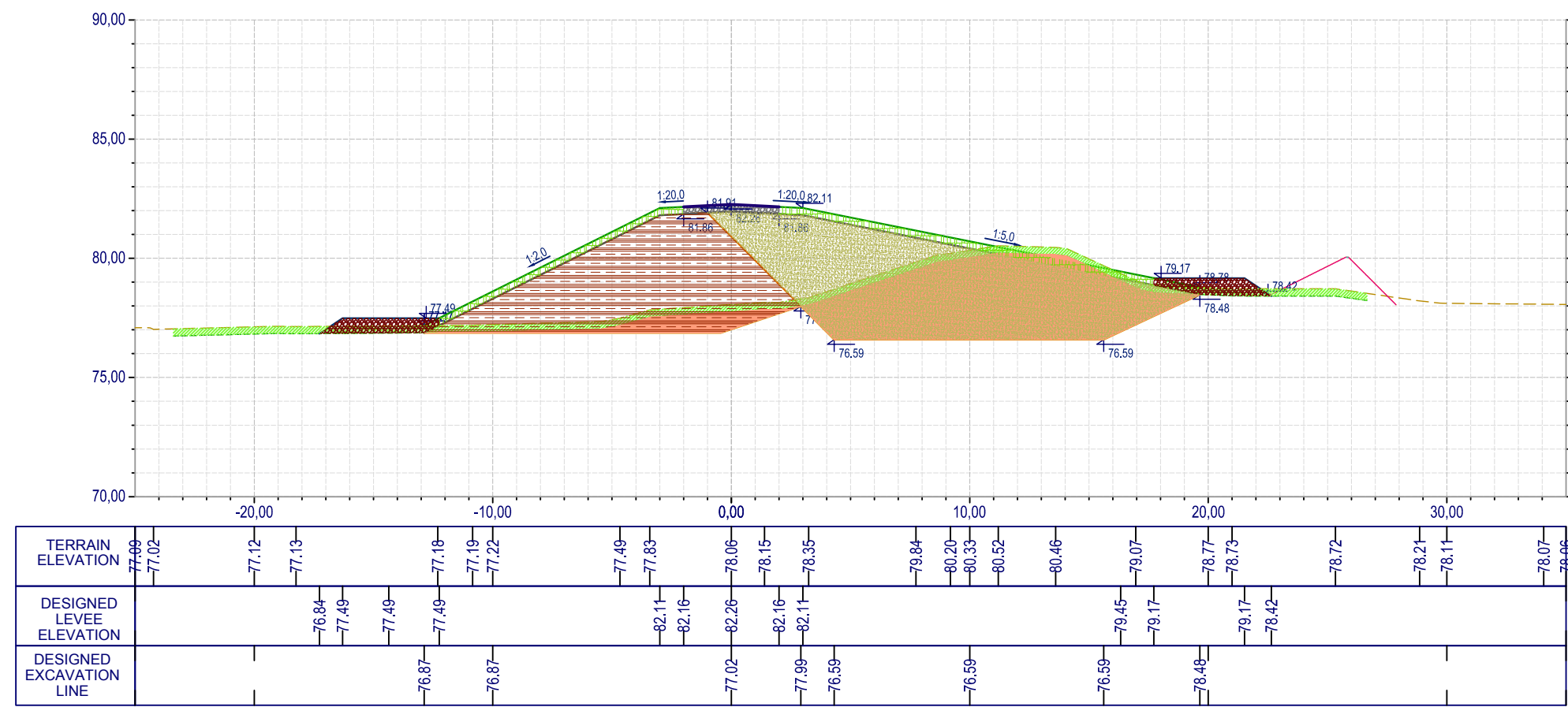
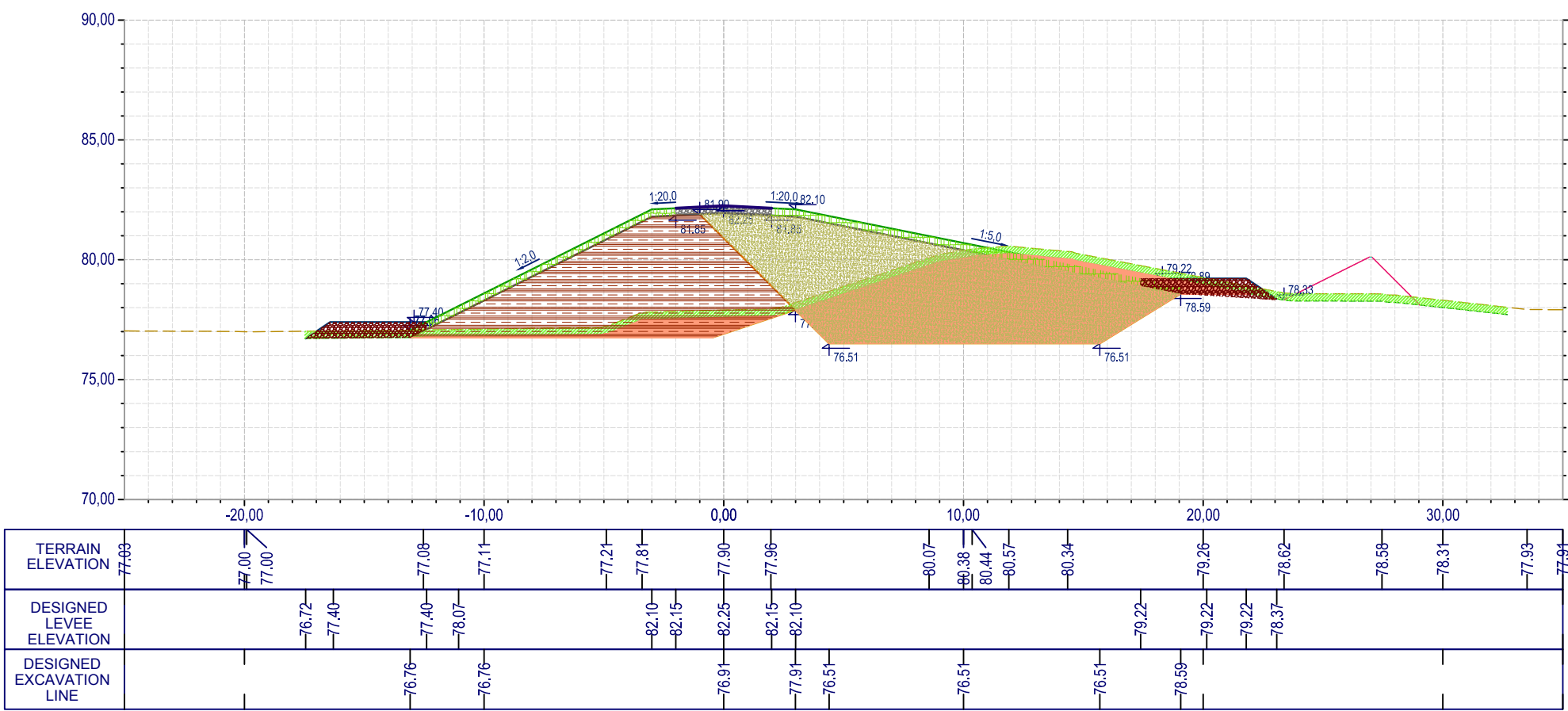


Cross-section no.111
km:18+680,00



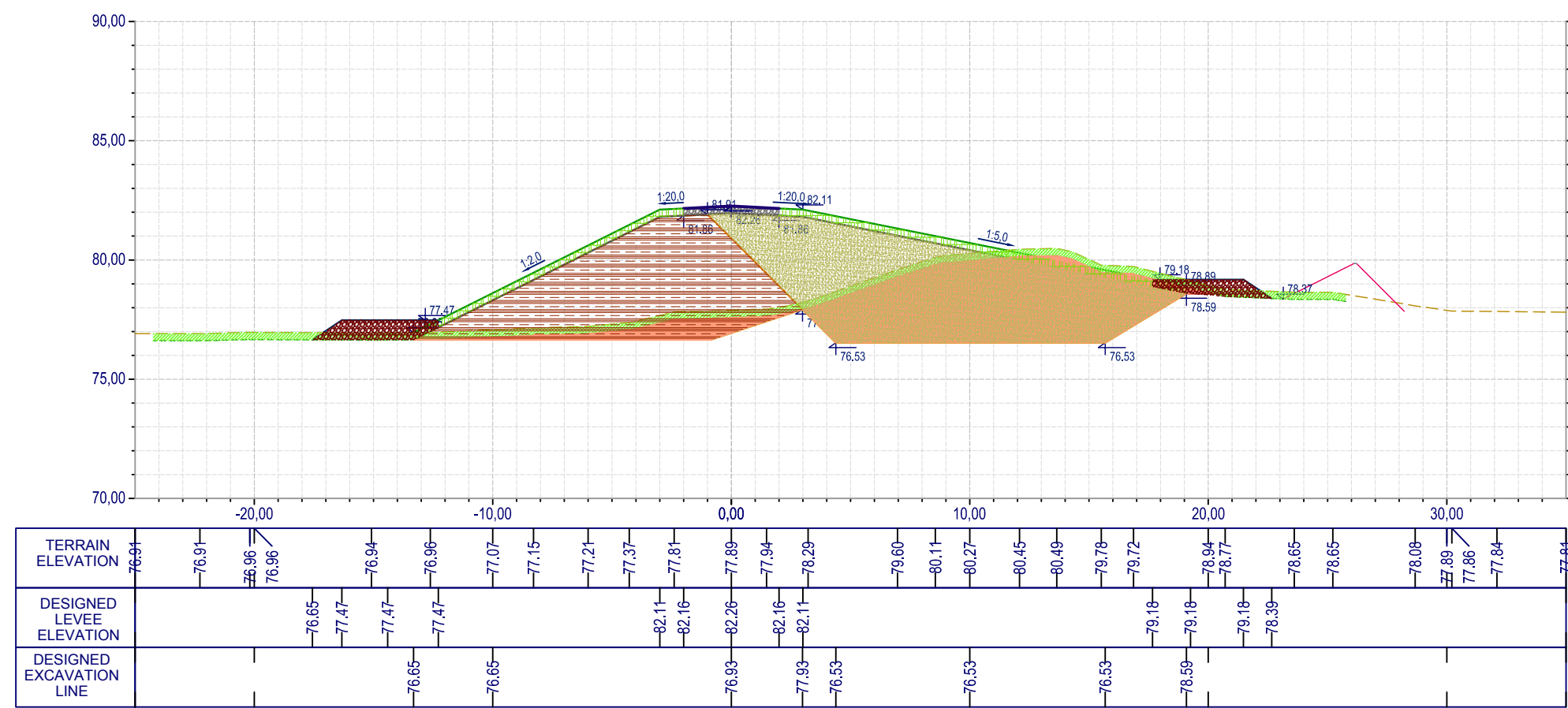
bill of quantities: 18+680.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.01	601.48	65886.93
preparation of temporary casettes	4.51	195.48	22181.91
(F1) excavation of coherent material	11.59	454.43	81051.83
(F11) excavation of coherent material	34.28	1370.34	141102.36
backfill of coherent material	44.52	1728.50	218169.42
backfill of non-coherent material	62.42	2483.43	205921.55
applying topsoil to protected slope d=30cm	3.26	127.43	15957.46
applying topsoil to unprotected slope d=30cm	5.29	203.44	24972.29
graveling of the crown road d=30cm	1.20	48.00	5295.00
service traffic on the protected side	2.75	94.87	18885.17
service traffic on the unprotected side	2.73	117.83	14865.04

Cross-section no.116
km:18+680,00



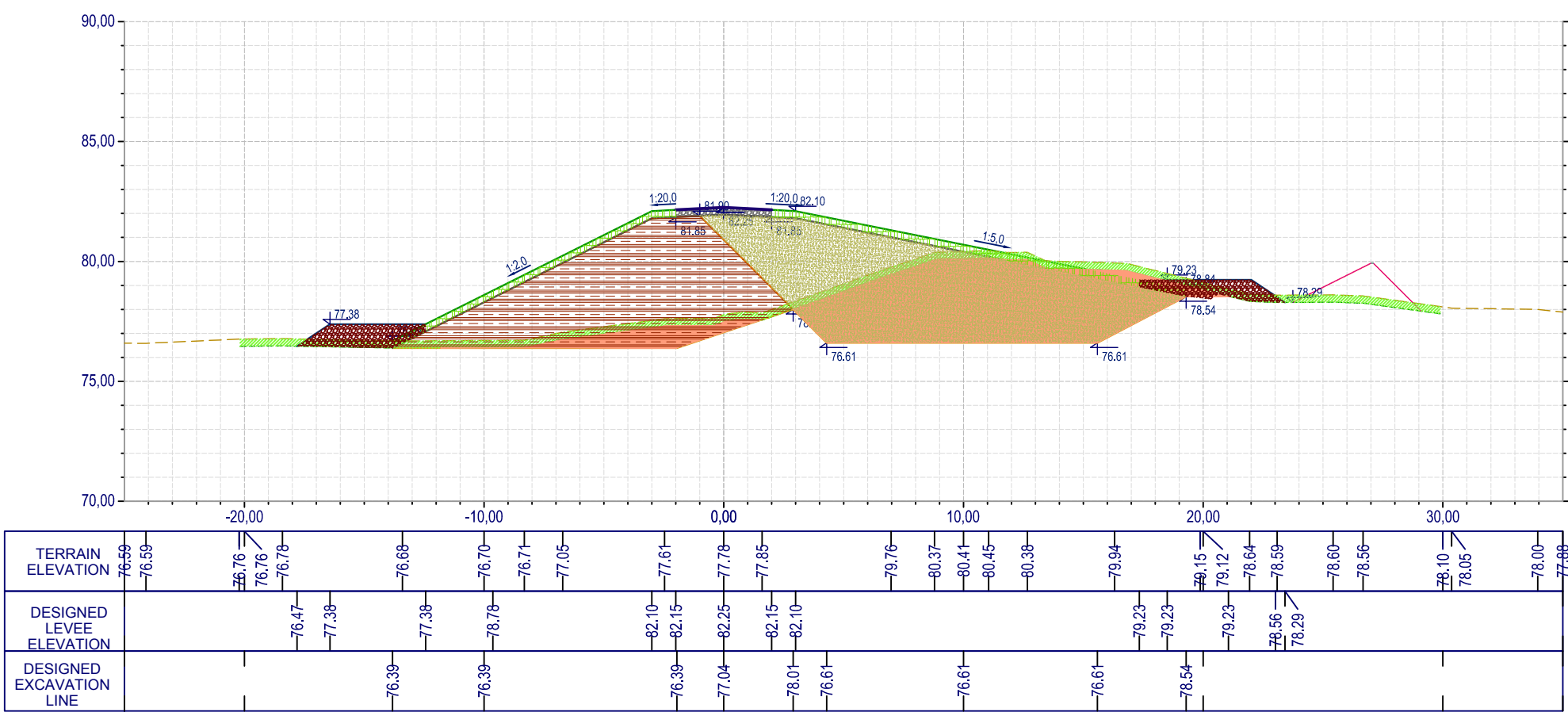
bill of quantities: 18+680.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.05	605.05	66002.48
preparation of temporary casettes	5.34	199.45	22548.04
(F1) excavation of coherent material	16.44	542.11	83068.53
(F11) excavation of coherent material	32.85	1406.87	148844.16
backfill of coherent material	46.17	1921.47	227718.83
backfill of non-coherent material	62.67	2517.65	216211.50
applying topsoil to protected slope d=30cm	3.32	125.31	15142.61
applying topsoil to unprotected slope d=30cm	5.12	198.02	24903.85
graveling of the crown road d=30cm	1.20	48.00	5496.00
service traffic on the protected side	2.86	132.15	19274.42
service traffic on the unprotected side	3.31	100.82	15406.91

Cross-section no.112
km:18+640,00



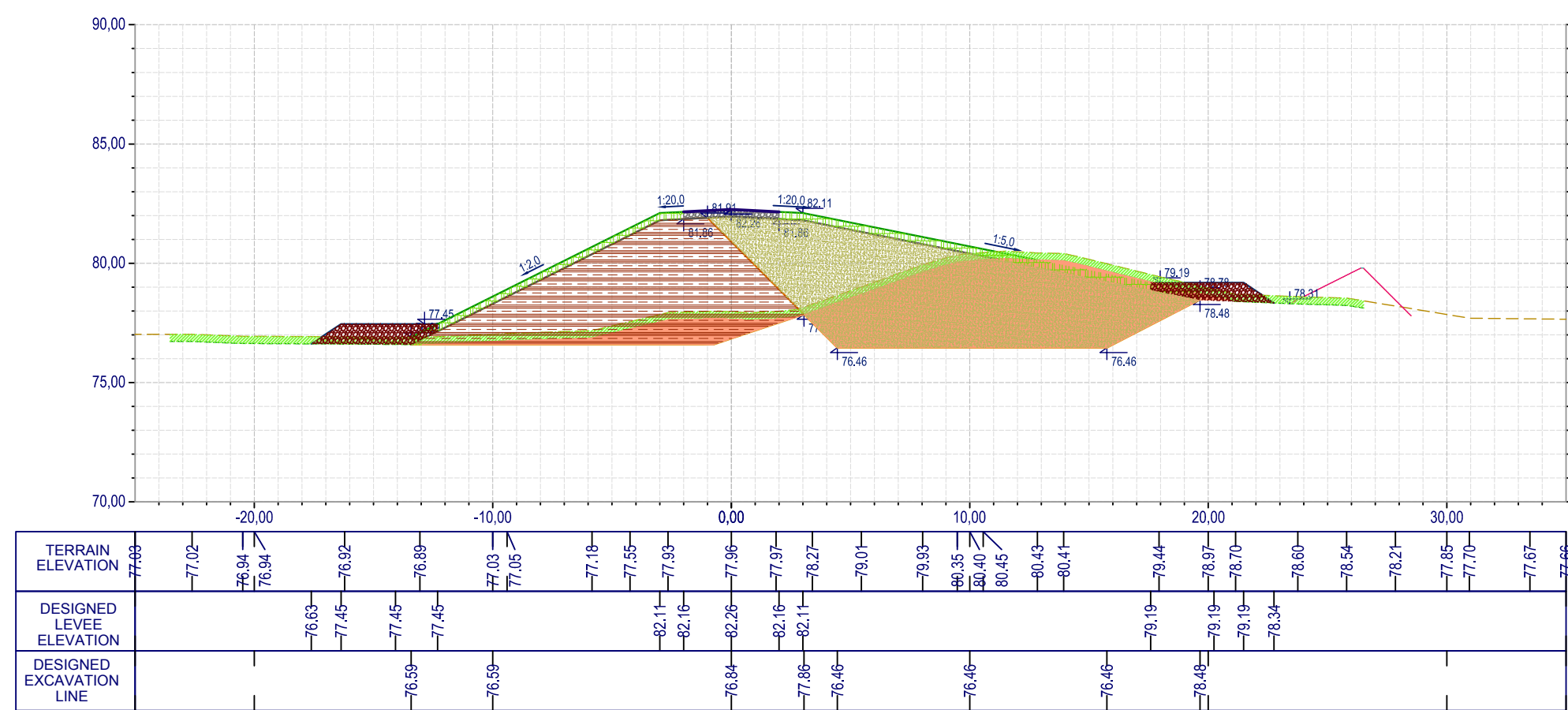
bill of quantities: 18+640.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.00	600.98	66489.91
preparation of temporary casettes	3.99	174.27	21791.18
(F1) excavation of coherent material	14.58	525.65	81531.48
(F11) excavation of coherent material	33.64	1370.20	142096.57
backfill of coherent material	47.81	1835.40	220034.88
backfill of non-coherent material	62.58	2521.24	208083.79
applying topsoil to protected slope d=30cm	3.40	132.15	15199.81
applying topsoil to unprotected slope d=30cm	5.13	210.62	25182.92
graveling of the crown road d=30cm	1.20	48.00	5304.00
service traffic on the protected side	3.58	134.84	18710.01
service traffic on the unprotected side	2.88	110.22	14975.28

Cross-section no.117
km:18+640,00



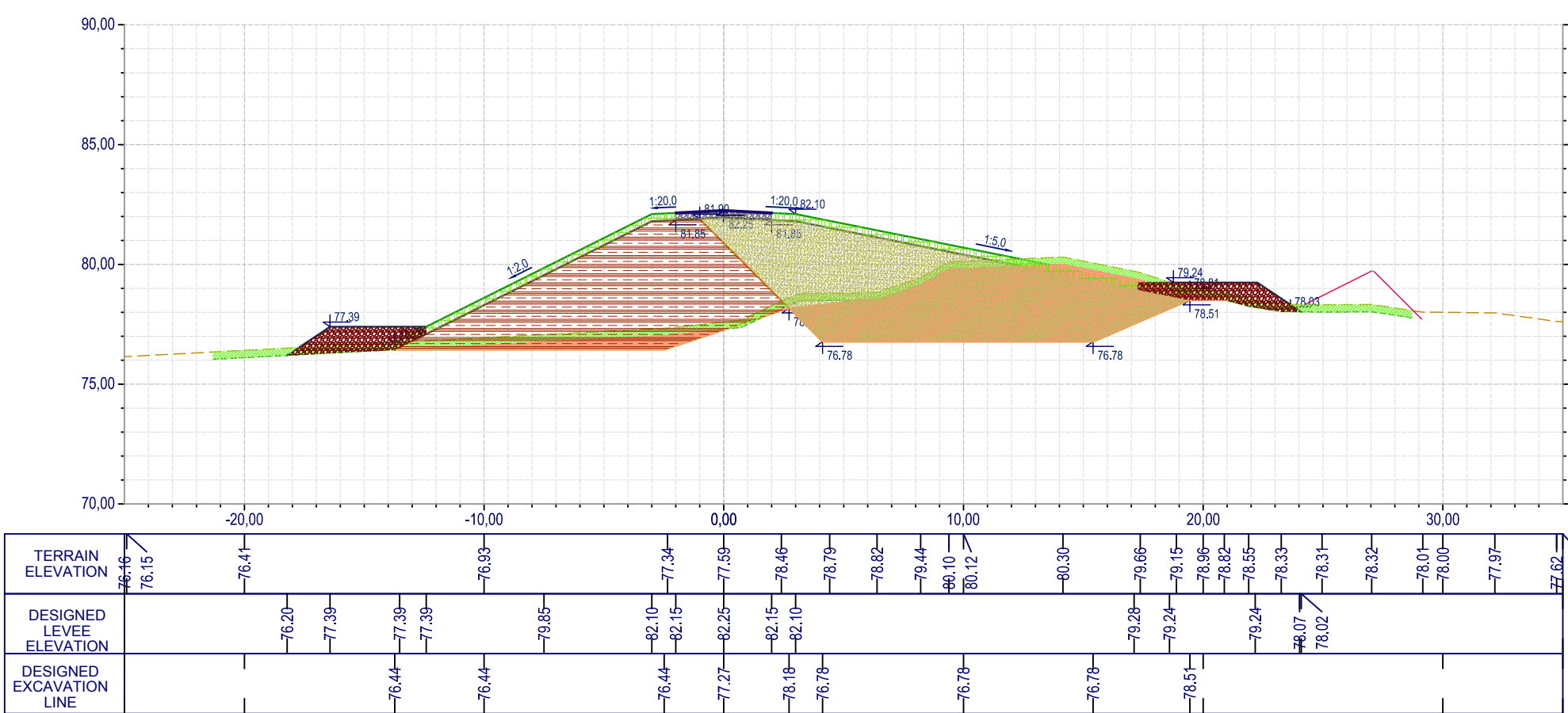
bill of quantities: 18+640.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.02	605.06	66907.52
preparation of temporary casettes	4.58	203.81	22751.68
(F1) excavation of coherent material	16.62	669.45	84277.98
(F11) excavation of coherent material	31.87	1306.07	150150.23
backfill of coherent material	50.11	1917.82	229038.65
backfill of non-coherent material	61.58	2555.88	207171.37
applying topsoil to protected slope d=30cm	3.54	136.34	15879.95
applying topsoil to unprotected slope d=30cm	5.19	208.31	26212.15
graveling of the crown road d=30cm	1.20	48.00	5544.00
service traffic on the protected side	4.07	138.53	19419.94
service traffic on the unprotected side	3.62	141.30	15548.21

Cross-section no.113
km:18+600,00



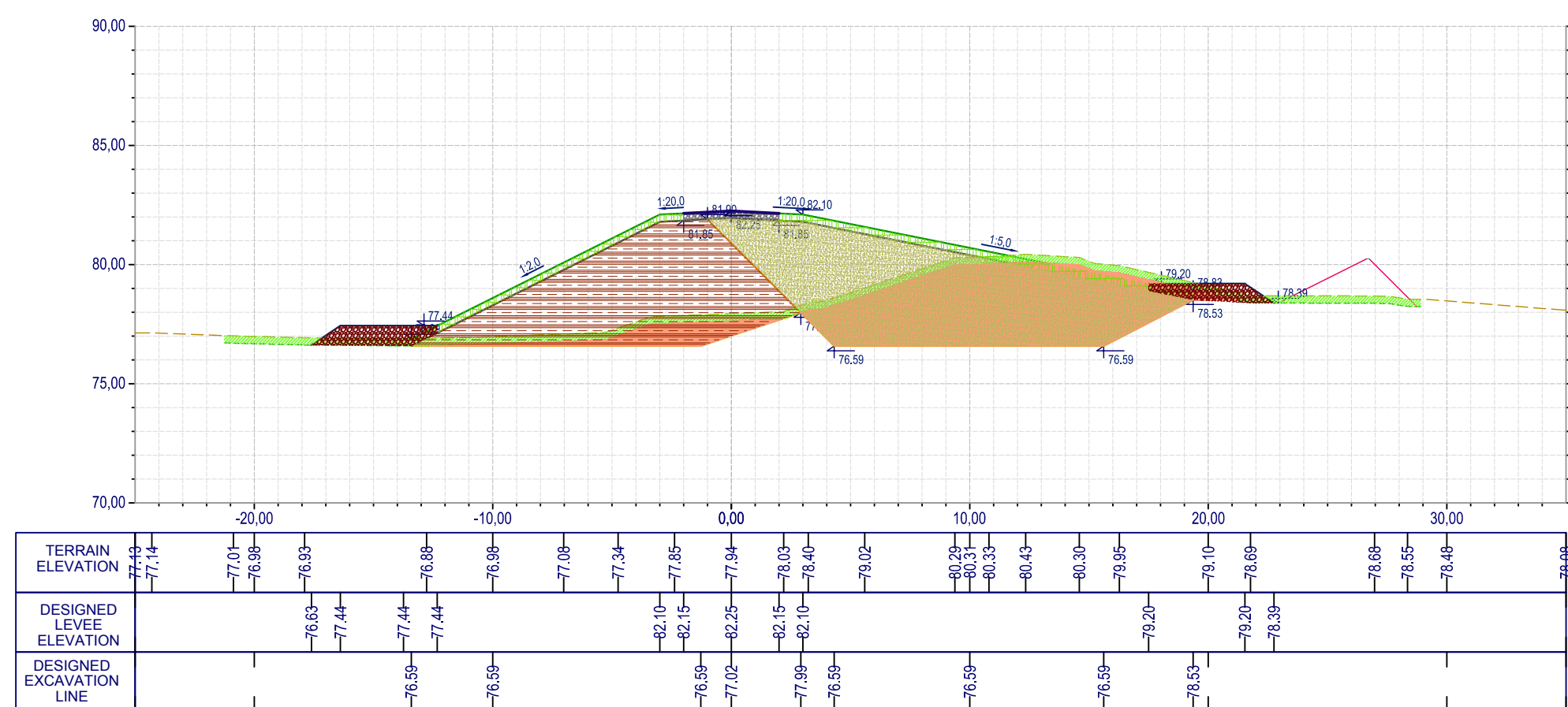
bill of quantities: 18+600.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.01	600.90	67060.80
preparation of temporary casettes	4.07	185.44	21695.62
(F1) excavation of coherent material	16.87	636.68	82146.15
(F11) excavation of coherent material	34.97	1383.49	144680.86
backfill of coherent material	48.59	1916.45	221921.33
backfill of non-coherent material	64.29	2599.04	210642.83
applying topsoil to protected slope d=30cm	3.43	135.40	15335.01
applying topsoil to unprotected slope d=30cm	5.30	210.65	25305.57
graveling of the crown road d=30cm	1.20	48.00	5352.00
service traffic on the protected side	3.86	142.72	18882.73
service traffic on the unprotected side	2.95	114.84	15000.11

Cross-section no.118
km:18+600,00



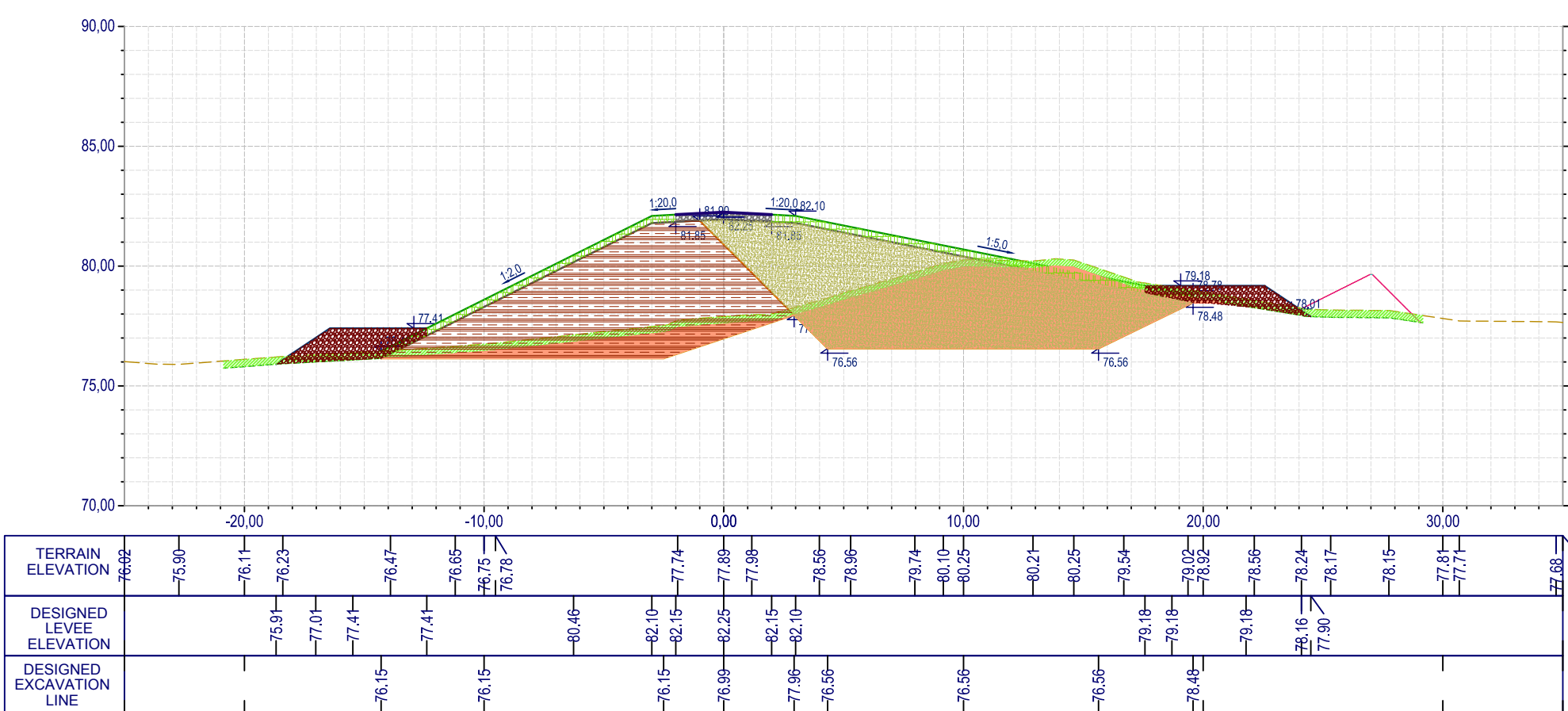
bill of quantities: 18+600.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.00	602.93	70110.45
preparation of temporary casettes	4.74	191.27	22842.92
(F1) excavation of coherent material	13.32	606.37	85184.35
(F11) excavation of coherent material	28.16	1210.45	151360.68
backfill of coherent material	48.44	1862.58	231599.20
backfill of non-coherent material	59.36	2439.52	323158.89
applying topsoil to protected slope d=30cm	3.52	146.12	16020.07
applying topsoil to unprotected slope d=30cm	5.23	210.62	26422.78
graveling of the crown road d=30cm	1.20	48.00	5562.00
service traffic on the protected side	4.58	170.33	19081.28
service traffic on the unprotected side	4.44	164.54	15712.78

Cross-section no.114
km:18+560,00



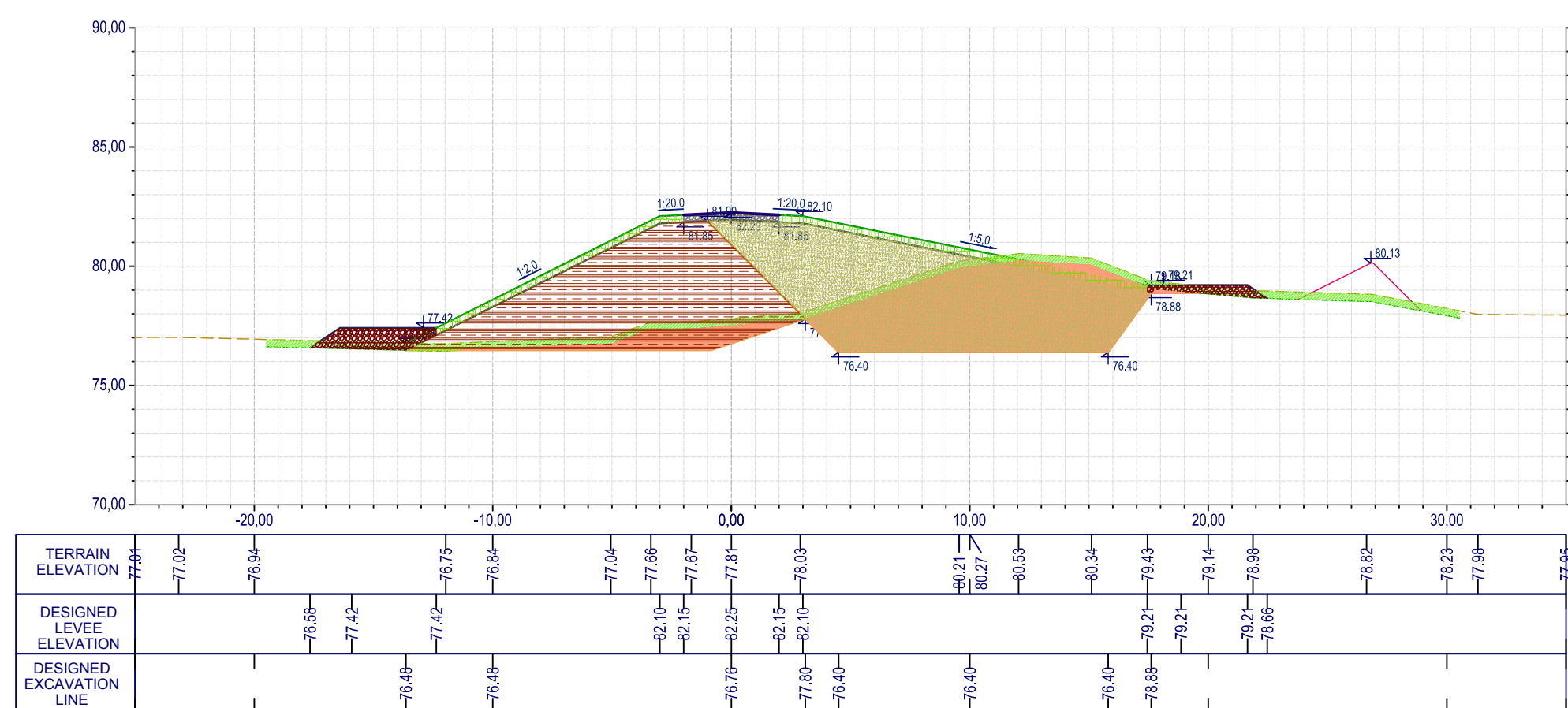
bill of quantities: 18+560.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.05	602.73	67660.53
preparation of temporary casettes	5.47	195.88	22152.48
(F1) excavation of coherent material	15.99	665.38	82833.54
(F11) excavation of coherent material	32.45	1359.38	146039.44
backfill of coherent material	47.85	1921.18	223842.52
backfill of non-coherent material	61.90	2547.04	213198.87
applying topsoil to protected slope d=30cm	3.43	135.99	15471.00
applying topsoil to unprotected slope d=30cm	5.21	212.37	26465.94
graveling of the crown road d=30cm	1.20	48.00	5400.00
service traffic on the protected side	3.60	142.94	18995.67
service traffic on the unprotected side	3.00	121.44	15211.94

Cross-section no.119
km:18+560,00



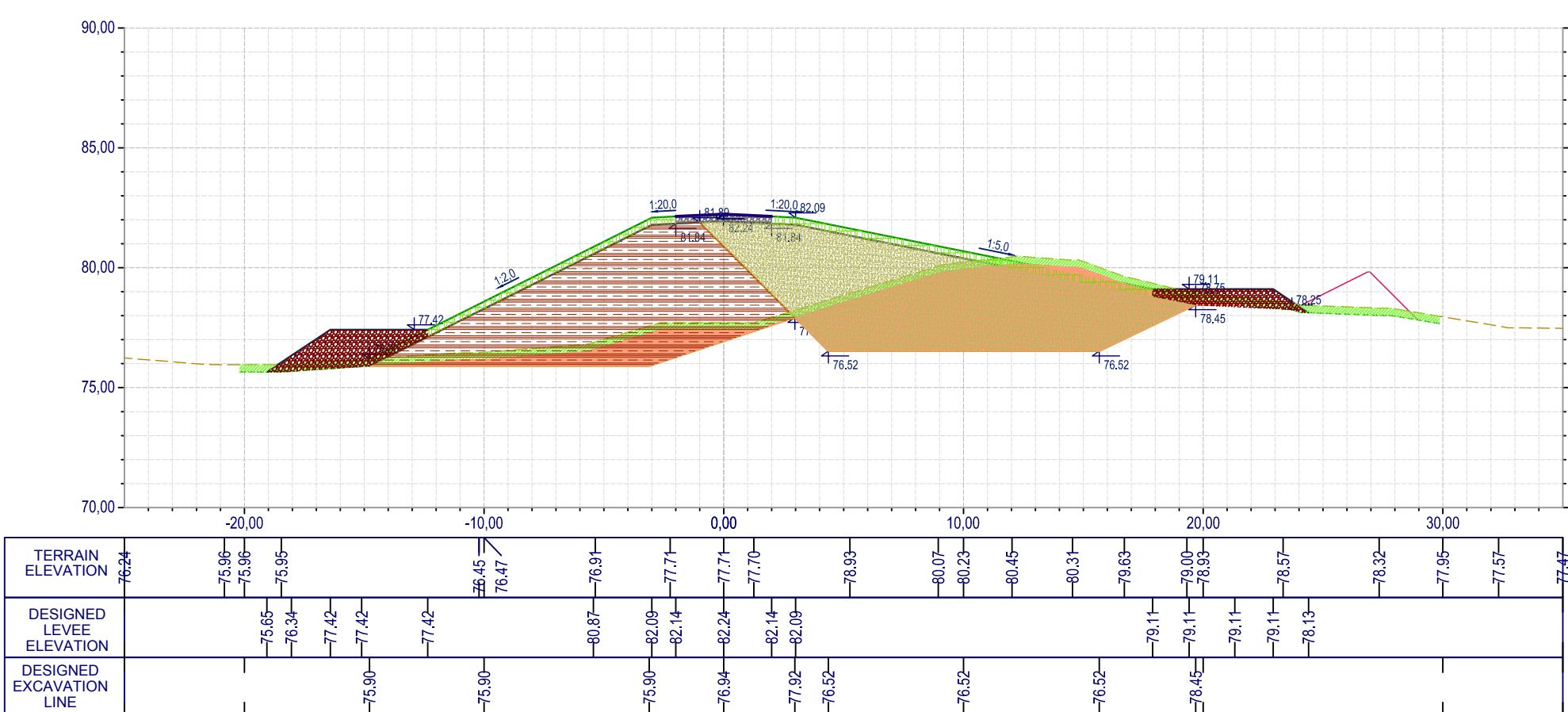
bill of quantities: 18+560.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.01	602.09	70712.96
preparation of temporary casettes	5.01	200.14	23143.08
(F1) excavation of coherent material	14.57	664.90	85748.25
(F11) excavation of coherent material	35.35	1279.72	152640.40
backfill of coherent material	53.21	2024.01	233623.21
backfill of non-coherent material	62.54	2459.10	325615.99
applying topsoil to protected slope d=30cm	3.69	142.93	16163.00
applying topsoil to unprotected slope d=30cm	5.27	212.35	26835.13
graveling of the crown road d=30cm	1.20	48.00	5460.00
service traffic on the protected side	5.83	204.95	19796.22
service traffic on the unprotected side	4.43	181.18	15893.94

Cross-section no.115
km:18+520,00



bill of quantities: 18+520.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.01	603.88	68027.41
preparation of temporary casettes	4.23	199.12	22351.59
(F1) excavation of coherent material	10.32	532.80	82866.42
(F11) excavation of coherent material	36.86	1397.85	141427.29
backfill of coherent material	50.29	1954.84	225797.36
backfill of non-coherent material	62.18	2503.97	215953.85
applying topsoil to protected slope d=30cm	3.49	137.35	15608.30
applying topsoil to unprotected slope d=30cm	4.68	199.89	23805.82
graveling of the crown road d=30cm	1.20	48.00	5448.00
service traffic on the protected side	3.84	146.60	19142.26
service traffic on the unprotected side	1.83	94.55	15306.09

Cross-section no.120
km:18+520,00



bill of quantities: 18+520.00			
name	A [m³]	V [m³]	LV [m³]
topsoil excavation d=30cm	15.01	603.09	71316.05
preparation of temporary casettes	4.95	202.81	23345.67
(F1) excavation of coherent material	16.18	622.51	88217.78
(F11) excavation of coherent material	36.52	1427.40	154587.85
backfill of coherent material	56.33	2180.81	235804.02
backfill of non-coherent material	63.17	2535.70	328151.69
applying topsoil to protected slope d=30cm	3.63	148.20	16712.20
applying topsoil to unprotected slope d=30cm	5.31	213.87	26840.00
graveling of the crown road d=30cm	1.20	48.00	5588.00
service traffic on the protected side	6.99	252.38	20008.61
service traffic on the unprotected side	3.85	169.08	16993.02

LEGEND

MATERIAL TYPE	WORKS TYPE
Heterogeneous material with traces of organic matter (topsoil), grass...	EXCAVATION
Coherent material with adequate physical-mechanical properties (EXCAVATION)	EXCAVATION
Non-coherent material of designed granulometric composition	BACKFILL
Coherent material with designed physical-mechanical properties	BACKFILL
Crushed stone aggregate - Ballast C50/300mm	BACKFILL
Selected topsoil from excavation	BACKFILL
Gravel - ballast fraction 3-63mm	BACKFILL
Line of the existing terrain	
Line of top soil stripping	
Line of excavation (denivellation) of the existing levee	
Line of excavation of coherent material from subsoil	
Line of backfilling of selected coherent material from excavation	
Line of backfilling of non-coherent material	
Line of applying topsoil and filling of levee slopes	
Line of backfilling service roads along the levee	
Line of setting geotextile	

Client:



REPUBLIC OF SERBIA
MINISTRY OF AGRICULTURE AND
ENVIRONMENTAL PROTECTION
- REPUBLIC DIRECTORATE FOR WATER
MANAGEMENT -

Technical documentation title:

DESIGN OF EMERGENCY WORKS ON THE RECONSTRUCTION OF THE PROTECTION
SYSTEMS IN THE EAST ZONE
Section 1 (Division - Cvetković)
right bank of the Sava River from km 18+500 to km 21+100

Drawing:

Cross section along the levee axis km 18+500 to km 18+520

Drawing number:

5.12.

Designer:



PWMC "SRBIJAVODE" Belgrade

Responsible designer:

Milica Radovanovic, grad. civil eng.

Designer:

Zvonimir Kocic, grad. civil eng.

Scale:

1:250

Date:

June 2015