KOCKS CONSULT GMBH KOCKS INGENIEURE

FINAL ENGINEERING REPORT
M3 SECTION: COMRAT SOUTH TO CIUMAI

08/2009

APPENDIX: VOLUME 3, A 3.1

EUROPEAN UNION



REPUBLIC OF MOLDOVA



REHABILITATION AND EXTENSION OF THE ROAD M3 CHISINAU – GIURGIULESTI/ROMANIAN BORDER

DRAWINGS LOT 1 (PART I) COMRAT TO JUNCTION R-38 (KM 96+800- KM 135+800)

Europe Aid/125919/C/SER/MD

KOCKS INGENIEURE
Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
Chisinau, Moldova

VOLUME 3 A 3.1

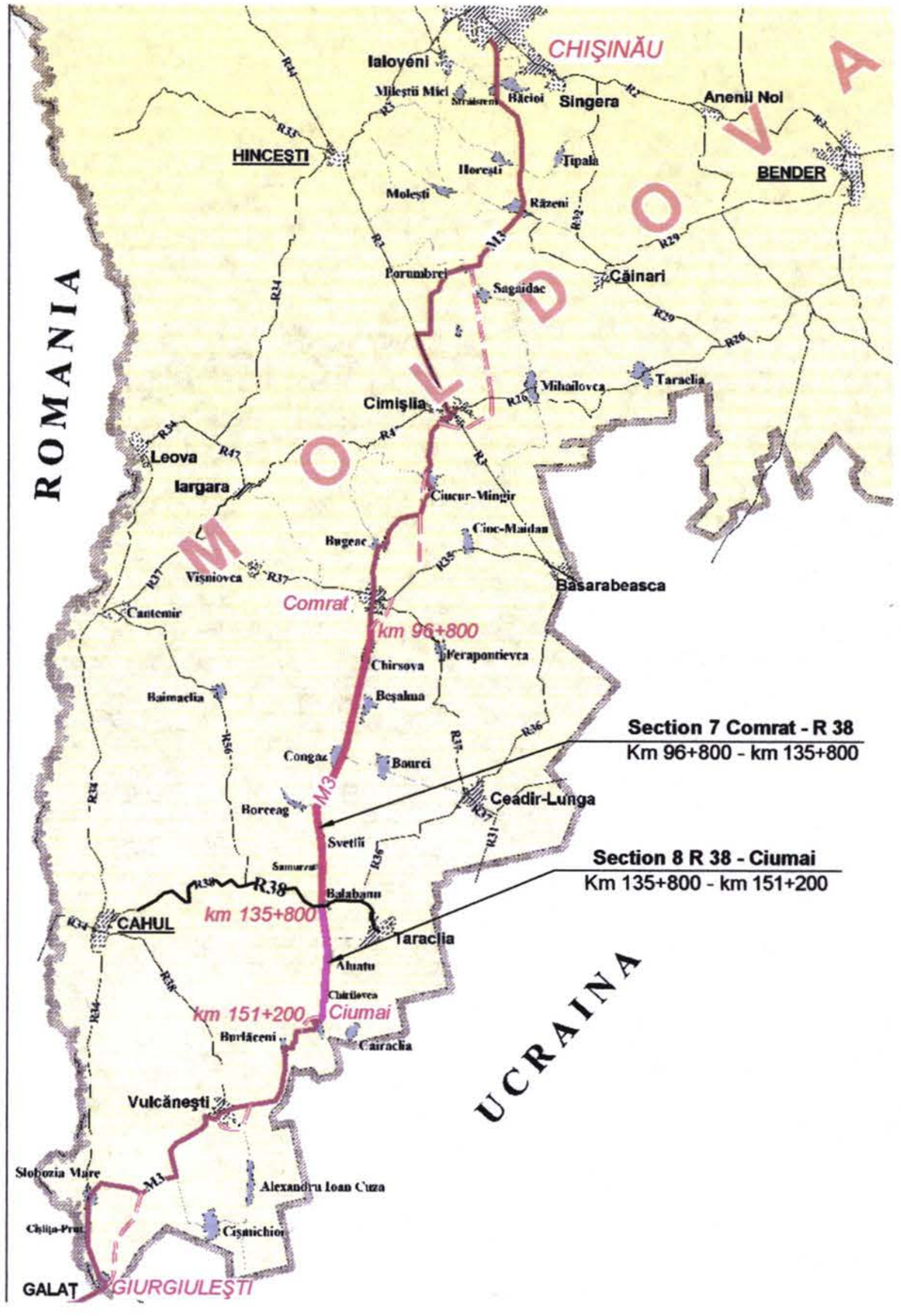
Drawings Lot 1(part I)

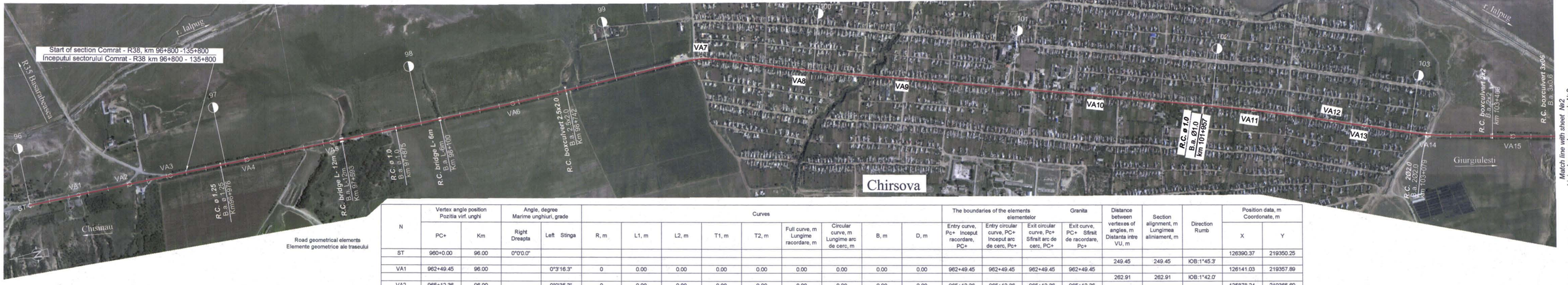
List of drawings
Borderou desene

Section 7. Comrat – Junction R38 , km 96+800- km 135+800

No	Title Denumire	Sheet no. Plansa nr.
	Road Works Lucrari de Drum	
1	**Project Location Map** Plan de ansamblu	1
2	**Road Plan and Centerline Data** Plan traseu cu elementele axei.	1 - 6
3	**Typical cross sections** Profil transversal tip	1 - 2
4	**Road Plan Sc.1:1000; Sc.1:500** Plan drumului Sc.1:1000; Sc.1:500	1 - 58
5	**Longitudinal profile Sc. 1:5000/500(H/V)** Profile longitudinal Sc. 1:5000/500(O/V)	1 - 11
6	**Cross sections** Profile transversale	1 -36
	Drainage Structure Sistemul de evacuare a apelor	
7	**Culverts** Podețe	1 - 11
8	**Transversal drains** Drenajuri transversale	1
9	**Lined side ditch** Rigola din beton	1
10	**Shoulder Spillways** Rigole de acostament	1
11	**Flood wall** Dig de protectie contra inundatiiilor	1

M3 ROAD LOCATION MAP

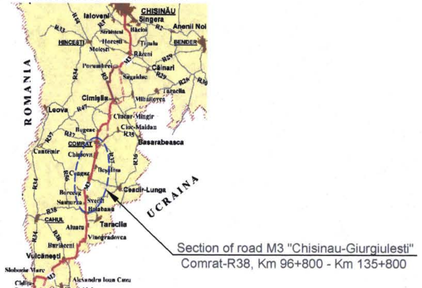




Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements elementelor			Granita	Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea alinieament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ Inceput racordare, PC+	Entry circular curve, PC+ Inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, PC+ Sfirsit de racordare, Pc+				X	Y
ST	960+0.00	96.00	0°0'0.0"																		126390.37	219350.25
																		249.45	249.45	IOB:1°45.3'		
VA1	962+49.45	96.00		0°3'16.3"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	962+49.45	962+49.45	962+49.45	962+49.45				126141.03	219357.89
																		262.91	262.91	IOB:1°42.0'		
VA2	965+12.36	96.00		0°9'35.3"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	965+12.36	965+12.36	965+12.36	965+12.36				125878.24	219365.69
																		206.88	206.88	IOB:1°32.4'		
VA3	967+19.24	96.00		0°5'47.4"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	967+19.24	967+19.24	967+19.24	967+19.24				125671.43	219371.25
																		392.87	392.87	IOB:1°26.6'		
VA4	971+12.11	97.00		0°1'56.9"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	971+12.11	971+12.11	971+12.11	971+12.11				125278.69	219381.15
																		430.96	430.96	IOB:1°24.7'		
VA5	975+43.08	97.00	0°13'12.6"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	975+43.08	975+43.08	975+43.08	975+43.08				124847.86	219391.76
																		925.28	701.65	IOB:1°37.9'		
VA6	984+68.36	98.00	1°42'29.7"		15000	0.00	0.00	223.63	223.63	447.22	447.22	1.67	0.03	982+44.73	982+44.73	986+91.95	986+91.95				123922.95	219418.11
																		969.55	641.65	IOB:3°20.4'		
VA7	994+37.88	99.00		20°56'2.2"	320	90.00	90.00	104.28	104.28	206.92	26.92	6.49	1.65	993+33.59	994+23.59	994+50.51	995+40.51				122955.04	219474.59
																		512.31	311.72	IO3:17°35.7'		
VA8	999+48.54	99.00	2°12'24.6"		5000	0.00	0.00	96.30	96.30	192.58	192.58	0.93	0.02	998+52.23	998+52.23	1000+44.81	1000+44.81				122466.70	219319.73
																		518.26	364.46	IO3:15°23.2'		
VA9	1004+66.77	100.00		0°13'10.6"	30000	0.00	0.00	57.50	57.50	114.99	114.99	0.06	0.00	1004+9.28	1004+9.28	1005+24.27	1005+24.27				121967.02	219182.22
																		968.36	861.26	IO3:15°36.4'		
VA10	1014+35.13	101.00		0°11'22.1"	30000	0.00	0.00	49.60	49.60	99.21	99.21	0.04	0.00	1013+85.53	1013+85.53	1014+84.73	1014+84.73				121034.36	218921.69
																		772.74	570.04	IO3:15°47.8'		
VA11	1022+7.87	102.00		2°55'24.1"	6000	0.00	0.00	153.10	153.10	306.13	306.13	1.95	0.07	1020+54.77	1020+54.77	1023+60.91	1023+60.91				120290.80	218711.34
																		392.12	239.02	IO3:18°43.2'		
VA12	1025+99.92	102.00		0°6'26.8"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1025+99.92	1025+99.92	1025+99.92	1025+99.92				119919.43	218585.49
																		165.90	77.27	IO3:18°49.6'		
VA13	1027+65.82	102.00		0°30'28.0"	20000	0.00	0.00	88.62	88.62	177.25	177.25	0.20	0.00	1026+77.20	1026+77.20	1028+54.45	1028+54.45				119762.41	218531.95
																		322.29	83.49	IO3:19°20.1'		
VA14	1030+88.12	103.00	8°1'55.8"		1070	150.00	150.00	150.18	150.18	300.01	0.01	3.51	0.34	1029+37.94	1030+87.94	1030+87.95	1032+37.95				119458.29	218425.24
																		424.00	216.61	IO3:11°18.2'		
VA15	1035+11.77	103.00	0°13'6.7"		30000	0.00	0.00	57.21	57.21	114.42	114.42	0.05	0.00	1034+54.56	1034+54.56	1035+68.98	1035+68.98				119042.52	218342.14
																		685.49	556.85	IO3:11°5.1'		

PROJECT AREA M3 KEY MAP



Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Schimb Inv. Nr.
Semnatura si data
Inv. Nr.

Consultantii/Consultants:

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56068 Koblenz, Germany

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Universinj Ltd.
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Chisinau MD 2043, Moldova

Rev.	Amendamente Amendments		Aprobat Approved	Data Date

Proiectat/Designed: Efodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129615/C/SER/MO Engineering Design Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axei Sc 1:10 000

Drawing 2 - 1

Format A4x4



Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements elementelor			Granita	Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ Inceput racordare, PC+	Entry circular curve, PC+ Inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, PC+ Sfirsit de racordare, Pc+				X	Y
VA16	1041+97.26	104.00		0°9'49.3"	50000	0.00	0.00	71.43	71.43	142.85	142.85	0.05	0.00	1041+25.83	1041+25.83	1042+68.68	1042+68.68				118369.81	218210.35
																		1423.37	1285.05	IO3:11°14.9'		
VA17	1056+20.63	105.00	0°9'11.9"		50000	0.00	0.00	66.89	66.89	133.78	133.78	0.04	0.00	1055+53.74	1055+53.74	1056+87.52	1056+87.52				116973.78	217932.72
																		981.88	794.31	IO3:11°5.7'		
VA18	1066+2.50	106.00		9°47'26.9"	800	100.00	130.00	120.67	131.47	251.71	21.71	3.63	0.43	1064+81.83	1065+81.83	1066+3.54	1067+33.54				116010.26	217743.77
																		866.32	565.12	IO3:20°53.1'		
VA19	1074+68.39	107.00	27°58'2.8"		480	100.00	100.00	169.73	169.73	334.30	134.30	15.55	5.16	1072+98.66	1073+98.66	1075+32.96	1076+32.96				115200.86	217434.93
																		463.28	149.83	IOB:7°4.9'		
VA20	1079+26.51	107.00		18°18'4.3"	550	110.00	110.00	143.72	143.72	285.68	65.68	8.02	1.77	1077+82.78	1078+92.78	1079+58.46	1080+68.46				114741.12	217492.05
																		1087.12	943.40	IO3:11°13.2'		
VA21	1090+11.86	109.00	0°1'34.3"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1090+11.86	1090+11.86	1090+11.86	1090+11.86				113674.77	217280.53
																		1484.37	1484.37	IO3:11°11.6'		
VA22	1104+96.23	110.00		0°0'22.7"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1104+96.23	1104+96.23	1104+96.23	1104+96.23				112218.64	216992.39
																		759.08	759.08	IO3:11°12.0'		
VA23	1112+55.31	111.00	0°5'55.5"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1112+55.31	1112+55.31	1112+55.31	1112+55.31				111474.01	216844.96
																		930.85	817.31	IO3:11°6.0'		

PROJECT AREA M3 KEY MAP



Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Schimb inv. Nr.

Semnatura si data

Inv. Nr.

Rev. Rev.	Amendamente Amendments		Aprobat Approved	Data Data

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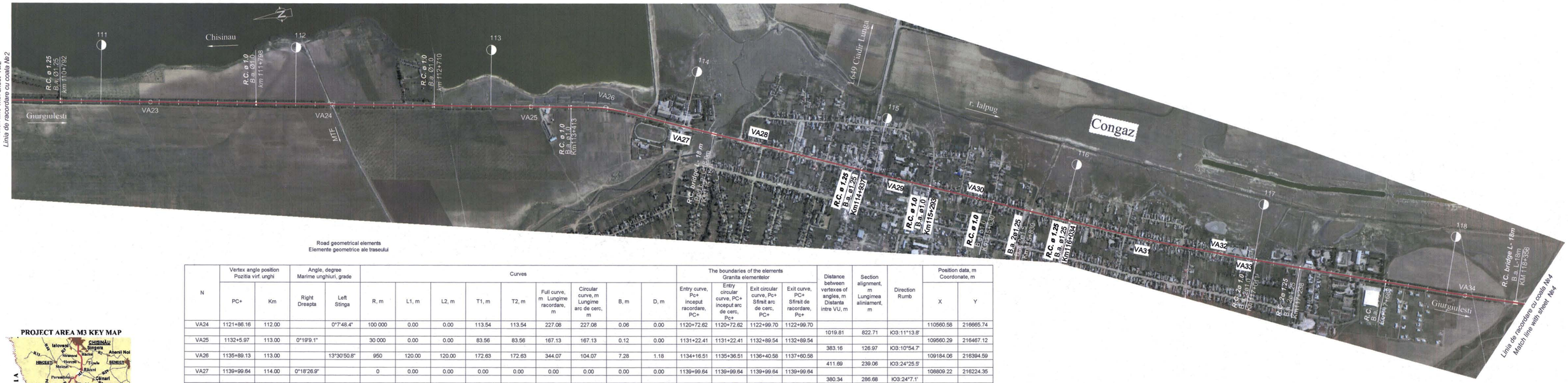
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie Ie / Sector: Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129919/IC/SER/MD Engineering Design Section Comrat - R38

Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axei Sc 1:10 000

Drawing 2 - 2

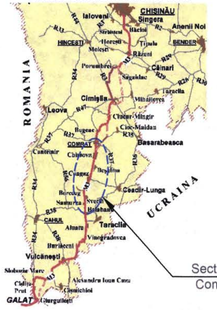
Format A4x4



Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ inceput racordare, PC+	Entry circular curve, PC+ inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, PC+ Sfirsit de racordare, Pc+				X	Y
VA24	1121+86.16	112.00		0°7'48.4"	100 000	0.00	0.00	113.54	113.54	227.08	227.08	0.06	0.00	1120+72.62	1120+72.62	1122+99.70	1122+99.70				110560.58	216665.74
																		1019.81	822.71	IO3:11°13.8'		
VA25	1132+5.97	113.00	0°19'9.1"		30 000	0.00	0.00	83.56	83.56	167.13	167.13	0.12	0.00	1131+22.41	1131+22.41	1132+89.54	1132+89.54				109560.29	216467.12
																		383.16	126.97	IO3:10°54.7'		
VA26	1135+89.13	113.00		13°30'50.8"	950	120.00	120.00	172.63	172.63	344.07	104.07	7.28	1.18	1134+16.51	1135+36.51	1136+40.58	1137+60.58				109184.06	216394.59
																		411.69	239.06	IO3:24°25.5'		
VA27	1139+99.64	114.00	0°18'26.9"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1139+99.64	1139+99.64	1139+99.64	1139+99.64				108809.22	216224.35
																		380.34	286.68	IO3:24°7.1'		
VA28	1143+79.98	114.00		0°21'27.9"	30 000	0.00	0.00	93.66	93.66	187.32	187.32	0.15	0.00	1142+86.32	1142+86.32	1144+73.65	1144+73.65				108462.08	216068.94
																		753.15	596.05	IO3:24°28.6'		
VA29	1151+33.13	115.00	0°14'32.4"		30 000	0.00	0.00	63.44	63.44	126.88	126.88	0.07	0.00	1150+69.69	1150+69.69	1151+96.57	1151+96.57				107776.61	215756.90
																		411.21	347.77	IO3:24°14.0'		
VA30	1155+44.35	115.00		0°12'17.1"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1155+44.35	1155+44.35	1155+44.35	1155+44.35				107401.64	215588.11
																		908.71	836.75	IO3:24°26.3'		
VA31	1164+53.05	116.00	3°17'50.2"		2 500	0.00	0.00	71.96	71.96	143.87	143.87	1.04	0.04	1163+81.10	1163+81.10	1165+24.97	1165+24.97				106574.34	215212.17
																		372.89	300.93	IO3:21°8.5'		
VA32	1168+25.90	116.00		0°34'47.3"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1168+25.90	1168+25.90	1168+25.90	1168+25.90				106226.55	215077.68
																		144.78	79.83	IO3:21°43.3'		
VA33	1169+70.68	116.00	1°29'18.3"		5 000	0.00	0.00	64.95	64.95	129.89	129.89	0.42	0.01	1169+5.73	1169+5.73	1170+35.62	1170+35.62				106092.05	215024.10
																		1123.50	942.94	IO3:20°13.9'		
VA34	1180+94.17	118.00	1°19'29.2"		10 000	0.00	0.00	115.61	115.61	231.22	231.22	0.67	0.01	1179+78.56	1179+78.56	1182+9.78	1182+9.78				105037.88	214635.56
																		414.29	117.55	IO3:18°54.5'		

PROJECT AREA M3 KEY MAP



Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Schimb inv. Nr.
Semnatura si data
Inv. Nr.

Rev.	Amendamente Amendments	Aprobat Approved	Data Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Effodi V.
Verificat/Checked: Vicinschi D.
Desenat/Drawn: Effodi V.
Data/Date: 08.09

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EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129519/C/SER/MD Engineering Design Section Comrat - R38

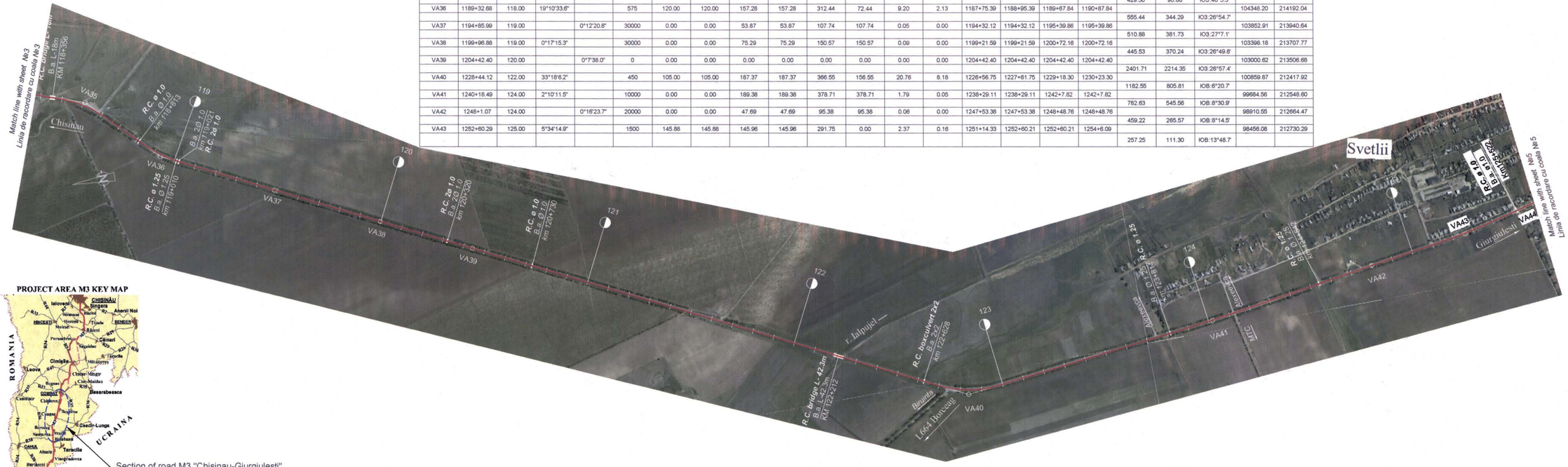
Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axel Sc 1:10 000

Drawing 2 - 3

Format A4x4

Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ inceput racordare, PC+	Entry circular curve, PC+ inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, PC+ Sfirsit de racordare, Pc+				X	Y
VA35	1185+8.46	118.00		27°10'48.8"	500	120.00	120.00	181.13	181.13	357.19	117.19	15.64	5.07	1183+27.32	1184+47.32	1185+64.52	1186+84.52				104645.94	214501.31
																		429.30	90.88	IO3:46°5.3'		
VA36	1189+32.68	118.00	19°10'33.6"		575	120.00	120.00	157.28	157.28	312.44	72.44	9.20	2.13	1187+75.39	1188+95.39	1189+67.84	1190+87.84				104348.20	214192.04
																		555.44	344.29	IO3:26°54.7'		
VA37	1194+85.99	119.00		0°12'20.8"	30000	0.00	0.00	53.87	53.87	107.74	107.74	0.05	0.00	1194+32.12	1194+32.12	1195+39.86	1195+39.86				103852.91	213940.64
																		510.88	381.73	IO3:27°7.1'		
VA38	1199+96.88	119.00	0°17'15.3"		30000	0.00	0.00	75.29	75.29	150.57	150.57	0.09	0.00	1199+21.59	1199+21.59	1200+72.16	1200+72.16				103396.18	213707.77
																		445.53	370.24	IO3:26°49.8'		
VA39	1204+42.40	120.00		0°7'38.0"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1204+42.40	1204+42.40	1204+42.40	1204+42.40				103000.62	213506.68
																		2401.71	2214.35	IO3:26°57.4'		
VA40	1228+44.12	122.00	33°18'6.2"		450	105.00	105.00	187.37	187.37	366.55	156.55	20.76	8.18	1226+56.75	1227+61.75	1229+18.30	1230+23.30				100859.87	212417.92
																		1182.55	805.81	IOB:6°20.7'		
VA41	1240+18.49	124.00	2°10'11.5"		10000	0.00	0.00	189.38	189.38	378.71	378.71	1.79	0.05	1238+29.11	1238+29.11	1242+7.82	1242+7.82				99684.56	212548.60
																		782.63	545.56	IOB:8°30.9'		
VA42	1248+1.07	124.00		0°16'23.7"	20000	0.00	0.00	47.69	47.69	95.38	95.38	0.06	0.00	1247+53.38	1247+53.38	1248+48.76	1248+48.76				98910.55	212664.47
																		459.22	265.57	IOB:8°14.5'		
VA43	1252+60.29	125.00	5°34'14.9"		1500	145.88	145.88	145.96	145.96	291.75	0.00	2.37	0.16	1251+14.33	1252+60.21	1252+60.21	1254+6.09				98456.08	212730.29
																		257.25	111.30	IOB:13°48.7'		



PROJECT AREA M3 KEY MAP

Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Schimb Inv. Nr.
Semnatura si data
Inv. Nr.

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova
Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie pe / Sector Comrat - R38

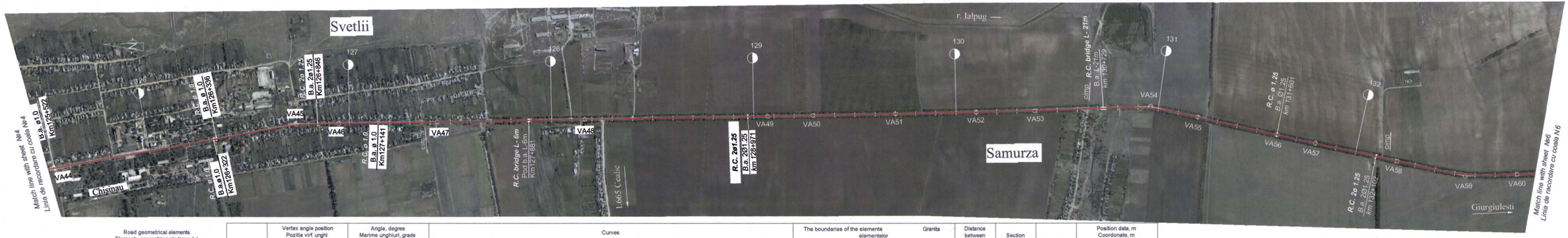
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romenian Border/ Europe Aid/125915/C/SER/MD Engineering Design Section Comrat - R38

Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axei Sc 1:10 000

Drawing: 2 - 4

Rev.	Amendamente Amendments		Aprobat Approved	Data Date
Rev.				

Format A4x4



Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements elementelor			Granita	Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ Inceput racordare, PC+	Entry circular curve, PC+ Inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, Pc+ Sfirsit de racordare, Pc+				X	Y
VA44	1255+17.38	125.00		0°0'29.7"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1255+17.38	1255+17.38	1255+17.38	1255+17.38				98206.28	212791.71
																		1220.21	1127.12	IOB:13°48.2'		
VA45	1267+37.59	126.00		8°55'36.4"	600	92.38	92.38	93.09	93.09	185.92	1.15	2.42	0.26	1266+44.50	1267+36.88	1267+38.03	1268+30.41				97021.29	213082.84
																		211.09	118.00	IOB:4°52.6'		
VA46	1269+48.41	126.00		0°32'26.2"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1269+48.41	1269+48.41	1269+48.41	1269+48.41				96810.97	213100.79
																		486.39	466.13	IOB:4°20.2'		
VA47	1274+34.80	127.00	0°13'55.8"		10000	0.00	0.00	20.26	20.26	40.52	40.52	0.02	0.00	1274+14.54	1274+14.54	1274+55.06	1274+55.06				96325.97	213137.56
																		730.06	681.30	IOB:4°34.1'		
VA48	1281+64.86	128.00		0°9'47.7"	20000	0.00	0.00	28.49	28.49	56.99	56.99	0.02	0.00	1281+36.37	1281+36.37	1281+93.35	1281+93.35				95598.23	213195.71
																		904.07	875.58	IOB:4°24.3'		
VA49	1290+68.93	129.00	0°9'50.0"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1290+68.93	1290+68.93	1290+68.93	1290+68.93				94696.83	213265.15
																		223.28	223.28	IOB:4°34.1'		
VA50	1292+92.21	129.00	0°1'3.7"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1292+92.21	1292+92.21	1292+92.21	1292+92.21				94474.26	213282.94
																		407.68	407.68	IOB:4°35.2'		
VA51	1296+99.89	129.00		0°1'33.5"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1296+99.89	1296+99.89	1296+99.89	1296+99.89				94067.89	213315.54
																		400.00	400.00	IOB:4°33.6'		
VA52	1300+99.89	130.00	0°8'0.3"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1300+99.89	1300+99.89	1300+99.89	1300+99.89				93689.15	213347.34
																		288.98	213.87	IOB:4°41.6'		
VA53	1303+88.87	130.00	0°51'38.6"		10000	0.00	0.00	75.11	75.11	150.23	150.23	0.28	0.00	1303+13.76	1303+13.76	1304+63.98	1304+63.98				93381.14	213370.99
																		572.75	316.95	IOB:5°33.3'		
VA54	1309+61.62	130.00		15°0'52.4"	900	120.00	120.00	178.68	178.68	355.85	115.85	8.45	1.52	1307+82.94	1309+2.94	1310+18.79	1311+38.79				92811.08	213426.43
																		239.44	60.75	IO3:9°27.6'		
VA55	1311+99.54	131.00	0°23'25.1"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1311+99.54	1311+99.54	1311+99.54	1311+99.54				92574.90	213387.08
																		401.70	401.70	IO3:9°4.2'		
VA56	1316+1.24	131.00	0°2'56.7"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1316+1.24	1316+1.24	1316+1.24	1316+1.24				92178.23	213323.76
																		194.57	194.57	IO3:9°1.2'		
VA57	1317+95.81	131.00		0°11'48.2"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1317+95.81	1317+95.81	1317+95.81	1317+95.81				91986.06	213293.26
																		413.38	413.38	IO3:9°13.0'		
VA58	1322+9.19	132.00	0°12'6.4"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1322+9.19	1322+9.19	1322+9.19	1322+9.19				91578.02	213227.04
																		343.45	183.27	IO3:9°0.9'		
VA59	1325+52.64	132.00	14°15'50.2"		800	120.00	120.00	160.18	160.18	319.16	79.16	6.99	1.20	1323+92.46	1325+12.46	1325+91.62	1327+11.62				91238.81	213173.22
																		256.03	95.85	IOB:5°14.9'		
VA60	1328+7.47	132.00		0°9'21.2"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1328+7.47	1328+7.47	1328+7.47	1328+7.47				90983.85	213196.65
																		386.83	386.83	IOB:5°5.6'		

PROJECT AREA M3 KEY MAP



Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Schimb Inv. Nr.

Semnătura și data

Inv. Nr.

Consultantii/Consultants:

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Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Proiectat/Designed: Effodil V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Effodil V.
Data/Date: 08.09

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Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129619/IC/SER/MD
Engineering Design Section Comrat - R38

Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axei Sc 1:10 000

Drawing 2 - 5

Format A4x4



* sectorul 2 km 135+800-151+200

Road geometrical elements
Elemente geometrice ale traseului

N	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves									The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanta intre VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Right Dreapta	Left Stinga	R, m	L1, m	L2, m	T1, m	T2, m	Full curve, m Lungime racordare, m	Circular curve, m Lungime arc de cerc, m	B, m	D, m	Entry curve, Pc+ inceput racordare, PC+	Entry circular curve, PC+ inceput arc de cerc, Pc+	Exit circular curve, Pc+ Sfirsit arc de cerc, PC+	Exit curve, PC+ Sfirsit de racordare, Pc+				X	Y
VA60	1328+7.47	132.00		0°9'21.2"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1328+7.47	1328+7.47	1328+7.47	1328+7.47				90983.85	213196.65
																		386.83	386.83	IOB:5°5.6'		
VA61	1331+94.30	133.00	0°3'2.0"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1331+94.30	1331+94.30	1331+94.30	1331+94.30				90598.55	213230.98
																		533.92	404.26	IOB:5°8.6'		
VA62	1337+28.22	133.00		9°56'45.7"	800	120.00	120.00	129.67	129.67	258.87	18.87	3.78	0.46	1335+98.56	1337+18.56	1337+37.43	1338+57.43				90066.78	213278.85
																		571.81	442.15	IO3:4°48.2'		
VA63	1342+99.58	134.00	0°16'51.9"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1342+99.58	1342+99.58	1342+99.58	1342+99.58				89496.97	213230.97
																		255.83	255.83	IO3:4°31.3'		
VA63	1345+55.40	134.00	0°14'49.9"		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1345+55.40	1345+55.40	1345+55.40	1345+55.40				89241.94	213210.81
																		291.20	203.73	IO3:4°16.5'		
VA64	1348+46.60	134.00		6°15'28.9"	800	87.40	87.40	87.47	87.47	174.81	0.00	1.59	0.12	1347+59.14	1348+46.54	1348+46.54	1349+33.95				88951.55	213189.10
																		453.01	365.54	IO3:10°31.9'		
VA65	1352+99.49	135.00		0°40'57.0"	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1352+99.49	1352+99.49	1352+99.49	1352+99.49				88506.18	213106.30
																		380.91	217.26	IO3:11°12.9'		
VA66	1356+80.40	135.00	20°57'55.1"		600	105.00	105.00	163.64	163.64	324.55	114.55	10.96	2.74	1355+16.75	1356+21.75	1357+36.30	1358+41.30				88132.55	213032.21
																		256.19	92.54	IOB:9°45.0'		
ET	1359+33.84	135.00	0°0'0.0"																		87880.06	213075.60

PROJECT AREA M3 KEY MAP



Section of road M3 "Chisinau-Giurgiulesti"
Comrat-R38, Km 96+800 - Km 135+800

Consultantii/Consultants:

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Kocks Consult GmbH
Stegemannstrasse 32-38,
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Chisinau MD 2043, Moldova

Aprobat/Approved
Data/Date

Rev. Rev. | Amendamente Amendments | Aprobat: Approved: | Data Date

Proiectat/Designed: Efodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efodii V.
Data/Date: 08.09

EU Delegation to Moldova
Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

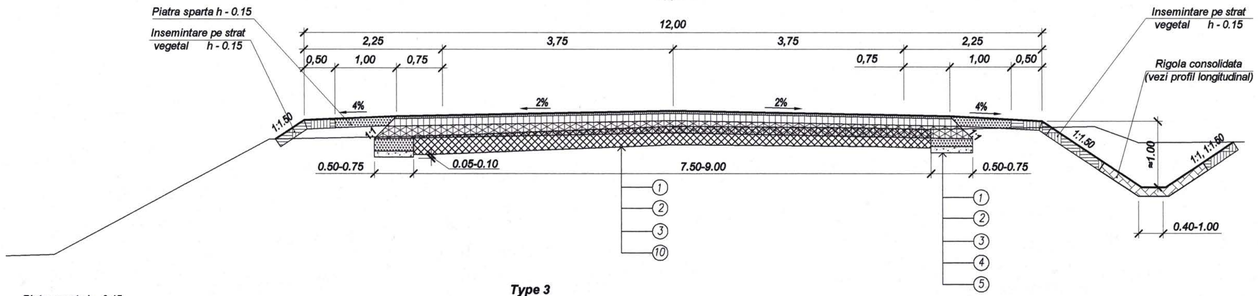
Road Plan and Centerline Data Sc 1:10 000
Plan traseu cu elementele axei Sc 1:10 000

Drawing 2 - 6

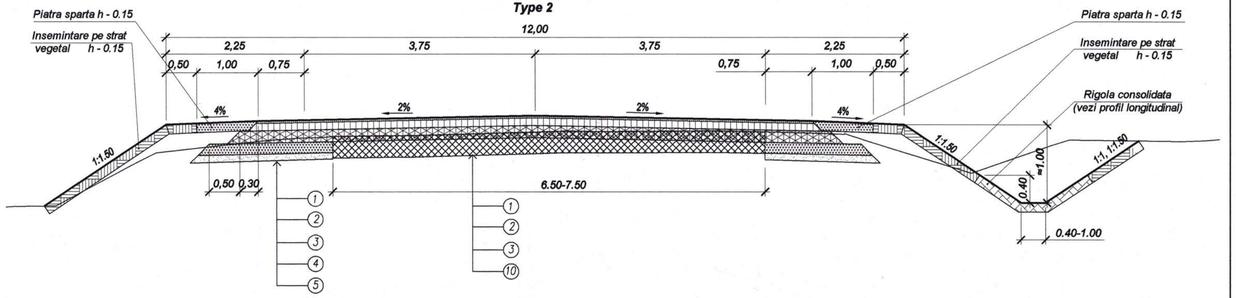
Format A4x4

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

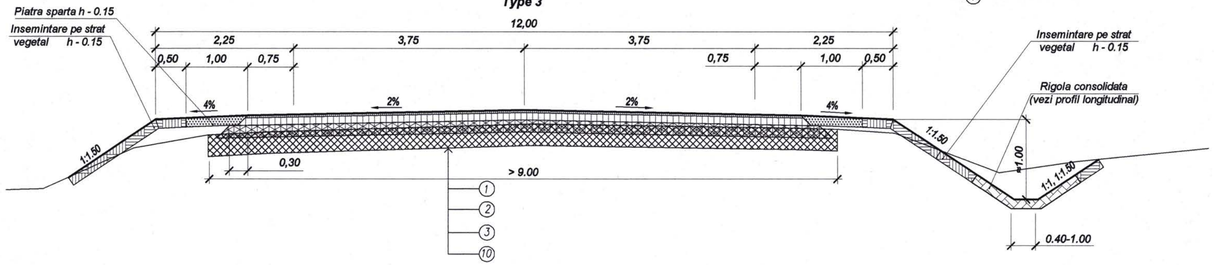
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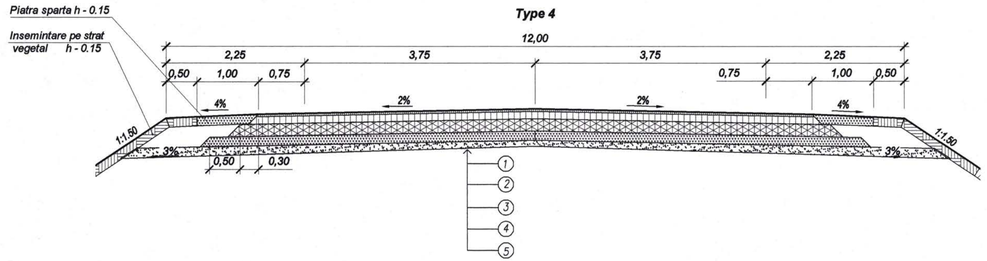
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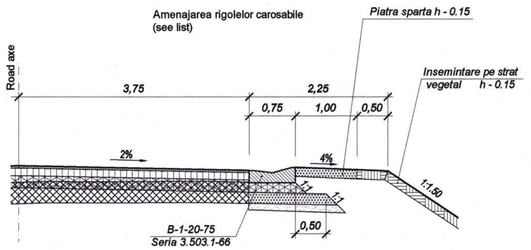


Type 3



Type 4





1. **Wearing course: Stone mastic asphalt concrete**
   Strat de uzura si mixtura asfaltica pe baza de mastic bituminos ŞMS c-I/2.2 SM STB 1033:2008, bitum BD 60/90 — 40mm
2. **Bituminous binder course/** Binder din beton asfaltic poros
   SKPg-I, SM STB 1033:2008, bitum BD 60/90 — 120mm
3. **Base course: Cold recycled asphalt with new aggregates and stabilised with cement 4%-5%** GOST 30491-97
   Strat de baza din beton asfaltic reciclat la rece pe baza de ciment 4% -5% conform GOST 30491-97 — 200 mm
4. **Crushed stone**
   Piatra sparta — 180 mm
5. **Sand**
   Nisip — 100 mm
6. **Wearing course: Asphalt concrete**
   Strat de uzura si mixtura asfaltica pe baza de bitum ŞMVg - III / 2.0 SM STB 1033:2008, bitum BD 60/90 — 30 mm
7. **Wearing course: Asphalt concrete**
   Strat de uzura si mixtura asfaltica pe baza de bitum ŞMVg - III / 2.0 SM STB 1033:2008, bitum BD 60/90 — 40 mm
8. **Wearing course: Asphalt concrete**
   Strat de uzura si mixtura asfaltica pe baza de bitum ŞMVg - III / 2.0 SM STB 1033:2008, bitum BD 60/90 — 60 mm
9. **Crushed stone**
   Piatra sparta — 100 mm
10. **Existent road base**

Consultantii/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegermannstrasse 32-38, 56068 Koblenz, Germany

UNIVERSINJ — Universinj Ltd, Independentei 6/1 Str. Chisinau MD 2043, Moldova

Proiectat/Designed: Vilcinschi D.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efrodil V.
Data/Date:08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/Europa Ası1/2501/IC/EBRD/MD Engineering Design Section Comrat - R38

Typical cross sections
Profile transversale tip

Drawing: 3-1

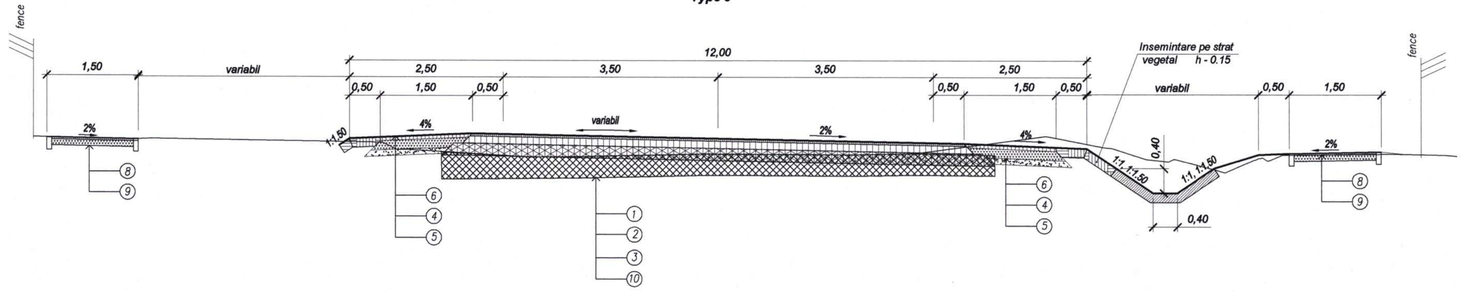
Marimea originala a desenului
Original Drawing Size

Format A4x4

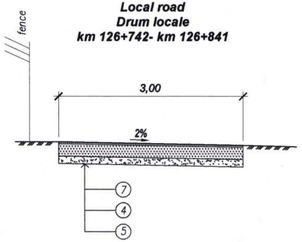
Rev. Rev.	Amendamente Amendments	Aprobat: Approved.	Data Date

Modif. Inv. Nr | Semnatura si data | Inv. Nr

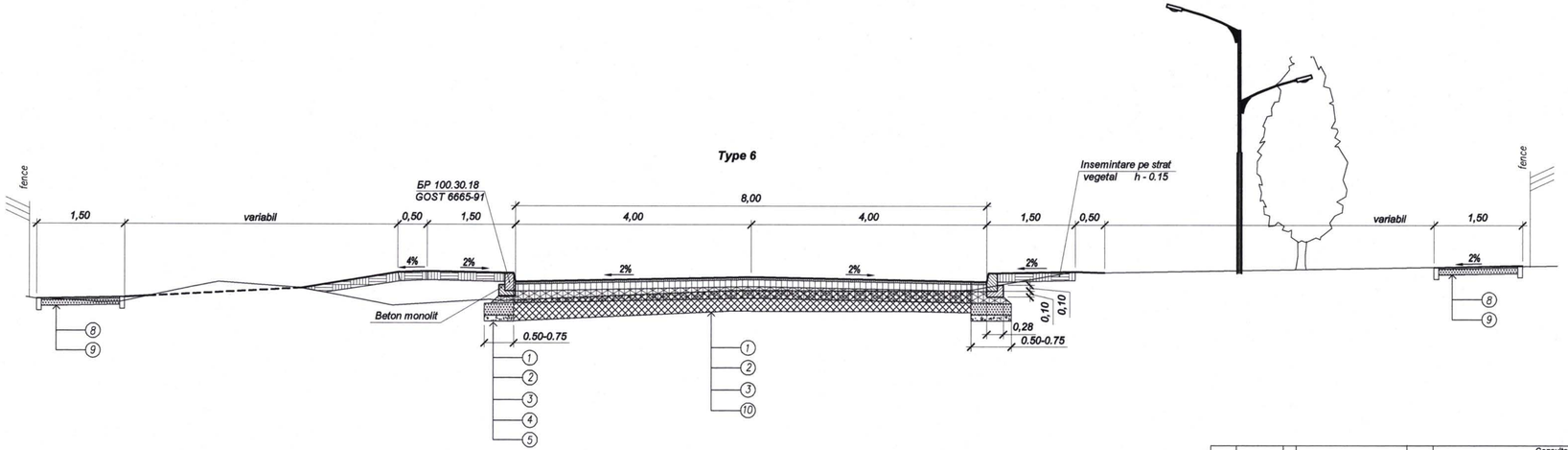
Type 5



Local road
Drum local
km 126+742- km 126+841



Type 6



Type of cross section in the village

Type on left	km	
Chirsova		
5	99 400	100 009
6	100 009	100 363
5	100 363	100 833
6	100 833	100 895
5	100895	101965
6	101 965	103 075
5	103075	103100
Congaz		
5	113800	114334
6	114 334	114 695
5	114 695	114 845
6	114 845	115 295
5	115 295	115 525
6	115 525	115 830
5	115 830	116 040
6	116 040	116 850
5	116850	118200
Svetlii		
5	125 100	127 700

Type on right	km	
Chirsova		
5	99 400	103 100
Congaz		
5	113800	114303
6	114 303	114 695
5	114 695	116 040
6	116 040	116 850
5	116850	118 200
Svetlii		
5	125 100	127 700

Type of cross section out of village

Type on left	km	
1	96 800	97 310
4	97 310	97 444
3	97 444	97 512
4	97 512	97 620
3	97 620	97 737
4	97 737	97 900
3	97 900	98 013
4	98 013	98 262
3	98 262	98 400
1	98 400	98 800
3	98 800	99 000
1	99 000	99 400
see Chirsova		
1	103 100	103 700
3	103 700	104 000
1	104 000	104 600
3	104 600	105 509
4	105 509	105 682
3	105 682	106 000
1	106 000	108 300
3	108 300	110 200
1	110 200	111 200
3	111 200	111 500
1	111 500	113 800
see Congaz		
3	118200	118335
4	118 335	118 427
3	118 427	121 348
4	121 348	121 827
2	121 827	121 920
1	121 920	122 700
3	122 700	124 128
4	124 128	124 356
2	124 356	125 100
see Svetlii		
2	127700	127840
4	127 840	127 945
2	127 945	130 500
4	130 500	130 926
2	130 926	134 800
1	134 800	135 200
2	135 200	135 755

Type on right	km	
2	96 800	97 310
4	97 310	97 444
1	97 444	97 512
4	97 512	97 620
2	97 620	97 737
4	97 737	97 900
2	97 900	98 013
4	98 013	98 262
2	98 262	98 400
1	98 400	99 400
see Chirsova		
1	103 100	104 800
2	104 800	105 509
4	105 509	105 682
1	105 682	106 000
3	106 000	106 400
1	106 400	106 700
3	106 700	107 000
1	107 000	110 600
3	110 600	111 200
1	111 200	111 500
3	111 500	112 900
1	112 900	113 800
see Congaz		
3	118 200	118 335
4	118 335	118 427
3	118 427	121 348
4	121 348	121 827
1	121 827	122 700
3	122 700	124 128
4	124 128	124 356
2	124 356	125 100
see Svetlii		
2	127700	127840
4	127 840	127 945
2	127 945	130 500
4	130 500	130 926
2	130 926	134 200
1	134 200	134 400
2	134 400	135 755

Modif. Inv. Nr
Semnatura si data
Inv. Nr

Rev. Amendamente Amendments | Aprobat: Approved | Data Data

Consultantii/Consultants:

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Siegerrainstrasse 32-38,
56068 Koblenz, Germany

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Chisinau MD 2043, Moldova

Proiectat/Designed: Vilcinschi D.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Effodil V.
Data/Date:08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

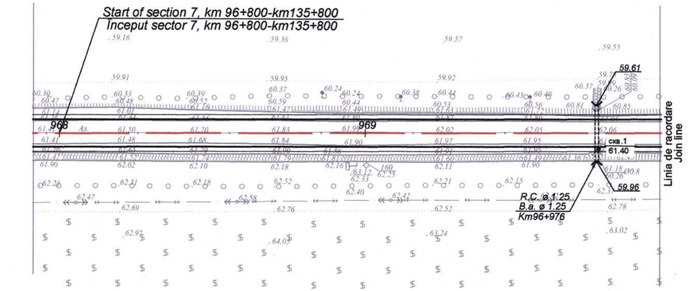
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

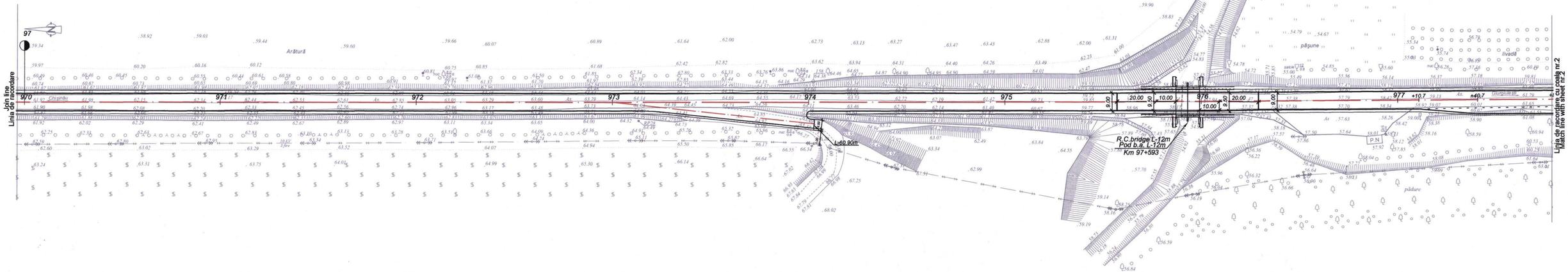
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/Europe Asp/12591R/CIB/ERMD
Engineering Design Section Comrat - R36

Typical cross sections
Profile transversale tip

Drawing 3-2

Format A4x4





Inv. Nr.	Semnatura si data	Schimb. Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegemannstrasse 32-36, 56068 Koblenz, Germany

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Proiectat/Designed: Bal tat M. | Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tat M. | Data/Date 08.09

Aprobat/Approved Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului / Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R36

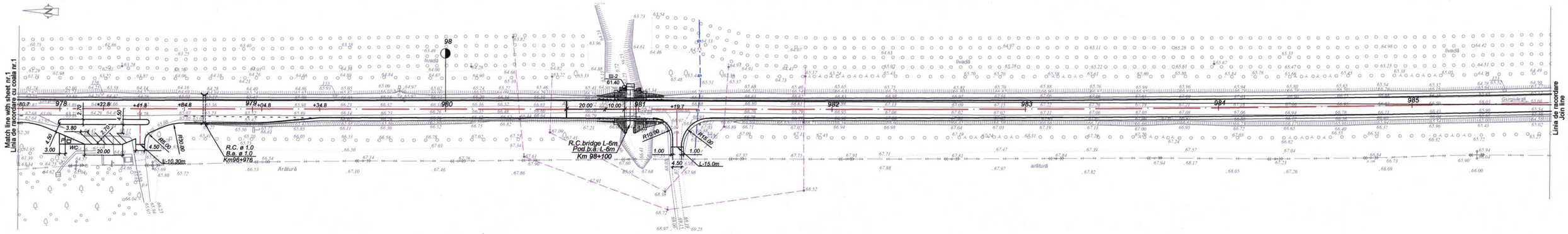
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129619/C/SER/MD Engineering Design Section Comrat - R36

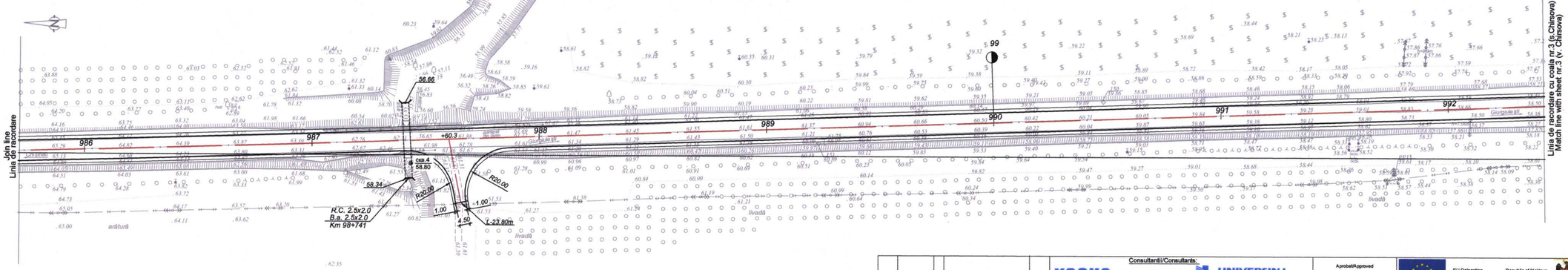
Road Plan km 96+800 - 97+778, Sc.1:1000

Planul drumului km 96+800 - 97+778, Sc.1:1000

Drawing 4-1

Format A4x4





Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Data

Consultanţii/Consultants:

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Kocks Consult GmbH
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Verificat/Checked: Vilcinschi D.

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Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

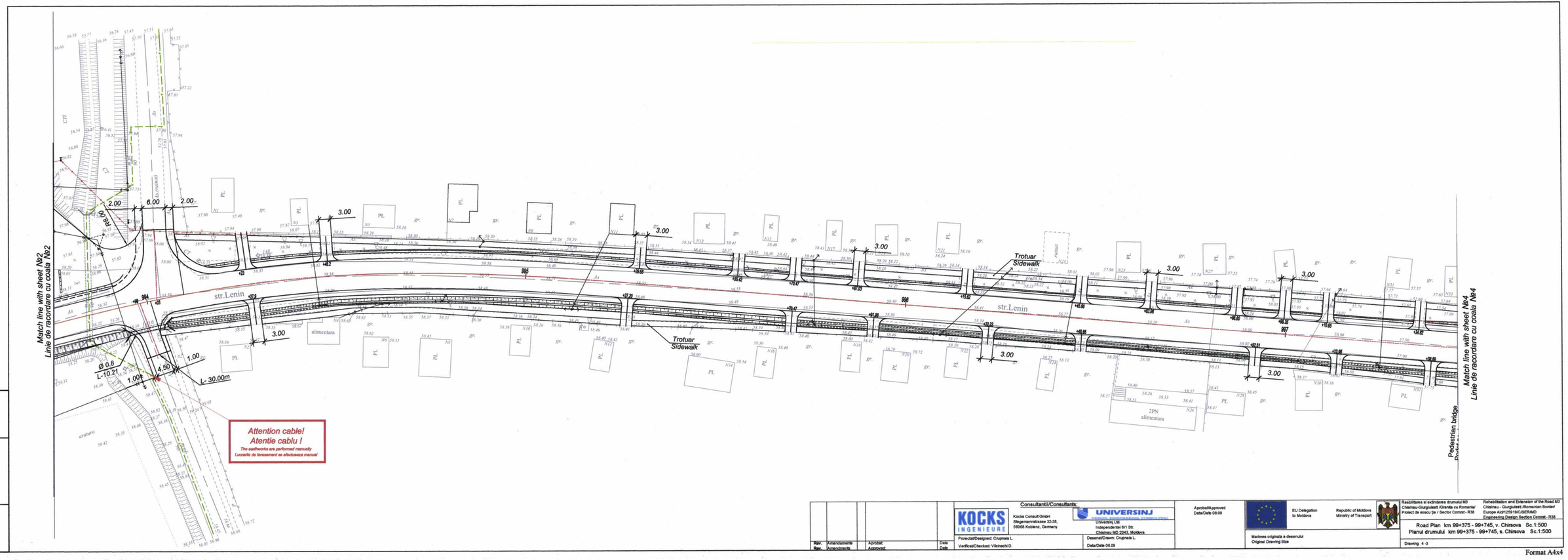
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129919/C/SER/MD
Engineering Design Bedlog Comrat - R38

Road Plan km 97+778 - 99+242, Sc.1:1000
Planul drumului km 97+778 - 99+242, Sc.1:1000

Drawing 4-2

Format A4x4

Schimb Inv. Nr.
Semnatura si data
Inv. Nr.



Consultanti/Consultants:

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Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129918/C/SER/MD
Engineering Design Section Comrat - R38

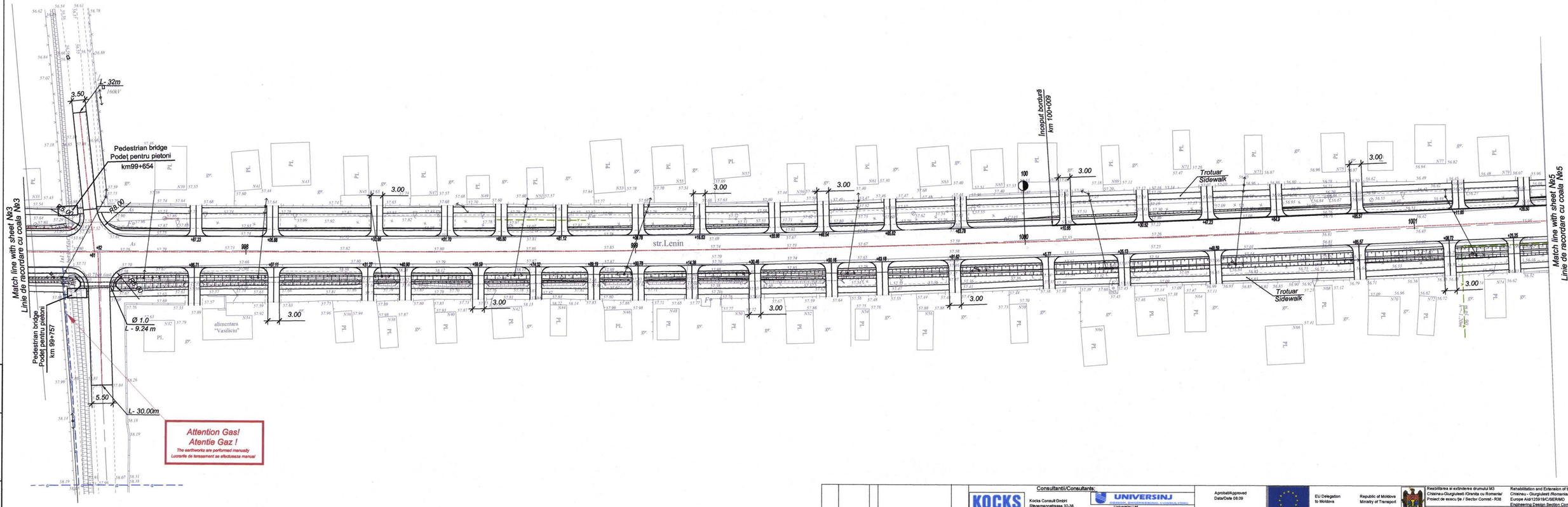
Road Plan km 99+375 - 99+745, v. Chirsova Sc.1:500
Planul drumului km 99+375 - 99+745, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -3

Format A4x4

Inv. Nr. | Semnatura si data | Schimb. Inv. Nr.



Inv. Nr. | Schimb. Inv. Nr. | Semnatura si data

Rev.	Amendamente / Amendments	Aprobat/ Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Crupnala L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnala L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

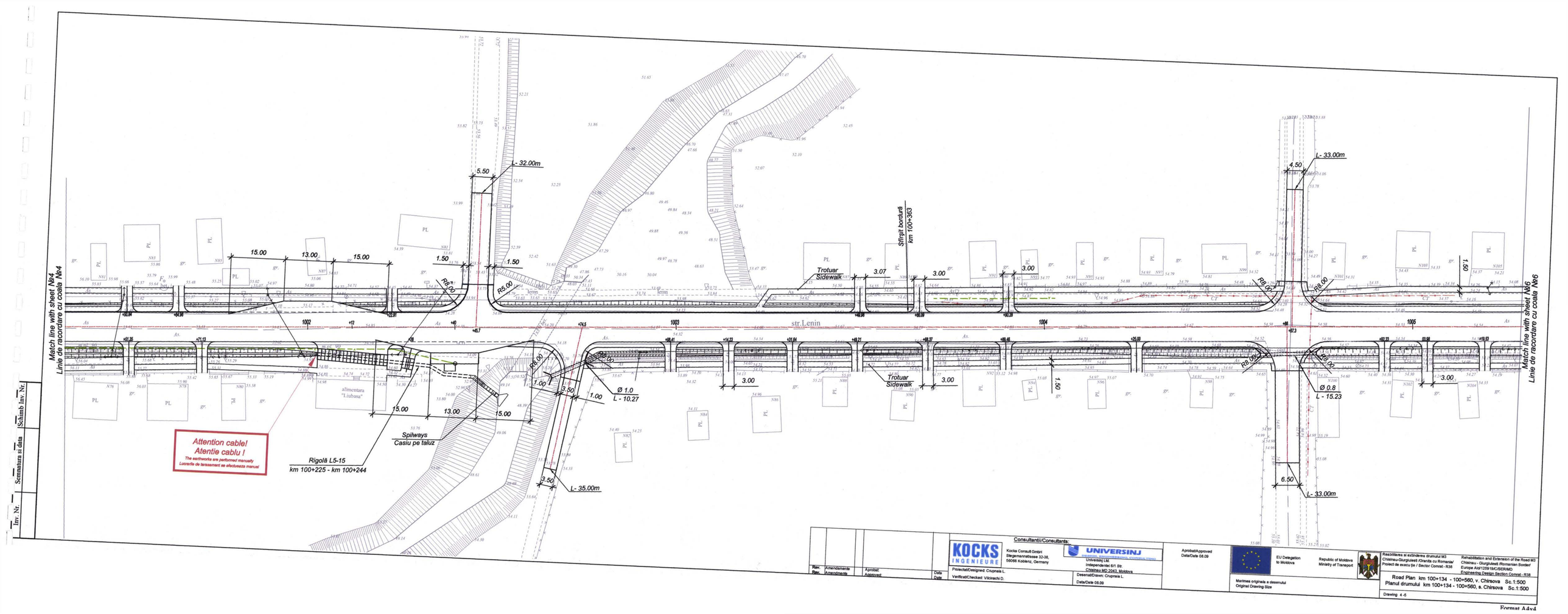
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129019/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 99+745 - 100+134, v. Chirsova Sc.1:500
Planul drumului km 99+745 - 100+134, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -4

Format A4x4



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Rev.	Amendamente / Amendments	Aprobat / Approved:	Data / Date
Rev.			

Proiectat/Designed: Ciupnala L.
Verificat/Checked: Vilcinschi D.
Data/Date 08.09

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Desenat/Drawn: Ciupnala L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

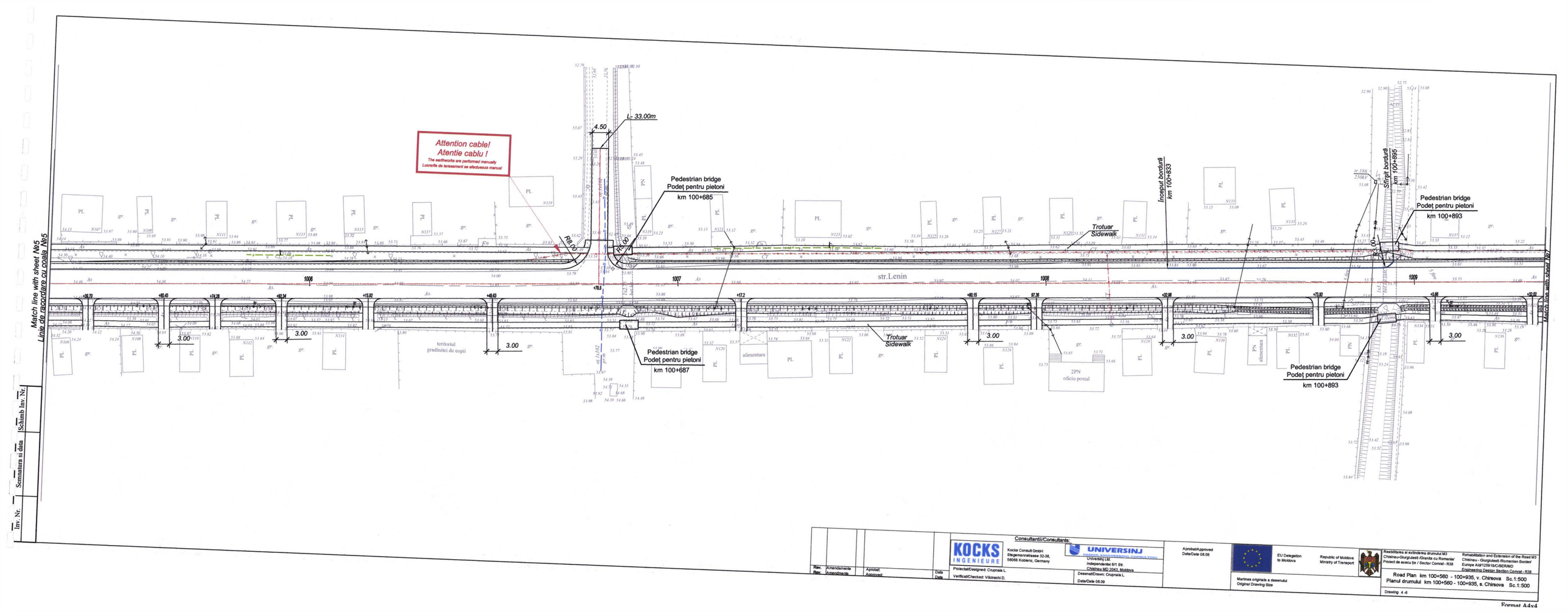
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Asia1259/IVC/DER/MD
Engineering Design Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Road Plan km 100+134 - 100+560, v. Chirsova Sc.1:500
Planul drumului km 100+134 - 100+560, s. Chirsova Sc.1:500

Drawing 4 -6

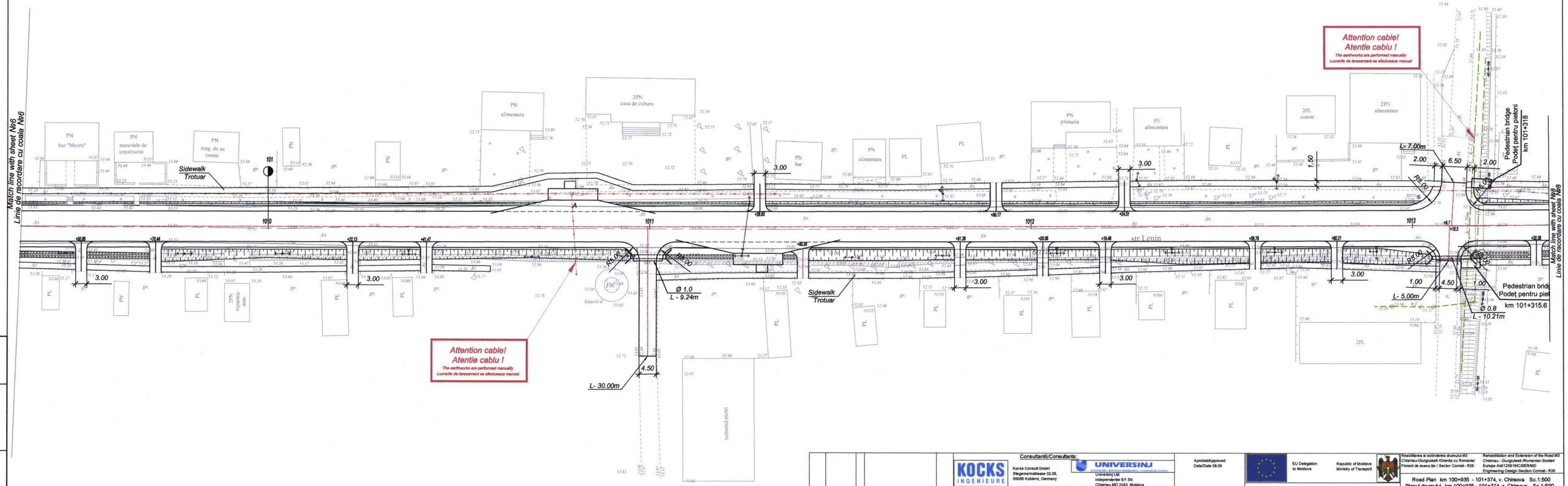
Format A4x4



Consultantii/Consultants:

KOCKS INGENIEURE
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Stegemannstrasse 32-38,
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UNIVERSINJ
Universitatea Tehnică a Moldovei
Universitatea Tehnică "Gheorghe Asachi" din Iași
Universitatea Transilvania din Brașov
Universitatea Politehnica din București
Universitatea Politehnică Timișoara
Universitatea Tehnică din Cluj-Napoca



Schimb Inv. Nr.	Semnatura si data	Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

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Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

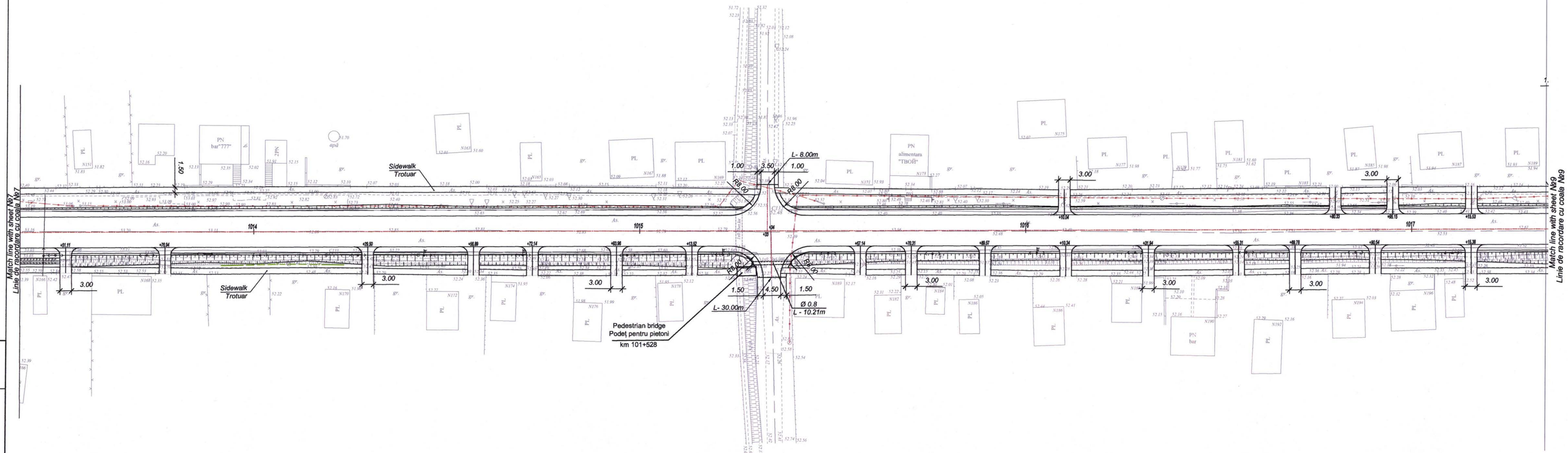
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129019/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 100+935 - 101+374, v. Chirsova Sc.1:500
Planul drumului km 100+935 - 101+374, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -7

Format A4x4



Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Ciupnaia L.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Ciupnaia L.
Data/Date 08.09

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Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R36

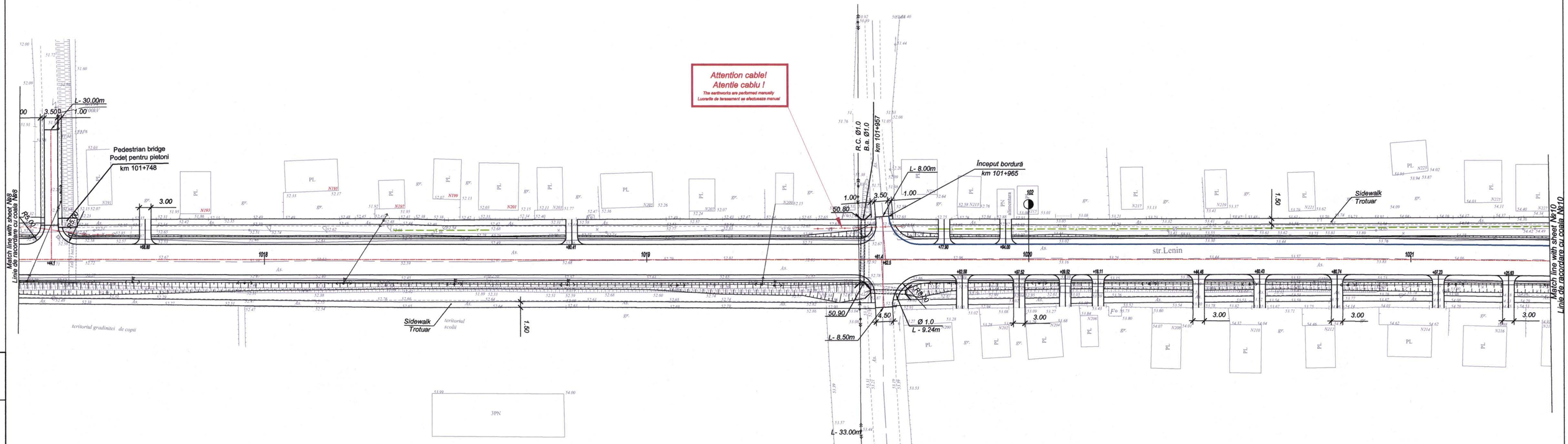
Road Plan km 101+374 - 101+770, v. Chirsova Sc.1:500
Planul drumului km 101+374 - 101+770, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -8

Format A4x4

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.



Schimb Inv.Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

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Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

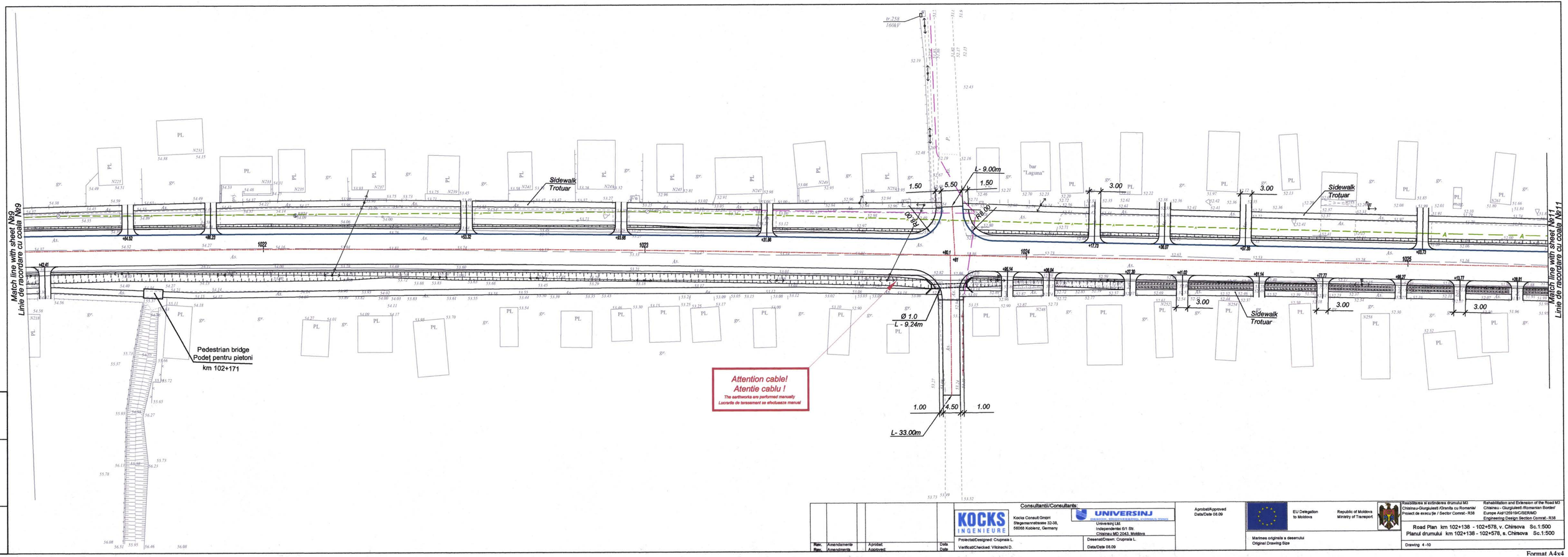
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129915/IC/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 101+770 - 102+138, v. Chirsova Sc.1:500
Planul drumului km 101+770 - 102+138, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -9

Format A4x4



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanții/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

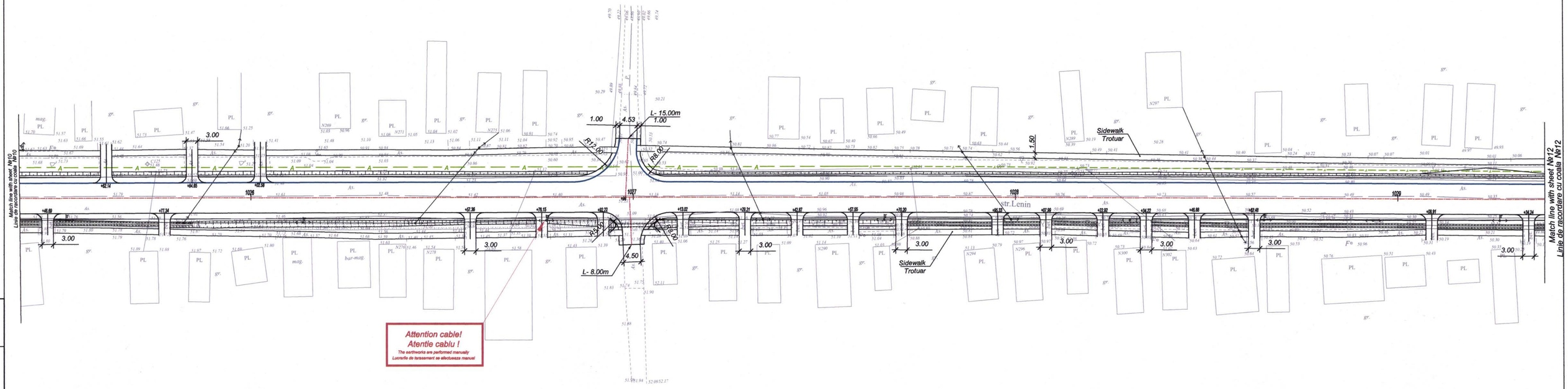
Format A4x4

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129194/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 102+138 - 102+578, v. Chirsova Sc.1:500
Planul drumului km 102+138 - 102+578, s. Chirsova Sc.1:500

Drawing 4 -10



Consultantii/Consultants:

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Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129919/IC/SER/MD
Engineering Design Section Comrat - R36

Marimea originala a desenului
Original Drawing Size

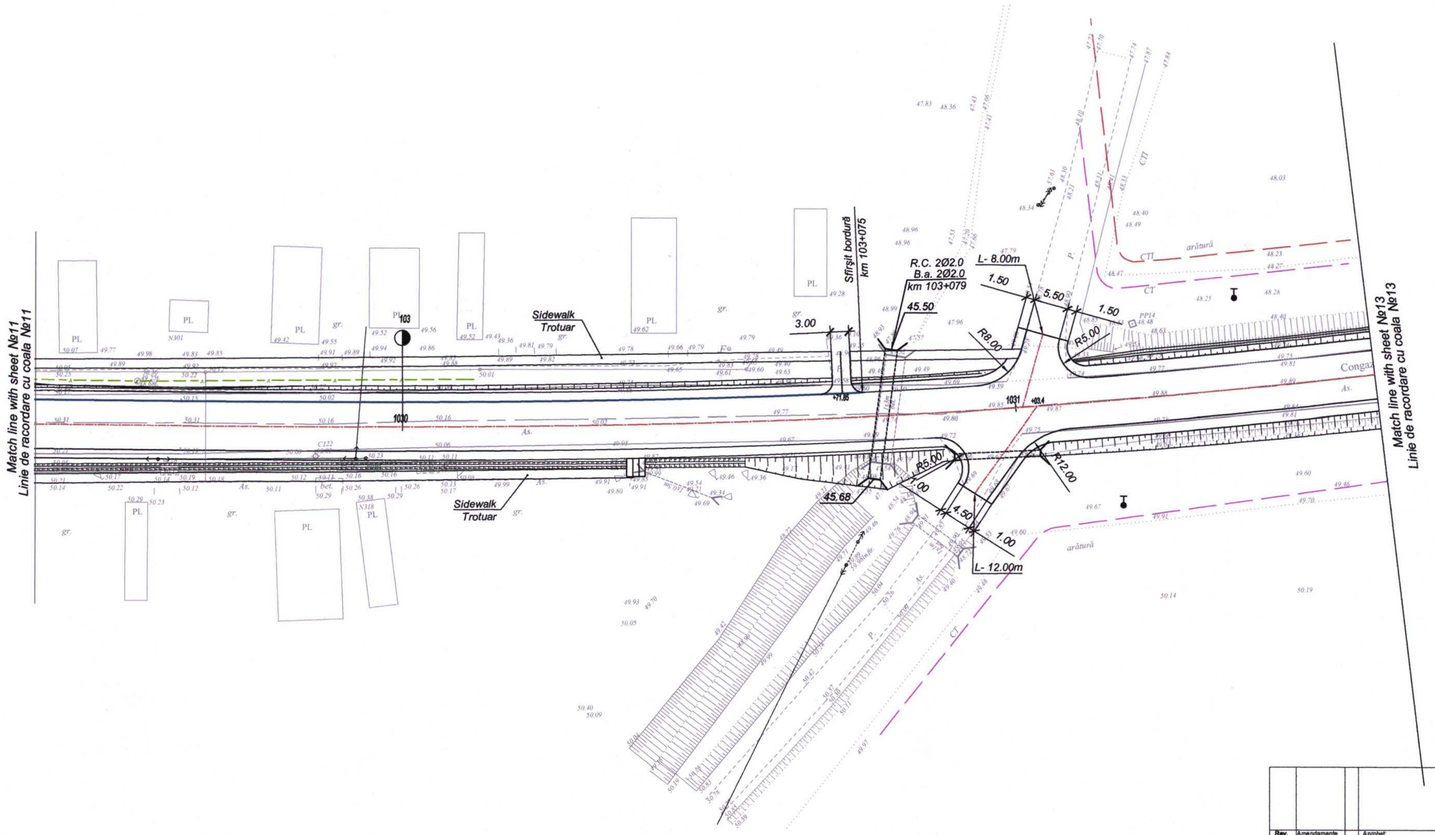
Road Plan km 102+578 - 102+940, v. Chirsova Sc.1:500
Planul drumului km 102+578 - 102+940, s. Chirsova Sc.1:500

Drawing 4 -11

Format A4x4

Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Schimb Inv. Nr. | Semnatura si data | Inv. Nr.



Inv. Nr. | Schimb. inv. Nr. | Semnatura si data

Rev.	Amendamente / Amendments	Aprobat/ Approved	Data / Date
Rev.			

Consultanţii/Consultants:

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Chisinau MD 2043, Moldova

Proiectat/Designed: Crupnaia L.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

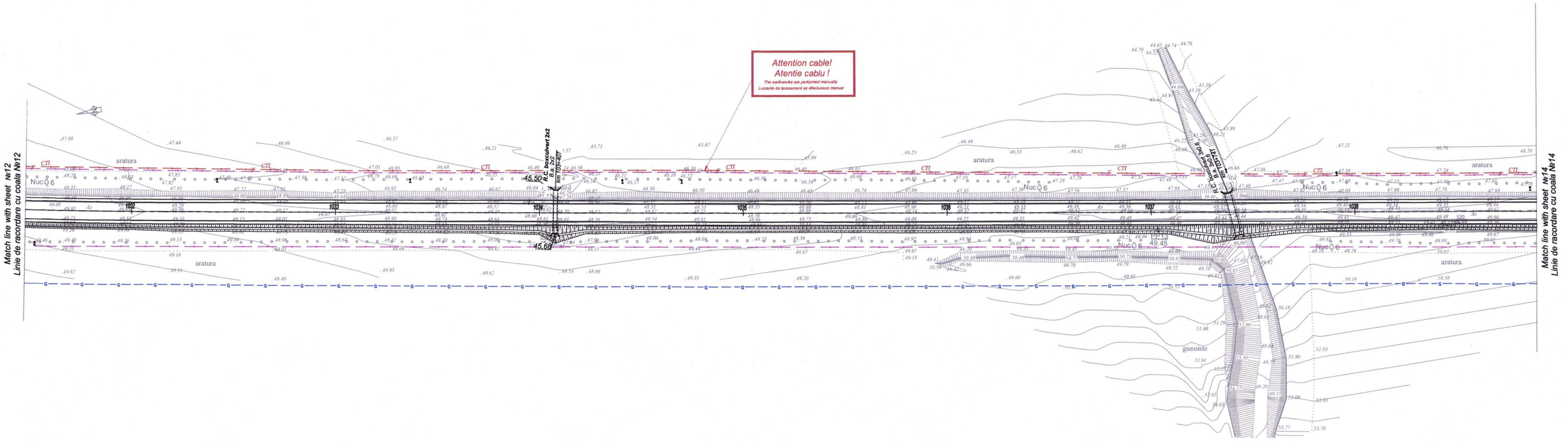
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 102+940 - 103+159, v. Chirsova Sc.1:500
Planul drumului km 102+940 - 103+159, s. Chirsova Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 -12

Format A4x4



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegemannstrasse 32-38, 56068 Koblenz, Germany

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Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Efodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

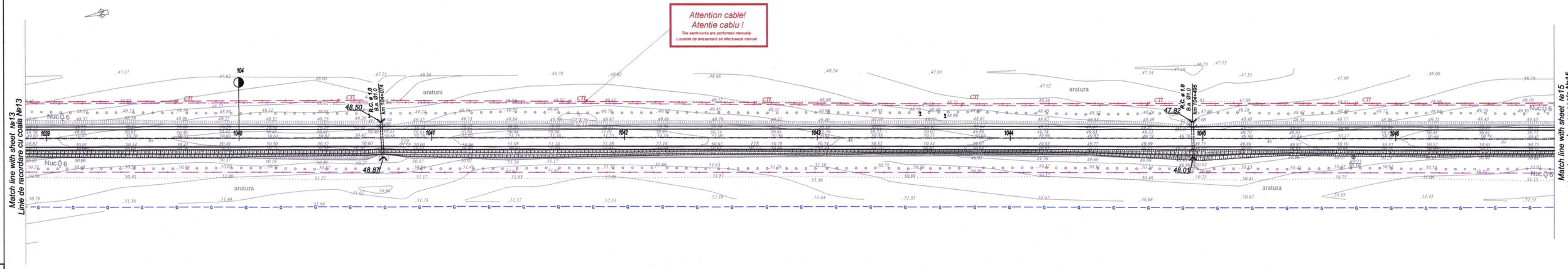
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie tip/ Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design / Section Comrat - R38

Road Plan km 103+252 - 103+888 Sc.1:1000
Planul drumului km 103+252 - 103+888 Sc.1:1000

Drawing 4 - 13

Format A4x4



Schimb Inv. Nr.

Sommatura si data

Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodii V.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executiv pe/ Sector Comrat - R36

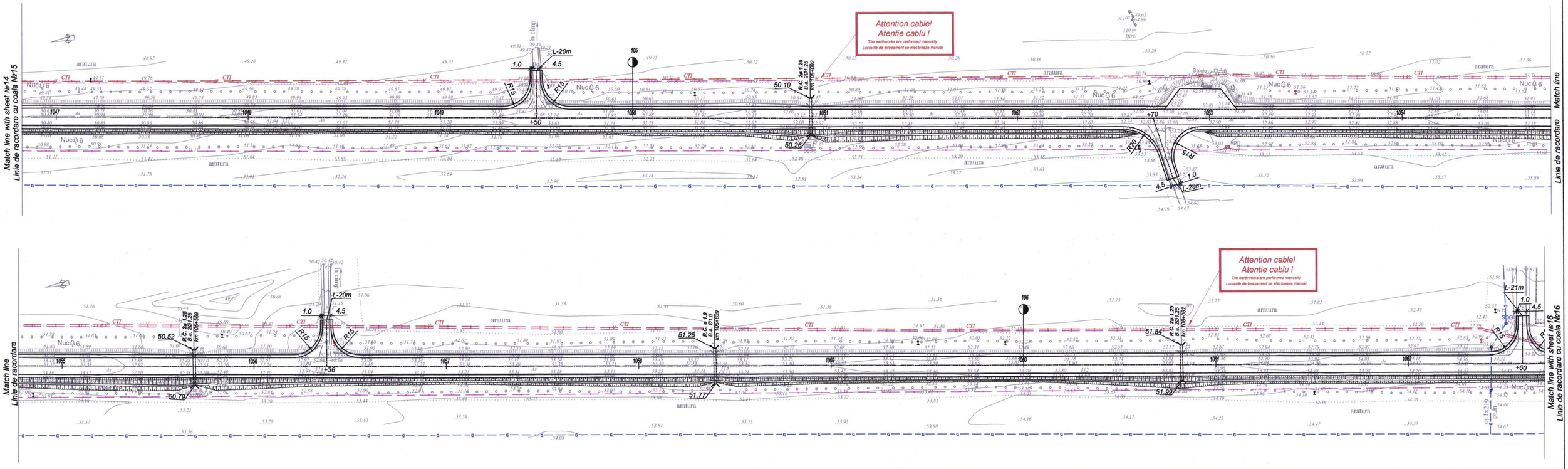
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129916/C/SER/MD
Engineering Design / Section Comrat - R36

Road Plan km 103+888 - 104+683 Sc.1:1000
Planul drumului 103+888 - 104+683 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 14

Format A4x4



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Consultantii/Consultants:

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Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Effodil V.
Data/Date 08.09

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Data/Date

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Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

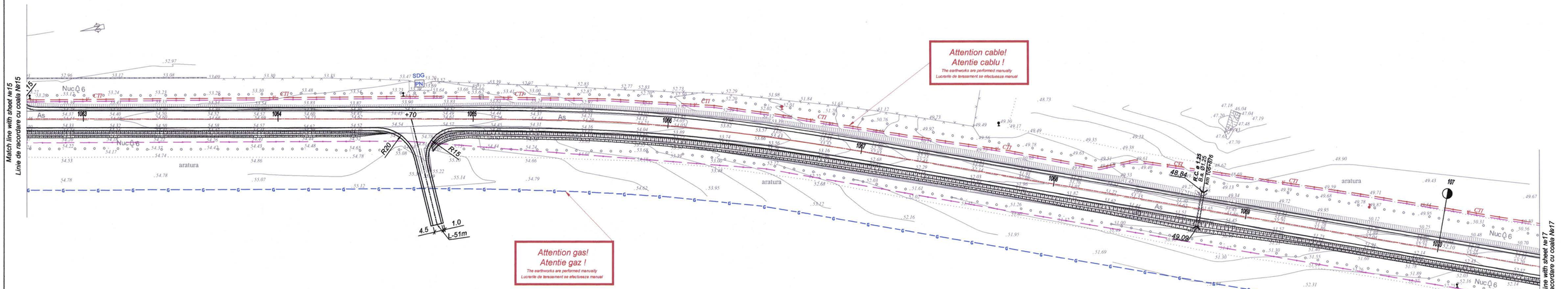
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Kranits cu Romania/ Proiect de executie /pe/ Sector/ Comrst - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129194/C/SER/MD Engineering Design / Section Comrst - R36

Road Plan km 104+683 - 106+270 Sc.1:1000
Planul drumului km 104+683 - 106+270 Sc.1:1000

Drawing 4 - 15

Format A4x4



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Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodii V.
Data/Date 08.09

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Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

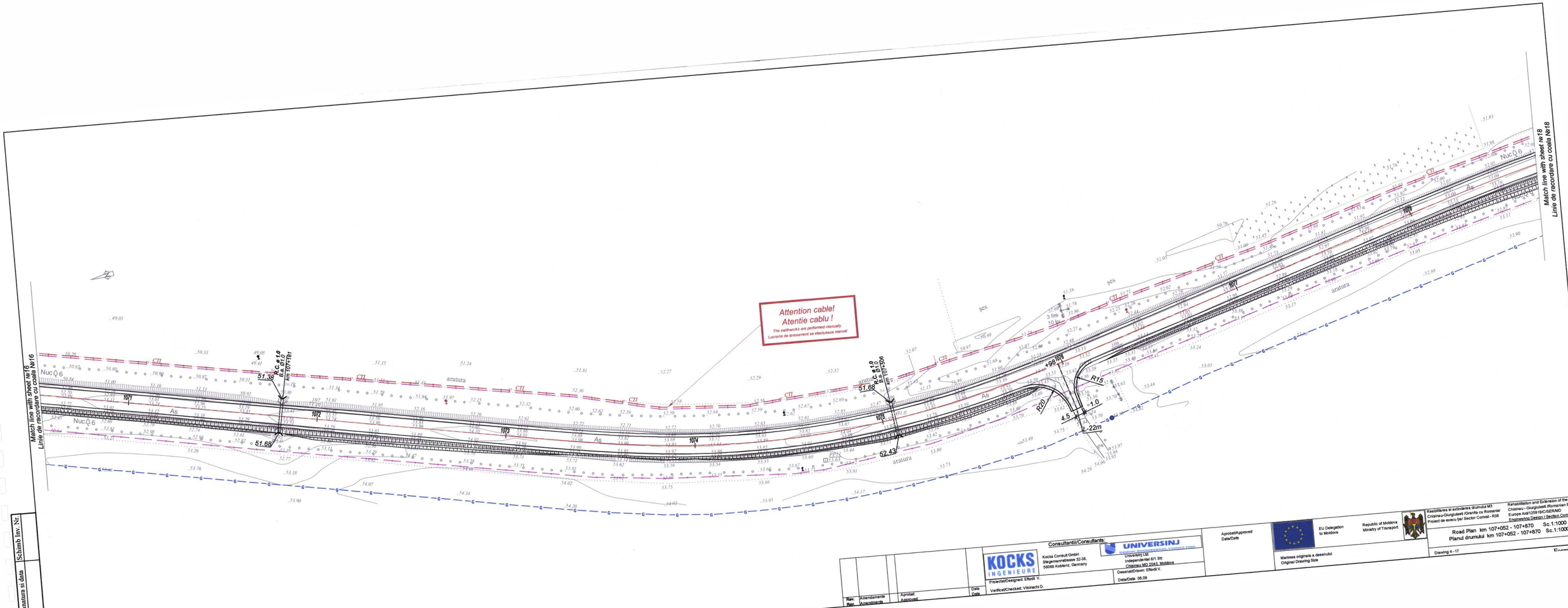
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie /pe/ Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design / Section Comrat - R36

Road Plan km 106+270 - 107+052 Sc.1:1000
Planul drumului km 106+270 - 107+052 Sc.1:1000

Drawing 4 -16

Format A4x4



Inv. Nr.	Semnatura si data	Schimb. inv. Nr.

Rev.	Amendamente	Aprobat:	Data
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Consultanti/Consultants:

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Chisinau MD 2043, Moldova

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Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodi V.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

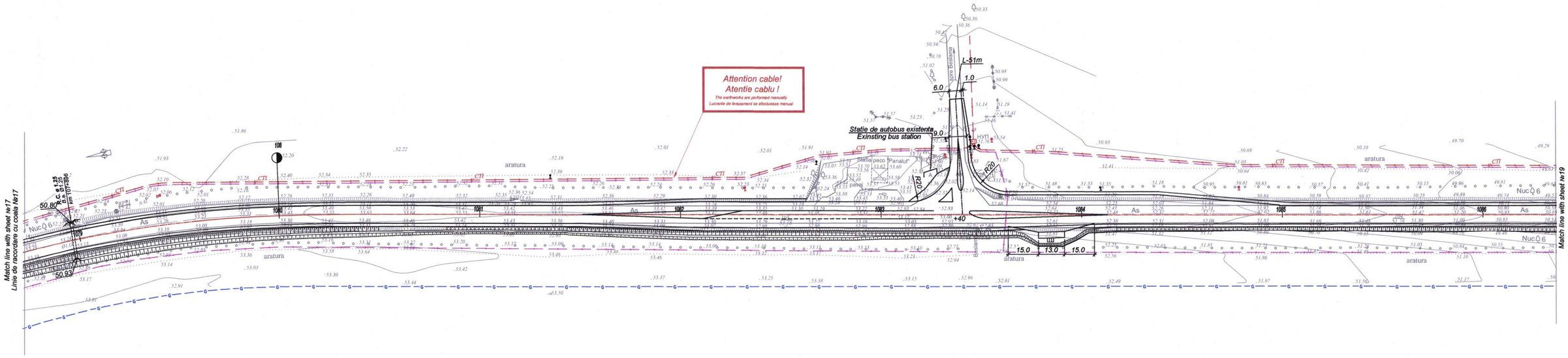
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie tip/ Sector/ Contrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129184/C/SER/MD
Engineering Design / Section/ Contrat - R38

Road Plan km 107+052 - 107+870 Sc.1:1000
Planul drumului km 107+052 - 107+870 Sc.1:1000

Drawing 4 - 17

Format A4x4



Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat/ Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Efodii V.
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Desenat/Drawn: Efodii V.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie tip/ Sector Comrat - R36

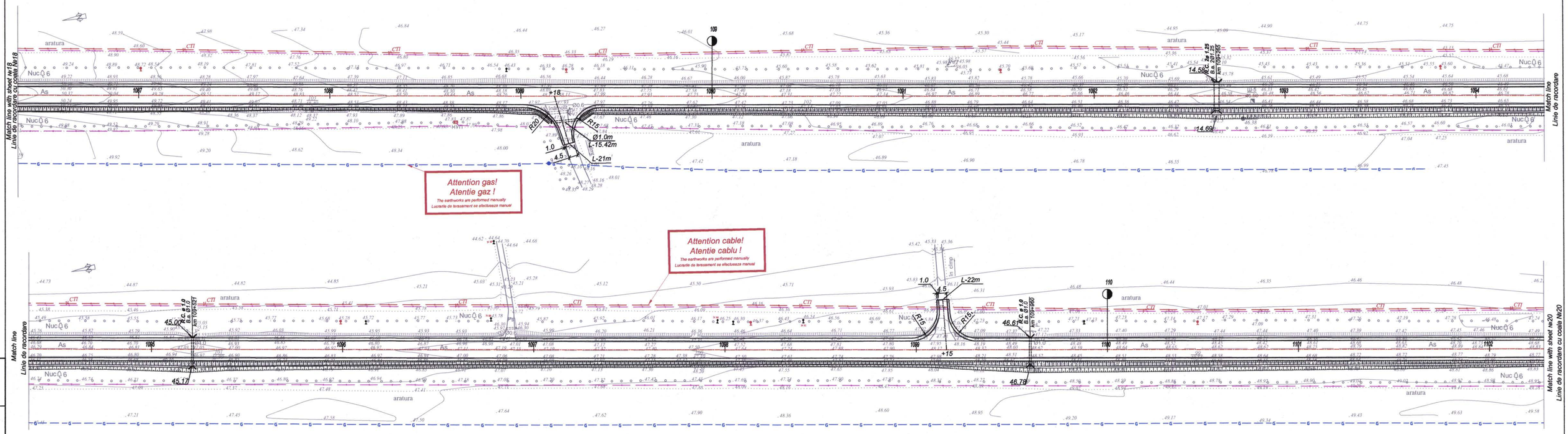
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129519/IC/SER/RO Engineering Design / Section Comrat - R36

Road Plan km 107+870 - 108+636 Sc.1:1000
Planul drumului km 107+870 - 108+636 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 18

Format A4x4



Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Efrodil V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efrodil V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

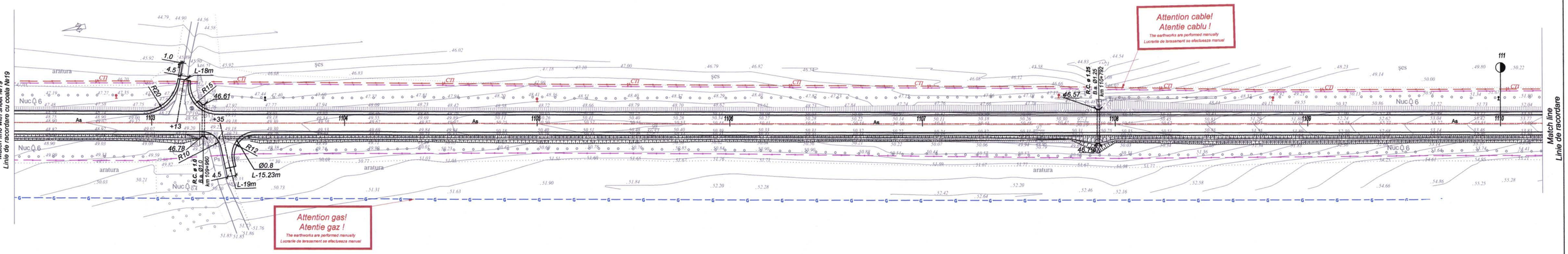
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de avetz tip/ Sector Comst - R36
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129915/C/SER/MD
Engineering Design / Section Comst - R36

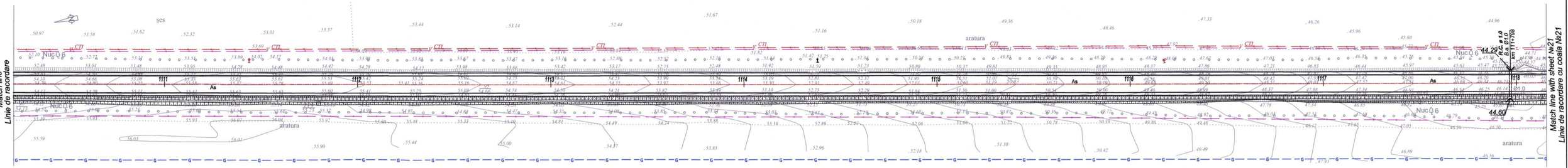
Road Plan km 108+636 - 110+228 Sc.1:1000
Planul drumului km 108+636 - 110+228 Sc.1:1000

Drawing 4 - 19

Format A4x4

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.





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Rev. / Rev.	Amendamentele / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Efrodil V.
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Desenat/Drawn: Efrodil V.
Data/Date 08.09

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Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

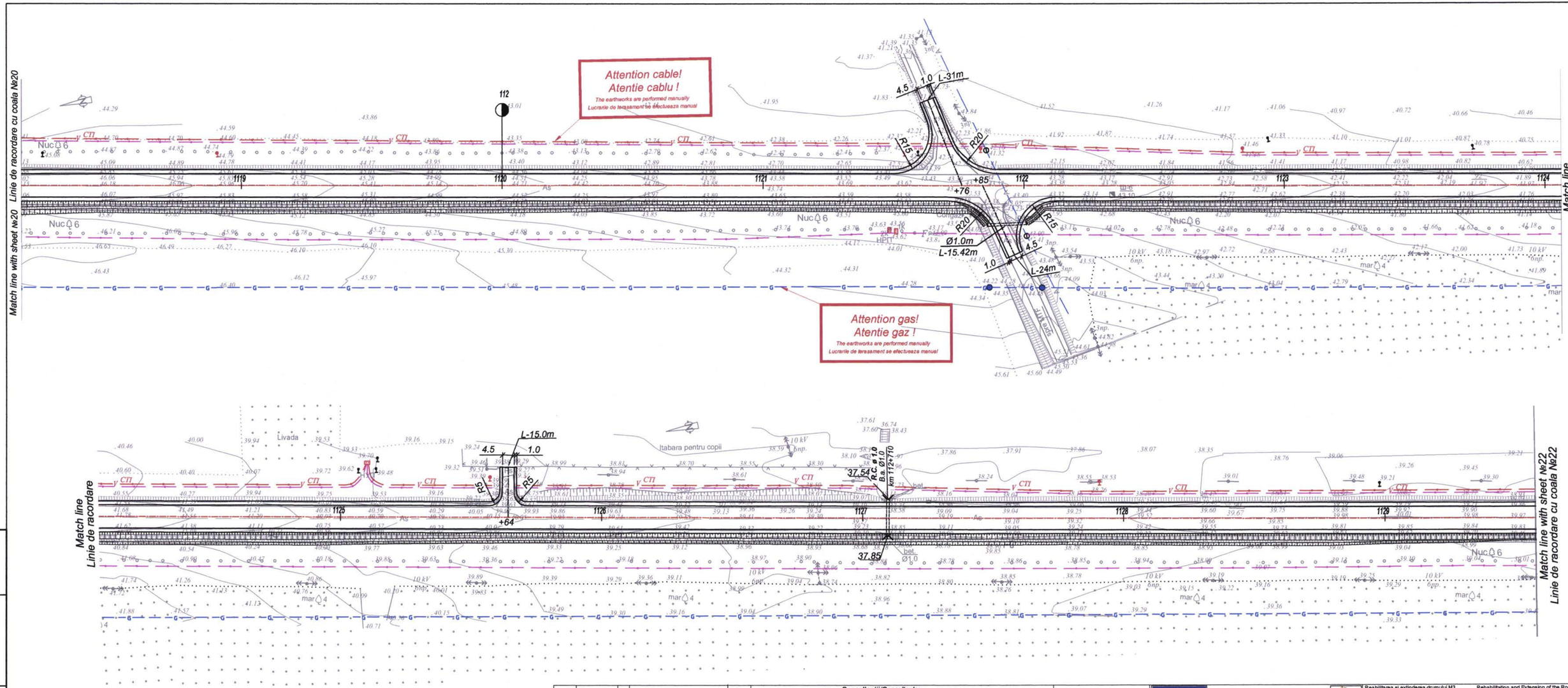
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie pe/ Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/123919/IC/SER/MD
Engineering Design / Section Comrat - R36

Road Plan km 110+228 - 111+815 Sc.1:1000
Planul drumului km 110+228 - 111+815 Sc.1:1000

Drawing 4 - 20

Format A4x4



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Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Eftodii V.
Desenat/Drawn: Eftodii V.
Verificat/Checked: Vilcinschi D.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie/ Sector Comrat - R38

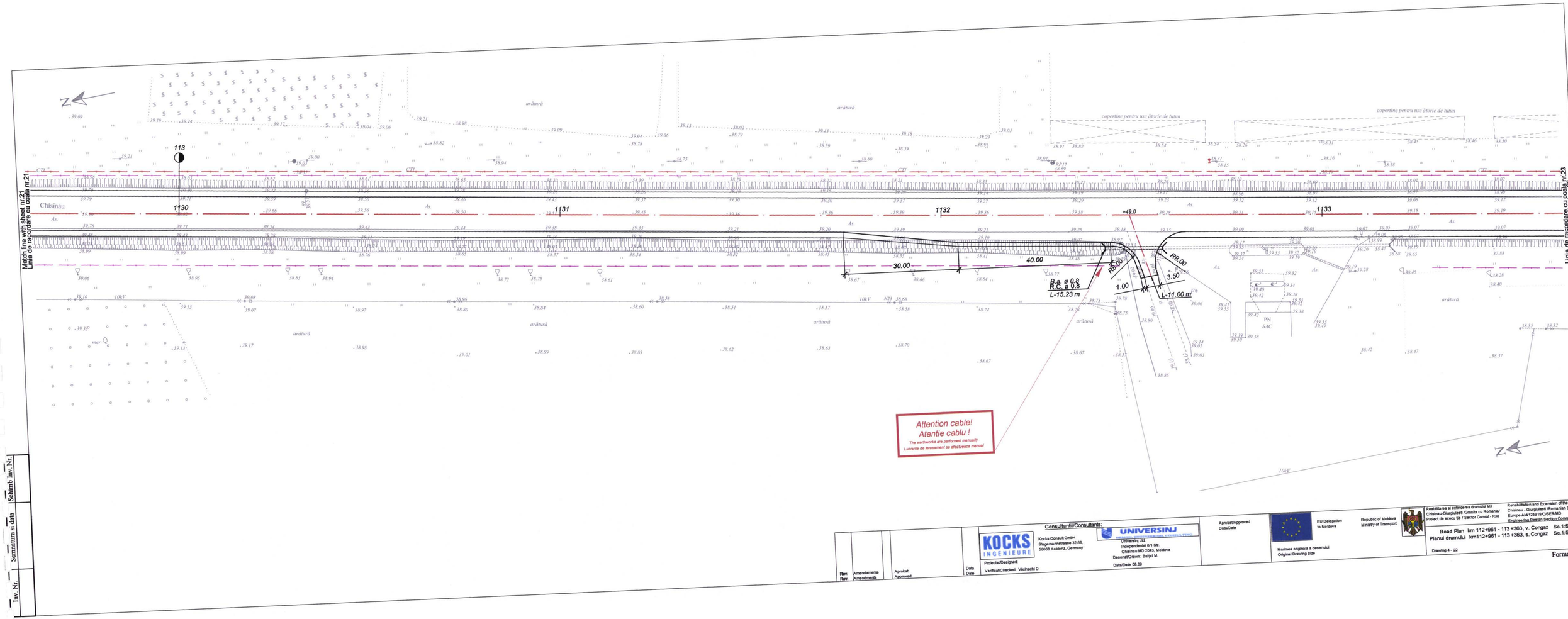
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design / Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Road Plan km 111+815 - 112+958 Sc.1:1000
Planul drumului km 111+815 - 112+958 Sc.1:1000

Drawing 4 - 21

Format A4x3



Schimb. Inv. Nr.

Semnatura si data

Inv. Nr.

Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltat M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

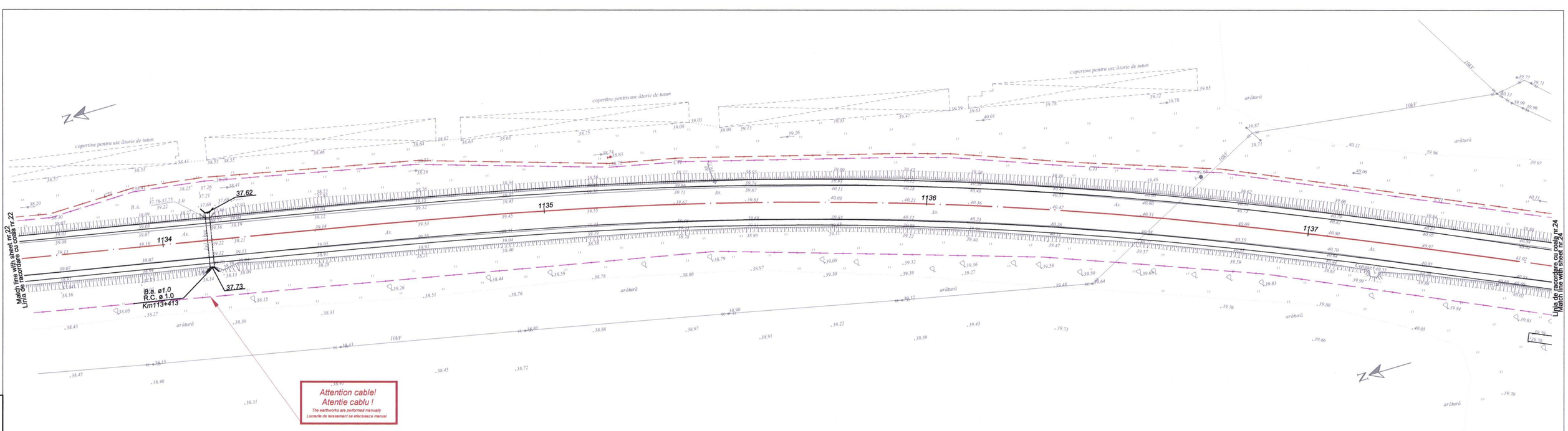
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie tip / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 112+961 - 113 +363, v. Congaz Sc.1:500
Planul drumului km112+961 - 113 +363, s. Congaz Sc.1:500

Drawing 4 - 22

Format A4x4



Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
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Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Barjat M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

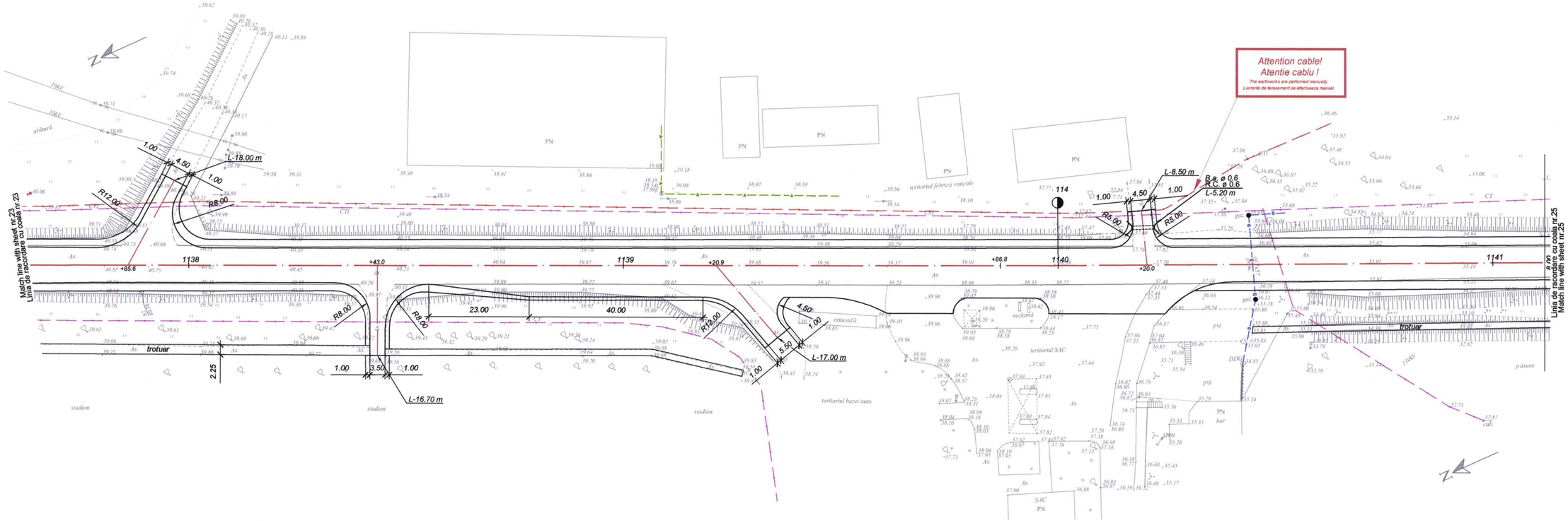
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/D/SER/MD Engineering Design Section Comrat - R38

Road Plan km 113+363 - 113+763 , v. Congaz Sc.1:500
Planul drumului km113+363 - 113+763 , s. Congaz Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 23

Format A4x4



Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed:
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Desenat/Drawn: Baltat M.
Data/Date 08.09

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Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Criseau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

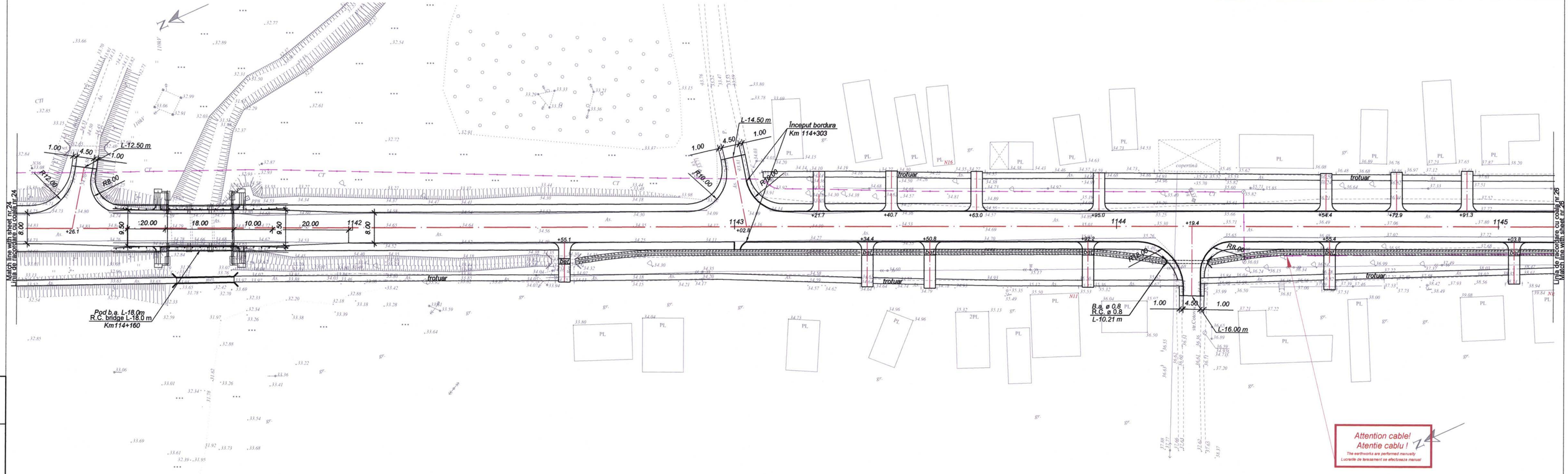
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 113+763 - 114+112, v. Congaz Sc.1:500
Planul drumului km113+763 - 114+112, s. Congaz Sc.1:500

Drawing 4 - 24

Format A4x4

Schimb inv. Nr.
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Inv. Nr.



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Semnatura si data

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Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
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Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltat M.
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

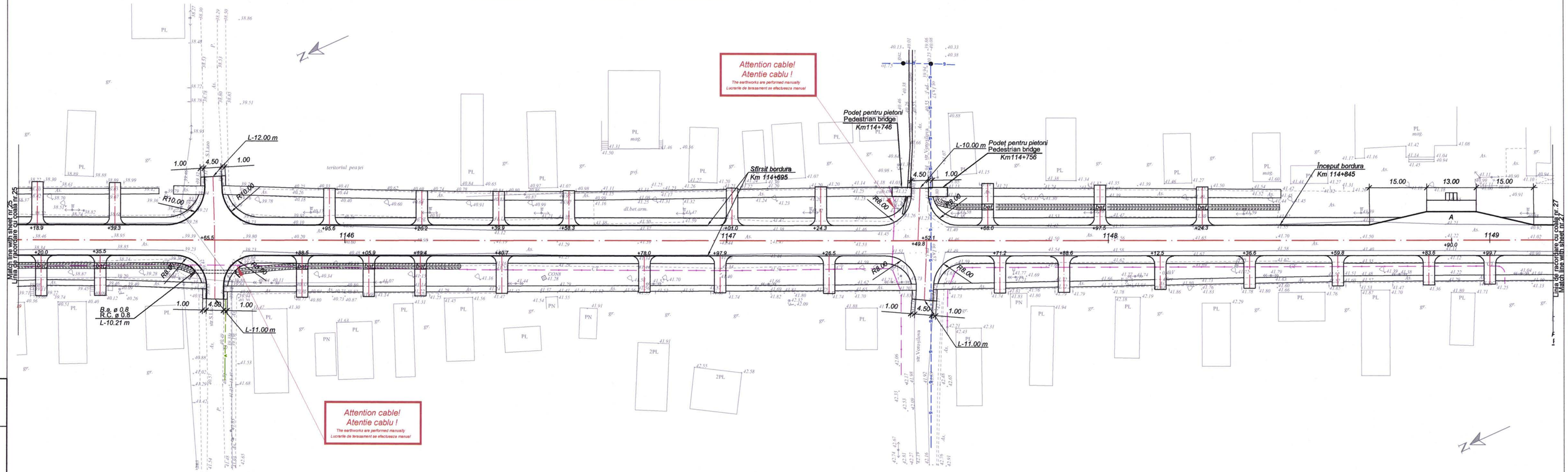
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 114+112 - 114+514, v. Congaz Sc.:1:500
Planul drumului km114+112 - 114+514, s. Congaz Sc.:1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 25

Format A4x4



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Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Barjot M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

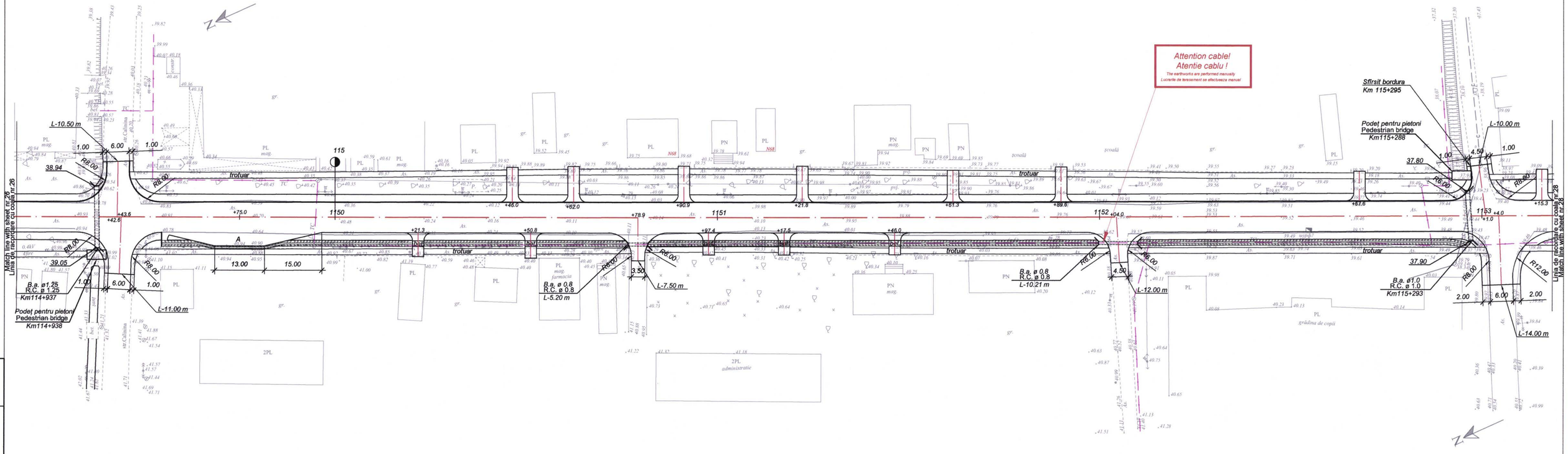
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe AidI/129519/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 114+514 - 114+917 , v. Congaz Sc.1:500
Planul drumului km114+514 - 114+917 , s. Congaz Sc.1:500

Drawing 4 - 26

Format A4x4



Schimb Inv. Nr.	Semnatura si data	Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

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Proiectat/Designed
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Barlpt M.
Data/Date 08.09

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Data/Date

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Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

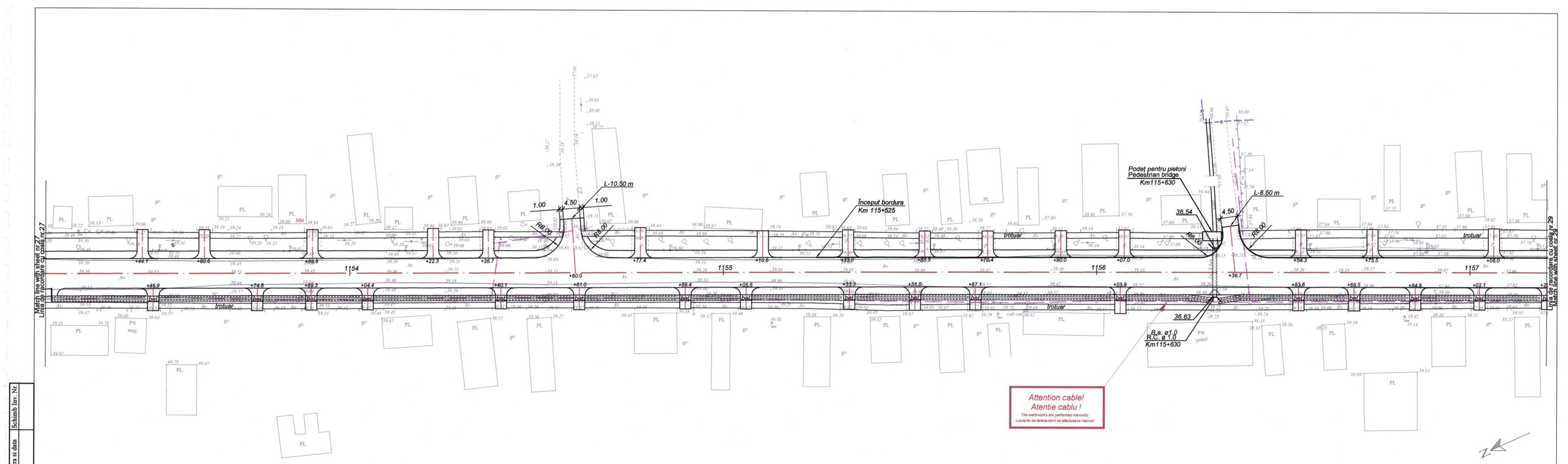
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 114+917 - 115+318 , v. Congaz Sc.1:500
Planul drumului km114+917 - 115+318 , s. Congaz Sc.1:500

Drawing 4 - 27

Format A4x4



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Chisinau MD 2043, Moldova
Deseratt/Drawn: Baltat M.
Data/Date 08.09

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

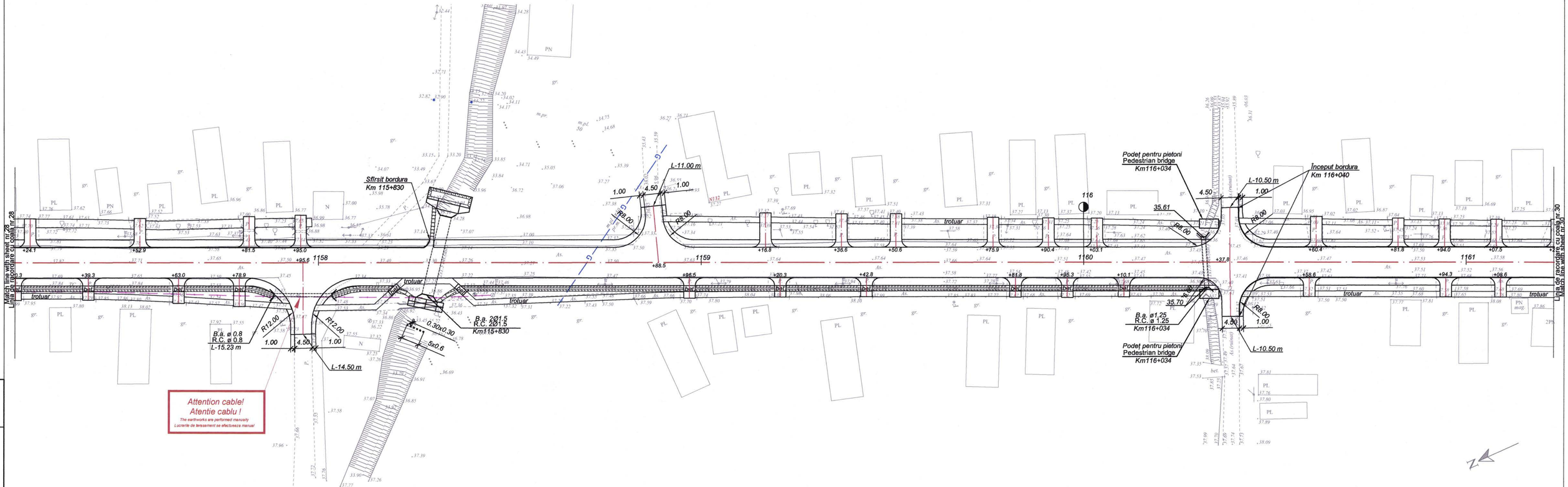
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 115+318 - 115+721 , v. Congaz Sc.1:500
Planul drumului km115+318 - 115+721 , s. Congaz Sc.1:500

Drawing 4 - 28

Format A4x4



Match line with sheet nr.28
Linia de racordare cu foaia nr.28

Match line with sheet nr.30
Linia de racordare cu foaia nr.30

Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat: / Approved:	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stiegermannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltat M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

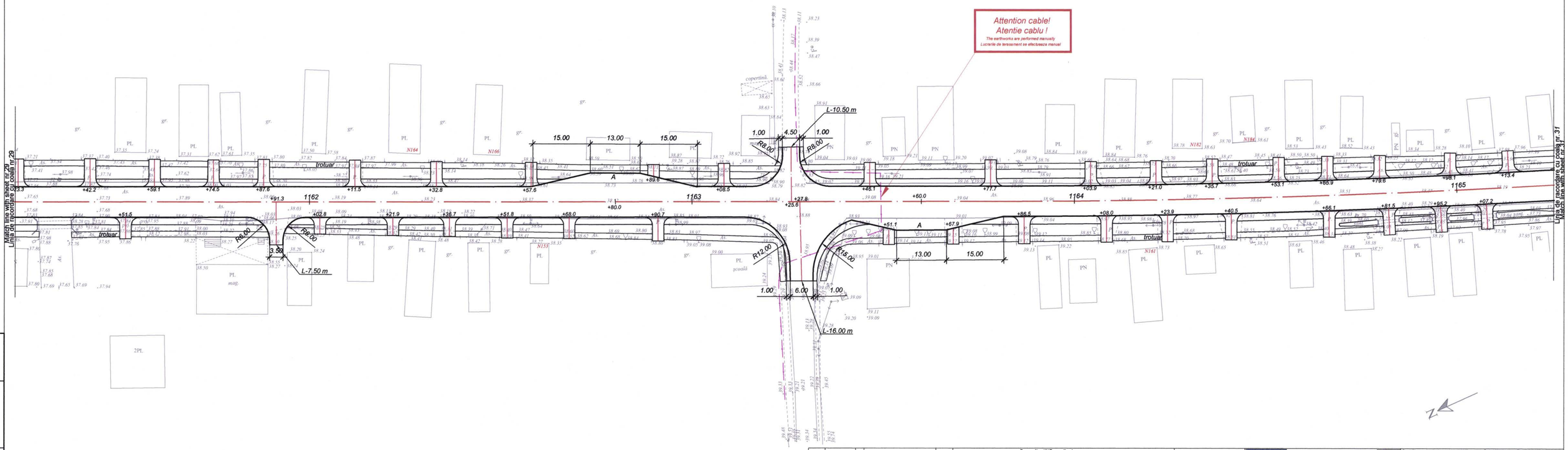
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de asecu ţe / Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129194/D/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 115+721 - 116+123, v. Congaz Sc.1:500
Planul drumului km 115+721 - 116+123, s. Congaz Sc.1:500

Drawing 4 - 29

Format A4x4



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev. Rev.	Amendamente Amendments	Aprobat: Approved:	Data Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Batrat M.
Data/Date 06.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

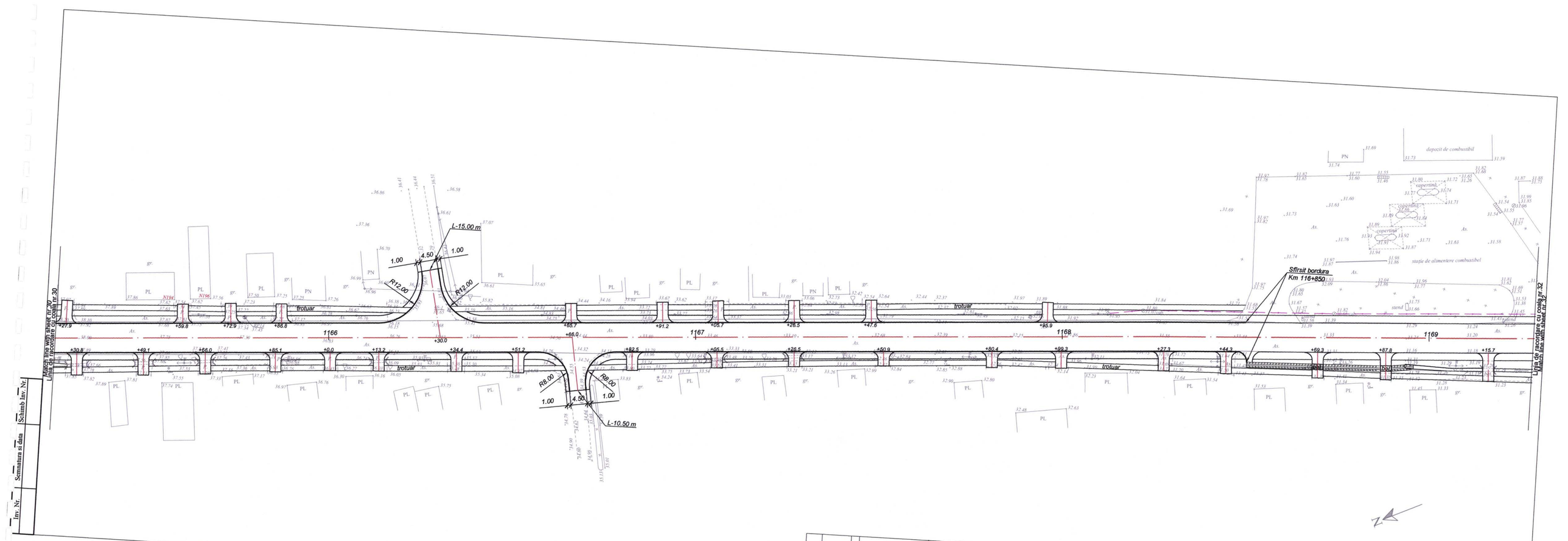
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector: Convat - R36

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129519/C/SER/MD
Engineering Design Section: Convat - R36

Road Plan km 116+123 - 116+525, v. Congaz Sc.1:500
Planul drumului km 116+123 - 116+525, s. Congaz Sc.1:500

Drawing 4 - 30

Format A4x4



Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltari M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

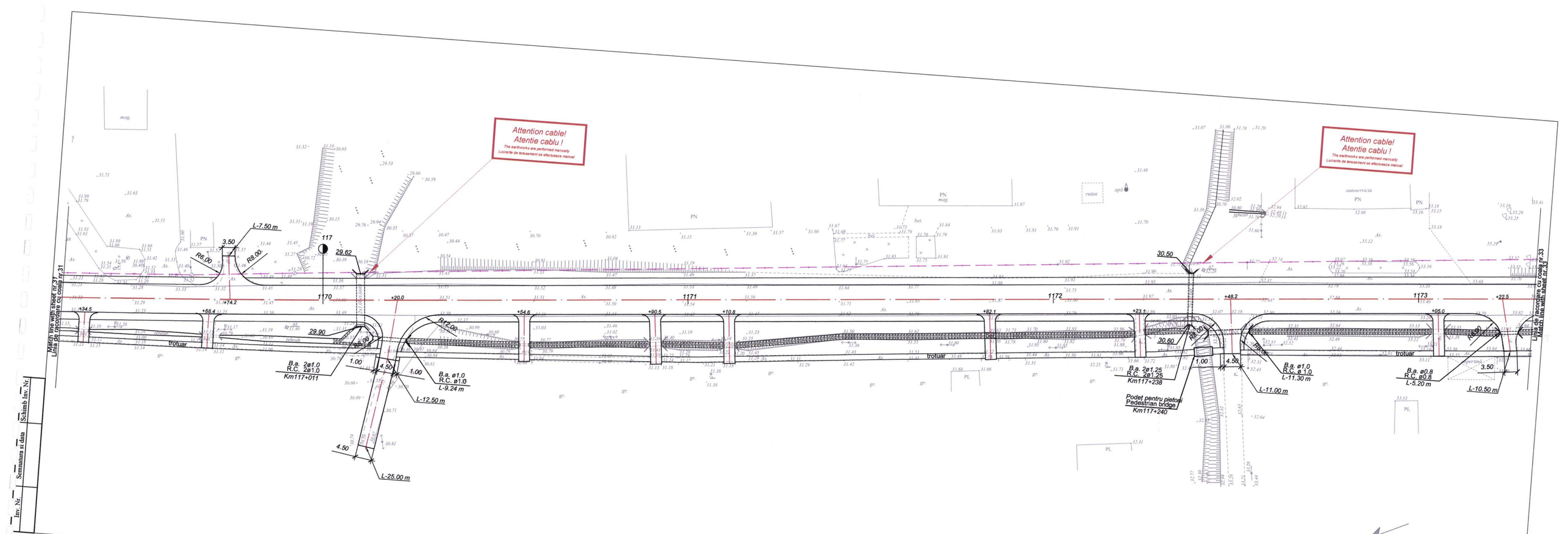
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector: Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129194/C/SER/MD
Engineering Design Section: Comrat - R36

Road Plan km 116+525 - 116+928, v. Congaz Sc.1:500
Planul drumului km 116+525 - 116+928, s. Congaz Sc.1:500

Drawing 4 - 31

Format A4x4



Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 33-35
56068 Koblenz, Germany

UNIVERSINJ
University Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltat M.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

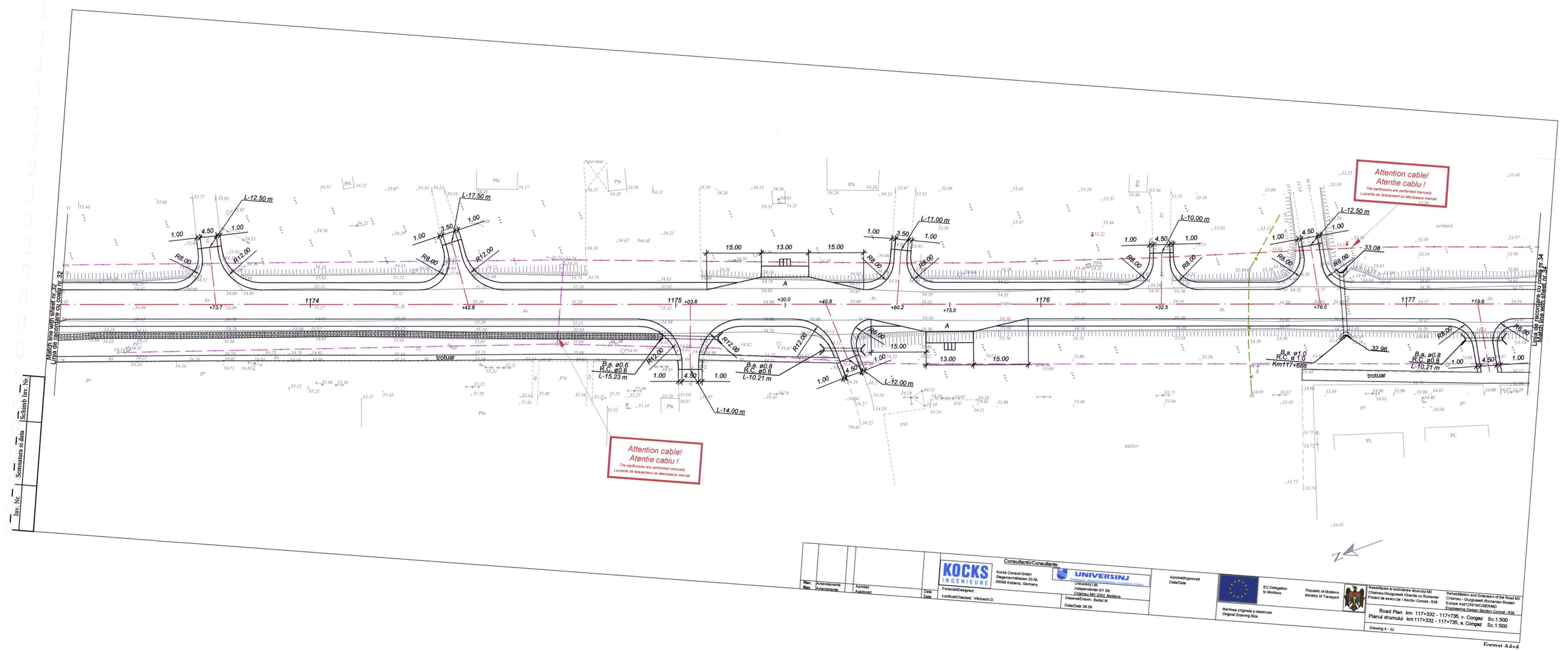
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania
Proiect de executie / Sector Comrat - R38

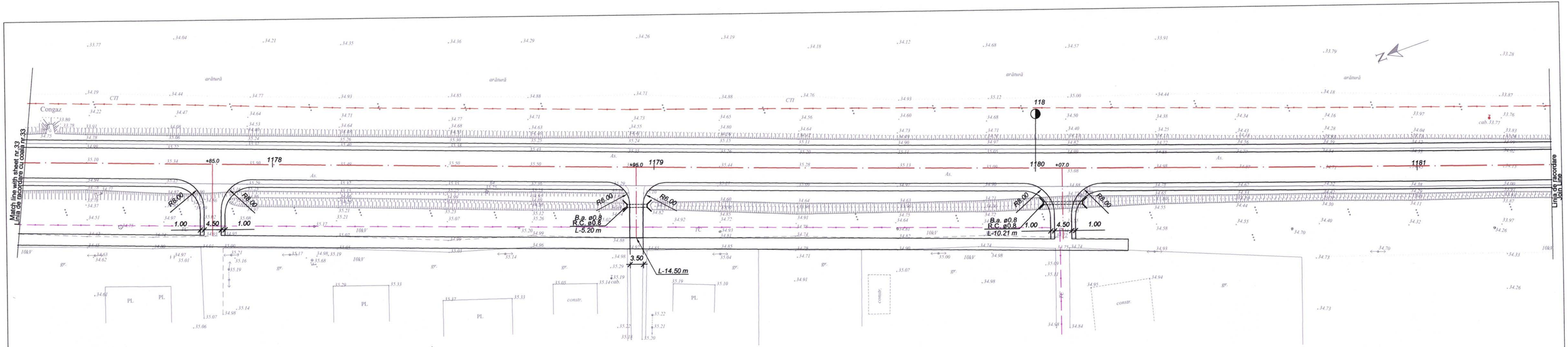
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border
Europe Aid/129154/C/SER/MD
Engineering Design Section Comrat - R38

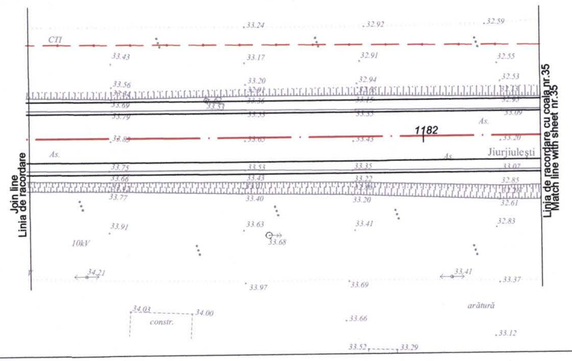
Road Plan km 116+928 - 117+332, v. Congaz Sc.1:500
Planul drumului km 116+928 - 117+332, s. Congaz Sc.1:500

Drawing 4 - 32

Format A4x4


Match line with sheet nr.32
Linia de racordare cu foaia nr.32
Match line with sheet nr.34
Linia de racordare cu foaia nr.34
Attention cable!
Atentie cablu !
The earthworks are performed manually
Lucrarile de terasament se efectueaza manual
L-12.50 m
L-17.50 m
L-11.00 m
L-10.00 m
L-12.50 m
L-15.23 m
L-14.00 m
L-10.21 m
L-12.00 m
L-10.21 m
1174
1175
1176
1177
trotuar
trotuar
R8.00
R12.00
B.a. ø0.6
R.C. ø0.6
B.a. ø0.8
R.C. ø0.8
B.a. ø1.0
R.C. ø1.0
Km117+688
33.08
32.96
A
A
atelier
arătură
PL
PL
Inv. Nr
Semnatura si data
Schimb Inv. Nr
Rev. Amendamente
Amendments
Aprobat
Approved
Data
Date
Consultanti/Consultants:
KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 33-39,
56068 Koblenz, Germany
UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD-2043, Moldova
Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Baltat M.
Data/Date: 08.09
Aprobat/Approved
Data/Date
EU Delegation to Moldova
Republic of Moldova
Ministry of Transport
Marimea originala a desenului
Original Drawing Size
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38
Road Plan km 117+332 - 117+735, v. Congaz Sc.1:500
Planul drumului km 117+332 - 117+735, s. Congaz Sc.1:500
Drawing 4 - 33
Format A4x4





Inv. Nr.	Semnatura si data	Schimb. Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Barbat M.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

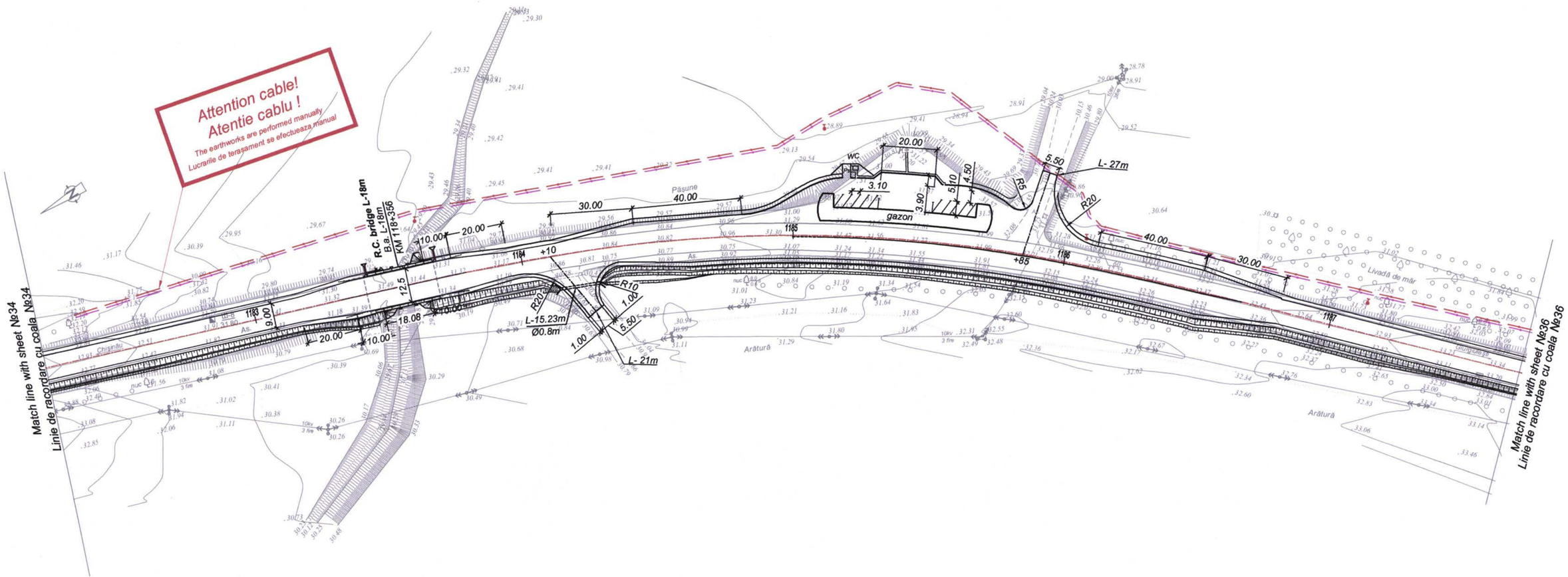
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125918/C/SER/MD
Engineering Design Section: Comrat - R38

Road Plan km 117+735 - 118+219, v. Congaz Sc.1:500
Planul drumului km 117+735 - 118+219, s. Congaz Sc.1:500

Drawing 4 - 34

Format A4v4



Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Eftodii V.	Desenat/Drawn: Eftodii V.
Verificat/Checked: Vilcinschi D.	Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 118+222 - 118+771 Sc.1:1000
Planul drumului km 118+222 - 118+77 Sc.1:1000

Drawing 4 -35

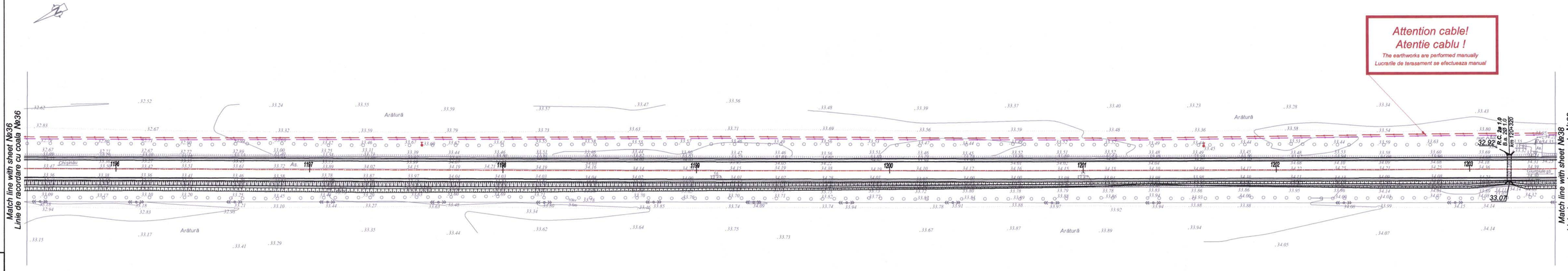
Format A3x4

Attention cable!
Atentie cablu !
The earthworks are performed manually
Lucrarile de terasament se efectuesza manual

Match line with sheet №35
Linie de racordare cu coala №35

Match line with sheet №37
Linie de racordare cu coala №37

Livadă de măr
Arătură
Gazduta MD
Gazduta RO
nuc
Ø 0.30 m
km 118+873
km 118+910
km 118+930
km 118+950
km 118+970
km 118+990
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Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Data

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Elfodi V.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Elfodi V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

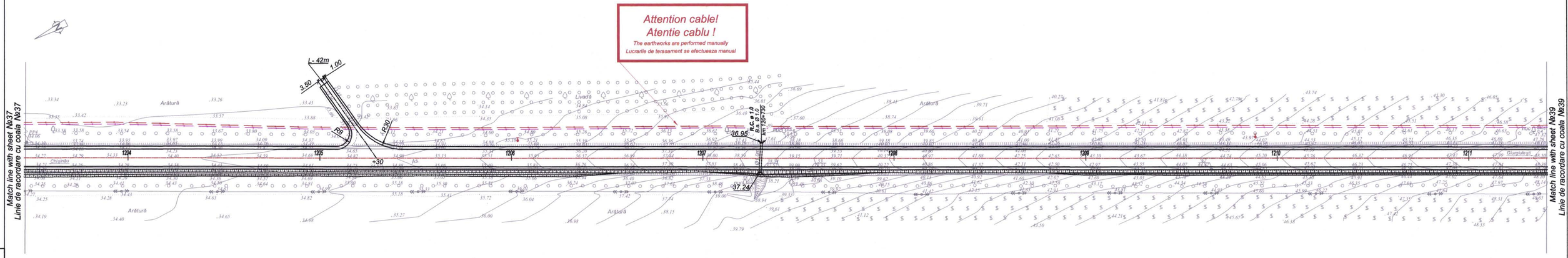
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border
Europe Aid/129194/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 119+553 - 120+344 Sc.1:1000
Planul drumului km 119+553 - 120+344 Sc.1:1000

Drawing 4 -37

Format A4x4



Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129194/D/SER/MD
Engineering Design Section Comrat - R36

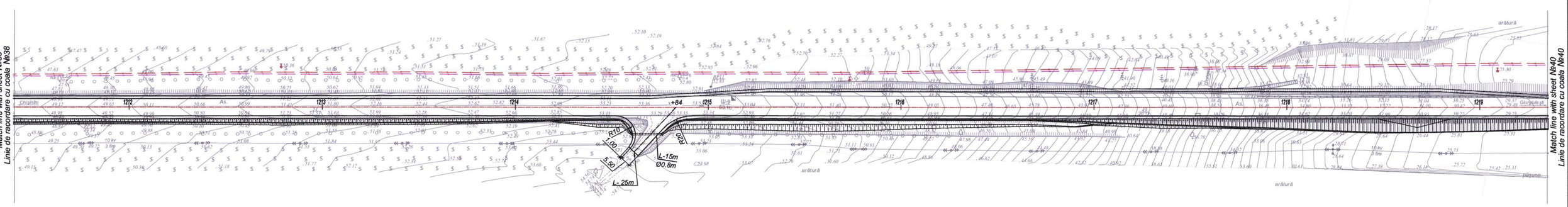
Road Plan km 120+344 - 121+140 Sc.1:1000
Planul drumului km 120+344 - 121+140 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 -38

Format A4x4

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.



Schimb Inv.Nr.

Semnatura si data

Inv. Nr.

Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
ENERGY, ENGINEERING, CONSULTING
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Efrodil V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efrodil V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie Se / Sector Comrat - R36

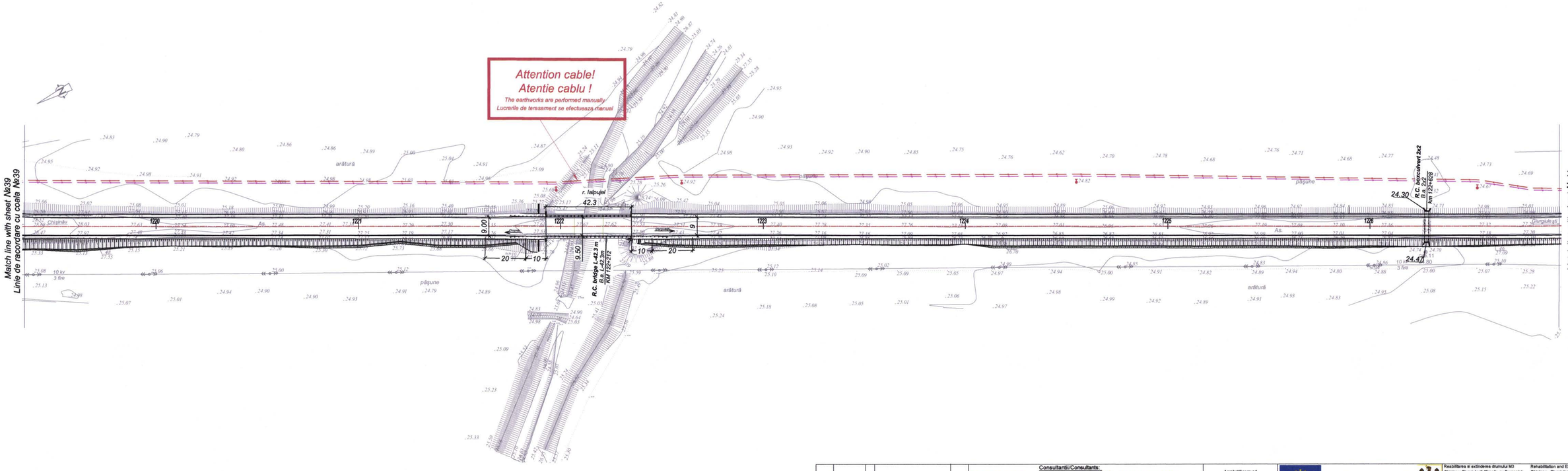
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129915/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 121+140 - 121+935 Sc.1:1000
Planul drumului km 121+140 - 121+935 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 -39

Format A4x4



Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanții/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 32-36,
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Efodii V.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Efodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125915/C/SER/MD Engineering Design Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Road Plan km 121+935 - 122+693 Sc.1:1000
Planul drumului km 121+935 - 122+693 Sc.1:1000

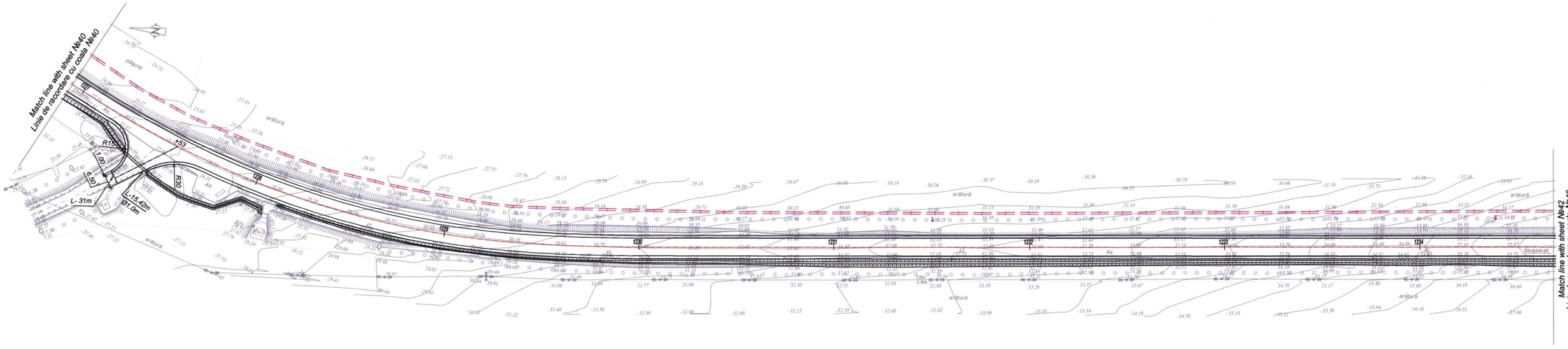
Drawing 4 -40

Format A4x4

Schimb Inv. Nr.

Semnatura si data

Inv. Nr.



Inv. Nr.	Schimb Inv. Nr.	Semnatura si data

Rev. / Rev.	Amendamente / Amendments	Aprobat: / Approved:	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Efrodil V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efrodil V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

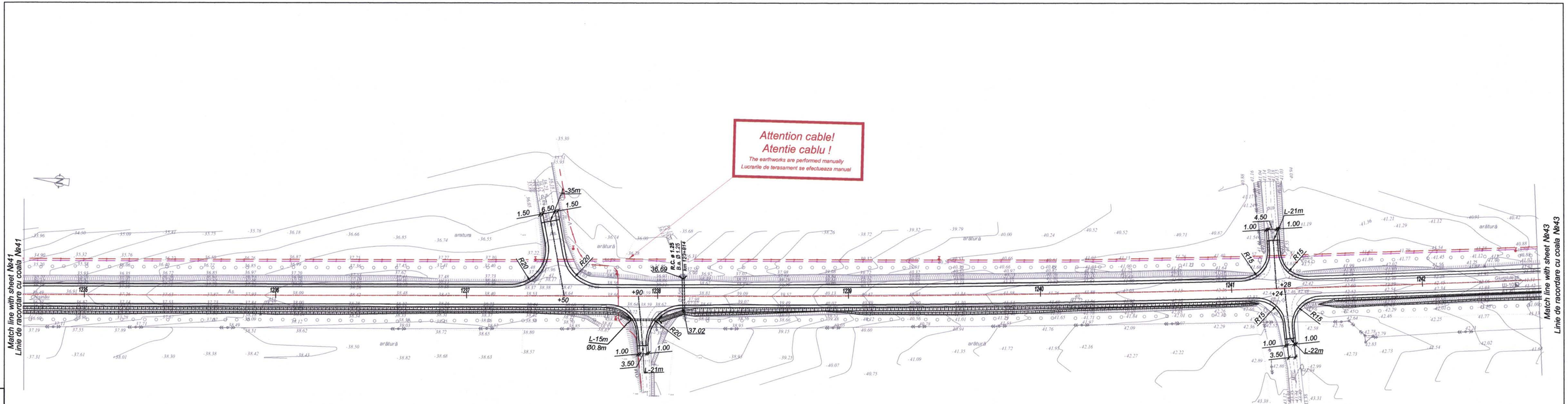
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129919/C/SER/MD
Engineering Design Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Road Plan km 122+693 - 123+468 Sc.1:1000
Planul drumului km 122+693 - 123+468 Sc.1:1000

Drawing 4 -41

Format A4x4



Schimb Inv. Nr.	Semnatura si data	Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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56068 Koblenz, Germany

UNIVERSINJ
DESIGN, ENGINEERING, CONSULTING
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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Effodil V.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Effodil V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania
Proiect de executie / Sector Comrat - R38

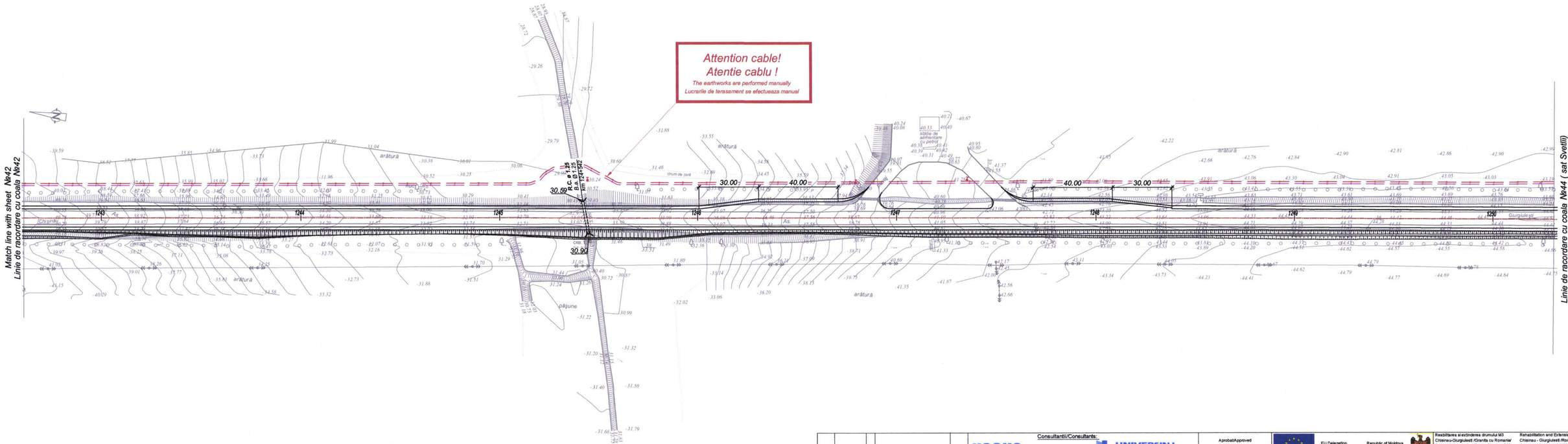
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border
Europe Aid/129919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 123+468 - 124+260 Sc.1:1000
Planul drumului km 123+468 - 124+260 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 -42

Format A4x4



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.		Verificat / Checked: Vicrilschi D.	

Proiectat/Designed: Eftodi V.
Desenat/Drawn: Eftodi V.
Data/Date: 08.08

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 32-38,
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Chisinau MD 2043, Moldova

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau - Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

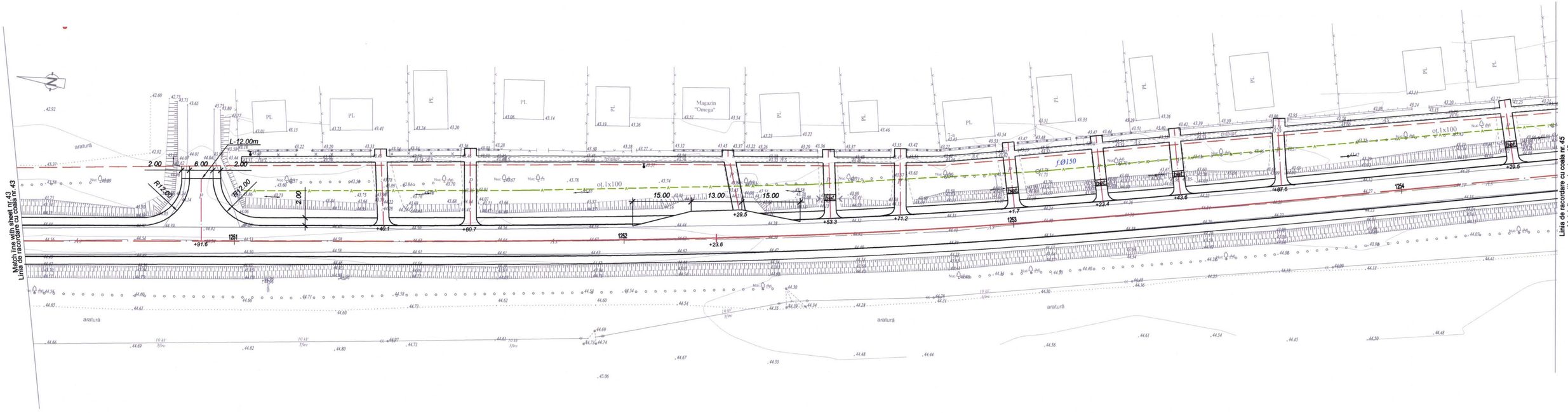
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129194/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 124+260 - 125+030 Sc.1:1000
Planul drumului km 124+260 - 125+030 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 -43

Format A4x4



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Bal Ipt M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal Ipt M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

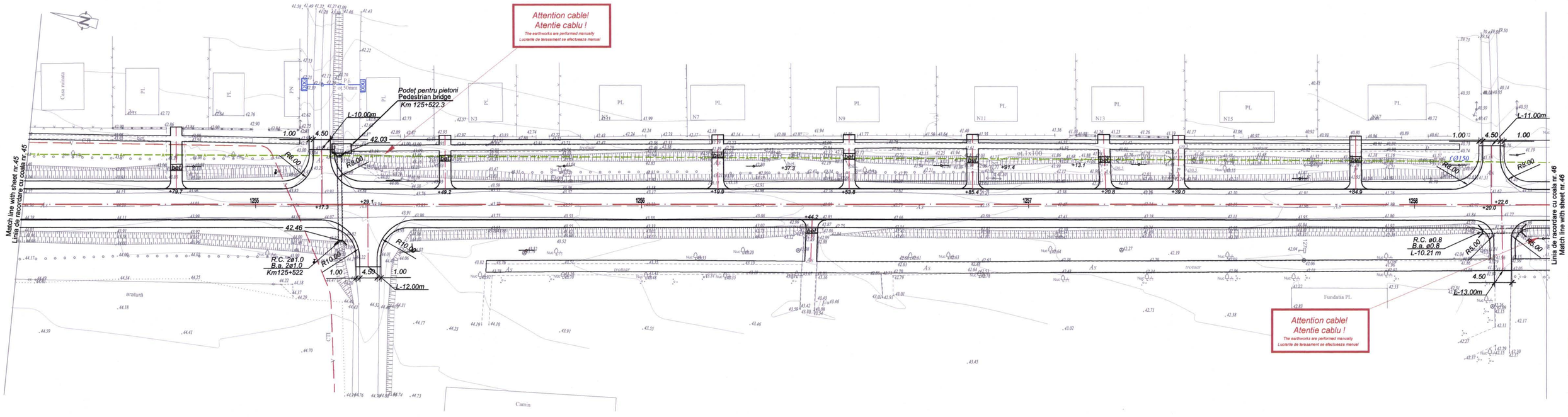
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129019/IC/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 125+054 - 125+440, v. Svetlii Sc.1:500
Planul drumului km 125+054 - 125+440, s. Svetlii Sc.1:500

Drawing 4 - 44

Format A4x4



Consultantii/Consultants:

KOCKS INGENIERE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Bal Ipt M.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Bal Ipt M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125818/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 125+440 - 125+834, v. Svetlii Sc.1:500
Planul drumului km 125+440 - 125+834, s. Svetlii Sc.1:500

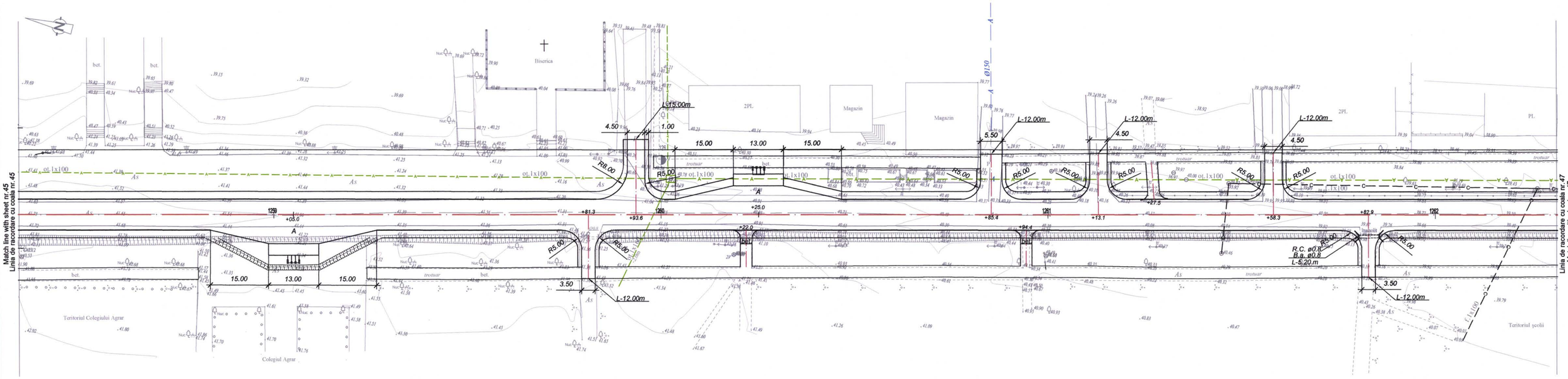
Marimea originala a desenului
Original Drawing Size

Drawing 4 - 45

Format A4x4

Rev.	Amendamente / Amendments	Aprobat/ Approved	Data / Date

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.



Schimb Inv. Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente	Aprobat:	Data
Rev.	Amendments	Approved:	Data

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Bal tel M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tel M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Constr. - R38

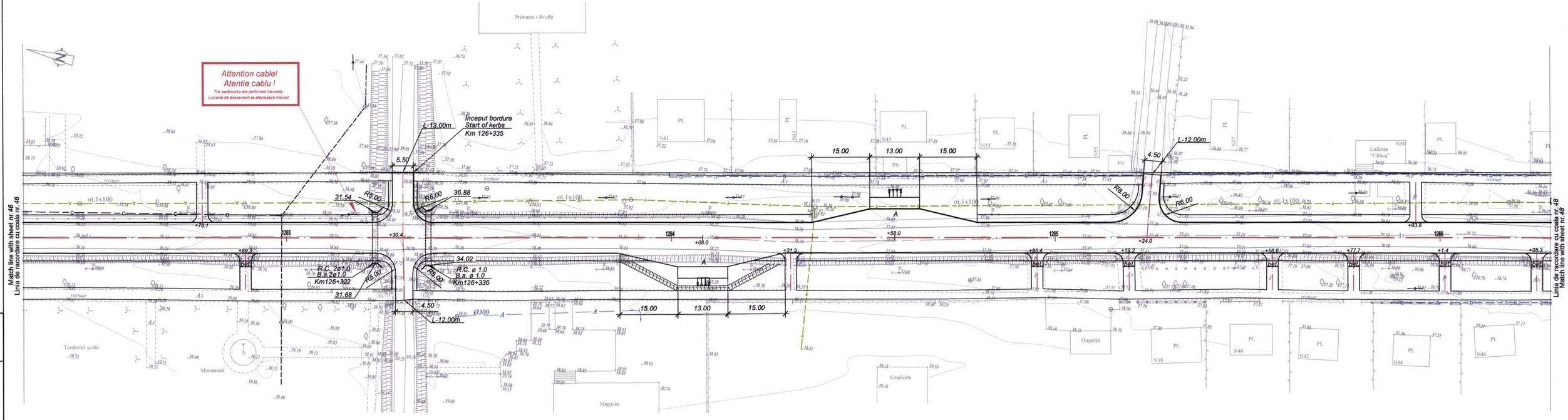
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125915/C/SER/MD Engineering Design Section Constr. - R38

Marimea originala a desenului
Original Drawing Size

Road Plan km 125+834 - 126+231 , v. Svetlii Sc.1:500
Planul drumului km 125+834 - 126+231 , s. Svetlii Sc.1:500

Drawing 4 - 46

Format A4x4



Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Bal tat M.
Verificat/Checked: Vilcinschi D.
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Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

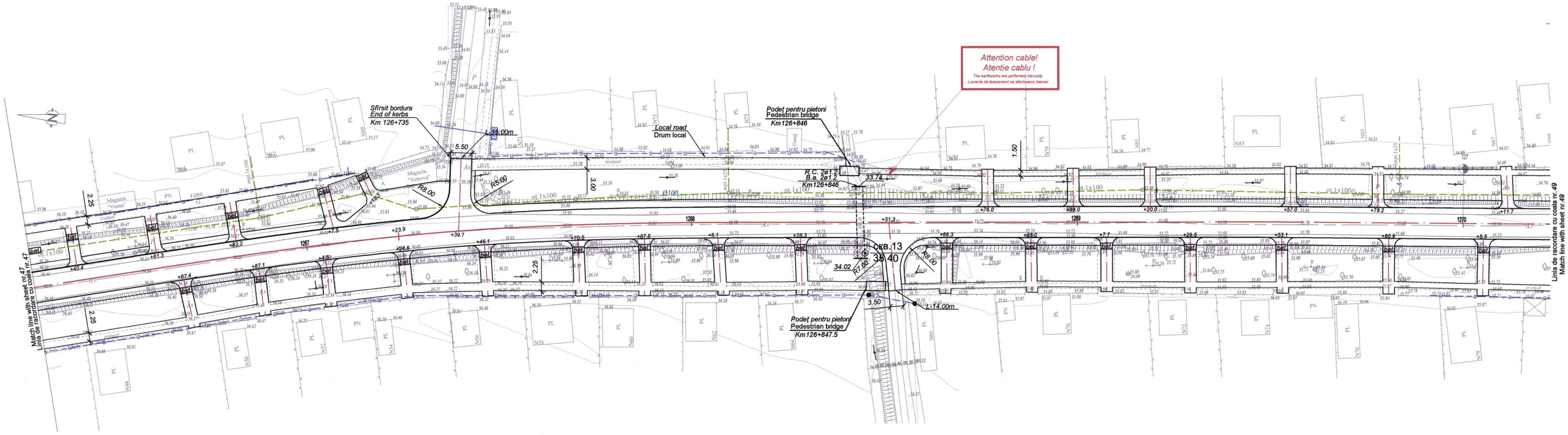
Road Plan km 126+231 - 126+628, v. Svetlii Sc.1:500
Planul drumului km 126+231 - 126+628, s. Svetlii Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 47

Format A4x4

Schimb Inv. Nr.
Semnatura si data
Inv. Nr.



Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanții/Consultants:

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Proiectat/Designed: Bal tjat M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tjat M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129159/IC/SER/MD
Engineering Design Section Comrat - R36

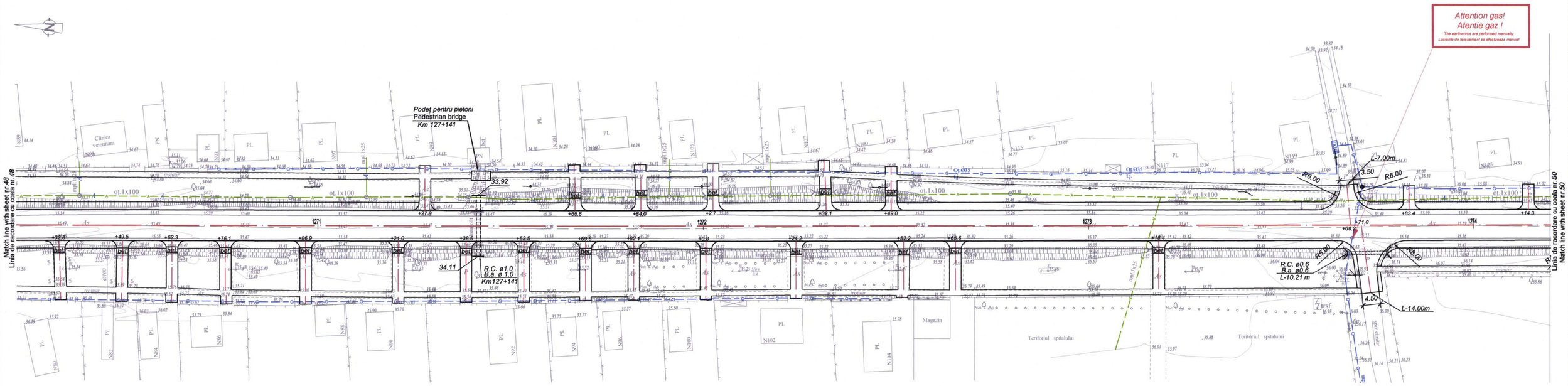
Road Plan km 126+628 - 127+022, v. Svetlii Sc.1:500
Planul drumului km 126+628 - 127+022, s. Svetlii Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 48

Format A4x4

Inv. Nr. | Semnatura si data | Schimb inv. Nr.



Schimb inv. Nr.	Semnatura si data	Inv. Nr.

Rev.	Amendamente	Aprobat:	Data
Rev.	Amendments	Approved:	Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Bal tat M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tat M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R36

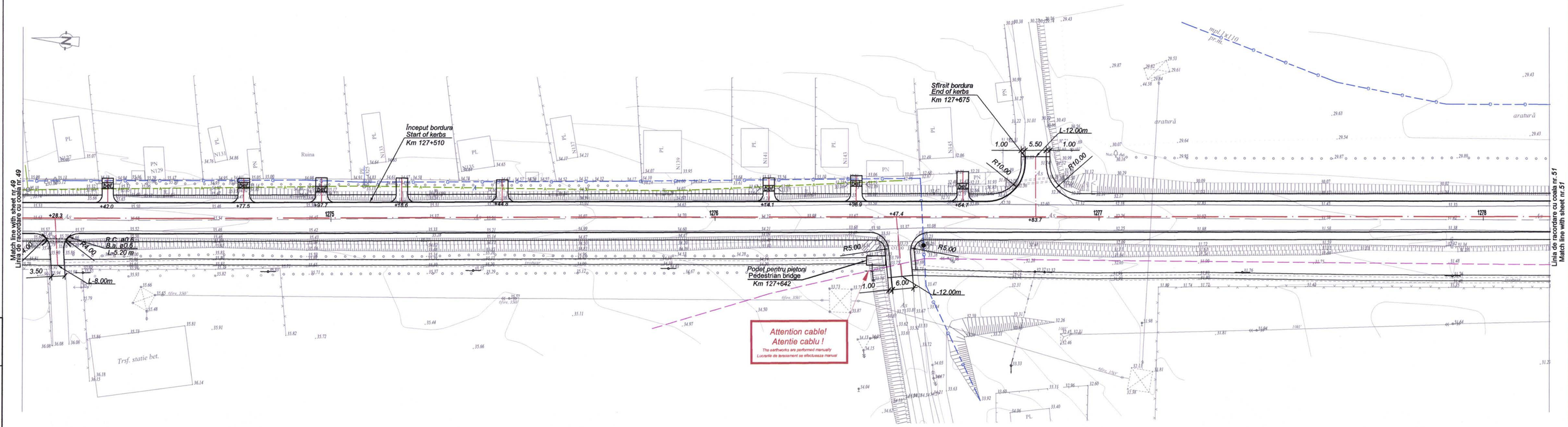
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125915/C/SER/MD
Engineering Design Section Comrat - R36

Marimea originala a desenului
Original Drawing Size

Road Plan km 127+022 - 127+420, v. Svetlii Sc.1:500
Planul drumului km 127+022 - 127+420, s. Svetlii Sc.1:500

Drawing 4 - 49

Format A4x4



Schimb Inv. Nr. | Semnatura si data | Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Bal tat M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tat M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

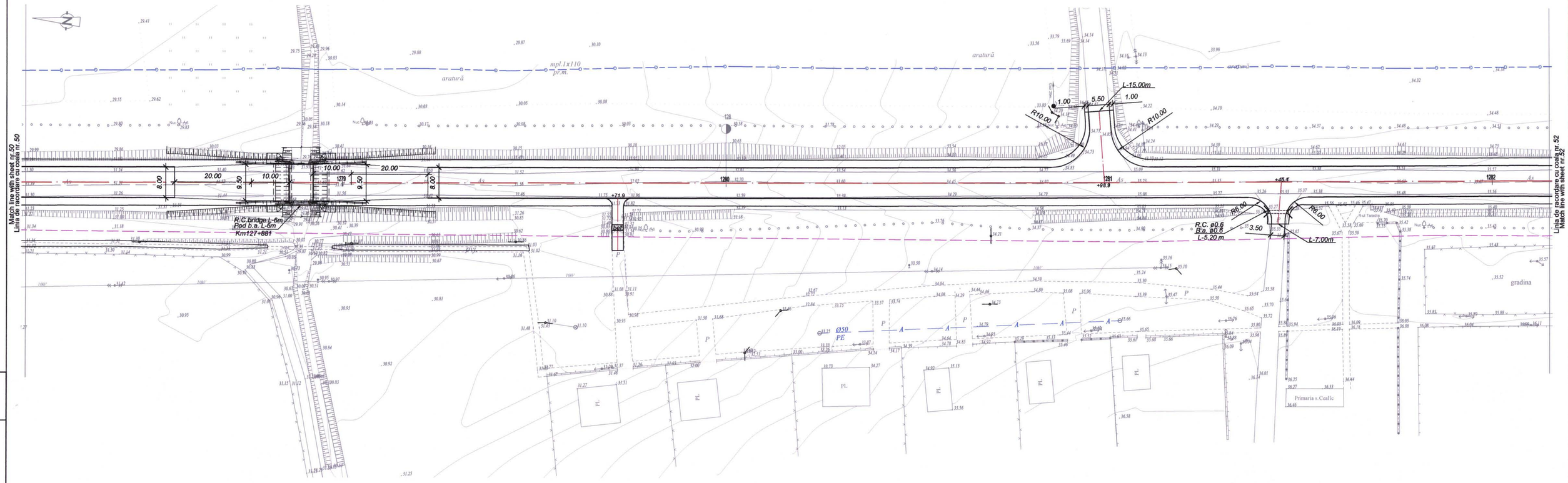
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 127+420 - 127+817, v. Svetlii Sc.1:500
Planul drumului km 127+420 - 127+817, s. Svetlii Sc.1:500

Drawing 4 - 50

Format A4x4



Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Bal tat M.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Bal tat M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie /e / Sector Comrat - R36

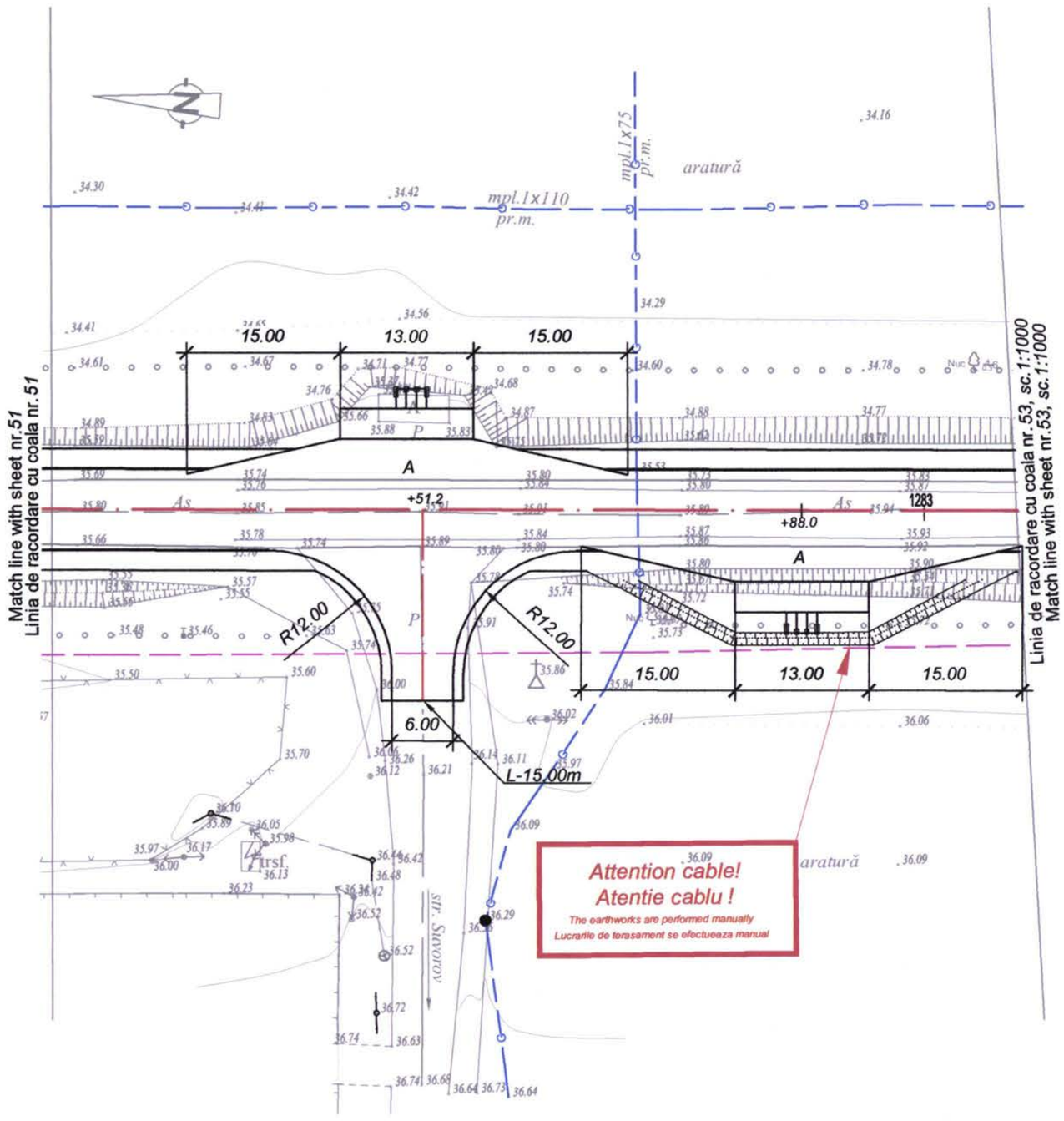
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 127+817 - 128+215, v. Svetlii Sc.1:500
Planul drumului km 127+817 - 128+215, s. Svetlii Sc.1:500

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 51

Format A4x4



Schimb Inv. Nr

Semnatura si data

Inv. Nr

Rev. / Rev.	Amendamente / Amendments	Aprobat: / Approved:	Data / Date

Consultantii/Consultants:

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Desenat/Drawn: Bal ţat M.
Data/Date 08.09

Aprobat/Approved
Data/Date 08.09

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

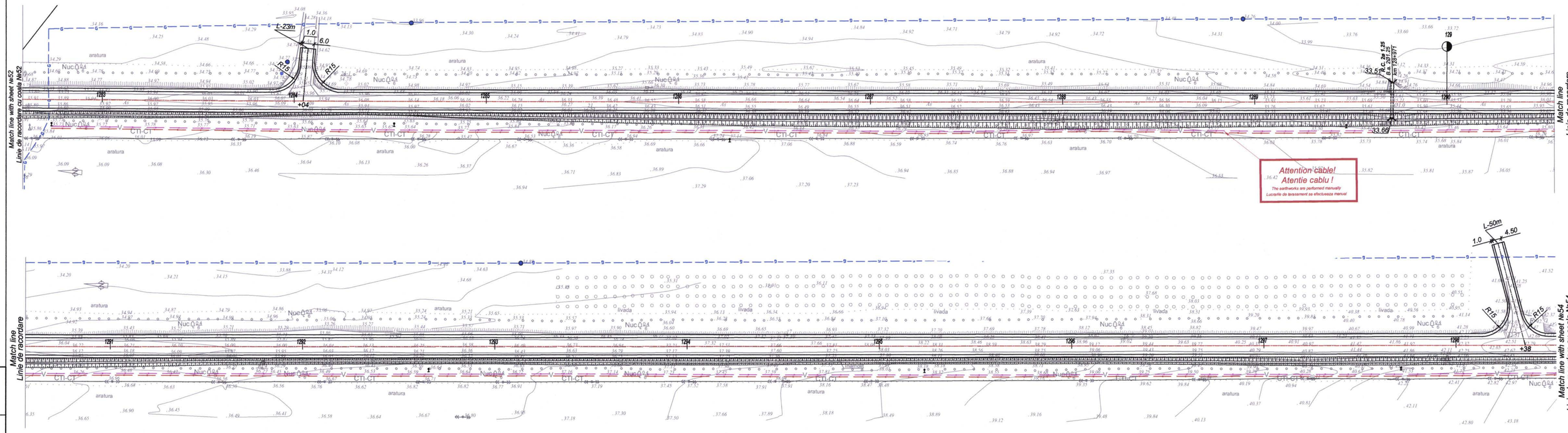
Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 128+215 - 128+309, v. Svetlii Sc.1:500
Planul drumului km 128+215 - 128+309, s. Svetlii Sc.1:500

Drawing 4 - 52



Schimb inv. Nr.

Semnatura si data

Inv. Nr.

Rev.	Amendamente	Aprobat	Data
Rev.	Amendments	Approved	Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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Proiectat/Designed: Efodii V.
Verificat/Checked: Vilcinchi D.
Desenat/Drawn: Efodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

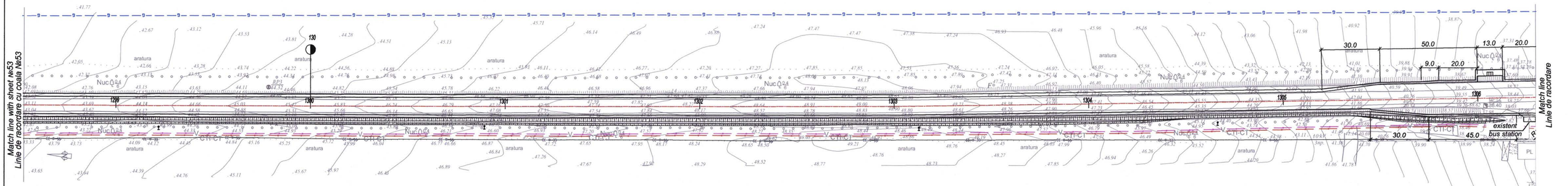
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie/ Sector Comet - R38

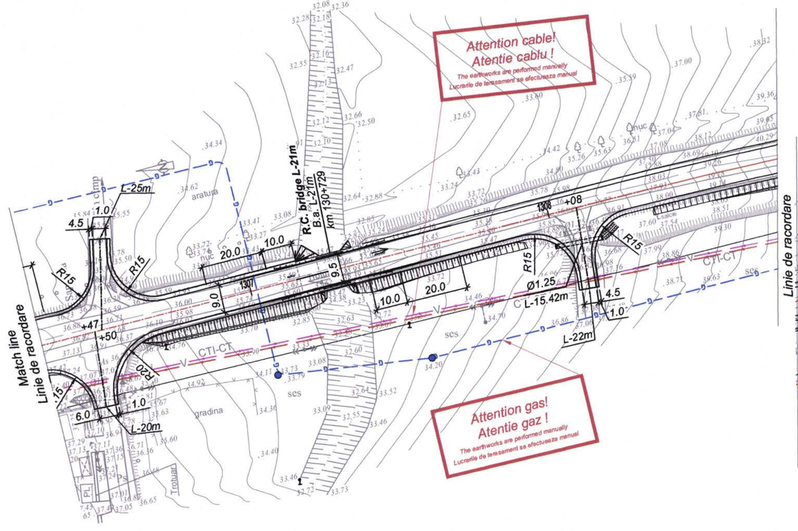
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Asgt/2019/CSE/RIAD Engineering Design / Section Comet - R38

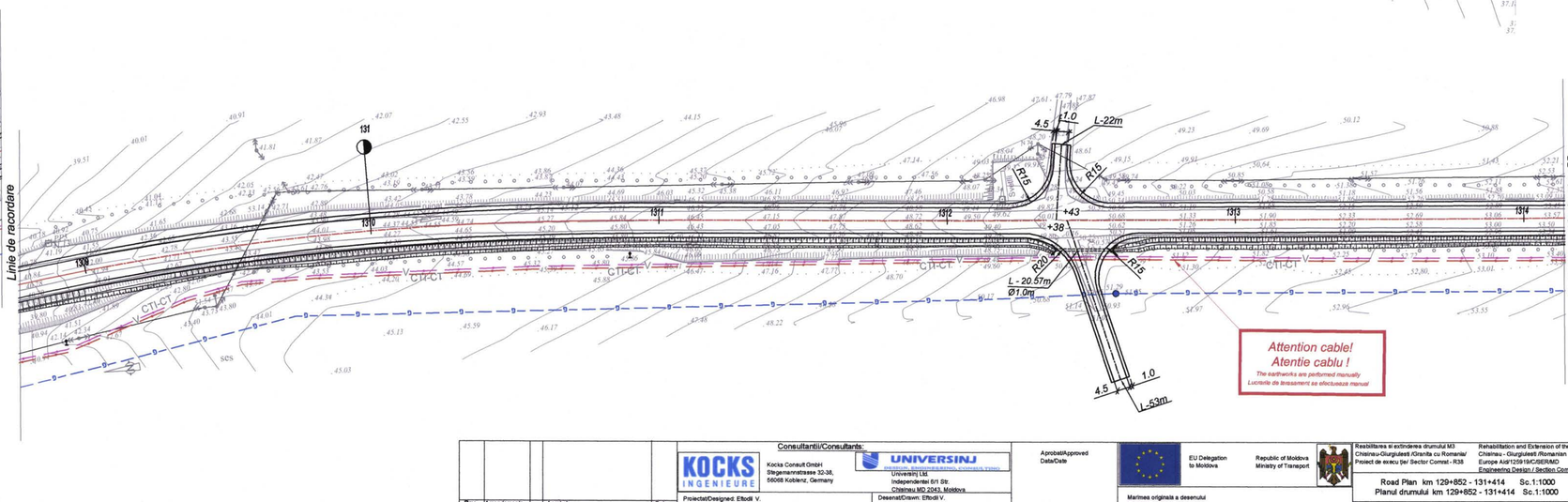
Road Plan km 128+260 - 129+852 Sc.1:1000
Planul drumului km 128+260 - 129+852 Sc.1:1000

Drawing 4 - 53

Format A4x4







Inv. Nr. | Semnatura si data | Schimb inv. Nr.

Rev.	Amendamente Amendments	Aprobat: Approved:	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Efrodil V.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Efrodil V.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

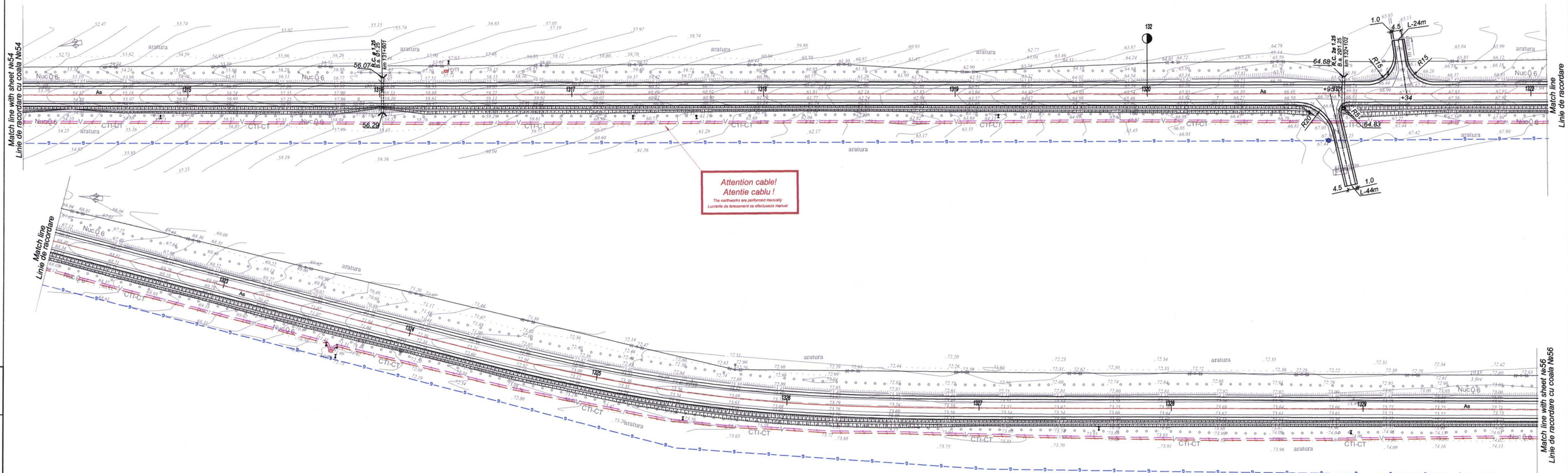
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie (la/ Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125915/C/SER/MD
Engineering Design / Section Comrat - R38

Road Plan km 129+852 - 131+414 Sc.1:1000
Planul drumului km 129+852 - 131+414 Sc.1:1000

Drawing 4 - 54

Format A4x4



Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

Consultantii/Consultants:

KOCKS INGENIEURE
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Rev. / Rev.	Amendamente / Amendments	Aprobat: / Approved:	Data / Date

Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Eftodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie/ Sector Comrat - R36

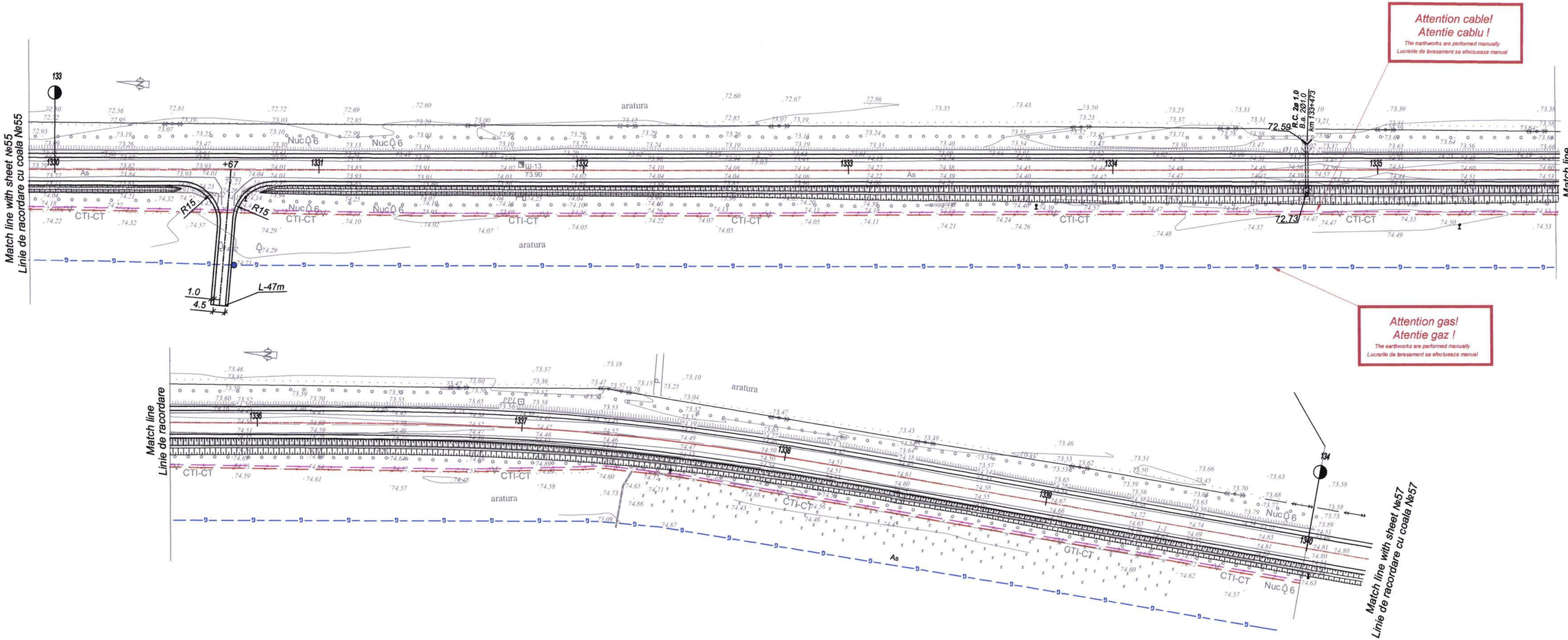
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border
Europe Aid/129918/C/SER/MD
Engineering Design / Section Comrat - R36

Road Plan km 131+414 - 132+990 Sc.1:1000
Planul drumului km 131+414 - 132+990 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4 - 55

Format A4x4



Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date
Rev.			

Consultantii/Consultants:

KOCKS INGENIEURE
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Proiectat/Designed: Efodii V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efodii V.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova
Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie/ Sector Comrat - R38

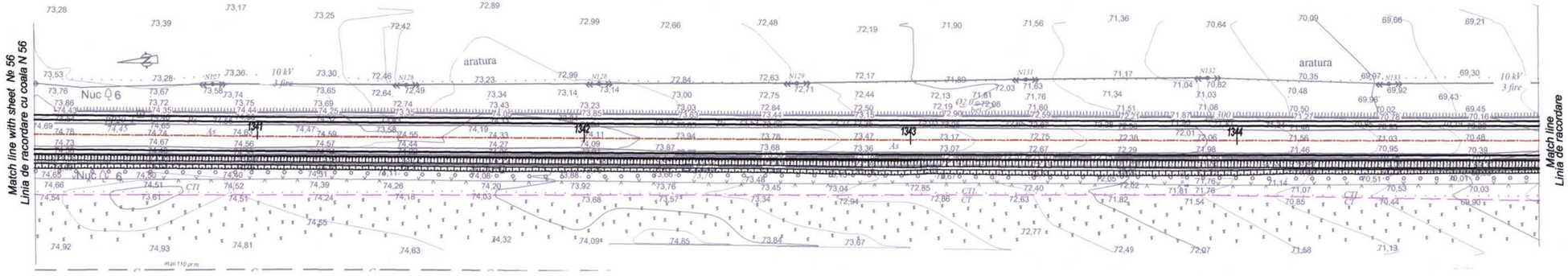
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design / Section Comrat - R38

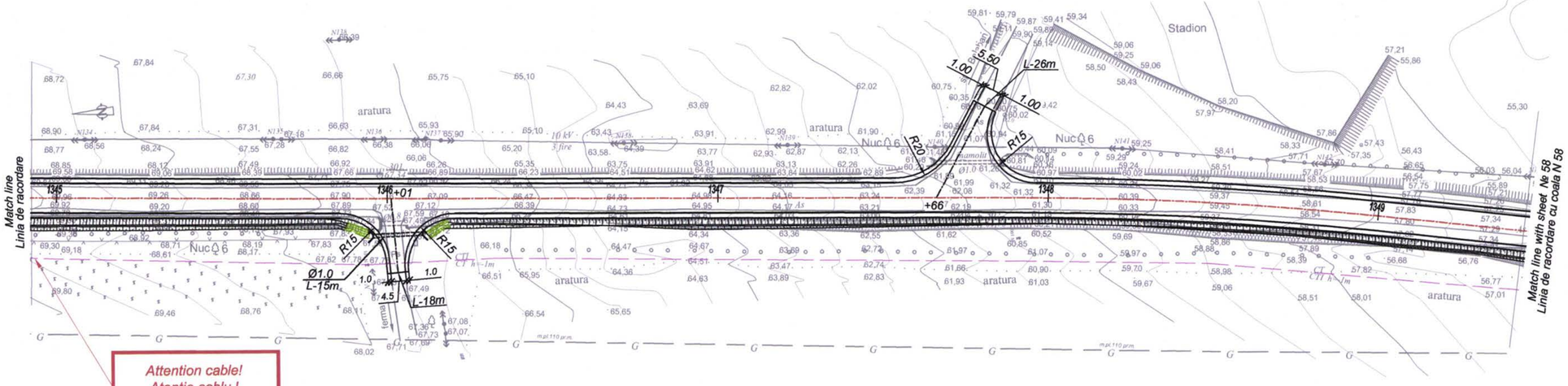
Road Plan km 132+990 - 134+000 Sc.1:1000
Planul drumului km 132+990 - 134+000 Sc.1:1000

Drawing 4 - 56

Format A4x3

Inv. Nr. | Semnatura si data | Schimb inv. Nr.





Inv. Nr.	Schimb Inv. Nr.	Semnatura si data

Rev.	Amendamente / Amendments	Aprobat/ Approved	Data / Date
Rev.			

Consultantii/Consultants:

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Proiectat/Designed: Eftodii V.
Verificat/Checked: Vilcinschi D.

Desenat/Drawn: Eftodii V.
Data/Date: 08.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

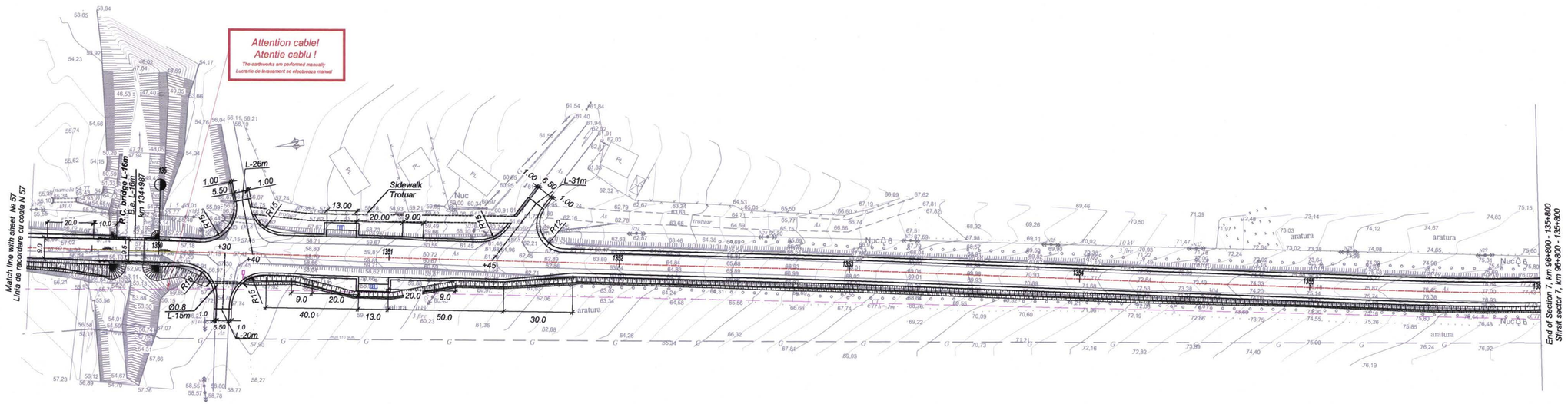
Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie/ Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Road Plan km 134+000-134+945 Sc.1:1000
Planul drumului km 134+000-134+945 Sc.1:1000

Drawing 4-57

Format A4x3



Inv. Nr.	Semnatura si data	Schimb inv. Nr.

Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stargemonstrasse 32-38,
56068 Koblenz, Germany

UNIVERSINJ
University Ltd
Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Efbodi V.
Verificat/Checked: Vilcinschi D.
Desenat/Drawn: Efbodi V.
Data/Date: 06.09

Aprobat/Approved
Data/Date:

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie tip/ Sector Comrat - R36

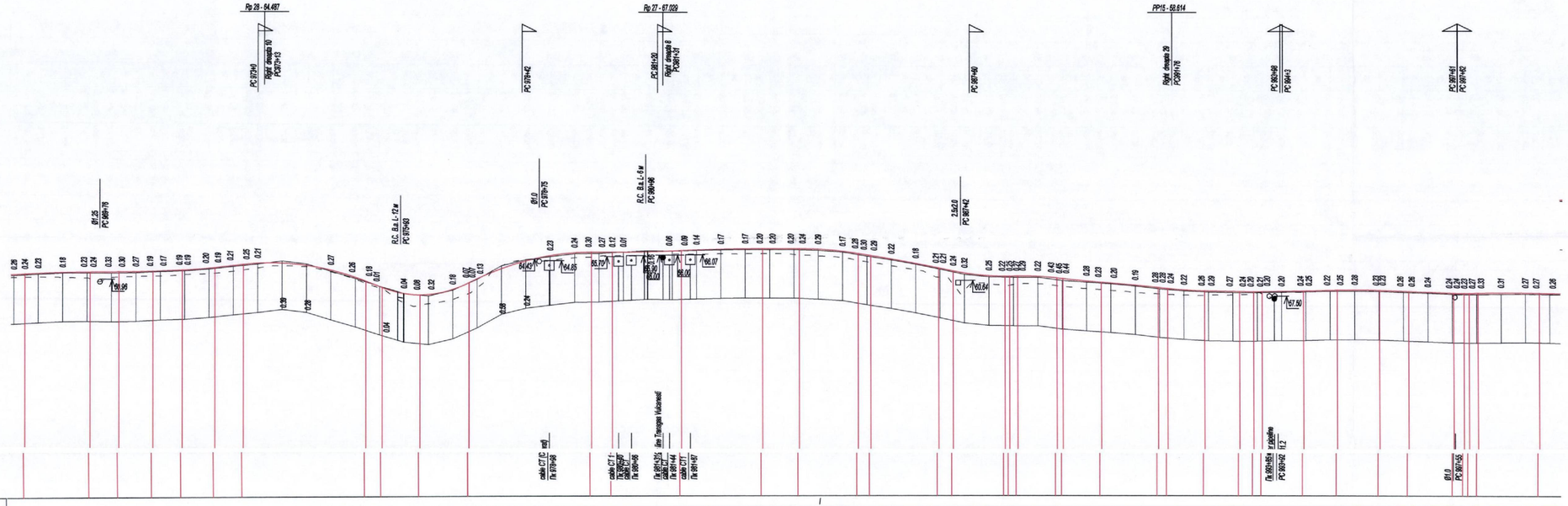
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/129519/C/SER/MD
Engineering Design Section Comrat - R36

Road Plan km 134+945-135+600 Sc.1:1000
Planul drumului km 134+945-135+600 Sc.1:1000

Marimea originala a desenului
Original Drawing Size

Drawing 4-56

Format A4x4



Type of area by token of moisture
Tip teren dupa umiditate

Design data / Date proiect

Type cross section / Profil transversal tip: left / stinga; right / dreapta

Ditch on the LHS / Sant pe stinga: Consolidation / Consolidare; Gradient ‰ / Declivitate ‰; Distance, m / Distanta, m; Level of ditch, m / Cota sant, m

Ditch on the RHS / Sant pe dreapta: Consolidation / Consolidare; Gradient ‰ / Declivitate ‰; Distance, m / Distanta, m; Level of ditch, m / Cota sant, m

Gradient ‰ / Declivitate ‰; vertical radius, m / Curba, m

Finished carriageway level, m / Cota in ax, m

Terrain data / Date teren

Existing level, m / Cota existenta, m

Interpolation level, m / Cota interpolata, m

Distance, m / Distanta, m

Survey station / Pichet

Plan elements / Elemente plan

Chainage / Kilometri

Rev.	Amendamente / Amendments	Aprobat/Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegemannstrasse 32-38, 59065 Koblenz, Germany

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Proiectat/Designed: Vitchinkii D.
Verificat/Checked: Elhsk A.
Desenat/Drawn: Grigoseva I.
Data/Date: 08.09

Aprobat/Approved
Data/Date

Mod. nr.vrnc. | Semnat la data | Nr. inv. orig.

Macheta originala a desenului / Original Drawing Slice

EU Delegation to Moldova

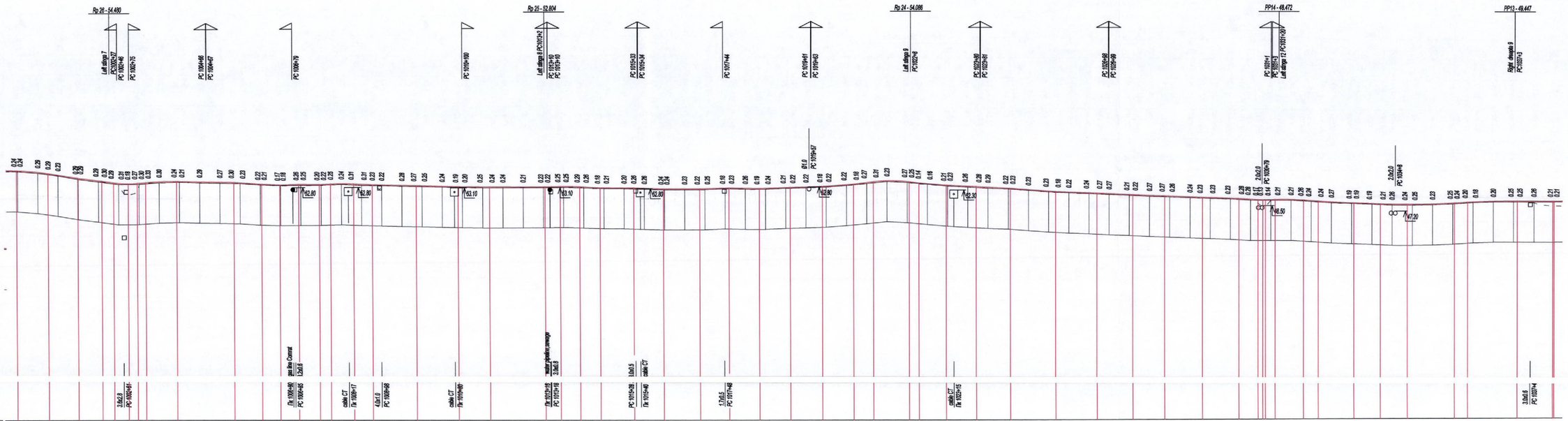
Republic of Moldova Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie (e.) Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/129819/C/SER/MD Engineering Design Section Comrat - R36

Longitudinal profile Sc. 1:5000/500(H/V) km 96+800 -135+800
Profile longitudinal Sc. 1:5000/500(H/V) km 96+800 -135+800

Drawing 5-1



Type of area by token of moisture
Tip teren dupa umiditate

Design data / Date proiect

Type cross section: left stînga
Profil transversal tip: right dreapta

Ditch on the LHS / Şanţ pe stînga
Consolidation / Consolidare
Gradient, ‰ / Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m / Cota sanţ, m

Ditch on the RHS / Şanţ pe dreapta
Consolidation / Consolidare: cast-in-situ concret; grass seeding; cast-in-situ concret; cast-in-situ concret
Gradient, ‰ / Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m / Cota sanţ, m

Gradient, ‰ / Declivitate, ‰
vertical radius, m / Curba, m
Finished carriageway level, m / Cota în ax, m

Terrain data / Date teren

Existing level, m / Cota existenta, m
Interpolation level, m / Cota interpolata, m
Distance, m / Distanta, m

Survey station / Pichet
Plan elements / Elemente plan
Chainage / Kilometri

1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038

364 — IOS:15°23.2' — A=0°13.2' R=30000 T=57 C=115
861 — IOS:15°36.4' — A=0°11.4' R=30000 T=50 C=99
570 — IOS:15°47.8' — A=2°55.4' R=6000 T=153 C=306
239 — IOS:16°43.2' — A=0°30.5' R=20000 T=89 C=177
77 — IOS:16°46.6' — A=8°1.9' R=1070 L=150 T=150
83 — IOS:19°20.1' — R=30000 A=0°13.1'
2300 — IOS:11°16.2' — T=57 C=114

Consultantii/Consultants:
KOCKS INGENIEURE — Kocks Consult GmbH, Stegemannstrasse 32-38, 50858 Koeln-z, Germany
UNIVERSINJ — Universinj Ltd, Independentei 6/1 Str, Chisinau MD 2043, Moldova
Proiectat/Designed: Vilchinski D. — Desenat/Drawn: Grigoglava I.
Verificat/Checked: Efros A. — Data/Date: 08.09
Aprobat/Approved — Data/Date

Rev. / Rev. — Amendamente / Amendments — Aprobat / Approved — Data / Date

EU Delegation to Moldova
Republic of Moldova Ministry of Transport

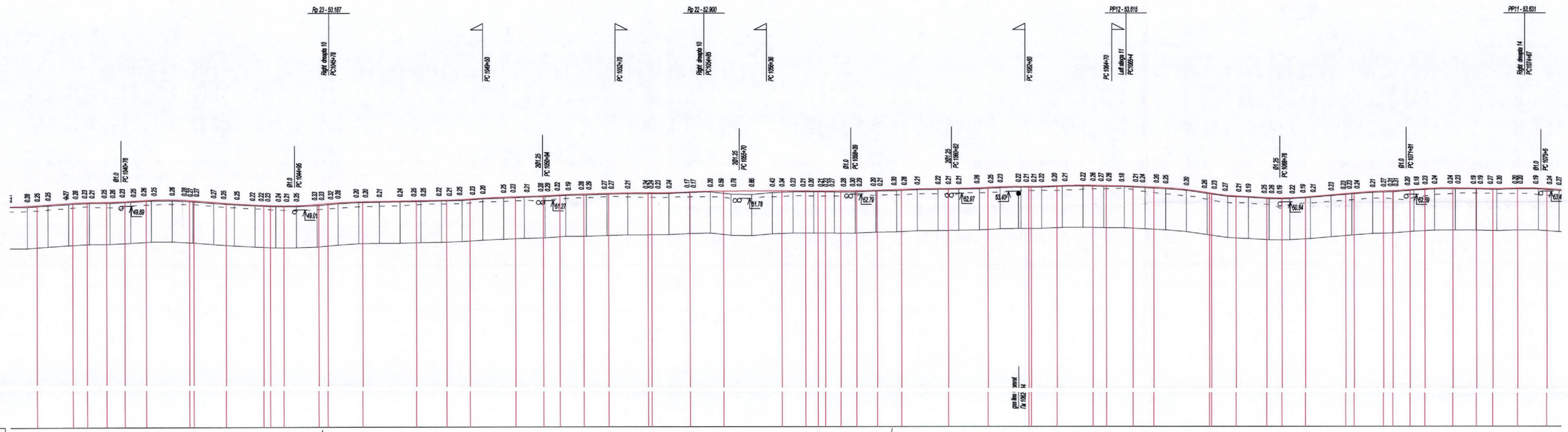
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R36
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/128194/C/SER/MD Engineering Design Section Comrat - R36

Longitudinal profile / Profile longitudinal
Sc. 1:5000/500(H/V) km 96+800 -135+800
Sc. 1:5000/500(O/V) km 96+800 -135+800

Marimea originala a desenului / Original Drawing Size

Drawing 8-2

Nr. inv. orig. | Semnat la data | Mod. nr.inv.



Sc 1:5000 - horizontal orizontal
Sc 1:500 - vertical

Type of area by token of moisture
Tip teren după umiditate

Design data / Date proiect

Type cross section / Profil transversal tip: left stînga / right dreapta

Ditch on the LHS / Șanț pe stînga: Consolidation / Consolidare; Gradient ‰ / Declivitate ‰; Distance, m / Distanța, m; Level of ditch, m / Cota șanț, m

Ditch on the RHS / Șanț pe dreapta: Consolidation / Consolidare; Gradient ‰ / Declivitate ‰; Distance, m / Distanța, m; Level of ditch, m / Cota șanț, m

Gradient ‰ / Declivitate ‰; vertical radius, m / Curba, m

Finished carriageway level, m / Cota in ax, m

Terrain data / Date teren

Existing level, m / Cota existenta, m

Interpolation level, m / Cota interpolata, m

Distance, m / Distanta, m

Survey station / Pichet

Plan elements / Elemente plan

Chainage / Kilometri

grass seeding

mulched sod/ Iarbă

1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075

557
IO3:11°5.1°
A=0°6.8° R=50000 T=71 C=142
1285
IO3:11°14.9°
794
IO3:11°5.7°
A=0°47.4 R=800 L1=100 L2=130 T1=121 T2=151 C=252
555
IO3:20°53.1°
A=27°58.0 R=480 L1=100 T=170 C=334

Nr. inv. orig. | Semnat la data | Mod. nr. inv.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Bllegemeinsstrasse 32-38,
66068 Koblenz, Germany

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Chisinau MD 2043, Moldova

Proiectat/Designed:	Vilchinski D.
Verificat/Checked:	Efros A.
Desenat/Drawn:	Grigogieva I.
Data/Date	08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Mărimea originală a desenului / Original Drawing Size

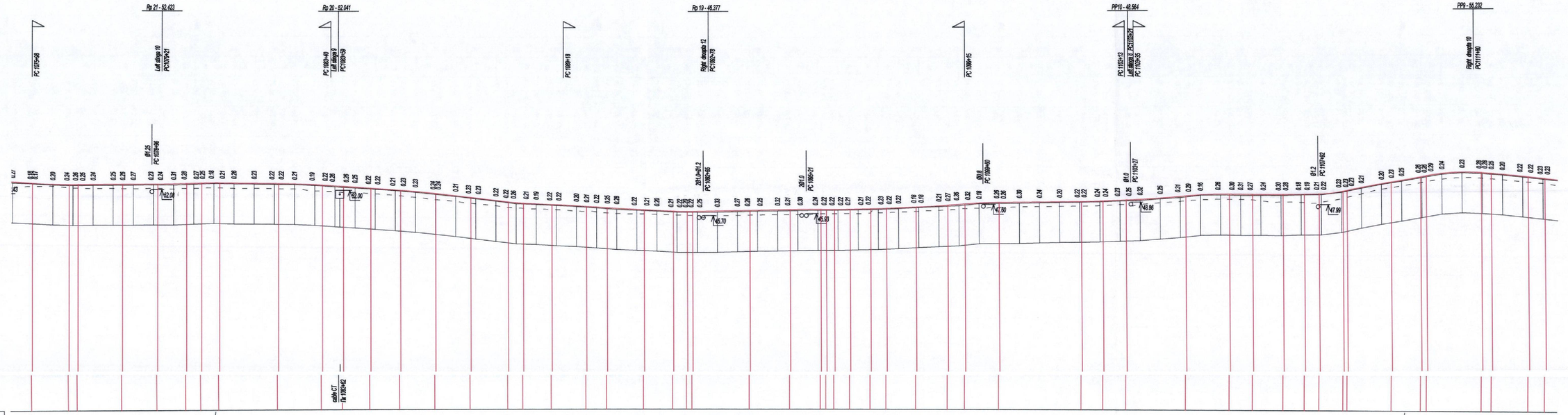
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiuleşti /Granita cu Romania/ Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiuleşti /Romanian Border/ Europe Aid/129154/D/SER/MD Engineering Design Section Comrat - R36

Longitudinal profile / Profil longitudinal — Sc. 1:5000/500(H/V) — Sc. 1:5000/500(H/V)

km 96+800 -135+800
km 96+800 -135+800

Drawing 5-3



Type of area by token of moisture
Tip teren dupa umeditate

Design data
Date proiect

Type cross section — left / stînga
Profil transversal tip — right / dreapta

Ditch on the LHS
Şanţ pe stînga
Consolidation / Consolidare
Gradient ‰ Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m / Cota şanţ, m

Ditch on the RHS
Şanţ pe dreapta
Consolidation / Consolidare
Gradient ‰ Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m / Cota şanţ, m

Gradient,‰ Declivitate, ‰ / vertical radius, m Curbura, m
Finished carriageway level, m / Cota in ax, m

Terrain data
Date teren

Existing level, m / Cota existenta, m
Interpolation level, m / Cota interpolata, m

Distance, m / Distanta, m

Survey station — Pichet
Plan elements — Elemente plan
Chainage — Kilometri

Mod. hr.vrv.
Semnat la data
Nr. inv. orig.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Data

Proiectat/Designed: Vlahinaiu D.
Verificat/Checked: Efros A.

Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegermannstrasse 32-36
56068 Koblenz, Germany

UNIVERSINJ
Universinj Ltd.
Independentei 6/1 Str.
Chisinau MD 2043, Moldova
Desenat/Drawn: Grigoljeva I.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

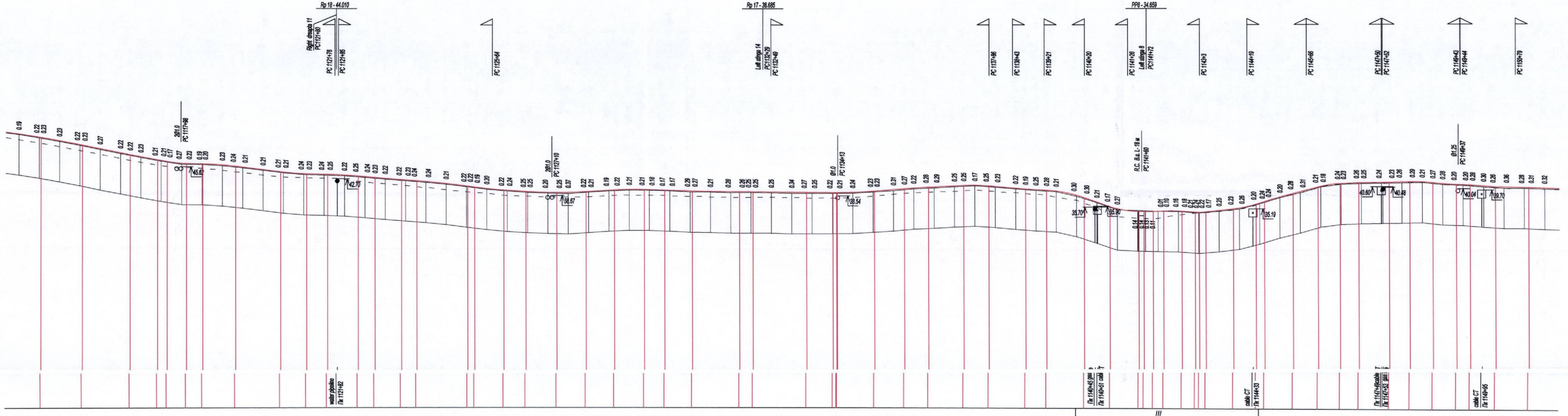
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

TRANSBORDER EXTENSION of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/126918/C/SER/MD Engineering Design Section Comrat - R38

Marimea originala a desenului
Original Drawing Size

Longitudinal profile Sc. 1:5000/500(H/V) km 96+800 -135+800
Profile longitudinal Sc. 1:5000/500(O/V) km 96+800 -135+800

Drawing 5-4



Consultanti/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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Proiectat/Designed: Vlichinski D.
Verificat/Checked: Ethos A.
Desenat/Drawn: Grigoreva I.
Data/Date: 08.09

Aprobat/Approved
Data/Date

Rev. / Rev. — Amendament / Amendments — Aprobat / Approved — Data / Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

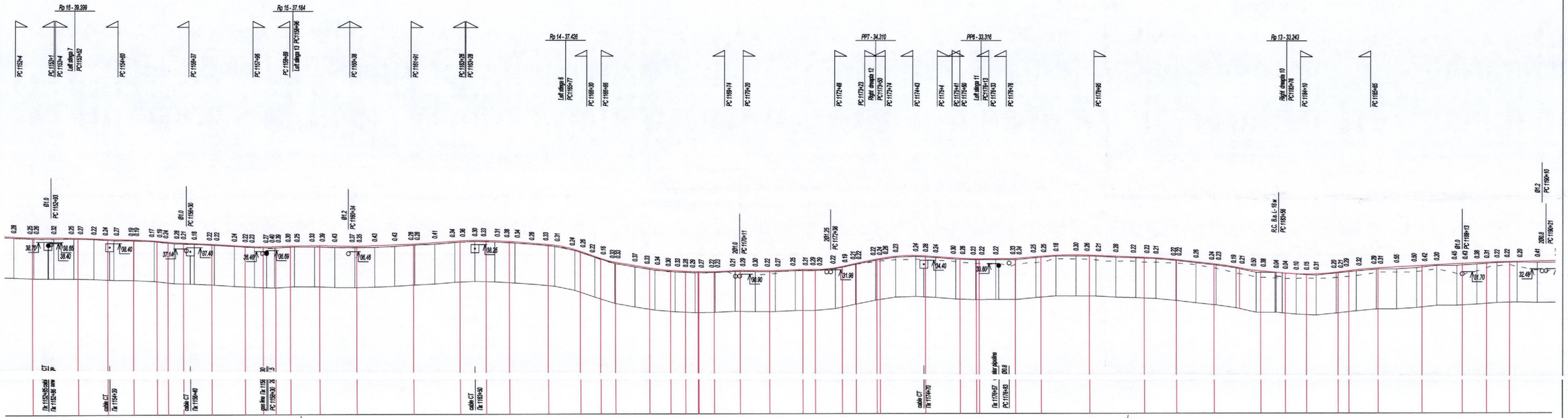
Reabilitarea si extinderea drumului M3 Chisinau-Glungulesti /Granita cu Romania
Proiect de executie / Sector Comrat - R36

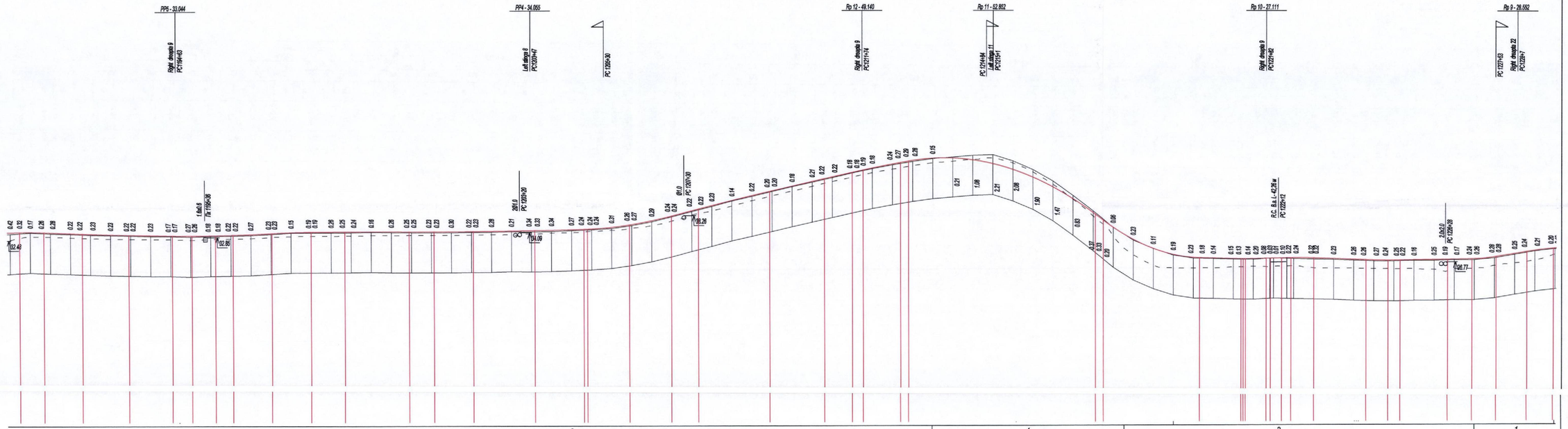
Reconstruction and Extension of the Road M3 Chisinau - Glungulesti /Romanian Border
Europe Aid/129154/C/SER/MD
Engineering Design Section Comrat - R36

Marimea originala a desenului
Original Drawing Size

Longitudinal profile Sc. 1:5000/5000(H/V) km 96+800 -135+800
Profile longitudinal Sc. 1:5000/500(O/V) km 96+800 -135+800

Drawing 5-6


Rp 16 - 39.399
Rp 15 - 37.164
Rp 14 - 37.426
PP7 - 34.210
PP8 - 33.316
Rp 13 - 33.243
Left deviga 6
Left deviga 7
Left deviga 11
Left deviga 12
Left deviga 13
Right deviga 10
Right deviga 12
Sc 1:5000 - horizontal orizontal
Sc 1:5000 - vertical
Type of area by token of moisture
Tip teren dupa umiditate
Design data
Date proiect
Type cross section
left stinga
Profil transversal tip
right dreapta
Consolidation
Consolidare
Ditch on the LHS
Sant pe stinga
Gradient, ‰
Declivitate, ‰
Distance, m
Distanta, m
Level of ditch, m
Cota sant, m
Ditch on the RHS
Sant pe dreapta
Gradient,‰
Declivitate, ‰
vertical radius, m
Curba, m
Finished carriageway level, m
Cota in ax, m
Terrain data
Date teren
Existing level, m
Cota existenta, m
Interpolation level, m
Cota interpolata, m
Distance, m
Distanta, m
Survey station
Pichet
Plan elements
Elemente plan
Chainage
Kilometru
cast-in-situ concret
grass seeding
crushed stone
KOCKS INGENIEURE
UNIVERSINJ
Consultantii/Consultants:
Kocks Consult GmbH
Hagenmarktrasse 32-36,
56068 Koblenz, Germany
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Proiectat/Designed: Vilchinski D.
Verificat/Checked: Elfos A.
Desenat/Drawn: Grigoriev I.
Data/Date 08.09
Aprobat/Approved
Data/Date
EU Delegation to Moldova
Republic of Moldova Ministry of Transport
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comet - R36
Reconstruction and Extension of the road M3 Chisinau - Giurgiulesti /Romanian Border
Europe Aid/129154/C/SER/MD
Engineering Design Section Comet - R36
Marimea originala a desenului
Original Drawing Size
Longitudinal profile Sc. 1:5000/500(H/V)
Profile longitudinal Sc. 1:5000/500(C/V)
km 96+800 -135+800
km 96+800 -135+800
Drawing 5-6
Rev. Amendamente
Aprobat
Data
Nr. inv. orig.
Semnat la data
Mod. nr. inv.



Type of area by token of moisture / Tip teren dupa umiditate		
Design data / Date proiect	Type cross section / Profil transversal tip	left / stinga
		right / dreapta
	Ditch on the LHS / Şanţ pe stînga	Consolidation / Consolidare
		Gradient, ‰ / Declivitate, ‰ — Distance, m / Distanţa, m
		Level of ditch, m / Cota şanţ, m
	Ditch on the RHS / Şanţ pe dreapta	Consolidation / Consolidare
		Gradient, ‰ / Declivitate, ‰ — Distance, m / Distanţa, m
		Level of ditch, m / Cota şanţ, m
	Gradient, ‰ / Declivitate, ‰	vertical radius, m / Curba, m
	Finished carriageway level, m / Cota în ax, m	
Terrain data / Date teren	Existing level, m / Cota existenta, m	
	Interpolation level, m / Cota interpolata, m	
	Distance, m / Distanta, m	
	Survey station / Plan elements / Chainage	Pichet / Elemente plan / Kilometri

Nr. inv. orig.	Semnat la data	Mod. nr.vriv.

Rev.	Amendamente / Amendments		Aprobat / Approved	Data / Date

Consultanti/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegerwaldstrasse 32-36, 56068 Koblenz, Germany
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Verificat/Checked: Efros A.

UNIVERSINJ — Universinj Ltd, Independentei 6/1 Str, Chisinau MD 2043, Moldova
Desenat/Drawn: Grigoriева L.
Data/Date: 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova, Ministry of Transport

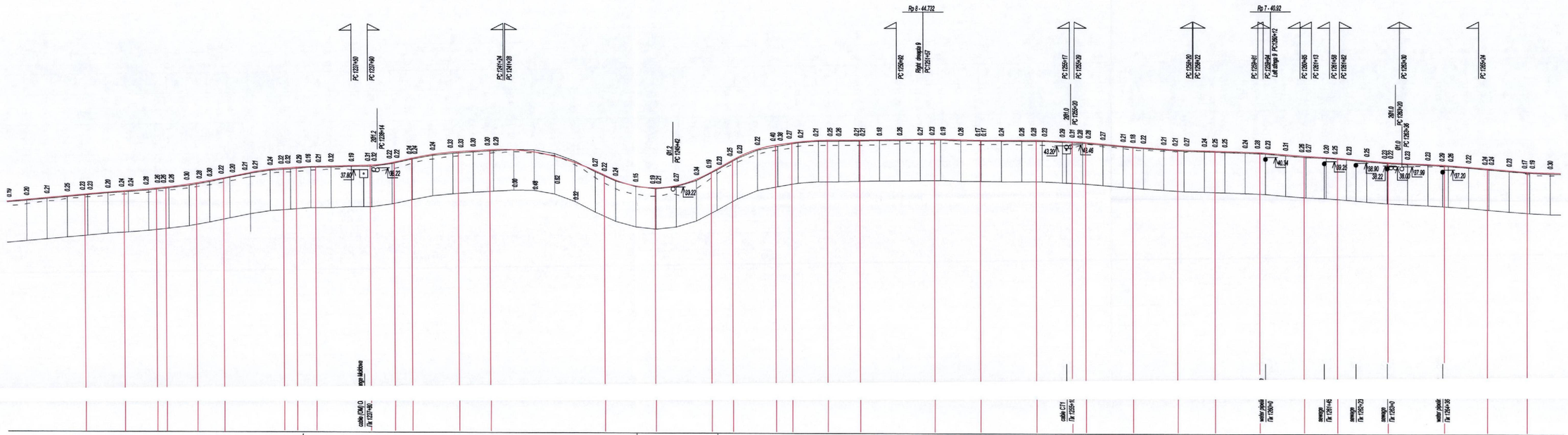
Marimea originala a desenului / Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R36

Rehabilitation and Extension of the road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Axis UN6/1/MC/E/M/MD / Engineering Design Section Comrat - R36

Longitudinal profile Sc. 1:5000/500(H/V) km 96+800 -135+800
Profile longitudinal Sc. 1:5000/500(O/V) km 96+800 -135+800

Drawing 5-7



Sc 1:5000 - horizontal

Sc 1:500 - vertical

Type of area by token of moisture
Tip teren după umiditate

Design data
Date proiect

Type cross section: left / stînga
Profil transversal tip: right / dreapta

Ditch on the LHS
Şanţ pe stînga
Consolidation / Consolidare
Gradient, ‰ / Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m
Cota sanţ, m

Ditch on the RHS
Şanţ pe dreapta
Consolidation / Consolidare
Gradient, ‰ / Declivitate, ‰
Distance, m / Distanţa, m
Level of ditch, m
Cota sanţ, m

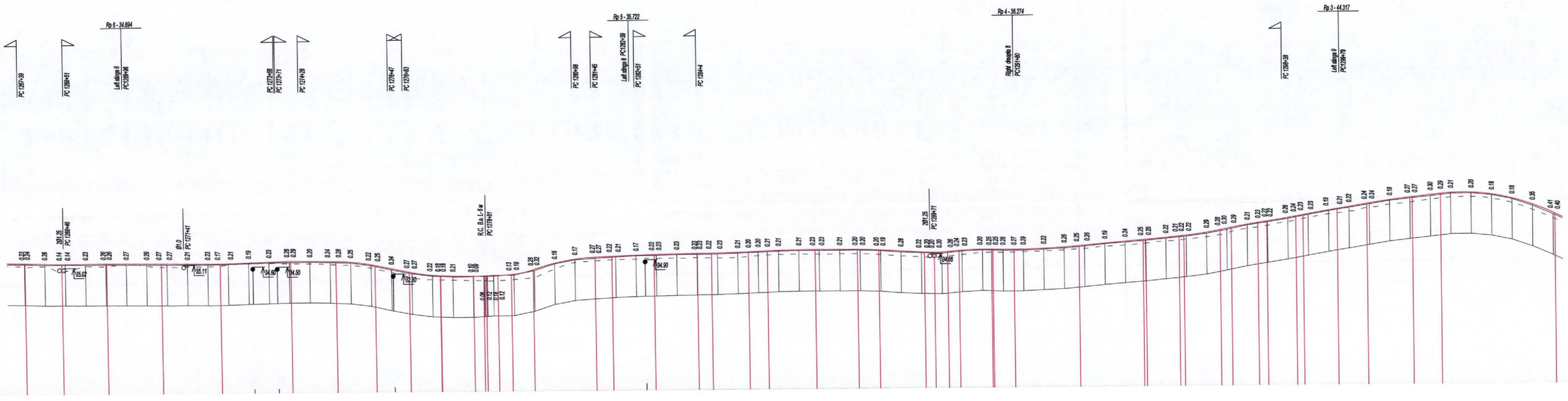
Gradient, ‰ / Declivitate, ‰
Vertical radius, m / Curba, m
Finished carriageway level, m
Cota în ax, m

Terrain data
Date teren

Existing level, m
Cota existentă, m
Interpolation level, m
Cota interpolata, m
Distance, m
Distanţa, m

Survey station / Pichet
Plan elements / Elemente plan
Chainage / Kilometri

I
III
I
3
4
2
4
2
5
5
5
grass seeding
cast-in-situ concrete
crushed stone
grass seeding
cast-in-situ concrete
crushed stone
grass seeding
grass seeding
cast-in-situ concrete
crushed stone
grass seeding
41.77
40.51
38.11
R=51626 C=86
R=27644 C=86
R=10348 C=75
R=24859 C=87
R=6000 C=82
R=12000 C=87
R=3000 C=80
R=7000 C=115
R=5000 C=282
R=2472
C=264
R=5000 C=106
R=6500 C=88
R=6500 C=88
R=2000 C=80
R=2000 C=80
R=2000 C=80



Sc 1:5000 - horizontal orizontal
Sc 1:500 - vertical

Type of area by token of moisture Tip teren dupa umeditate		
Design data Date proiect	Type cross section Profil transversal tip	left stinga right dreapta
	Ditch on the LHS Şanţ pe stînga	Consolidation Consolidare Gradient, ‰ Declivitate, ‰ Distance, m Distanţa, m Level of ditch, m Cota sanţ, m
	Ditch on the RHS Şanţ pe dreapta	Consolidation Consolidare Gradient, ‰ Declivitate, ‰ Distance, m Distanţa, m Level of ditch, m Cota sanţ, m
	Gradient, ‰ Declivitate, ‰	vertical radius, m Curba, m
	Finished carriageway level, m Cota in ax, m	
Terrain data Date teren	Existing level, m Cota existenta, m	
	Interpolation level, m Cota interpolata, m	
	Distance, m Distanta, m	
	Survey station Plan elements Chainage	Pichet Elemente plan Kilometri

A=6°55.6' R=800 L=92 T=93 C=186 — NS:4°52.6' — 466 — NS:4°20.2' — T=20 R=1000 — NS:4°34.1' — A=9.8' R=2000 T=28 C=57 — NS:4°24.3' — NS:4°34.1' — NS:4°35.2' — NS:4°33.6' — R=10000 T=75 A=0°51.6'

Rev.	Amendamente Amendments	Aprobat Approved	Data Date	Consultantii/Consultants:	Aprobat/Approved Data/Date	Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R36
				KOCKS INGENIEURE Kocks Consult GmbH Stegemannstrasse 32-36, 58008 Koblenz, Germany Proiectat/Designed: Vilchinski D. Verificat/Checked: Erhe A.		Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border Europe Aid/125915/C/SER/MD Engineering Design Section Comrat - R36
				UNIVERSINJ Universinj Ltd. Independentei 6/1 Str. Chisinau MD 2043, Moldova Desenat/Drawn: Grigoteva I. Data/Date 08.09		Longitudinal profile Sc. 1:5000/500(H/V) km 96+800 -135+800 Profile longitudinal Sc. 1:5000/500(O/V) km 96+800 -135+800

EU Delegation to Moldova — Republic of Moldova Ministry of Transport

Marimea originala a desenului / Original Drawing Size

Drawing 6-9

Nr. inv. orig. | Semnat la data | Mod. nr.vriv.

Sc 1:5000 - horizontal orizontal
Sc 1:500 - vertical

Type of area by token of moisture / Tip teren dupa umeditate		
Design data / Date proiect	Type cross section / Profil transversal tip	left stînga / right dreapta
	Ditch on the LHS / Şant pe stînga	Consolidation Consolidare; Gradient, ‰ Declivitate, ‰; Distance, m Distanta, m; Level of ditch, m Cota sant, m
	Ditch on the RHS / Şant pe dreapta	Consolidation Consolidare; Gradient, ‰ Declivitate, ‰; Distance, m Distanta, m; Level of ditch, m Cota sant, m
	Gradient, ‰ Declivitate, ‰ / vertical radius, m Curba, m	Finished carriageway level, m Cota in ax, m
Terrain data / Date teren		Existing level, m Cota existenta, m
		Interpolation level, m Cota interpolata, m
	Distance, m Distanta, m	
	Survey station / Plan elements / Chainage	Pichet / Elemente plan / Kilometri

PP3 - 41.125 · PP2 - 49.616 · Rp 2 - 72.138 · Rp 1 - 73.825

PC 1306+47 · PC 1306+50 · PC 1308+8 · Left stinga 11 PC1309+89 · Left stinga 7 PC1312+19 · PC 1312+38 · PC 1312+43 · PC 1316+01 · PC 1320+95 · PC 1321+34 · PC 1321+2 · Right dreapta 10 PC1323+98 · Right dreapta 10 PC1327+62 · R.C. Ba.L-9 st PC 1307+26

cast-in-situ concret · crushed stone · grass seeding · crushed stone

R=1800 · C=183 · R=4000 C=148 · R=8000 C=115 · R=3500 C=63 · R=5000 C=72 · R=63670 C=116 · R=10000 C=99 · R=7500 C=111 · R=17918 C=73 · R=9348 C=84 · R=5000 C=82 · R=9195 C=85 · R=32718 C=68

1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317 1318 1319 1320 1321 1322 1323 1324 1325 1326 1327 1328

NS:5°33.3' · A=15°0.9' R=900 L=120 T=179 C=356 · IO3:9°27.6' · IO3:9°4.2' · IO3:9°1.2' · IO3:9°13.0' · IO3:9°0.9' · A=14°15.8' R=800 L=120 T=160 C=319 · NS:5°14.9'

131 · 132

Consultantii/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Siegermannstrasse 32-38, 56068 Koblenz, Germany

UNIVERSINJ DESIGN, ENGINEERING, CONSULTING — UNIversinj Ltd. Independentei 6/1 Str. Chisinau MD 2043, Moldova

Proiectat/Designed: Vilchinski D. · Verificat/CheckCed: Efros A. · Desenat/Drawn: Grigorieva I. · Data/Date 08.09

Rev. / Rev. · Amendamente / Amendments · Aprobat/Approved · Data/Date

Aprobat/Approved Data/Date

EU Delegation to Moldova · Republic of Moldova Ministry of Transport

Marimea originala a desenului / Original Drawing Size

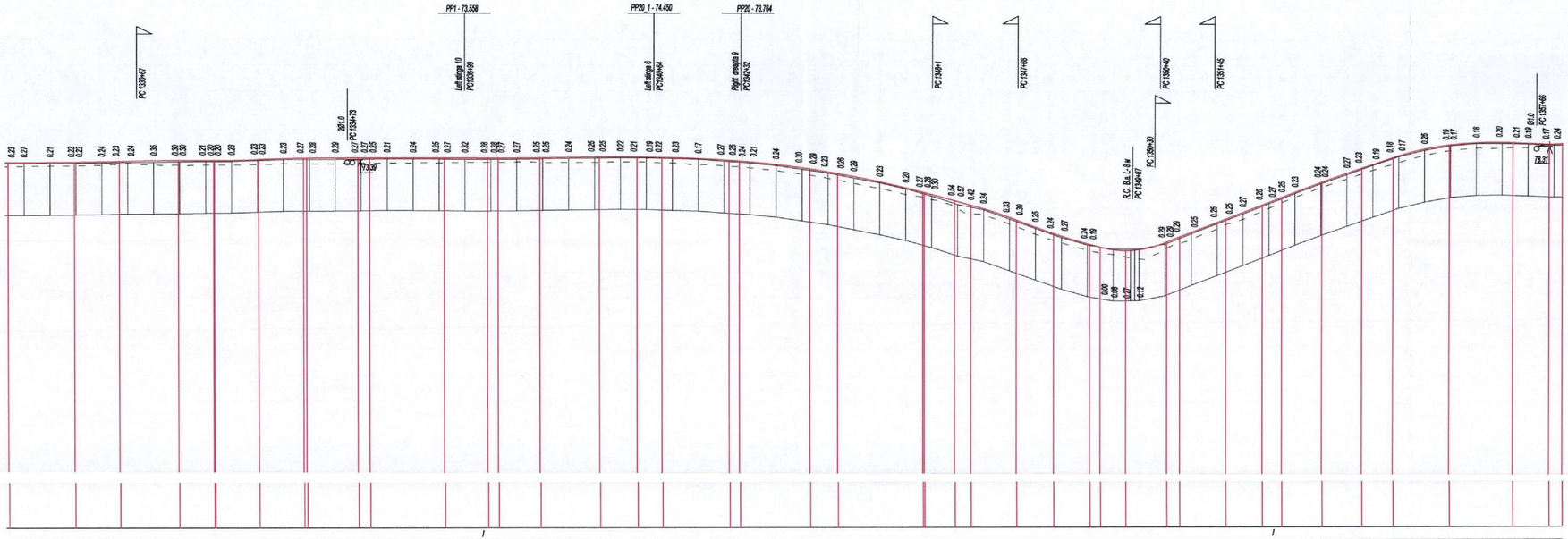
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/126919/C/SER/MD Engineering Design Section Comrat - R38

Longitudinal profile / Profile longitudinal — Sc. 1:5000/500(H/V) km 96+800 -135+800; Sc. 1:5000/500(O/V) km 96+800 -135+800

Drawing 5-10

Nr. inv. orig. · Semnat la data · Mod. nr.vnv.



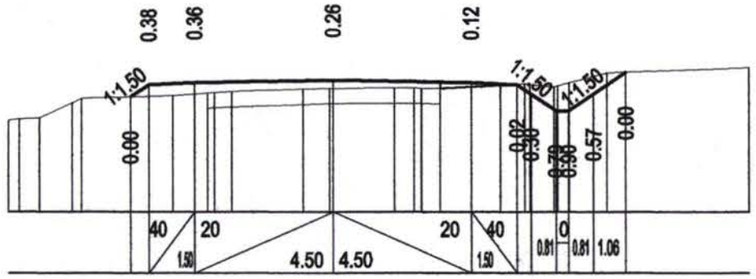
Sc 1:5000 - horizontal orizontal
Sc 1:500 - vertical

Type of area by token of moisture	Tip teren dupa umeditate	
Design data / Date proiect	Type cross section	left / stinga
	Profil transversal tip	right / dreapta
	Ditch on the LHS / Sant pe stinga	Consolidation / Consolidare
		Gradient ‰ / Declivitate ‰
		Distance, m / Distanta, m
		Level of ditch, m / Cota sant, m
	Ditch on the RHS / Sant pe dreapta	Consolidation / Consolidare
		Gradient ‰ / Declivitate ‰
		Distance, m / Distanta, m
		Level of ditch, m / Cota sant, m
	Gradient ‰ / Declivitate ‰	vertical radius, m / Curba, m
	Finished carriageway level, m / Cota in ax, m	
Terrain data / Date teren	Existing level, m / Cota existenta, m	
	Interpolation level, m / Cota interpolata, m	
	Distance, m / Distanta, m	
	Survey station	Pichet
	Plan elements	Elemente plan
	Chainage	Kilometri

grass seeding | grass seeding | cast-in-situ concrete | cast-in-situ concrete | crested stone

| | | |

Km 96+800



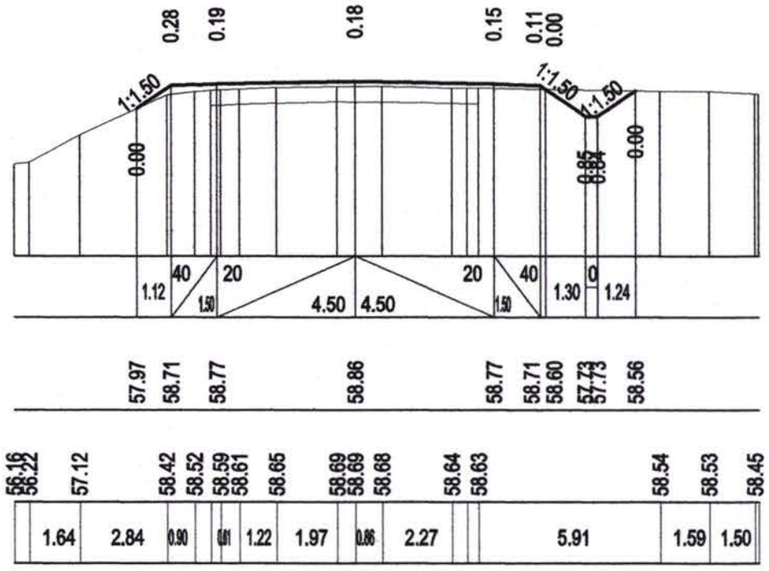
M 1:200 - по вертикали
M 1:200 - по горизонтали

| | | |

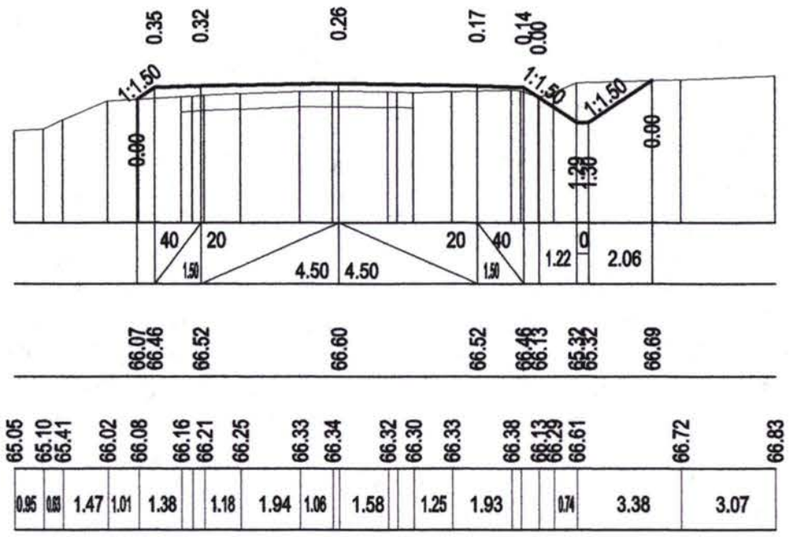
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

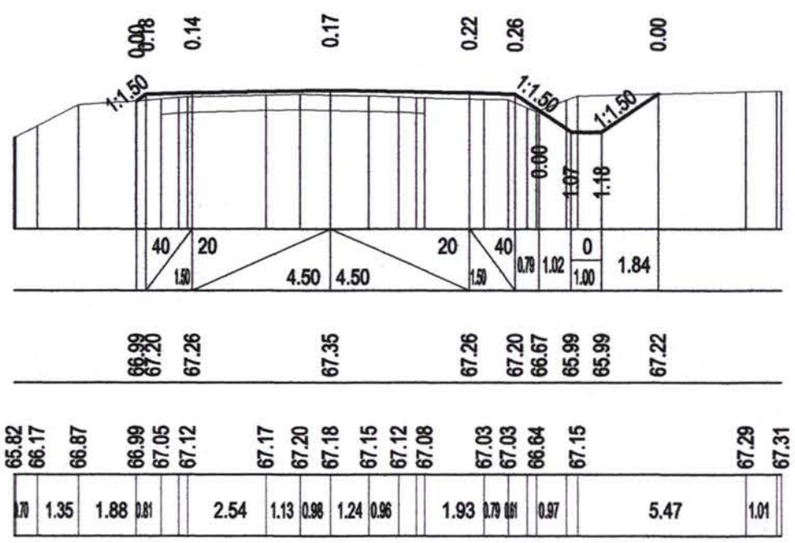
Km 97+700



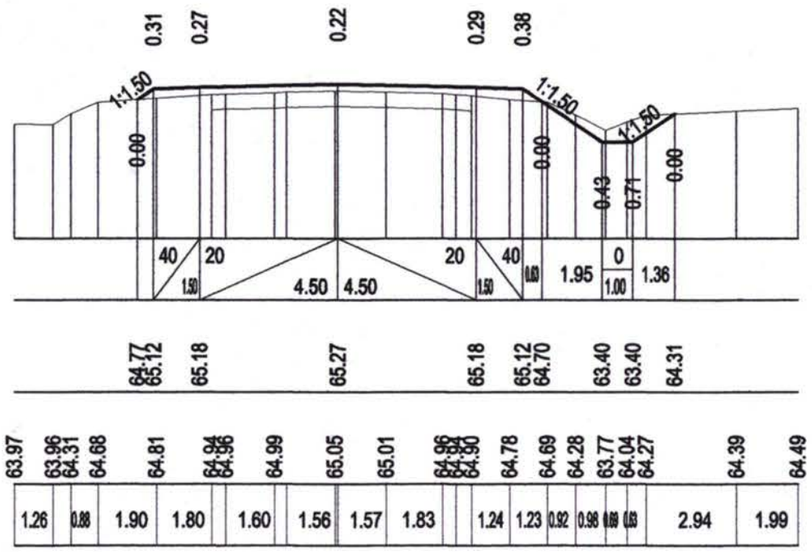
Km 98+000



Km 98+300



Km 98+600



Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Rev. Amendamente Aprobat Data
Rev. Amendments Approved: Date

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 - 2

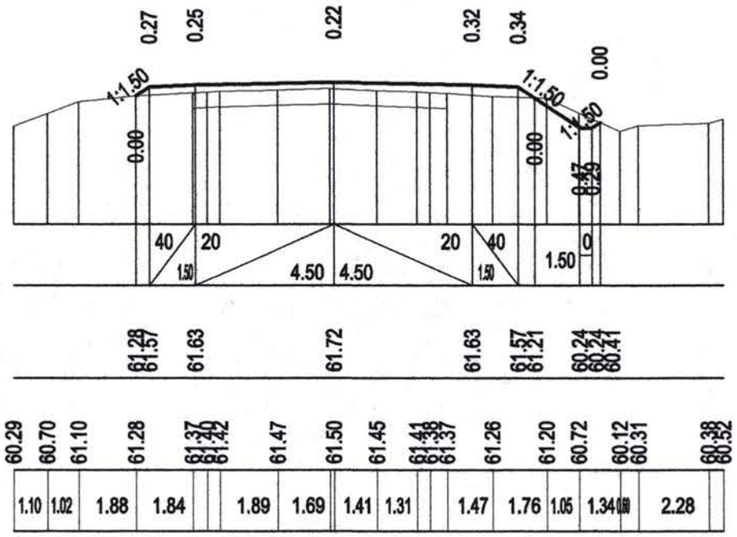
Format A3

Schimb Inv. Nr
Semnatura si data
Inv. Nr

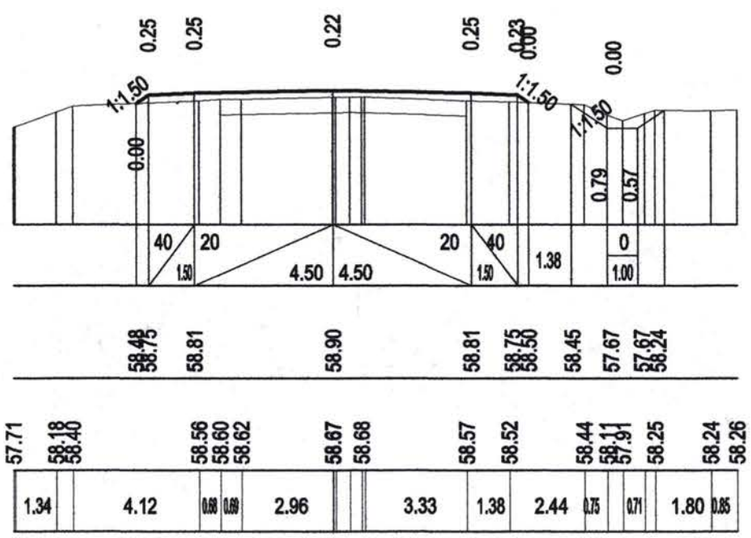
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

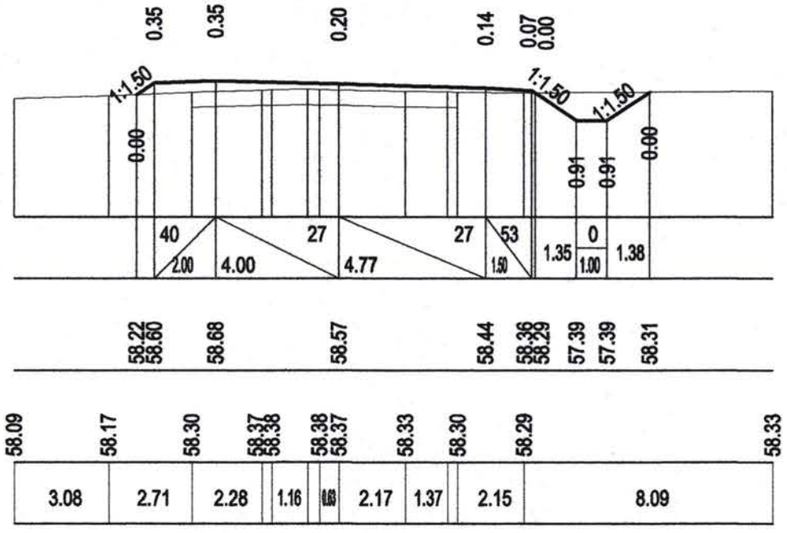
Km 98+900



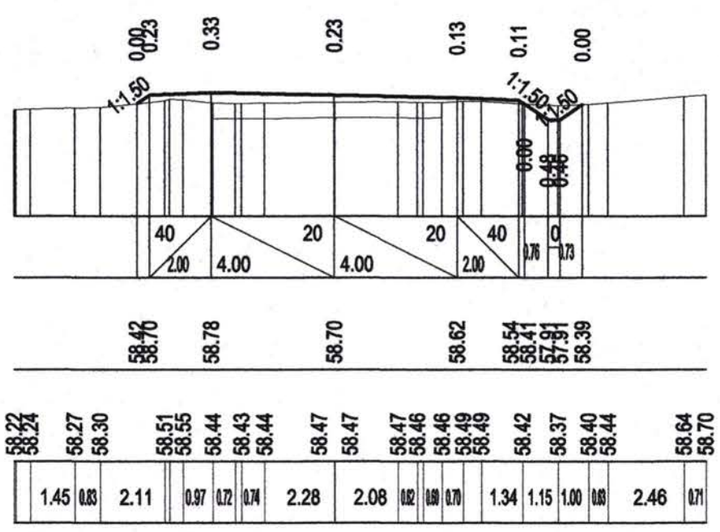
Km 99+200



Km 99+400



Km 99+600



Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
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Aprobat/Approved
Data/Date

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Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

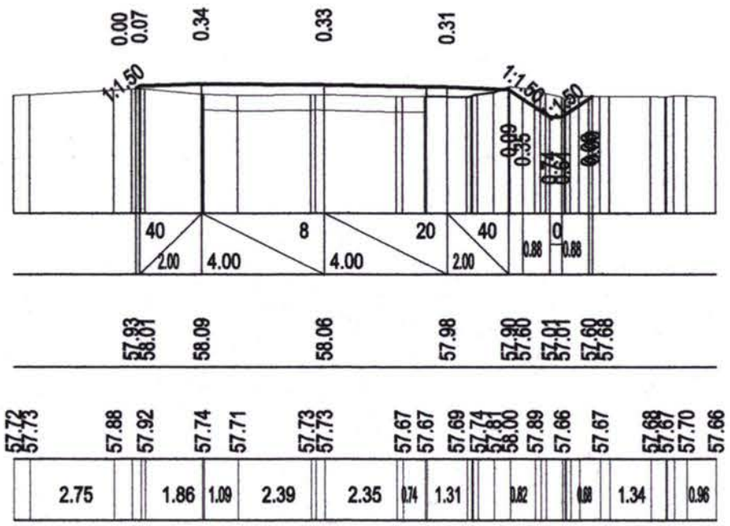
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

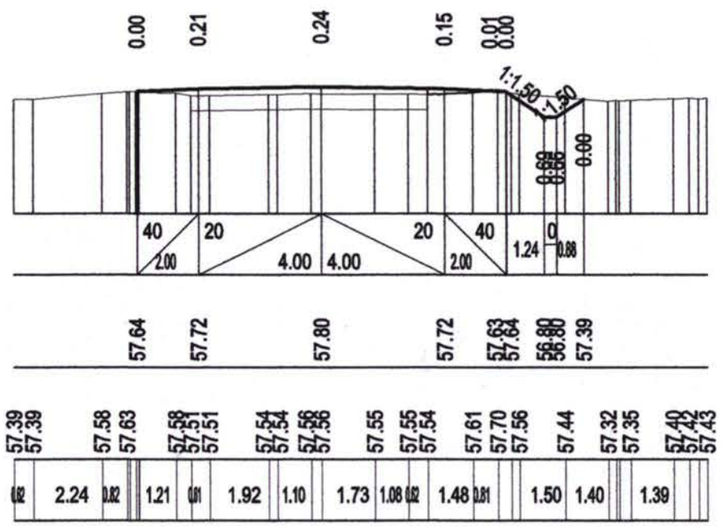
Drawing 6 - 3

Format A3

Km 99+800



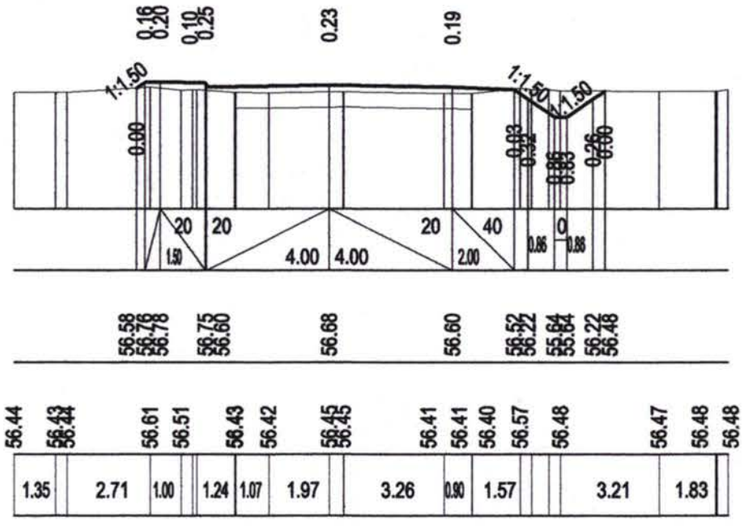
Km 100+000



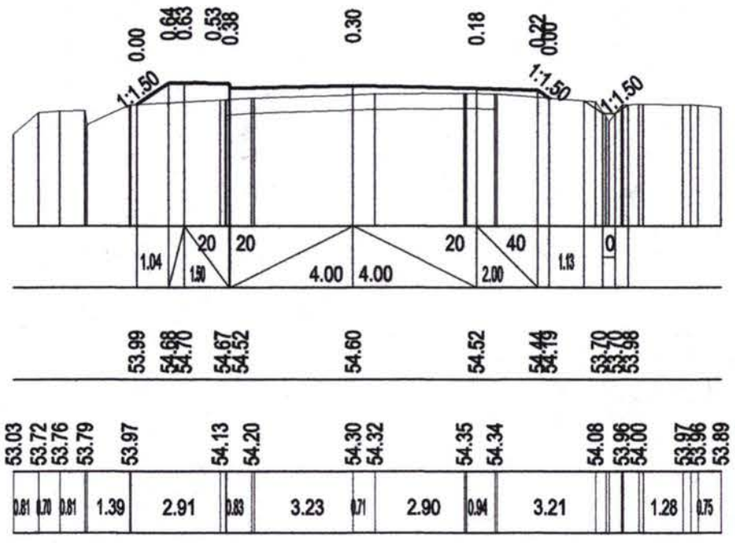
Design data Date proiect	Gradient, o/oo, length, m
	Declivitate, o/oo, lungime, m
	Finished carriageway level, m
	Cota in ax, m
Terrain data Date teren	Ground level, m
	Cota teren, m
	Distance, m
	Distanta, m

M 1:200 - по вертикали
M 1:200 - по горизонтали

Km 100+100



Km 100+300



Schimb Inv. Nr

Semnatura si data

Inv. Nr

Rev. / Rev.	Amendamente / Amendments		Aprobat: / Approved:	Data / Date

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
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Aprobat/Approved
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

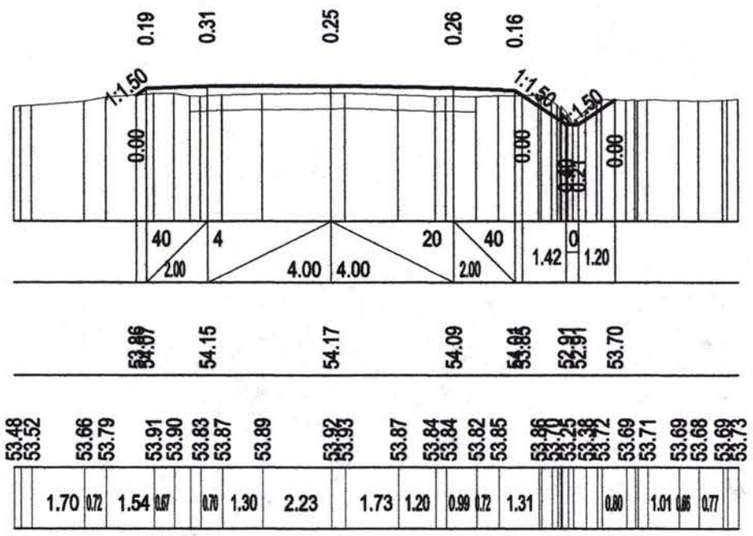
Drawing 6 - 4

Format A3

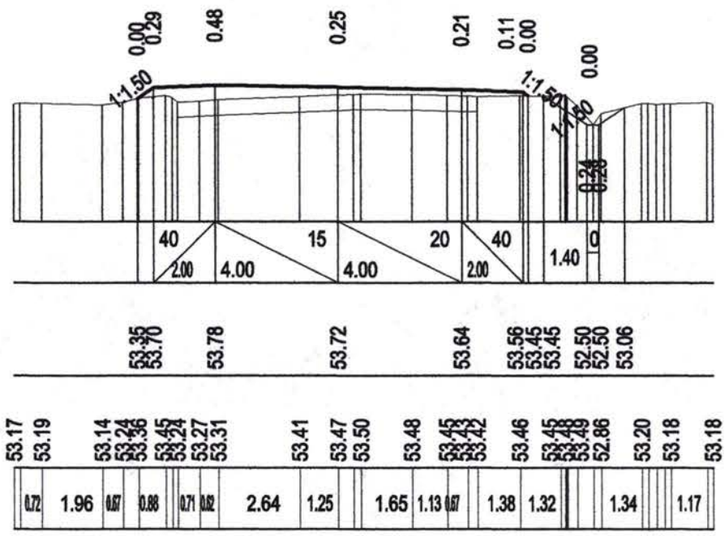
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

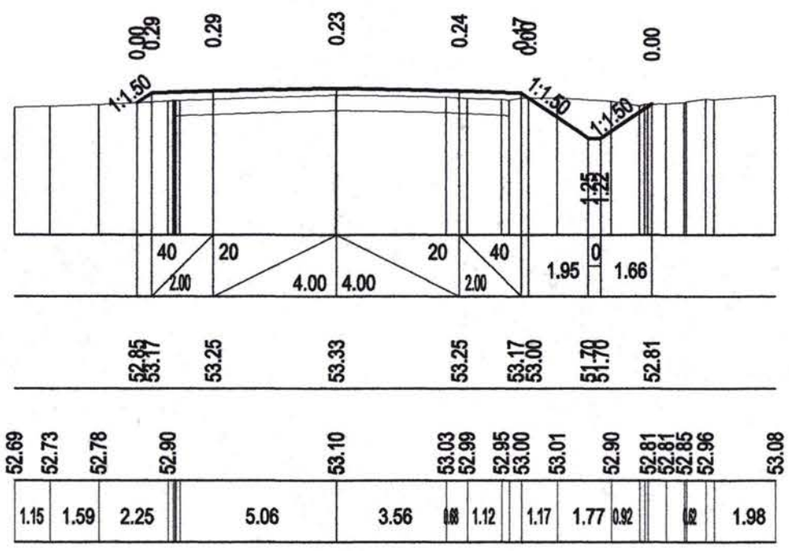
Km 100+700



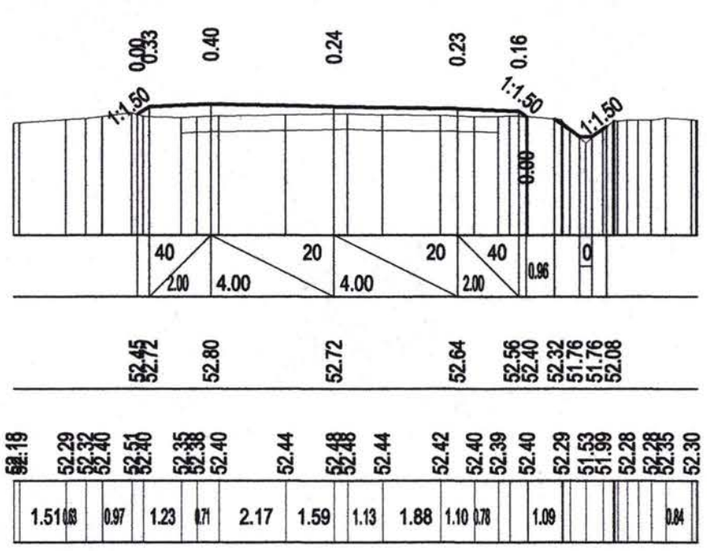
Km 101+000



Km 101+300



Km 101+600



Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente Amendments		Aprobat Approved	Data Date

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

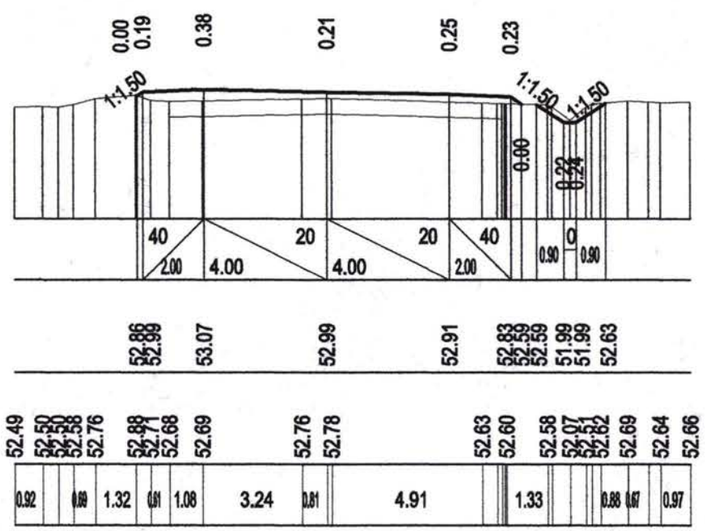
Drawing 6 - 5

Format A3

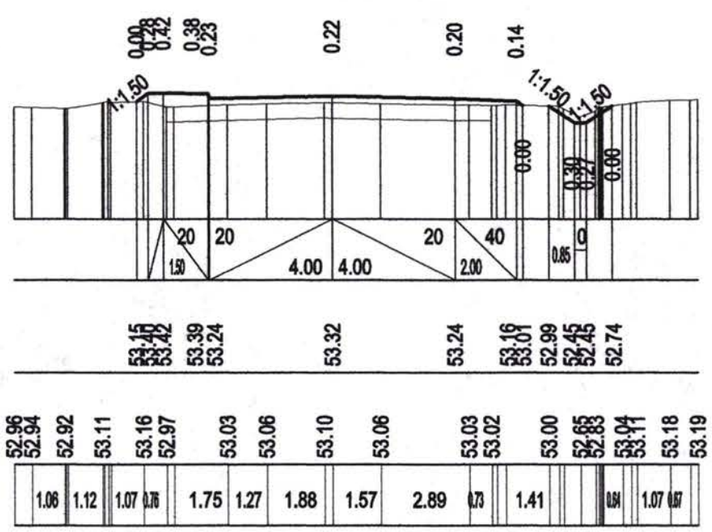
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

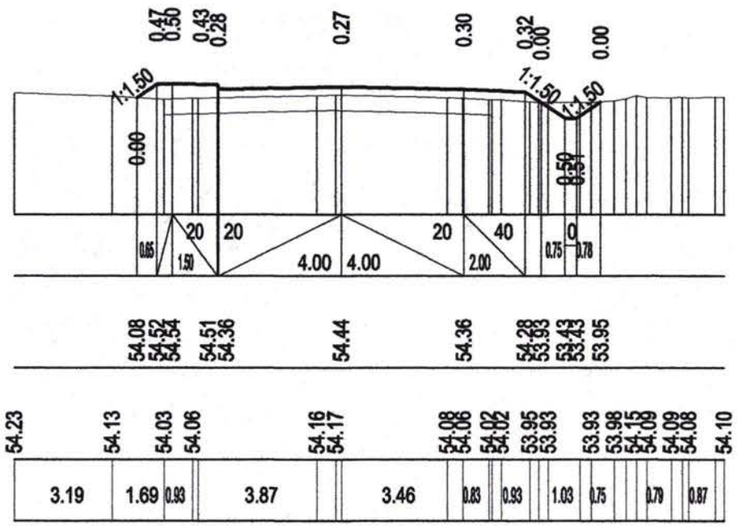
Km 101+900



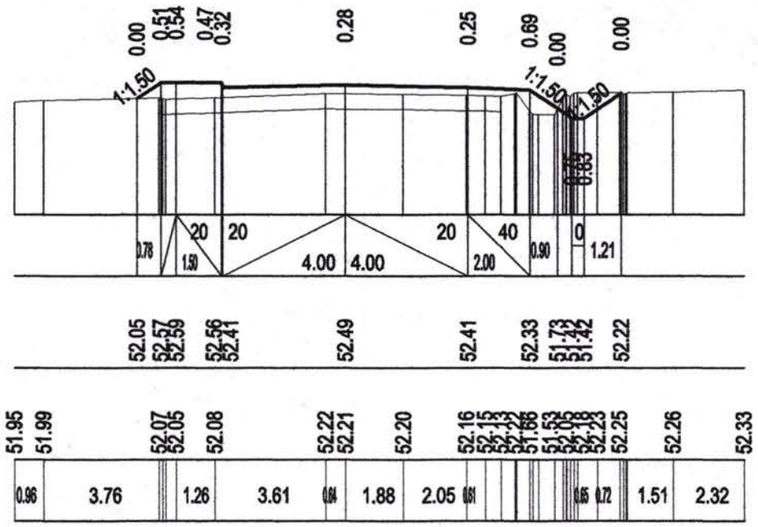
Km 102+000



Km 102+200



Km 102+500



Schimb Inv. Nr
Semnatura si data
Inv. Nr

Rev.	Amendamente Amendments	Aprobat: Approved:	Data Date

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

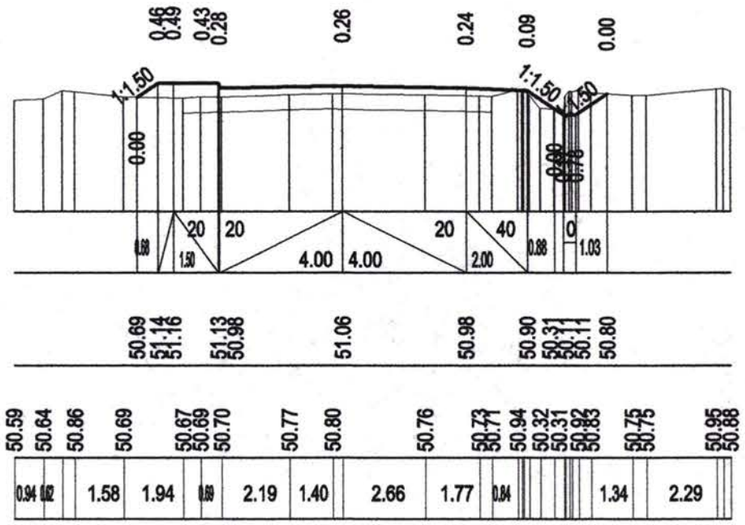
Cross sections
Profile transversale

Drawing 6 - 6

Format A3

Km 102+800

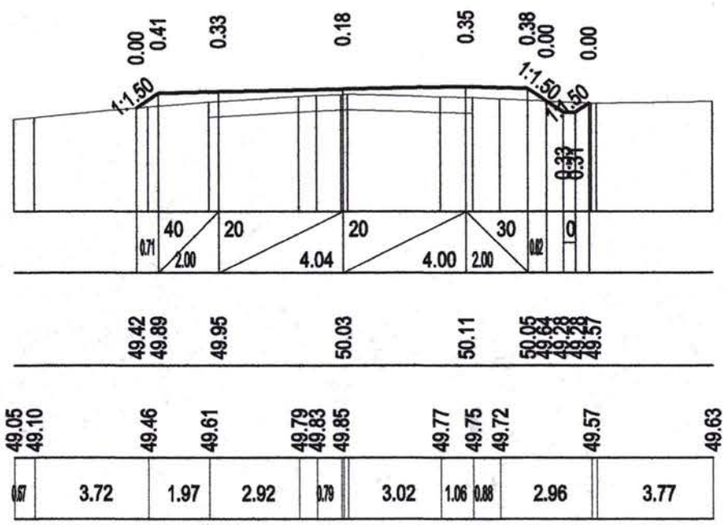
M 1:200 - по вертикали
M 1:200 - по горизонтали



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

50.69	51.14	51.16	51.13	50.98	51.06	50.98	50.90	50.31	50.11	50.80													
50.59	50.64	50.86	50.69	50.67	50.69	50.70	50.77	50.80	50.76	50.73	50.71	50.94	50.32	50.31	50.92	50.83	50.75	50.75	50.95	50.88			
0.94	0.62	1.58	1.94	0.69	2.19	1.40	2.66	1.77	0.84	1.34	2.29												

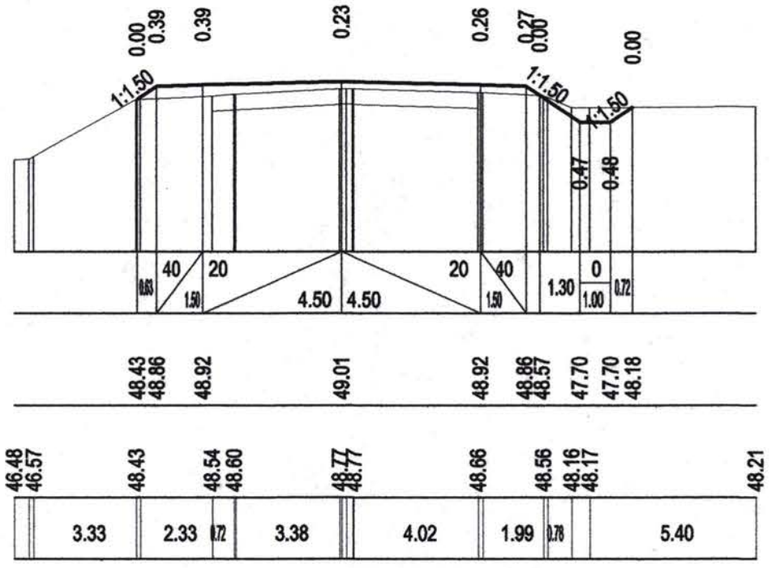
Km 103+100



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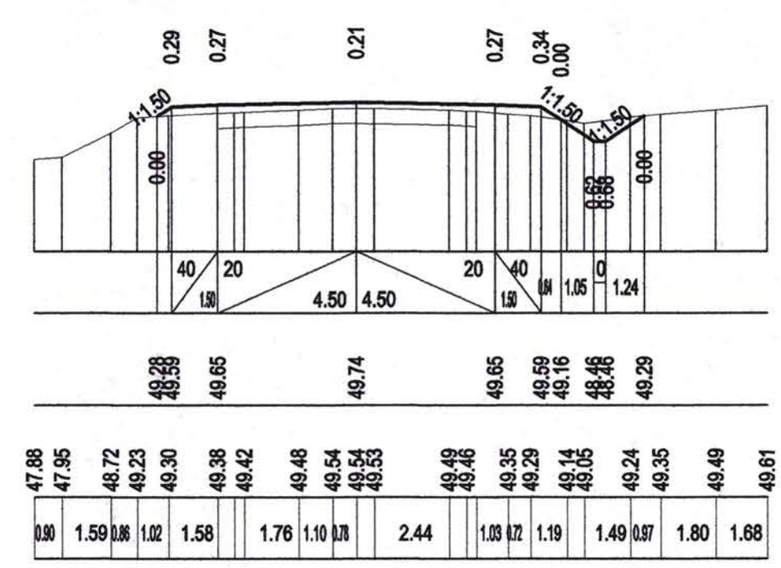
Km 103+500

M 1:200 - по вертикали
M 1:200 - по горизонтали



48.43	48.86	48.92	49.01	48.92	48.86	48.57	47.70	47.70	48.18														
46.48	46.57	48.43	48.54	48.60	48.77	48.77	48.66	48.56	48.16	48.17	48.21												
3.33	2.33	0.72	3.38	4.02	1.99	0.78	5.40																

Km 103+800



49.28	49.59	49.65	49.74	49.65	49.59	49.16	48.46	48.46	49.29														
47.88	47.95	48.72	49.23	49.30	49.38	49.42	49.48	49.54	49.54	49.53	49.49	49.46	49.35	49.29	49.14	49.05	49.24	49.35	49.49	49.61			
0.90	1.59	0.86	1.02	1.58	1.76	1.10	0.78	2.44	1.03	0.72	1.19	1.49	0.97	1.80	1.68								

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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Aprobat/Approved
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

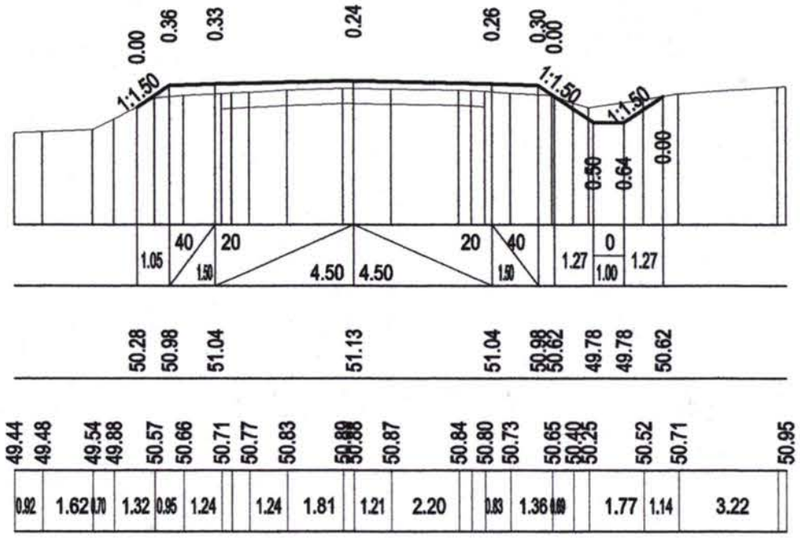
Drawing 6 - 7

Format A3

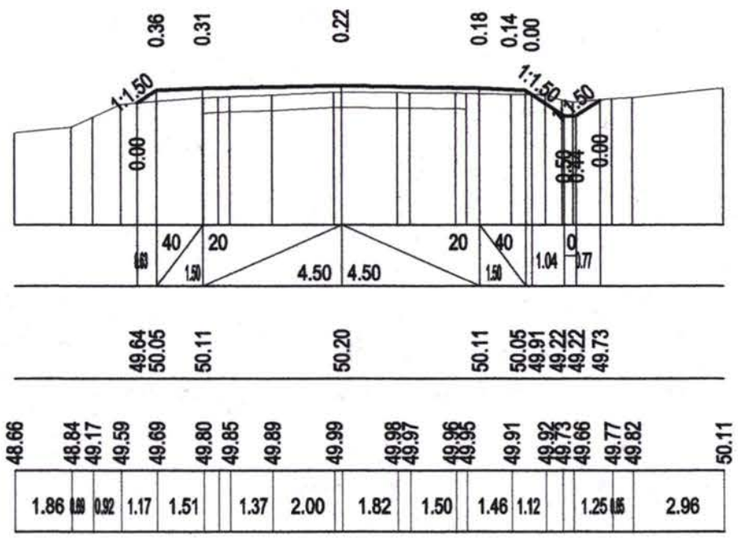
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

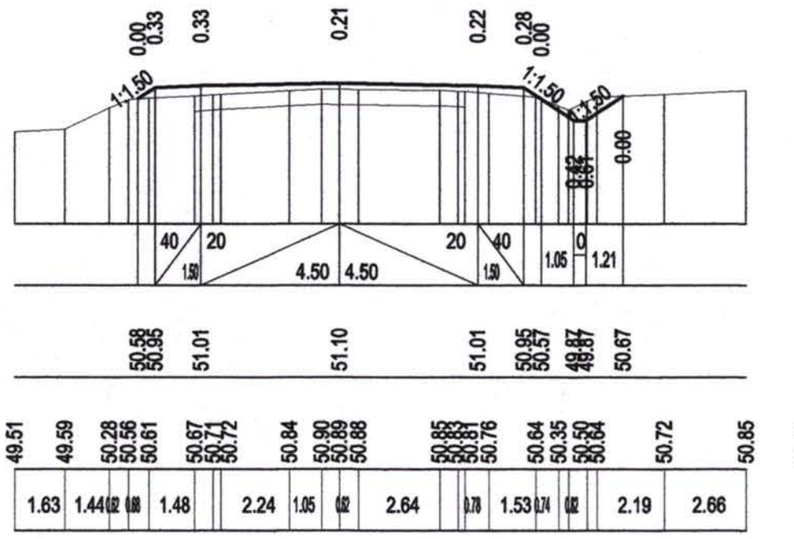
Km 104+100



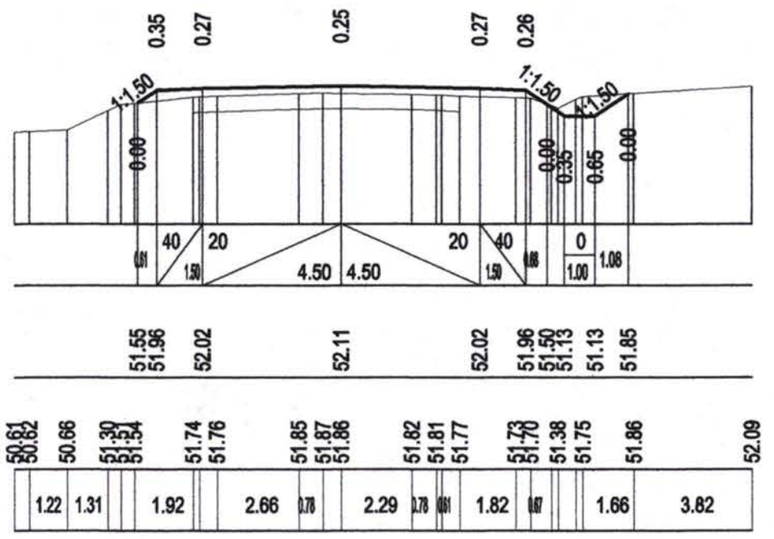
Km 104+400



Km 104+700



Km 105+000



Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de execu ție / Sector Comrat - R38

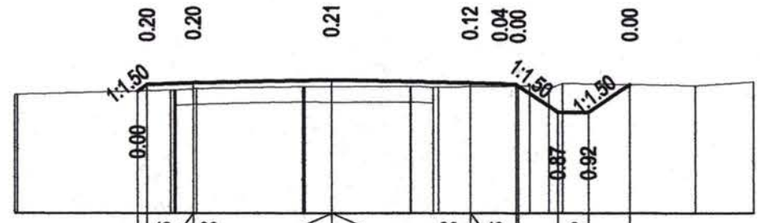
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 - 8

Format A3

Km 105+300



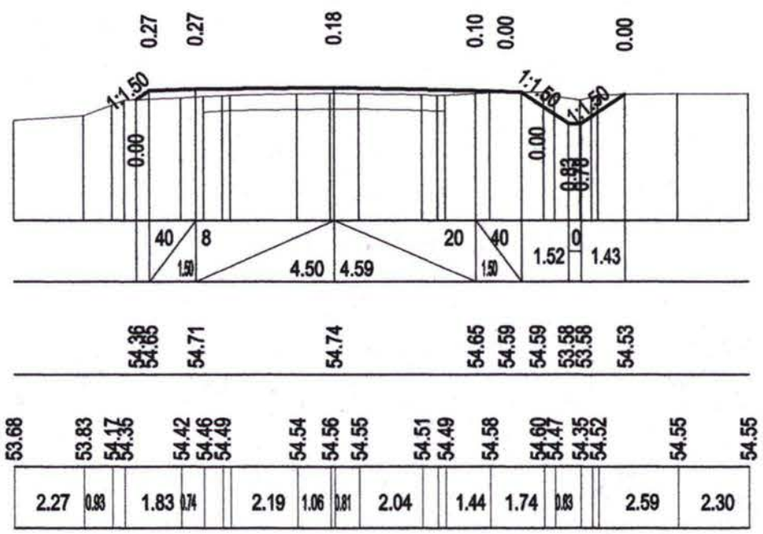
Design data Date proiect	
	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	
	Ground level, m Cota teren, m
	Distance, m Distanta, m

| | | |

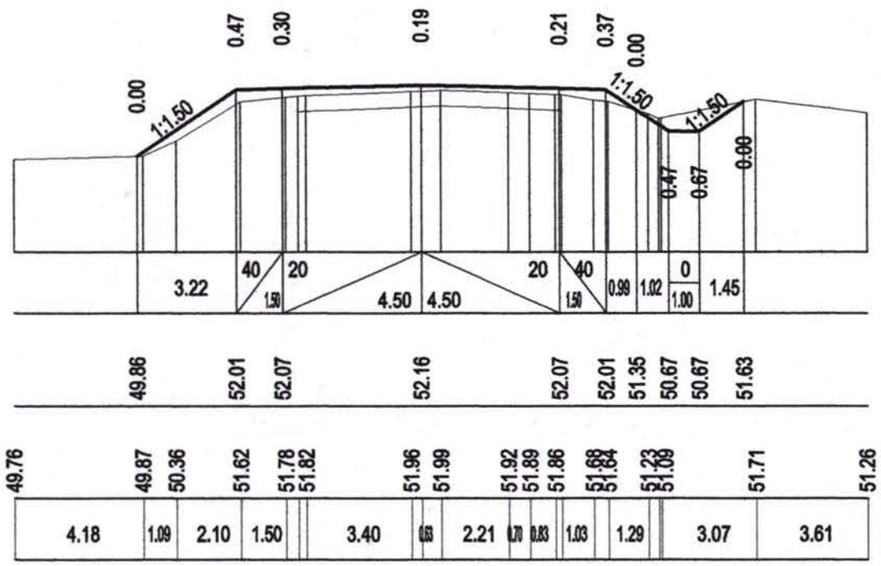
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Km 106+500



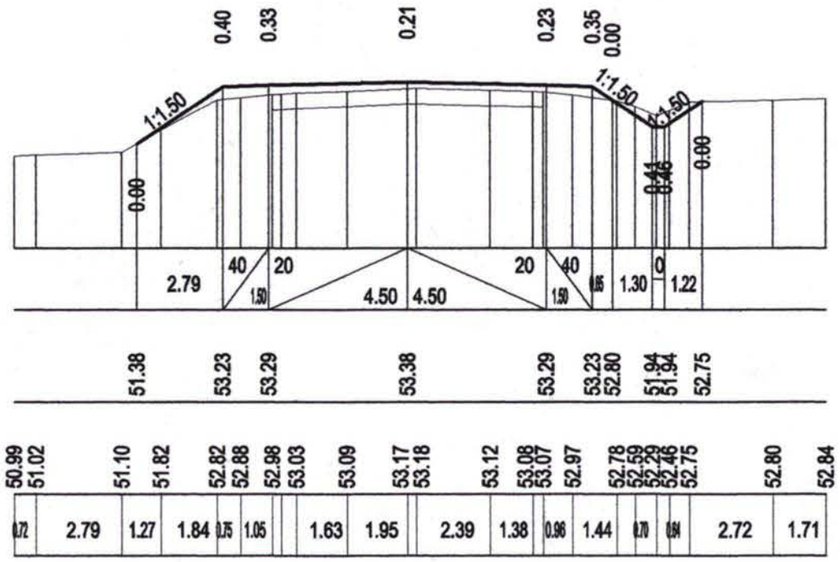
Km 106+800



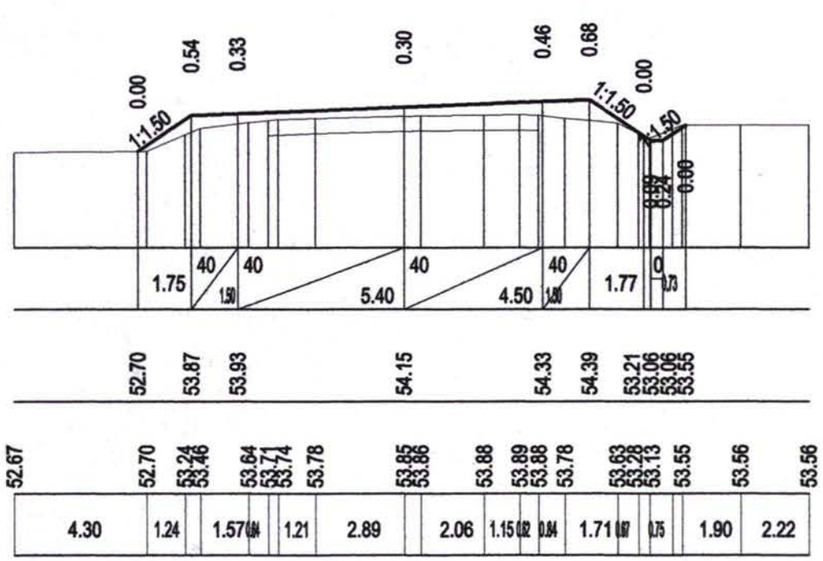
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Km 107+100



Km 107+400



Schimb Inv. Nr
Semnatura si data
Inv. Nr

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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de execu tje / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

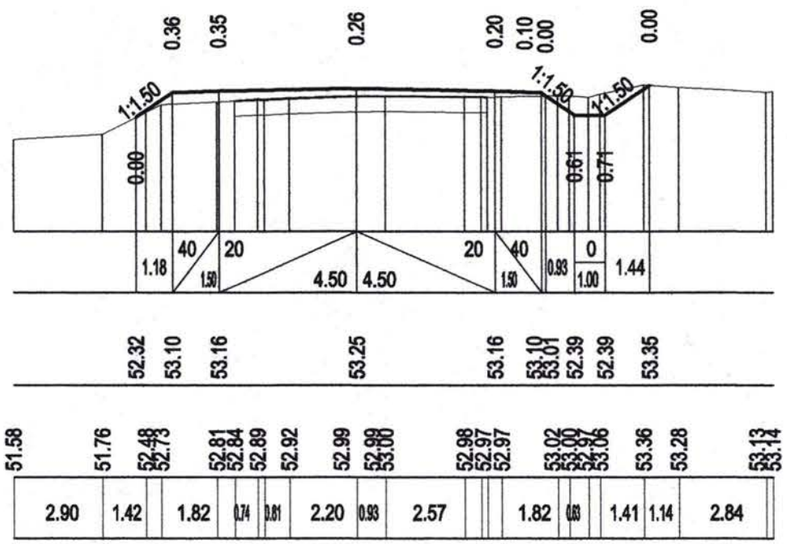
Drawing 6 - 10

Format A3

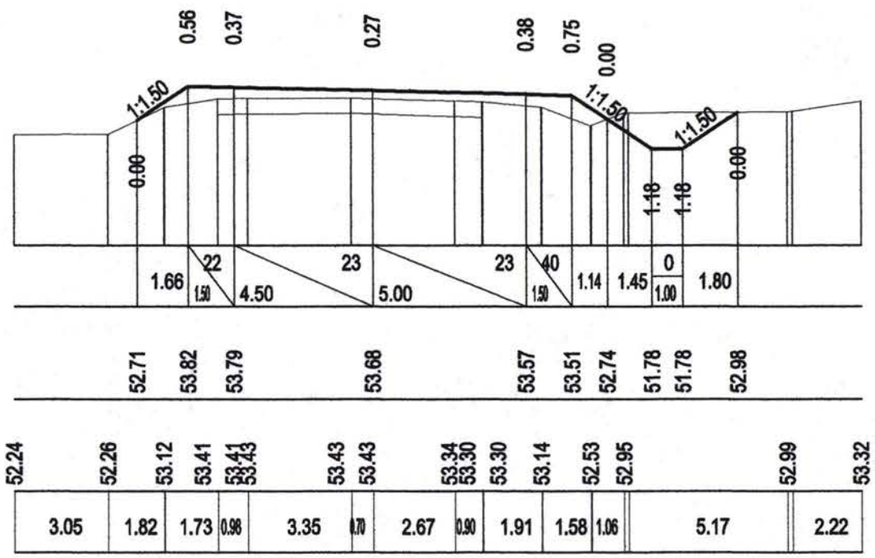
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m
	Cota in ax, m
Terrain data Date teren	Ground level, m
	Cota teren, m
	Distance, m
	Distanta, m

Km 107+700



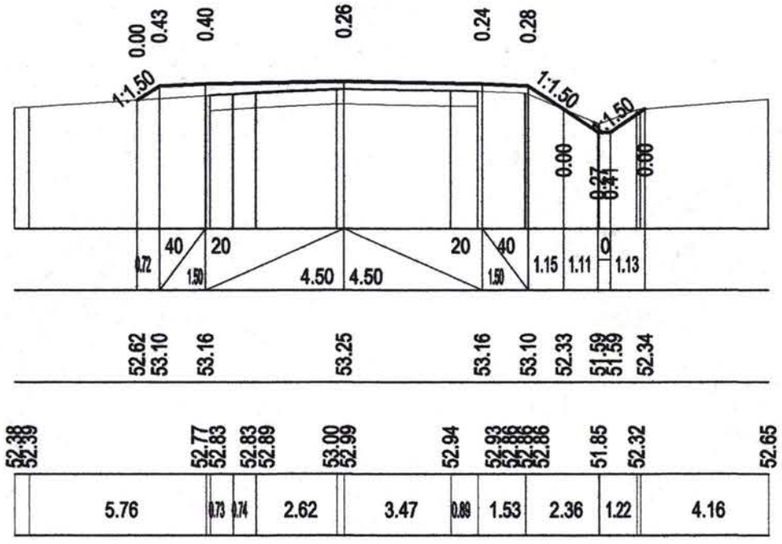
Km 108+000



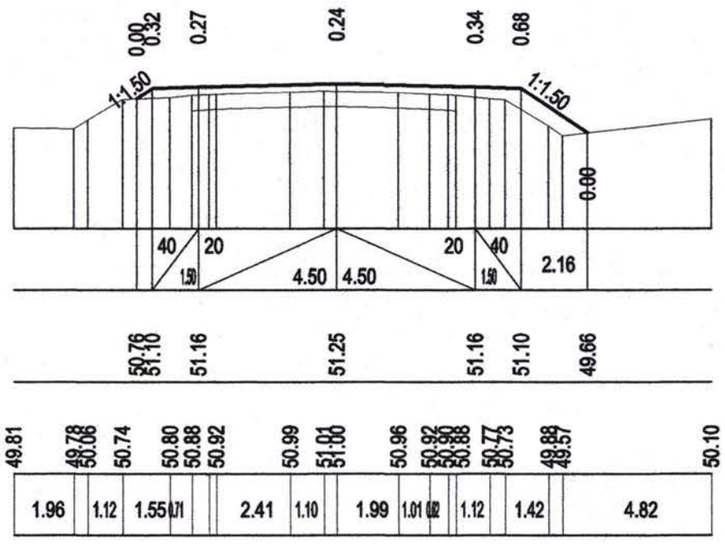
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m
	Cota in ax, m
Terrain data Date teren	Ground level, m
	Cota teren, m
	Distance, m
	Distanta, m

Km 1083+29.25



Km 108+600



Schimb Inv. Nr
Semnatura si data
Inv. Nr

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Chisinau MD 2043, Moldova

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Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

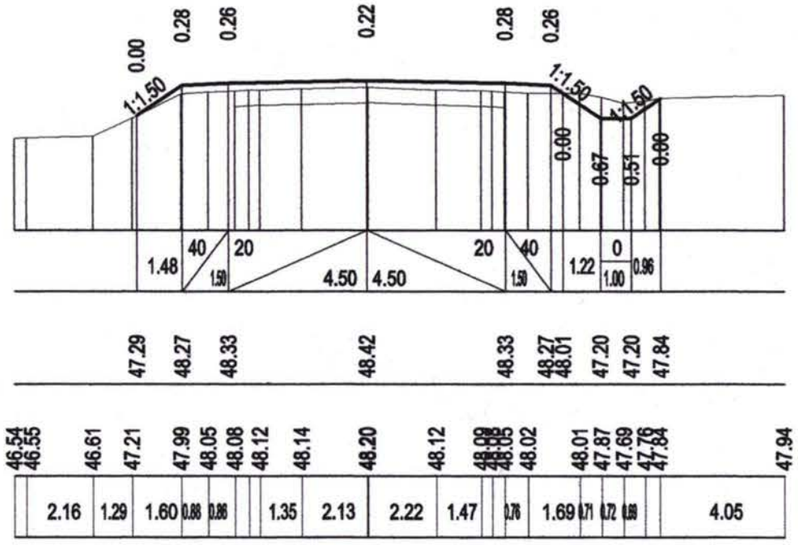
Drawing 6 - 11

Format A3

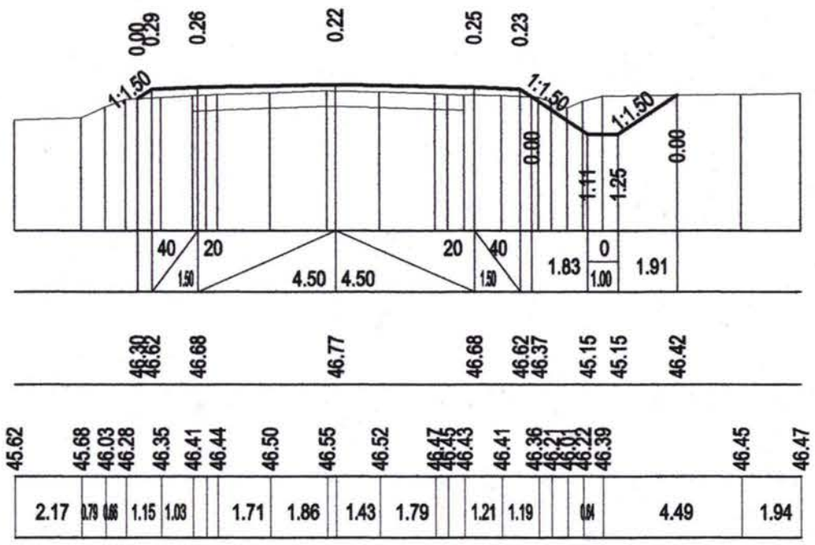
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m
	Cota in ax, m
Terrain data Date teren	Ground level, m
	Cota teren, m
	Distance, m Distanta, m

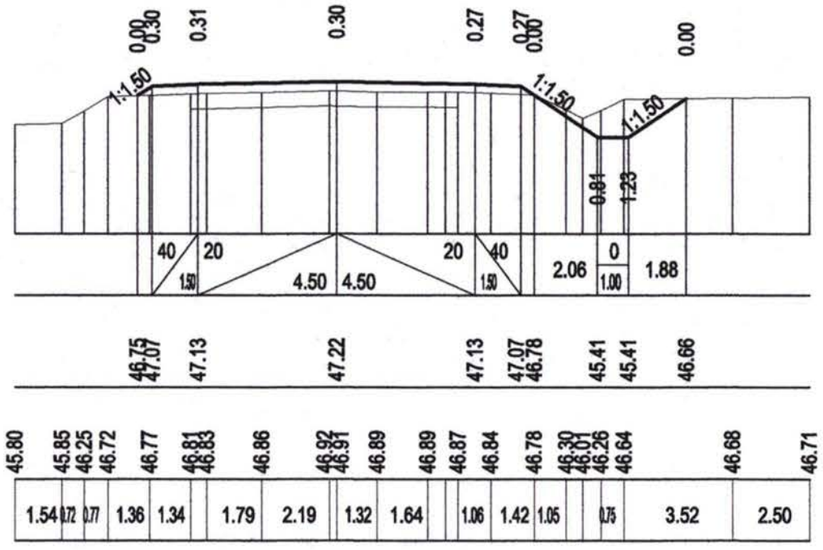
Km 108+900



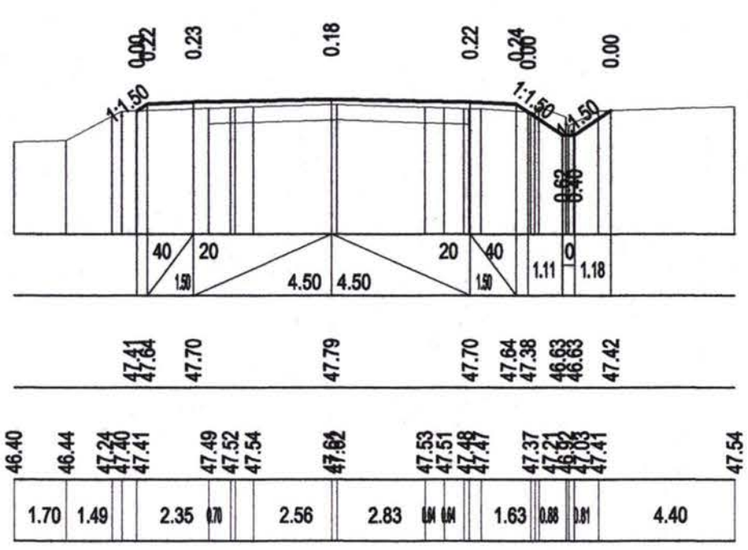
Km 109+200



Km 109+500



Km 109+800



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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

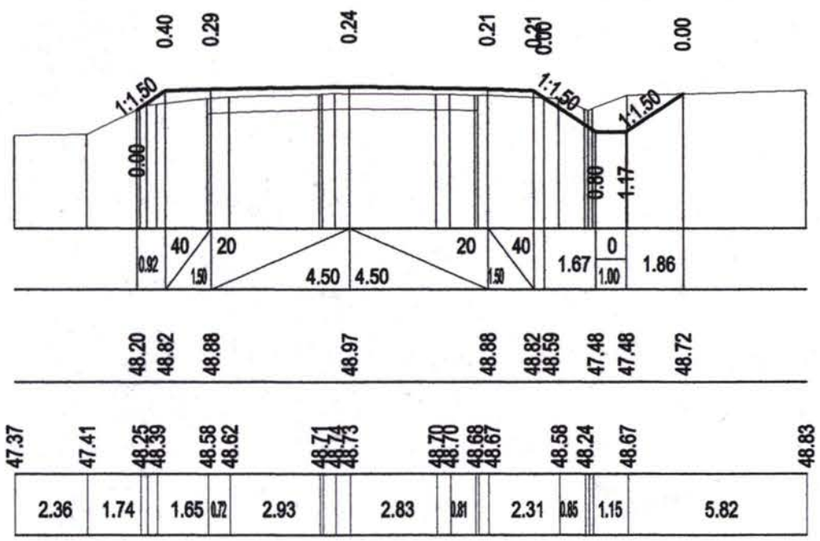
Drawing 6 - 12

Format A3

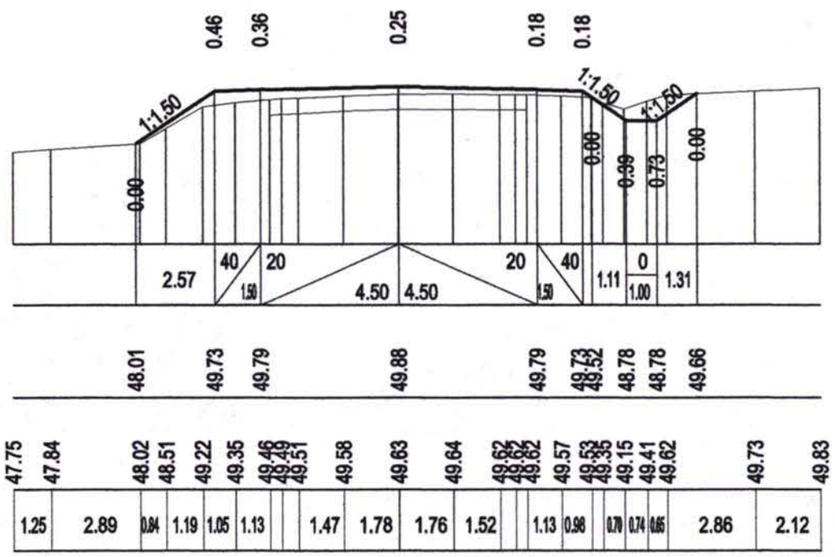
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

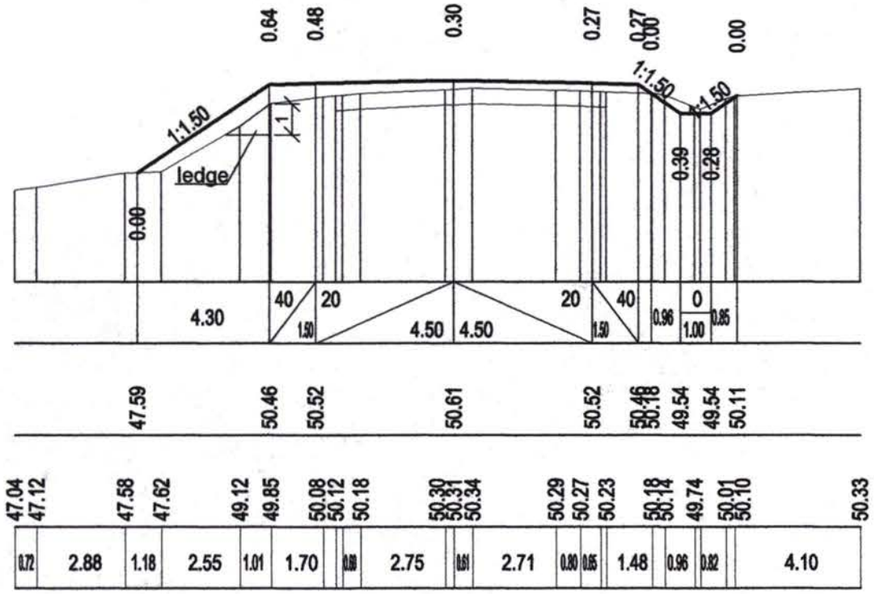
Km 110+100



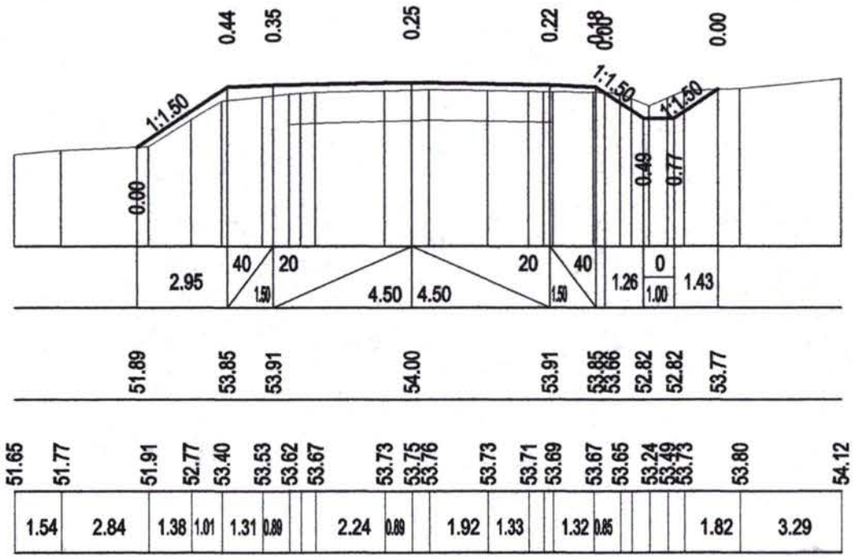
Km 110+400



Km 110+700



Km 111+000



Schimb Inv. Nr

Semnatura si data

Inv. Nr

Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

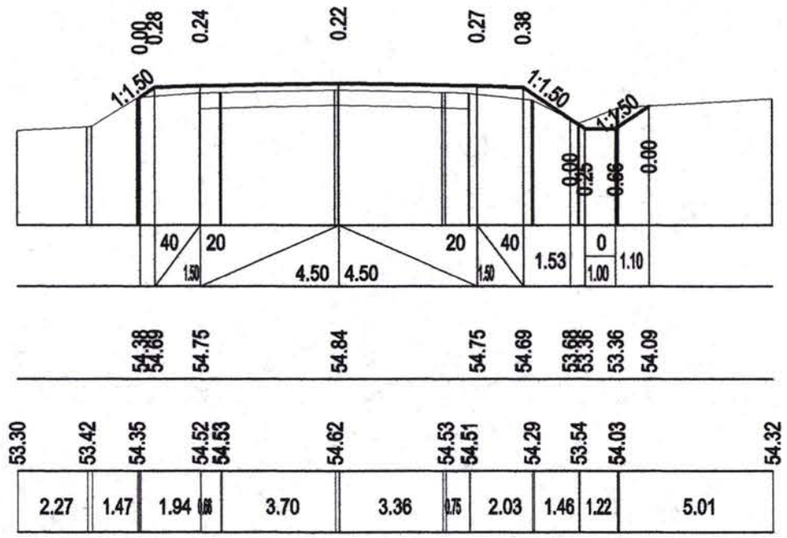
Drawing 6 - 13

Format A3

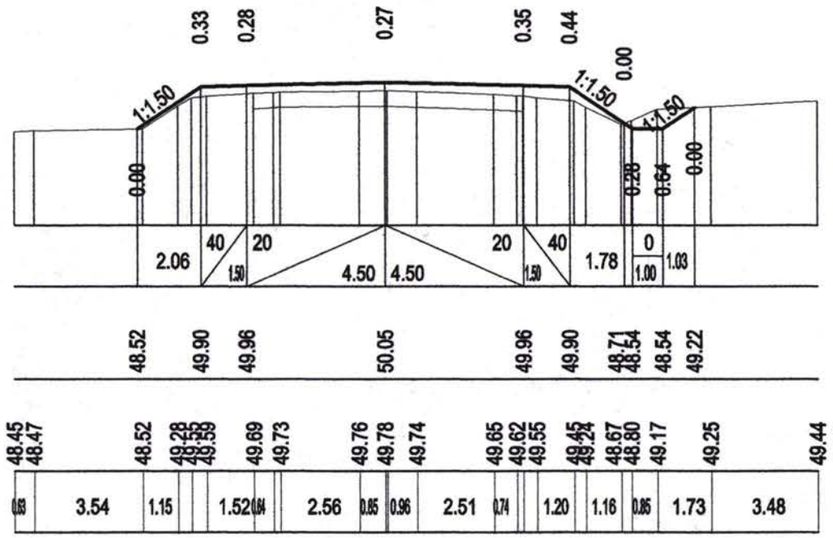
M 1:200 - по вертикали
M 1:200 - по горизонтали

Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

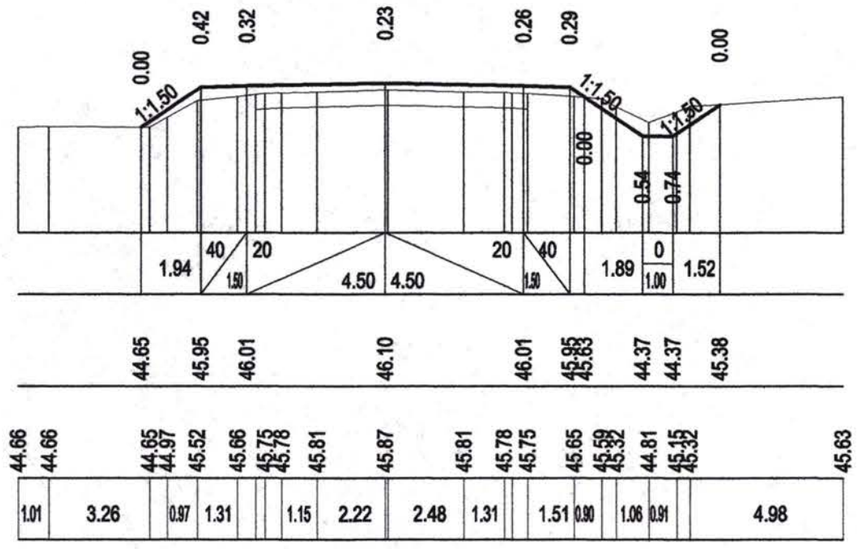
Km 111+300



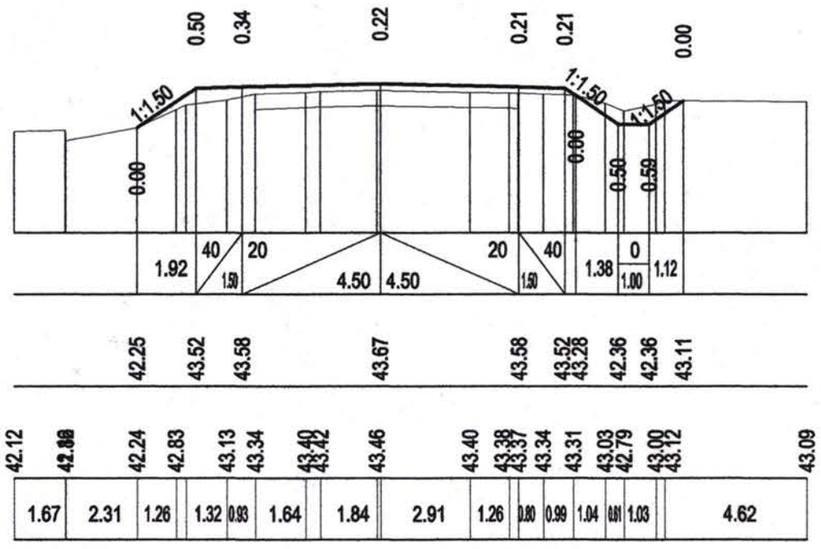
Km 111+600



Km 111+900



Km 112+200



Schimb Inv. Nr
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Inv. Nr

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Proiectat/Designed: Lvovski I
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EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

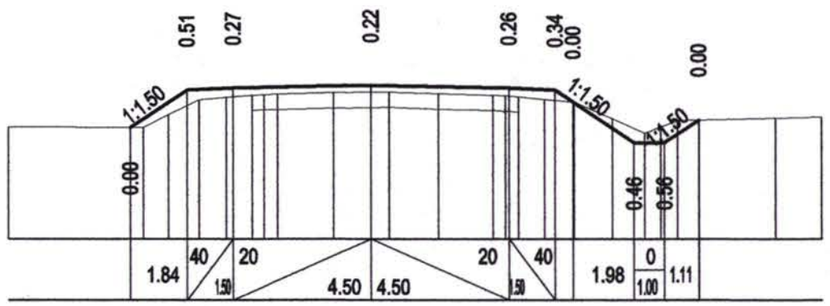
Cross sections
Profile transversale

Drawing 6 - 14

Format A3

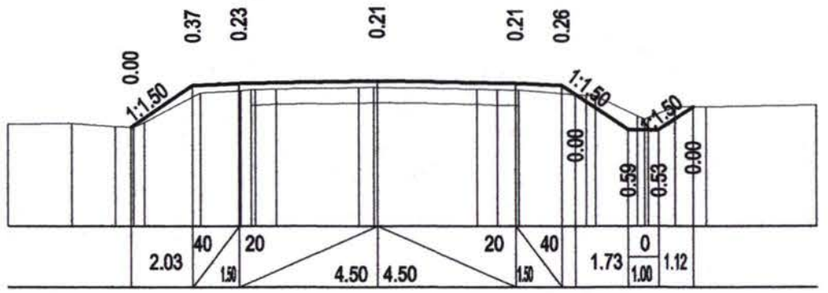
Km 112+500

M 1:200 - по вертикали
M 1:200 - по горизонтали



		39.65	40.87	40.93	41.02	40.93	40.87 40.48	39.16	39.16	39.90
Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m									
	Finished carriageway level, m Cota in ax, m									
Terrain data Date teren	Ground level, m Cota teren, m	39.67	39.65 40.07	40.55 40.64 40.71 40.74	40.78	40.80 40.81	40.75	40.70 40.68 40.66 40.57	40.48	39.94	39.46 39.66 39.88	39.96	40.00
	Distance, m Distanta, m		4.42	0.82 0.99 0.88 0.84	1.82	1.22	1.61	1.78	0.85 0.96	1.25	1.05	3.20	1.49

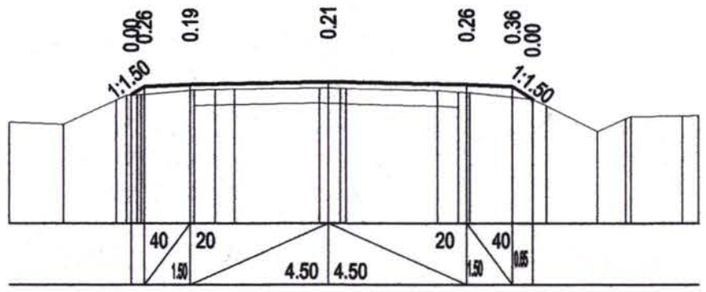
Km 112+800



		38.19	39.55	39.61	39.70	39.61	39.55 39.25	38.10	38.10	38.85
Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m									
	Finished carriageway level, m Cota in ax, m									
Terrain data Date teren	Ground level, m Cota teren, m	38.29	38.31	38.21 38.19 38.34	39.30	39.38 39.41 39.43	39.48 39.49	39.43 39.41 39.40	39.23 39.21	38.55	38.85	38.85	38.90
	Distance, m Distanta, m		2.08	1.42	1.83	1.31	0.68 2.69	3.25	0.67	2.18	1.38	0.88 1.01	3.58

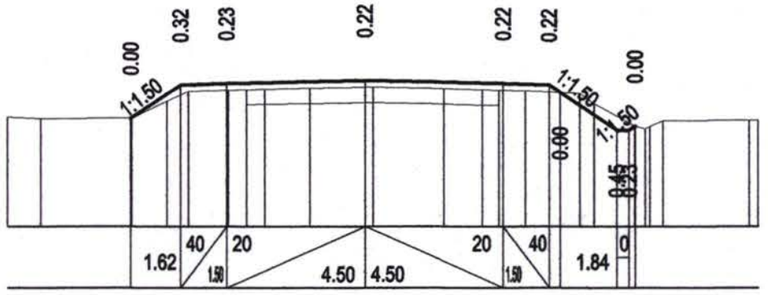
Km 113+100

M 1:200 - по вертикали
M 1:200 - по горизонтали



		39.27 39.55	39.61	39.70	39.61	39.55 39.12
Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m					
	Finished carriageway level, m Cota in ax, m					
Terrain data Date teren	Ground level, m Cota teren, m	38.38	38.31	39.11 39.28	39.42 39.45 39.46	39.50	39.47	39.41 39.37 39.34	39.12 38.91	38.08	38.49	38.58 38.59
	Distance, m Distanta, m		1.78	1.73	1.73	0.69 0.63	2.77	2.97	0.69	2.05	1.68	0.91	1.68

Km 113+400



		38.17	39.25	39.31	39.40	39.31	39.25 39.00	37.78 37.79 37.91
Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m							
	Finished carriageway level, m Cota in ax, m							
Terrain data Date teren	Ground level, m Cota teren, m	38.20	38.15	38.17	38.72 39.04	39.07 39.10 39.12	39.14	39.17 39.18	39.13	39.10 39.09	39.06	38.88 38.85	37.92	38.07	38.10
	Distance, m Distanta, m		1.08	2.95	1.14	0.70 1.30	1.47	1.79	2.30	1.25	0.88 1.77	1.32	2.81

Schimb Inv. Nr
Semnatura si data
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
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Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

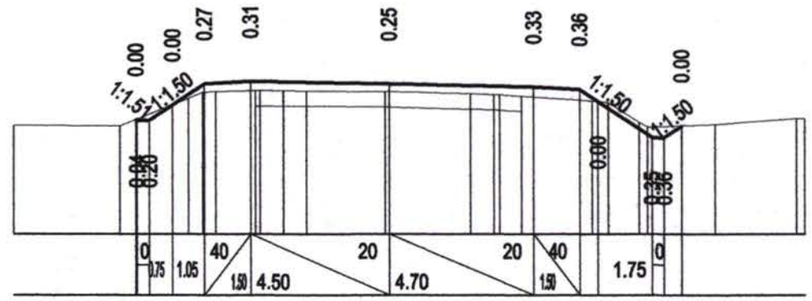
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

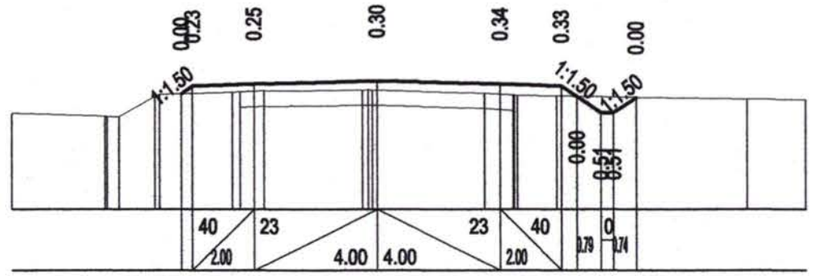
Drawing 6 - 15

Format A3

Км 113+700

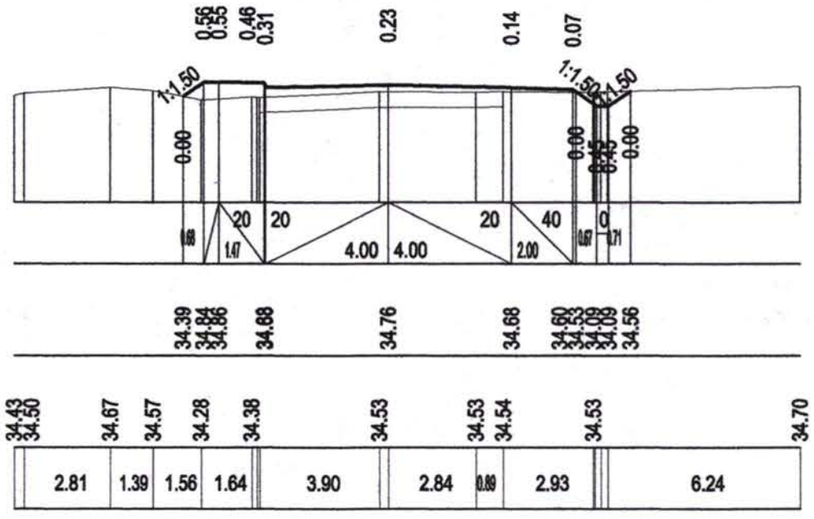


Km 114+000

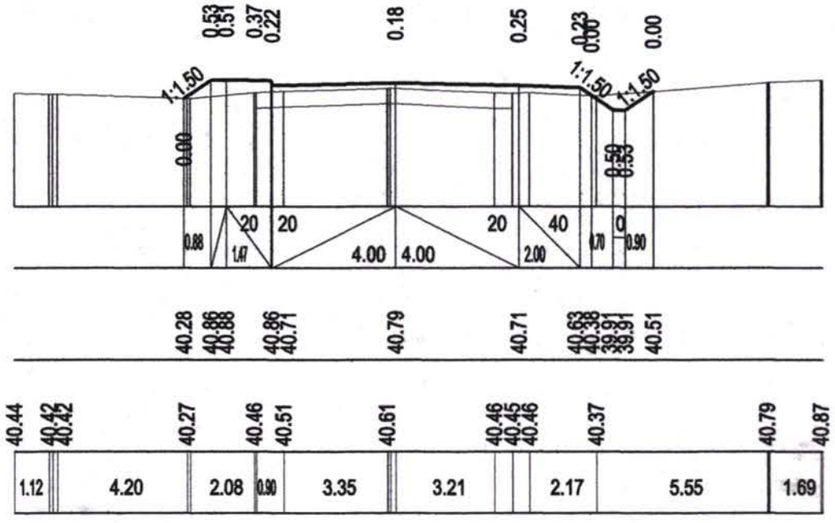


Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Km 1143+43.34



Km 114+600



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente Amendments		Aprobat Approved	Data Date
Rev.				

Consultantii/Consultants:

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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

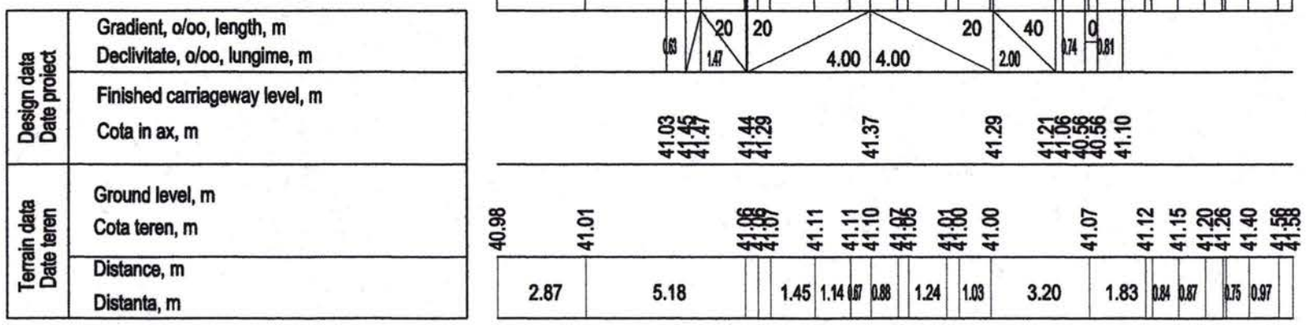
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

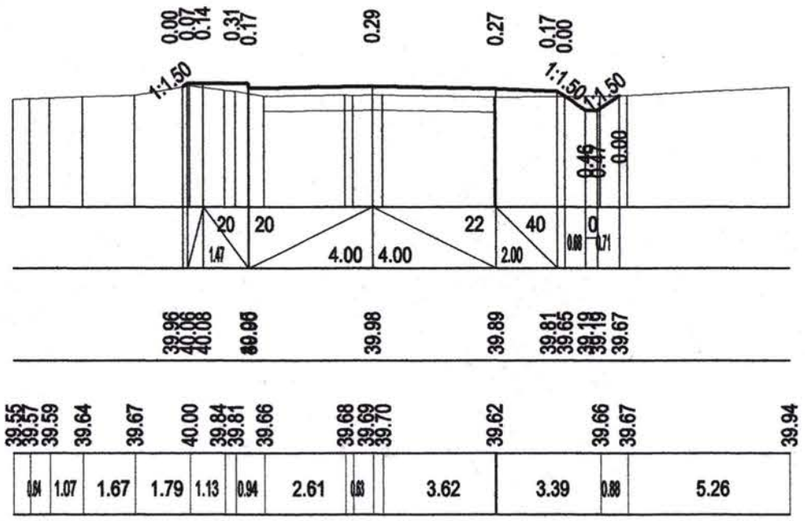
Drawing 6 - 16

Format A3

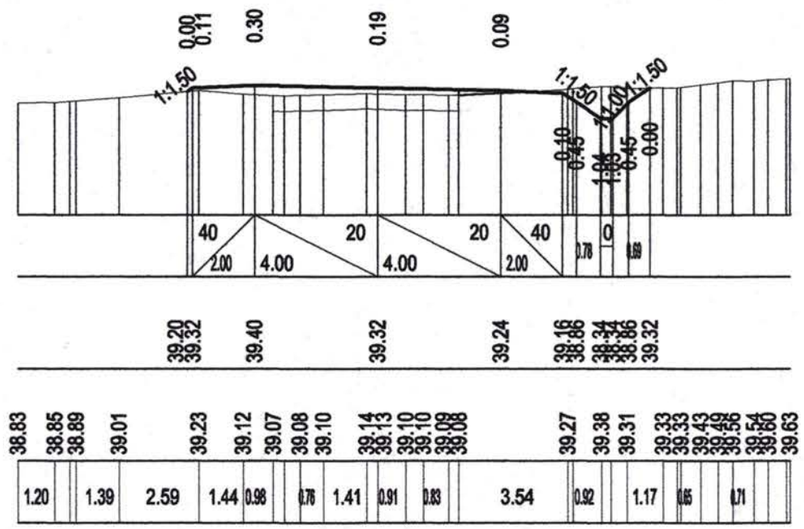
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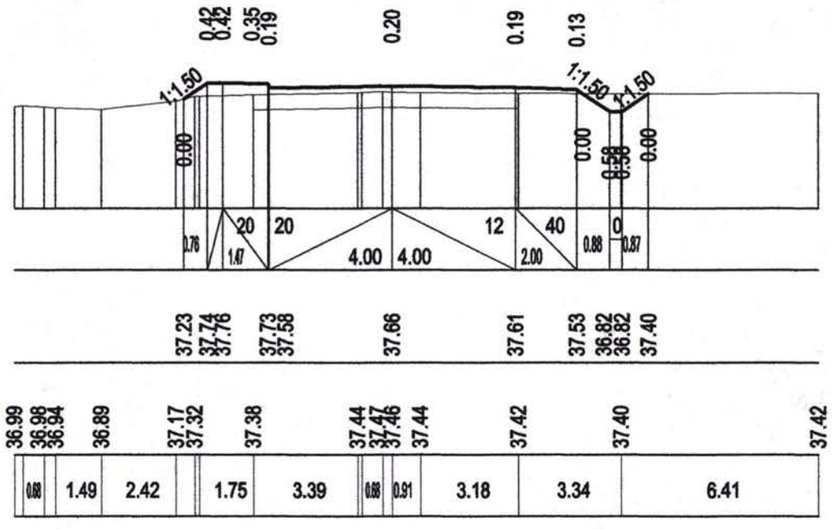
Km 115+200



Km 115+500



Km 115+800



Schimb Inv. Nr

Semnatura si data

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Republic of Moldova
Ministry of Transport

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Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

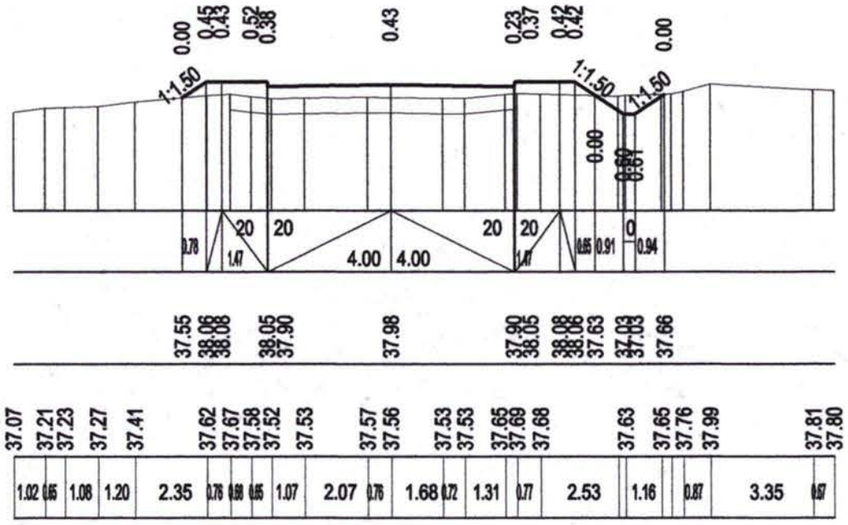
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

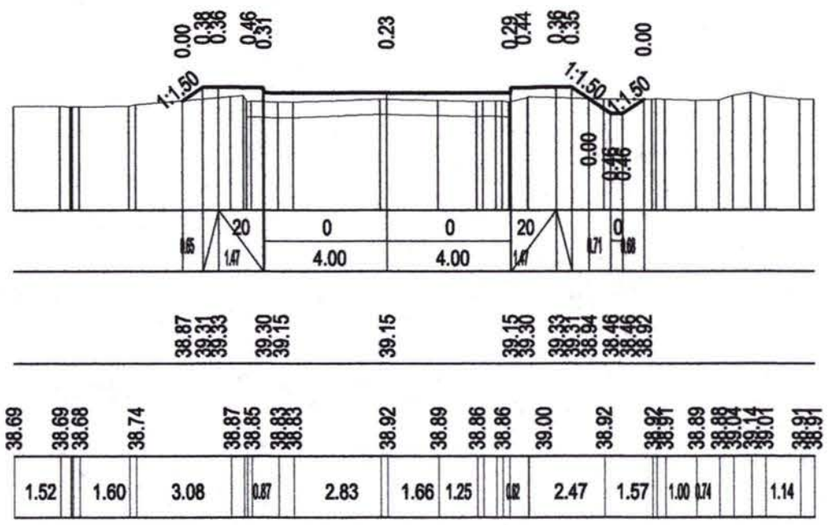
Drawing 6 - 17

Format A3

Km 116+100

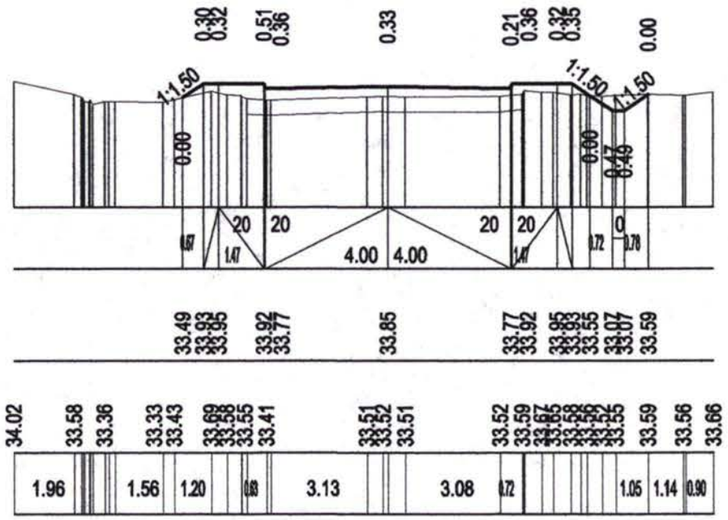


Km 116+400

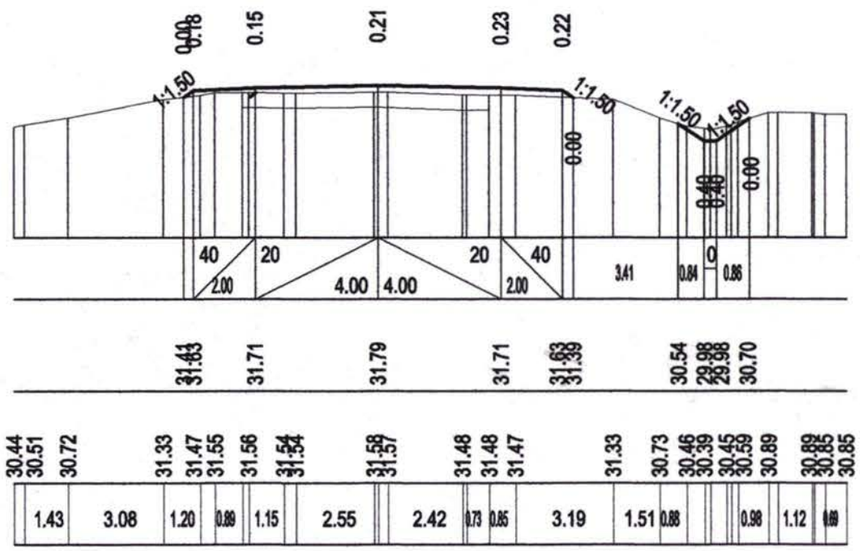


Terrain data Date teren	Design data Date proiect
Distance, m / Distanta, m	Gradient, o/oo, length, m / Declivitate, o/oo, lungime, m
Ground level, m / Cota teren, m	Finished carriageway level, m / Cota in ax, m

Km 116+700



Km 117+000



Terrain data Date teren	Design data Date proiect
Distance, m / Distanta, m	Gradient, o/oo, length, m / Declivitate, o/oo, lungime, m
Ground level, m / Cota teren, m	Finished carriageway level, m / Cota in ax, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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Republic of Moldova
Ministry of Transport

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Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

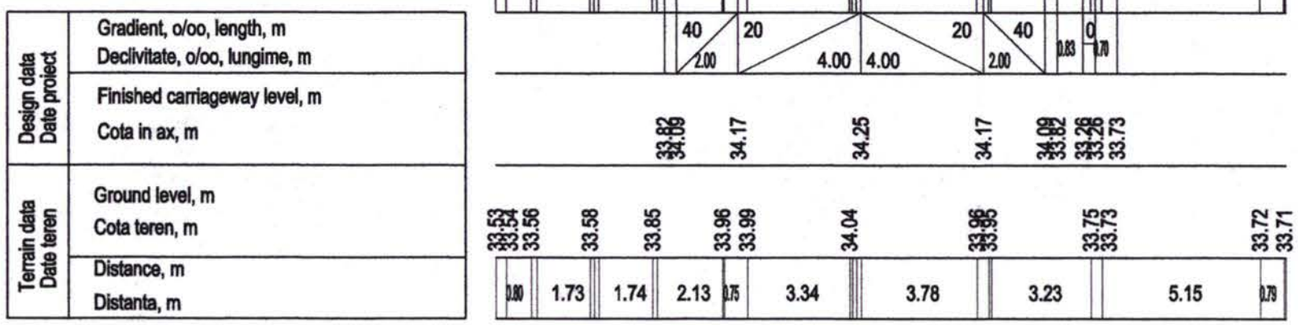
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

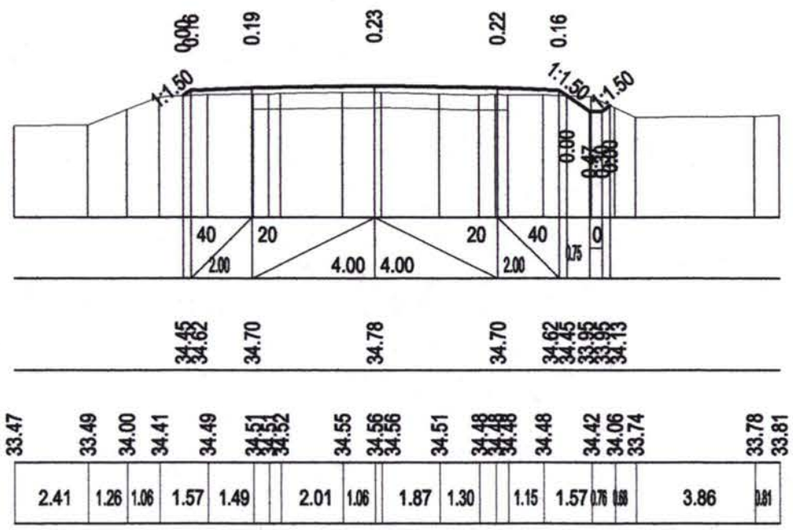
Drawing 6 - 18

Format A3

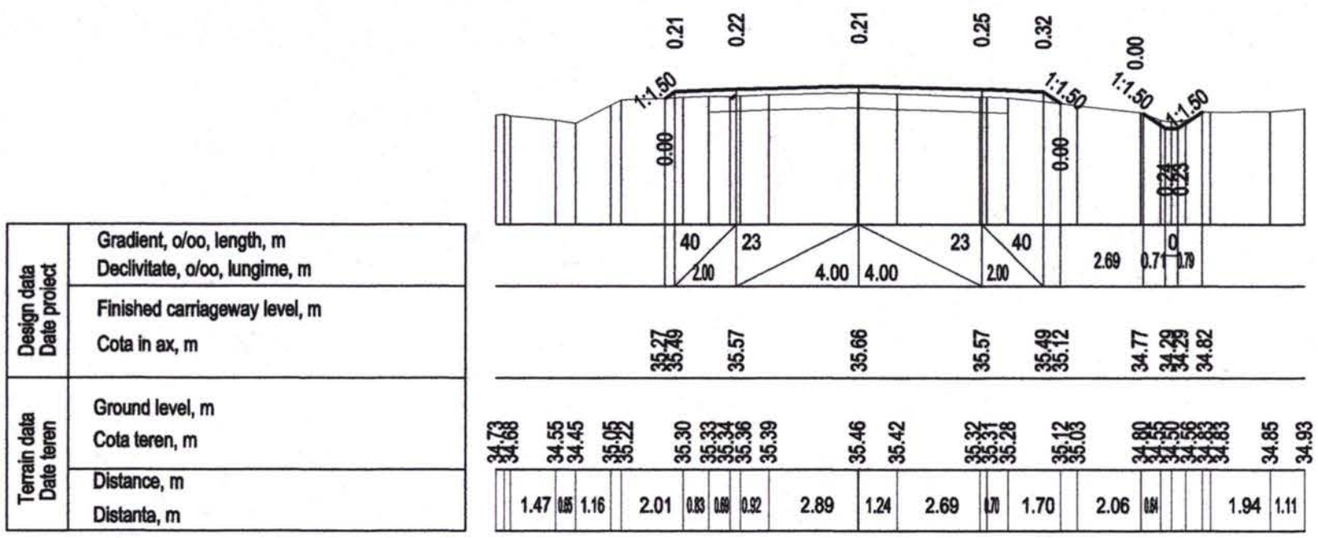
Km 117+330.11



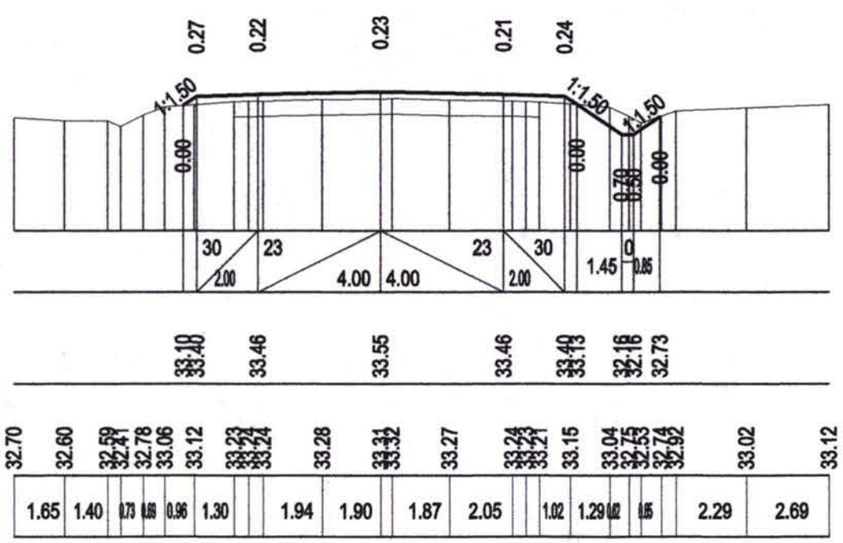
Km 117+600



Km 117+900



Km 118+200



Schimb Inv. Nr

Semnatura si data

Inv. Nr

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Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

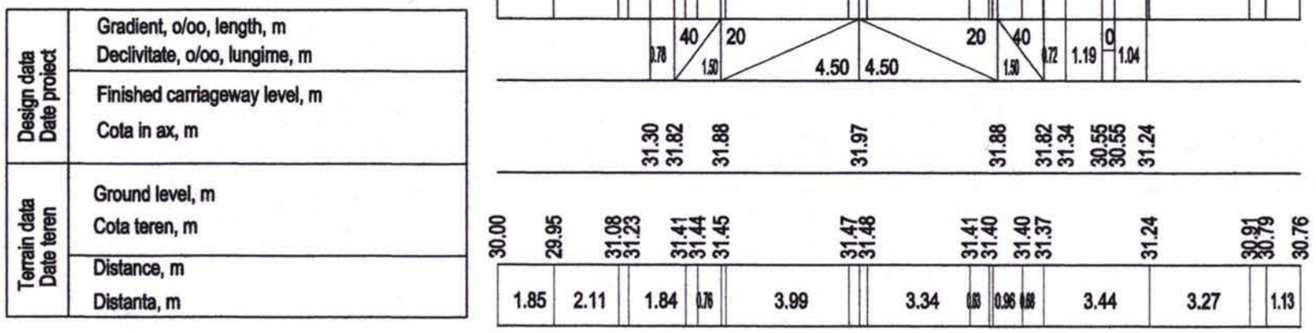
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

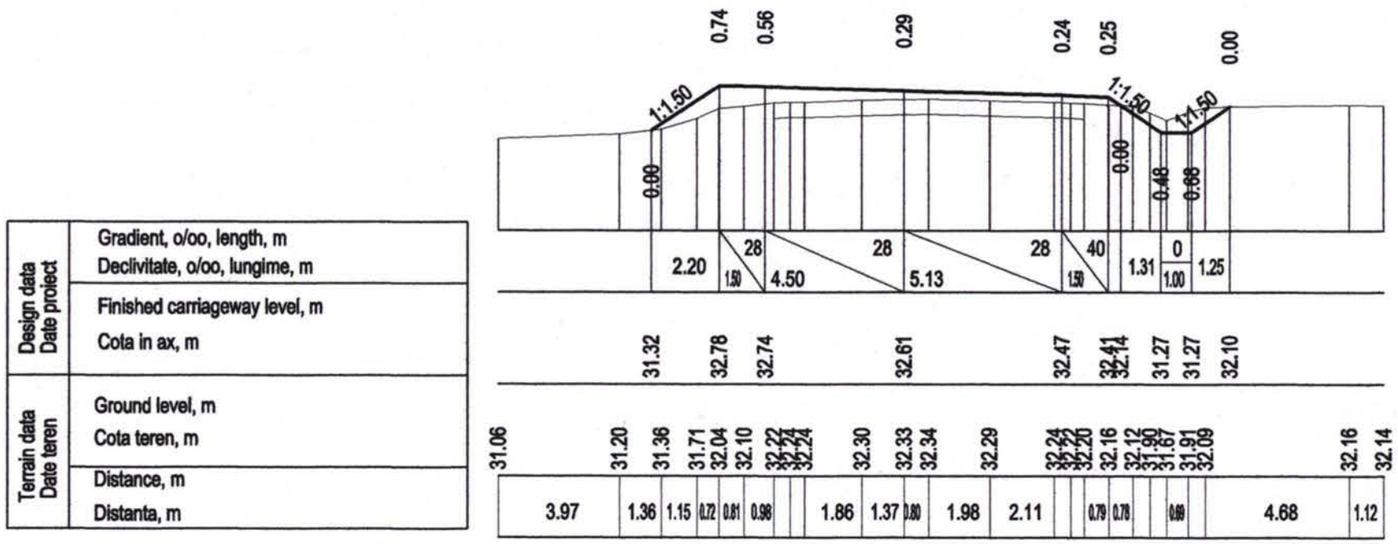
Drawing 6 - 19

Format A3

Пк 118+300



Пк 118+600



Schimb Inv. Nr

Semnatura si data

Inv. Nr

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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

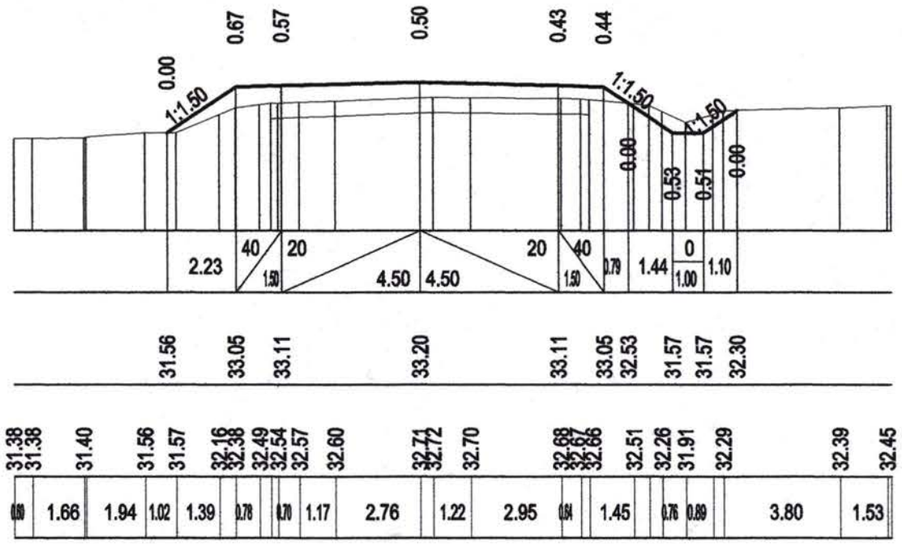
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

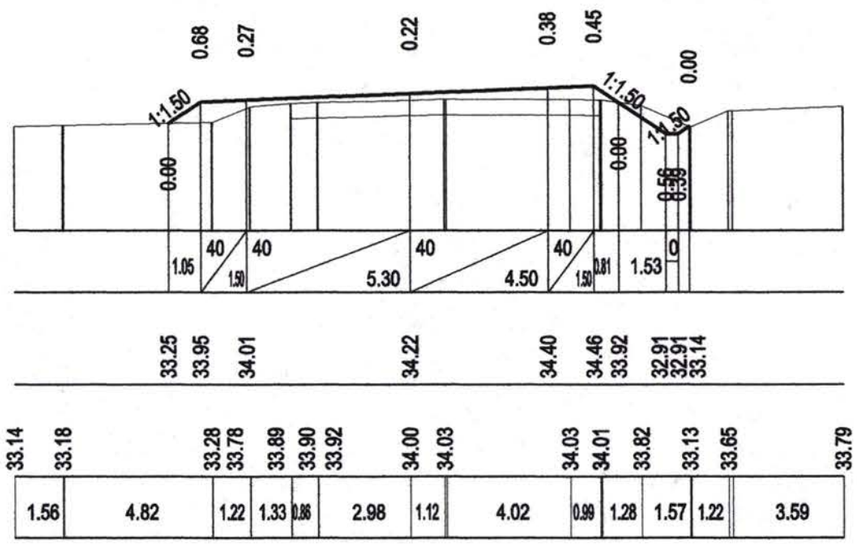
Drawing 6 - 20

Format A3

Пк 118+700

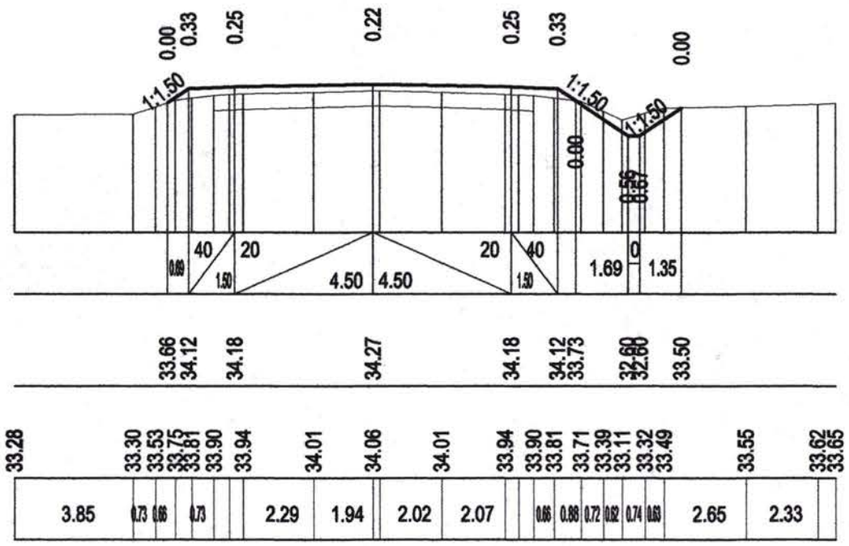


Пк 118+900

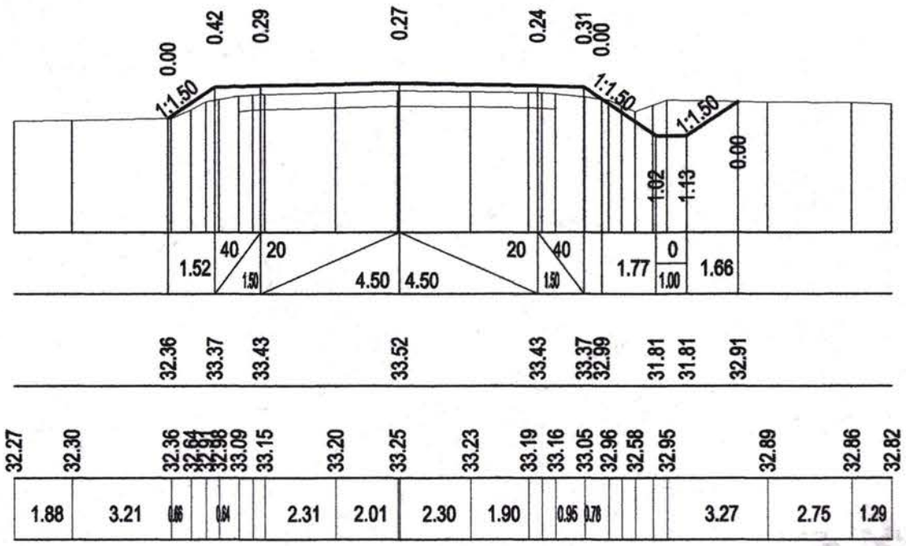


Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Пк 119+200



Пк 119+500



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente Amendments		Aprobat Approved:	Data Date
Rev.				

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

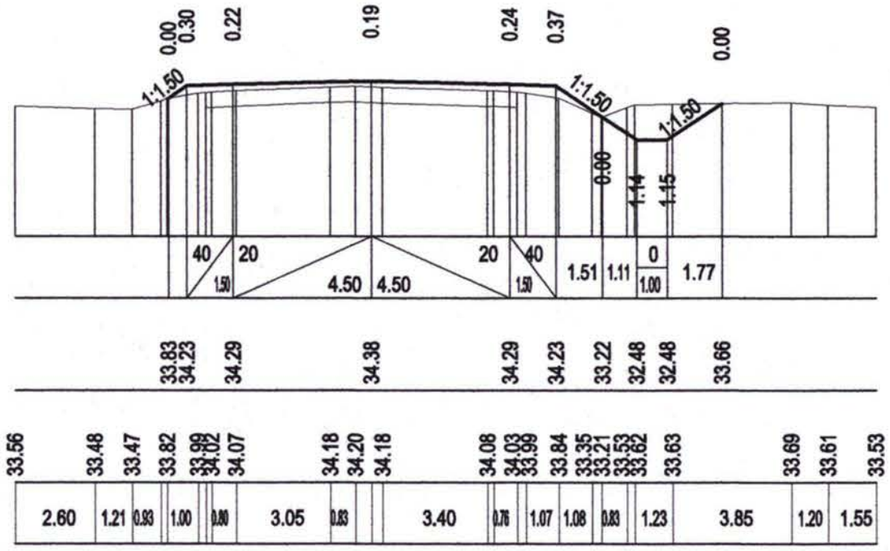
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

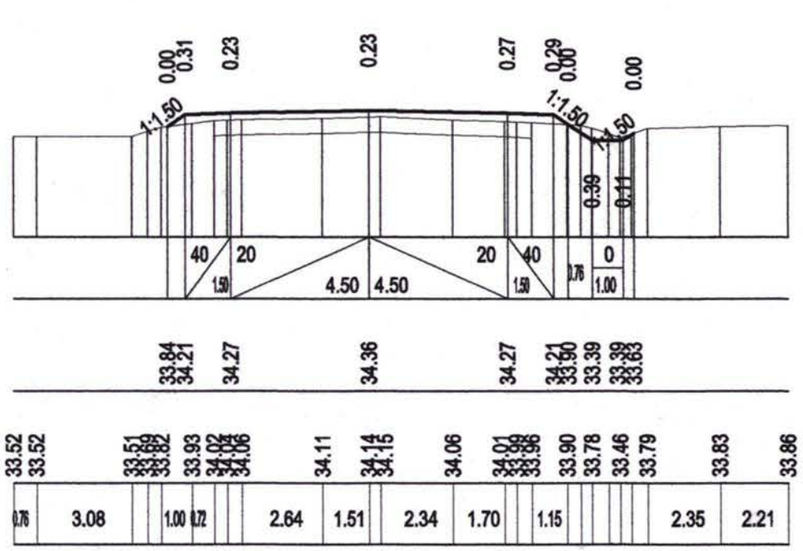
Drawing 6 - 21

Format A3

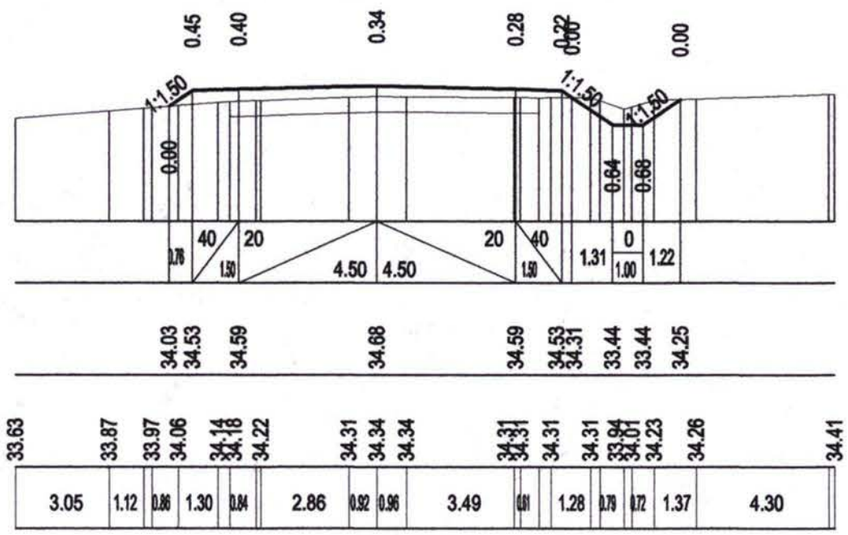
Пк 119+800



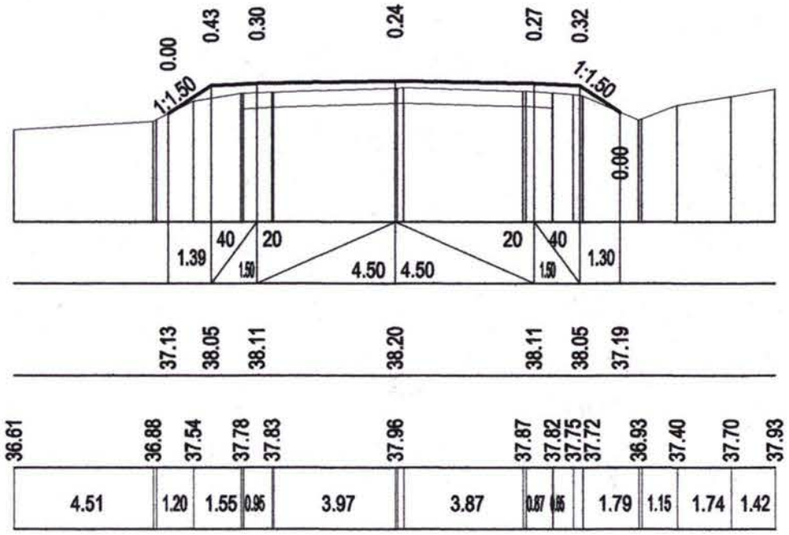
Пк 120+100



Пк 120+400



Пк 120+700



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

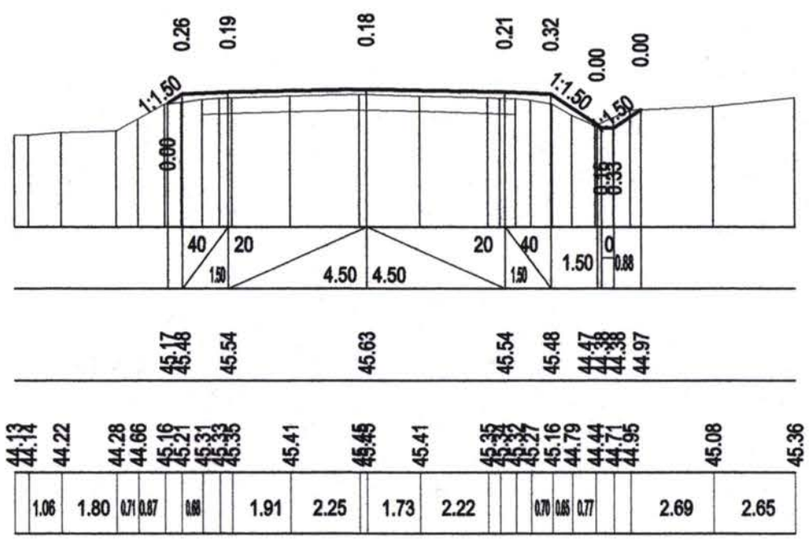
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
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Engineering Design Section Comrat - R38

Cross sections
Profile transversale

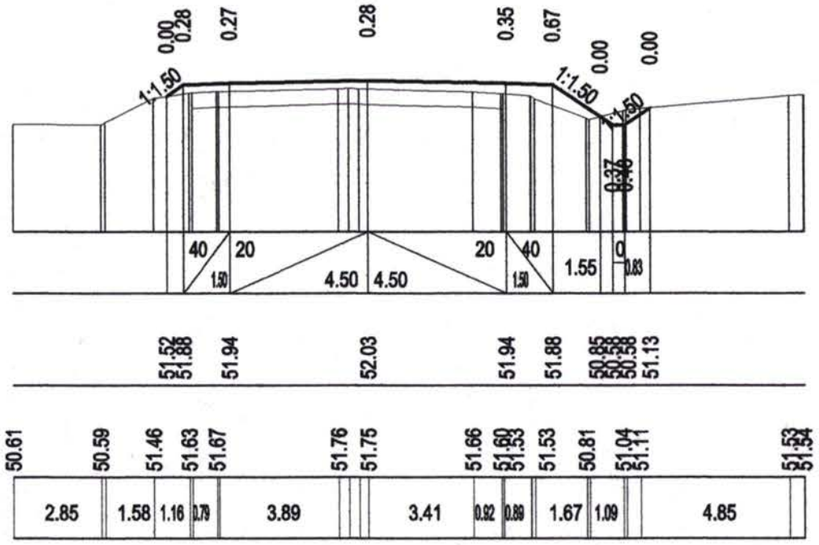
Drawing 6 - 22

Format A3

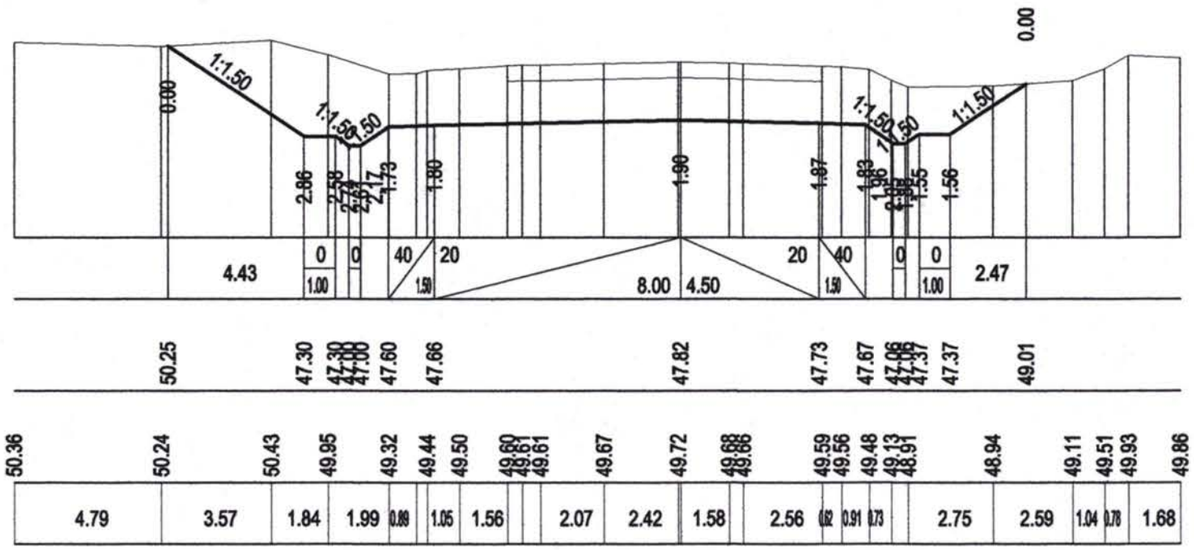
Пк 121+000



Пк 121+300



Пк 121+600



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

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Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

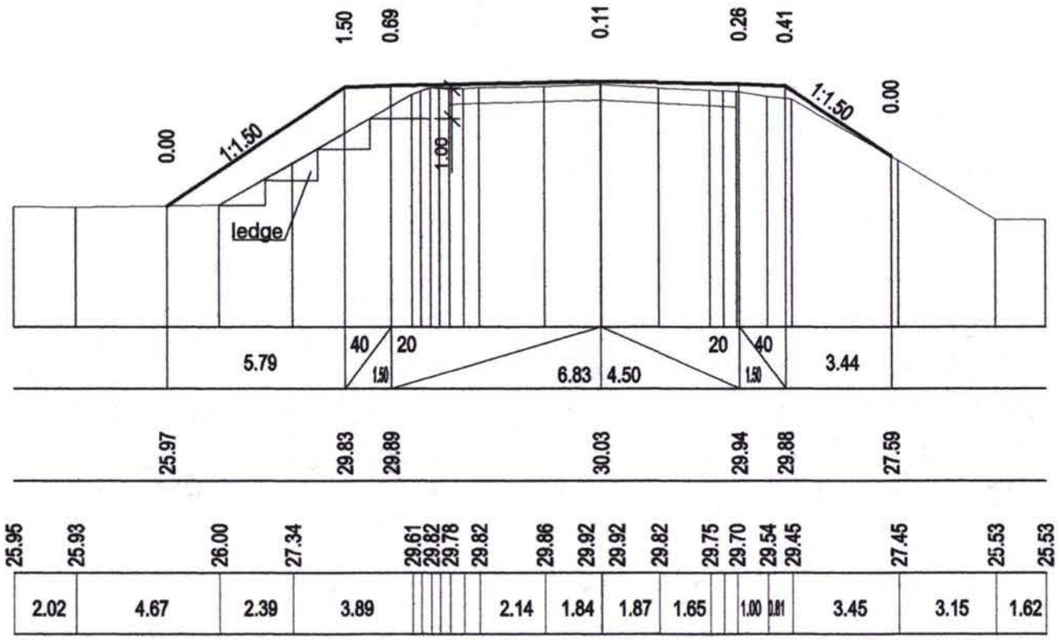
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 - 23

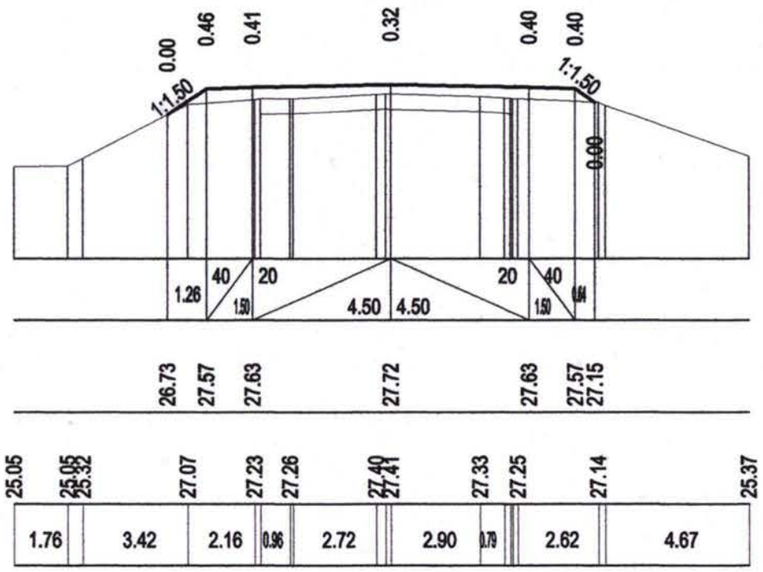
Format A3

Пк 121+900



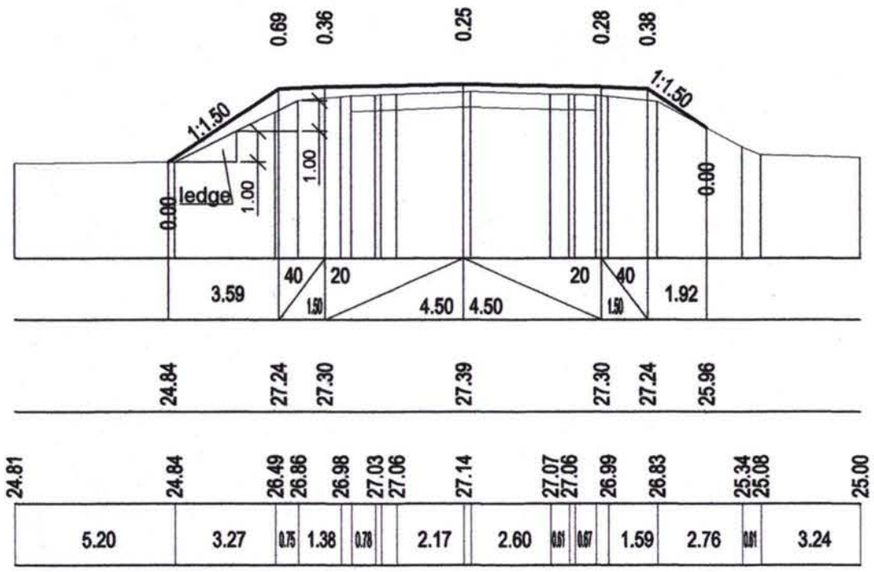
Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Пк 122+300



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Пк 122+600



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Inv. Nr | Schimb Inv. Nr | Semnatura si data

Rev. Rev.	Amendamente Amendments		Aprobat Approved:	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
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56068 Koblenz, Germany

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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

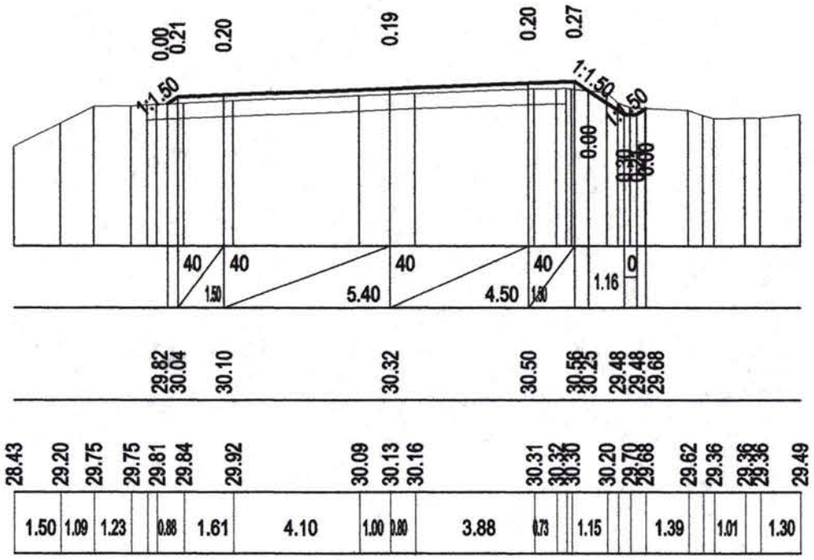
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

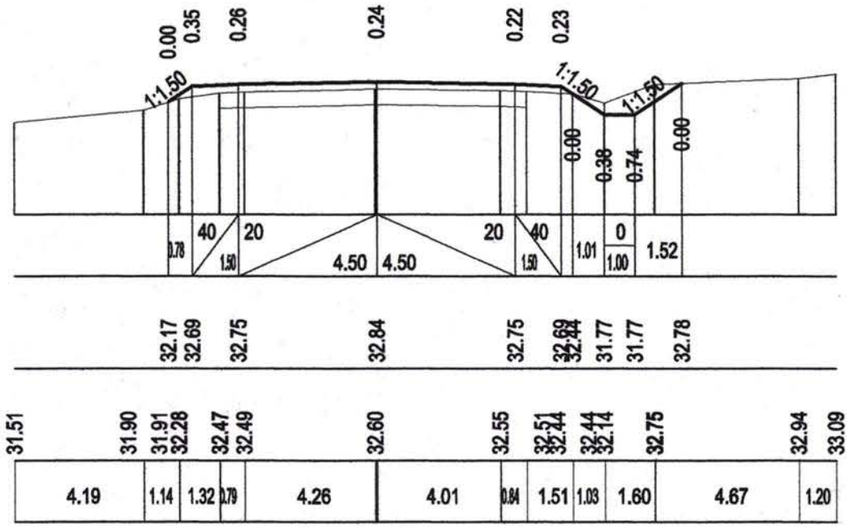
Drawing 6 - 24

Format A3

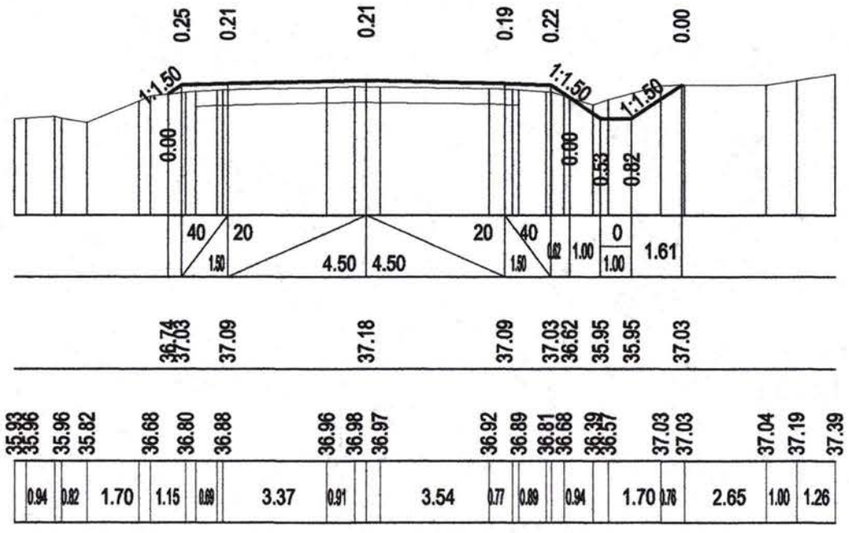
Пк 122+900



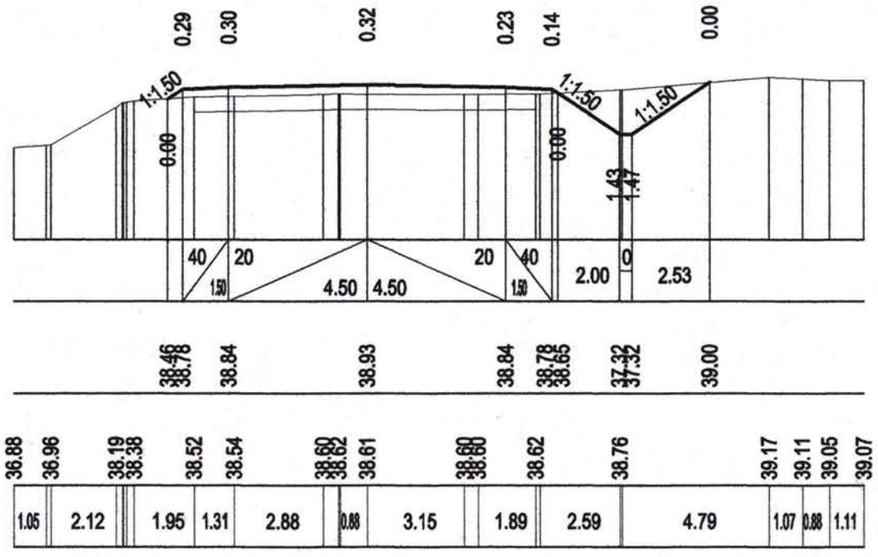
Пк 123+200



Пк 123+500



Пк 123+800



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev. / Rev.	Amendamente / Amendments		Aprobat: / Approved:	Data / Date

Consultantil/Consultants:

KOCKS INGÉNIEURE
Kocks Consult GmbH
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56068 Koblenz, Germany

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Chisinau MD 2043, Moldova

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Desenat/Drawn: Lvovski I
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Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

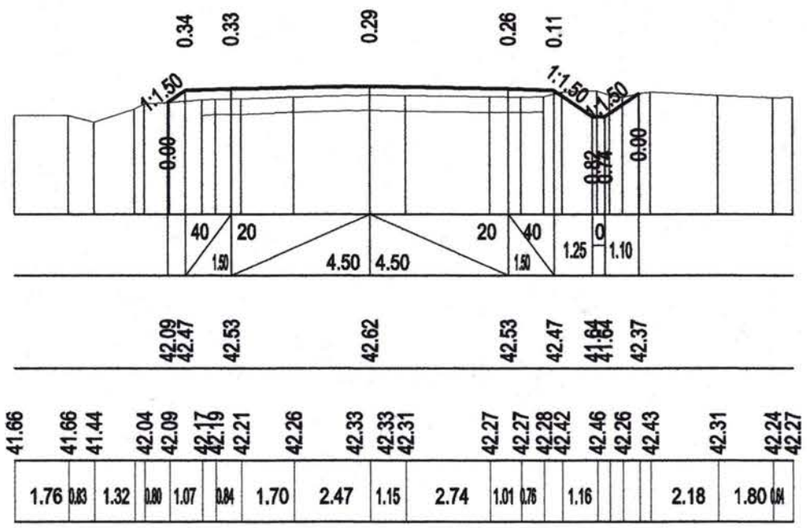
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

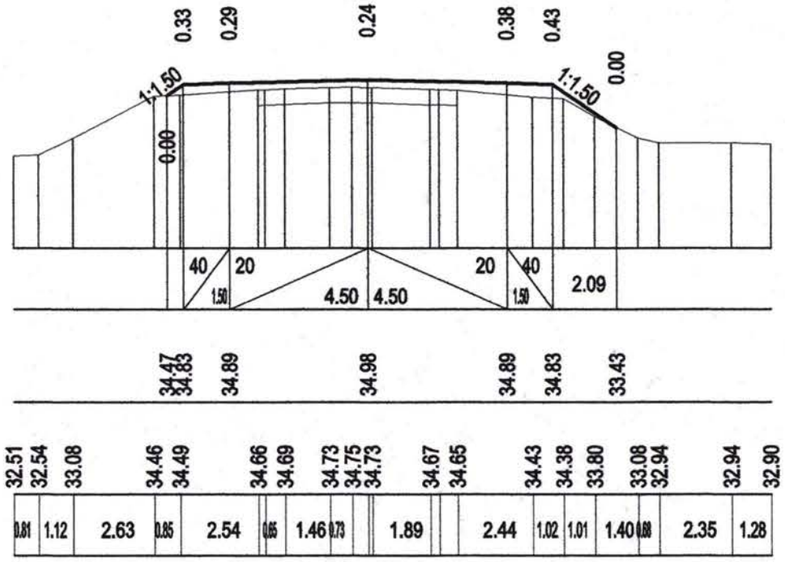
Drawing 6 - 25

Format A3

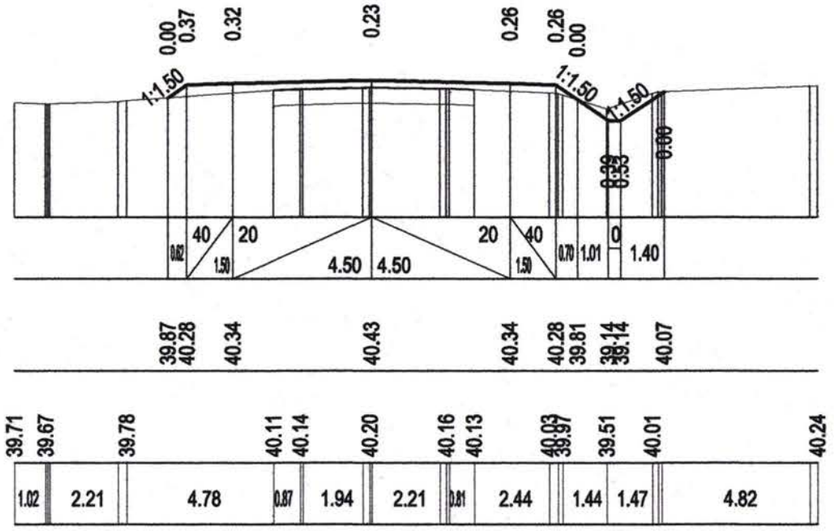
Пк 124+100



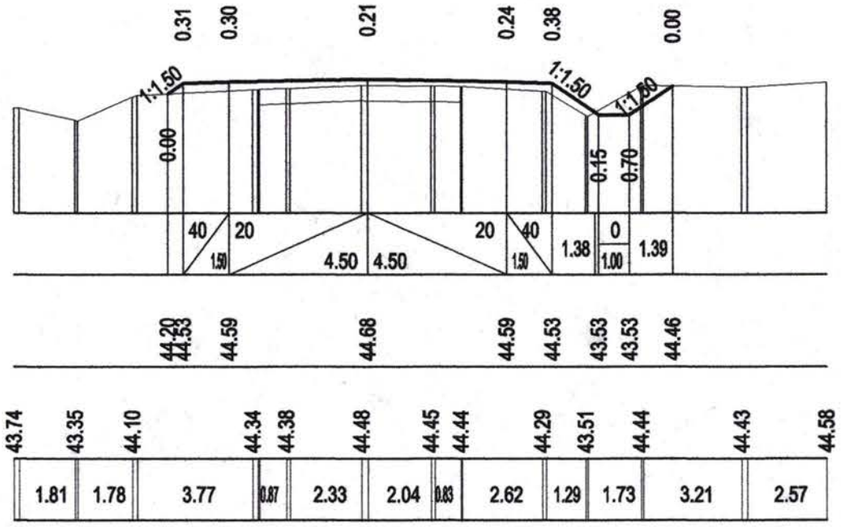
Пк 124+400



Пк 124+700



Пк 125+000



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m	
	Finished carriageway level, m Cota in ax, m	
Terrain data Date teren	Ground level, m Cota teren, m	
	Distance, m Distanta, m	

Schimb Inv. Nr

Semnatura si data

Inv. Nr

Rev. Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

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Chisinau MD 2043, Moldova

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EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

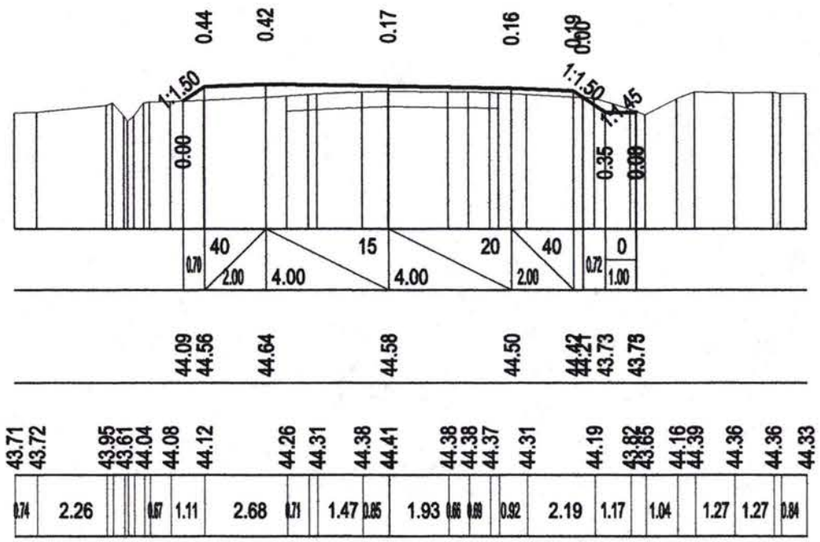
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

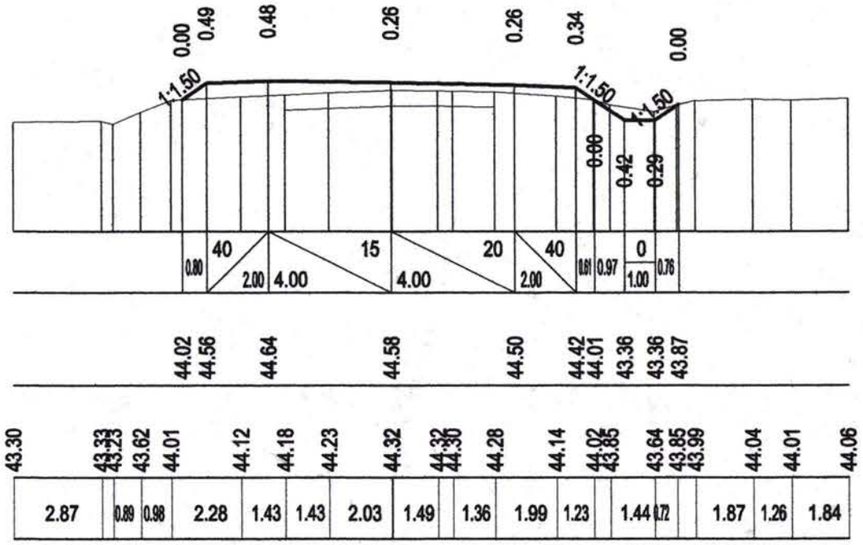
Drawing 6 - 26

Format A3

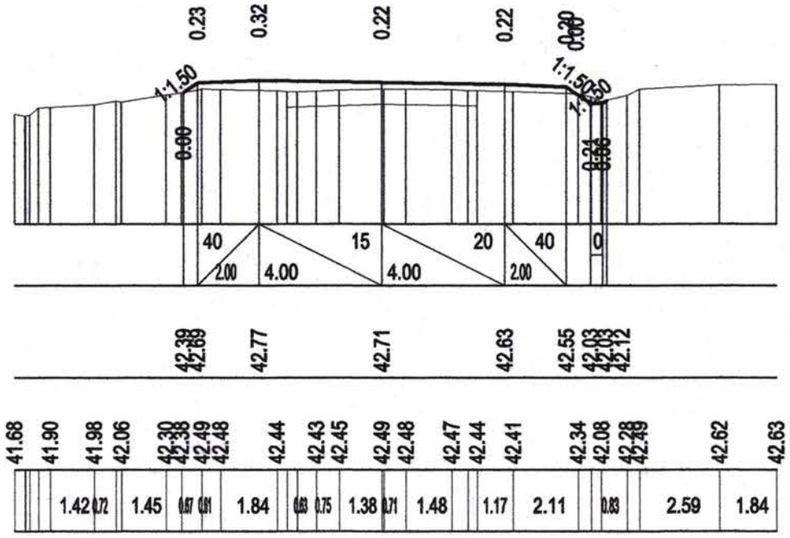
Пк 125+300



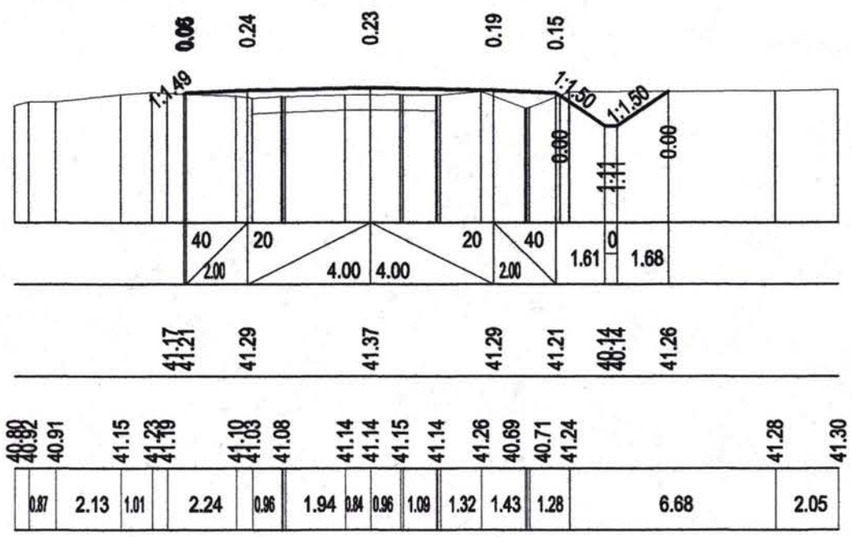
Пк 125+400



Пк 125+700



Пк 126+000



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr

Semnatura si data

Inv. Nr

Rev. Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

Consultantii/Consultants:

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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
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Aprobat/Approved
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

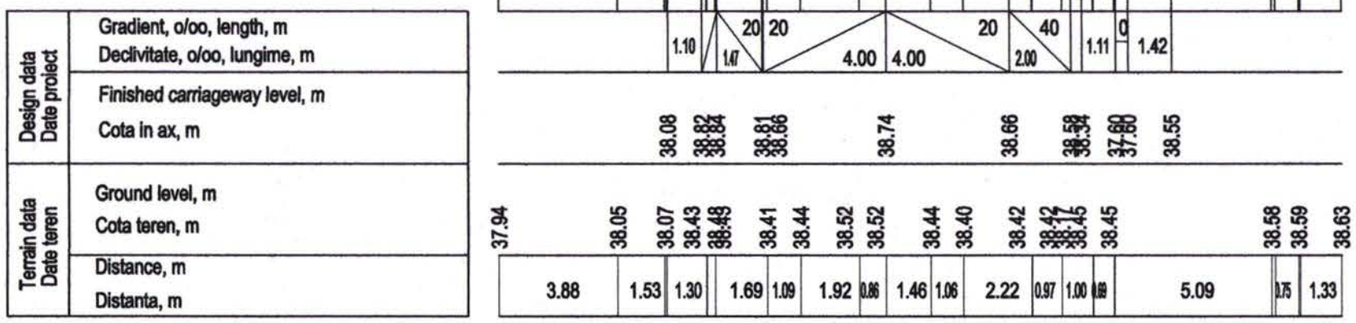
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

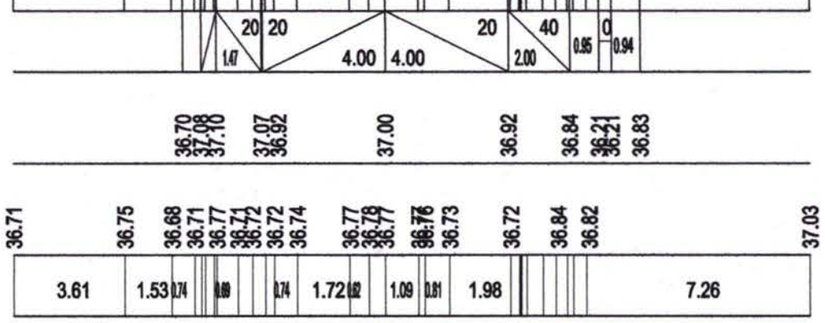
Drawing 6 - 27

Format A3

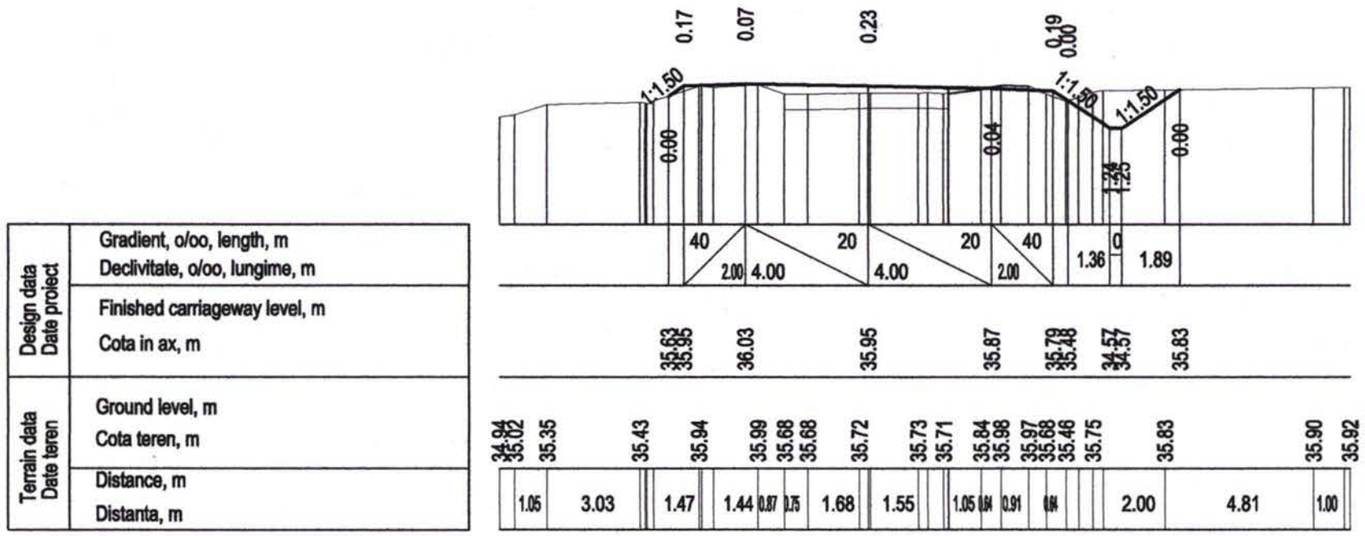
Пк 126+363.42



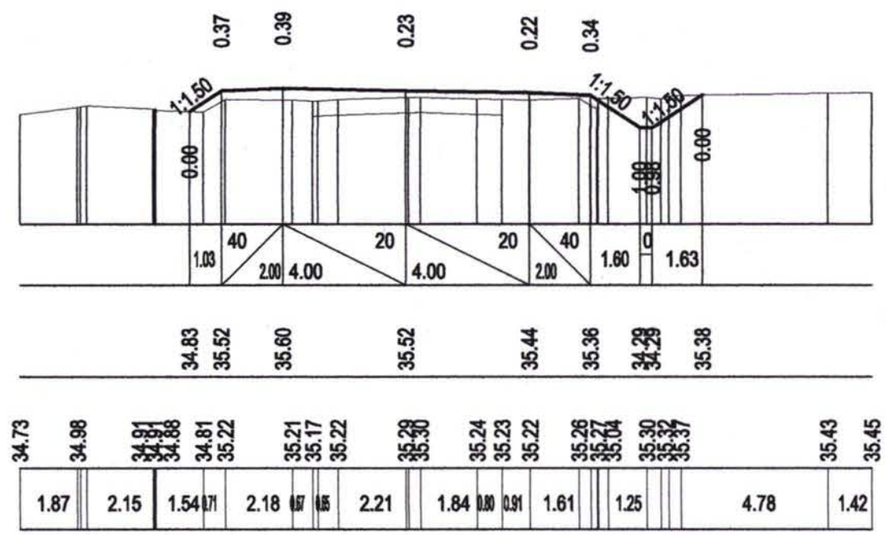
Пк 126+600



Пк 126+900



Пк 127+200



Inv. Nr | Semnatura si data | Schimb Inv. Nr

Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

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Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de execu ție / Sector Comrat - R38

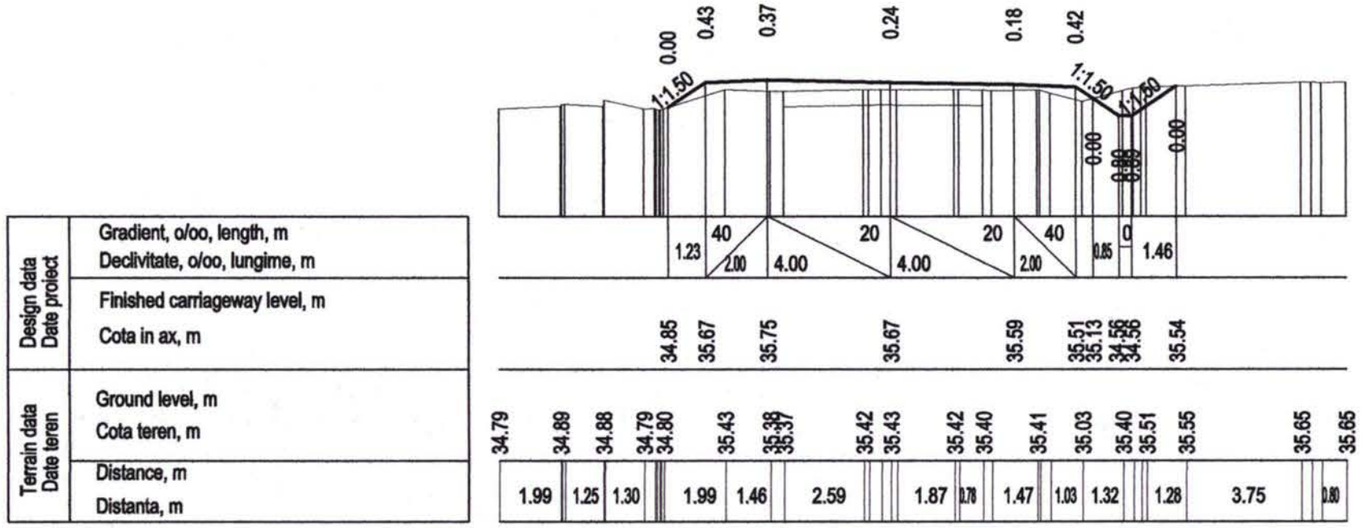
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

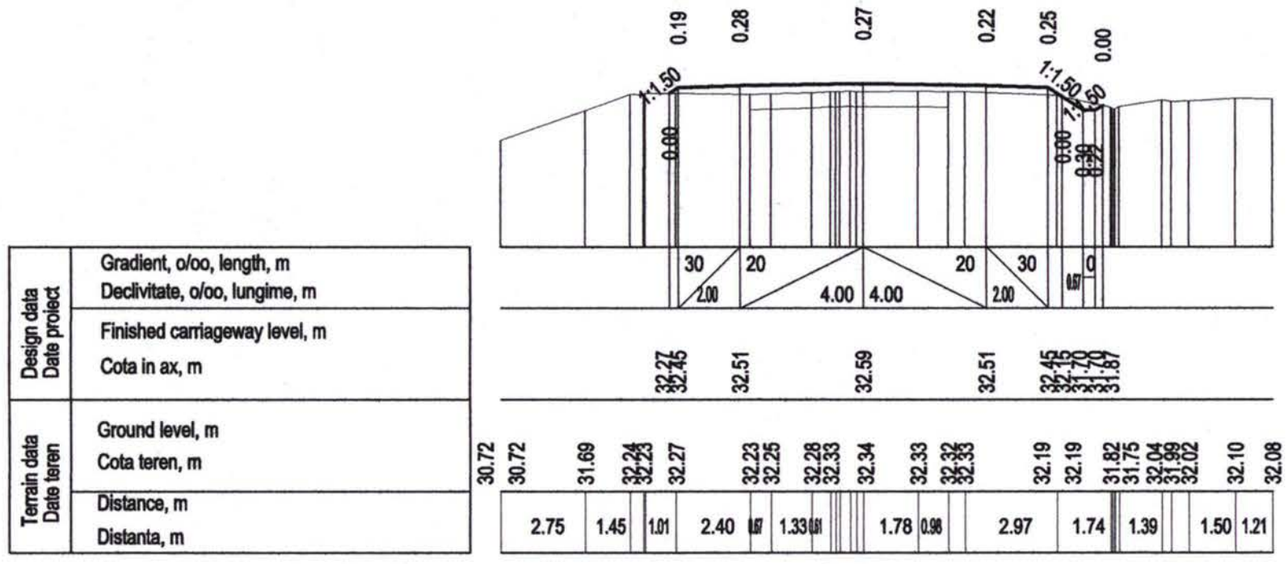
Drawing 6 - 28

Format A3

Пк 127+500



Пк 127+700



Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev. Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date

Consultantii/Consultants:

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Proiectat/Designed: Lvovski I
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Aprobat/Approved
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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de execu tie / Sector Comrat - R38

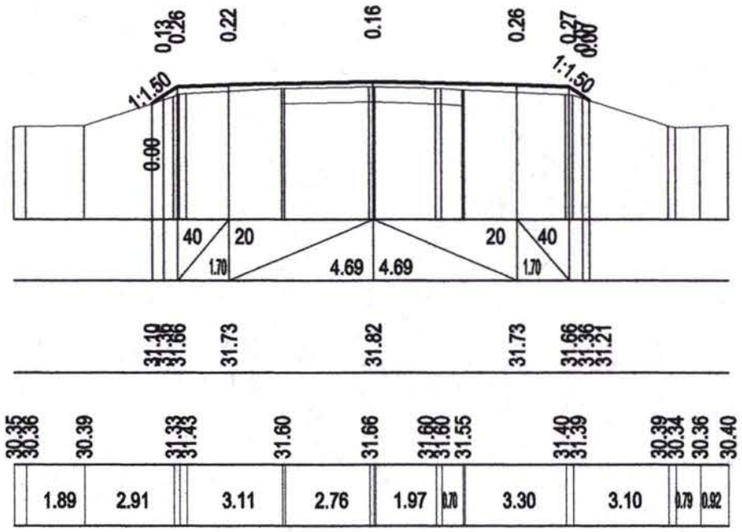
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

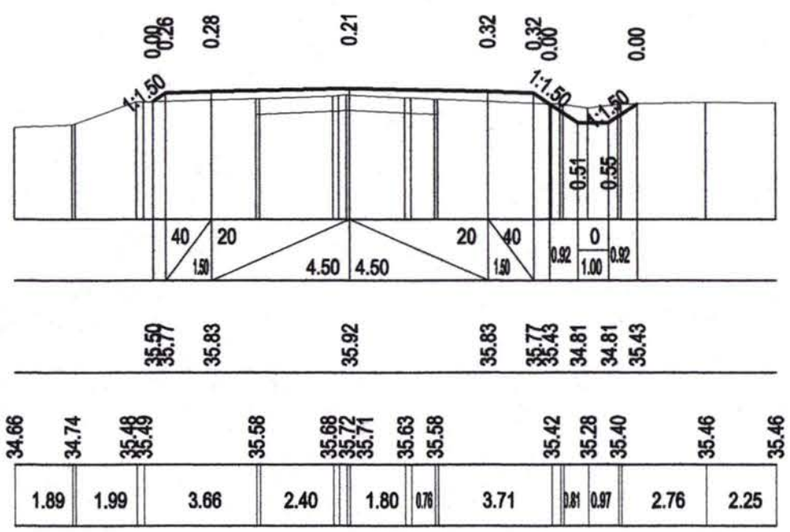
Drawing 6 - 29

Format A3

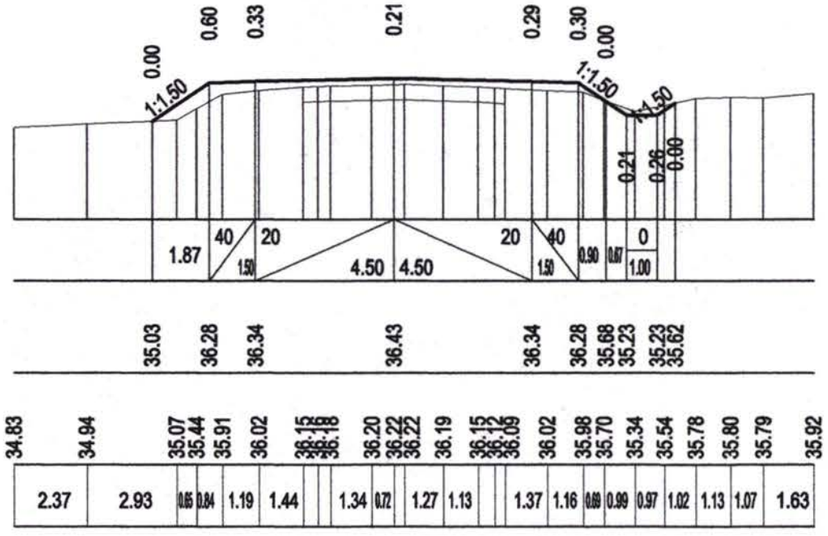
Km 127+900



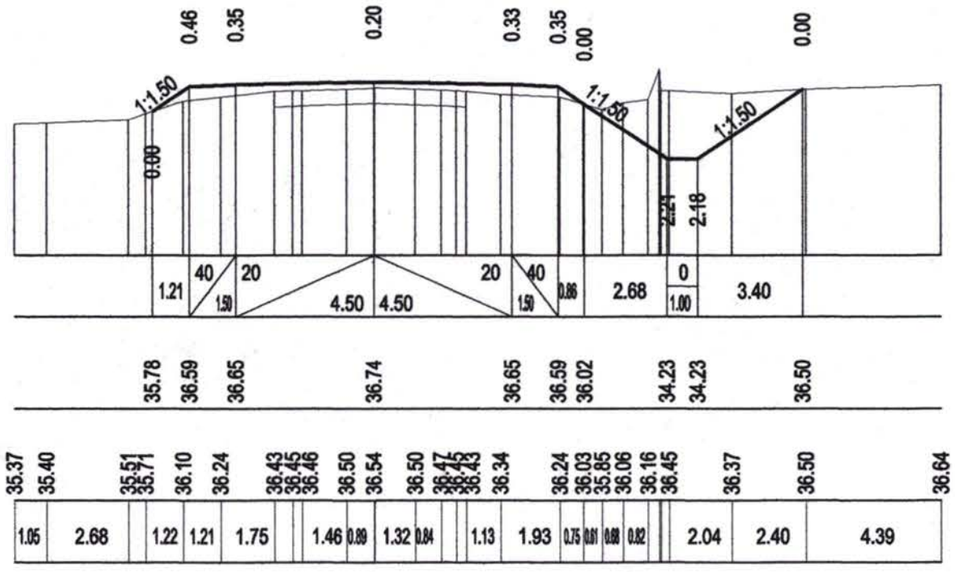
Km 128+200



Km 128+500



Km 128+800



Design data / Date proiect
- Gradient, o/oo, length, m
- Declivitate, o/oo, lungime, m
- Finished carriageway level, m
- Cota in ax, m

Terrain data / Date teren
- Ground level, m
- Cota teren, m
- Distance, m
- Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

Rev.	Amendamente / Amendments		Aprobat: / Approved:	Data / Date

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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

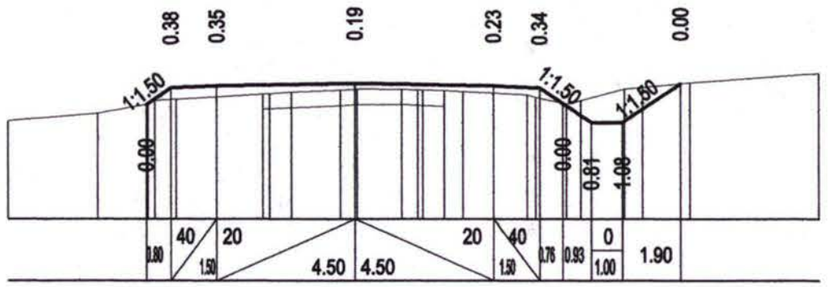
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 – 30

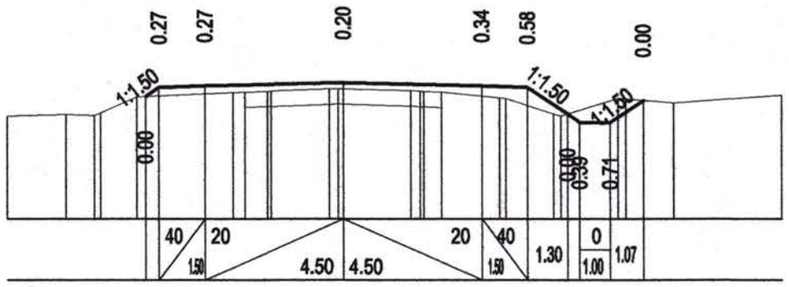
Format A3

Km 129+100

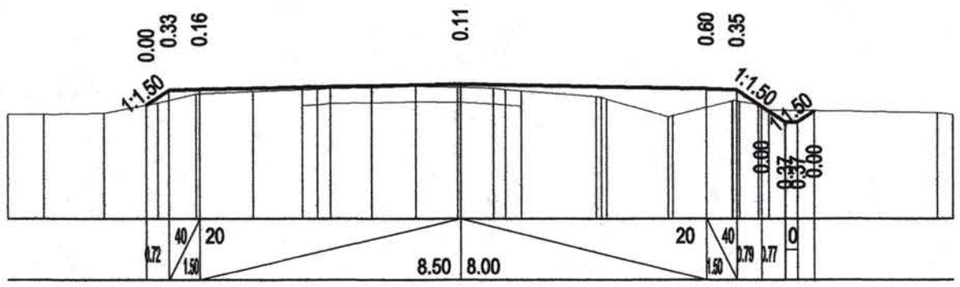

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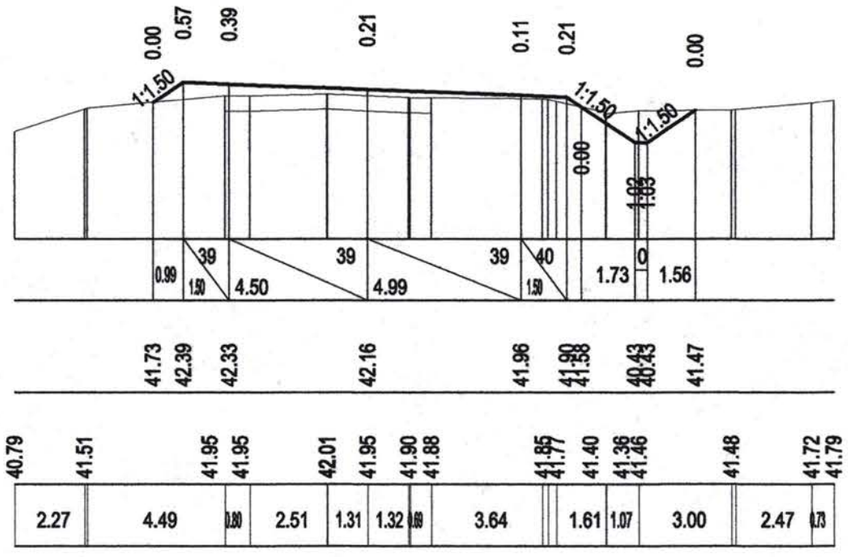
Km 130+300



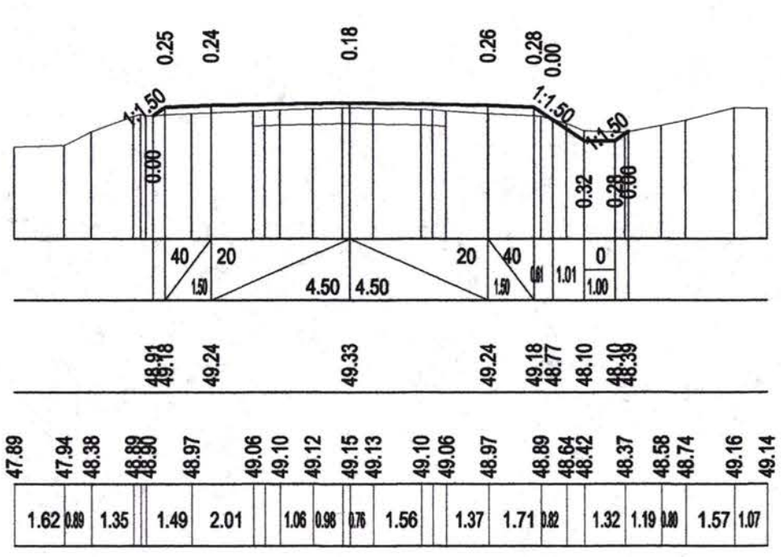
Km 130+600



Km 130+900



Km 131+200



Design data Date proiect	Gradient, o/oo, length, m	
	Declivitate, o/oo, lungime, m	
	Finished carriageway level, m	
	Cota in ax, m	
Terrain data Date teren	Ground level, m	
	Cota teren, m	
	Distance, m	
	Distanta, m	

Schimb Inv. Nr

Semnatura si data

Inv. Nr

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Chisinau MD 2043, Moldova

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Verificat/Checked: Vilcinschi D
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EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului
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Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de execu ție / Sector Comrat - R38

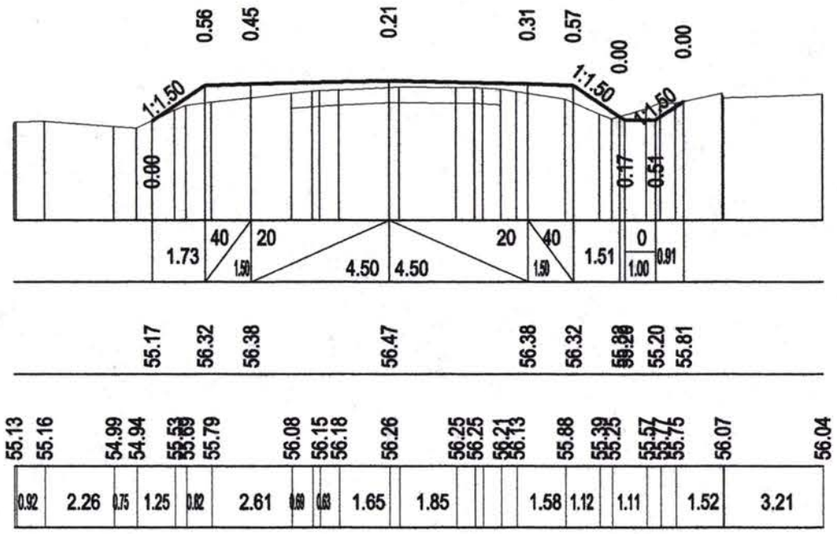
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

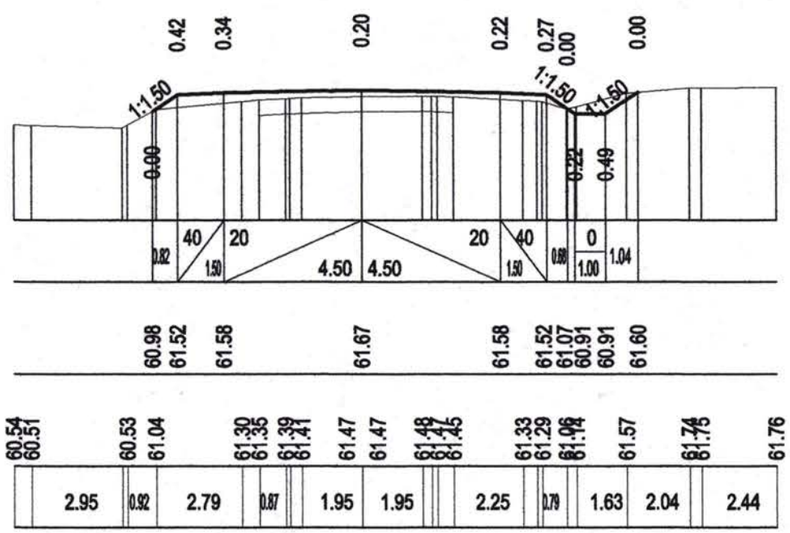
Drawing 6 - 32

Format A3

Km 131+500

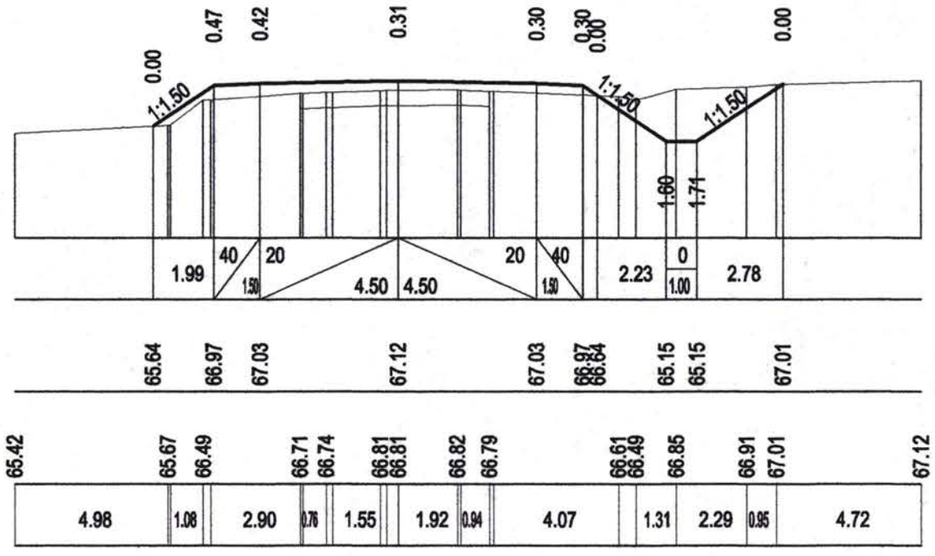


Km 131+800

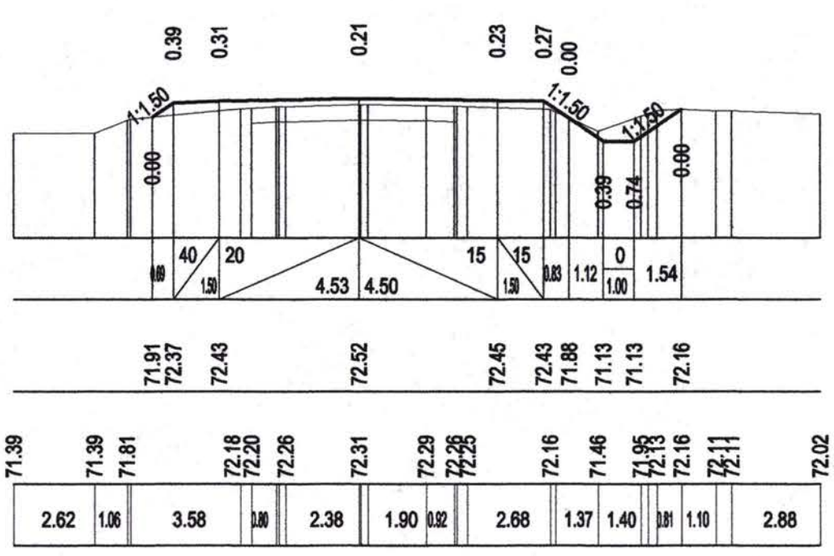


Terrain data Date teren	Design data Date proiect	
Distance, m Distanta, m	Ground level, m Cota teren, m	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m Finished carriageway level, m Cota in ax, m

Km 132+100



Km 132+400



Terrain data Date teren	Design data Date proiect	
Distance, m Distanta, m	Ground level, m Cota teren, m	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m Finished carriageway level, m Cota in ax, m

Inv. Nr | Semnatura si data | Schimb Inv. Nr

Rev. / Rev.	Amendamente / Amendments		Aprobat: / Approved:	Data / Date

Consultantii/Consultants:

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Chisinau MD 2043, Moldova

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Verificat/Checked: Vilcinschi D
Desenat/Drawn: Lvovski I
Data/Date 08.09

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Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

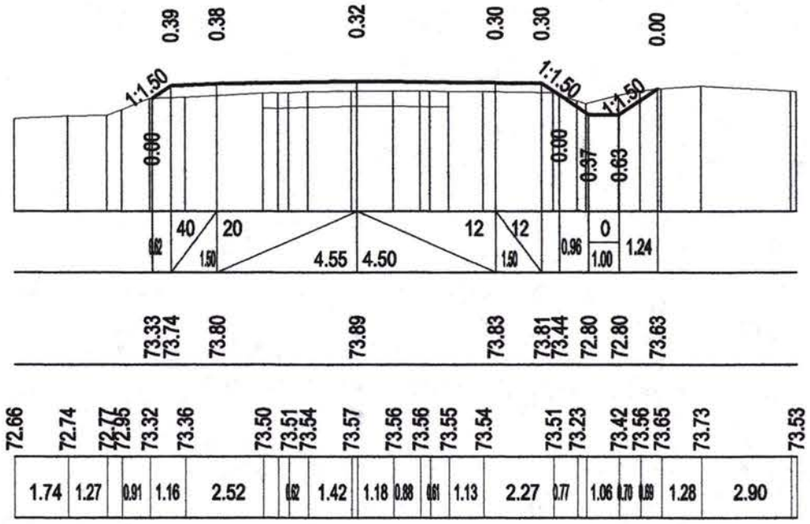
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

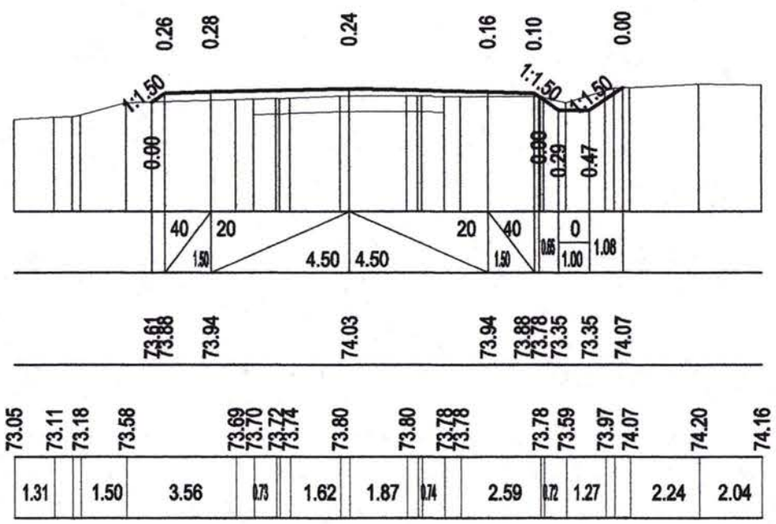
Drawing 6 - 33

Format A3

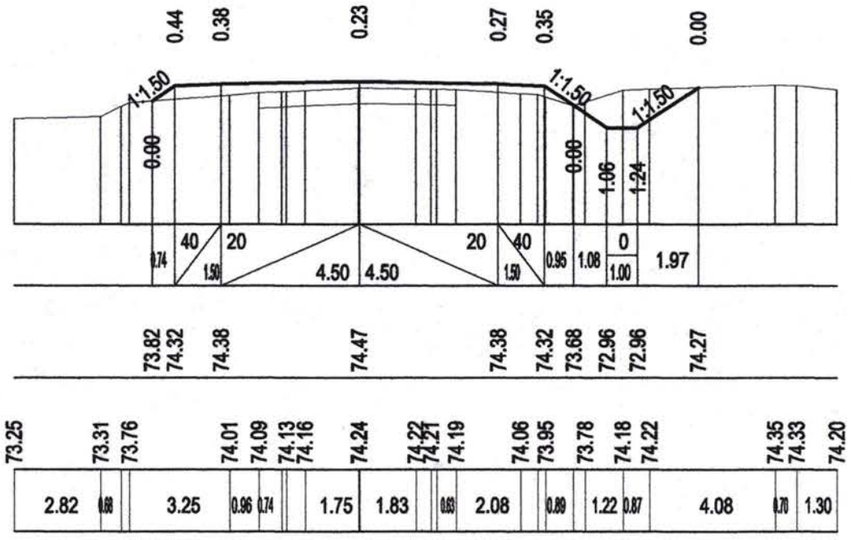
Km 132+700



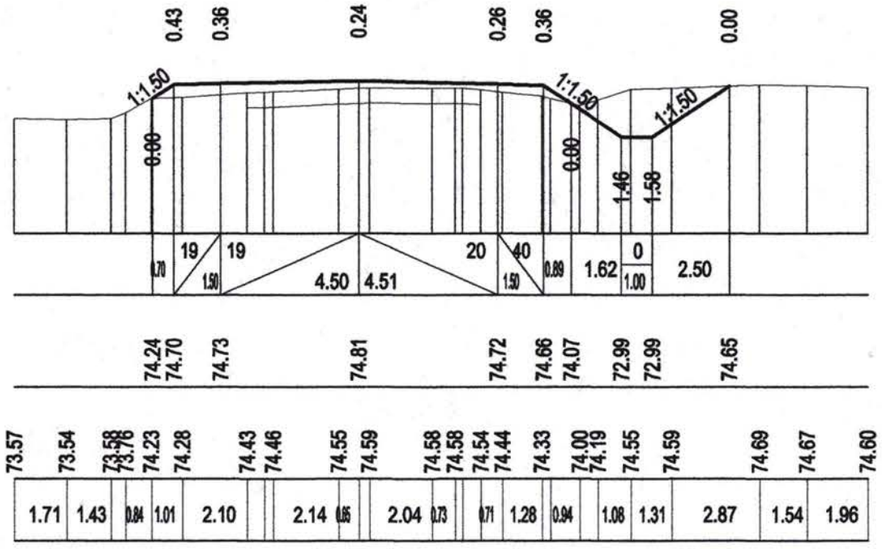
Km 133+000



Km 133+300



Km 133+600



Design data Date proiect	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m	
	Finished carriageway level, m Cota in ax, m	
Terrain data Date teren	Ground level, m Cota teren, m	
	Distance, m Distanta, m	

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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Chisinau MD 2043, Moldova

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EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3
Chisinau-Giurgiulesti /Granita cu Romania/
Proiect de executie / Sector Comrat - R38

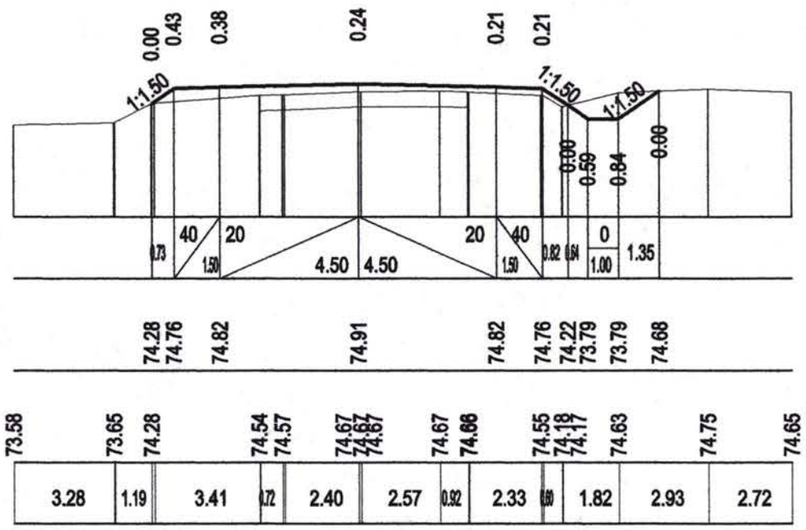
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

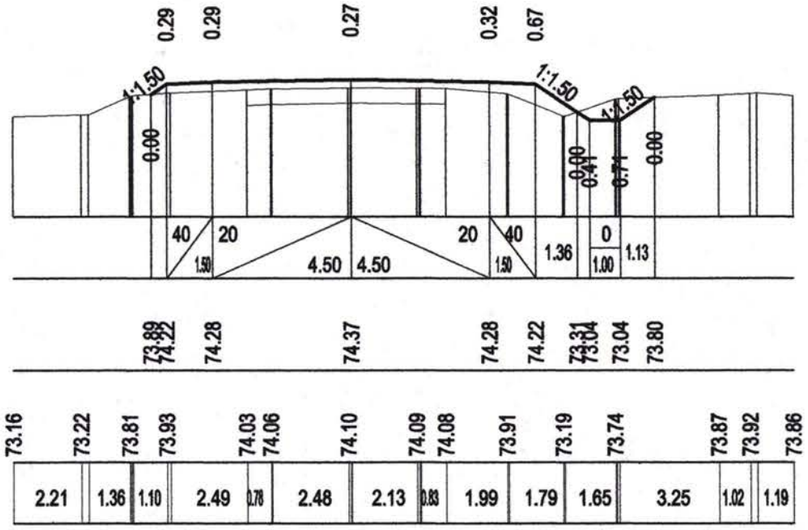
Drawing 6 - 34

Format A3

Km 133+900

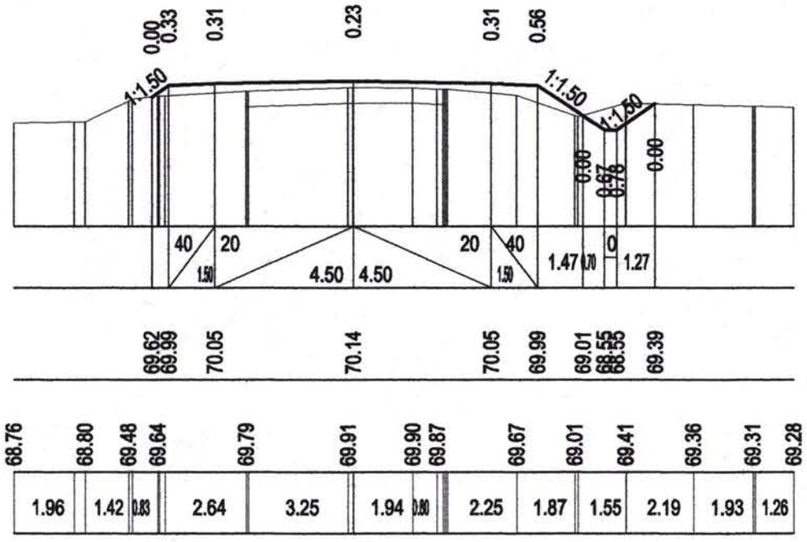


Km 134+200

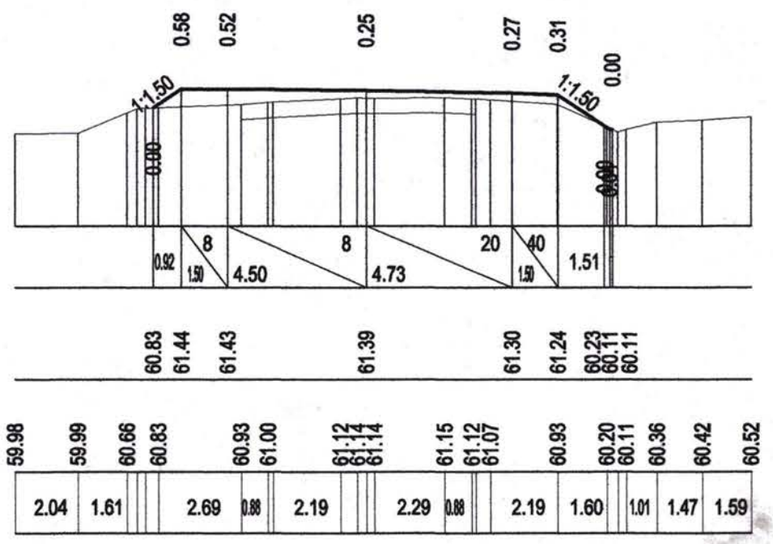


Design data Date proiect	
	Gradient, o/oo, length, m Declivitate, o/oo, lungime, m
	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Km 134+500



Km 134+800



Design data Date proiect	
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	Finished carriageway level, m Cota in ax, m
Terrain data Date teren	Ground level, m Cota teren, m
	Distance, m Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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Chisinau MD 2043, Moldova

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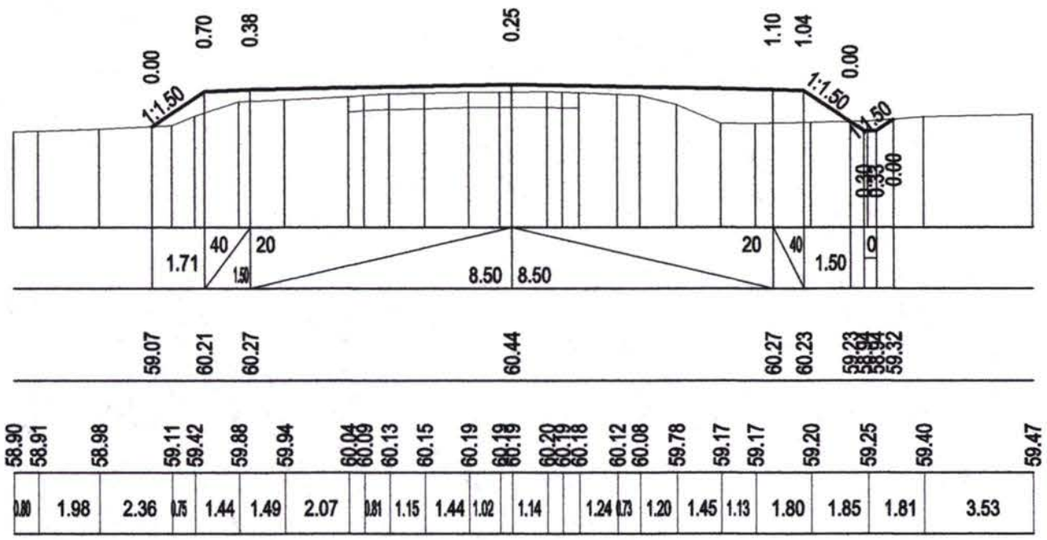
Rehabilitation and Extension of the Road M3
Chisinau - Giurgiulesti /Romanian Border/
Europe Aid/125919/C/SER/MD
Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 - 35

Format A3

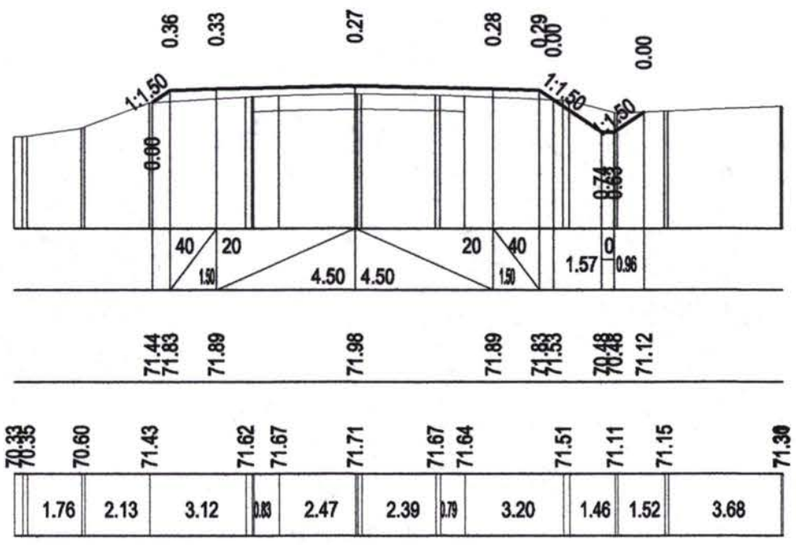
Km 135+100



Design data / Date proiect
- Gradient, o/oo, length, m / Declivitate, o/oo, lungime, m
- Finished carriageway level, m / Cota in ax, m

Terrain data / Date teren
- Ground level, m / Cota teren, m
- Distance, m / Distanta, m

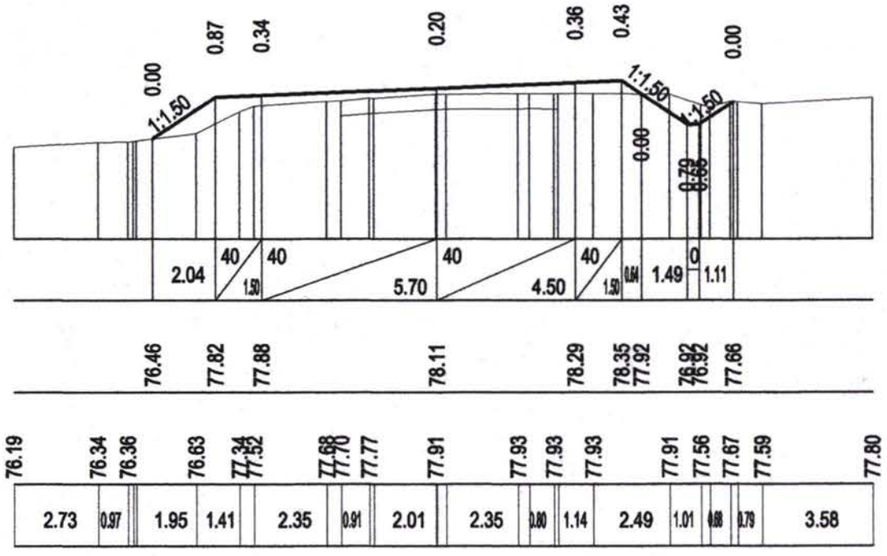
Km 135+400



Design data / Date proiect
- Gradient, o/oo, length, m / Declivitate, o/oo, lungime, m
- Finished carriageway level, m / Cota in ax, m

Terrain data / Date teren
- Ground level, m / Cota teren, m
- Distance, m / Distanta, m

Km 135+700



Design data / Date proiect
- Gradient, o/oo, length, m / Declivitate, o/oo, lungime, m
- Finished carriageway level, m / Cota in ax, m

Terrain data / Date teren
- Ground level, m / Cota teren, m
- Distance, m / Distanta, m

Schimb Inv. Nr | Semnatura si data | Inv. Nr

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KOCKS INGENIEURE
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Chisinau MD 2043, Moldova

Proiectat/Designed: Lvovski I
Verificat/Checked: Vilcinschi D
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Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de execu ție / Sector Comrat - R38

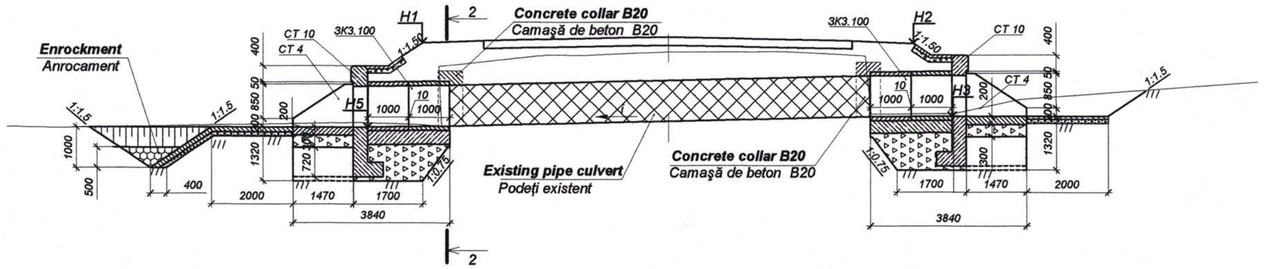
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Cross sections
Profile transversale

Drawing 6 - 36

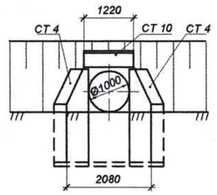
Format A3

1 - 1



Front elevation of pipe culvert's inlet and out let (1:100)

Elivefie capăt amonte şi aval (1:100)



Specifications of Precast RC elements

Prefabricate din beton armat

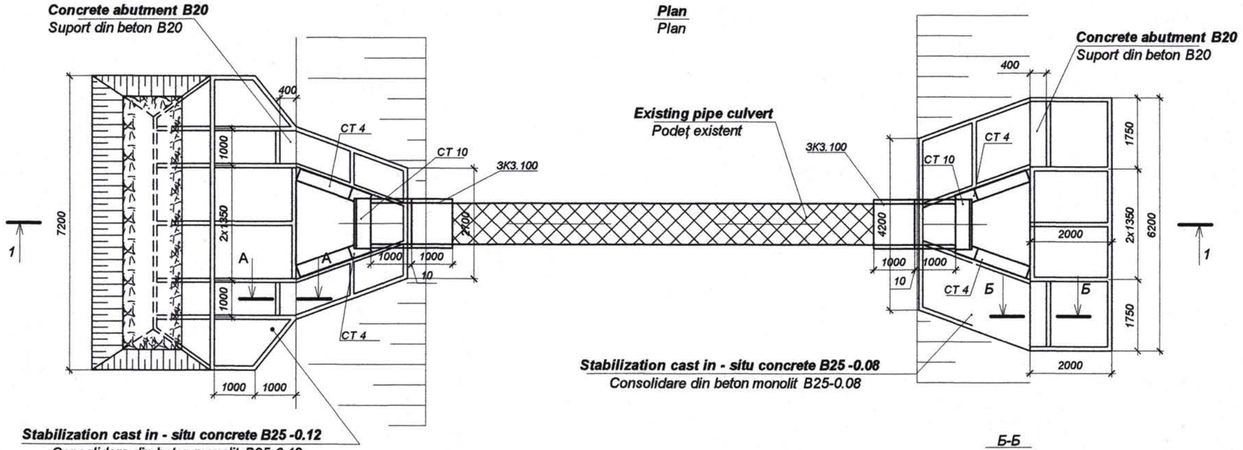
Location km+ Amplesament km+	Diameter Diametru	Quantity, unit Cantitate, buc.		
		Element of the culvert Elementul podeţului 3K3.100 Weight of unit - 0,90tn Masa - 0,90t Volume - 0,35m³ Volum - 0,35m³	Portal wall Perete portal CT10 Weight of unit - 2,50tn Masa - 2,50t Volume - 1,01m³ Volum - 1,01m³	Lateral wing Perete lateral CT4 Weight of unit - 2,50tn Masa - 2,50t Volume - 0,98m³ Volum - 0,98m³
101+957	Ø1,0	4	2	4
104+074	Ø1,0	5	2	4
104+495	Ø1,0	4	2	4
105+839	Ø1,0	2	2	4
107+182	Ø1,0	4	2	4
107+507	Ø1,0	3	2	4
109+521	Ø1,0	2	2	4
109+960	Ø1,0	2	2	4
110+327	Ø1,0	3	1	2
111+798	Ø1,0	2	2	4
112+710	Ø1,0	2	2	4
113+413	Ø1,0	2	1	2
117+011	2Ø1,0	4	4	4
118+813	Ø1,0	5	2	4
119+021	2Ø1,0	6	4	4
120+320	2Ø1,0	2	2	2
126+322	Ø1,0	3	2	4
126+336	Ø1,0	4	2	4
127+141	Ø1,0	5	2	4
135+766	Ø1,0	4	2	2

Concrete abutment B20

Suport din beton B20

Plan

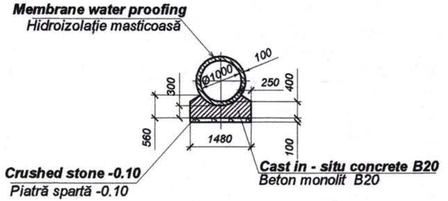
Plan



2 - 2

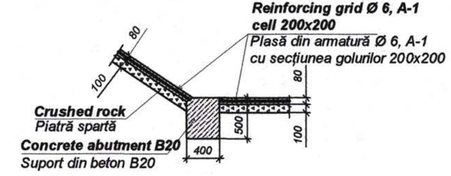
(the embankment is not shown)

(rambleu nu este arătat)



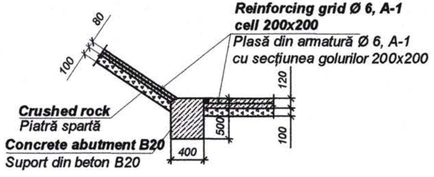
Б-Б

1:50



A-A

1:50



1.Culvert structure - according to the type design 3.501.1-1 44

2. The Stabilization of channels and slopes are adopted according to the type design 501 - 0 - 46.

3. All dimensions are given in mm.

1. Structura podetului - conform proiectului tip 3.501.1-1 44

2. Consolidarea pe taluz proiect tip 501 - 01 -46.

3. Toate dimensiunile sînt indicate în mm.

Inv. Nr | Semnatura si data | Schimb Inv. Nr

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Consultantii/Consultants:

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Proiectat/Designed:	Tcaci A.	Desenat/Drawn:	Tcaci A.
Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

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Data/Date

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Republic of Moldova Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

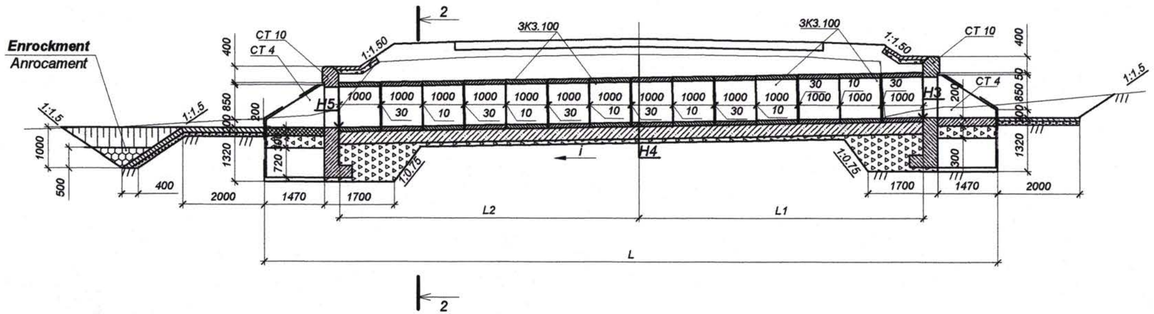
Culverts

Pipe culverts elongation Ø1.0m (sc.1:100)

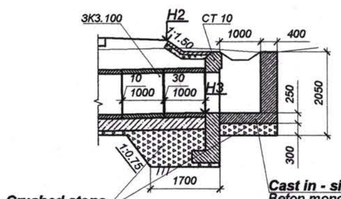
Alungirea podeţelor tubulare Ø1.0m (sc.1:100)

Drawing 7-1

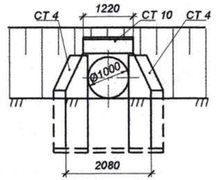
1 - 1



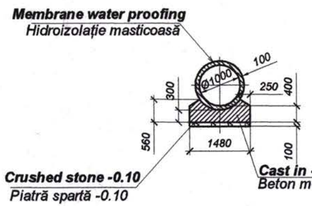
Inlet sump
Cameră de recepție

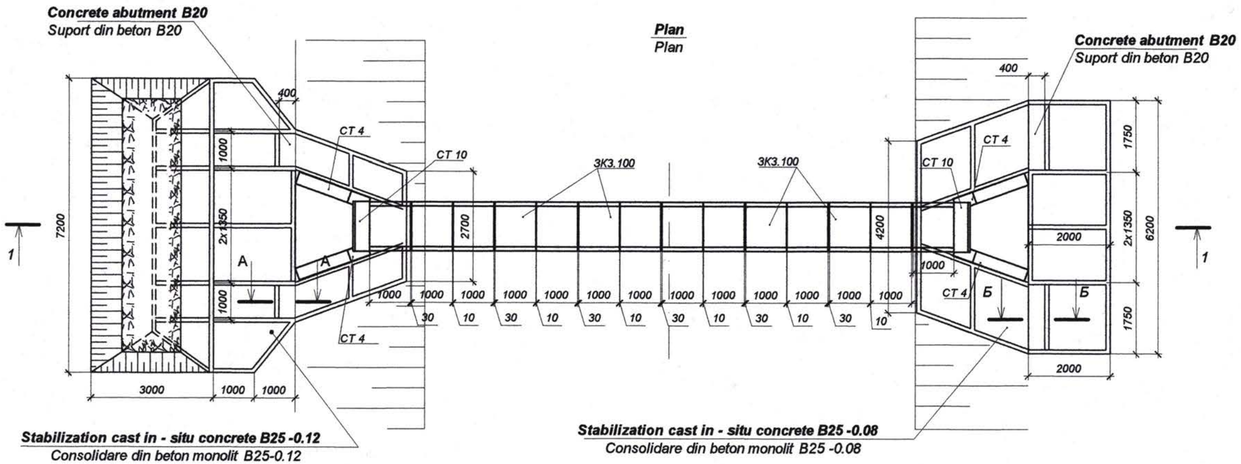


Front elevation of pipe culvert's inlet and out let (1:100)
Eliveție capăt amonte și aval (1:100)



2 - 2
(the embankment is not shown)
(rambleu nu este arătat)



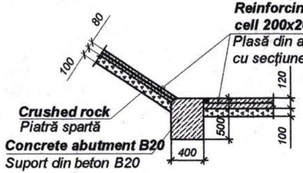


Specifications of Precast RC elements
Prefabricate din beton armat

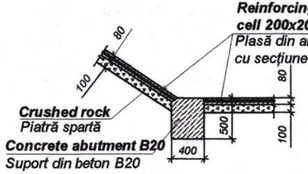
Location km+ Amplesament km+	Diameter Diametru	Quantity, unit Cantitate, buc.		
		Element of the culvert Elementul podețului 3K3.100 Weight of unit - 0,90tn Masa - 0,90t Volume - 0,35m³ Volum - 0,35m³	Portal wall Perete portal CT10 Weight of unit - 2,50tn Masa - 2,50t Volume - 1,01m³ Volum - 1,01m³	Lateral wing Perete lateral CT4 Weight of unit - 2,50tn Masa - 2,50t Volume - 0,98m³ Volum - 0,98m³
978+75	Ø1,0	14	2	2
109+521	Ø1,0	15	2	- *
111+798	Ø1,0	15	2	- *
112+710	Ø1,0	14	2	- *
115+293	Ø1,0	13	2	2
115+630	Ø1,0	13	2	2
117+688	Ø1,0	17	2	4
125+522	Ø1,0	22	4	4
126+322	Ø1,0	13	2	- *
133+473	2Ø1,0	28	4	4

- * - The lateral wings are included in the specification for culverts elongation.
- * - Pereții laterali sunt incluși în specificația alungirii podețelor.

A-A
1:50



Б-Б
1:50



1.Culvert structure - according to the type design 3.501.1-1 44
2. The Stabilization of channels and slopes are adopted according to the type design 501 - 0 - 46.
3. All dimensions are given in mm.

1. Structura podetului - conform proiectului tip 3.501.1-1 44
2. Consolidarea pe taluz proiect tip 501 - 0 - 46.
3. Toate dimensiunele sînt indicate în mm.

Semnatura si data | Scimb. Inv. Nr | Inv. Nr

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Independentei 6/1 Str.
Chisinau MD 2043, Moldova

Proiectat/Designed:	Tcaci A.	Desenat/Drawn:	Tcaci A.
Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

Aprobat/Approved
Data/Date

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Republic of Moldova Ministry of Transport

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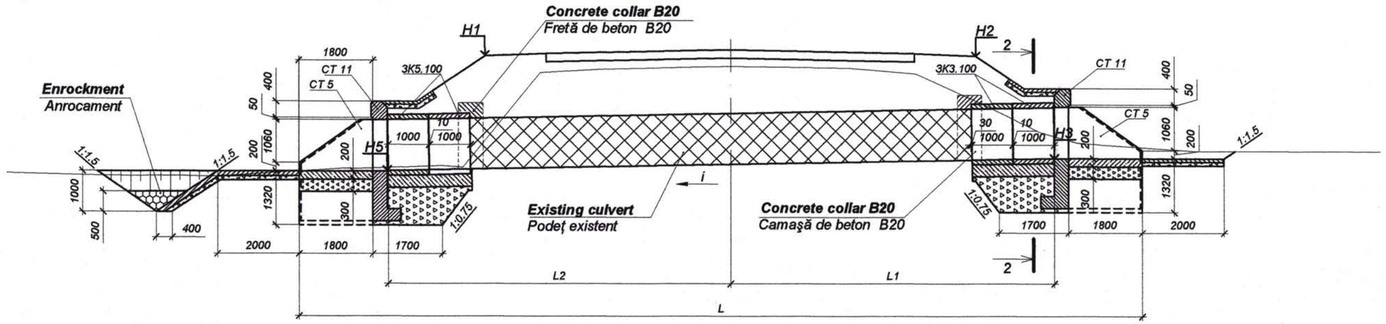
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

Typical pipe culverts construction Ø1.0m (sc.1:100)
Construcția podețelor tubulare Ø1.0m (sc.1:100)

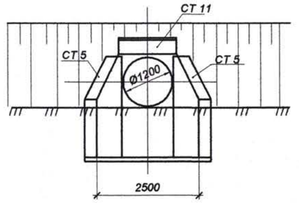
Drawing 7-2

1 - 1



Front elevation of pipe culvert's inlet and out let (1:100)

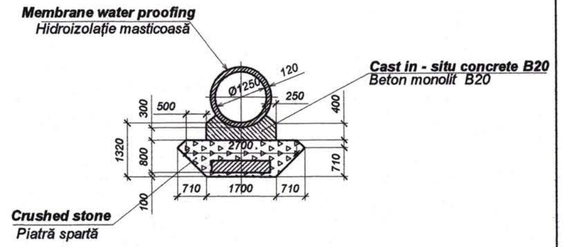
Elivețe capăt amonte şi aval (1:100)

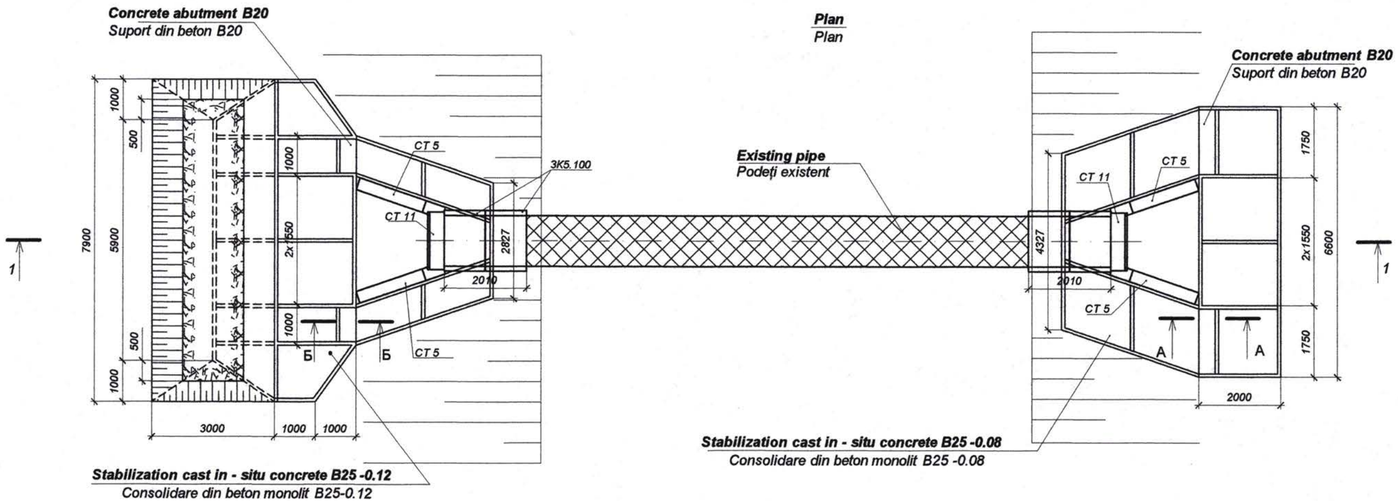


2 - 2

(the embankment is not shown)

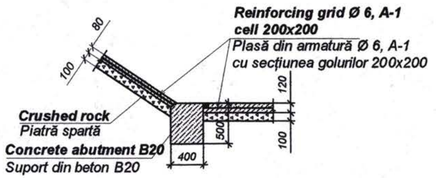
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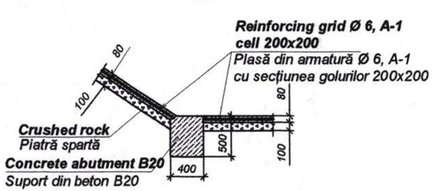
А-А

1:50



Б-Б

1:50



1.Culvert structure - according to the type design 3.501.1-1 44
2. The stabilization of channels and slopes are adopted according to the type design 501 - 0 - 46.
3. All dimensions are given in mm.

1. Structura podetului - conform proiectului tip 3.501.1-1 44
2. Consolidarea pe taluz proiect tip 501 - 0 - 46.
3. Toate dimensiunile sint indicate in mm.

Specifications of Precast RC elements

Prefabricate din beton armat

Location km+ Amplesament km+	Diameter Diametru	Quantity, unit Cantitate, buc.		
		Element of the culvert Elementul podețului 3K5.100 Weight of unit - 1,30tn Masa - 1,30t Volume - 0,52m³ Volum - 0,52m³	Portal wall Perete portal CT11 Weight of unit - 3,00tn Masa - 3,00t Volume - 1,20m³ Volum - 1,20m³	Lateral wing Perete lateral CT5 Weight of unit - 3,10tn Masa - 3,10t Volume - 1,24m³ Volum - 1,24m³
109+265	2Ø1,25	4	4	4
110+792	Ø1,25	1	1	2
123+814	Ø1,25	1	2	4

Scimb Inv. Nr | Semnatura si data | Inv. Nr

Rev. Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
56068 Koblenz, Germany

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Chisinau MD 2043, Moldova

Proiectat/Designed:	Tcaci A.	Desenat/Drawn:	Tcaci A.
Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

Aprobat/Approved Data/Date

EU Delegation to Moldova

Republic of Moldova Ministry of Transport

Marimea originala a desenului Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

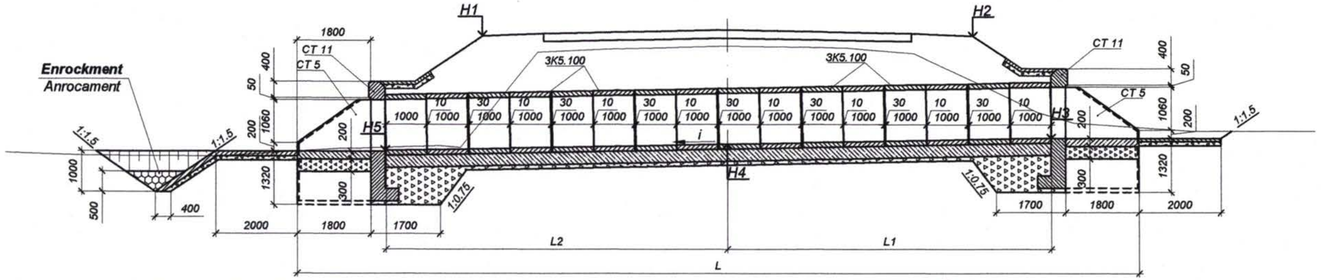
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

Existing Pipe culverts extension Ø1.25m (sc.1:100)

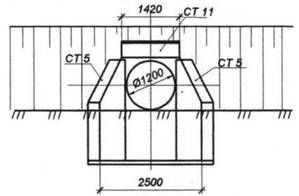
Alungirea podețelor tubulare Ø1. 25m (sc.1:100)

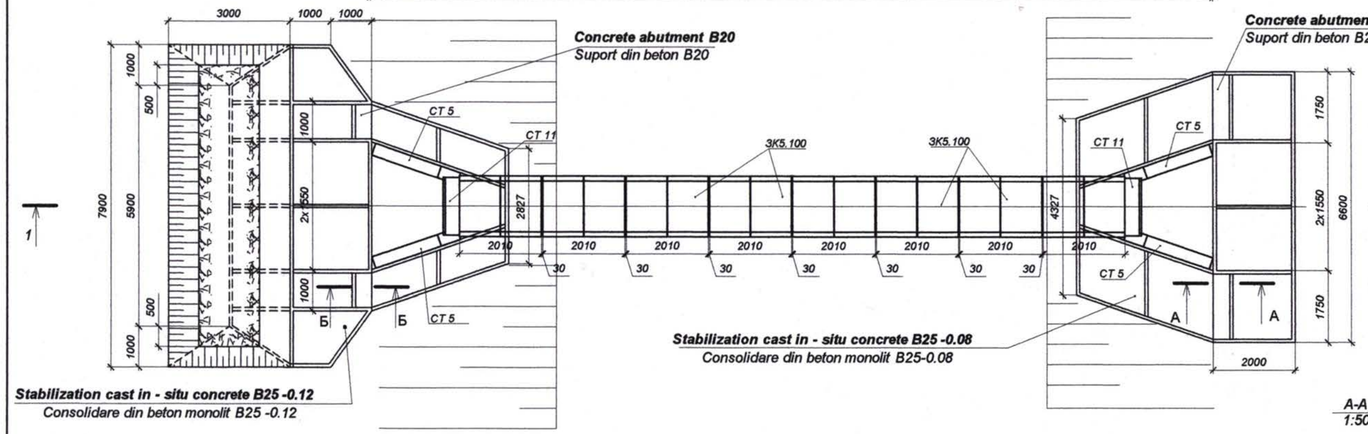
Drawing 7-3



Front elevation of pipe culvert's inlet and out let (1:100)

Eliveţie capăt amonte şi aval (1:100)

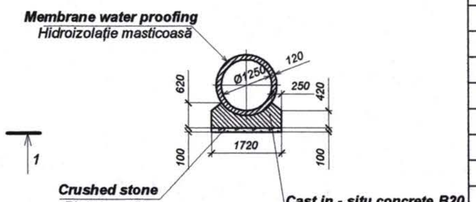




3 - 3

(the embankment is not shown)

(rambleu nu este arătat)



Specifications of Precast RC elements

Prefabricate din beton armat

Location km+ Amplasament km+	Diameter Diametru	Quantity, unit Cantitate, buc.		
		Element of the culvert Elementul podeţului 3K5.100 Weight of unit - 1,30tn Masa - 1,30t Volume - 0,52m³ Volum - 0,52m³	Portal wall Perete portal CT11 Weight of unit - 3,00tn Masa - 3,00t Volume - 1,20m³ Volum - 1,20m³	Lateral wing Perete lateral CT5 Weight of unit - 3,10tn Masa - 3,10t Volume - 1,24m³ Volum - 1,24m³
96+976	Ø1,25	14	2	4
105+092	2Ø1,25	28	4	4
105+570	2Ø1,25	28	4	4
106+082	2Ø1,25	28	4	4
106+875	Ø1,25	16	2	4
107+896	Ø1,25	15	2	4
109+265	Ø1,25	15	2	- *
114+937	Ø1,25	16	2	2
116+034	Ø1,25	13	2	2
117+238	2Ø1,25	28	4	4
119+010	Ø1,25	16	2	4
123+814	Ø1,25	16	2	- *
124+542	Ø1,25	16	2	4
126+846	2Ø1,25	28	4	4
128+971	2Ø1,25	28	4	4
131+601	Ø1,25	14	2	4
132+102	2Ø1,25	28	2	2

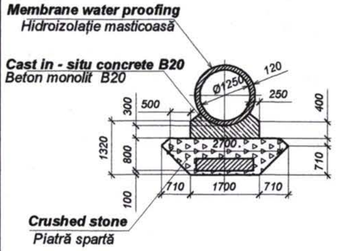
- * - The lateral wings are included in the specification for culverts elongation.

*- * - Pereţii laterali sunt incluşi în specificaţia alungirii podeţelor.*

2 - 2

(the embankment is not shown)

(rambleu nu este arătat)

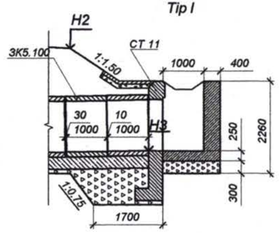


Inlet sump

Cameră de recepţie

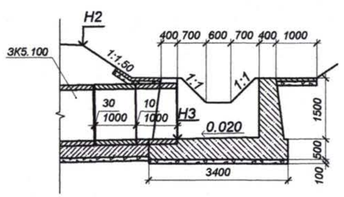
Type I

Tip I



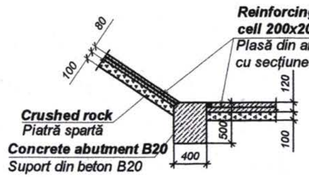
Type II

Tip II



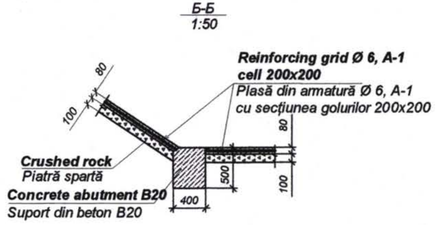
A-A

1:50



Б-Б

1:50



1. Culvert structure - according to the type design 3.501.1-1 44
2. The Stabilization of channels and slopes are adopted according to the type design 501- 0 - 46.
3. Inlet sump type II applying at chainage km 132+102.
4. All dimensions are given in mm.

1. Structura podeţului - conform proiectului tip 3.501.1-1 44
2. Consolidarea pe taluz proiect tip 501 - 0 - 46.
3. Bazin de acumulare tip I se aplică la km 132+102.
4. Toate dimensiunile sînt indicate în mm.

Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE — Kocks Consult GmbH, Stegermannstrasse 32-38, 56068 Koblenz, Germany

UNIVERSINJ DESIGN, ENGINEERING, CONSULTING — Universinj Ltd. Independentei 6/1 Str. Chisinau MD 2043, Moldova

Proiectat/Designed:	Tcaci A.	Desenat/Drawn:	Tcaci A.
Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

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Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

Pipe culverts construction Ø1. 25m (sc.1:100)

Construcţia podeţelor tubulare Ø1. 25m (sc.1:100)

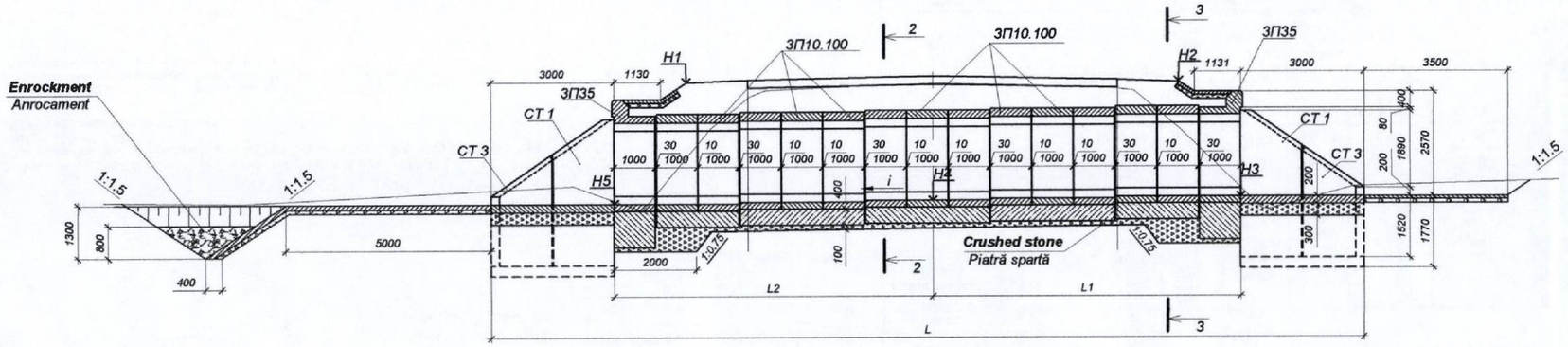
Drawing 7-4

Scimb Inv. Nr

Semnatura si data

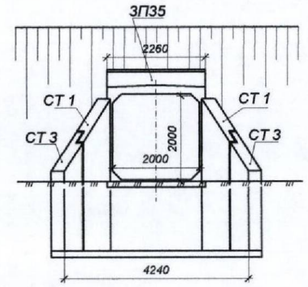
Inv. Nr

1 - 1



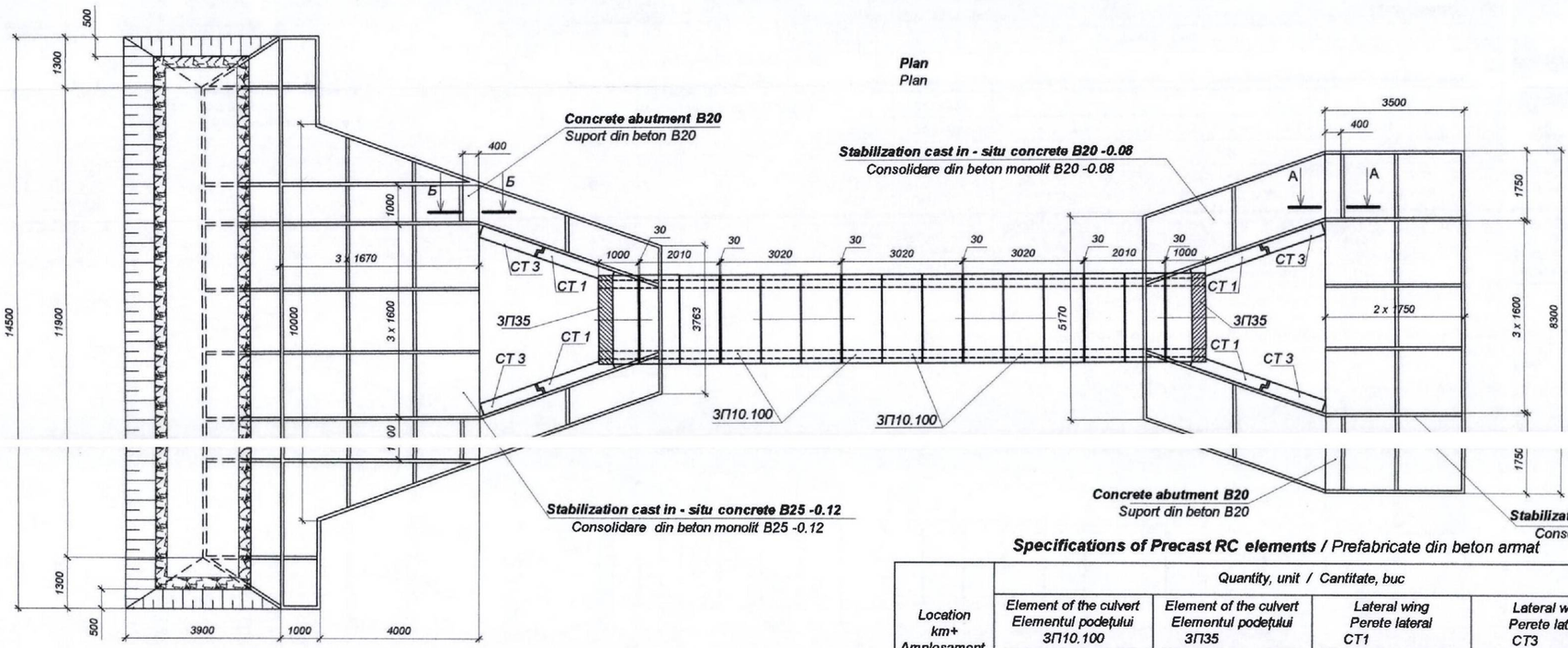
Front elevation of pipe culvert's inlet and out let (1:100)

Elevație capăt amonte și aval (1:100)



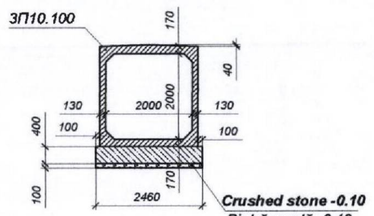
Plan

Plan



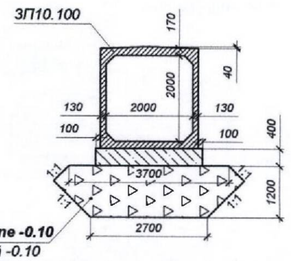
2 - 2

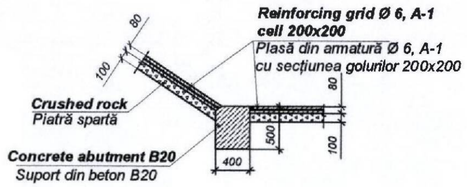
(the embankment is not shown)
(rambleul nu este arătat)

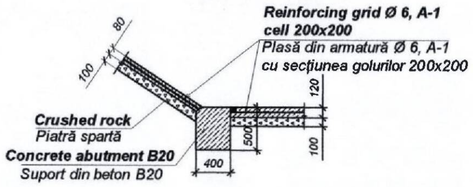


3 - 3

(the embankment is not shown)
(rambleul nu este arătat)







А-А (1:50)

Б-Б (1:50)

Specifications of Precast RC elements / Prefabricate din beton armat

Location km+ Amplesament km+	Quantity, unit / Cantitate, buc			
	Element of the culvert Elementul podețului 3П10.100 Weight of unic - 3,50tn Masa - 3,50t Volume - 1.41m³ Volum - 1,41м³	Element of the culvert Elementul podețului 3П35 Weight of unic - 4,40tn Masa - 4,40t Volume - 1.75m³ Volum - 1,75м³	Lateral wing Perete lateral CT1 Weight of unic - 3,80tn Masa - 3,80t Volume - 1.52m³ Volum - 1,52м³	Lateral wing Perete lateral CT3 Weight of unic - 2,80tn Masa - 2,80t Volume - 1.13m³ Volum - 1.13m³
103+079	13	2	4	4
103+408	13	2	4	4
122+628	13	2	4	4

Main parameters / Parametrii principali

Location km+ Amplesament km+	Waterway direction Direcția cursului de apă	Level / Cotă: edge of the road / pe marginea drumului: Left Stînga H1	Right Dreapta H2	Level / Cotă: of the culvert ulucul drumului: Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	Longht of the culvert Lungimea podețului: upper de sus L1	lower de jos L2	full deplină L	Cross angle, α, ° Unghiul intersecției, α, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice: Rate of flow, m³/s Debit de calcul, m³/s	Backwater, m REMUU, m	Water flow at out let, m³/s Viteza la ieșire, m³/s	Flow regime Regim hidraulic
103+079	←	49.67	50.13	47.03	46.91	46.80	6.76	6.46	21.28	90	10	0.02	13.6	2.63	5.36	free / n.l.
103+408	←	48.64	48.64	45.66	45.59	45.51	6.55	6.69	21.28	90	10	0.03	5.0	1.35	4.31	free / n.l.
122+628	←	27.29	27.29	24.47	24.39	24.30	6.47	6.73	21.26	90	11	0.02	11.7	2.38	5.45	free / n.l.

1. Culvert structure - according to the typical design 3.501.1-177.93.0-1
2. The consolidation of channels and slopes are adopted according to the typical design 501 - 0 - 46.
3. All dimensions are given in mm.

1. Structura podetului - conform proiectului tip 3.501.1-177.93.0-1
2. Consolidarea pe taluz proiect tip 501- 0 - 46.
3. Toate dimensiunile sînt indicate în mm.

Mod. nr.vnv. | Semnat la data | Nr. inv. orig.

Rev.	Amendamente Amendments	Aprobat: Approved:	Data Date

Consultantii/Consultants:

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Kocks Consult GmbH
Stegemannstrasse 32-38,
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Proiectat/Designed:	Tcaci A.	Desenat/Drawn:	Tcaci A.
Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

Marimea originala a desenului Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

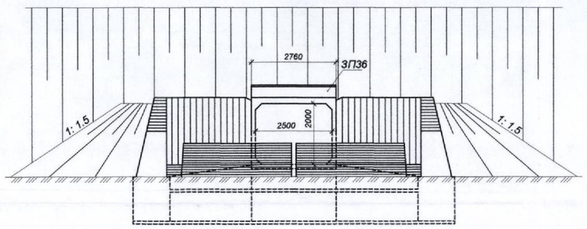
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

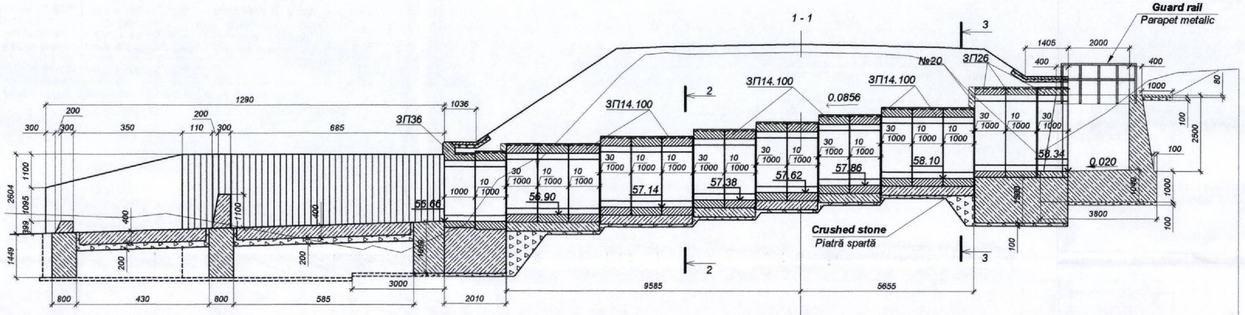
Typical Box culverts construction hetchway 2.0x2.0m (sc.1:100)
Construcția podețelor cadru tip deschidere 2.0x2.0m (sc.1:100)

Drawing 7-5

Front elevation of pipe culvert's out let (1:100)
Elevație capăt aval (1:100)

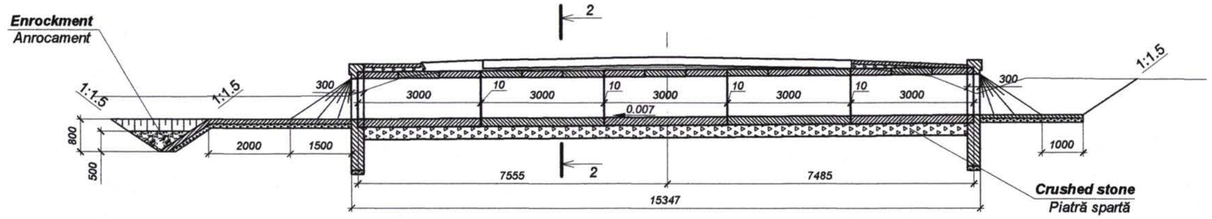


Sc. 1:100



| | | |

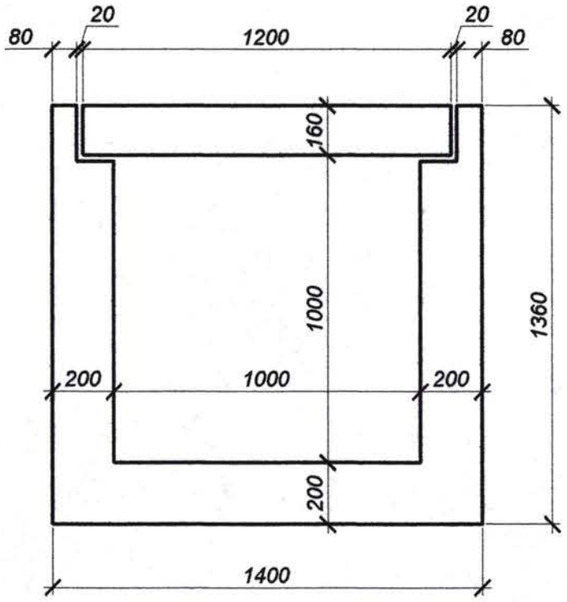
1 - 1


Enrockment
Anrocament
1:1.5
1:1.5
300
3000
10
3000
10
3000
10
3000
10
3000
300
1:1.5
0.007
800
500
2000
1500
1000
7555
7485
15347
2
2
Crushed stone
Piatră spartă

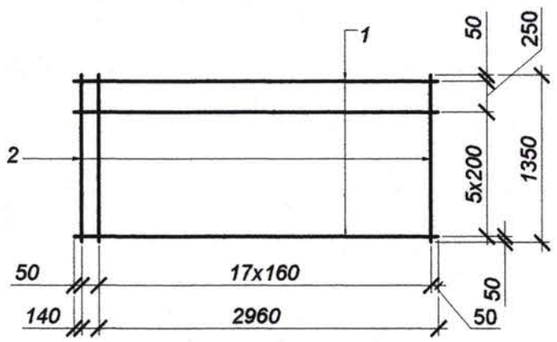
Sc. 1:100

| | | |

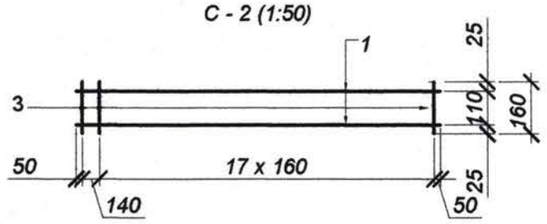
Box culvert (1:20)
Podeț cadru (1:20)
Concrete form size
Dimensiuni cofraj



C - 1 (1:50)



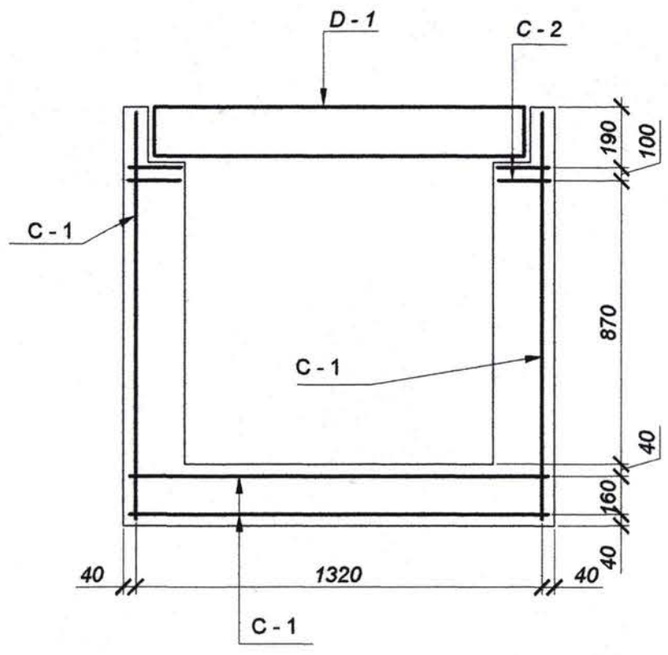
C - 2 (1:50)



Specification of materials for RC channel
Specificarea materialelor pentru rigolă din beton armat

No *Poz.*	**Referance** *Marcarea*	**Name** *Denumirea*	**Quantity** *Buc.*	**Weight, kg** *Masa unut., kg*	**Note** *Nota*
		Prefabricated units *Elemente prefabricate*			
		Grid C-1 *Plasă C-1*	4	18.26	
1	GOST 5781-82**	Ø8 A-III L - 2960	7	1.17	
2	GOST 5781-82**	Ø8 A-III L - 1350	19	0.53	
		Grid C-1 *Plasă C-1*	4	3.48	
1	GOST 5781-82**	Ø8 A-III L - 2960	2	1.17	
3	GOST 5781-82**	Ø8 A-III L - 1350	19	0.06	
		Material *Materiale*			
	GOST 26633-91*	**Concrete B25 F200 W6** *Beton B25 F200 W6*			2.12 m³

Armare rigolă (1:20)



List of steel use, kg
Lista utilizării oțelului, kg

Type of element *Tip element*	**Reinforcing products** *Confecții din armatură*					**Embedded details** *Piese anglobate*				
	D-bars of *Armatură clasa*				**Grand total** *Linia totalului*	**D-bars of** *Armatură clasa*			**Grand total** *Linia totalului*	**Total demand** *Greutate totală*
	A - III					*A-I, Cm3*				
	*GOST 5781-82**					*GOST5781-82**				
		Ø8		**Total** *Total*				*Total*		
Channel *Rigolă*		86.96		86.96	86.96			-	-	86.96

1. All dimensions are given in mm.
1. Toate dimensiunele sînt indicate in mm.

Scimb Inv. Nr
Semnatura si data
Inv. Nr

Rev.	Amendamente Amendments		Aprobat Approved:	Data Date

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Original Drawing Size

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de execu ție / Sector Comrat - R38

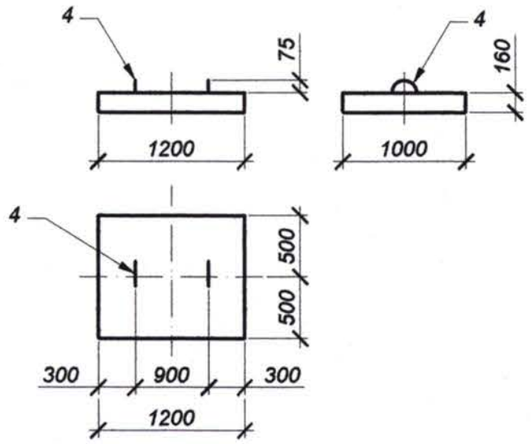
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Lined side ditch

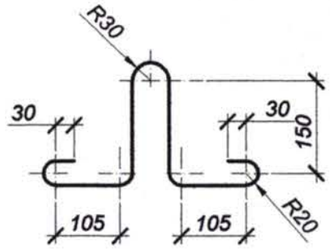
Reinforcing of box culvert 1.0x1.0 km 119+536
Podeț cadru 1,0x1,0

Drawing 7-8

RC slab D-1 (1:50)
Dala BA D-1 (1:50)



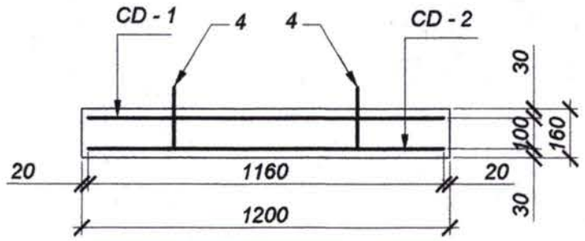
List of details
Lista de detalii

No Poz.	Draft Schiță
4	

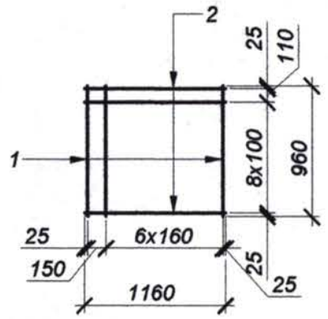
Specification of materials for RC slab
Specificarea materialelor pentru dală din beton armat

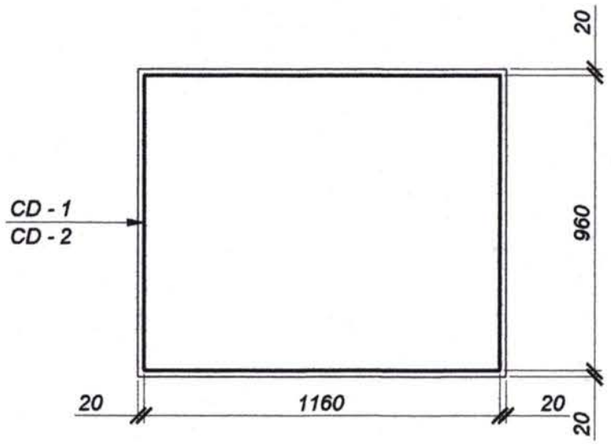
No Poz.	Referance Marcarea	Name Denumirea	Quantity Buc.	Weight, kg Masa unut., kg	Note Nota
		Prefabricated units Elemente prefabricate			
		Grind CD-1 Plasă CD-1	1	20.10	
1	GOST 5781-82**	Ø8 A-II L - 960	8	1.83	
2	GOST 5781-82**	Ø8 A-II L - 1160	10	0.57	
		Grind CD-1 Plasă CD-1	1	13.34	
3	GOST 5781-82**	Ø8 A-II L - 960	8	0.38	
4	GOST 5781-82**	Ø12 A-III L - 1160	10	1.03	
		Embedded detail Piese anglobate	2	0.68	
5	GOST 5781-82**	Ø8 A-I L - 850	1	0.34	
		Material Materiale			
	GOST 26633-91*	**Concrete B25 F200 W6** Beton B25 F200 W6			0.19 m³

Reinforcing D - 1(1:20)
Armare D - 1(1:20)

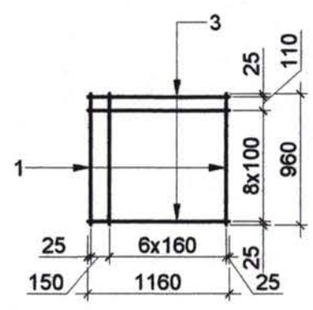


CD - 1 (1:50)





CD - 2 (1:50)



List of steel use, kg
Lista utilizării oțelului, kg

Type of element Tip element	Reinforcing products Confecții din armatură							Embedded details Piese anglobate				Total demand Greutate totală
	D-bars of Armatură clasa						Grand total Linia totalului	D-bars of Armatură clasa			Grand total Linia totalului	
	A - II			A - III				A-I, Cm3				
	GOST 5781-82*			GOST5781-82*				GOST5781-82*				
	Ø8		Total Total	Ø12		Total Total		Ø8		Total		
Slab Dală	10.68		10.68	10.30		10.30	20.98	0.68		0.68	0.68	21.66

1. All dimensions are given in mm.
1.Toate dimensiunele sînt indicate in mm.

Inv. Nr | Semnatura si data | Schimb Inv. Nr

Rev.	Amendamente Amendments	Aprobat Approved	Data Date

Consultantii/Consultants:

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Verificat/Checked:	Vilcinschi D.	Data/Date	08.09.

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Data/Date

EU Delegation to Moldova

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Ministry of Transport

Marimea originala a desenului
Original Drawing Size

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Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

RC slab construction km 119+536
Construcție dală BA

Drawing 7-9

Location km+ Amplesament km+	Diametru / Diameter	Direcţia cursului de apă / Waterway direction	Level / Cotă: edge of the road bed / pe marginea drumului		Level / Cotă: of the culvert ulucul podeţului			Lenght of the culvert Lungimea podeţului			Depth of the well Hк, m Adîncimea puţului Hк, m	Cross angle, α, ° Unghiul intersecţiei, α, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcţie ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieşire H5	upper de sus L1	lower de jos L2	full deplină L					Rate of flow, m³ Debit de calcul, m³	Backwater, m Remuu, m	Speed at out let, m³/s Viteza la ieşire, m³/s	
97+875	Ø1,0	←	65.12	65.12	63.43	63.37	63.31	7.03	7.20	16.43	1.50	90	8	0.02	0.95	0.90	2.89	free / n.l.
101+957	Ø1,0	←	52.88	52.88	50.90	-	50.80	2.01	2.01	17.20	1.50	90	8	-	1.03	0.95	3.03	free / n.l.
104+074	Ø1,0	←	50.94	50.94	48.87	-	48.45	2.01	3.02	18.57	-	90	19	-	1.37	1.12	3.31	free / n.l.
104+495	Ø1,0	←	49.74	49.74	48.01	-	47.82	2.01	2.01	18.48	-	90	14	-	1.62	1.24	3.48	free / n.l.
105+839	Ø1,0	←	53.38	53.38	51.77	-	51.55	1.00	1.00	17.29	-	90	15	-	1.47	1.19	3.49	free / n.l.
107+182	Ø1,0	←	53.53	53.53	51.67	-	51.34	3.04	1.00	18.48	-	90	19	-	1.76	1.36	3.73	half / s.în.
107+506	Ø1,0	←	53.79	54.27	52.42	-	51.80	1.00	2.01	18.66	-	90	19	-	1.75	1.35	3.71	half / s.în.
109+521	2Ø1,0	←	47.01	47.01	45.17	45.08	45.00	7.63	7.56	18.93	-	90	11	0.02	2.90	1.17	3.38	free / n.l.
109+960	Ø1,0	←	48.59	48.59	46.78	-	46.61	2.01	2.01	18.12	-	90	12	-	1.70	1.27	3.60	free / n.l.
110+327	Ø1,0	←	49.34	49.34	-	-	47.74	-	3.04	19.59	-	90	7	-	1.41	1.14	3.34	free / n.l.
111+798	2Ø1,0	←	46.41	46.41	44.59	-	44.32	7.42	7.86	18.94	-	90	18	-	3.20	1.24	3.49	free / n.l.
112+710	2Ø1,0	←	39.49	39.49	37.83	-	37.56	6.84	7.43	17.93	-	90	19	-	3.00	1.19	3.44	free / n.l.
113+413	Ø1,0	←	39.28	39.24	-	-	37.62	-	2.01	18.13	-	90	8	-	1.43	1.16	3.39	free / n.l.
115+293	Ø1,0	←	39.61	39.61	37.89	37.85	37.80	6.33	6.91	16.82	1.50	90	7	0.02	1.50	1.19	3.44	free / n.l.
115+630	Ø1,0	←	38.35	38.35	36.63	36.59	36.54	6.34	6.90	16.82	1.50	90	7	0.02	0.69	0.75	2.60	free / n.l.
117+011	2Ø1,0	←	31.57	31.57	29.90	-	29.64	1.00	1.00	18.12	-	94	19	-	2.92	1.17	3.40	free / n.l.
117+688	Ø1,0	←	34.77	34.77	33.08	33.02	32.96	7.91	9.41	20.97	-	90	7	0.02	1.65	1.27	3.58	free / n.l.
118+813	Ø1,0	←	33.66	34.00	30.65	-	30.31	3.04	2.01	21.99	-	90	19	-	1.60	1.24	3.49	free / n.l.
119+021	2Ø0.8	←	34.32	34.63	31.68	-	31.54	2.01	1.00	21.84	-	90	7	-	2.72	1.00	3.28	free / n.l.
120+320	2Ø1,0	←	34.42	34.42	33.08	-	-	1.00	-	17.89	-	90	11	-	3.25	1.25	3.54	free / n.l.
125+520	2Ø1,0	←	44.03	44.03	42.46	42.27	42.03	9.60	12.81	26.07	-	90	19	0.02	2.70	1.12	3.32	free / n.l.
126+322	Ø1,0	←	38.78	38.78	37.22	37.17	37.12	6.67	6.57	16.90	-	90	8	0.02	3.45	1.27	3.65	free / n.l.
126+336	Ø1,0	←	38.70	38.70	36.98	-	36.88	2.01	2.01	17.90	-	90	7	-	1.69	1.27	3.64	free / n.l.
127+141	Ø1,0	←	35.44	35.44	34.11	-	33.92	2.01	3.02	16.48	-	90	8	-	0.90	0.87	2.84	free / n.l.
133+473	2Ø1,0	←	74.49	74.49	72.73	72.66	72.59	7.11	7.12	16.42	1.50	90	8	0.02	3.32	1.26	3.60	free / n.l.
135+766	Ø1,0	←	77.45	78.24	76.17	-	75.95	11.16	8.13	32.06	1.50	90	8	-	1.07	0.96	3.01	free / n.l.

Scimb Inv. Nr

Semnatura si data

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Culverts

Main parameters of the culver Ø1.0m
Parametri principali podeţului Ø1.0m

Drawing 7-10

Location km+ Amplesament km+	Diametru / Diameter	Waterway direction Direcţia cursului de apă	Level / Cotă: edge of the road pe marginea drumului		Level / Cotă: of the culvert ulucul podeţului			Lenght of the culvert Lungimea podeţului			Depth of the well Hк, m Adîncimea puţului Hк, m	Cross angle, α, ° Unghiul intersecţiei, α, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcţie ridicat, m	Hydrological characteristics Caracteristicile hidrologice			Flow regime Regim hidraulic
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieşire H5	upper de sus L1	lower de jos L2	full deplină L					Rate of flow, m³/s Debit de calcul, m³/s	Backwater, m REMUU, m	Speed at out let, m/s Viteza la ieşire, m/s	
96+976	Ø1,25	←	62.00	62.00	59.82	59.88	59.94	7.02	7.21	18.55	-	90	8	0.02	1.95	1.24	3.44	free / n.l.
105+092	2Ø1,25	←	52.24	52.24	50.25	50.19	50.13	7.02	7.21	18.55	-	90	8	0.02	5.59	1.55	3.91	free / n.l.
105+570	2Ø1,25	←	52.72	52.72	50.76	50.66	50.54	6.73	7.50	18.55	-	90	15	0.02	5.51	1.54	3.90	free / n.l.
106+082	2Ø1,25	←	53.97	53.97	51.99	51.92	51.84	6.84	7.39	18.55	-	90	10	0.02	5.79	1.59	4.01	free / n.l.
106+876	Ø1,25	←	51.63	51.63	49.09	48.97	48.85	6.30	7.95	18.55	-	90	15	0.02	2.91	1.60	4.01	free / n.l.
107+896	Ø1,25	←	53.57	53.57	51.07	51.01	50.95	7.58	7.64	19.54	-	90	8	0.02	3.00	1.60	4.13	free / n.l.
109+265	3Ø1,25	←	46.58	46.58	44.69	44.64	44.58	7.50	7.78	19.59	-	90	7	0.02	7.09	1.39	3.64	free / n.l.
110+792	Ø1,25	←	50.65	50.65	-	-	46.57	-	1.00	2.40	-	90	13	-	1.77	1.17	3.83	free / n.l.
114+937	Ø1,25	←	41.02	41.02	39.05	38.99	38.94	9.06	7.23	20.20	1.70	90	7	0.02	3.01	1.60	4.10	free / n.l.
116+034	Ø1,25	←	37.69	37.69	35.70	35.66	35.61	6.33	6.91	17.15	1.70	90	7	0.02	2.56	1.44	3.84	free / n.l.
117+238	2Ø1,25	←	32.58	32.58	30.60	30.55	30.50	7.15	7.10	18.56	-	90	7	0.02	5.61	1.52	3.98	free / n.l.
119+010	Ø1,25	←	34.28	34.63	32.15	31.99	31.84	8.09	8.20	20.62	-	90	19	0.03	1.51	0.96	3.46	free / n.l.
123+814	2Ø1,25	←	39.00	39.06	37.00	36.86	36.69	7.35	8.93	20.62	-	90	19	0.02	4.78	1.38	4.17	free / n.l.
124+542	Ø1,25	←	33.41	33.41	30.90	30.75	30.59	7.92	8.37	20.62	-	90	19	0.04	2.59	1.45	4.35	free / n.l.
126+846	2Ø1,25	←	35.89	35.89	34.02	33.88	33.74	6.93	7.30	18.55	-	90	19	0.02	5.94	1.63	4.09	free / n.l.
128+971	2Ø1,25	←	35.65	35.65	33.66	33.59	33.51	7.06	7.17	18.55	-	90	10	0.02	5.52	1.51	3.89	free / n.l.
131+601	Ø1,25	←	58.26	58.26	56.29	56.19	56.08	6.84	7.37	18.55	-	90	15	0.02	2.04	1.26	3.39	free / n.l.
132+102	2Ø1,25	←	66.81	66.81	64.83	64.76	64.68	7.17	7.06	16.39	1.50	90	10	0.02	5.7	1.58	3.98	free / n.l.

Nr. | Semnatura si data | Schimb Inv. Nr

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Proiectat/Designed: Tcaci A. | Desenat/Drawn: Tcaci A.
Verificat/Checked: Vilcinschi D. | Data/Date 08.09.

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Data/Date

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Republic of Moldova Ministry of Transport

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Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de execuţie / Sector Comrat - R38

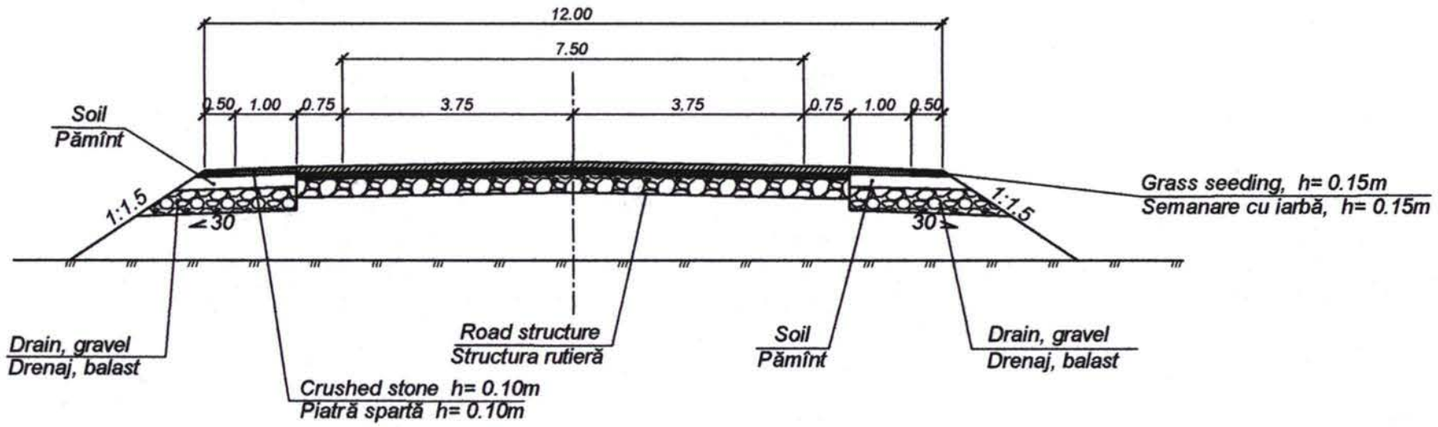
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

Culverts

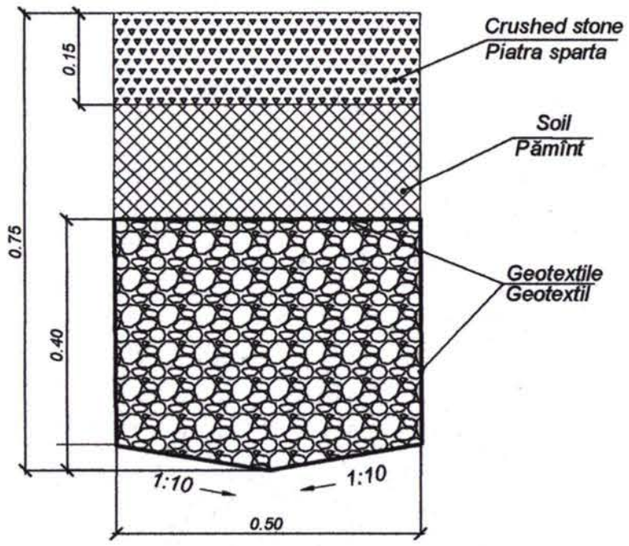
Main parameters of the culver Ø1.25m
Parametri principali podeţului Ø1.25m

Drawing 7-11

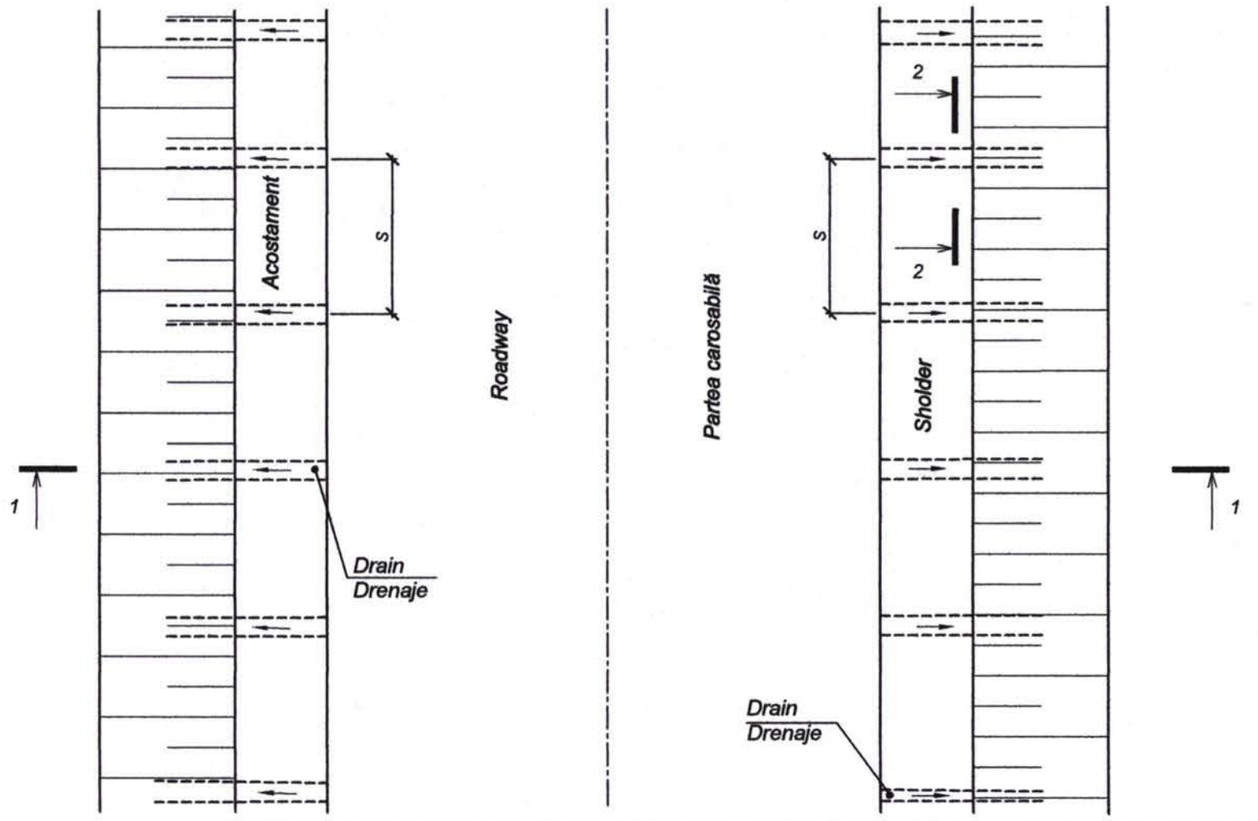
1 - 1 (1:100)



2 - 2 (1:10)



Plan (1: 100)



1. Drains are placed on the following sectors:

1. Drenajele se amplasează pe următoarele sectore:

Km 96+800 - Km 97+150 S=20 m
Km 97+444 - Km 97+512 S=20 m
Km 97+620 - Km 97+740 S=10 m
Km 97+900 - Km 98+020 S=20 m
Km 98+260 - Km 99+400 S=15 m
Km 103+100 - Km 105+510 S=15 m
Km 105+680 - Km 113+800 S=15 m
Km 118+200 - Km 118+340 S=15m
Km 118+425 - Km 121+350 S=15 m
Km 121+920 - Km 122+900 S=10 m
Km 122+900 - Km 124+130 S=20 m
Km 134+800 - Km 135+200 S=20 m

2. All the dimensions are in m.

2. Toate dimensiunile sunt date în m.

Mod. nr.vnv. | Semnat la data | Nr. inv. orig.

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Consultantii/Consultants:

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Verificat/Checked: Vilchinski D.
Desenat/Drawn: Marchenco I.
Data/Date 08.09

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Data/Date

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Republic of Moldova
Ministry of Transport

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Original Drawing Size

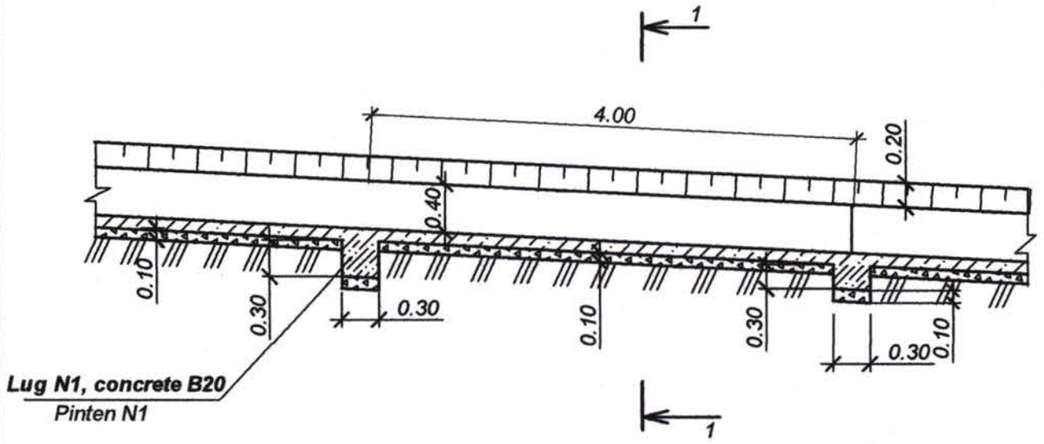
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie/ Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design / Section Comrat - R38

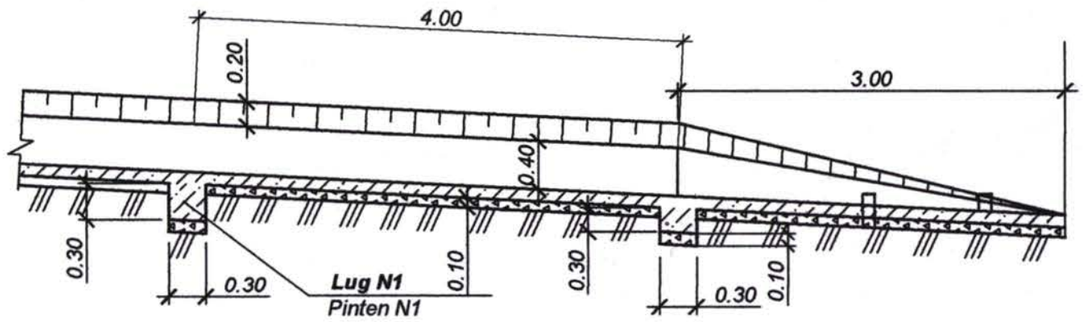
Transversal drain
Drenaj transversal

Drawing 8-1

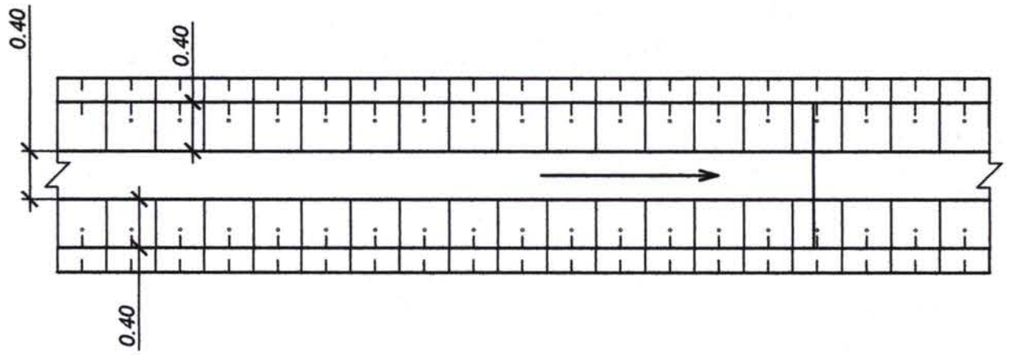
Longitudinal section along chute axe
Profil longitudinal după axa pantei forțate



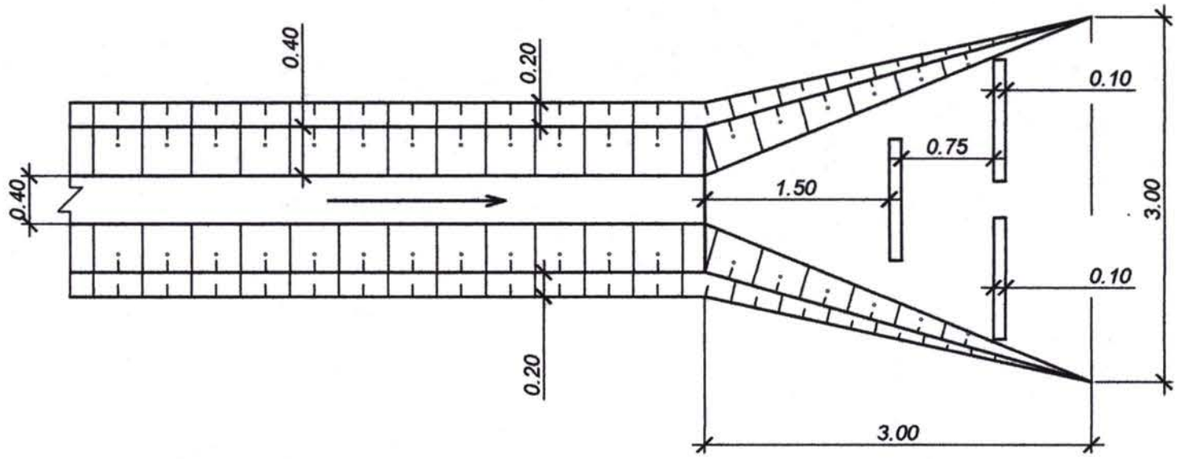
Longitudinal section of expanding chute
Profil longitudinal a rigolei expandabile



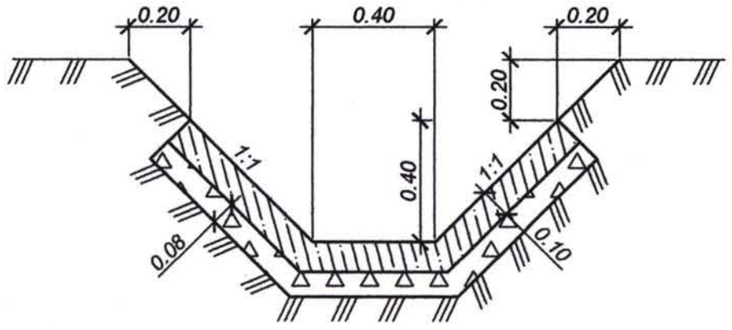
Plan
Plan



Plan of expanding chute
Plan al rigolei expandabile



1 - 1 (1:20)



1. To be carried out on: ПК 9+00
2. Lug N 1 (0.30x0.30x0.44) is to be carried out with distance of 12 m from each other .
3.Lug N 2 (0.30x0.30x0.44) is to be carried out with distance of 4 m from each other .
4. Concrete: B20 ,W6 ,F200.

1. Panta forțată se amenajează pe porțiunea PC 9+00
2. Pinten N 1 (0.30x0.30x0.44) se amenajează peste 12m.
3. Pinten N 1 (0.30x0.20x0.44) se amenajează peste 4m.
4. Betonul pantei forțate: B20 ,W6 ,F200.

Inv. Nr. | Semnatura si data | Schimb Inv. Nr.

Rev.	Amendamente / Amendments		Aprobat / Approved:	Data / Date

Consultantii/Consultants:

KOCKS INGENIEURE
Kocks Consult GmbH
Stegemannstrasse 32-38,
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Universinj s.r.l.
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Proiectat/Designed: Chimbir V.
Verificat/ChecCed: Vilchinski D.
Desenat/Drawn: Crupnaia L.
Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

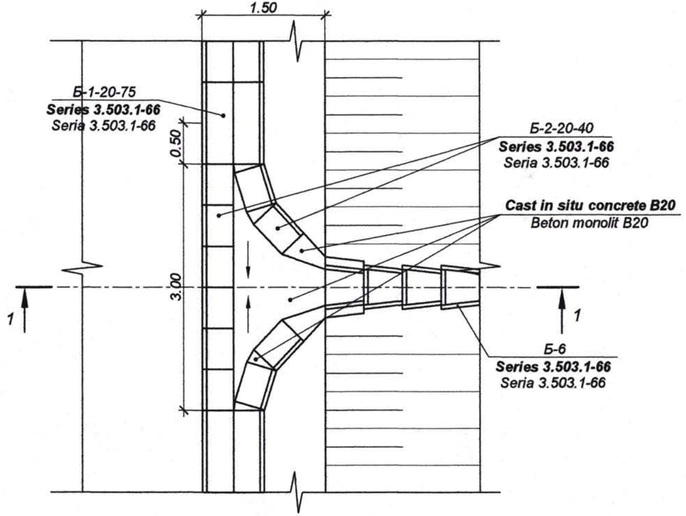
Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section Comrat - R38

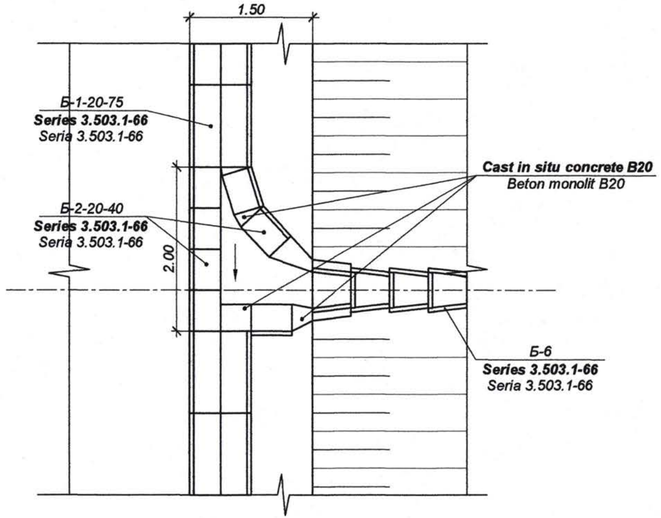
Lined side ditch
Rigola din beton

Drawing 9-1

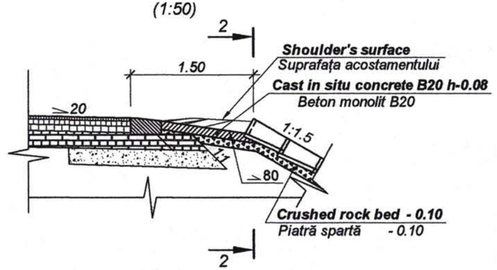
Plan (1:50)
two sides discharge



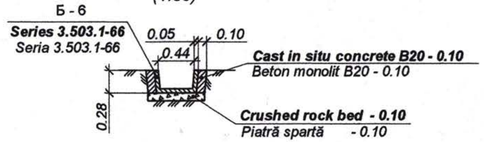
one sides discherge



1-1
(1:50)

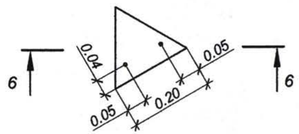


2 - 2
(1:50)

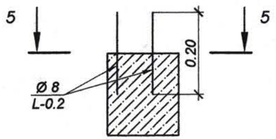


Concrete chute block
Dispersator din beton

5 - 5
(1:10)

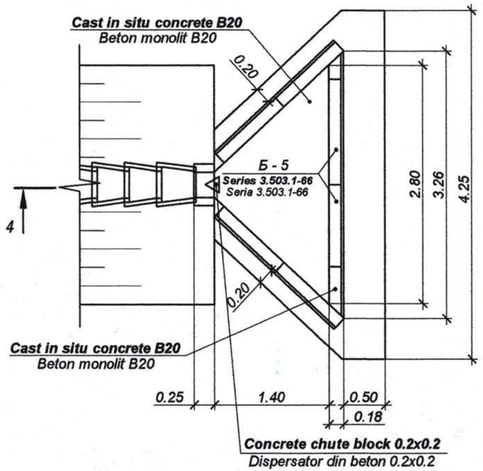


6 - 6
(1:10)

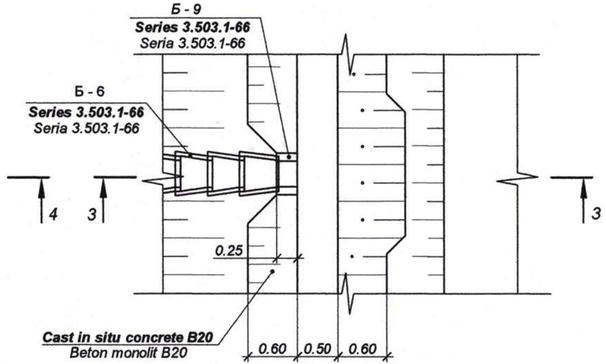


Dissipation on the bottom of the embankment
Disipator la baza rambleului

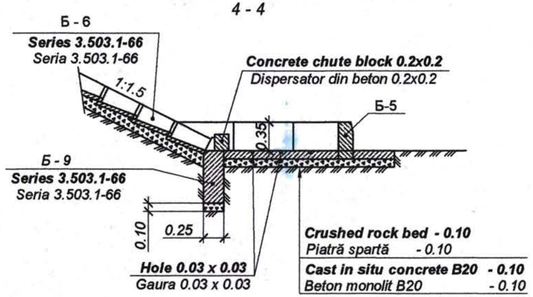
Plan



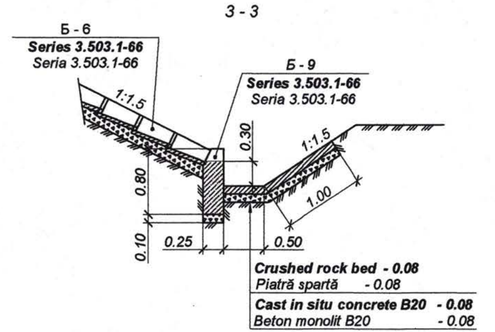
Discherging in lined ditch
Racordarea casiurilor cu rigola din beton



4 - 4



3 - 3



1.The spillways have been designed according to type design 503-09-7.84.**
2. All dimensions are given in meters.

Consultantii/Consultants:

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Rev. / Rev.	Amendamente / Amendments	Aprobat / Approved	Data / Date

Proiectat/Designed: Mantesan M.
Verificat/Checked: Vlichinski D.
Desenat/Drawn: Dumbrava D.
Data/Date: 08.09

Aprobat/Approved
Data/Date

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Republic of Moldova Ministry of Transport

Reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/ Proiect de executie / Sector Comrat - R38
Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD Engineering Design Section 7 Comrat - R38

Marimea originala a desenului
Original Drawing Size

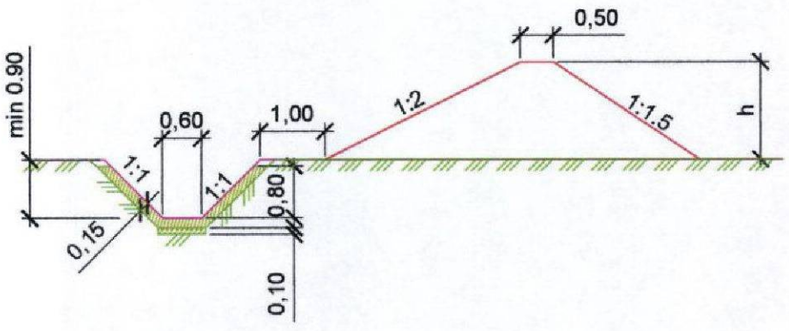
Shoulder Spillways

Drawing 10-1

Взам. инв.N | Подпись и дата | Инв.N подл

Cross section of the lined ditch and dam

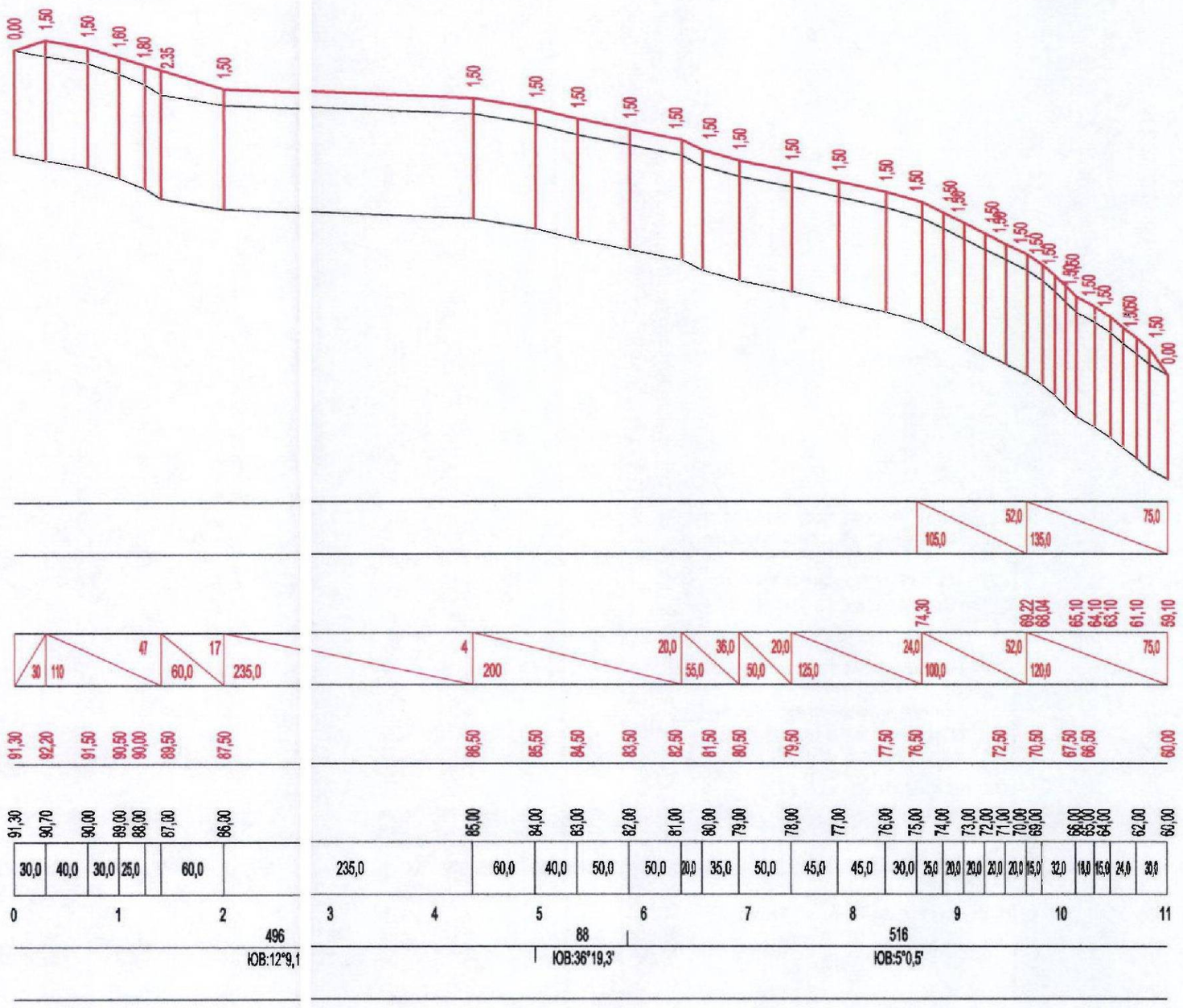
Sch 1:100



Note: The ditch to be arranged according to the type of the chute see the drawing "Chute"

LONGITUDINAL PROFILE

Sch 1:5000 Scv 1:500



PLAN

Sc 1:5000



Rev. Rev.	Amendamente Amendments		Aprobat: Approved:	Data Date	

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KOCKS INGENIEURE

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D:\ПРОЕКТЫ\Logos_UNIVERSINJ_cropped.jpg

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Verificat/Checked: Vilcinschi D
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Data/Date 08.09

Aprobat/Approved
Data/Date

EU Delegation to Moldova

Republic of Moldova
Ministry of Transport

Marimea originala a desenului
Original Drawing Size

Studiul de fezabilitate pentru reabilitarea si extinderea drumului M3 Chisinau-Giurgiulesti /Granita cu Romania/

Rehabilitation and Extension of the Road M3 Chisinau - Giurgiulesti /Romanian Border/ Europe Aid/125919/C/SER/MD section Comrat-R38, Km 96.0 - Km 135.8

Flood wall
Dig de protectie contra inundatiilor

Drawing 11 - 1

Format A2