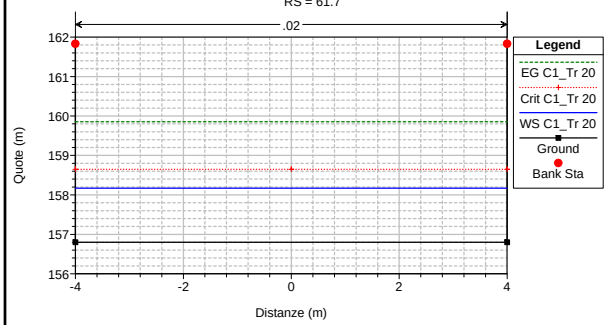
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62.1



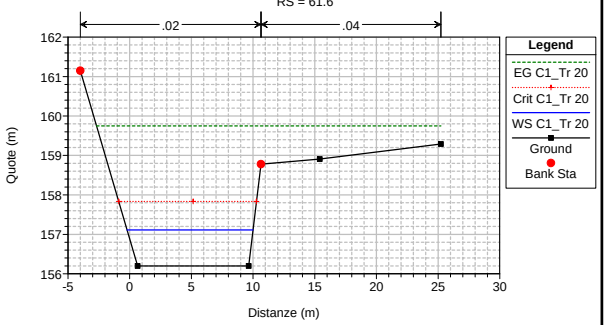
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62



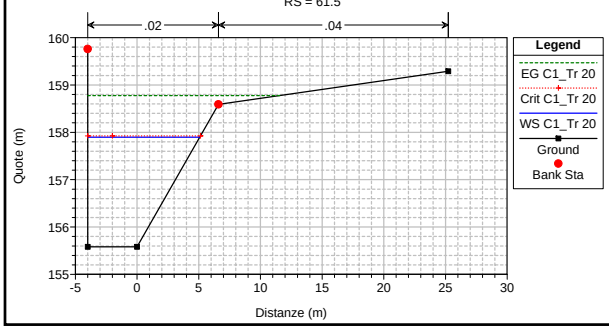
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.7



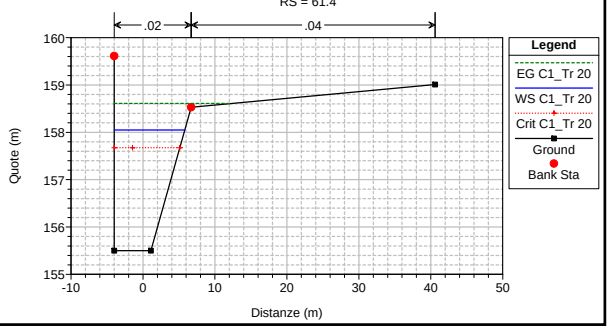
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.6



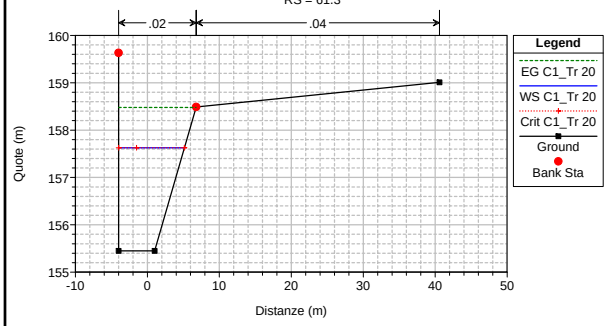
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.5



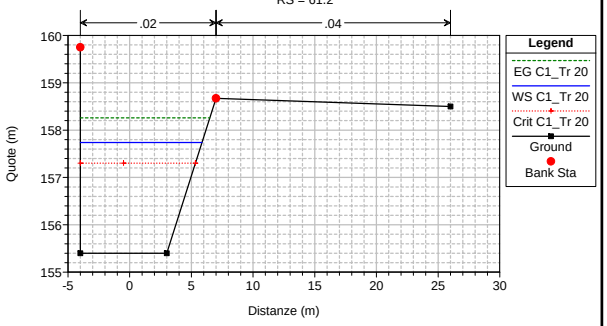
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.4



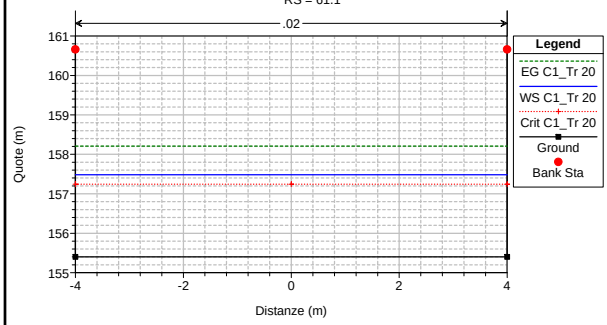
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.3



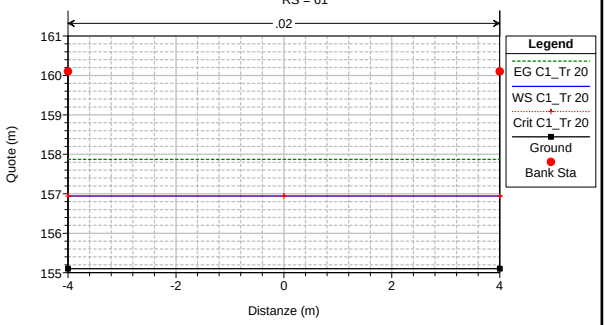
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.2



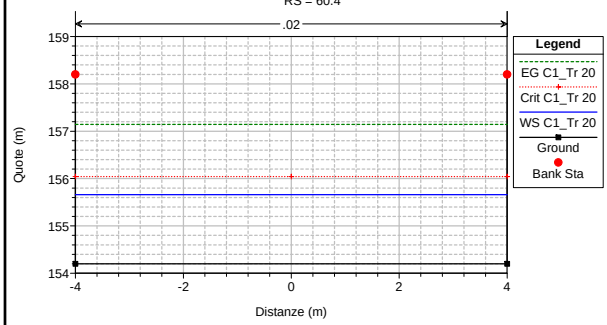
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.1



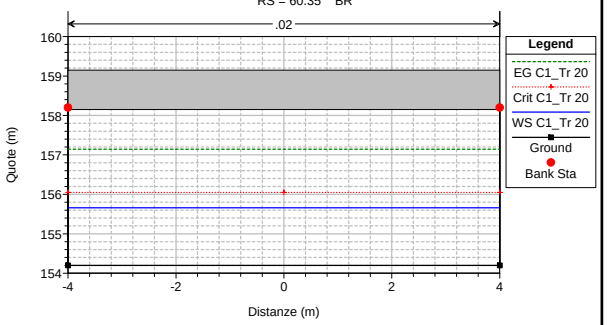
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61



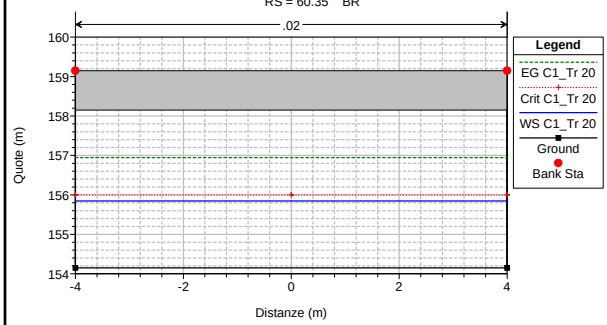
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.4



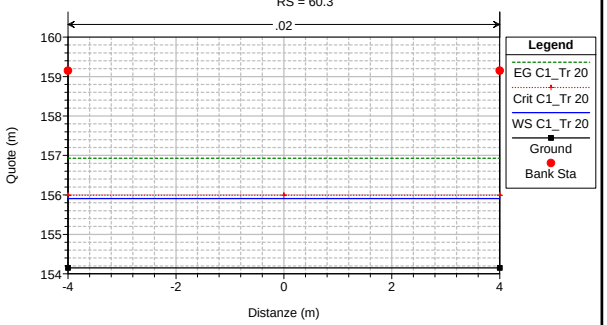
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



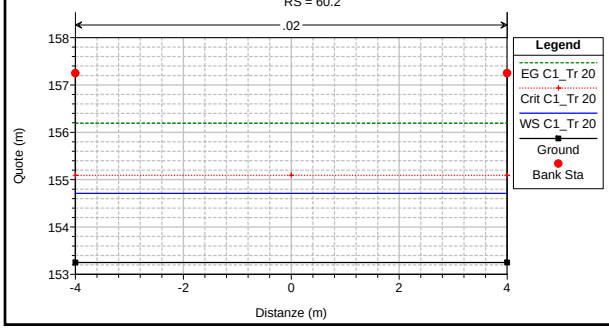
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



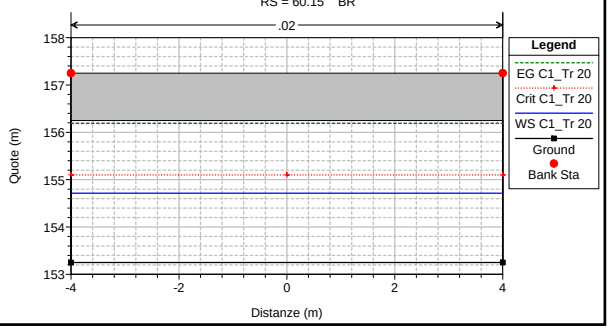
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.3



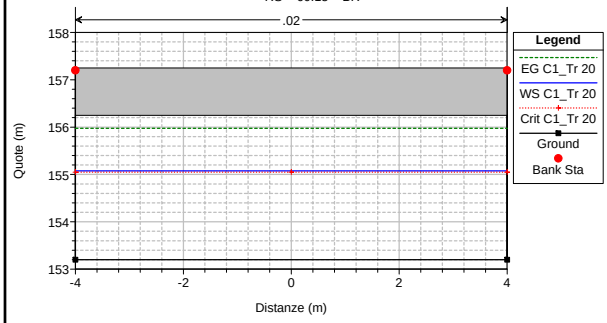
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.2



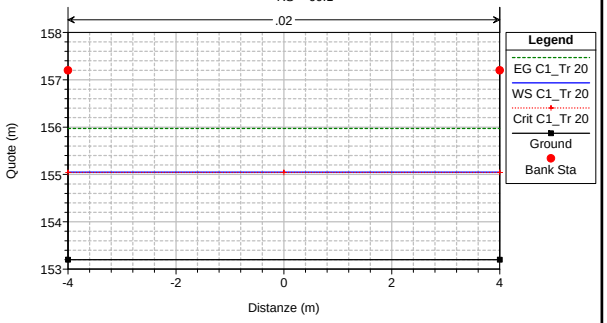
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



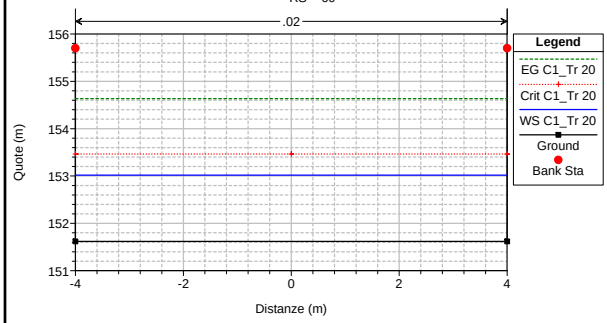
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



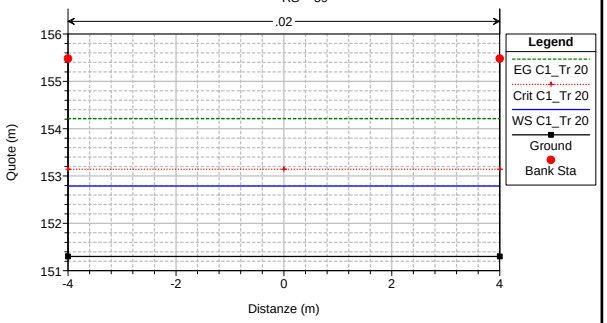
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.1



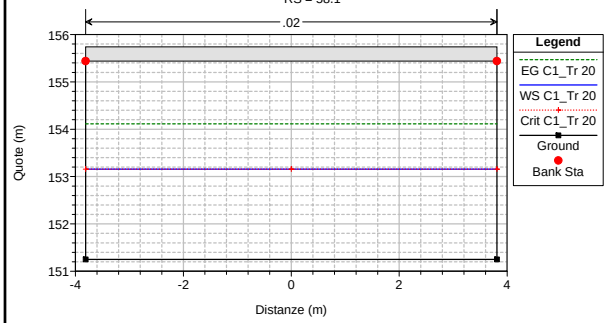
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60



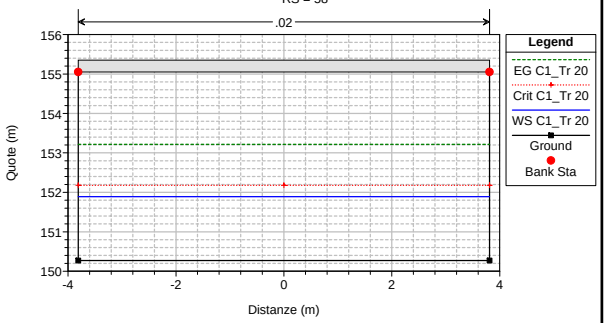
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 59



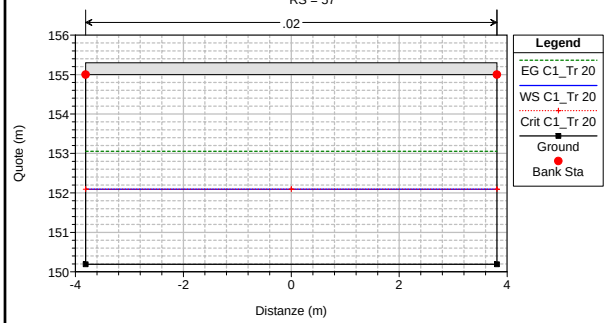
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58.1



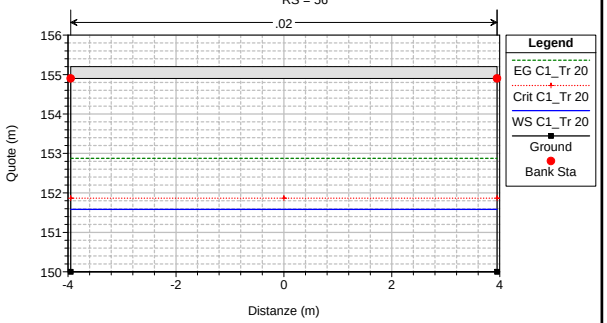
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58



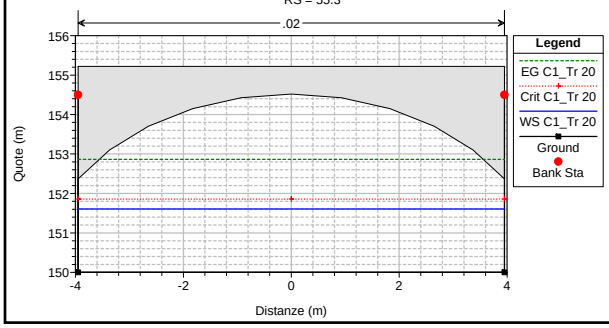
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 57



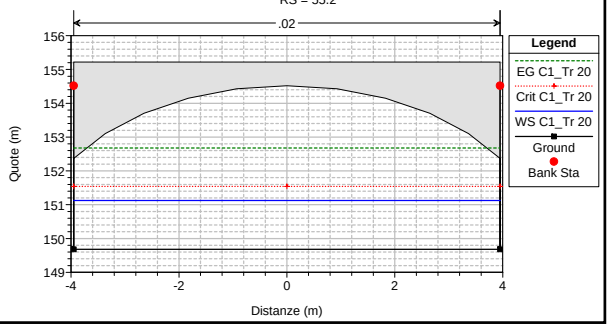
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 56



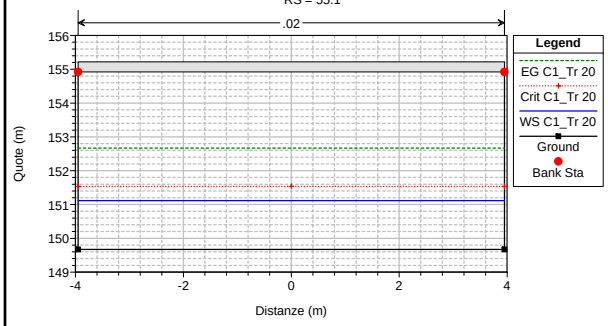
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.3



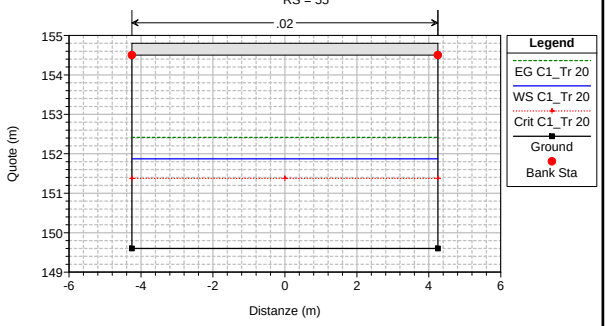
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.2



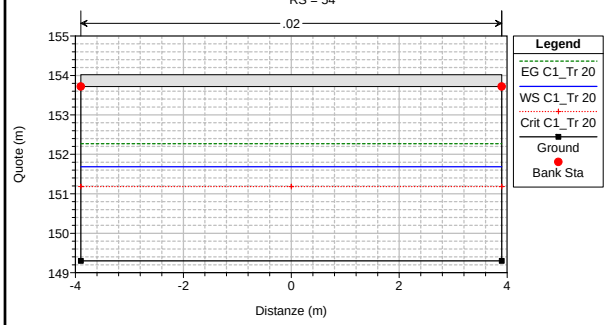
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.1



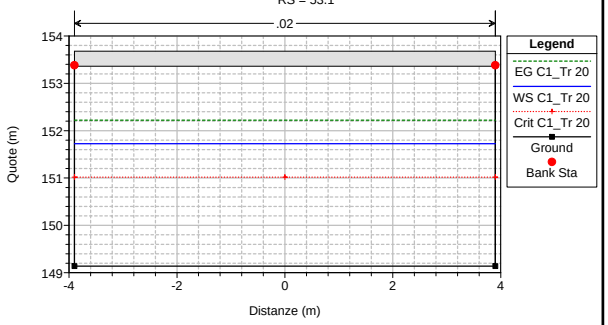
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55



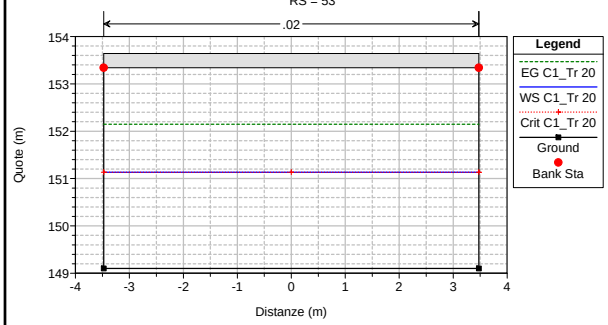
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 54



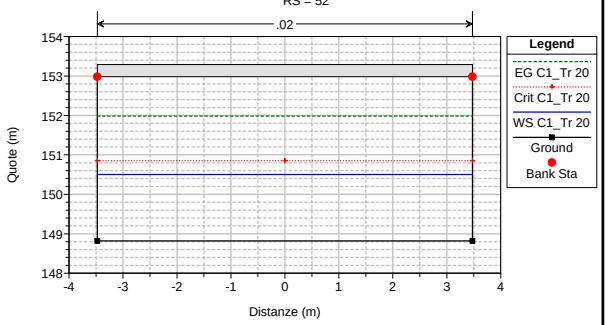
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53.1



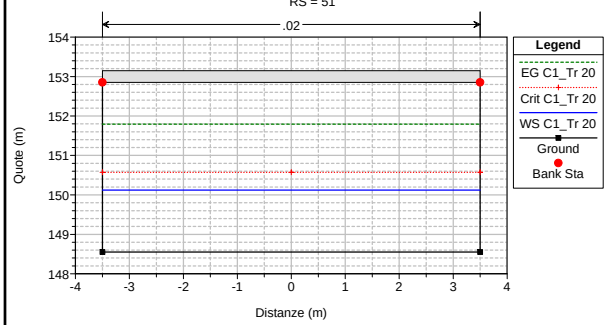
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 53



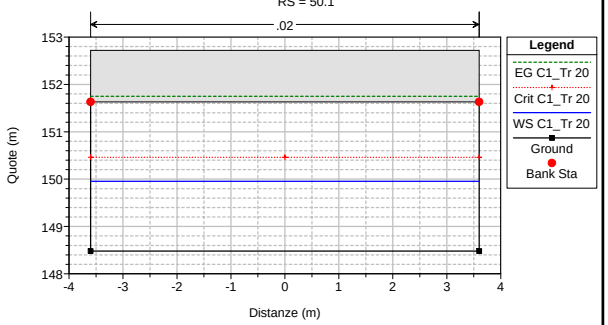
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 52



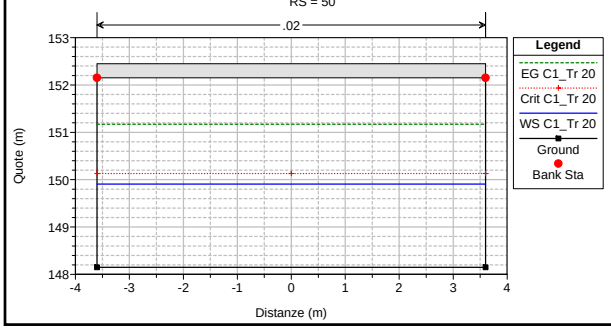
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 51



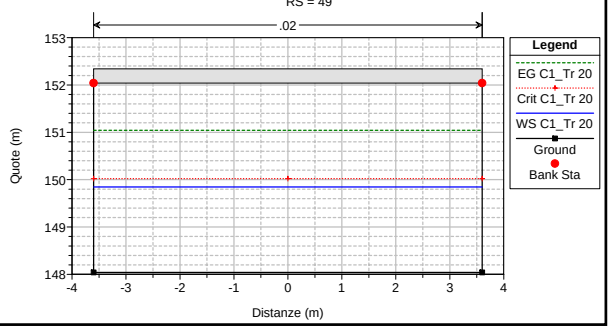
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50.1



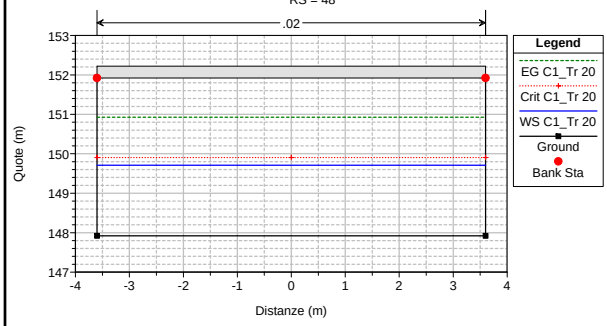
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 50



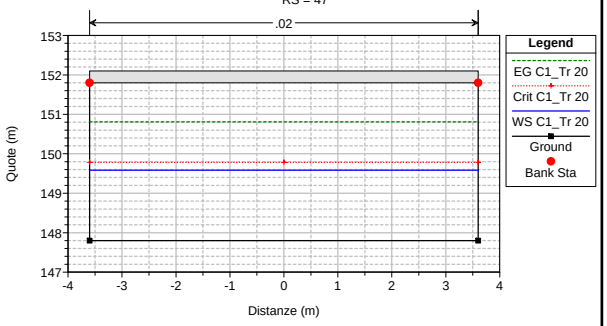
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 49



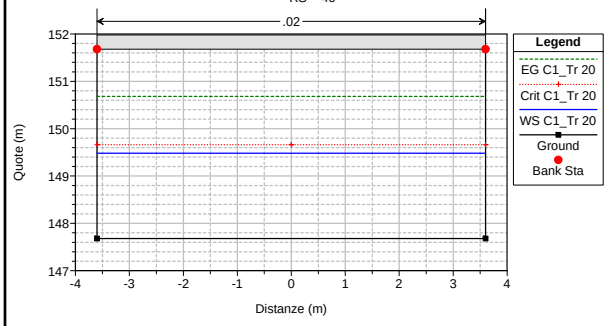
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 48



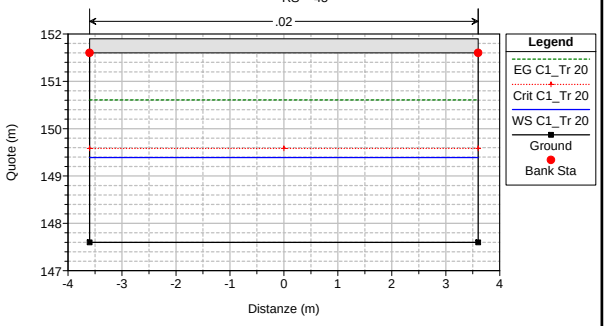
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 47



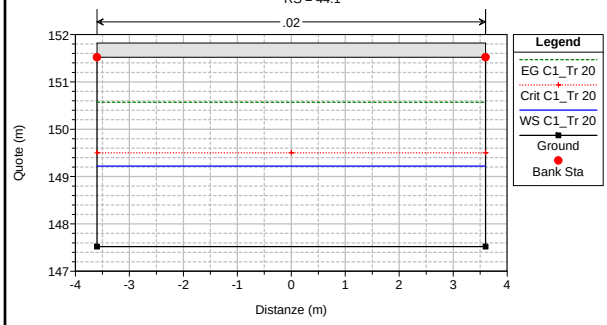
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 46



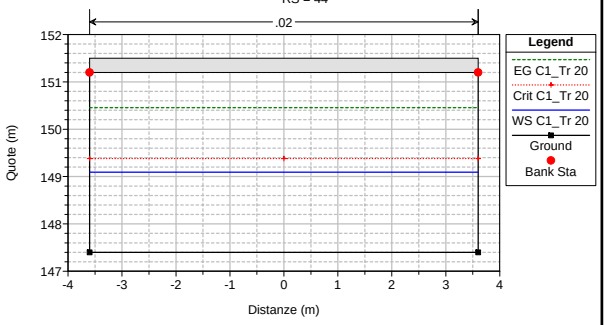
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 45



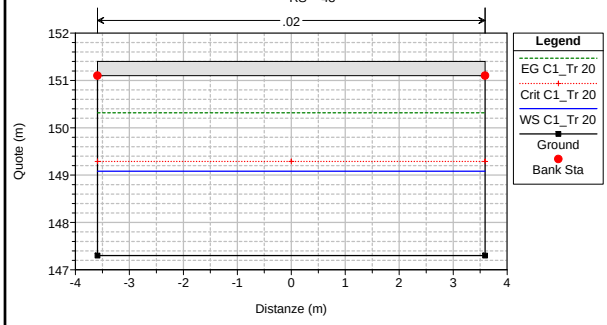
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44.1



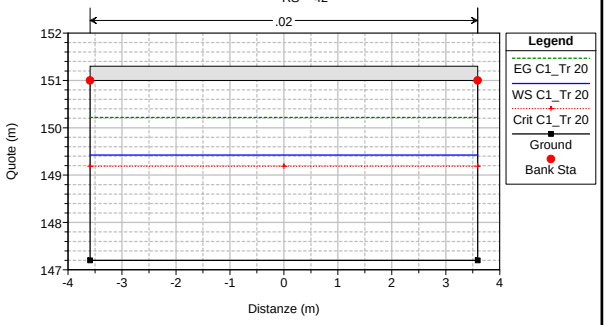
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 44



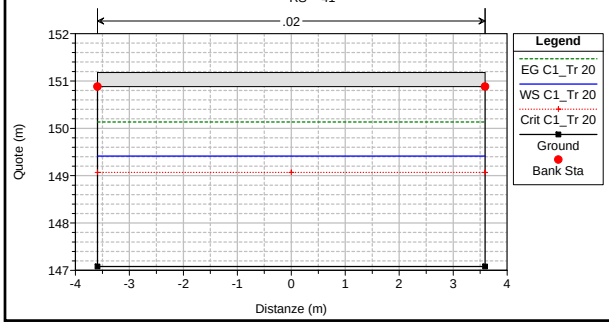
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 43



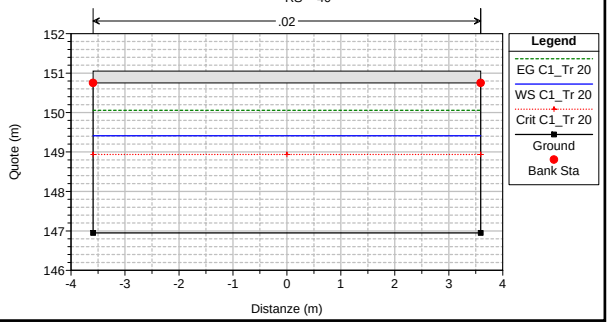
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 42



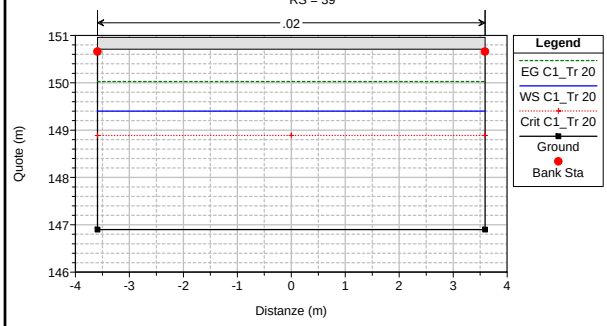
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 41



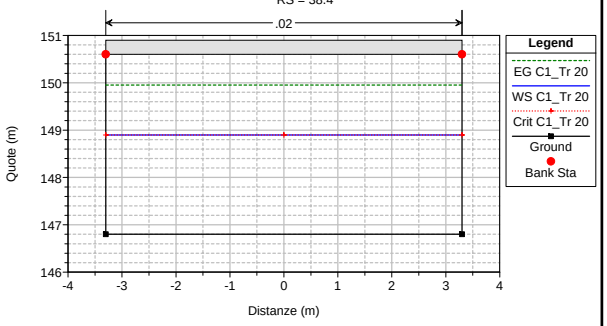
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 40



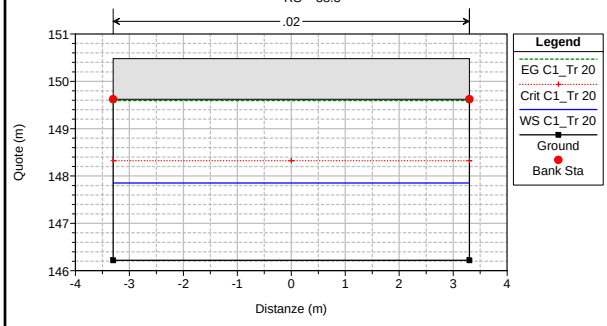
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 39



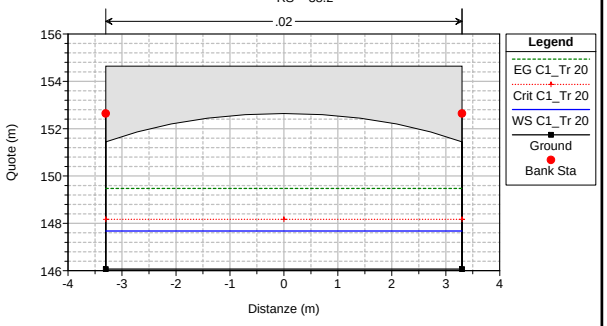
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.4



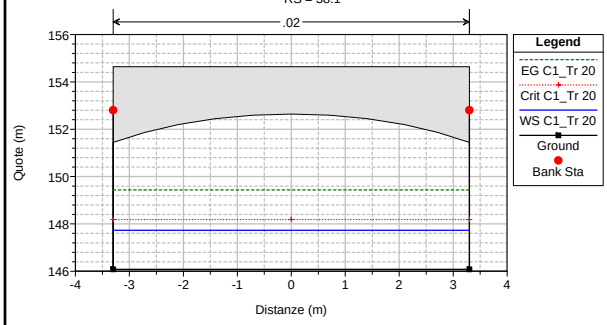
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.3



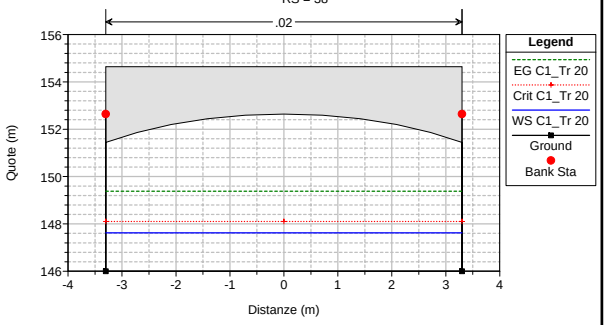
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.2



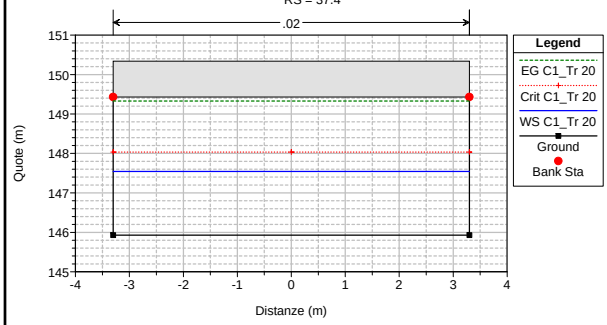
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38.1



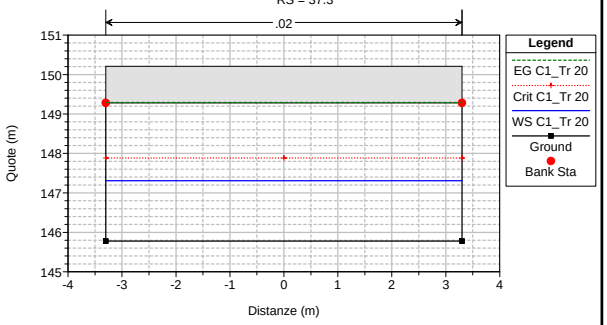
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 38



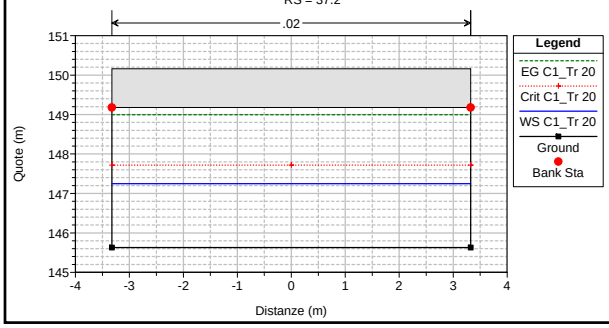
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.4



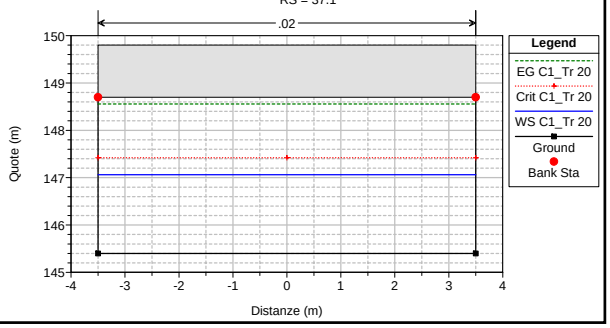
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.3



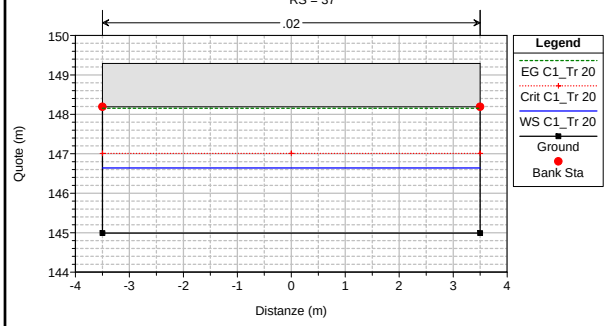
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.2



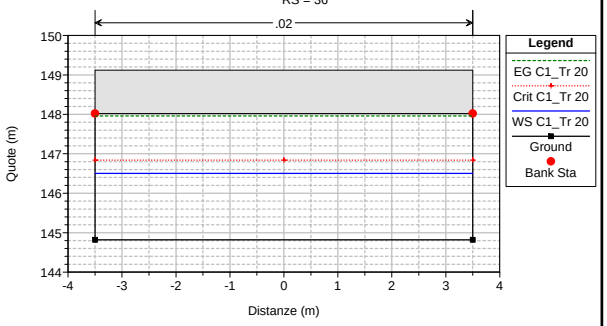
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37.1



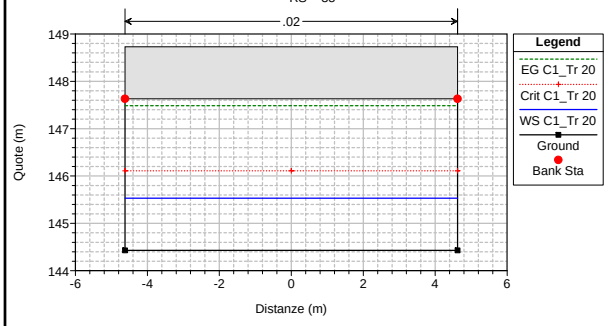
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37



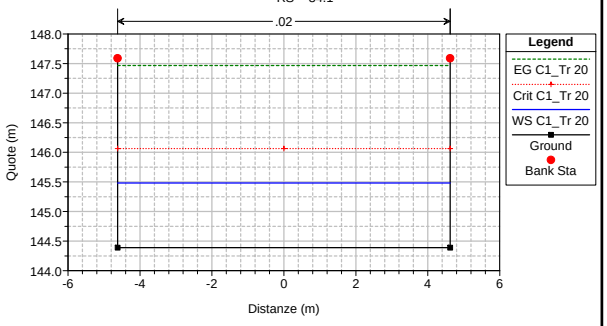
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 36



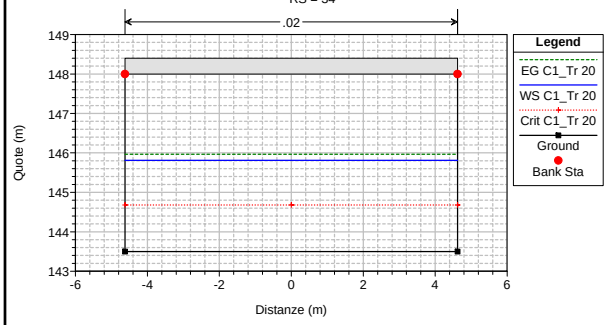
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 35



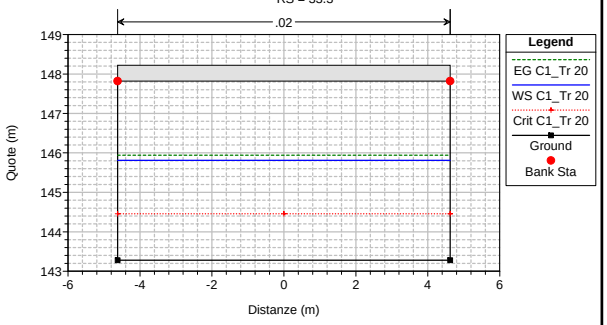
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34.1



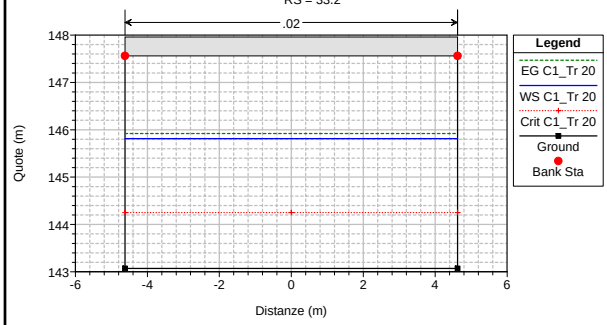
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34



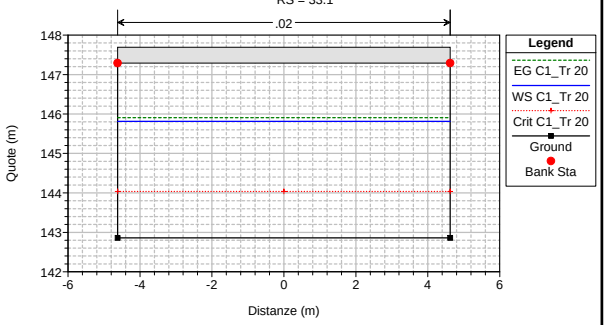
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.3



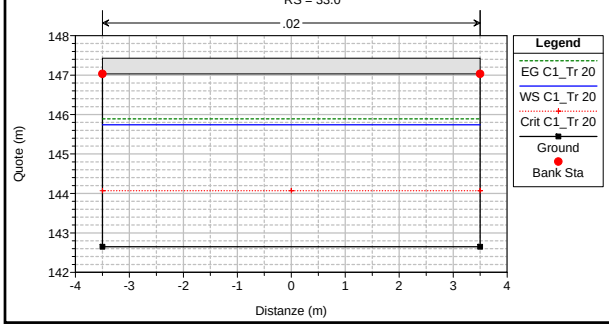
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.2



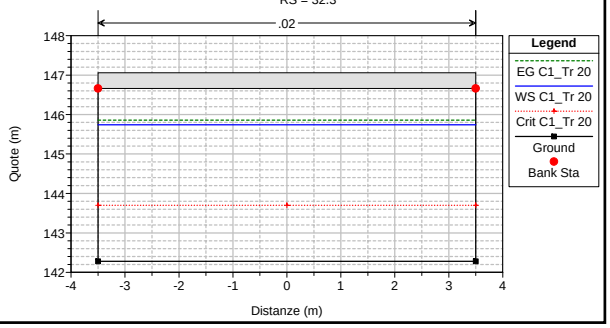
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.1



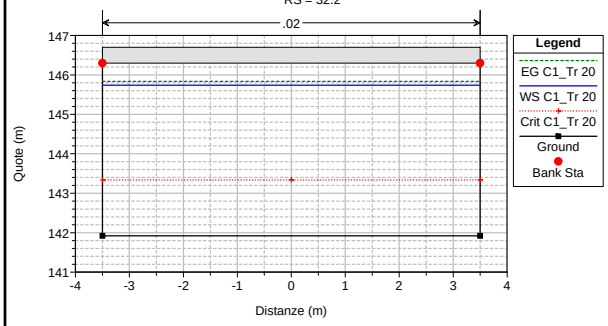
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.0



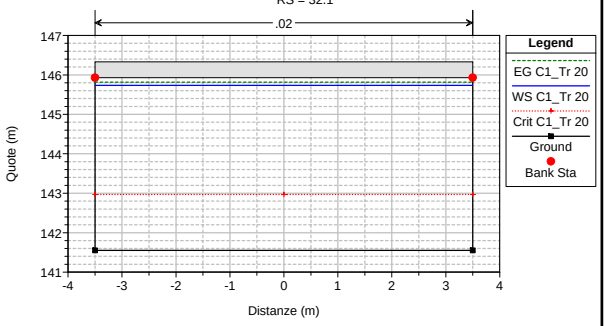
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.3



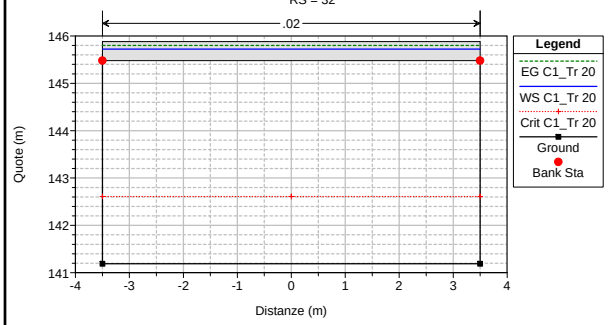
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.2



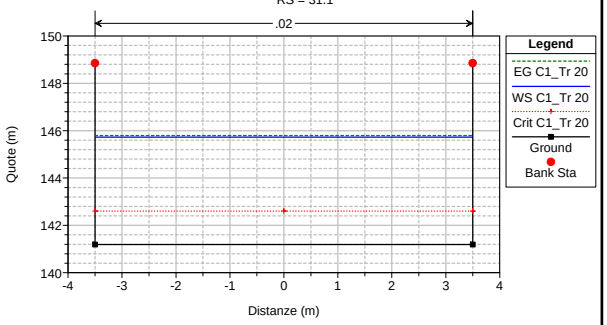
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.1



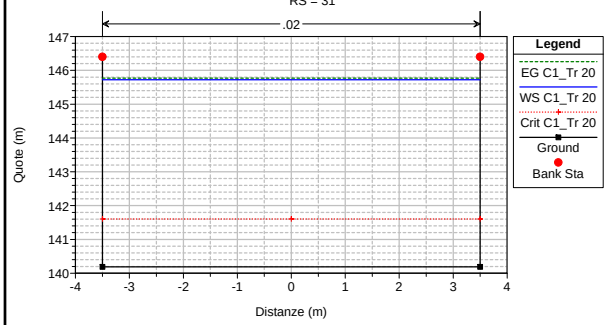
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32



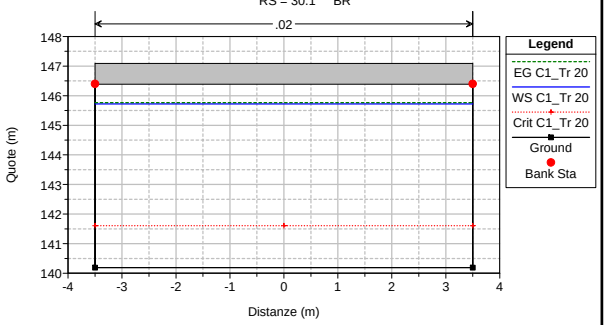
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31.1



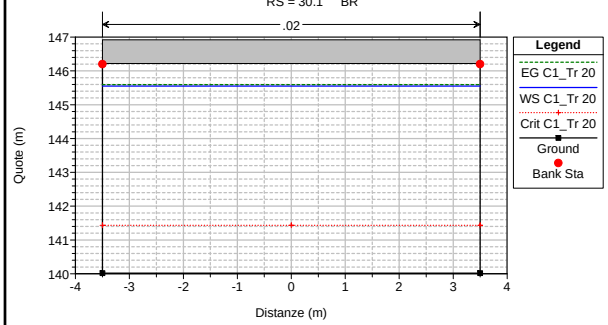
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31



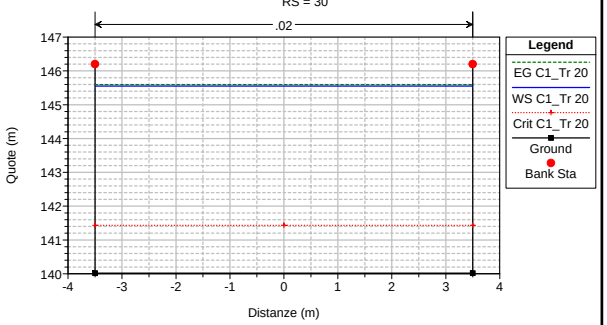
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30



<u>Scenario C2</u>)

Rio Medrio Tempo di ritorno Tr = 200 anni

Portata a monte dello scolmatore Q = 107 mc/s

Portata a valle dello scolmatore Q = 120 mc/s

Fiume Bormida Tempo di ritorno Tr = 200 anni

Q = 2980 mc/s livello idrico 145.55 m

HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	C2_Tr 200	107.00	159.08	162.66	161.40	162.89	0.000657	2.13	50.35	20.85	0.44
Acqui _monte	71	C2_Tr 200	107.00	158.82	161.79	161.69	162.67	0.003466	4.16	25.72	12.88	0.94
Acqui _monte	70	C2_Tr 200	107.00	158.68	162.02	161.68	162.37	0.001943	2.61	40.99	32.13	0.70
Acqui _monte	69.50	C2_Tr 200	107.00	158.34	162.02	160.93	162.29	0.000920	2.33	45.89	24.33	0.52
Acqui _monte	69	C2_Tr 200	107.00	158.27	161.69	161.32	162.19	0.002102	3.14	34.09	26.21	0.76
Acqui _monte	68.5	C2_Tr 200	107.00	158.06	161.70	161.20	162.12	0.001720	2.87	37.25	23.24	0.68
Acqui _monte	68	C2_Tr 200	107.00	157.85	161.65	161.15	162.07	0.001711	2.87	37.28	26.42	0.67
Acqui _monte	67.1	C2_Tr 200	107.00	157.75	161.64	160.85	162.04	0.001336	2.80	38.18	24.95	0.60
Acqui _monte	66.1	C2_Tr 200	107.00	157.75	161.64	160.85	162.04	0.001344	2.81	38.10	24.93	0.60
Acqui _monte	66	C2_Tr 200	107.00	157.62	161.63	160.80	162.02	0.001302	2.77	38.68	25.18	0.59
Acqui _monte	65	C2_Tr 200	107.00	157.56	161.59	160.42	162.00	0.001080	2.83	37.87	13.49	0.54
Acqui _monte	64	C2_Tr 200	107.00	157.56	161.63	160.28	161.97	0.001093	2.58	41.42	17.90	0.54
Acqui _monte	63.1	C2_Tr 200	107.00	157.25	161.67	159.90	161.91	0.000785	2.17	49.40	21.95	0.46
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	C2_Tr 200	107.00	157.25	160.81	159.90	161.29	0.001365	3.07	34.80	13.14	0.60
Acqui _monte	62	C2_Tr 200	107.00	157.24	159.86	159.86	161.19	0.005625	5.10	20.99	8.00	1.00
Acqui _monte	61.7	C2_Tr 200	107.00	156.80	158.85	159.42	161.02	0.011372	6.53	16.39	8.00	1.46
Acqui _monte	61.6	C2_Tr 200	107.00	156.20	157.53	158.49	160.89	0.023947	8.12	13.18	10.77	2.34
Acqui _monte	61.5	C2_Tr 200	107.00	155.58	158.92	158.71	159.80	0.003340	4.18	26.84	19.26	0.86
Acqui _monte	61.4	C2_Tr 200	107.00	155.50	159.11	158.44	159.65	0.001784	3.35	41.70	44.60	0.64
Acqui _monte	61.3	C2_Tr 200	107.00	155.45	158.93	158.39	159.58	0.002217	3.63	35.01	39.31	0.71
Acqui _monte	61.2	C2_Tr 200	107.00	155.40	159.02	158.04	159.49	0.001408	3.08	41.54	30.00	0.57
Acqui _monte	61.1	C2_Tr 200	107.00	155.40	158.39	158.02	159.41	0.003902	4.47	23.94	8.00	0.82
Acqui _monte	61	C2_Tr 200	107.00	155.10	157.72	157.72	159.05	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.4	C2_Tr 200	107.00	154.20	156.36	156.83	158.32	0.009812	6.20	17.25	8.00	1.35
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	C2_Tr 200	107.00	154.15	156.77	156.77	158.10	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.2	C2_Tr 200	107.00	153.25	155.38	155.87	157.38	0.010104	6.27	17.08	8.00	1.37
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	C2_Tr 200	107.00	153.20	155.83	155.82	157.15	0.005587	5.08	21.04	8.00	1.00
Acqui _monte	60	C2_Tr 200	107.00	151.62	153.70	154.24	155.81	0.010936	6.44	16.61	8.00	1.43
Acqui _monte	59	C2_Tr 200	107.00	151.30	154.52	153.92	155.40	0.003197	4.16	25.74	8.00	0.74
Acqui _monte	58.1	C2_Tr 200	107.00	151.25	153.97	153.97	155.33	0.005772	5.17	20.71	7.62	1.00
Acqui _monte	58	C2_Tr 200	107.00	150.27	152.65	152.99	154.42	0.008323	5.89	18.17	7.62	1.22
Acqui _monte	57	C2_Tr 200	107.00	150.19	152.90	152.90	154.27	0.005802	5.18	20.67	7.62	1.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	56	C2_Tr 200	107.00	150.00	152.28	152.66	154.08	0.008622	5.94	18.02	7.90	1.25
Acqui _monte	55.3	C2_Tr 200	107.00	150.00	152.31	152.62	154.06	0.008316	5.86	18.25	7.90	1.23
Acqui _monte	55.2	C2_Tr 200	107.00	149.68	152.95	152.34	153.84	0.003368	4.18	25.57	6.97	0.74
Acqui _monte	55.1	C2_Tr 200	107.00	149.67	152.97	152.33	153.83	0.003077	4.10	26.09	7.90	0.72
Acqui _monte	55	C2_Tr 200	107.00	149.60	153.05	152.13	153.73	0.002261	3.65	29.30	8.50	0.63
Acqui _monte	54	C2_Tr 200	107.00	149.30	152.80	151.97	153.58	0.002710	3.92	27.32	7.80	0.67
Acqui _monte	53.1	C2_Tr 200	107.00	149.14	152.84	151.82	153.54	0.002347	3.71	28.82	7.80	0.62
Acqui _monte	53	C2_Tr 200	107.00	149.10	151.99	151.99	153.44	0.006187	5.33	20.08	6.95	1.00
Acqui _monte	52	C2_Tr 200	107.00	148.82	151.30	151.71	153.26	0.009409	6.21	17.24	6.95	1.26
Acqui _monte	51	C2_Tr 200	107.00	148.55	150.88	151.43	153.07	0.011036	6.57	16.29	7.00	1.37
Acqui _monte	50.1	C2_Tr 200	107.00	148.48	150.66	151.31	153.03	0.012398	6.82	15.68	7.20	1.48
Acqui _monte	50	C2_Tr 200	107.00	148.15	150.69	150.98	152.43	0.008016	5.84	18.32	7.20	1.17
Acqui _monte	49	C2_Tr 200	107.00	148.04	150.60	150.87	152.32	0.007922	5.82	18.39	7.20	1.16
Acqui _monte	48	C2_Tr 200	107.00	147.92	150.49	150.75	152.19	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	47	C2_Tr 200	107.00	147.80	150.37	150.63	152.07	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	46	C2_Tr 200	107.00	147.68	150.24	150.51	151.96	0.007885	5.81	18.43	7.20	1.16
Acqui _monte	45	C2_Tr 200	107.00	147.60	150.17	150.43	151.87	0.007785	5.78	18.51	7.20	1.15
Acqui _monte	44.1	C2_Tr 200	107.00	147.52	149.99	150.35	151.84	0.008715	6.02	17.78	7.20	1.22
Acqui _monte	44	C2_Tr 200	107.00	147.40	149.86	150.23	151.72	0.008818	6.04	17.70	7.20	1.23
Acqui_valle	43	C2_Tr 200	120.00	147.30	151.06	150.35	152.07	0.003515	4.45	26.99	7.18	0.73
Acqui_valle	42	C2_Tr 200	120.00	147.20	151.00	150.25	151.99	0.005794	4.40	27.28		0.72
Acqui_valle	41	C2_Tr 200	120.00	147.08	150.91	150.13	151.90	0.005794	4.40	27.28		0.72
Acqui_valle	40	C2_Tr 200	120.00	146.95	150.82	150.00	151.80	0.005792	4.40	27.29		0.71
Acqui_valle	39	C2_Tr 200	120.00	146.90	150.78	149.96	151.76	0.005750	4.39	27.36		0.71
Acqui_valle	38.4	C2_Tr 200	120.00	146.80	150.03	150.03	151.64	0.006574	5.62	21.34	6.60	1.00
Acqui_valle	38.3	C2_Tr 200	120.00	146.22	148.87	149.45	151.27	0.011303	6.87	17.47	6.60	1.35
Acqui_valle	38.2	C2_Tr 200	120.00	146.07	148.67	149.30	151.16	0.011823	6.98	17.19	6.60	1.38
Acqui_valle	38.1	C2_Tr 200	120.00	146.08	148.76	149.31	151.11	0.010971	6.79	17.66	6.60	1.33
Acqui_valle	38	C2_Tr 200	120.00	146.00	148.64	149.23	151.06	0.011386	6.89	17.42	6.60	1.35
Acqui_valle	37.4	C2_Tr 200	120.00	145.93	148.55	149.16	151.01	0.011675	6.95	17.27	6.60	1.37
Acqui_valle	37.3	C2_Tr 200	120.00	145.78	148.28	149.01	150.97	0.013214	7.27	16.51	6.60	1.47
Acqui_valle	37.2	C2_Tr 200	120.00	145.63	148.21	148.84	150.70	0.011856	6.99	17.18	6.65	1.39
Acqui_valle	37.1	C2_Tr 200	120.00	145.40	147.91	148.51	150.28	0.011198	6.82	17.60	7.00	1.37
Acqui_valle	37	C2_Tr 200	120.00	144.99	147.57	148.10	149.82	0.010412	6.64	18.07	7.00	1.32
Acqui_valle	36	C2_Tr 200	120.00	144.82	147.46	147.93	149.61	0.009770	6.49	18.49	7.00	1.27

HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	35	C2_Tr 200	120.00	144.43	146.13	147.01	149.10	0.017460	7.64	15.71	9.24	1.87
Acqui_valle	34.1	C2_Tr 200	120.00	144.39	146.08	146.97	149.08	0.017680	7.67	15.65	9.24	1.88
Acqui_valle	34	C2_Tr 200	94.00	143.50	144.67	145.69	148.53	0.033223	8.70	10.80	9.24	2.57
Acqui_valle	33.3	C2_Tr 200	94.00	143.28	144.63	145.47	147.53	0.021588	7.55	12.44	9.24	2.08
Acqui_valle	33.2	C2_Tr 200	94.00	143.07	146.46	145.26	146.92	0.001480	3.01	31.28	9.24	0.52
Acqui_valle	33.1	C2_Tr 200	94.00	142.86	146.46	145.05	146.86	0.001253	2.83	33.22	9.24	0.48
Acqui_valle	33.0	C2_Tr 200	94.00	142.65	145.89	145.29	146.77	0.003435	4.15	22.68	7.00	0.74
Acqui_valle	32.3	C2_Tr 200	94.00	142.28	145.87	144.92	146.58	0.002617	3.74	25.10	7.00	0.63
Acqui_valle	32.2	C2_Tr 200	94.00	141.92	145.84	144.56	146.44	0.002065	3.42	27.46	7.00	0.55
Acqui_valle	32.1	C2_Tr 200	94.00	141.55	145.82	144.19	146.33	0.001649	3.14	29.92	7.00	0.48
Acqui_valle	32	C2_Tr 200	94.00	141.19	145.73	143.83	146.23	0.002680	3.13	30.03		0.47
Acqui_valle	31.1	C2_Tr 200	94.00	141.19	145.77	143.83	146.21	0.001376	2.93	32.09	7.00	0.44
Acqui_valle	31	C2_Tr 200	94.00	140.19	145.74	142.82	146.04	0.000846	2.42	38.84	7.00	0.33
Acqui_valle	30.1		Bridge									
Acqui_valle	30	C2_Tr 200	94.00	140.02	145.55	142.65	145.85	0.000853	2.43	38.71	7.00	0.33

HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200

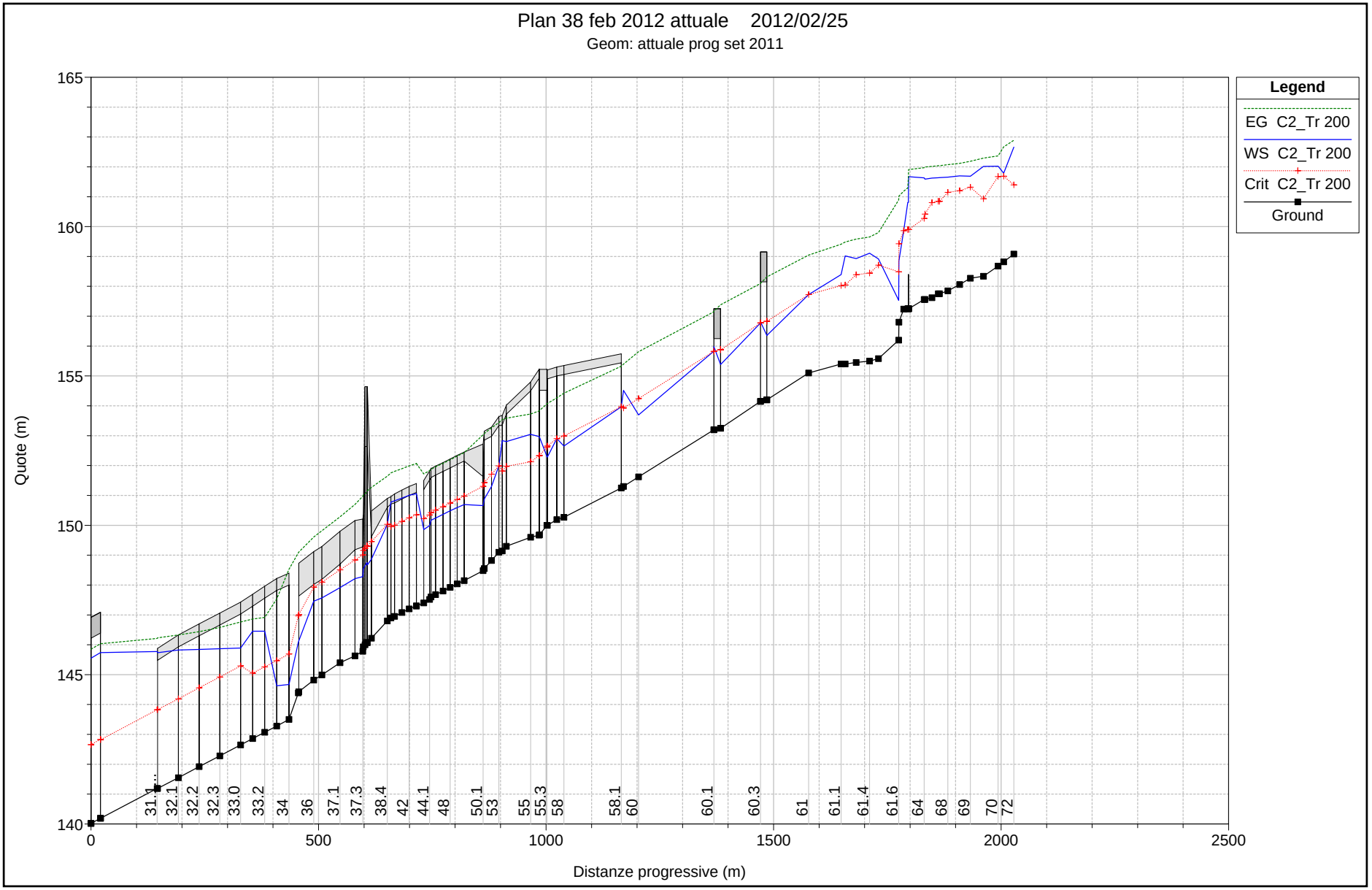
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	C2_Tr 200	162.89	162.66	0.23	0.03	0.20		107.00		20.85
Acqui _monte	71	C2_Tr 200	162.67	161.79	0.88	0.03	0.27		107.00		12.88
Acqui _monte	70	C2_Tr 200	162.37	162.02	0.35	0.04	0.04		107.00		32.13
Acqui _monte	69.50	C2_Tr 200	162.29	162.02	0.28	0.04	0.07		107.00		24.33
Acqui _monte	69	C2_Tr 200	162.19	161.69	0.50	0.04	0.02		107.00		26.21
Acqui _monte	68.5	C2_Tr 200	162.12	161.70	0.42	0.04	0.00		107.00		23.24
Acqui _monte	68	C2_Tr 200	162.07	161.65	0.42	0.03	0.01		107.00		26.42
Acqui _monte	67.1	C2_Tr 200	162.04	161.64	0.40	0.00	0.00		107.00		24.95
Acqui _monte	66.1	C2_Tr 200	162.04	161.64	0.40	0.02	0.00		107.00		24.93
Acqui _monte	66	C2_Tr 200	162.02	161.63	0.39	0.02	0.00		107.00		25.18
Acqui _monte	65	C2_Tr 200	162.00	161.59	0.41	0.00	0.02		107.00		13.49
Acqui _monte	64	C2_Tr 200	161.97	161.63	0.34	0.03	0.03		107.00		17.90
Acqui _monte	63.1	C2_Tr 200	161.91	161.67	0.24				107.00		21.95
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	C2_Tr 200	161.29	160.81	0.48	0.02	0.08		107.00		13.14
Acqui _monte	62	C2_Tr 200	161.19	159.86	1.32	0.06	0.00		107.00		8.00
Acqui _monte	61.7	C2_Tr 200	161.02	158.85	2.17	0.08	0.08		107.00		8.00
Acqui _monte	61.6	C2_Tr 200	160.89	157.53	3.36	0.01	0.12		107.00		10.77
Acqui _monte	61.5	C2_Tr 200	159.80	158.92	0.89	0.05	0.10		106.39	0.61	19.26
Acqui _monte	61.4	C2_Tr 200	159.65	159.11	0.54	0.06	0.01		101.06	5.94	44.60
Acqui _monte	61.3	C2_Tr 200	159.58	158.93	0.65	0.04	0.06		104.32	2.68	39.31
Acqui _monte	61.2	C2_Tr 200	159.49	159.02	0.47	0.02	0.06		102.63	4.37	30.00
Acqui _monte	61.1	C2_Tr 200	159.41	158.39	1.02	0.33	0.03		107.00		8.00
Acqui _monte	61	C2_Tr 200	159.05	157.72	1.32	0.43	0.09		107.00		8.00
Acqui _monte	60.4	C2_Tr 200	158.32	156.36	1.96	0.67	0.06		107.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	C2_Tr 200	158.10	156.77	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60.2	C2_Tr 200	157.38	155.38	2.00	0.65	0.07		107.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	C2_Tr 200	157.15	155.83	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60	C2_Tr 200	155.81	153.70	2.11	1.26	0.08		107.00		8.00
Acqui _monte	59	C2_Tr 200	155.40	154.52	0.88	0.02	0.05		107.00		8.00
Acqui _monte	58.1	C2_Tr 200	155.33	153.97	1.36	0.65	0.06		107.00		7.62
Acqui _monte	58	C2_Tr 200	154.42	152.65	1.77	0.87	0.04		107.00		7.62
Acqui _monte	57	C2_Tr 200	154.27	152.90	1.36	0.10	0.09		107.00		7.62

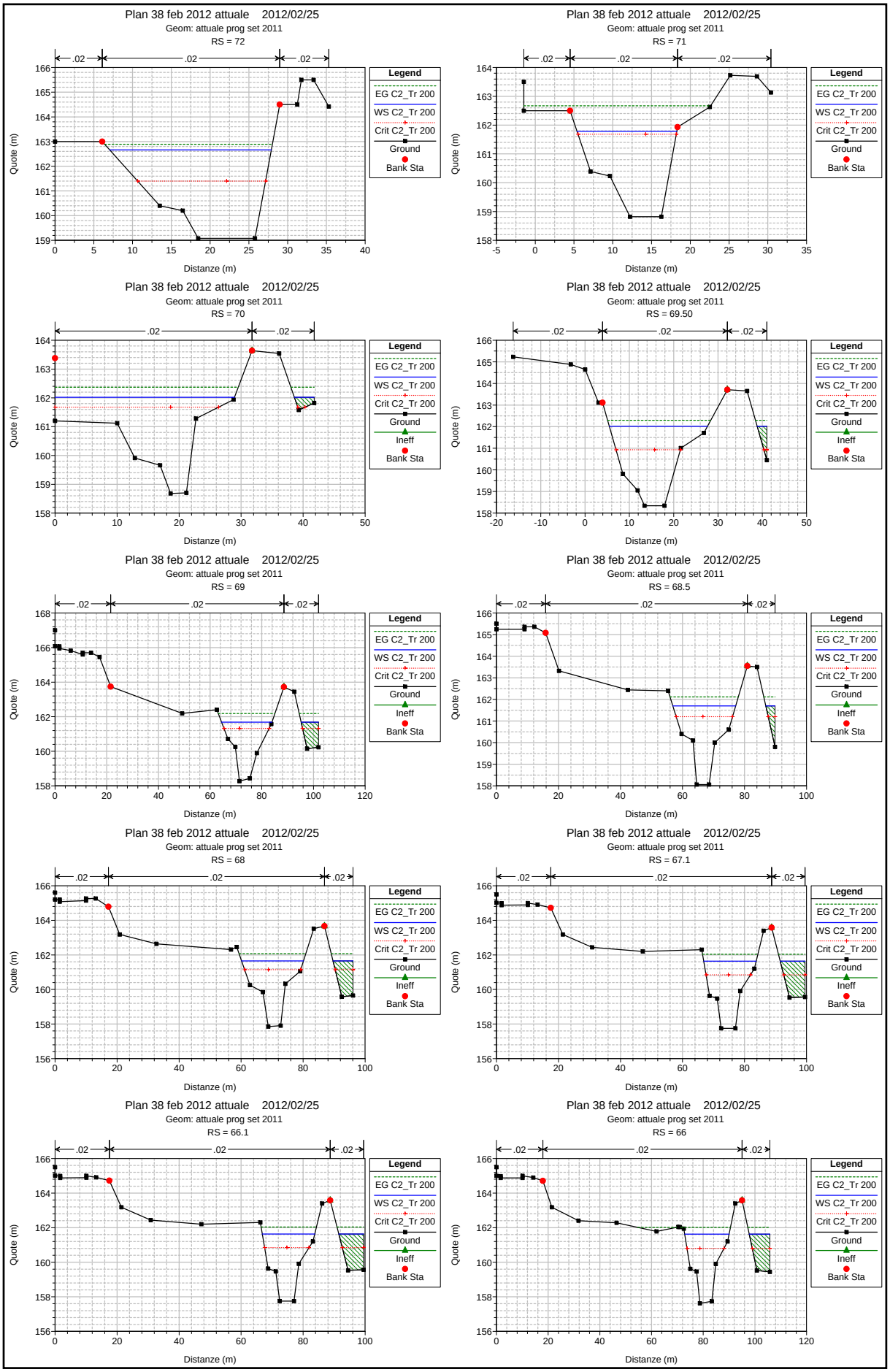
HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200 (Continued)

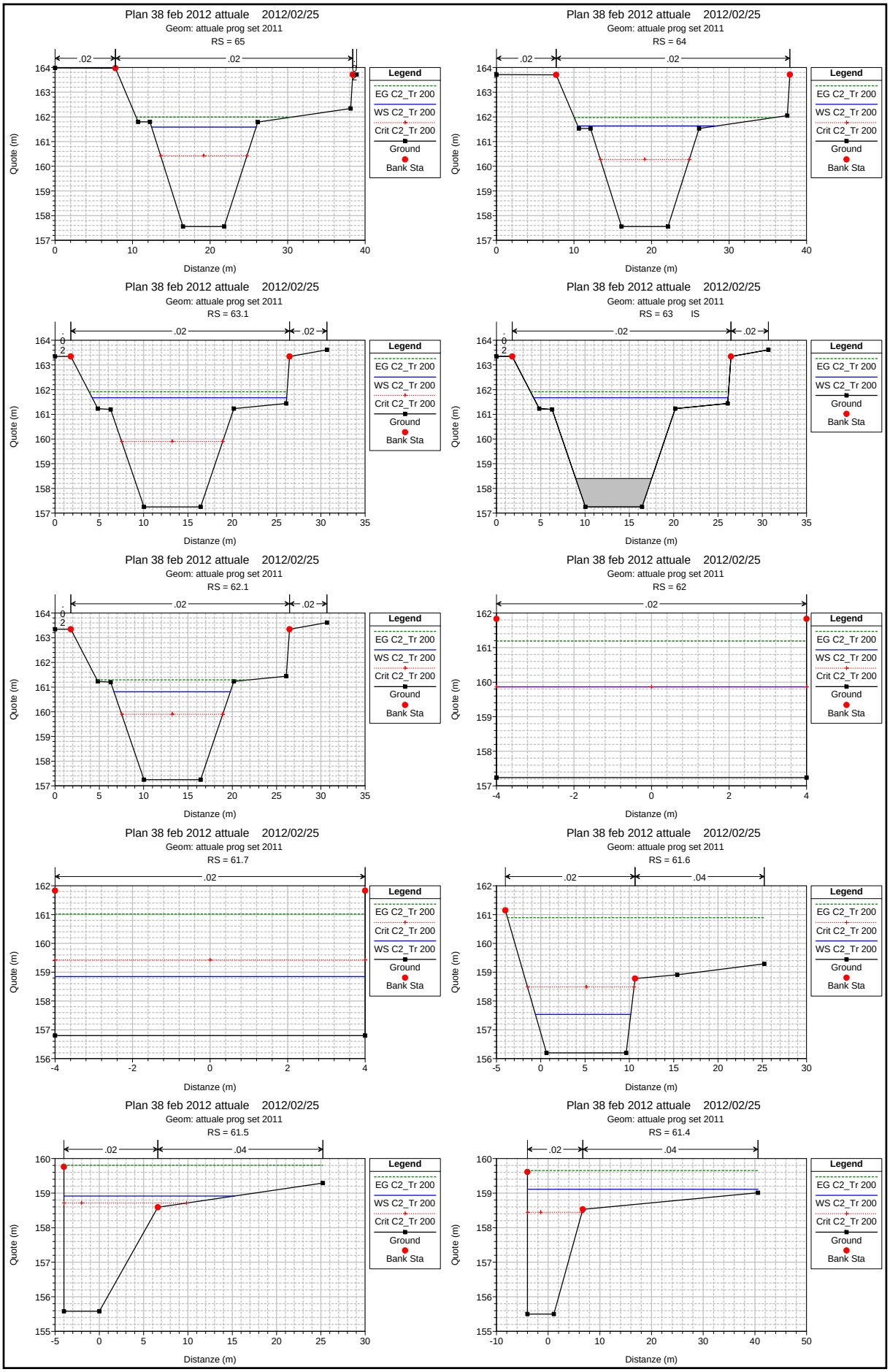
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	56	C2_Tr 200	154.08	152.28	1.80	0.15	0.04		107.00		7.90
Acqui _monte	55.3	C2_Tr 200	154.06	152.31	1.75	0.01	0.13		107.00		7.90
Acqui _monte	55.2	C2_Tr 200	153.84	152.95	0.89	0.00	0.01		107.00		6.97
Acqui _monte	55.1	C2_Tr 200	153.83	152.97	0.86	0.05	0.05		107.00		7.90
Acqui _monte	55	C2_Tr 200	153.73	153.05	0.68	0.13	0.01		107.00		8.50
Acqui _monte	54	C2_Tr 200	153.58	152.80	0.78	0.02	0.02		107.00		7.80
Acqui _monte	53.1	C2_Tr 200	153.54	152.84	0.70	0.03	0.07		107.00		7.80
Acqui _monte	53	C2_Tr 200	153.44	151.99	1.45	0.10	0.00		107.00		6.95
Acqui _monte	52	C2_Tr 200	153.26	151.30	1.96	0.12	0.05		107.00		6.95
Acqui _monte	51	C2_Tr 200	153.07	150.88	2.20	0.16	0.02		107.00		7.00
Acqui _monte	50.1	C2_Tr 200	153.03	150.66	2.37	0.03	0.02		107.00		7.20
Acqui _monte	50	C2_Tr 200	152.43	150.69	1.74	0.41	0.19		107.00		7.20
Acqui _monte	49	C2_Tr 200	152.32	150.60	1.72	0.11	0.10		107.00		7.20
Acqui _monte	48	C2_Tr 200	152.19	150.49	1.71	0.12	0.01		107.00		7.20
Acqui _monte	47	C2_Tr 200	152.07	150.37	1.71	0.12	0.00		107.00		7.20
Acqui _monte	46	C2_Tr 200	151.96	150.24	1.72	0.11	0.09		107.00		7.20
Acqui _monte	45	C2_Tr 200	151.87	150.17	1.70	0.08	0.00		107.00		7.20
Acqui _monte	44.1	C2_Tr 200	151.84	149.99	1.85	0.02	0.01		107.00		7.20
Acqui _monte	44	C2_Tr 200	151.72	149.86	1.86	0.11	0.00		107.00		7.20
Acqui_valle	43	C2_Tr 200	152.07	151.06	1.01	0.07	0.01		120.00		7.18
Acqui_valle	42	C2_Tr 200	151.99	151.00	0.99	0.09	0.00		120.00		
Acqui_valle	41	C2_Tr 200	151.90	150.91	0.99	0.09	0.00		120.00		
Acqui_valle	40	C2_Tr 200	151.80	150.82	0.99	0.05	0.00		120.00		
Acqui_valle	39	C2_Tr 200	151.76	150.78	0.98	0.05	0.06		120.00		
Acqui_valle	38.4	C2_Tr 200	151.64	150.03	1.61	0.22	0.03		120.00		6.60
Acqui_valle	38.3	C2_Tr 200	151.27	148.87	2.40	0.30	0.08		120.00		6.60
Acqui_valle	38.2	C2_Tr 200	151.16	148.67	2.48	0.10	0.01		120.00		6.60
Acqui_valle	38.1	C2_Tr 200	151.11	148.76	2.35	0.01	0.04		120.00		6.60
Acqui_valle	38	C2_Tr 200	151.06	148.64	2.42	0.04	0.01		120.00		6.60
Acqui_valle	37.4	C2_Tr 200	151.01	148.55	2.46	0.05	0.00		120.00		6.60
Acqui_valle	37.3	C2_Tr 200	150.97	148.28	2.69	0.01	0.02		120.00		6.60
Acqui_valle	37.2	C2_Tr 200	150.70	148.21	2.49	0.21	0.06		120.00		6.65
Acqui_valle	37.1	C2_Tr 200	150.28	147.91	2.37	0.38	0.04		120.00		7.00
Acqui_valle	37	C2_Tr 200	149.82	147.57	2.25	0.43	0.04		120.00		7.00
Acqui_valle	36	C2_Tr 200	149.61	147.46	2.15	0.18	0.03		120.00		7.00

HEC-RAS Plan: Plan 38 feb 12 a Profile: C2_Tr 200 (Continued)

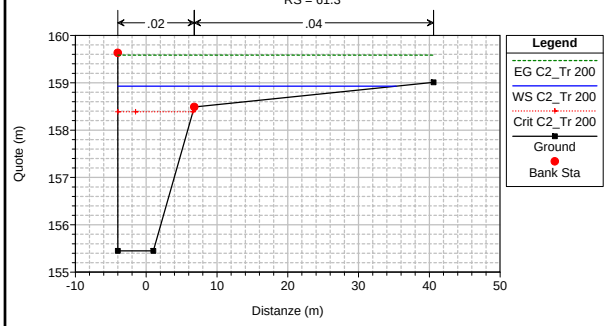
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	35	C2_Tr 200	149.10	146.13	2.97	0.42	0.08		120.00		9.24
Acqui_valle	34.1	C2_Tr 200	149.08	146.08	3.00	0.02	0.00		120.00		9.24
Acqui_valle	34	C2_Tr 200	148.53	144.67	3.86	0.47	0.09		94.00		9.24
Acqui_valle	33.3	C2_Tr 200	147.53	144.63	2.91	0.71	0.29		94.00		9.24
Acqui_valle	33.2	C2_Tr 200	146.92	146.46	0.46	0.04	0.02		94.00		9.24
Acqui_valle	33.1	C2_Tr 200	146.86	146.46	0.41	0.05	0.05		94.00		9.24
Acqui_valle	33.0	C2_Tr 200	146.77	145.89	0.88	0.14	0.05		94.00		7.00
Acqui_valle	32.3	C2_Tr 200	146.58	145.87	0.71	0.11	0.04		94.00		7.00
Acqui_valle	32.2	C2_Tr 200	146.44	145.84	0.60	0.08	0.03		94.00		7.00
Acqui_valle	32.1	C2_Tr 200	146.33	145.82	0.50	0.09	0.00		94.00		7.00
Acqui_valle	32	C2_Tr 200	146.23	145.73	0.50	0.00	0.02		94.00		
Acqui_valle	31.1	C2_Tr 200	146.21	145.77	0.44	0.13	0.04		94.00		7.00
Acqui_valle	31	C2_Tr 200	146.04	145.74	0.30				94.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	C2_Tr 200	145.85	145.55	0.30				94.00		7.00


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
Legend
EG C2_Tr 200
WS C2_Tr 200
Crit C2_Tr 200
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
68
69
70
72

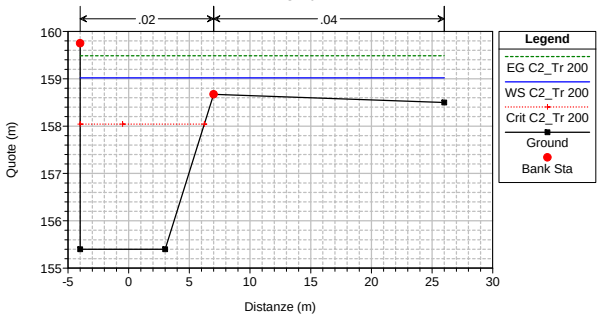

Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 72
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 71
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 70
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69.50
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 69
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68.5
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 68
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 67.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 66
.02
Quote (m)
Distanze (m)
Legend
EG C2_Tr 200
WS C2_Tr 200
Crit C2_Tr 200
Ground
Ineff
Bank Sta


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 65
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 64
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 63 IS
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62.1
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 62
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.7
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.6
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.5
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.4
Legend
EG C2_Tr 200
WS C2_Tr 200
Crit C2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)

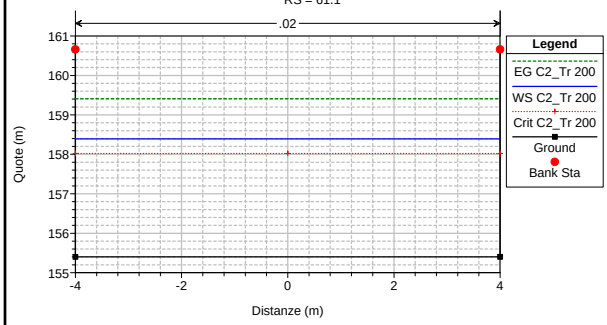
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.3



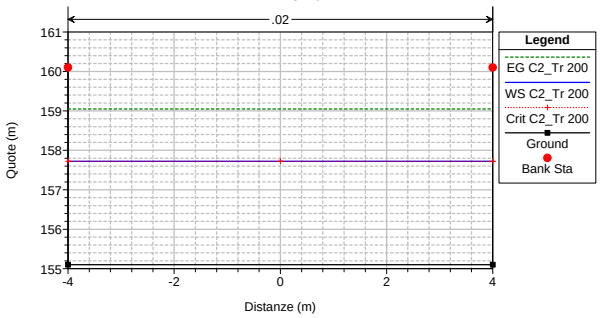
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.2



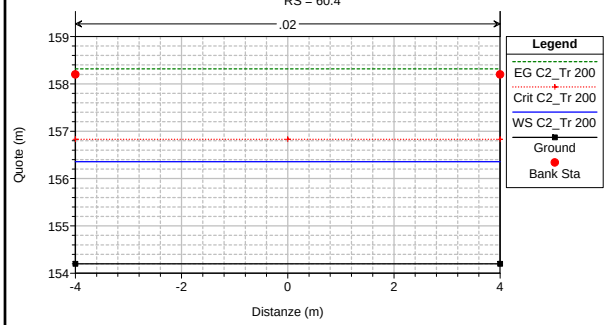
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61.1



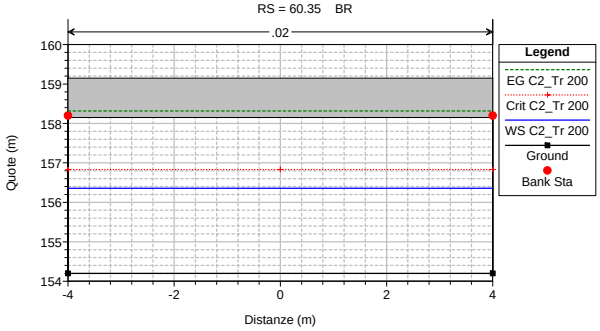
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 61



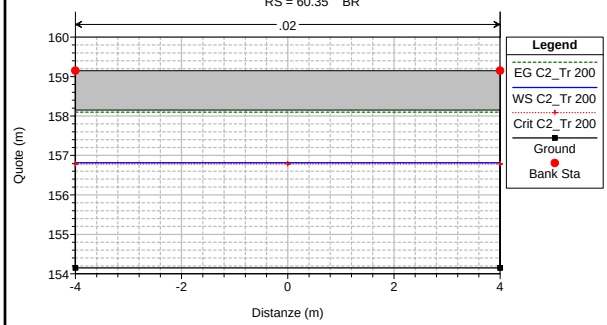
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.4



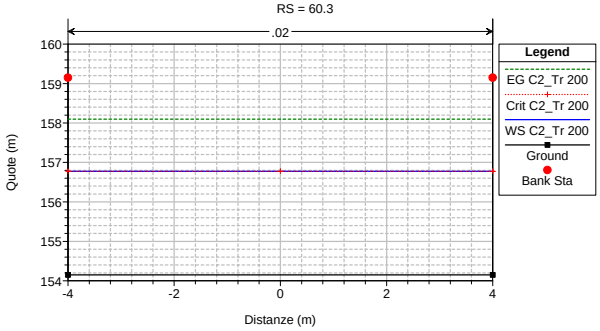
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



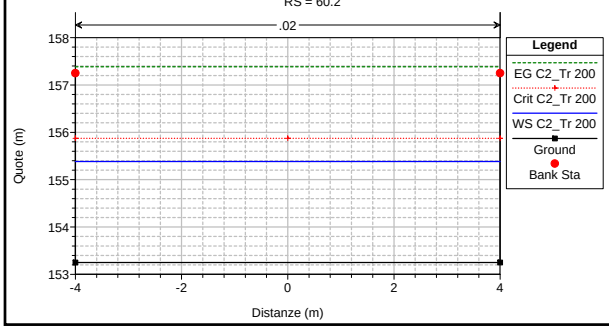
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.35 BR



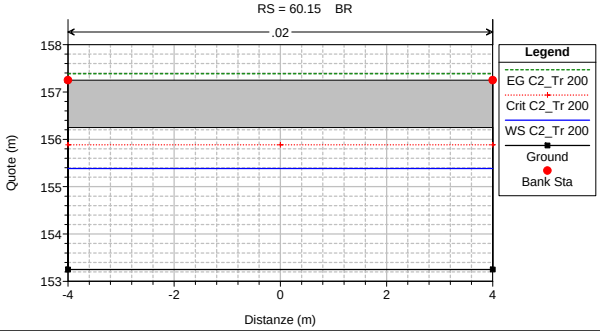
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.3



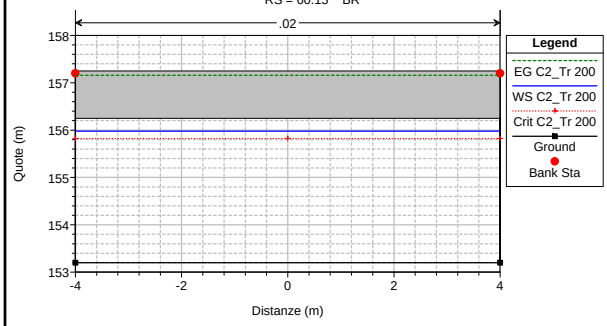
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.2



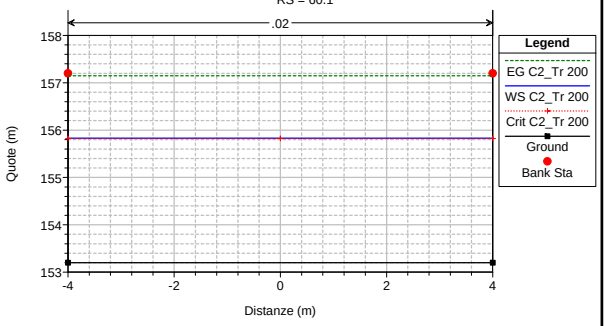
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



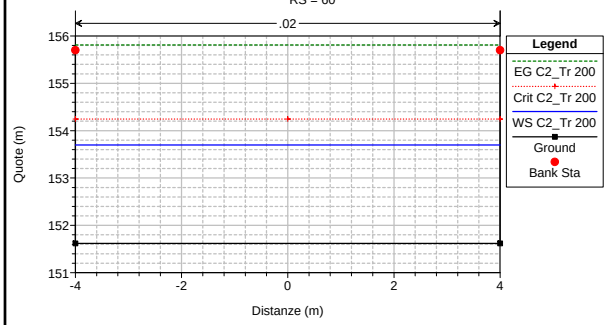
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.15 BR



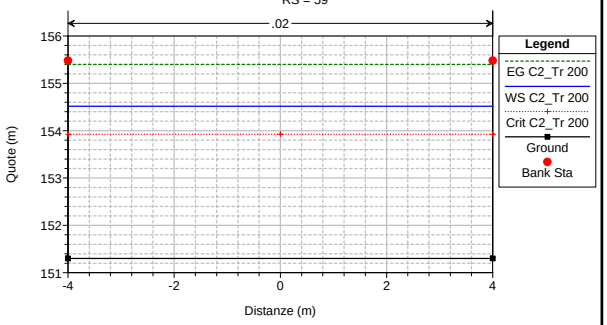
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60.1



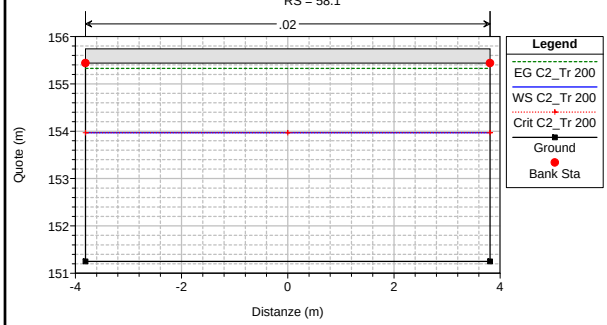
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 60



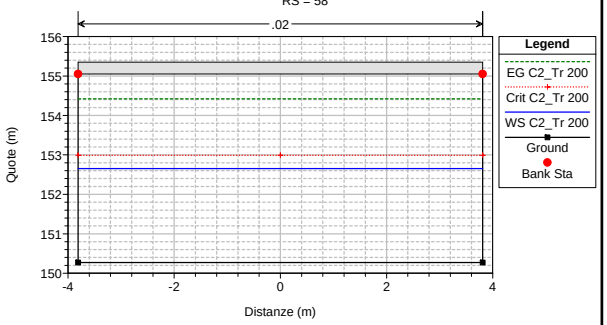
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 59



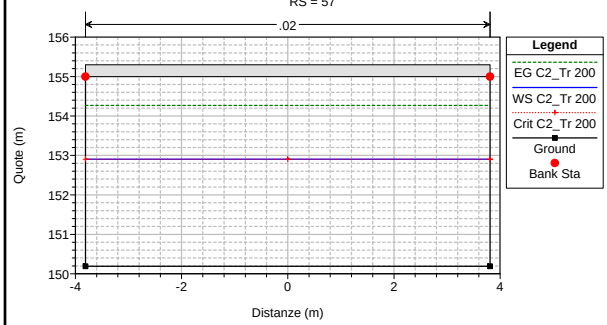
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58.1



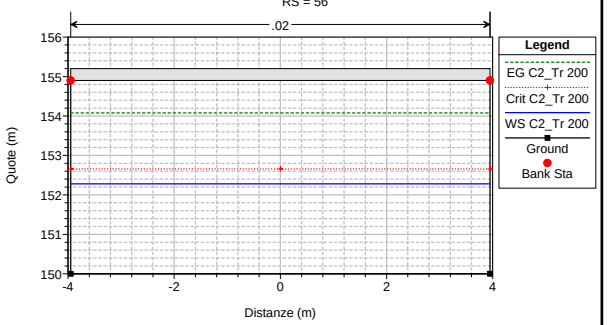
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 58



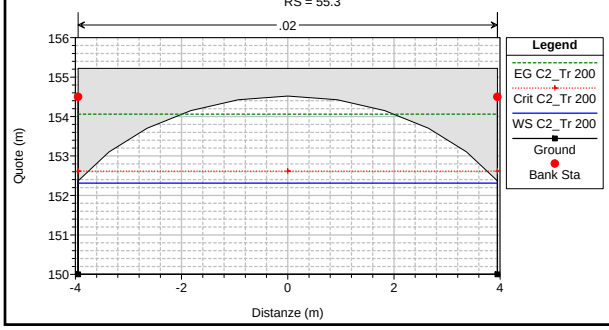
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 57



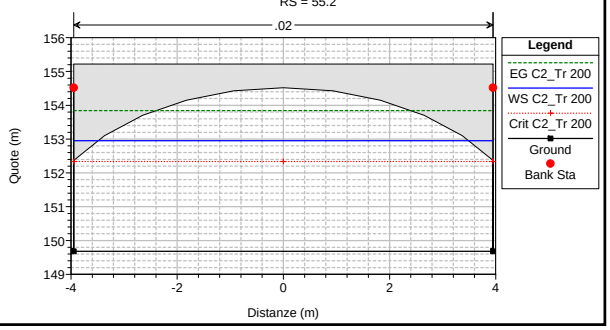
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 56

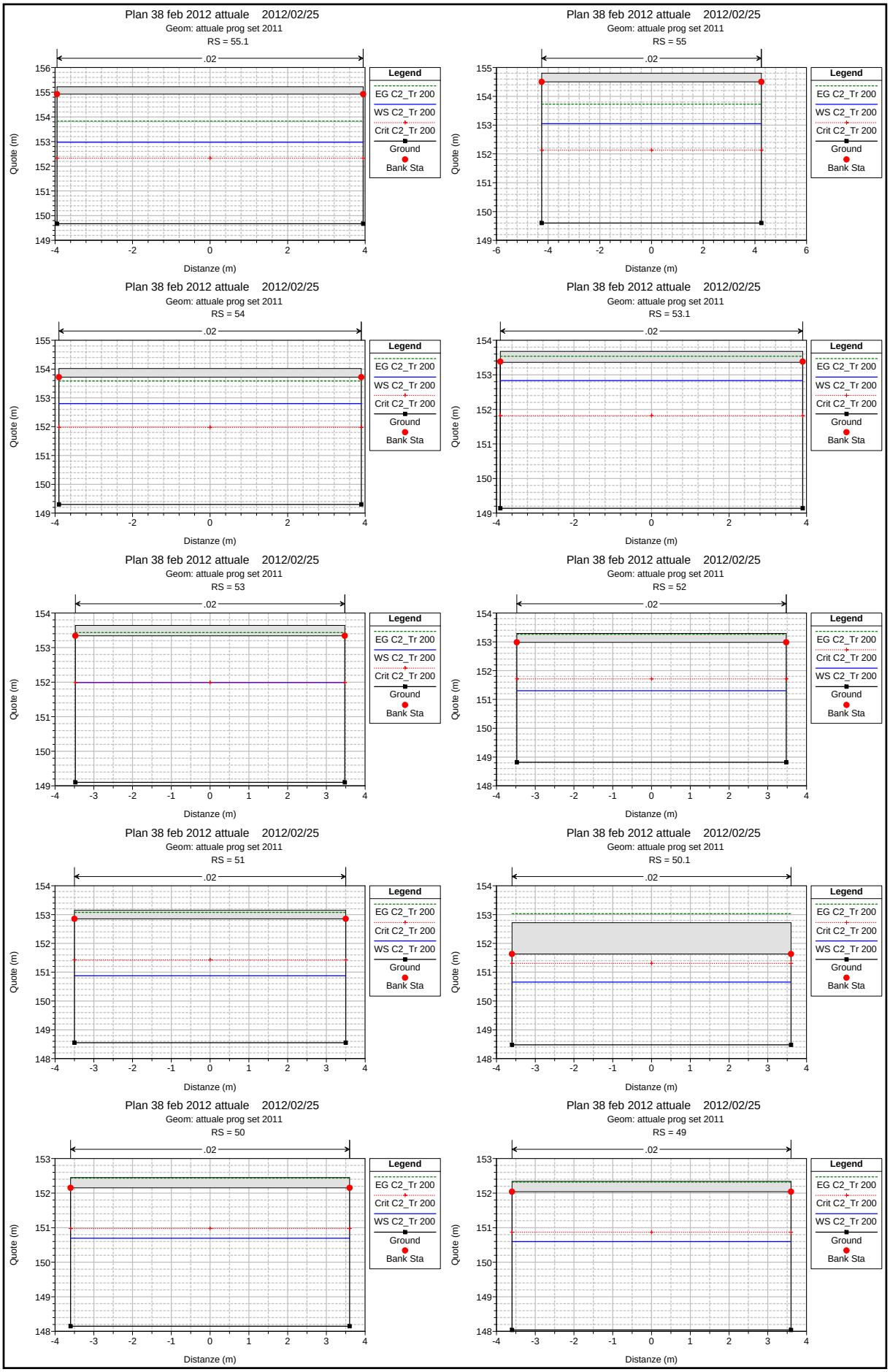


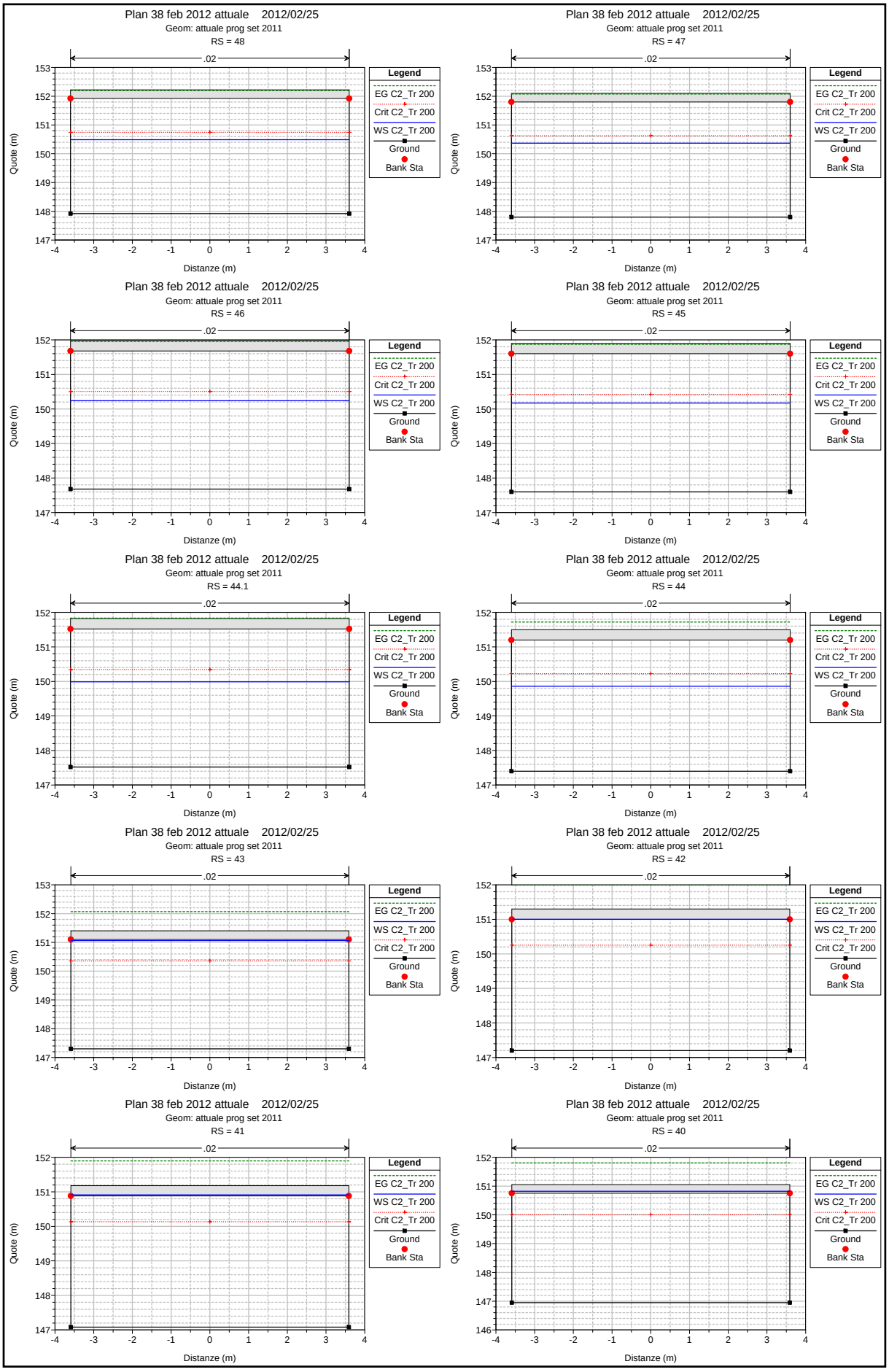
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.3

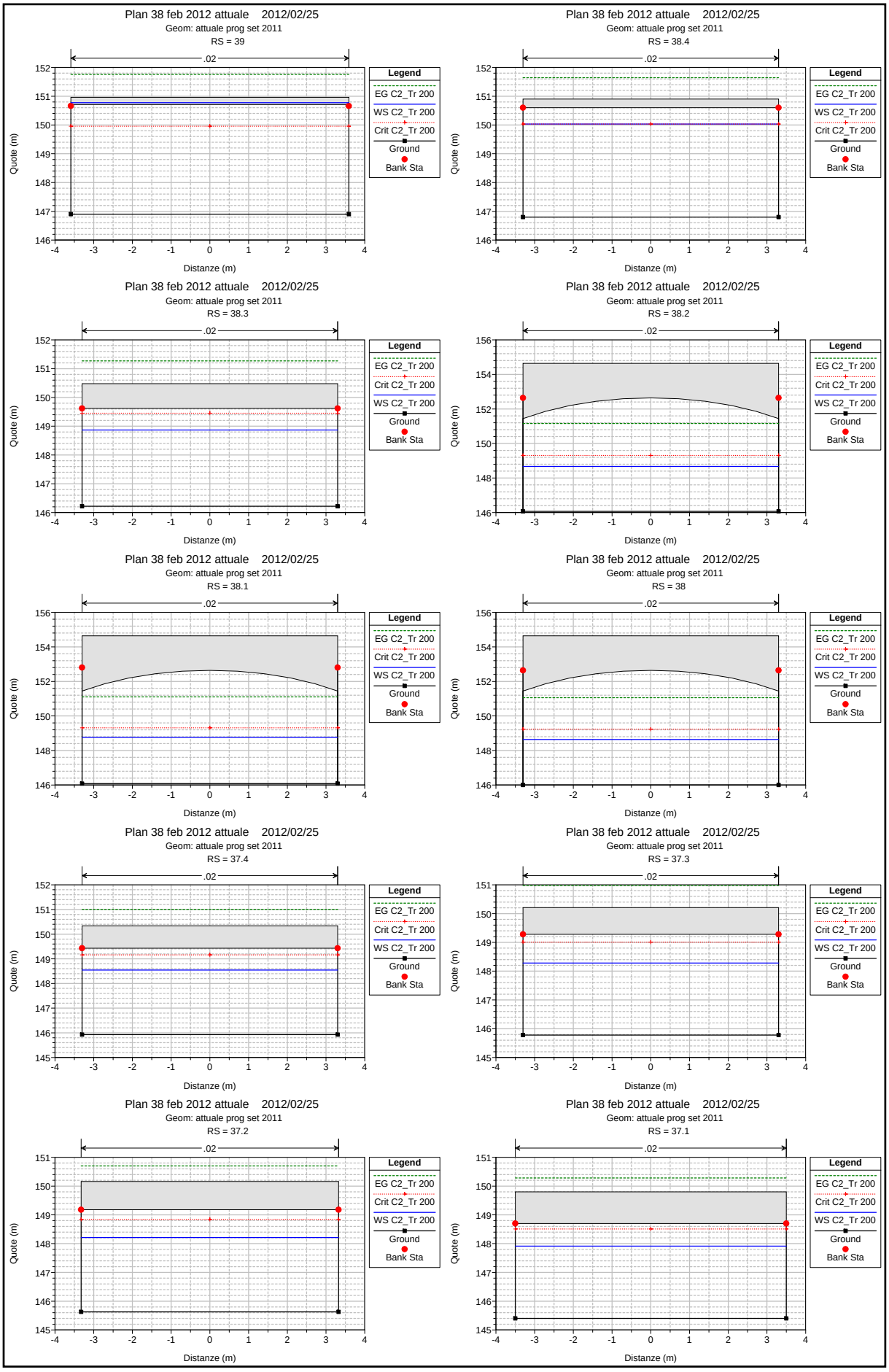


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.2

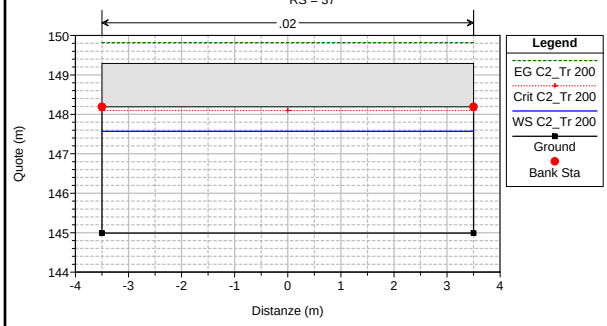



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 55.1
RS = 55
RS = 54
RS = 53.1
RS = 53
RS = 52
RS = 51
RS = 50.1
RS = 50
RS = 49
.02
Legend
EG C2_Tr 200
WS C2_Tr 200
Crit C2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)

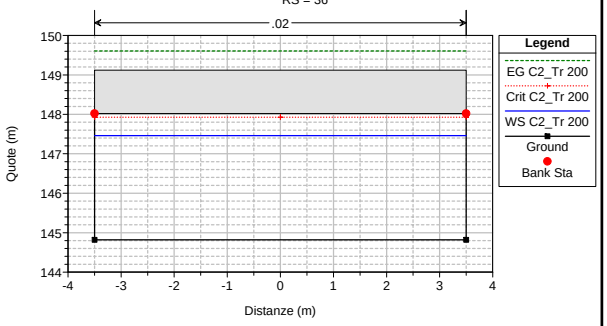

Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 48
RS = 47
RS = 46
RS = 45
RS = 44.1
RS = 44
RS = 43
RS = 42
RS = 41
RS = 40
.02
Legend
EG C2_Tr 200
Crit C2_Tr 200
WS C2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)


Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 39
RS = 38.4
RS = 38.3
RS = 38.2
RS = 38.1
RS = 38
RS = 37.4
RS = 37.3
RS = 37.2
RS = 37.1
.02
Legend
EG C2_Tr 200
WS C2_Tr 200
Crit C2_Tr 200
Ground
Bank Sta
Quote (m)
Distanze (m)

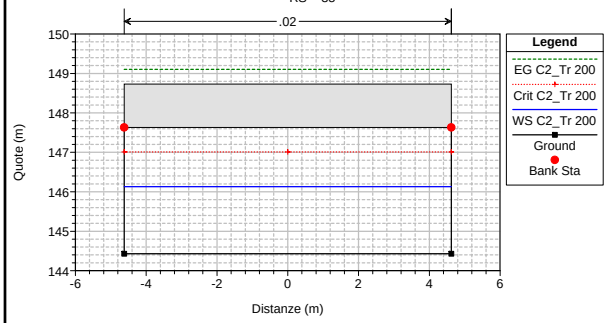
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 37



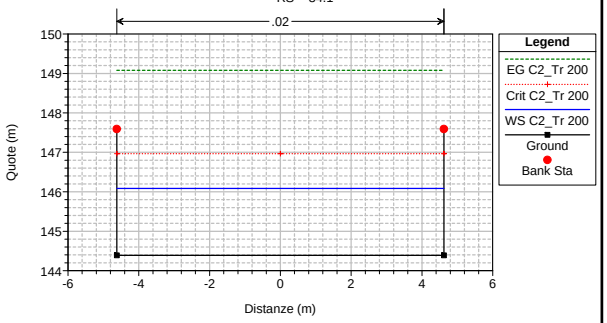
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 36



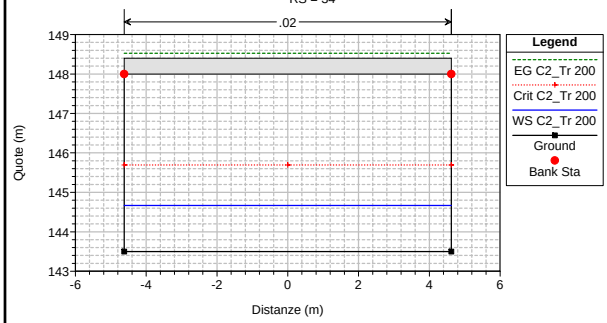
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 35



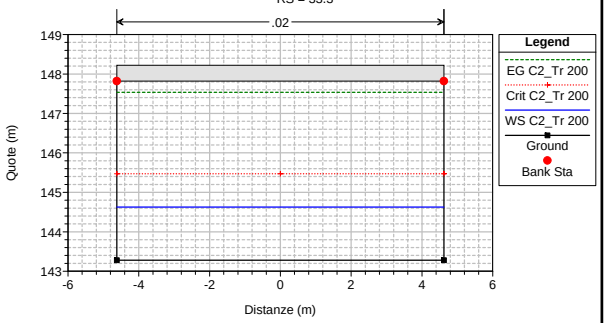
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34.1



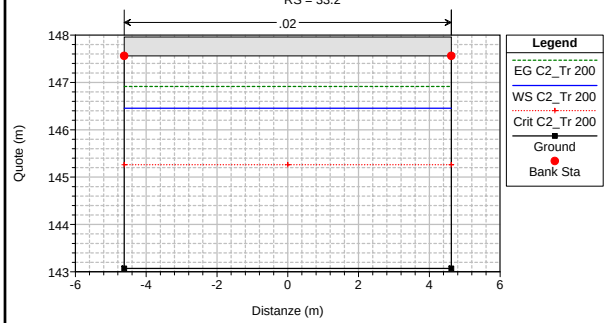
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 34



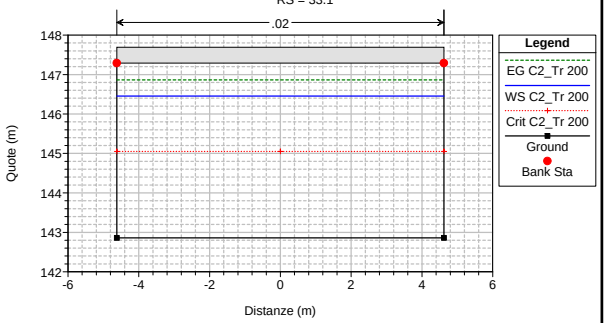
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.3



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.2



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 33.1



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
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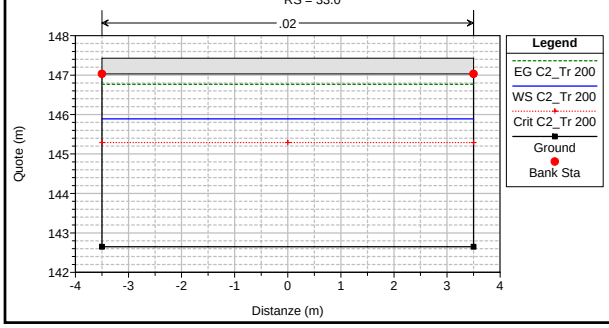
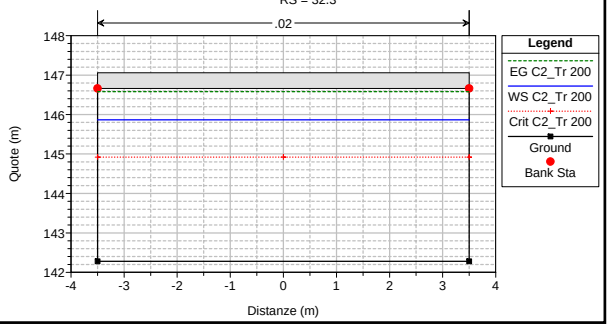
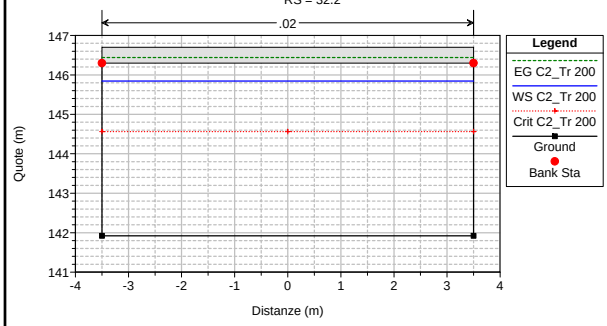


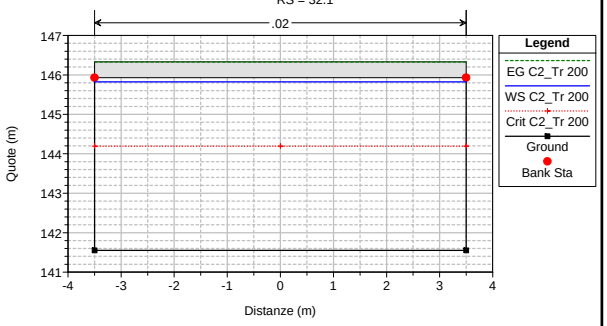
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.3



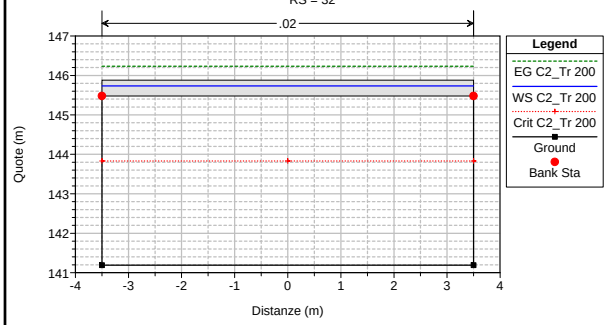
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.2



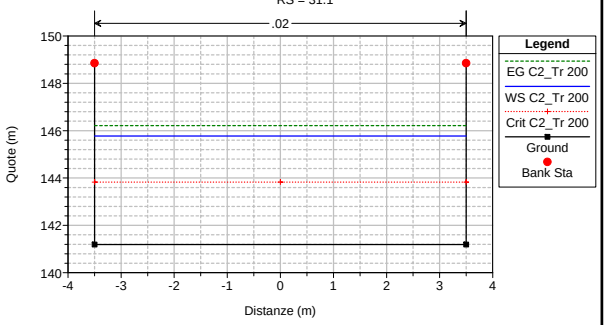
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32.1



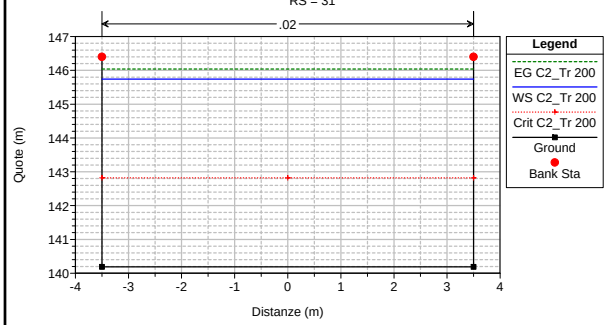
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 32



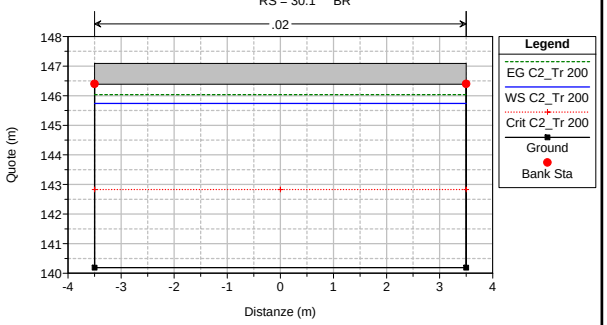
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31.1



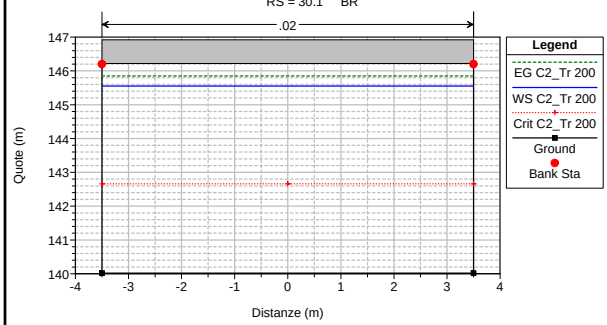
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 31



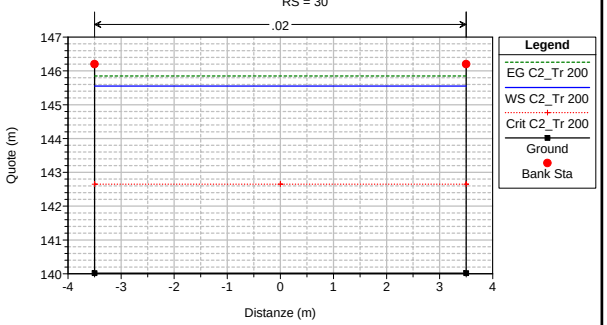
Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30.1 BR



Plan 38 feb 2012 attuale 2012/02/25
Geom: attuale prog set 2011
RS = 30



Scenario E1)

Progetto finanziato 2011 e perizia 2012

Rio Medrio Tempo di ritorno Tr = 20 anni

Portata a monte dello scolmatore Q = 63 mc/s

Portata a valle dello scolmatore Q = 37 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

NOTA:

LA SIMULAZIONE CON IL TEMPO DI RITORNO DUECENTENNALE NEL FIUME BORMIDA VIENE OMESSA IN QUANTO GLI INTERVENTI RICADONO IN UN TRATTO DEL RIO MEDRIO NON INFLUENZATO DAI LIVELLI DEL FIUME BORMIDA

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	E1_Tr 20	63.00	159.08	161.79	160.84	161.97	0.000715	1.89	33.39	17.83	0.44
Acqui _monte	71	E1_Tr 20	63.00	158.82	161.04	161.04	161.77	0.004229	3.79	16.62	11.43	1.00
Acqui _monte	70	E1_Tr 20	63.00	158.67	161.18	160.46	161.46	0.001126	2.36	26.65	14.41	0.56
Acqui _monte	69.50	E1_Tr 20	63.00	158.33	161.19	160.11	161.39	0.000675	1.97	32.06	15.49	0.44
Acqui _monte	69	E1_Tr 20	63.00	158.23	161.28	159.27	161.30	0.000040	0.56	113.04	46.61	0.11
Acqui _monte	68.5	E1_Tr 20	63.00	158.06	161.27	159.23	161.29	0.000062	0.70	89.51	35.67	0.14
Acqui _monte	68	E1_Tr 20	63.00	157.87	161.27	159.01	161.29	0.000044	0.62	102.19	38.23	0.12
Acqui _monte	67.1	E1_Tr 20	63.00	157.72	161.26	159.37	161.29	0.000084	0.79	79.79	33.30	0.16
Acqui _monte	67	E1_Tr 20	63.00	157.72	161.26	159.37	161.29	0.000085	0.79	79.79	33.29	0.16
Acqui _monte	66.1	E1_Tr 20	63.00	157.72	161.26	159.37	161.29	0.000085	0.79	79.78	33.29	0.16
Acqui _monte	66	E1_Tr 20	63.00	157.61	161.26	158.84	161.29	0.000051	0.68	92.30	32.78	0.13
Acqui _monte	65	E1_Tr 20	63.00	157.56	161.05	159.67	161.26	0.000646	2.04	30.94	12.40	0.41
Acqui _monte	64	E1_Tr 20	63.00	157.56	161.07	159.55	161.25	0.000525	1.88	33.53	13.08	0.37
Acqui _monte	63.1	E1_Tr 20	63.00	157.25	161.09	159.19	161.23	0.000359	1.64	38.53	13.66	0.31
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	E1_Tr 20	63.00	157.25	159.58	159.19	160.09	0.002159	3.13	20.10	10.82	0.73
Acqui _monte	62	E1_Tr 20	63.00	157.24	159.08	159.08	160.01	0.005356	4.27	14.75	8.00	1.00
Acqui _monte	61.7	E1_Tr 20	63.00	156.80	158.17	158.65	159.86	0.012894	5.75	10.95	8.00	1.57
Acqui _monte	61.6	E1_Tr 20	63.00	156.20	157.11	157.83	159.75	0.028869	7.20	8.75	10.21	2.48
Acqui _monte	61.5	E1_Tr 20	63.00	155.58	157.90	157.92	158.78	0.005014	4.16	15.15	9.08	1.03
Acqui _monte	61.4	E1_Tr 20	63.00	155.50	158.05	157.67	158.61	0.002646	3.31	19.02	9.81	0.76
Acqui _monte	61.3	E1_Tr 20	63.00	155.45	157.63	157.63	158.48	0.004719	4.09	15.41	9.15	1.01
Acqui _monte	61.2	E1_Tr 20	63.00	155.40	157.74	157.30	158.26	0.002358	3.20	19.70	9.86	0.72
Acqui _monte	61.1	E1_Tr 20	63.00	155.40	157.48	157.24	158.21	0.003763	3.78	16.66	8.00	0.84
Acqui _monte	61	E1_Tr 20	63.00	155.10	156.94	156.94	157.87	0.005354	4.27	14.75	8.00	1.00
Acqui _monte	60.4	E1_Tr 20	63.00	154.20	155.66	156.04	157.14	0.010669	5.40	11.67	8.00	1.43
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	E1_Tr 20	63.00	154.15	155.91	155.99	156.93	0.006148	4.48	14.06	8.00	1.08
Acqui _monte	60.2	E1_Tr 20	63.00	153.25	154.71	155.09	156.19	0.010595	5.39	11.70	8.00	1.42
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	E1_Tr 20	63.00	153.20	155.05	155.04	155.97	0.005308	4.26	14.79	8.00	1.00
Acqui _monte	60	E1_Tr 20	63.00	151.62	153.02	153.46	154.63	0.012077	5.63	11.19	8.00	1.52
Acqui _monte	59	E1_Tr 20	63.00	151.30	152.79	153.14	154.22	0.010065	5.29	11.90	8.00	1.39
Acqui _monte	58.1	E1_Tr 20	63.00	151.25	153.16	153.16	154.11	0.005464	4.34	14.53	7.62	1.00
Acqui _monte	58	E1_Tr 20	63.00	150.27	151.89	152.18	153.22	0.008777	5.10	12.35	7.62	1.28

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	57	E1_Tr 20	63.00	150.19	152.09	152.09	153.05	0.005485	4.34	14.51	7.62	1.00
Acqui _monte	56	E1_Tr 20	63.00	150.00	151.58	151.87	152.88	0.008654	5.04	12.49	7.90	1.28
Acqui _monte	55.3	E1_Tr 20	63.00	150.00	151.60	151.86	152.86	0.008283	4.97	12.68	7.90	1.25
Acqui _monte	55.2	E1_Tr 20	63.00	149.68	151.12	151.54	152.68	0.011335	5.52	11.40	7.90	1.47
Acqui _monte	55.1	E1_Tr 20	63.00	149.67	151.11	151.54	152.67	0.011325	5.52	11.41	7.90	1.47
Acqui _monte	55	E1_Tr 20	63.00	149.60	151.87	151.38	152.41	0.002519	3.26	19.32	8.50	0.69
Acqui _monte	54	E1_Tr 20	63.00	149.30	151.69	151.18	152.27	0.002716	3.38	18.61	7.80	0.70
Acqui _monte	53.1	E1_Tr 20	63.00	149.14	151.72	151.02	152.22	0.002168	3.12	20.16	7.80	0.62
Acqui _monte	53	E1_Tr 20	63.00	149.10	151.13	151.13	152.15	0.005707	4.46	14.13	6.95	1.00
Acqui _monte	52	E1_Tr 20	63.00	148.82	150.50	150.85	151.98	0.009833	5.39	11.69	6.95	1.33
Acqui _monte	51	E1_Tr 20	63.00	148.55	150.12	150.57	151.79	0.011751	5.72	11.01	7.00	1.46
Acqui _monte	50.1	E1_Tr 20	63.00	148.48	149.95	150.46	151.75	0.013280	5.94	10.61	7.20	1.56
Acqui _monte	50	E1_Tr 20	63.00	148.15	149.91	150.13	151.17	0.007968	4.98	12.64	7.20	1.20
Acqui _monte	49	E1_Tr 20	63.00	148.04	149.85	150.02	151.04	0.007345	4.85	13.00	7.20	1.15
Acqui _monte	48	E1_Tr 20	63.00	147.92	149.71	149.90	150.93	0.007518	4.88	12.90	7.20	1.17
Acqui _monte	47	E1_Tr 20	63.00	147.80	149.58	149.78	150.81	0.007607	4.91	12.84	7.20	1.17
Acqui _monte	46	E1_Tr 20	63.00	147.68	149.48	149.66	150.68	0.007389	4.86	12.97	7.20	1.15
Acqui _monte	45	E1_Tr 20	63.00	147.60	149.39	149.58	150.61	0.007527	4.89	12.89	7.20	1.17
Acqui _monte	44.1	E1_Tr 20	63.00	147.52	149.22	149.50	150.57	0.008718	5.14	12.25	7.20	1.26
Acqui _monte	44	E1_Tr 20	63.00	147.40	149.09	149.38	150.45	0.008848	5.17	12.19	7.20	1.27
Acqui_valle	43	E1_Tr 20	63.00	147.30	149.08	149.29	150.32	0.007665	4.92	12.80	7.18	1.18
Acqui_valle	42	E1_Tr 20	63.00	147.20	149.42	149.19	150.22	0.004078	3.95	15.97	7.18	0.84
Acqui_valle	41	E1_Tr 20	63.00	147.08	149.41	149.07	150.13	0.003565	3.76	16.75	7.18	0.79
Acqui_valle	40	E1_Tr 20	63.00	146.95	149.41	148.94	150.06	0.003072	3.57	17.66	7.18	0.73
Acqui_valle	39	E1_Tr 20	63.00	146.90	149.40	148.89	150.03	0.002936	3.51	17.96	7.18	0.71
Acqui_valle	38.4	E1_Tr 20	63.00	146.80	148.90	148.90	149.95	0.005939	4.55	13.85	6.60	1.00
Acqui_valle	38.3	E1_Tr 20	63.00	146.22	147.85	148.32	149.59	0.012170	5.85	10.77	6.60	1.46
Acqui_valle	38.2	E1_Tr 20	63.00	146.07	147.68	148.17	149.48	0.012759	5.95	10.60	6.60	1.50
Acqui_valle	38.1	E1_Tr 20	63.00	146.08	147.73	148.18	149.44	0.011824	5.79	10.88	6.60	1.44
Acqui_valle	38	E1_Tr 20	63.00	146.00	147.62	148.10	149.38	0.012330	5.88	10.72	6.60	1.47
Acqui_valle	37.4	E1_Tr 20	63.00	145.93	147.54	148.03	149.33	0.012604	5.92	10.64	6.60	1.49
Acqui_valle	37.3	E1_Tr 20	63.00	145.78	147.31	147.88	149.29	0.014683	6.24	10.10	6.60	1.61
Acqui_valle	37.2	E1_Tr 20	63.00	145.63	147.25	147.72	149.00	0.012304	5.86	10.74	6.65	1.47
Acqui_valle	37.1	E1_Tr 20	63.00	145.40	147.06	147.42	148.56	0.009993	5.41	11.64	7.00	1.34
Acqui_valle	37	E1_Tr 20	63.00	144.99	146.64	147.01	148.15	0.010166	5.45	11.57	7.00	1.35

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	36	E1_Tr 20	63.00	144.82	146.50	146.84	147.96	0.009625	5.34	11.79	7.00	1.31
Acqui_valle	35	E1_Tr 20	63.00	144.43	145.53	146.11	147.49	0.017950	6.19	10.17	9.24	1.88
Acqui_valle	34.1	E1_Tr 20	63.00	144.39	145.48	146.06	147.47	0.018361	6.24	10.10	9.24	1.91
Acqui_valle	34	E1_Tr 20	37.00	143.50	144.04	144.68	146.85	0.058231	7.43	4.98	9.24	3.23
Acqui_valle	33.3	E1_Tr 20	37.00	143.28	144.01	144.46	145.55	0.022528	5.51	6.72	9.24	2.06
Acqui_valle	33.2	E1_Tr 20	37.00	143.07	144.62	144.25	144.96	0.002197	2.59	14.30	9.24	0.66
Acqui_valle	33.1	E1_Tr 20	37.00	142.86	144.63	144.04	144.89	0.001484	2.27	16.31	9.24	0.54
Acqui_valle	33.0	E1_Tr 20	37.00	142.65	144.07	144.07	144.78	0.005487	3.73	9.93	7.00	1.00
Acqui_valle	32.3	E1_Tr 20	37.00	142.28	143.51	143.70	144.45	0.008300	4.28	8.64	7.00	1.23
Acqui_valle	32.2	E1_Tr 20	37.00	141.92	143.88	143.34	144.25	0.002155	2.70	13.70	7.00	0.62
Acqui_valle	32.1	E1_Tr 20	37.00	141.55	143.88	142.97	144.14	0.001320	2.27	16.29	7.00	0.48
Acqui_valle	32	E1_Tr 20	37.00	141.19	143.87	142.61	144.07	0.000888	1.97	18.79	7.00	0.38
Acqui_valle	31.1	E1_Tr 20	37.00	141.19	143.87	142.60	144.07	0.000889	1.97	18.78	7.00	0.38
Acqui_valle	31	E1_Tr 20	37.00	140.19	143.87	141.60	143.97	0.000379	1.44	25.75	7.00	0.24
Acqui_valle	30.1		Bridge									
Acqui_valle	30	E1_Tr 20	37.00	140.02	143.69	141.43	143.80	0.000381	1.44	25.69	7.00	0.24

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20

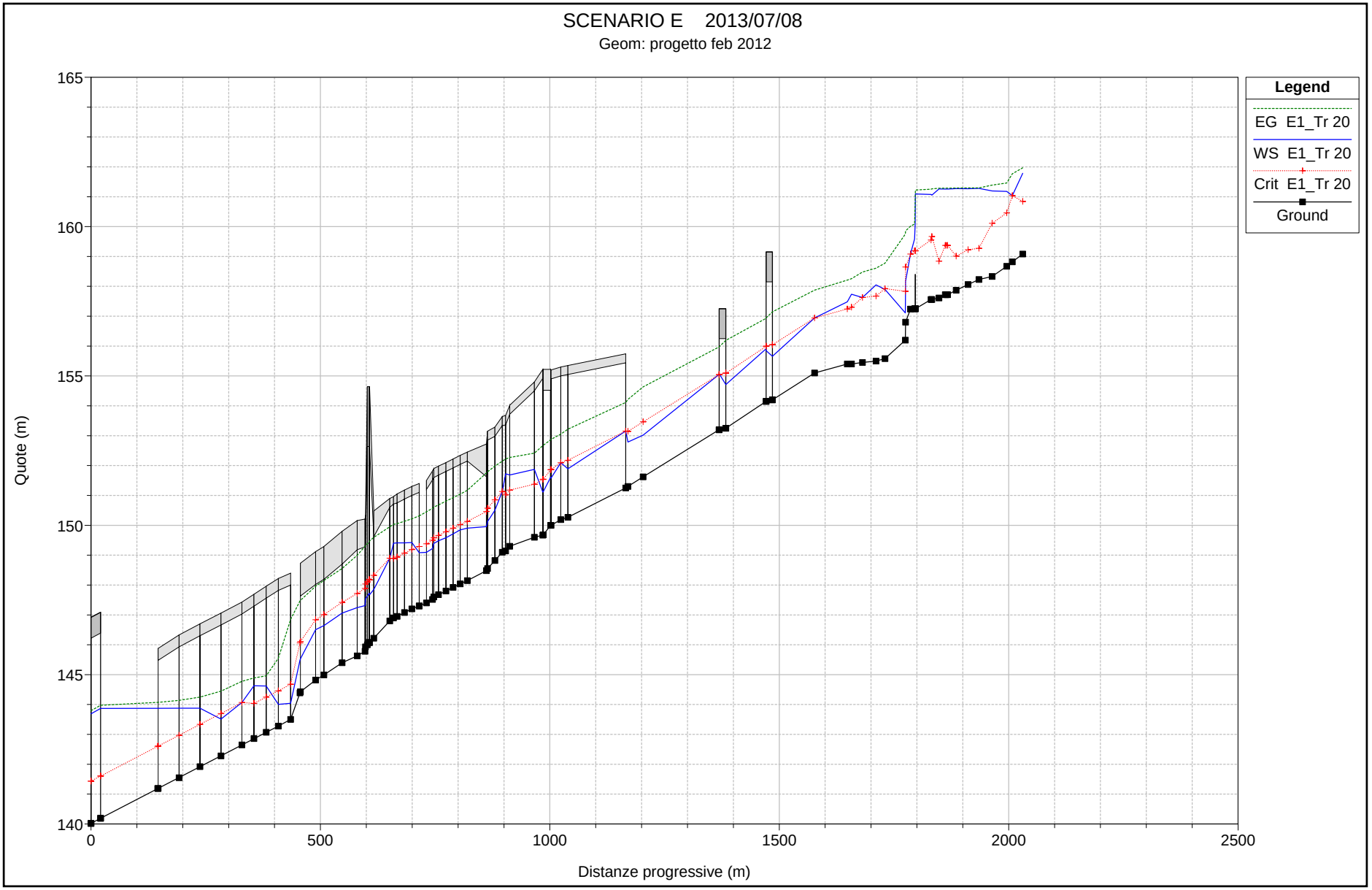
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	E1_Tr 20	161.97	161.79	0.18	0.03	0.17		63.00		17.83
Acqui _monte	71	E1_Tr 20	161.77	161.04	0.73	0.02	0.22		63.00		11.43
Acqui _monte	70	E1_Tr 20	161.46	161.18	0.28	0.03	0.04		63.00		14.41
Acqui _monte	69.50	E1_Tr 20	161.39	161.19	0.20	0.00	0.09		63.00		15.49
Acqui _monte	69	E1_Tr 20	161.30	161.28	0.02	0.00	0.00		63.00		46.61
Acqui _monte	68.5	E1_Tr 20	161.29	161.27	0.03	0.00	0.00		63.00		35.67
Acqui _monte	68	E1_Tr 20	161.29	161.27	0.02	0.00	0.00		63.00		38.23
Acqui _monte	67.1	E1_Tr 20	161.29	161.26	0.03	0.00	0.00		63.00		33.30
Acqui _monte	67	E1_Tr 20	161.29	161.26	0.03	0.00	0.00		63.00		33.29
Acqui _monte	66.1	E1_Tr 20	161.29	161.26	0.03	0.00	0.00		63.00		33.29
Acqui _monte	66	E1_Tr 20	161.29	161.26	0.02	0.00	0.02		63.00		32.78
Acqui _monte	65	E1_Tr 20	161.26	161.05	0.21	0.00	0.01		63.00		12.40
Acqui _monte	64	E1_Tr 20	161.25	161.07	0.18	0.01	0.01		63.00		13.08
Acqui _monte	63.1	E1_Tr 20	161.23	161.09	0.14				63.00		13.66
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	E1_Tr 20	160.09	159.58	0.50	0.03	0.04		63.00		10.82
Acqui _monte	62	E1_Tr 20	160.01	159.08	0.93	0.06	0.00		63.00		8.00
Acqui _monte	61.7	E1_Tr 20	159.86	158.17	1.69	0.08	0.08		63.00		8.00
Acqui _monte	61.6	E1_Tr 20	159.75	157.11	2.64	0.01	0.10		63.00		10.21
Acqui _monte	61.5	E1_Tr 20	158.78	157.90	0.88	0.44	0.53		63.00		9.08
Acqui _monte	61.4	E1_Tr 20	158.61	158.05	0.56	0.10	0.03		63.00		9.81
Acqui _monte	61.3	E1_Tr 20	158.48	157.63	0.85	0.08	0.10		63.00		9.15
Acqui _monte	61.2	E1_Tr 20	158.26	157.74	0.52	0.03	0.02		63.00		9.86
Acqui _monte	61.1	E1_Tr 20	158.21	157.48	0.73	0.32	0.02		63.00		8.00
Acqui _monte	61	E1_Tr 20	157.87	156.94	0.93	0.39	0.07		63.00		8.00
Acqui _monte	60.4	E1_Tr 20	157.14	155.66	1.48	0.67	0.06		63.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	E1_Tr 20	156.93	155.91	1.02	0.00	0.05		63.00		8.00
Acqui _monte	60.2	E1_Tr 20	156.19	154.71	1.48	0.69	0.05		63.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	E1_Tr 20	155.97	155.05	0.92	0.00	0.00		63.00		8.00
Acqui _monte	60	E1_Tr 20	154.63	153.02	1.61	1.27	0.07		63.00		8.00
Acqui _monte	59	E1_Tr 20	154.22	152.79	1.43	0.36	0.06		63.00		8.00
Acqui _monte	58.1	E1_Tr 20	154.11	153.16	0.96	0.64	0.03		63.00		7.62
Acqui _monte	58	E1_Tr 20	153.22	151.89	1.33	0.86	0.04		63.00		7.62

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20 (Continued)

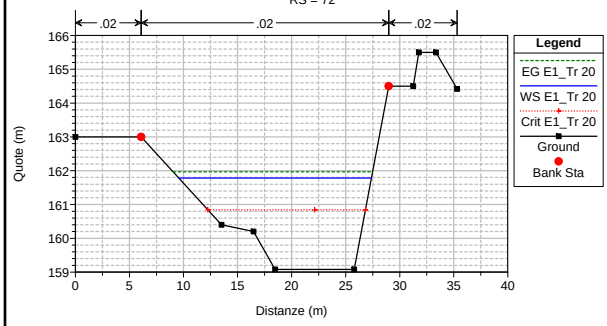
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	57	E1_Tr 20	153.05	152.09	0.96	0.10	0.05		63.00		7.62
Acqui _monte	56	E1_Tr 20	152.88	151.58	1.30	0.14	0.03		63.00		7.90
Acqui _monte	55.3	E1_Tr 20	152.86	151.60	1.26	0.01	0.11		63.00		7.90
Acqui _monte	55.2	E1_Tr 20	152.68	151.12	1.55	0.15	0.03		63.00		7.90
Acqui _monte	55.1	E1_Tr 20	152.67	151.11	1.55	0.01	0.00		63.00		7.90
Acqui _monte	55	E1_Tr 20	152.41	151.87	0.54	0.14	0.00		63.00		8.50
Acqui _monte	54	E1_Tr 20	152.27	151.69	0.58	0.02	0.03		63.00		7.80
Acqui _monte	53.1	E1_Tr 20	152.22	151.72	0.50	0.02	0.05		63.00		7.80
Acqui _monte	53	E1_Tr 20	152.15	151.13	1.01	0.09	0.00		63.00		6.95
Acqui _monte	52	E1_Tr 20	151.98	150.50	1.48	0.12	0.05		63.00		6.95
Acqui _monte	51	E1_Tr 20	151.79	150.12	1.67	0.17	0.02		63.00		7.00
Acqui _monte	50.1	E1_Tr 20	151.75	149.95	1.80	0.03	0.01		63.00		7.20
Acqui _monte	50	E1_Tr 20	151.17	149.91	1.27	0.42	0.16		63.00		7.20
Acqui _monte	49	E1_Tr 20	151.04	149.85	1.20	0.10	0.08		63.00		7.20
Acqui _monte	48	E1_Tr 20	150.93	149.71	1.22	0.12	0.00		63.00		7.20
Acqui _monte	47	E1_Tr 20	150.81	149.58	1.23	0.12	0.00		63.00		7.20
Acqui _monte	46	E1_Tr 20	150.68	149.48	1.20	0.11	0.07		63.00		7.20
Acqui _monte	45	E1_Tr 20	150.61	149.39	1.22	0.07	0.00		63.00		7.20
Acqui _monte	44.1	E1_Tr 20	150.57	149.22	1.35	0.02	0.01		63.00		7.20
Acqui _monte	44	E1_Tr 20	150.45	149.09	1.36	0.11	0.00		63.00		7.20
Acqui_valle	43	E1_Tr 20	150.32	149.08	1.23	0.11	0.11		63.00		7.18
Acqui_valle	42	E1_Tr 20	150.22	149.42	0.79	0.06	0.02		63.00		7.18
Acqui_valle	41	E1_Tr 20	150.13	149.41	0.72	0.05	0.02		63.00		7.18
Acqui_valle	40	E1_Tr 20	150.06	149.41	0.65	0.02	0.01		63.00		7.18
Acqui_valle	39	E1_Tr 20	150.03	149.40	0.63	0.03	0.04		63.00		7.18
Acqui_valle	38.4	E1_Tr 20	149.95	148.90	1.05	0.21	0.00		63.00		6.60
Acqui_valle	38.3	E1_Tr 20	149.59	147.85	1.74	0.29	0.07		63.00		6.60
Acqui_valle	38.2	E1_Tr 20	149.48	147.68	1.80	0.11	0.01		63.00		6.60
Acqui_valle	38.1	E1_Tr 20	149.44	147.73	1.71	0.01	0.03		63.00		6.60
Acqui_valle	38	E1_Tr 20	149.38	147.62	1.76	0.05	0.01		63.00		6.60
Acqui_valle	37.4	E1_Tr 20	149.33	147.54	1.79	0.05	0.00		63.00		6.60
Acqui_valle	37.3	E1_Tr 20	149.29	147.31	1.98	0.01	0.02		63.00		6.60
Acqui_valle	37.2	E1_Tr 20	149.00	147.25	1.75	0.23	0.07		63.00		6.65
Acqui_valle	37.1	E1_Tr 20	148.56	147.06	1.49	0.36	0.08		63.00		7.00
Acqui_valle	37	E1_Tr 20	148.15	146.64	1.51	0.40	0.00		63.00		7.00

HEC-RAS Plan: SCENARIO E Profile: E1_Tr 20 (Continued)

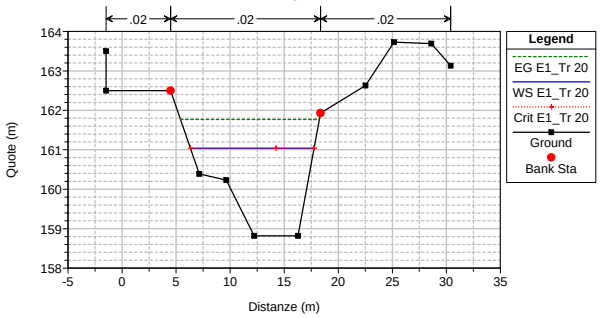
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	36	E1_Tr 20	147.96	146.50	1.45	0.18	0.02		63.00		7.00
Acqui_valle	35	E1_Tr 20	147.49	145.53	1.95	0.42	0.05		63.00		9.24
Acqui_valle	34.1	E1_Tr 20	147.47	145.48	1.98	0.02	0.00		63.00		9.24
Acqui_valle	34	E1_Tr 20	146.85	144.04	2.81	0.54	0.08		37.00		9.24
Acqui_valle	33.3	E1_Tr 20	145.55	144.01	1.54	0.92	0.38		37.00		9.24
Acqui_valle	33.2	E1_Tr 20	144.96	144.62	0.34	0.05	0.02		37.00		9.24
Acqui_valle	33.1	E1_Tr 20	144.89	144.63	0.26	0.07	0.04		37.00		9.24
Acqui_valle	33.0	E1_Tr 20	144.78	144.07	0.71	0.21	0.04		37.00		7.00
Acqui_valle	32.3	E1_Tr 20	144.45	143.51	0.94	0.30	0.02		37.00		7.00
Acqui_valle	32.2	E1_Tr 20	144.25	143.88	0.37	0.08	0.03		37.00		7.00
Acqui_valle	32.1	E1_Tr 20	144.14	143.88	0.26	0.05	0.02		37.00		7.00
Acqui_valle	32	E1_Tr 20	144.07	143.87	0.20	0.00	0.00		37.00		7.00
Acqui_valle	31.1	E1_Tr 20	144.07	143.87	0.20	0.07	0.03		37.00		7.00
Acqui_valle	31	E1_Tr 20	143.97	143.87	0.11				37.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	E1_Tr 20	143.80	143.69	0.11				37.00		7.00


SCENARIO E 2013/07/08
Geom: progetto feb 2012
Legend
EG E1_Tr 20
WS E1_Tr 20
Crit E1_Tr 20
Ground
Quote (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
Distanze progressive (m)

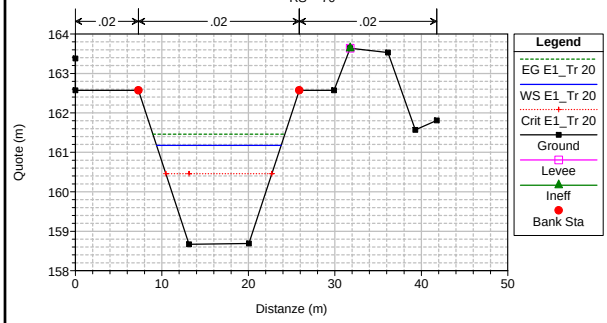
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 72



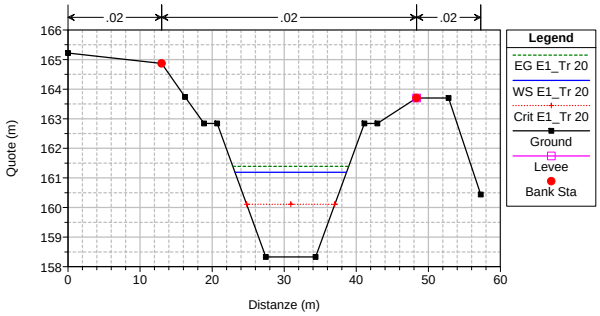
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 71



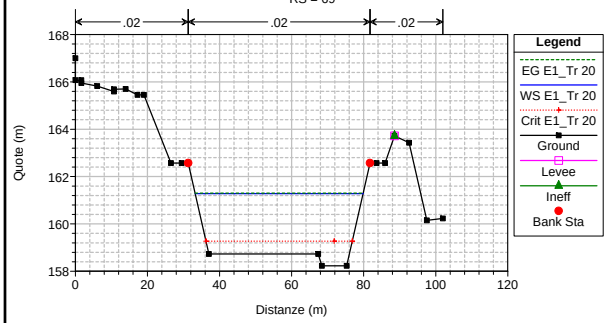
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 70



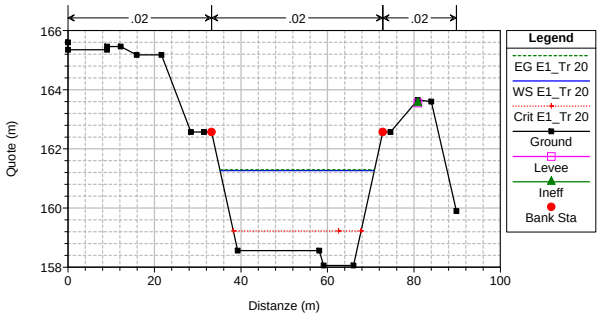
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 69.50



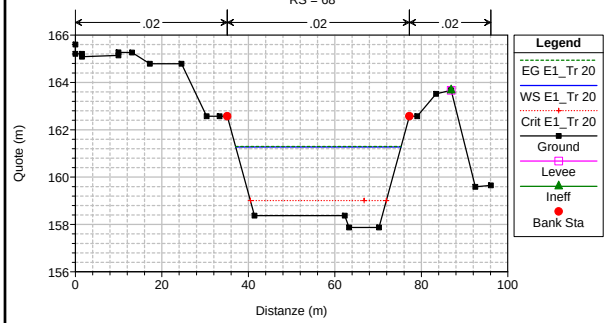
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 69



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 68.5



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 68



SCENARIO E 2013/07/08
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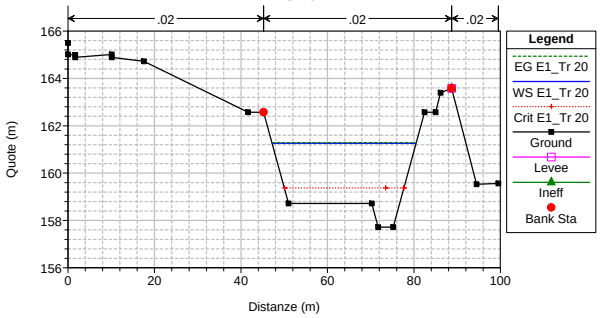
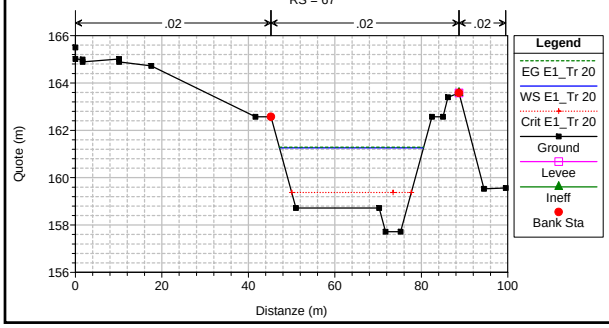
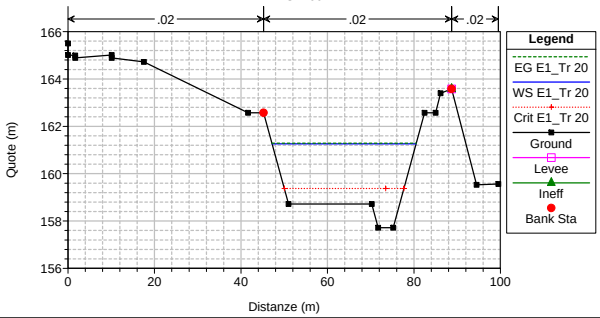
RS = 67.1



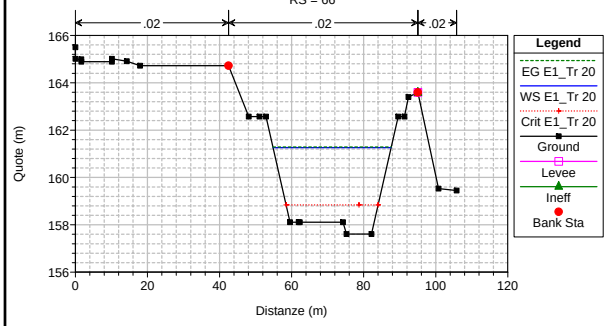
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 67



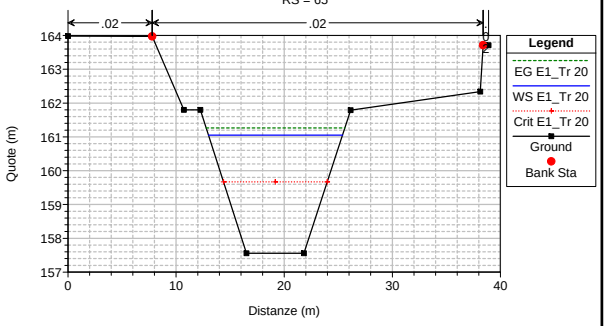
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 66.1



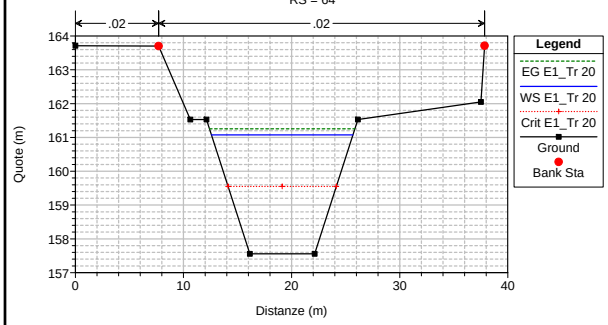
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 66



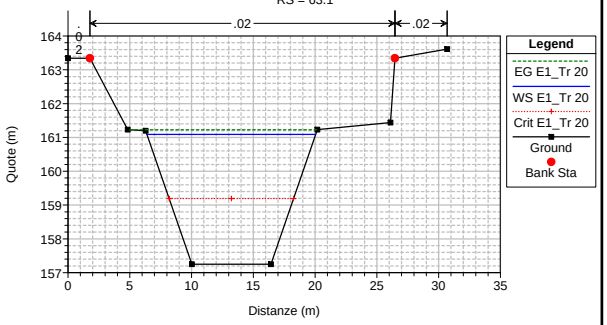
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 65



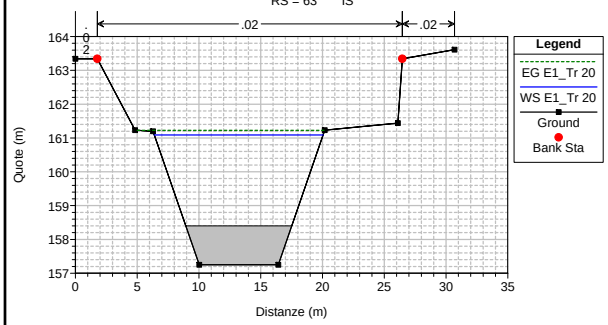
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 64



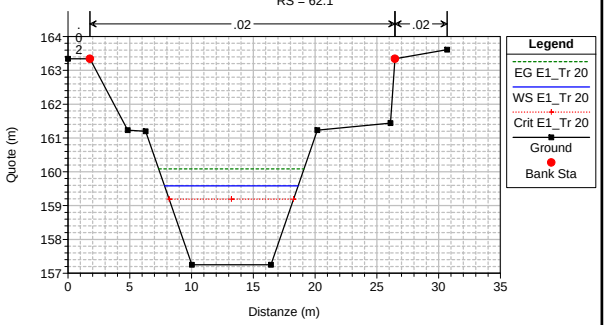
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 63.1



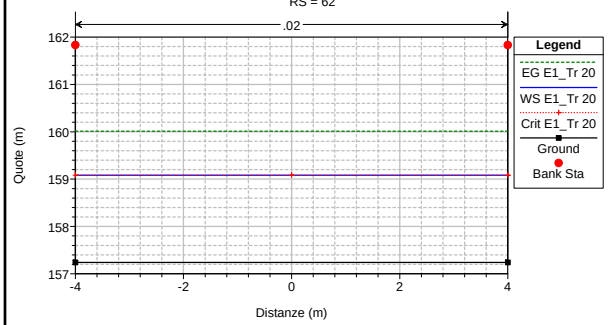
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 63 IS



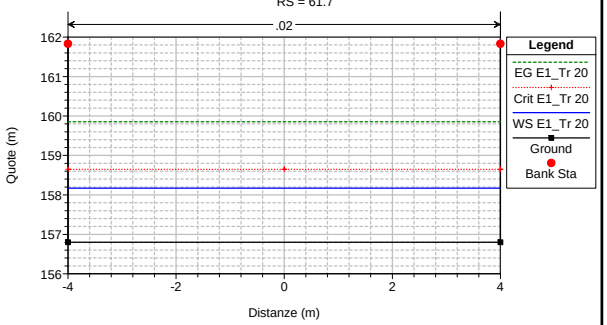
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 62.1



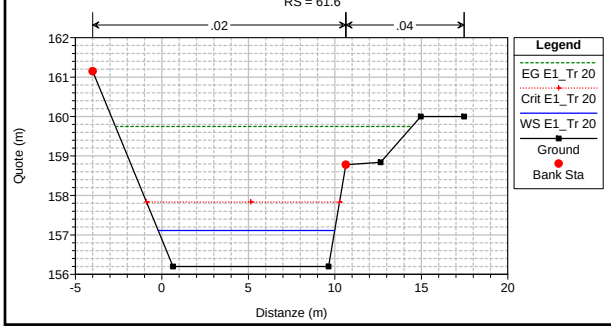
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 62



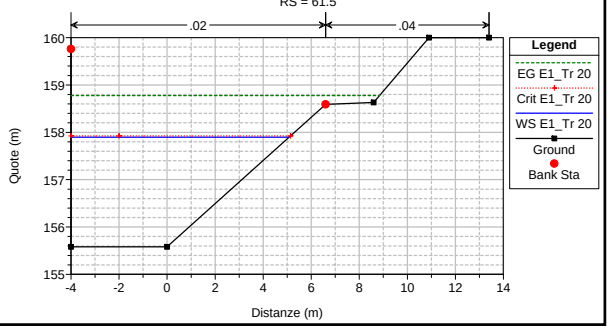
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.7



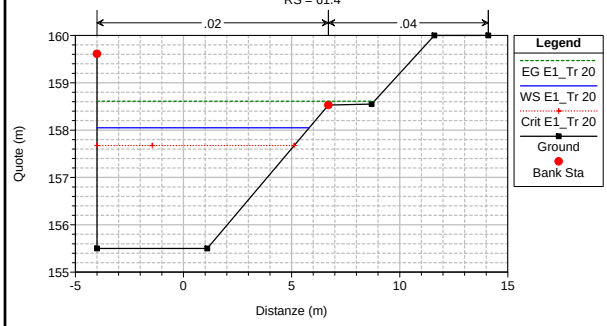
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.6



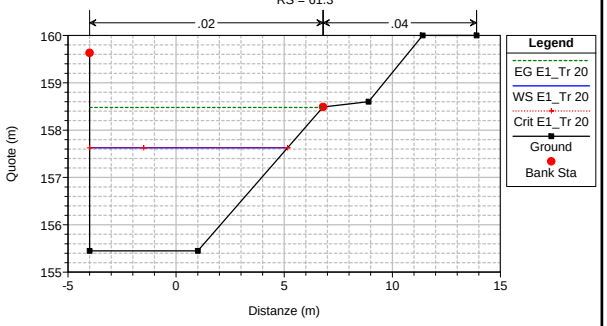
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.5



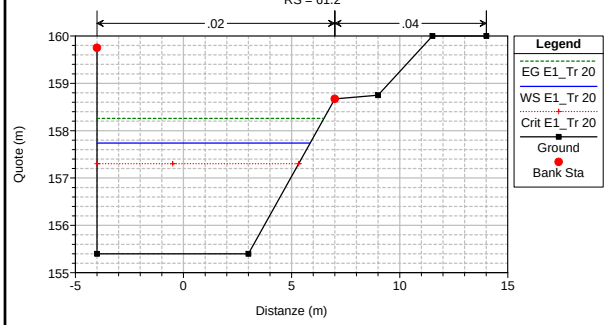
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.4



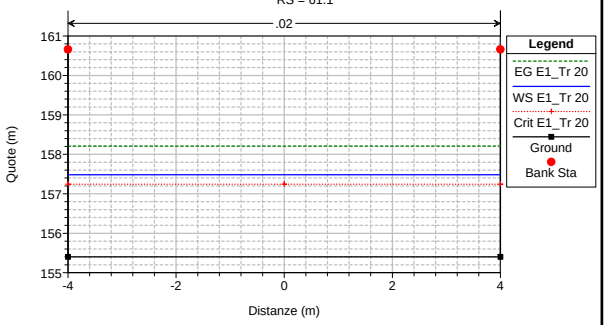
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.3



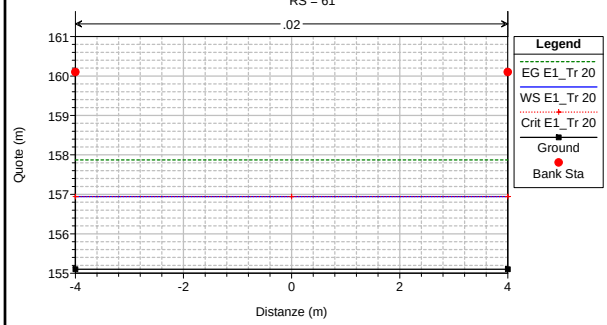
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.2



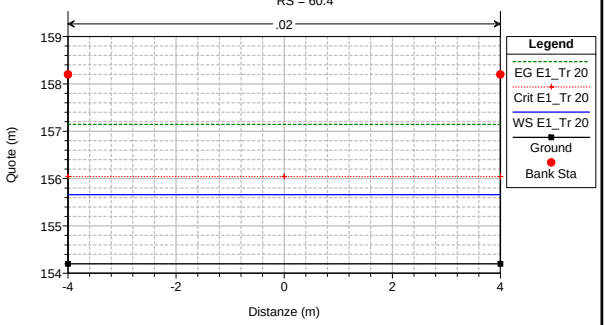
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.1



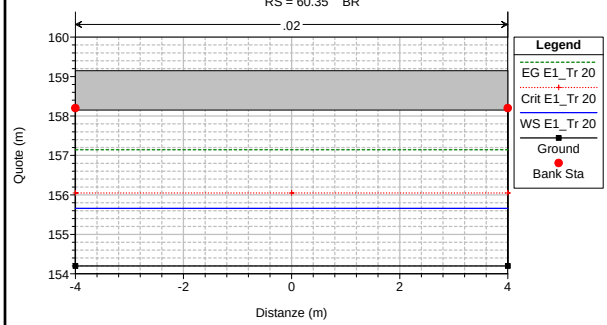
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61



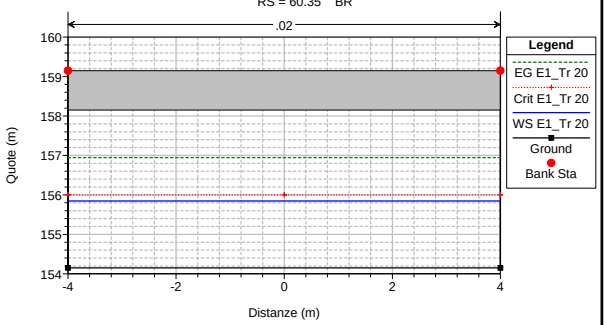
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.4



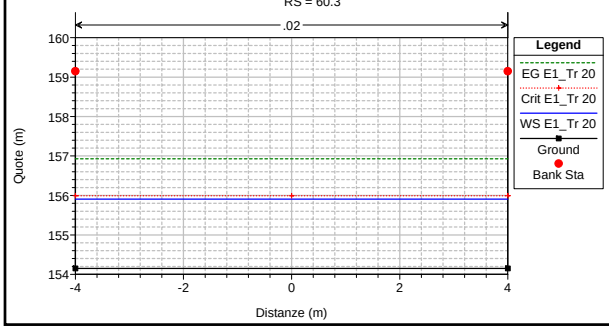
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.35 BR



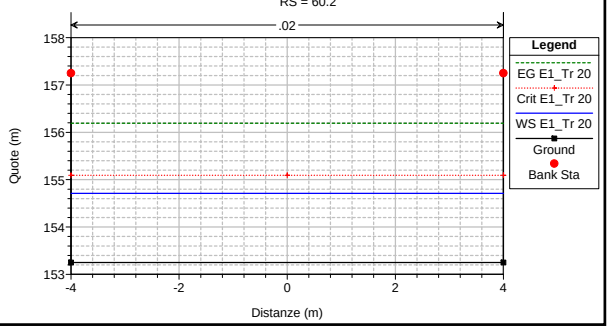
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.35 BR



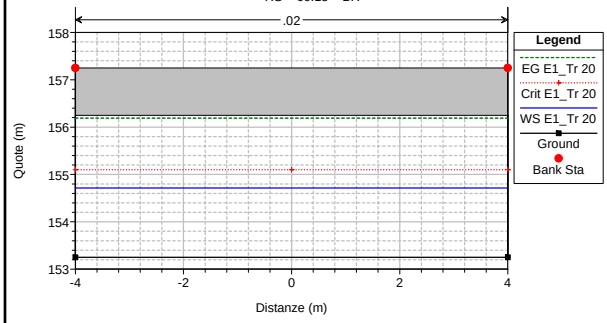
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.3



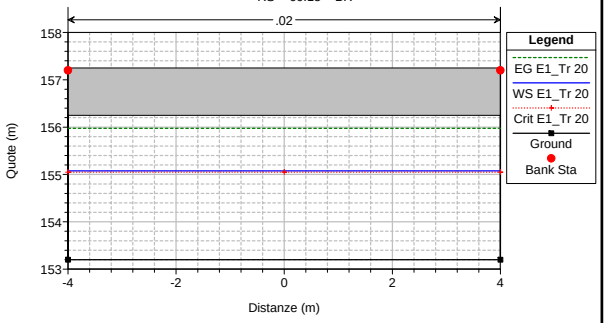
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.2



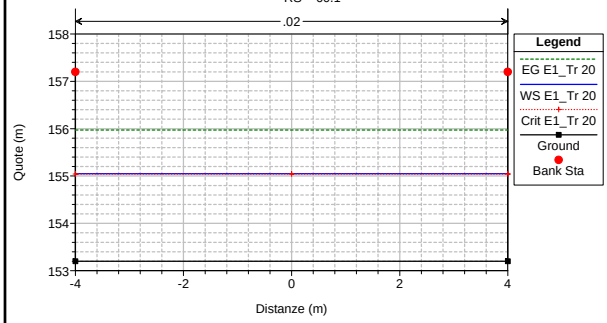
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.15 BR



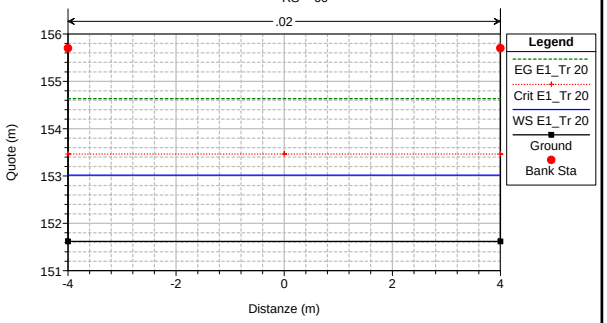
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.15 BR



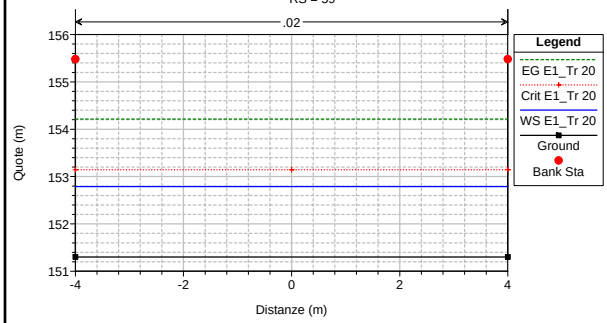
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.1



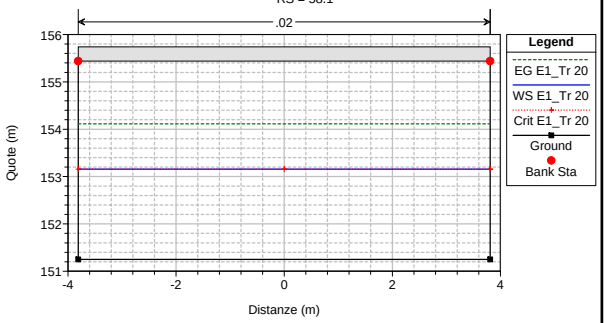
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60



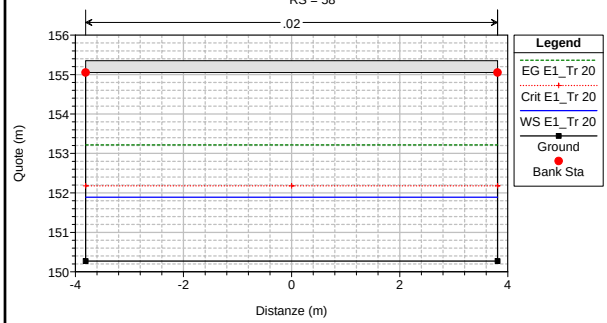
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 59



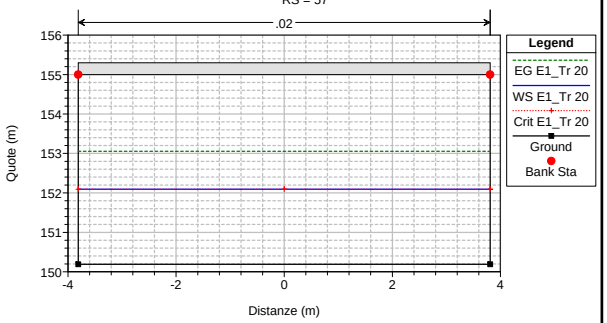
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 58.1



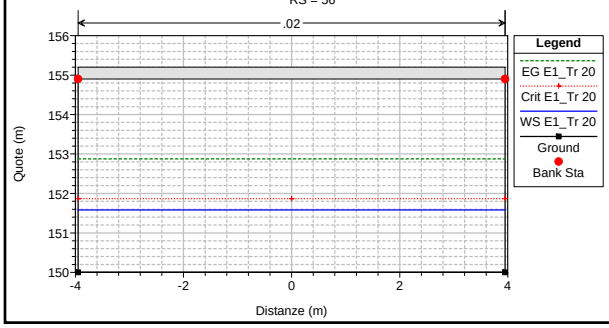
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 58



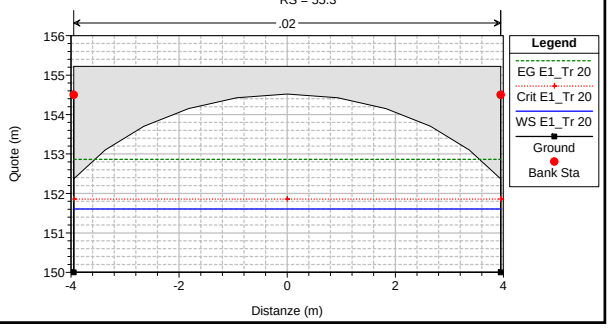
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 57



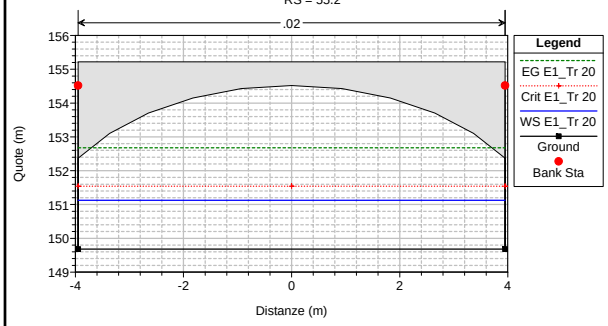
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 56



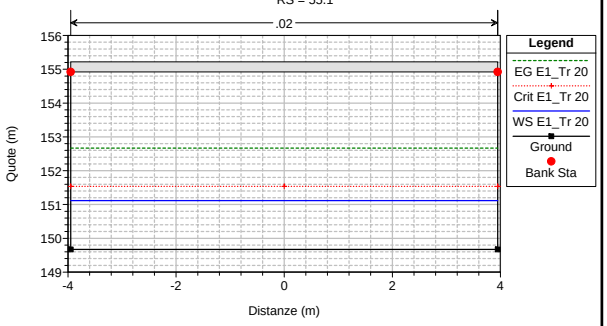
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.3



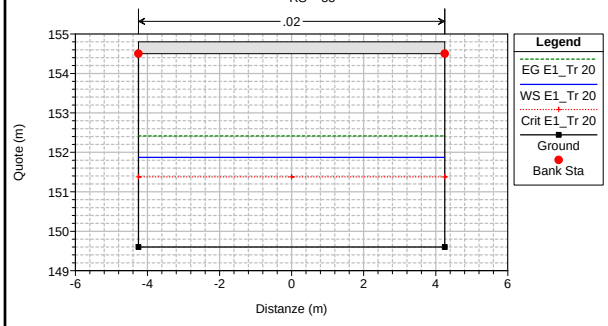
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.2



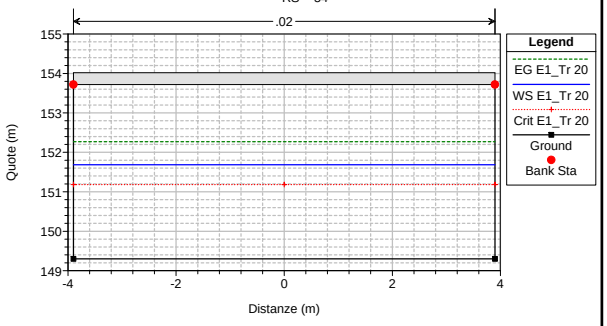
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.1



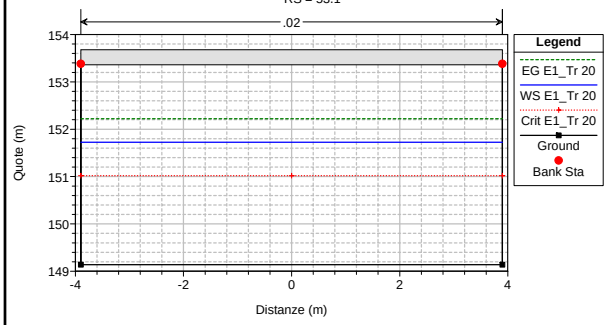
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55



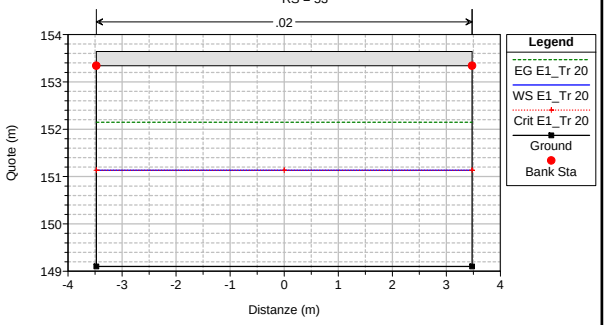
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 54



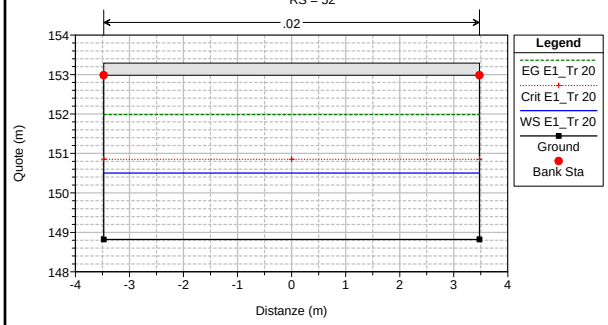
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 53.1



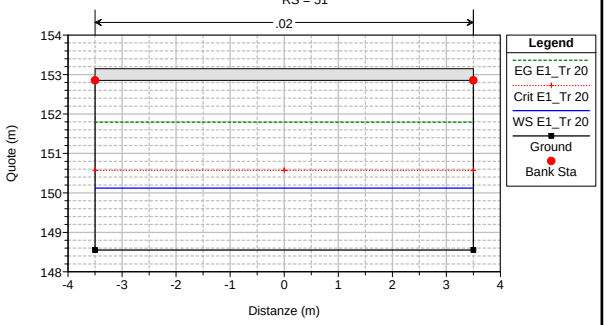
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 53



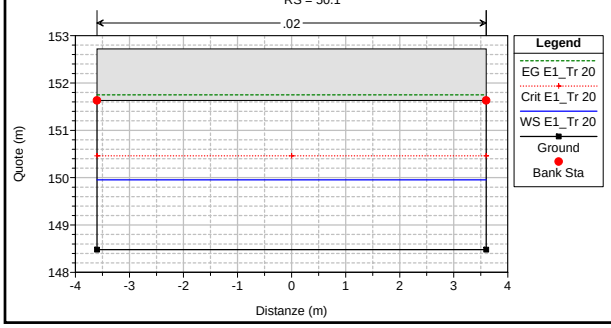
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 52



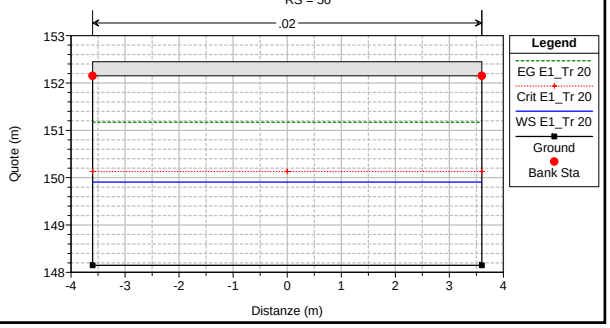
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 51



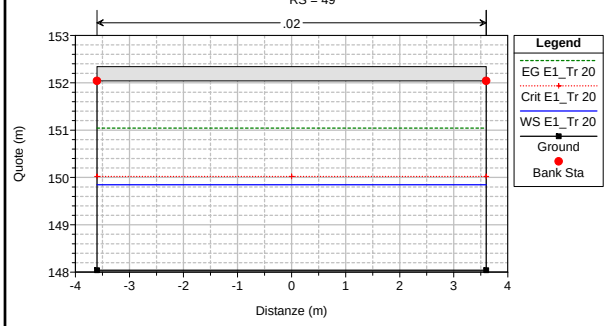
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 50.1



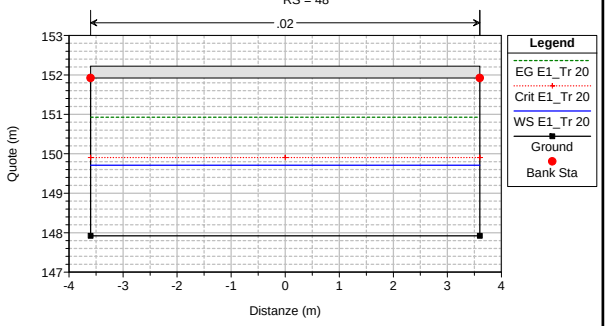
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 50



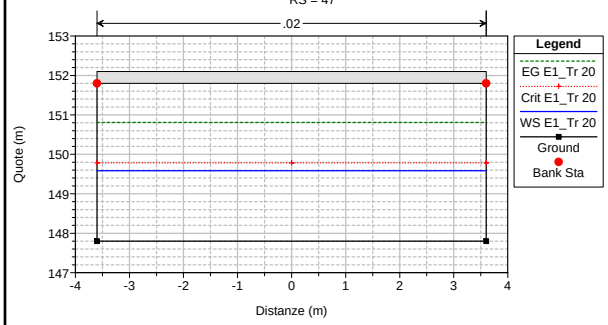
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 49



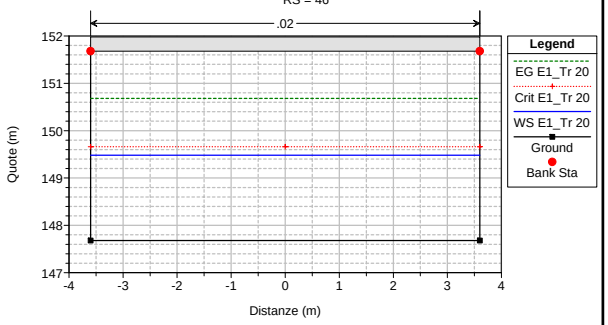
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 48



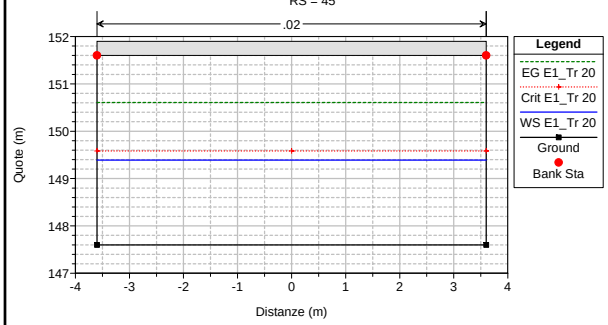
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 47



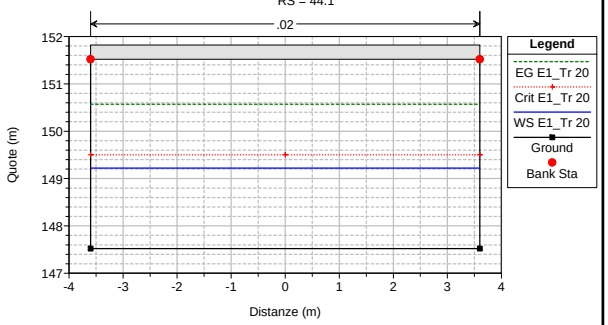
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 46



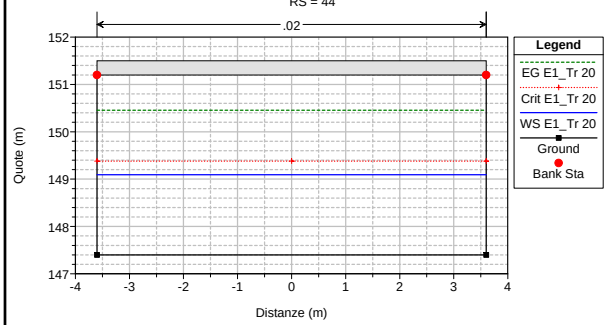
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 45



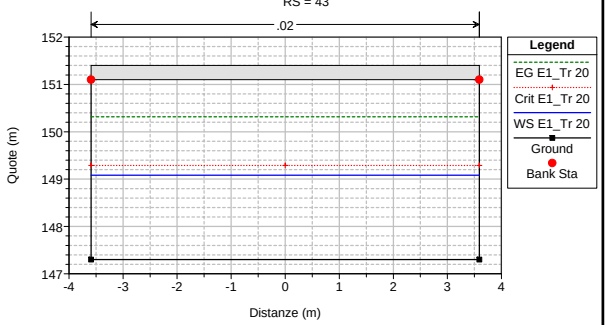
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 44.1



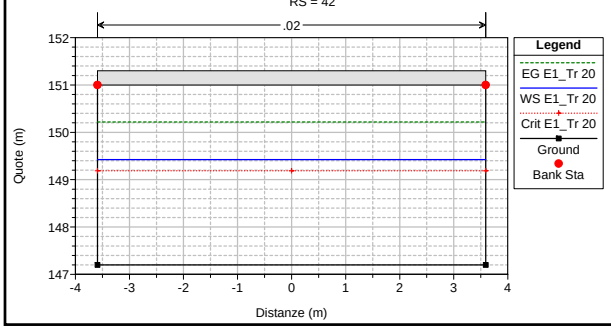
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 44



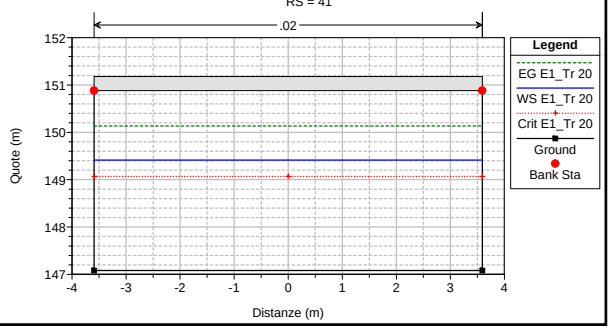
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 43



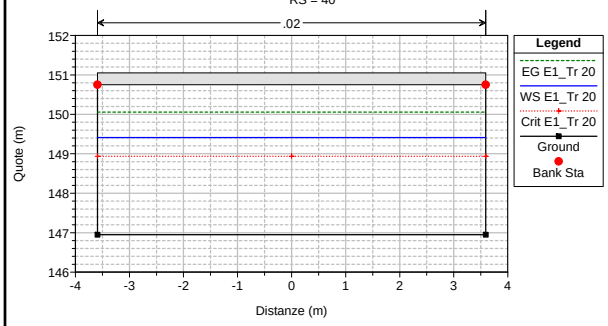
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 42



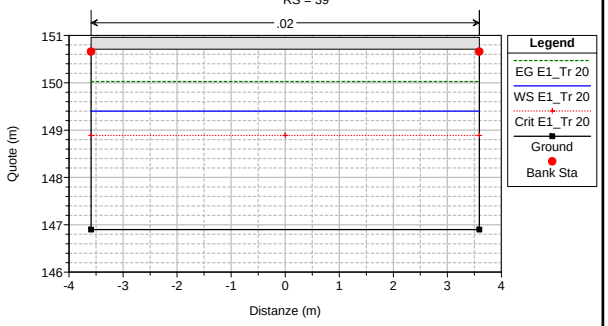
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 41



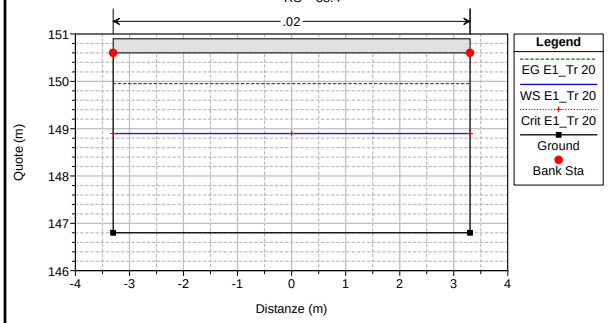
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 40



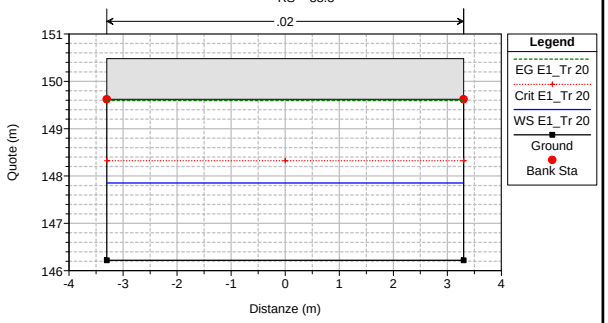
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 39



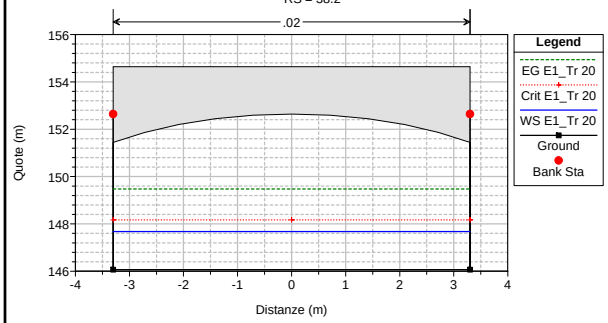
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.4



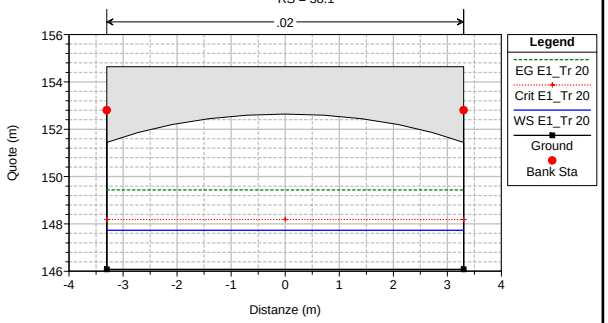
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.3



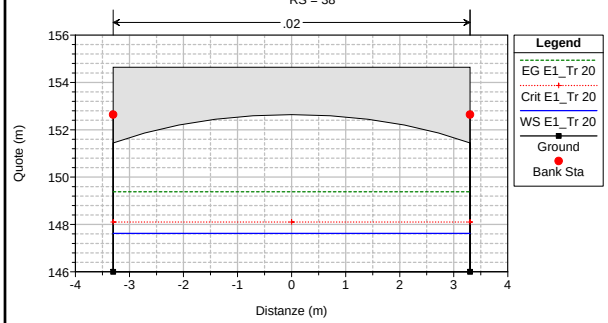
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.2



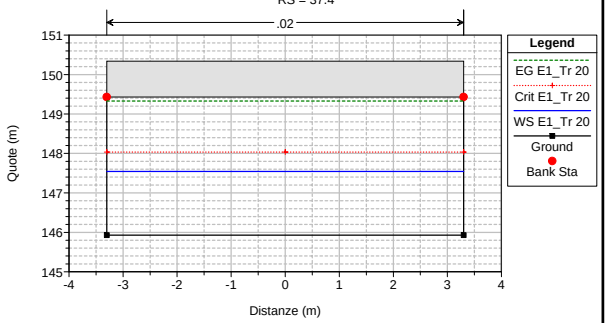
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.1



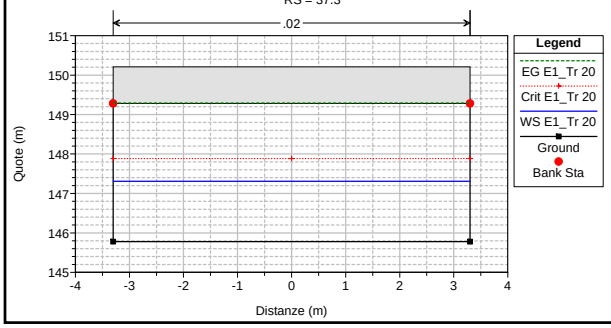
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38



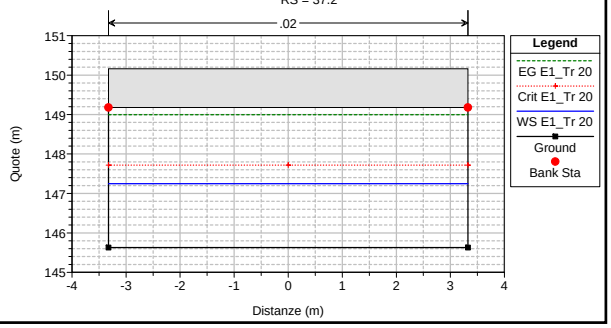
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.4



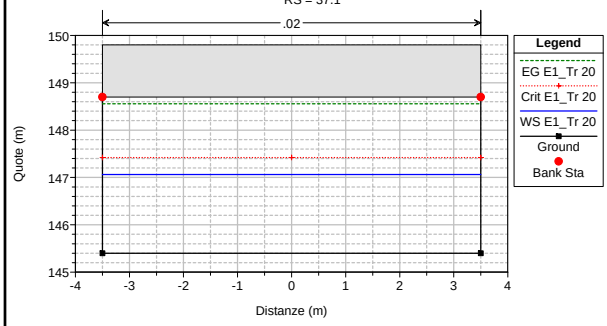
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.3



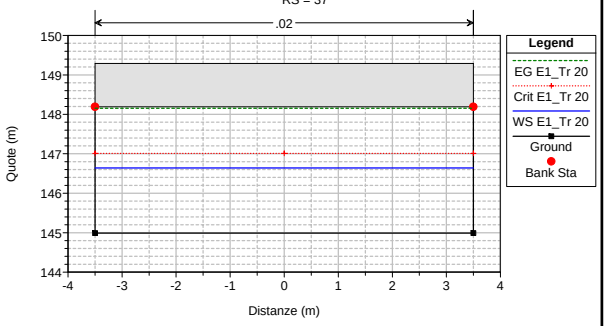
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.2



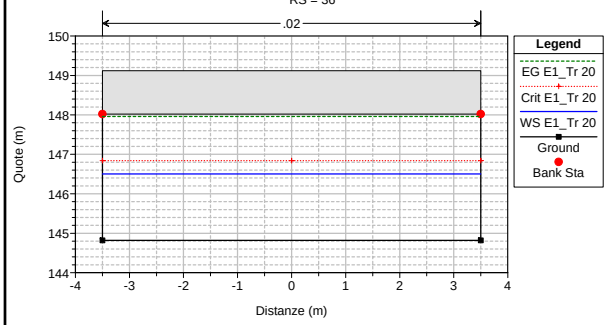
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.1



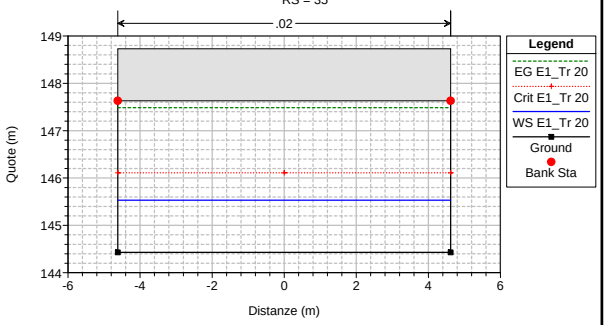
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37



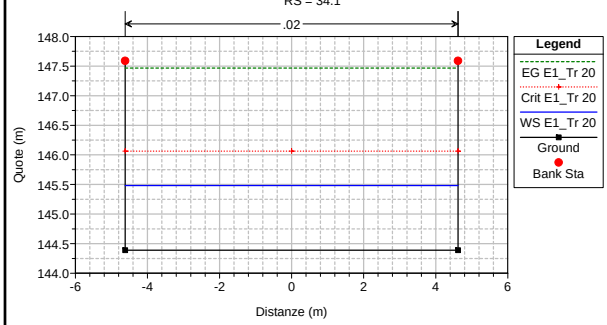
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 36



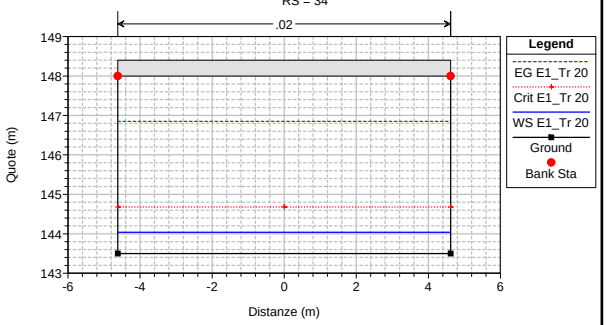
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 35



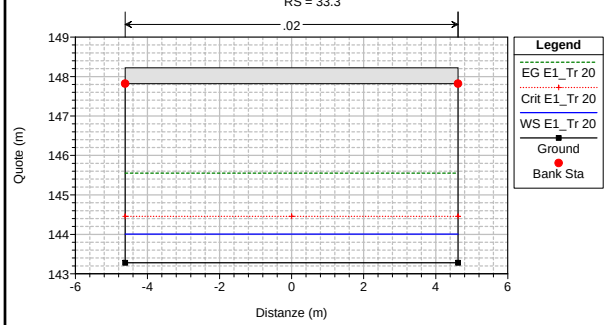
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 34.1



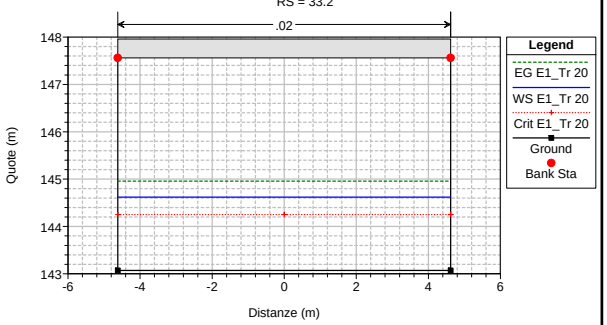
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 34



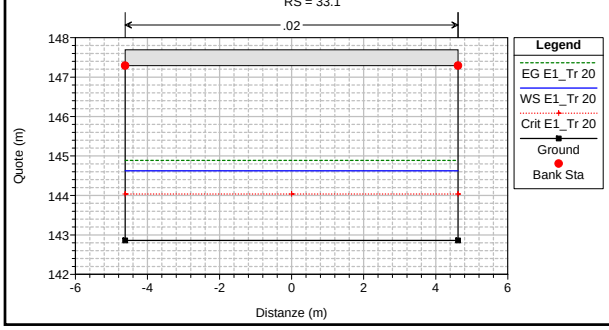
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.3



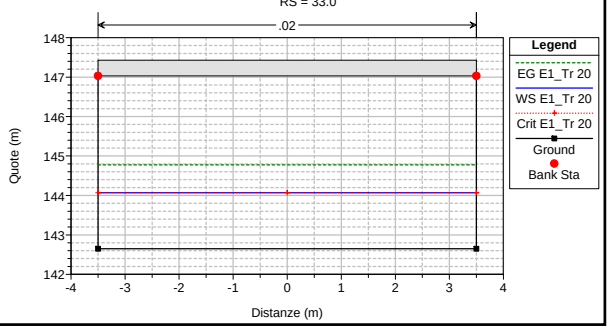
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.2



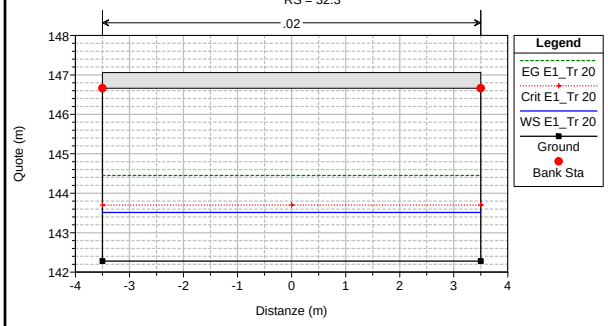
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.1



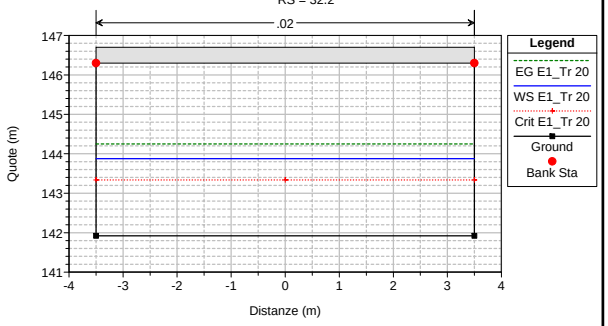
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.0



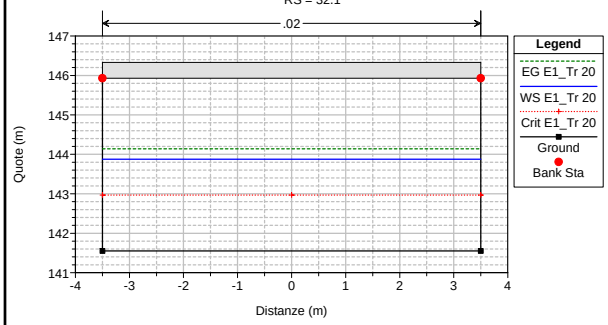
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.3



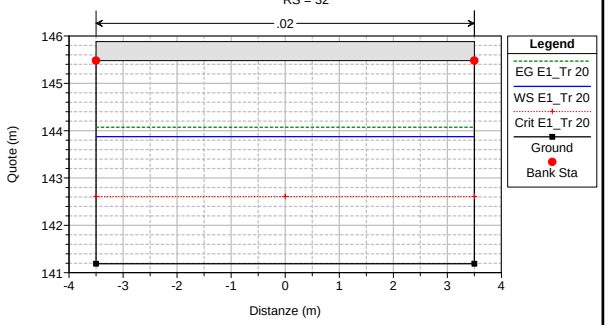
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.2



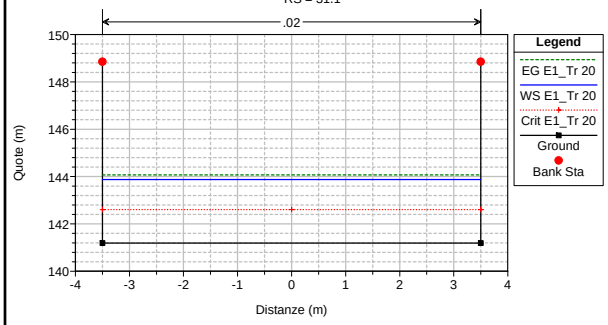
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.1



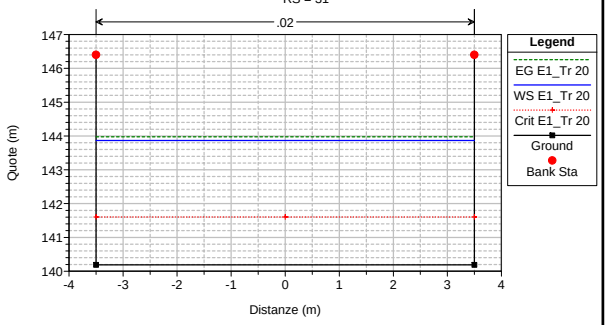
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32



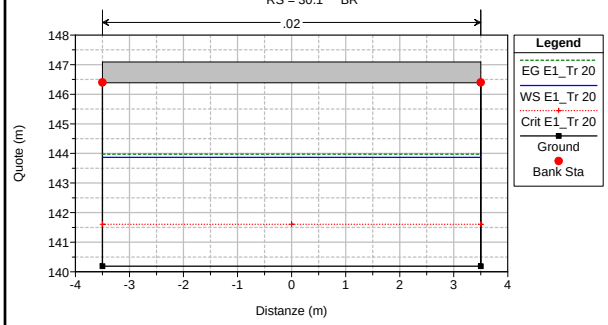
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 31.1



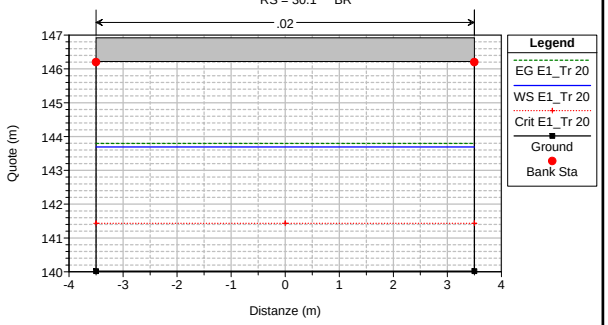
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 31



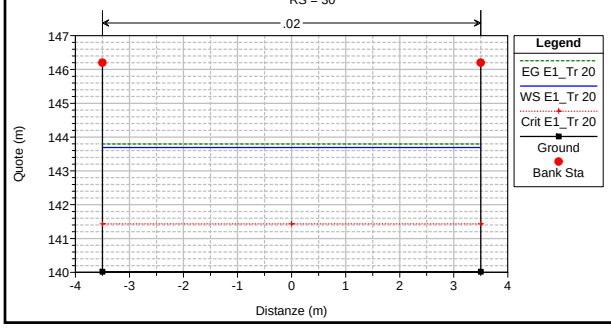
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 30



Scenario E2)

Progetto finanziato 2011 e perizia 2012

Rio Medrio Tempo di ritorno Tr = 200 anni

Portata a monte della confluenza rio Usignolo Q = 107 mc/s

Portata a valle della confluenza rio Usignolo Q = 120 mc/s

Portata a valle dello scolmatore Q = 94 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

NOTA:

LA SIMULAZIONE CON IL TEMPO DI RITORNO DUECENTENNALE NEL FIUME BORMIDA VIENE OMESSA IN QUANTO GLI INTERVENTI RICADONO IN UN TRATTO DEL RIO MEDRIO NON INFLUENZATO DAI LIVELLI DEL FIUME BORMIDA

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	E2_Tr 200	107.00	159.08	162.69	161.40	162.92	0.000634	2.10	51.01	20.96	0.43
Acqui _monte	71	E2_Tr 200	107.00	158.82	161.68	161.68	162.66	0.004018	4.38	24.42	12.68	1.01
Acqui _monte	70	E2_Tr 200	107.00	158.67	161.86	161.10	162.28	0.001288	2.87	37.26	16.47	0.61
Acqui _monte	69.50	E2_Tr 200	107.00	158.33	161.89	160.75	162.19	0.000842	2.46	43.52	17.57	0.50
Acqui _monte	69	E2_Tr 200	107.00	158.23	162.02	159.54	162.05	0.000050	0.72	148.49	48.83	0.13
Acqui _monte	68.5	E2_Tr 200	107.00	158.06	162.00	159.56	162.05	0.000082	0.92	116.53	37.87	0.17
Acqui _monte	68	E2_Tr 200	107.00	157.87	162.01	159.33	162.04	0.000060	0.82	131.16	40.44	0.14
Acqui _monte	67.1	E2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.85	35.48	0.19
Acqui _monte	67	E2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.84	35.48	0.19
Acqui _monte	66.1	E2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.83	35.48	0.19
Acqui _monte	66	E2_Tr 200	107.00	157.61	161.99	159.21	162.03	0.000074	0.91	117.03	34.97	0.16
Acqui _monte	65	E2_Tr 200	107.00	157.56	161.59	160.42	162.00	0.001080	2.83	37.87	13.49	0.54
Acqui _monte	64	E2_Tr 200	107.00	157.56	161.63	160.28	161.97	0.001093	2.58	41.42	17.90	0.54
Acqui _monte	63.1	E2_Tr 200	107.00	157.25	161.67	159.90	161.91	0.000785	2.17	49.40	21.95	0.46
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	E2_Tr 200	107.00	157.25	160.81	159.90	161.29	0.001365	3.07	34.80	13.14	0.60
Acqui _monte	62	E2_Tr 200	107.00	157.24	159.86	159.86	161.19	0.005625	5.10	20.99	8.00	1.00
Acqui _monte	61.7	E2_Tr 200	107.00	156.80	158.85	159.43	161.02	0.011364	6.53	16.39	8.00	1.46
Acqui _monte	61.6	E2_Tr 200	107.00	156.20	157.53	158.49	160.89	0.023939	8.12	13.18	10.77	2.34
Acqui _monte	61.5	E2_Tr 200	107.00	155.58	158.55	158.71	159.81	0.005632	4.97	21.53	10.51	1.11
Acqui _monte	61.4	E2_Tr 200	107.00	155.50	158.96	158.45	159.66	0.002351	3.73	29.51	13.51	0.73
Acqui _monte	61.3	E2_Tr 200	107.00	155.45	158.83	158.40	159.59	0.002595	3.85	28.38	13.32	0.77
Acqui _monte	61.2	E2_Tr 200	107.00	155.40	158.91	158.04	159.48	0.001701	3.33	32.56	13.33	0.62
Acqui _monte	61.1	E2_Tr 200	107.00	155.40	158.39	158.02	159.41	0.003902	4.47	23.94	8.00	0.82
Acqui _monte	61	E2_Tr 200	107.00	155.10	157.72	157.72	159.05	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.4	E2_Tr 200	107.00	154.20	156.36	156.83	158.32	0.009827	6.20	17.24	8.00	1.35
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	E2_Tr 200	107.00	154.15	156.77	156.77	158.10	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.2	E2_Tr 200	107.00	153.25	155.38	155.87	157.38	0.010104	6.27	17.08	8.00	1.37
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	E2_Tr 200	107.00	153.20	155.83	155.82	157.15	0.005587	5.08	21.04	8.00	1.00
Acqui _monte	60	E2_Tr 200	107.00	151.62	153.70	154.24	155.81	0.010936	6.44	16.61	8.00	1.43
Acqui _monte	59	E2_Tr 200	107.00	151.30	154.52	153.92	155.40	0.003197	4.16	25.74	8.00	0.74
Acqui _monte	58.1	E2_Tr 200	107.00	151.25	153.97	153.97	155.33	0.005772	5.17	20.71	7.62	1.00
Acqui _monte	58	E2_Tr 200	107.00	150.27	152.65	152.99	154.42	0.008323	5.89	18.17	7.62	1.22

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	57	E2_Tr 200	107.00	150.19	152.90	152.90	154.27	0.005802	5.18	20.67	7.62	1.00
Acqui _monte	56	E2_Tr 200	107.00	150.00	152.28	152.66	154.08	0.008622	5.94	18.02	7.90	1.25
Acqui _monte	55.3	E2_Tr 200	107.00	150.00	152.31	152.62	154.06	0.008316	5.86	18.25	7.90	1.23
Acqui _monte	55.2	E2_Tr 200	107.00	149.68	152.95	152.34	153.84	0.003368	4.18	25.57	6.97	0.74
Acqui _monte	55.1	E2_Tr 200	107.00	149.67	152.97	152.33	153.83	0.003077	4.10	26.09	7.90	0.72
Acqui _monte	55	E2_Tr 200	107.00	149.60	153.05	152.13	153.73	0.002261	3.65	29.30	8.50	0.63
Acqui _monte	54	E2_Tr 200	107.00	149.30	152.80	151.97	153.58	0.002710	3.92	27.32	7.80	0.67
Acqui _monte	53.1	E2_Tr 200	107.00	149.14	152.84	151.82	153.54	0.002347	3.71	28.82	7.80	0.62
Acqui _monte	53	E2_Tr 200	107.00	149.10	151.99	151.99	153.44	0.006187	5.33	20.08	6.95	1.00
Acqui _monte	52	E2_Tr 200	107.00	148.82	151.30	151.71	153.26	0.009409	6.21	17.24	6.95	1.26
Acqui _monte	51	E2_Tr 200	107.00	148.55	150.88	151.43	153.07	0.011036	6.57	16.29	7.00	1.37
Acqui _monte	50.1	E2_Tr 200	107.00	148.48	150.66	151.31	153.03	0.012398	6.82	15.68	7.20	1.48
Acqui _monte	50	E2_Tr 200	107.00	148.15	150.69	150.98	152.43	0.008016	5.84	18.32	7.20	1.17
Acqui _monte	49	E2_Tr 200	107.00	148.04	150.60	150.87	152.32	0.007922	5.82	18.39	7.20	1.16
Acqui _monte	48	E2_Tr 200	107.00	147.92	150.49	150.75	152.19	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	47	E2_Tr 200	107.00	147.80	150.37	150.63	152.07	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	46	E2_Tr 200	107.00	147.68	150.24	150.51	151.96	0.007885	5.81	18.43	7.20	1.16
Acqui _monte	45	E2_Tr 200	107.00	147.60	150.17	150.43	151.87	0.007785	5.78	18.51	7.20	1.15
Acqui _monte	44.1	E2_Tr 200	107.00	147.52	149.99	150.35	151.84	0.008715	6.02	17.78	7.20	1.22
Acqui _monte	44	E2_Tr 200	107.00	147.40	149.86	150.23	151.72	0.008818	6.04	17.70	7.20	1.23
Acqui_valle	43	E2_Tr 200	120.00	147.30	151.06	150.35	152.07	0.003515	4.45	26.99	7.18	0.73
Acqui_valle	42	E2_Tr 200	120.00	147.20	151.00	150.25	151.99	0.005794	4.40	27.28		0.72
Acqui_valle	41	E2_Tr 200	120.00	147.08	150.91	150.13	151.90	0.005794	4.40	27.28		0.72
Acqui_valle	40	E2_Tr 200	120.00	146.95	150.82	150.00	151.80	0.005792	4.40	27.29		0.71
Acqui_valle	39	E2_Tr 200	120.00	146.90	150.78	149.96	151.76	0.005750	4.39	27.36		0.71
Acqui_valle	38.4	E2_Tr 200	120.00	146.80	150.03	150.03	151.64	0.006574	5.62	21.34	6.60	1.00
Acqui_valle	38.3	E2_Tr 200	120.00	146.22	148.87	149.45	151.27	0.011303	6.87	17.47	6.60	1.35
Acqui_valle	38.2	E2_Tr 200	120.00	146.07	148.67	149.30	151.16	0.011823	6.98	17.19	6.60	1.38
Acqui_valle	38.1	E2_Tr 200	120.00	146.08	148.76	149.31	151.11	0.010971	6.79	17.66	6.60	1.33
Acqui_valle	38	E2_Tr 200	120.00	146.00	148.64	149.23	151.06	0.011386	6.89	17.42	6.60	1.35
Acqui_valle	37.4	E2_Tr 200	120.00	145.93	148.55	149.16	151.01	0.011675	6.95	17.27	6.60	1.37
Acqui_valle	37.3	E2_Tr 200	120.00	145.78	148.28	149.01	150.97	0.013214	7.27	16.51	6.60	1.47
Acqui_valle	37.2	E2_Tr 200	120.00	145.63	148.21	148.84	150.70	0.011856	6.99	17.18	6.65	1.39
Acqui_valle	37.1	E2_Tr 200	120.00	145.40	147.91	148.51	150.28	0.011198	6.82	17.60	7.00	1.37
Acqui_valle	37	E2_Tr 200	120.00	144.99	147.57	148.10	149.82	0.010412	6.64	18.07	7.00	1.32

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	36	E2_Tr 200	120.00	144.82	147.46	147.93	149.61	0.009770	6.49	18.49	7.00	1.27
Acqui_valle	35	E2_Tr 200	120.00	144.43	146.13	147.01	149.10	0.017460	7.64	15.71	9.24	1.87
Acqui_valle	34.1	E2_Tr 200	120.00	144.39	146.08	146.97	149.08	0.017680	7.67	15.65	9.24	1.88
Acqui_valle	34	E2_Tr 200	94.00	143.50	144.67	145.69	148.53	0.033223	8.70	10.80	9.24	2.57
Acqui_valle	33.3	E2_Tr 200	94.00	143.28	144.63	145.47	147.53	0.021588	7.55	12.44	9.24	2.08
Acqui_valle	33.2	E2_Tr 200	94.00	143.07	146.32	145.26	146.82	0.001653	3.13	30.05	9.24	0.55
Acqui_valle	33.1	E2_Tr 200	94.00	142.86	146.32	145.05	146.76	0.001389	2.94	32.00	9.24	0.50
Acqui_valle	33.0	E2_Tr 200	94.00	142.65	145.29	145.29	146.61	0.005997	5.09	18.49	7.00	1.00
Acqui_valle	32.3	E2_Tr 200	94.00	142.28	144.69	144.92	146.27	0.007733	5.57	16.87	7.00	1.15
Acqui_valle	32.2	E2_Tr 200	94.00	141.92	144.32	144.56	145.91	0.007806	5.59	16.81	7.00	1.15
Acqui_valle	32.1	E2_Tr 200	94.00	141.55	143.93	144.19	145.55	0.007988	5.64	16.67	7.00	1.17
Acqui_valle	32	E2_Tr 200	94.00	141.19	143.58	143.83	145.19	0.007868	5.61	16.76	7.00	1.16
Acqui_valle	31.1	E2_Tr 200	94.00	141.19	143.59	143.83	145.18	0.007806	5.59	16.81	7.00	1.15
Acqui_valle	31	E2_Tr 200	94.00	140.19	143.94	142.83	144.59	0.002327	3.58	26.24	7.00	0.59
Acqui_valle	30.1		Bridge									
Acqui_valle	30	E2_Tr 200	94.00	140.02	143.69	142.66	144.37	0.002461	3.66	25.69	7.00	0.61

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200

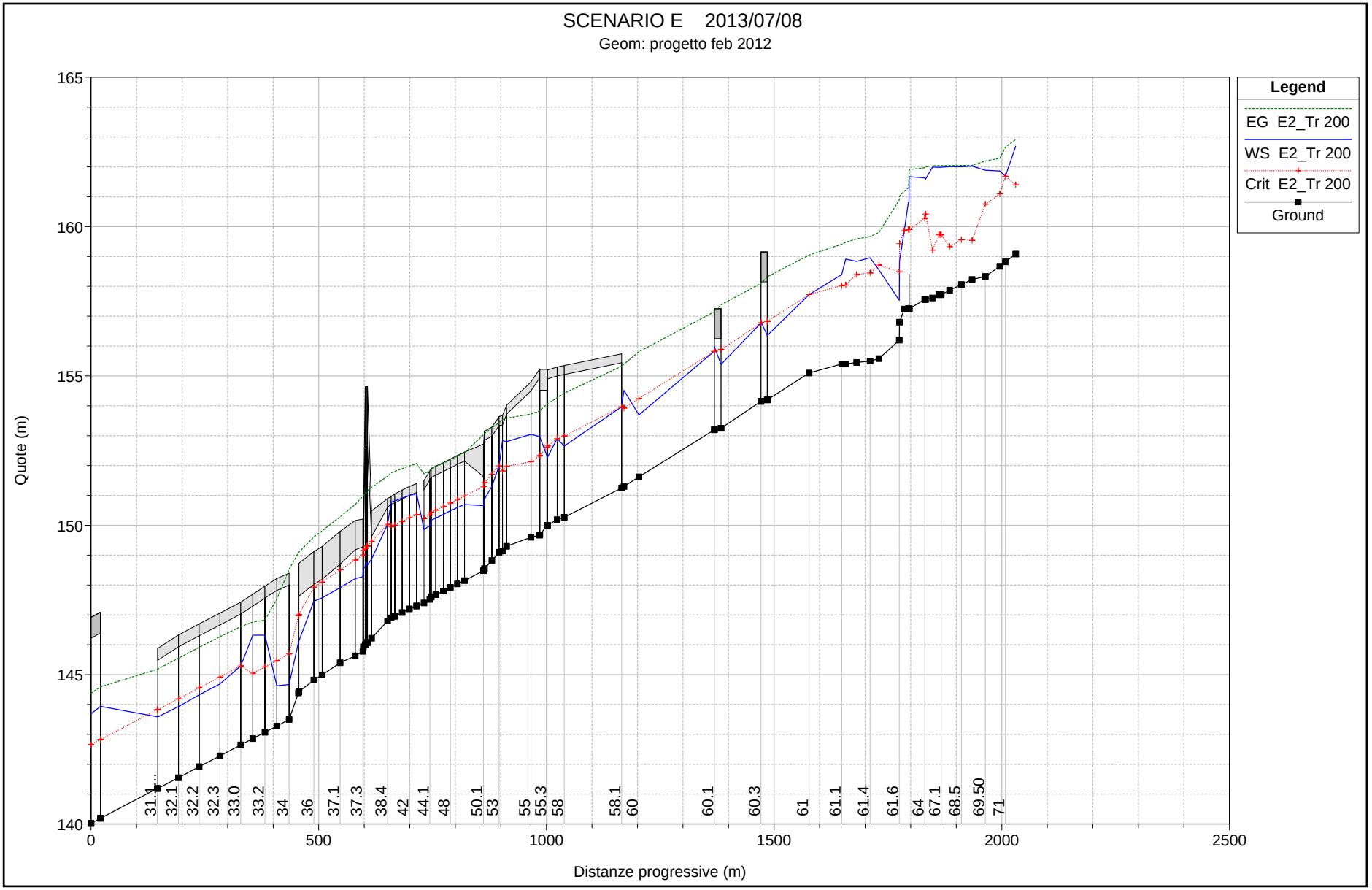
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	E2_Tr 200	162.92	162.69	0.22	0.03	0.23		107.00		20.96
Acqui _monte	71	E2_Tr 200	162.66	161.68	0.98	0.03	0.28		107.00		12.68
Acqui _monte	70	E2_Tr 200	162.28	161.86	0.42	0.03	0.06		107.00		16.47
Acqui _monte	69.50	E2_Tr 200	162.19	161.89	0.31	0.00	0.14		107.00		17.57
Acqui _monte	69	E2_Tr 200	162.05	162.02	0.03	0.00	0.00		107.00		48.83
Acqui _monte	68.5	E2_Tr 200	162.05	162.00	0.04	0.00	0.00		107.00		37.87
Acqui _monte	68	E2_Tr 200	162.04	162.01	0.03	0.00	0.00		107.00		40.44
Acqui _monte	67.1	E2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	67	E2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	66.1	E2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	66	E2_Tr 200	162.03	161.99	0.04	0.00	0.04		107.00		34.97
Acqui _monte	65	E2_Tr 200	162.00	161.59	0.41	0.00	0.02		107.00		13.49
Acqui _monte	64	E2_Tr 200	161.97	161.63	0.34	0.03	0.03		107.00		17.90
Acqui _monte	63.1	E2_Tr 200	161.91	161.67	0.24				107.00		21.95
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	E2_Tr 200	161.29	160.81	0.48	0.02	0.08		107.00		13.14
Acqui _monte	62	E2_Tr 200	161.19	159.86	1.32	0.06	0.00		107.00		8.00
Acqui _monte	61.7	E2_Tr 200	161.02	158.85	2.17	0.08	0.09		107.00		8.00
Acqui _monte	61.6	E2_Tr 200	160.89	157.53	3.36	0.01	0.12		107.00		10.77
Acqui _monte	61.5	E2_Tr 200	159.81	158.55	1.26	0.45	0.63		107.00		10.51
Acqui _monte	61.4	E2_Tr 200	159.66	158.96	0.71	0.07	0.00		106.41	0.59	13.51
Acqui _monte	61.3	E2_Tr 200	159.59	158.83	0.75	0.05	0.06		106.67	0.33	13.32
Acqui _monte	61.2	E2_Tr 200	159.48	158.91	0.56	0.02	0.05		106.85	0.15	13.33
Acqui _monte	61.1	E2_Tr 200	159.41	158.39	1.02	0.33	0.03		107.00		8.00
Acqui _monte	61	E2_Tr 200	159.05	157.72	1.32	0.43	0.09		107.00		8.00
Acqui _monte	60.4	E2_Tr 200	158.32	156.36	1.96	0.67	0.06		107.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	E2_Tr 200	158.10	156.77	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60.2	E2_Tr 200	157.38	155.38	2.00	0.65	0.07		107.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	E2_Tr 200	157.15	155.83	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60	E2_Tr 200	155.81	153.70	2.11	1.26	0.08		107.00		8.00
Acqui _monte	59	E2_Tr 200	155.40	154.52	0.88	0.02	0.05		107.00		8.00
Acqui _monte	58.1	E2_Tr 200	155.33	153.97	1.36	0.65	0.06		107.00		7.62
Acqui _monte	58	E2_Tr 200	154.42	152.65	1.77	0.87	0.04		107.00		7.62

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200 (Continued)

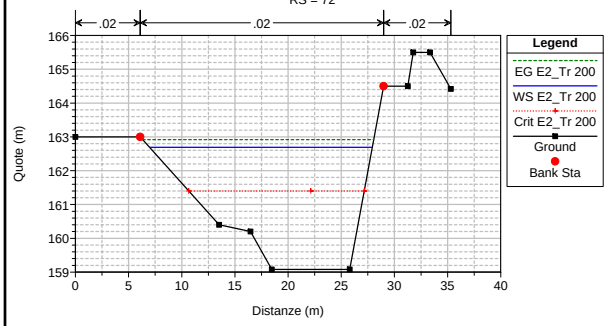
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	57	E2_Tr 200	154.27	152.90	1.36	0.10	0.09		107.00		7.62
Acqui _monte	56	E2_Tr 200	154.08	152.28	1.80	0.15	0.04		107.00		7.90
Acqui _monte	55.3	E2_Tr 200	154.06	152.31	1.75	0.01	0.13		107.00		7.90
Acqui _monte	55.2	E2_Tr 200	153.84	152.95	0.89	0.00	0.01		107.00		6.97
Acqui _monte	55.1	E2_Tr 200	153.83	152.97	0.86	0.05	0.05		107.00		7.90
Acqui _monte	55	E2_Tr 200	153.73	153.05	0.68	0.13	0.01		107.00		8.50
Acqui _monte	54	E2_Tr 200	153.58	152.80	0.78	0.02	0.02		107.00		7.80
Acqui _monte	53.1	E2_Tr 200	153.54	152.84	0.70	0.03	0.07		107.00		7.80
Acqui _monte	53	E2_Tr 200	153.44	151.99	1.45	0.10	0.00		107.00		6.95
Acqui _monte	52	E2_Tr 200	153.26	151.30	1.96	0.12	0.05		107.00		6.95
Acqui _monte	51	E2_Tr 200	153.07	150.88	2.20	0.16	0.02		107.00		7.00
Acqui _monte	50.1	E2_Tr 200	153.03	150.66	2.37	0.03	0.02		107.00		7.20
Acqui _monte	50	E2_Tr 200	152.43	150.69	1.74	0.41	0.19		107.00		7.20
Acqui _monte	49	E2_Tr 200	152.32	150.60	1.72	0.11	0.10		107.00		7.20
Acqui _monte	48	E2_Tr 200	152.19	150.49	1.71	0.12	0.01		107.00		7.20
Acqui _monte	47	E2_Tr 200	152.07	150.37	1.71	0.12	0.00		107.00		7.20
Acqui _monte	46	E2_Tr 200	151.96	150.24	1.72	0.11	0.09		107.00		7.20
Acqui _monte	45	E2_Tr 200	151.87	150.17	1.70	0.08	0.00		107.00		7.20
Acqui _monte	44.1	E2_Tr 200	151.84	149.99	1.85	0.02	0.01		107.00		7.20
Acqui _monte	44	E2_Tr 200	151.72	149.86	1.86	0.11	0.00		107.00		7.20
Acqui_valle	43	E2_Tr 200	152.07	151.06	1.01	0.07	0.01		120.00		7.18
Acqui_valle	42	E2_Tr 200	151.99	151.00	0.99	0.09	0.00		120.00		
Acqui_valle	41	E2_Tr 200	151.90	150.91	0.99	0.09	0.00		120.00		
Acqui_valle	40	E2_Tr 200	151.80	150.82	0.99	0.05	0.00		120.00		
Acqui_valle	39	E2_Tr 200	151.76	150.78	0.98	0.05	0.06		120.00		
Acqui_valle	38.4	E2_Tr 200	151.64	150.03	1.61	0.22	0.03		120.00		6.60
Acqui_valle	38.3	E2_Tr 200	151.27	148.87	2.40	0.30	0.08		120.00		6.60
Acqui_valle	38.2	E2_Tr 200	151.16	148.67	2.48	0.10	0.01		120.00		6.60
Acqui_valle	38.1	E2_Tr 200	151.11	148.76	2.35	0.01	0.04		120.00		6.60
Acqui_valle	38	E2_Tr 200	151.06	148.64	2.42	0.04	0.01		120.00		6.60
Acqui_valle	37.4	E2_Tr 200	151.01	148.55	2.46	0.05	0.00		120.00		6.60
Acqui_valle	37.3	E2_Tr 200	150.97	148.28	2.69	0.01	0.02		120.00		6.60
Acqui_valle	37.2	E2_Tr 200	150.70	148.21	2.49	0.21	0.06		120.00		6.65
Acqui_valle	37.1	E2_Tr 200	150.28	147.91	2.37	0.38	0.04		120.00		7.00
Acqui_valle	37	E2_Tr 200	149.82	147.57	2.25	0.43	0.04		120.00		7.00

HEC-RAS Plan: SCENARIO E Profile: E2_Tr 200 (Continued)

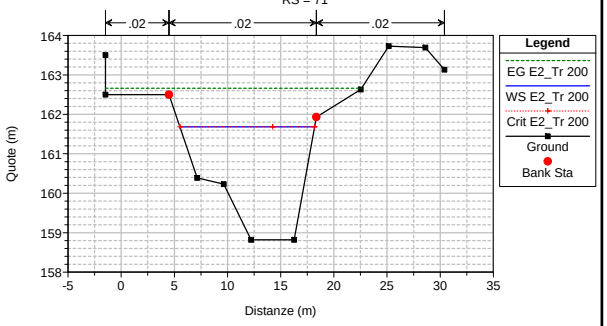
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	36	E2_Tr 200	149.61	147.46	2.15	0.18	0.03		120.00		7.00
Acqui_valle	35	E2_Tr 200	149.10	146.13	2.97	0.42	0.08		120.00		9.24
Acqui_valle	34.1	E2_Tr 200	149.08	146.08	3.00	0.02	0.00		120.00		9.24
Acqui_valle	34	E2_Tr 200	148.53	144.67	3.86	0.47	0.09		94.00		9.24
Acqui_valle	33.3	E2_Tr 200	147.53	144.63	2.91	0.71	0.29		94.00		9.24
Acqui_valle	33.2	E2_Tr 200	146.82	146.32	0.50	0.04	0.02		94.00		9.24
Acqui_valle	33.1	E2_Tr 200	146.76	146.32	0.44	0.07	0.09		94.00		9.24
Acqui_valle	33.0	E2_Tr 200	146.61	145.29	1.32	0.27	0.00		94.00		7.00
Acqui_valle	32.3	E2_Tr 200	146.27	144.69	1.58	0.31	0.03		94.00		7.00
Acqui_valle	32.2	E2_Tr 200	145.91	144.32	1.59	0.35	0.00		94.00		7.00
Acqui_valle	32.1	E2_Tr 200	145.55	143.93	1.62	0.36	0.00		94.00		7.00
Acqui_valle	32	E2_Tr 200	145.19	143.58	1.60	0.36	0.01		94.00		7.00
Acqui_valle	31.1	E2_Tr 200	145.18	143.59	1.59	0.01	0.08		94.00		7.00
Acqui_valle	31	E2_Tr 200	144.59	143.94	0.65				94.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	E2_Tr 200	144.37	143.69	0.68				94.00		7.00


SCENARIO E 2013/07/08
Geom: progetto feb 2012
Legend
EG E2_Tr 200
WS E2_Tr 200
Crit E2_Tr 200
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
67.1
68.5
69.50
71

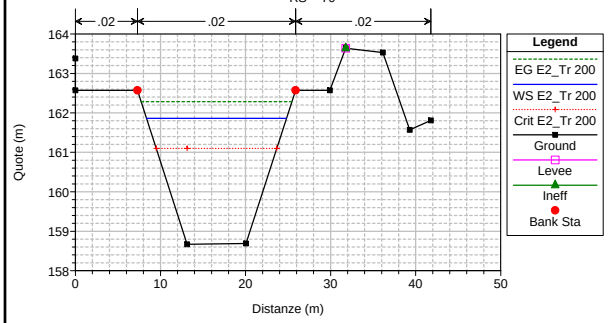
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 72



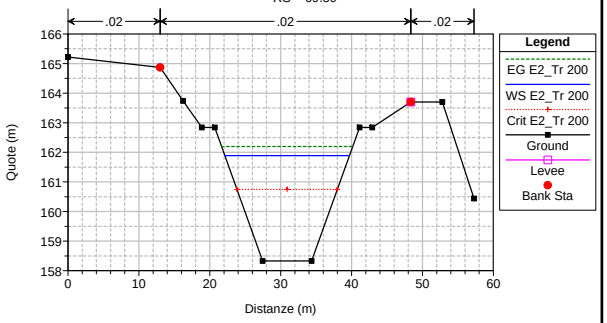
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 71



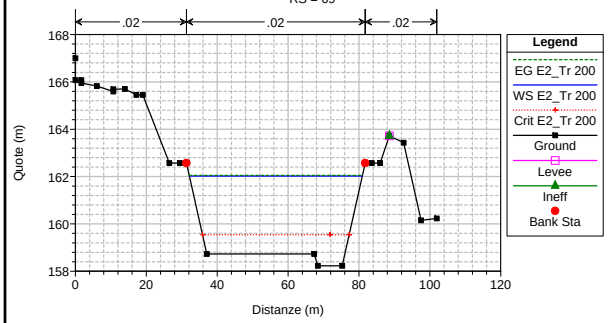
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 70



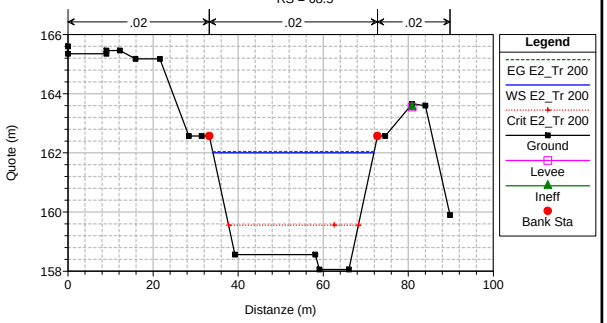
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 69.50



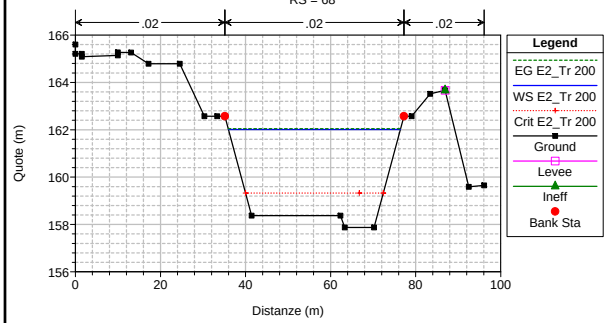
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 69



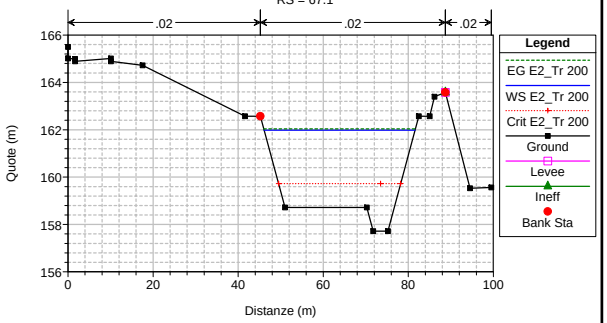
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 68.5



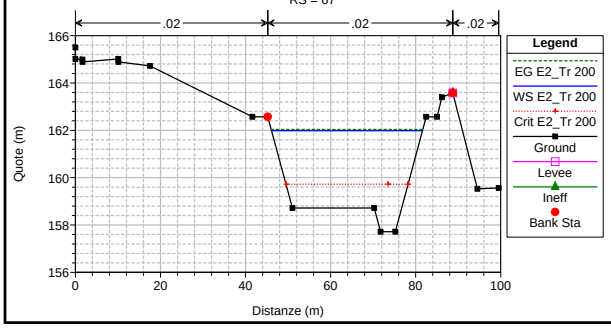
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 68



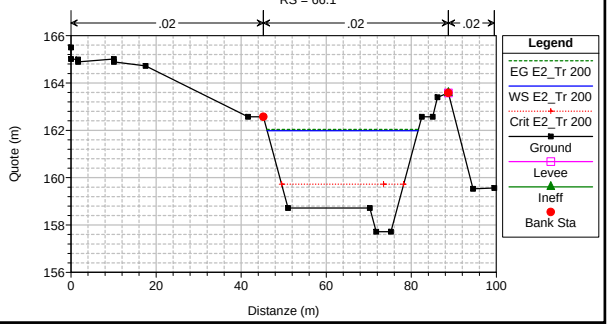
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 67.1



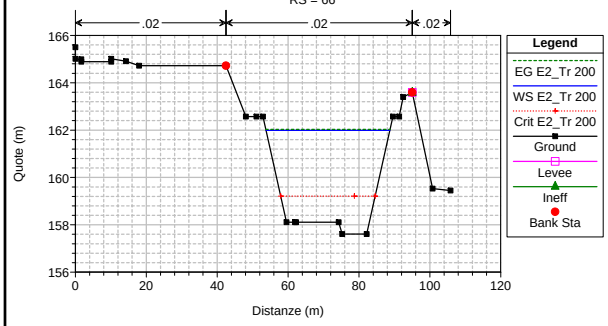
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 67



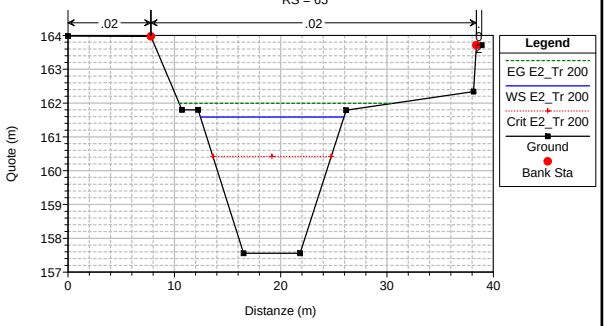
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 66.1



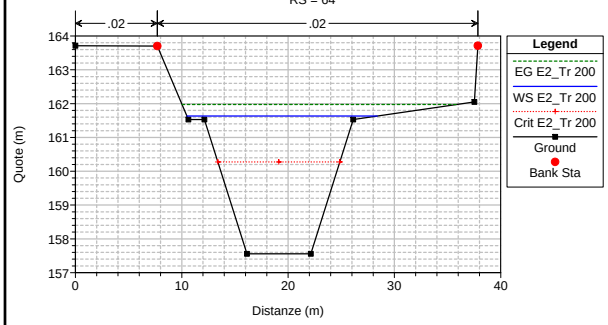
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 66



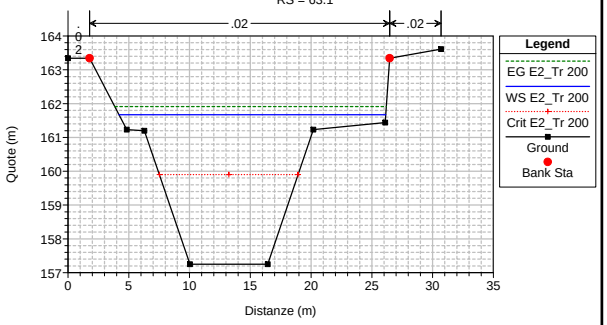
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 65



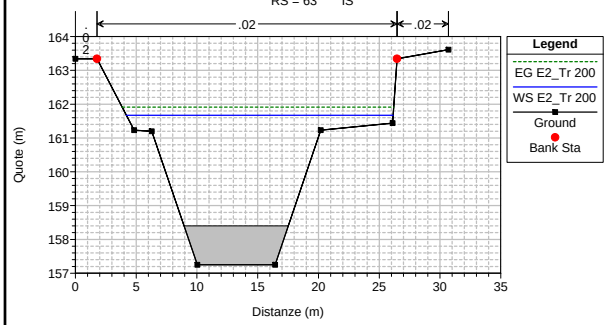
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 64



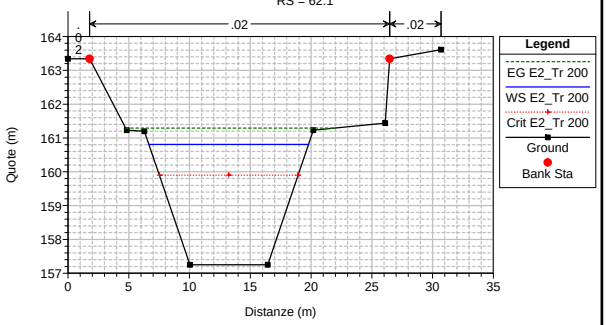
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 63.1



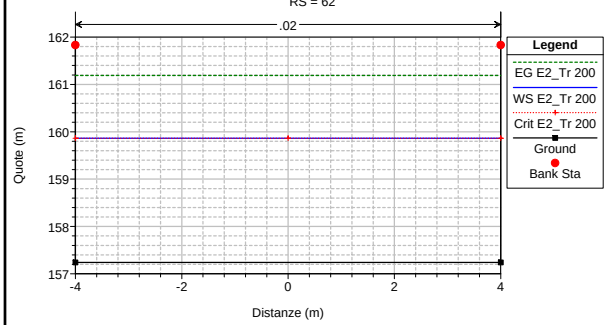
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 63 IS



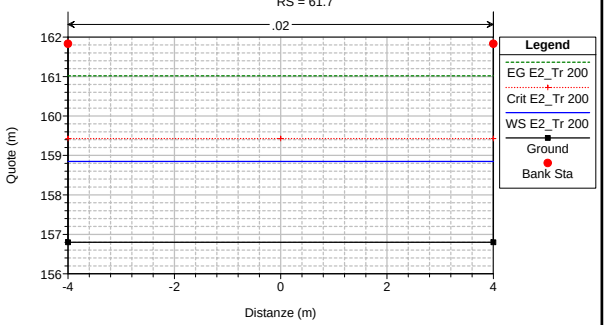
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 62.1



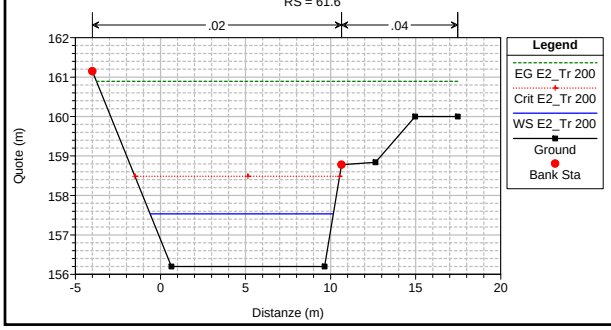
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 62



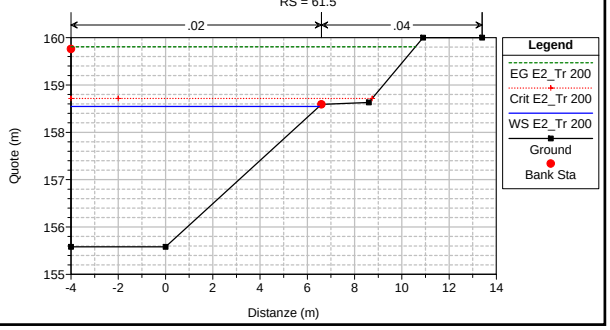
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.7



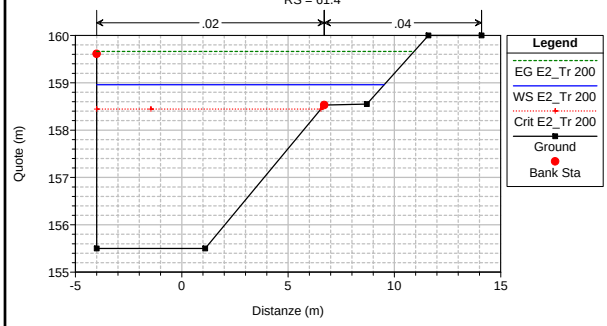
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.6



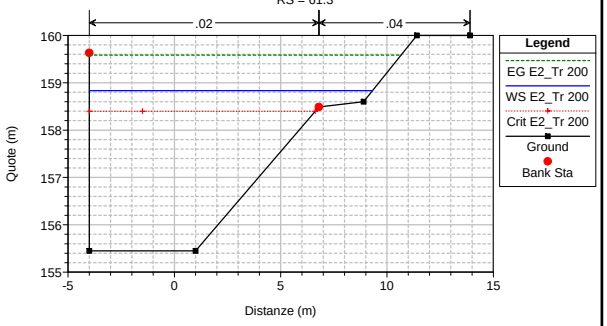
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.5



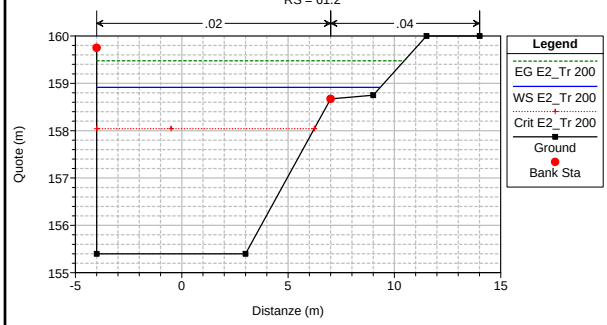
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.4



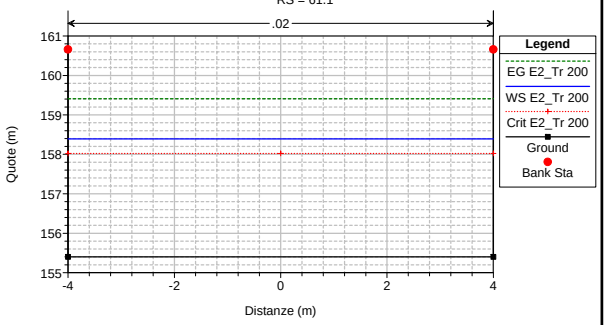
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.3



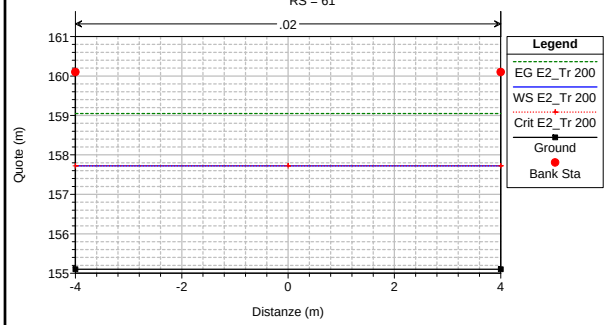
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.2



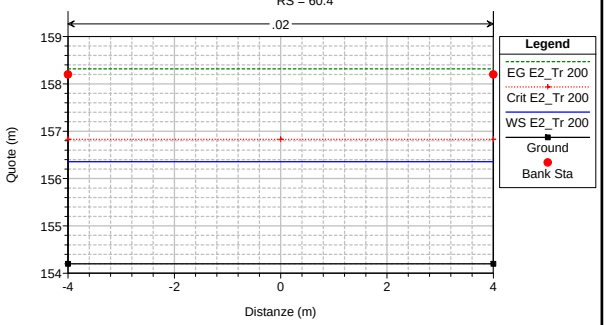
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61.1



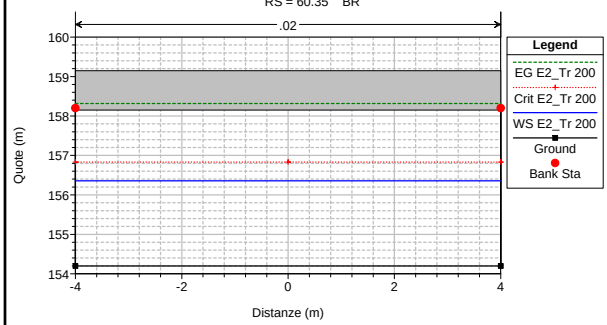
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 61



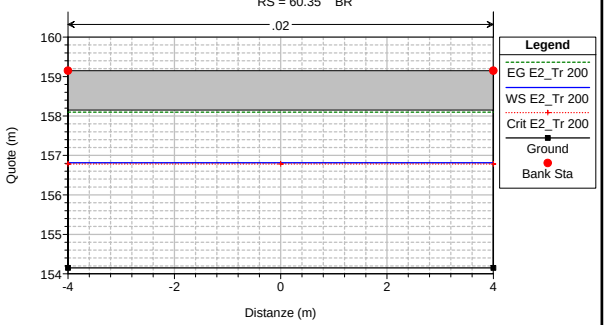
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.4



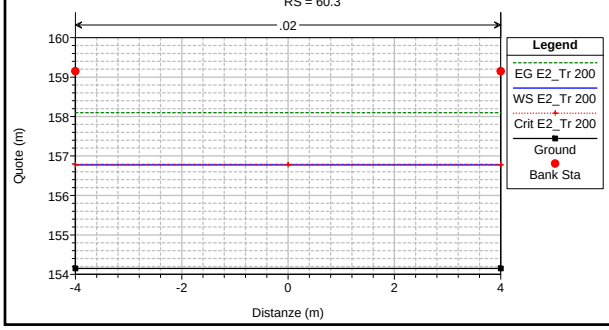
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.35 BR



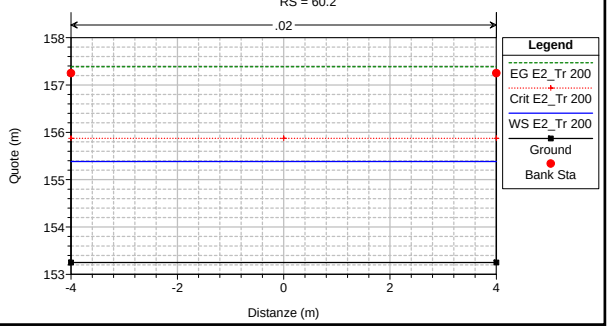
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.35 BR



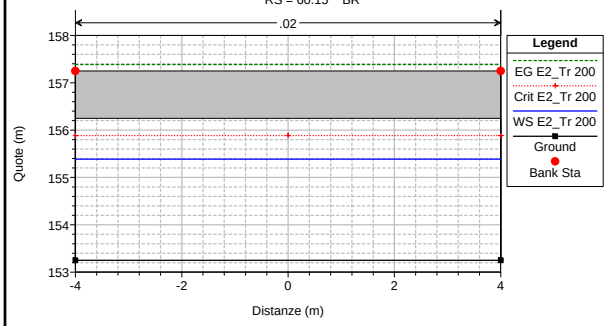
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.3



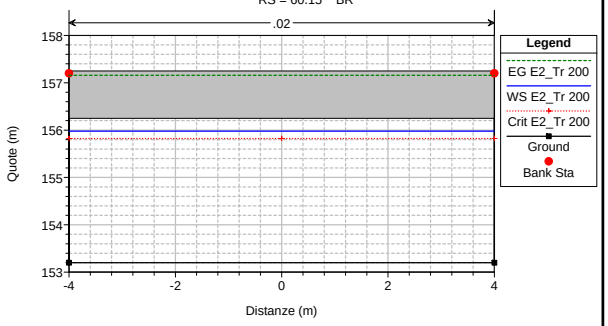
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.2



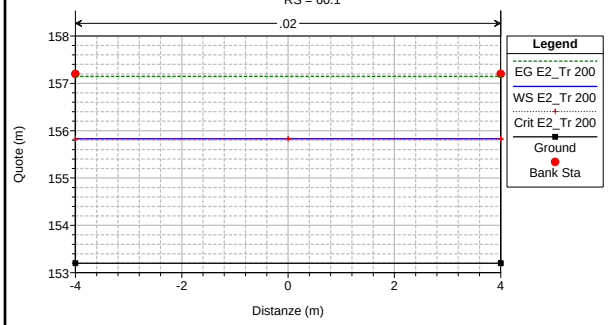
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.15 BR



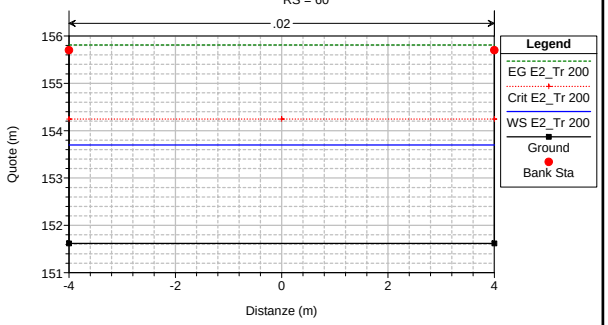
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.15 BR



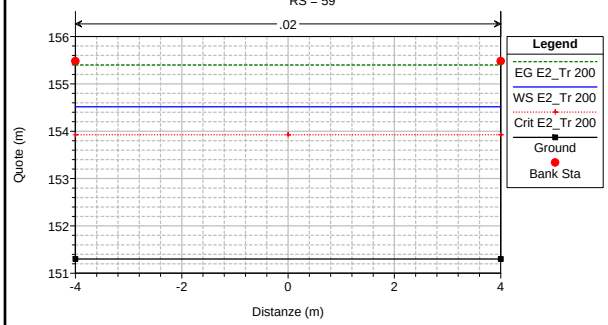
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60.1



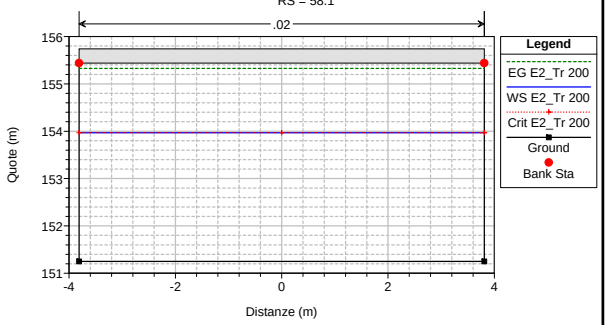
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 60



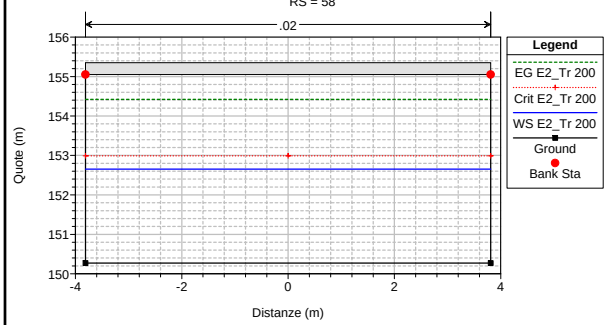
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 59



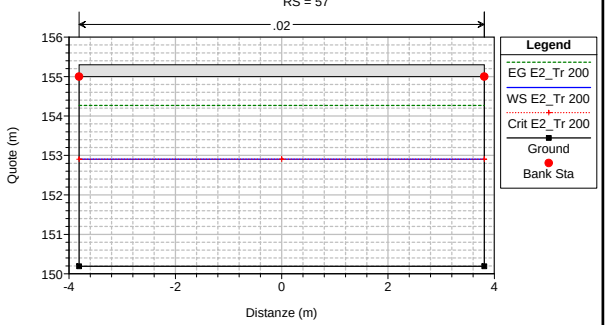
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 58.1



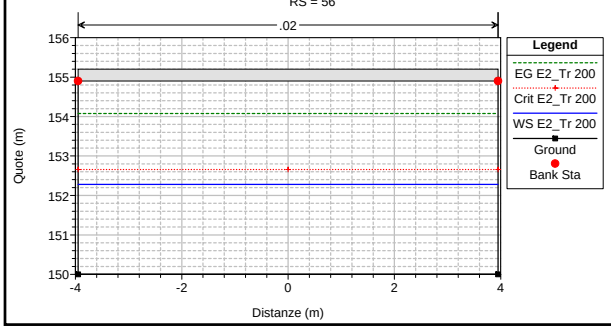
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 58



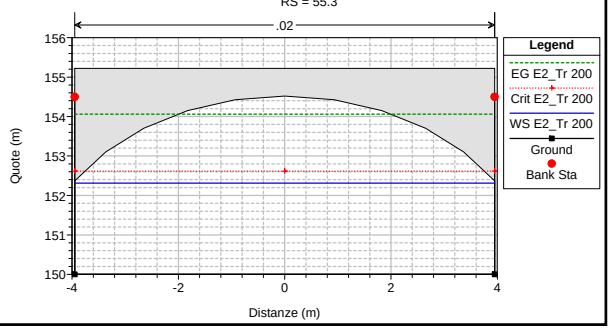
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 57



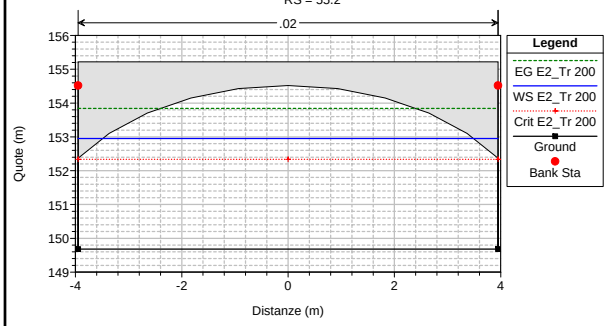
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 56



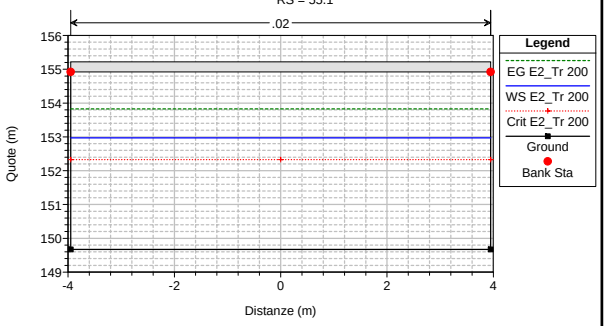
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.3



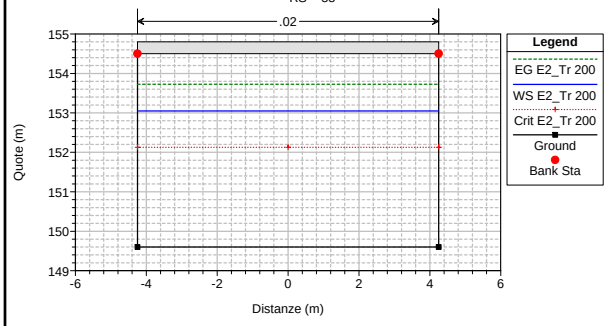
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.2



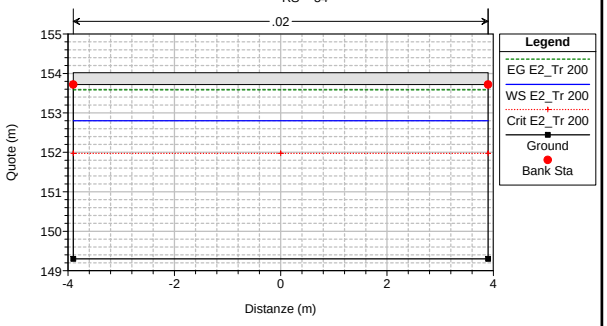
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55.1



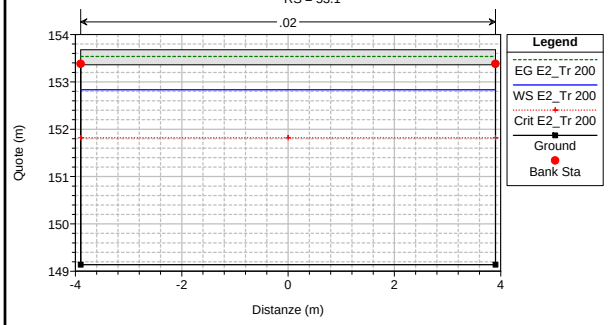
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 55



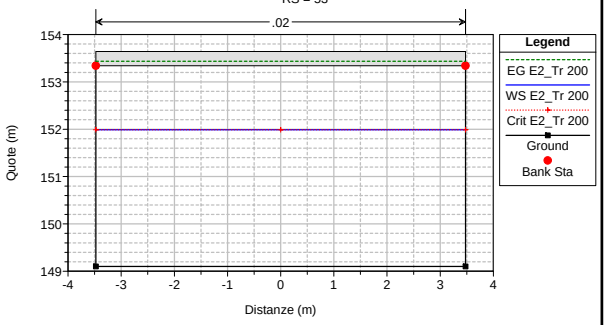
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 54



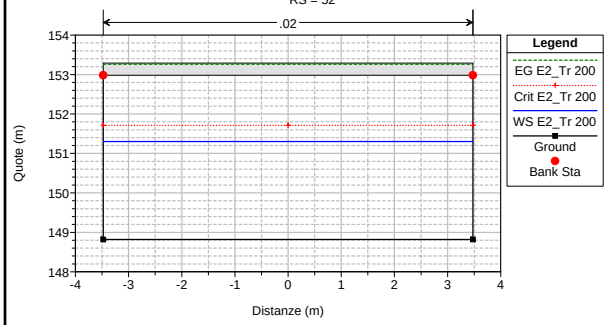
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 53.1



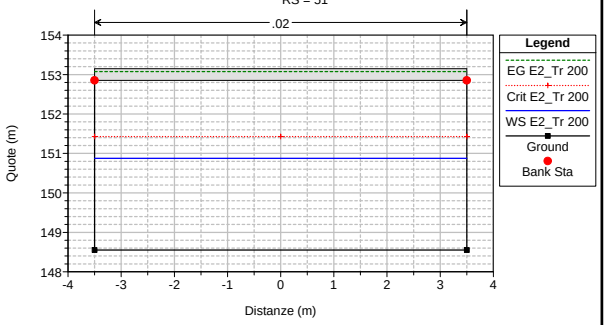
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 53



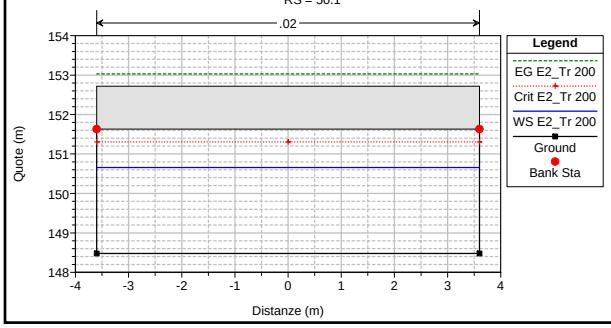
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 52



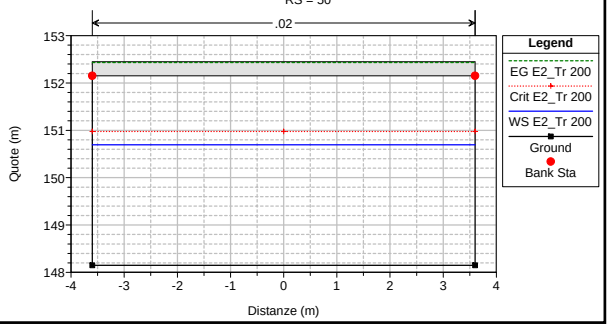
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 51



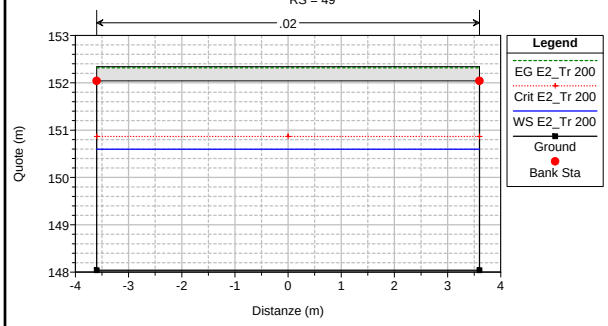
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 50.1



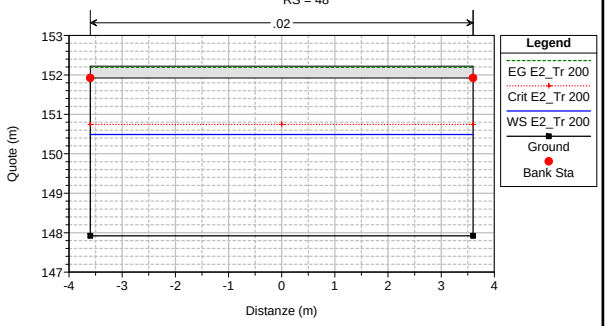
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 50



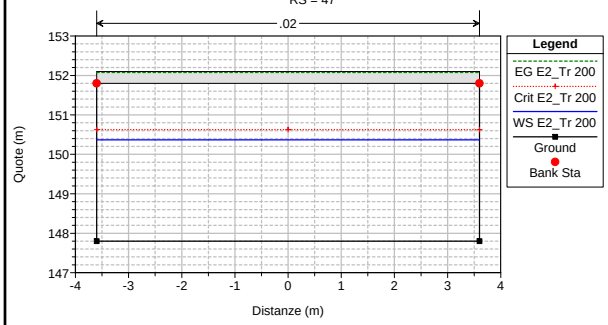
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 49



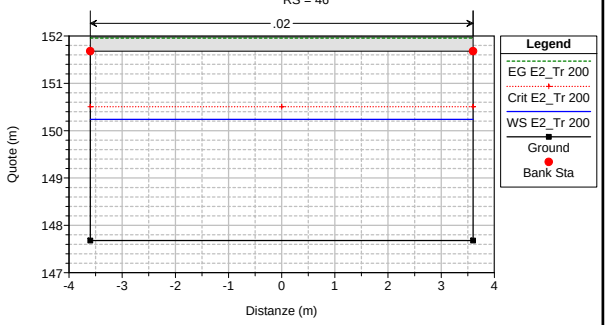
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 48



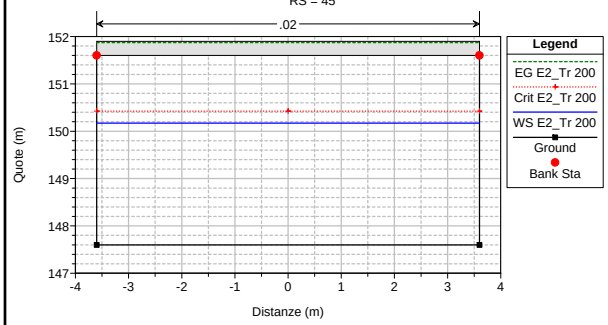
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 47



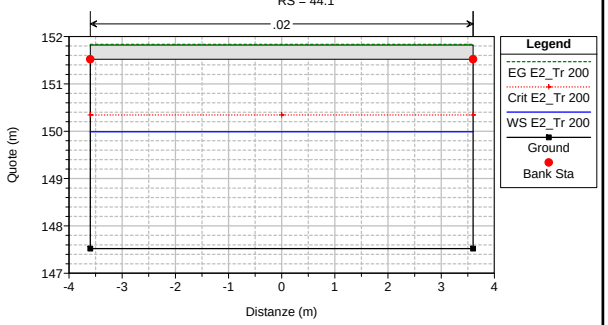
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 46



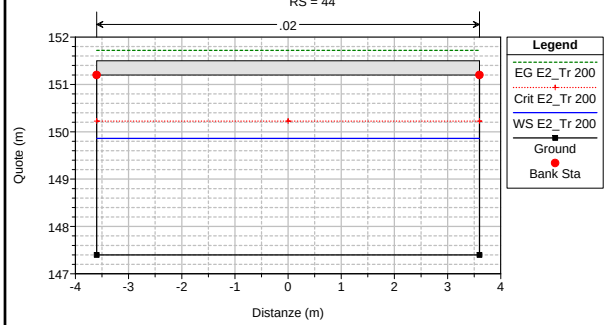
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 45



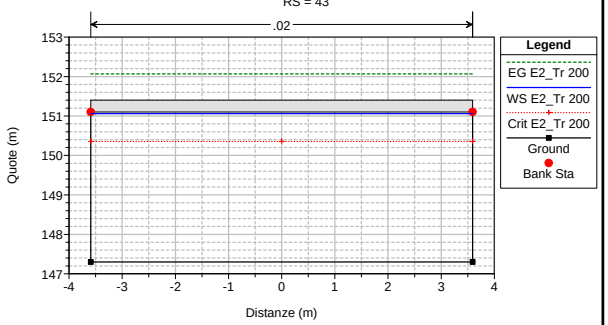
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 44.1



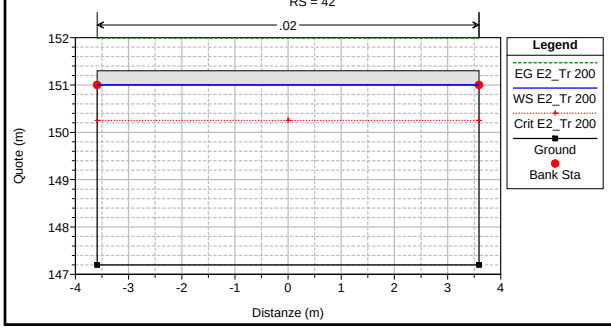
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 44



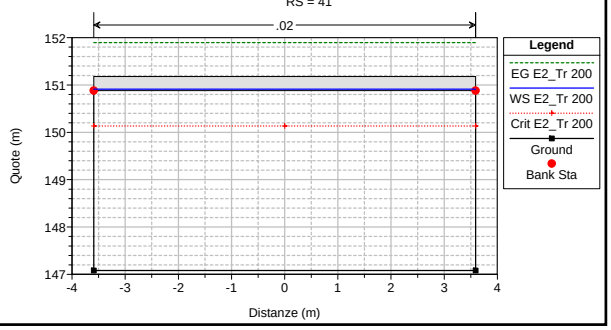
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 43



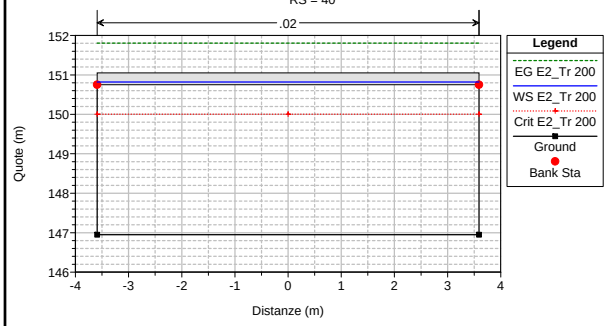
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 42



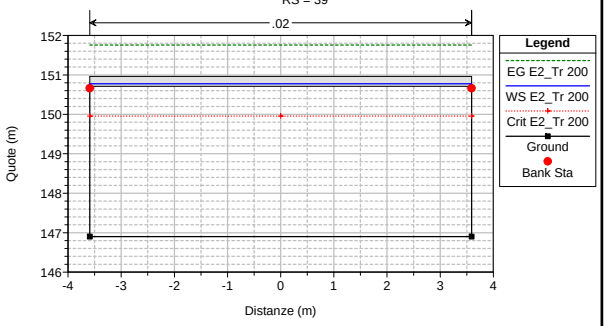
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 41



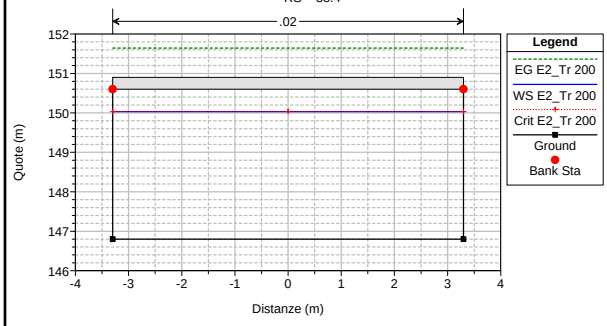
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 40



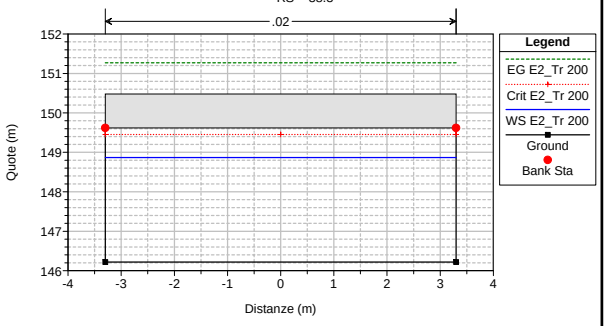
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 39



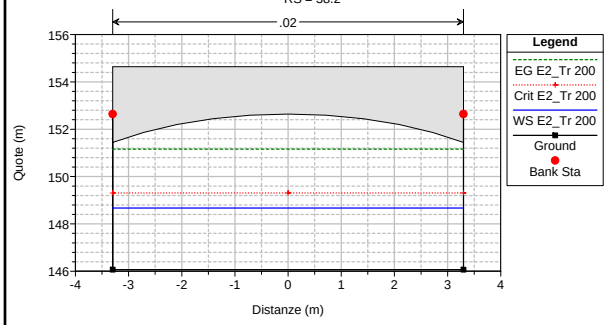
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.4



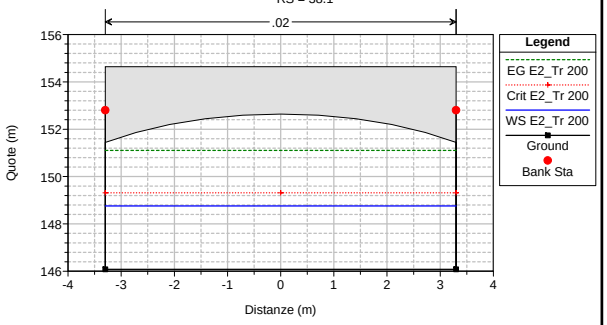
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.3



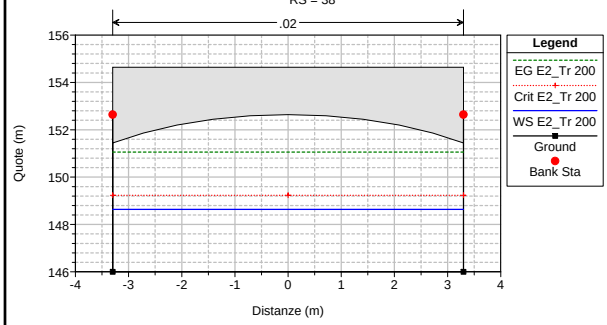
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.2



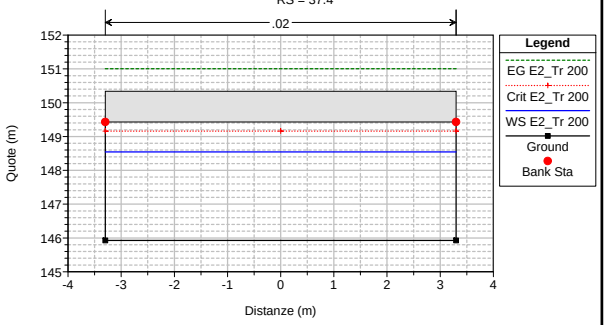
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38.1



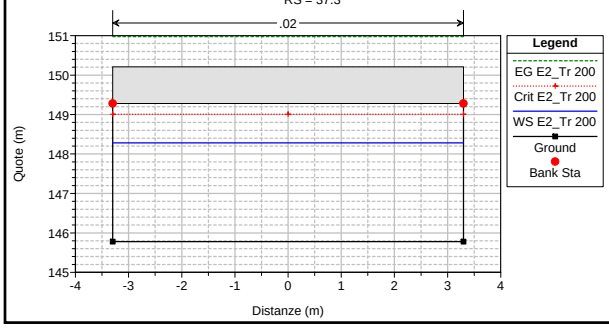
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 38



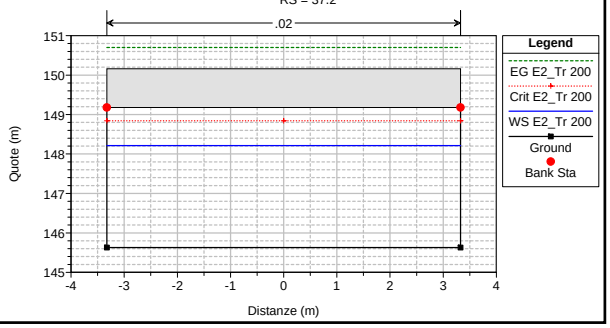
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.4



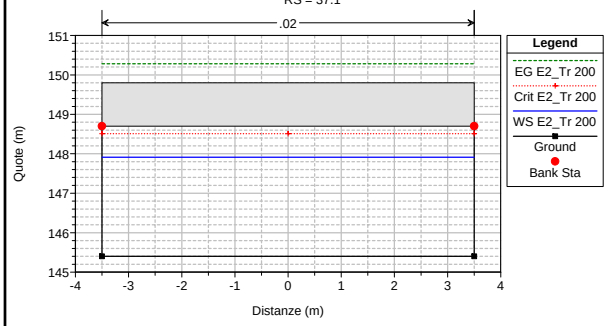
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.3



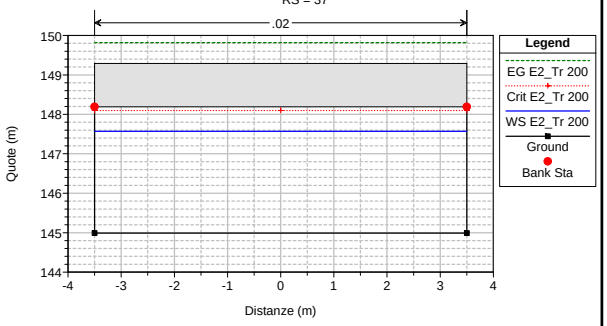
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.2



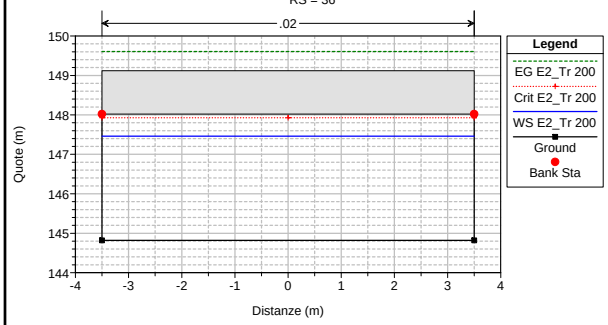
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37.1



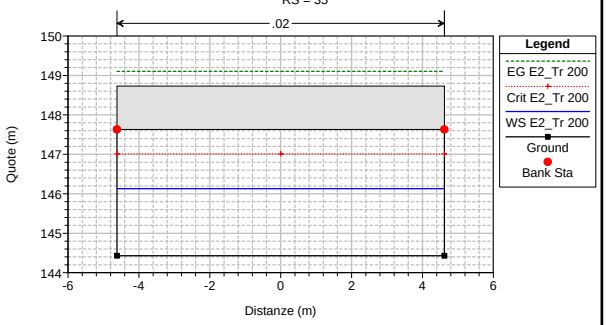
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 37



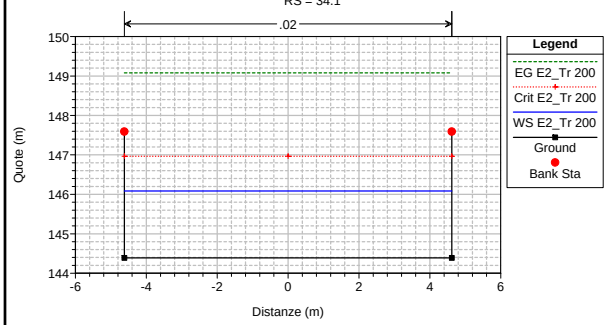
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 36



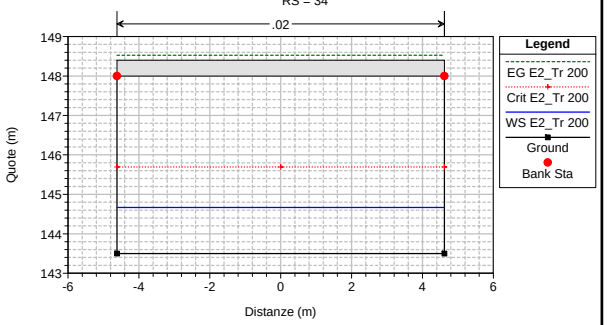
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 35



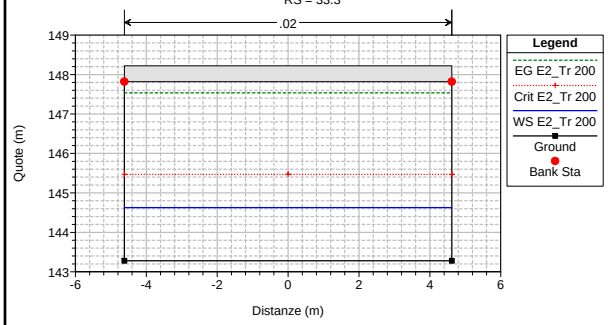
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 34.1



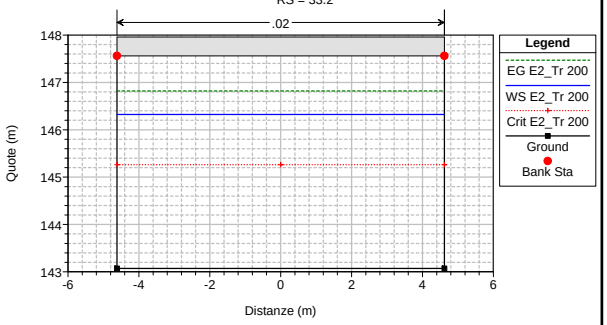
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 34



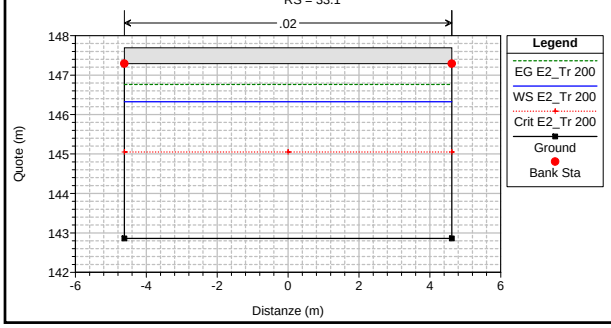
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.3



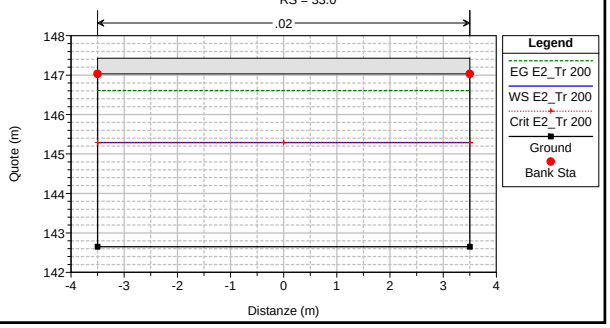
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.2



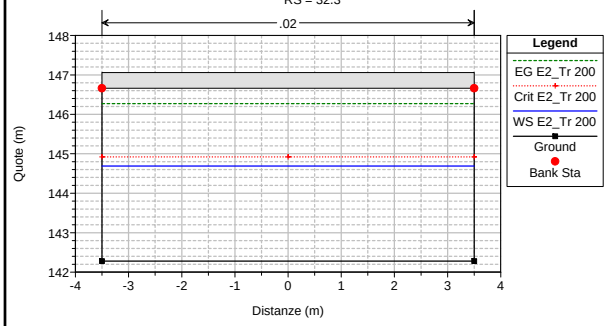
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.1



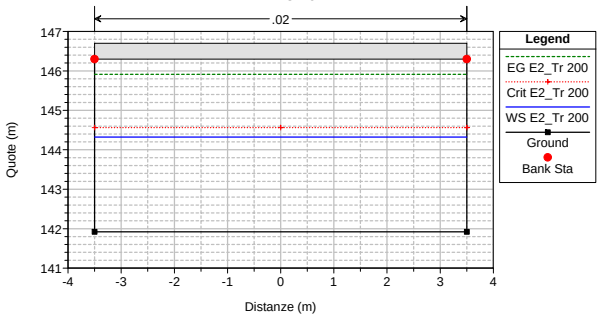
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 33.0



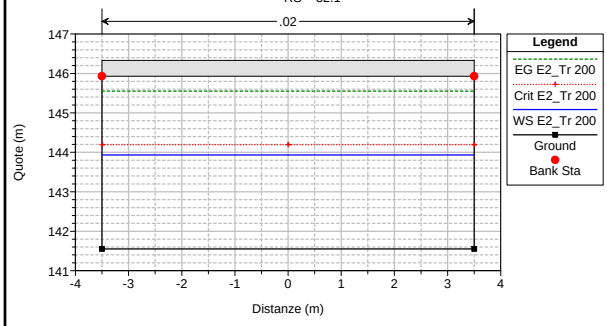
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.3



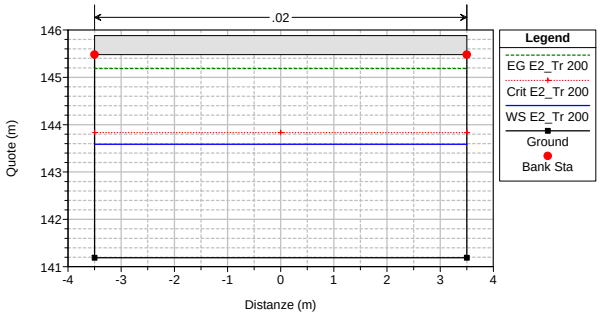
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.2



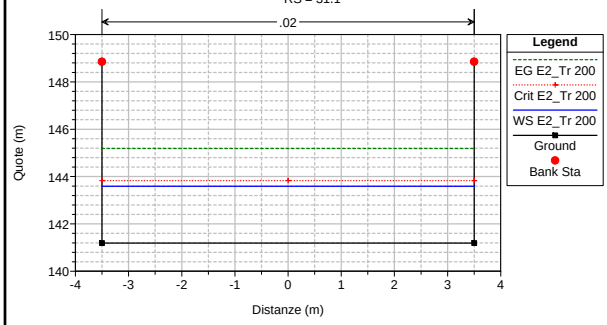
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32.1



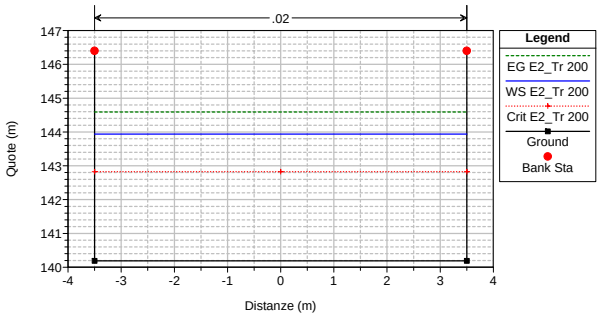
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 32



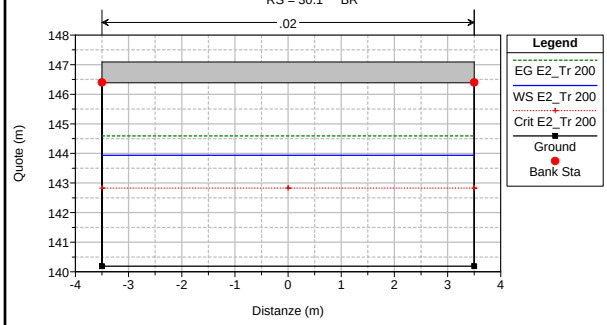
SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 31.1



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 31



SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO E 2013/07/08
Geom: progetto feb 2012
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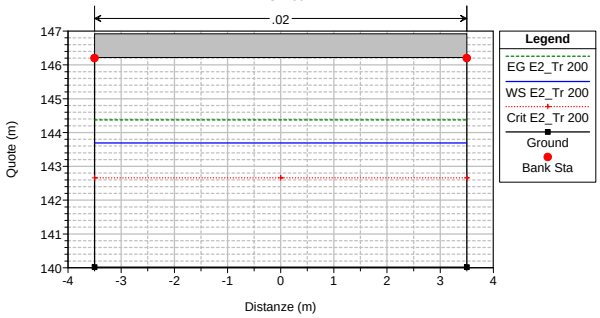
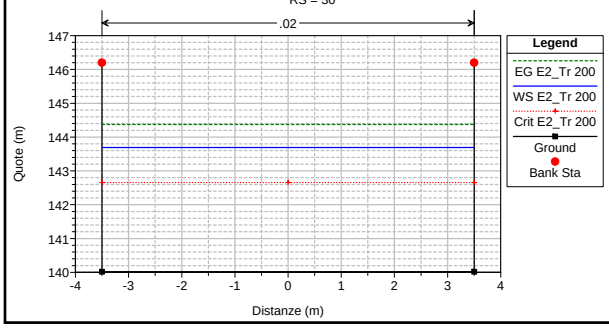


SCENARIO E 2013/07/08
Geom: progetto feb 2012
RS = 30



Scenario F1)

Realizzazione completa degli interventi sistematori idralulici

Rio Medrio Tempo di ritorno Tr = 20 anni

Portata a monte della confluenza rio Usignolo Q = 58 mc/s

Portata a valle della confluenza rio Usignolo Q = 50 mc/s

Portata a valle dello scolmatore Q = 25 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

NOTA:

LA SIMULAZIONE CON IL TEMPO DI RITORNO DUECENTENNALE NEL FIUME BORMIDA VIENE OMESSA IN QUANTO GLI INTERVENTI RICADONO IN UN TRATTO DEL RIO MEDRIO NON INFLUENZATO DAI LIVELLI DEL FIUME BORMIDA

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	F1_Tr20	58.00	159.08	161.67	160.76	161.84	0.000728	1.85	31.28	17.42	0.44
Acqui _monte	71	F1_Tr20	58.00	158.82	160.95	160.95	161.65	0.004253	3.70	15.68	11.27	1.00
Acqui _monte	70	F1_Tr20	58.00	158.67	159.93	160.37	161.35	0.011784	5.28	10.98	10.67	1.66
Acqui _monte	69.50	F1_Tr20	58.00	158.33	160.90	160.03	161.12	0.000867	2.10	27.58	14.60	0.49
Acqui _monte	69	F1_Tr20	58.00	158.23	161.00	159.23	161.01	0.000050	0.58	99.87	45.76	0.13
Acqui _monte	68.5	F1_Tr20	58.00	158.06	160.98	159.18	161.01	0.000076	0.73	79.44	34.81	0.15
Acqui _monte	68	F1_Tr20	58.00	157.87	160.99	158.97	161.01	0.000052	0.63	91.39	37.37	0.13
Acqui _monte	67.1	F1_Tr20	58.00	157.72	160.97	159.33	161.00	0.000105	0.82	70.33	32.43	0.18
Acqui _monte	67	F1_Tr20	58.00	157.72	160.97	159.33	161.00	0.000105	0.82	70.32	32.43	0.18
Acqui _monte	66.1	F1_Tr20	58.00	157.72	160.97	159.33	161.00	0.000105	0.82	70.32	32.43	0.18
Acqui _monte	66	F1_Tr20	58.00	157.61	160.97	158.80	161.00	0.000059	0.70	83.02	31.92	0.14
Acqui _monte	65	F1_Tr20	58.00	157.56	160.75		160.98	0.000776	2.13	27.22	11.78	0.45
Acqui _monte	64	F1_Tr20	58.00	157.56	160.77		160.96	0.000624	1.96	29.64	12.47	0.41
Acqui _monte	63.1	F1_Tr20	58.00	157.25	160.79	159.09	160.93	0.000411	1.68	34.48	13.09	0.33
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	F1_Tr20	58.00	157.25	159.43	159.09	159.93	0.002345	3.15	18.40	10.52	0.76
Acqui _monte	62	F1_Tr20	58.00	157.24	158.99	158.99	159.86	0.005285	4.14	14.00	8.00	1.00
Acqui _monte	61.7	F1_Tr20	58.00	156.80	158.09	158.55	159.71	0.013218	5.64	10.28	8.00	1.59
Acqui _monte	61.6	F1_Tr20	58.00	156.20	157.06	157.75	159.60	0.029922	7.07	8.20	10.14	2.51
Acqui _monte	61.5	F1_Tr20	58.00	155.58	157.78	157.82	158.64	0.005136	4.11	14.12	8.83	1.04
Acqui _monte	61.4	F1_Tr20	58.00	155.50	157.94	157.57	158.47	0.002630	3.23	17.94	9.61	0.76
Acqui _monte	61.3	F1_Tr20	58.00	155.45	157.53	157.53	158.34	0.004701	3.99	14.53	8.97	1.00
Acqui _monte	61.2	F1_Tr20	58.00	155.40	156.87	157.21	158.15	0.009139	5.01	11.57	8.79	1.39
Acqui _monte	61.1	F1_Tr20	58.00	155.40	157.37	157.14	158.06	0.003743	3.68	15.76	8.00	0.84
Acqui _monte	61	F1_Tr20	58.00	155.10	156.84	156.84	157.72	0.005335	4.16	13.95	8.00	1.00
Acqui _monte	60.4	F1_Tr20	58.00	154.20	155.57	155.94	156.99	0.010836	5.28	10.98	8.00	1.44
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	F1_Tr20	58.00	154.15	155.81	155.89	156.78	0.006158	4.37	13.29	8.00	1.08
Acqui _monte	60.2	F1_Tr20	58.00	153.25	154.63	154.99	156.04	0.010726	5.26	11.02	8.00	1.43
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	F1_Tr20	58.00	153.20	154.95	154.94	155.82	0.005287	4.14	14.00	8.00	1.00
Acqui _monte	60	F1_Tr20	58.00	151.62	152.94	153.36	154.48	0.012276	5.51	10.53	8.00	1.53
Acqui _monte	59	F1_Tr20	58.00	151.30	152.71	153.04	154.06	0.010062	5.15	11.26	8.00	1.39
Acqui _monte	58.1	F1_Tr20	58.00	151.25	153.06	153.06	153.96	0.005388	4.21	13.79	7.62	1.00
Acqui _monte	58	F1_Tr20	58.00	150.27	151.79	152.08	153.06	0.008898	4.99	11.62	7.62	1.29

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	57	F1_Tr20	58.00	150.19	152.00	152.00	152.90	0.005407	4.21	13.77	7.62	1.00
Acqui _monte	56	F1_Tr20	58.00	150.00	151.49	151.76	152.73	0.008693	4.92	11.79	7.90	1.28
Acqui _monte	55.3	F1_Tr20	58.00	150.00	151.52	151.76	152.71	0.008306	4.84	11.98	7.90	1.26
Acqui _monte	55.2	F1_Tr20	58.00	149.68	151.04	151.44	152.53	0.011501	5.40	10.74	7.90	1.48
Acqui _monte	55.1	F1_Tr20	58.00	149.67	151.03	151.43	152.52	0.011492	5.40	10.74	7.90	1.48
Acqui _monte	55	F1_Tr20	58.00	149.60	151.73	151.28	152.25	0.002590	3.21	18.07	8.50	0.70
Acqui _monte	54	F1_Tr20	58.00	149.30	151.55	151.08	152.10	0.002737	3.31	17.51	7.80	0.71
Acqui _monte	53.1	F1_Tr20	58.00	149.14	151.58	150.92	152.06	0.002150	3.04	19.07	7.80	0.62
Acqui _monte	53	F1_Tr20	58.00	149.10	151.02	151.02	151.98	0.005662	4.34	13.37	6.95	1.00
Acqui _monte	52	F1_Tr20	58.00	148.82	150.40	150.74	151.82	0.009953	5.27	11.00	6.95	1.34
Acqui _monte	51	F1_Tr20	58.00	148.55	150.03	150.46	151.63	0.011911	5.60	10.36	7.00	1.47
Acqui _monte	50.1	F1_Tr20	58.00	148.48	149.87	150.36	151.59	0.013489	5.81	9.98	7.20	1.58
Acqui _monte	50	F1_Tr20	58.00	148.15	149.81	150.03	151.01	0.007918	4.85	11.97	7.20	1.20
Acqui _monte	49	F1_Tr20	58.00	148.04	149.75	149.91	150.88	0.007309	4.72	12.30	7.20	1.15
Acqui _monte	48	F1_Tr20	58.00	147.92	149.62	149.80	150.77	0.007468	4.75	12.21	7.20	1.16
Acqui _monte	47	F1_Tr20	58.00	147.80	149.49	149.68	150.65	0.007575	4.77	12.15	7.20	1.17
Acqui _monte	46	F1_Tr20	58.00	147.68	149.38	149.56	150.52	0.007371	4.73	12.26	7.20	1.16
Acqui _monte	45	F1_Tr20	58.00	147.60	149.29	149.48	150.45	0.007560	4.77	12.16	7.20	1.17
Acqui _monte	44.1	F1_Tr20	58.00	147.52	149.12	149.40	150.41	0.008863	5.04	11.51	7.20	1.27
Acqui _monte	44	F1_Tr20	58.00	147.40	148.99	149.28	150.30	0.008983	5.06	11.46	7.20	1.28
Acqui_valle	43	F1_Tr20	50.00	147.30	148.57	149.01	150.10	0.013120	5.49	9.11	7.18	1.55
Acqui_valle	42	F1_Tr20	50.00	147.20	148.64	148.91	149.83	0.008954	4.82	10.36	7.18	1.28
Acqui_valle	41	F1_Tr20	50.00	147.08	149.03	148.79	149.68	0.003739	3.57	13.99	7.18	0.82
Acqui_valle	40	F1_Tr20	50.00	146.95	149.03	148.65	149.60	0.003112	3.35	14.92	7.18	0.74
Acqui_valle	39	F1_Tr20	50.00	146.90	149.02	148.60	149.57	0.002944	3.29	15.22	7.18	0.72
Acqui_valle	38.4	F1_Tr20	50.00	146.80	148.60	148.60	149.50	0.005755	4.20	11.90	6.60	1.00
Acqui_valle	38.3	F1_Tr20	50.00	146.22	147.59	148.02	149.15	0.012767	5.53	9.04	6.60	1.51
Acqui_valle	38.2	F1_Tr20	50.00	146.07	147.42	147.87	149.02	0.013346	5.61	8.91	6.60	1.54
Acqui_valle	38.1	F1_Tr20	50.00	146.08	147.47	147.88	148.99	0.012312	5.46	9.16	6.60	1.48
Acqui_valle	38	F1_Tr20	50.00	146.00	147.37	147.80	148.93	0.012854	5.54	9.02	6.60	1.51
Acqui_valle	37.4	F1_Tr20	50.00	145.93	147.29	147.73	148.88	0.013141	5.58	8.95	6.60	1.53
Acqui_valle	37.3	F1_Tr20	50.00	145.78	147.06	147.58	148.84	0.015552	5.91	8.46	6.60	1.67
Acqui_valle	37.2	F1_Tr20	50.00	145.63	147.00	147.42	148.53	0.012523	5.49	9.12	6.65	1.50
Acqui_valle	37.1	F1_Tr20	50.00	145.40	146.84	147.13	148.09	0.009544	4.95	10.09	7.00	1.32
Acqui_valle	37	F1_Tr20	50.00	144.99	146.41	146.72	147.70	0.010000	5.03	9.94	7.00	1.35

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	36	F1_Tr20	50.00	144.82	146.26	146.55	147.52	0.009673	4.98	10.05	7.00	1.33
Acqui_valle	35	F1_Tr20	50.00	144.43	145.37	145.87	147.05	0.018191	5.73	8.72	9.24	1.88
Acqui_valle	34.1	F1_Tr20	50.00	144.39	145.33	145.83	147.03	0.018702	5.78	8.64	9.24	1.91
Acqui_valle	34	F1_Tr20	25.00	143.50	143.89	144.41	146.39	0.077988	7.01	3.56	9.24	3.60
Acqui_valle	33.3	F1_Tr20	25.00	143.28	143.85	144.19	144.98	0.021680	4.71	5.31	9.24	1.98
Acqui_valle	33.2	F1_Tr20	25.00	143.07	144.17	143.98	144.48	0.002870	2.47	10.12	9.24	0.75
Acqui_valle	33.1	F1_Tr20	25.00	142.86	144.18	143.77	144.39	0.001640	2.06	12.15	9.24	0.57
Acqui_valle	33.0	F1_Tr20	25.00	142.65	143.85	143.74	144.30	0.004088	2.97	8.42	7.00	0.86
Acqui_valle	32.3	F1_Tr20	25.00	142.28	143.87	143.37	144.13	0.001801	2.25	11.11	7.00	0.57
Acqui_valle	32.2	F1_Tr20	25.00	141.92	143.87	143.01	144.04	0.000997	1.83	13.64	7.00	0.42
Acqui_valle	32.1	F1_Tr20	25.00	141.55	143.87	142.64	143.99	0.000610	1.54	16.23	7.00	0.32
Acqui_valle	32	F1_Tr20	25.00	141.19	143.87	142.28	143.96	0.000409	1.33	18.74	7.00	0.26
Acqui_valle	31.1	F1_Tr20	25.00	141.19	143.87		143.96	0.000409	1.33	18.73	7.00	0.26
Acqui_valle	31	F1_Tr20	25.00	140.19	143.86	141.28	143.91	0.000174	0.97	25.72	7.00	0.16
Acqui_valle	30.1		Bridge									
Acqui_valle	30	F1_Tr20	25.00	140.02	143.69	141.11	143.74	0.000174	0.97	25.69	7.00	0.16

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20

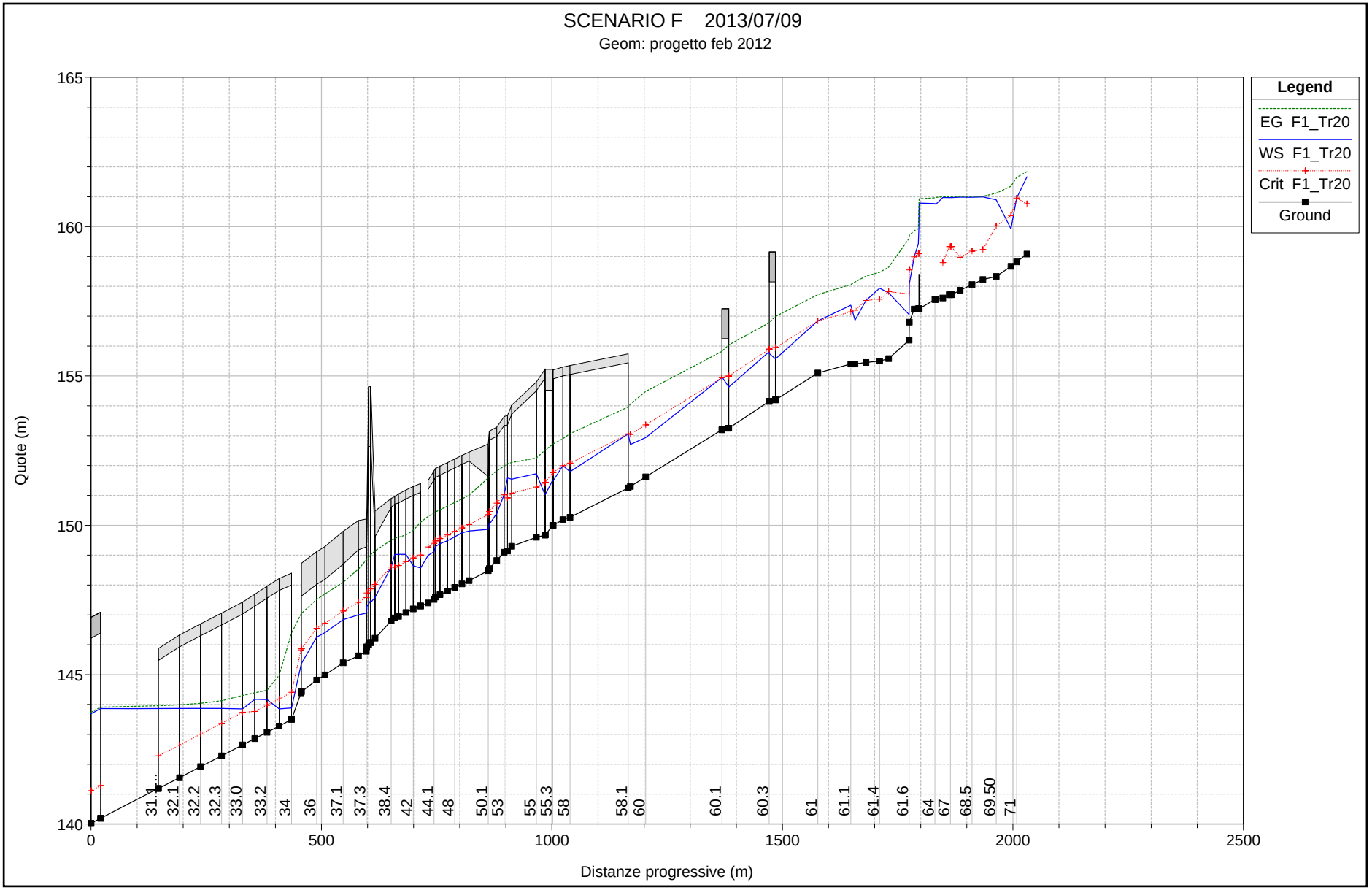
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	F1_Tr20	161.84	161.67	0.18	0.03	0.16		58.00		17.42
Acqui _monte	71	F1_Tr20	161.65	160.95	0.70	0.03	0.18		58.00		11.27
Acqui _monte	70	F1_Tr20	161.35	159.93	1.42	0.08	0.22		58.00		10.67
Acqui _monte	69.50	F1_Tr20	161.12	160.90	0.23	0.00	0.10		58.00		14.60
Acqui _monte	69	F1_Tr20	161.01	161.00	0.02	0.00	0.00		58.00		45.76
Acqui _monte	68.5	F1_Tr20	161.01	160.98	0.03	0.00	0.00		58.00		34.81
Acqui _monte	68	F1_Tr20	161.01	160.99	0.02	0.00	0.00		58.00		37.37
Acqui _monte	67.1	F1_Tr20	161.00	160.97	0.03	0.00	0.00		58.00		32.43
Acqui _monte	67	F1_Tr20	161.00	160.97	0.03	0.00	0.00		58.00		32.43
Acqui _monte	66.1	F1_Tr20	161.00	160.97	0.03	0.00	0.00		58.00		32.43
Acqui _monte	66	F1_Tr20	161.00	160.97	0.02	0.00	0.02		58.00		31.92
Acqui _monte	65	F1_Tr20	160.98	160.75	0.23	0.00	0.01		58.00		11.78
Acqui _monte	64	F1_Tr20	160.96	160.77	0.20	0.02	0.02		58.00		12.47
Acqui _monte	63.1	F1_Tr20	160.93	160.79	0.14				58.00		13.09
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	F1_Tr20	159.93	159.43	0.51	0.03	0.04		58.00		10.52
Acqui _monte	62	F1_Tr20	159.86	158.99	0.87	0.06	0.00		58.00		8.00
Acqui _monte	61.7	F1_Tr20	159.71	158.09	1.62	0.08	0.07		58.00		8.00
Acqui _monte	61.6	F1_Tr20	159.60	157.06	2.55	0.01	0.09		58.00		10.14
Acqui _monte	61.5	F1_Tr20	158.64	157.78	0.86	0.46	0.51		58.00		8.83
Acqui _monte	61.4	F1_Tr20	158.47	157.94	0.53	0.10	0.03		58.00		9.61
Acqui _monte	61.3	F1_Tr20	158.34	157.53	0.81	0.08	0.09		58.00		8.97
Acqui _monte	61.2	F1_Tr20	158.15	156.87	1.28	0.15	0.05		58.00		8.79
Acqui _monte	61.1	F1_Tr20	158.06	157.37	0.69	0.32	0.02		58.00		8.00
Acqui _monte	61	F1_Tr20	157.72	156.84	0.88	0.39	0.07		58.00		8.00
Acqui _monte	60.4	F1_Tr20	156.99	155.57	1.42	0.68	0.05		58.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	F1_Tr20	156.78	155.81	0.97	0.00	0.05		58.00		8.00
Acqui _monte	60.2	F1_Tr20	156.04	154.63	1.41	0.70	0.04		58.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	F1_Tr20	155.82	154.95	0.87	0.00	0.00		58.00		8.00
Acqui _monte	60	F1_Tr20	154.48	152.94	1.54	1.28	0.07		58.00		8.00
Acqui _monte	59	F1_Tr20	154.06	152.71	1.35	0.37	0.06		58.00		8.00
Acqui _monte	58.1	F1_Tr20	153.96	153.06	0.90	0.63	0.02		58.00		7.62
Acqui _monte	58	F1_Tr20	153.06	151.79	1.27	0.86	0.04		58.00		7.62

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20 (Continued)

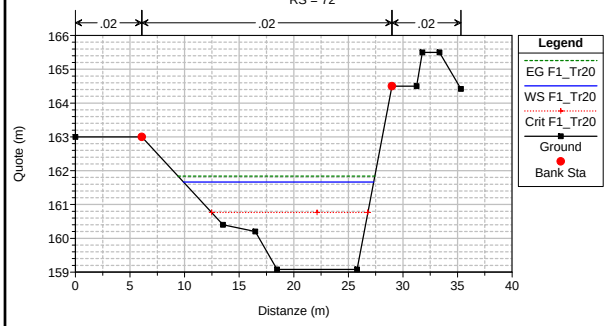
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	57	F1_Tr20	152.90	152.00	0.90	0.10	0.05		58.00		7.62
Acqui _monte	56	F1_Tr20	152.73	151.49	1.23	0.14	0.03		58.00		7.90
Acqui _monte	55.3	F1_Tr20	152.71	151.52	1.19	0.01	0.10		58.00		7.90
Acqui _monte	55.2	F1_Tr20	152.53	151.04	1.49	0.16	0.03		58.00		7.90
Acqui _monte	55.1	F1_Tr20	152.52	151.03	1.49	0.01	0.00		58.00		7.90
Acqui _monte	55	F1_Tr20	152.25	151.73	0.52	0.14	0.00		58.00		8.50
Acqui _monte	54	F1_Tr20	152.10	151.55	0.56	0.02	0.03		58.00		7.80
Acqui _monte	53.1	F1_Tr20	152.06	151.58	0.47	0.02	0.05		58.00		7.80
Acqui _monte	53	F1_Tr20	151.98	151.02	0.96	0.09	0.00		58.00		6.95
Acqui _monte	52	F1_Tr20	151.82	150.40	1.42	0.12	0.05		58.00		6.95
Acqui _monte	51	F1_Tr20	151.63	150.03	1.60	0.17	0.02		58.00		7.00
Acqui _monte	50.1	F1_Tr20	151.59	149.87	1.72	0.03	0.01		58.00		7.20
Acqui _monte	50	F1_Tr20	151.01	149.81	1.20	0.42	0.16		58.00		7.20
Acqui _monte	49	F1_Tr20	150.88	149.75	1.13	0.10	0.08		58.00		7.20
Acqui _monte	48	F1_Tr20	150.77	149.62	1.15	0.11	0.00		58.00		7.20
Acqui _monte	47	F1_Tr20	150.65	149.49	1.16	0.12	0.00		58.00		7.20
Acqui _monte	46	F1_Tr20	150.52	149.38	1.14	0.11	0.07		58.00		7.20
Acqui _monte	45	F1_Tr20	150.45	149.29	1.16	0.07	0.00		58.00		7.20
Acqui _monte	44.1	F1_Tr20	150.41	149.12	1.29	0.02	0.01		58.00		7.20
Acqui _monte	44	F1_Tr20	150.30	148.99	1.30	0.12	0.00		58.00		7.20
Acqui_valle	43	F1_Tr20	150.10	148.57	1.53	0.17	0.02		50.00		7.18
Acqui_valle	42	F1_Tr20	149.83	148.64	1.19	0.17	0.10		50.00		7.18
Acqui_valle	41	F1_Tr20	149.68	149.03	0.65	0.05	0.02		50.00		7.18
Acqui_valle	40	F1_Tr20	149.60	149.03	0.57	0.02	0.01		50.00		7.18
Acqui_valle	39	F1_Tr20	149.57	149.02	0.55	0.03	0.03		50.00		7.18
Acqui_valle	38.4	F1_Tr20	149.50	148.60	0.90	0.20	0.00		50.00		6.60
Acqui_valle	38.3	F1_Tr20	149.15	147.59	1.56	0.29	0.07		50.00		6.60
Acqui_valle	38.2	F1_Tr20	149.02	147.42	1.60	0.12	0.00		50.00		6.60
Acqui_valle	38.1	F1_Tr20	148.99	147.47	1.52	0.01	0.03		50.00		6.60
Acqui_valle	38	F1_Tr20	148.93	147.37	1.56	0.05	0.00		50.00		6.60
Acqui_valle	37.4	F1_Tr20	148.88	147.29	1.59	0.05	0.00		50.00		6.60
Acqui_valle	37.3	F1_Tr20	148.84	147.06	1.78	0.01	0.02		50.00		6.60
Acqui_valle	37.2	F1_Tr20	148.53	147.00	1.53	0.24	0.07		50.00		6.65
Acqui_valle	37.1	F1_Tr20	148.09	146.84	1.25	0.36	0.08		50.00		7.00
Acqui_valle	37	F1_Tr20	147.70	146.41	1.29	0.39	0.00		50.00		7.00

HEC-RAS Plan: SCENARIO F Profile: F1_Tr20 (Continued)

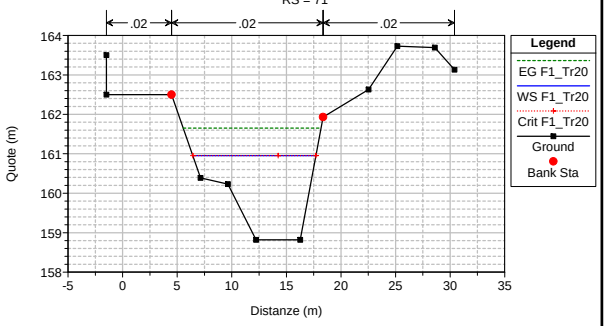
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	36	F1_Tr20	147.52	146.26	1.26	0.18	0.01		50.00		7.00
Acqui_valle	35	F1_Tr20	147.05	145.37	1.67	0.43	0.04		50.00		9.24
Acqui_valle	34.1	F1_Tr20	147.03	145.33	1.70	0.02	0.00		50.00		9.24
Acqui_valle	34	F1_Tr20	146.39	143.89	2.51	0.56	0.08		25.00		9.24
Acqui_valle	33.3	F1_Tr20	144.98	143.85	1.13	1.00	0.41		25.00		9.24
Acqui_valle	33.2	F1_Tr20	144.48	144.17	0.31	0.06	0.03		25.00		9.24
Acqui_valle	33.1	F1_Tr20	144.39	144.18	0.22	0.06	0.02		25.00		9.24
Acqui_valle	33.0	F1_Tr20	144.30	143.85	0.45	0.12	0.06		25.00		7.00
Acqui_valle	32.3	F1_Tr20	144.13	143.87	0.26	0.06	0.03		25.00		7.00
Acqui_valle	32.2	F1_Tr20	144.04	143.87	0.17	0.04	0.02		25.00		7.00
Acqui_valle	32.1	F1_Tr20	143.99	143.87	0.12	0.02	0.01		25.00		7.00
Acqui_valle	32	F1_Tr20	143.96	143.87	0.09	0.00	0.00		25.00		7.00
Acqui_valle	31.1	F1_Tr20	143.96	143.87	0.09	0.03	0.01		25.00		7.00
Acqui_valle	31	F1_Tr20	143.91	143.86	0.05				25.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	F1_Tr20	143.74	143.69	0.05				25.00		7.00


SCENARIO F 2013/07/09
Geom: progetto feb 2012
Legend
EG F1_Tr20
WS F1_Tr20
Crit F1_Tr20
Ground
Quote (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
Distanze progressive (m)
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
67
68.5
69.50
71

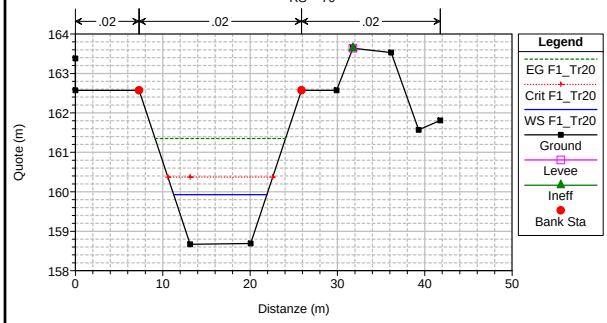
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 72



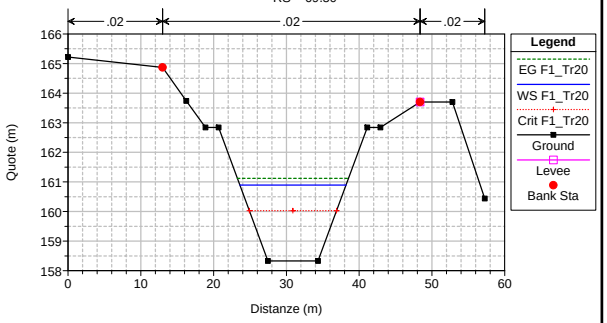
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 71



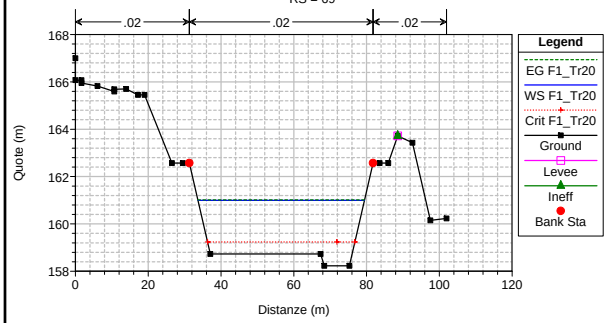
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 70



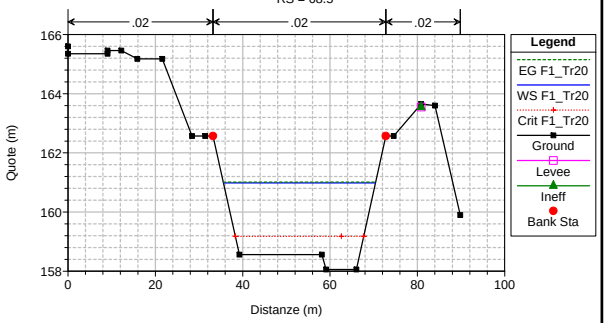
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 69.50



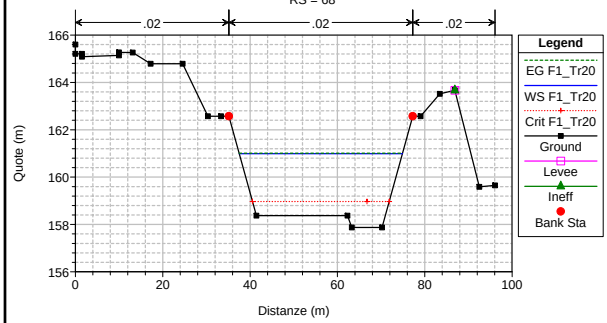
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 69



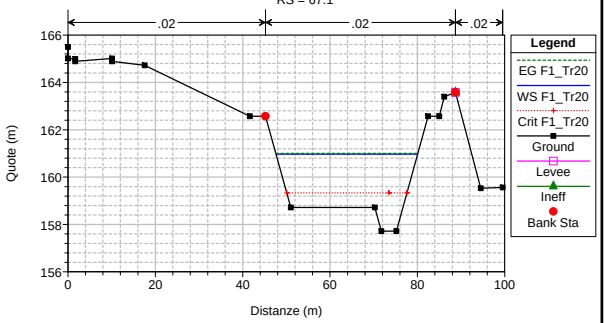
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 68.5



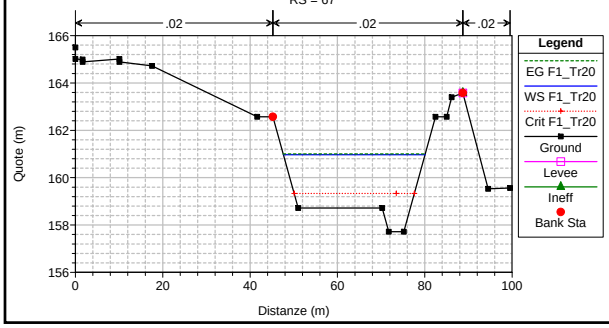
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 68



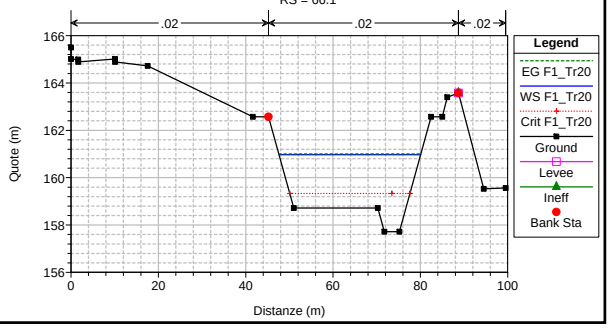
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 67.1



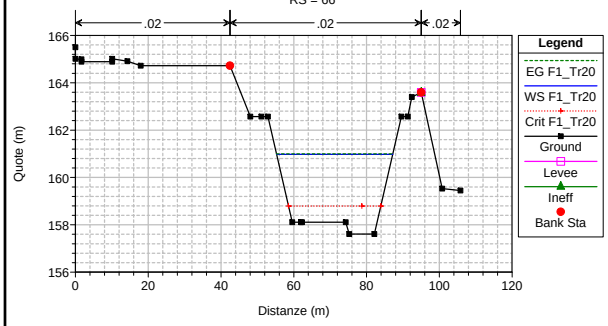
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 67



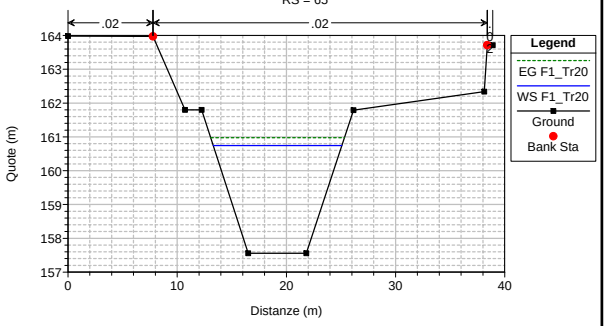
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 66.1



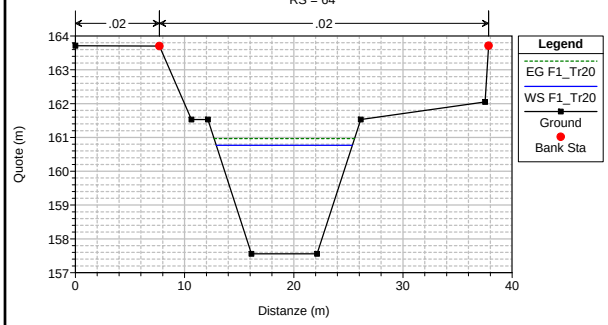
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 66



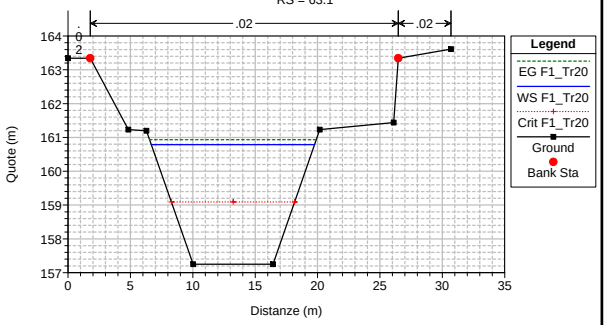
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 65



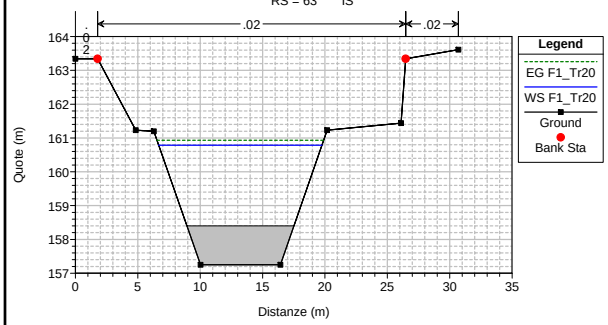
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 64



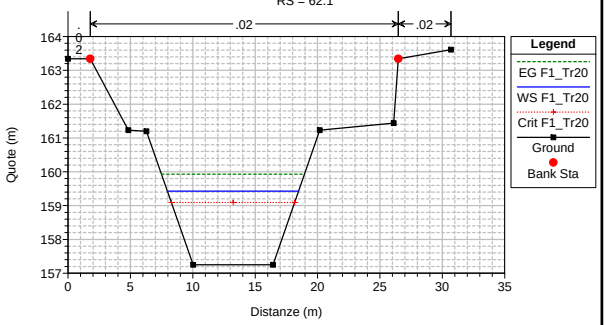
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 63.1



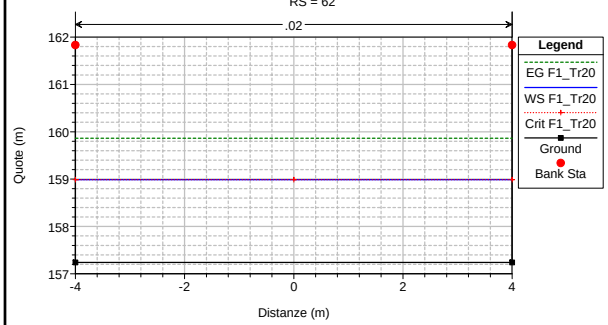
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 63 IS



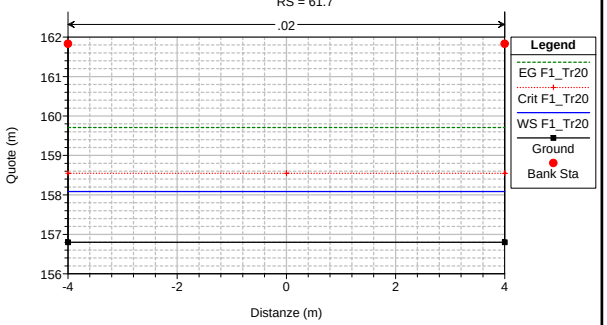
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 62.1



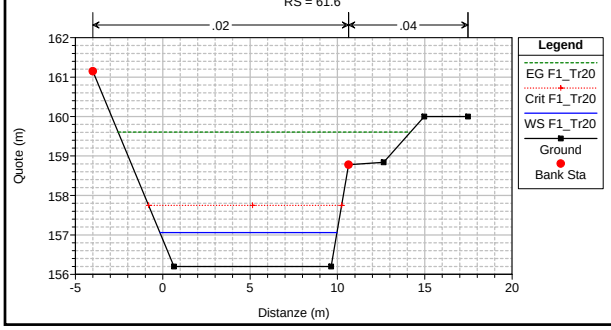
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 62



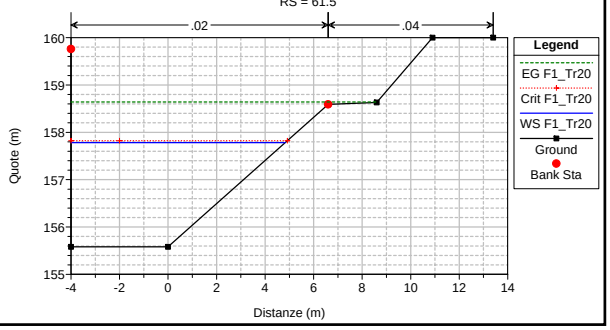
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.7



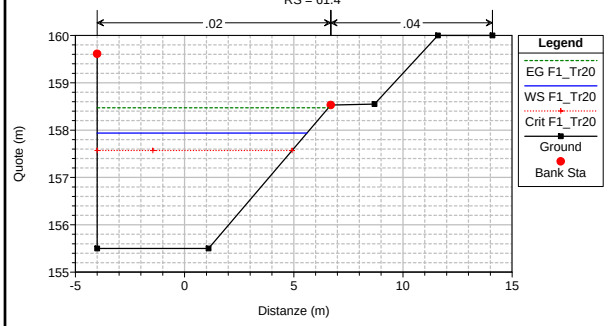
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.6



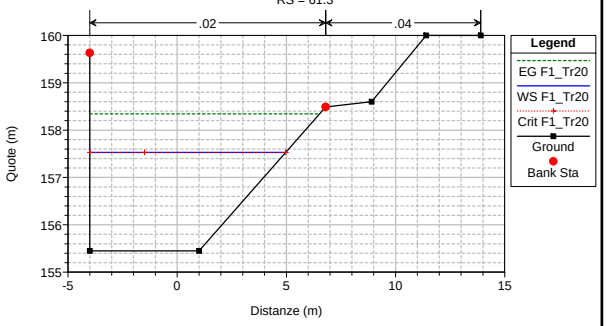
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.5



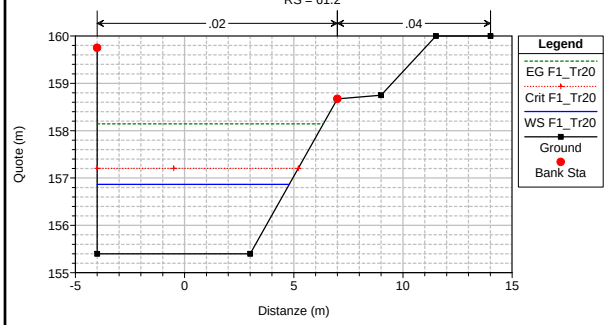
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.4



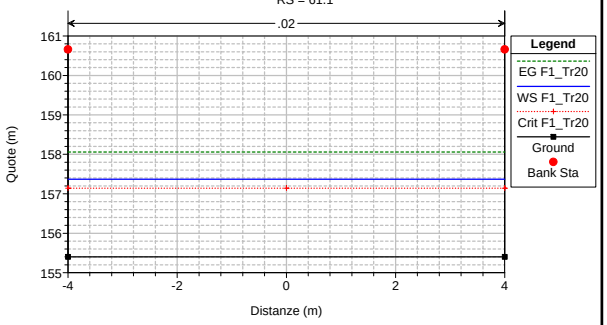
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.3



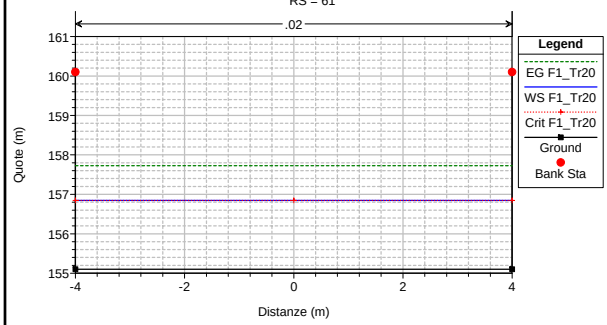
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.2



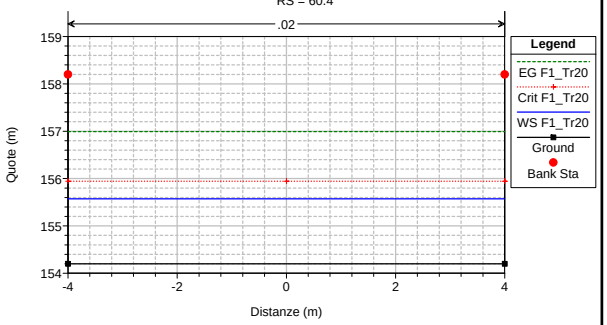
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.1



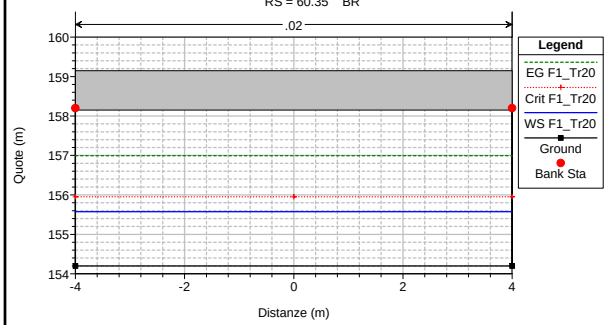
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61



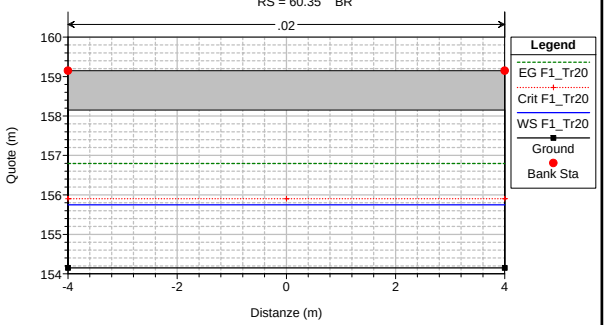
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.4



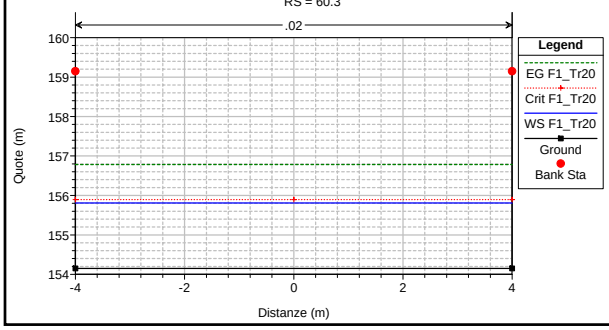
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.35 BR



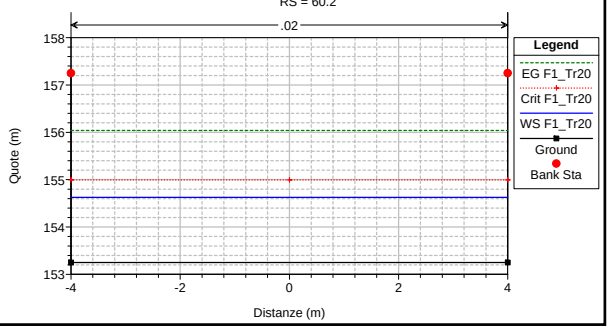
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.35 BR



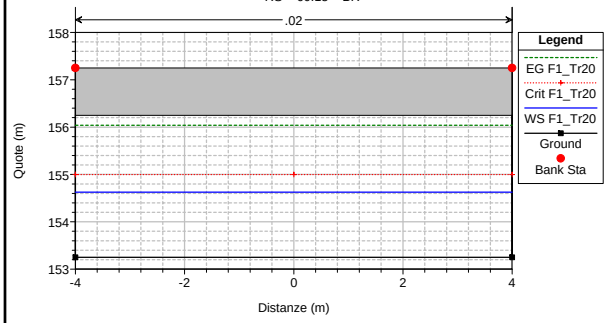
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.3



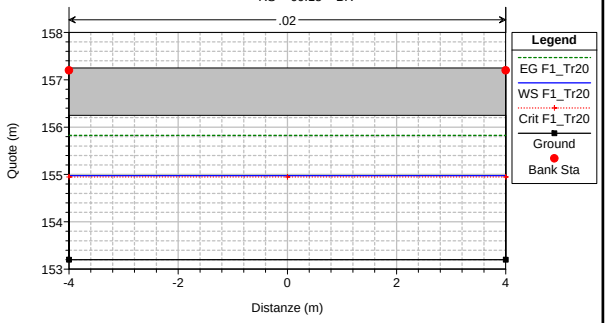
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.2



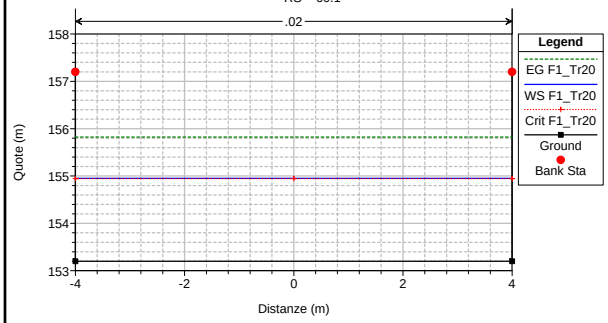
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.15 BR



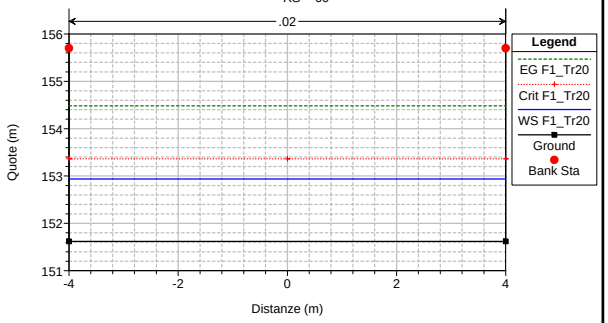
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.15 BR



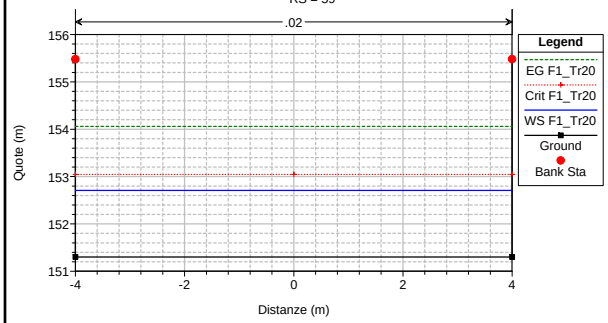
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.1



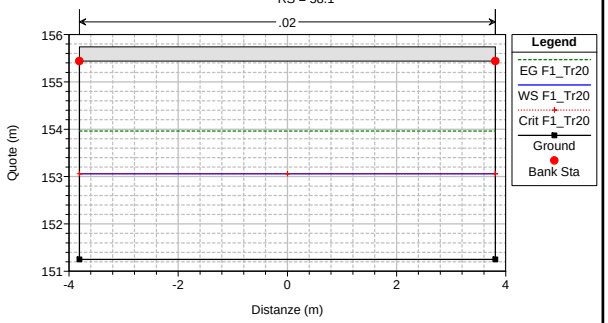
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60



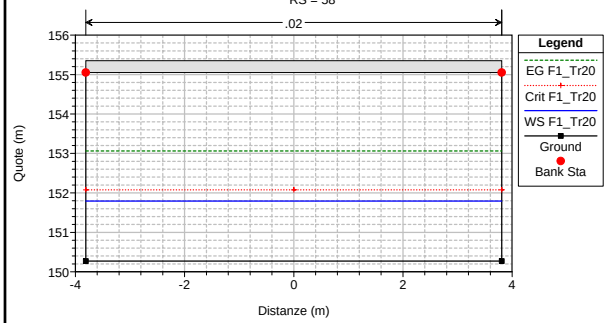
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 59



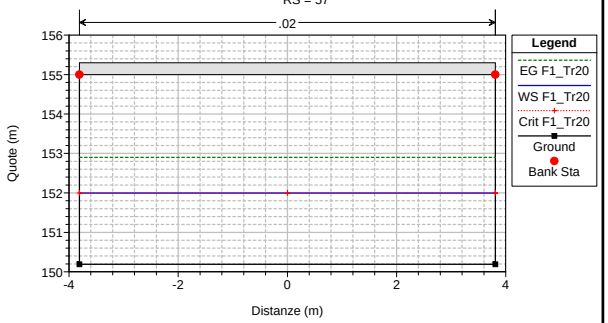
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 58.1



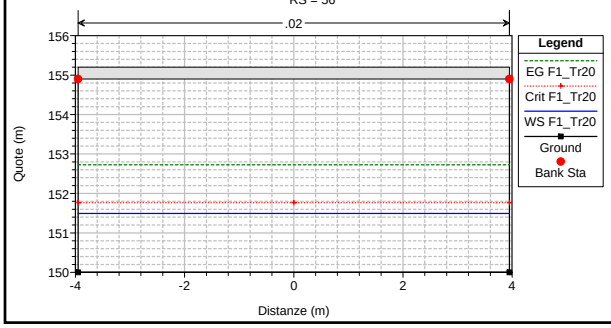
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 58



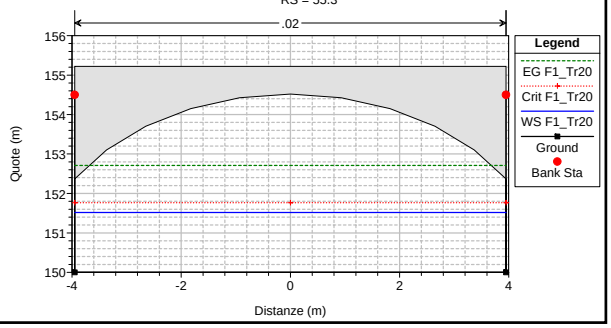
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 57



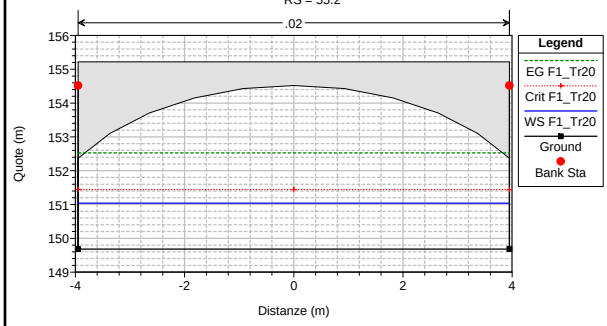
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 56



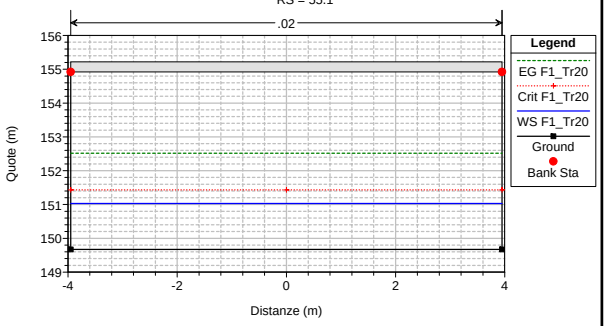
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.3



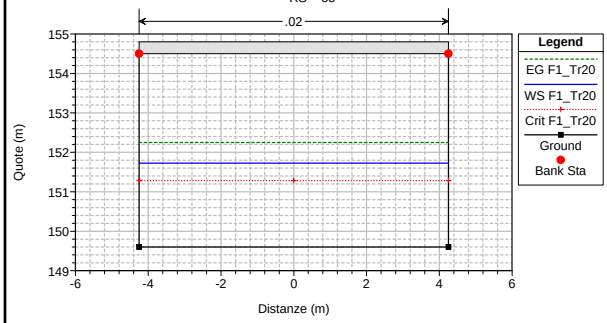
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.2



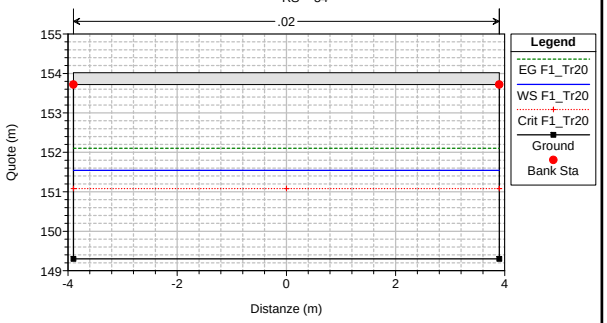
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.1



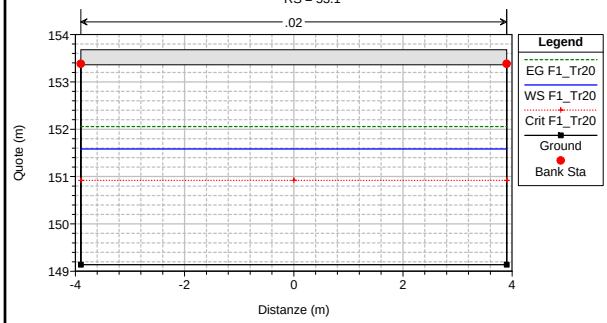
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55



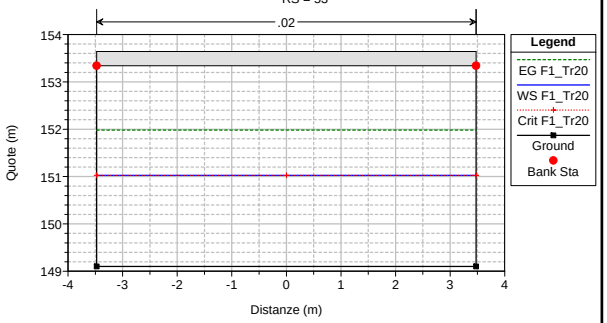
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 54



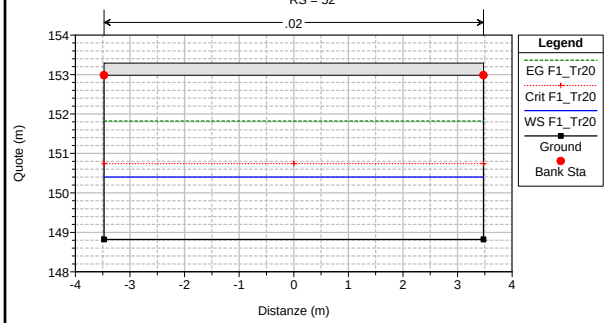
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 53.1



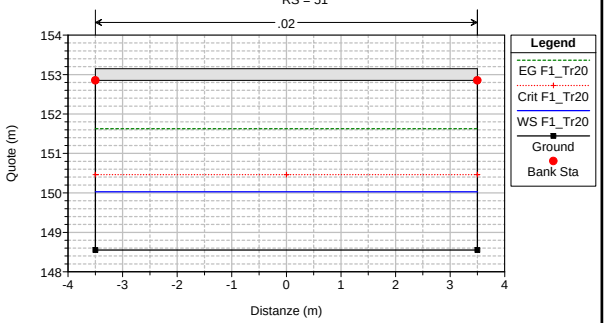
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 53



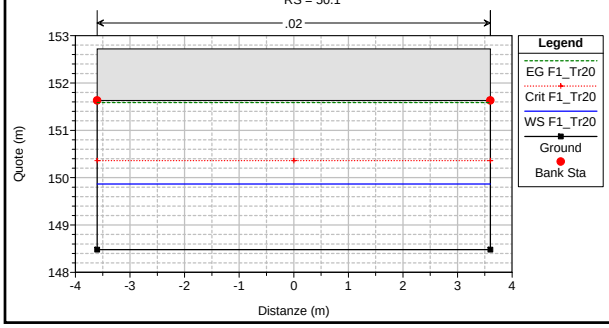
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 52



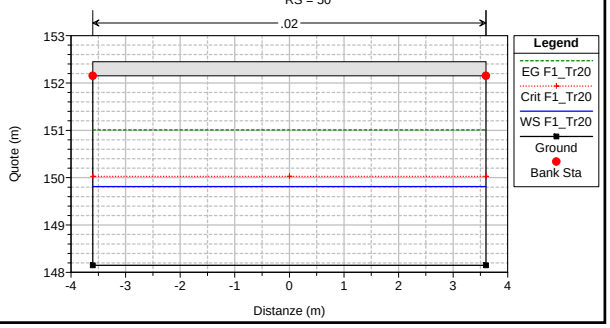
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 51



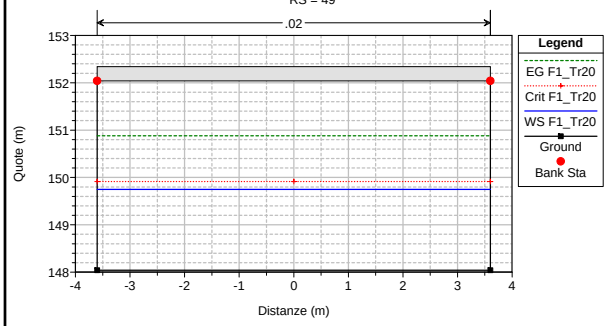
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 50.1



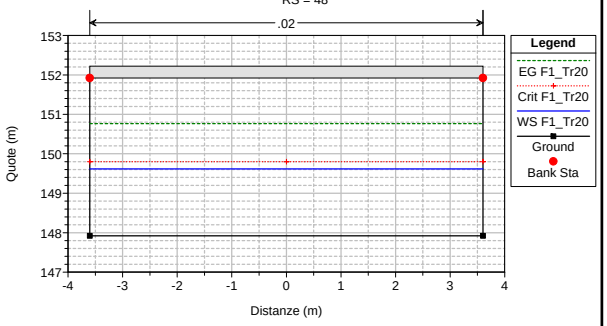
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 50



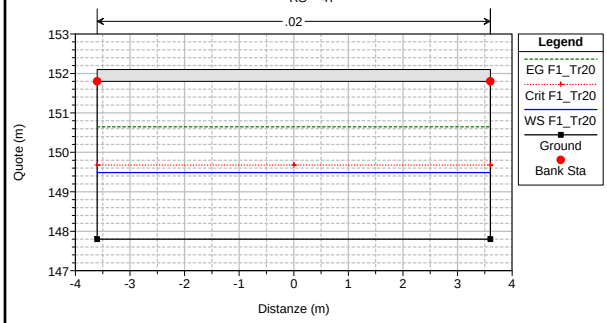
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 49



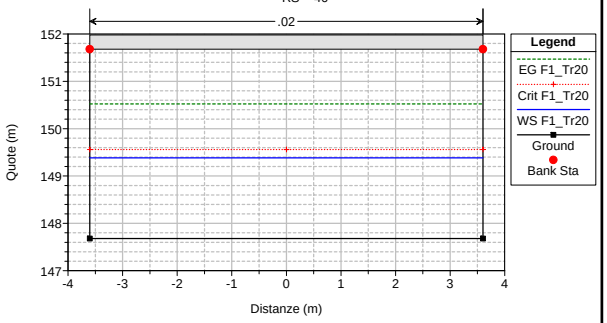
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 48



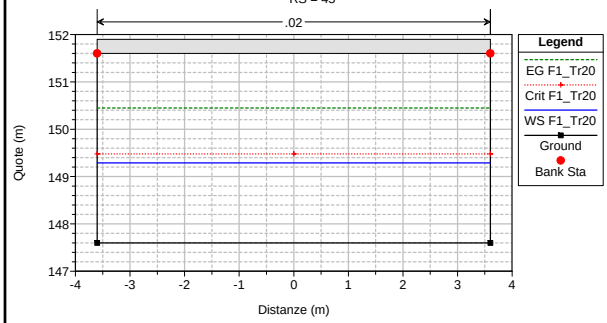
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 47



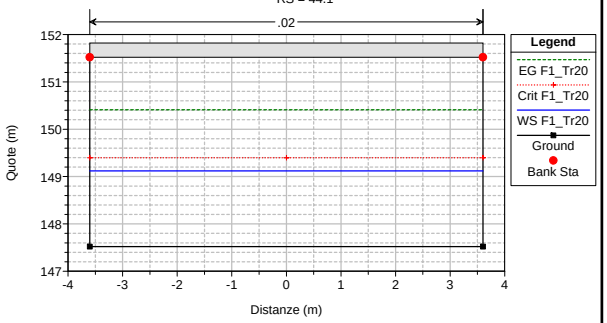
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 46



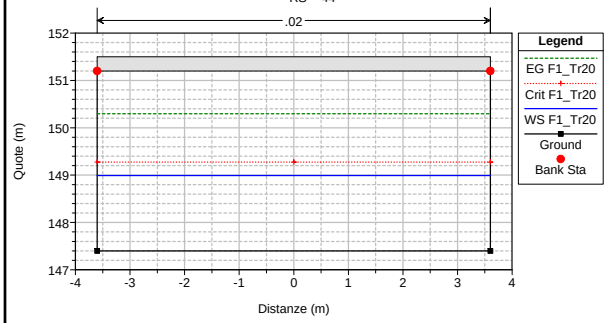
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 45



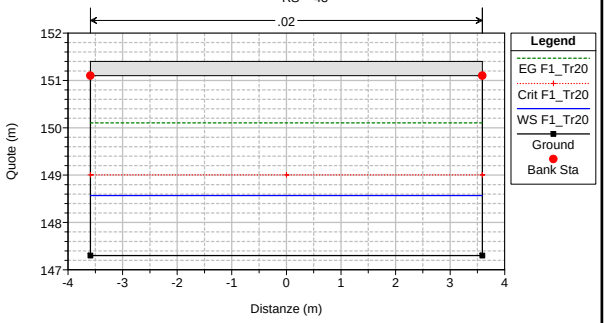
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 44.1



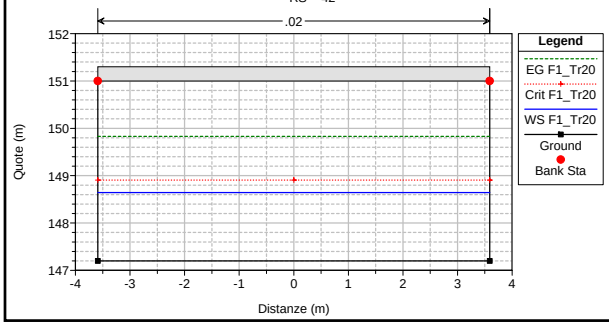
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 44



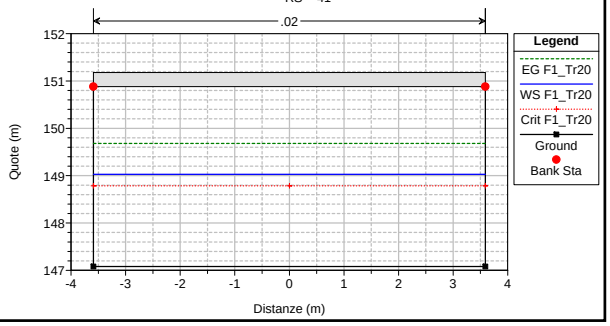
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 43



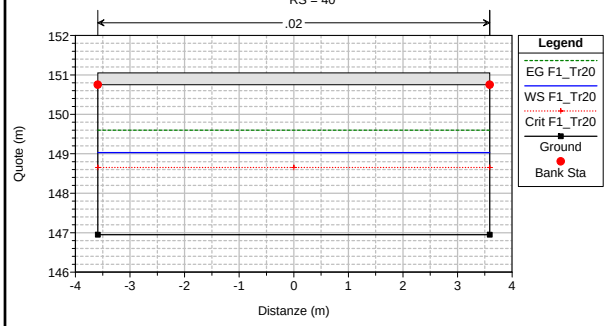
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 42



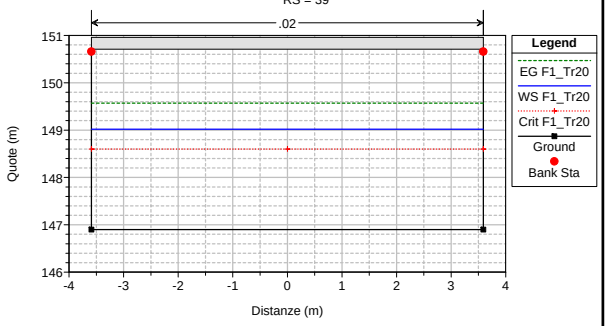
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 41



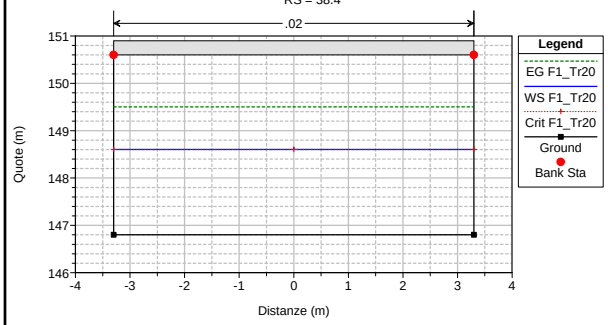
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 40



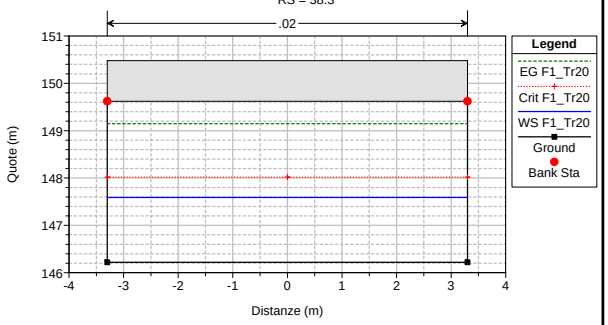
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 39



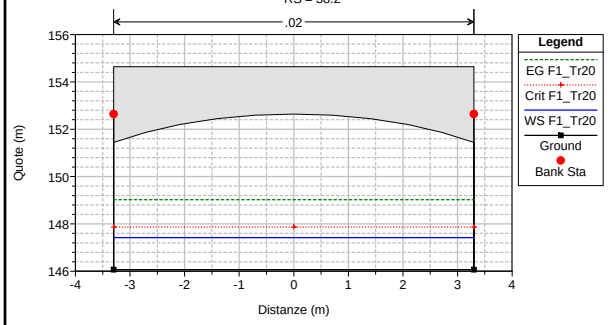
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.4



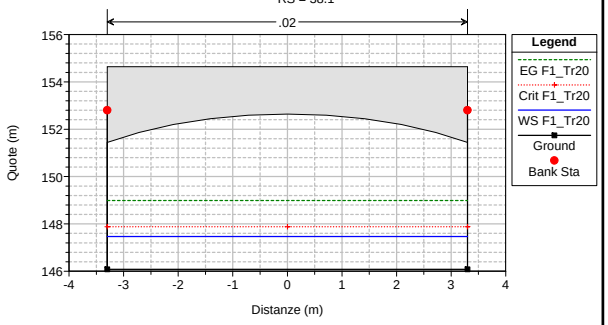
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.3



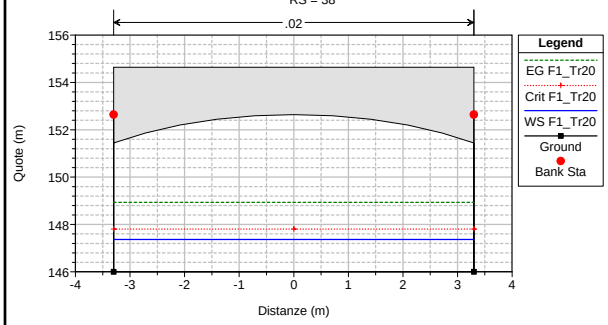
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.2



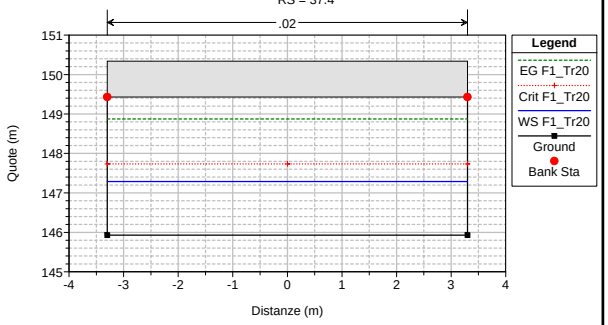
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.1



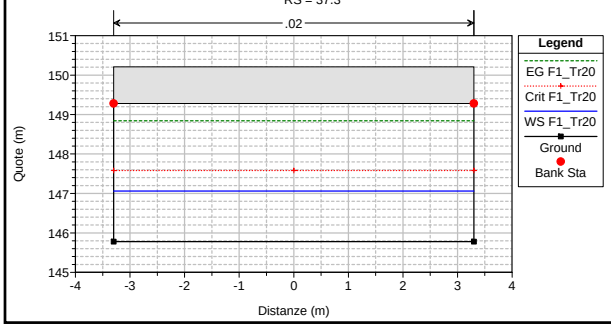
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38



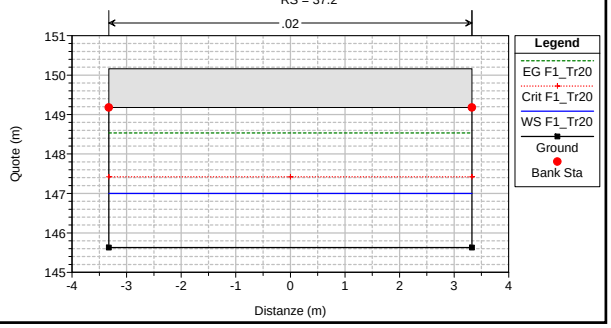
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.4



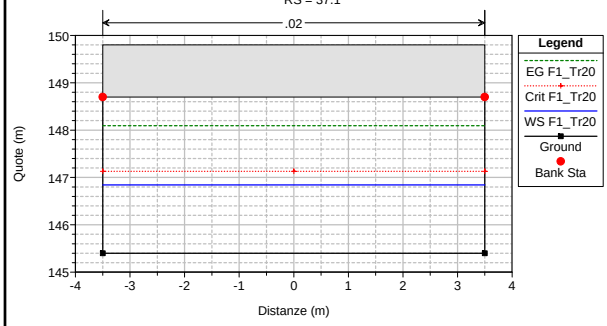
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.3



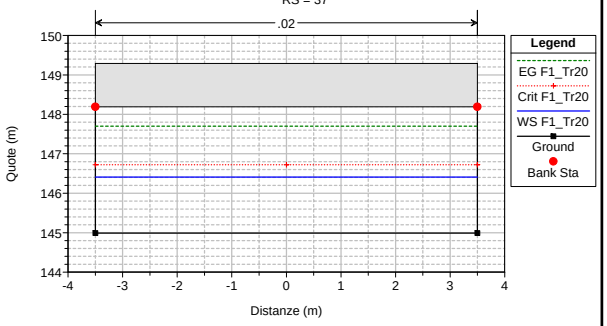
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.2



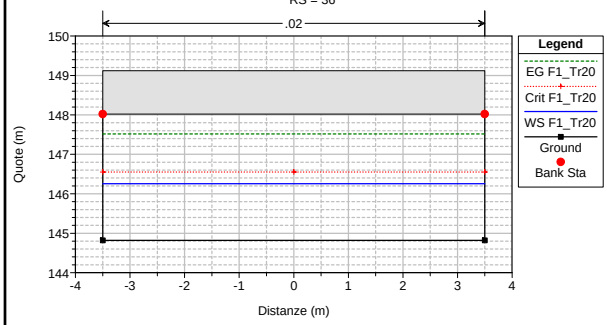
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.1



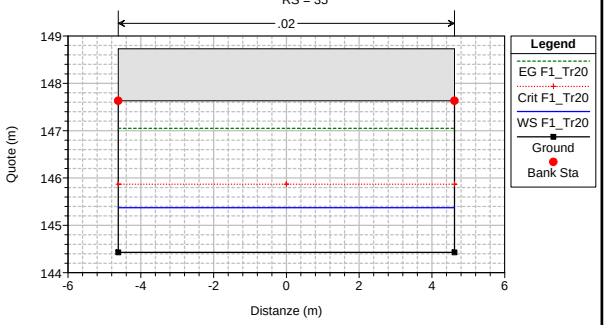
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37



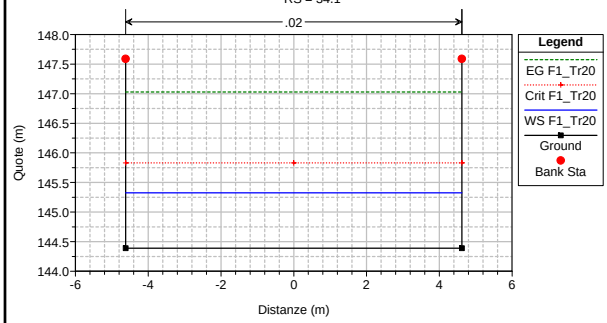
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 36



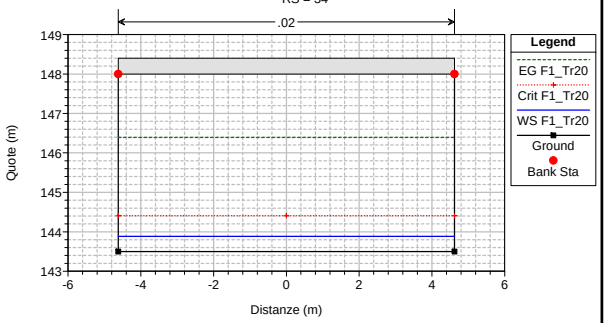
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 35



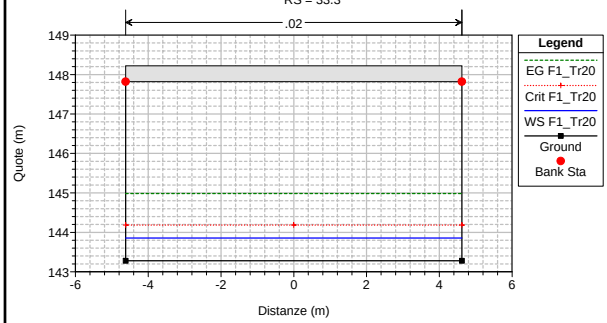
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 34.1



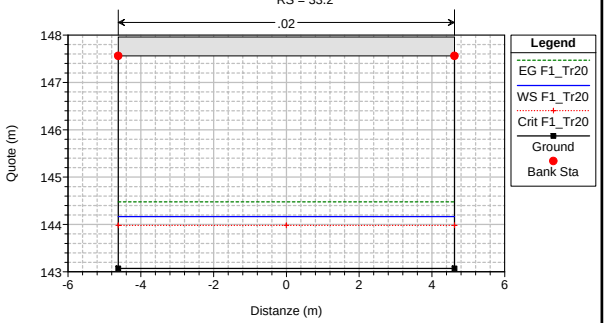
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 34



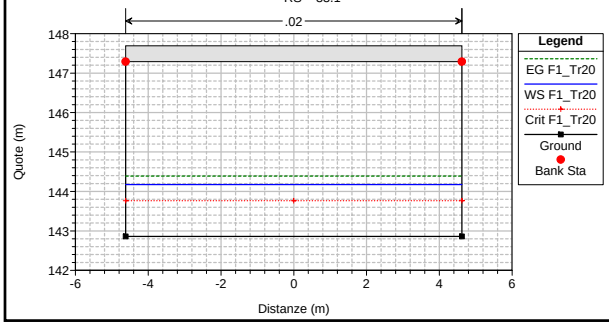
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.3



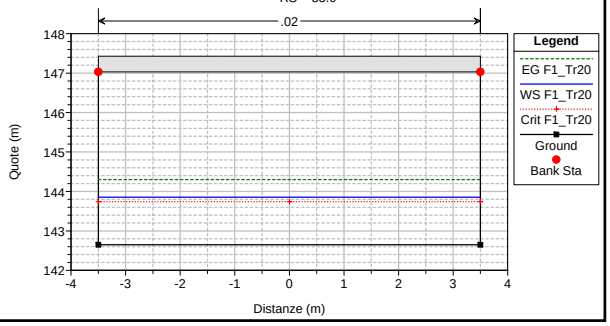
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.2



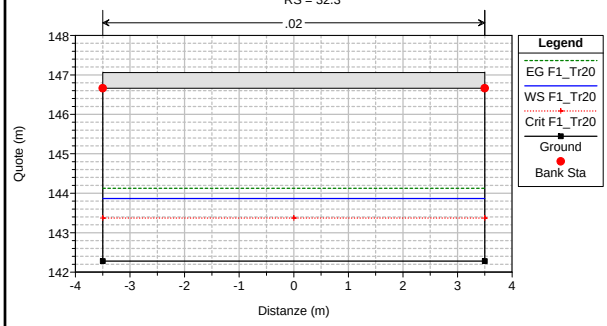
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.1



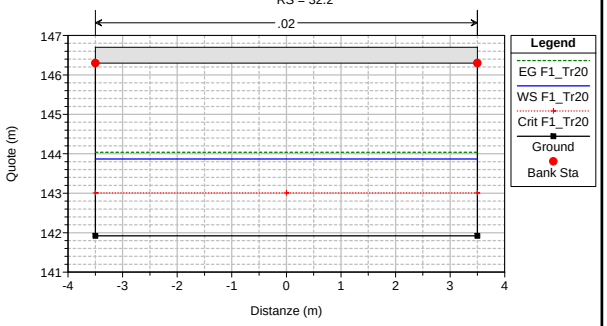
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.0



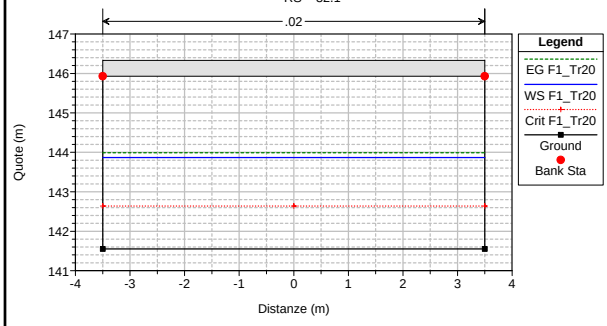
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.3



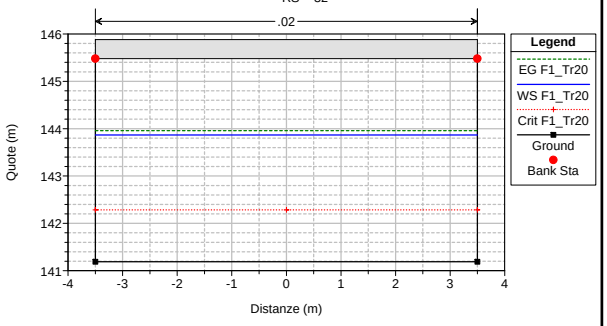
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.2



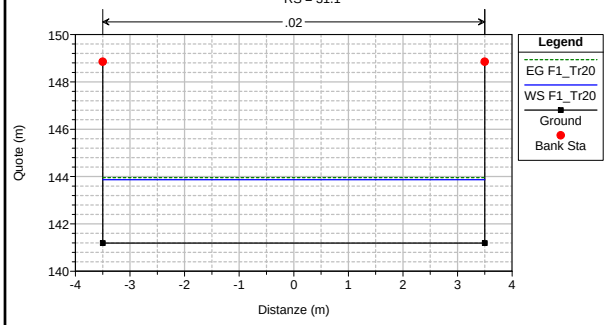
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.1



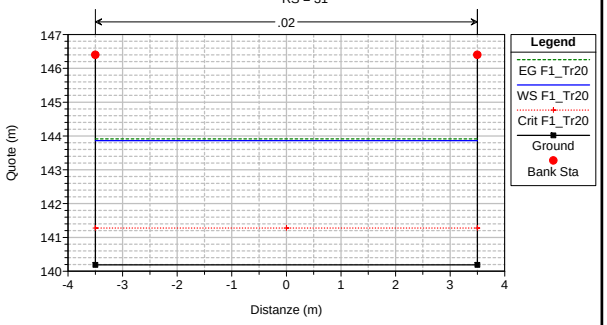
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32



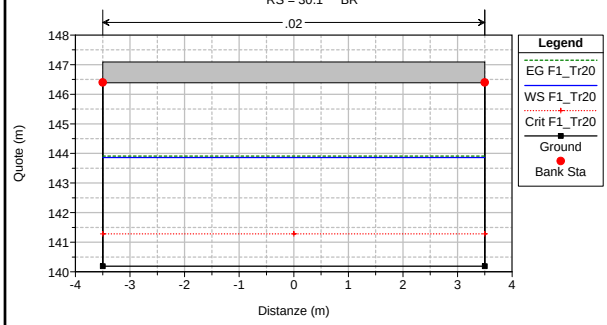
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 31.1



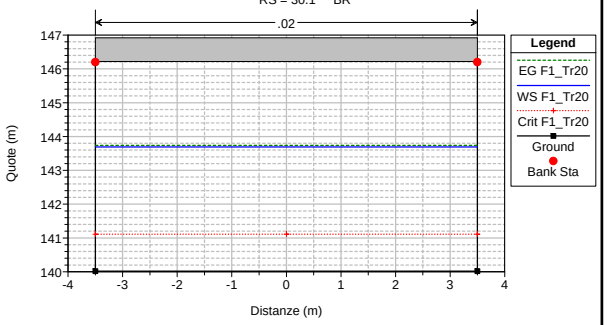
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 31



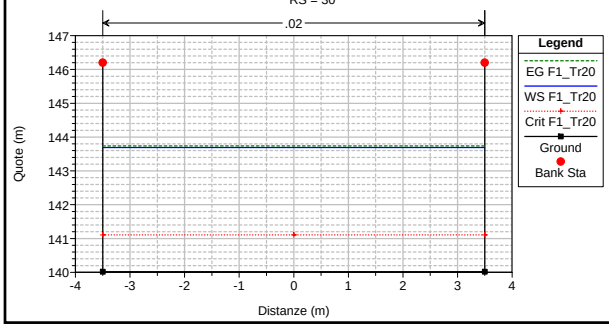
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30



Scenario F2)

Realizzazione completa degli interventi sistematori idralulici

Rio Medrio Tempo di ritorno Tr = 200 anni

Portata a monte della confluenza rio Usignolo Q = 107 mc/s

Portata a valle della confluenza rio Usignolo Q = 85 mc/s

Portata a valle dello scolmatore Q = 56 mc/s

Fiume Bormida Tempo di ritorno Tr = 20 anni

Q = 1740 mc/s livello idrico 143.69 m

NOTA:

LA SIMULAZIONE CON IL TEMPO DI RITORNO DUECENTENNALE NEL FIUME BORMIDA VIENE OMESSA IN QUANTO GLI INTERVENTI RICADONO IN UN TRATTO DEL RIO MEDRIO NON INFLUENZATO DAI LIVELLI DEL FIUME BORMIDA

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	72	F2_Tr 200	107.00	159.08	162.69	161.40	162.92	0.000634	2.10	51.01	20.96	0.43
Acqui _monte	71	F2_Tr 200	107.00	158.82	161.68	161.68	162.66	0.004018	4.38	24.42	12.68	1.01
Acqui _monte	70	F2_Tr 200	107.00	158.67	161.86	161.10	162.28	0.001288	2.87	37.26	16.47	0.61
Acqui _monte	69.50	F2_Tr 200	107.00	158.33	161.89	160.75	162.19	0.000842	2.46	43.52	17.57	0.50
Acqui _monte	69	F2_Tr 200	107.00	158.23	162.02	159.54	162.05	0.000050	0.72	148.49	48.83	0.13
Acqui _monte	68.5	F2_Tr 200	107.00	158.06	162.00	159.56	162.05	0.000082	0.92	116.53	37.87	0.17
Acqui _monte	68	F2_Tr 200	107.00	157.87	162.01	159.33	162.04	0.000060	0.82	131.16	40.44	0.14
Acqui _monte	67.1	F2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.85	35.48	0.19
Acqui _monte	67	F2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.84	35.48	0.19
Acqui _monte	66.1	F2_Tr 200	107.00	157.72	161.99	159.72	162.04	0.000108	1.02	104.83	35.48	0.19
Acqui _monte	66	F2_Tr 200	107.00	157.61	161.99	159.21	162.03	0.000074	0.91	117.03	34.97	0.16
Acqui _monte	65	F2_Tr 200	107.00	157.56	161.59	160.42	162.00	0.001080	2.83	37.87	13.49	0.54
Acqui _monte	64	F2_Tr 200	107.00	157.56	161.63	160.28	161.97	0.001093	2.58	41.42	17.90	0.54
Acqui _monte	63.1	F2_Tr 200	107.00	157.25	161.67	159.90	161.91	0.000785	2.17	49.40	21.95	0.46
Acqui _monte	63		Inl Struct									
Acqui _monte	62.1	F2_Tr 200	107.00	157.25	160.81	159.90	161.29	0.001365	3.07	34.80	13.14	0.60
Acqui _monte	62	F2_Tr 200	107.00	157.24	159.86	159.86	161.19	0.005625	5.10	20.99	8.00	1.00
Acqui _monte	61.7	F2_Tr 200	107.00	156.80	158.85	159.43	161.02	0.011364	6.53	16.39	8.00	1.46
Acqui _monte	61.6	F2_Tr 200	107.00	156.20	157.53	158.49	160.89	0.023939	8.12	13.18	10.77	2.34
Acqui _monte	61.5	F2_Tr 200	107.00	155.58	158.55	158.71	159.81	0.005632	4.97	21.53	10.51	1.11
Acqui _monte	61.4	F2_Tr 200	107.00	155.50	158.96	158.45	159.66	0.002351	3.73	29.51	13.51	0.73
Acqui _monte	61.3	F2_Tr 200	107.00	155.45	158.83	158.40	159.59	0.002595	3.85	28.38	13.32	0.77
Acqui _monte	61.2	F2_Tr 200	107.00	155.40	158.91	158.04	159.48	0.001701	3.33	32.56	13.33	0.62
Acqui _monte	61.1	F2_Tr 200	107.00	155.40	158.39	158.02	159.41	0.003902	4.47	23.94	8.00	0.82
Acqui _monte	61	F2_Tr 200	107.00	155.10	157.72	157.72	159.05	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.4	F2_Tr 200	107.00	154.20	156.36	156.83	158.32	0.009827	6.20	17.24	8.00	1.35
Acqui _monte	60.35		Bridge									
Acqui _monte	60.3	F2_Tr 200	107.00	154.15	156.77	156.77	158.10	0.005627	5.10	20.99	8.00	1.00
Acqui _monte	60.2	F2_Tr 200	107.00	153.25	155.38	155.87	157.38	0.010104	6.27	17.08	8.00	1.37
Acqui _monte	60.15		Bridge									
Acqui _monte	60.1	F2_Tr 200	107.00	153.20	155.83	155.82	157.15	0.005587	5.08	21.04	8.00	1.00
Acqui _monte	60	F2_Tr 200	107.00	151.62	153.70	154.24	155.81	0.010936	6.44	16.61	8.00	1.43
Acqui _monte	59	F2_Tr 200	107.00	151.30	154.52	153.92	155.40	0.003197	4.16	25.74	8.00	0.74
Acqui _monte	58.1	F2_Tr 200	107.00	151.25	153.97	153.97	155.33	0.005772	5.17	20.71	7.62	1.00
Acqui _monte	58	F2_Tr 200	107.00	150.27	152.65	152.99	154.42	0.008323	5.89	18.17	7.62	1.22

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui _monte	57	F2_Tr 200	107.00	150.19	152.90	152.90	154.27	0.005802	5.18	20.67	7.62	1.00
Acqui _monte	56	F2_Tr 200	107.00	150.00	152.28	152.66	154.08	0.008622	5.94	18.02	7.90	1.25
Acqui _monte	55.3	F2_Tr 200	107.00	150.00	152.31	152.62	154.06	0.008316	5.86	18.25	7.90	1.23
Acqui _monte	55.2	F2_Tr 200	107.00	149.68	152.95	152.34	153.84	0.003368	4.18	25.57	6.97	0.74
Acqui _monte	55.1	F2_Tr 200	107.00	149.67	152.97	152.33	153.83	0.003077	4.10	26.09	7.90	0.72
Acqui _monte	55	F2_Tr 200	107.00	149.60	153.05	152.13	153.73	0.002261	3.65	29.30	8.50	0.63
Acqui _monte	54	F2_Tr 200	107.00	149.30	152.80	151.97	153.58	0.002710	3.92	27.32	7.80	0.67
Acqui _monte	53.1	F2_Tr 200	107.00	149.14	152.84	151.82	153.54	0.002347	3.71	28.82	7.80	0.62
Acqui _monte	53	F2_Tr 200	107.00	149.10	151.99	151.99	153.44	0.006187	5.33	20.08	6.95	1.00
Acqui _monte	52	F2_Tr 200	107.00	148.82	151.30	151.71	153.26	0.009409	6.21	17.24	6.95	1.26
Acqui _monte	51	F2_Tr 200	107.00	148.55	150.88	151.43	153.07	0.011036	6.57	16.29	7.00	1.37
Acqui _monte	50.1	F2_Tr 200	107.00	148.48	150.66	151.31	153.03	0.012398	6.82	15.68	7.20	1.48
Acqui _monte	50	F2_Tr 200	107.00	148.15	150.69	150.98	152.43	0.008016	5.84	18.32	7.20	1.17
Acqui _monte	49	F2_Tr 200	107.00	148.04	150.60	150.87	152.32	0.007922	5.82	18.39	7.20	1.16
Acqui _monte	48	F2_Tr 200	107.00	147.92	150.49	150.75	152.19	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	47	F2_Tr 200	107.00	147.80	150.37	150.63	152.07	0.007810	5.79	18.49	7.20	1.15
Acqui _monte	46	F2_Tr 200	107.00	147.68	150.24	150.51	151.96	0.007885	5.81	18.43	7.20	1.16
Acqui _monte	45	F2_Tr 200	107.00	147.60	150.17	150.43	151.87	0.007785	5.78	18.51	7.20	1.15
Acqui _monte	44.1	F2_Tr 200	107.00	147.52	149.99	150.35	151.84	0.008715	6.02	17.78	7.20	1.22
Acqui _monte	44	F2_Tr 200	107.00	147.40	149.86	150.23	151.72	0.008818	6.04	17.70	7.20	1.23
Acqui_valle	43	F2_Tr 200	85.00	147.30	149.00	149.72	151.48	0.016124	6.98	12.18	7.18	1.71
Acqui_valle	42	F2_Tr 200	85.00	147.20	149.05	149.62	151.13	0.012465	6.38	13.32	7.18	1.50
Acqui_valle	41	F2_Tr 200	85.00	147.08	150.00	149.50	150.84	0.003471	4.05	20.99	7.18	0.76
Acqui_valle	40	F2_Tr 200	85.00	146.95	150.00	149.37	150.77	0.003100	3.88	21.88	7.18	0.71
Acqui_valle	39	F2_Tr 200	85.00	146.90	149.99	149.33	150.74	0.002995	3.84	22.16	7.18	0.70
Acqui_valle	38.4	F2_Tr 200	85.00	146.80	149.37	149.37	150.65	0.006159	5.01	16.95	6.60	1.00
Acqui_valle	38.3	F2_Tr 200	85.00	146.22	148.26	148.79	150.29	0.011626	6.30	13.50	6.60	1.41
Acqui_valle	38.2	F2_Tr 200	85.00	146.07	148.08	148.63	150.17	0.012195	6.41	13.27	6.60	1.44
Acqui_valle	38.1	F2_Tr 200	85.00	146.08	148.14	148.65	150.13	0.011334	6.24	13.62	6.60	1.39
Acqui_valle	38	F2_Tr 200	85.00	146.00	148.03	148.57	150.08	0.011795	6.33	13.43	6.60	1.42
Acqui_valle	37.4	F2_Tr 200	85.00	145.93	147.95	148.49	150.03	0.012104	6.39	13.31	6.60	1.44
Acqui_valle	37.3	F2_Tr 200	85.00	145.78	147.70	148.35	149.99	0.013894	6.71	12.67	6.60	1.54
Acqui_valle	37.2	F2_Tr 200	85.00	145.63	147.63	148.18	149.71	0.012093	6.38	13.32	6.65	1.44
Acqui_valle	37.1	F2_Tr 200	85.00	145.40	147.40	147.87	149.28	0.010642	6.06	14.02	7.00	1.37
Acqui_valle	37	F2_Tr 200	85.00	144.99	147.01	147.46	148.85	0.010398	6.01	14.14	7.00	1.35

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200 (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Acqui_valle	36	F2_Tr 200	85.00	144.82	146.89	147.29	148.65	0.009757	5.88	14.46	7.00	1.31
Acqui_valle	35	F2_Tr 200	85.00	144.43	145.77	146.48	148.16	0.017750	6.84	12.42	9.24	1.88
Acqui_valle	34.1	F2_Tr 200	85.00	144.39	145.73	146.44	148.14	0.018069	6.88	12.35	9.24	1.90
Acqui_valle	34	F2_Tr 200	56.00	143.50	144.25	145.05	147.54	0.045983	8.03	6.97	9.24	2.95
Acqui_valle	33.3	F2_Tr 200	56.00	143.28	144.22	144.83	146.34	0.023219	6.46	8.67	9.24	2.13
Acqui_valle	33.2	F2_Tr 200	56.00	143.07	145.25	144.62	145.64	0.001838	2.78	20.12	9.24	0.60
Acqui_valle	33.1	F2_Tr 200	56.00	142.86	145.25	144.41	145.58	0.001401	2.53	22.10	9.24	0.52
Acqui_valle	33.0	F2_Tr 200	56.00	142.65	144.52	144.52	145.45	0.005622	4.28	13.09	7.00	1.00
Acqui_valle	32.3	F2_Tr 200	56.00	142.28	143.94	144.15	145.12	0.007924	4.82	11.62	7.00	1.19
Acqui_valle	32.2	F2_Tr 200	56.00	141.92	143.59	143.79	144.76	0.007764	4.78	11.71	7.00	1.18
Acqui_valle	32.1	F2_Tr 200	56.00	141.55	143.90	143.42	144.49	0.002928	3.40	16.48	7.00	0.71
Acqui_valle	32	F2_Tr 200	56.00	141.19	143.89	143.06	144.34	0.001992	2.96	18.93	7.00	0.57
Acqui_valle	31.1	F2_Tr 200	56.00	141.19	143.89	143.06	144.34	0.001997	2.96	18.92	7.00	0.57
Acqui_valle	31	F2_Tr 200	56.00	140.19	143.88	142.05	144.12	0.000860	2.17	25.84	7.00	0.36
Acqui_valle	30.1		Bridge									
Acqui_valle	30	F2_Tr 200	56.00	140.02	143.69	141.88	143.93	0.000873	2.18	25.69	7.00	0.36

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200

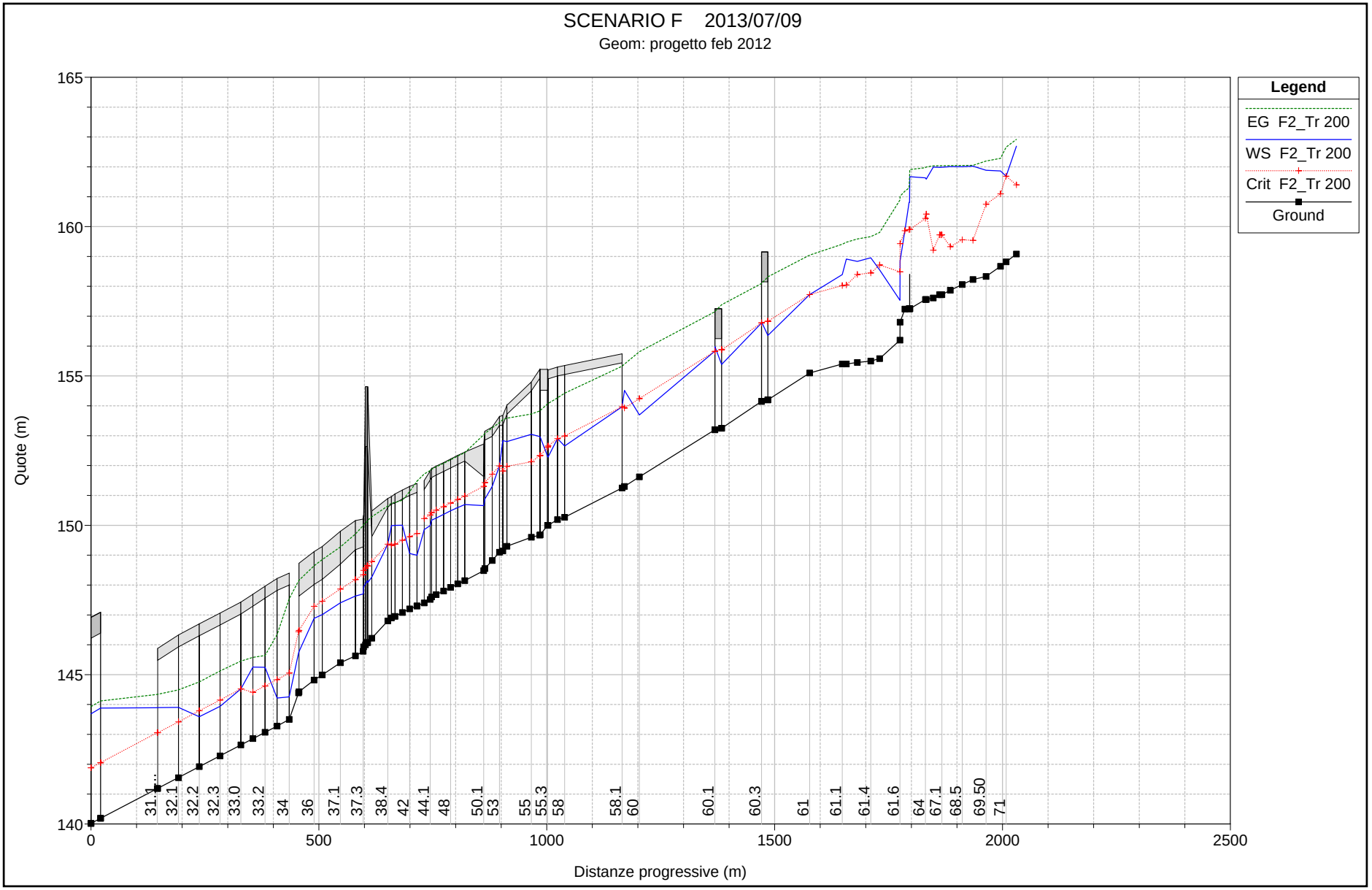
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	72	F2_Tr 200	162.92	162.69	0.22	0.03	0.23		107.00		20.96
Acqui _monte	71	F2_Tr 200	162.66	161.68	0.98	0.03	0.28		107.00		12.68
Acqui _monte	70	F2_Tr 200	162.28	161.86	0.42	0.03	0.06		107.00		16.47
Acqui _monte	69.50	F2_Tr 200	162.19	161.89	0.31	0.00	0.14		107.00		17.57
Acqui _monte	69	F2_Tr 200	162.05	162.02	0.03	0.00	0.00		107.00		48.83
Acqui _monte	68.5	F2_Tr 200	162.05	162.00	0.04	0.00	0.00		107.00		37.87
Acqui _monte	68	F2_Tr 200	162.04	162.01	0.03	0.00	0.00		107.00		40.44
Acqui _monte	67.1	F2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	67	F2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	66.1	F2_Tr 200	162.04	161.99	0.05	0.00	0.00		107.00		35.48
Acqui _monte	66	F2_Tr 200	162.03	161.99	0.04	0.00	0.04		107.00		34.97
Acqui _monte	65	F2_Tr 200	162.00	161.59	0.41	0.00	0.02		107.00		13.49
Acqui _monte	64	F2_Tr 200	161.97	161.63	0.34	0.03	0.03		107.00		17.90
Acqui _monte	63.1	F2_Tr 200	161.91	161.67	0.24				107.00		21.95
Acqui _monte	63		Inl Struct								
Acqui _monte	62.1	F2_Tr 200	161.29	160.81	0.48	0.02	0.08		107.00		13.14
Acqui _monte	62	F2_Tr 200	161.19	159.86	1.32	0.06	0.00		107.00		8.00
Acqui _monte	61.7	F2_Tr 200	161.02	158.85	2.17	0.08	0.09		107.00		8.00
Acqui _monte	61.6	F2_Tr 200	160.89	157.53	3.36	0.01	0.12		107.00		10.77
Acqui _monte	61.5	F2_Tr 200	159.81	158.55	1.26	0.45	0.63		107.00		10.51
Acqui _monte	61.4	F2_Tr 200	159.66	158.96	0.71	0.07	0.00		106.41	0.59	13.51
Acqui _monte	61.3	F2_Tr 200	159.59	158.83	0.75	0.05	0.06		106.67	0.33	13.32
Acqui _monte	61.2	F2_Tr 200	159.48	158.91	0.56	0.02	0.05		106.85	0.15	13.33
Acqui _monte	61.1	F2_Tr 200	159.41	158.39	1.02	0.33	0.03		107.00		8.00
Acqui _monte	61	F2_Tr 200	159.05	157.72	1.32	0.43	0.09		107.00		8.00
Acqui _monte	60.4	F2_Tr 200	158.32	156.36	1.96	0.67	0.06		107.00		8.00
Acqui _monte	60.35		Bridge								
Acqui _monte	60.3	F2_Tr 200	158.10	156.77	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60.2	F2_Tr 200	157.38	155.38	2.00	0.65	0.07		107.00		8.00
Acqui _monte	60.15		Bridge								
Acqui _monte	60.1	F2_Tr 200	157.15	155.83	1.32	0.00	0.00		107.00		8.00
Acqui _monte	60	F2_Tr 200	155.81	153.70	2.11	1.26	0.08		107.00		8.00
Acqui _monte	59	F2_Tr 200	155.40	154.52	0.88	0.02	0.05		107.00		8.00
Acqui _monte	58.1	F2_Tr 200	155.33	153.97	1.36	0.65	0.06		107.00		7.62
Acqui _monte	58	F2_Tr 200	154.42	152.65	1.77	0.87	0.04		107.00		7.62

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200 (Continued)

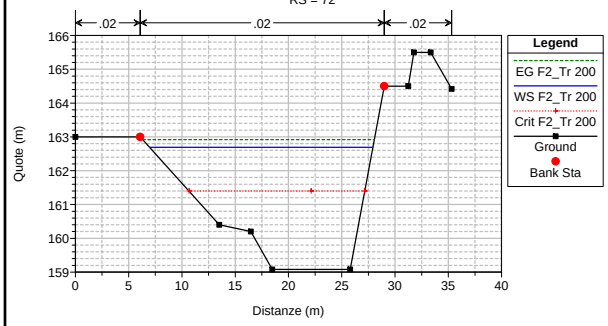
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui _monte	57	F2_Tr 200	154.27	152.90	1.36	0.10	0.09		107.00		7.62
Acqui _monte	56	F2_Tr 200	154.08	152.28	1.80	0.15	0.04		107.00		7.90
Acqui _monte	55.3	F2_Tr 200	154.06	152.31	1.75	0.01	0.13		107.00		7.90
Acqui _monte	55.2	F2_Tr 200	153.84	152.95	0.89	0.00	0.01		107.00		6.97
Acqui _monte	55.1	F2_Tr 200	153.83	152.97	0.86	0.05	0.05		107.00		7.90
Acqui _monte	55	F2_Tr 200	153.73	153.05	0.68	0.13	0.01		107.00		8.50
Acqui _monte	54	F2_Tr 200	153.58	152.80	0.78	0.02	0.02		107.00		7.80
Acqui _monte	53.1	F2_Tr 200	153.54	152.84	0.70	0.03	0.07		107.00		7.80
Acqui _monte	53	F2_Tr 200	153.44	151.99	1.45	0.10	0.00		107.00		6.95
Acqui _monte	52	F2_Tr 200	153.26	151.30	1.96	0.12	0.05		107.00		6.95
Acqui _monte	51	F2_Tr 200	153.07	150.88	2.20	0.16	0.02		107.00		7.00
Acqui _monte	50.1	F2_Tr 200	153.03	150.66	2.37	0.03	0.02		107.00		7.20
Acqui _monte	50	F2_Tr 200	152.43	150.69	1.74	0.41	0.19		107.00		7.20
Acqui _monte	49	F2_Tr 200	152.32	150.60	1.72	0.11	0.10		107.00		7.20
Acqui _monte	48	F2_Tr 200	152.19	150.49	1.71	0.12	0.01		107.00		7.20
Acqui _monte	47	F2_Tr 200	152.07	150.37	1.71	0.12	0.00		107.00		7.20
Acqui _monte	46	F2_Tr 200	151.96	150.24	1.72	0.11	0.09		107.00		7.20
Acqui _monte	45	F2_Tr 200	151.87	150.17	1.70	0.08	0.00		107.00		7.20
Acqui _monte	44.1	F2_Tr 200	151.84	149.99	1.85	0.02	0.01		107.00		7.20
Acqui _monte	44	F2_Tr 200	151.72	149.86	1.86	0.11	0.00		107.00		7.20
Acqui_valle	43	F2_Tr 200	151.48	149.00	2.48	0.18	0.06		85.00		7.18
Acqui_valle	42	F2_Tr 200	151.13	149.05	2.08	0.23	0.12		85.00		7.18
Acqui_valle	41	F2_Tr 200	150.84	150.00	0.84	0.05	0.02		85.00		7.18
Acqui_valle	40	F2_Tr 200	150.77	150.00	0.77	0.02	0.01		85.00		7.18
Acqui_valle	39	F2_Tr 200	150.74	149.99	0.75	0.03	0.05		85.00		7.18
Acqui_valle	38.4	F2_Tr 200	150.65	149.37	1.28	0.21	0.00		85.00		6.60
Acqui_valle	38.3	F2_Tr 200	150.29	148.26	2.02	0.29	0.07		85.00		6.60
Acqui_valle	38.2	F2_Tr 200	150.17	148.08	2.09	0.11	0.01		85.00		6.60
Acqui_valle	38.1	F2_Tr 200	150.13	148.14	1.98	0.01	0.03		85.00		6.60
Acqui_valle	38	F2_Tr 200	150.08	148.03	2.04	0.05	0.01		85.00		6.60
Acqui_valle	37.4	F2_Tr 200	150.03	147.95	2.08	0.05	0.00		85.00		6.60
Acqui_valle	37.3	F2_Tr 200	149.99	147.70	2.29	0.01	0.02		85.00		6.60
Acqui_valle	37.2	F2_Tr 200	149.71	147.63	2.07	0.22	0.07		85.00		6.65
Acqui_valle	37.1	F2_Tr 200	149.28	147.40	1.87	0.37	0.06		85.00		7.00
Acqui_valle	37	F2_Tr 200	148.85	147.01	1.84	0.42	0.01		85.00		7.00

HEC-RAS Plan: SCENARIO F Profile: F2_Tr 200 (Continued)

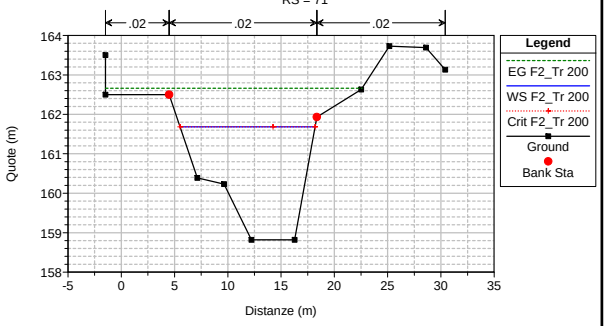
Reach	River Sta	Profile	E.G. Elev	W.S. Elev	Vel Head	Frctn Loss	C & E Loss	Q Left	Q Channel	Q Right	Top Width
			(m)	(m)	(m)	(m)	(m)	(m3/s)	(m3/s)	(m3/s)	(m)
Acqui_valle	36	F2_Tr 200	148.65	146.89	1.76	0.18	0.02		85.00		7.00
Acqui_valle	35	F2_Tr 200	148.16	145.77	2.39	0.42	0.06		85.00		9.24
Acqui_valle	34.1	F2_Tr 200	148.14	145.73	2.41	0.02	0.00		85.00		9.24
Acqui_valle	34	F2_Tr 200	147.54	144.25	3.29	0.51	0.09		56.00		9.24
Acqui_valle	33.3	F2_Tr 200	146.34	144.22	2.12	0.85	0.35		56.00		9.24
Acqui_valle	33.2	F2_Tr 200	145.64	145.25	0.39	0.04	0.02		56.00		9.24
Acqui_valle	33.1	F2_Tr 200	145.58	145.25	0.33	0.07	0.06		56.00		9.24
Acqui_valle	33.0	F2_Tr 200	145.45	144.52	0.93	0.26	0.00		56.00		7.00
Acqui_valle	32.3	F2_Tr 200	145.12	143.94	1.18	0.30	0.03		56.00		7.00
Acqui_valle	32.2	F2_Tr 200	144.76	143.59	1.17	0.36	0.00		56.00		7.00
Acqui_valle	32.1	F2_Tr 200	144.49	143.90	0.59	0.11	0.04		56.00		7.00
Acqui_valle	32	F2_Tr 200	144.34	143.89	0.45	0.00	0.00		56.00		7.00
Acqui_valle	31.1	F2_Tr 200	144.34	143.89	0.45	0.16	0.06		56.00		7.00
Acqui_valle	31	F2_Tr 200	144.12	143.88	0.24				56.00		7.00
Acqui_valle	30.1		Bridge								
Acqui_valle	30	F2_Tr 200	143.93	143.69	0.24				56.00		7.00


SCENARIO F 2013/07/09
Geom: progetto feb 2012
Legend
EG F2_Tr 200
WS F2_Tr 200
Crit F2_Tr 200
Ground
Quote (m)
Distanze progressive (m)
165
160
155
150
145
140
0
500
1000
1500
2000
2500
31.1
32.1
32.2
32.3
33.0
33.2
34
36
37.1
37.3
38.4
42
44.1
48
50.1
53
55
55.3
58
58.1
60
60.1
60.3
61
61.1
61.4
61.6
64
67.1
68.5
69.50
71

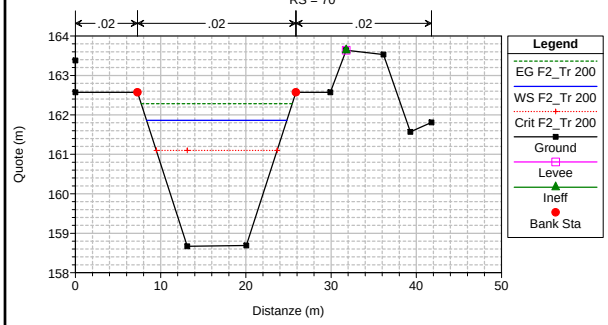
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 72



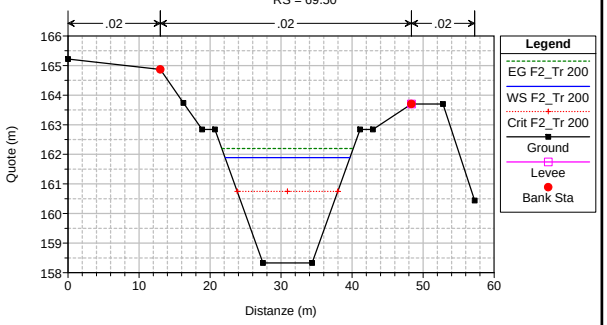
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 71



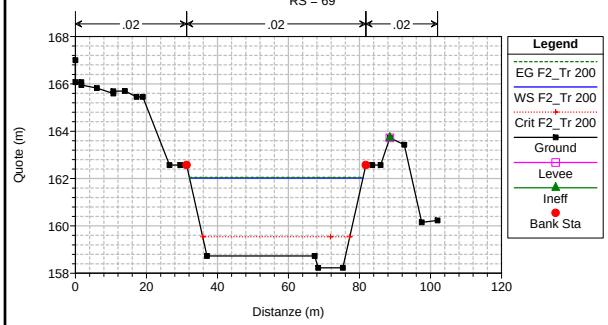
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 70



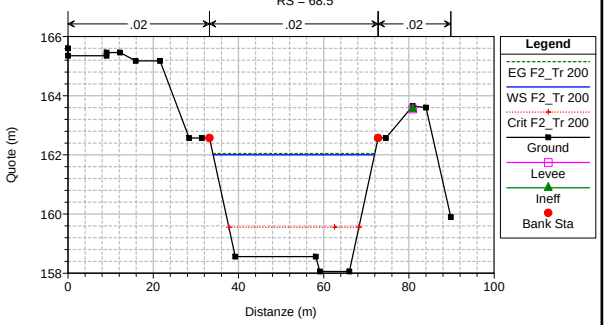
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 69.50



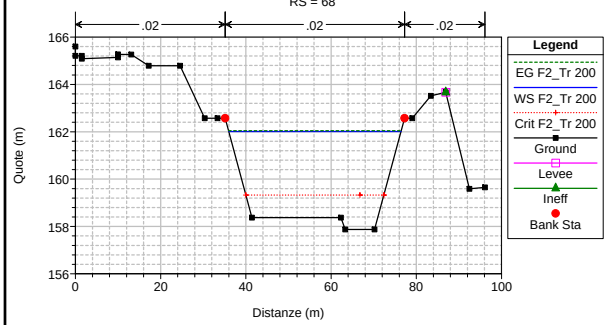
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 69



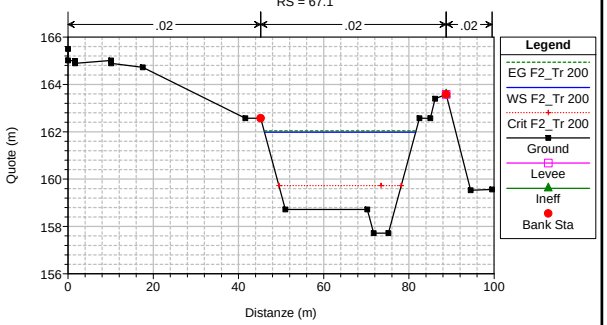
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 68.5



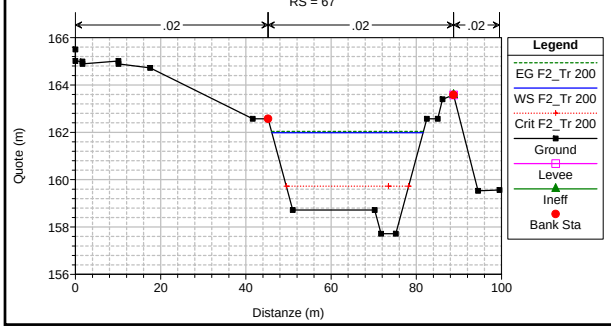
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 68



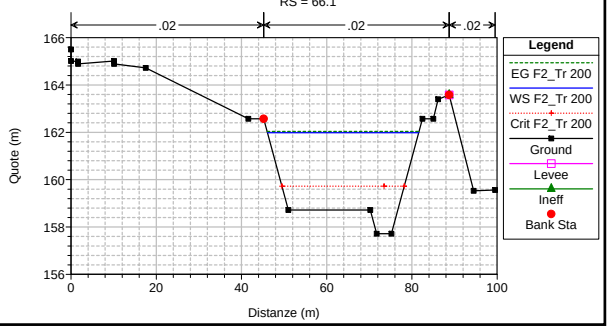
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 67.1



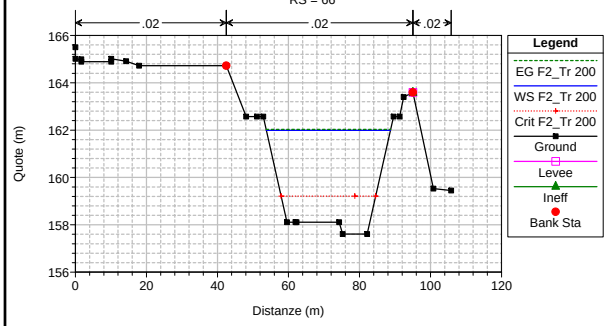
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 67



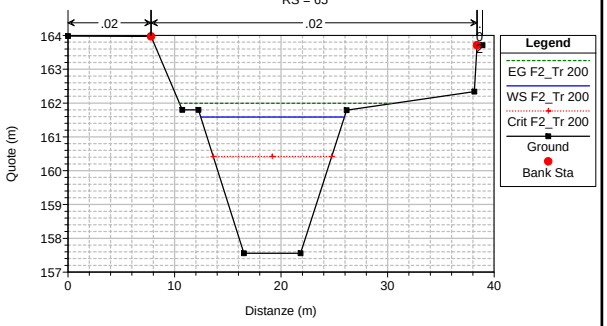
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 66.1



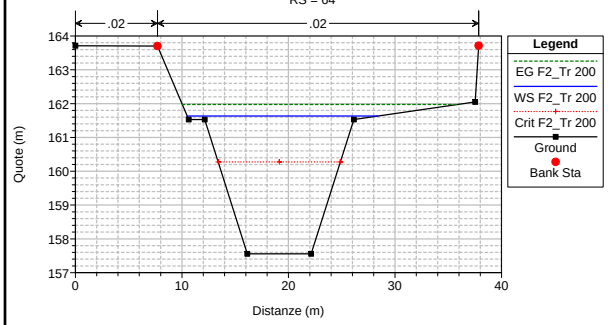
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 66



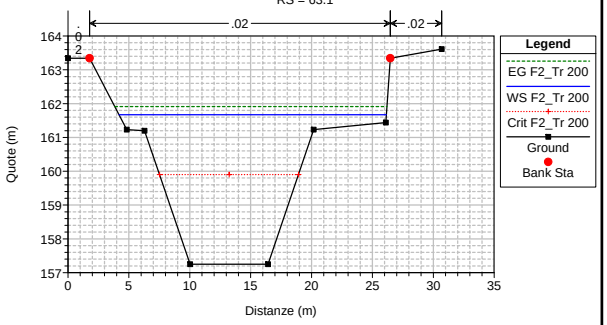
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 65



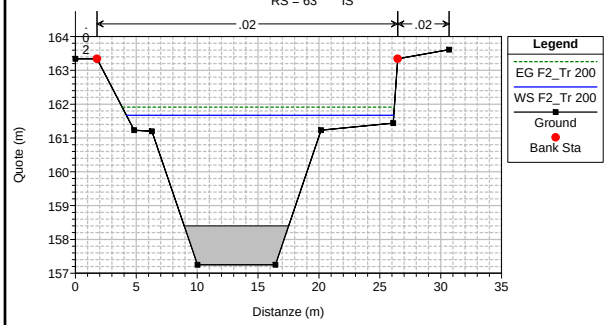
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 64



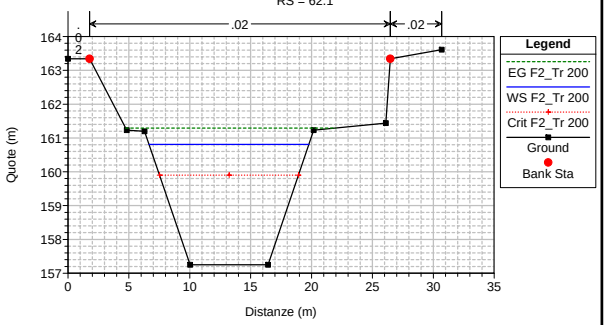
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 63.1



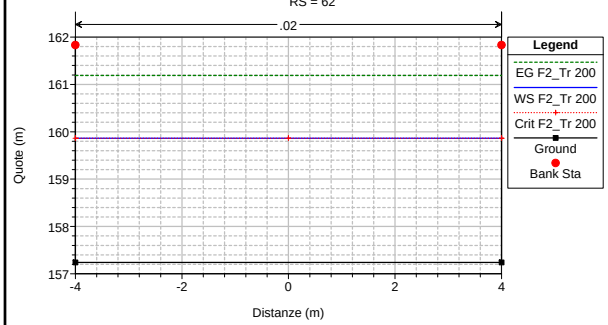
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 63 IS



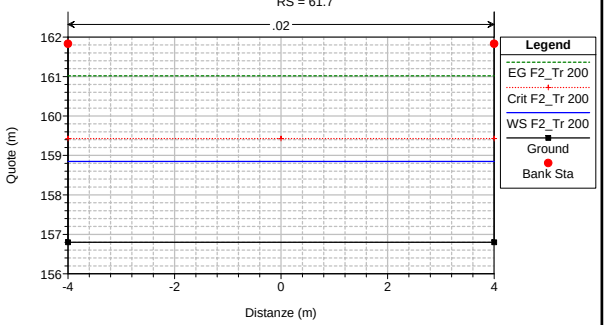
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 62.1



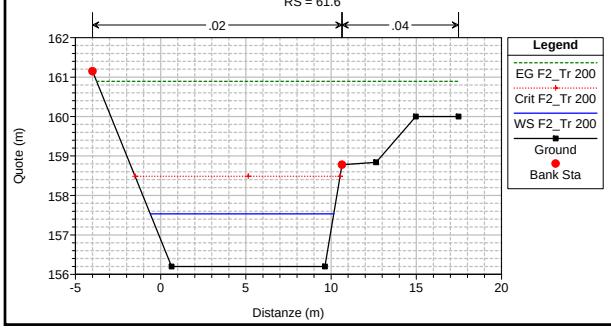
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 62



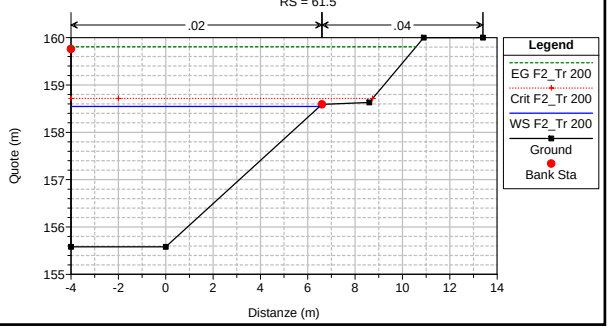
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.7



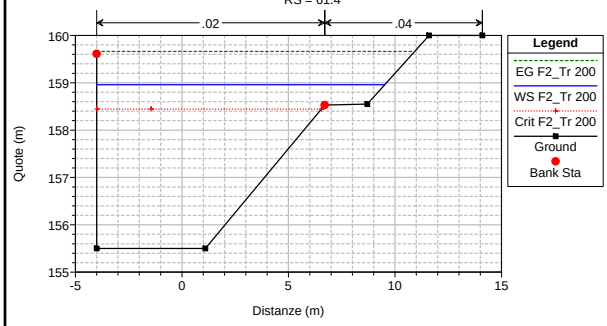
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.6



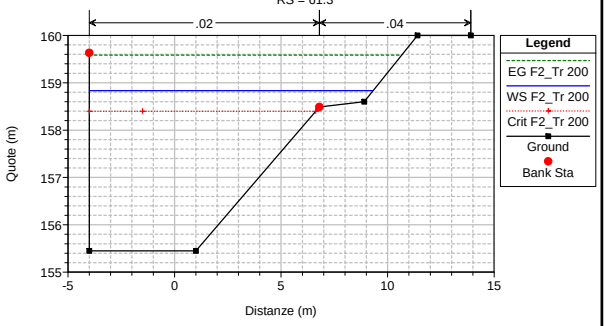
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.5



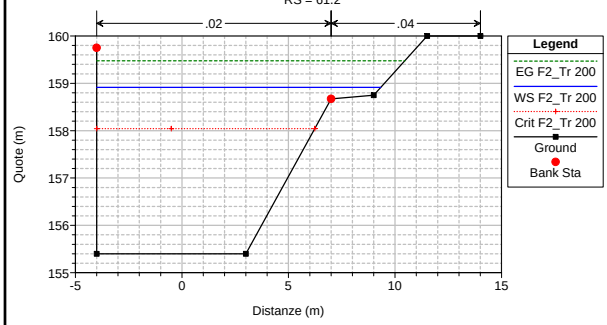
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.4



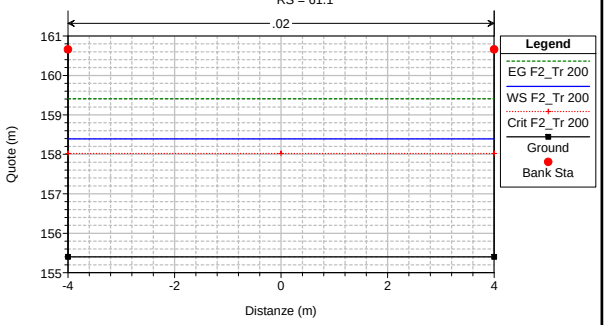
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.3



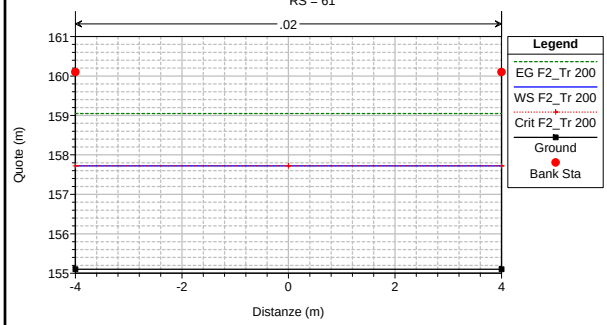
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.2



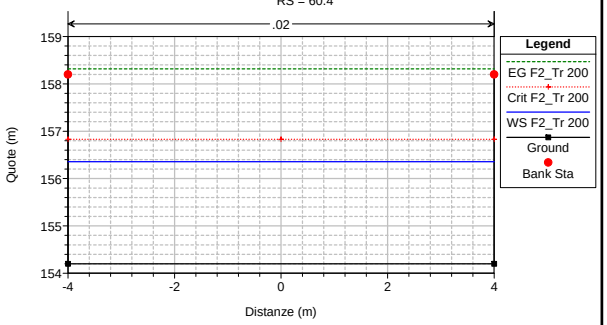
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61.1



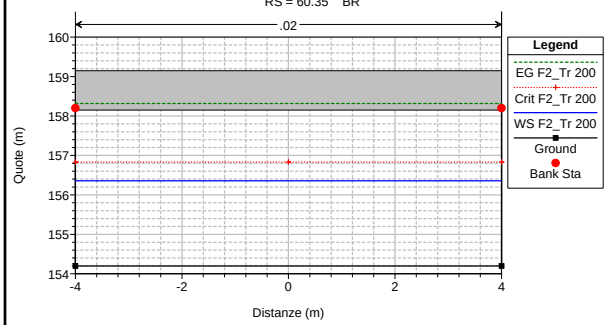
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 61



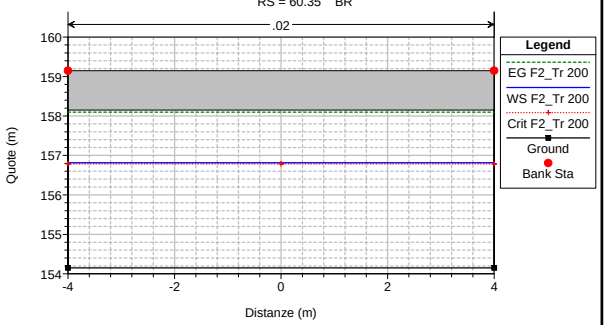
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.4



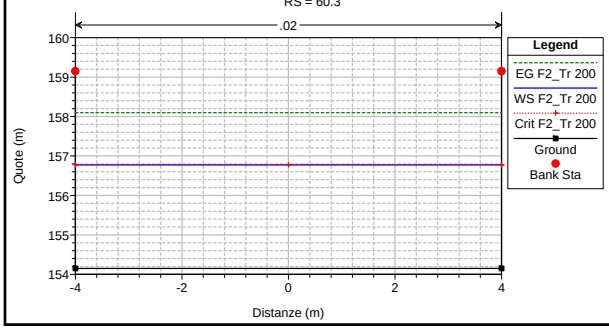
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.35 BR



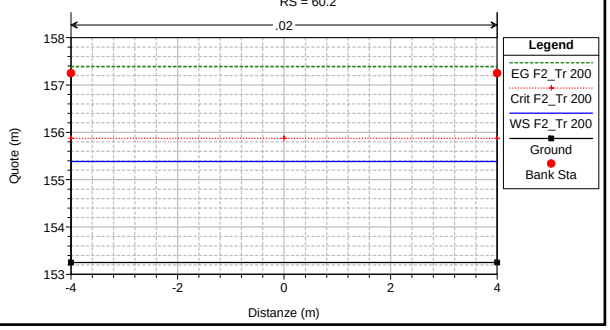
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.35 BR



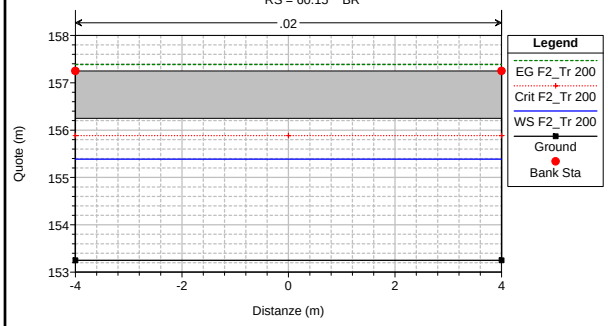
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.3



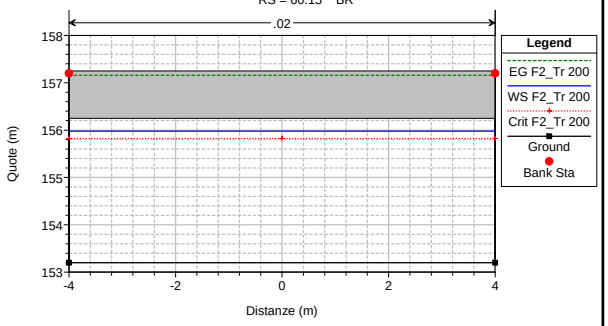
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.2



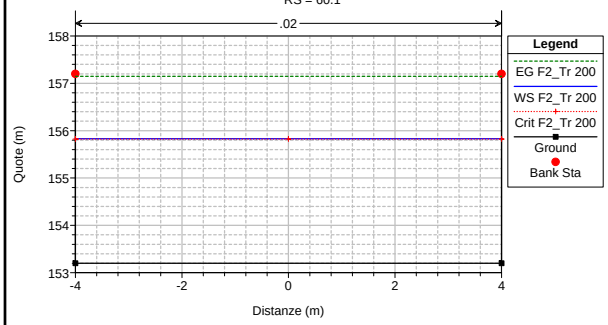
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.15 BR



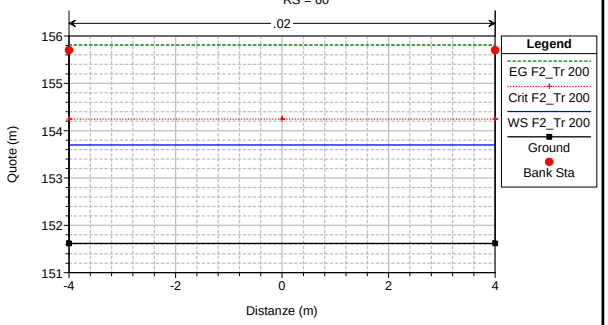
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.15 BR



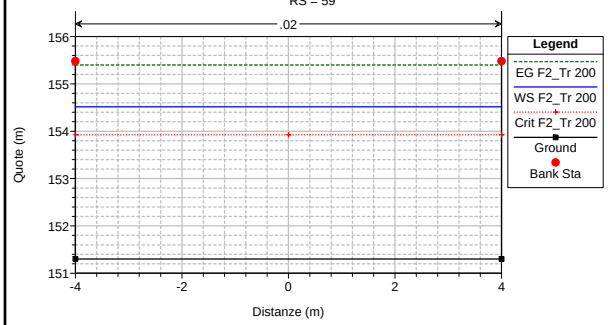
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60.1



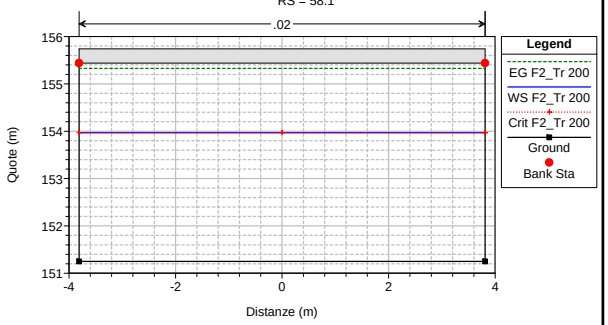
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 60



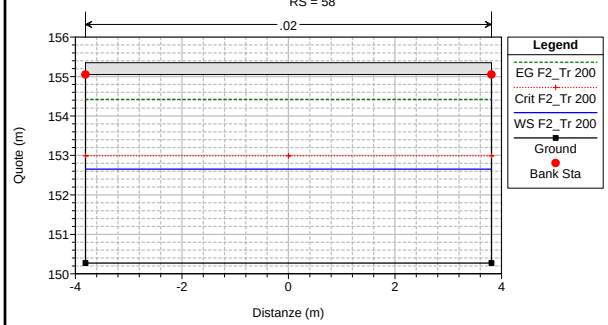
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 59



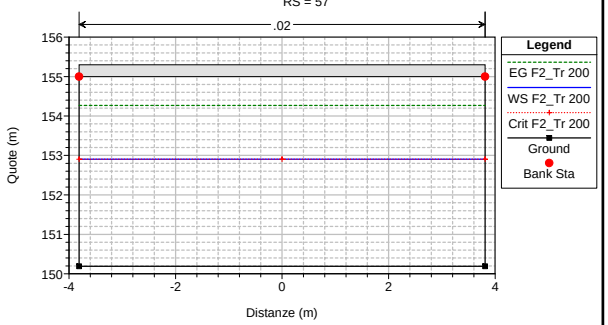
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 58.1



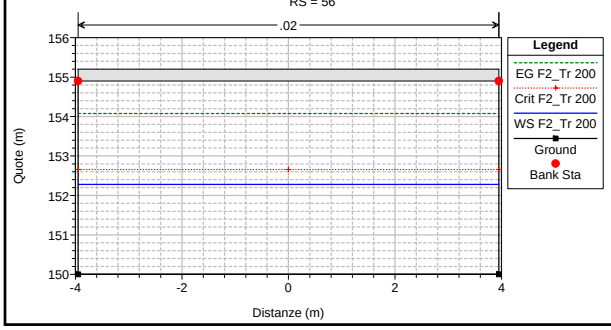
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 58



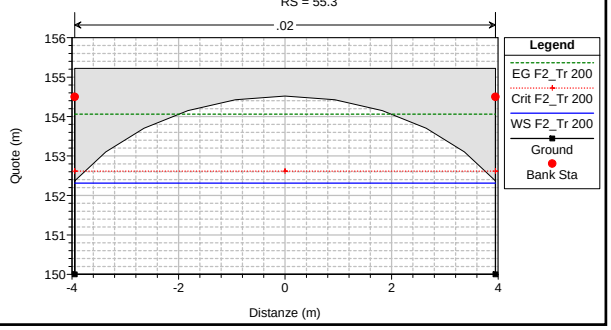
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 57



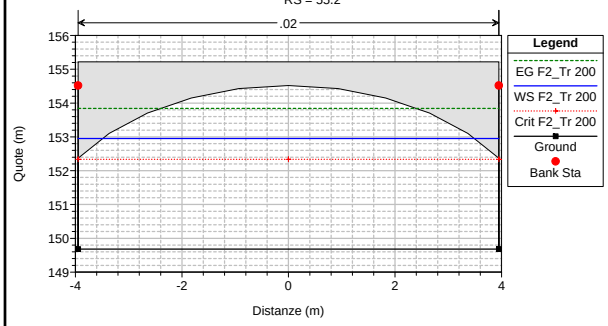
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 56



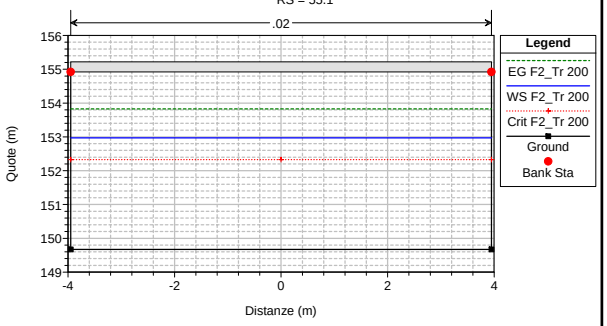
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.3



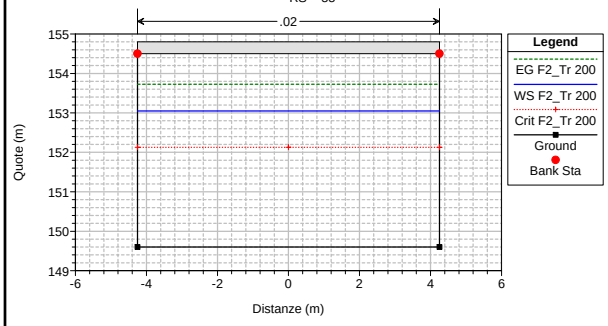
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.2



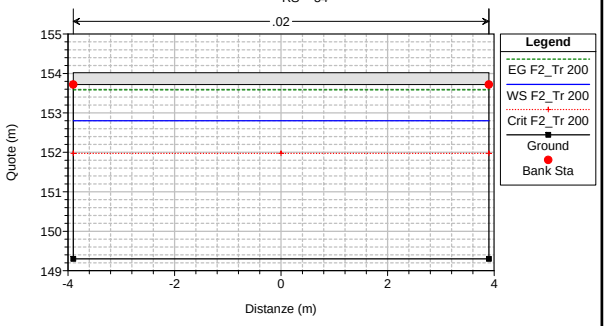
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55.1



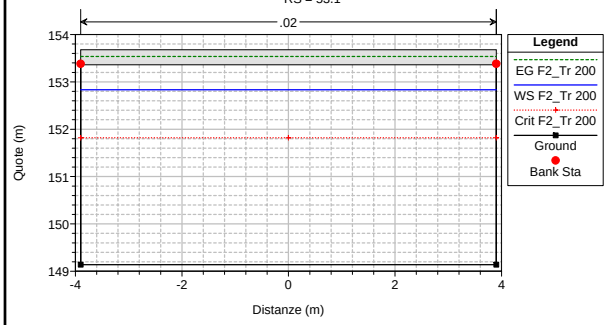
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 55



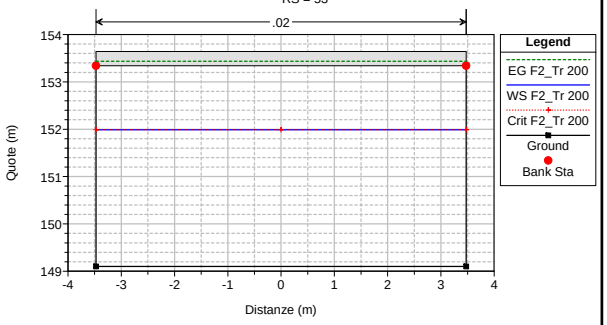
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 54



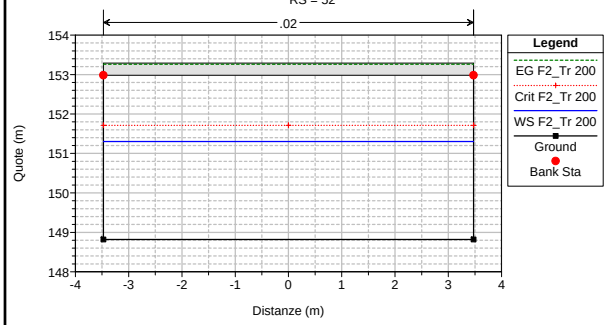
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 53.1



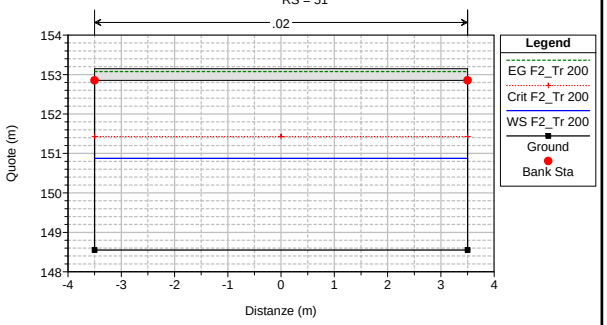
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 53



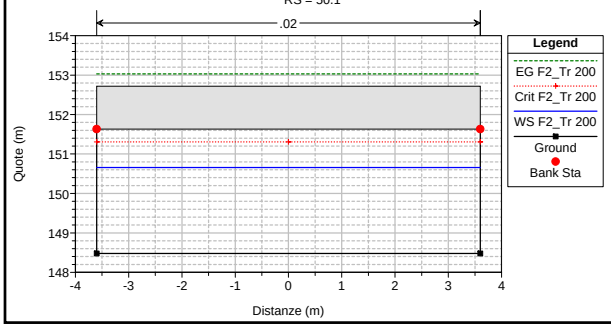
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 52



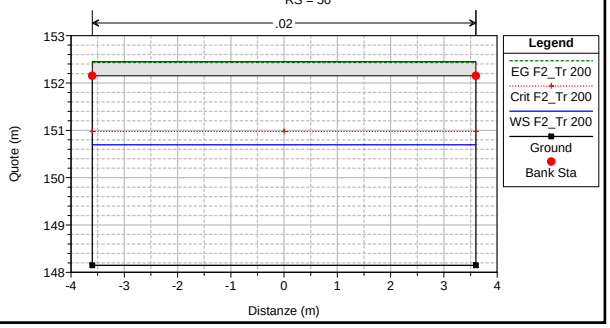
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 51



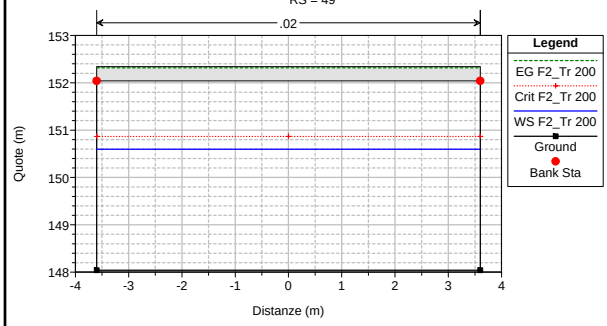
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 50.1



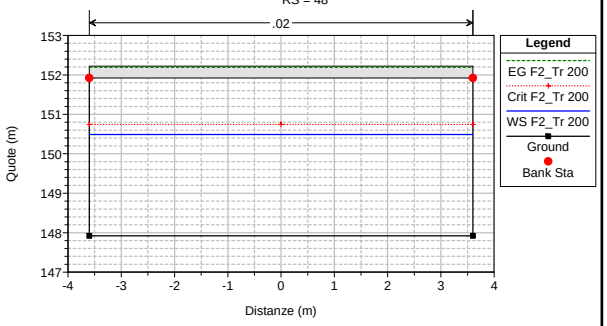
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 50



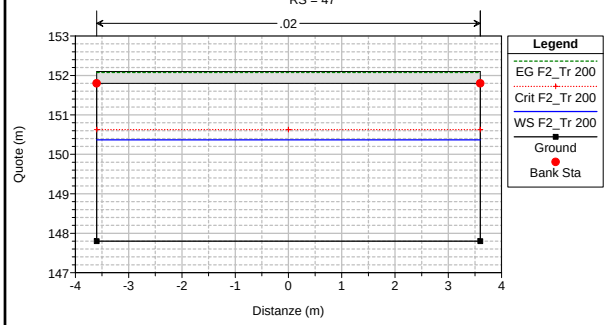
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 49



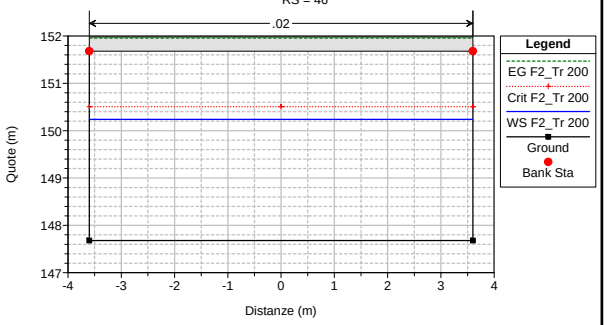
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 48



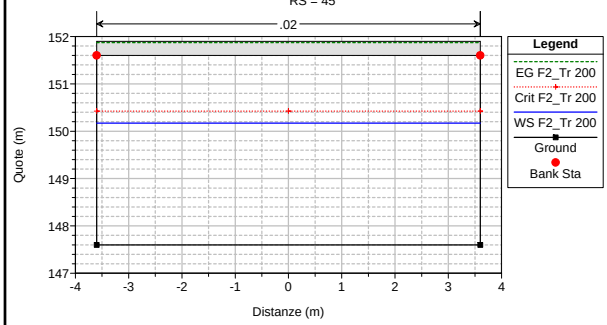
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 47



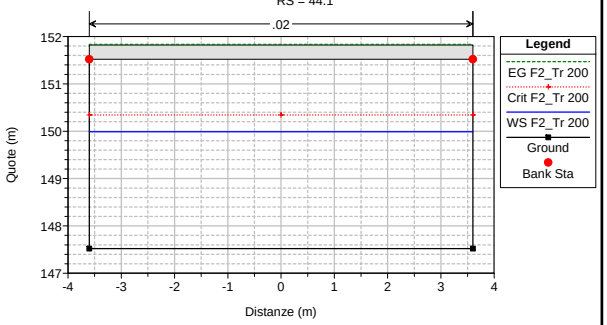
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 46



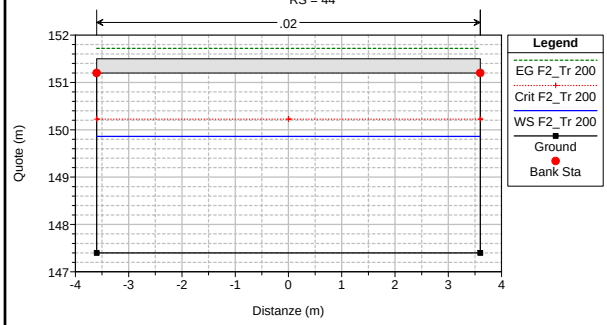
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 45



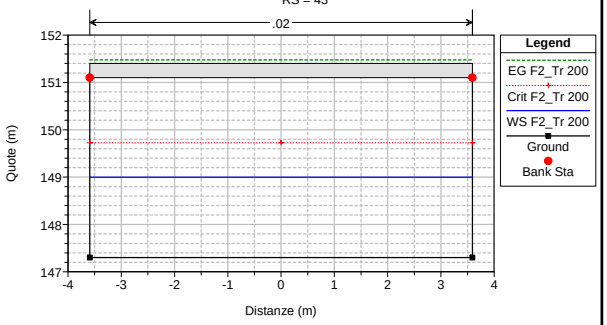
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 44.1



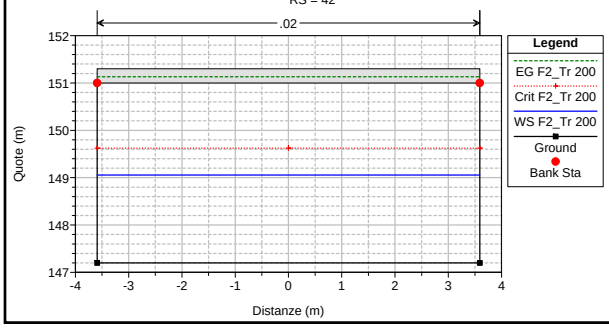
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 44



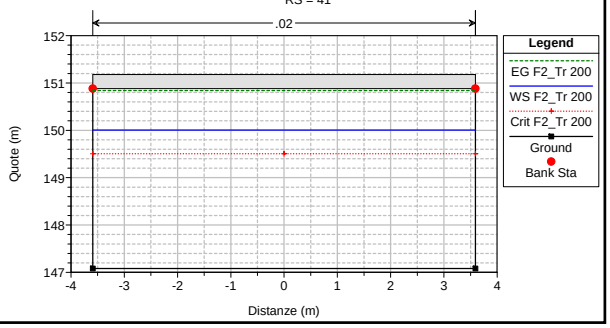
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 43



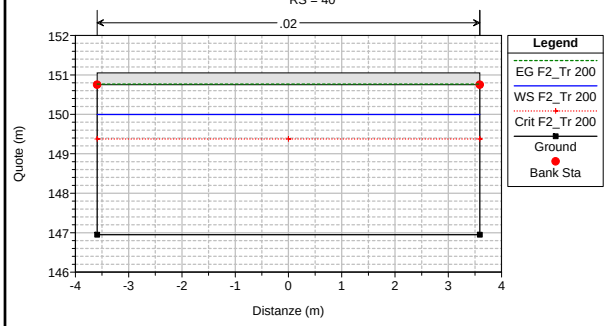
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 42



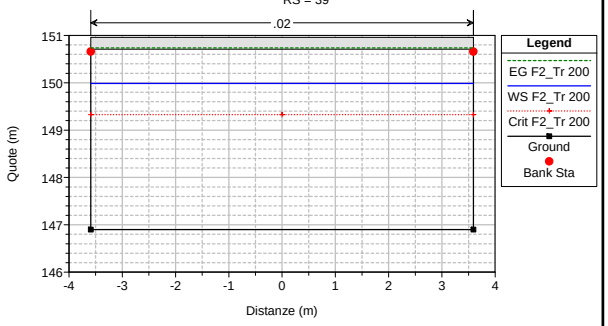
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 41



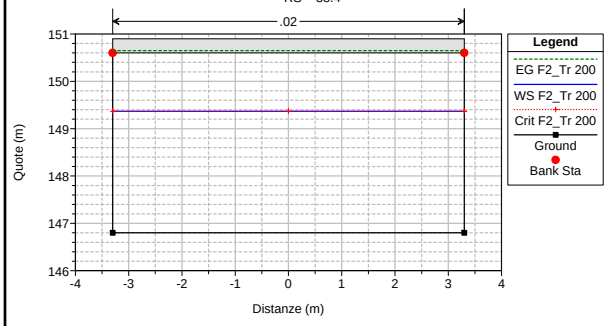
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 40



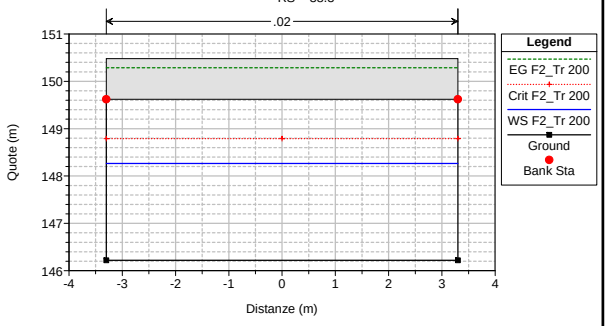
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 39



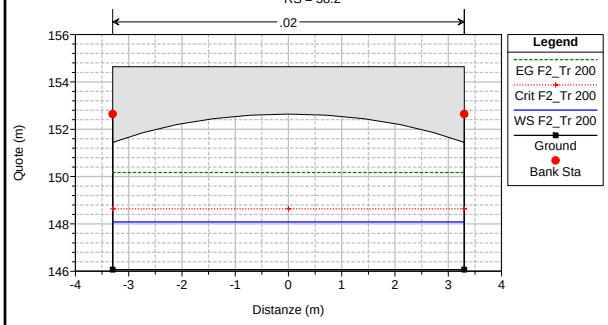
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.4



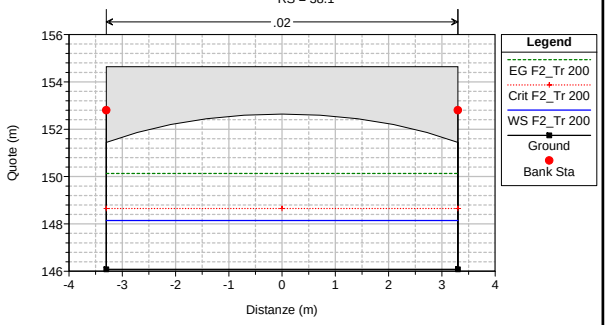
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.3



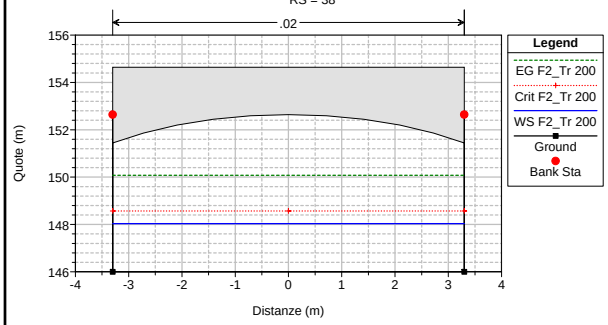
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.2



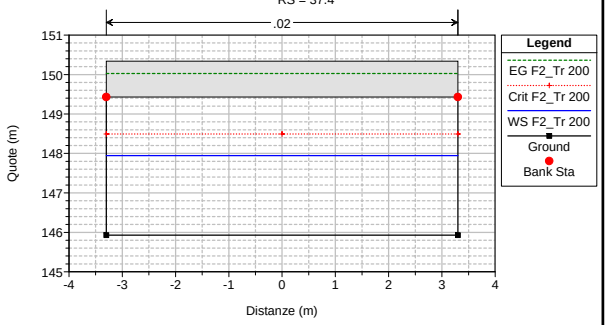
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38.1



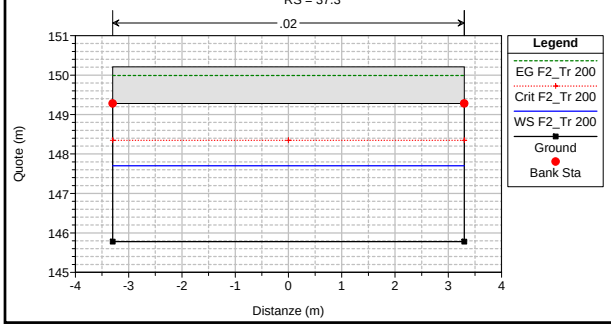
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 38



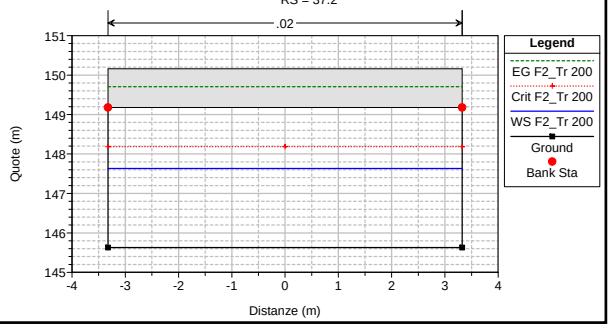
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.4



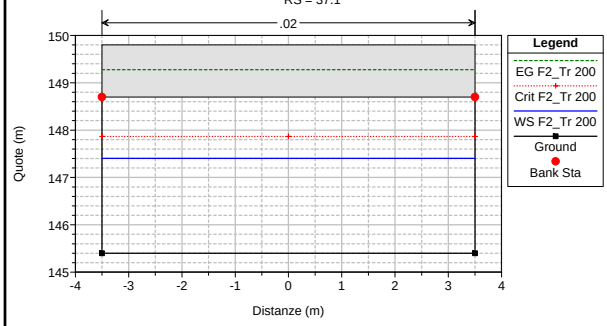
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.3



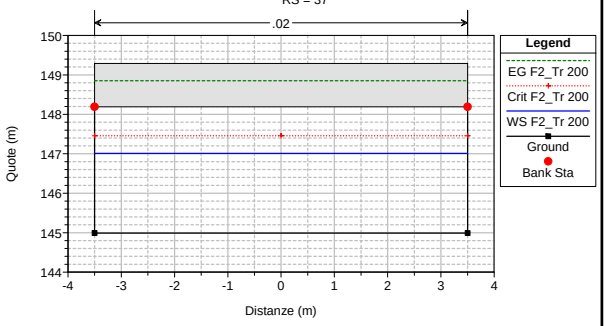
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.2



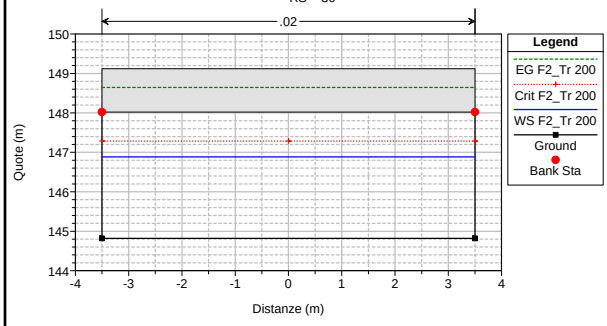
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37.1



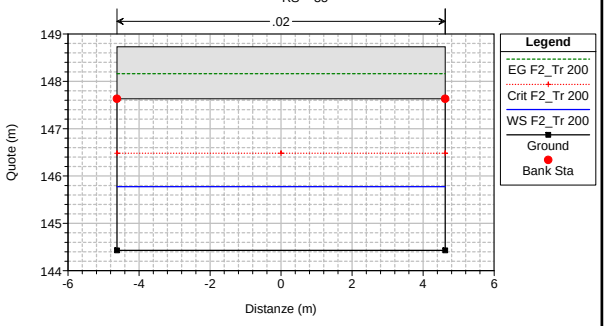
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 37



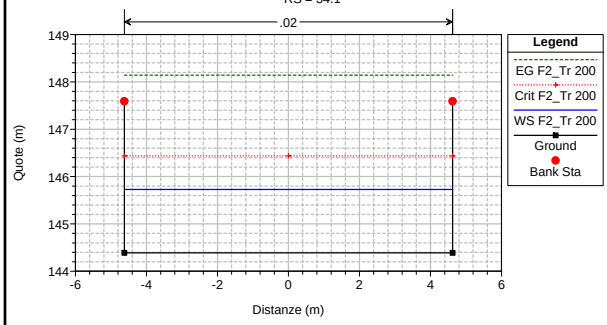
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 36



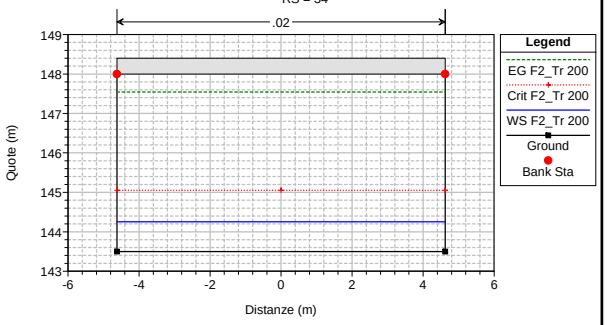
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 35



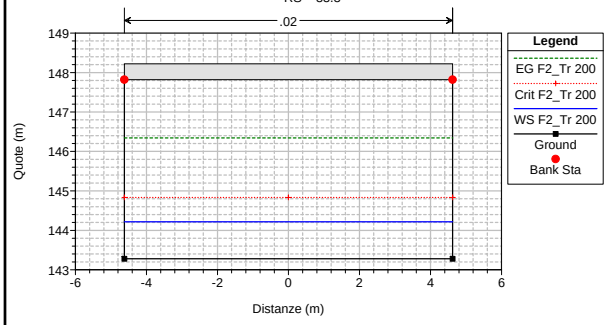
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 34.1



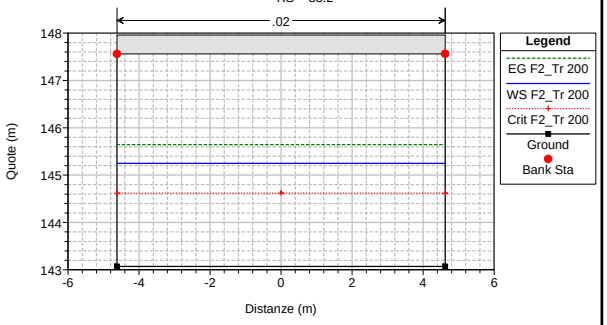
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 34



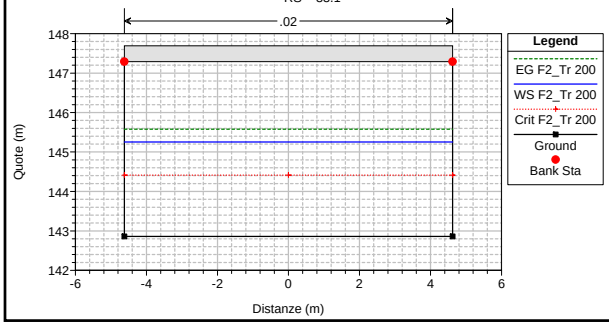
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.3



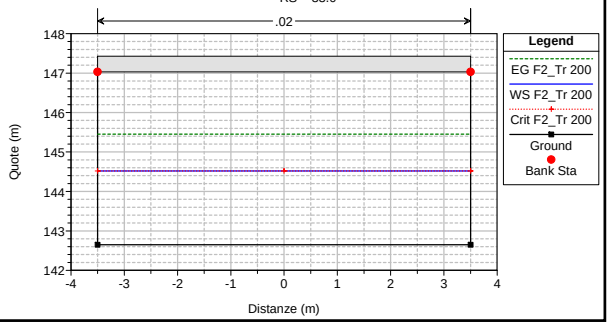
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.2



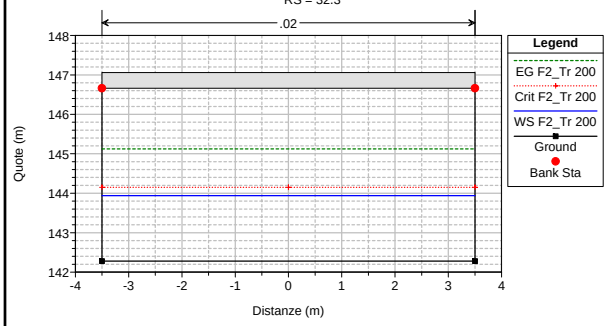
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.1



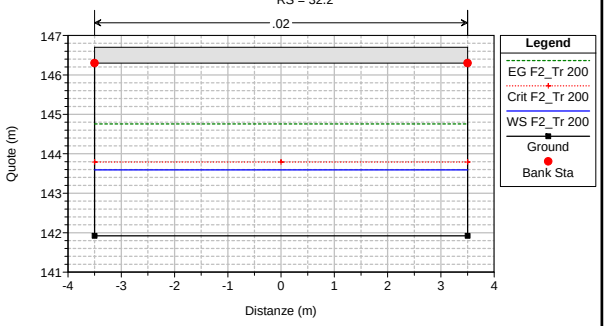
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 33.0



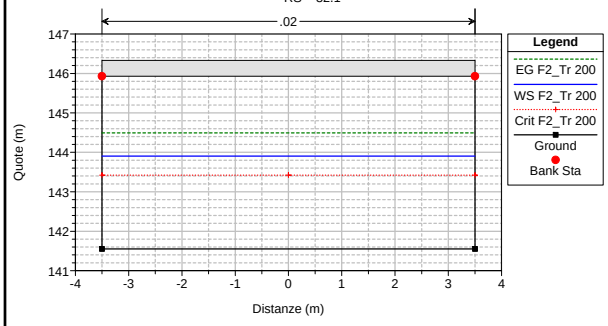
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.3



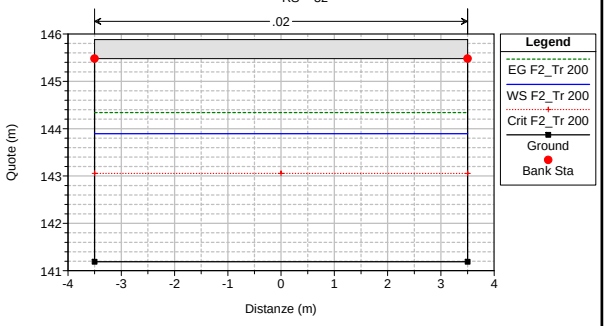
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.2



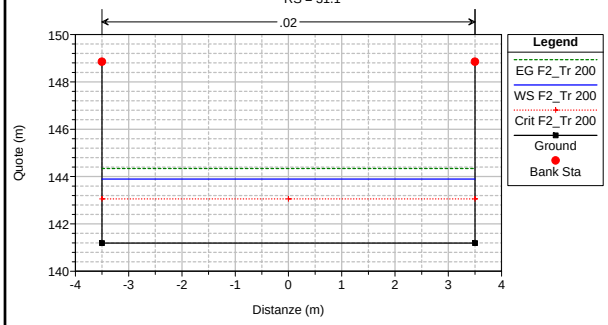
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32.1



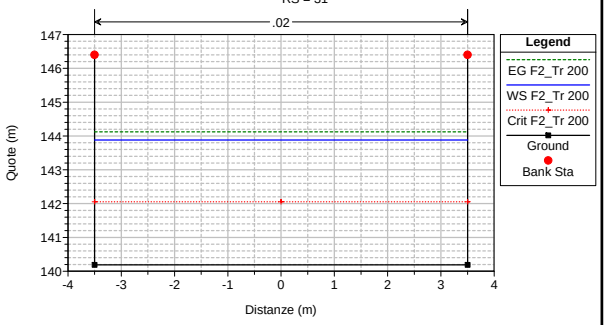
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 32



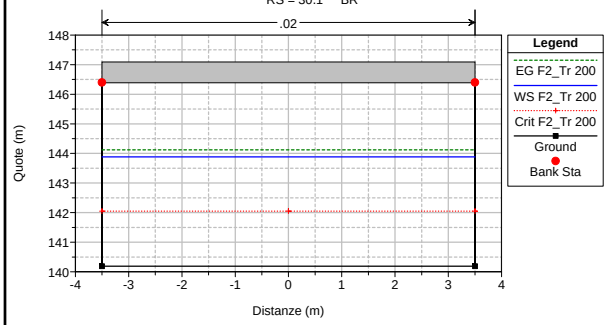
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 31.1



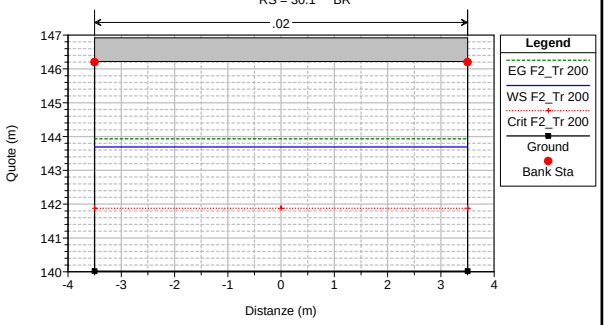
SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 31



SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30.1 BR



SCENARIO F 2013/07/09
Geom: progetto feb 2012
RS = 30