



REPUBLICA MOLDOVA

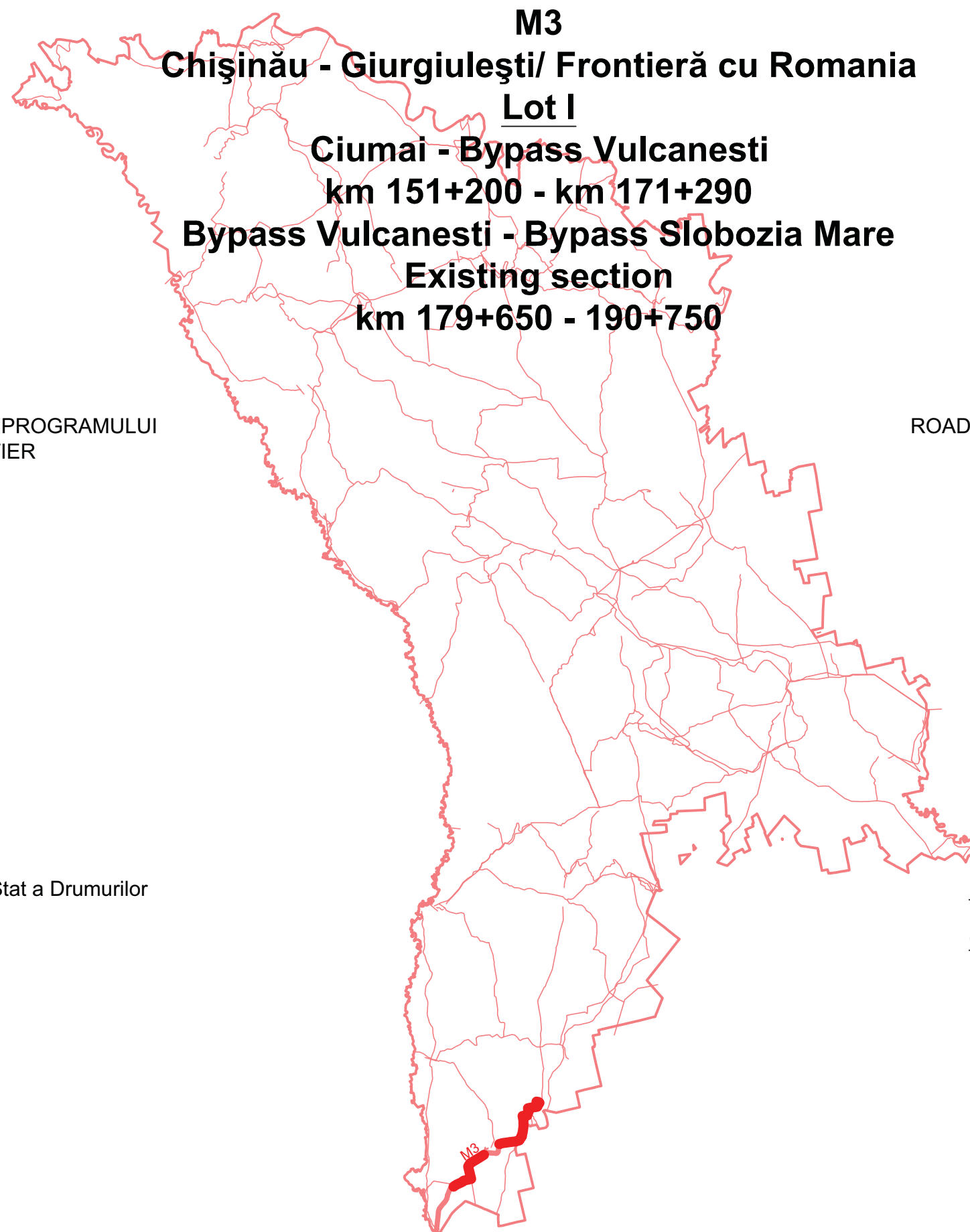
PROIECTUL DE SUSTINERE A PROGRAMULUI  
SECTORULUI RUTIER

Angajator: Administrația de Stat a Drumurilor

Tara: Moldova

**KOCKS**  
INGENIEURE

LEAD PARTNER  
KOBLENZ / GERMANY



**M3**  
**Chișinău - Giurgiulești/ Frontieră cu Romania**  
**Lot I**  
**Ciumai - Bypass Vulcanesti**  
**km 151+200 - km 171+290**  
**Bypass Vulcanesti - Bypass Slobozia Mare**  
**Existing section**  
**km 179+650 - 190+750**



ADMINISTRATIA DE  
STAT A DRUMURILOR

ROAD SECTOR PROGRAM SUPPORT PROJECT

Employer: State Road Administration

Country: Moldova

**DESTIA FINNROAD**

ASSOCIATE PARTNER  
HELSINKI / FINNLAND

**UNIVERSINJ**  
DESIGN, ENGINEERING, CONSULTING

ASSOCIATE PARTNER  
CHISINAU / MOLDOVA



Republic of Moldova  
Republica Moldova.

The State Road Administration  
Administrația de Stat a Drumurilor



06/2011

**TENDER DOCUMENTS**  
DOCUMENTE DE LICITAȚIE

**VOLUME I. Tender Document**

VOLUMUL I. Documente de Licitație

**VOLUME II. Technical Specifications**

VOLUMUL II. Specificații Tehnice

**Appendix. Bill of Quantities**

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Sectiunea transversala		BD03
Racordarea podului cu terasament		BD04
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- Existing Section km 179+650 - km 190+750

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Individual signing	1:20	IS004
Individual signing	1:20	IS005
Individual signing	1:20	IS006
Individual signing	1:20	IS007
Individual signing	1:20	IS008
Individual signing	1:20	IS009
Individual signing	1:20	IS010
Individual signing	1:20	IS011
Individual signing	1:20	IS012

11 STANDART DETAILS FOR ROADS

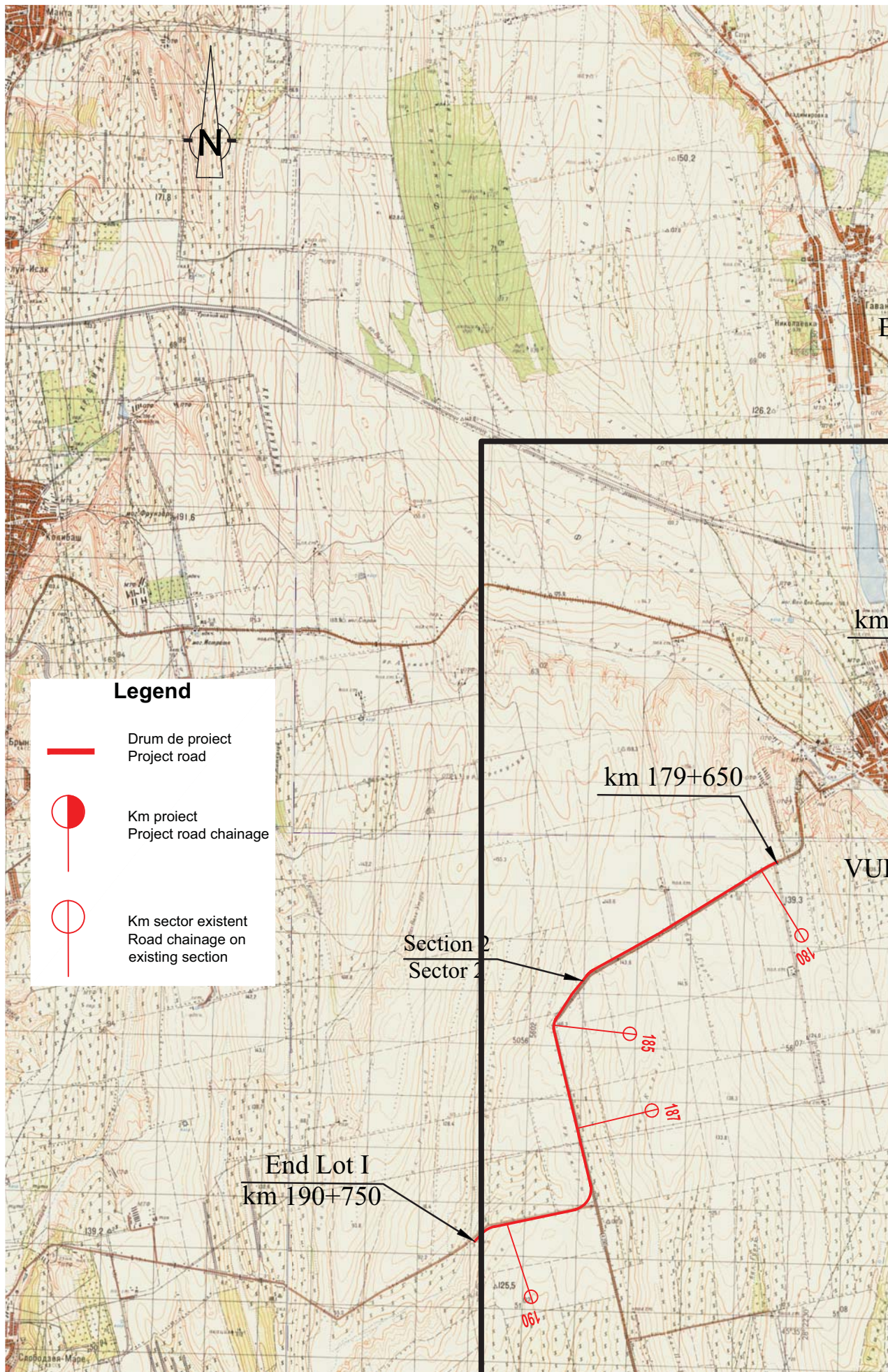
Guardrail type 11DO	1:100	G001
Bus station. Plan	1:100	BS001
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Bus station. WC. Plan	1:100	BS003
Bus station. WC Facade	1:100	BS004

Titlu	Scara	Coala Nr.
Indicatoare individuale	1:20	IS001
Indicatoare individuale	1:20	IS002
Indicatoare individuale	1:20	IS003
Indicatoare individuale	1:20	IS004
Indicatoare individuale	1:20	IS005
Indicatoare individuale	1:20	IS006
Indicatoare individuale	1:20	IS007
Indicatoare individuale	1:20	IS008
Indicatoare individuale	1:20	IS009
Indicatoare individuale	1:20	IS010
Indicatoare individuale	1:20	IS011
Indicatoare individuale	1:20	IS012

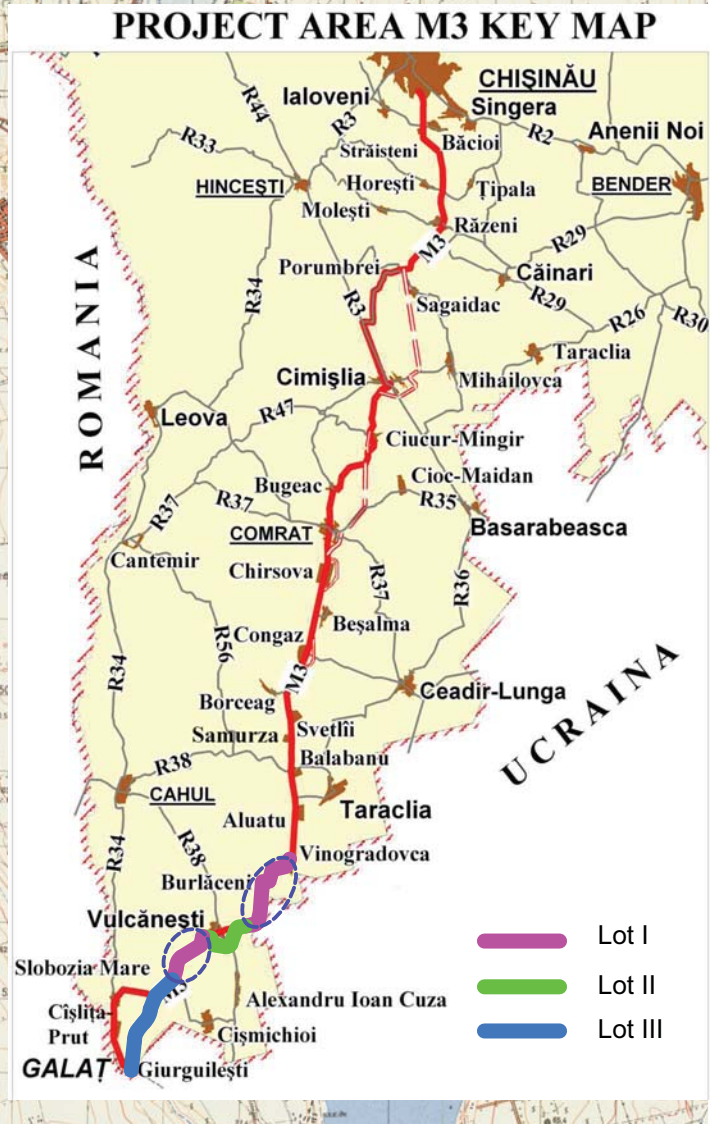
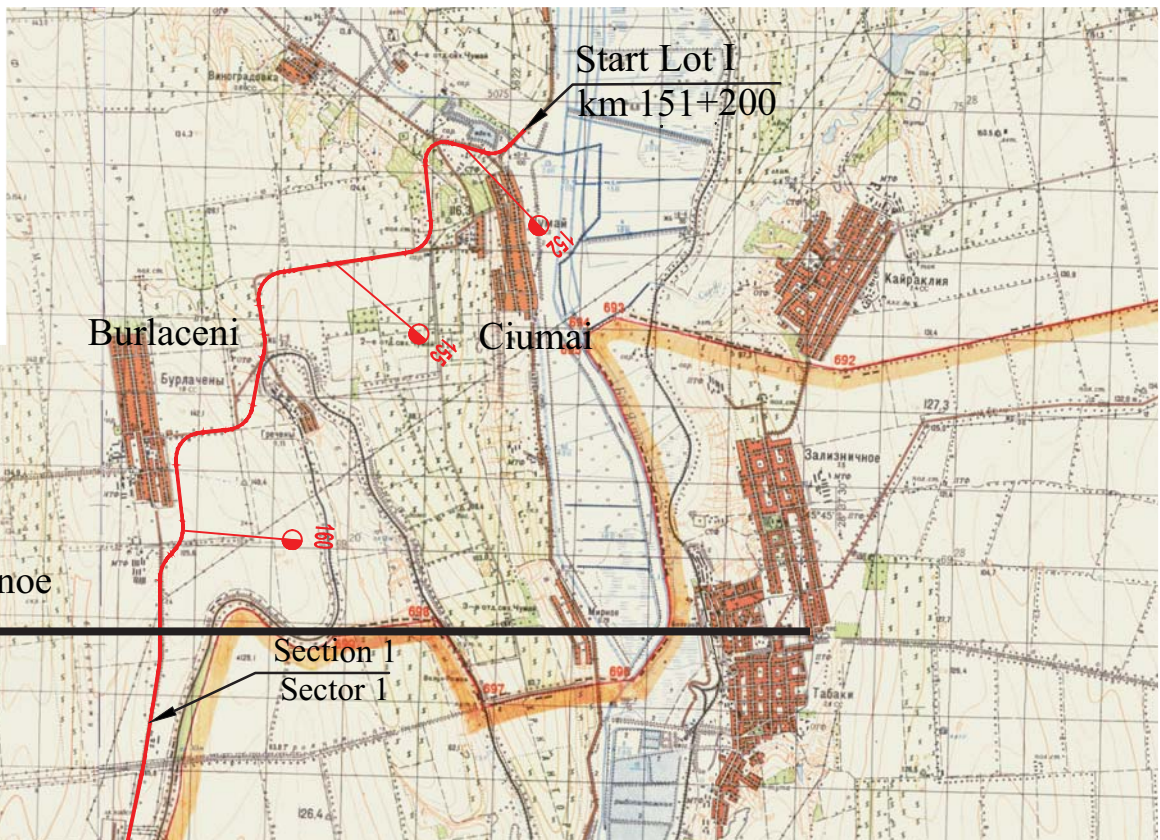
DETALIILE STANDARDE PENTRU DRUMURI

Parapet metallic tip 11DO	1:100	G001
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Statia de Autobus. Cos de gunoi	1:100	BS002
Statia de Autobus. WC Plan	1:100	BS003
Statia de Autobus. WC Fatada	1:100	BS004





Project map location  
Harta amplasarii drumului  
Lot I  
Section 1  
Ciumai - Bypass Vulcanesti  
km 151+200 - km 171+290  
Section 2  
Bypass Vulcanesti - Bypass Slobozia Mare  
Existing section  
km 179+650 - 190+750



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

Rev./	Amendamente/	Aprobat/	Data/	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Rev.	Amendments	Approved	Date	Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved	Republic of Moldova	Denumirea drumului/	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I
Data/Date	Ministry of Transport	Road name	M3 Chisinau - Giurgiulesti/ Romanian border	
		Denumirea desenului/	Harta amplasarii drumului S 50 000	
		Drawing name	Project location map S 50 000	
		Coala Nr./Sheet No.	PLM01	Coli / Sheets
		Original Drawing Size	A1	PLM 01



Typical Pavement Cross-section. Type I  
Profil transversal tipic pentru structura imbracamintei rutiere. Tip I

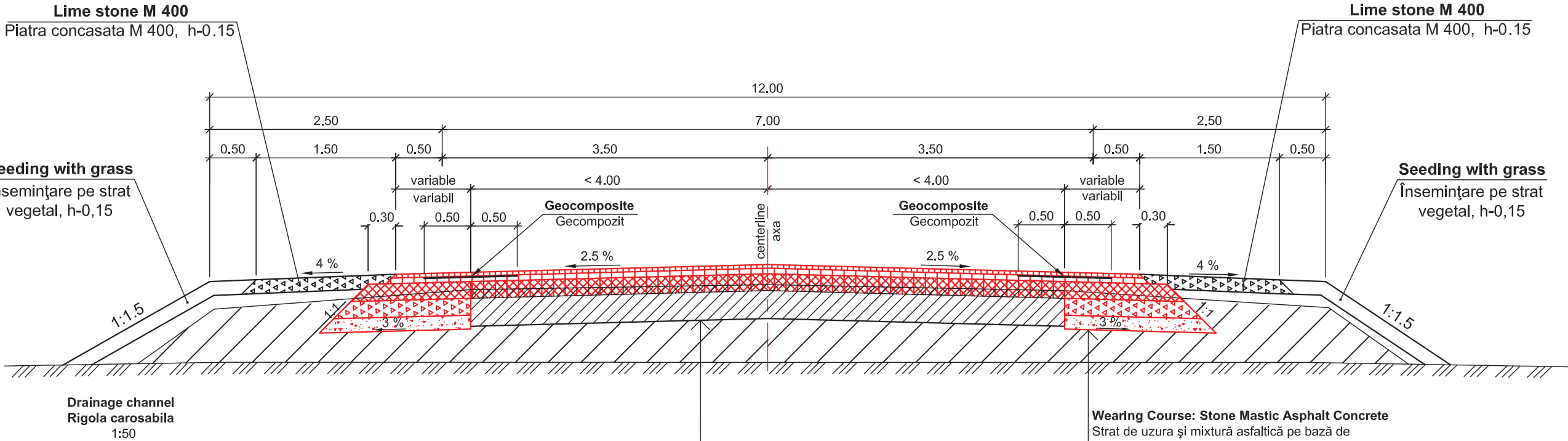
Sc. 1 : 50

Recycling  
Reciclare

Will be used on the sections  
Se va aplica pentru sectoarele

km 151+056 - km 151+456  
km 154+556 - km 155+800  
km 156+256 - km 156+856  
km 158+156 - km 158+556  
km 164+300 - km 164+400  
km 165+855 - km 167+763  
km 169+061 - km 169+456  
km 170+404 - km 170+517  
km 170+960 - km 171+045

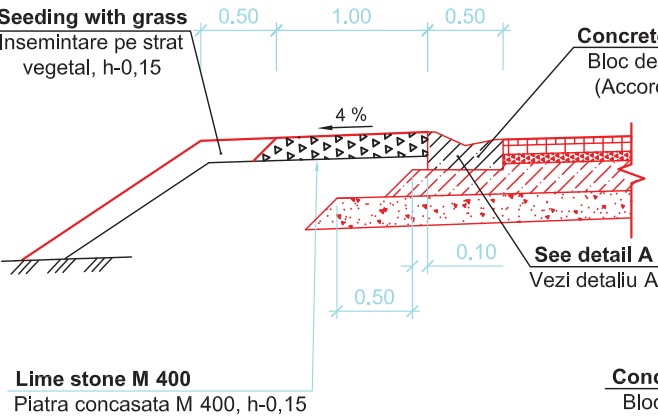
km 180+700 - km 180+900  
km 183+600 -km 183+900  
km 184+800- km 185+600  
km 185+800- km 186+800  
km 187+730 - km 188+130  
km 188+905 - km 189+230  
km 190+610 - km 190+750



<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos SMS c-I/2.2 SM STB 1033 :2008, bitum BND 60/90	- 40 mm
<b>Bituminous Binder Course</b> Binder din beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90	- 60 mm
<b>Base Course: Cold Recycled Asphalt With New aggregates, stabilized with cement 2-3%, GOST 30491-97</b> Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 2-3%, conform GOST 30491-97	- 190mm
<b>Existing Road Base</b> Sistem rutier existent	

<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos SMS c-I/2.2 SM STB 1033 :2008, bitum BND 60/90	- 40 mm
<b>Bituminous Binder Course</b> Binder din beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90	- 60 mm
<b>Base Course: Cold Recycled Asphalt With New aggregates, stabilized with cement 2-3%, GOST 30491-97</b> Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 2-3%, conform GOST 30491-97	- 190 mm
<b>Subbase Course of Lime Stone M 400, interlocked with milled asphalt</b> Strat de fundație din piatra spartă M 400, împănată cu asfalt granulat de la frezare	- 200 mm
<b>Granular Capping Layer</b> Strat drenant, balast	- 100 mm

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



Concrete block B-1-20-50  
Bloc de beton B-1-20-50  
(According 3.503.1-66)

Detail A  
Detaliu A  
1:20

Concrete block B-1-20-50  
Bloc de beton B-1-20-50  
(According 3.503.1-66)

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I
Denumirea desenului/ Drawing name	Profil transversal tipic pentru structura rutiera. Tip I Typical pavement cross section. Type I	
Coala Nr./Sheet No.	TPS 01	Coli / Sheets
		TPS 06

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011



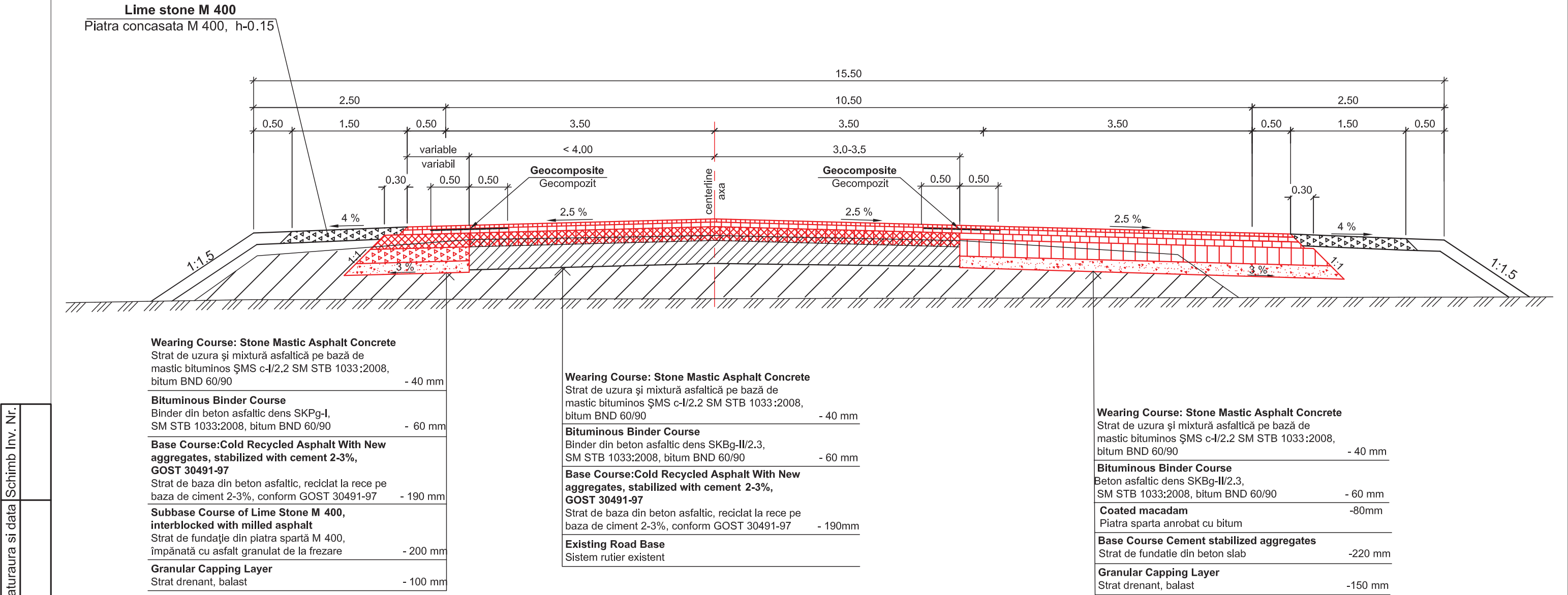
Typical Pavement Cross-section. Type II-a  
Profil transversal tipic pentru structura imbracamintei rutiere. Tip II-a





Sc. 1 : 50

Recycling and additional climbing lane  
Reciclare si banda suplimentara in rampa

Will be used on the sections  
Se va aplica pentru sectoarele

km 167+763 - km 168+768  
km 170+517 - km 170+955



Inv. Nr.				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport						
												Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No. 4283-MD LOT I	
												Denumirea desenului/ Drawing name	Profil transversal tipic pentru structura rutiera. Tip II		
													Typical pavement cross section. Type II		
	Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 	Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.	TPS 02-a	Coli / Sheets	TPS 06
						Verificat/Checked	Vilcinski D. 	Data/Date	06.2011						

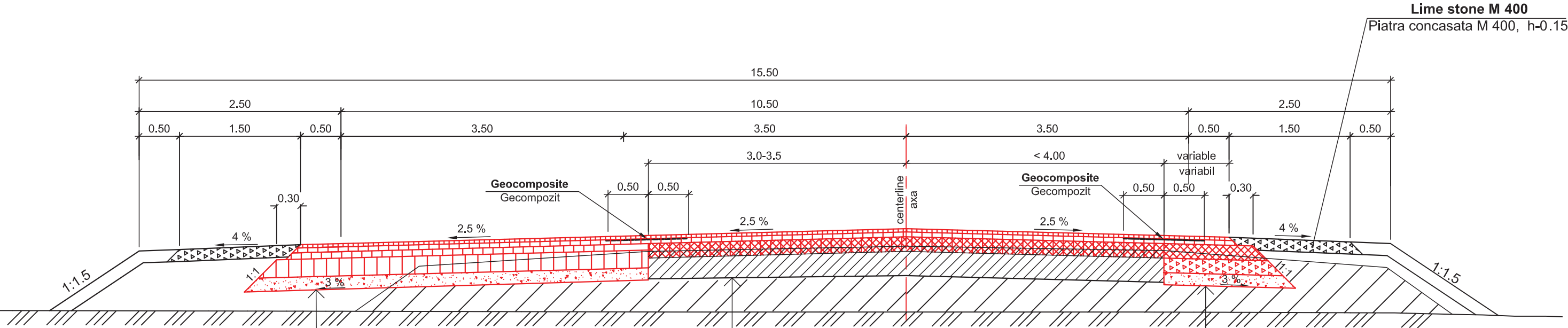
Typical Pavement Cross-section. Type II-b  
Profil transversal tipic pentru structura imbracamintei rutiere. Tip II-b

Sc. 1 : 50

Recycling and additional climbing lane  
Reciclare si banda suplimentara in rampa

Will be used on the sections  
Se va aplica pentru sectoarele

km 169+750 - km 170+404  
km 189+630 - km 189+905  
km 190+310 - km 190+605




<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ȘMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90		- 40 mm
<b>Bituminous Binder Course</b> Beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90		- 60 mm
<b>Coated macadam</b> Piatra sparta anrobat cu bitum		-80mm
<b>Base Course Cement stabilized aggregates</b> Strat de fundație din beton slab		-220 mm
<b>Granular Capping Layer</b> Strat drenant, balast		-150 mm

<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ȘMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90		- 40 mm
<b>Bituminous Binder Course</b> Binder din beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90		- 60 mm
<b>Base Course:Cold Recycled Asphalt With New aggregates, stabilized with cement 2-3%, GOST 30491-97</b> Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 2-3%, conform GOST 30491-97		- 190mm
<b>Existing Road Base</b> Sistem rutier existent		

<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ȘMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90		- 40 mm
<b>Bituminous Binder Course</b> Binder din beton asfaltic dens SKPg-I, SM STB 1033:2008, bitum BND 60/90		- 60 mm
<b>Base Course:Cold Recycled Asphalt With New aggregates, stabilized with cement 2-3%, GOST 30491-97</b> Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 2-3%, conform GOST 30491-97		- 190 mm
<b>Subbase Course of Lime Stone M 400, interlocked with milled asphalt</b> Strat de fundație din piatra spartă M 400, împănată cu asfalt granulat de la frezare		- 200 mm
<b>Granular Capping Layer</b> Strat drenant, balast		- 100 mm

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

			<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name				M3 Chisinau - Giurgiulesti /Frontiera cu Romania				Contract No. 4283-MD LOT I	
			Proiectat/Designed							Eftodii V.				M3 Chisinau - Giurgiulesti/ Romanian border					
			Verificat/Checked							Vilcinski D.				Profil transversal tipic pentru structura rutiera. Tip II-b				Typical pavement cross section. Type II-b	
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date			Desenat/Drawn	Eftodii V.		Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.		TPS 02-b		Coli / Sheets		TPS 06	
							Data/Date	06.2011											

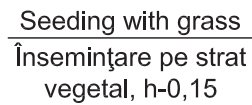
Sc. 1 : 50

Construcție nouă

km 151+456 - km 151+700  
km 152+233 - km 154+000  
km 155+800 - km 156+256  
km 158+556 - km 160+756  
km 164+400 - km 165+879  
km 168+862 - km 169+061  
km 169+552 - km 169+750

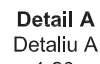
**Lime stone M 400**

Piatra concasata M 400, h-0.15



Seeding with grass  
Însemințare pe strat  
vegetal, h-0,15


Strat drenant, balast	-150 mm
-----------------------	---------



1:20

04 | 0,05

**Concrete Block Б-1-20-50**  
Bloc de beton Б-1-20-50  
(According 3.503.1-66)

Inv. Nr.	Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name				M3 Chisinau - Giurgiulesti/ Frontiera cu Romania Contract No. 4283-MD LOT I																												
					Proiectat/Designed							Eftodii V.				Desenat/Drawn				Eftodii V.				Denumirea desenului/ Drawing name				Profil transversal tipic pentru structura rutiera. Tip III																
					Verificat/Checked				Vilcinski D.				Data/Date				06.2011				Marimea originala a desenului Original Drawing Size				A3 A3				Coala Nr./Sheet No.				TPS 03				Coli / Sheets				TPS 06			

Semnatura si data	Schimb Inv. Nr.	<b>Rigola carosabila</b> 1:50	<b>Seeding With Grass</b> Insemintare pe strat vegetal, h=0,15	<b>Concrete Block B-1-20-50</b> Bloc de beton B-1-20-50 (According 3.503.1-66)	<b>Detail A</b> Detaliu A 1:20	<b>Concrete Block B-1-20-50</b> Bloc de beton B-1-20-50 (According 3.503.1-66)	<b>Bituminous Binder Course</b> Beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90	<b>Coated macadam</b> Piatra sparta anrobat cu bitum	<b>Base Course Cement stabilized aggregates</b> Strat de fundatie din beton slab	<b>Granular Capping Layer</b> Strat drenant, balast	

1.00	0.50	0.10	4 %	0.04	0.05	0.25	0.50	0.20
------	------	------	-----	------	------	------	------	------

Sc. 1 : 50

### Construcție nouă cu trotuar

Se va aplica pentru sectoarele

**Lime stone M 400**  
Piatra concasata M 400, h-0.15

Seeding with grass  
Însemințare pe strat vegetal, h-0,15

12.00  
7.00  
2.50  
0.50  
1.50  
0.50  
3.50  
3.50  
0.50  
1.50  
0.50

4 %  
2.5 %  
2.5 %  
1.5 %  
3 %

centerline  
axa

Detail B  
Detaliu B

1:1.5

**Wearing course: Asphalt concrete**  
Strat de uzura si mixtura asfaltică pe baza de bitum ŞMVg - III / 2.0 SM STB 1033:2008, bitum BD 60/90 -30 mm

**Crushed stone**  
Piatra sparta -100 mm

**Wearing Course: Stone Mastic Asphalt Concrete**  
Strat de uzura şi mixtură asfaltică pe bază de mastic bituminos ŞMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90 - 40 mm

**Bituminous Binder Course**  
Beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90 - 60 mm

**Coated macadam**  
Piatra sparta anrobat cu bitum -80mm

**Base Course Cement stabilized aggregates**  
Strat de fundatie din beton slab -220 mm

**Granular Capping Layer**  
Strat drenant, balast -150 mm

**Detail B**  
Detaliu B  
1:50

**Kerb BP 100.30.18**  
Bordura BP 100.30.18  
(According GOST 6665-91)

**Sidewalk**  
Trotuar





**Kerb BP 100.20.8**  
Bordura BP 100.20.8

1.5 %

Lean Concrete  
Lean din beton (ST-4 Concrete)

Road pavement  
Sistem rutier

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

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport						
				Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 				Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No. 4283-MD LOT I		
				Verificat/Checked	Vilcinschi D. 	Data/Date	06.2011				Denumirea desenului/ Drawing name	Profil transversal tipic pentru structura rutiera. Tip IV Typical pavement cross section. Type IV			
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date					Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.	TPS 04	Coli / Sheets	TPS 06	

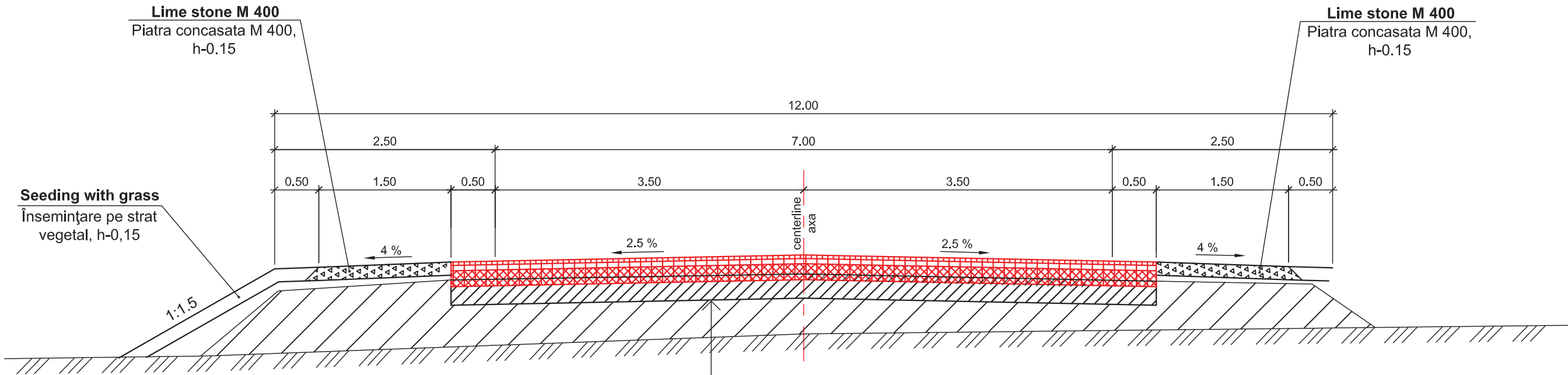
Typical Pavement Section. Type V  
Sectiune tip a structurii rutiere. Tip V

Sc. 1 : 50

Recycling  
Reciclare

Will be used on the sections:

Se va aplica pe sectoarele:  
M3 existing section  
km 179+700 - km 180+700  
km 180+900 - km 183+600  
km 183+900 - km 184+800  
km 185+600 - km 185+800  
km 186+800 - km 187+730



**Wearing Course: Stone Mastic Asphalt Concrete**  
Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ȘMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90 - 40 mm

**Bituminous Binder Course**  
Binder din beton asfaltic dens SKBg-II/2.3, SM STB 1033:2008, bitum BND 60/90 - 60 mm

**Base Course: Cold Recycled Asphalt With New aggregates, stabilized with cement 2-3%, GOST 30491-97**  
Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 2-3%, conform GOST 30491-97 - 190mm

**Existing Road Base**  
Sistem rutier existent

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

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Profil transversal tipic pentru structura rutiera. Tip V Typical pavement cross section. Type V	
Coala Nr./Sheet No.	TPS 05	Coli / Sheets
		TPS 06

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

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011



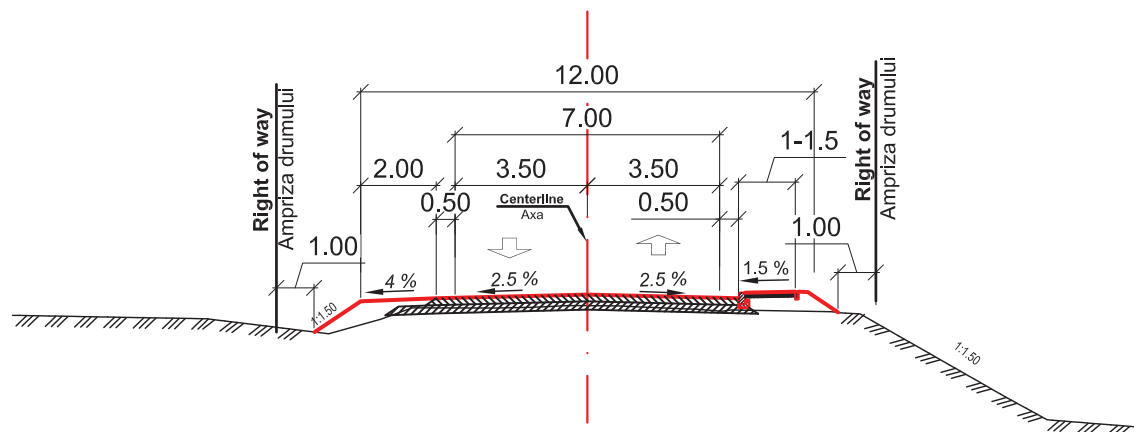
TPS 06



### Typical Cross-section. Type 1

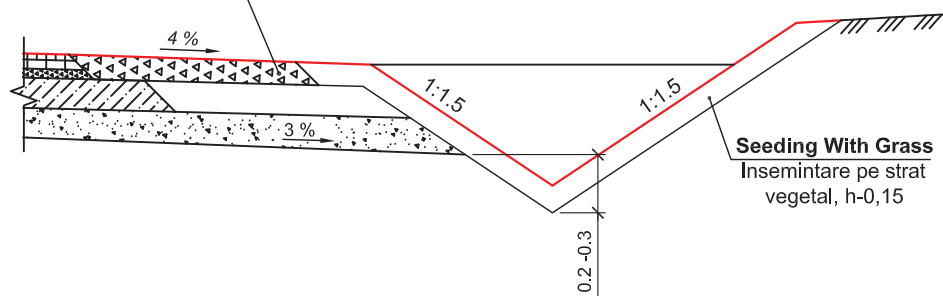
Profil transversal tip. Tip 1

Will be used on the sections  
Se va aplica pentru sectoarele  
151+842 - 152+219

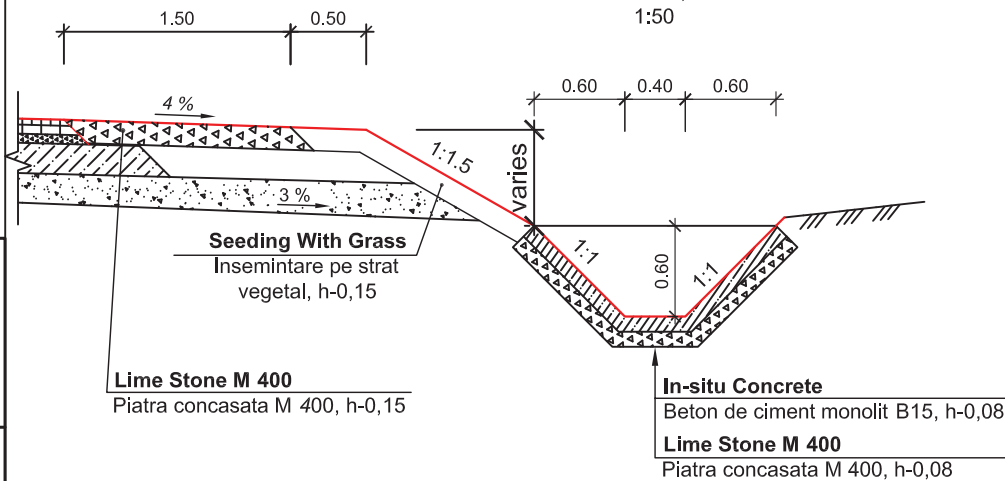


**Lime Stone M 400**  
Piatra concasata M 400, h-0,15

**Open channel - grass seeding**  
Rigola- insemintare cu iarba  
1:50



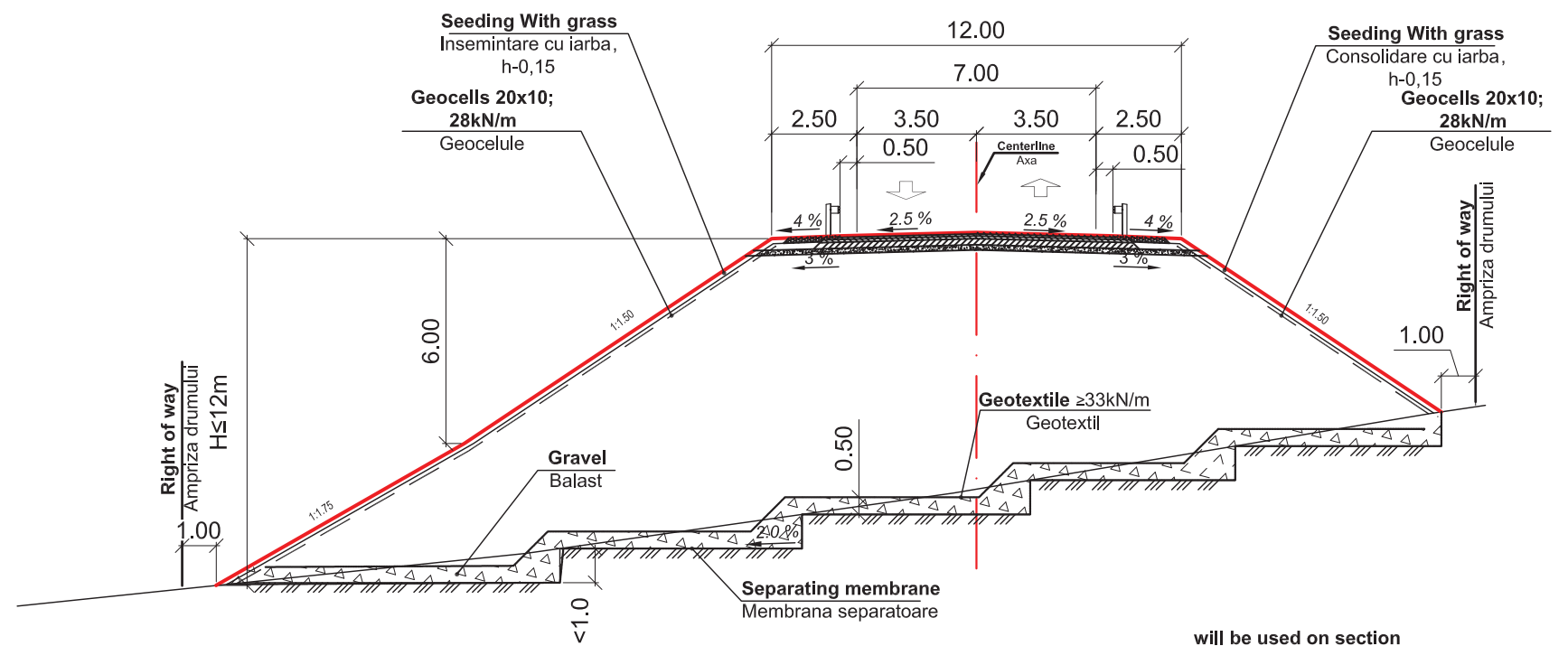
**Open channel; i > 3%**  
Sant deschis; i > 3%  
1:50



### Typical Cross-section. Type 2

Profil transversal tip. Tip 2

Will be used on the sections  
Se va aplica pentru sectoarele  
152+600 - 153+640



will be used on section  
km 152+540 - 152+600  
km 153+580 - 153+640

### Typical Cross-section. Type 3

Profil transversal tip. Tip 3

Embankment 6m<H≤12m

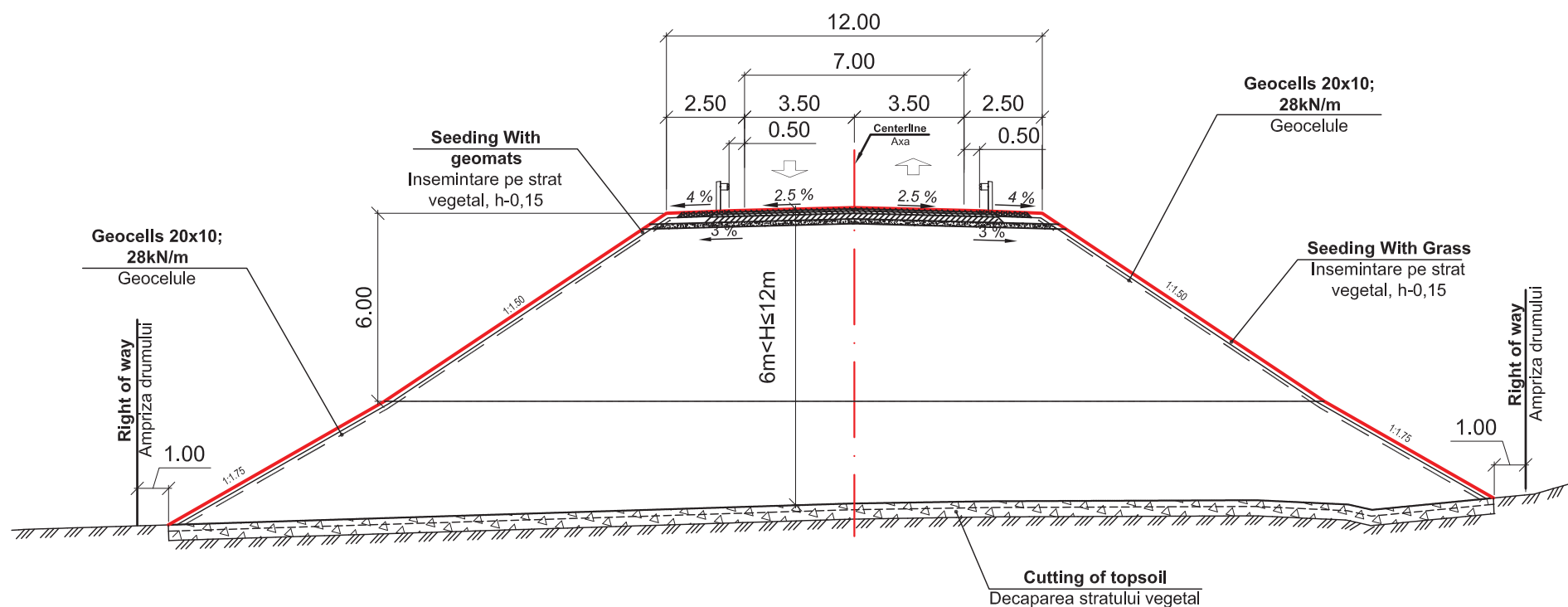
Rambleu 6m<H≤12m

Will be used on the sections

Se va aplica pentru sectoarele

152+560 - 152+600

157+030 - 157+075



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

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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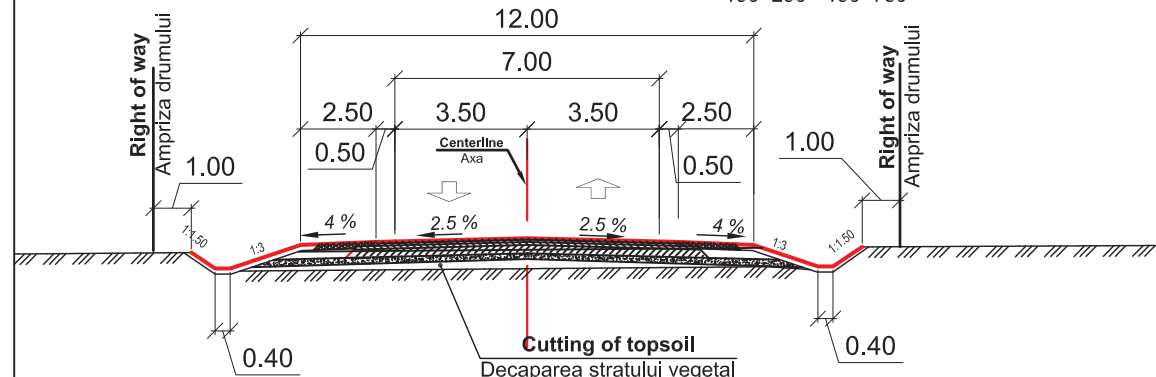
Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT I
		Denumirea desenului/ Drawing name	Profile transversale tip S1:200 Typical cross sections S 1:200	
		Coala Nr./Sheet No.	TCS001	Coli / Sheets TCS 02

### Profil transversal tip. Tip 4

Rambleu  $H \leq 1\text{m}$ 

Se va aplica pentru sectoarele

151+056 - 151+206	153+640 - 156+935	169+070 - 169+375
151+765 - 151+830	157+200 - 158+865	169+470 - 169+850
151+830 - 151+842 - dreapta	159+450 - 159+900	169+950 - 171+045
	160+370 - 160+430	179+645 - 181+130
152+185 - 152+340 - dreapta	160+630 - 165+802	188+865 - 189+230
	165+880 - 168+880	189+570 - 189+933
		190+290 - 190+750

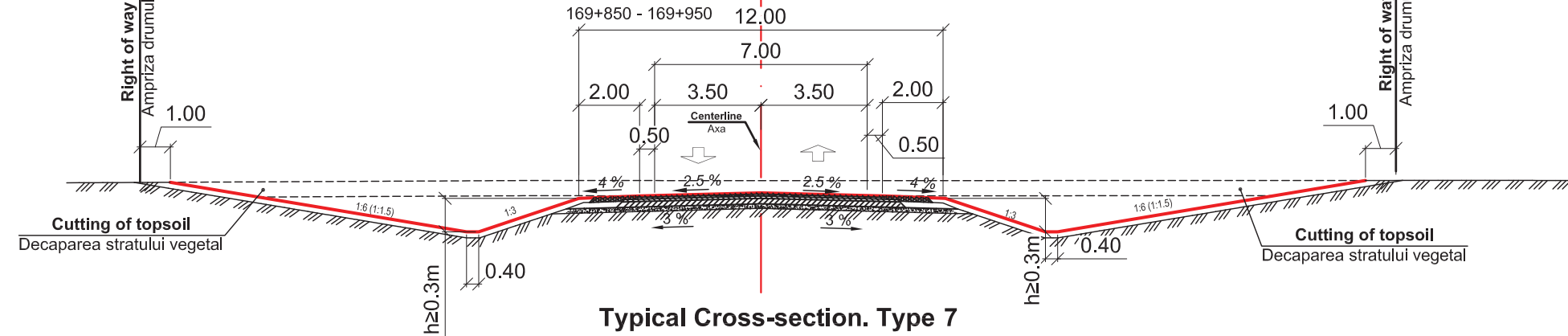


### Profil transversal tip. Tip 6

Debleu  $H \leq 1\text{m}$ 

Se va aplica pentru sectoarele

152+160 - 152+200	188+550 - 188+605
160+430 - 160+630	188+830 - 188+865
168+880 - 169+070	189+230 - 189+305
169+375 - 169+470	189+505 - 189+570
169+850 - 169+950	

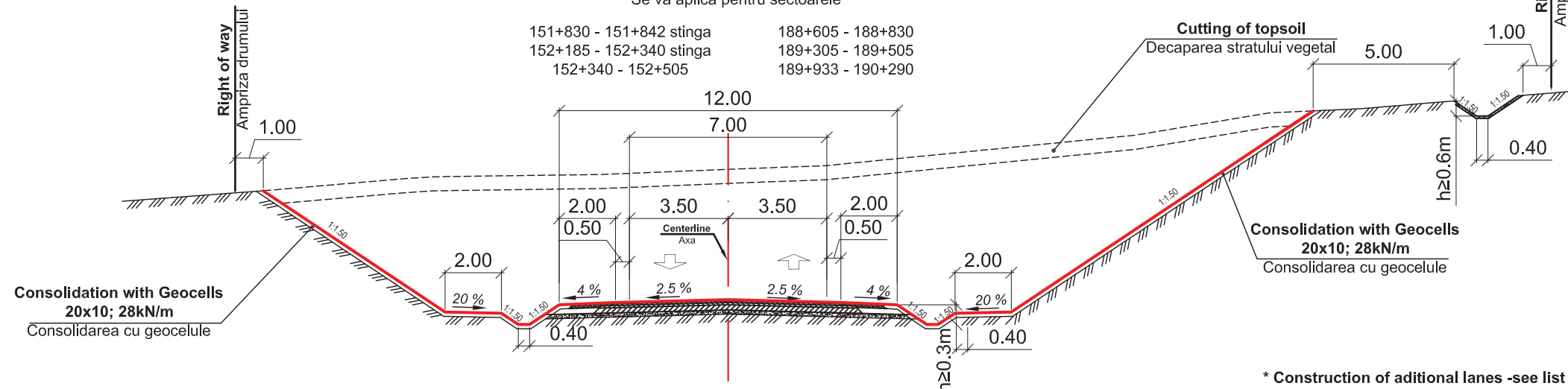


Profil transversal tip. Tip 7

Debleu  $H \geq 1\text{m}$ 






Se va aplica pentru sectoarele

151+830 - 151+842 stinga	188+605 - 188+830
152+185 - 152+340 stinga	189+305 - 189+505
152+340 - 152+505	189+933 - 190+290



\* **Construction of additional lanes -see list of quantities**  
Constructia benzilor suplimentare in rampa - vezi lista de cantitati

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

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name				M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border				Contract No.4283-MD LOT I					
				Proiectat/Designed		Eftodii V. 					Desenat/Drawn		Eftodii V. 		Denumirea desenului/ Drawing name		Profile transversale tip S1:200 Typical cross sections S 1:200							
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked		Vilcinski D. 				Data/Date		06.2011 		Marimea originala a desenului Original Drawing Size		A3 A3		Coala Nr./Sheet No.		TCS002		Coli / Sheets	

Ciurnai - Vulcanesti - new alignment

Number angles Nr. unghiuri	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves Curbe								The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanța între VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m			
	PC+	Km	Left Stinga	Right Dreapta	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+ Început racordare, PC+	Entry circular curve, PC+ Început arc de cerc, PC+	Exit circular curve, PC+ Sfârșit arc de cerc, PC+				Exit curve, PC+ Sfârșit de racordare, PC+	X	Y	
IT	1510+56.00	151	0°0'0.0"																493.80	272.33	103:44°30.1'	72988.06	213246.19
VU1	1515+49.80	151		80°48'3.5"	300.00	90.00	90.00	221.46	221.46	408.09	228.09	49.04	34.83	1513+28.33	1514+18.33	1516+46.42	1517+36.42				72635.87	212899.08	
VU2	1527+17.74	152	120°46'16.1"		325.00	90.00	90.00	618.56	618.56	775.05	595.05	334.78	462.08	1520+99.17	1521+89.17	1527+84.23	1528+74.23	1202.77	362.75	C3:74°44.9'	72952.28	211738.67	
VU3	1531+55.74	153		10°47'25.3"	2000.00	0.00	0.00	188.89	188.89	376.66	376.66	8.90	1.12	1529+66.86	1529+66.86	1533+43.51	1533+43.51	900.08	92.63	108:15°31.1'	72085.01	211979.49	
VU4	1538+34.03	153		85°19'33.8"	300.00	90.00	90.00	322.15	322.15	536.42	356.42	109.28	107.89	1535+11.88	1536+1.88	1539+58.30	1540+48.30	679.40	166.37	108:4°43.7'	71407.92	212035.50	
VU5	1546+4.77	154		0°47'25.7"	10000.00	0.00	0.00	68.98	68.98	137.96	137.96	0.24	0.00	1545+35.79	1545+35.79	1546+73.75	1546+73.75	425.24	278.73	103:81°19.3'	71253.37	211168.85	
VU6	1550+30.01	155	0°53'18.2"		10000.00	0.00	0.00	77.53	77.53	155.05	155.05	0.30	0.00	1549+52.48	1549+52.48	1551+7.54	1551+7.54	579.13	470.38	103:80°26.0'	71199.20	210748.47	
VU7	1556+9.14	155		0°42'56.0"	5000.00	0.00	0.00	31.22	31.22	62.44	62.44	0.10	0.00	1555+77.92	1555+77.92	1556+40.36	1556+40.36	496.24	62.33	103:81°8.9'	71102.95	210177.40	
VU8	1561+5.38	156	90°40'15.2"		350.00	95.00	95.00	402.68	402.68	648.88	468.88	149.43	156.48	1557+2.70	1557+97.70	1562+56.57	1563+51.57	567.47	164.79	108:9°31.4'	71026.59	209687.07	
VU9	1565+16.37	156	0°14'5.3"		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1565+16.37	1565+16.37	1565+16.37	1565+16.37	391.30	263.80	108:9°45.4'	70486.94	209780.95	
VU10	1569+7.66	156		21°52'53.9"	400.00	100.00	100.00	127.50	127.50	252.76	52.76	8.47	2.23	1567+80.17	1568+80.17	1569+32.93	1570+32.93	1088.46	660.64	103:12°7.9'	70081.30	209847.27	
VU11	1579+93.88	157		71°31'22.2"	350.00	95.00	95.00	300.31	300.31	531.91	341.91	82.65	68.72	1576+93.57	1577+88.57	1581+30.48	1582+25.48	998.50	296.94	103:83°38.8'	69017.13	209618.65	
VU12	1589+23.66	158	90°28'16.8"		350.00	95.00	95.00	401.24	401.24	647.45	467.45	148.40	155.02	1585+22.42	1586+17.42	1590+74.87	1591+69.87	1381.41	727.69	108:6°47.5'	68906.64	208626.29	
VU13	1601+50.05	160		48°22'3.0"	450.00	100.00	100.00	252.48	252.48	479.88	279.88	44.31	25.08	1598+97.57	1599+97.57	1602+77.44	1603+77.44	481.32	25.26	103:41°34.6'	67174.86	208470.22	
VU14	1606+6.29	160	41°54'59.6"		400.00	100.00	100.00	203.56	203.56	392.63	192.63	29.45	14.54	1604+2.70	1605+2.70	1606+95.34	1607+95.34	1264.12	956.03	108:0°20.4'	67174.86	208470.22	
VU15	1618+55.87	161		8°53'53.8"	700.00	100.00	100.00	104.50	104.50	208.71	8.71	2.71	0.29	1617+51.37	1618+51.37	1619+80.08	1619+80.08	577.71	473.21	103:8°33.9'	65339.48	208391.75	
VU16	1624+33.29	162	0°10'31.6"		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1624+33.29	1624+33.29	1624+33.29	1624+33.29	842.13	764.33	103:8°23.0'	64906.35	208268.98	
VU17	1632+75.42	163		2°58'15.7"	3000.00	0.00	0.00	77.80	77.80	155.56	155.56	1.01	0.03	1631+97.62	1631+97.62	1633+53.18	1633+53.18	1166.79	971.39	103:11°21.2'	63362.40	208039.27	
VU18	1644+42.17	164		17°32'22.8"	450.00	100.00	100.00	117.60	117.60	233.96	33.96	5.97	1.23	1643+24.57	1644+24.57	1644+58.53	1645+58.53	447.43	247.93	103:28°24.6'	62968.85	207826.39	
VU19	1648+88.37	164		3°7'39.2"	3000.00	0.00	0.00	81.90	81.90	163.76	163.76	1.12	0.04	1648+6.47	1648+6.47	1649+70.22	1649+70.22	958.50	876.60	103:31°32.3'	62968.85	207826.39	
VU20	1658+46.82	165	0°0'0.0"		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1658+46.82	1658+46.82	1658+46.82	1658+46.82	33.27	33.27	103:31°32.3'	62151.93	207325.04	
ST	1658+80.09	165	0°0'0.0"																				

Ciurnai - Vulcanesti - existing section

Number angles Nr. unghiuri	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves Curbe									The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanța între VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Left Stinga	Right Dreapta	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+ Început racordare, PC+	Entry circular curve, PC+ Început arc de cerc, PC+	Exit circular curve, PC+ Sfîrșit arc de cerc, PC+	Exit curve, PC + Sfîrșit de racordare, PC+				X	Y
IT	1658+53.88	165	0°0'0.0"																		62120.30	207298.94
VU1	1670+19.87	167		9°20'59.1"	498.82	81.31	81.31	81.48	81.48	162.71	0.09	2.22	0.25	1669+38.39	1670+19.70	1670+19.79	1671+1.10	1166.99	1094.51	103:78°6.3'	61940.30	206167.07
VU2	1676+65.64	167		0°10'54.9"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1676+65.64	1676+65.64	1676+65.64	1676+65.64	646.02	564.64	103:85°27.3'	61789.10	205523.08
VU3	1679+74.64	167	4°28'46.4"		1400.00	100.00	100.00	104.36	104.36	208.64	8.64	1.35	0.07	1679+70.29	1679+70.29	1679+78.93	1680+78.93	309.01	204.65	103:85°38.2'	61785.59	205214.97
VU4	1683+89.14	168		0°54'37.9"	4000.00	0.00	0.00	31.78	31.78	63.57	63.57	0.13	0.00	1683+57.35	1683+57.35	1684+20.92	1684+20.92	414.57	278.43	103:81°11.4'	61702.10	204805.29
VU5	1695+88.48	169	2°22'22.8"		5000.00	0.00	0.00	103.66	103.66	207.08	207.08	1.07	0.03	1694+84.93	1694+84.93	1696+92.01	1696+92.01	1199.35	1064.01	103:82°6.1'	61537.27	203617.33
VU6	1704+96.16	170	0°28'11.8"		30000.00	0.00	0.00	114.30	114.30	228.60	228.60	0.22	0.00	1703+81.86	1703+81.86	1706+10.46	1706+10.46	907.71	689.85	103:79°48.7'	61375.41	202724.17
VU7	1709+26.12	170		1°42'46.6"	2500.00	0.00	0.00	37.37	37.37	74.73	74.73	0.28	0.01	1708+88.75	1708+88.75	1709+63.48	1709+63.48	429.96	278.29	103:79°17.5'	61295.51	202301.70
VU8	1711+76.26	171	7°22'50.8"		1500.00	0.00	0.00	96.75	96.75	193.23	193.23	3.12	0.27	1710+79.51	1710+79.51	1712+72.74	1712+72.74	250.14	116.03	103:81°0.2'	61256.40	202054.63
ST	1712+92.32	171	0°0'0.0"															116.33	19.59	103:73°37.4'	61223.60	201943.02

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Contract No. 4283-MD LOT I

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/  
Drawing name

Centerline data  
Centerline data

A1  
A1

Marimea originala a desenului  
Original Drawing Size

Coala Nr./Sheet No.

CLD 001

Coli / Sheets

CLD 02

Rev./  
Rev.

Amendamente/  
Amendments

Aprobat/  
Approved

Data/  
Date

Proiectat/Designed

Eftodii V.

Desenat/Drawn

Eftodii V.

Data/Date

06.2011

Verificat/Checked

Vilcinski D.



Bypass Vulcanesti - Bypass Slobozia Mare  
Existing section

Number angles Nr. unghiuri	Vertex angle position Pozitia virf. unghi		Angle, degree Marime unghiuri, grade		Curves Curbe								The boundaries of the elements Granita elementelor				Distance between vertexes of angles, m Distanța între VU, m	Section alignment, m Lungimea aliniament, m	Direction Rumb	Position data, m Coordonate, m	
	PC+	Km	Left Stinga	Right Dreapta	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+ Început racordare, PC+	Entry circular curve, PC+ Început arc de cerc, Pc+	Exit circular curve, Pc+ Sfârșit arc de cerc, PC+	Exit curve, PC+ Sfârșit de racordare, Pc+			X	Y
IT	1796+45.55	179	0°0'0.0"																	58255.16	197408.06
																	254.42	149.28	IO3:63°47.3'		
VU1	1798+99.97	179	6°1'6.2"		2000.00	0.00	0.00	105.14	105.14	210.08	210.08	2.76	0.19	1797+94.83	1797+94.83	1800+4.91	1800+4.91			58142.79	197179.80
																	2368.50	2217.56	IO3:57°46.2'		
VU2	1822+68.28	182		2°37'26.4"	2000.00	0.00	0.00	45.81	45.81	91.59	91.59	0.52	0.02	1822+22.47	1822+22.47	1823+14.07	1823+14.07			56879.65	195176.24
																	662.68	616.87	IO3:60°23.7'		
VU3	1829+30.94	182		0°7'19.4"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1829+30.94	1829+30.94	1829+30.94	1829+30.94			56552.27	194600.07
																	848.46	743.39	IO3:60°31.0'		
VU4	1837+79.40	183	22°34'26.2"		300.00	90.00	90.00	105.07	105.07	208.20	28.20	7.06	1.93	1836+74.33	1837+64.33	1837+92.53	1838+82.53			56134.69	193861.49
																	557.18	358.50	IO3:37°56.6'		
VU5	1843+34.65	184	5°21'36.9"		2000.00	0.00	0.00	93.62	93.62	187.11	187.11	2.19	0.14	1842+41.02	1842+41.02	1844+28.13	1844+28.13			55695.28	193518.89
																	656.74	388.86	IO3:32°35.0'		
VU6	1849+91.25	184	46°28'23.1"		300.00	90.00	90.00	174.26	174.26	333.33	153.33	27.71	15.18	1848+17.00	1849+7.00	1850+60.33	1851+50.33			55141.90	193165.22
																	824.40	650.14	IOB:13°53.4'		
VU7	1858+0.47	185		0°3'16.2"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1858+0.47	1858+0.47	1858+0.47	1858+0.47			54341.61	193363.13
																	919.69	914.10	IOB:13°50.2'		
VU8	1867+20.16	186	0°3'50.5"		10000.00	0.00	0.00	5.59	5.59	11.17	11.17	0.00	0.00	1867+14.57	1867+14.57	1867+25.74	1867+25.74			53448.61	193583.07
																	506.35	483.67	IOB:13°54.0'		
VU9	1872+26.51	187		0°11'45.1"	10000.00	0.00	0.00	17.09	17.09	34.19	34.19	0.01	0.00	1872+9.41	1872+9.41	1872+43.60	1872+43.60			52957.09	193704.71
																	193.63	176.54	IOB:13°42.2'		
VU10	1874+20.14	187	0°8'35.7"		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1874+20.14	1874+20.14	1874+20.14	1874+20.14			52768.97	193750.58
																	310.24	310.24	IOB:13°50.8'		
VU11	1877+30.0	187	0°0'0.0"		0.00	0.00	0.00	0.00	0.00											52467.74	193824.83
																	773.21	311.57	IOB:13°50.4'		
VU12	1885+3.2	188		91°29'49.8"	400.00	100.00	100.00	461.63	461.63	738.77	538.77	174.72	184.50	1880+41.6	1881+41.6	1886+80.3	1887+80.3			51716.98	194009.80
																	2092.42	1442.50	IO3:77°39.4'		
VU13	1904+11.1	190	34°6'5.6"		450.00	100.00	100.00	188.28	188.28	367.83	167.83	21.66	8.72	1902+22.9	1903+22.9	1904+90.7	1905+90.7			51269.69	191965.75
																	488.26	105.99	IO3:43°33.3'		
ST	1907+51.1	190	0°0'0.0"																	51017.01	191725.50

Inv. Nr.      Sem      Schimb Inv. Nr.      Data si data

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

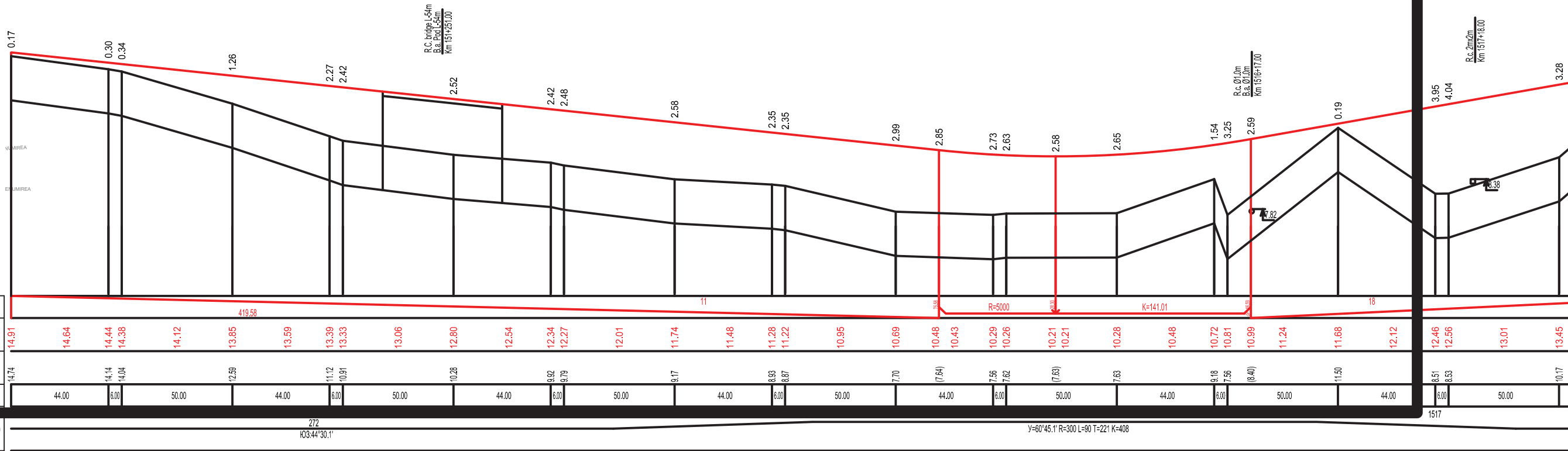
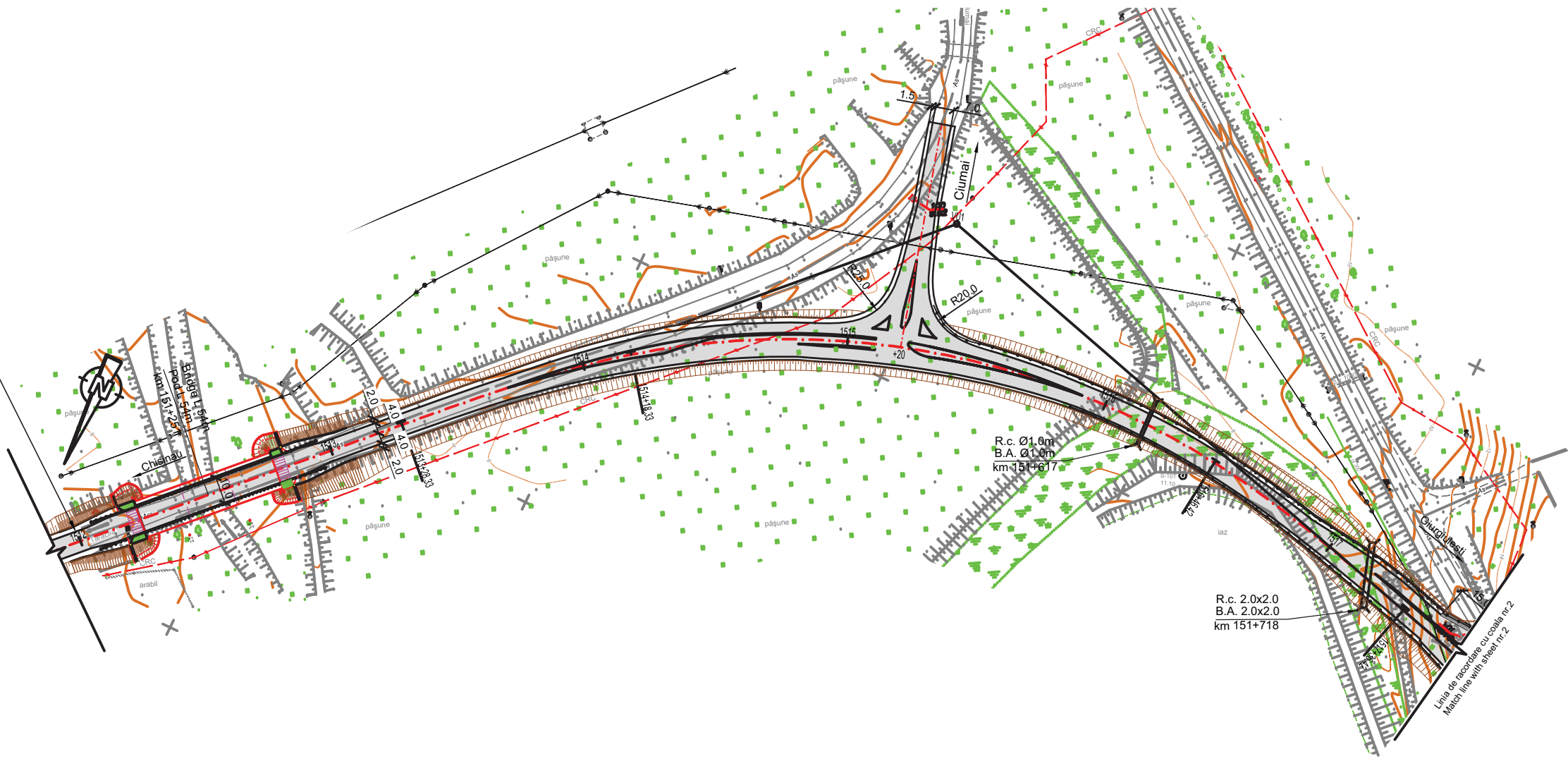


Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I
Denumirea desenului/ Drawing name	Centerline data Centerline data	
Coala Nr./Sheet No.	CLD 002	Coli / Sheets
		CLD 02

Marimea originala a desenului      A1  
Original Drawing Size      A1

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Start of Lot I  
Inceput Lot I  
km 151+200



Schimb Inv. Nr.

Sem

Inv. Nr.

S 1:1000 - horizontal  
S 1:100 - vertical

Design data Date proiect	Gradient, o/oo, vertical radius, m Declivitate, o/oo, curba verticala, m
Finished carriageway level, m Cota in ax, m	
Ground level, m Cota teren, m	
Distance, m Distanța, m	

Plan elements Kilometers	Elemente plan Kilometri
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Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studii de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ M3 Chisinau - Giurgulesti /Frontiera cu Romania  
Road name M3 Chisinau - Giurgulesti/ Romanian border

Contract No.4283-MD LOT I

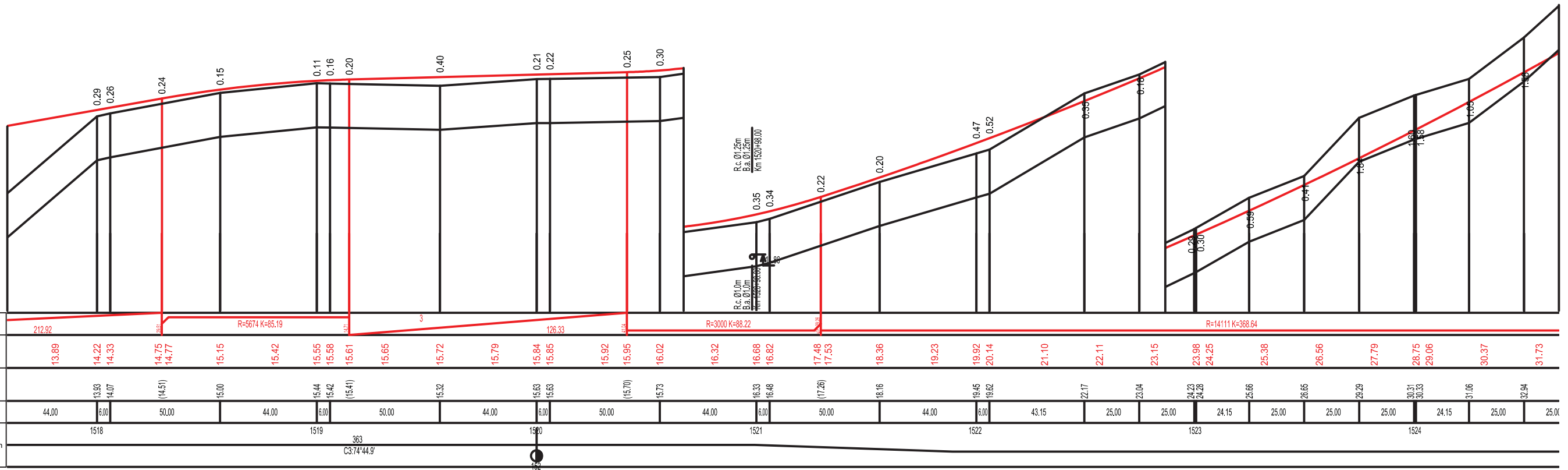
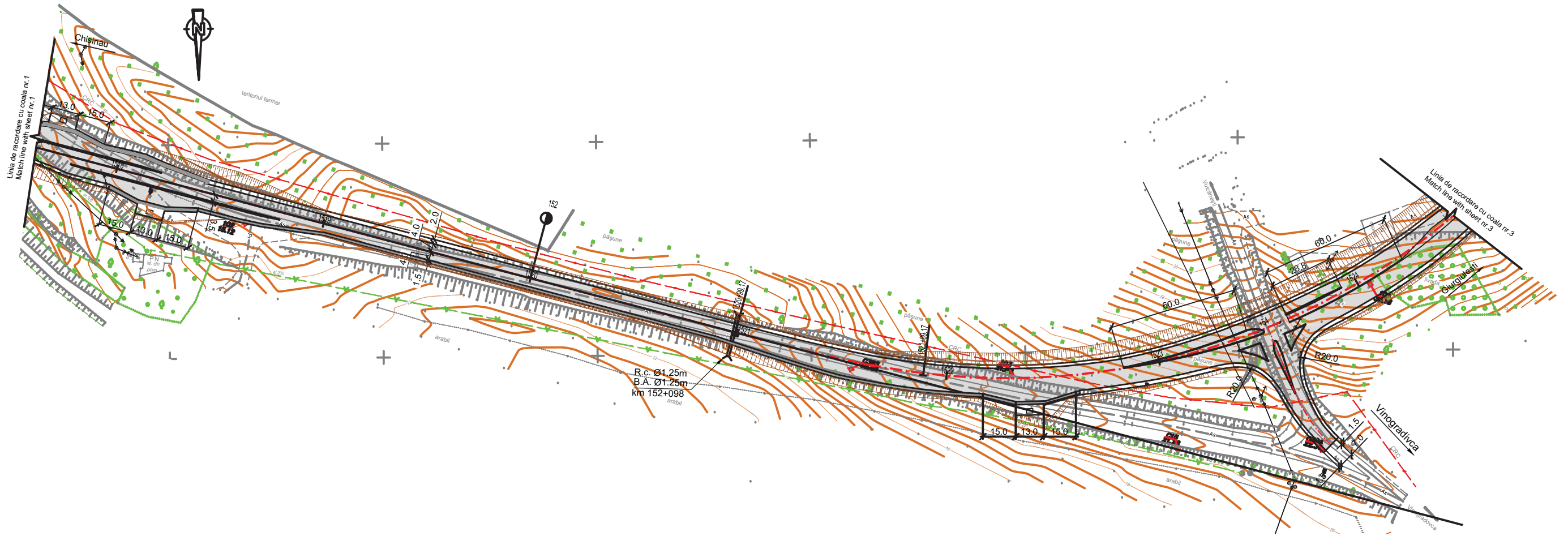
Denumirea desenului/ Plan, Profil longitudinal S 1000, km 151+144 - 151+760  
Drawing name Road plan, Longitudinal profile S 1000, km 151+144 - 151+760

Coala Nr./Sheet No. LA001 Coli / Sheets LA 49

Rev./ Amendamente/ Aprobati/ Data/

Proiectat/Designed Eftodii V. Desenat/Drawn Eftodii V.  
Verificat/Checked Vilcinski D. Data/Date 06.2011





Inv. Nr. \_\_\_\_\_

Schimb Inv. Nr. \_\_\_\_\_

Semnatura si data \_\_\_\_\_

Design data Date proiect	Gradient, o/oo, vertical radius, m	212.92																								
	Decalitate, o/oo, curba verticala, m	R=5674 K=85.19																								
Terrain data Date teren	Finished carriageway level, m	13.89																								
	Cota teren, m	14.22																								
Survey station	Distance, m	44.00																								
	Distanța, m	6.00																								
Plan elements	Pichet	1518																								
	Elemente plan	363																								
Kilometers		C3.74*44.9'																								
	Kilometri	1518																								

Consultantii/ Consultants:

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Date/ Date
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Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

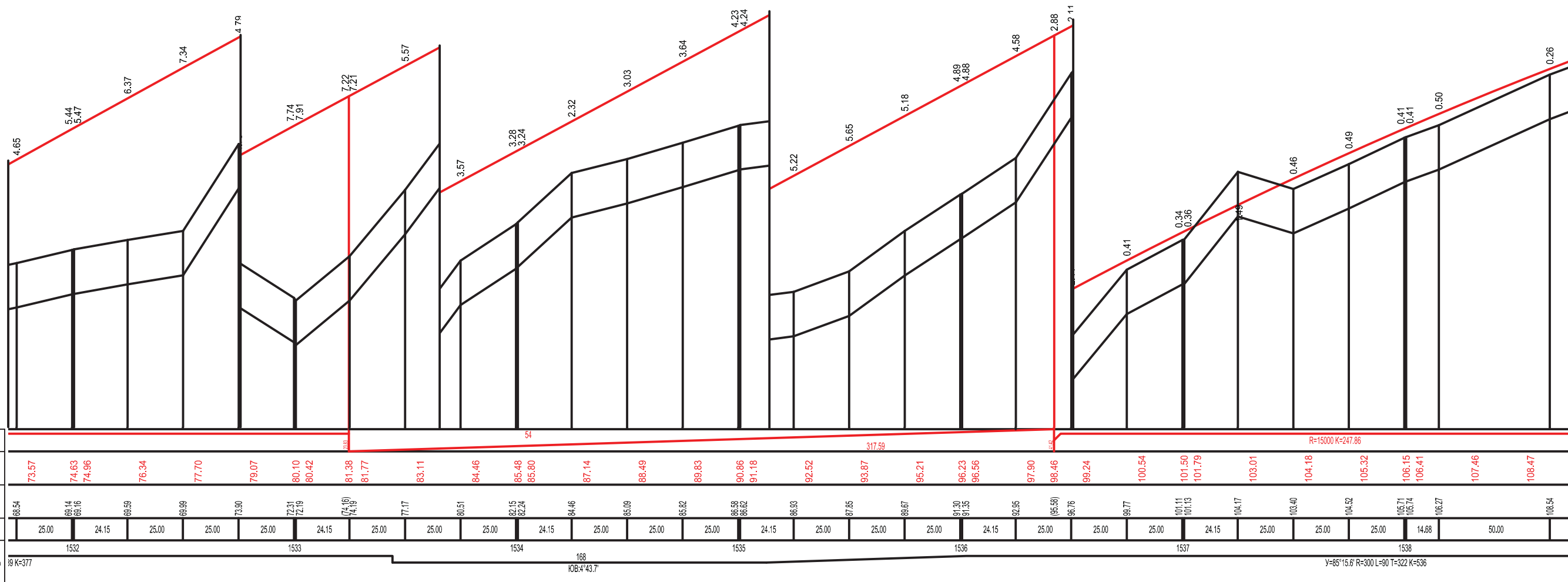
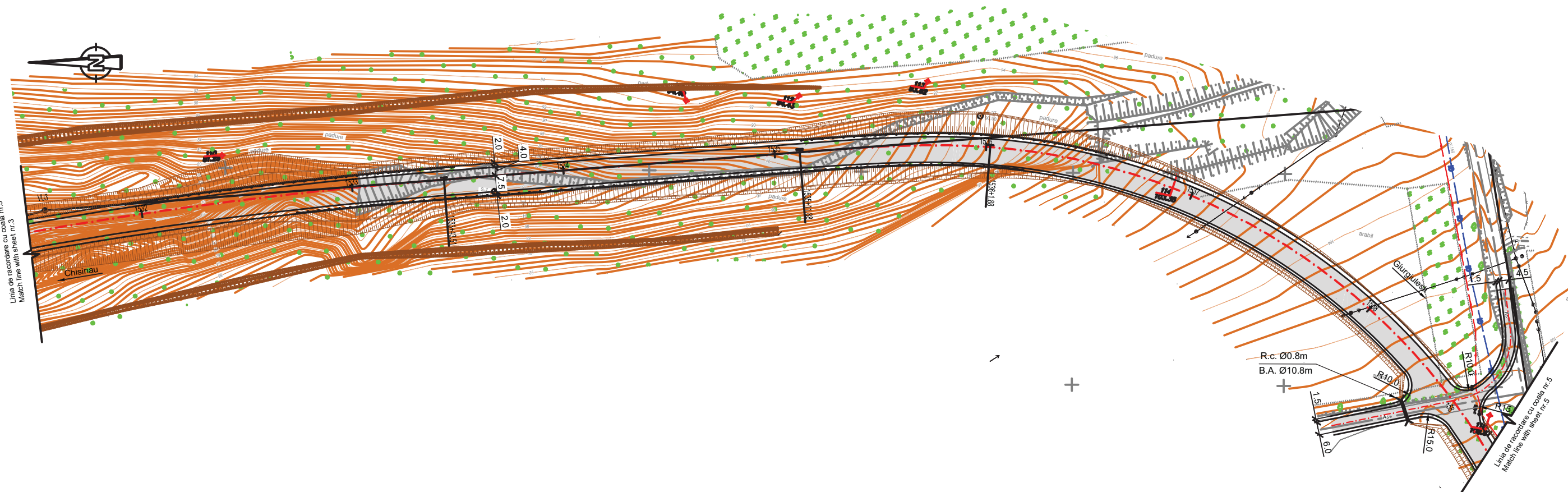
Denumirea drumului/ Road name  
M3 Chisinau - Giurgiulesti/ Frontiera cu Romania  
Contract No.4283-MD LOT I

Denumirea desenului/ Drawing name  
Plan, Profil longitudinal S 1000, km 151+760 - 152+465  
Road plan, Longitudinal profile S 1000, km 151+760 - 152+465

Coala Nr./Sheet No. LA002  
Coli / Sheets LA 49







Inv. Nr. \_\_\_\_\_

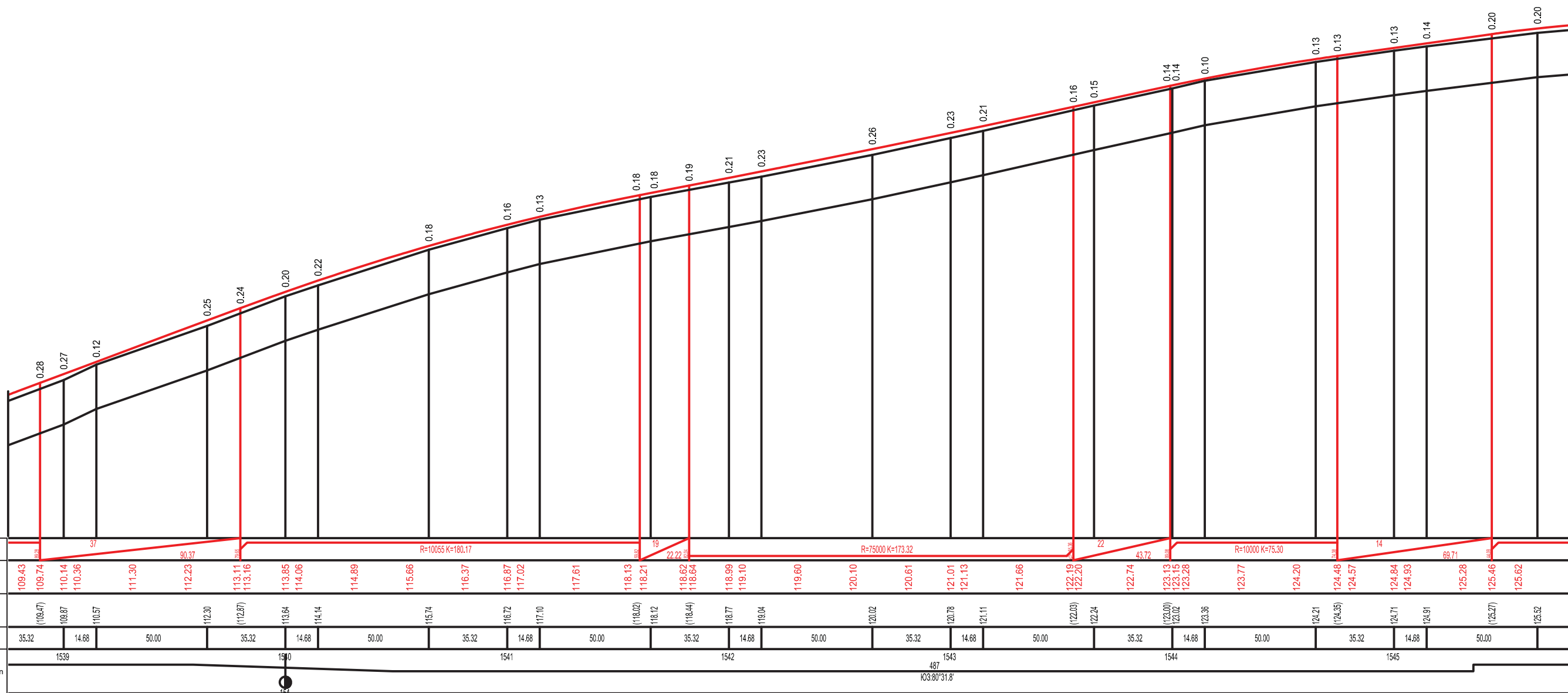
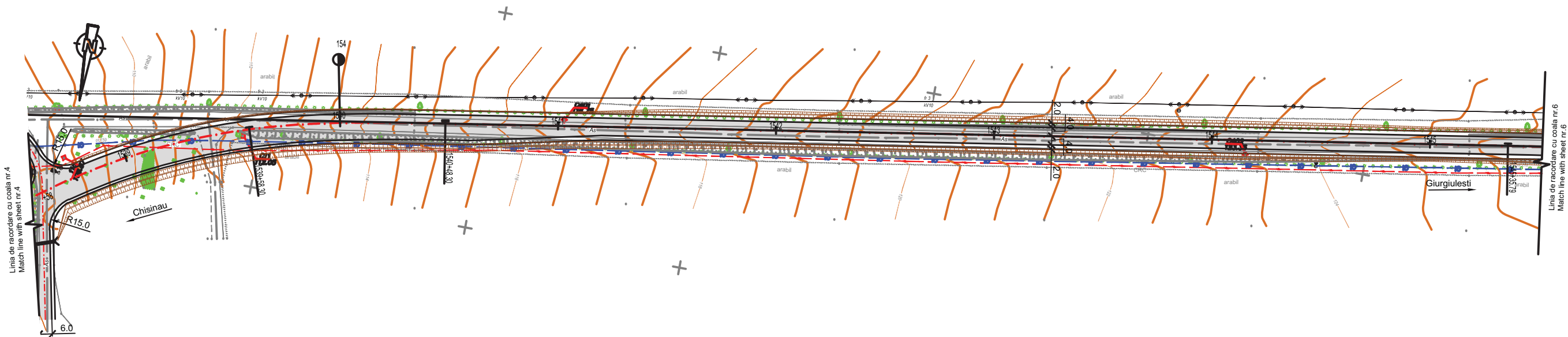
Semnatura si data \_\_\_\_\_

Schimb Inv. Nr. \_\_\_\_\_

Design data Date proiect	Gradient, o/oo, vertical radius, m
	Dedivitate, o/oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m
	Cota teren, m
Survey station Plan elements Kilometers	Pichet
	Elemente plan Kilometri

R=15000 K=247.86																																					
73.57	74.63	74.96	76.34	77.70	79.07	80.10	80.42	81.38	81.77	83.11	84.46	85.48	85.80	87.14	88.49	89.83	90.86	91.18	92.52	93.87	95.21	96.23	96.56	97.90	98.46	99.24	100.54	101.50	101.79	103.01	104.18	105.32	106.15	106.41	107.46	108.47	
68.54	69.14	69.16	69.59	69.99	70.90	72.31	72.19	74.16	74.19	77.17	80.51	82.15	82.24	84.46	85.09	85.82	86.58	86.62	86.93	87.85	88.67	91.30	91.35	92.95	95.58	96.76	98.77	101.11	101.13	104.17	103.40	104.52	105.71	105.74	106.27	108.54	
25.00	24.15	25.00	25.00	25.00	25.00	24.15	25.00	25.00	25.00	25.00	25.00	24.15	25.00	25.00	25.00	25.00	24.15	25.00	25.00	25.00	25.00	24.15	25.00	25.00	25.00	25.00	25.00	24.15	25.00	25.00	25.00	25.00	14.68	50.00			
1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
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1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
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1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
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1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
1532		1533		1534		1535		1536		1537		1538		1539		1540		1541		1542		1543		1544		1545		1546		1547		1548		1549		1550	
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Design data Date proiect	Gradient, o/oo, vertical radius, m
	Dedivitate, o/oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m
	Cota teren, m
Survey station Plan elements Kilometers	Pichet
	Elemente plan Kilometri

Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ M3 Chisinau - Giurgulesti /Frontiera cu Romania Contract No.4283-MD LOT I  
Road name M3 Chisinau - Giurgulesti/ Romanian border

Denumirea desenului/ Plan, Profil longitudinal S 1000, km 153+875 - 154+580  
Drawing name Road plan, Longitudinal profile S 1000, km 153+875 - 154+580

Coala Nr./Sheet No. LA005 Coli / Sheets LA 49

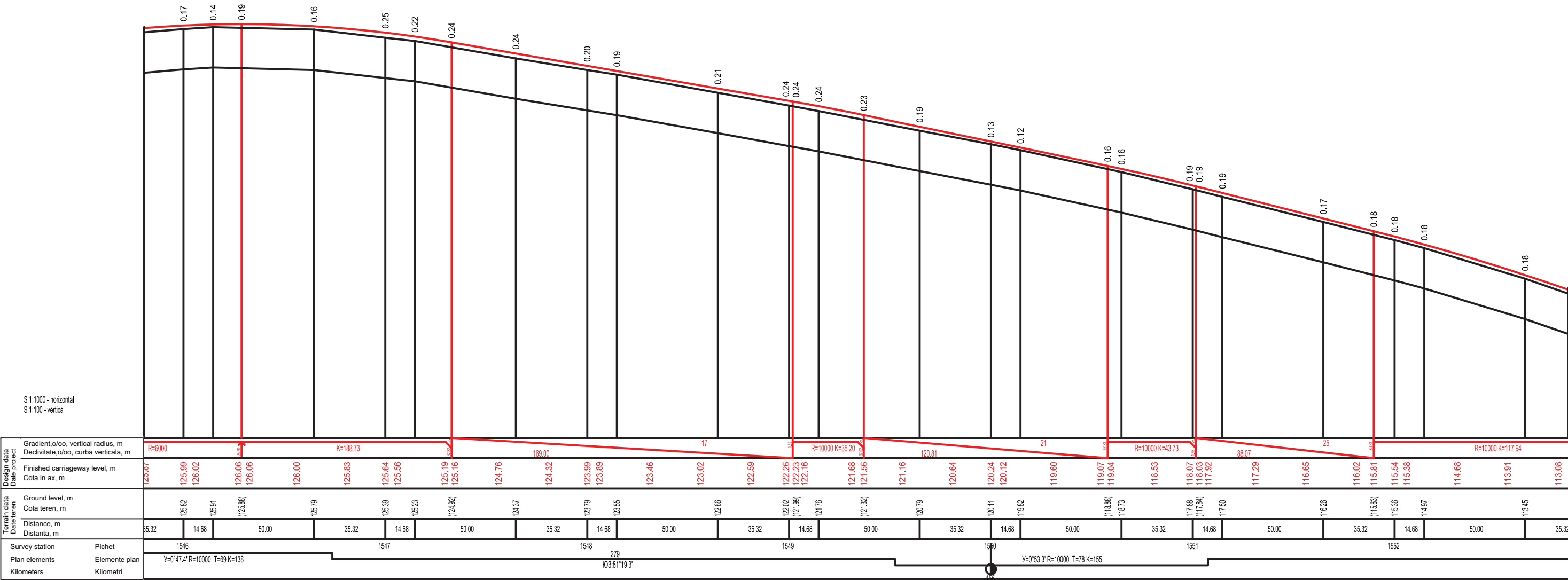
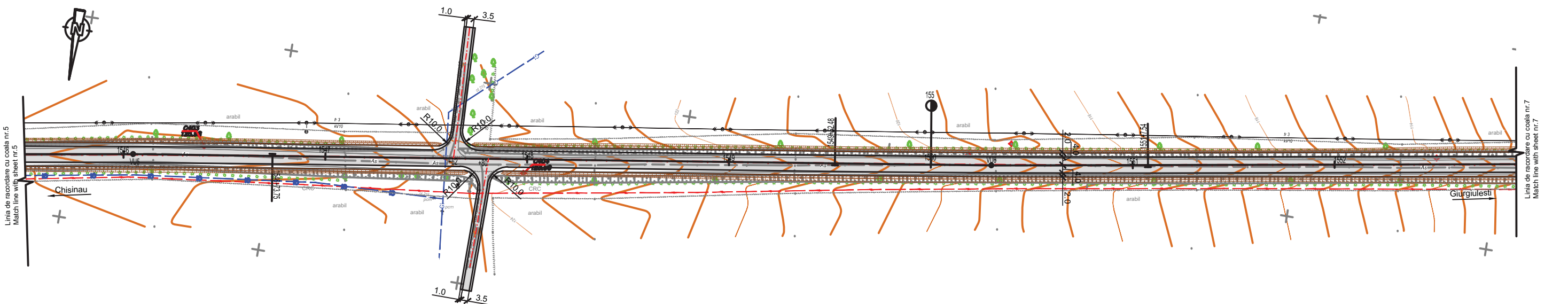
Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Semnatura si data

Schimb Inv. Nr.



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

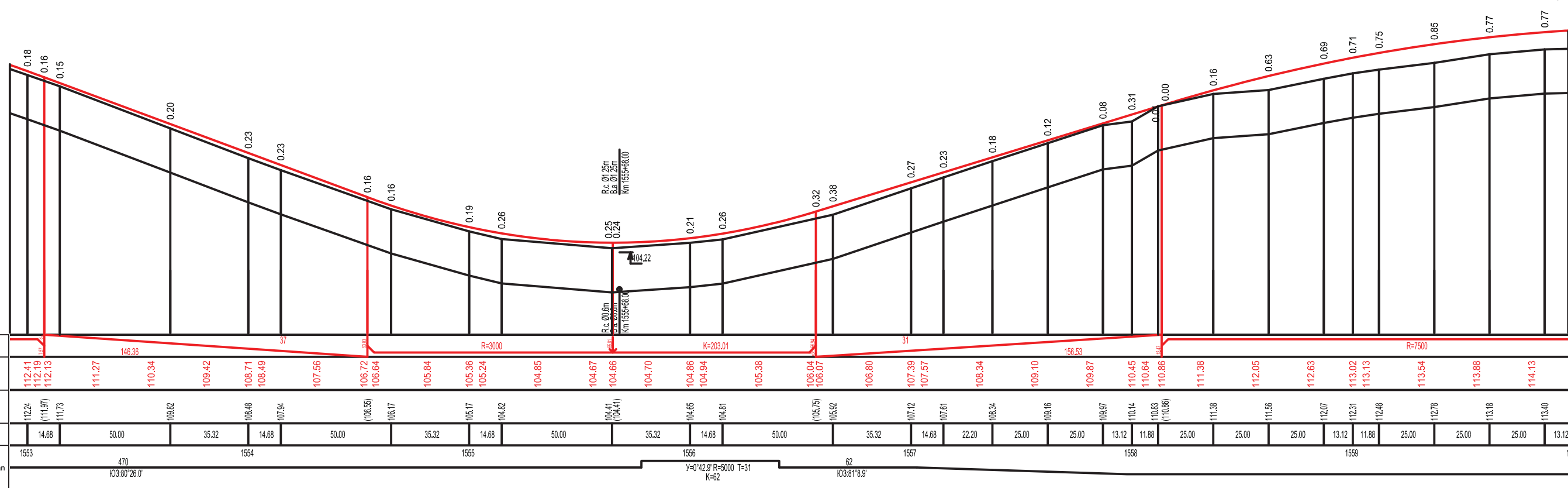
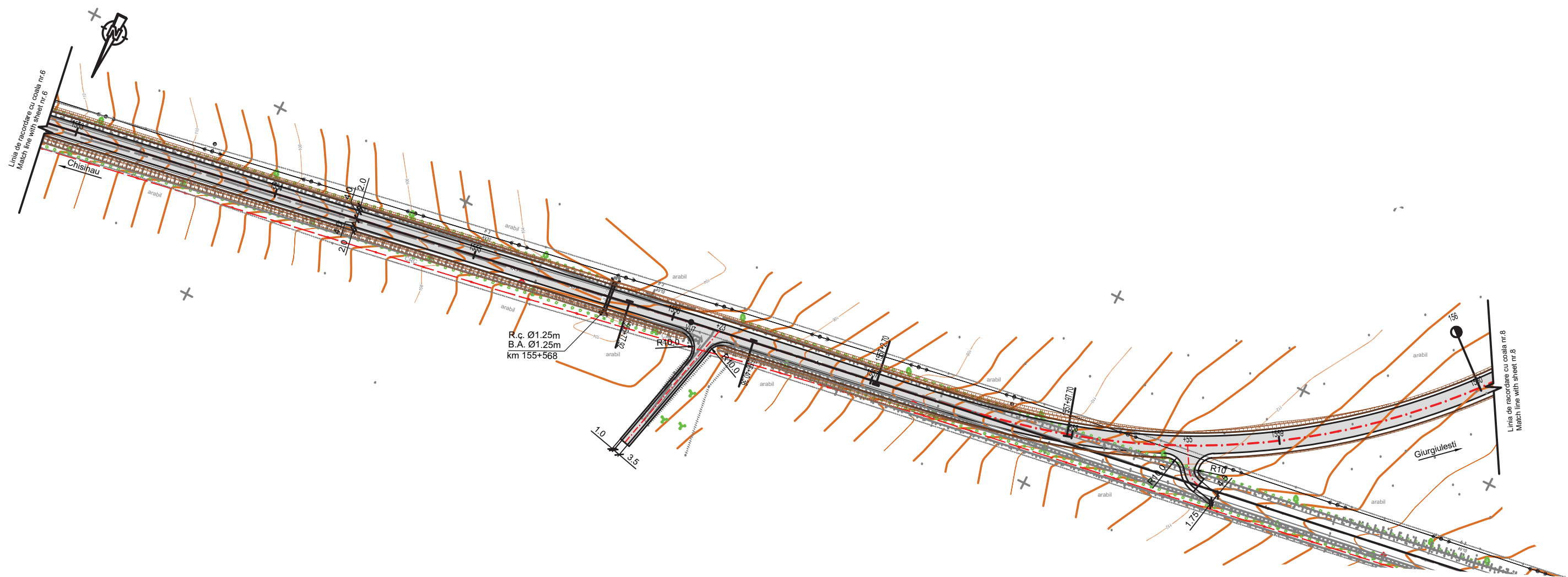
Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I  
Road name M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/ Plan, Profil longitudinal S 1000, km 154+580 - 155+285  
Drawing name Road plan, Longitudinal profile S 1000, km 154+580 - 155+285

Coala Nr./Sheet No. LA006 Coli / Sheets LA 49


Rev./ Amendamente/ Aprobati/ Data/

Proiectat/Designed Eftodii V. Desenat/Drawn Eftodii V.  
Verificat/Checked Vilcinski D. Data/Date 06.2011

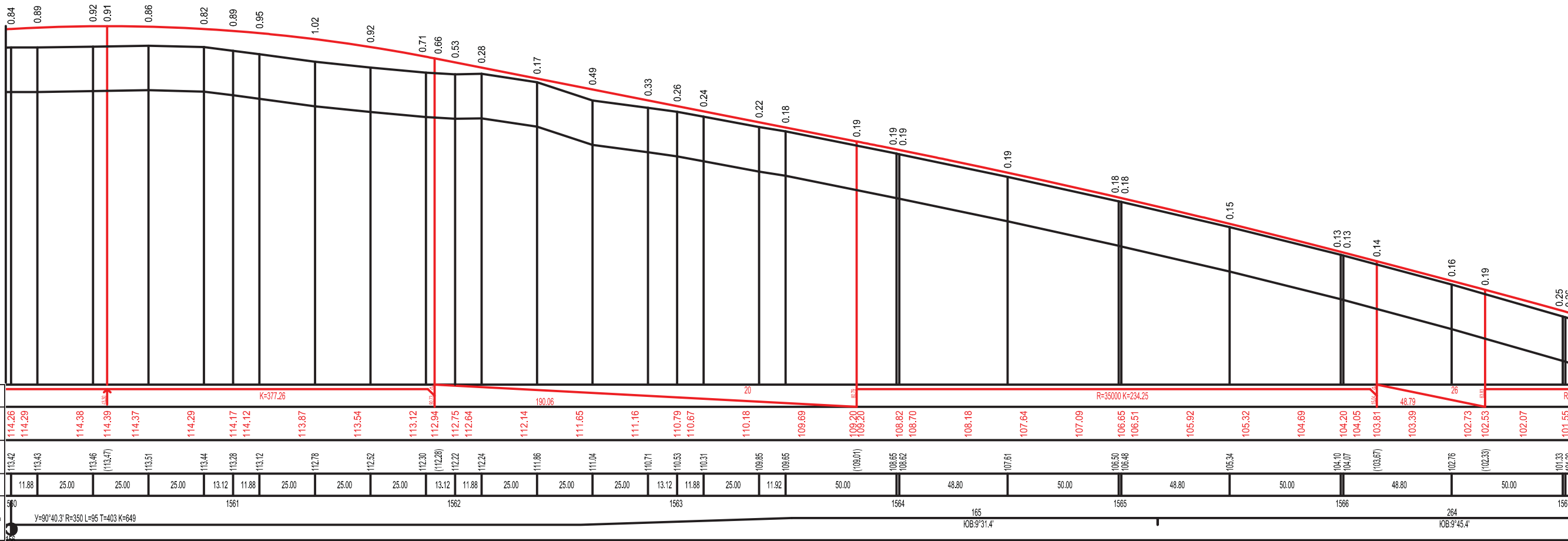
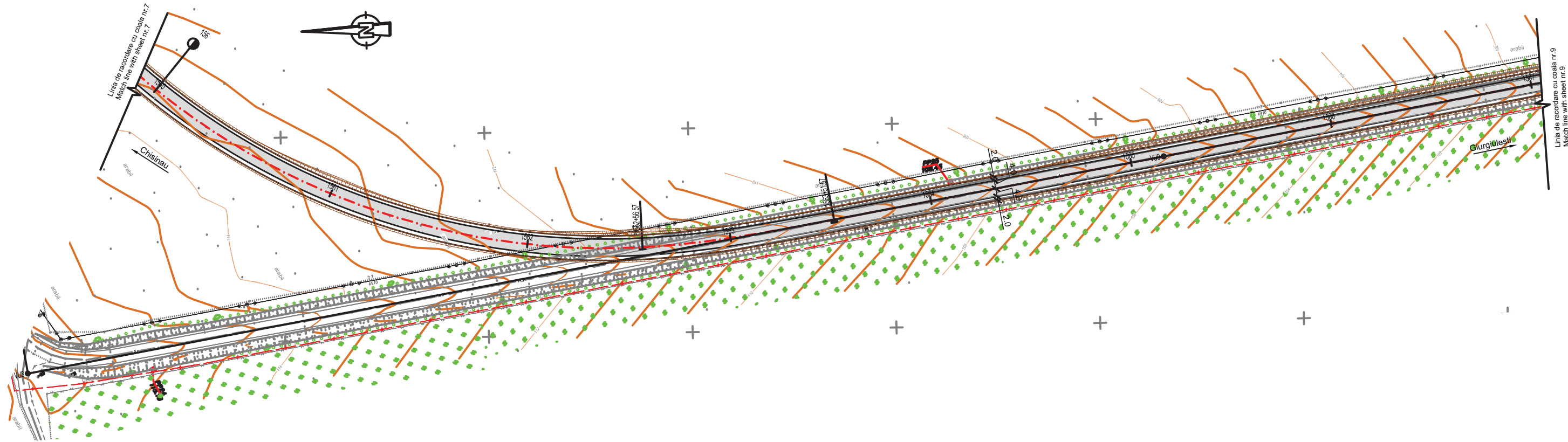


Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

S 1:1000 - horizontal S 1:100 - vertical																													
Design data Date proiect		Gradient,o/oo, vertical radius, m Declivitate,o/oo, curbă verticală, m Finished carriageway level, m Cota in ax, m																											
Terrain data Date teren		Ground level, m Cota teren, m Distance, m Distanța, m																											
Survey station Plan elements Kilometers		Pichet Elemente plan Kilometri																											

						Consultantii/ Consultants:		Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport 		Road Sector Program Support Project Roads Feasibility and Detailed Design Study Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată															
Rev./ Rev.		Amendamente/ Amendments		Aprobat/ Approved		Data/ Date		Proiectat/Designed Verificat/Checked		Eftodii V. Vilcinski D.		Desenat/Drawn Data/Date Eftodii V. 06.2011		Marimea originala a desenului Original Drawing Size A1 A1		Denumirea drumului/ Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border Contract No.4283-MD LOT		Denumirea desenului/ Drawing name Plan, Profil longitudinal S 1000, km 155+285 - 155+990 Road plan, Longitudinal profile S 1000, km 155+285 - 155+990		Coala Nr./Sheet No.		LA007		Coli / Sheets		LA 49	





Inv. Nr. \_\_\_\_\_

Semnatura si data \_\_\_\_\_

Schimb Inv. Nr. \_\_\_\_\_

Design data Date proiect	Gradient, o/oo, vertical radius, m																
	Dedivitate, o/oo, curba verticala, m																
Terrain data Date teren	Finished carriageway level, m	114.26	114.29	114.38	114.39	114.37	114.29	114.17	114.12	113.87	113.54	113.12	112.94	112.75	112.64	112.14	111.65
	Cota in ax, m	113.42	113.43	113.46	(113.47)	113.51	113.44	113.28	113.12	112.78	112.52	112.30	(112.28)	112.22	112.24	111.86	111.04
Survey station Plan elements Kilometers	Distance, m Distanța, m	11.88	25.00	25.00	25.00	13.12	11.88	25.00	25.00	25.00	13.12	11.88	25.00	11.92	50.00	48.80	50.00
	Pichet Elemente plan Kilometri	360				1561			1562			1563			1564	165 106.9'31.4"	1565
		Y=90°40.3' R=350 L=95 T=403 K=649														264 106.9'45.4"	1567

Consultantii/ Consultants:

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



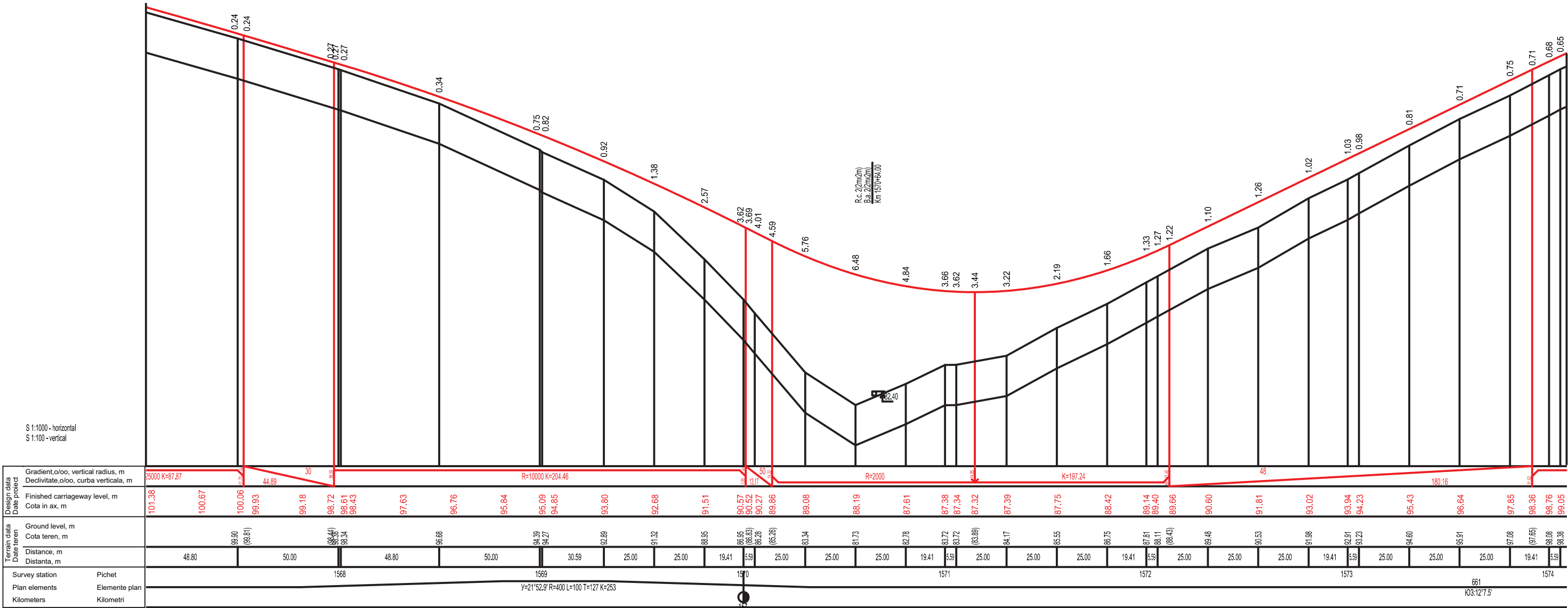
Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I	
Denumirea desenului/ Drawing name	M3 Chisinau - Giurgiulesti/ Romanian border Plan, Profil longitudinal S 1000, km 155+990 - 156+700		
Coala Nr./Sheet No.	LA008	Coli / Sheets	LA 49

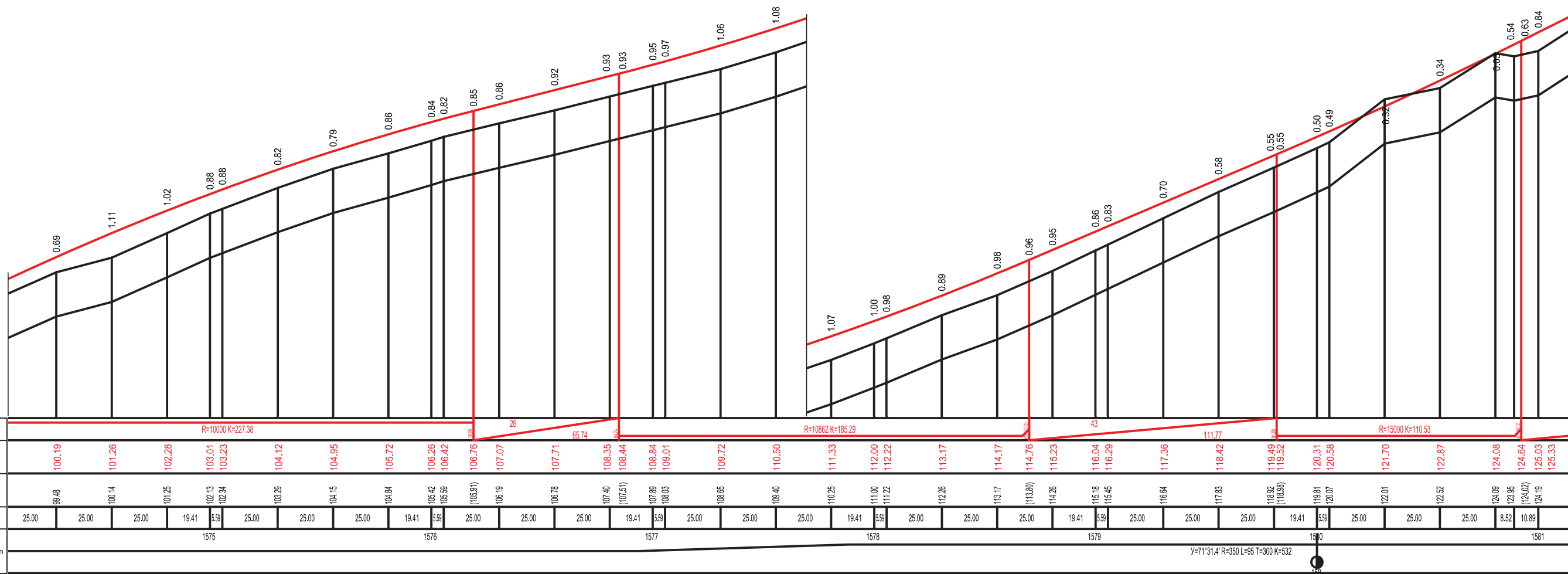
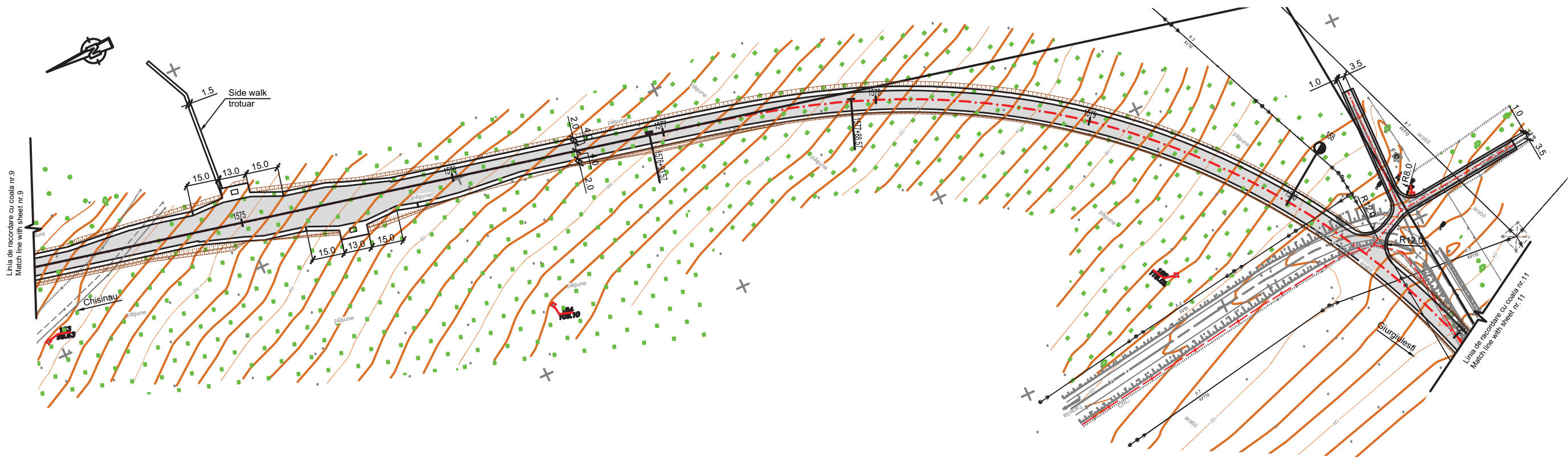


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Semnatura si data

Schimb Inv. Nr.





Inv. Nr. \_\_\_\_\_

Semnatura si data \_\_\_\_\_

Schimb Inv. Nr. \_\_\_\_\_

Design data	Gradient, o/oo, vertical radius, m
Date protect	Declivitate, o/oo, curba verticala, m
	Finished carriageway level, m
	Cota teren, m
	Cota in ax, m

Terrain data	Ground level, m
Date protect	Cota teren, m
	Distance, m
	Distanța, m
Survey station	Pichet
Plan elements	Elemente plan
Kilometers	Kilometri

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ M3 Chisinau - Giurgiuilesti /Frontiera cu Romania Contract No.4283-MD LOT I  
Road name M3 Chisinau - Giurgiuilesti/ Romanian border  
Denumirea desenului/ Plan, Profil longitudinal S 1000, km 157+400 - 158+110  
Drawing name Road plan, Longitudinal profile S 1000, km 157+400 - 158+110

Coala Nr./Sheet No. LA010 Coli / Sheets LA 49

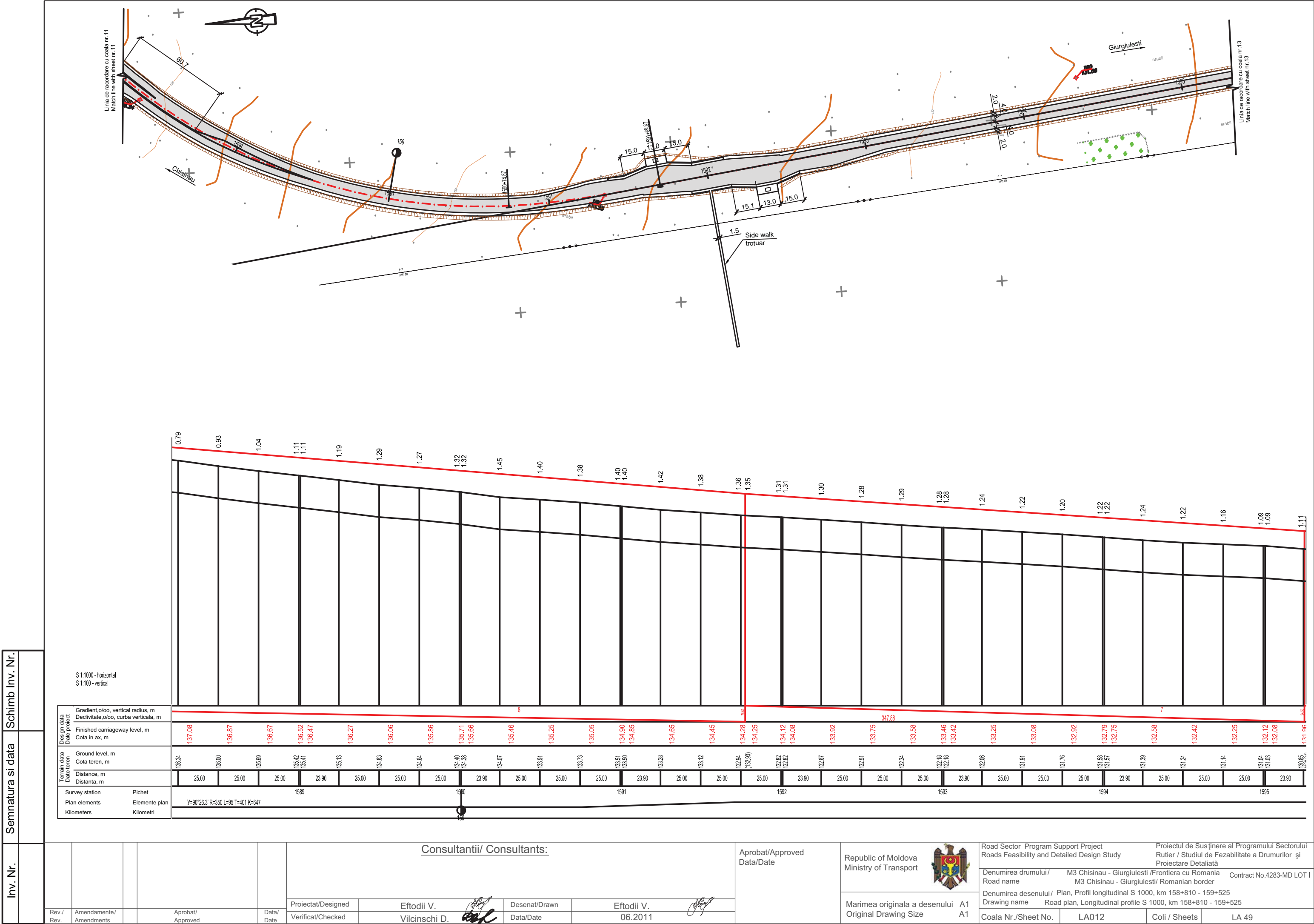
Rev./ Amendamente/ Aprobati/ Data/

Proiectat/Designed Eftodii V.  
Verificat/Checked Vilcinski D.

Desenat/Drawn Eftodii V.  
Data/Date 06.2011







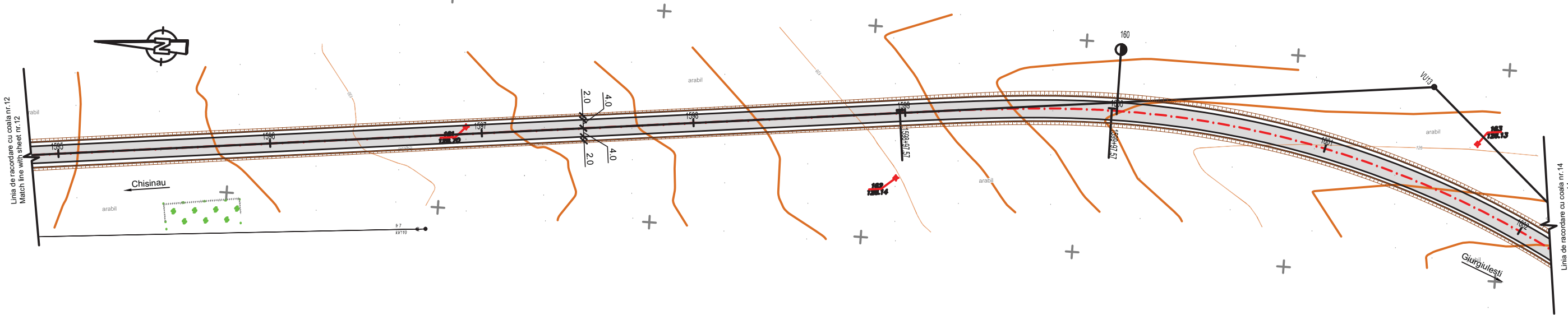
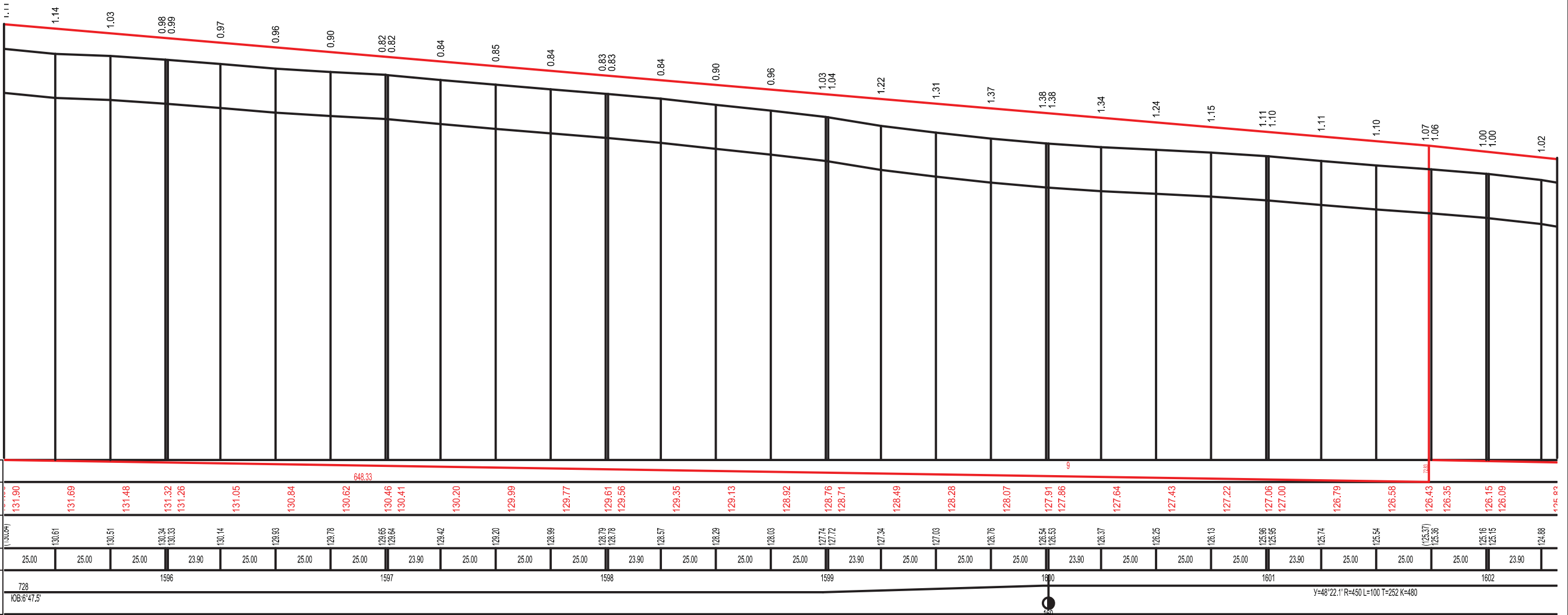
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Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



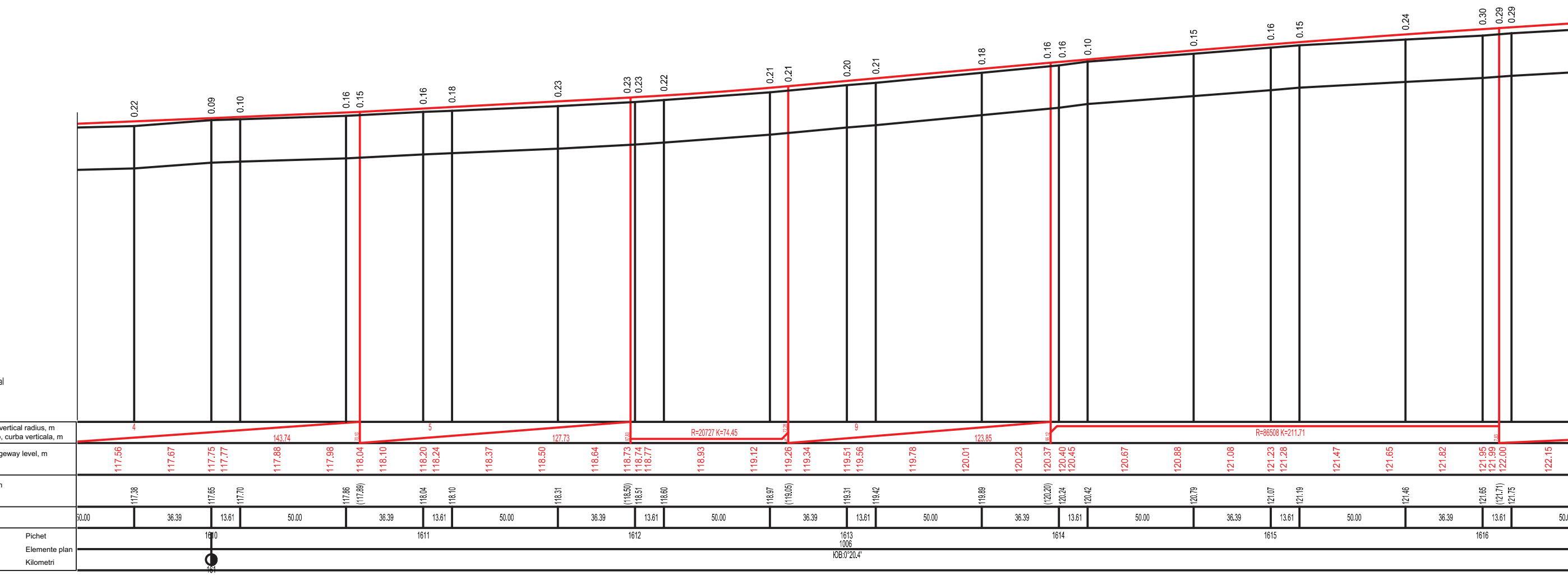
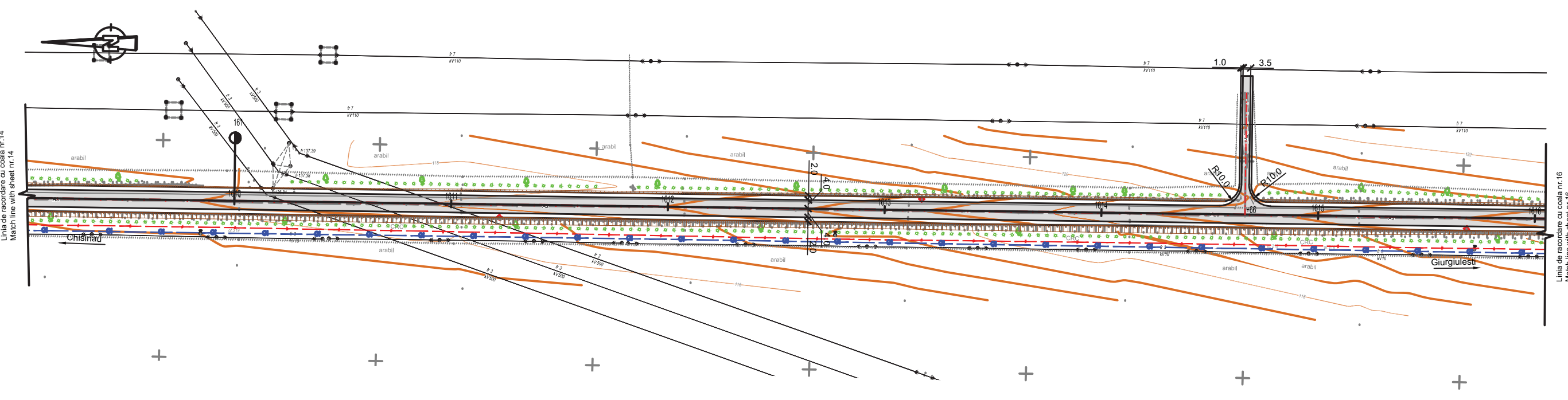
Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT I	
Denumirea desenului/ Drawing name	Plan, Profil longitudinal S 1000, km 159+525 - 160+230 Road plan, Longitudinal profile S 1000, km 159+525 - 160+230		
Coala Nr./Sheet No.	LA013	Coli / Sheets	LA 49

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Denumirea drumului/ Road name		
M3 Chisinau - Giurgiulesti /Frontiera cu Romania		
Contract No.4283-MD LOT I		
Denumirea desenului/ Drawing name		
Plan, Profil longitudinal S 1000, km 160+935 - 161+640		
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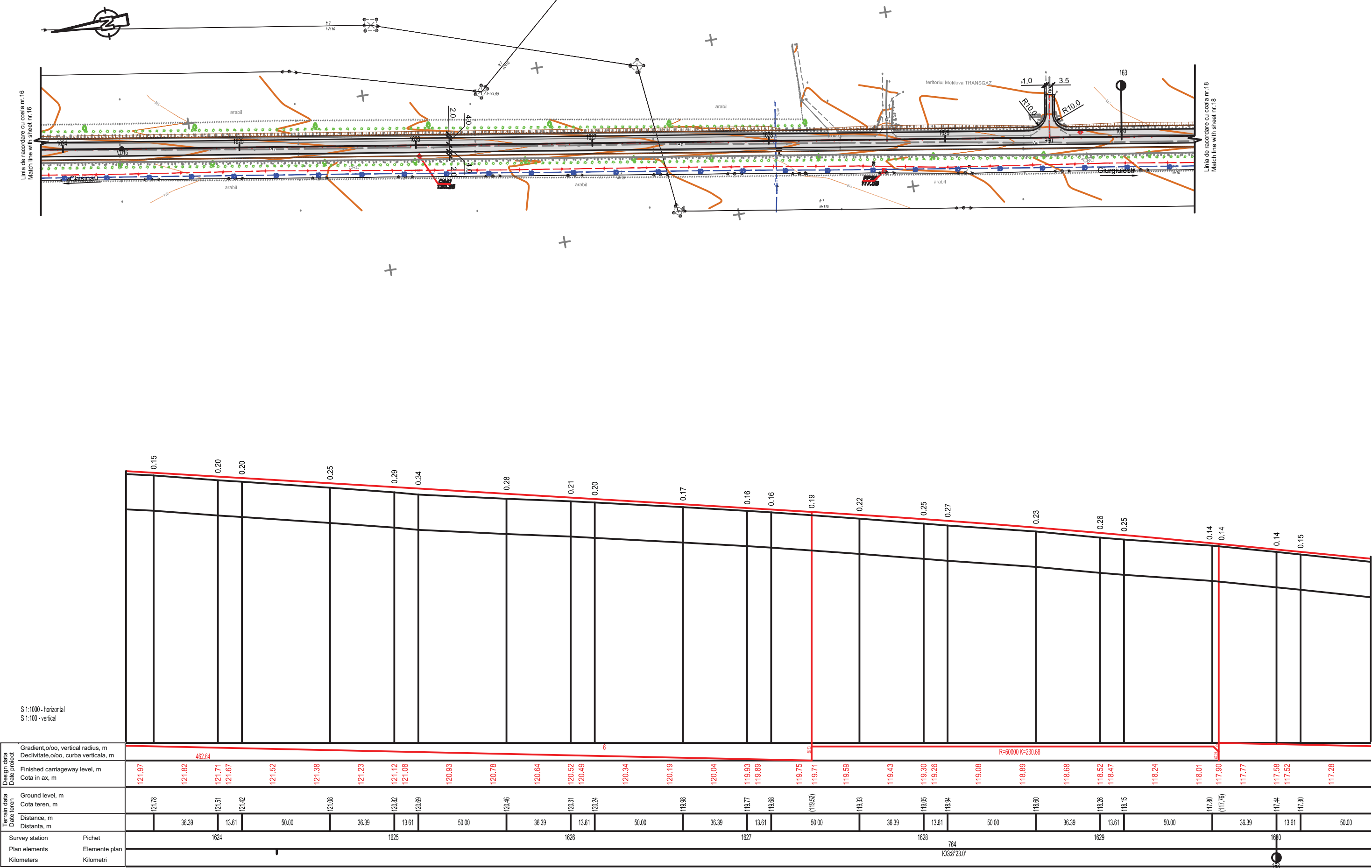




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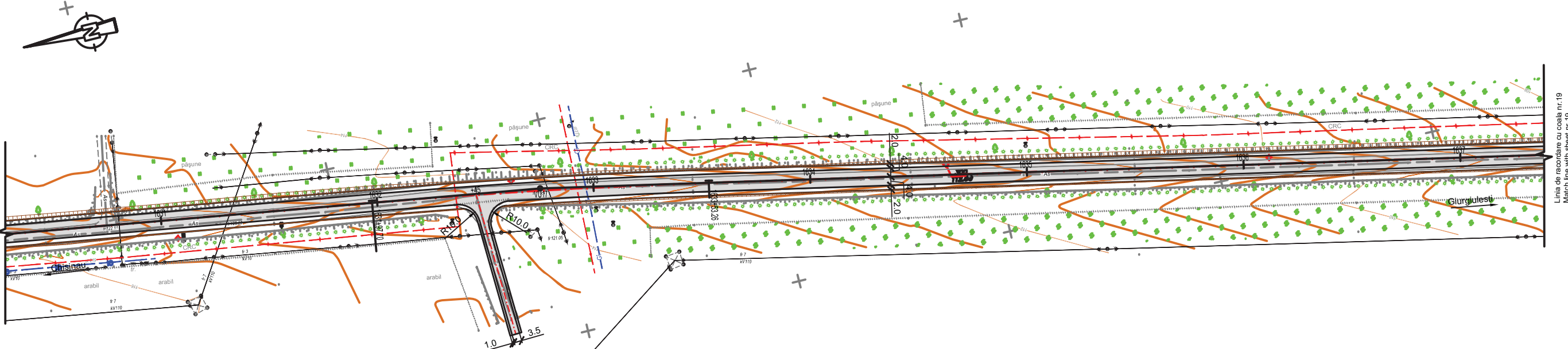
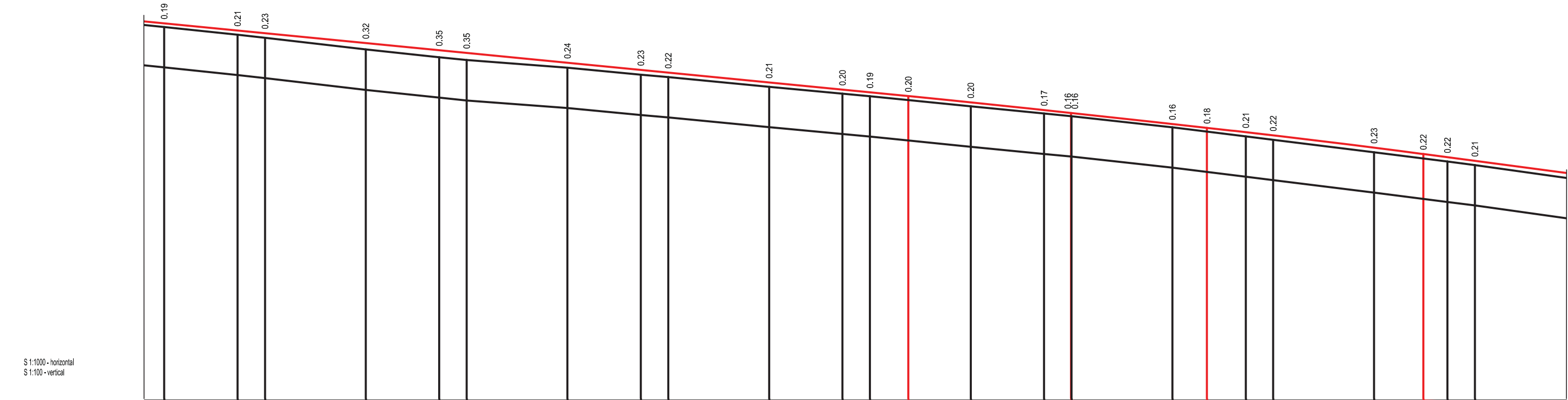


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Terrain data Date teren	Finished carriageway level, m	117.03	116.79	116.60	116.55	116.30	116.06	115.81	115.63	115.57	115.32	115.08	114.83	114.65	114.59	114.35	114.10
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Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/  
Drawing name

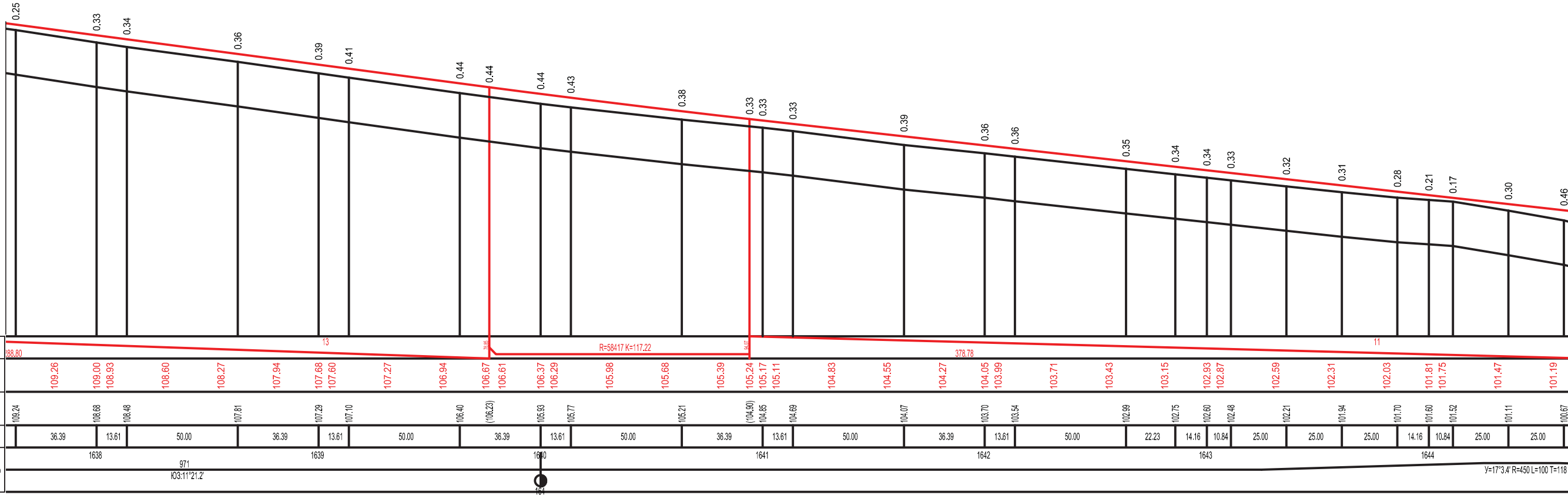
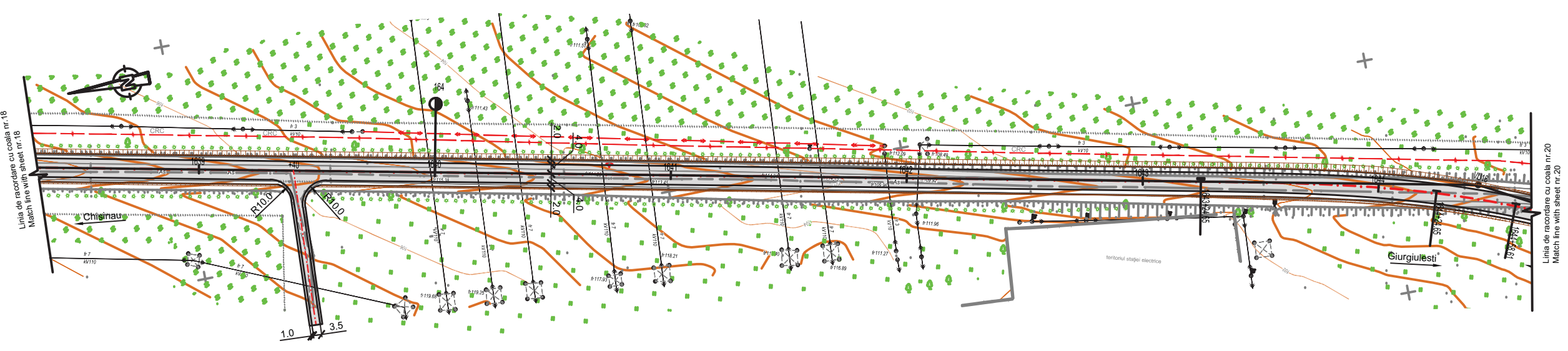
Plan, Profil longitudinal S 1000, km 163+050 - 163+750  
Road plan, Longitudinal profile S 1000, km 163+050 - 163+750

Coala Nr./Sheet No.

LA018

Coli / Sheets

LA 49



Inv. Nr.

Semnatura si data

Schimb Inv. Nr.

Design data Date proiect	Gradient,o/oo, vertical radius, m	38.80																								
	Finished carriageway level, m	109.26																								
Terrain data Date teren	Ground level, m	109.24																								
	Cota teren, m	108.68																								
Survey station	Distance, m	36.39																								
	Distanța, m	1638																								
Plan elements Kilometers	Pichet	971																								
	Elemente plan	103:11'21.2																								

Consultantii/ Consultants:

Proiectat/Designed

Eftodii V.

Verificat/Checked

Vilcinschi D.

Desenat/Drawn

Eftodii V.

Data/Date

06.2011

Aprobat/Approved

Data/Date

Republic of Moldova

Ministry of Transport

Marimea originala a desenului

Original Drawing Size

A1

A1

Road Sector Program Support Project

Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată

Denumirea drumului/ Road name

M3 Chisinau - Giurgiulesti/ Frontiera cu Romania

Contract No.4283-MD LOT I

Denumirea desenului/ Drawing name

Plan, Profil longitudinal S 1000, km 163+750 - 164+450

Road plan, Longitudinal profile S 1000, km 163+750 - 164+450

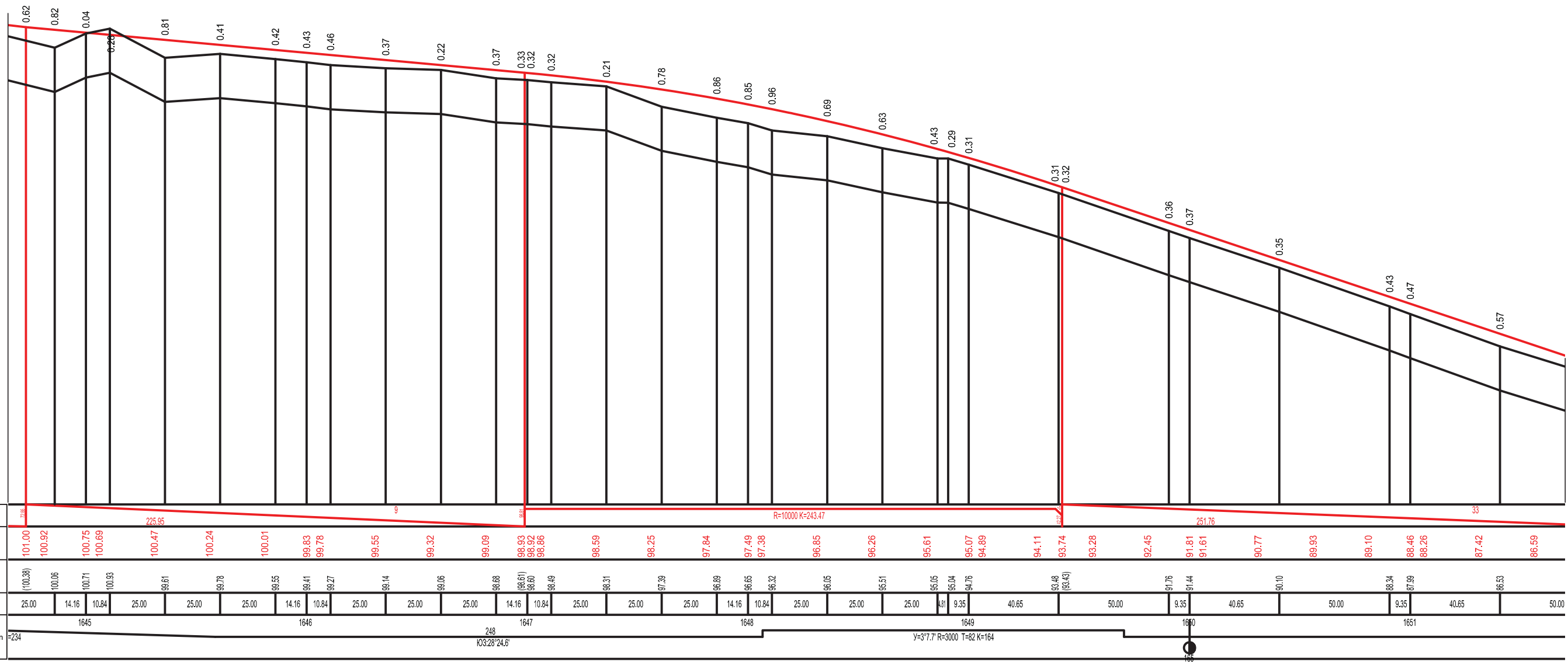
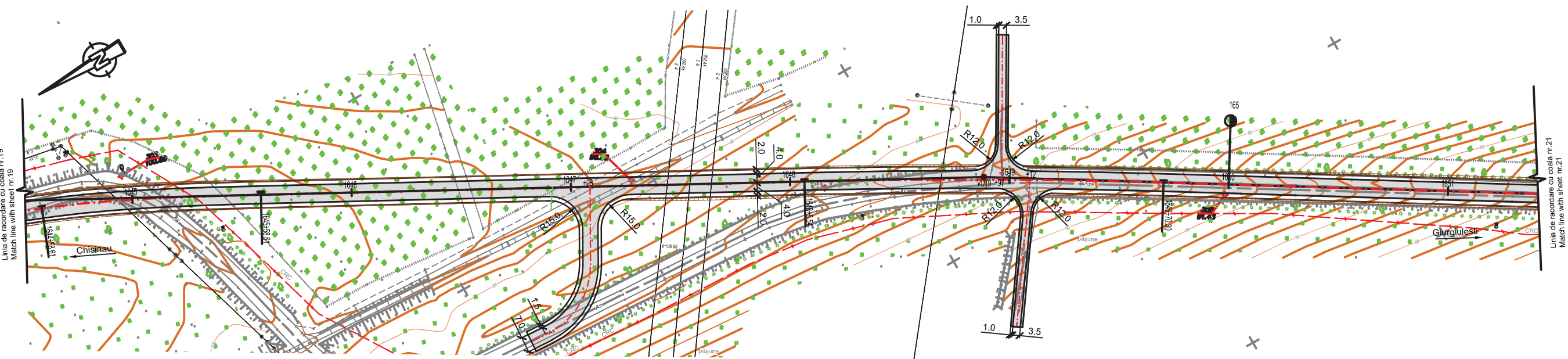
Coala Nr./Sheet No.

LA019

Coli / Sheets

LA 49

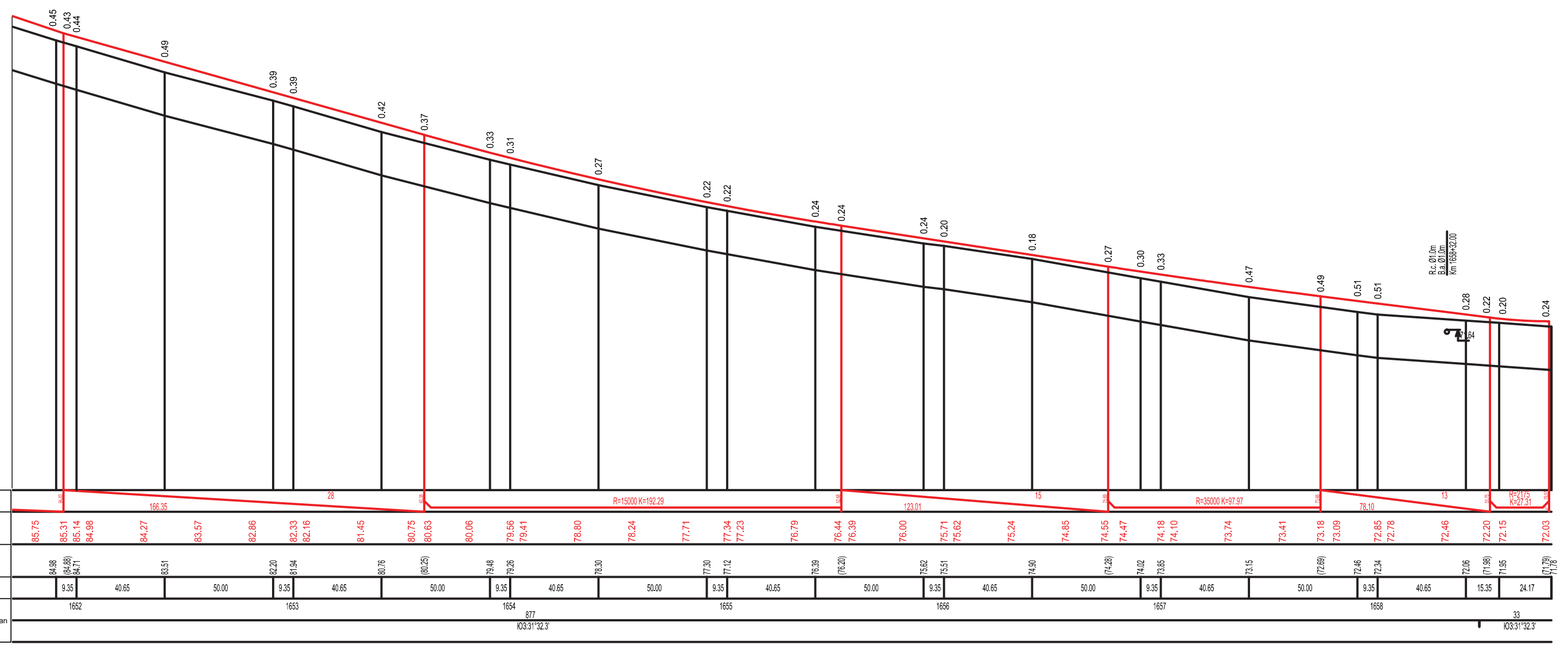
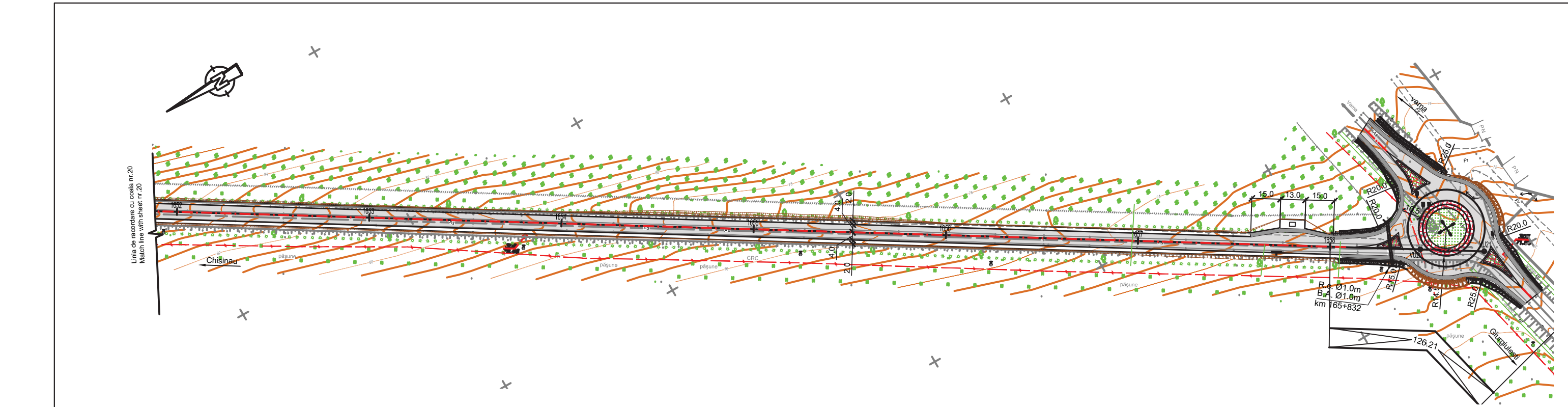




Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Design data	Gradient, o/oo, vertical radius, m	0.82
Date proiect	Declivitate, o/oo, curba verticala, m	0.04
Finished carriageway level, m		0.81
Cota in ax, m		0.41
Ground level, m		0.42
Cota teren, m		0.43
Distance, m		0.46
Distanța, m		0.37
Survey station	Pichet	0.22
Plan elements	Elemente plan	0.37
Kilometers	Kilometri	0.33

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Consultantii/ Consultants:	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.				Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I
Verificat/Checked	Vilcinski D.	Data/Date	06.2011				Denumirea desenului/ Plan, Profil longitudinal S 1000, km 164+450 - 165+170	
							Drawing name	Road plan, Longitudinal profile S 1000, km 164+450 - 165+170
							Coala Nr./Sheet No.	LA020
							Coli / Sheets	LA 49



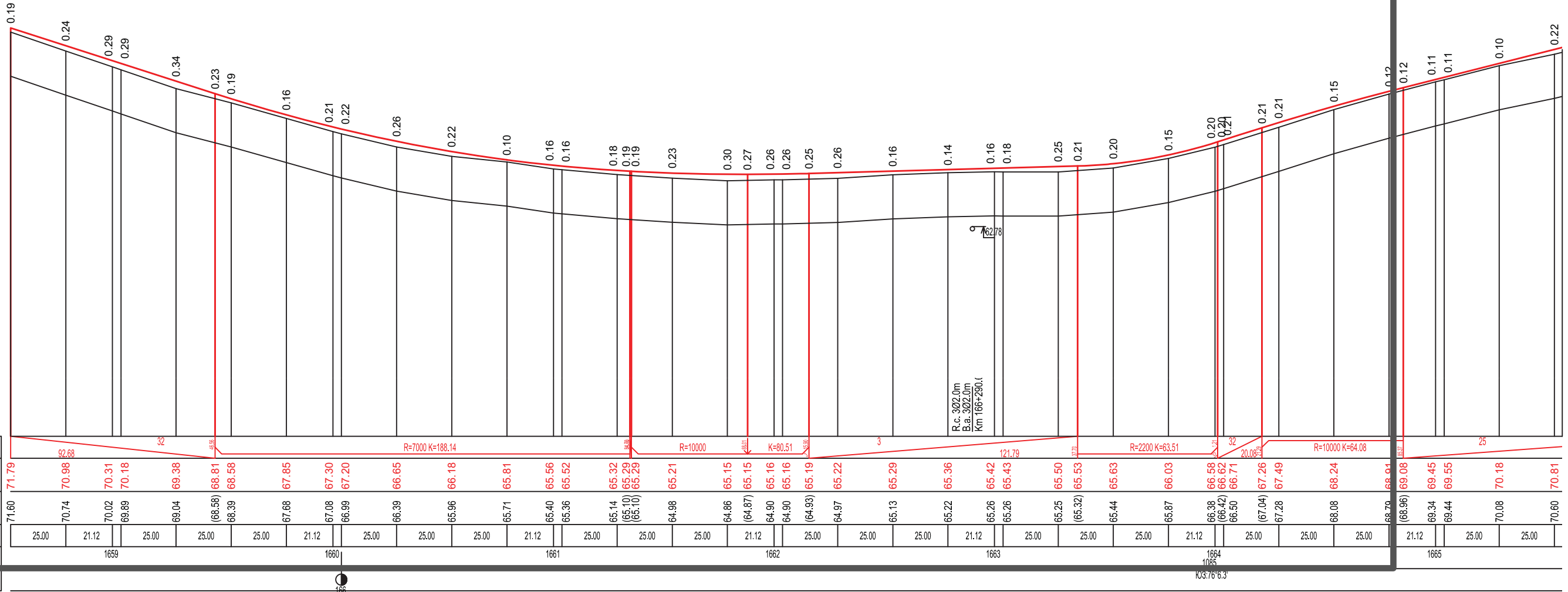
Inv. Nr.		Semnatura si data		Schimb Inv. Nr.	
Rev./ Rev.		Amendamente/ Amendments		Aprobat/ Approved	
Data/ Date		Proiectat/Designed		Data/ Date	
		Verificat/Checked			
		Desenat/Drawn			
		Data/Date			
		Consultantii/ Consultants:		Aprobat/Approved Data/Date	
		Eftodii V.		Republic of Moldova	
		Vilcinski D.		Ministry of Transport	
				Marimea originala a desenului	
				Original Drawing Size	
				A1	
				A1	
				Road Sector Program Support Project	
				Roads Feasibility and Detailed Design Study	
				Proiectul de Susținere al Programului Sectorului	
				Rutier / Studiul de Fezabilitate a Drumurilor și	
				Proiectare Detaliată	
				Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania	
				Road name	
				M3 Chisinau - Giurgiulesti/ Romanian border	
				Contract No.4283-MD LOT I	
				Denumirea desenului/ Plan, Profil longitudinal S 1000, km 165+170 - 165+880	
				Drawing name	
				Road plan, Longitudinal profile S 1000, km 165+170 - 165+880	
				Coala Nr./Sheet No.	
				LA021	
				Coli / Sheets	
				LA 49	

Inv. Nr.

Semnatura si data

Schimb Inv. Nr.

Design data Date proiect	Gradient,‰, vertical radius, m Declivitate,‰,oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m Cota in ax, m
Distance, m Distanța, m	
Survey station Pichet	
Kilometers Kilometri	



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I

Road name M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/ Plan, Profil longitudinal S 1000, km 165+850 - 166+550

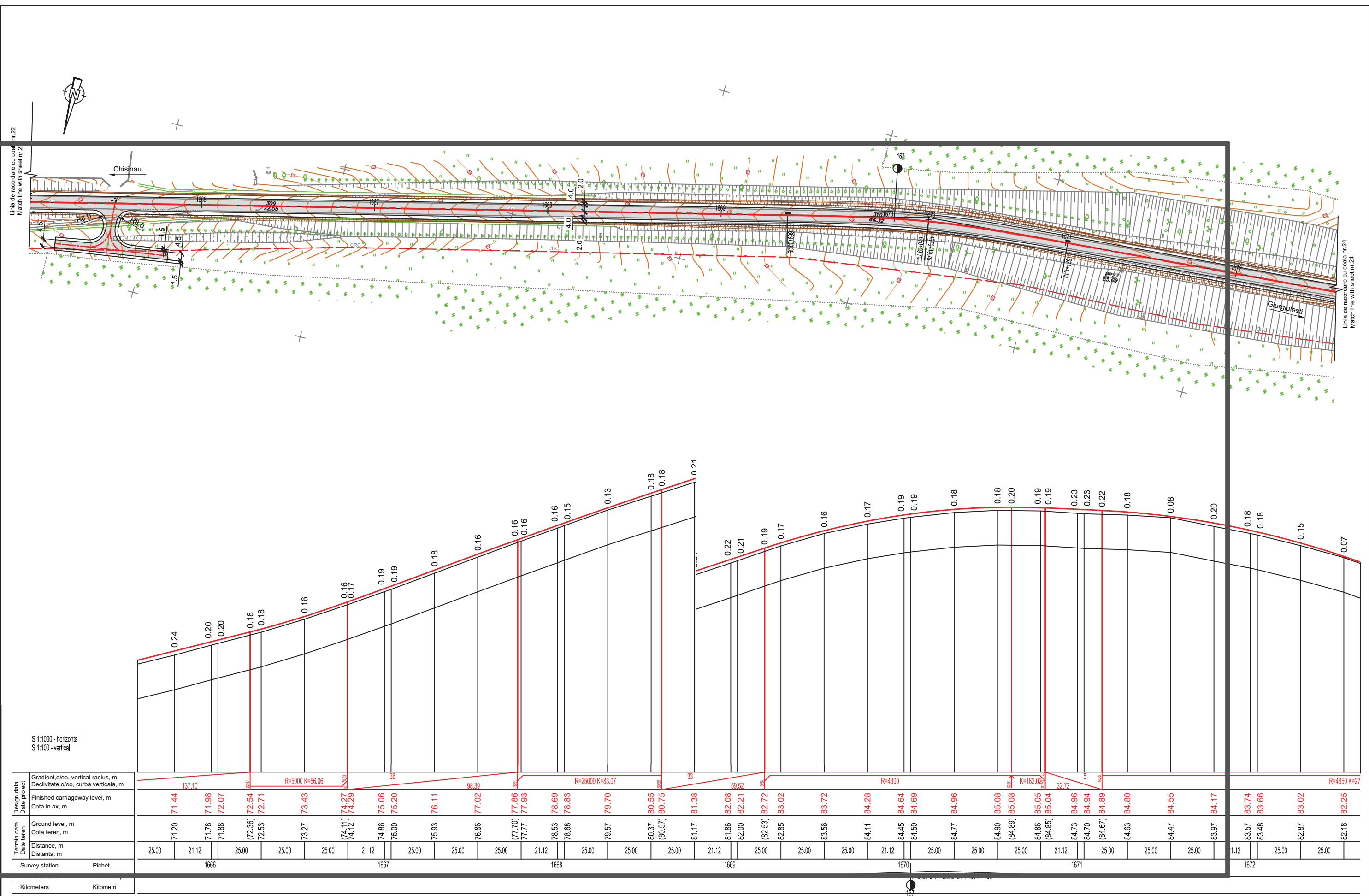
Drawing name Road plan, Longitudinal profile S 1000, km 165+850 - 166+550

Coala Nr./Sheet No. LA022

Coli / Sheets LA 46



Inv. Nr.	Sem. Nr.	atura si data	Schimb Inv. Nr.



Design data Date proiect	Gradient,‰, vertical radius, m Declivitate,‰, curba verticală, m
Terrain data Date teren	Finished carriageway level, m Cota în ax, m
Distance, m Distanță, m	
Survey station Pichet	
Kilometers Kilometri	

Consultantii/ Consultants:

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

Marimea originala a desenului  
Original Drawing Size

A1  
A1

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/  
Drawing name

Plan, Profil longitudinal S 1000, km 166+550 - 167+250  
Road plan, Longitudinal profile S 1000, km 166+550 - 167+250

Coala Nr./Sheet No.

LA023

Coli / Sheets

LA 46

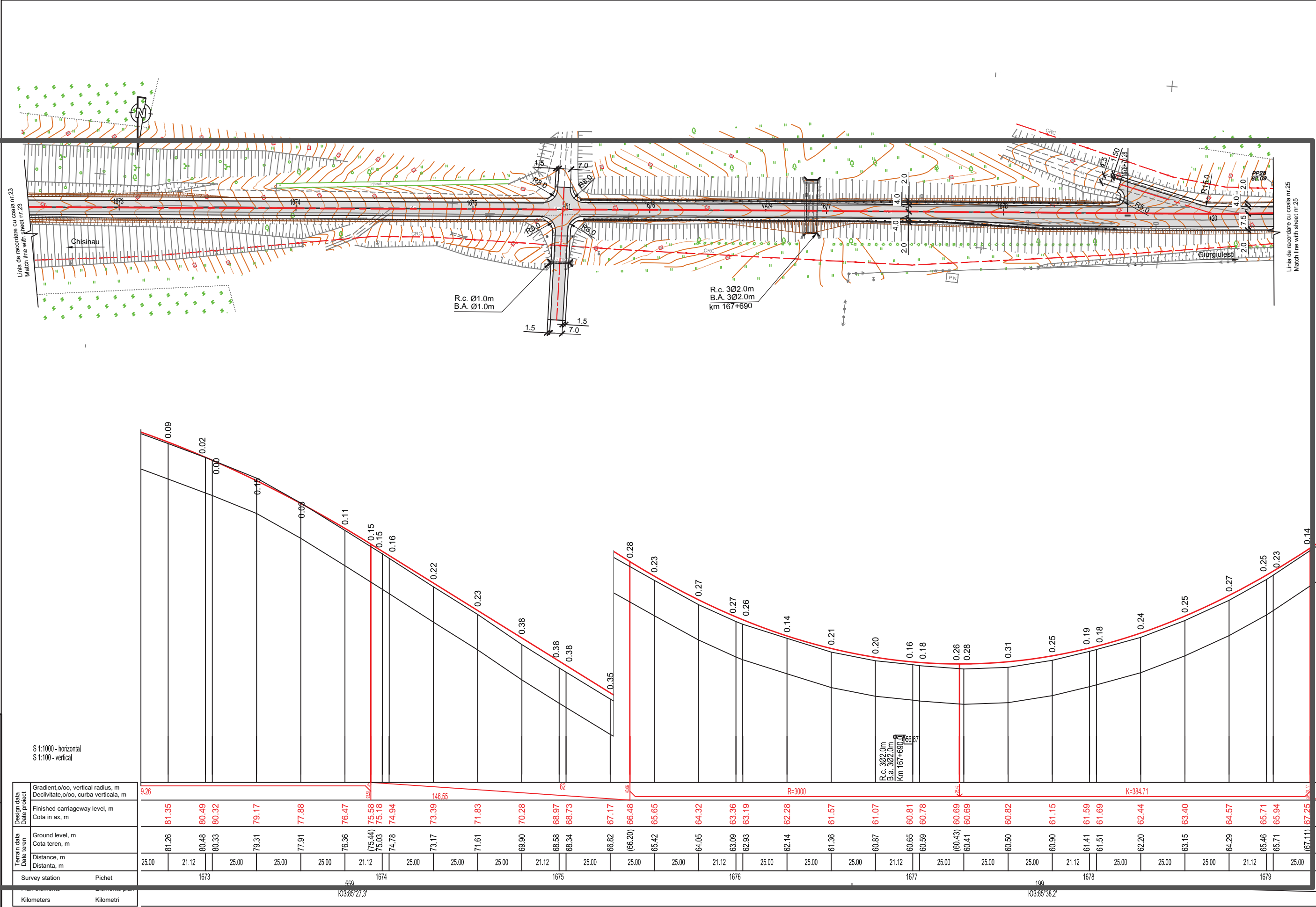
Contract No.4283-MD LOT I

Inv. Nr.

Sem

atura si data

Schimb Inv. Nr.



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ Road name  
M3 Chisinau - Giurgiulesti /Frontiera cu Romania

Contract No.4283-MD LOT I

Denumirea desenului / Plan, Profil longitudinal S 1000, km 167+250 - 167+950

Drawing name Road plan, Longitudinal profile S 1000, km 167+250 - 167+950

Coala Nr./Sheet No. LA024

Coli / Sheets LA 46

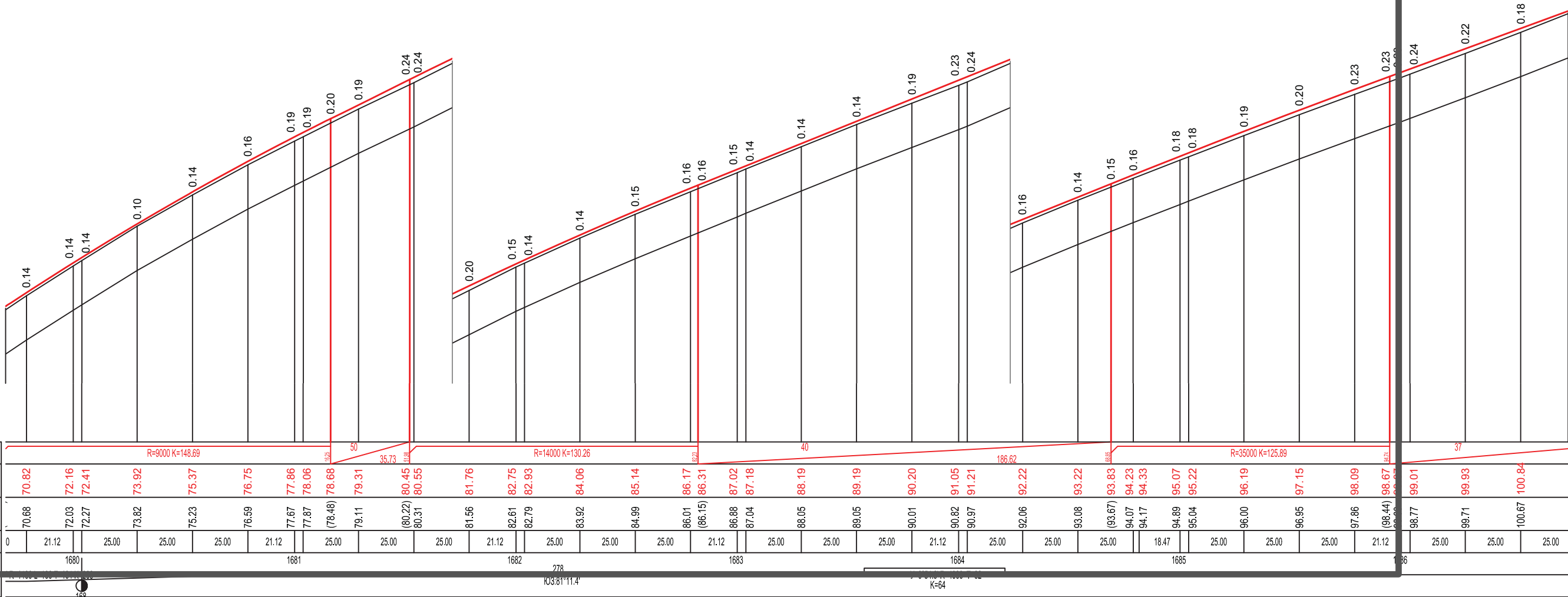
Rev./	Amendamente/	Aprobat/	Data/
Rev.	Amendments	Approved	Date

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Marimea originala a desenului A1  
Original Drawing Size A1

Inv. Nr.	Sem. nura si data	Schimb Inv. Nr.

Design data Date proiect	Gradient, o/o, vertical radius, m Declivitate, o/o, curba verticala, m
Terrain data Date teren	Finished carriageway level, m Cota in ax, m
Distance, m Distanța, m	
Survey station Pichet	
Kilometers Kilometri	



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I

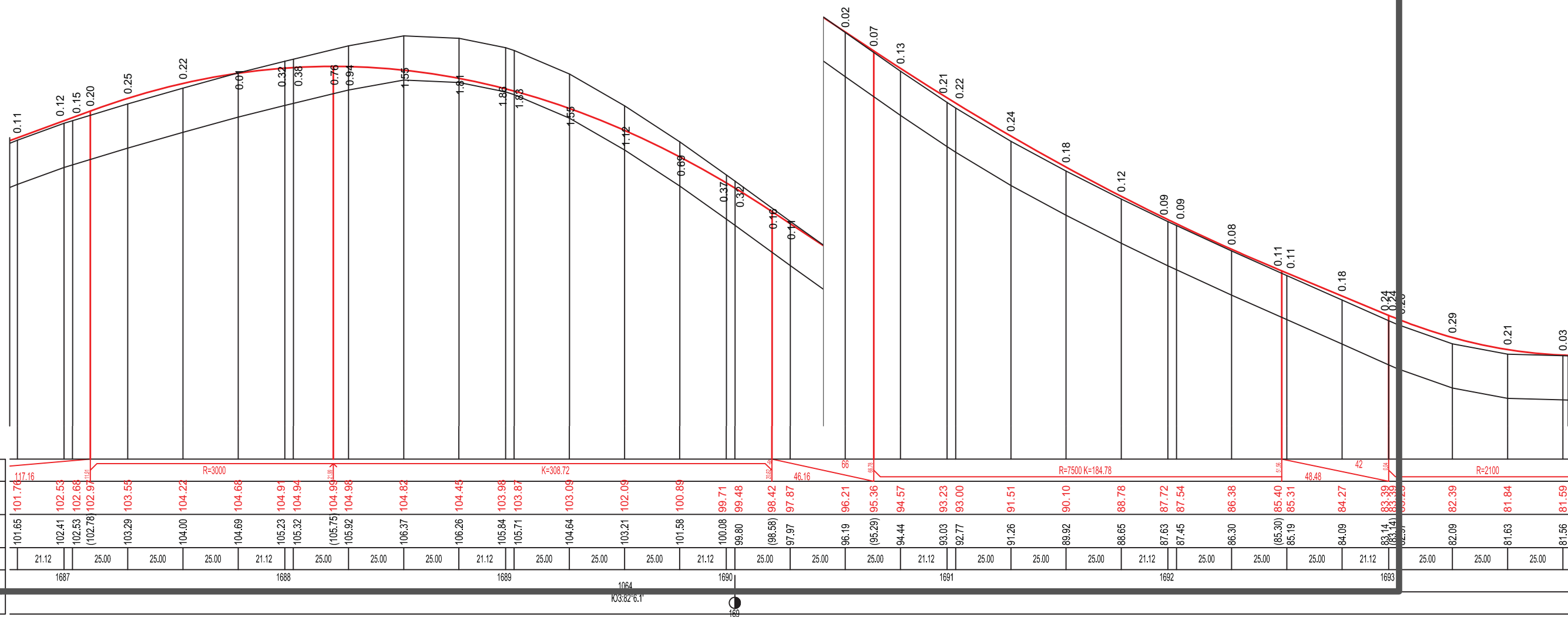
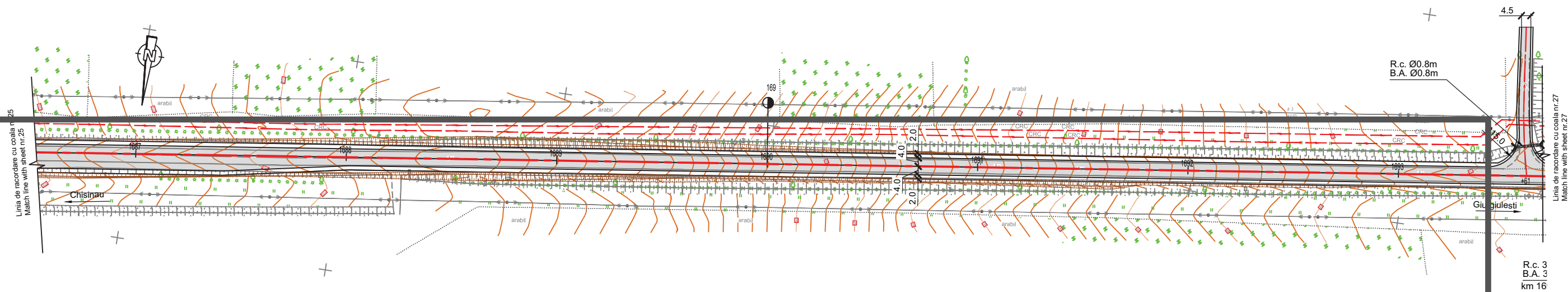
Denumirea desenului/ Plan, Profil longitudinal S 1000, km 167+950 - 168+670

Drawing name Road plan, Longitudinal profile S 1000, km 167+950 - 168+670

Coala Nr./Sheet No. LA025 Coli / Sheets LA 46

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

Design data Date project	Gradient, o/o, vertical radius, m Decivertiale, o/o, curba verticala, m	
	Finished carriageway level, m Cota in ax, m	
Terrain data Date teren	Ground level, m Cota teren, m	
	Distance, m Distanța, m	
	Survey station	Pichtet
	Kilometers	Kilometri

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

Road Sector Program Support Project  
Roads Feasibility and Detailed Design StudyProiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT I
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Denumirea desenului/	Plan, Profil longitudinal S 1000, km 168+670 - 169+375
Drawing name	Road plan, Longitudinal profile S 1000, km 168+670 - 169+375

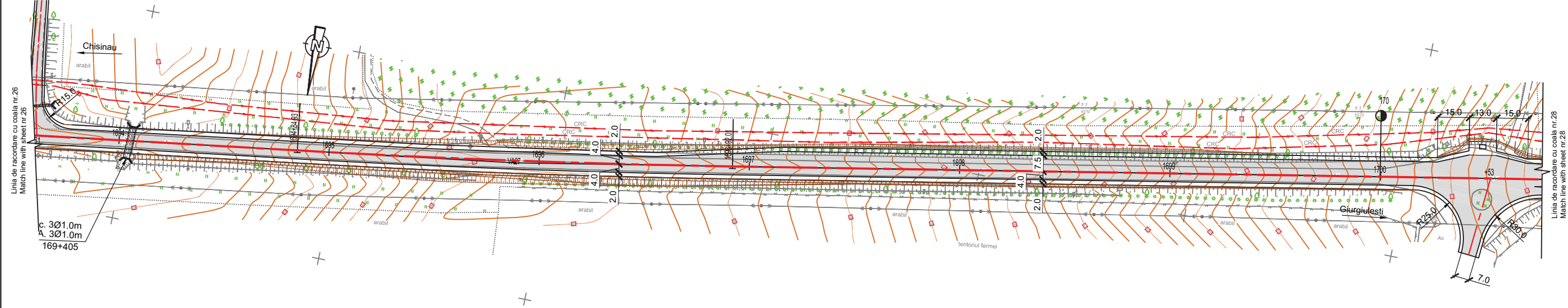
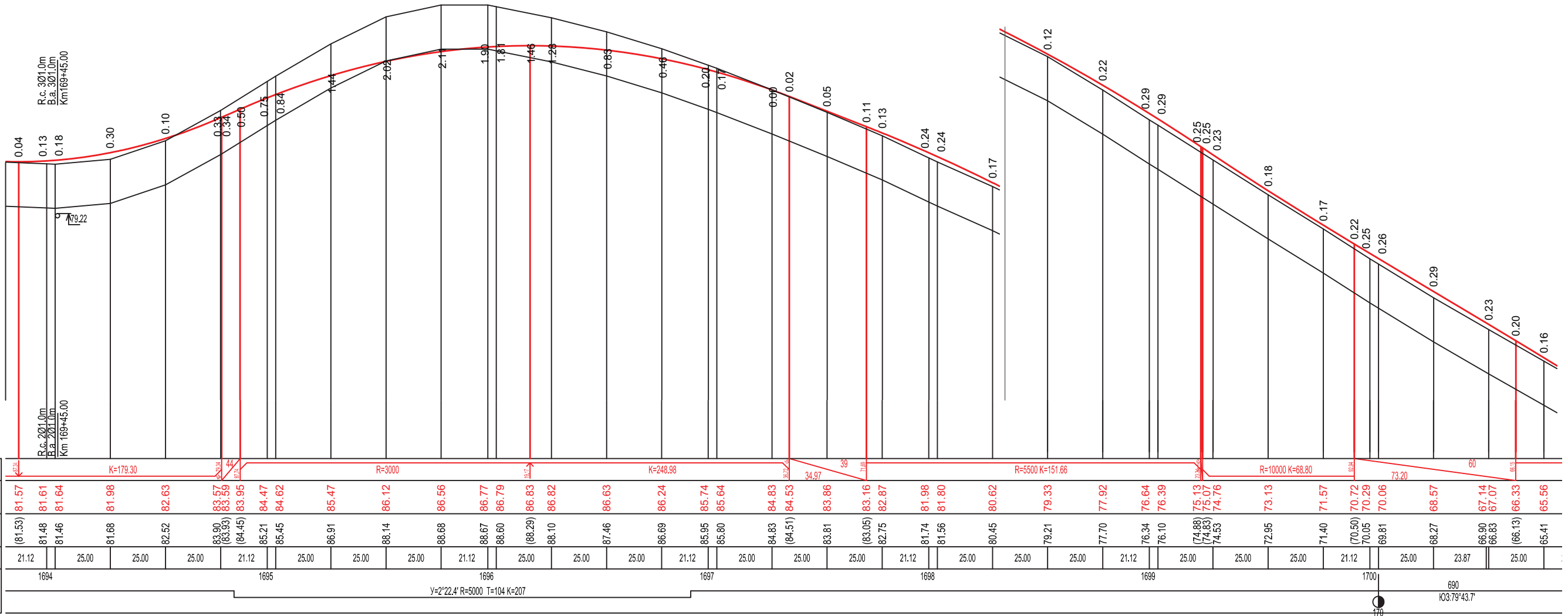
Coala Nr./Sheet No.	LA026	Coli / Sheets	LA 46
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Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 
Verificat/Checked	Vilcinschi D. 	Data/Date	06.2011

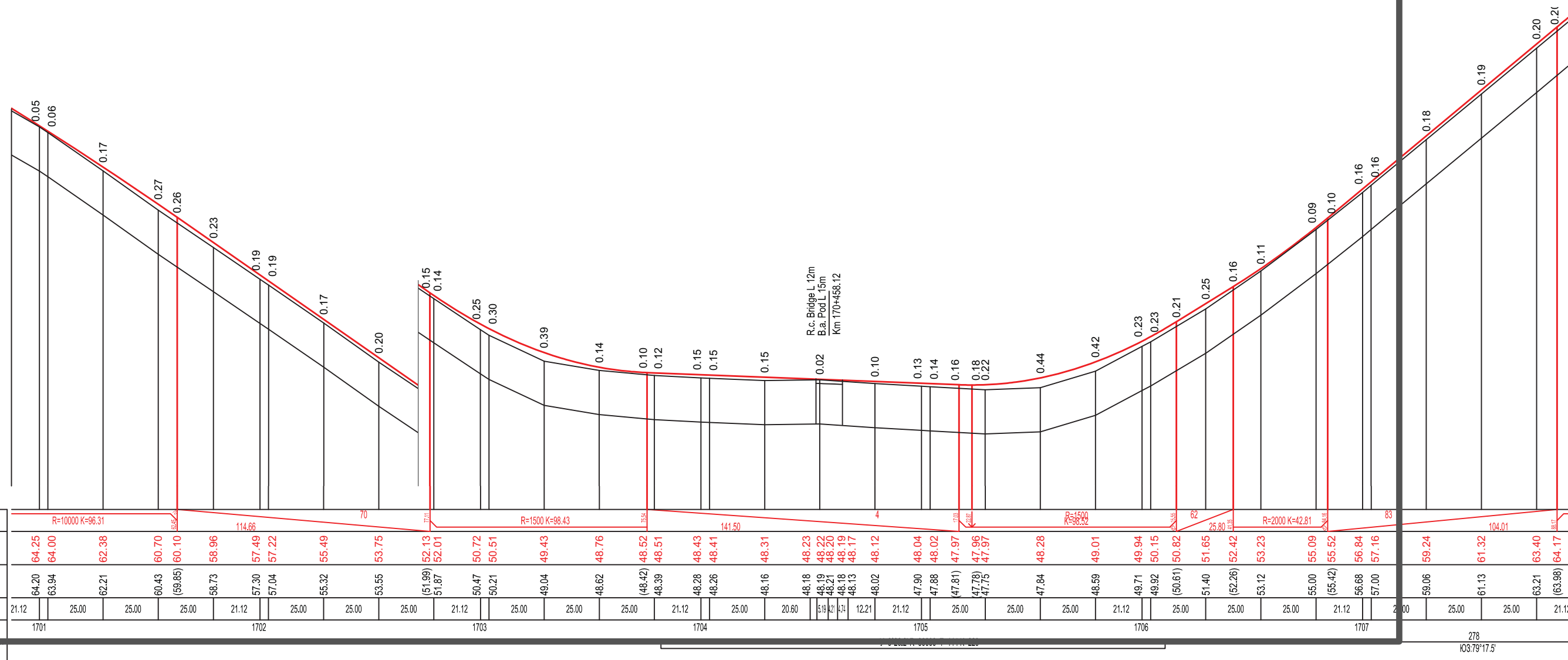
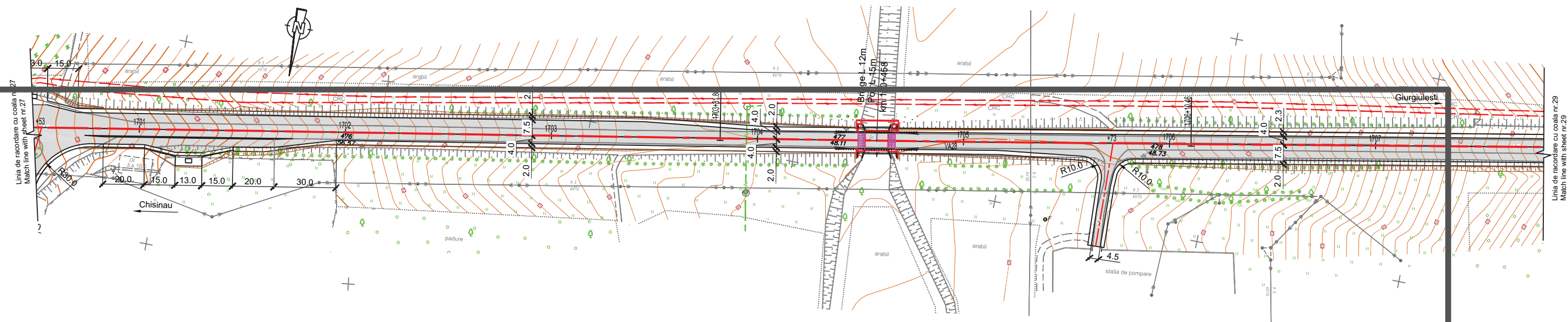
Marimea originala a desenului	A
Original Drawing Size	A

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

Design data Date proiect	Gradient,o/oo, vertical radius, m Declivitate,o/oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m Cota in ax, m
Survey station Plan elements Kilometers	Pichet Elemente plan Kilometri



Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Marimea originala a desenului Original Drawing Size	A1 A1	Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	Contract No.4283-MD LOT I
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Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

Design data Date project	Gradient, o/oo, vertical radius, m	
	Declivitate, o/oo, curba verticală, m	
Terrain data Date teren	Finished carriageway level, m	
	Cota în ax, m	
	Ground level, m	
	Cota teren, m	
	Distance, m	
	Distanță, m	
Survey station	Pichet	
Kilometers	Kilometri	

R=10000 K=96.31										R=1500 K=98.43										R=2000 K=42.81										R=1500 K=98.43										R=10000 K=96.31									
64.25	64.00	62.38	60.70	60.10	58.96	57.49	57.22	55.49	53.75	52.13	52.01	50.72	50.51	49.43	48.76	48.52	48.51	48.43	48.41	48.31	48.23	48.22	48.20	48.19	48.18	48.17	48.12	48.04	48.02	47.97	47.96	47.97	48.28	49.01	49.94	50.15	50.82	51.65	52.42	53.23	55.09	55.52	56.84	57.16	59.24	61.32	63.40	64.17	
64.20	63.94	62.21	60.43	(59.85)	58.73	57.30	57.04	55.32	53.55	(51.99)	51.87	50.47	50.21	49.04	48.62	(48.42)	48.39	48.28	48.26	48.16	48.18	48.19	48.21	48.20	48.18	48.13	48.02	47.90	47.88	(47.81)	(47.78)	47.75	47.84	48.59	49.71	49.92	(50.61)	51.40	(52.26)	53.12	55.00	(55.42)	56.68	57.00	59.06	61.13	63.21	(63.98)	
21.12	25.00	25.00	25.00	21.12	25.00	25.00	25.00	21.12	25.00	25.00	25.00	21.12	25.00	25.00	25.00	21.12	25.00	20.60	19.80	19.74	12.21	21.12	25.00	25.00	25.00	21.12	25.00	25.00	21.12	25.00	25.00	25.00	21.12	25.00	25.00	21.12	25.00	25.00	21.12	25.00	25.00	21.12	25.00	25.00	21.12				
1701		1702		1703		1704		1705		1706		1707		278		103.79'17.5																																	

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

Road Sector Program Support Project  
Roads Feasibility and Detailed Design StudyProiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ Road name	M3 Chisinau - Giurgiuilesti /Frontiera cu Romania M3 Chisinau - Giurgiuilesti/ Romanian border	Contract No.4283-MD LOT I
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Denumirea desenului/	Plan, Profil longitudinal S 1000, km 170+080 - 170+790
Drawing name	Road plan, Longitudinal profile S 1000, km 170+080 - 170+790

Coala Nr./Sheet No.	LA028	Coli / Sheets	LA 46
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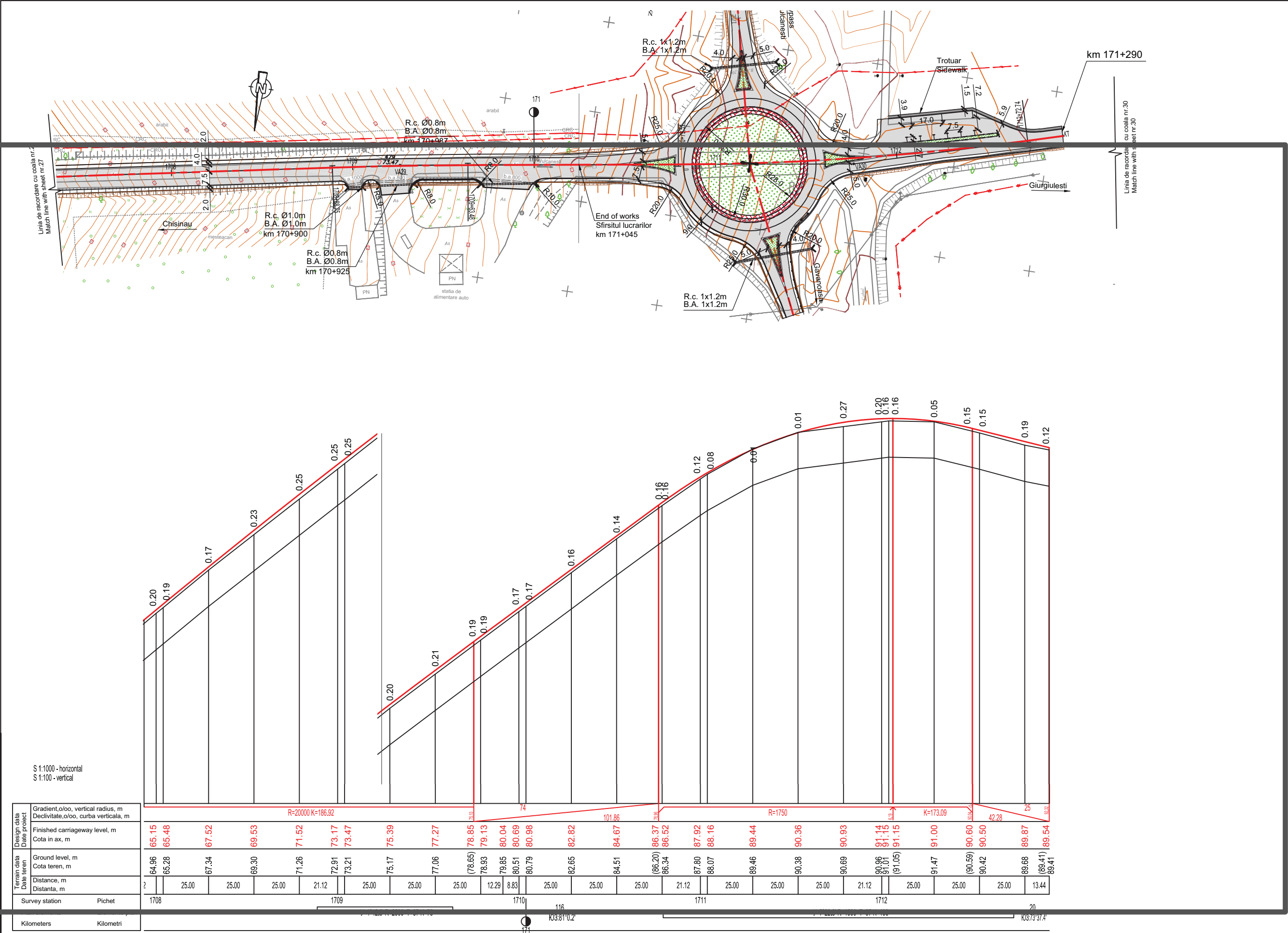
Format A1



Inv. Nr.

Semnatura si data

Schimb Inv. Nr.



Consultantii/ Consultants:

Rev./  
Rev.

Amendamente/  
Amendments

Aprobat/  
Approved

Data/  
Date

Proiectat/Designed

Eftodii V.

Verificat/Checked

Vilcinski D.

Desenat/Drawn

Eftodii V.

Data/Date

06.2011

Aprobat/Approved

Data/Date

Republic of Moldova

Ministry of Transport

Marimea originala a desenului  
Original Drawing Size

A1  
A1

Road Sector Program Support Project

Roads Feasibility and Detailed Design Study

Denumirea drumului/  
Road name

M3 Chisinau - Giurgulesti /Frontiera cu Romania

Denumirea desenului/  
Drawing name

Plan, Profil longitudinal S 1000, km 170+790 - 171+300

Coala Nr./Sheet No.

LA029

Proiectul de Sustinere al Programului Sectorului

Rutier / Studiul de Fezabilitate a Drumurilor și

Proiectare Detaliată

Contract No.4283-MD LOT I

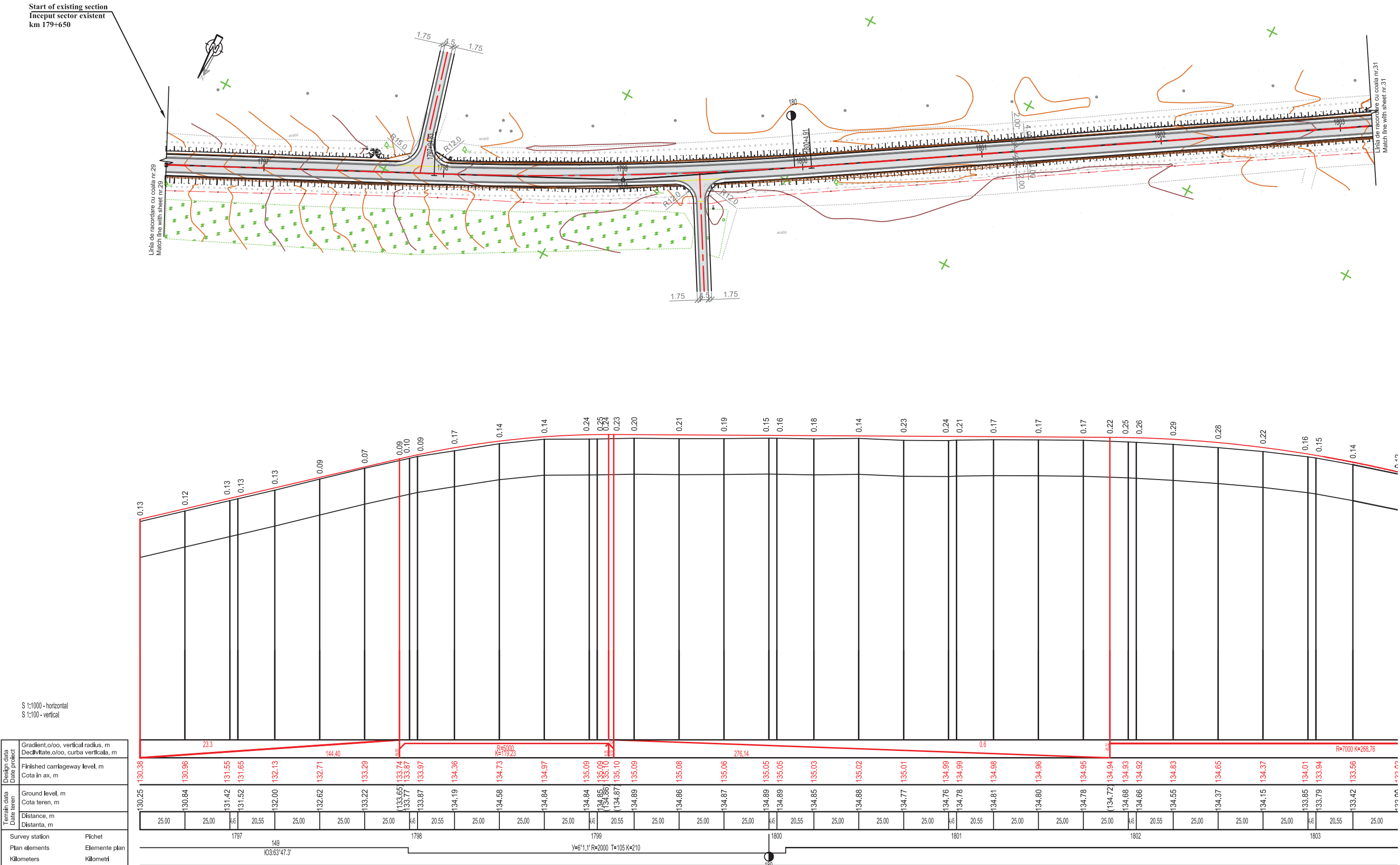
Coli / Sheets

LA 46

Inv. Nr.

Semnatura si data

Schimb Inv. Nr.



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector: Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Ruțier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name  
M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Contract No.4283-MD LOT I

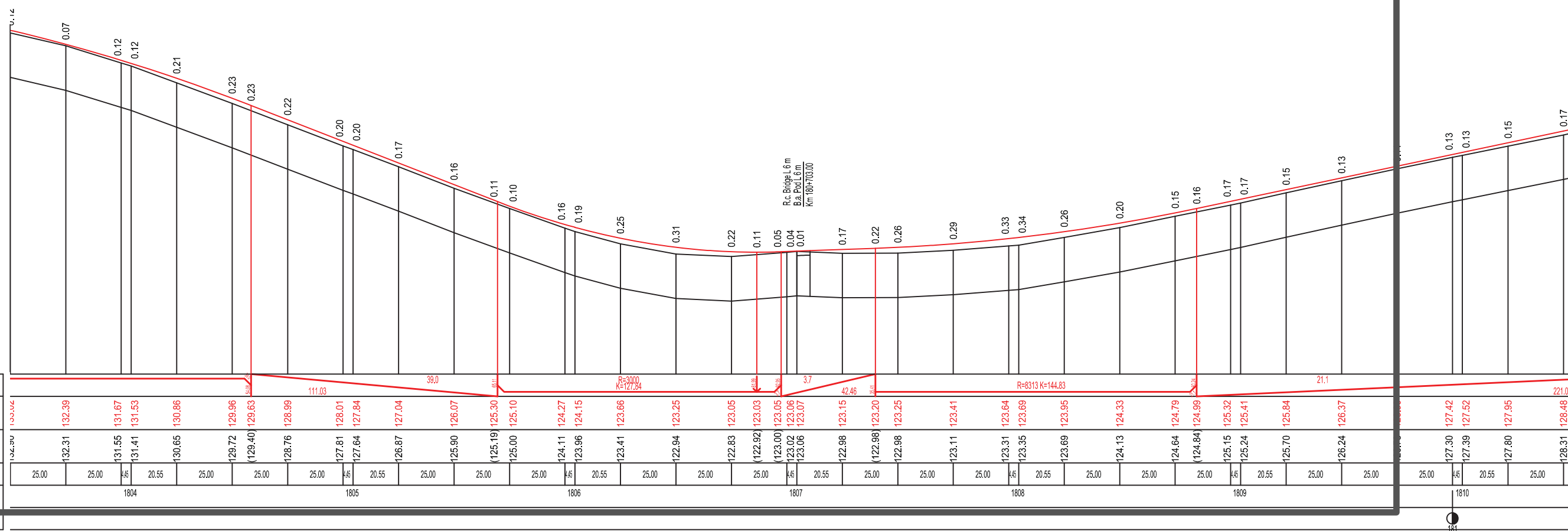
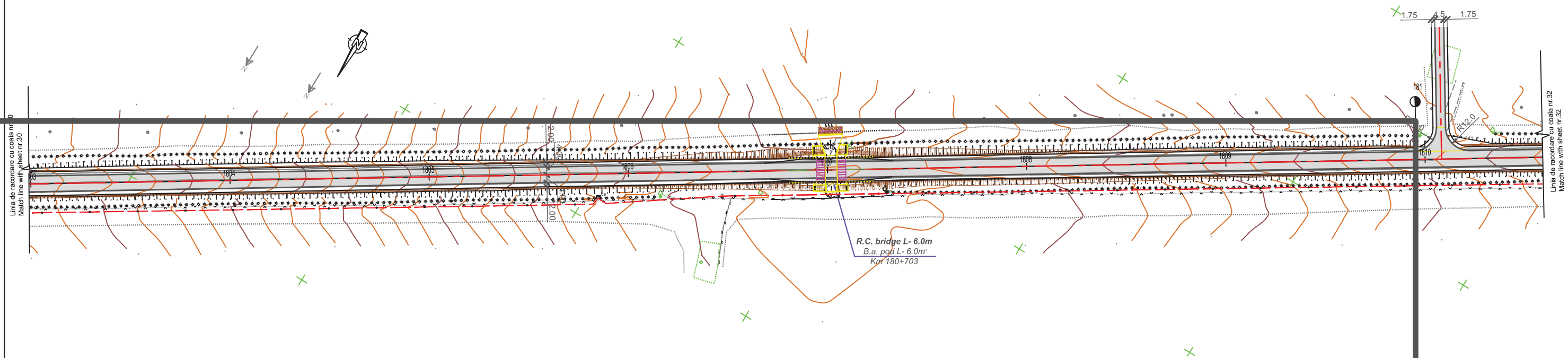
Denumirea desenului/  
Drawing name  
Plan S 1000, km 179+600 -180+345  
Road plan S 1000, km 179+600 -180+345

Coala Nr./Sheet No.  
LA030

Coli / Sheets  
LA 046

Design data Date proiect	Gradient,o/oo, vertical radius, m Declivitate,o/oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m Cota in ax, m
Survey station Plan elements Kilometers	Pichet Elemente plan Kilometri




Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011



Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

Design data	Gradient o/o, vertical radius, m
	Declivitate o/o, curba verticala, m
Terrain data	Finished carriageway level, m
	Cota în ax, m
Date teren	Ground level, m
	Cota teren, m
Plan elements	Distance, m
	Distanța, m
Survey station	Pichet
Plan elements	Elemente plan
Kilometers	Kilometri

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

Consultantii/ Consultants:			
Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 
Verificat/Checked	Vilcinski D. 	Data/Date	06.2011

[illegible]

Republic of Moldova Ministry of Transport	
Marimea originala a desenului Original Drawing Size	A7 A7

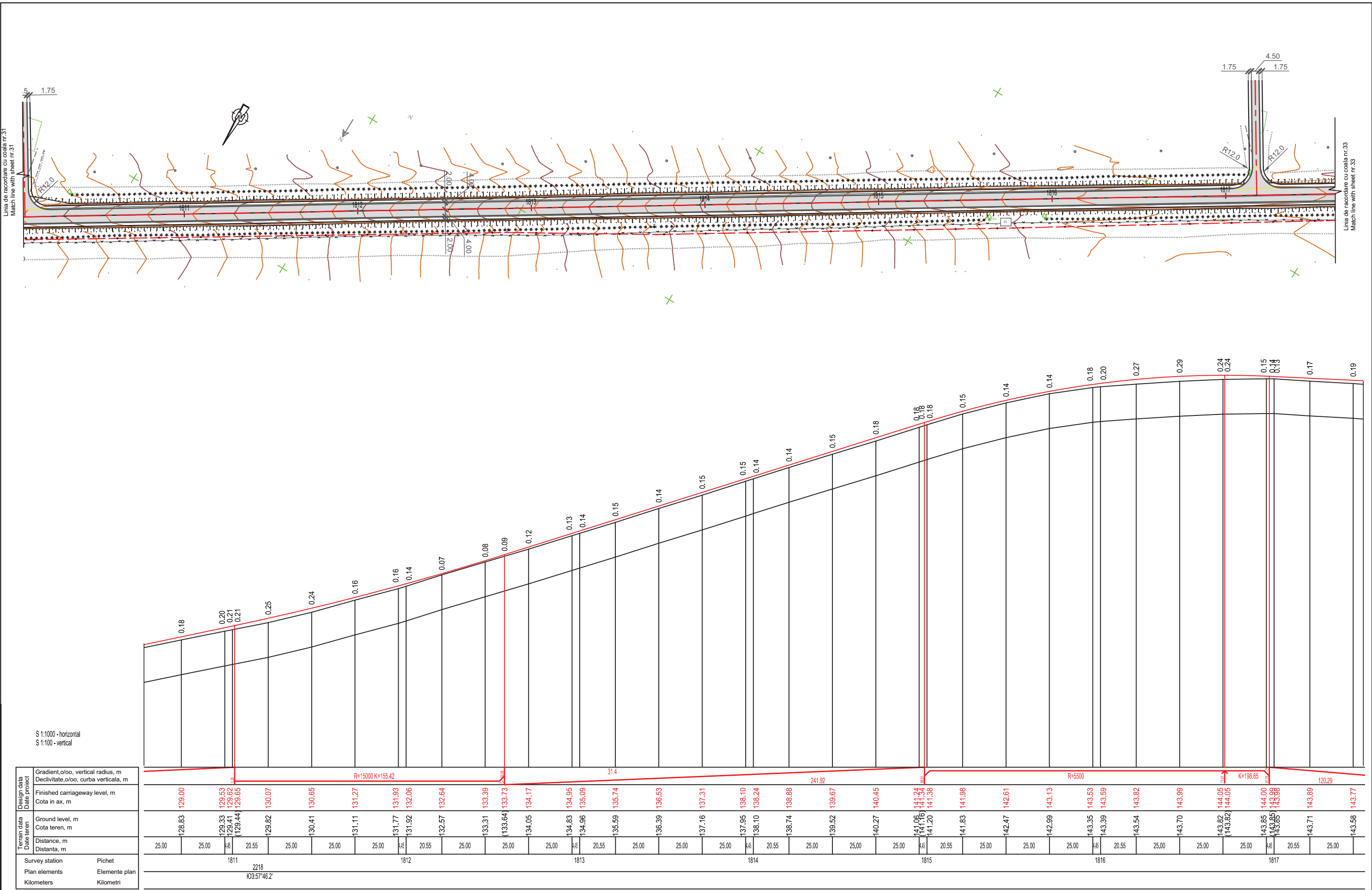
Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulești / Frontiera cu Romania M3 Chisinau - Giurgiulești/ Romanian border	Contract No.4283-MD LOT	
Denumirea desenului/ Drawing name	Plan S 1000, km 180+345 -181+050 Road plan S 1000, km 180+345 -181+050		
Coala Nr./Sheet No.	LA031	Coli / Sheets	LA 046



Inv. Nr.

Semnatura si data

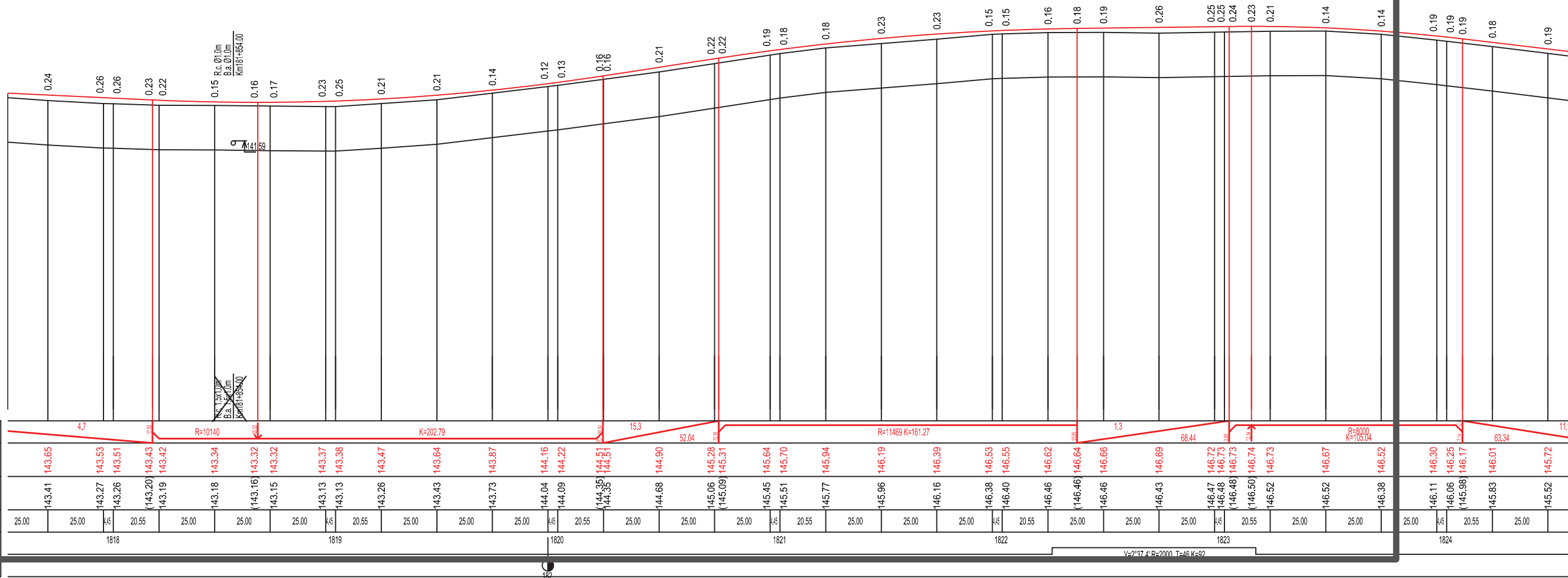
Schimb Inv. Nr.



Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed		Desenat/Drawn		Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
				Verificat/Checked	Eftodii V. Vilcinski D.	Data/Date	Eftodii V. 06.2011				Marimea originala a desenului Original Drawing Size	A1 A1	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border
											Denumirea desenului/ Drawing name	Plan S 1000, km 181+050 -181+745 Road plan S 1000, km 181+050 -181+745		
											Coala Nr./Sheet No.	LA032	Coli / Sheets	LA 046

Inv. Nr.	Sem.	atura si data	Schimb Inv. Nr.

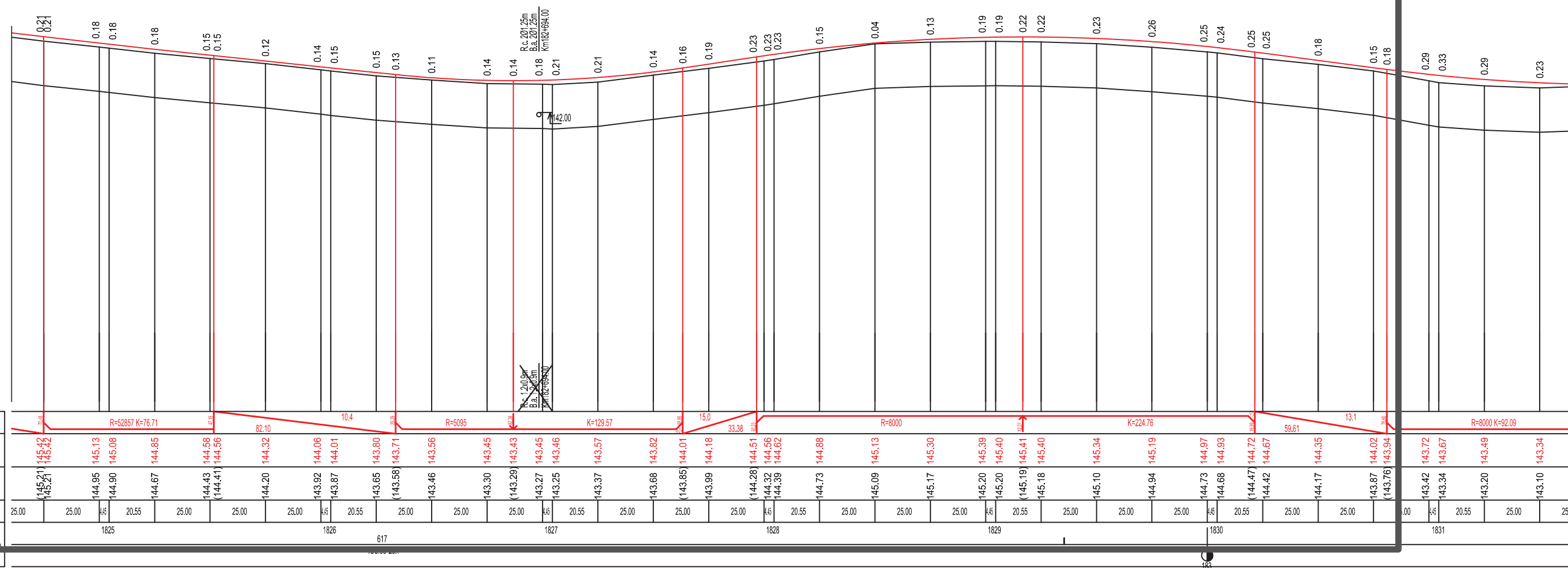
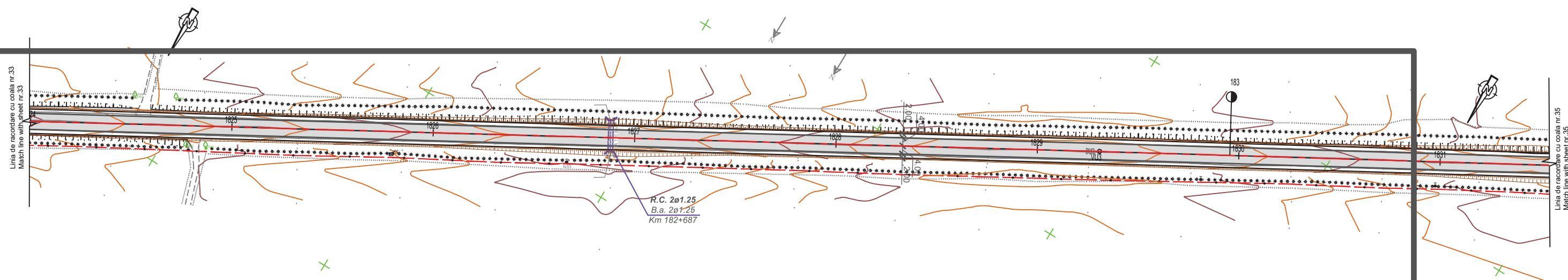
Design data Date proiect	Gradient, o/oo, vertical radius, m Declivitate, o/oo, curba verticala, m
Terain data Date teren	Finished carriageway level, m Cota in ax, m
	Ground level, m Cota teren, m
	Distance, m Distanța, m
Survey station Puncte	Pictet
Plan elements Elemente plan	
Kilometers Kilometri	



Consultantii/ Consultants:





Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
Marimea originala a desenului Original Drawing Size	A1 A1	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border
		Denumirea desenului/ Drawing name	Plan S 1000, km 181+745 -182+455 Road plan S 1000, km 181+745 -182+455
		Coala Nr./Sheet No.	LA033
		Coli / Sheets	LA 046



Inv. Nr.	Sem. natura si data	Schimb Inv. Nr.

Design data Data project	Gradient,o/o, vertical radius, m	
	Decilvitate,o/o, curba verticala, m	
Terrain data Date teren	Finished carriageway level, m	
	Cota in ax, m	
Survey station Punct de nivelare	Ground level, m	
	Cota teren, m	
Plan elements Elemente plan	Distance, m	
	Distanța, m	
Kilometers		Pichet
Kilometri		Elemente plan

						<u>Consultantii/ Consultants:</u>		Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
												Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti / Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border Contract No.4283-MD LOT I	
						Proiectat/Designed		Eftodii V. 		Desenat/Drawn		Eftodii V. 			
Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved		Data/ Date		Verificat/Checked		Vilcinski D. 		Data/Date		06.2011	
										Marimea originala a desenului Original Drawing Size		A1 A1			
										Coala Nr./Sheet No.		LA034		Coli / Sheets LA 046	

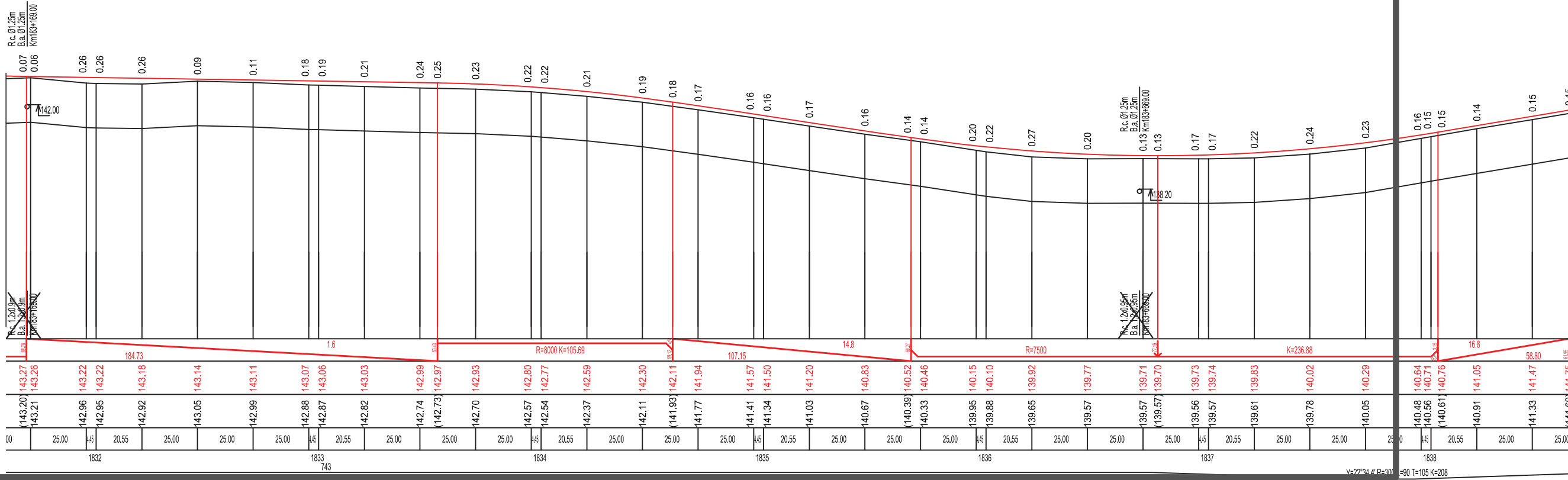


Inv. Nr.

Semnatura si data

Schimb Inv. Nr.

Design data Date proiect	Gradient, o/oo, vertical radius, m Declivitate, o/oo, curba verticala, m
Terain data Date teren	Finished carriageway level, m Cota in ax, m
Survey station Punct	Ground level, m Cota teren, m
Plan elements Elemente plan	Distance, m Distanța, m
Kilometers Kilometri	



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Contract No.4283-MD LOT I

Denumirea desenului/  
Drawing name

Plan S 1000, km 183+160 -183+865  
Road plan S 1000, km 183+160 -183+865

Coala Nr./Sheet No.

LA035

Coli / Sheets

LA 046

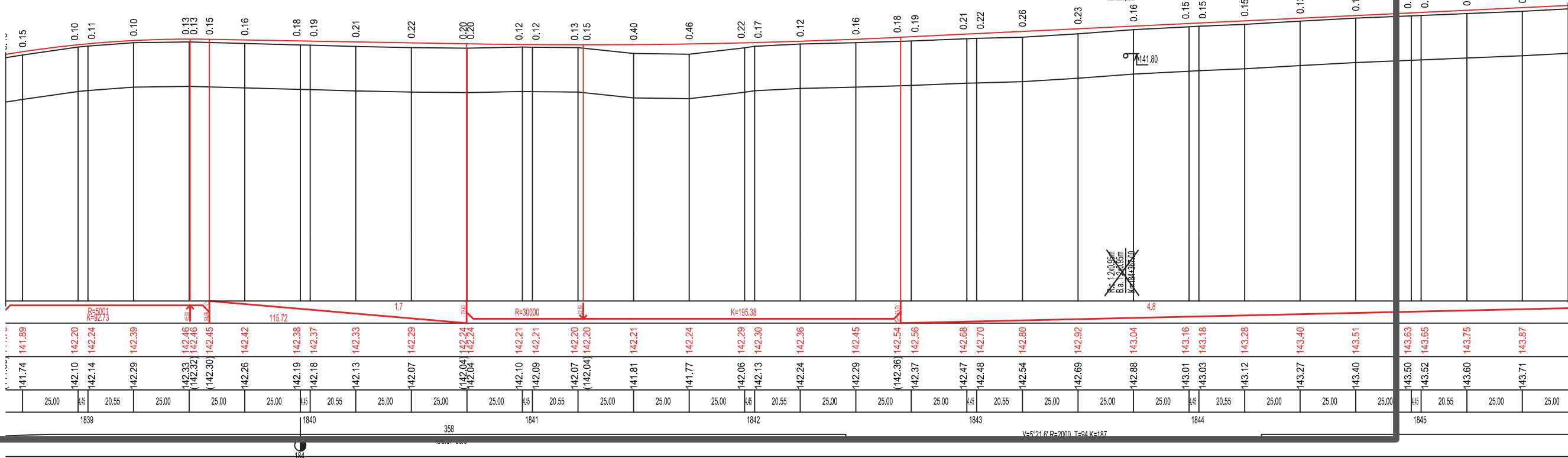
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
				Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Inv. Nr.

Sem. data si data

Schimb Inv. Nr.

Design data	Gradient, o/oo, vertical radius, m
Date project	Decalitate, o/oo, curba verticala, m
Finished carriageway level, m	
Cota in ax, m	
Terrain data	Ground level, m
Date teren	Cota teren, m
Distance, m	
Distanța, m	
Survey station	Pichet
Plan elements	Elemente plan
Kilometers	Kilometri



Consultantii/ Consultants:

Rev./	Amendamente/	Aprobat/	Date/	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Rev.	Amendments	Approved	Date	Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Date/Date

Republic of Moldova  
Ministry of Transport

Marimea originala a desenului  
Original Drawing Size

A1  
A1

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania

Denumirea desenului/  
Drawing name

Plan S 1000, km 183+865 -184+580

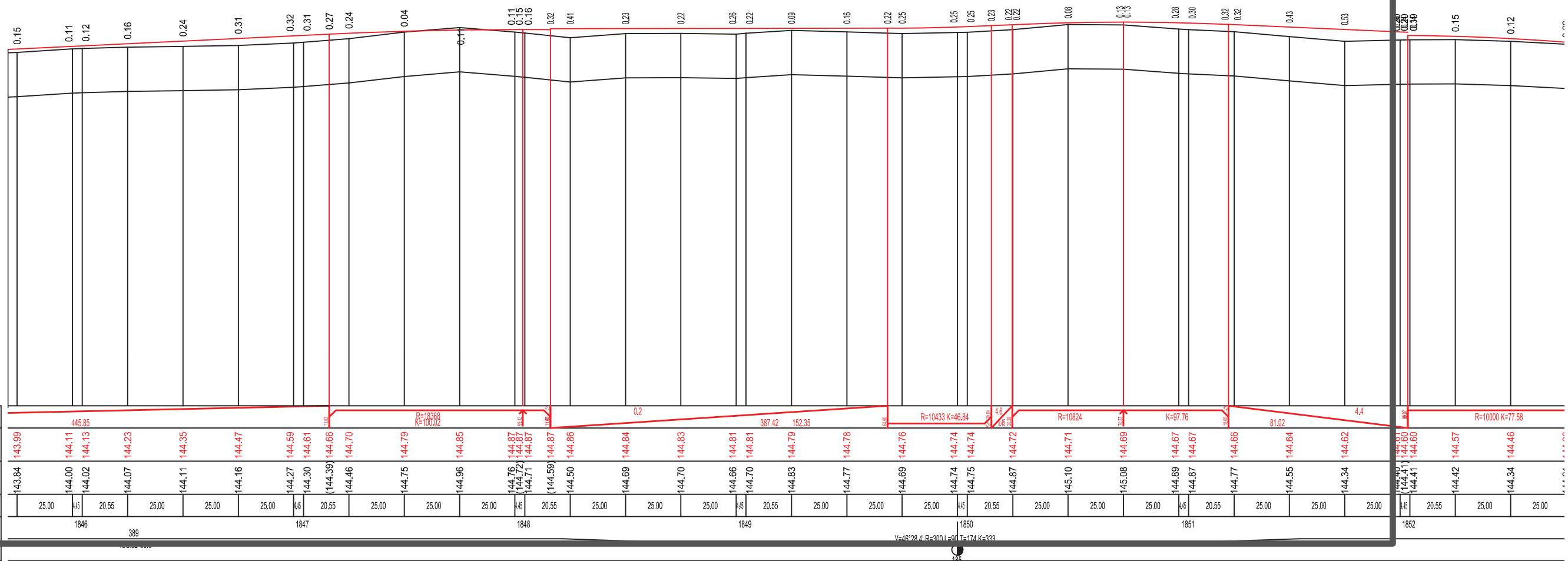
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LA036

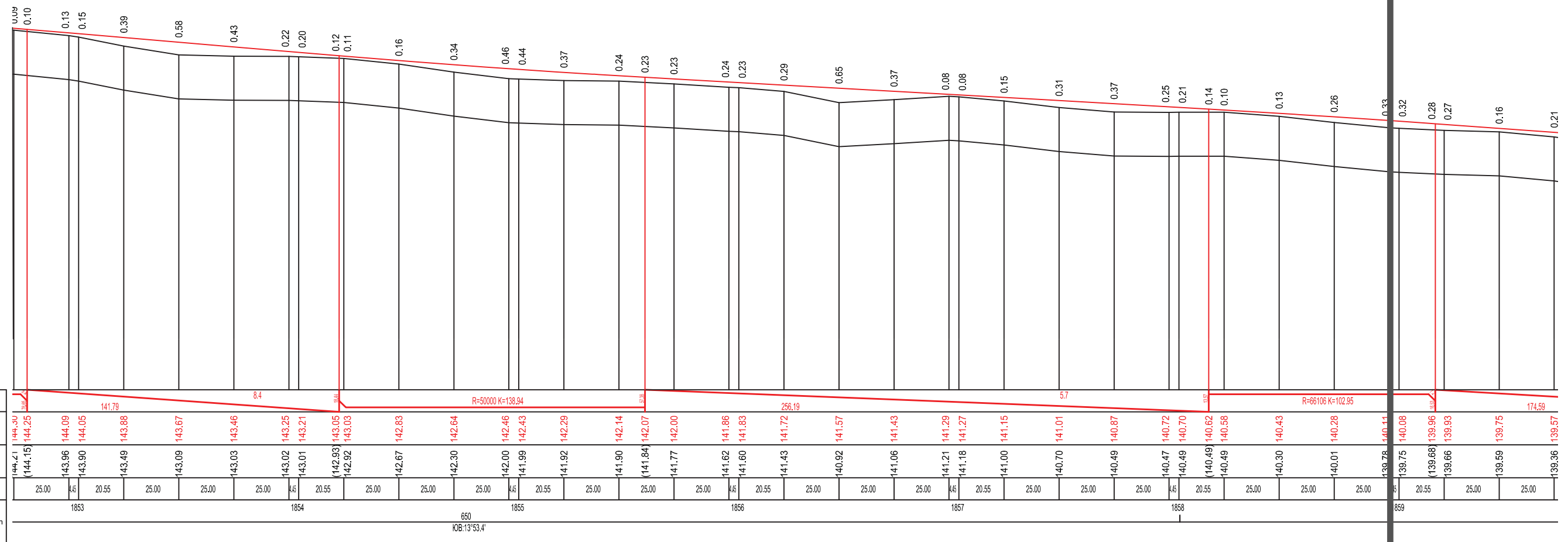
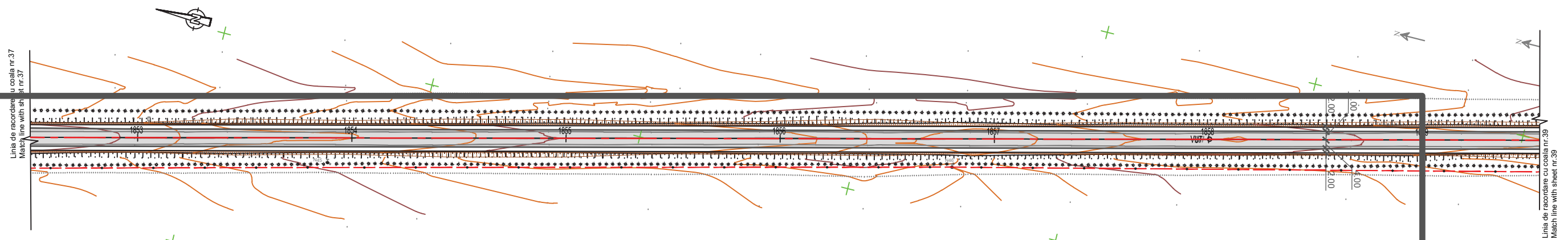
Coli / Sheets

LA 046



Design data Date proiect	Gradient,o/oo, vertical radius, m
	Decalitate,o/oo, curbă verticală, m
Terrain data Date teren	Finished carriageway level, m
	Cota in ax, m
Survey station	Ground level, m
	Cota teren, m
Plan elements	Distance, m
	Distanța, m
Kilometers	Pichet
	Elemente plan
Rev./ Rev.	Kilometers
	Kilometri








Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

					<u>Consultantii/ Consultants:</u>			
					Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked	Vilcinski D. 	Data/Date	06.2011

Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport				Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
					Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	
					Denumirea desenului/ Drawing name		Plan S 1000, km 185+270 -185+980 Road plan S 1000, km 185+270 -185+980	
	Marimea originala a desenului Original Drawing Size		A1 A1		Coala Nr./Sheet No.		LA038	
					Coli / Sheets	LA 046		

Inv. Nr.

Sem

atura si data

Schimb Inv. Nr.

Rev./  
Rev.

Amendamente/  
Amendments

Aprobat/  
Approved

Data/  
Date

Proiectat/Designed

Eftodii V.

Verificat/Checked

Vilcinski D.

Desenat/Drawn

Eftodii V.

Data/Date

06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

Marimea originala a desenului  
Original Drawing Size

A1  
A1

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
M3 Chisinau - Giurgiulesti/ Romanian border

Contract No.4283-MD LOT I

Denumirea desenului/  
Drawing name

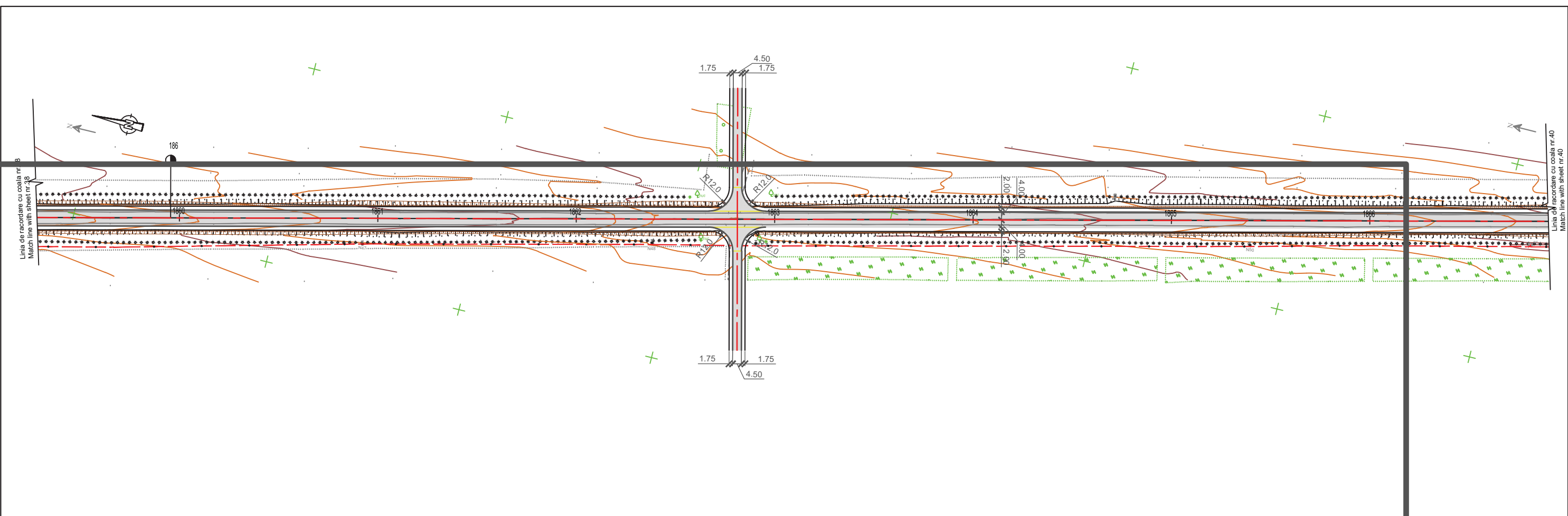
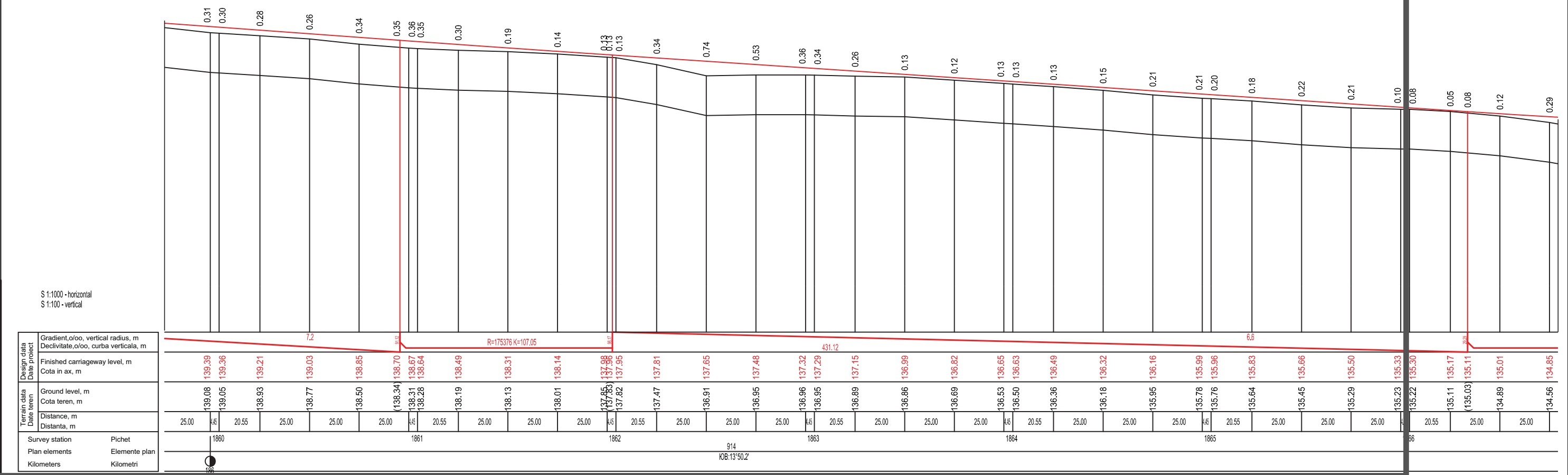
Plan S 1000, km 185+980 -186+675  
Road plan S 1000, km 185+980 -186+675

Coala Nr./Sheet No.

LA039

Coli / Sheets

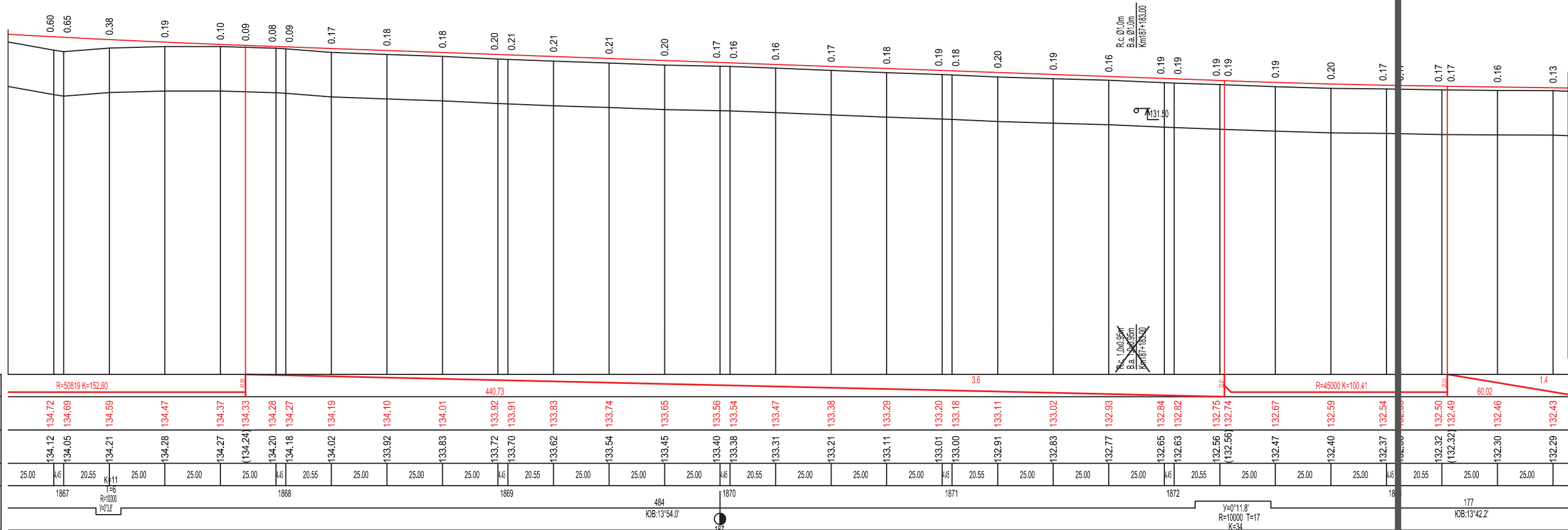
LA 046



Inv. Nr.	Sem.	atura si data	Schimb Inv. Nr.

Design data Date proiect	Gradient,o/oo, vertical radius, m Declivitate,o/oo, curbă verticală, m
Terrain data Date teren	Ground level, m Cota teren, m
Distance, m Distanța, m	
Survey station Plan elements Kilometers	Pichet Elemente plan Kilometri

S 1:1000 - horizontal  
S 1:100 - vertical



Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

Denumirea desenului/  
Drawing name

Coala Nr./Sheet No.

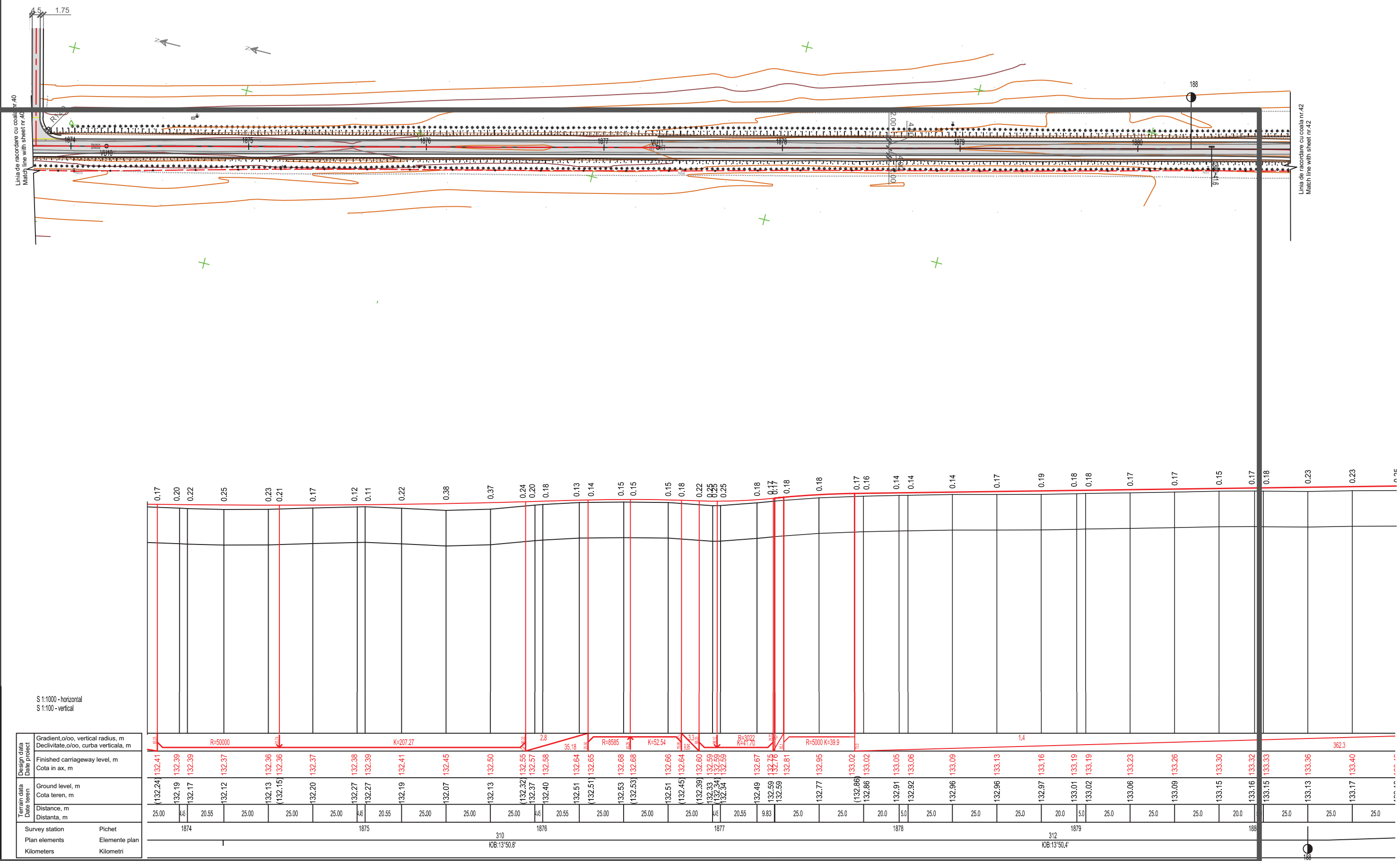
LA040


Coli / Sheets

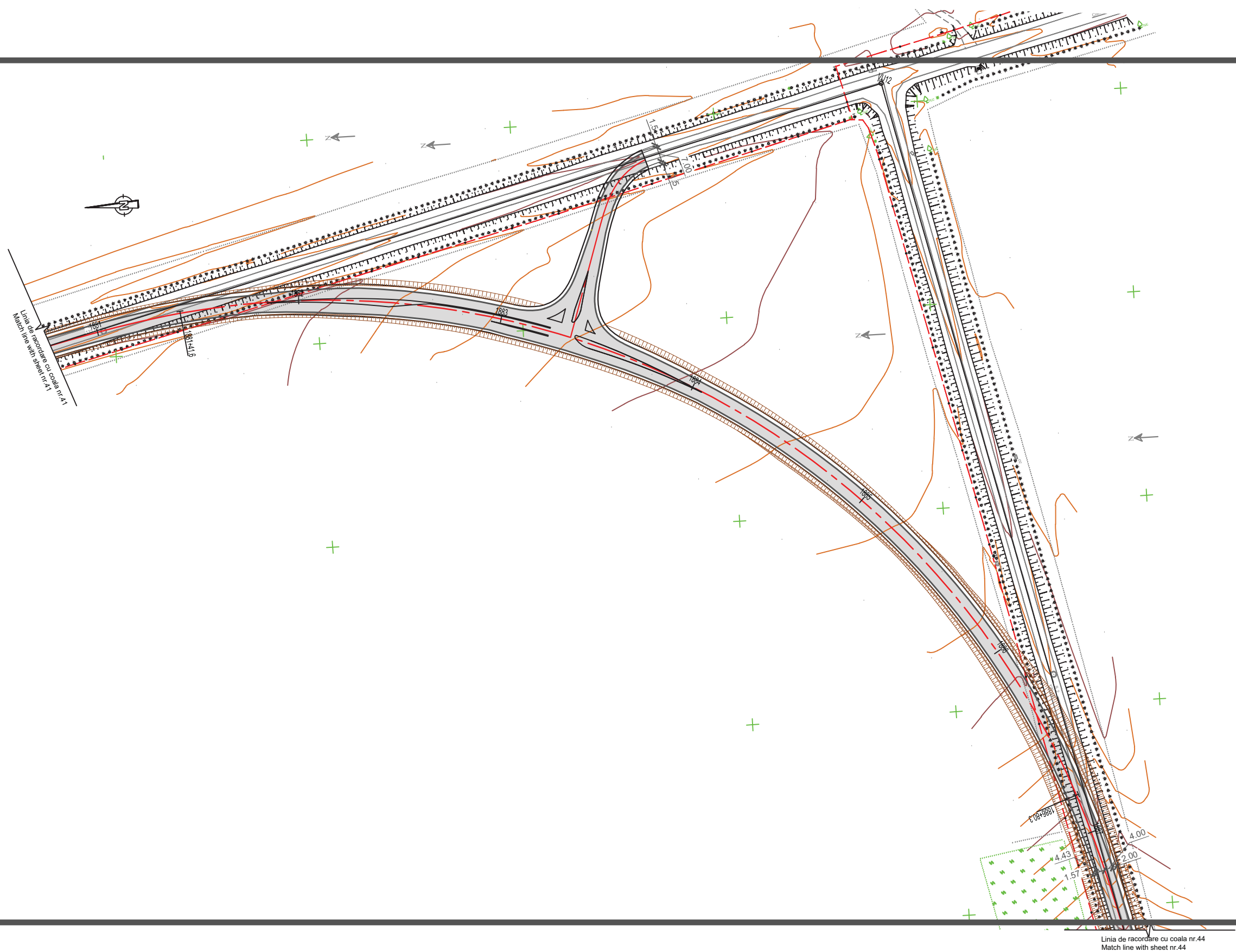
LA 046



Inv. Nr.	Sem. nura si data	Schimb Inv. Nr.



				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Susținere al Programului Sectorului		
											Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor și		
													Proiectare Detaliată		
				Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.				Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I		
				Verificat/Checked	Vilcinski D.	Data/Date	06.2011				Denumirea desenului/ Drawing name	Plan S 1000, km 187+380 -188+080			
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date							Marimea originala a desenului Original Drawing Size	A1 A1	Denumirea desenului/ Drawing name	Road plan S 1000, km 187+380 -188+080	
											Coala Nr./Sheet No.	LA041	Coli / Sheets	LA 046	



Inv. Nr.	Sem. aтура si data	Schimb Inv. Nr.

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

Consultantii/ Consultants:			
Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania		Contract No.4283-MD LOT I	
Marimea originala a desenului Original Drawing Size		A1 A1		Denumirea desenului/ Drawing name		Plan S 1000, km 188+080-188+785		Road plan S 1000, km 188+080-188+785	
Coala Nr./Sheet No.		LA042		Coli / Sheets		LA 046			

Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

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

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

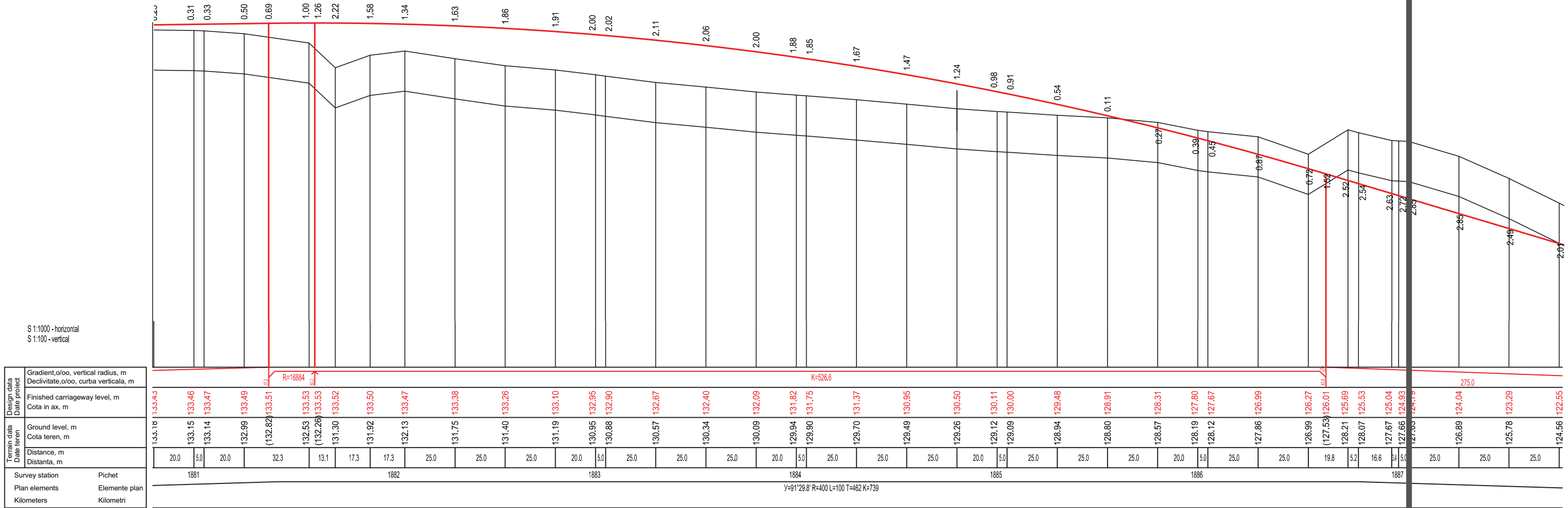
Republic of Moldova  
Ministry of Transport



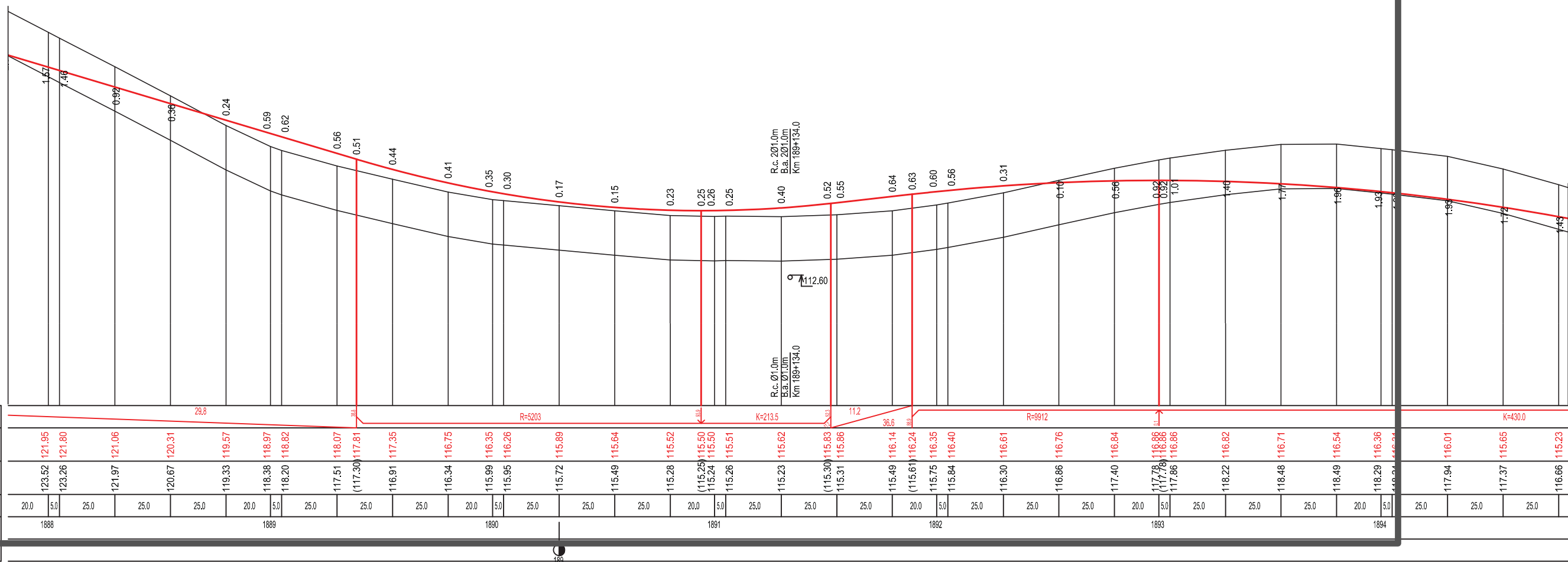
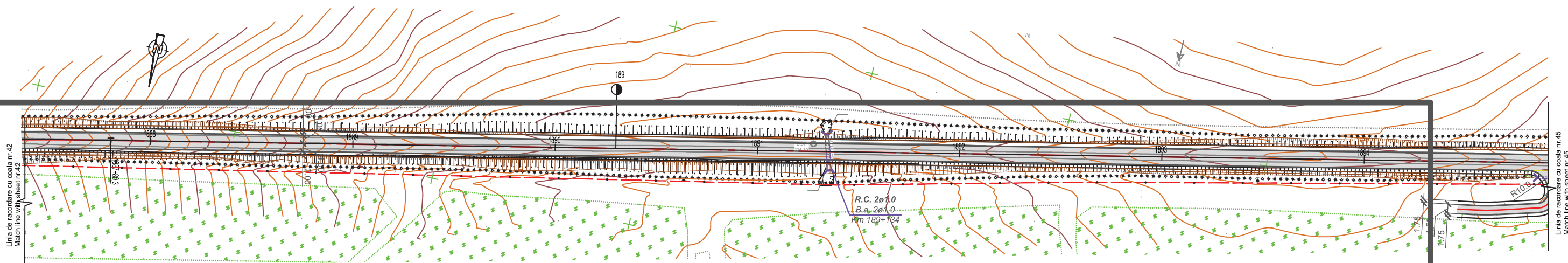
Marimea originala a desenului	A1
Original Drawing Size	A1

Denumirea drumului/ Road name	M3 Chisinau - Giurgulesti /Frontiera cu Romania M3 Chisinau - Giurgulesti/ Romanian border	Contract No.4263-MD LOT 1
Denumirea desenului/ Drawing name	Profil longitudinal S 1000, km 188+080-188+785 Longitudinal profile S 1000, km 188+080-188+785	

Coala Nr./Sheet No.	LA043	Coli / Sheets	LA 046
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Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

Design data Date proiect	Gradient o/o, vertical radius, m	
	Declivitate o/o, curba verticala, m	
Terrain data Date teren	Finished carriageway level, m	
	Cota in ax, m	
Survey station Plan elements	Ground level, m	
	Cota teren, m	
Kilometers	Distance, m	
	Distanța, m	
	Picket	
	Elemente plan	
	Kilometri	

Consultantii/ Consultants:Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

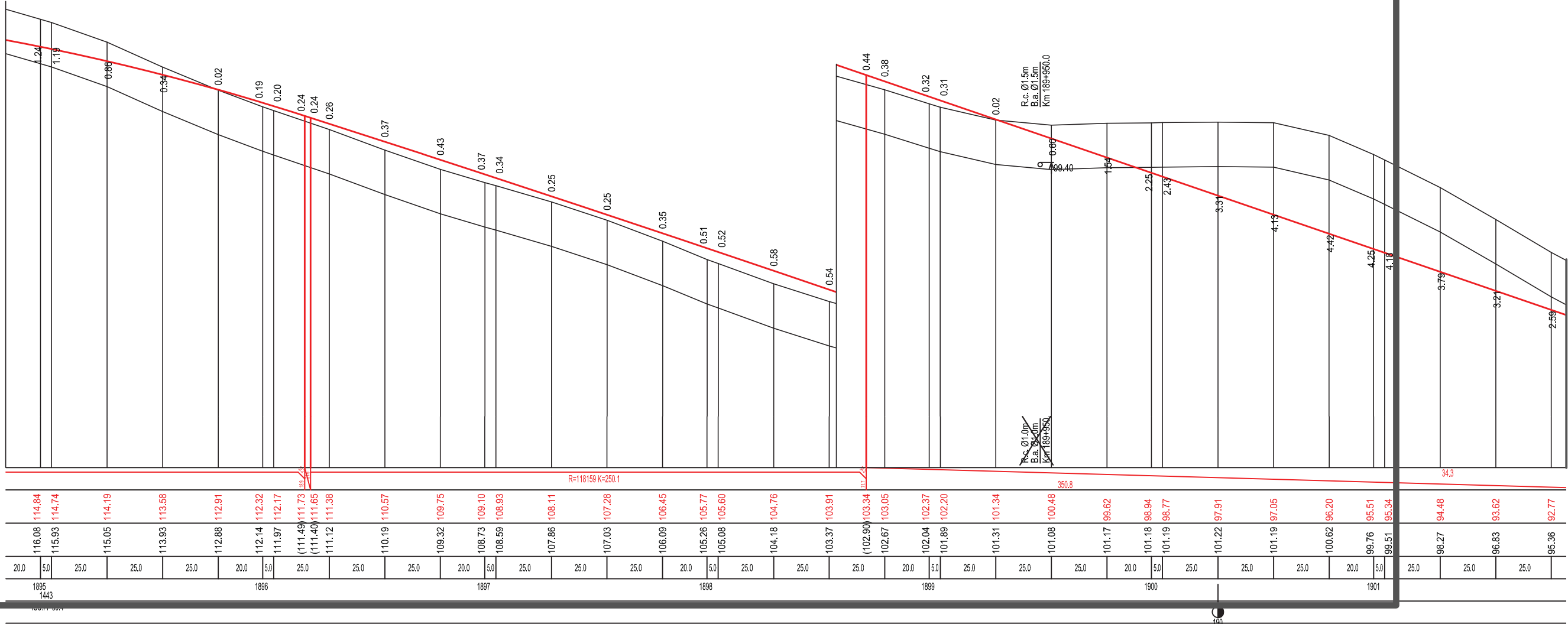
Denumirea drumului/	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT 1
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Denumirea desenului/	Plan, Longitudinal profile S 1000, km 188+785 -189+485
Drawing name	Road plan, Longitudinal profile S 1000, km 188+785 -189+485

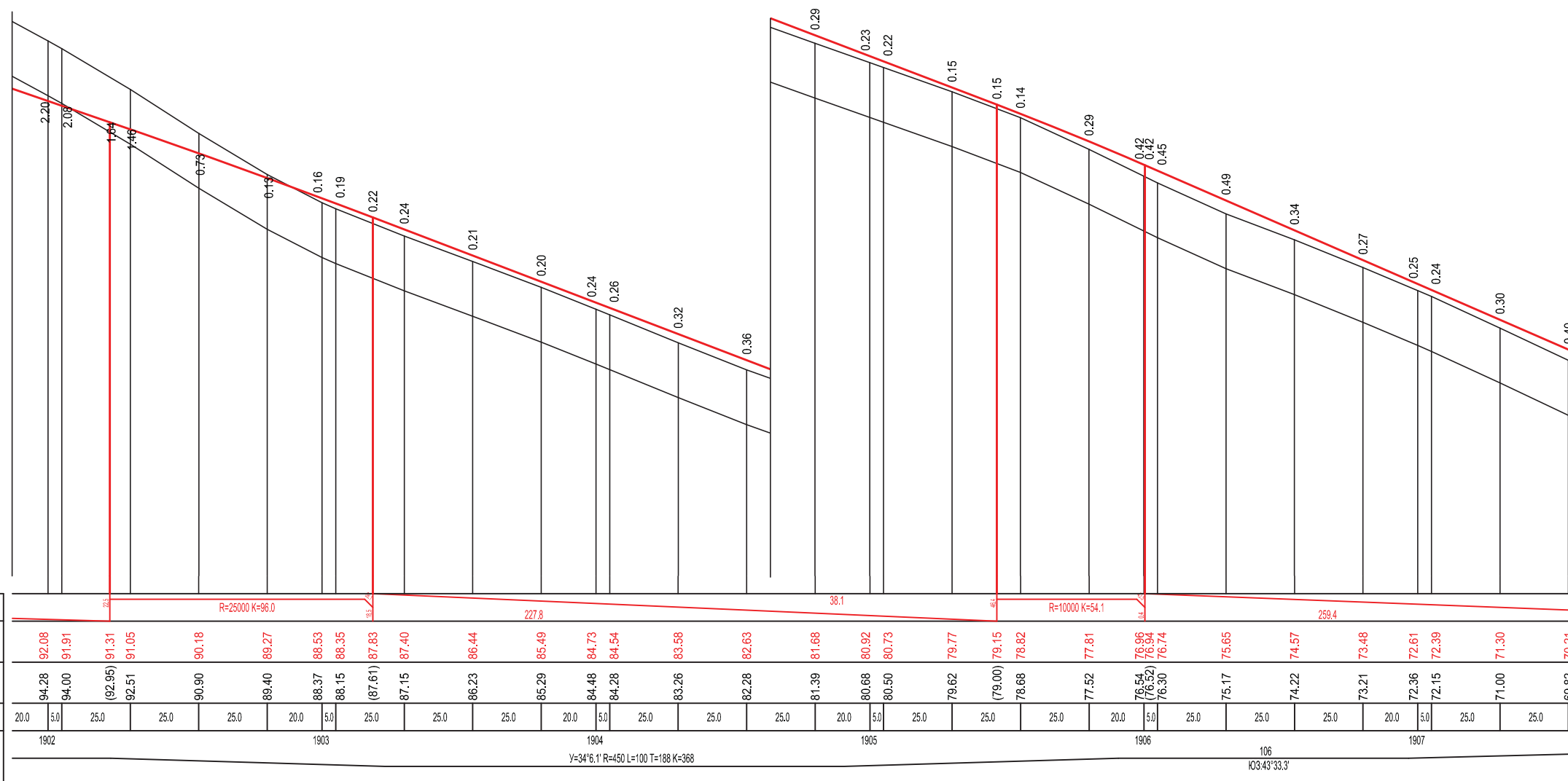
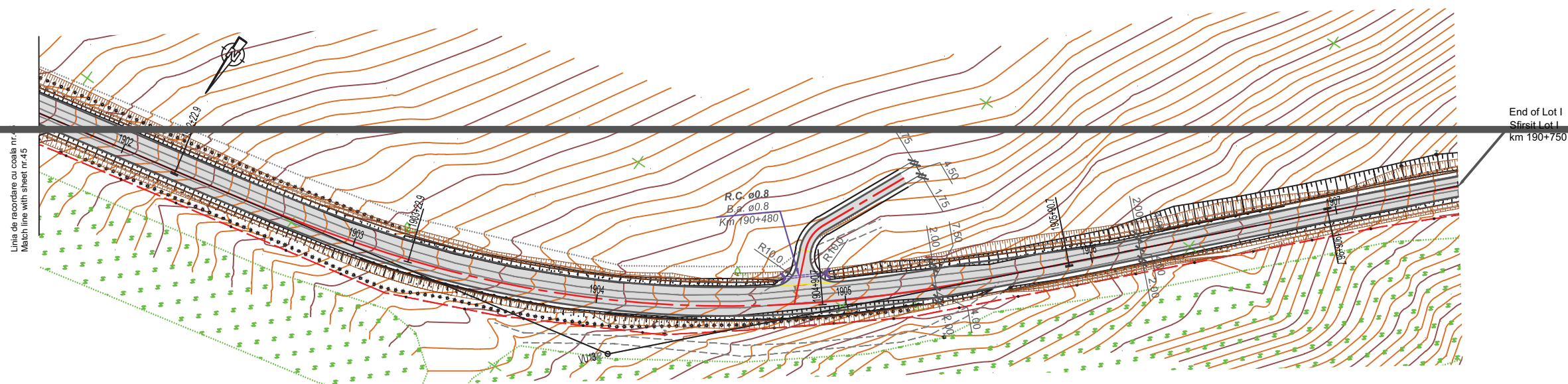
Coala Nr./Sheet No.	LA044	Coli / Sheets	LA 046
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Inv. Nr.	Sem. nura si data	Schimb Inv. Nr.

Design data Date proiect	Gradient,o/oo, vertical radius, m Decalitate,o/oo, curba verticala, m
Terrain data Date teren	Finished carriageway level, m Cota in ax, m
Survey station Puncte	Ground level, m Cota teren, m
Plan elements Elemente plan	Distance, m Distanța, m
Kilometers Kilometri	



				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT	
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 			Denumirea desenului/ Drawing name	Plan, Profil longitudinal S 1000, km 189+485 - 190+190 Road plan, Longitudinal profile S 1000, km 189+485 - 190+190		
					Verificat/Checked	Vilcinski D. 	Data/Date	06.2011			Marimea originala a desenului Original Drawing Size	A1 A1		
											Coala Nr./Sheet No.	LA045	Coli / Sheets	LA 046



Design data Data project	Gradient, o/oo, vertical radius, m	
	Declivitate, o/oo, curba verticala, m	
Terrain data Date teren	Finished carriageway level, m	
	Cota in ax, m	
	Ground level, m	
	Cota teren, m	
	Distance, m	
	Distanța, m	
	Survey station	Pichet
	Plan elements	Elemente plan
	Kilometers	Kilometri

				R=25000 K=96.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Denumirea drumului/	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No 4283-MD   OT
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Denumirea desenului/	Plan, Profil longitudinal S 1000, km 190+190 - 190+750
Drawing name	Road plan, Longitudinal profile S 1000, km 190+190 - 190+750

Coala Nr./Sheet No.	LA046	Coli / Sheets	LA 046
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Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
				Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

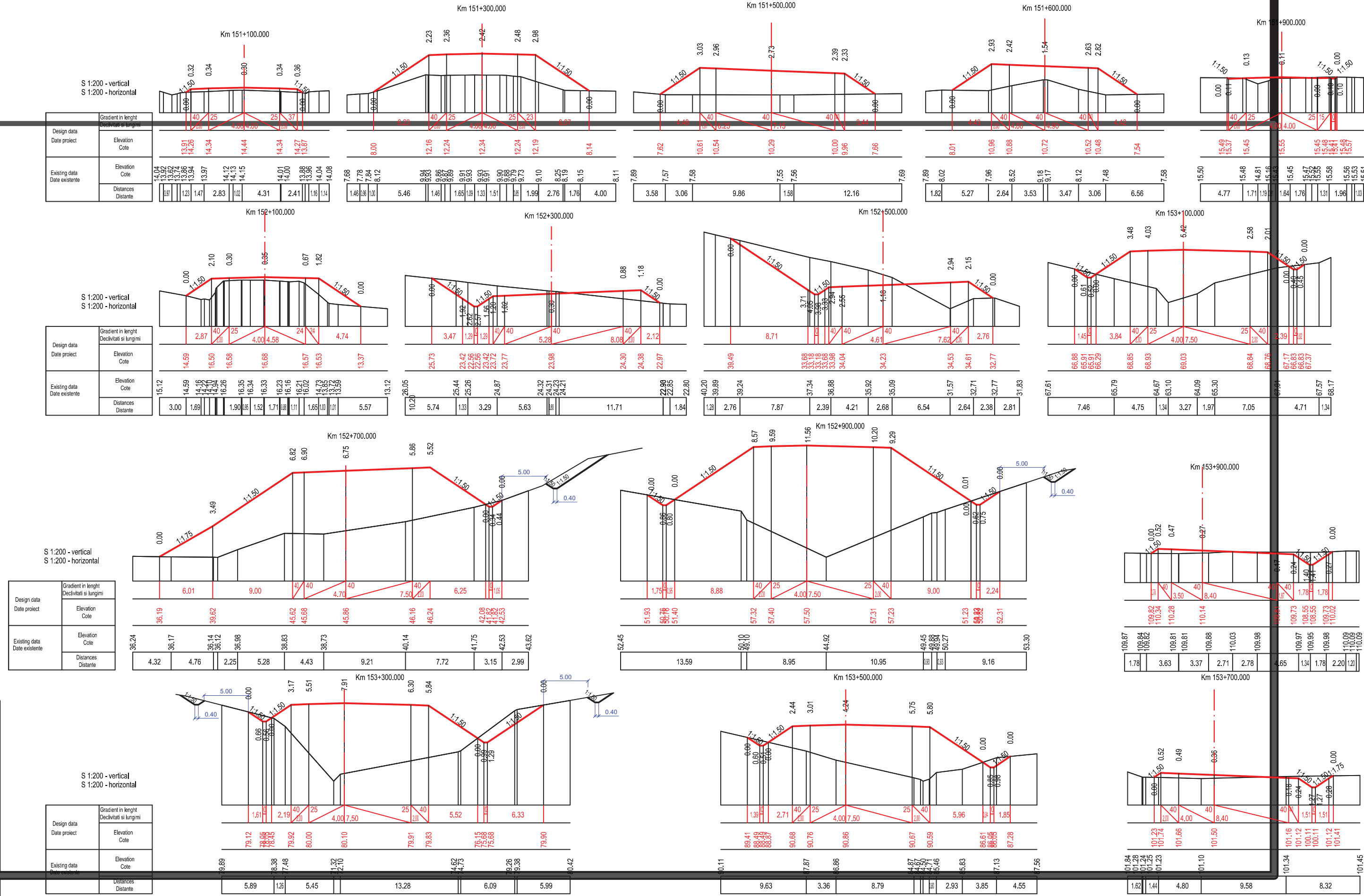
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Profile transversale Cross sections	
Coala Nr./Sheet No.	CS001	Coli / Sheets
		CS 09

Format A1





Inv. Nr.	Sem	atura si data	Schimb Inv. Nr.

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

Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 
Verificat/Checked	Vilcinski D. 	Data/Date	06.2011

Aprobat/Approved  
Data/Date

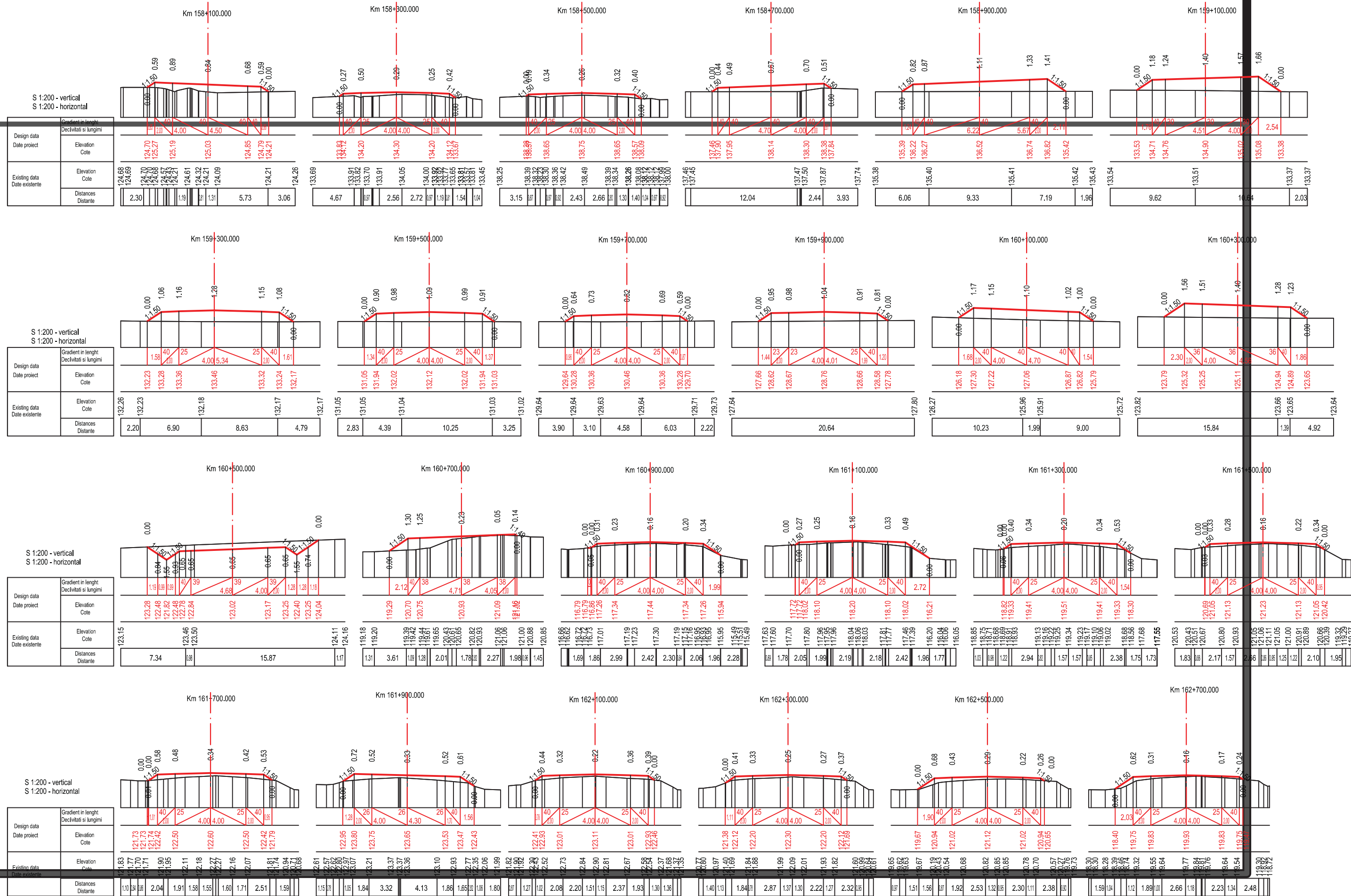
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului	A1
Original Drawing Size	A1

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border		Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Profile transversale Cross sections		
Coala Nr./Sheet No.	CS003	Coli / Sheets	CS 09


### Format A1





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

[illegible]

Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport			Road Sector Program Support Project		Proiectul de Susținere al Programului Sectorului	
				Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
	Marimea originala a desenului Original Drawing Size		A1 A1	Denumirea drumului/ Road name	M3 Chisinau - Giurgiuilesti /Frontiera cu Romania M3 Chisinau - Giurgiuilesti/ Romanian border		Contract No.4283-MD LOT I
				Denumirea desenului/ Drawing name	Profile transversale Cross sections		
				Coala Nr./Sheet No.	CS004	Coli / Sheets	CS 09

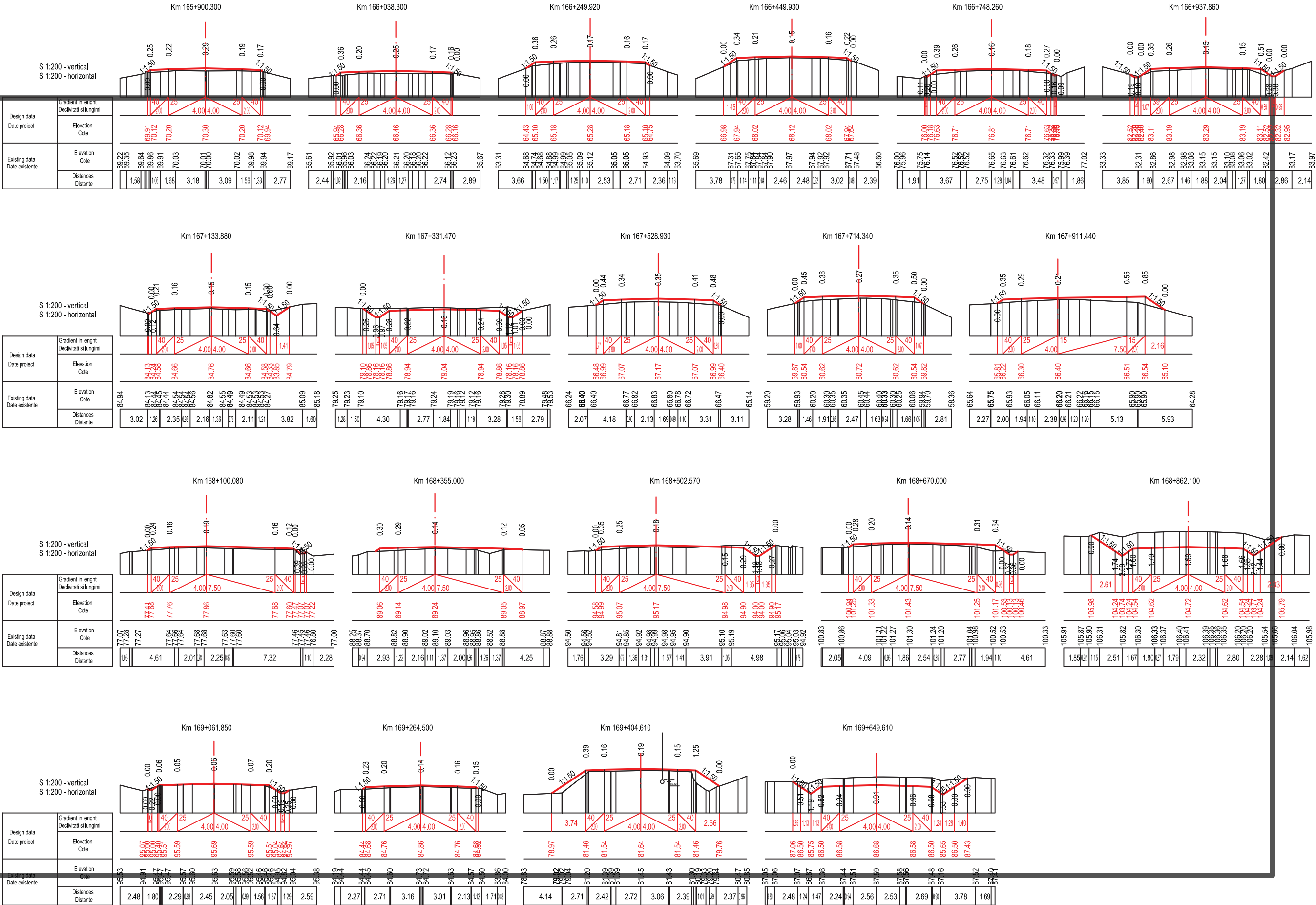
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved	Date/Date

Republic of Moldova	Ministry of Transport
Marimea originala a desenului	A1
Original Drawing Size	A1

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	M3 Chisinau - Giurgiulesti/ Romanian border	
	Profile transversale	
	Cross sections	
Coala Nr./Sheet No.	CS005	Coli / Sheets
		CS 09



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

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



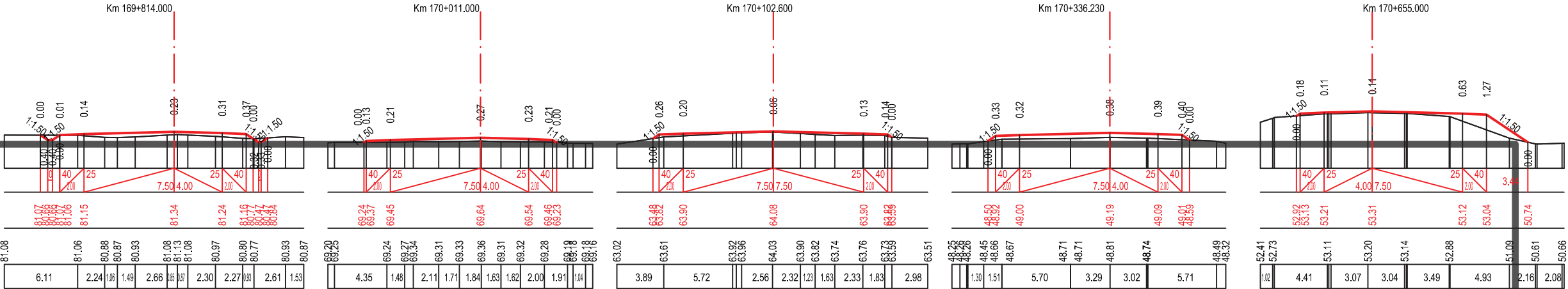
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Original Drawing Size

A1  
A1

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	M3 Chisinau - Giurgiulesti/ Romanian border	
Profile transversale Cross sections		
Coala Nr./Sheet No.	CS006	Coli / Sheets
		CS 09

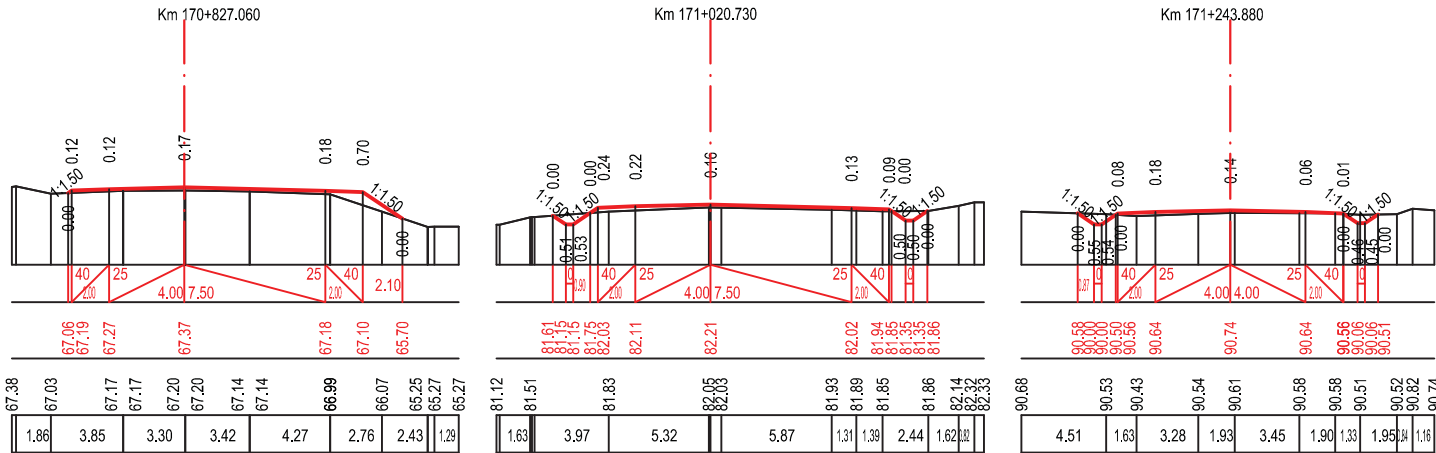
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Existing data Date existente	Elevation Cote
	Distances Distanțe



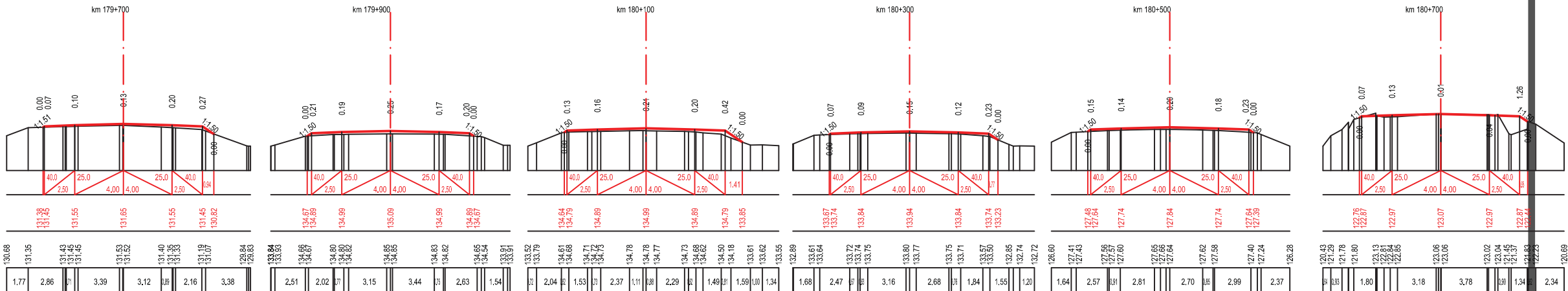
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Existing data Date existente	Elevation Cote
	Distances Distanțe



S 1:200 - Vertical  
S 1:200 - Horizontal

Design data Date proiect	Gradient in lunght Declivitati si lungimi
	Elevation Cote
Existing data Date existente	Elevation Cote
	Distances Distanțe



Consultantii/ Consultants:



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

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

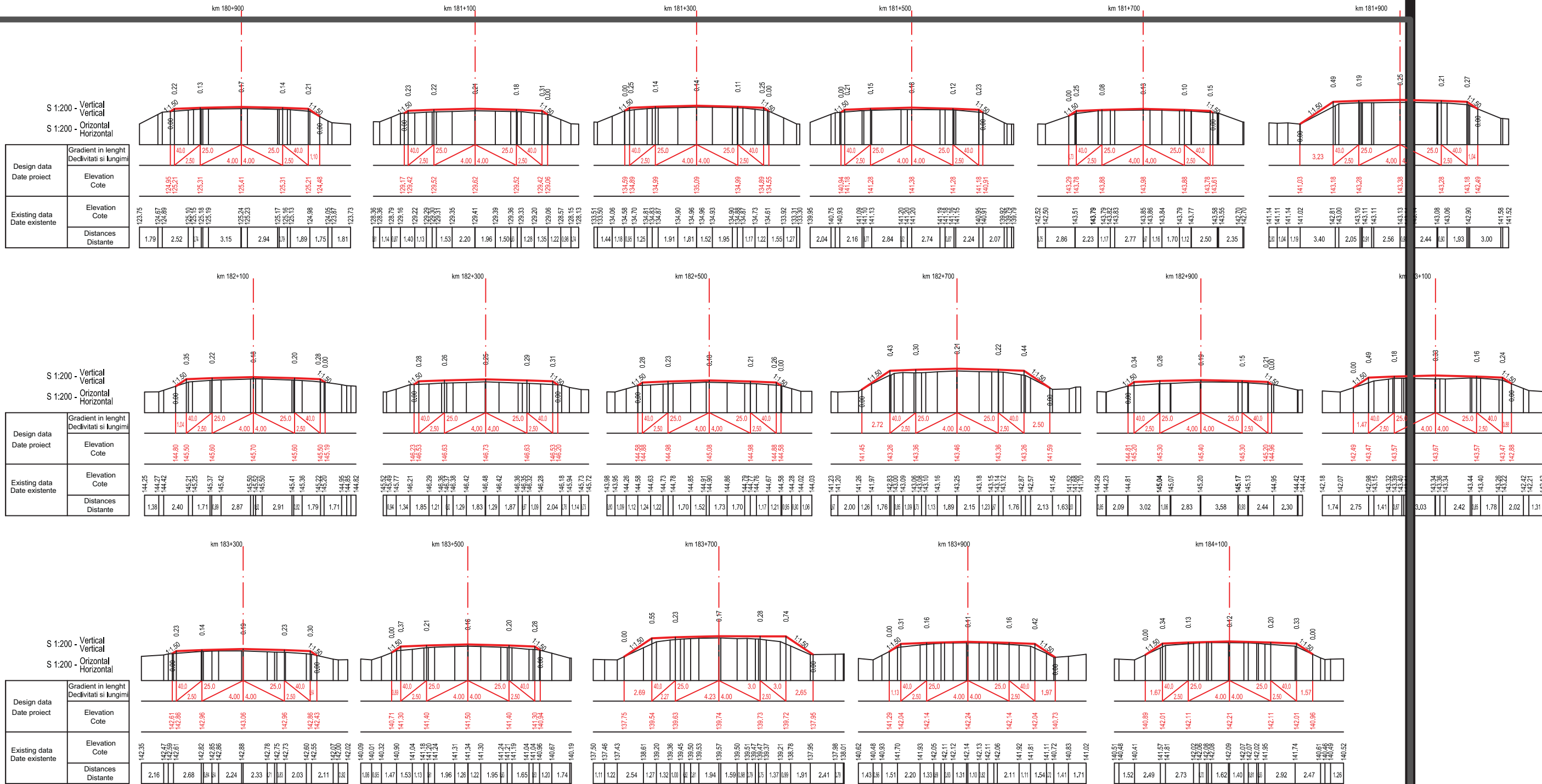


Marimea originala a desenului  
Original Drawing Size

A1  
A1

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I
Denumirea desenului/ Drawing name	Profile transversale / Sector existent Cross sections/ Existing Road	
Coala Nr./Sheet No.	CS007	Coli / Sheets
		CS 09

Format A1



Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date
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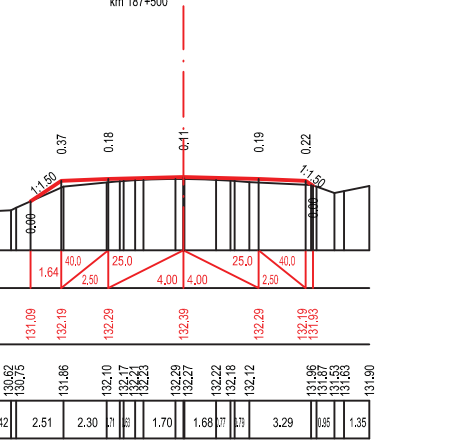
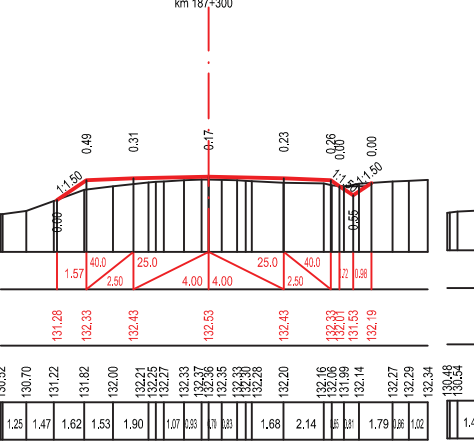
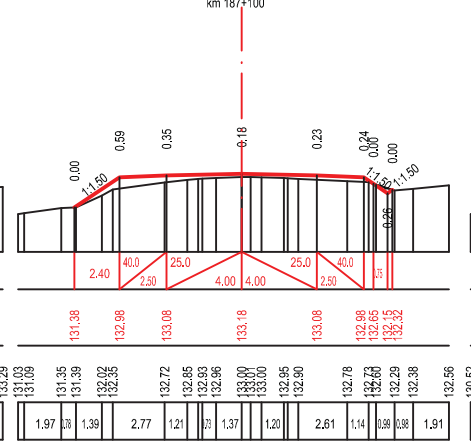
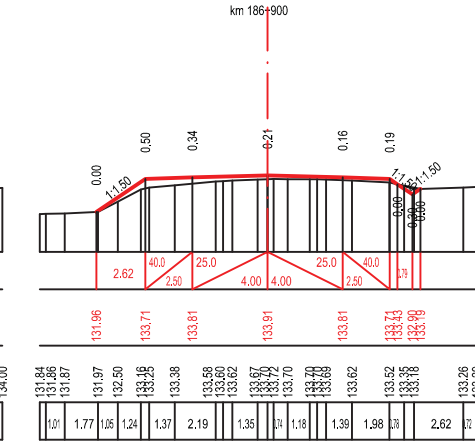
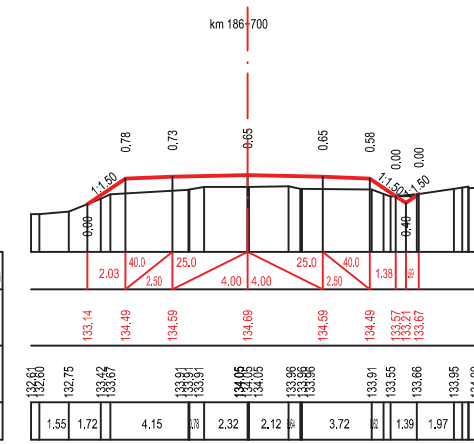
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Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved Data/Date
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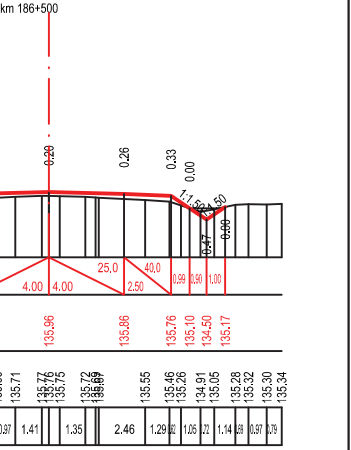
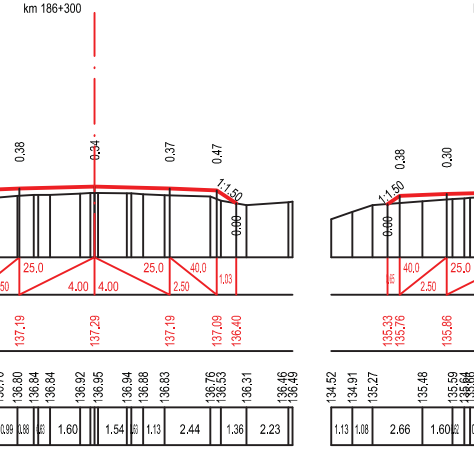
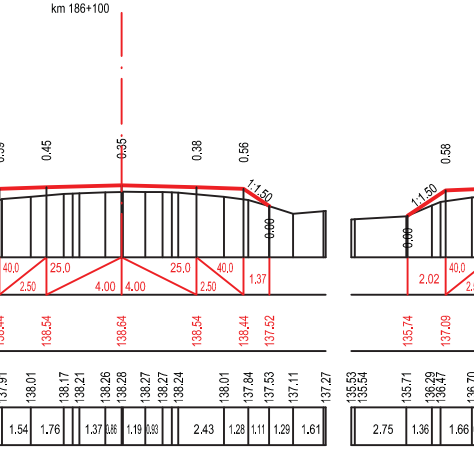
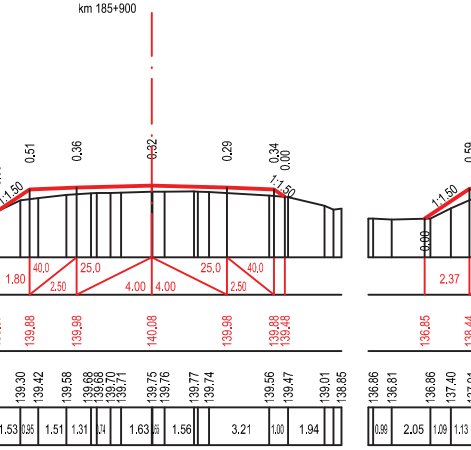
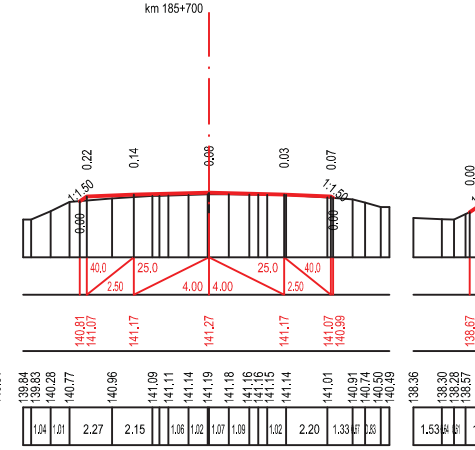
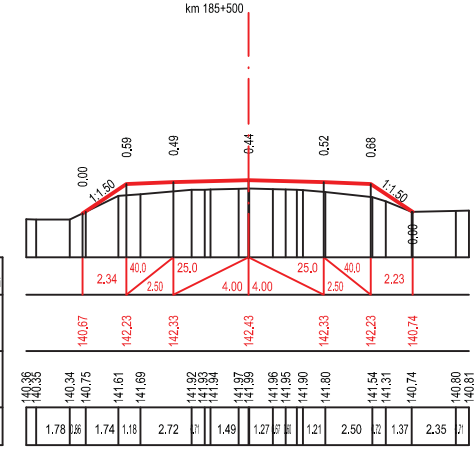
Republic of Moldova Ministry of Transport
Marimea originala a desenului Original Drawing Size

Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Susținere al Programului Sectorului Rutier / Studii de Fezabilitate a Drumurilor și Proiectare Detaliată
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania
Denumirea desenului/ Drawing name	Profile transversale / Sector existent Cross sections/ Existing Road
Coala Nr./Sheet No.	CS008
Coli / Sheets	CS 09

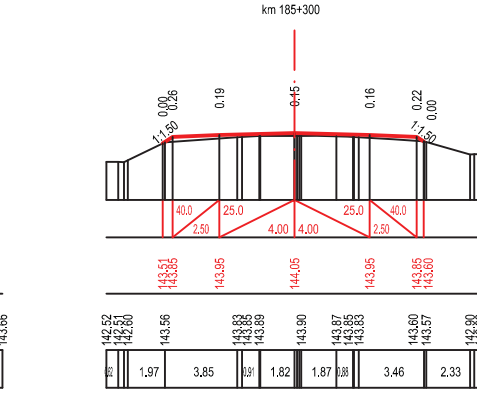
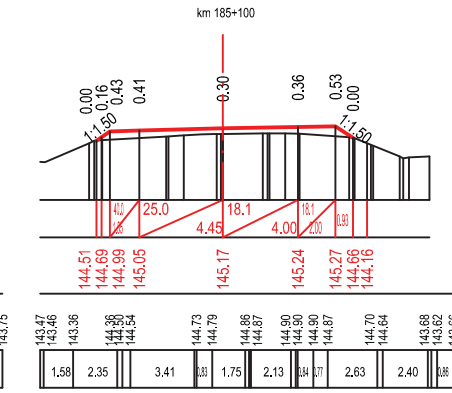
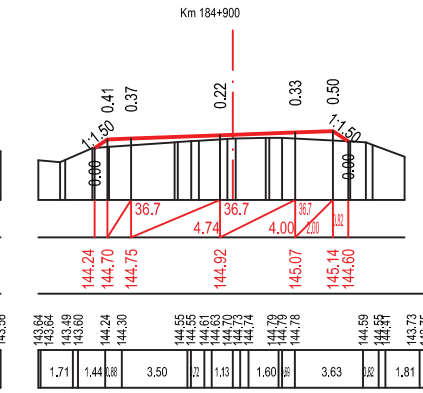
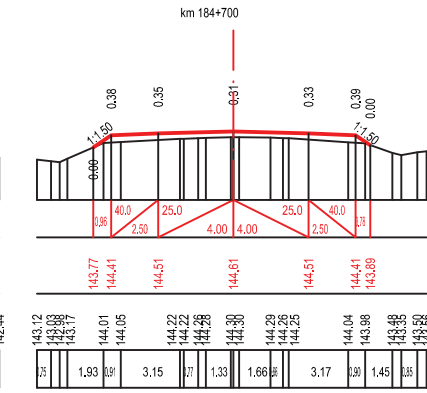
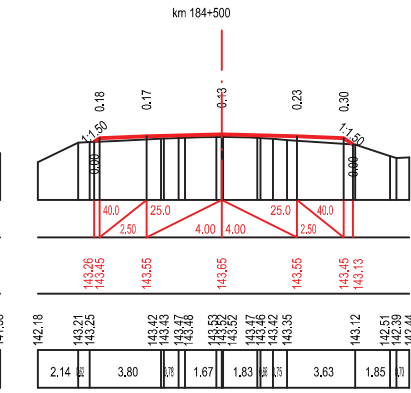
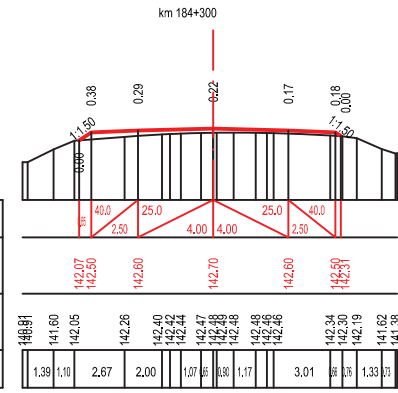
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	Distances Distanțe



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Existing data Date existente	Elevation Cote
	Distances Distanțe



Design data Date proiect	Gradient in lunght Declivitatii si lungimi
Existing data Date existente	Elevation Cote
	Distances Distanțe



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

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Verificat/Checked	Vilcinschi D. 	Data/Date	06.2011

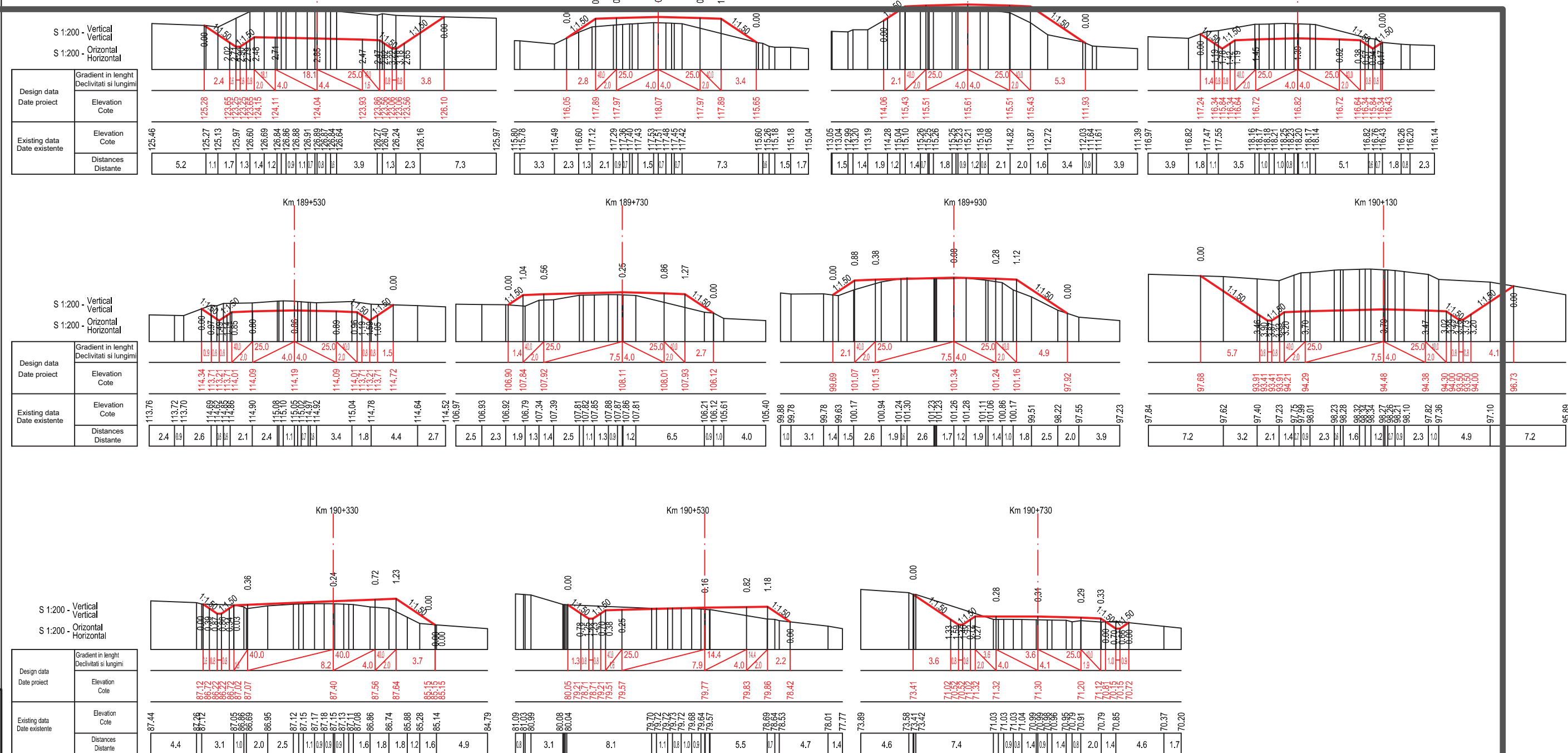
Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I	
Denumirea desenului/ Drawing name	Profile transversale / Sector existent Cross sections/ Existing Road		
Coala Nr./Sheet No.	CS009	Coli / Sheets	CS 09

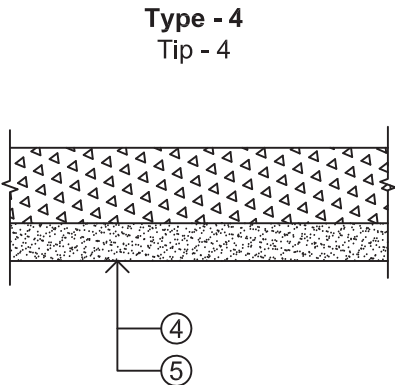
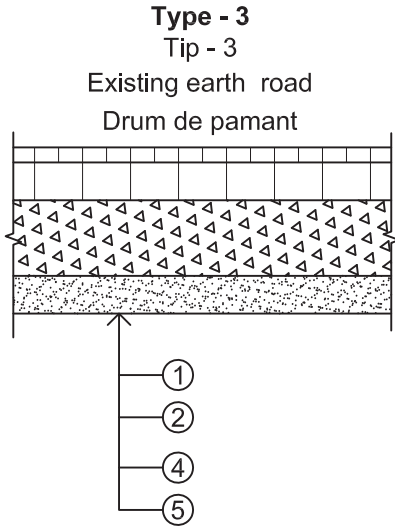
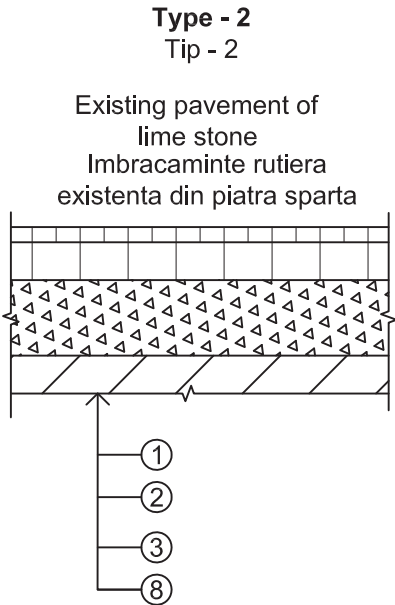
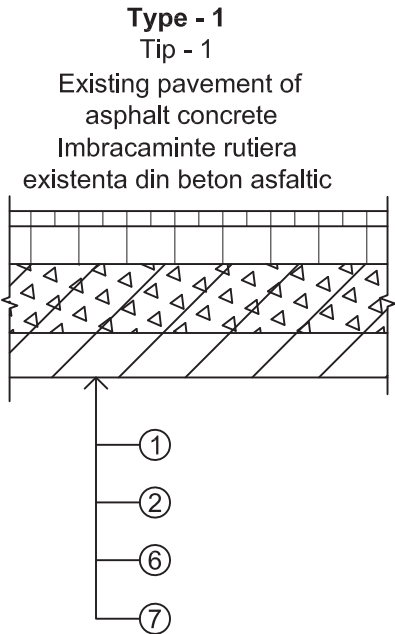
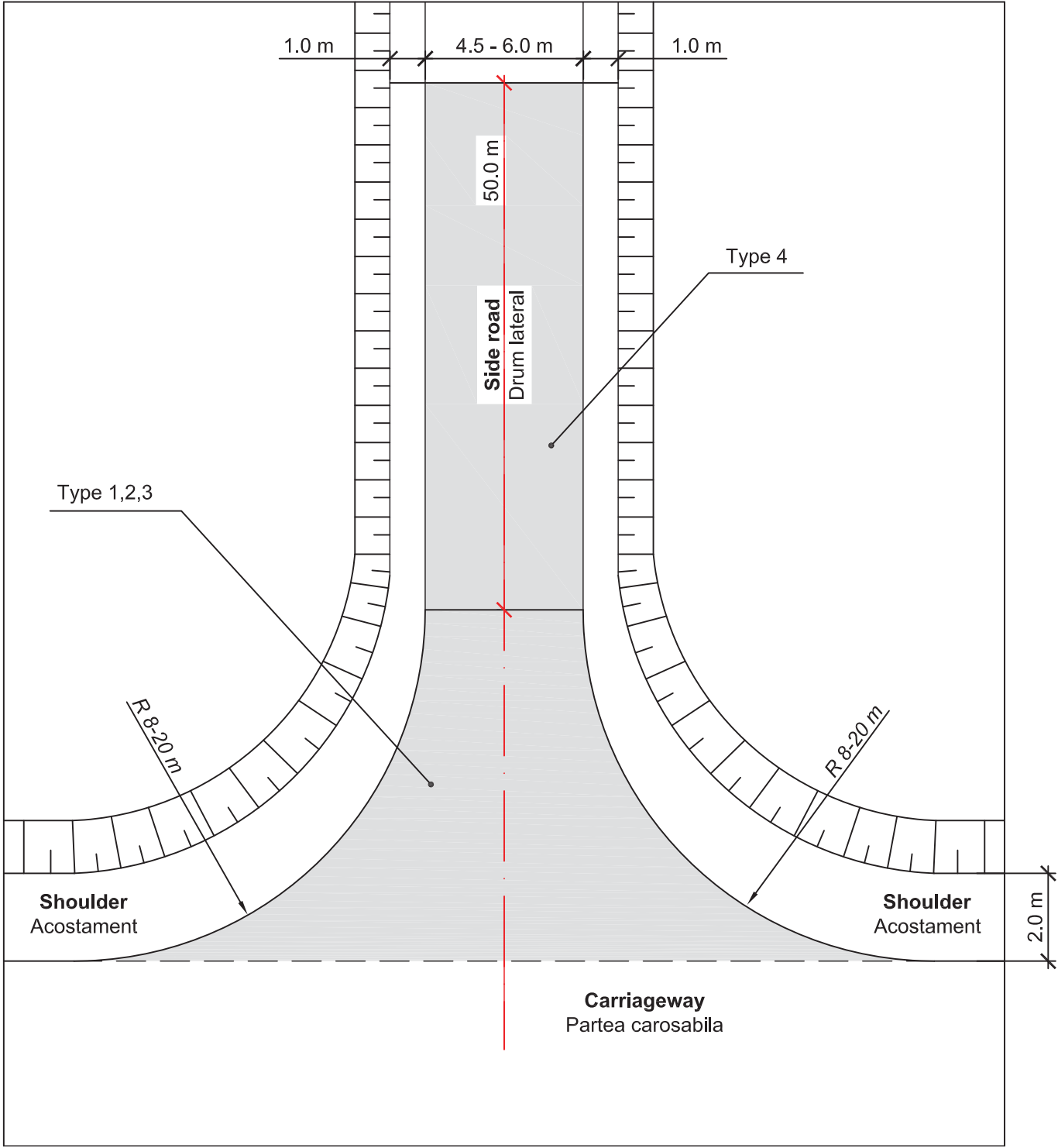
Format A1






Road pavement structure  
Construcția sistemului rutier

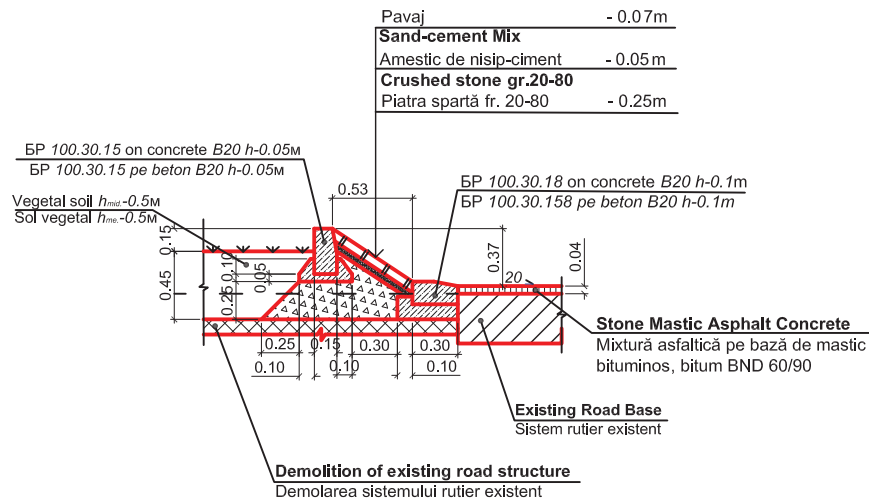
Plan  
Layout



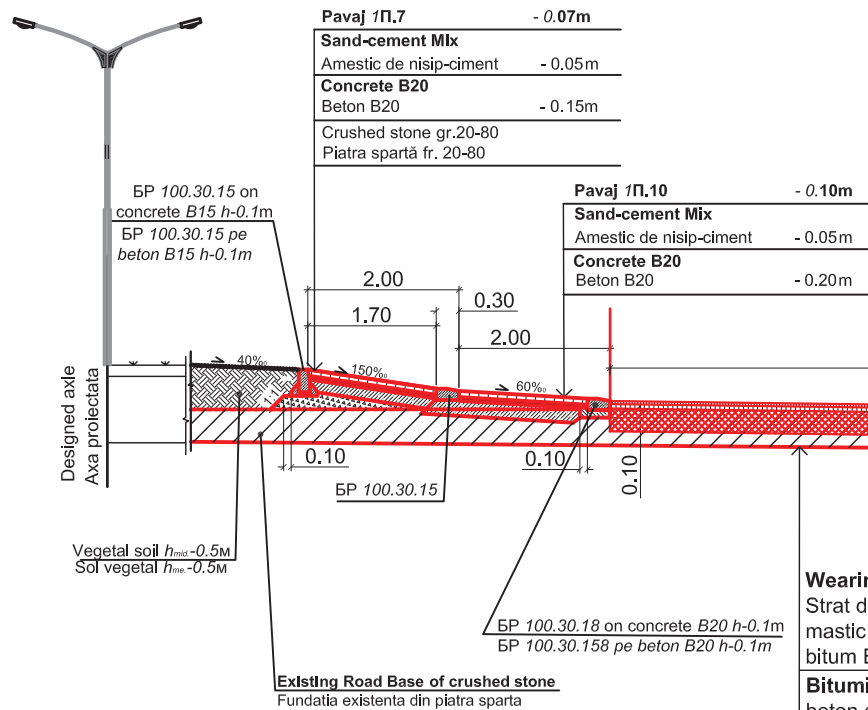
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Beton asfalt cu granulatie fina dens tip SKBg - I, SM STB 1033:2008 h - 40 mm
- ② - **Coarse graind porous asphalt M 1**  
Beton asfalt cu granulatie mare poros M1, h - 60 mm
- ③ - **Crushed stone M 400**  
Piatra concasata M 400, h - 150 mm
- ④ - **Crushed stone M 400**  
Piatra concasata M 400, h - 220 mm
- ⑤ - **Sand**  
Nisip, h-100 mm
- ⑥ - **Existing road structure**  
Imbracaminte existenta recicлата 100 mm cu adaos de piatra sparta h - 150mm
- ⑦ - **Existing road structure**  
Imbracaminte existenta din asfalt
- ⑧ - **Existing road structure**  
Imbracaminte existenta din piatra sparta

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Denumirea drumului/ Road name				M3 Chisinau - Giurgiulesti /Frontiera cu Romania				Contract No. 4283-MD LOT I						
											M3 Chisinau - Giurgiulesti/ Romanian border														
Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V.				Desenat/Drawn	Eftodii V.	Denumirea desenului/ Drawing name				Tip imbracaminte Intersecții minore								
						Verificat/Checked	Vilcinski D.	Data/Date	06.2011	Marimea originala a desenului Original Drawing Size				A3		A3		Coala Nr./Sheet No.		TPMI001		Coli / Sheets		TPMI 01	

Construction of the splitter island  
Constructia insulei separatoare de siguranta  
(1:25)

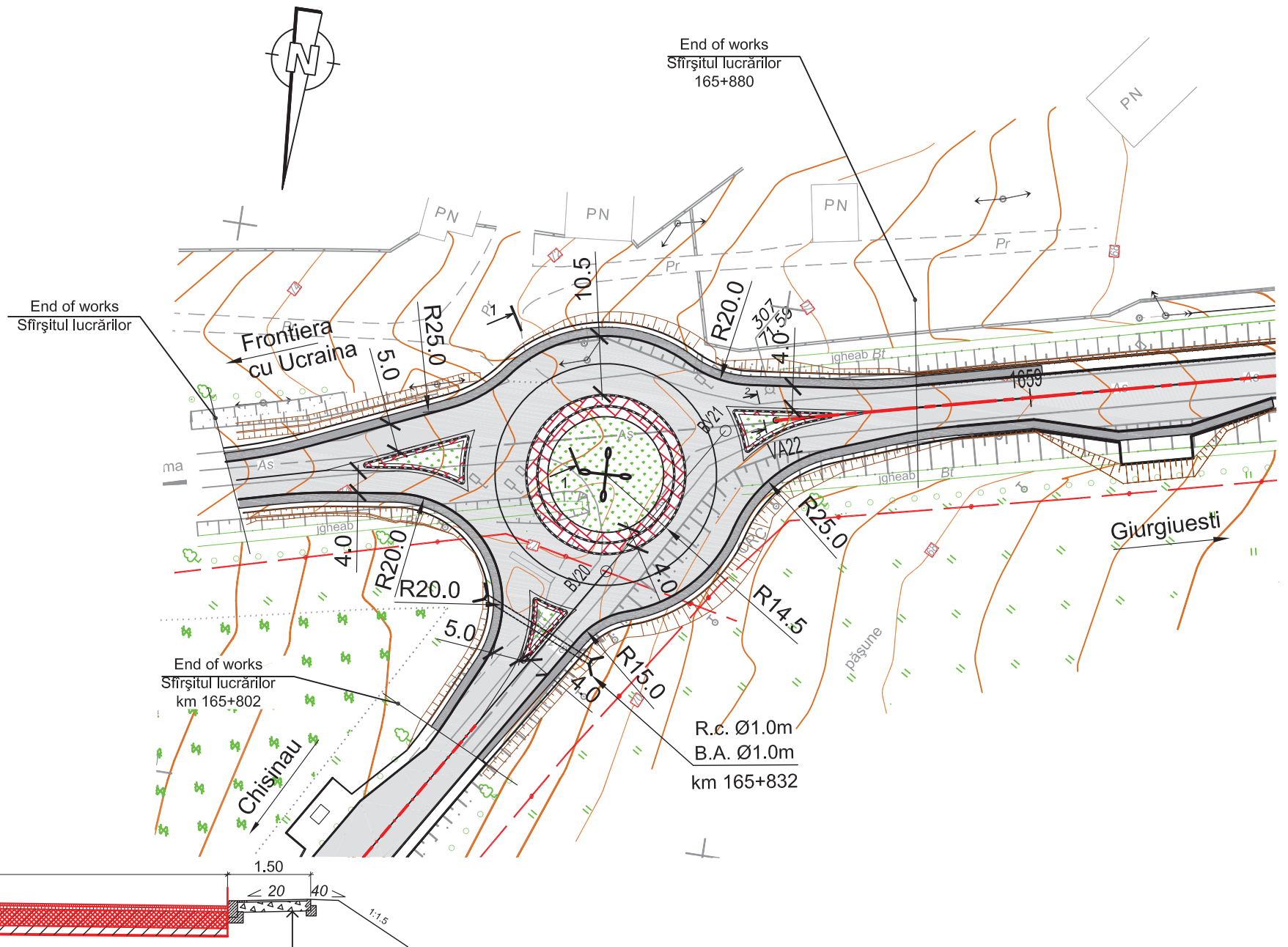


Strengthening of the central island  
Consolidarea insulei centrale  
(1:50)







<b>Wearing Course: Stone Mastic Asphalt Concrete</b>	
Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ŞMS c-4/2.2 SM STB 1033:2008, bitum BND 60/90	- 40 mm
<b>Bituminous Binder Course</b>	
beton asfaltic dens SKPg-I, SM STB 1033:2008, bitum BND 60/90	- 60 mm
<b>Coated macadam</b>	<b>-80mm</b>
Piatra sparta anrobata cu bitum	
<b>Base Course Cement stabilized aggregates</b>	<b>-220mm</b>
Strat de fundatie din beton slab	
<b>Existing Road Base</b>	
Sistem rutier existent	

<b>Wearing Course A/C SMVg-III/2 SM STB 1033:2008</b>	
Strat de uzura B/A Tip SMVg-III/2 SM	
STB 1033:2008	- 30 mm
<b>Subbase course of crushed stone M 300</b>	
Strat de fundație din piatra spartă M 300	- 100 mm



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

					<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport						
					Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 					Denumirea drumului/ Road name	M3 Chisinau - Giurgulesti /Frontiera cu Romania	Contract No.4283-MD LOT I	
					Verificat/Checked	Vilcinski D. 	Data/Date	06.2011					Denumirea desenului/ Drawing name	Intersectie cu sens giratoriu km 165+860		
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date						Marimea originala a desenului Original Drawing Size	A1 A1	Coala Nr ./Sheet No.	R001	Coli / Sheets	R 02	



Pavaj	- 0.07m
<b>Sand-cement Mlx</b>	
Amestic de nisip-ciment	- 0.05 m
<b>Crushed stone gr.20-80</b>	
Piatra spartă fr. 20-80	- 0.25m

**Demolition of existing road structure**  
Demolarea sistemului rutier existent

<b>Pavaj 1/П.7</b>	<b>- 0.07m</b>
<b>Sand-cement Mix</b>	
Amestic de nisip-ciment	- 0.05m
<b>Concrete B20</b>	
Beton B20	- 0.15m
Crushed stone gr.20-80	
Piatra spartă fr. 20-80	

<b>Pavaj 1П.10</b>	- 0.10m
<b>Sand-cement Mix</b>	
Amestic de nisip-ciment	- 0.05m
<b>Concrete B20</b>	
Beton B20	- 0.20m

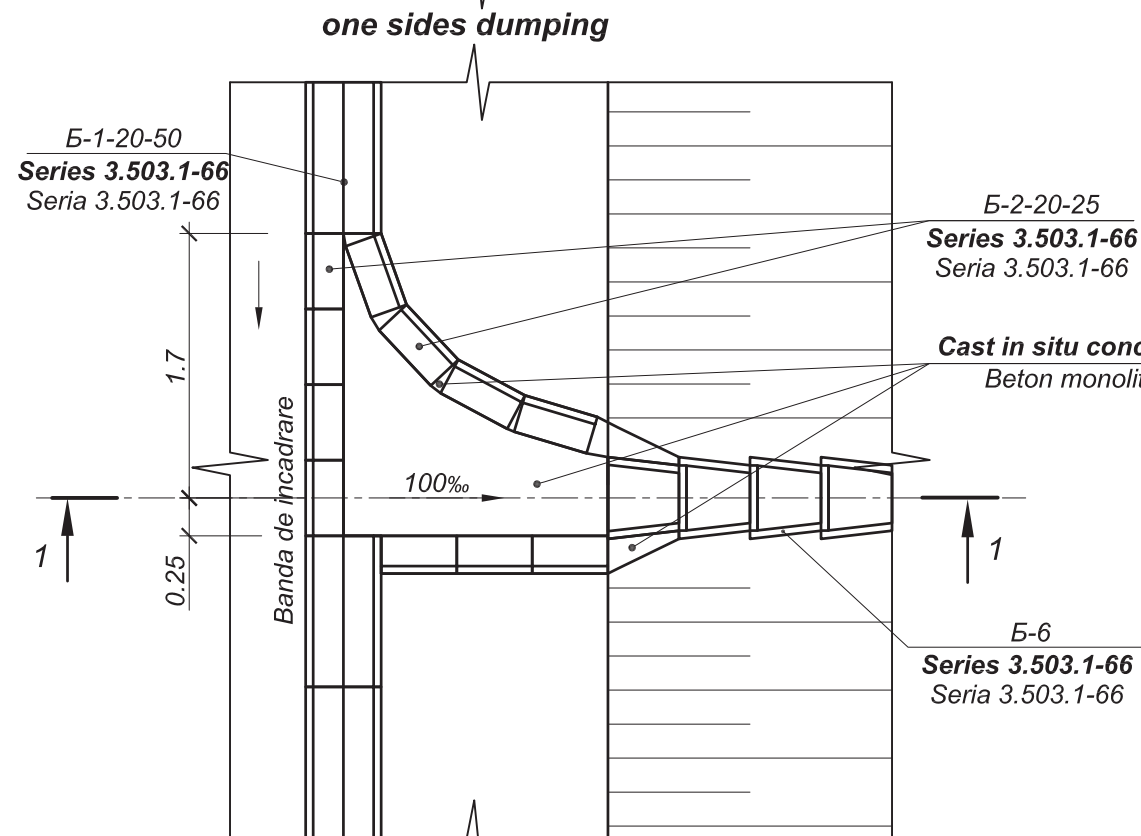
<b>Wearing Course: Stone Mastic Asphalt Concrete</b> Strat de uzura și mixtură asfaltică pe bază de mastic bituminos ȘMS c-I/2.2 SM STB 1033:2008, bitum BND 60/90	- 40 mm
<b>Bituminous Binder Course</b> beton asfaltic dens SKPg-I, SM STB 1033:2008, bitum BND 60/90	- 60 mm
<b>Base Course: Cold Recycled Asphalt With New Aggregates, Stabilized With Cement 3%, GOST 30491-97</b> Strat de baza din beton asfaltic, reciclat la rece pe baza de ciment 3%, conform GOST 30491-97	- 220mm
<b>Existing Road Base</b> Sistem rutier existent	

Aprobat/Approved  
Data/Date

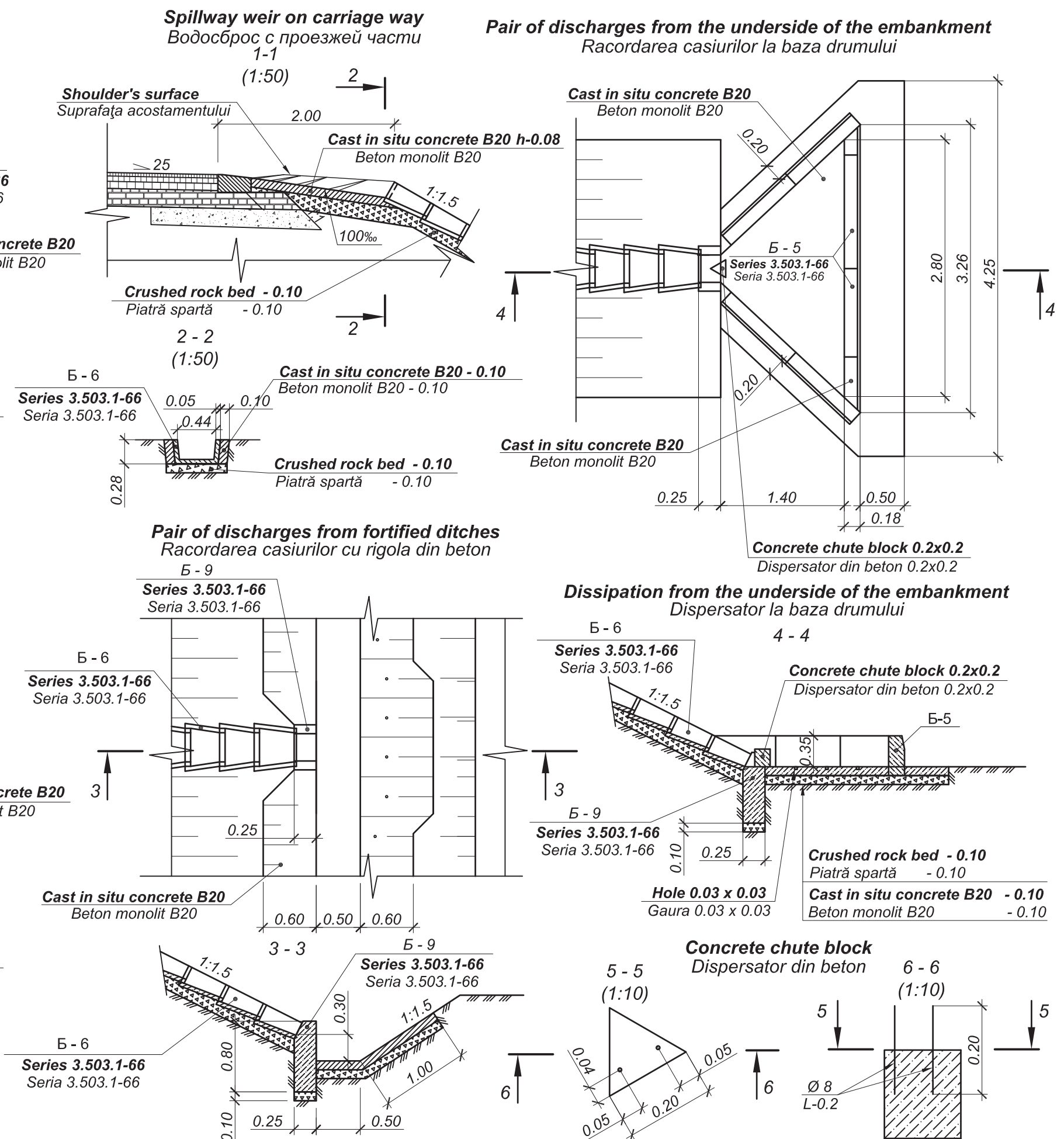
Denumirea drumului/ Road name	M3 Chisinau - Giurgulesti /Frontiera cu Romania M3 Chisinau - Giurgulesti/ Romanian border	Contract No.4283-MD LOT I	
Denumirea desenului/ Drawing name	Intersecție cu sens giratoriu km 171+118 Roundabout km 171+118		
Coala Nr./Sheet No.	R002	Coli / Sheets	R 02

Format A









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

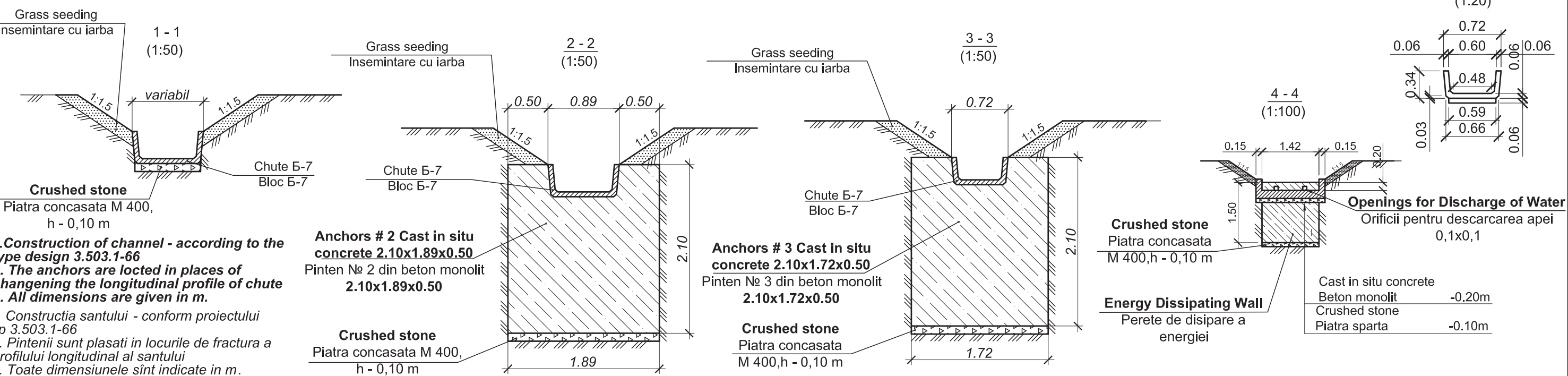
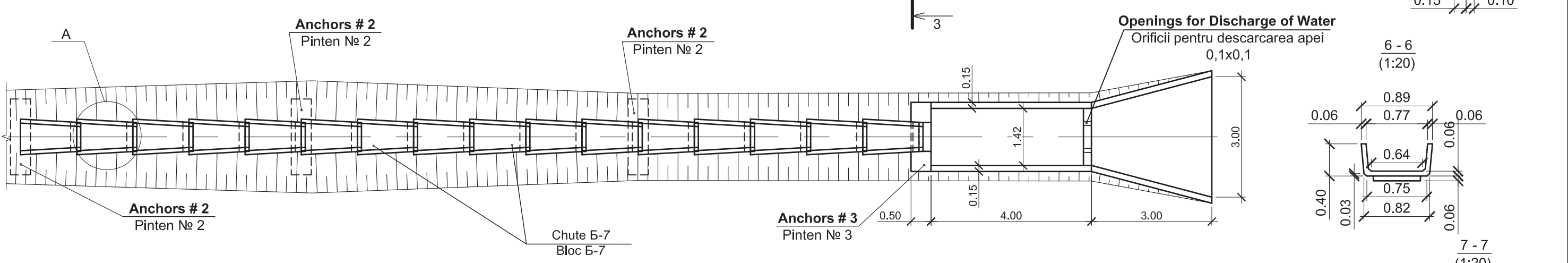
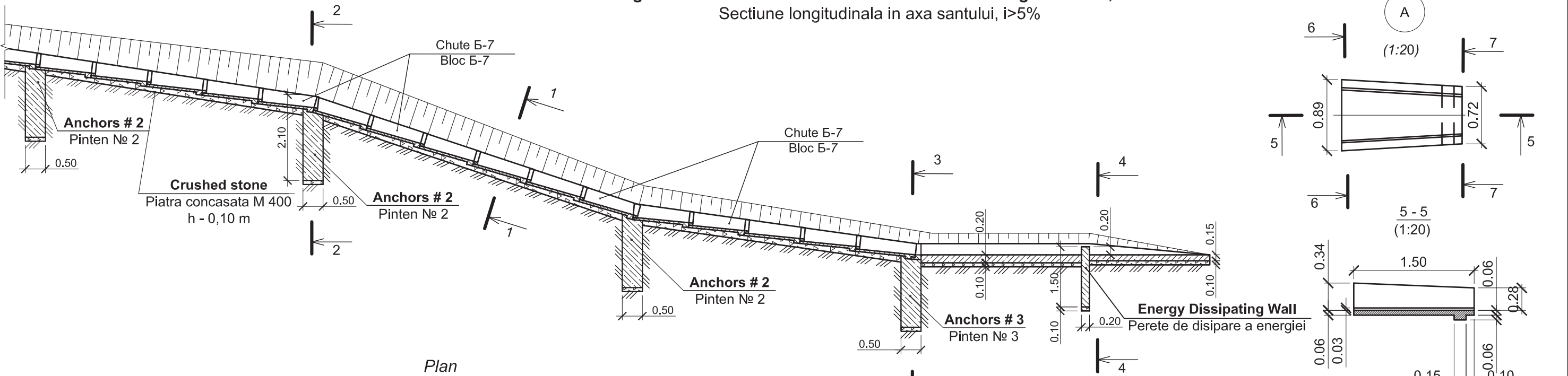


Inv. Nr.	Semnatura si data	Sch. Inv. Nr.

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport						
											Denumirea drumului/ Road name	M3 Cihisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I		
				Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 				Denumirea desenului/ Drawing name	Construcția casilui pe taluz Slope chute structure			
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked	Vilcinski D. 	Data/Date				06.2011	Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.	SCS01



Longitudinal Section on the Axis of the Lined Drainage Channel,  $i > 5\%$   
Sectiune longitudinala in axa santului,  $i > 5\%$



Inv. Nr. \_\_\_\_\_

Semnatura si data \_\_\_\_\_

Schimb Inv. Nr. \_\_\_\_\_

**1. Construction of channel - according to the type design 3.503.1-66**  
**2. The anchors are located in places of changing the longitudinal profile of chute**  
**3. All dimensions are given in m.**  
1. Constructia santului - conform proiectului tip 3.503.1-66  
2. Pintenii sunt plasati in locurile de fractura a profilului longitudinal al santului  
3. Toate dimensiunile sunt indicate in m.

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Santuri laterale rapide din blocuri B7 Lined side drains with B7 blocks	
Coala Nr./Sheet No.	LSD002	Coli / Sheets LSD 02

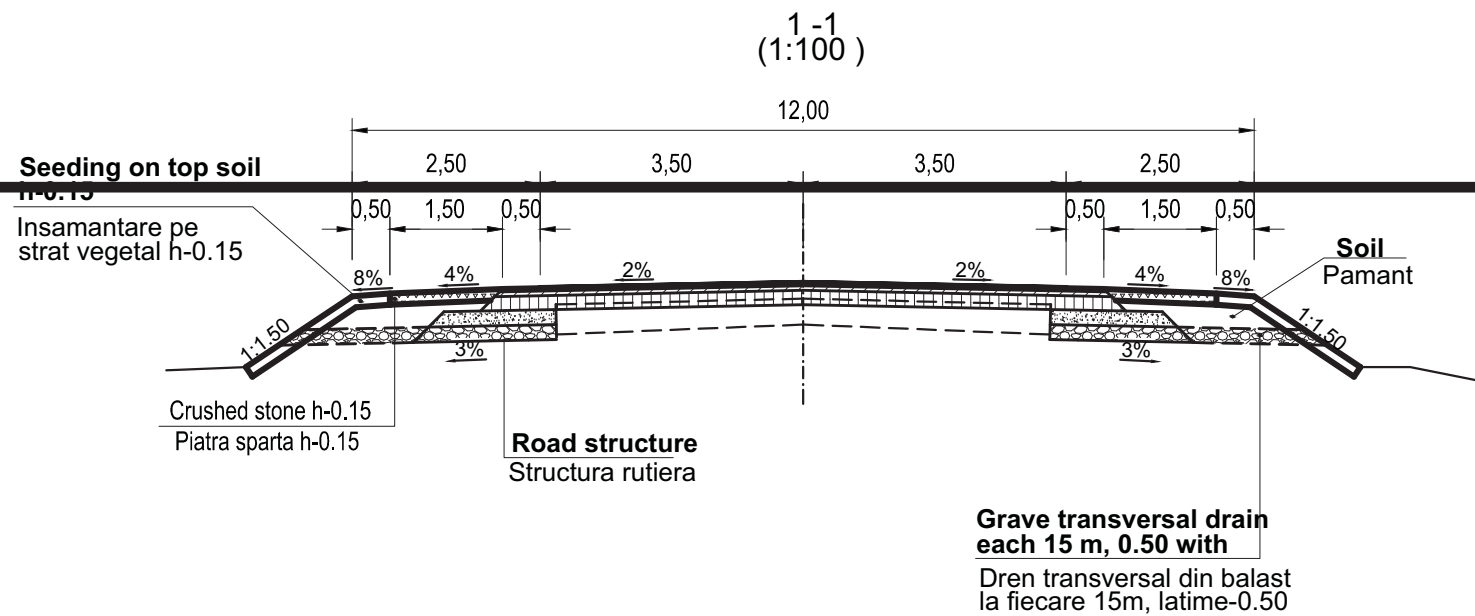
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

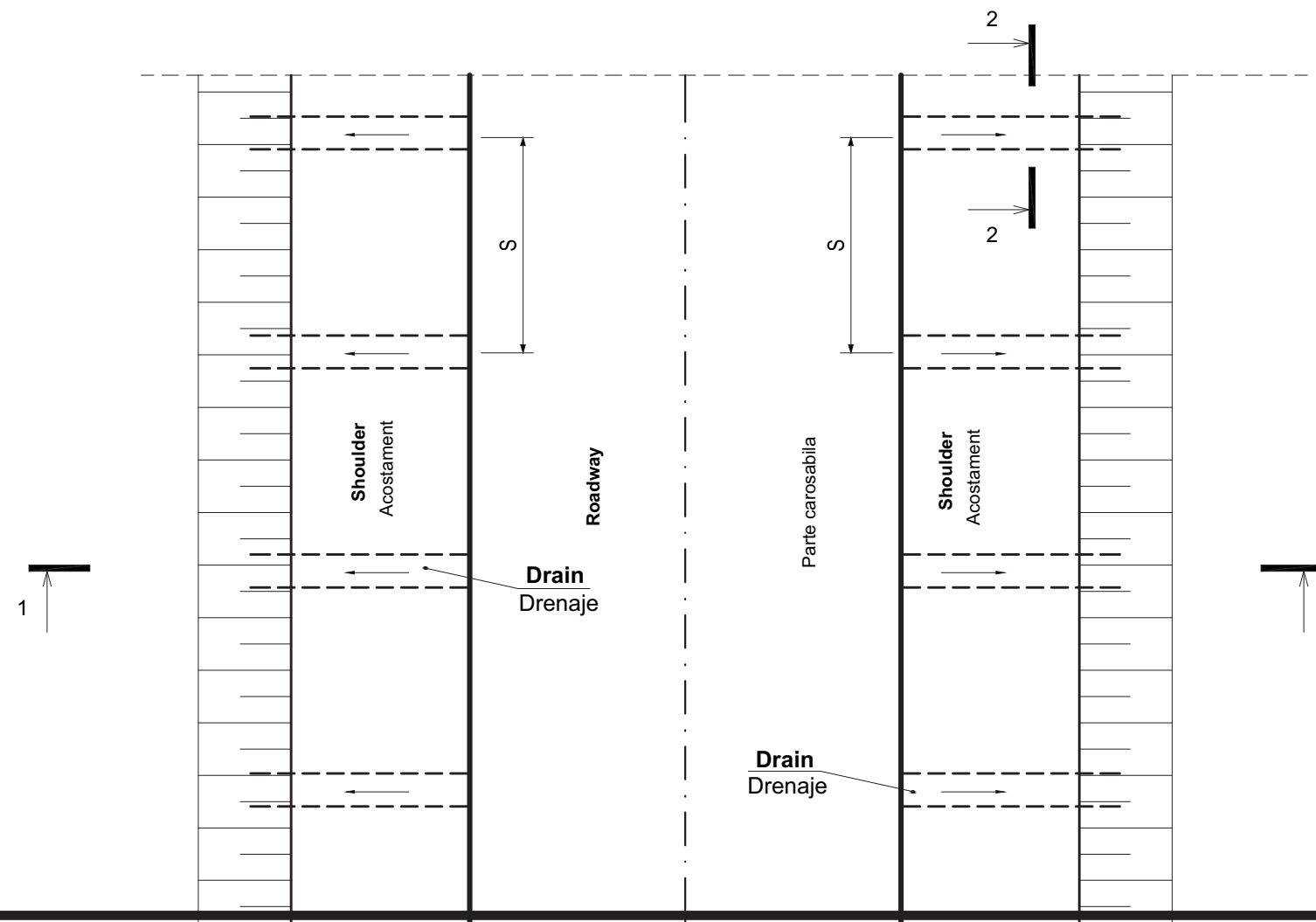
Marimea originala a desenului  
Original Drawing Size

A3  
A3

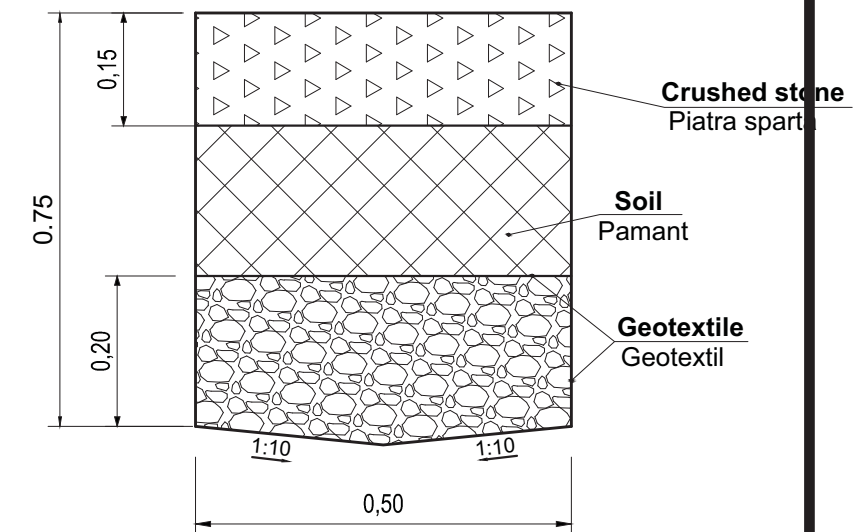




Plan  
(1:100)



2-2  
(1:10)



Sections of transversal drains Sectoare de amplasare a drenurilor transversale		
From km De la km	To km Pina la km	Distance between drains, m Distanța dintre drenuri, m
151960	152160	15
154000	154190	15
155126	155827	10
156556	156850	15
158150	158385	15
164860	165404	15
166400	166485	15
166625	166947	15
167225	167555	15
167555	167955	10
167955	168700	15
169120	169438	15
169806	170340	15
170560	171160	15
M3 -existing section		
180546	180794	15
181170	181497	15
183595	183795	15
188500	188530	15
188894	189130	15
189200	189230	15
189595	189920	15
190306	190750	15

2. All the dimensions are in m.

2. Toate dimensiunile sunt date in m.

Consultantii/ Consultants:

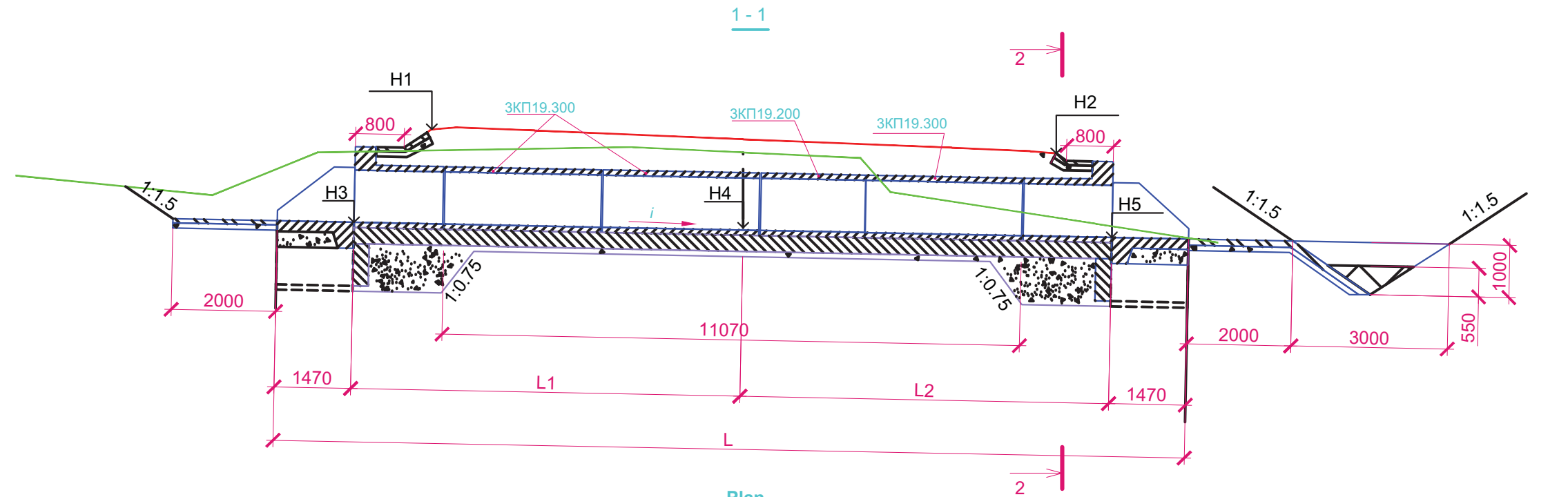
Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

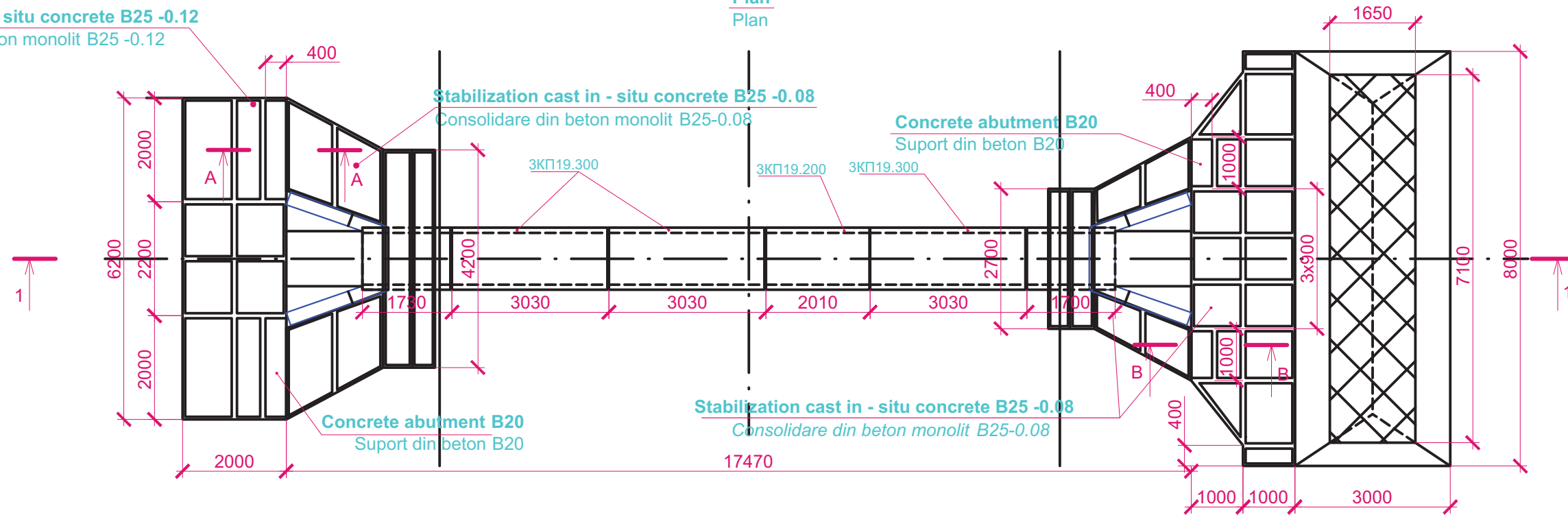


Denumirea drumului/  
Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No. 4283-MD LOT I  
Denumirea desenului/  
Drawing name Drenaj transversal  
Transversal drain  
Coala Nr./Sheet No. TD001 Coli / Sheets TD 01

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011



Stabilization cast in - situ concrete B25 -0.12  
Consolidare din beton monolit B25 -0.12



Consultantii/ Consultants:

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

A3  
A3

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania  
Contract No.4283-MD LOT I

Denumirea desenului/  
Drawing name Constructia podetului tubular d1.0m  
Pipe culvert construction of section 1.0m

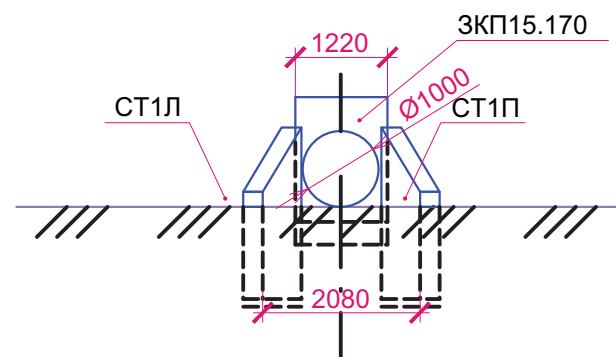
Coala Nr./Sheet No. PC01 Coli / Sheets PC 11

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

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

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

Eliveție capăt amonte și aval  
(1:100)



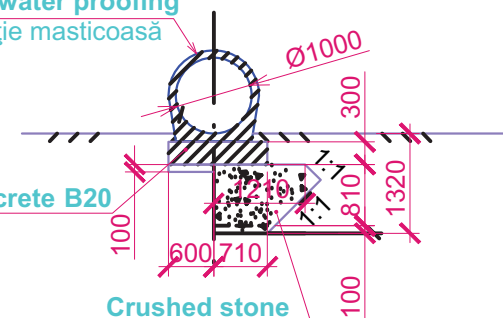
2 - 2

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

Membrane water proofing  
Hidroizolație masticoasă

Cast in - situ concrete B20  
Beton monolit B20

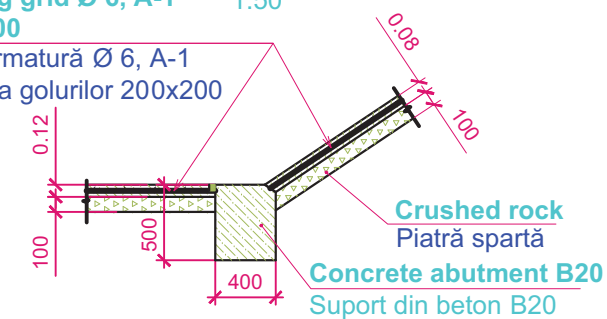
Crushed stone  
Piatră spartă



Reinforcing grid Ø 6, A-1  
cell 200x200

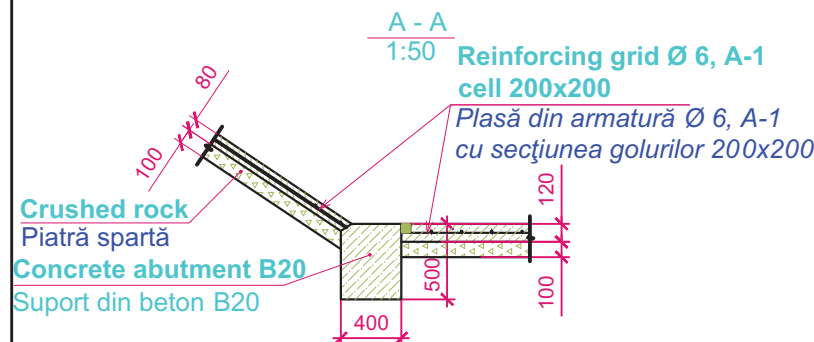
Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200

B - B  
1:50



Crushed rock  
Piatră spartă

Concrete abutment B20  
Suport din beton B20



A - A  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200


Crushed rock  
Piatră spartă  
Concrete abutment B20  
Suport din beton B20

Location km+ Amplesement km+	Diameter Diametru	Waterway direction Direcția cursului de apă	Level / Cotă					Lenght of the culvert Lungimea podețului			Depth of the well Hk, m Adâncimea puțului Hk, m	Cross angle, α°, ° Unghiul intersecției, α°, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
			edge of the road bed / pe marginea drumului		of the culvert ulucul podețului										Rate of flow, m³ Debit de calcul, m³	Backw ater, m Remu u, m	Speed at out let, m³/s Viteza la ieșire, m³/s	
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	upper de sus L1	lower de jos L2	full deplină L								
151+617	Ø1,00	←	10.85	10.82	7.82	7.79	7.63	10.19	8.36	21.49		90	10.3		0.50	-	2.35	free / n.l.
160+330	Ø1,00	←	124.94	124.63	122.90	122.86	122.74	9.37	9.18	21.49		90	9.	-	0.50	0.64	2.35	free / n.l.
165+832	Ø1,00	→	72.31	72.27	70.37	70.27	70.06	7.49	8.06	18.49	-	90	19	-	1.70	1.15	3.59	free / n.l.
181+854	Ø1,00	←	143.13	143.13	141.34	141.28	141.13	7.58	7.97	18.49	-	90	13.9	-	1.50	1.15	3.40	free / n.l.
184+367	Ø1,00	←	142.82	142.82	140.85	140.74	140.53	7.83	8.71	19.48		90	19.5		1,50	1,15	3,40	free / n.l.

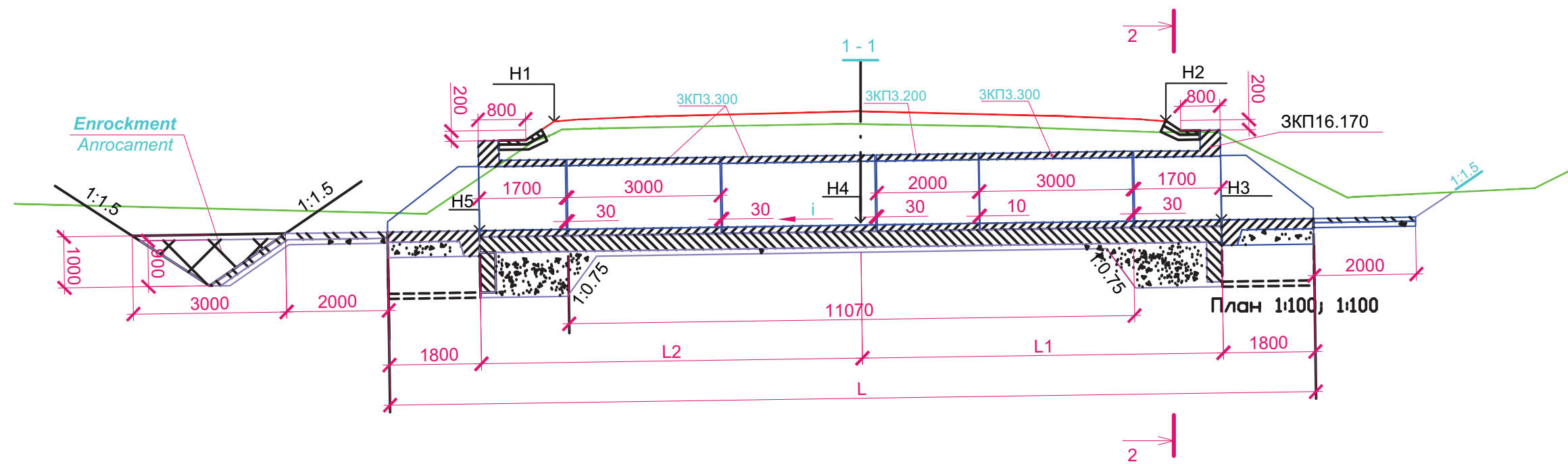
### Specifications of Precast RC elements Prefabricate din beton armat

Location km+ Amplesement km+	Diameter Diametru	Quantity, unit Cantitate, buc.			
		Element of the culvert Elementul podețului 3КП19.300 Weight of unit - 3.00tn Masa - 3.00t Volume - 1.20m³ Volum - 1.20m³	Element of the culvert Elementul podețului 3КП19.200 Weight of unit - 2.00tn Masa - 2.00t Volume - 1.80m³ Volum - 1.80m³	Portal wall Perete portal 3КП15.170 Weight of unit - 2.50tn Masa - 2.50t Volume - 0.98m³ Volum - 0.98m³	Lateral wing Perete lateral СТ1Л.(П) Weight of unit - 2.20tn Masa - 2.20t Volume - 0.89m³ Volum - 0.89m³
151+617	Ø1,00	3	3	2	4
160+330	Ø1,00	3	3	2	4
165+832	Ø1,00		6	2	4
181+854	Ø1,00	-	6	2	4
184+367	Ø1,00	3	2	2	4

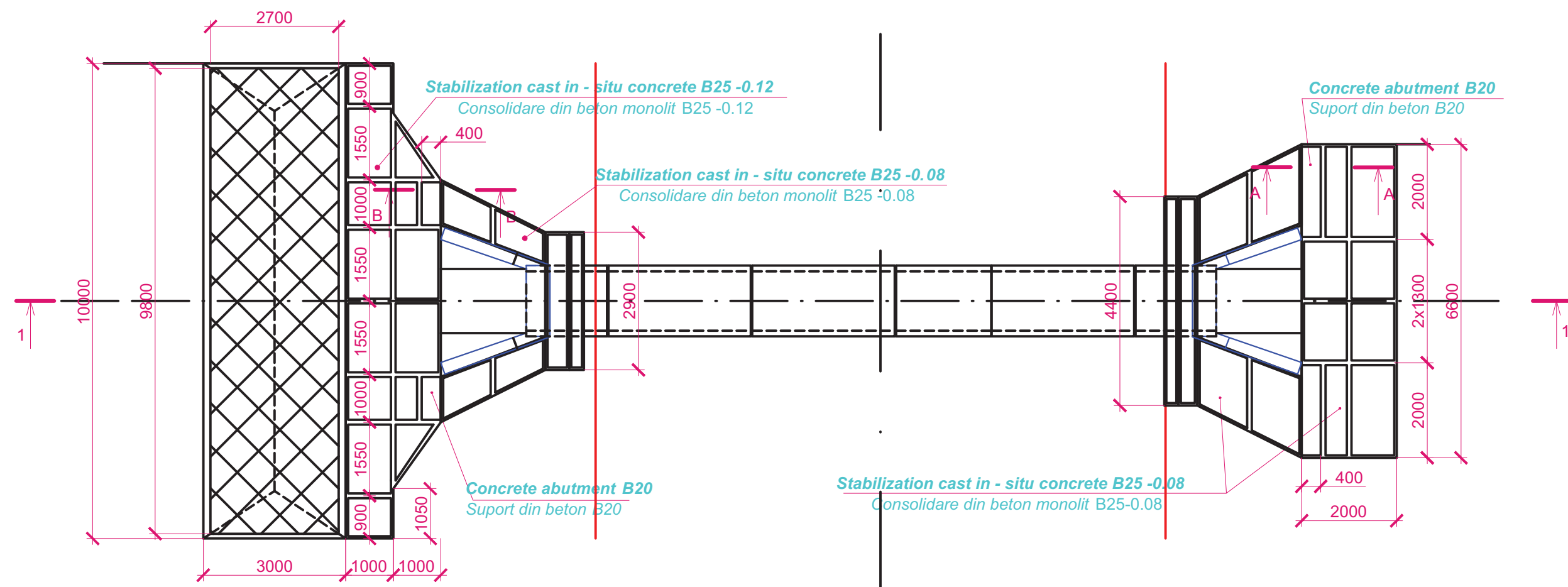
Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

				Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Susținere al Programului Sectorului		
											Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor și		
											Proiectare Detaliată		Contract No.4283-MD LOT I		
				Proiectat/Designed	Eftodii V.		Desenat/Drawn	Eftodii V.		Marimea originala a desenului Original Drawing Size	A3 A3	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania		
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Verificat/Checked	Vilcinski D.		Data/Date	06.2011				Denumirea desenului/ Drawing name	Parametrii principali ai podețului d1.0m		Main parameters of the culvert section 1.0m
												Coala Nr./Sheet No.	PC02	Coli / Sheets	PC 11





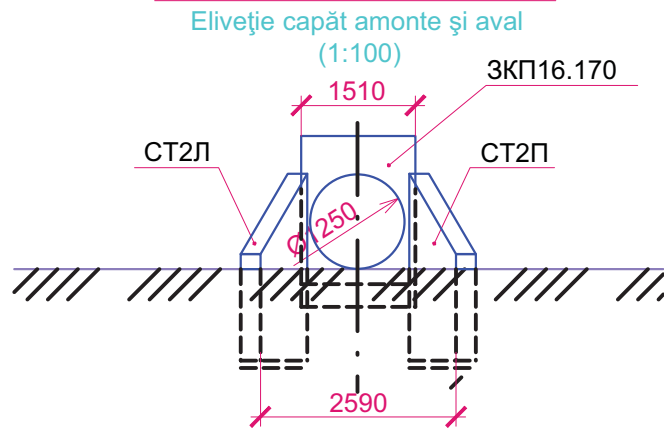
Plan  
Plan



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

Consultant/Consultant				Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau-Giurgiulesti/Romanian border	Contract No.4283-MD LOT I	
								Denumirea desenului/ Drawing name	Construcția podetului tubular d1.25m Pipe culvert construction of section 1.25m		
								Coala Nr./Sheet No.	PC03	Coli / Sheets	PC 11

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



A - A  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6,  
A-1 cu secțiunea golurilor  
200x200

Crushed rock  
Piatră spartă

Concrete  
abutment B20

Suport din beton B20

Location km+ Amplesement km+	Diameter Diametru	Waterway direction Direcția cursului de apă	Level / Cotă					Lenght of the culvert Lungimea podețului			Depth of the well Hk, m Adâncimea puțului Hk, m	Cross angle, α, ° Unghiul intersecției, α, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
			edge of the road bed / pe marginea drumului		of the culvert ulucul podețului										Rate of flow, m³ Debit de calcul, m³	Backw ater, m Remu u, m	Speed at out let, m³/s Viteza la ieșire, m³/s	
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	upper de sus L1	lower de jos L2	full deplină L								
152+098	Ø1,25	→	16.49	16.49	13.67	13.56	13.31	8.69	9.86	22.15		90	19		1.80	1.20	3.30	free / n.l.
152+568	Ø1,25	→	38.06	38.53	32.06	31.90	31.41	14.44	18.23	36.27		90	19		2.00	1.29	3.42	free / n.l.
155+568	Ø1,25	←	104.58	104.58	102.63	102.60	102.48	7.13	7.40	18.13		90	11		2.80	1.52	3.91	free / n.l.
183+169	Ø1,25	←	143.27	143.27	141.28	141.22	141.06	7.57	7.98	19.15		90	14		1.70	1.08	3.23	free / n.l.
183+669	Ø1,25	←	139.52	139.55	137.22	137.14	136.95	8.05	8.51	20.16		90	17		2.70	1.52	3.85	free / n.l.

Specifications of Precast RC elements  
Prefabricate din beton armat

Location km+ Amplesement km+	Diameter Diametru	Quantity, unit Cantitate, buc.					Lateral wing Perete lateral CT2 Weight of unit - 2.90tn Masa - 2.90t Volume - 1.16m³ Volum - 1,16m³
		Element of the culvert Elementul podețului 3KΠ13.300 Weight of unit - 4.60tn Masa - 4.60t Volume - 1.83m³ Volum - 1.83m³	Element of the culvert Elementul podețului 3KΠ4.300 Weight of unit - 5.20tn Masa - 5.20t Volume - 2.07m³ Volum - 2.07m³	Element of the culvert Elementul podețului 3KΠ3.200 Weight of unit - 3.10tn Masa - 3.10t Volume - 1.22m³ Volum - 1.22m³	Element of the culvert Elementul podețului 3KΠ4.200 Weight of unit - 3.50tn Masa - 3.50t Volume - 1.38m³ Volum - 1.38m³	Portal wall Perete portal 3KΠ16.170 Weight of unit -3.60tn Masa - 3.60t Volume - 1.43m³ Volum - 1,43m³	
152+098	Ø1,25	3		3		2	4
152+568	Ø1,25		5		7	2	4
155+568	Ø1,25	3		1		2	4
183+169	Ø1,25			6		2	4
183+669	Ø1,25	3		2		2	4

2 - 2

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

Membrane water proofing  
Hidroizolație masticoasă

Cast in - situ  
concrete B20  
Beton monolit B20

Crushed stone  
Piatră spartă

B - B  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200

Crushed rock  
Piatră spartă

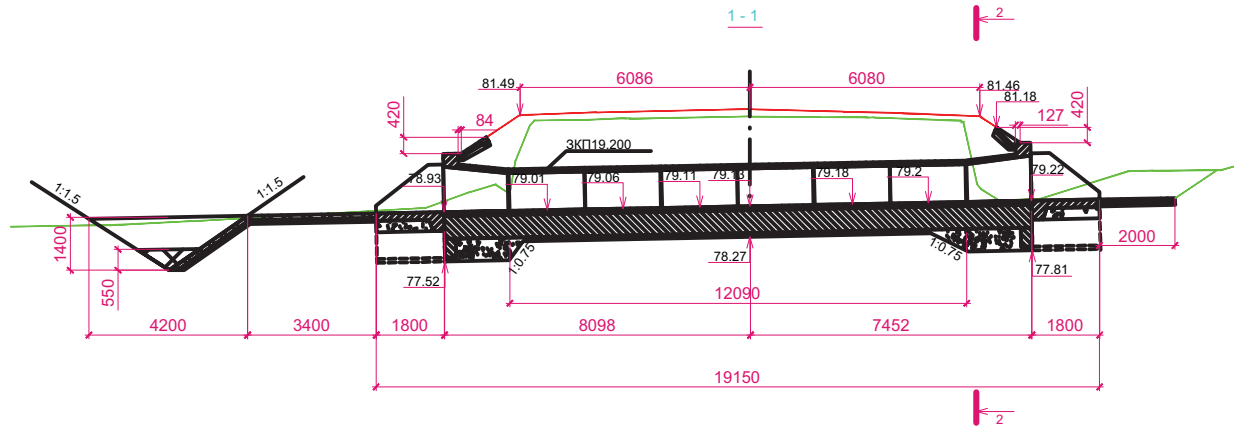
Concrete a  
butment B20

Suport din beton  
B20

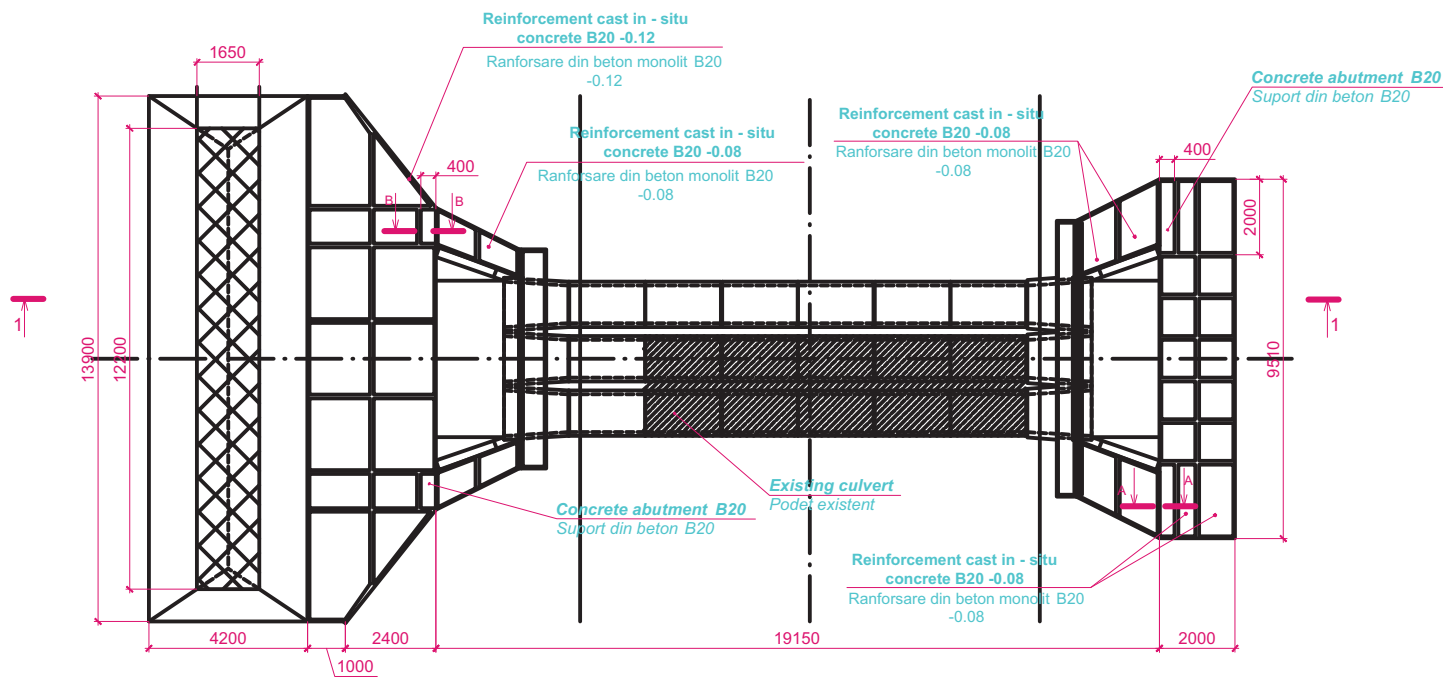
Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Eftodii V. Vilcinski D.	Desenat/Drawn Data/Date	Eftodii V. 06.2011
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Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulești /Frontiera cu Romania M3 Chisinau-Giurgiulești/Romanian border	Contract No.4283-MD LOT I
Marimea originala a desenului Original Drawing Size	A3 A3	Denumirea desenului/ Drawing name	Parametrii principali ai podețului Main parameters of the culvert section	d1.25m	
Coala Nr./Sheet No.	PC04	Coli / Sheets	PC 11		



Plan  
Plan

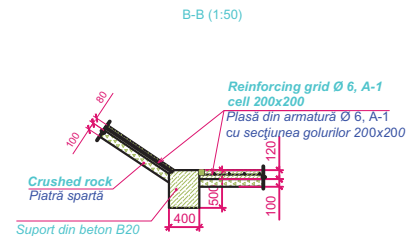
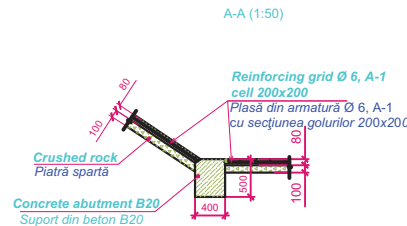
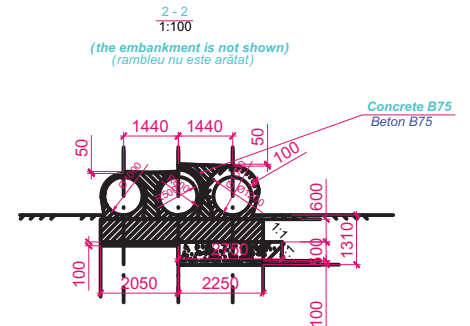
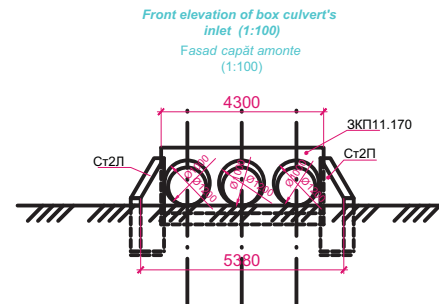


1. Culvert structure - according to the typical design 3.501.1-144, 0-2
2. The Stabilization of channels and slopes are adopted according to the type design 501 - 0 - 46.
3. All dimensions are given in mm.

1. Structura podetului - conform proiectului tip 3.501.1-144, 0-2
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+ Amplasament	Diameter Diametru	Element of the culvert Elementul podetului 3КП19.200 Weight of unit - 2.00tn Masa -2.00t Volume - 1.80m³ Volum - 1.80m³	Portal wall Perete portal 3КП11.170 Weight of unit -2.70tn Masa - 2.70t Volume - 1.09m³ Volum - 1.09m³	Lateral wing Perete lateral CT2Л.(П) Weight of unit - 2.90tn Masa - 2.90t Volume - 1.16m³ Volum - 1.16m³
169+405	3Ø1,00	18	6	4

Location km+ Amplasament t km+	Diameter Diametru	Waterway direction Direcția cursului de apă	Level / Cotă			Lenght of the culvert Lungimea podețului			Adâncimea puțului Hk, m	Unghiul intersecției, α°	Declivitate, %	H of the camber, m de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic		
			edge of the road bed / pe marginea drumului		of the culvert ulucul podețului		upper de sus L1	lower de jos L2					full deplină L					
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis directi on Pe axă H4								Outlet La ieșire H5				
169+405	3Ø1,00	→	81.49	81.46	79.22	79.13	78.93	7.45	8.10	19.15		90	19		1.40	1.15	2.32	free / n.l.

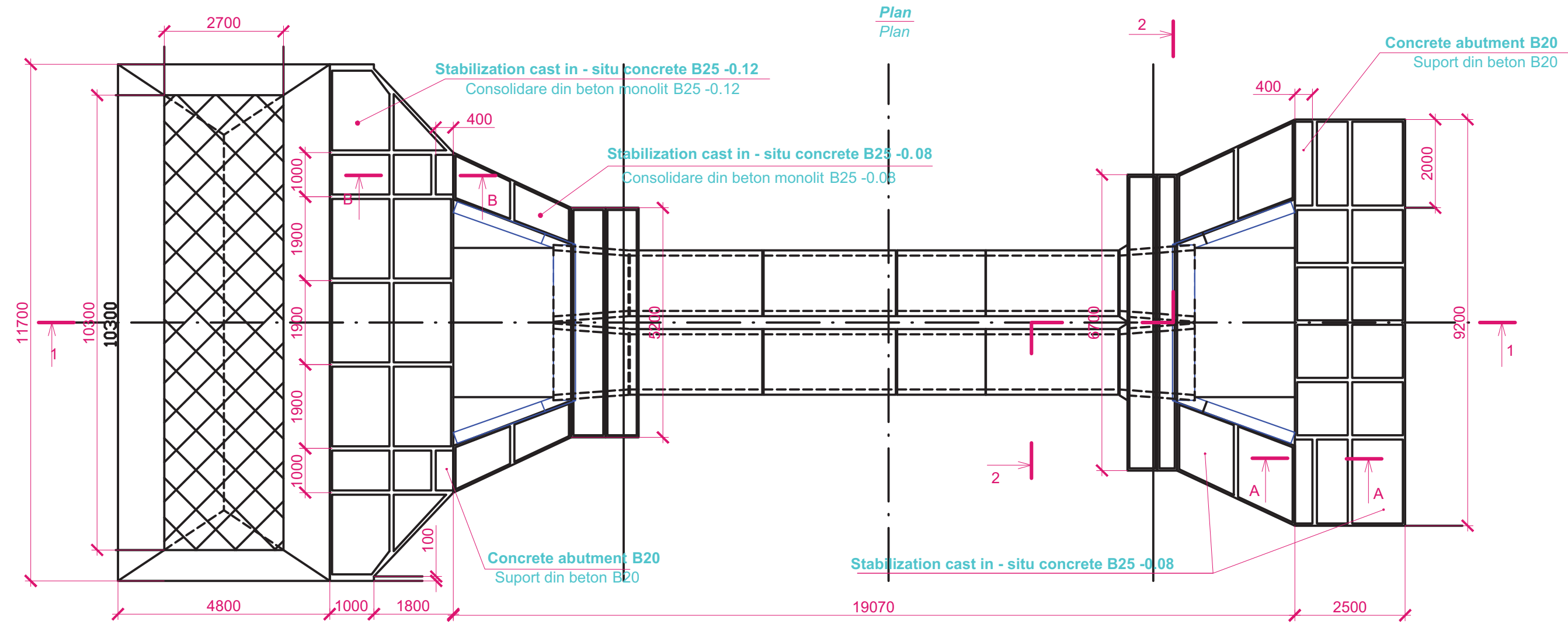
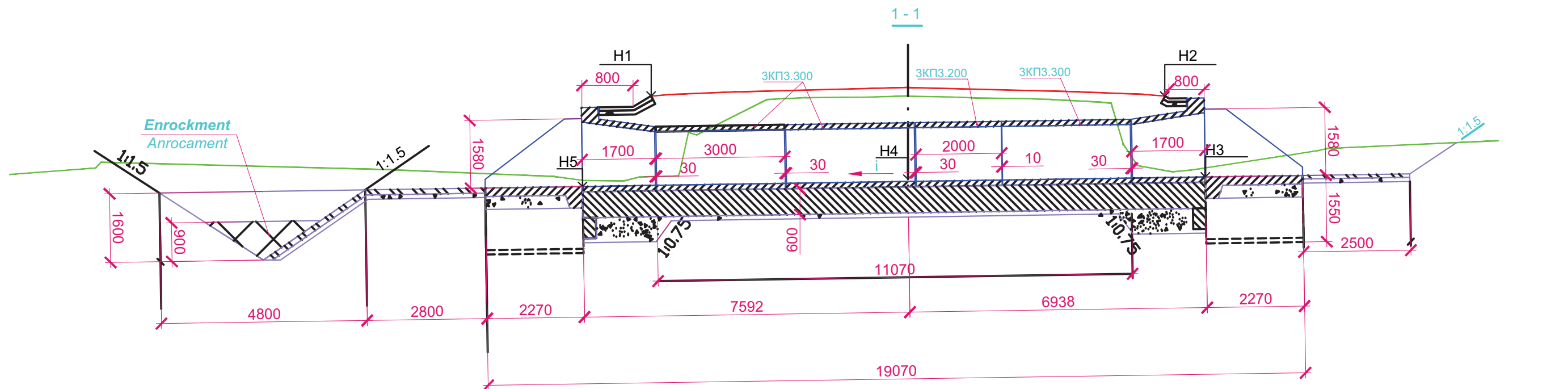


Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
				Verificat/Checked	Vilcinski D.		06.2011


Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
		Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I
		Denumirea desenului/ Drawing name	Construcția și alungirea podetului tubular 3d1.0m km 169+405 Construction and lenghtening of pipe culvert section 3d1.0m, km 169+405
		Coala Nr./Sheet No.	PC05
		Coli / Sheets	PC 11





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

Rev./	Amendamente/	Aprobat/	Data/	Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Rev.	Amendments	Approved	Date	Verificat/Checked	Vilcinski D.	Data/Date	06.2011

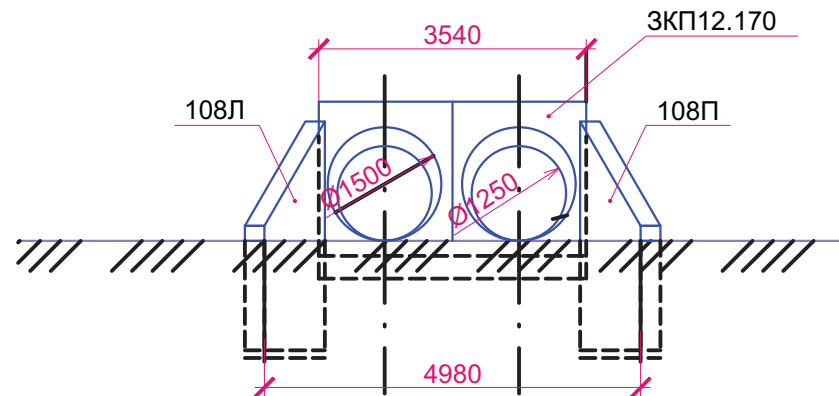
Aprobat/Approved	Republic of Moldova		M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau-Giurgiulesti/Romanian border Constructia podetului tubular 2x1.25m Pipe culvert construction of section 2x1.25m	Contract No.4283-MD LOT I
Data/Date	Ministry of Transport			
	Marimea originala a desenului	A3		
	Original Drawing Size	A3		
	Coala Nr./Sheet No.	PC06	Coli / Sheets	PC 11

## Prefabricate din beton armat

Quantity, unit  
Cantitate, buc.

Location km+ Amplasament km+	Diameter Diametru	Quantity, unit Cantitate, buc.			
		Element of the culvert Elementul podeşului ЗКПЗ.200 Weight of unit - 3.10tn Masa - 3.10t Volume - 1.22m³ Volum - 1.22m³	Element of the culvert Elementul podeşului ЗКПЗ.300 Weight of unit - 4.60tn Masa - 4.60t Volume - 1.83m³ Volum - 1.83m³	Portal wall Perete portal ЗКП12.170 Weight of unit -4,00tn Masa - 4,00t Volume - 1,60m³ Volum - 1,60m³	Lateral wing Perete lateral 108П.1 Weight of unit - 3,10tn Masa - 3,10t Volume - 1,24m³ Volum - 1,24m³
182+694	2Ø1,25	6	4	4	4

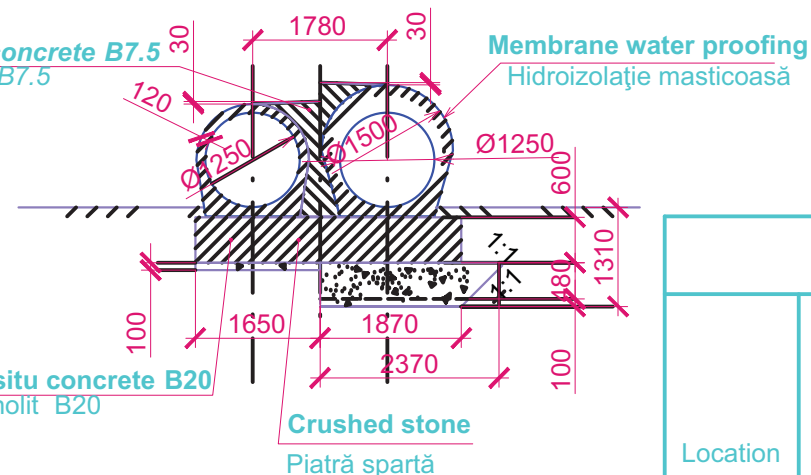
Eliveție capăt amonte și aval  
(1:100)



3 - 3

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

**Cast in - situ concrete**  
**Beton monolit B7.5**



**Cast in - situ concrete B20**  
Beton monolit B20

**Crushed stone**  
Piatră spartă

A - A  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200

**Crushed rock**  
Piatră spartă

**Concrete abutment B20**  
Suport din beton B20

A - A  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200

**Crushed rock**  
Piatră spartă

**Concrete abutment B20**  
Suport din beton B20

Main parameters of the culvert  
Parametri principali ai podeşului

Location km+ <i>Ampleasa ment km+</i>	<i>Diameter Diametru</i>	Waterway direction <i> Direcția cursului de apă</i>	Level / Cotă					<i>Lenght of the culvert Lungimea podețului</i>			Depth of the well $H_k$ , m <i>Adîncimea puțului <math>H_k</math>, m</i>	Cross angle, $\alpha^\circ$ <i>Unghiul intersecției, <math>\alpha^\circ</math></i>	Slope, ‰ <i>Declivitate, ‰</i>	$H$ <i>H of the camber, m profilului de construcție ridicat, m</i>	Hydrological characteristic <i>Caracteristicile hidrologice</i>			Flow regime <i>Regim hidraulic</i>
			<i>edge of the road bed / pe marginea drumului</i>		<i>of the culvert ulucul podețului</i>										<i>Rate of flow, <math>m^3</math>  Debit de calcul, <math>m^3</math></i>	<i>Backw ater,  m Remu u, m</i>	<i>Speed at out let, <math>m^3/s</math> Viteza la ieșire, <math>m^3/s</math></i>	
			<i>Left Stînga <math>H_1</math></i>	<i>Right Dreapta <math>H_2</math></i>	<i>Inlet La intrare <math>H_3</math></i>	<i>On the axis direction Pe axă <math>H_4</math></i>	<i>Outlet La ieșire <math>H_5</math></i>	<i>upper de sus <math>L_1</math></i>	<i>lower de jos <math>L_2</math></i>	<i>full deplină <math>L</math></i>								
182+694	2Ø1,25	←	143.27	143.27	140.99	140.98	140.87	7.65	7.89	20.08		90	8		3	1.60	3.10	free / n.l.

Schimb Inv. Nr.

Inv. Nr.

Aprobat/Approved Data/Date
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Republic of Moldova  
Ministry of Transport







	Road Sector Program Support Project Roads Feasibility and Detailed Design Study
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Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau-Giurgiulesti/Romanian border	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Parametrii principali ai podetului 2d1.25m Main parameters of the culvert section 2x1.25m	

Coala Nr./Sheet No.	PC07	Coli / Sheets	PC 11
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Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data Date
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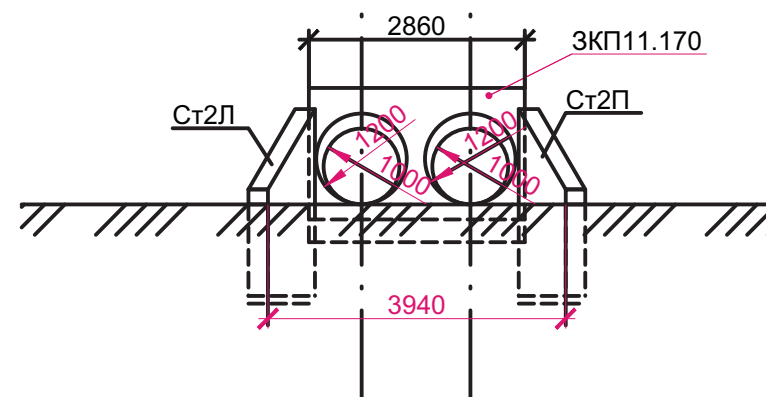
Proiectat/Designed	Eftodii V. 	Desenat/Drawn	Eftodii V. 
Verificat/Checked	Vilcinski D. 	Data/Date	06.2011 



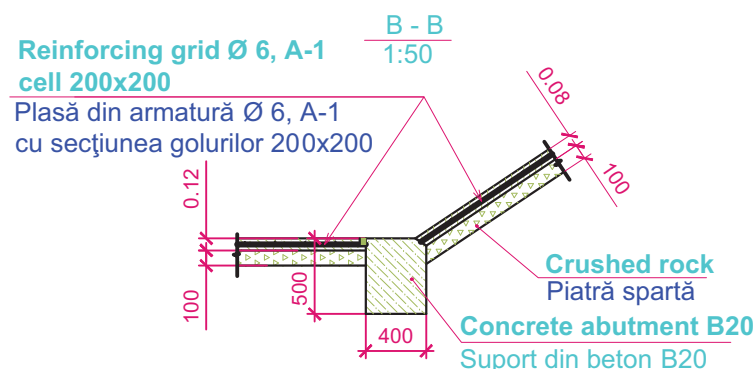
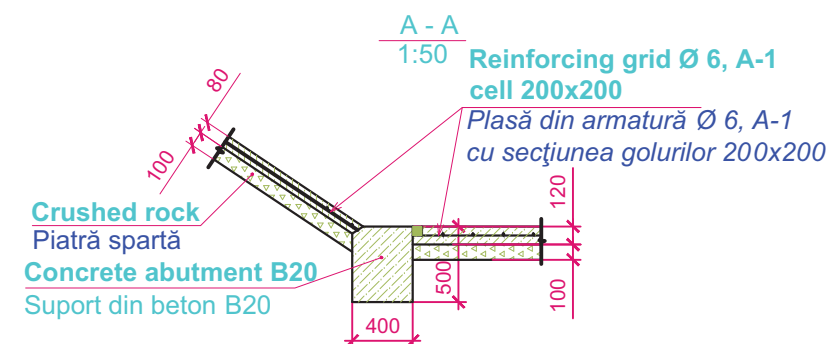
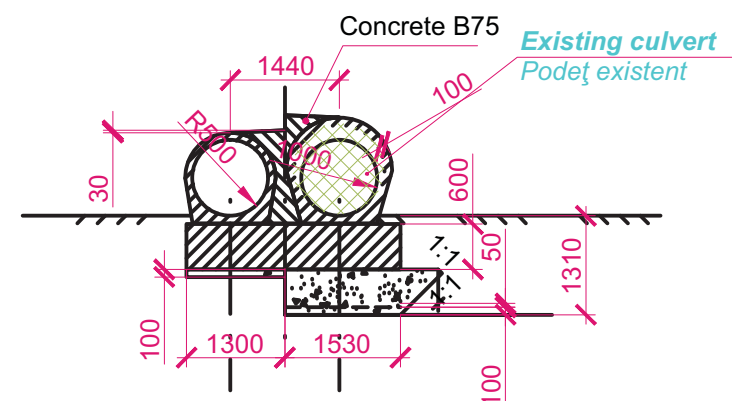


# Front elevation of pipe culvert's inlet and out let (1:100)

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+ Amplasament	Diameter Diametru	Quantity, unit Cantitate, buc.			
		Element of the culvert Elementul podețului 3КП19.300 Weight of unit - 3.00tn Masa - 3.00t Volume - 1.20m³ Volum - 1.20m³	Element of the culvert Elementul podețului 3КП19.200 Weight of unit - 2.00tn Masa - 2.00t Volume - 1.80m³ Volum - 1.80m³	Portal wall Perete portal 3КП15.170 Weight of unit -2.50tn Masa - 2.50t Volume - 0.98m³ Volum - 0.98m³	Lateral wing Perete lateral CT1Л.(П) Weight of unit - 2.20tn Masa - 2.20t Volume - 0.89m³ Volum - 0.89m³
189+134- new culvert	Ø1,00	1	6	2	4
189+134 - lengthening of existing culvert	Ø1,00		1	2	4

Location km+ <i>Amplasament</i> km+	<i>Diameter</i> Diametru	Waterway direction <i>Direcția cursului de apă</i>	Level / Cotă					<i>Lenght of the culvert</i> <i>Lungimea podeșului</i>			Depth of the well Hk, m <i>Adâncimea pușului Hk, m</i>	Cross angle, α°, ° Unghiul intersecșei, α°, °	Slope, ‰ <i>Declivitate, ‰</i>	H of the camber, m <i>profilului de construcție ridicat, m</i>	Hydrological characteristic <i>Caracteristicile hidrologice</i>			Flow regime <i>Regim hidraulic</i>
			<i>edge of the road bed / pe marginea drumului</i>		<i>of the culvert ulucul podeșului</i>										<i>Rate of flow, m³</i> <i>Debit de calcul, m³</i>	Backw ater, m <i>Remu u, m</i>	Speed at out let, m³/s <i>Viteza la ieșire, m³/s</i>	
			Left <i>Sșinga</i> H1	Right <i>Dreapta</i> H2	Inlet La <i>intrare</i> H3	On the axis direction <i>Pe axă</i> H4	Outlet <i>La ieșire</i> H5	upper <i>de sus</i> L1	lower <i>de jos</i> L2	full <i>deplină</i> L								
189+134	2Ø1,00	→	115.47	115.48	112.41	112.31	112.06	8.97	9.61	21.52		90	19		1.20	0.94	3.11	free / n.

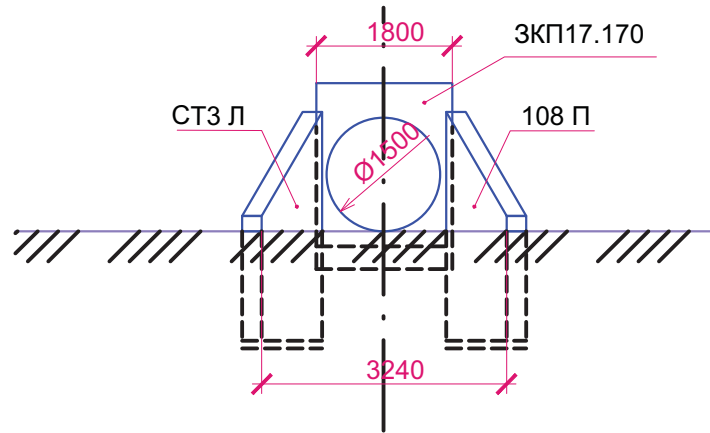
Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

				Consultantii/ Consultants:				Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport				Road Sector Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată					
														Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border				Contract No.4283-MD LOT 1			
				Proiectat/Designed				Eftodii V.		Desenat/Drawn		Eftodii V.		Denumirea desenului/ Drawing name		Parametrii principali ai podețului 2d1.0, km 189+134 main parameters of pipe culvert 2d1.0m, km 189+134							
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved		Data/ Date	Verificat/Checked		Vilcinski D.		Data/Date	06.2011		Marimea originala a desenului Original Drawing Size		A3 A3		Coala Nr./Sheet No.		PC09		Coli / Sheets		PC 11	

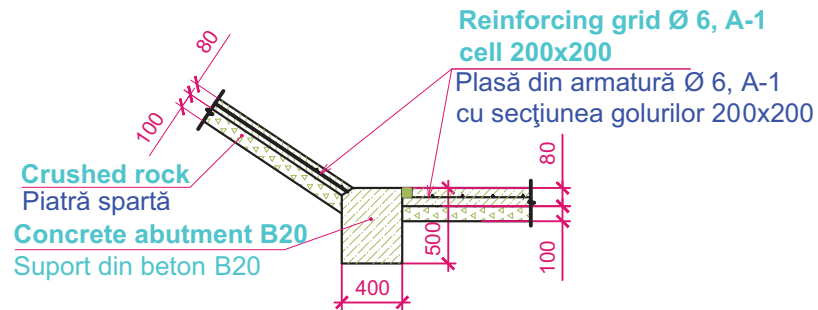


Front elevation of pipe culvert's inlet and out let (1:100)

Eliveție capăt amonte și aval  
(1:100)



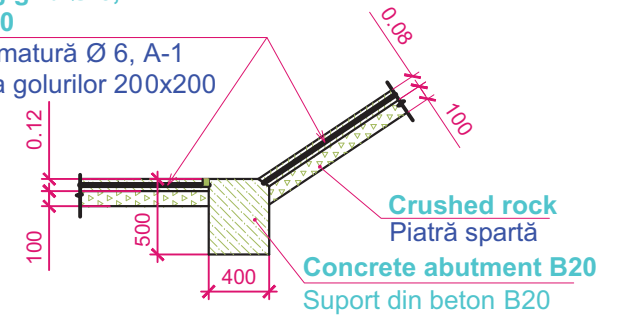
A - A  
1:50



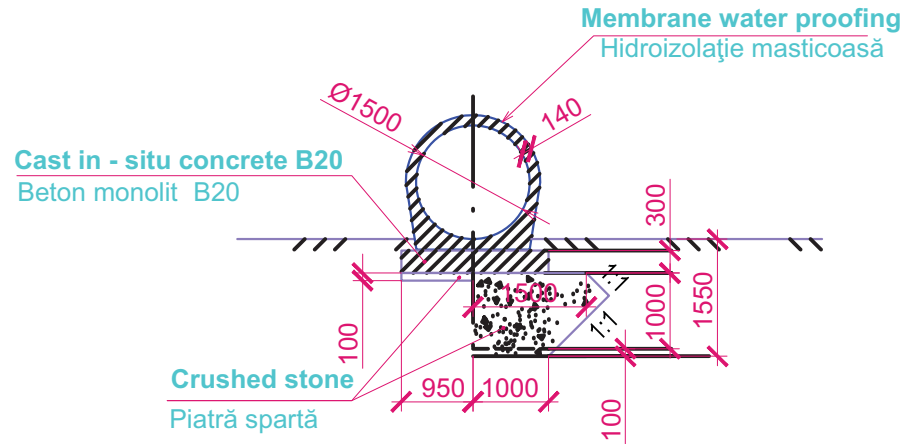
B - B  
1:50

Reinforcing grid Ø 6, A-1  
cell 200x200

Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200



2 - 2  
(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 podețului 3КП5.300 Weight of unit - 6.40tn Masa - 6.40t Volume - 2.55m³ Volum - 2.55m³	Element of the culvert Elementul podețului 3КП5.200 Weight of unit - 4.30tn Masa - 4.30t Volume - 1.70m³ Volum - 1.70m³	Portal wall Perete portal 3КП17.170 Weight of unit - 4.90tn Masa - 4.90t Volume - 1.96m³ Volum - 1.96m³	Lateral wing Perete lateral 108П.Л Weight of unit - 4.40tn Masa - 4.40t Volume - 1.75m³ Volum - 1.75m³
189+950	Ø1,50	3	4	2	4
192+210	Ø1,50	3	2	2	4

Basic figures / Factor basic

Basic figures / Factor basic																		
Location km+ Amplasa ment km+	Diameter Diametru	Waterway direction Direcția cursului de apă	Level / Cotă					Lenght of the culvert Lungimea podețului			Depth of the well Hk, m Adâncimea puțului Hk, m	Cross angle, α, ° Unghiul intersecției, α, °	Slope, % Declivitate, %	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
			edge of the road bed / pe marginea drumului		of the culvert ulucul podețului										Rate of flow, m³ Debit de calcul, m³	Backw ater, m Remu u, m	Speed at out let, m³/s Viteza la ieșire, m³/s	
			Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	upper de sus L1	lower de jos L2	full deplină L								
189+950	Ø1,50	→	100.36	100.42	97.49	97.34	97.10	11.65	8.63	25.12		90	19		3.60	1,63	3.94	free / n.l.
192+210	Ø1,50	←	77.39	77.39	74.75	74.66	74.44	7.9700	8.57	21.08		90	19		4.10	1,86	4.15	free / n.l.

Inv. Nr.

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

A3  
A3

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

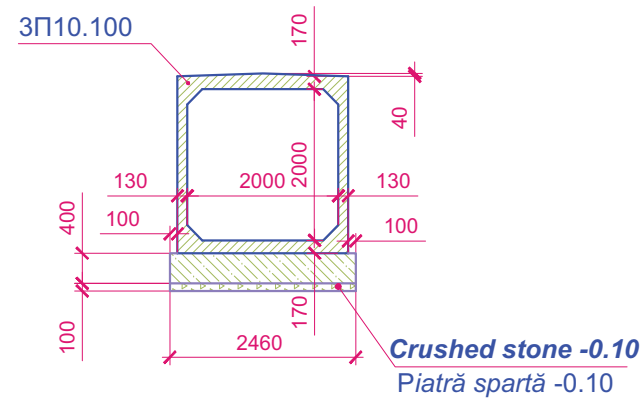
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau-Giurgiulesti/Romanian border	Contract No.4283-MD LOT I
Denumirea desenului/ Drawing name	Parametrii principali ai podețului d1.5m Main parameters of the culvert section 1.5m	

Coala Nr./Sheet No.	PC11	Coli / Sheets	PC 11
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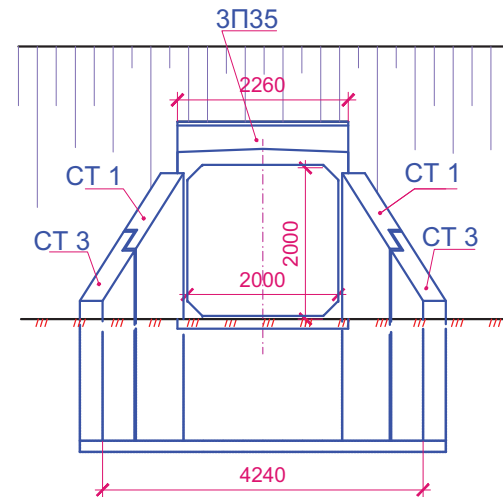




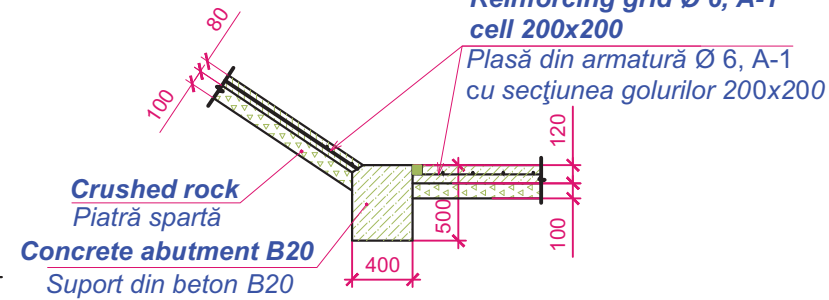
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(rambleul nu este arătat)



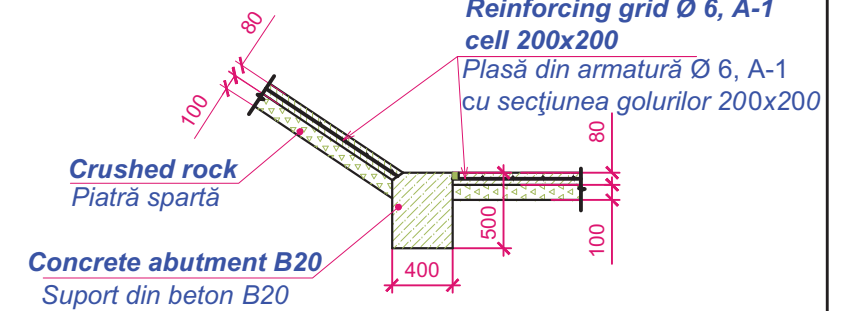
*Elevație capăt amonte și aval  
(1:100)*



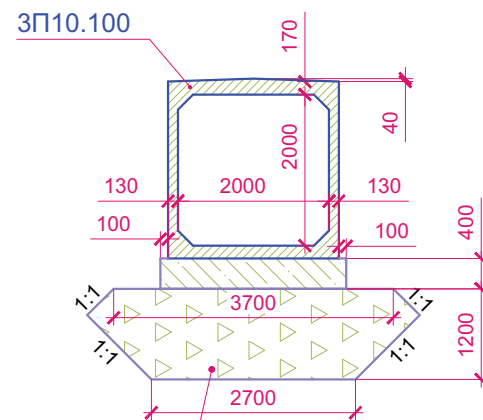
**Reinforcing grid Ø 6, A-1  
cell 200x200**  
Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200



**Reinforcing grid Ø 6, A-1  
cell 200x200**  
Plasă din armatură Ø 6, A-1  
cu secțiunea golurilor 200x200



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




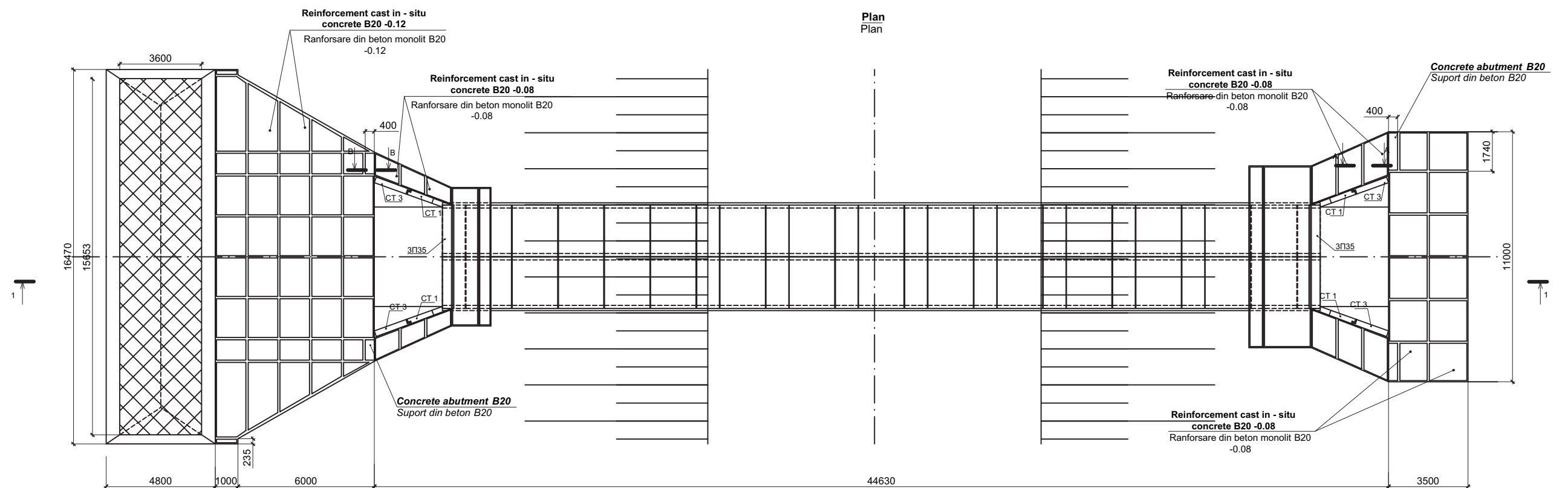
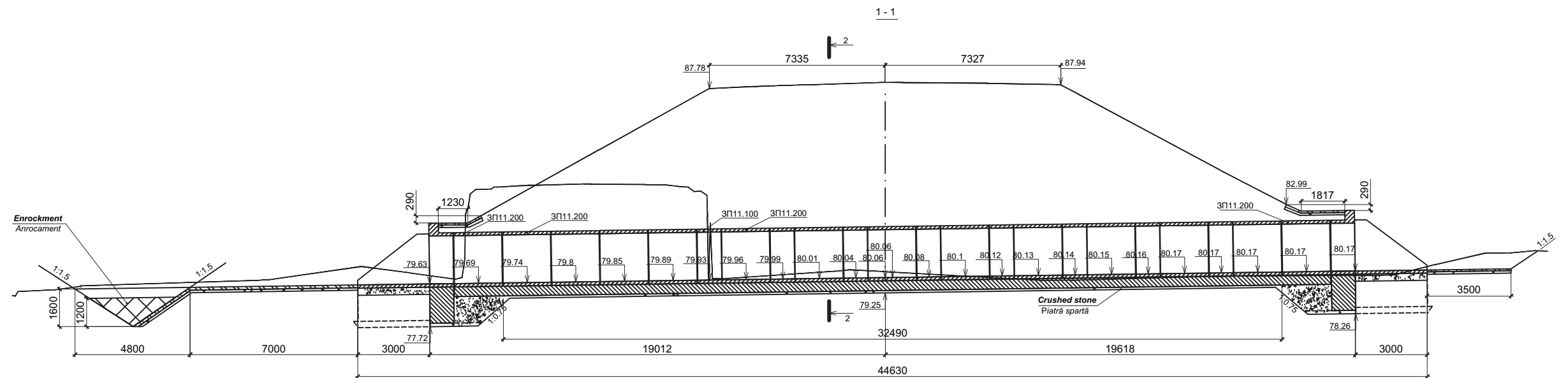
**Crushed stone -0.10**  
Piatră spartă -0.10

Location km+ Amplasament km+	Specifications of Precast RC elements / Prefabricate din beton armat			
	Element of the culvert <i>Elementul podeţului</i> 3П10.200 <i>Weight of unic - 3,50tn</i> <i>Masa - 3,50t</i> <i>Volume - 1.41m³</i> <i>Volum - 1,41M³</i>	Element of the culvert <i>Elementul podeţului</i> 3П35 <i>Weight of unic - 4,40tn</i> <i>Masa - 4,40t</i> <i>Volume - 1.75m³</i> <i>Volum - 1,75M³</i>	Lateral wing Perete lateral CT1 <i>Weight of unic - 3,80tn</i> <i>Masa - 3,80t</i> <i>Volume - 1.52m³</i> <i>Volum - 1,52M³</i>	Lateral wing Perete lateral CT3 <i>Weight of unic - 2,80tn</i> <i>Masa - 2,80t</i> <i>Volume - 1.13m³</i> <i>Volum - 1.13m³</i>
151+718	12	2	4	4

Location km+ Amplasament km+	Waterway direction Direcția cursului de apă	Level / Cotă					Longht of the culvert Lungimea podețului			Cross angle, α° Unghiul intersecției, α°	Slope, % Decalitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
		edge of the road / pe marginea drumului		of the culvert ulucul drumului									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	
		Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	upper de sus L1	lower de jos L2	full deplină L							
151+718	←	12.46	12.68	8.43	8.40	8.17	12.30	14.11	32.41	90	10		10.20	2.17	4.05	free / n.l.

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 in mm.

Inv. Nr.									Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Susținere al Programului Sectorului			
												Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor și			
												Proiectare Detaliată		Contract No.4283-MD LOT I			
												Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti / Frontiera cu Romania			
												Denumirea desenului/ Drawing name		Parametrii principali ai podetului cadru 2x2m			
											Marimea originala a deseneului Original Drawing Size		A3 A3				
	Rev./ Amendments	Amendmente/ Aprouwer			Data/ Date	Verificat/Checked	Eftodii V. Vilcinski D	Desenat/Drawn	Eftodii V.					Coala Nr./Sheet No.	BC02	Coli / Sheets	BC 06



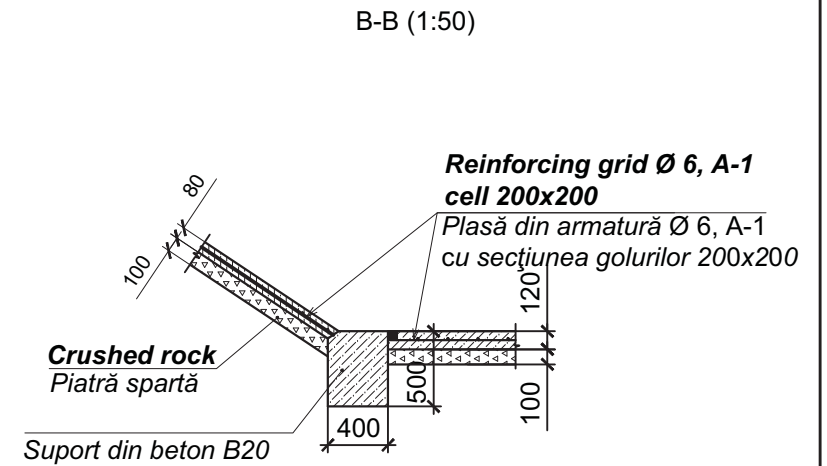
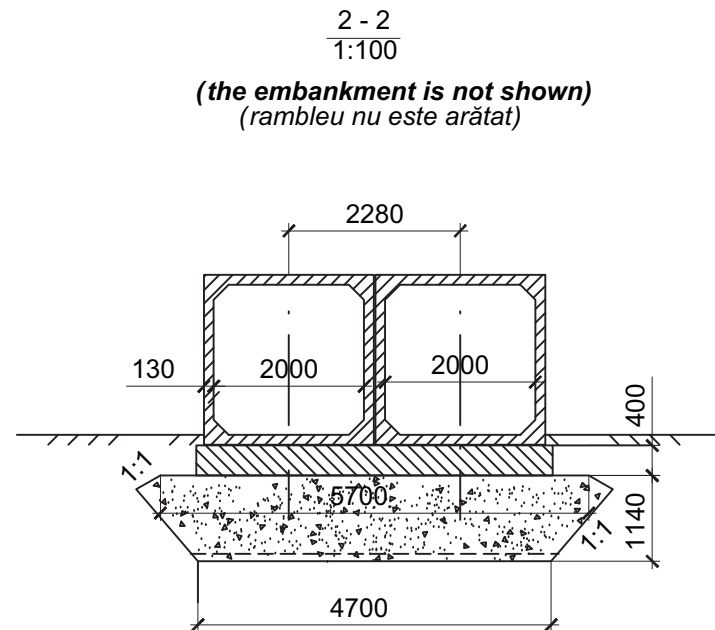
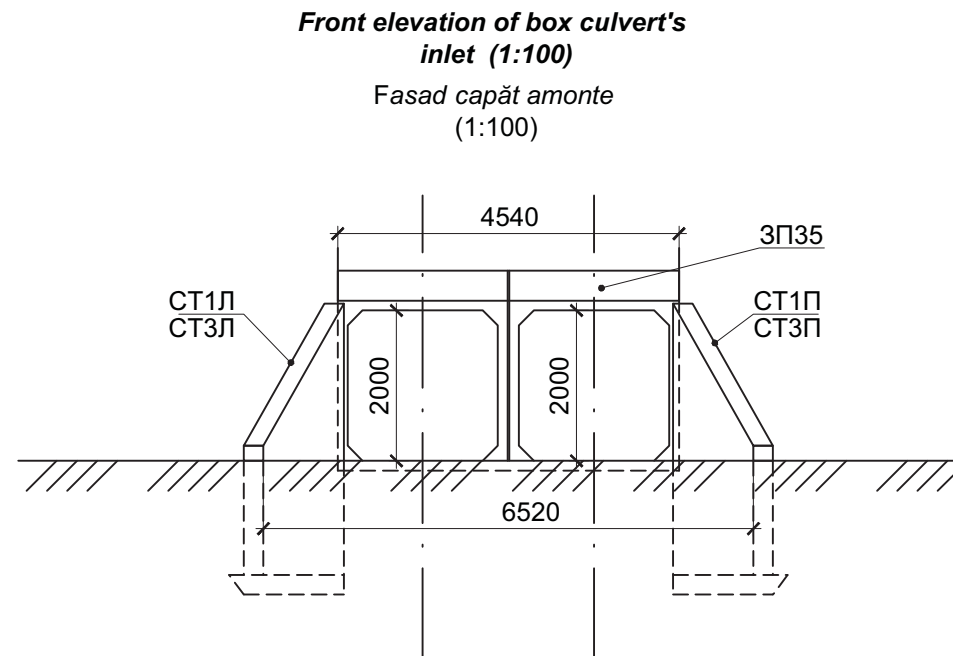
Inv. Nr.	Semnatura si data	Schimb Inv. Nr.

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

Proiectat/Designed	Eftodii V.	Desenat/Drawn	Eftodii V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
Marimea originala a desenului Original Drawing Size	A1 A1	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border
		Denumirea desenului/ Drawing name	Constructia podetului cadru 2(2x2m), km 157+064 Construction of box culvert 2(2x2m), km 157+064
		Coala Nr./Sheet No.	BC03
		Coli / Sheets	BC 04

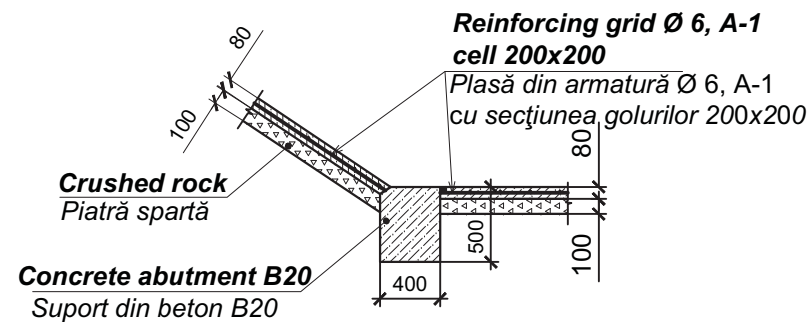




A-A (1:50)

**Specifications of Precast RC elements / Prefabricate din beton armat**


Location km+ Amplasament km+	Quantity, unit / Cantitate, buc				
	Element of the culvert Elementul podețului 3П11.100 Weight of unic - 4.20tn Masa - 4.20t Volume - 1.69m³ Volum - 1,69M³	Element of the culvert Elementul podețului 3П11.200 Weight of unic - 8.40tn Masa - 8.40t Volume - 3.38m³ Volum - 3.38M³	Element of the culvert Elementul podețului 3П35 Weight of unic - 4.40tn Masa - 4.40t Volume - 1.75m³ Volum - 1,75M³	Lateral wing Perete lateral CT1 Weight of unic - 3.80tn Masa - 3.80t Volume - 1.52m³ Volum - 1.52M³	Lateral wing Perete lateral CT3 Weight of unic - 2.80tn Masa - 2,80t Volume - 1.13m³ Volum - 1.13M³
157+064	16	28	4	4	4



**Main parameters / Parametrii principali**

Location km+ Amplasament km+	Waterway direction Direcția cursului de apă	Level / Cotă					Longht of the culvert Lungimea podețului			Cross angle, α, ° Unghiul intersecției, α, °	Slope, ‰ Declivitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
		edge of the road / pe marginea drumului		of the culvert ulucul drumului									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	
		Left Stînga H1	Right Dreapta H2	Inlet La intrare H3	On the axis direction Pe axă H4	Outlet La ieșire H5	upper de sus L1	lower de jos L2	full deplină L							
157+064	↑	87.78	87.94	80.17	80.06	79.63	19.62	19.01	44.63	90	14		21.20	4.93	4.11	free / n.l.

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

								Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project				Proiectul de Susținere al Programului Sectorului				
											Roads Feasibility and Detailed Design Study				Rutier / Studiul de Fezabilitate a Drumurilor și				
															Proiectare Detaliată				
															Contract No.4283-MD LOT I				
												Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania							
												Road name M3 Chisinau-Giurgiulesti/Romanian border							
												Denumirea desenului/Parametrii principali ai podețului cadru 2(2x2m), km 157+064							
												Drawing name Main parameters of box culvert of section 2(2x2m), km 157+064							
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed		Eftodii V.	Desenat/Drawn	Eftodii V.	Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.		BC04	Coli / Sheets		BC 04			
				Verificat/Checked		Vilcinski D.	Data/Date	06.2011											

Nr. inv. orig.	
Semnata la data	
Schimb. nr. inv.	

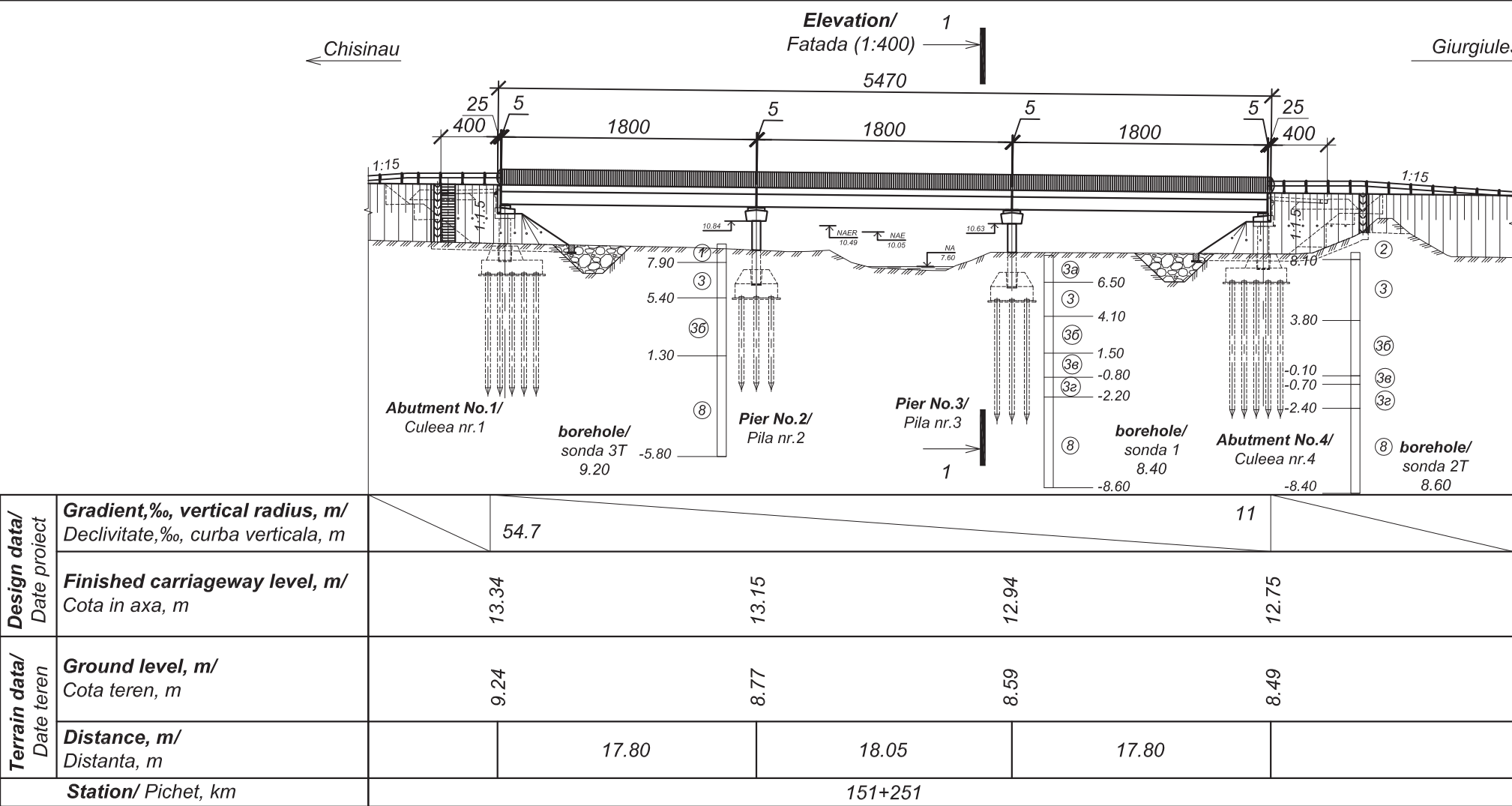
Index of drawings for bridge, km 151+251/ Borderou de desene pentru podul, km 151+251		
Sheet No/ Coala Nr.	Name/ Denumirea	Note/ Nota
BD 01	Index of drawings/ Borderou de desene	
BD 02	General arrangement/ Dispozitia generala	
BD 03	Cross section/ Sectiunea transversala	
BD 04	General arrangement of pier No.3/ Dispozitia generala a pilei Nr.3	
BD 05	General arrangement of abutment No.4 / Dispozitia generala a culeei Nr.4	
BD 06	Bridge approach/ Racordarea podului cu terasament	
BD 07	Cast in place RC areas of superstructure/ Sectoare din BA monolite a suprastructurii	
BD 08	Girder bearing detail/ Detaliu de rezemare a grinzii	
BD 09	Expansion joint/ Rost de dilatare	
BD 10	Handrail/ Parapet pietonal	
BD 11	Slope stairs/ Scari pe taluz	
BD 12	Embedded elements/ Piese inglobate	
BD 13	Construction sequence and quantities of main work/ Ordinea efectuarii lucrarilor si volume de baza	

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Nr. inv. orig.

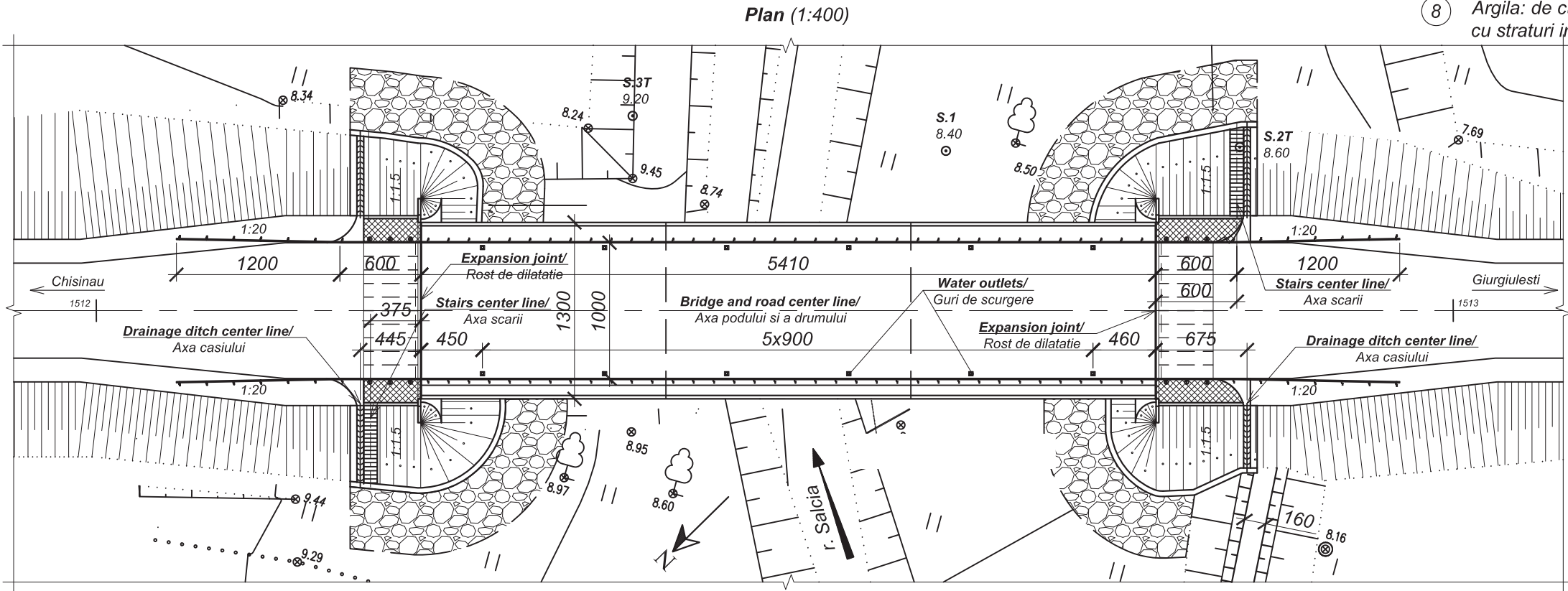
Semnlat la data

Schimb. nr. inv.



Hydrological and hydraulics characteristics/ Tabelul cu caracteristice hidrologice si hidraulice			
Design water flow/ Debitul de calcul Q1%, m³/s	Design banked-up water level, m/ Nivelul barat al apelor NAER, m	Design flood level DFL 1%, m/ Nivelul apelor extraordinare NAE 1%, m	Flow velocity/ Viteza de calcul V, m/s
155.0	10.49	10.05	2.08

- Symbols/  
Soluri:
- 1 Filled-up soil/  
Pamant de umplutura
  - 2 Topsoil/  
Strat vegetal
  - 3a Loam: gray-yellow/  
Argila nisipoasa: de culoare galben-gri
  - 3 Loam: gray, black/  
Argila nisipoasa: de culoare gri, neagra
  - 3b Loam: gray-yellow,  
with interlayer of sand and sandy loam/  
Argila nisipoasa: de culoare galben-gri,  
cu straturi intermediare de nisip si sol nisipo-lutos
  - 3c Loam: gray, brown/  
Argila nisipoasa: de culoare gri, bruna
  - 3d Slack soil with sand aggregate/  
Savura cu agregate nisipoase
  - 8 Clay: gray with interlayer of sand and sandy loam/  
Argila: de culoare gri,  
cu straturi intermediare de nisip si sol nisipo-lutos

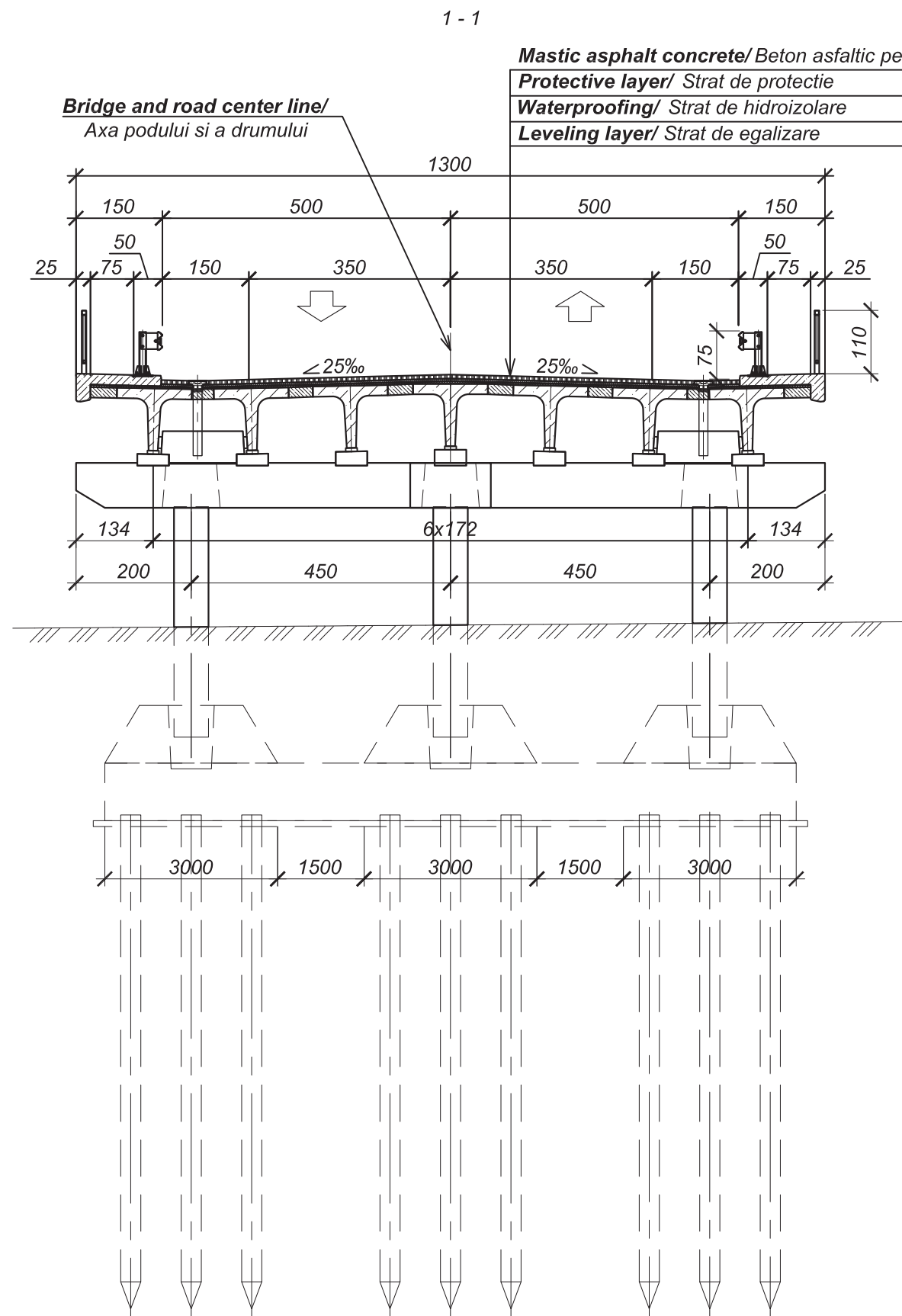


Note/Nota:

1. Geotechnical section see sheet 2-2/  
Sectiunea geologica vezi coala 2-2
2. All the dimensions are in cm unless noted  
otherwise/ Toate dimensiunile sunt date in cm.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Marimea originala a desenului Original Drawing Size	A3 A3	Road Sector. Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border	Denumirea desenului/ Drawing name	Pod km 151+251. Dispozitia generala Bridge km 151+251. General arrangement	Coala Nr./Sheet No.	BD 02-1	Coli / Sheets	BD 13
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**Geological section/**  
*Sectiune geologica*

No./ Nr.	Item/ Denumirea	$\rho$ , gr/cm <sup>3</sup>	$C_n$ , kPa	$\varphi_n$ , °	$I_L$	$R_0$ , kPa	$R_s$ , MPa
1	<b>Filled-up soil/</b> Pamant de umplutura	-	-	-	-	-	-
2	<b>Topsoil/</b> Strat vegetal	-	-	-	-	-	-
3-3e	<b>Loam/</b> Argila	1.97	20	18	0.60-0.36	-	-
3e	<b>Slack soil with sand aggregate/</b> Savura cu agregate nisipoase	-	-	-	-	350	-
8	<b>Clay/</b> Argila	2.10	68	20	<0	-	-

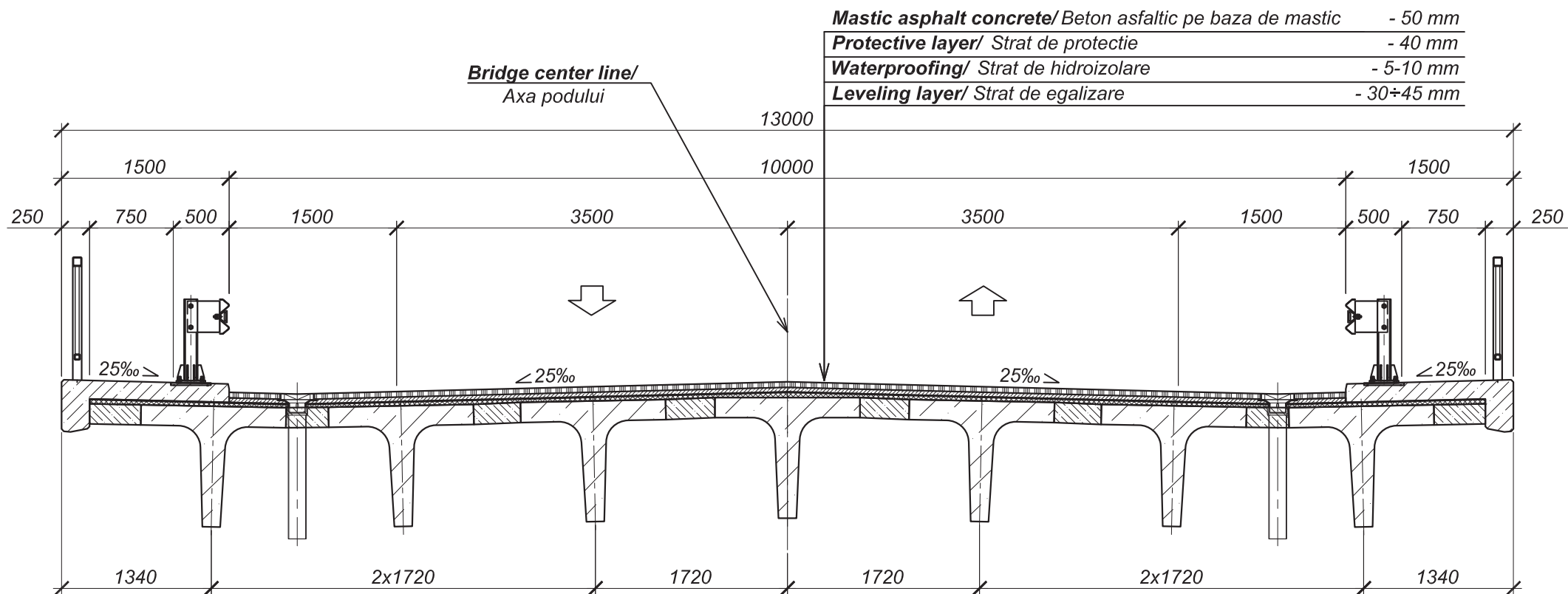
**Note/Nota:**  
**All the dimensions are in cm unless noted otherwise/**  
**Toate dimensiunile sunt date in cm.**

Nr. inv. orig.	Schimb. nr. inv.	Semnat la data
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Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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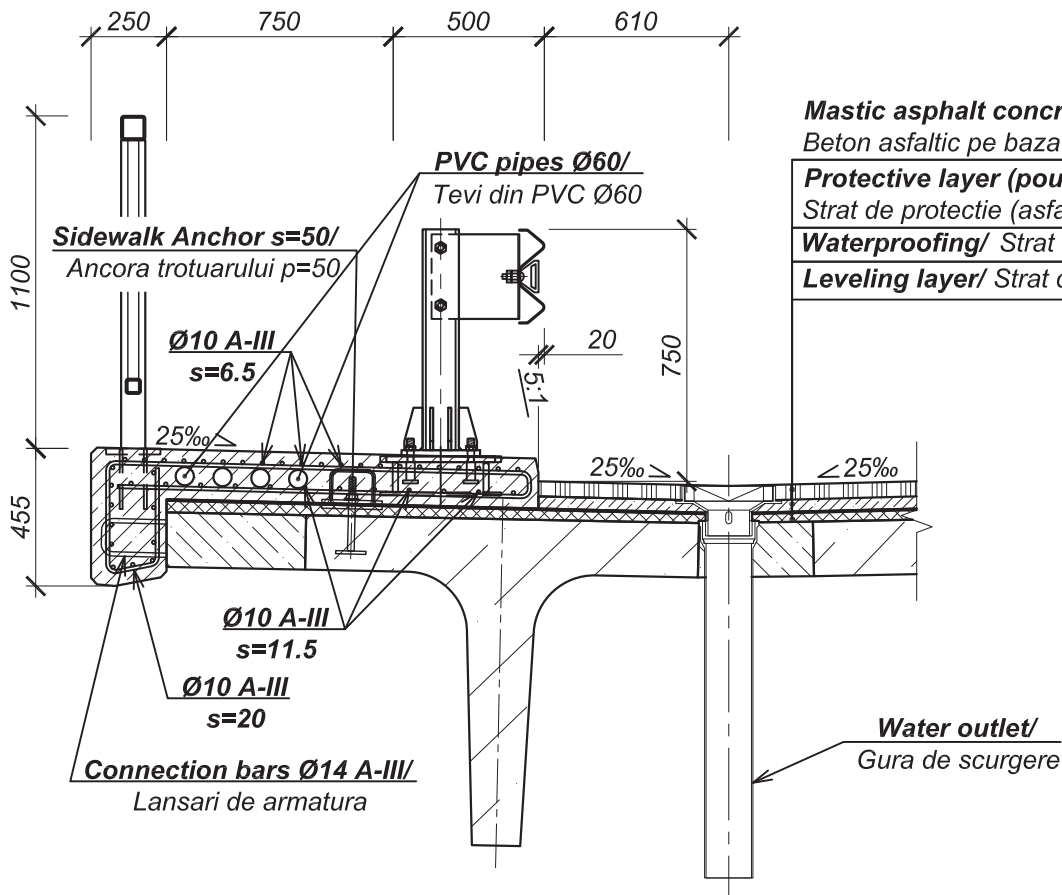
Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector: Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata
	Marimea originala a desenului Original Drawing Size	A3 A3	Denumirea drumului/ Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border	Denumirea desenului/ Drawing name Pod km 151+251. Dispozitia generala Bridge km 151+251. General arrangement
	Coala Nr./Sheet No.	BD 02-2	Coli / Sheets	BD 13

Superstructure cross section/  
Sectiunea transversala a suprastructurii (1:50)



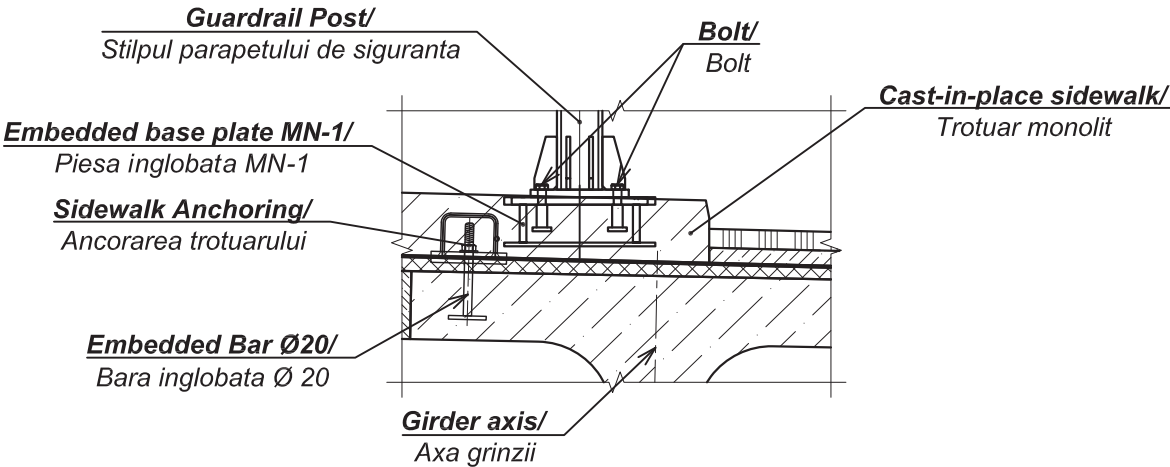
Mastic asphalt concrete/ Beton asfaltic pe baza de mastic	- 50 mm
Protective layer/ Strat de protectie	- 40 mm
Waterproofing/ Strat de hidroizolare	- 5-10 mm
Leveling layer/ Strat de egalizare	- 30+45 mm

Cast-in-place sidewalk detail/  
Detaliu trotuar monolit (1:25)



Mastic asphalt concrete/ Beton asfaltic pe baza de mastic	- 50 mm
Protective layer (poured mastic asphalt)/ Strat de protectie (asfalt turnat pe baza de mastic)	- 40 mm
Waterproofing/ Strat de hidroizolare	- 5 mm
Leveling layer/ Strat de egalizare	- 30 mm

Anchoring the guardrail on the bridge/  
Prinderea parapetului de siguranta (1:20)



Note/Nota:  
All Dimensions are in mm unless noted otherwise/  
Toate dimensiunile sunt date in mm.

Schimb. nr. inv.

Semnata la data

Nr. inv. orig.

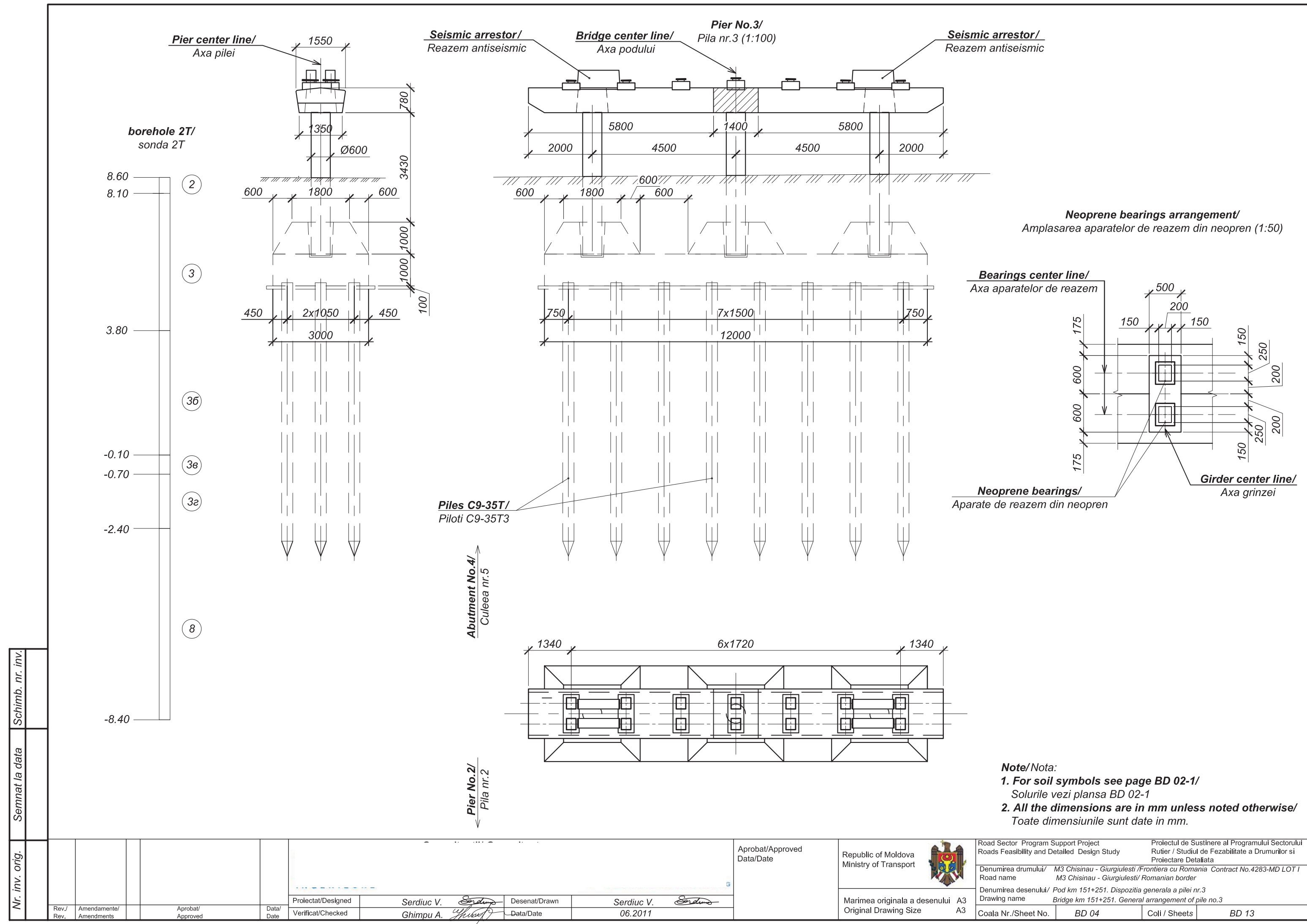
Rev./ Rev.	Amendments/ Amendamente	Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V.	Desenat/Drawn	Serdiuc V.
				Verificat/Checked	Ghimpu A.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



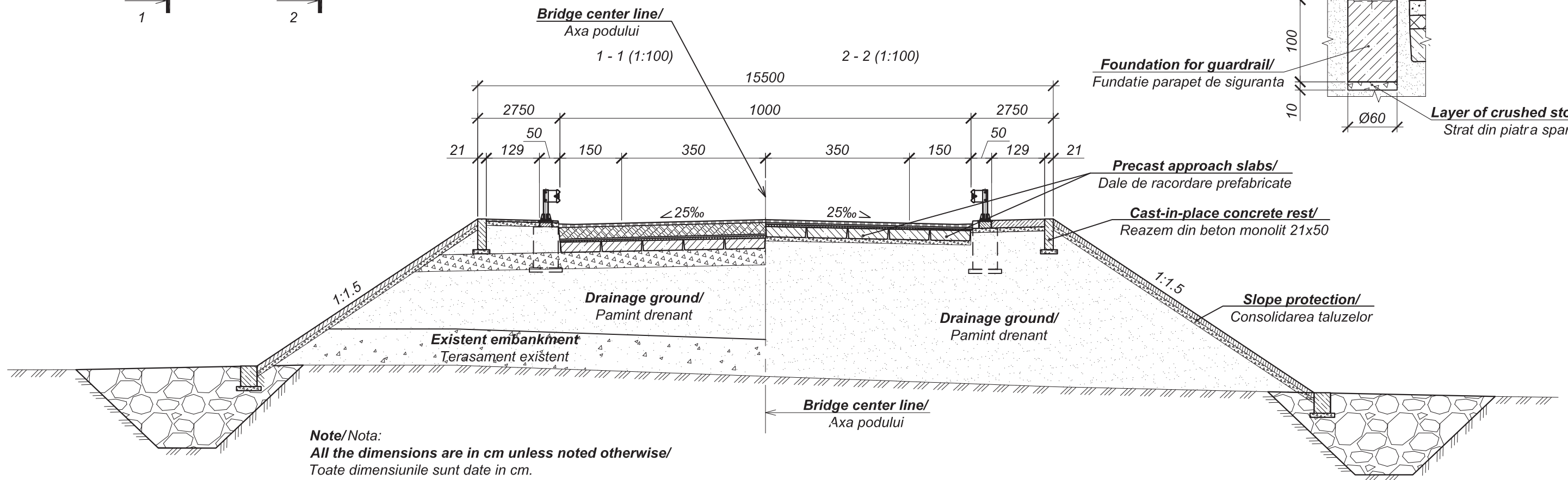
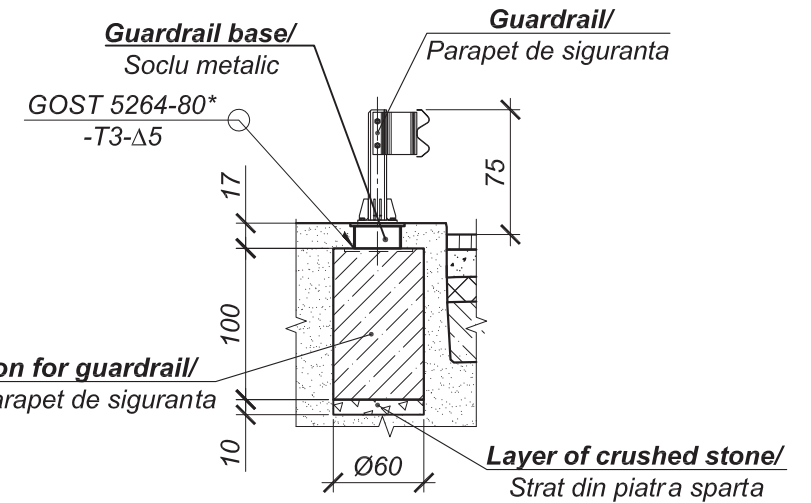
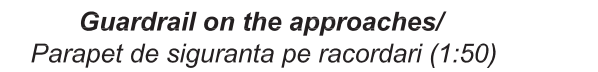
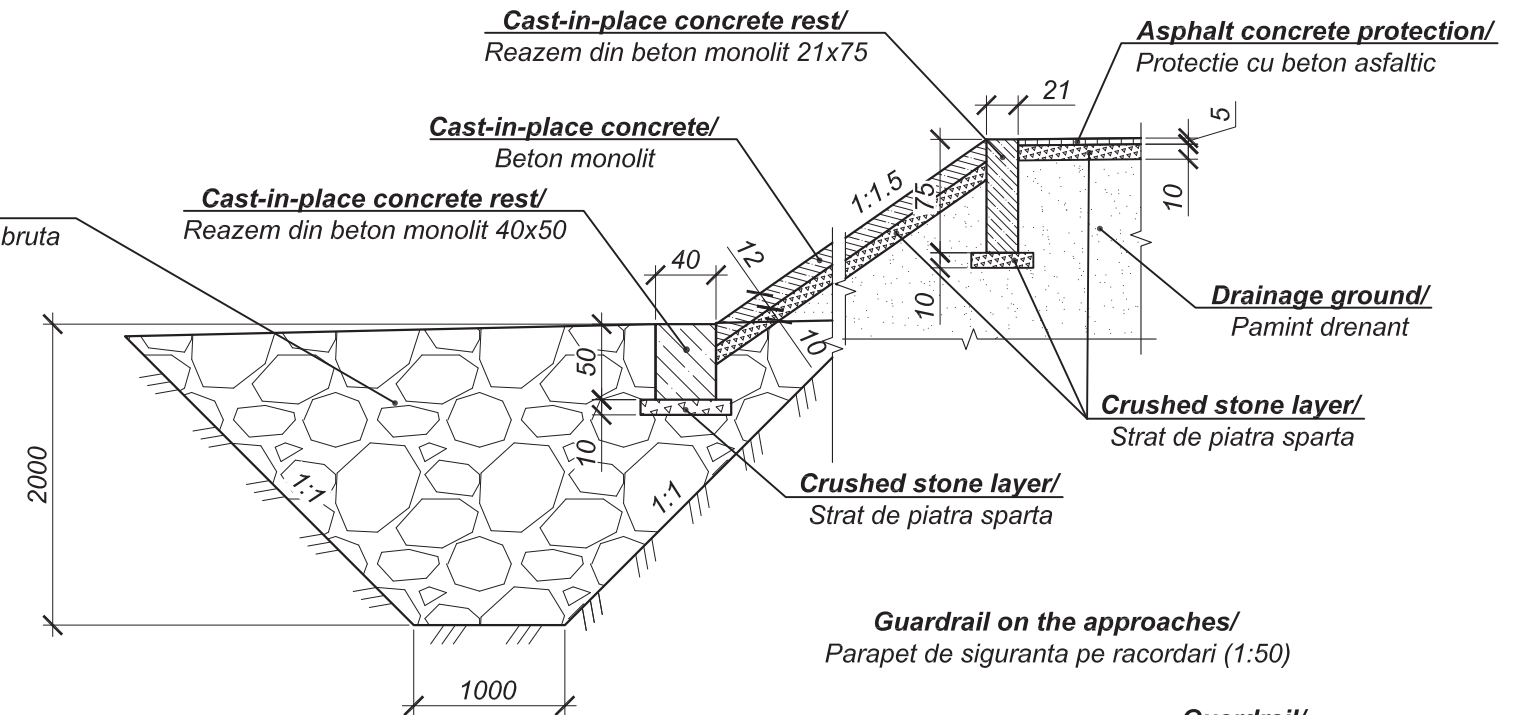
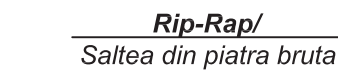
Road Sector. Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata
Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I Road name M3 Chisinau - Giurgiulesti/ Romanian border	
Denumirea desenului/ Pod km 151+251. Sectiunea transversala Drawing name Bridge km 151+251. Cross section	
Marimea originala a desenului A3 Original Drawing Size A3	
Coala Nr./Sheet No. BD 03	Coli / Sheets BD 13







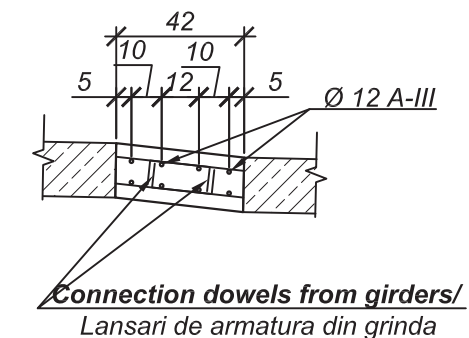
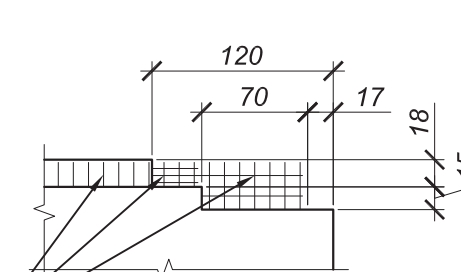
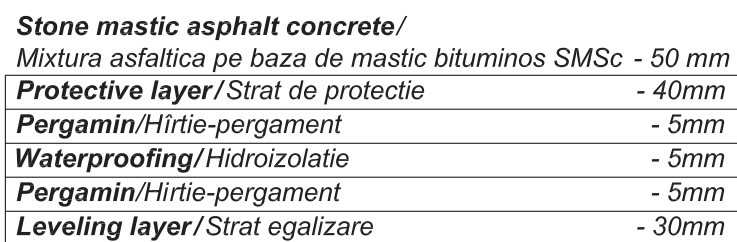
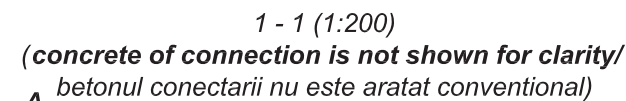
**Slope protection details/  
Detaliu protecție taluz (1:50)**



**Note/Nota:**  
**All the dimensions are in cm unless noted otherwise/**  
**Toate dimensiunile sunt date in cm.**

Schimb. nr. inv.															
Semnat la data															
Nr. inv. orig.									Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata		
												Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT 1 M3 Chisinau - Giurgiulesti/ Romanian border		
												Denumirea desenului/ Drawing name	Pod km 151+251. Racordarea podului cu terasament Bridge km 151+251. Bridge approach		
												Marimea originala a desenului Original Drawing Size	A3 A3		
	Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	 	Desenat/Drawn Data/Date	Serdiuc V. 06.2011				
												Coala Nr./Sheet No.	BD 06	Coli / Sheets	BD 13

**Cast-in-place RC cantilevers/**  
*Console din beton armat monolit*



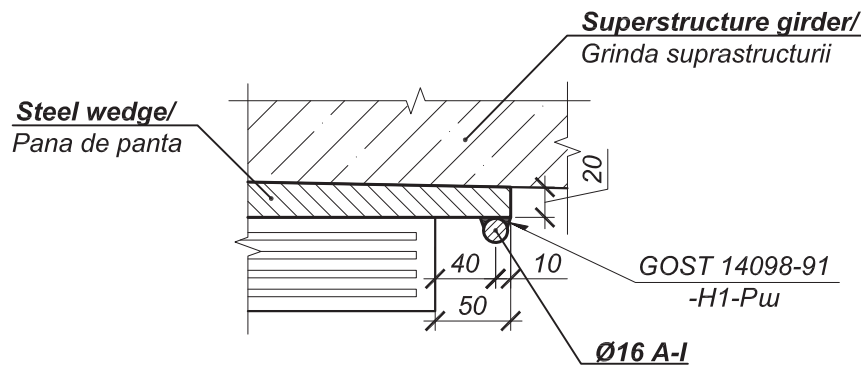
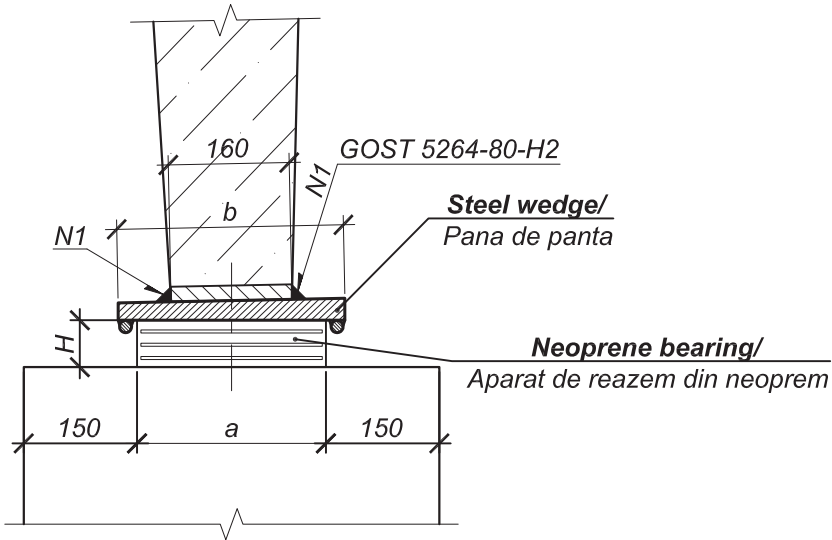
**All Dimensions are in cm unless noted otherwise/  
Toate dimensiunile sunt date in cm.**

*Nr. inv. orig.*

[illegible]

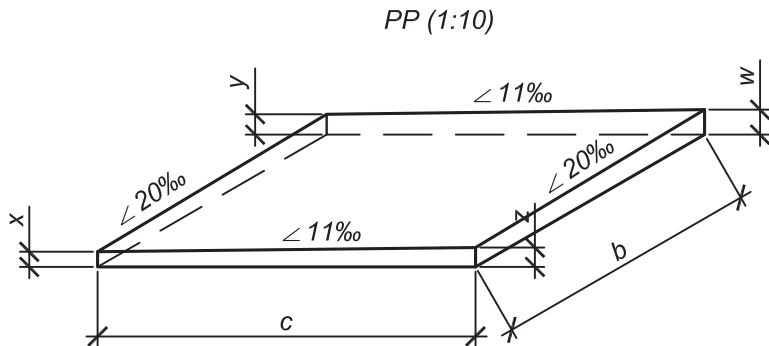


**Girder bearing detail/**  
Detaliu de rezemare a grinzii (1:5)



**Quantities/**  
Specificatie

Position/ Pozitia	Reference/ Indicativ	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		PP - 1/PP - 4	12/2	52.02	
		Ø16 A I L=500, GOST 5781 - 82*	2/2	0.80	
		Ø16 A I L=300, GOST 5781 - 82*	2/2	0.48	
		-36x500, L=350 GOST 82-70*	1/1	49.46	
		PP - 2/PP - 3	24/4	31.57	
		Ø16 A I L=350, GOST 5781 - 82*	2/2	0.55	
		Ø16 A I L=250, GOST 5781 - 82*	2/2	0.40	
		-36x300, L=350, GOST 82-70*	1/1	29.67	



	H	a	b	c	x	y	z	w
PP - 1	78	250	350	500	20	27	26	33
PP - 2	62	200	300	350	20	26	24	30
PP - 3	62	200	300	350	20	20	24	24
PP - 4	78	250	350	500	20	20	26	26

**Note/Nota:**  
**1. Steel wedges PP-1 and PP-4 are for Abutment no.1 and no.4 respectively.**  
Penele de panta PP-1 si PP-4 sunt pentru Culeea nr.1 si nr.4 respectiv.  
**2. Steel wedges PP-2 and PP-3 are for Pier no.2 and no.3 respectively.**  
Penele de panta PP-2 si PP-3 sunt pentru Pila nr.2 si nr.3 respectiv.  
**3. All Dimensions are in mm unless noted otherwise/**  
Toate dimensiunile sunt date in mm.

Nr. inv. orig.

Semnat la data

Schimb. nr. inv.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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Aprobat/Approved  
Data/Date

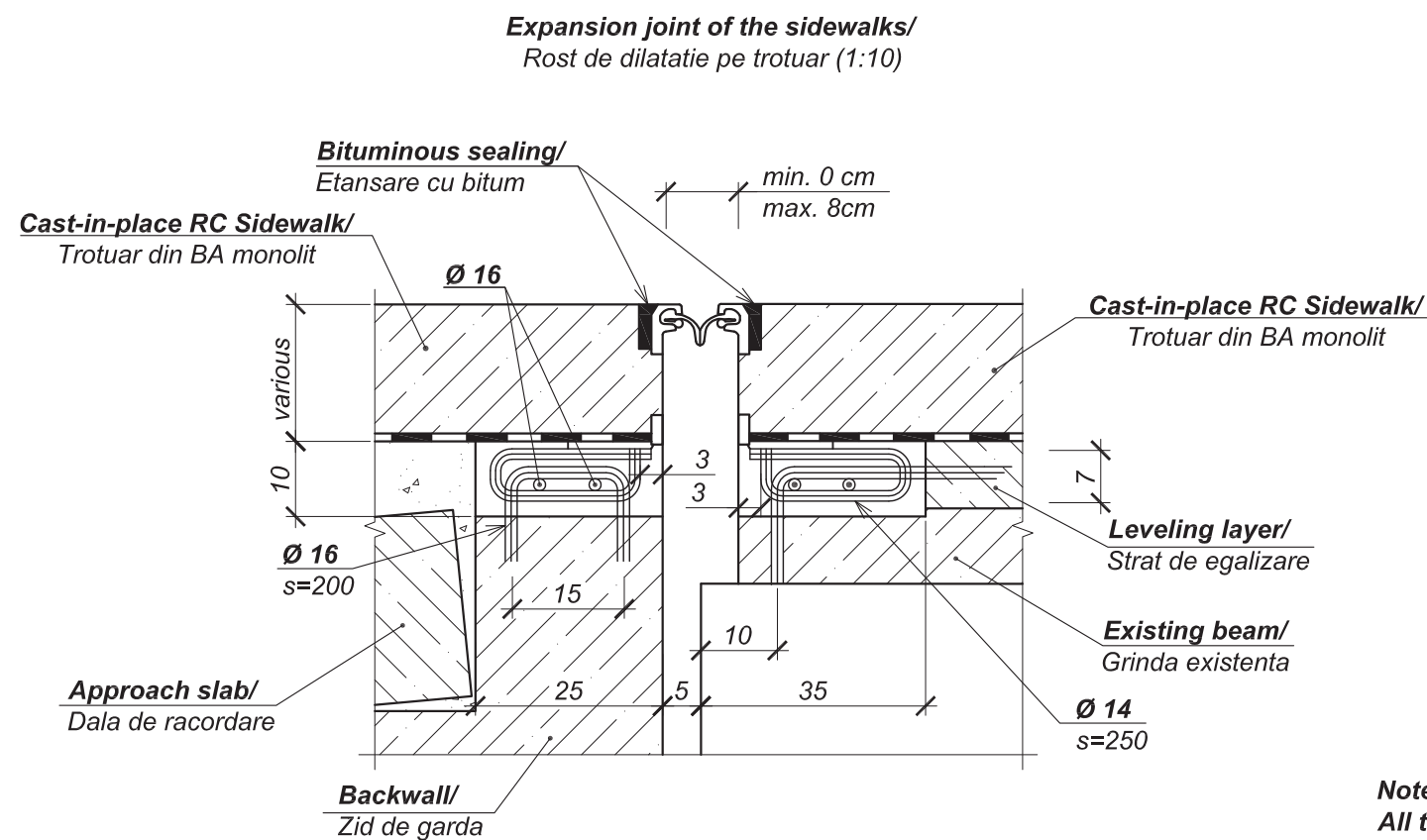
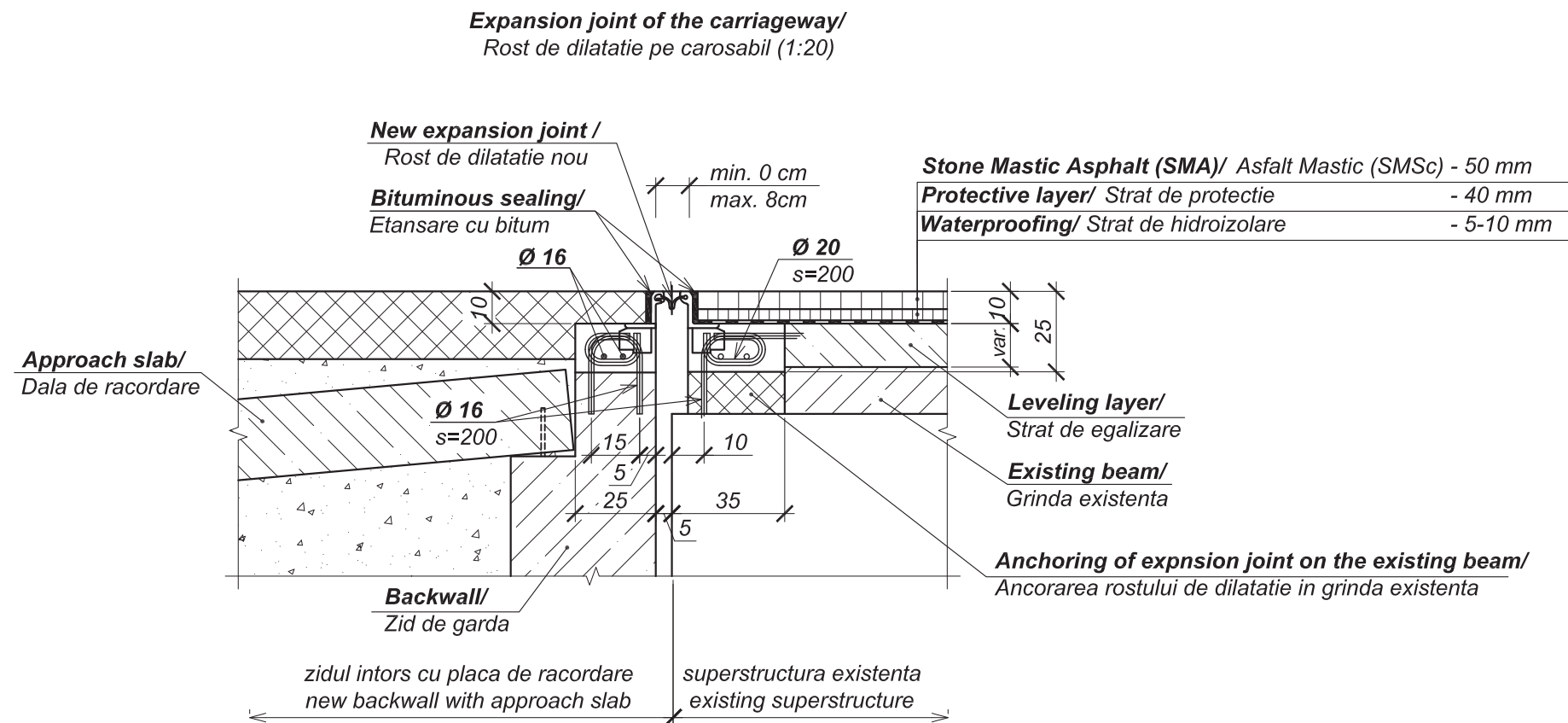
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

A3  
A3

Road Sector. Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border
Denumirea desenului/ Drawing name	Pod km 151+251. Detaliu de rezemare a grinzii Bridge km 151+251. Girder bearing detail
Coala Nr./Sheet No.	BD 08
Coli / Sheets	BD 13



**Note/Nota:**  
All the dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date în cm.

Nr. inv. orig.

Schimb. nr. inv.

Semnăt la data

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name

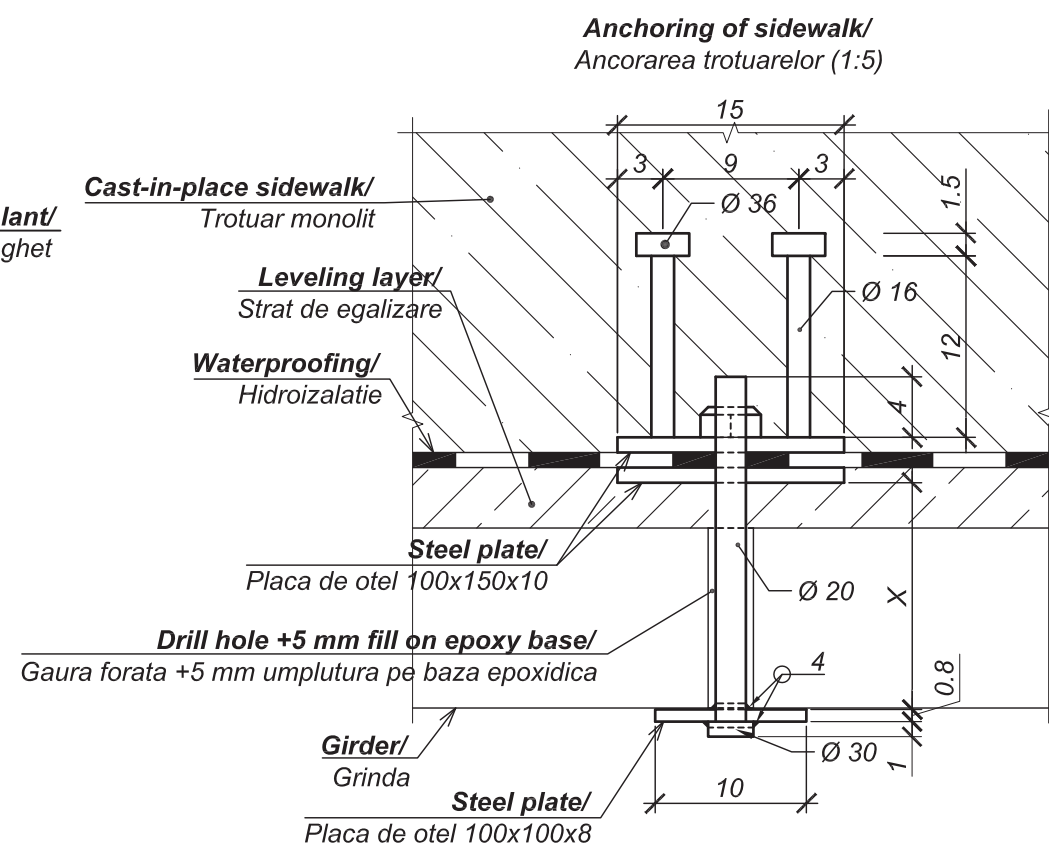
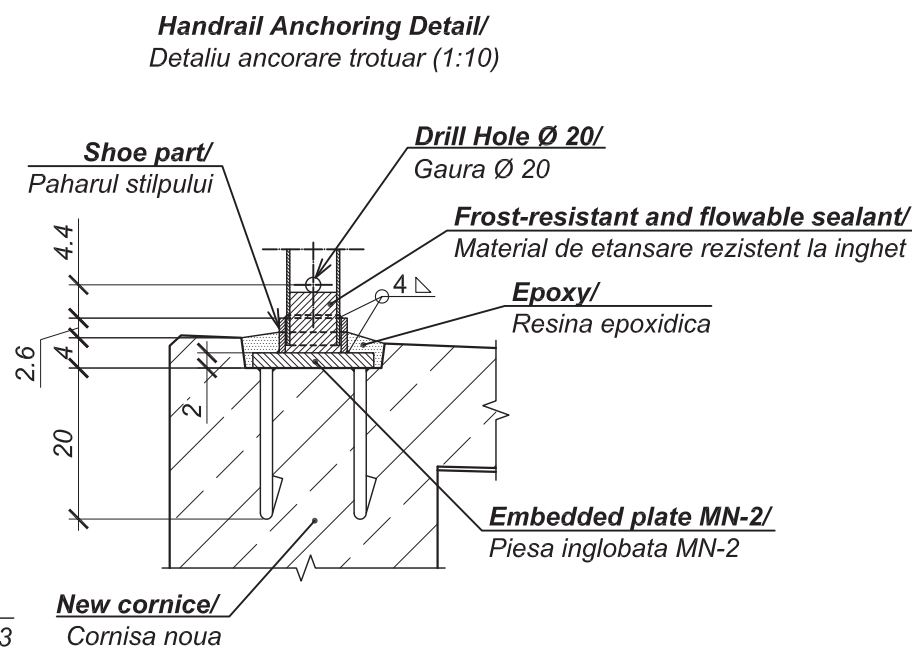
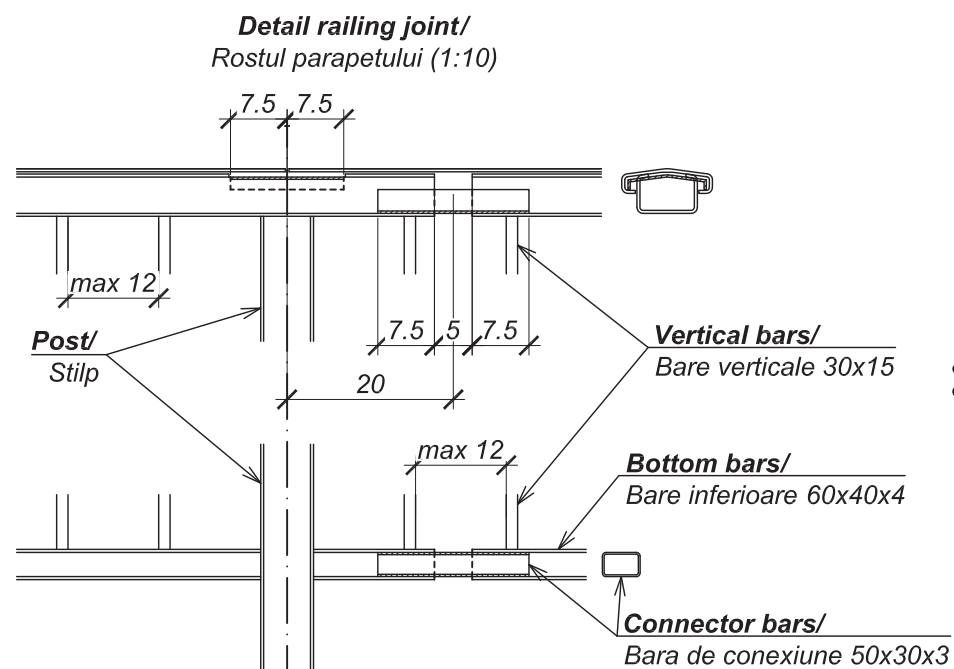
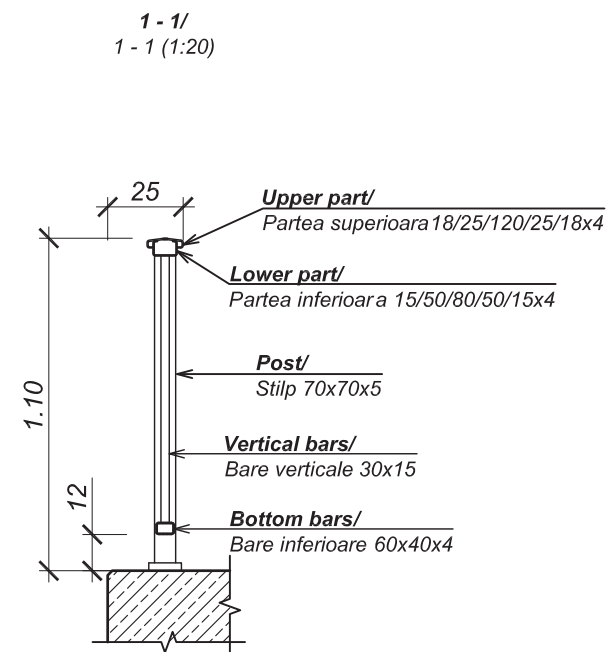
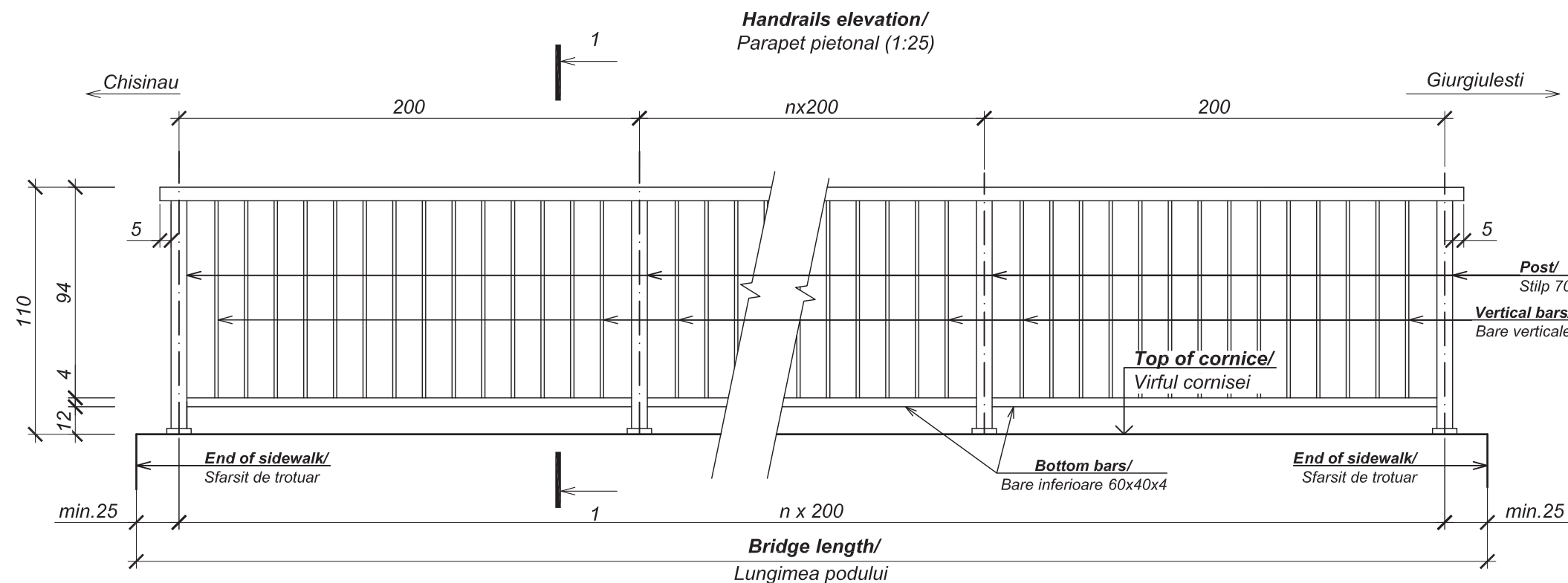
Denumirea desenului/  
Drawing name

Coala Nr./Sheet No.

Coli / Sheets

BD 09

BD 13



**Note/ Nota:**




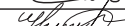
- All elements of handrail are to be hot dip galvanized/**  
Toate elementele parapetului pietonal vor fi galvanizate la cald.
- Welded parts are to be painted with zinc painted/**  
Elementele de sudura trebuie vopsite cu vopsea zincanta.
- Apply two coats of paints on handrails:**
  - prime coat (0.1-0.15 l/m')
  - final coat (0.15-0.20 l/m')

Vopseaua se va aplica in doua straturi:

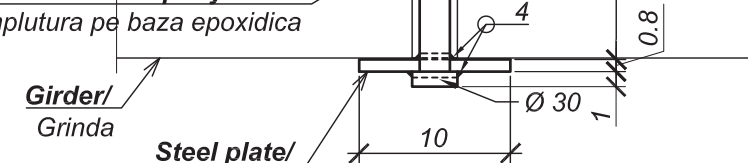
  - strat de baza (0.1-0.15 l/m)
  - strat superior (0.15-0.20 l/m)

**Note/Nota:**

**All Dimensions are in cm unless noted otherwise/**  
Toate dimensiunile sunt date in cm.

Schimb. nr. inv.	<p><b>Note/ Nota:</b></p> <p><b>1. All elements of handrail are to be hot dip galvanized/</b> Toate elementele parapetului pietonal vor fi galvanizate la cald.</p> <p><b>2. Welded parts are to be painted with zine painted/</b> Elementele de sudura trebuie vopsite cu vopsea zincanta.</p> <p><b>3. Apply two coats of paints on handrials:</b></p> <ul style="list-style-type: none"><li>- prime coat (0.1-0.15 l/m')</li><li>- final coat (0.15-0.20 l/m')</li></ul> <p>Vopseaua se va aplica in doua straturi:</p> <ul style="list-style-type: none"><li>- strat de baza (0.1-0.15 l/m)</li><li>- strat superior (0.15-0.20 l/m)</li></ul>																		
	Semnat la data																		
Nr. inv. orig.										Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata		
	Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V. 	Desenat/Drawn				Serdiuc V. 	Marimea originala a desenului A3 Original Drawing Size A3	Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I Road name M3 Chisinau - Giurgiulesti/ Romanian border				Denumirea desenului/ Pod km 151+251. Parapet pietonal Drawing name Bridge km 151+251. Handrail
								Verificat/Checked	Ghimpu A. 	Data/Date	06.2011			Coala Nr./Sheet No.	BD 10	Coli / Sheets	BD 13		

Gaura forata +5 mm umplutura pe baza epoxidica



**Girder/**  
Grinda

**Steel plate/**  
Placa de otel 100x100x8

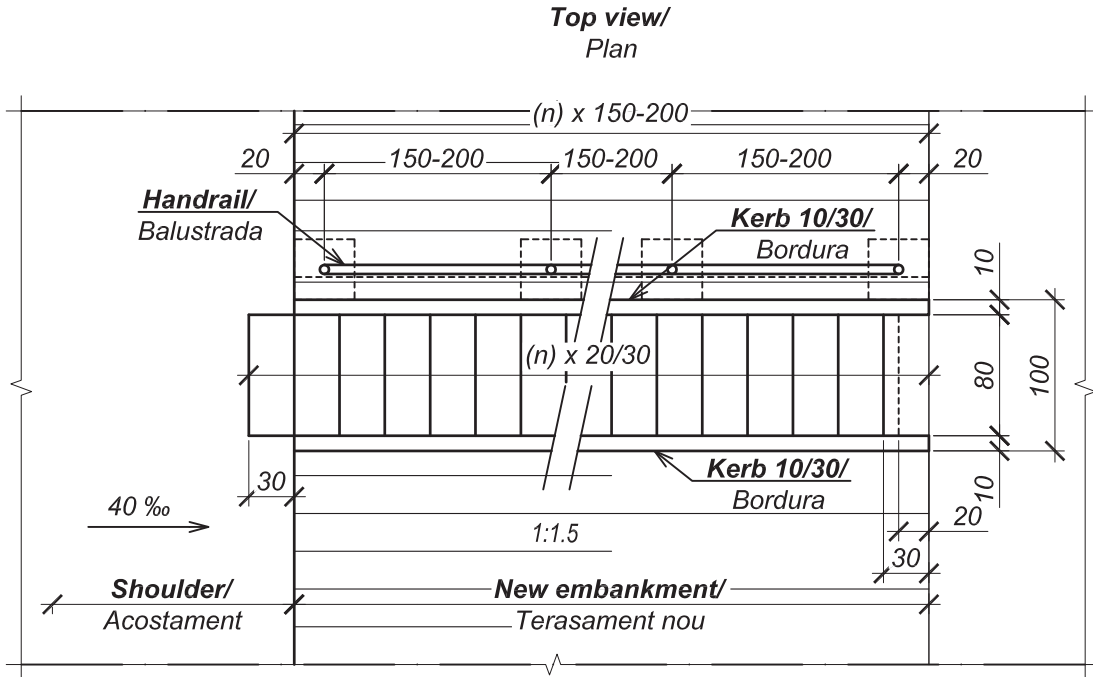
**Note/ Nota:**

**All Dimensions are in cm unless noted otherwise/**

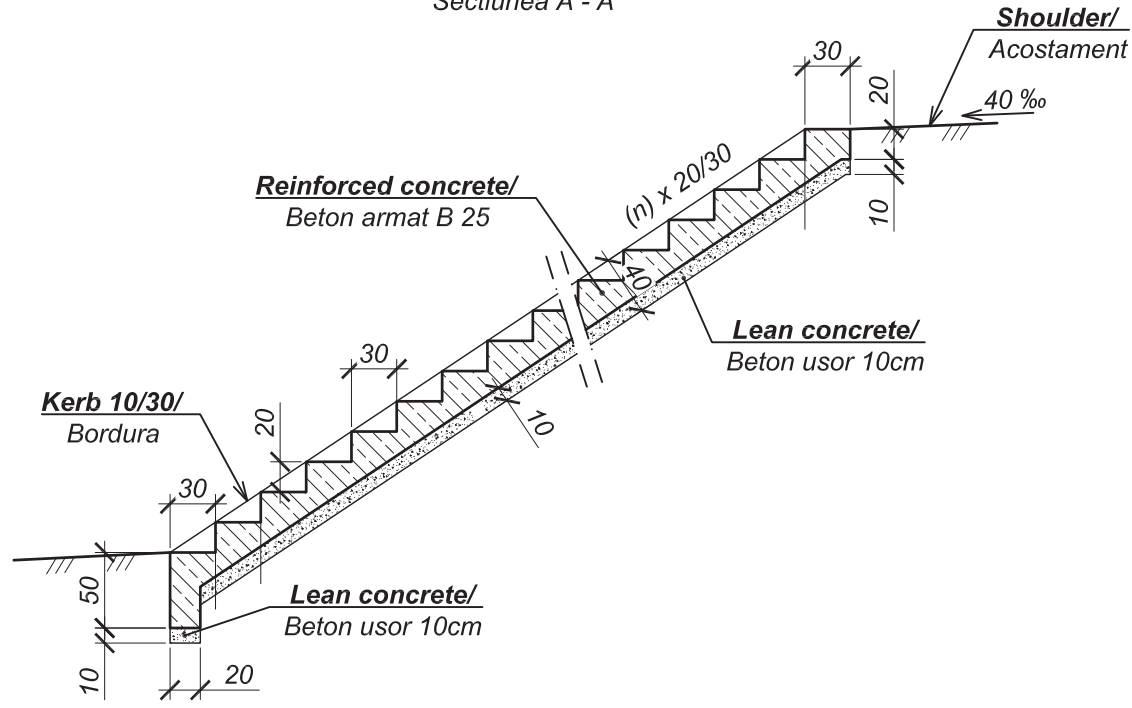
Toate dimensiunile sunt date in cm.



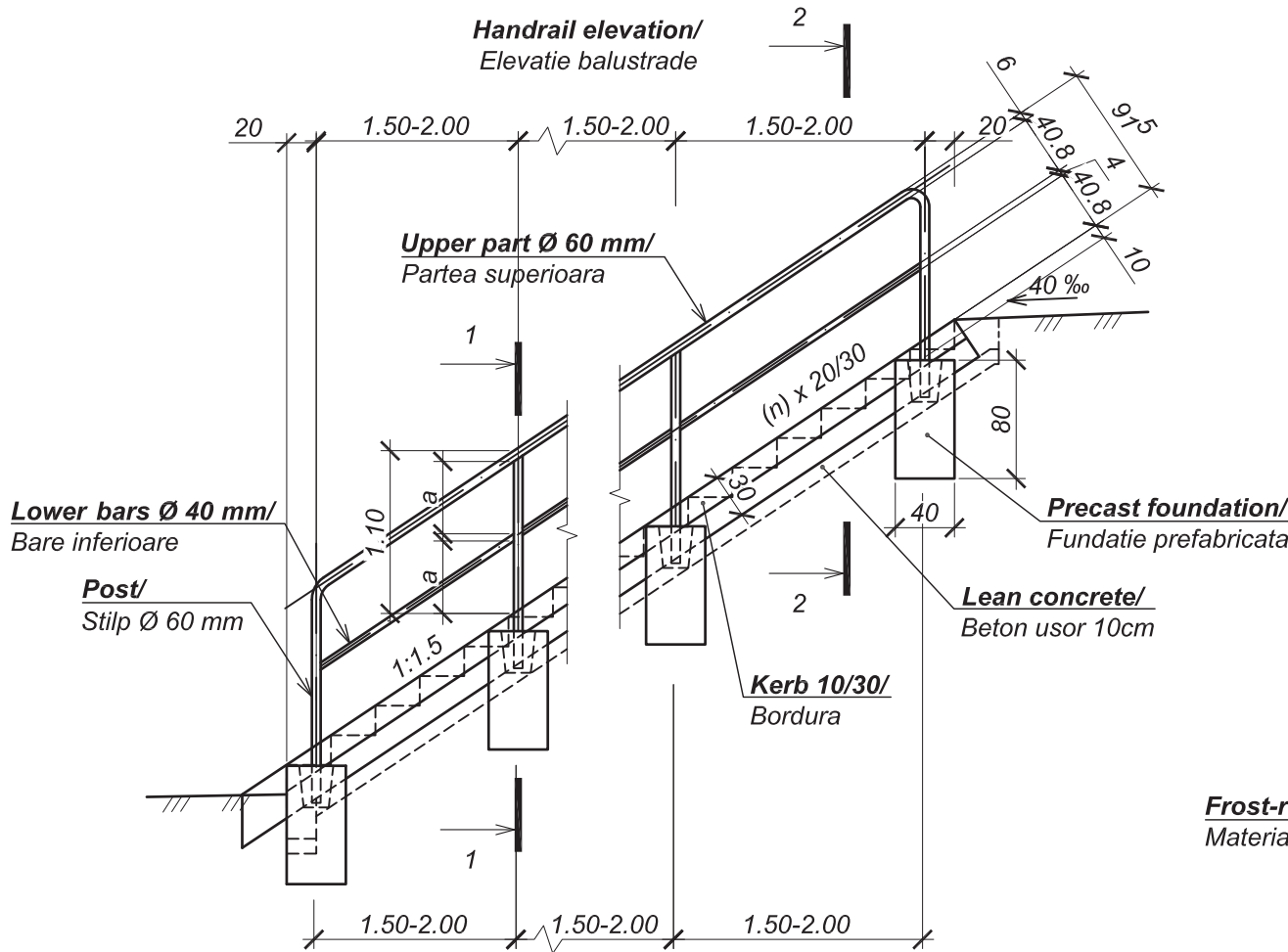
**Slope stairs/**  
*Scari pe taluz (1:50)*



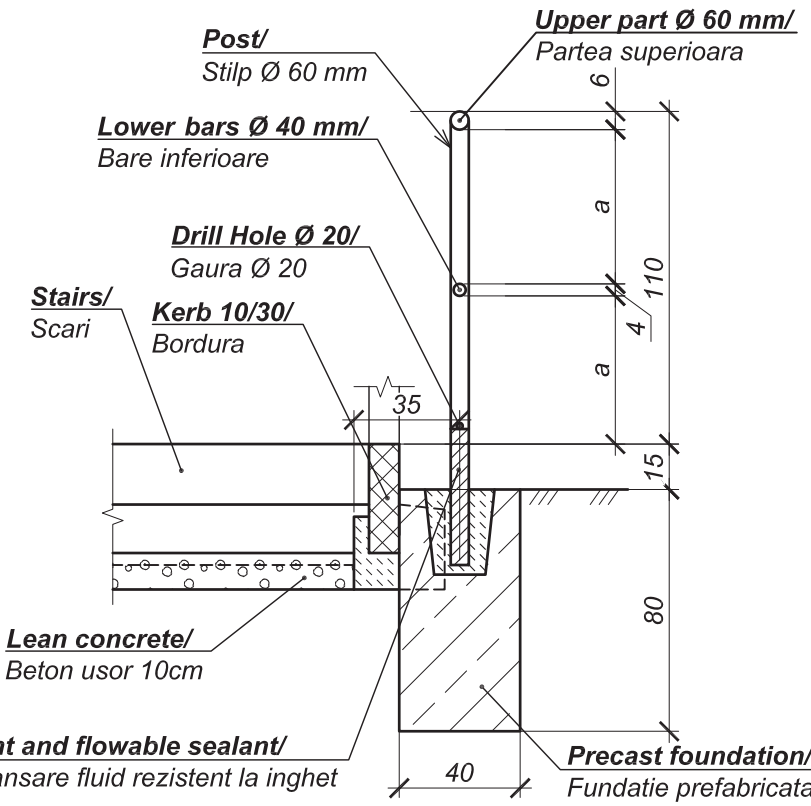
**Section A - A/**  
**Secțiunea A - A**



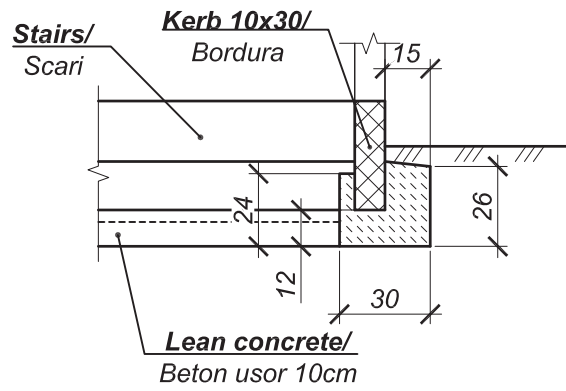
**Handrail elevation**  
*Elevatie balustrade*



**Section 1 - 1/**  
Sectiune 1 - 1 (1:25)







**Section 2 - 2/**  
**Sectiune 2 - 2 (1:25)**



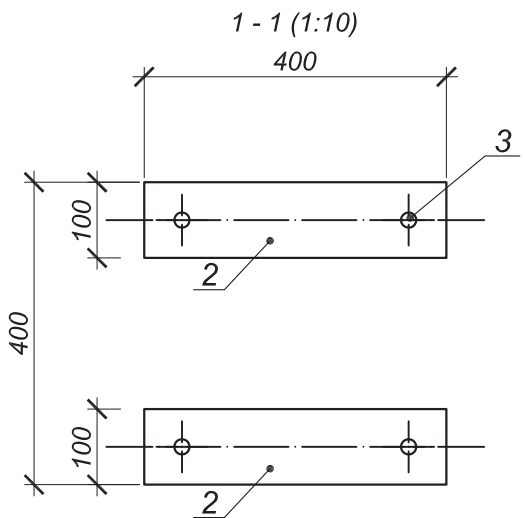
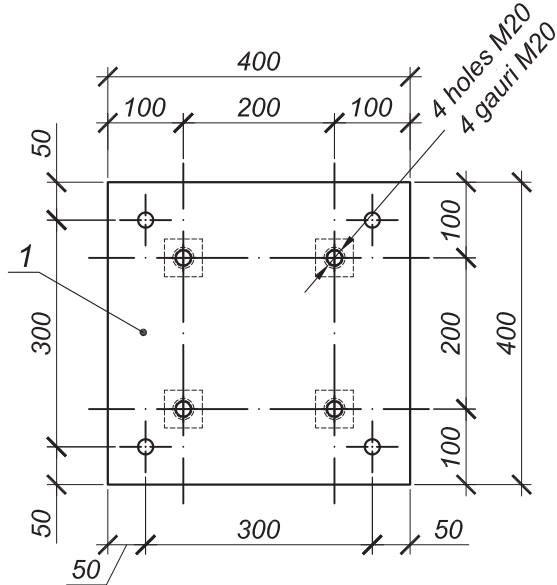
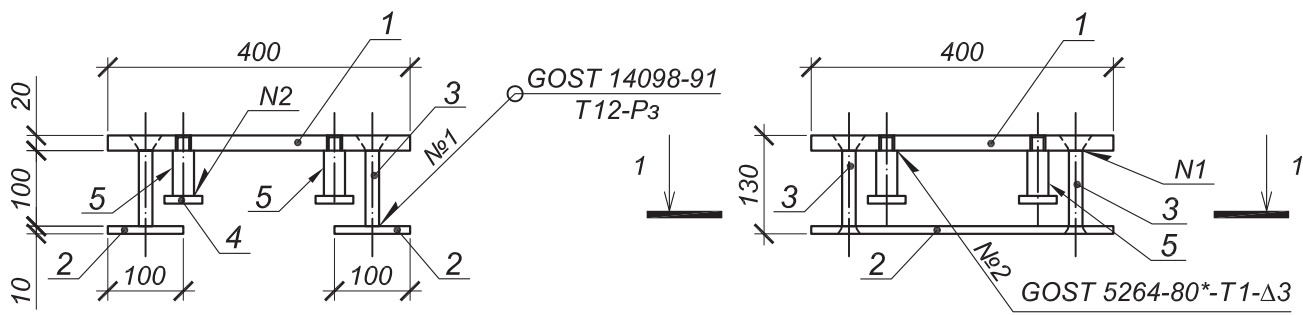
Schimb. nr. inv.

Semnat la data

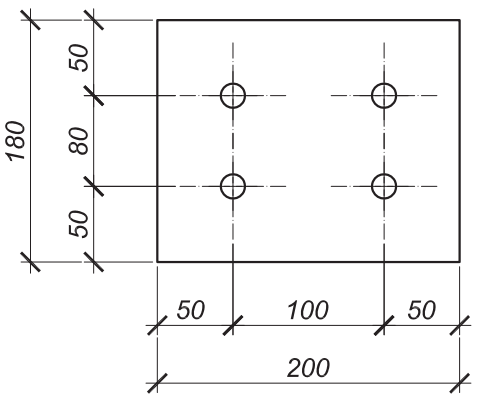
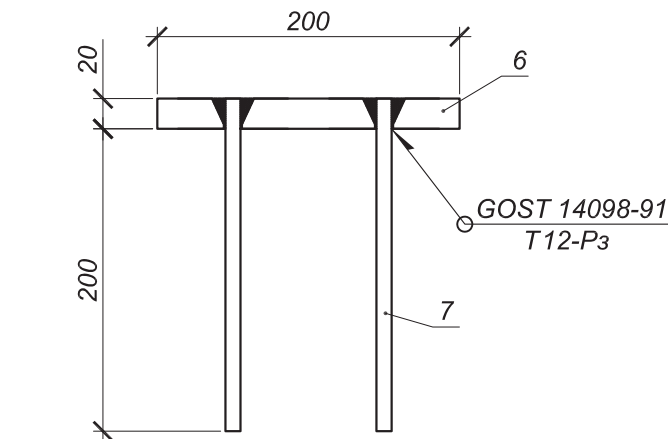
*Nr. inv. orig.*

									Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata				
												Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border							
												Denumirea desenului/ Drawing name	Pod km 151+251. Scari pe taluz Bridge km 151+251. Slope stairs							
												Marimea originala a desenului Original Drawing Size	A3 A3							
Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 											
						Verificat/Checked	Ghimpu A. 	Data/Date	06.2011											
														</						

Embedded base plate/  
Piesa inglobata MN-1 (1:10)



Embedded base plate/  
Piesa inglobata MN-2 (1:5)



Quantities for embedded plate MN-1, MN-2/  
Specificatie pentru piesa inglobata MN-1, MN-2

Position/ Pozitia	Reference/ Indicativ	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		Embedded base plate/ Piese inglobata MN-1		33.45	
1		- 20x400 L=400, GOST 82-70*	1	25.12	
2		- 10x100 L=400, GOST 103-2006	2	3.14	
3		Ø16 A III L=130, GOST 5781-82*	4	0.21	
4		- 10x50 L=50, GOST 103-2006	4	0.2	
5		O 28x2.5, L = 60, GOST 8732 - 78*	4	0.1	

Quantities for embedded plates MN-1; MN-2 (continued)/  
Specificatie pentru piesele inglobate MN-1; MN-2 (continuare)

Position/ Pozitia	Reference/ Indicativ	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		Embedded base plate MN-2/ Piese inglobata MN-2		7.1	
6		-20x180, L=200, GOST 103-2006	1	5.65	
7		Ø16 A III L=220, GOST 5781-82*	4	0.35	


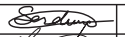
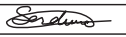
Note:/ Nota:  
All dimensions are in mm unless noted otherwise/ Toate dimensiunile sunt date in mm.

Schimb. nr. inv.

Semnata la data

Nr. inv. orig.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Coala Nr./Sheet No.	BD 12	Coli / Sheets	BD 13
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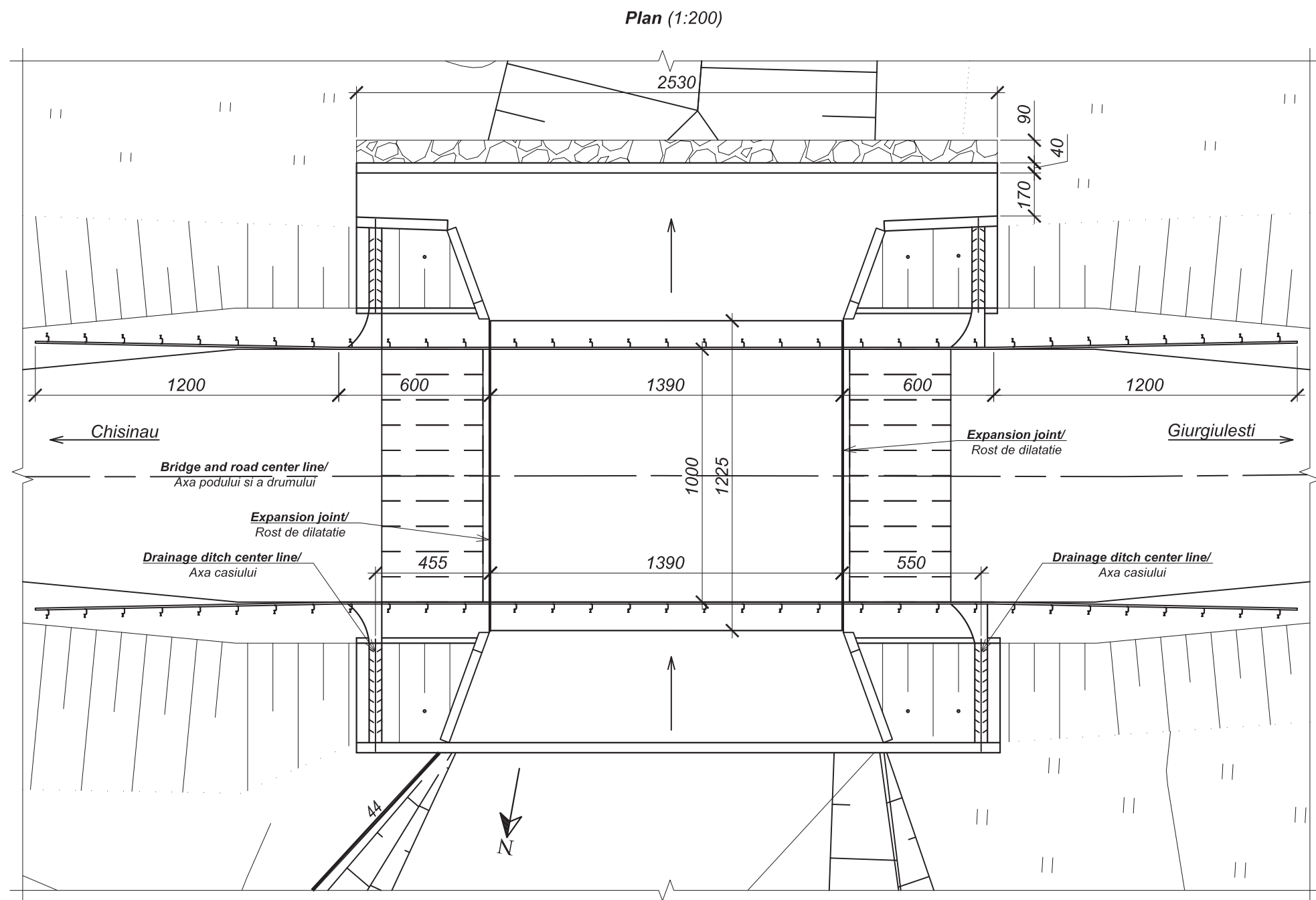
		Quantities of main works for the bridge construction/ Volumele de baza pentru constructia podului										Quantities of main works for the bridge construction (continued) / Volumele de baza pentru constructia podului (continuare)													
		Structural parts/ Element a structurii	Item No./ Pozitia Nr.	Description/ Element ce include						Unit/ Unitate de masura	Quantity/ Cantitate			Structural parts/ Element a structurii	Item No./ Pozitia Nr.	Description/ Element ce include						Unit/ Unitate de masura	Quantity/ Cantitate		
		Demolition/ Demolarea	1	Demolition of stone mansory/ Demolarea elementelor din zidarie din piatra						m³	1450				30	Anchors of sidewalks/ Ancorarele trotuarelor monolite						unit.	216		
		Earthworks/ Lucrari de terasament	2	Excavation works for foundations/ Lucrari de excavare pentru fundatii						m³	950					31	Water outlets of cast-iron on bridge deck/ Guri de scurgere din fonta pe tablierul podului						unit.	12	
			3	Backfill of excavated foundation/ Astuparea gropilor excavate pentru fundatie						m³	690						32	Galvanised sheet water pipes/ Tevile de evacuare a apelor din tabla zincata						m	160
			4	Forming of embankment and slopes at the abutment area/ Rambleierea in spatele culeei si formarea taluzurilor						m³	900			Miscellaneous/ Diverse	33			Concrete surfaces sealing and painting/ Hidrofobizarea si vopsirea suprafetelor de beton						m²	2480
			5	Dike rehabilitation/ Reabilitarea barajului						m³	475					34		Reinforced concrete stairs on the slopes/ Scari din beton armat pe racordare						m	14
		Foundation, Piles/ Fundatii, Piloti	6	Precast reinforced concrete piles, C10-35T3/ Piloti din beton armat prefabricat, C10-35T3						m³	28.2						35	Rip-Rap for embankment protection/ Saltea din piatra bruta pentru protectia rambleului						m³	628
			7	Precast reinforced concrete piles, C9-35T3/ Piloti din beton armat prefabricat, C9-35T3						m³	51.8							36	Crushed stone for approach and for slope protection/ Piatra sparta pentru racordare si consolidarea taluzurilor						m³
			8	Precast reinforced concrete piles, C7-35T3/ Piloti din beton armat prefabricat, C7-35T3						m³	20.6			37	PVC pipes Ø60 for cables/ Teava din PVC Ø60 pentru comunicatii						m	109			
			9	Strip concrete foundation of slope protection/ Fundatia din beton a consolidarii taluzurilor						m³	21.3														
		Concrete and RC/ Beton si BA	10	Cast-in-place RC sidewalk and cornice/ Trotuar si cornisa din beton armat monolit						m³	34.6														
			11	Leveling concrete layer/ Stratul de egalizare						m³	23.4														
			12	Cast-in-place reinforced concrete for superstructure connection/ Beton armat monolit pentru monolitizarea suprastructurii						m³	40.9														
			13	Cast-in-place reinforced concrete for new caps, back- and wingwalls/ Beton armat monolit pentru rigle, ziduri de garda si intoarse noi						m³	24.7														
			14	Cast-in-place pile cap/ Radier din BA monolit						m³	256														
			15	Cast-in-place RC slope and channel protection/ Consolidarea albiei si a taluzurilor						m³	58.5														
			16	Superstructure precast beams/ Grinzi prefabricate a suprastructurii						m³	163.8														
			17	Precast reinforced concrete pier/ Rigle prefabricate din beton armat						m³	109.2														
			18	Precast reinforced concrete columns for pier and abutment/ Coloane prefabricate din beton armat pentru pile si culei						m³	43.5														
			19	Precast reinforced concrete back walls and wing walls/ Ziduri de garda si intoarse prefabricate din beton armat						m³	16.1														
		20	Precast reinforced concrete approach slabs/ Dale de racordare prefabricate din beton armat						m³	17.6															
		Sealing and Pavement/ Hidroizolatie si Imbracamintea	21	Waterproof sealing/ Membrana hidroizolanta						m²	789														
			22	Protection layer of asphalt mastic, 4 cm/ Strat de protectie din asfalt turnat pe baza de mastic						m²	624														
			23	Cover layer of SMA, 5 cm/ Strat de uzura din SMSc, 5 cm						m²	425														
			24	Bituminous coat on concrete surfaces with earth contact/ Hidroizolarea cu bitum a suprafetelor ce contacteaza cu pamintul						m²	150														
		Bridge Equipment/ Echipamentul podului	25	Steel guard rail/ Parapet de siguranta din otel						m	180.2														
			26	Steel handrail/ Parapet pietonal din otel						m	131														
			27	Expansion joint/ Rost de dilataie						m	26														
			28	Elastomer bearings/ Aparate de reazem din neopren						unit.	42														
			29	Steel wedges/ Pene de panta din otel						unit.	42														
Nr. inv. orig.												Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata						
						Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Proiectat/Designed				Serdiuc V. 	Desenat/Drawn	Serdiuc V. 	Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border		Denumirea desenului/ Drawing name		Pod km 151+251. Ordinea efectuarii lucrarilor si volumele de baza Bridge km 151+251. Construction sequence and quantities of main works	
															Marimea originala a desenului Original Drawing Size	A3	A3	Coala Nr./Sheet No.	BD 13	Coli / Sheets	BD 13				



<b>Index of drawings for bridge, km 170+458/</b> <i>Borderou de desene pentru podul, km 170+458</i>		
<b>Sheet No/</b> <i>Coala Nr.</i>	<b>Name/</b> <i>Denumirea</i>	<b>Note/</b> <i>Nota</i>
BD 01	<b>Index of drawings/</b> <i>Borderou de desene</i>	
BD 02	<b>General arrangement/</b> <i>Dispozitia generala</i>	
BD 03	<b>Cross section/</b> <i>Sectiunea transversala</i>	
BD 04	<b>Bridge approach/</b> <i>Racordarea podului cu terasament</i>	
BD 05	<b>Expansion joint/</b> <i>Rost de dilatatie</i>	
BD 06	<b>Embedded elements/</b> <i>Piese inglobate</i>	
BD 07	<b>Construction sequence and quantities of main work/</b> <i>Ordinea efectuarii lucrarilor si volume de baza</i>	
BD 08	<b>Pictures/</b> <i>Vederi</i>	
BD 09	<b>Existing bridge/</b> <i>Pod existent</i>	

Nr. inv. orig.	Semnăt la data	Schimb. nr. inv.

[illegible]



**Hydrological and hydraulics characteristics/**  
Tabelul cu caracteristice hidrologice si hidraulice

Design water flow/ Debitul de calcul $Q_{2\%}$ , $m^3/s$	Design flood level DFL 2%, m/ Nivelul apelor extraordinare NAE 2%, m	Flow velocity/ Viteza de calcul V, m/s
22.3	45.24	2.93

**Note/Nota:**  
**All dimensions are in cm unless noted otherwise/**  
**Toate dimensiunile sunt date in cm.**

Nr. inv. orig.

Semnlat la data

Schimb. nr. inv.

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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Aprobat/Approved  
Data/Date

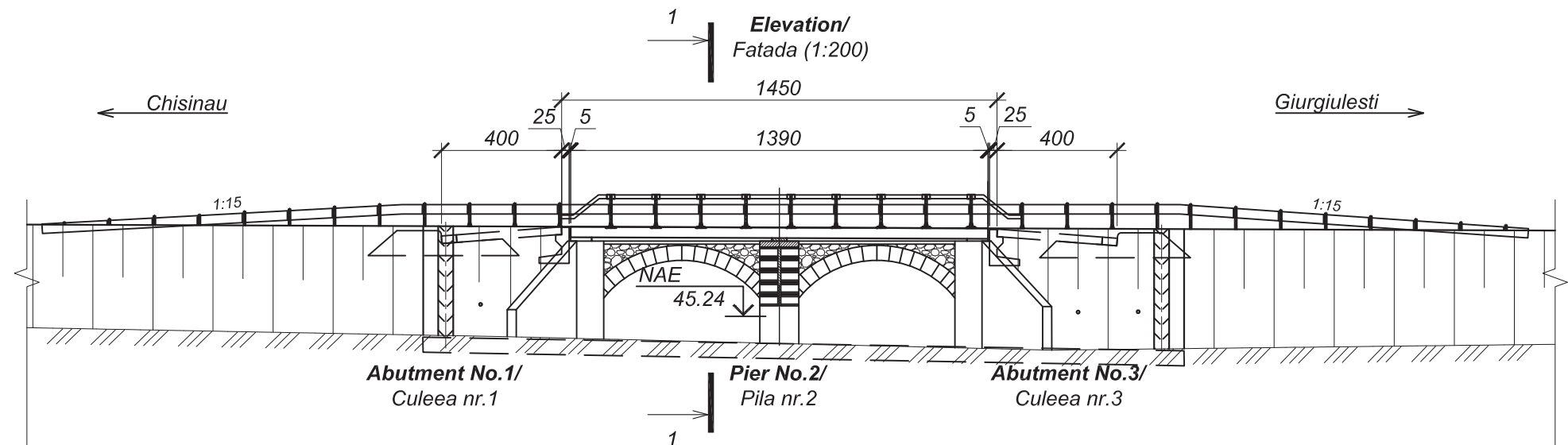
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului  
Original Drawing Size

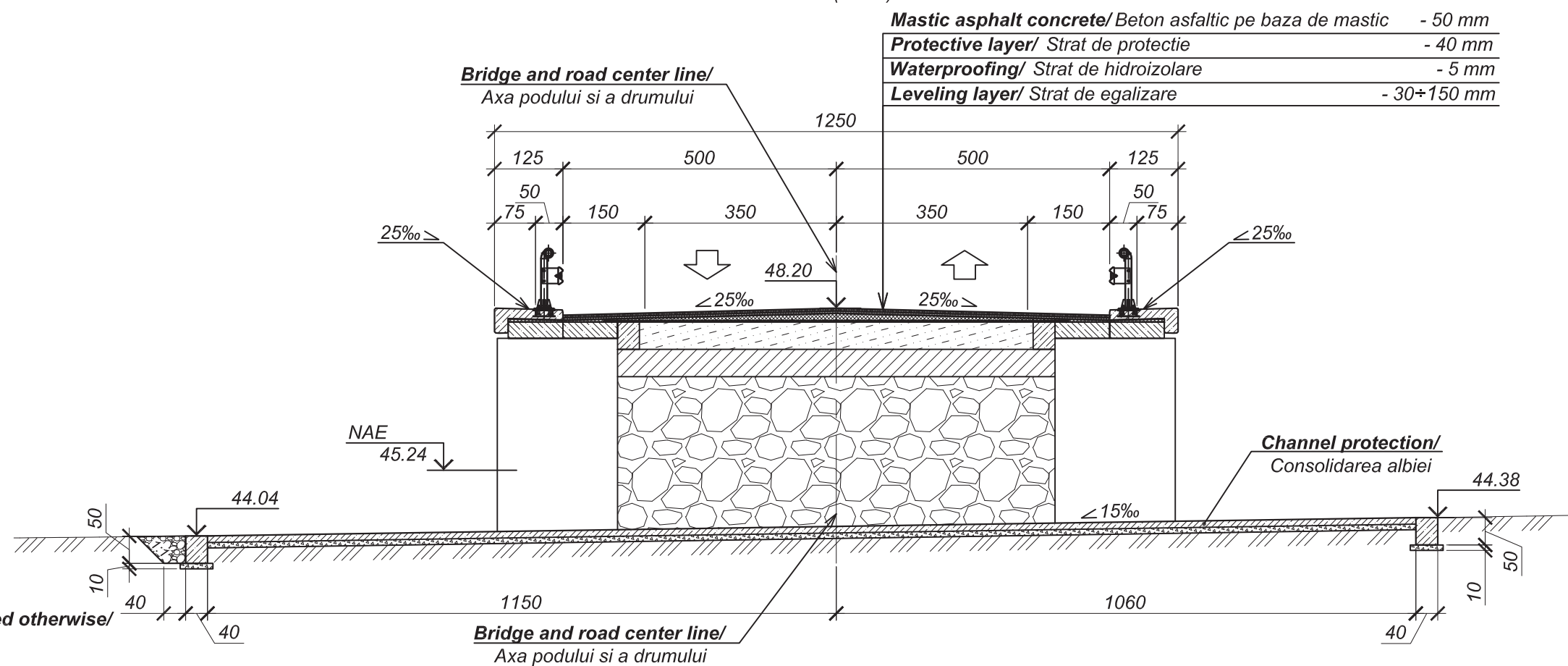
A3  
A3

Road Sector: Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata
Denumirea drumului/ Road name	M3 Chisinau - Giurgiuilesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiuilesti/ Romanian border
Denumirea desenului/ Drawing name	Pod km 170+458. Dispozitia generala Bridge km 170+458. General arrangement
Coala Nr./Sheet No.	BD 02-1
Coli / Sheets	BD 09



Design data/ Date proiect	Gradient,‰, vertical radius, m/ Declivitate,‰, curba verticala, m	4 14.5 4		
	Finished carriageway level, m/ Cota in axa, m	48.23 48.20 48.17		
Terrain data/ Date teren	Ground level, m/ Cota teren, m	44.52 44.34 44.21		
	Distance, m/ Distanța, m	7.25 7.25		
	Station/ Pichet, km	170+458		

1 - 1 (1:100)



**Note/Nota:**  
All dimensions are in cm unless noted otherwise/  
Toate dimensiunile sunt date in cm.

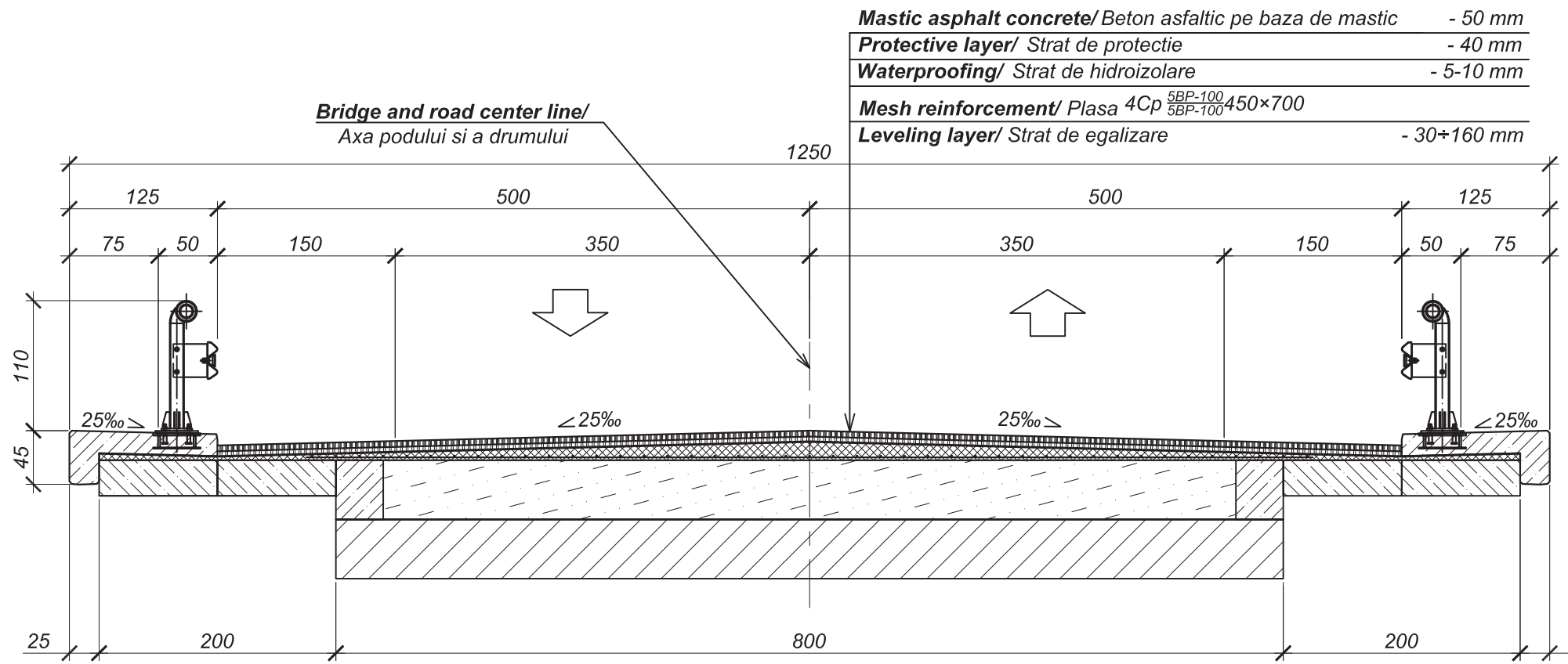
Nr. inv. orig.	Schimb. nr. inv.	Semnat la data

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Date/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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Aprobat/Approved Date/Date	Republic of Moldova Ministry of Transport	Road Sector. Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata
Marimea originala a desenului Original Drawing Size	A3 A3	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border
		Denumirea desenului/ Drawing name	Pod km 170+458. Dispozitia generala Bridge km 170+458. General arrangement
		Coala Nr./Sheet No.	BD 02-2
		Coli / Sheets	BD 09

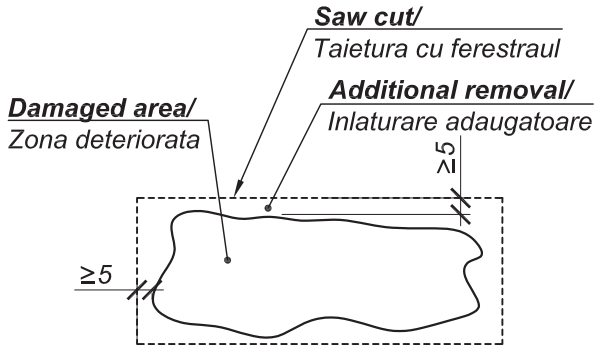
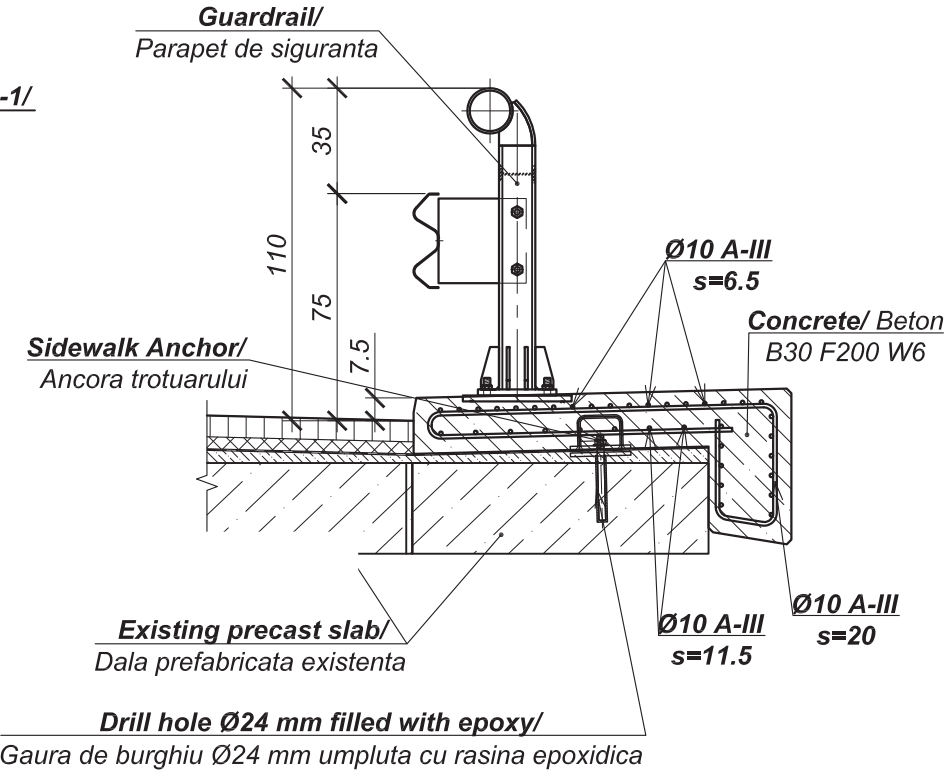


Superstructure cross section/  
Sectiunea transversala a suprastructurii (1:50)

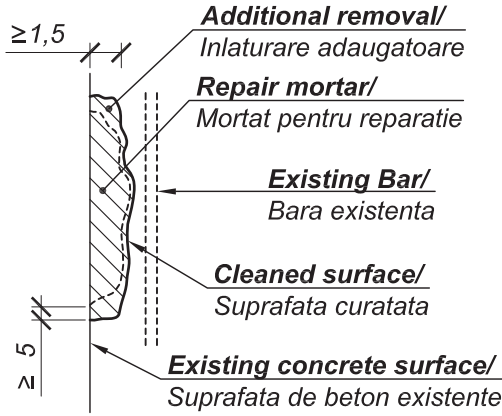


Repair of concrete surfaces/  
Reparatia suprafetelor de beton

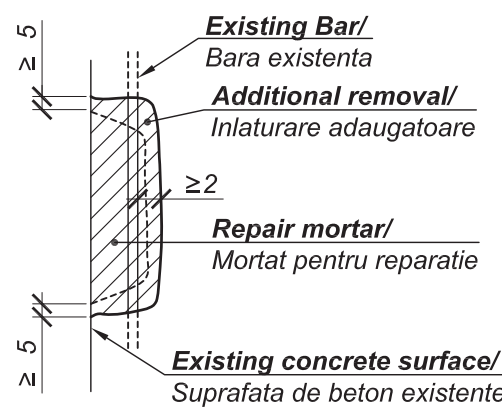
Cast-in-place cornice detail/  
Detaliu cornisa monolita (1:25)



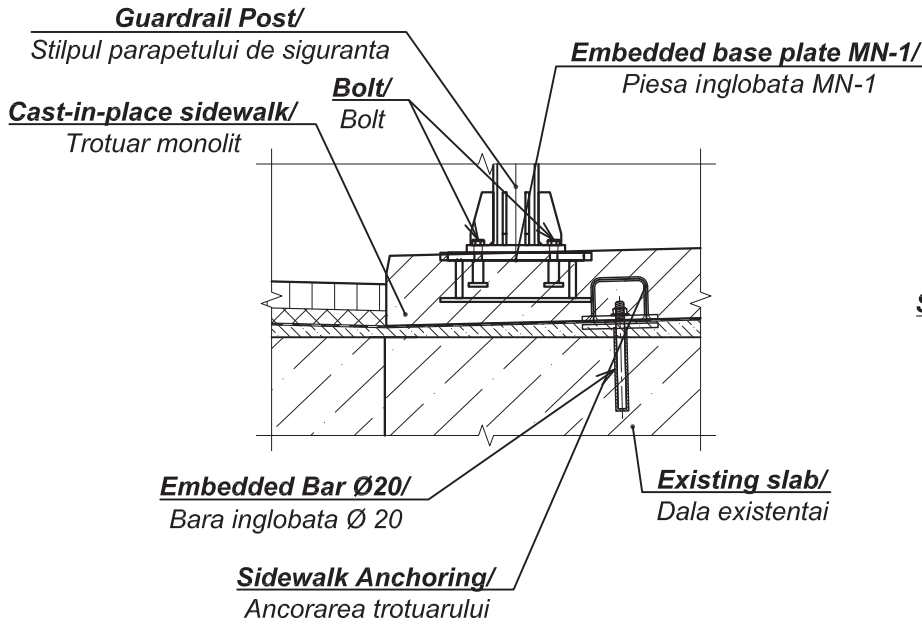
ALTERNATIVE A:  
ALTERNATIVA A:



ALTERNATIVE B:  
ALTERNATIVA B:



Anchoring the guardrail on the bridge/  
Prinderea parapetului de siguranta (1:20)



Note/Nota:  
All dimensions are in cm unless noted otherwise/  
Toate dimensiunile sunt date in cm.

Schimb. nr. inv.

Semnata la data

Nr. inv. orig.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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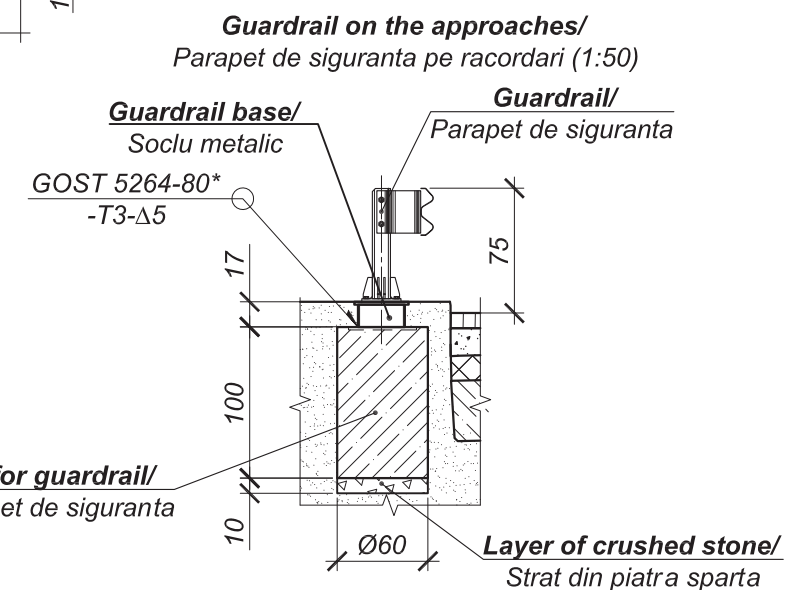
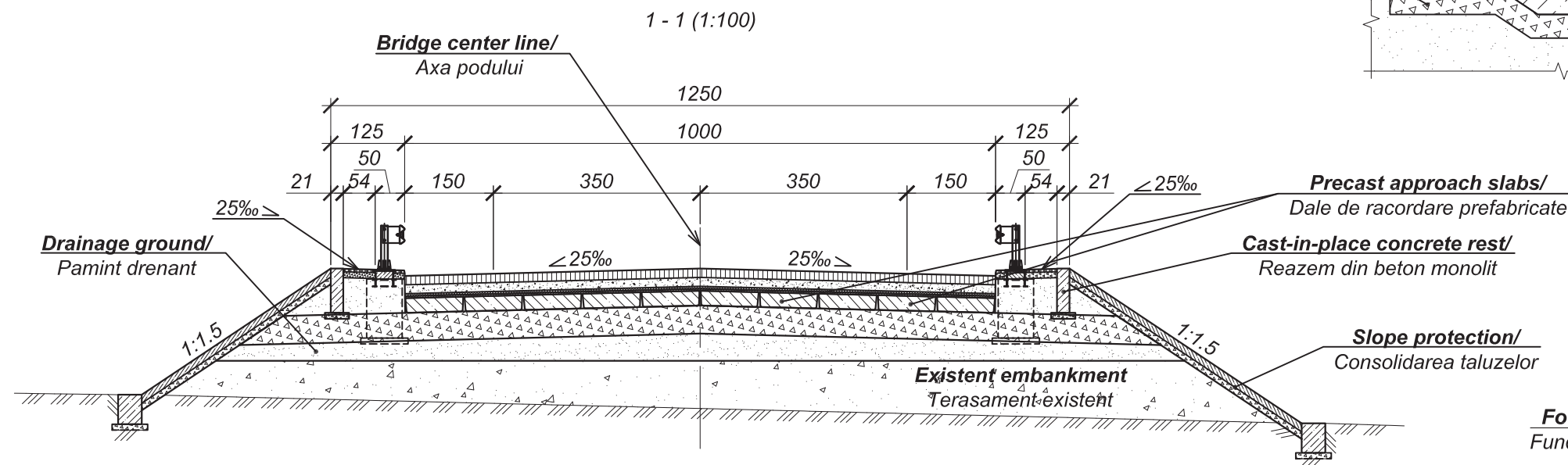
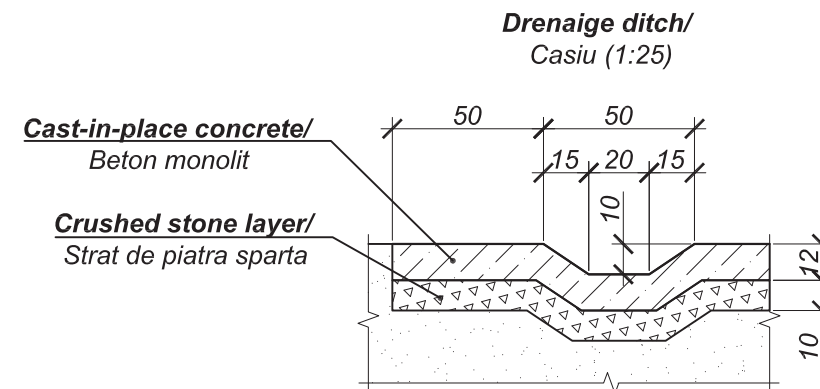
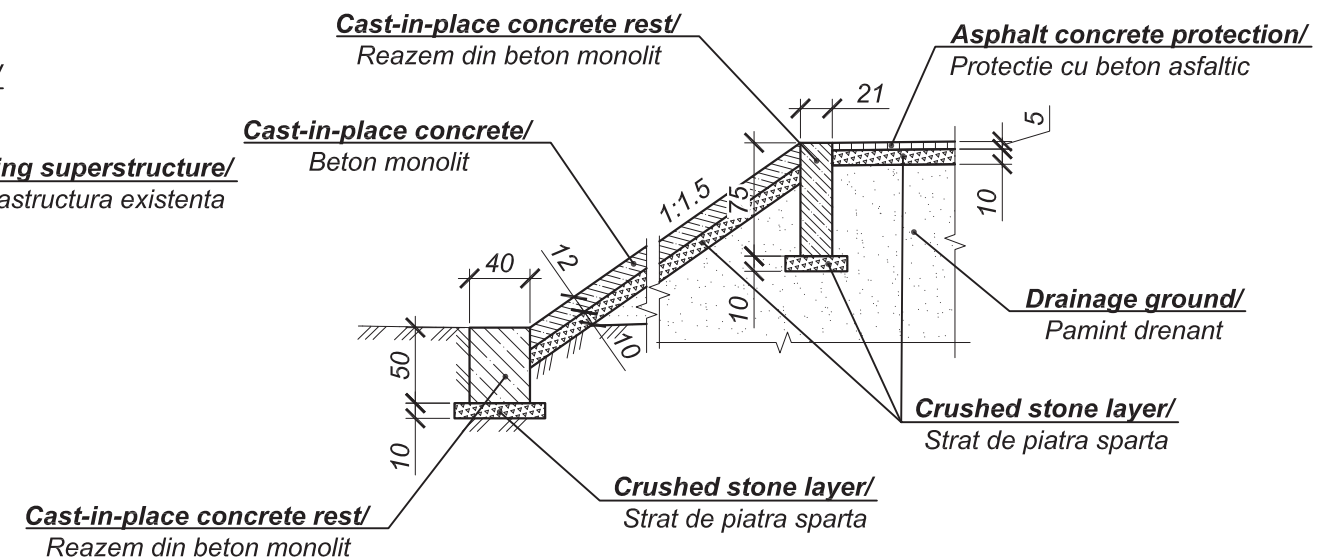
Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector: Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT I	
Denumirea desenului/ Drawing name	Pod km 170+458. Sectiune transversala	Bridge km 170+458. Cross section	
Coala Nr./Sheet No.	BD 03	Coli / Sheets	BD 09

**Slope protection details/  
Detaliiu protectie taluz (1:50)**



**Note/ Nota:**  
**All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm.**

*Nr. inv. orig.*

[illegible]

Expansion joint at the abutment/  
Rostul de dilatate la culee (1:20)

Stone Mastic Asphalt (SMA)/ Asfalt Mastic (SMSc) - 50 mm

Protective layer/ Strat de protectie - 40 mm

Waterproofing/ Strat de hidroizolare - 5-10 mm

Leveling layer/ Strat de egalizare - 30+160mm

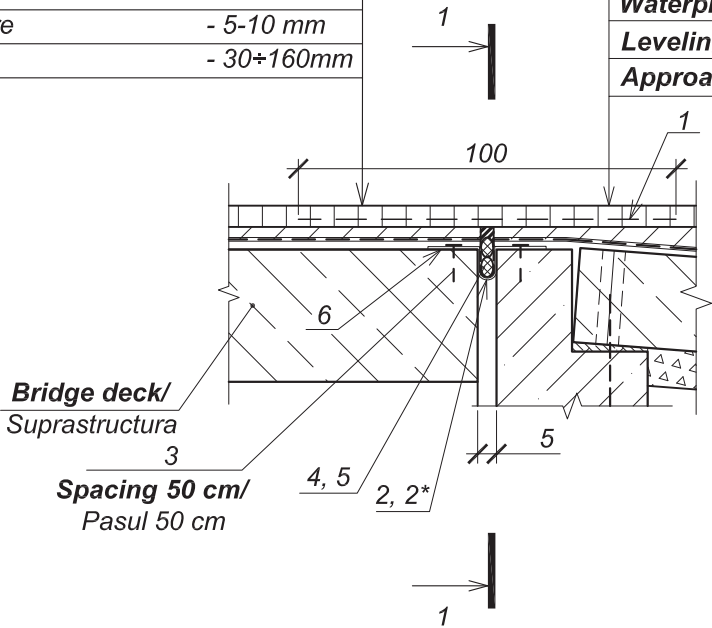
Road pavement/ Imbracamintea rutiera

Protective layer/ Strat de protectie

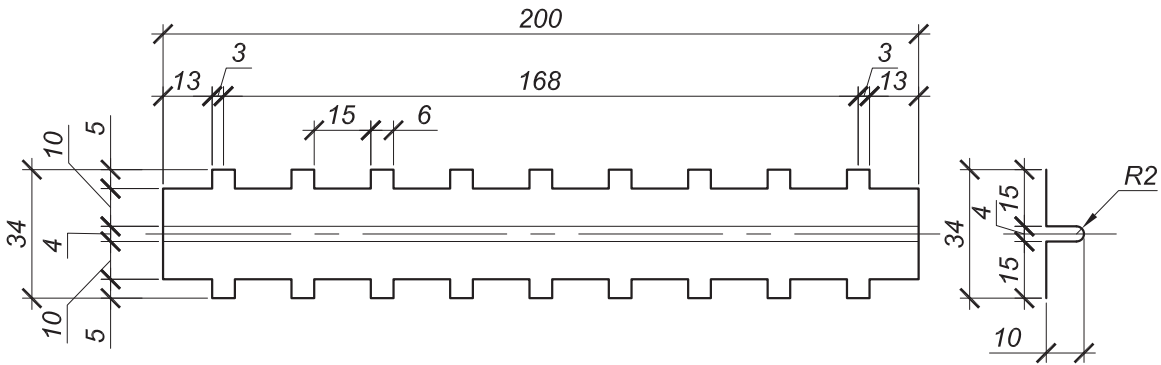
Waterproofing/ Hidroizolatie

Leveling layer/ Strat de egalizare

Approach slab/ Placa de racordare



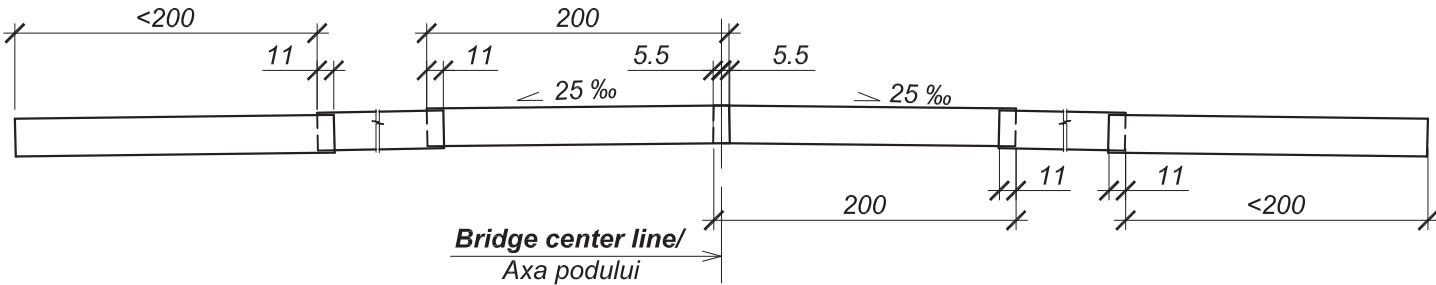
U-shaped brass sheet (pos.2)/  
Lira din tabla de alama (poz.2) (1:20)



Quantities for 1 lin.m of expansion joints/  
Cantitati pentru rostul de dilatatie pe 1m.linar

Position/ Pozitia	Reference/ Referinta	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		<b>Expansion joint at the abutment/ Rost de dilatatie la culee</b>			
1	<b>SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0</b>	<b>Glass fibre mesh/ Plasa CПAП cu fibre de sticla, L=1,0m</b>			1.1 m <sup>2</sup>
2		<b>U-shaped brass sheet/ Lira din tabla de alama, GOST 9904-74</b>			0.6 m <sup>2</sup>
3		<b>Steel expansion bolts/ Dibluri de otel, L=5cm, GOST 19904-74</b>	12	0.008	
4	<b>SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0</b>	<b>Bituminous mastic/ Mastic bituminos</b>		1.6	
5	<b>SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0</b>	<b>Hemp rope saturated with bitumen/ Fringhie din cinepa imbibata cu bitum</b>		0.8	
6	SNIP 3.06.04-91	<b>Epoxy / Clei epoxidic</b>		0.7	

1 - 1 (1:50)  
(Method of U-shaped sheet installation)/  
(modul de instalare a lirelor)



Note/ Nota:  
All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm.

Nr. inv. orig.

Semnat la data

Schimb. nr. inv.

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



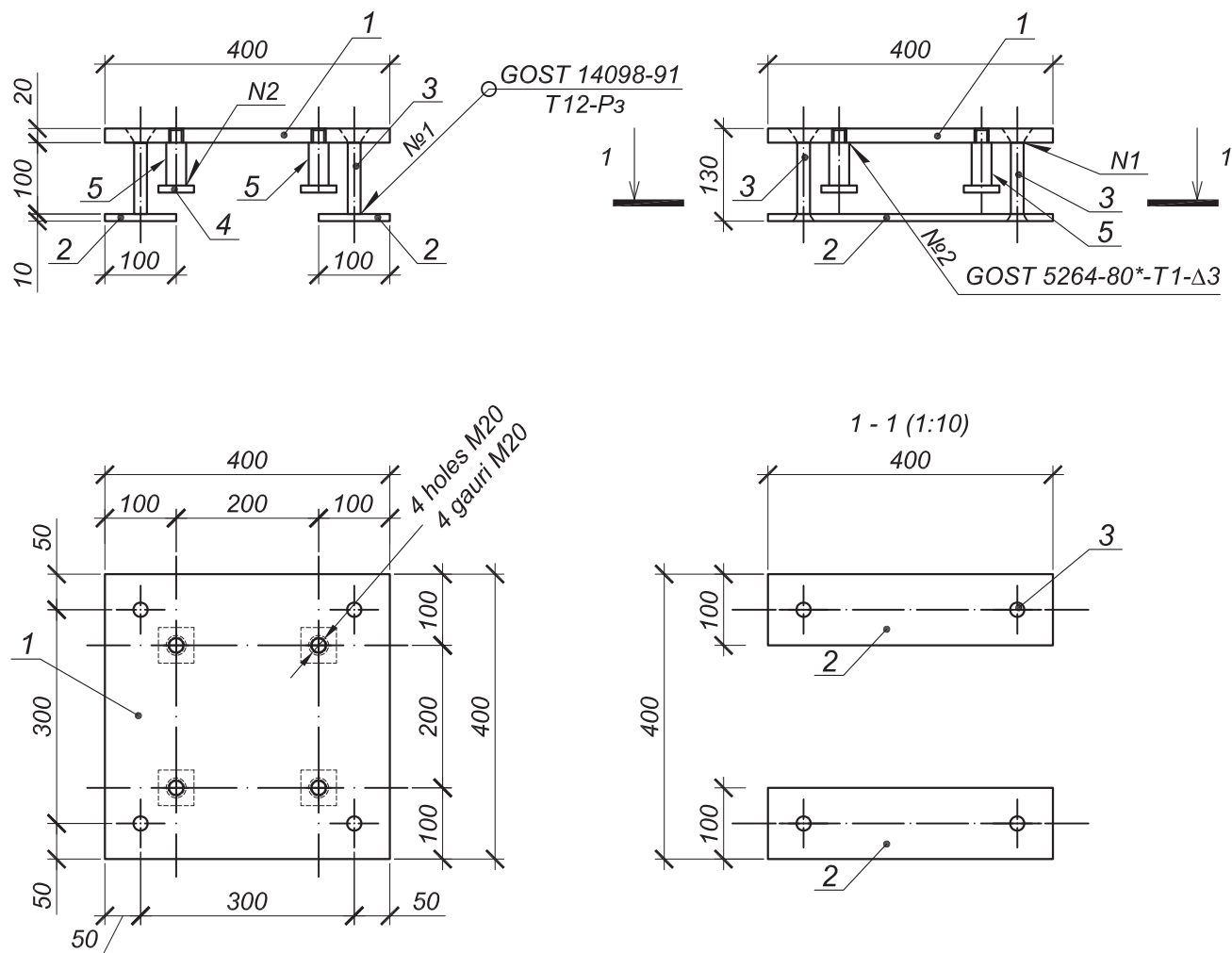
Marimea originala a desenului  
Original Drawing Size

A3  
A3

Road Sector: Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border		
Denumirea desenului/ Drawing name	Pod km 170+458. Rost de dilatatie Bridge km 170+458. Expansion joint		
Coala Nr./Sheet No.	BD 05	Coli / Sheets	BD 09



Embedded base plate/  
Piesa inglobata MN-1 (1:10)




Quantities for embedded plate MN-1/  
Specificatie pentru piesa inglobata MN-1

Position/ Pozitia	Reference/ Indicativ	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		Embedded base plate/ Piese inglobata MN-1		33.45	
1		– 20x400 L=400, GOST 82-70*	1	25.12	
2		– 10x100 L=400, GOST 103-2006	2	3.14	
3		Ø16 A III L=130, GOST 5781-82*	4	0.21	
4		– 10x50 L=50, GOST 103-2006	4	0.2	
5		O 28x2.5, L = 60, GOST 8732 - 78*	4	0.1	

Note:/ Nota:  
All dimensions are in mm unless noted otherwise/ Toate dimensiunile sunt date in mm.

Nr. inv. orig.	Schimb. nr. inv.
Semnat la data	

Rev./ Rev.	Amendments/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector. Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I M3 Chisinau - Giurgiulesti/ Romanian border	Denumirea desenului/ Drawing name	Pod km 170+458. Piese inglobate Bridge km 170+458. Embedded elements	Coala Nr./Sheet No.	BD 06	Coli / Sheets	BD 09
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Quantities of main works for the bridge rehabilitation / Volumele de baza pentru reabilitarea podului										Construction sequence/ Ordinea efectuarii lucrarilor:									
Structural parts/ Element a structurii	Item No. Pozitia Nr.	Description/ Element ce include				Unit/ Unitate de masura	Quantity/ Cantitate												
Demolition/ Demolarea	1	Milling of asphalt layer, thickness 5-20 cm/ Frezarea stratului de asfalt 5-20 cm grosime				m²	171												
	2	Removal of concrete layers of pavement/ Desfacerea imbracamintei rutiere				m³	10												
	3	Removal of steel handrails/ Demontarea parapetului pietonal metalic				m	27												
	4	Chipping and saw cut of poor concrete surfaces to be repaired/ Dezbaterea si taierea suprafetelor de beton slab ce urmeaza a fi reparate				m²	32												
Earthworks/ Lucrari de terasament	5	Channel or bottom clearing/ Curatarea albiei sau a canalului				m³	97												
	6	Excavation works behind abutments/ Lucrari de excavare in spatele culeelor				m³	350												
Foundation/ Fundatie	7	Strip concrete foundation of slope and channel protection/ Fundatia din beton a consolidarii albiei si a taluzurilor				m³	15.3												
Concrete and RC/ Beton si BA	8	Cast-in-place RC cornice/ Cornisa din beton armat monolit				m³	8.4												
	9	Leveling concrete layer/ Stratul de egalizare				m³	14.1												
	10	RC backwall/ Zid de garda din BA				m³	16												
	11	Precast reinforced concrete approach slabs/ Dale de racordare prefabricate din beton armat				m³	20.0												
	12	Cast-in-place RC slope and channel protection/ Consolidarea albiei si a taluzurilor				m³	59												
	13	Rehabilitation of concrete surface of sub- and superstructure/ Reabilitarea suprafetelor de beton a infra- si suprastructurii				m²	32												
Sealing and pavement/ Hidroizolatie si Imbracamintea	14	Waterproof sealing/ Membrana hidroizolanta				m²	256												
	15	Protection layer of asphalt mastic, 4 cm/ Strat de protectie din asfalt turnat pe baza de mastic				m²	225												
	16	Cover layer of SMA, 5 cm/ Strat de uzura din SMSc, 5 cm				m²	171												
Bridge Equipment/ Echipamentul podului	17	Steel guard rail/ Parapet de siguranta din otel				m	100												
	18	Expansion joint/ Rost de dilatatie				m	25												
	19	Anchors of cornice/ Ancorarele cornisei monolite				unit.	56												
	20	PVC pipes for cables/ Teava din PVC pentru comunicatii				m	28												
Miscellaneous/ Diverse	21	Concrete surfaces sealing and painting/ Hidrofobizarea si vopsirea suprafetelor de beton				m²	220												
	22	Crushed stone for approach and for slope protection/ Piatra sparta pentru racordare si consolidarea taluzurilor				m³	112												
										</									

Notes/ Note:

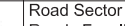



1. The construction works on the superstructure and the abutments area will be carried out on the left and right side separately/  
Lucrarile de constructie pe suprastructura si pe zona culeei vor fi efectuate pe partea stinga si dreapta in mod separat.

2. All quantities will be adjusted after and removing of pavement and excavation at the approach area/  
Toate volumele vor fi precizate dupa desfacerea imbracamintii podului si executia lucrarilor de excavare in zona racordarii podului.



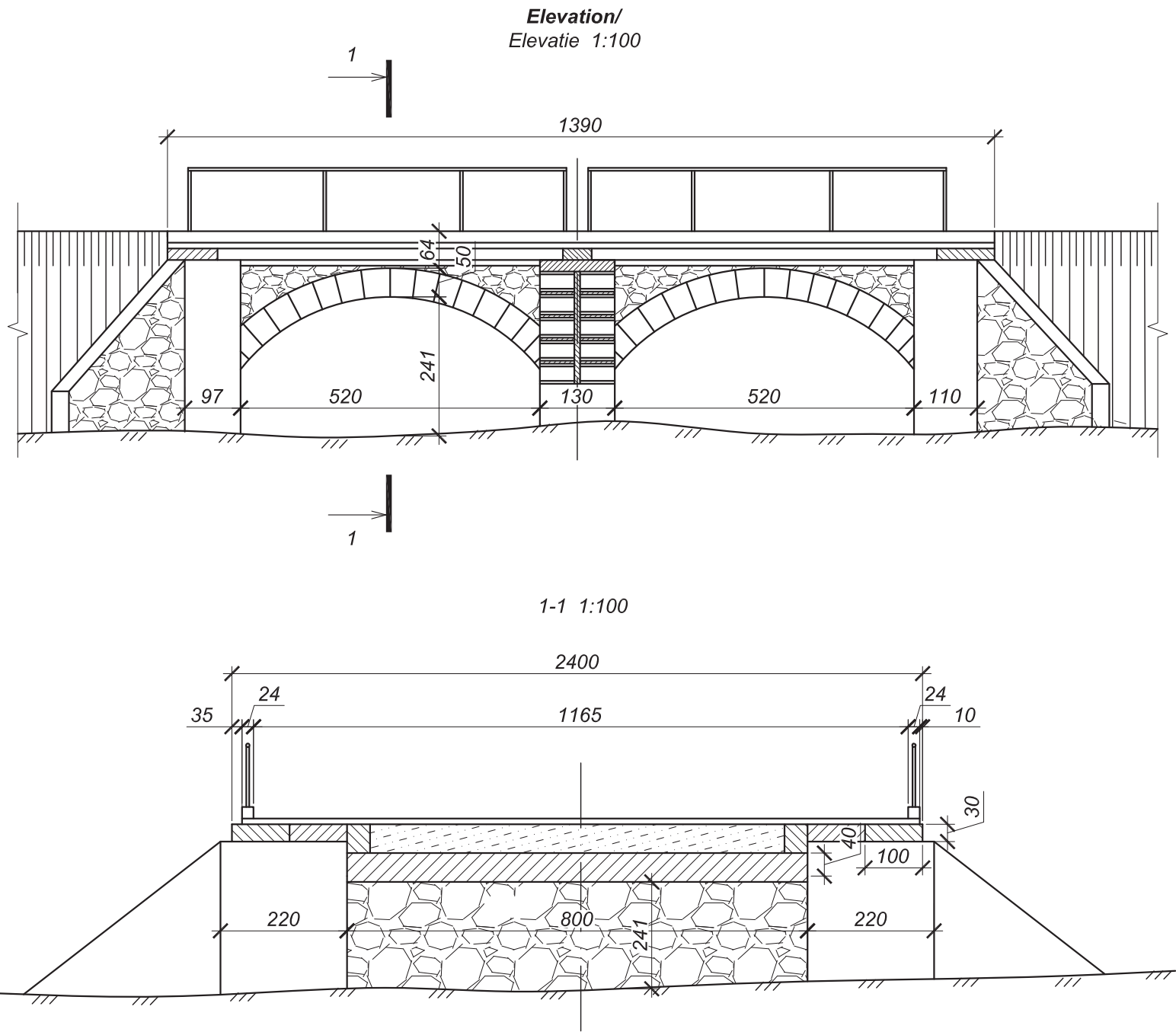


Nr. inv. orig.	Schimb. nr. inv.





Nr. inv. orig.					Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Sustinere al Programului Sectorului	
												Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor si	
												Proiectare Detaliata		Proiectare Detaliata	
												Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I		Road name M3 Chisinau - Giurgiulesti/ Romanian border	
					Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 				Denumirea desenului/ Pod km 170+458. Vederi			
	Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked	Ghimpu A. 	Data/Date	06.2011		Marimea originala a desenului A3 Original Drawing Size A3	Denumirea desenului/ Pod km 170+458. Vederi		Bridge km 170+458. Pictures	
												Coala Nr./Sheet No.	BD 08	Coli / Sheets	BD 09



Nr. inv. orig.	
Semnat la data	
Schimb. nr. inv.	


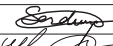
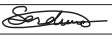
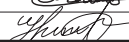


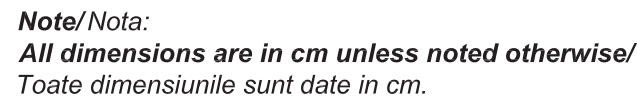
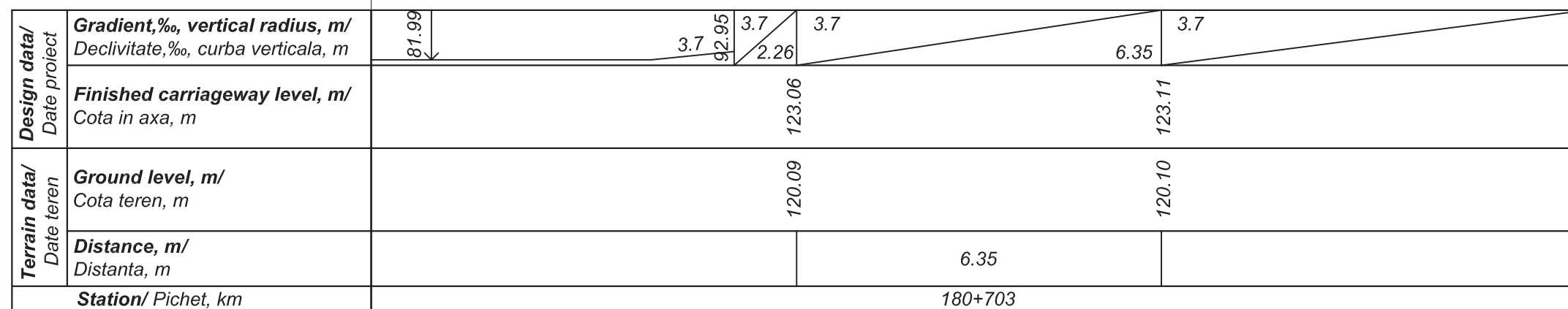
**Note/Nota:**  
**All dimensions are in cm unless noted otherwise/**  
**Toate dimensiunile sunt date in cm.**





Nr. inv. orig.					Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Sustinere al Programului Sectorului					
												Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor si					
														Proiectare Detaliata					
	Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 			Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT I						
						Verificat/Checked	Ghimpu A. 	Data/Date	06.2011				M3 Chisinau - Giurgiulesti/ Romanian border						
												Denumirea desenului/ Drawing name	Pod km 170+458. Pod existent						
													Bridge km 170+458. Existing bridge						
												Marimea originala a desenului Original Drawing Size	A3 A3			Coala Nr./Sheet No.	BD 09	Coli / Sheets	BD 09

Nr. inv. orig.	
Semnata la data	
Schimb. nr. inv.	

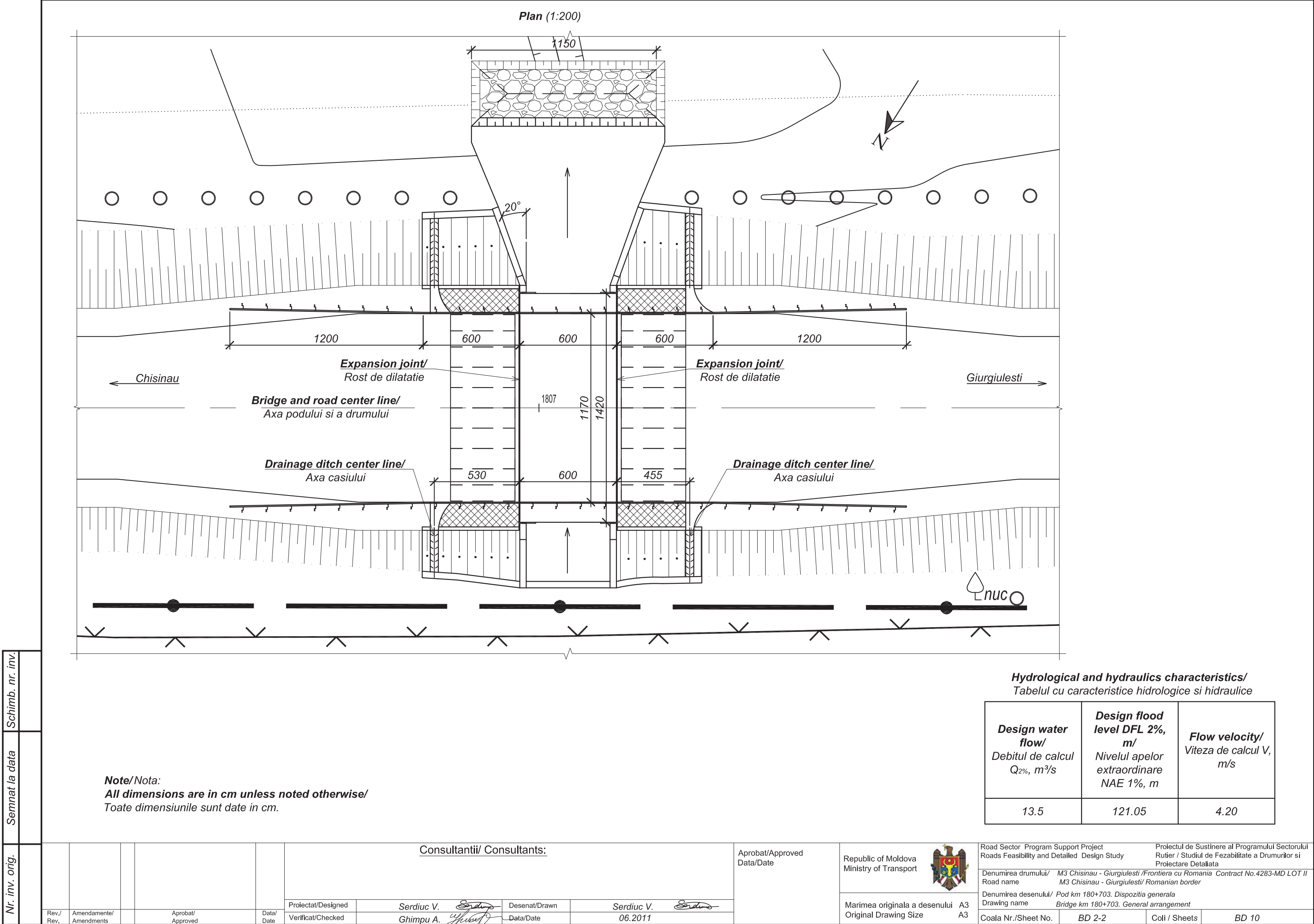
Index of drawings for bridge, km 180+703/ Borderou de desene pentru podul, km 180+703		
Sheet No/ Coala Nr.	Name/ Denumirea	Note/ Nota
BD 01	Index of drawings/ Borderou de desene	
BD 02	General arrangement/ Dispozitia generala	
BD 03	Cross section/ Sectiunea transversala	
BD 04	Bridge approach/ Racordarea podului cu terasament	
BD 05	Cast in place retaining walls and inlet header/ Ziduri de sprijin monolite si put colector	
BD 06	Expansion joint/ Rost de dilatare	
BD 07	Embedded elements/ Piese inglobate	
BD 08	Construction sequence and quantities of main work/ Ordinea efectuarii lucrarilor si volume de baza	
BD 09	Pictures/ Vederi	
BD 10	Existing bridge/ Pod existent	

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector: Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata							
				Proiectat/Designed		Serdiuc V. 					Desenat/Drawn		Serdiuc V. 		Denumirea drumului/ Road name				M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II M3 Chisinau - Giurgiulesti/ Romanian border			
				Verificat/Checked		Ghimpu A. 					Data/Date		06.2011		Marimea originala a desenului Original Drawing Size		A3 A3		Denumirea desenului/ Drawing name		Pod km 180+703. Borderou de desene Bridge km 180+703. Index of drawings	
Coala Nr./Sheet No.		BD 01		Coli / Sheets		BD 10																



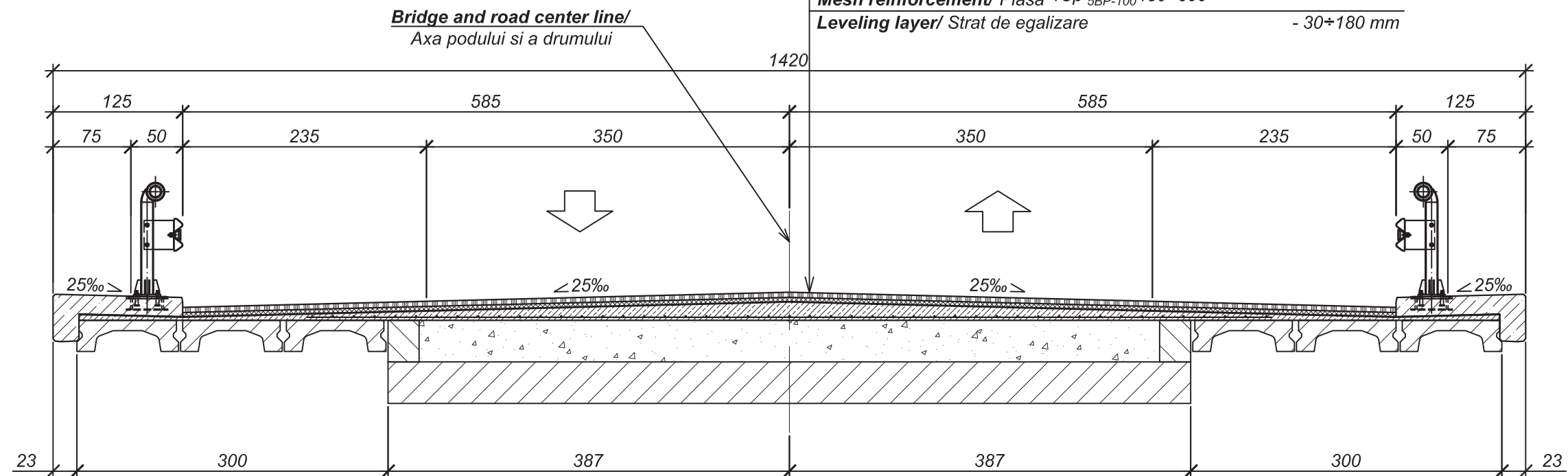
					<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Sustinere al Programului Sectorului		
												Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor si		
														Proiectare Detaliata		
					Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 				Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II M3 Chisinau - Giurgiulesti/ Romanian border			
												Denumirea desenului/ Drawing name	Pod km 180+703. Dispozitia generala Bridge km 180+703. General arrangement			
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Date	Verificat/Checked	Ghimpu A. 	Data/Date	06.2011			Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.	BD 2-1	Coli / Sheets	BD 10



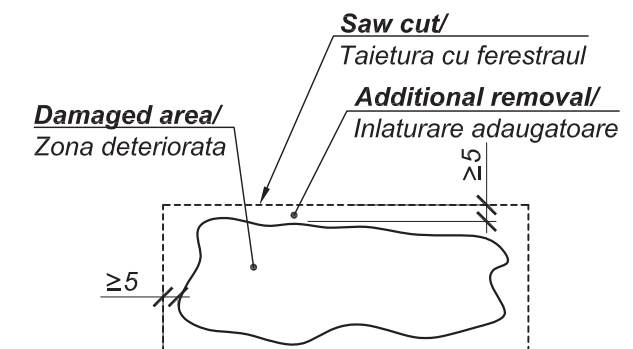


Superstructure cross section/  
Sectiunea transversala a suprastructurii (1:50)

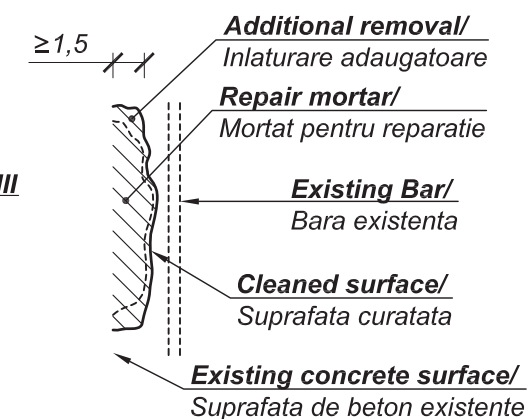
Mastic asphalt concrete/ Beton asfaltic pe baza de mastic	- 50 mm
Protective layer/ Strat de protectie	- 40 mm
Waterproofing/ Strat de hidroizolare	- 5-10 mm
Mesh reinforcement/ Plasa 4Cp <sup>5BP-100</sup> / <sub>5BP-100</sub> 480×600	
Leveling layer/ Strat de egalizare	- 30÷180 mm



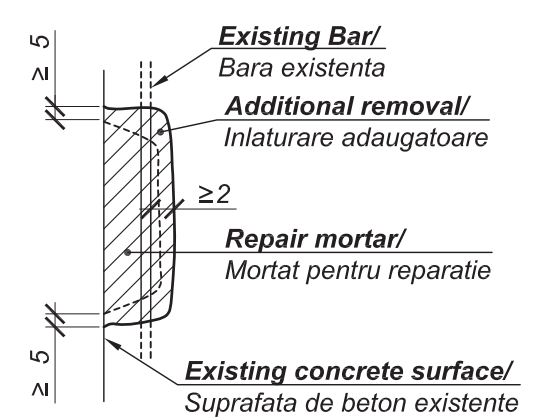
Repair of concrete surfaces/  
Reparatia suprafetelor de beton



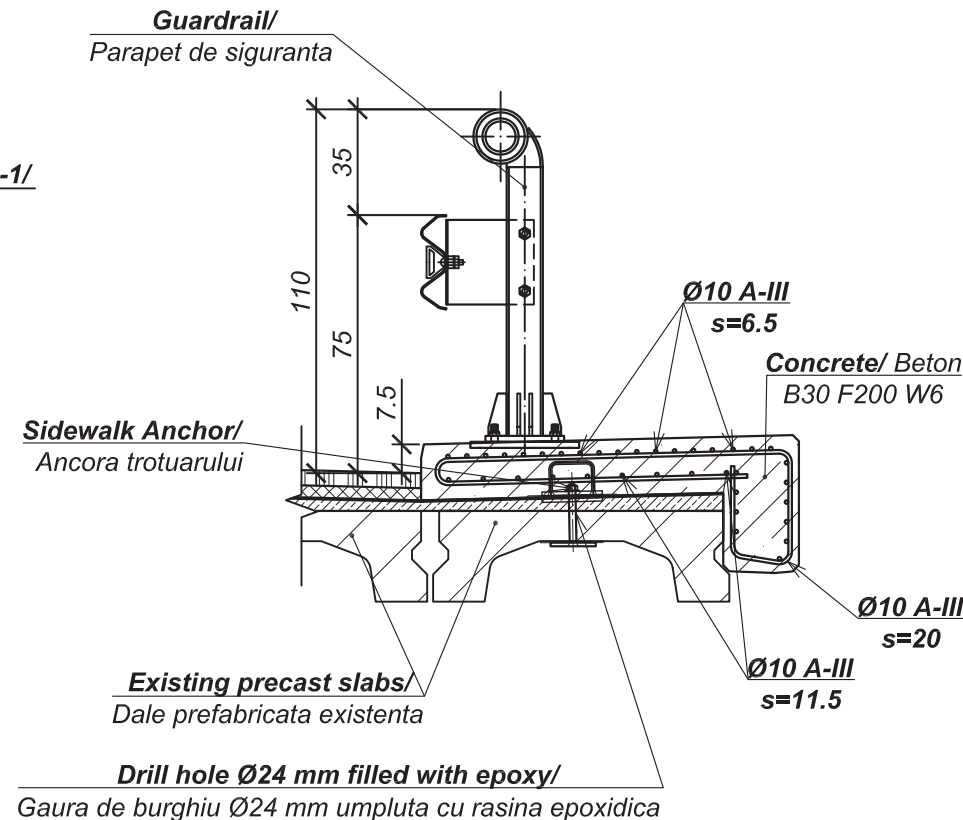
ALTERNATIVE A:  
ALTERNATIVA A:



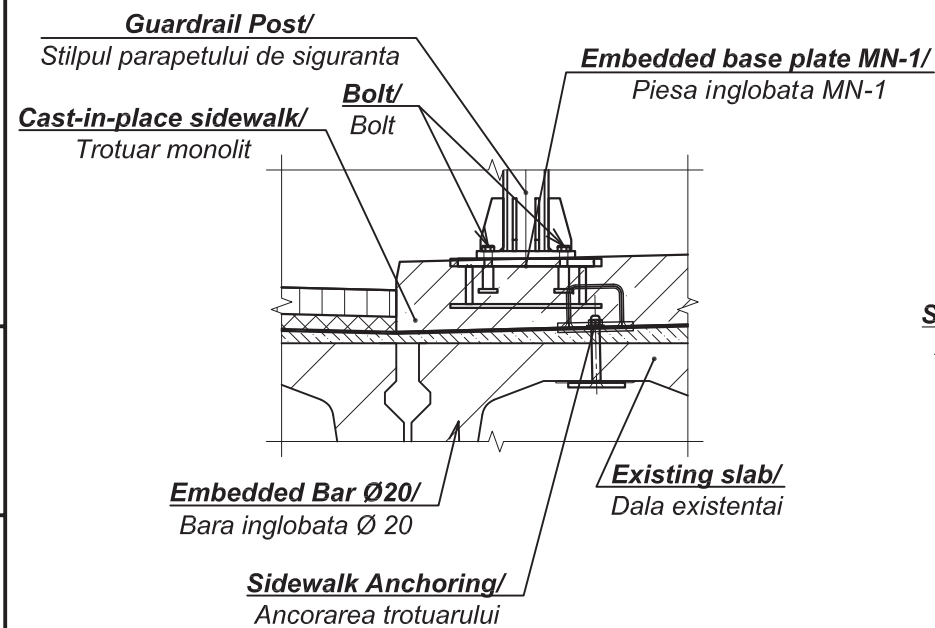
ALTERNATIVE B:  
ALTERNATIVA B:



Cast-in-place cornice detail/  
Detaliu cornisa monolita (1:25)



Anchoring the guardrail on the bridge/  
Prinderea parapetului de siguranta (1:20)



Note/Nota:  
All dimensions are in cm unless noted otherwise/  
Toate dimensiunile sunt date in cm.

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector: Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor si  
Proiectare Detaliata

Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II  
Road name M3 Chisinau - Giurgiulesti/ Romanian border

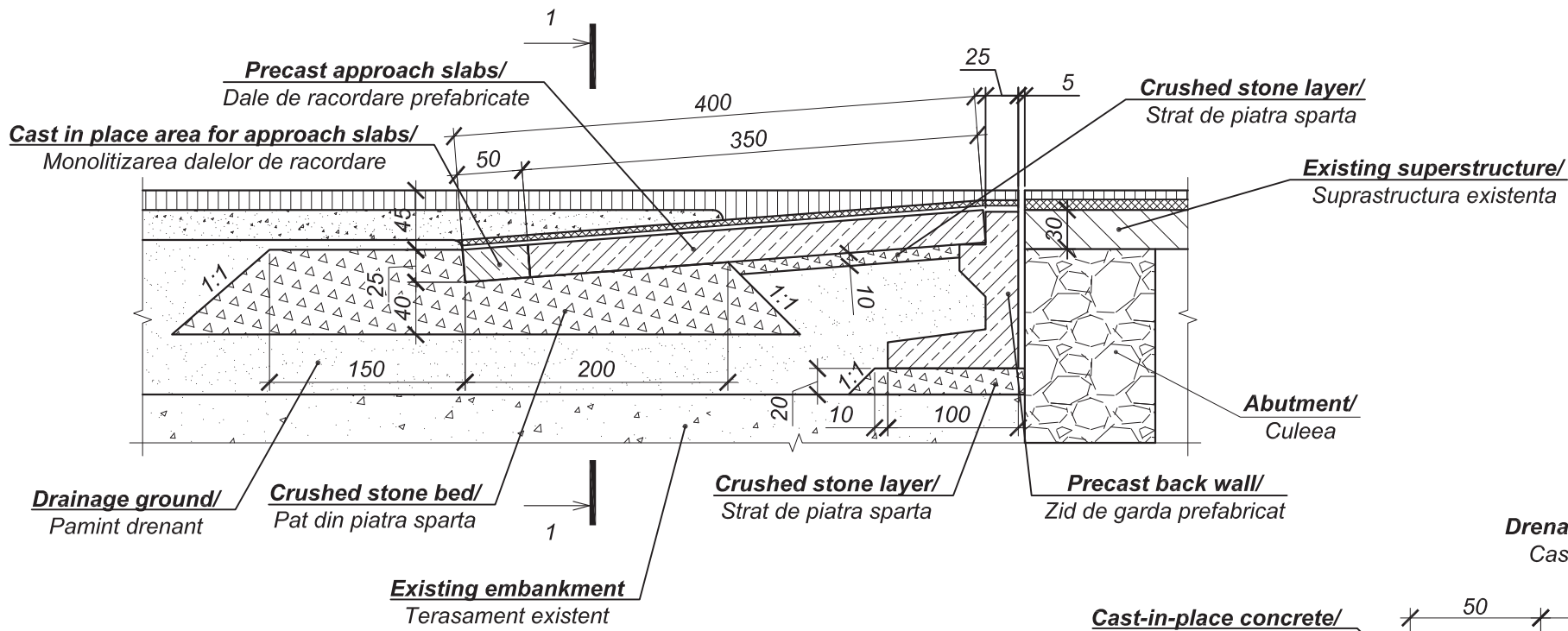
Denumirea desenului/ Pod km 180+703. Sectiunea transversala  
Drawing name Bridge km 180+703. Cross section

Marimea originala a desenului A3  
Original Drawing Size A3

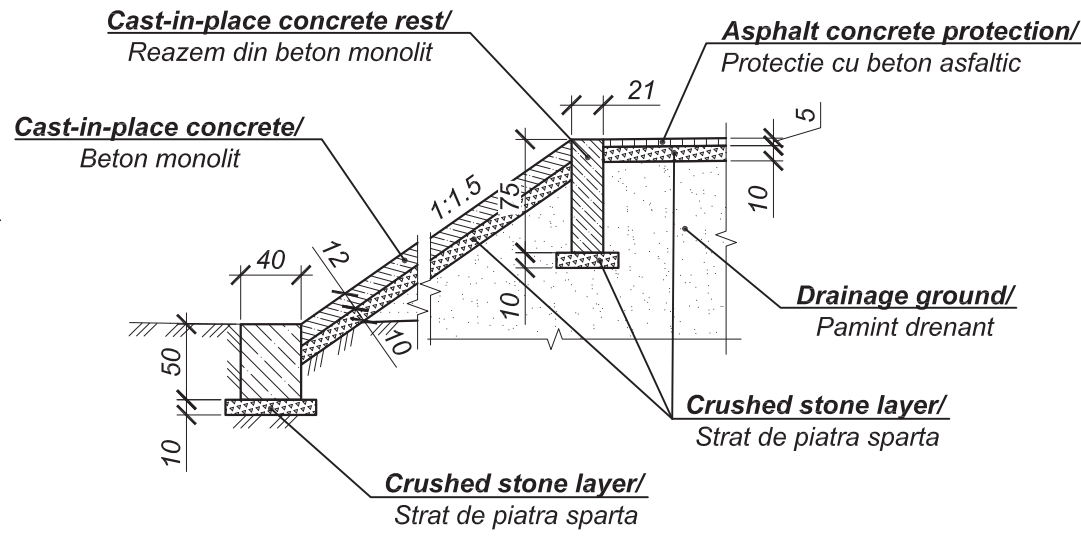
Coala Nr./Sheet No. BD 03 Coli / Sheets BD 10

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011
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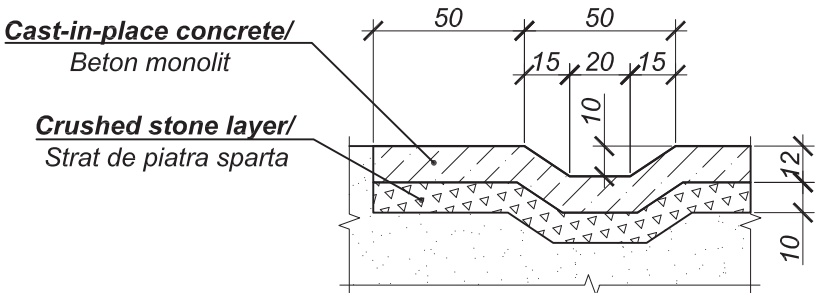
Bridge approach/  
Racordarea podului cu terasamentul (1:50)



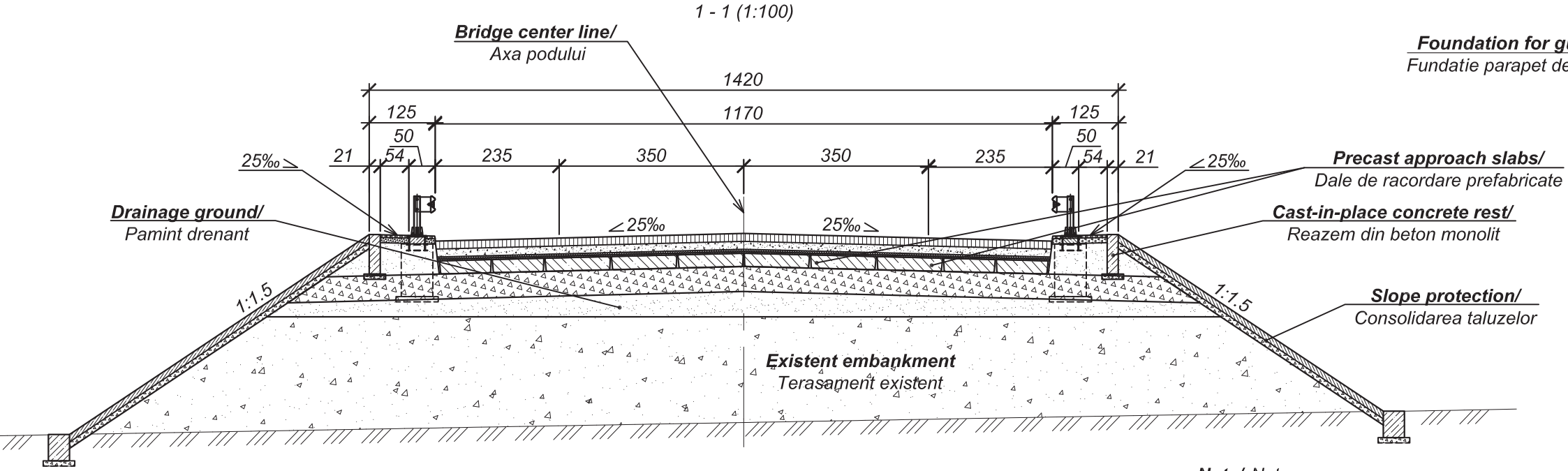
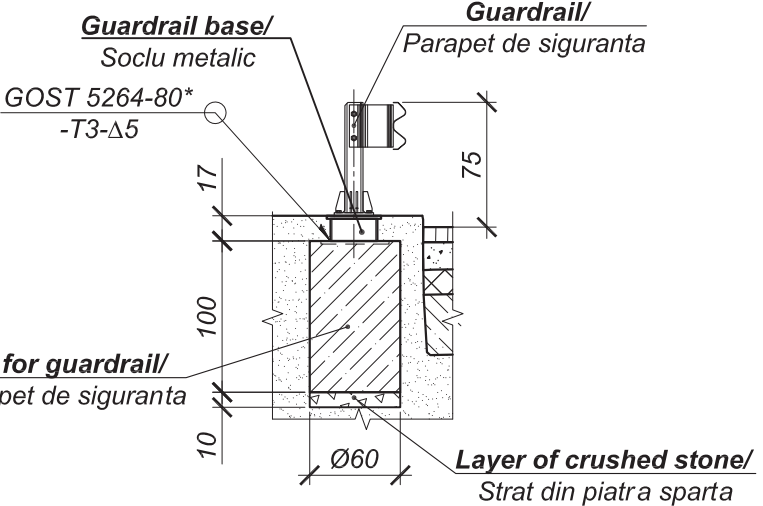
Slope protection details/  
Detaliu protectie taluz (1:50)



Drenaige ditch/  
Casiu (1:25)



Guardrail on the approaches/  
Parapet de siguranta pe racordari (1:50)



Note/ Nota:  
All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm.

Schimb. nr. inv.

Semnat la data

Nr. inv. orig.

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

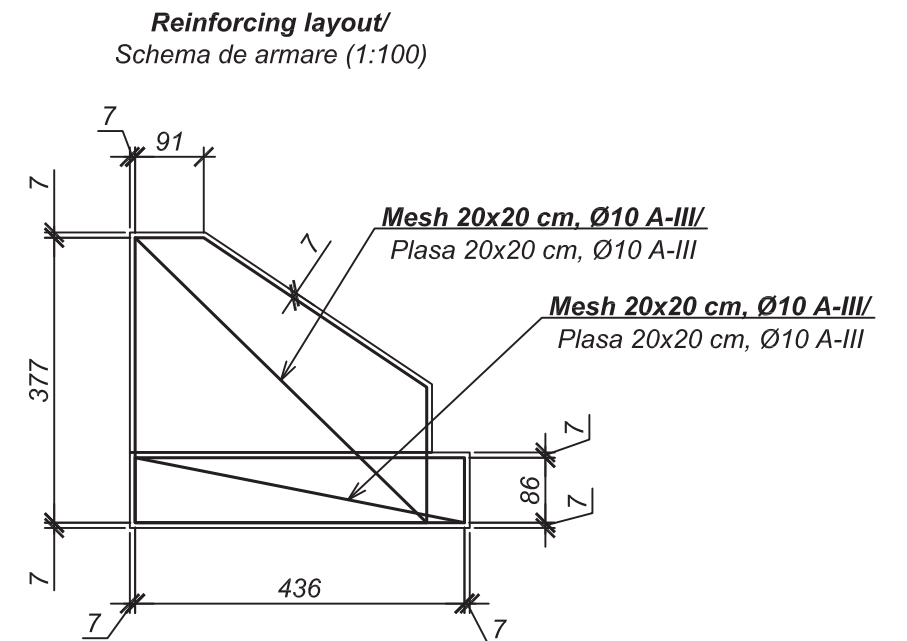
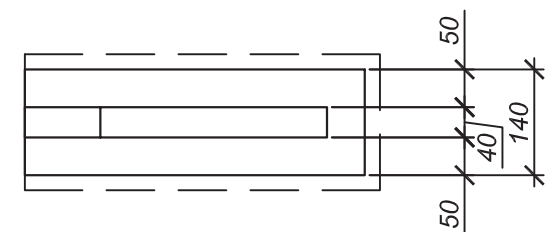
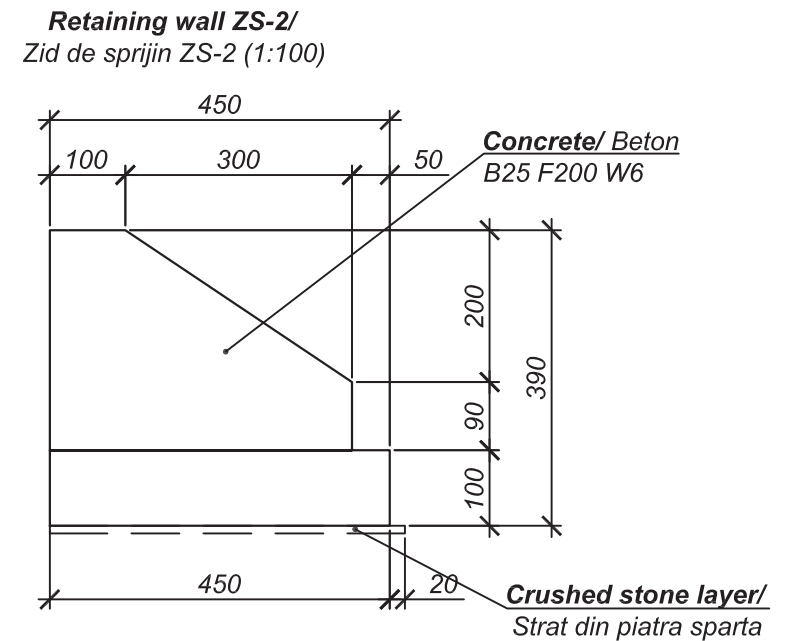
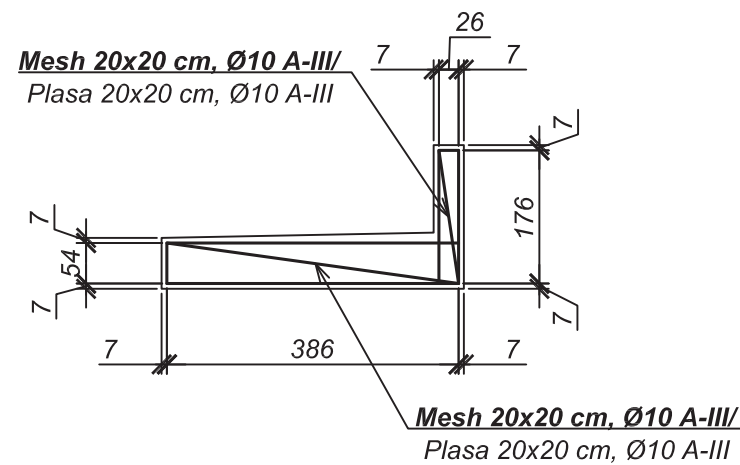
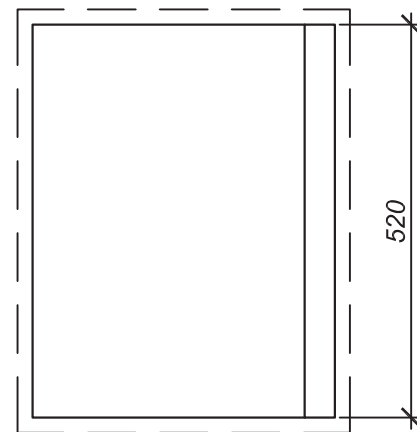
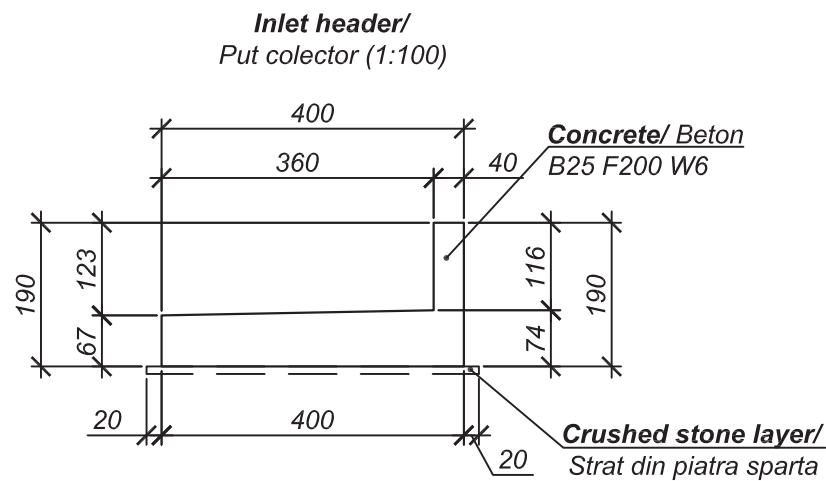
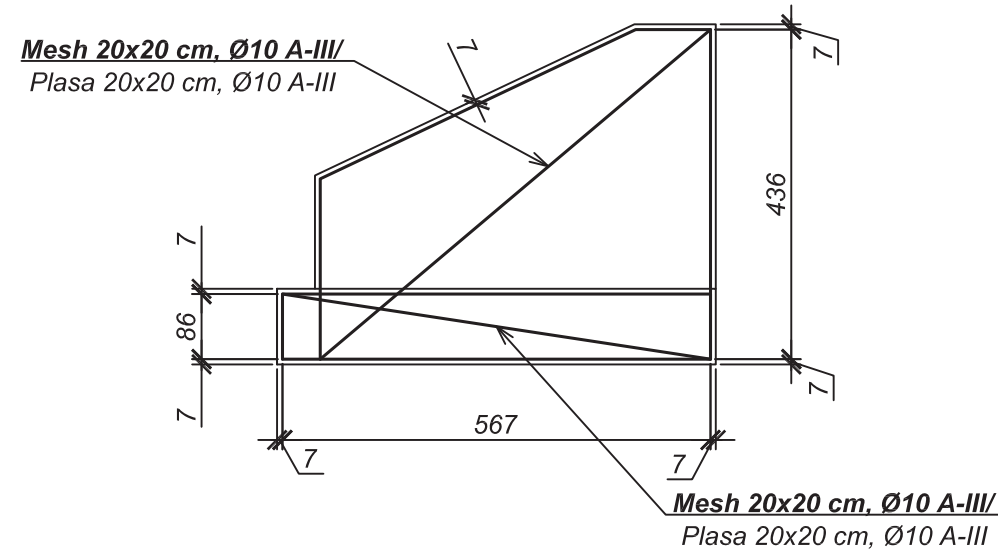
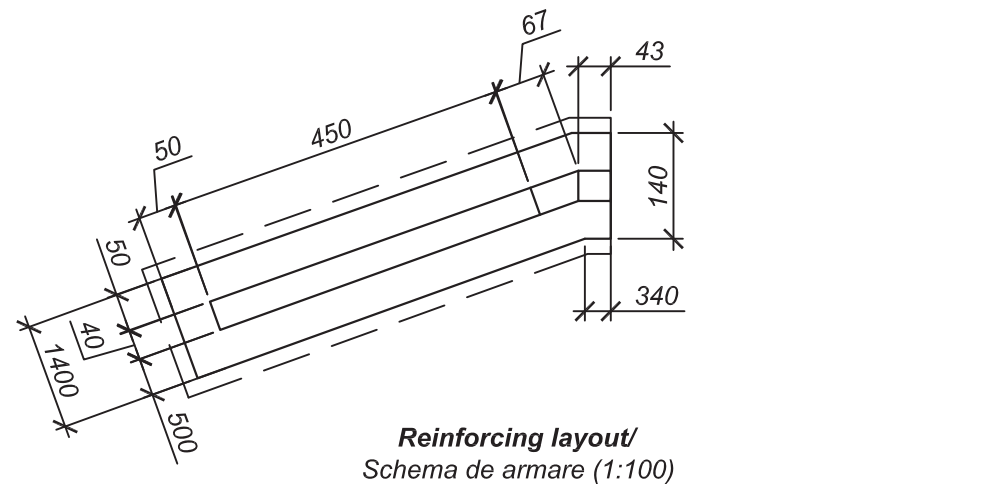
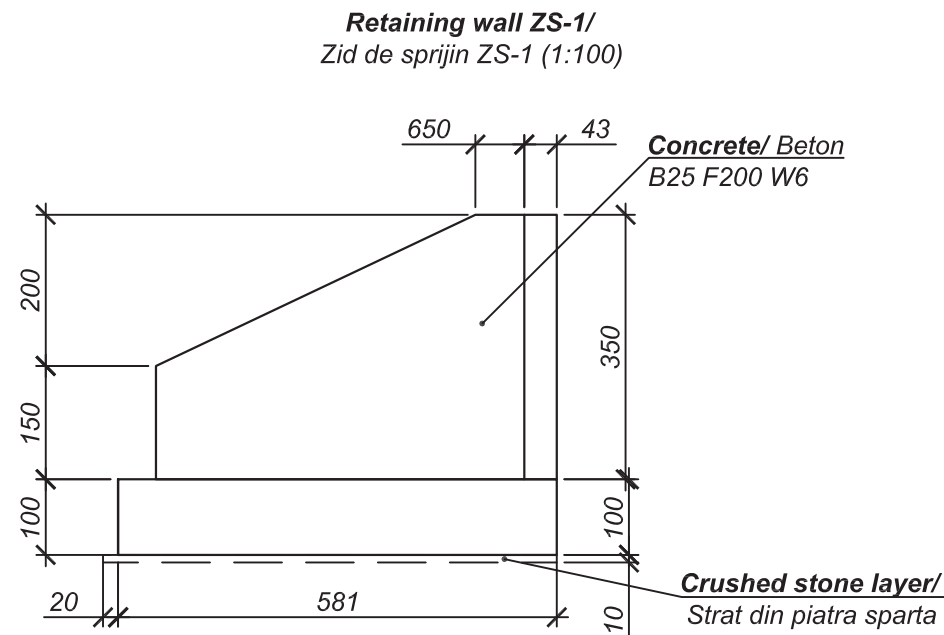
Republic of Moldova  
Ministry of Transport



Road Sector: Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania	Contract No.4283-MD LOT II	
Denumirea desenului/ Drawing name	Pod km 180+703. Racordarea podului cu terasament	Bridge km 180+703. Bridge approach	
Coala Nr./Sheet No.	BD 04	Coli / Sheets	BD 09

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V.	Desenat/Drawn	Serdiuc V.
				Verificat/Checked	Ghimpu A.	Data/Date	06.2011









**Notes/ Note:**

- Elevation of foundation and parameters of retaining wall on extension will be adjusted after excavation of existing abutment foundation/**  
Cota fundatiei si parametrii zidului de garda pe supralargire vor fi precizate dupa excavarea fundatiei culeei existente.
- Retaining wall ZS-2 will be constructed in the same time as inlet header. Connection bars from inlet header will be provided/**  
Zidul de sprijin ZS-2 va construi concomitent cu put colector. Lansari din put colectori vor fi prevazuti.
- All dimensions are in cm unless noted otherwise/** Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.

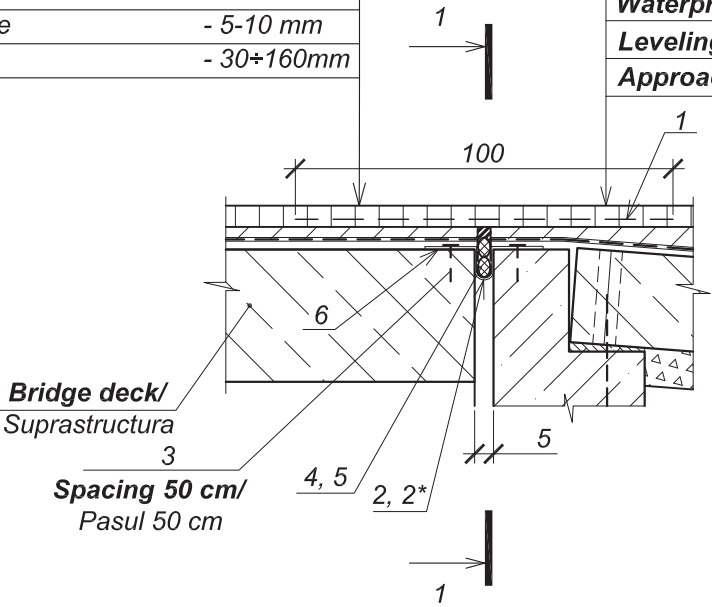
Nr. inv. orig.	Schimb. nr. inv.	Semnat la data

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study				Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata				
				Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 				Marimea originala a desenului A3 Original Drawing Size A3	Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II Road name M3 Chisinau - Giurgiulesti/ Romanian border							
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked	Ghimpu A. 	Data/Date					06.2011	Denumirea desenului/ Pod km 180+703. Ziduri de sprijin put colector monolite Drawing name Bridge km 180+703. Cast in place retaining walls and inlet header						
												Coala Nr./Sheet No.		BD 05		Coli / Sheets		BD 09	

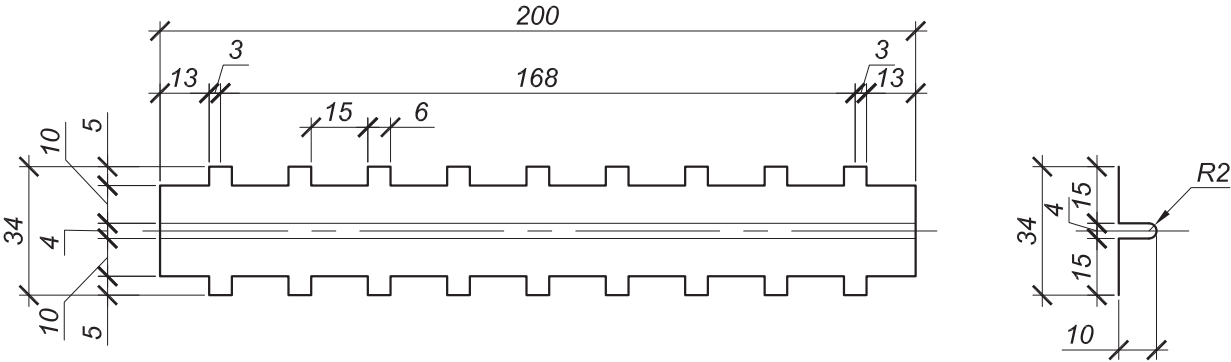
Expansion joint at the abutment/  
Rostul de dilatate la culee (1:20)

Stone Mastic Asphalt (SMA)/ Asfalt Mastic (SMSc) - 50 mm  
Protective layer/ Strat de protectie - 40 mm  
Waterproofing/ Strat de hidroizolare - 5-10 mm  
Leveling layer/ Strat de egalizare - 30+160mm

Road pavement/ Imbracamintea rutiera  
Protective layer/ Strat de protectie  
Waterproofing/ Hidroizolatie  
Leveling layer/ Strat de egalizare  
Approach slab/ Placa de racordare



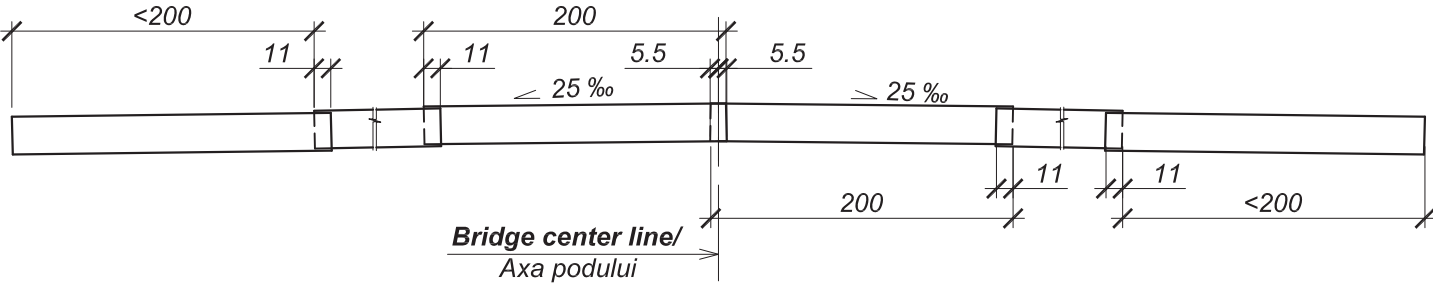
U-shaped brass sheet (pos.2)/  
Lira din tabla de alama (poz.2) (1:20)



Quantities for 1 lin.m of expansion joints/  
Cantitati pentru rostul de dilatatie pe 1m.linar

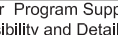



Position/ Pozitia	Reference/ Referinta	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		Expansion joint at the abutment/ Rost de dilatatie la culee			
1	SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0	Glass fibre mesh/ Plasa CПAП cu fibre de sticla, L=1,0m			1.1 m <sup>2</sup>
2		U-shaped brass sheet/ Lira din tabla de alama, GOST 9904-74			0.6 m <sup>2</sup>
3		Steel expansion bolts/ Dibluri de otel, L=5cm, GOST 19904-74	12	0.008	
4	SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0	Bituminous mastic/ Mastic bituminos		1.6	
5	SD 3.503.1-101 edition 0/ PT 3.503.1-101 editia 0	Hemp rope saturated with bitumen/ Fringhie din cinepa imbibata cu bitum		0.8	
6	SNIP 3.06.04-91	Epoxy / Clei epoxidic		0.7	

1 - 1 (1:50)  
(Method of U-shaped sheet installation)/  
(modul de instalare a lirelor)

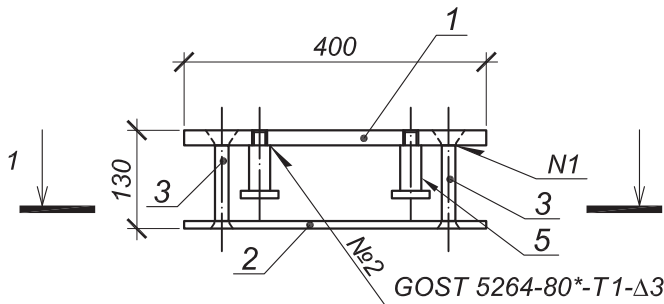
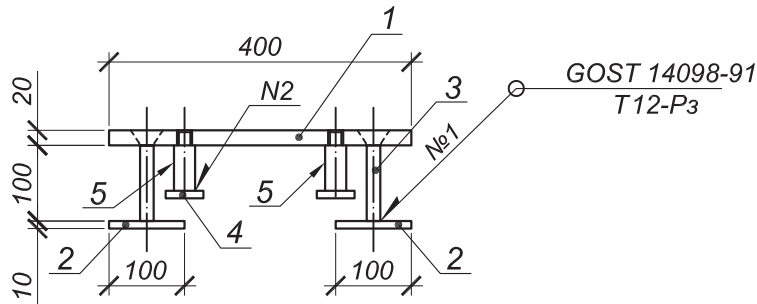


Note/ Nota:  
All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm.

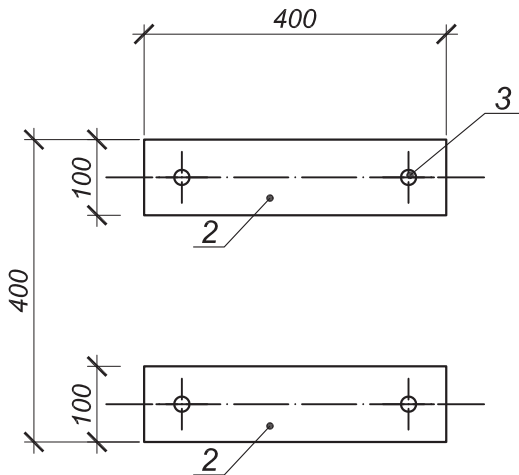
Nr. inv. orig.	Schimb. nr. inv.	Semnat la data
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					<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Sustinere al Programului Sectorului	
												Roads Feasibility and Detailed Design Study		Rutier / Studiul de Fezabilitate a Drumurilor si	
														Proiectare Detaliata	
												Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II			
												Road name M3 Chisinau - Giurgiulesti/ Romanian border			
												Denumirea desenului/ Pod km 180+703. Rost de dilatatie			
												Drawing name Bridge km 180+703. Expansion joint			
Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed	Serdiuc V. 	Desenat/Drawn	Serdiuc V. 			Marimea originala a desenului A3			
						Verificat/Checked	Ghimpu A. 	Data/Date	06.2011			Original Drawing Size A3			
												Coala Nr./Sheet No.	BD 06	Coli / Sheets	BD 09

Embedded base plate/  
Piesa inglobata MN-1 (1:10)



1 - 1 (1:10)



Quantities for embedded plate MN-1/  
Specificatie pentru piesa inglobata MN-1

Position/ Pozitia	Reference/ Indicativ	Item/ Denumirea	Quantity/ Cant.	Weight/ Masa, kg	Note/ Nota
		Embedded base plate/ Piese inglobata MN-1		33.45	
1		– 20x400 L=400, GOST 82-70*	1	25.12	
2		– 10x100 L=400, GOST 103-2006	2	3.14	
3		Ø16 A III L=130, GOST 5781-82*	4	0.21	
4		– 10x50 L=50, GOST 103-2006	4	0.2	
5		O 28x2.5, L = 60, GOST 8732 - 78*	4	0.1	

**Note: / Nota:**  
**All dimensions are in mm unless noted otherwise / Toate dimensiunile sunt date in mm.**

Nr. inv. orig.	Schimb. nr. inv.
Semnat la data	

Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector: Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor si  
Proiectare Detaliata

Denumirea drumului/ M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II  
Road name M3 Chisinau - Giurgiulesti/ Romanian border

Denumirea desenului/ Pod km 180+703. Piese inglobate  
Drawing name Bridge km 180+703. Embedded elements

Coala Nr./Sheet No. BD 07 Coli / Sheets BD 09

Proiectat/Designed	Serdiuc V.	Desenat/Drawn	Serdiuc V.
Verificat/Checked	Ghimpu A.	Data/Date	06.2011




		Quantities of main works for the bridge rehabilitation / Volumele de baza pentru reabilitarea podului										Construction sequence/ Ordinea efectuarii lucrarilor:												
		Structural parts/ Element a structurii	Item No. Pozitia Nr.	Description/ Element ce include							Unit/ Unitate de masura	Quantity/ Cantitate												
		Demolition/ Demolarea	1	Milling of asphalt layer, thickness 5-20 cm/ Frezarea stratului de asfalt 5-20 cm grosime							m²	86												
			2	Removal of concrete layers of pavement/ Desfacerea imbracamintei rutiere							m³	13												
			3	Removal of PC sidewalk cap/ Demontarea blocurilor prefabricate de trotuar							m³	3												
			4	Chipping and saw cut of poor concrete surfaces to be repaired/ Dezbaterea si taierea suprafetelor de beton slab ce urmeaza a fi reparate							m²	15												
		Earthworks/ Lucrari de terasament	5	Excavation works behind abutments/ Lucrari de excavare in spatele culeelor							m³	24												
			6	Excavate foundation for piers and abutments/ Excavarea fundatiei pentru pile si culei							m³	34												
			7	Forming of embankment at the abutment area/ Rambleierea in spatele culeei si formarea taluzurilor							m³	44												
			8	Backfill of excavated foundation/ Astuparea gropilor excavate pentru fundatie							m³	32												
			9	Channel or bottom clearing/ Curatarea albiei sau a canalului							m³	21												
		Foundation/ Fundatie	10	Flat foundation - widening of abutments/ Executia fundatiei pentru supralargirea culeelor							m³	80												
			11	Strip concrete foundation of slope and channel protection/ Fundatia din beton a consolidarii albiei si a taluzurilor							m³	4												
		Concrete and RC/ Beton si BA	12	Leveling concrete layer/ Stratul de egalizare							m³	8.5												
			13	Cast-in-place RC cornice/ Cornisa din beton armat monolit							m³	3.6												
			14	Cast-in-place reinforced concrete for substructure widening/ Beton armat monolit pentru supralargirea infrastructurii							m³	79												
			15	Cast-in-place RC slope and channel protection/ Consolidarea albiei si a taluzurilor							m³	33												
			16	RC backwall/ Zidul de garda din BA							m³	19												
			17	Precast reinforced concrete approach slabs/ Dale de racordare prefabricate din beton armat							m³	24												
			18	Rehabilitation of concrete surface of sub- and superstructure/ Reabilitarea suprafetelor de beton a infra- si suprastructurii							m²	15												
		Sealing and Pavement/ Hidroizolatie si Imbracamintea	19	Waterproof sealing/ Membrana hidroizolanta							m²	191												
			20	Protection layer of asphalt mastic, 4 cm/ Strat de protectie din asfalt turnat pe baza de mastic							m²	191												
			21	Cover layer of SMA, 5 cm/ Strat de uzura din SMSc, 5 cm							m²	91												
			22	Bituminous coat on concrete surfaces with earth contact/ Hidroizolarea cu bitum a suprafetelor ce contacteaza cu pamintul							m²	58												
		Bridge Equipment/ Echipamentul podului	23	Steel guard rail/ Parapet de siguranta din otel							m	84												
			24	Expansion joint/ Rost de dilataie							m	28.5												
			25	Anchors of cornice/ Ancorarele cornisei monolite							unit.	24												
			26	PVC pipes for cables/ Teava din PVC pentru comunicatii							m	12												
		Miscellaneous/ Diverse	27	Concrete surfaces sealing and painting/ Hidrofobizarea si vopsirea suprafetelor de beton							m²	116												
			28	Crushed stone for channel and slope protection/ Piatra sparta pentru consolidarea taluzurilor si a canalului							m³	97												



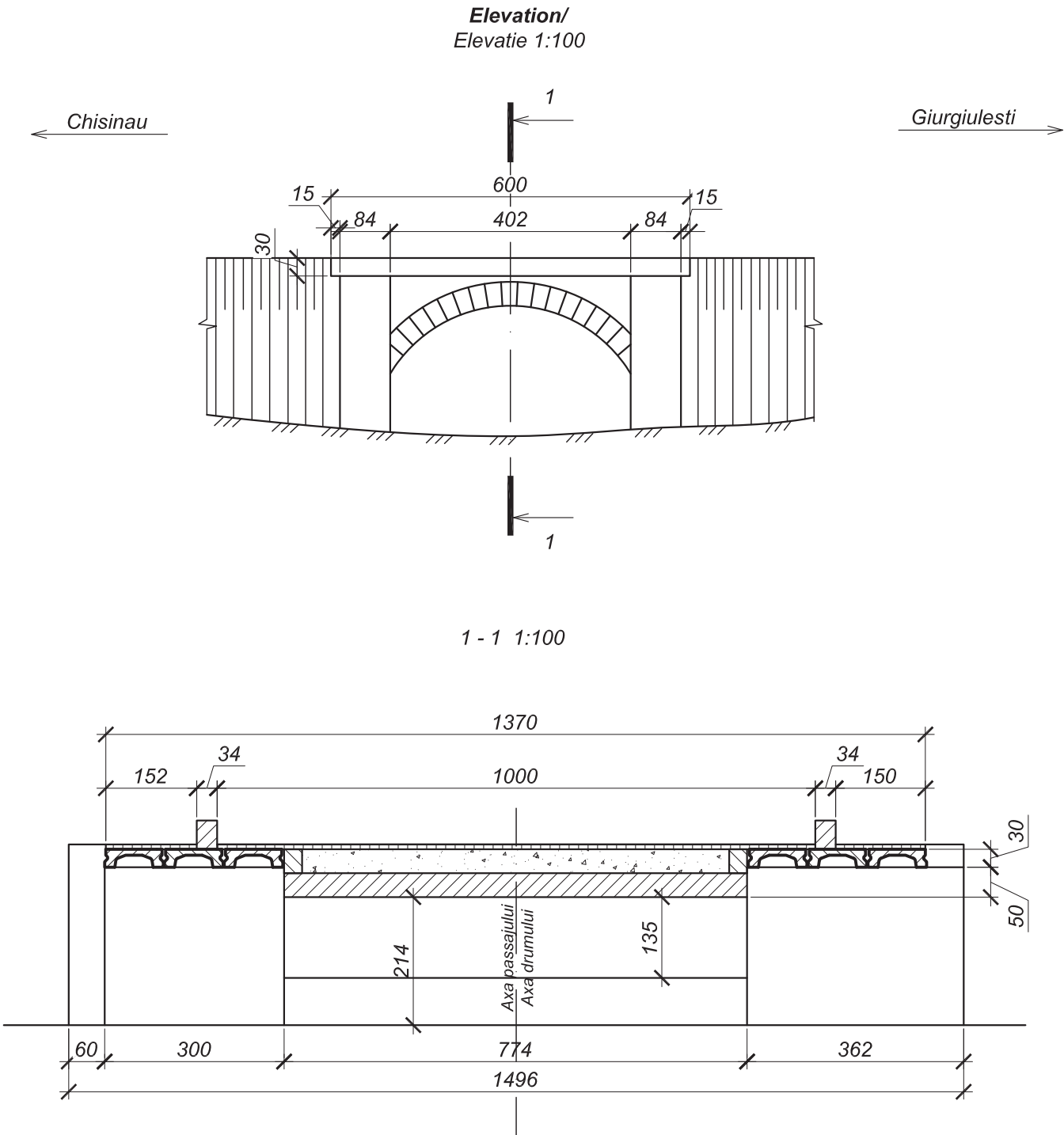


Nr. inv. orig.	Semnat la data	Schimb. nr. inv.


				Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata		
											Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No.4283-MD LOT II M3 Chisinau - Giurgiulesti/ Romanian border		
											Denumirea desenului/ Drawing name		Pod km 180+703. Vederi Bridge km 180+703. Pictures		
Rev./ Rev.	Amendamente/ Amendments			Aprobat/ Approved	Data/ Date	Proiectat/Designed Verificat/Checked	Serdiuc V. Ghimpu A.	Desenat/Drawn Data/Date	Serdiuc V. 06.2011	Marimea originala a desenului Original Drawing Size	A3 A3	Coala Nr./Sheet No.	BD 09	Coli / Sheets	BD 10



Nr. inv. orig.	
Semnat la data	
Schimb. nr. inv.	

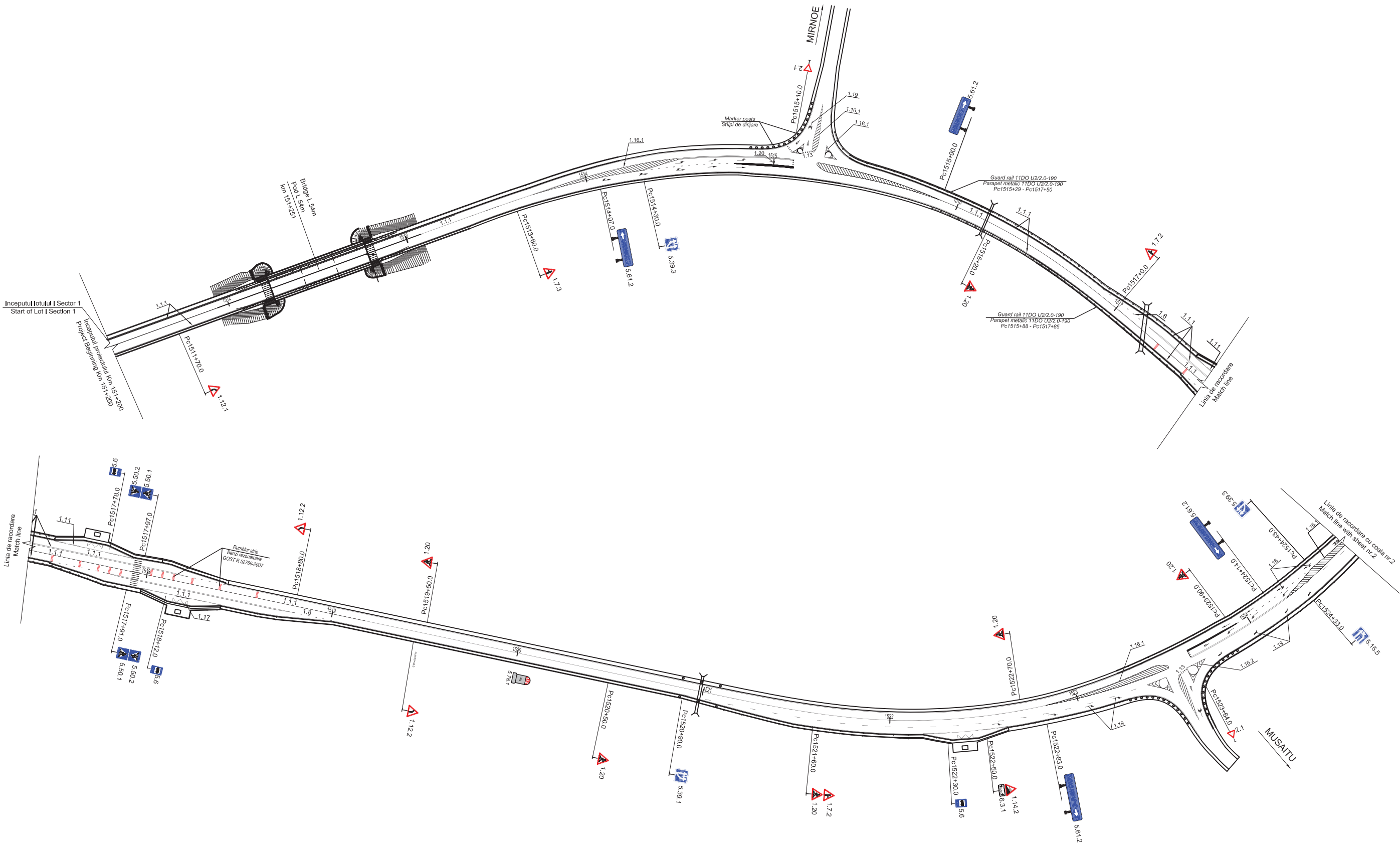


**Note/Nota:**  
**All dimensions are in cm unless noted otherwise/**  
**Toate dimensiunile sunt date in cm.**

Nr. inv. orig.					Consultantii/ Consultants:				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project		Proiectul de Sustinere al Programului Sectorului																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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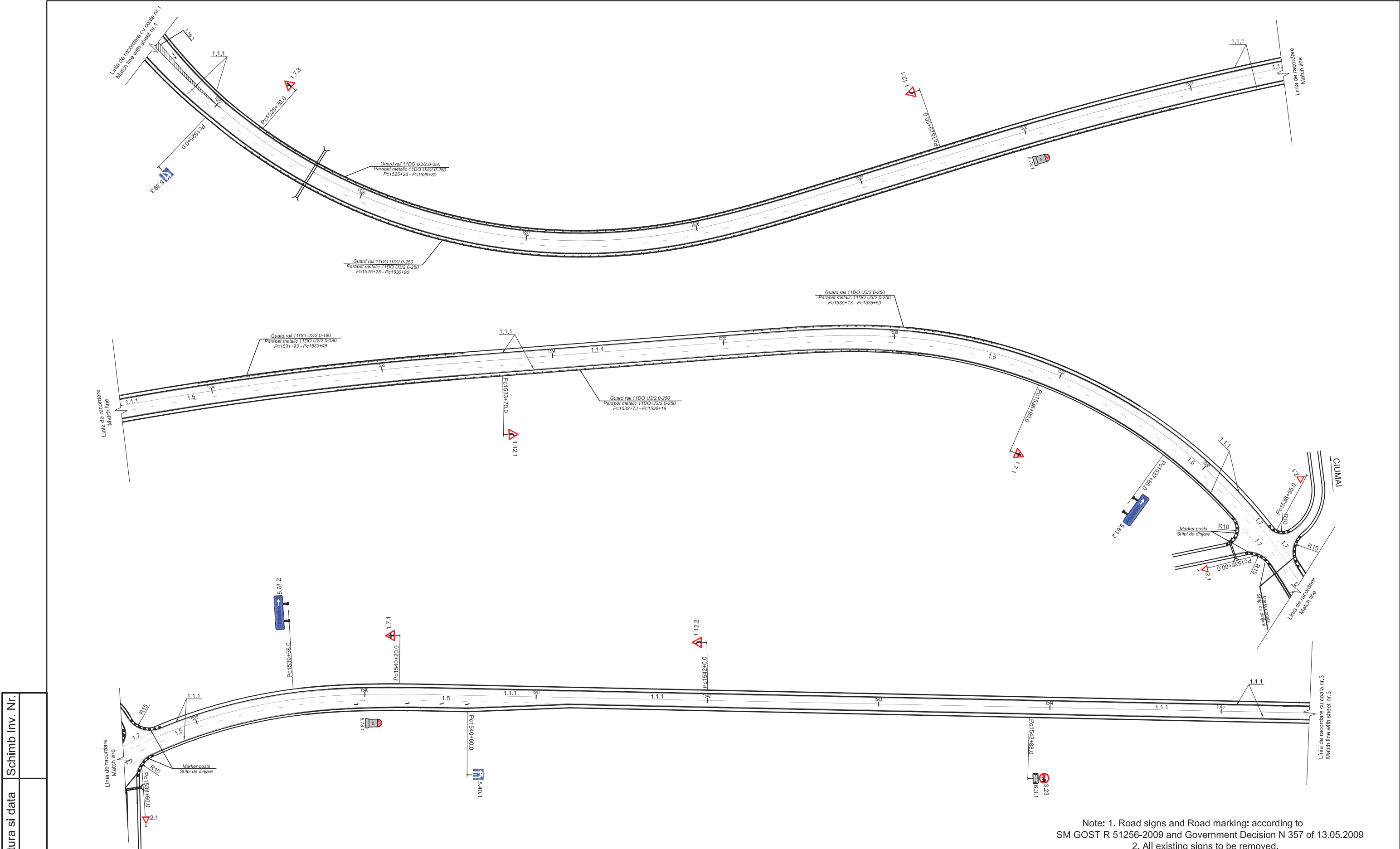


Inv. Nr.	Semnatura si data	Schimb Inv. Nr.



Note: 1. Road signs and Road marking: according to SM GOST R 51256-2009 and Government Decision N 357 of 13.05.2009  
2. All existing signs to be removed.  
Notă: 1. Indicatoarele rutiere și marcajul au fost proiectate conform SM GOST R 51256-2009 și Hotărîrea Guvernului N 357 din 13.05.2009  
2.Toate indicatoarele rutiere existente urmează a fi demolate.

Inv. Nr.	Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Consultantii/ Consultants:		Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
					Proiectat/Designed	Ailoi I.			Denumirea drumului/ Road name
					Verificat/Checked	Vilcinski D.			M3 Chisinau - Giurgiulesti/ Frontiera cu Romania Contract No. 4283-MD LOT I
									Denumirea desenului/ Marcaje si indicatoare rutiere S 1000, km 151+200 - 152+463
									Drawing name
									Road marking and signing S 1000, km 151+200 - 152+463
									Coala Nr./Sheet No.
									RM.S. 001
									Coli / Sheets
									RM.S. 016



Note: 1. Road signs and Road marking: according to SM GOST R 51256-2009 and Government Decision N 357 of 13.05.2009  
2. All existing signs to be removed.

Notă: 1. Indicatoarele rutiere și marcajul au fost proiectate conform SM GOST R 51256-2009 și Hotărîrea Guvernului N 357 din 13.05.2009  
2. Toate indicatoarele rutiere existente urmează a fi demolate.

Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Consultantii/ Consultants:

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility Engineering Design Study

Proiectul de Susținere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

Denumirea drumului/  
Road name M3 Chisinau - Giurgiulesti /Frontiera cu Romania Contract No. 4283-MD LOT I

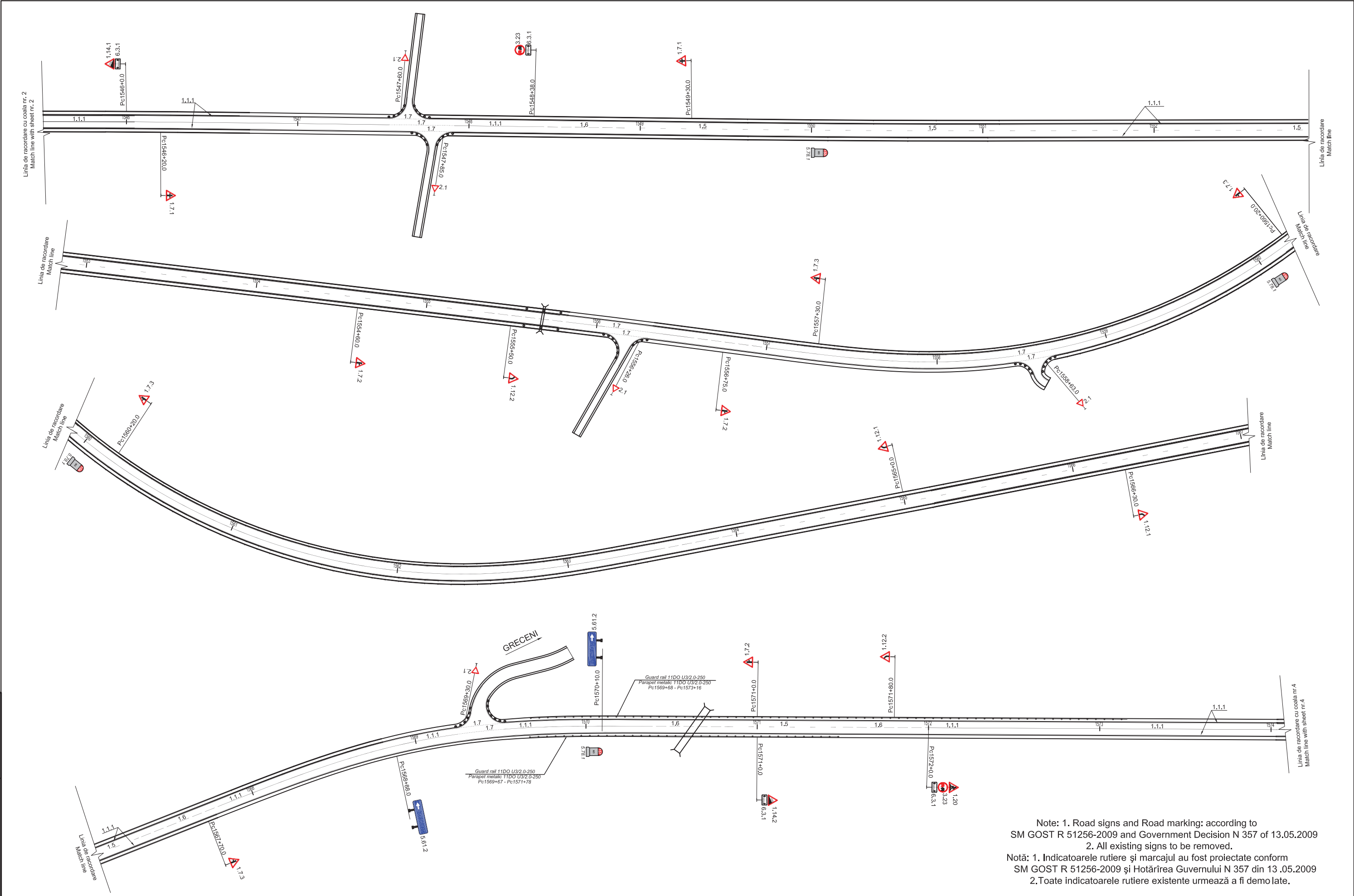
Denumirea desenului/  
Drawing name Marcaje si indicatoare rutiere S 1000, km 152+463 - 154+550

Coala Nr./Sheet No. RM.S. 002 Coli / Sheets RM.S. 016

Proiectat/Designed	Ailoi I.	Desenat/Drawn	Ailoi I.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

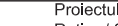
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Inv. Nr.	Semnatura si data	Schimb Inv. Nr.



Note: 1. Road signs and Road marking: according to SM GOST R 51256-2009 and Government Decision N 357 of 13.05.2009  
2. All existing signs to be removed.

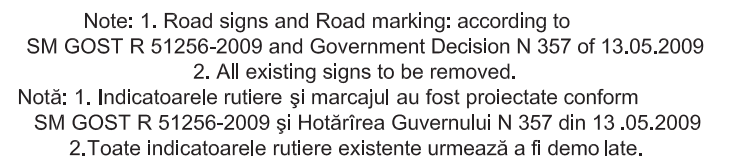
Notă: 1. Indicatoarele rutiere și marcajul au fost proiectate conform SM GOST R 51256-2009 și Hotărîrea Guvernului N 357 din 13.05.2009  
2. Toate indicatoarele rutiere existente urmează a fi demolate.

				<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector: Program Support Project		Proiectul de Susținere al Programului Sectorului		
											Roads Feasibility Engineering Design Study		Rutier / Studiul de Fezabilitate a Drumurilor și		
													Proiectare Detaliată		
													Contract No. 4283-MD LOT I		
				Proiectat/Designed	Ailoi I.	Desenat/Drawn	Ailoi I.				Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania		
											M3 Chisinau - Giurgiulesti/ Romanian border				
Rev./ Rev.	Amendamente/ Amendments		Aprobat/ Approved	Data/ Date	Verificat/Checked	Vilcinski D.	Data/Date	06.2011			Denumirea desenului/ Drawing name		Marcaje si indicatoare rutiere S 1000, km 154+550 - 157+405		
											Road marking and signing S 1000, km 154+550 - 157+405				
											Coala Nr./Sheet No.		RM.S. 003	Coli / Sheets	RM.S. 016



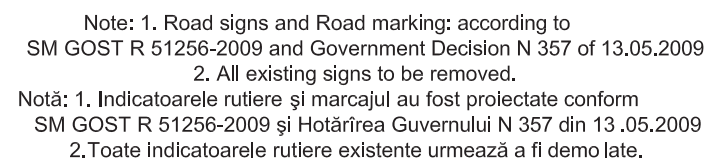






Format





Road Sector	Program Support Project	Proiectul de Susținere al Programului Sectorului	
Roads Feasibility Engineering Design Study		Rutier / Studii de Fezabilitate a Drumurilor și	
		Proiectare Detaliată	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No.	4283-MD LOT 1
Denumirea desenului/ Drawing name	Marcaje si indicatoare rutiere S 1000, km 163+038 - 165+174 Road marking and signing S 1000, km 163+038 - 165+174		
Coala Nr./Sheet No.	RM.S. 007	Coli / Sheets	RM.S. 016



Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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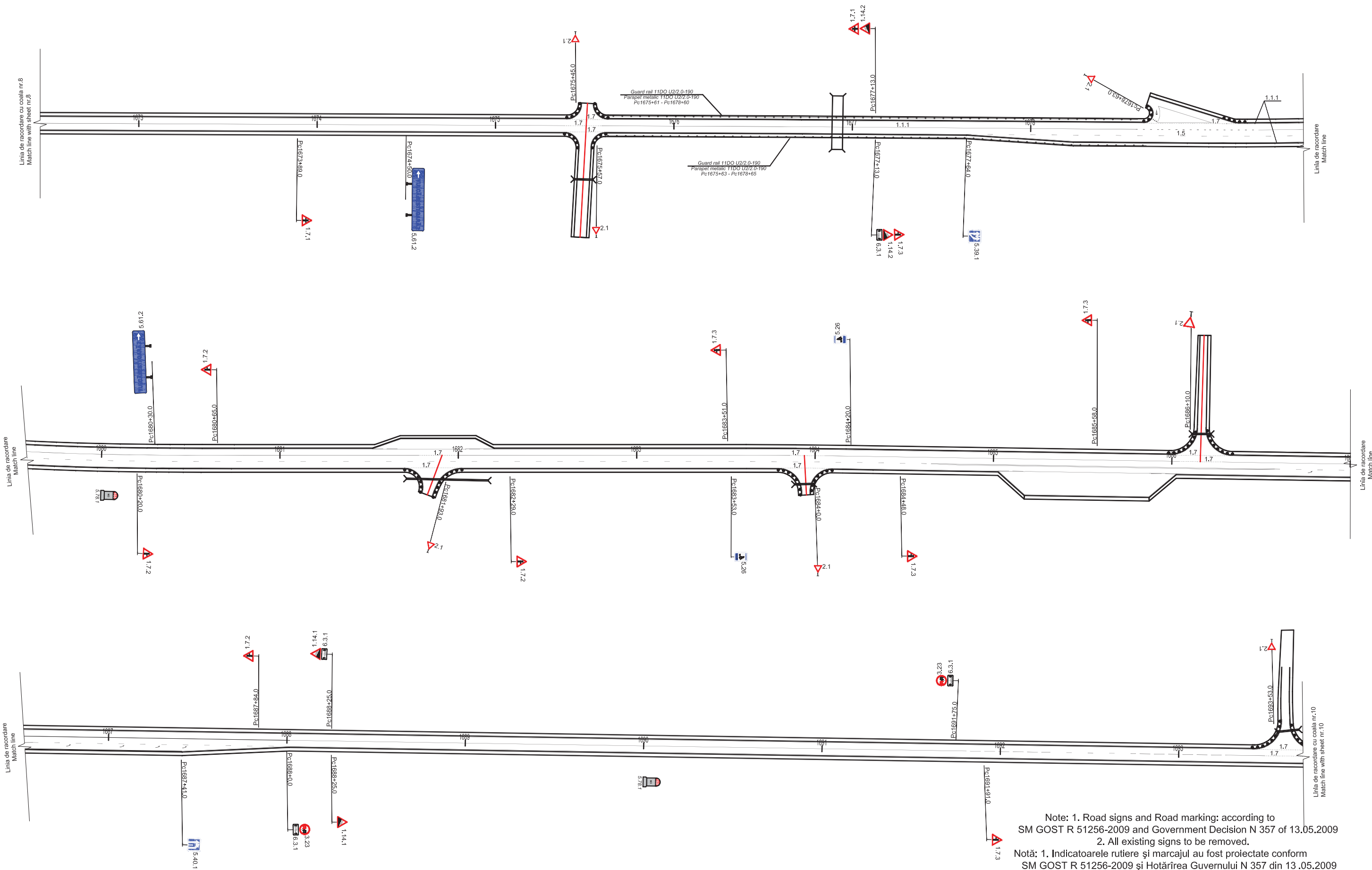
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Consultantii/ Consultants:			
Proiectat/Designed	Ailoi I.	Desenat/Drawn	Ailoi I.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

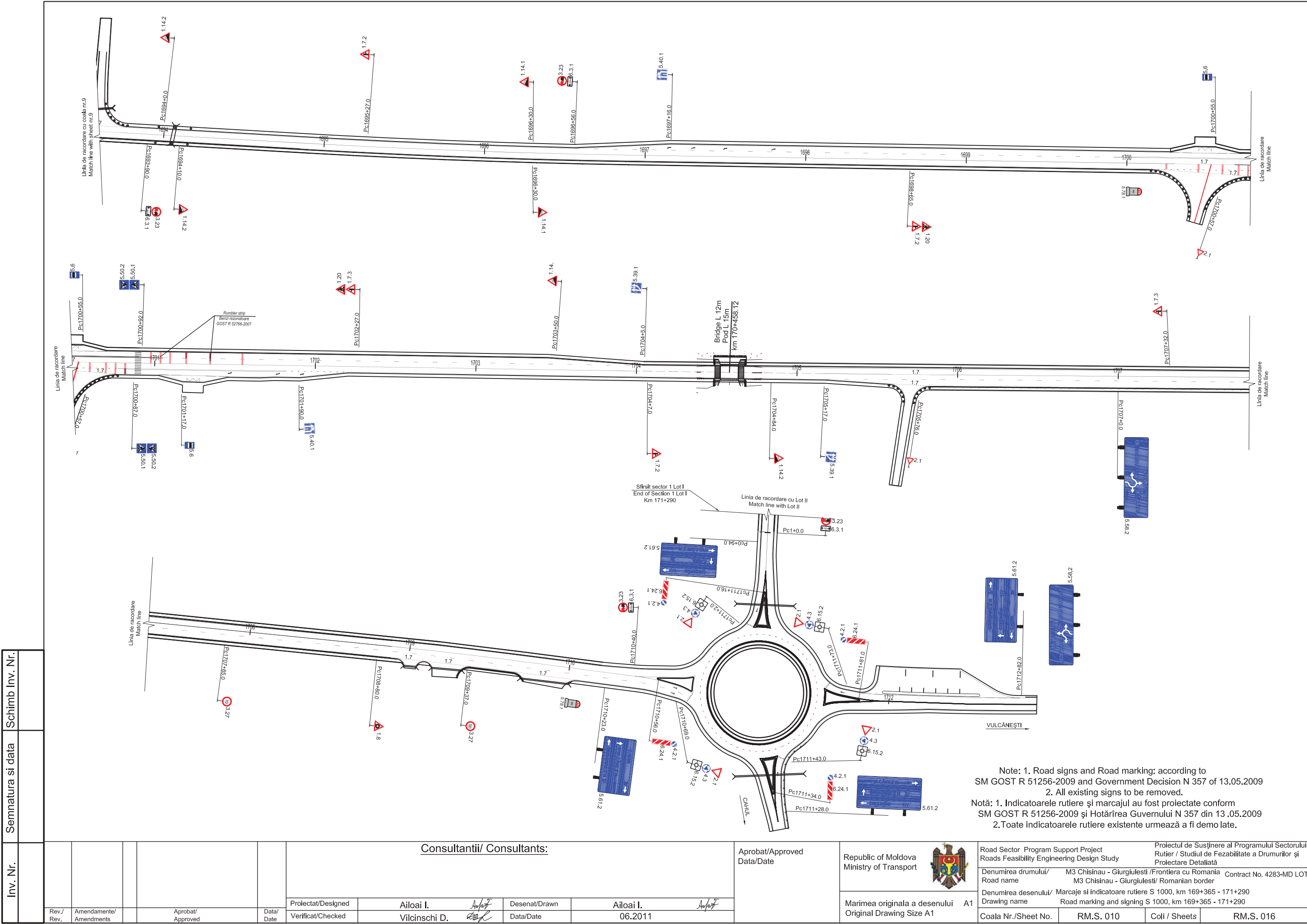
Aprobat/Approved Data/Date
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Republic of Moldova Ministry of Transport
Marimea originala a desenului Original Drawing Size A1

Road Sector Program Support Project Roads Feasibility Engineering Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
Denumirea drumului/ Road name	M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	Contract No. 4283-MD LOT I	
Denumirea desenului/ Drawing name	Marcaje si indicatoare rutiere S 1000, km 167+255 - 169+365 Road marking and signing S 1000, km 167+255 - 169+365		
Coala Nr./Sheet No.	RM.S. 009	Coli / Sheets	RM.S. 016




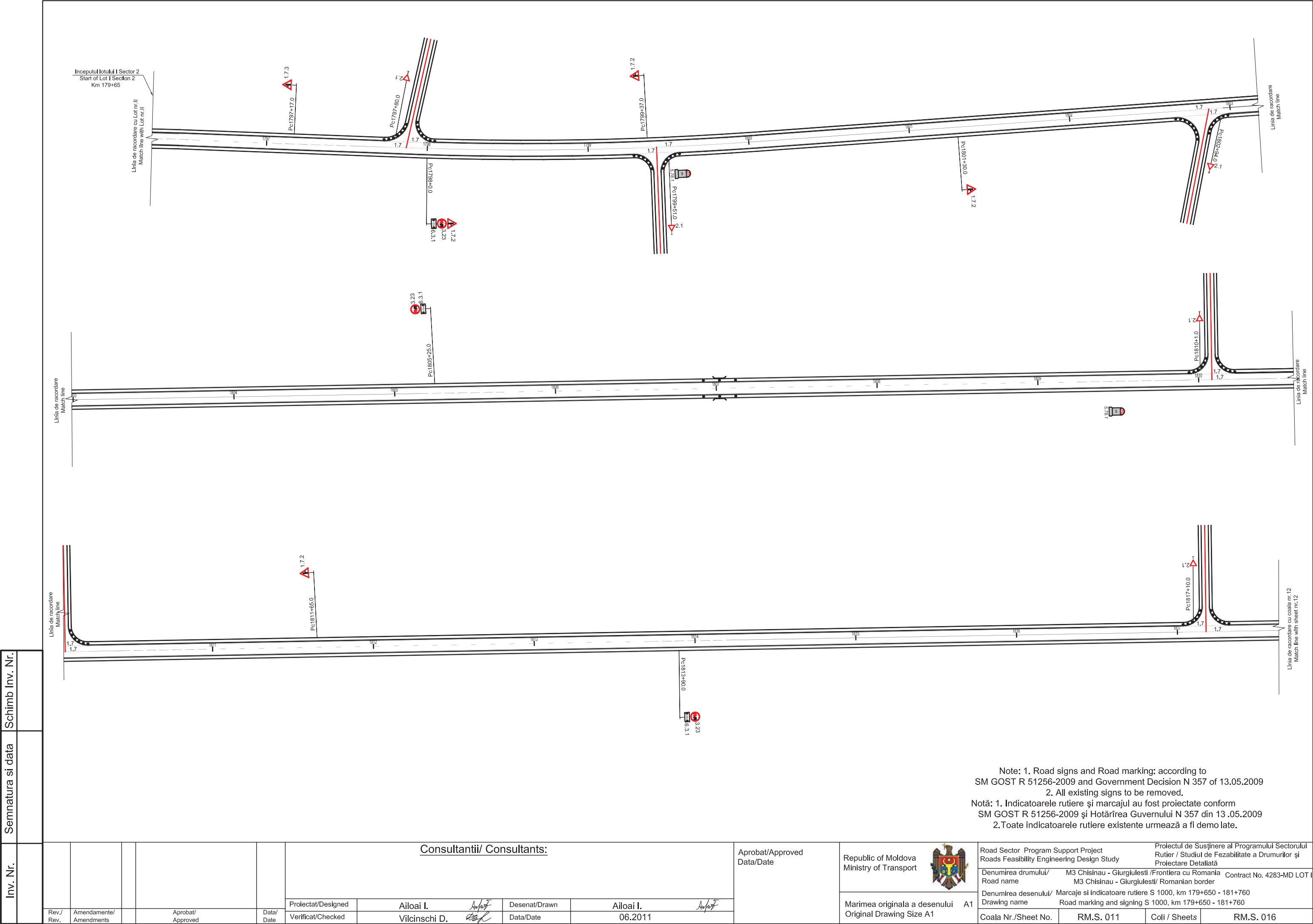




Note: 1. Road signs and Road marking: according to SM GOST R 51256-2009 and Government Decision N 357 of 13.05.2009  
2. All existing signs to be removed.  
Notă: 1. Indicatoarele rutiere și marcajul au fost proiectate conform SM GOST R 51256-2009 și Hotărârea Guvernului N 357 din 13.05.2009  
2.Toate indicatoarele rutiere existente urmează a fi demo late.

Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Inv. Nr.					<u>Consultantii/ Consultants:</u>				Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project Roads Feasibility Engineering Design Study				Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					



Note: 1. Road signs and Road marking; according to  
SM GOST R 51256-2009 and Government Decision N 357 of 13.05.2009  
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SM GOST R 51256-2009 și Hotărîrea Guvernului N 357 din 13.05.2009  
2.Toate indicatoarele rutiere existente urmează a fi demo late.

Inv. Nr.	Semnatura si data	Schimb Inv. Nr.
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Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Consultantii/ Consultants:			
				Proiectat/Designed	Ailoi I. <i>Ailoi I.</i>	Desenat/Drawn	Ailoi I. <i>Ailoi I.</i>
				Verificat/Checked	Vilcinski D. <i>Vilcinski D.</i>	Data/Date	06.2011

Aprobat/Approved Data/Date		Republic of Moldova Ministry of Transport				Road Sector Program Support Project Roads Feasibility Engineering Design Study		Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată	
						Denumirea drumului/ Road name		M3 Chisinau - Giurgiulesti /Frontiera cu Romania M3 Chisinau - Giurgiulesti/ Romanian border	
						Denumirea desenului/ Drawing name		Marcaje si indicatoare rutiere S 1000, km 179+650 - 181+760 Road marking and signing S 1000, km 179+650 - 181+760	
						Coala Nr./Sheet No.		RM.S. 011	
								Coli / Sheets	
								RM.S. 016	