

**Republic of Moldova**  
**Ministry of Transport and Road Infrastructure**  
**State Road Administration**

**European Investment Bank**

**Road Sector Program Support Project**

**Rehabilitation of R3 Chisinau - Hincesti Road**

**km 22+000 – km 29+920**

**VOLUME 3**

**DRAWINGS**

**ICB: RSPSP/2010/ICB02**

Invitation for Bids no **RSPSP/2010/ICB02/W04**

Chisinau, 2010

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**Lista desenelor**

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<b>Drum auto</b>		
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3	Road plan PC 228+00 - PC 235+00	Plan traseu PC 228+00 - PC 235+00
4	Road plan PC 235+00 - PC 242+00	Plan traseu PC 235+00 - PC 242+00
5	Road plan PC242+00 - PC 250+00	Plan traseu PC242+00 - PC 250+00
6	Road plan 250+00 - PC 257+00	Plan traseu PC 250+00 - PC 257+00
7	Road plan PC 257+00 - PC 265+00	Plan traseu PC 257+00 - PC 265+00
8	Road plan PC 265+00 - PC 270+75	Plan traseu PC 265+00 - PC 270+75
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11	Road plan PC 291+00 - PC 299+00	Plan traseu PC 291+00 - PC 299+00
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13	Longitudinal Profile PC 233+00 - PC 248+50	Profil Longitudinal PC 233+00 - PC 248+50
14	Longitudinal Profile PC 248+50 - PC 264+00	Profil Longitudinal PC 248+50 - PC 264+00
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30	Existing typical culverts PC 298+67; PC 247+03	Podete existente tip PC 298+67; PC 247+03
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33	Drainage chutes	Constructia casiiului pe acostament
34	Construction of the dissipator chutes	Camin de disipare pentru casiiuri
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40	Plan of Road traffic management PC 239+50 - PC 248+50	Planul organizarii circulatiei rutiere PC 239+50 - PC 248+50
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43	Plan of Road traffic management PC 266+00 - PC 272+50	Planul organizarii circulatiei rutiere PC 266+00 - PC 272+50
44	Plan of Road traffic management PC 272+50 - PC 282+50	Planul organizarii circulatiei rutiere PC 272+50 - PC 282+50
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47	Plan of Road traffic management PC 296+50 - PC 299+20	Planul organizarii circulatiei rutiere PC 296+50 - PC 299+20
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50	Temporary road work signs	Semnalizare rutiera provizorie
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52	Supports for signs installed	Suport de instalatie a indicatoarelor rutiere
53	Nonstandard road signs 5.47.2	Indicator rutier individual 5.47.2.
54	Nonstandard road signs 5.47.2	Indicator rutier individual 5.47.2.
55	Nonstandard road signs 5.47.2	Indicator rutier individual 5.47.2.
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58	Strengthening of piles with RC surround	Consolidarea piloților cu beton armat
59	Bridge deck	Tablierul suprastructurii
60	Expansion joints	Rost de dilatație
61	Bridge deck.Guardrail stub foundation.	Tablierul suprastructurii.Socul parapetului de siguranță Scl-1, Scl-2
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64	Approach slab PR 1-4 4.0m long	Placa de racordare PR 1-4 Lungimea 4,0 m
65	Pedestrian parapets	Parapeți metalici pietonali
66	Bridge guardrails.	Parapeți metalici de siguranță a circulației vehiculelor
67	Bridge guardrails. Pipe brackets	Parapeți metalici de siguranță a circulației vehiculelor. Element de fixare a țevii.
68	Bridge guardrails. Guardrail posts	Parapeți metalici de siguranță a circulației vehiculelor. Stâlpii parapeților CMIQ*, CД-3*.
69	Waterproofing to bridge deck and asphalt	Hidroizolarea suprastructurii și îmbrăcămintea
70	Protection of the semicone slopes with reinforced concrete of 8cm thickness over a layer of crushed stone of 10cm cu thickness	Consolidarea conurilor și a taluzurilor cu beton armat h=8.0cm, pe un strat de piatra sparta h=10.0cm

SCHEDULE OF BASIC SETS OF DRAWINGS  
BORDEROUL SETURLOR DE BAZA A DESENELOR

Index Marcarea	Title Denumirea	Note Nota
-DA	Road. Drumuri Auto	
-P	Bridges. Poduri	
-AT	Slip remedial works. Alunecari de teren	

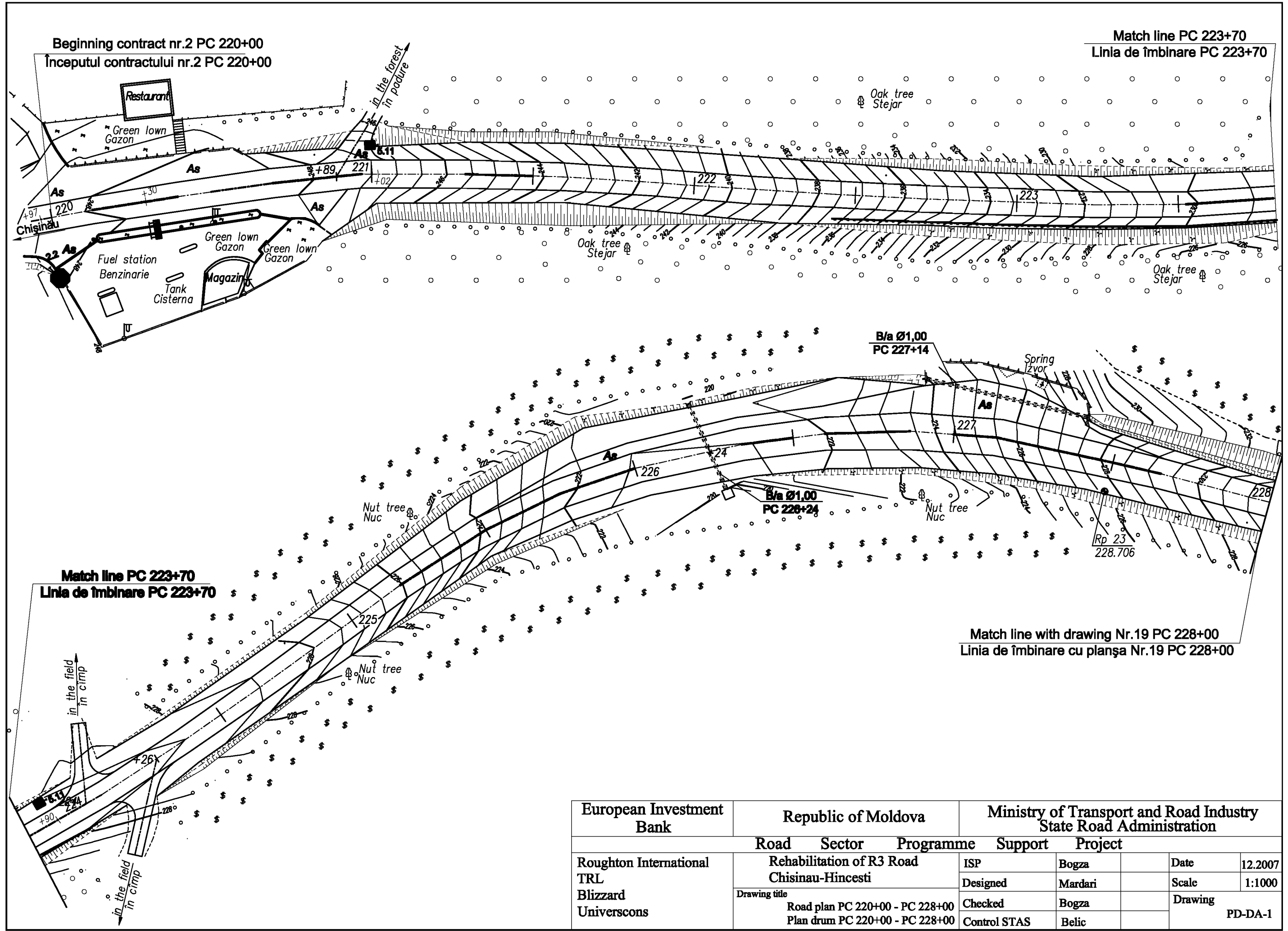
SCHEDULE OF BASIC SETS OF DRAWINGS FOR ROADS  
BORDEROUL DESENELOR SETULUI -DA

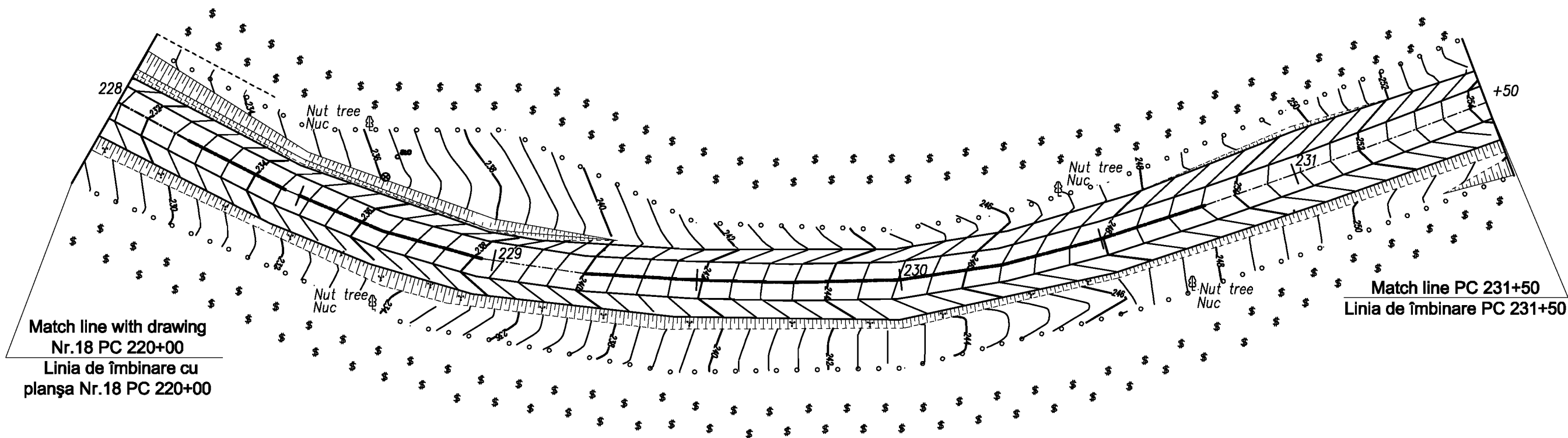
Item No Nr.d/o	Name Denumirea	Index Marcarea	Drawings Planse	Note Nota
1	General data Date generale	DG-DA	1	
2	Road plan Plan drum	PD-DA	1-10	
3	Longitudinal profile Profil longitudinal	PL-DA	1-7	
4	Typical cross sections Profile transversale tip	PTT-DA	1-3	
5	Cross sections of earthwork Profile transversale terasamente	PT-DA	1-5	
6	Construction of drainage kerb Constructia rigolei de scurgere a apei	CRS-DA	1	
7	Existing typical culverts Podete existente tip	PET-DA	1-2	
8	Typical lined side drain 1;2 i<5% Santuri laterale tip 1;2 i<5%	SLT-DA	1	
9	Typical lined side drain i>5% Santuri laterale tip i>5%	SLT-DA	1	
10	Drainage chutes Constructia casiului pe acostament	CCA-DA	1	
11	Construction of the dissipator chute Camin de disipare pentru casiuri	CDC-DA	1	
12	Typical side road Drum lateral tip	DLT-DA	1	
13	Plan of the diversion road km 25 Plan drum de ocolire km 25	PDO-DA	1	
14	Plan of road traffic management Planul organizarii circulatiei rutiere	POCR-DA	1-11	
15	Temporary road work signs Semnalizare rutiera provizorie	SRP-DA	1-3	
16	Safety barrier for gantries Parapet metalic	PM-DA	1	
17	Supports for signs installed Suport de instalare a indicatoarelor rutiere	SIIR-DA	1	
18	Nonstandart road signs Indicator rutier individual	IRI-DA	1-3	
			55	

SCHEDULE OF BASIC SETS OF DRAWINGS FOR BRIDGES  
BORDEROUL DESENELOR SETULUI -P

1	Bridge. Pod	P-P	1	
2	Wingwall on a direct foundation of RC Aripa de taluz pe fundatie directa din beton armat	AT-P	1	
3	Strengthening of piles with RC surround Consolidarea pilotilor cu beton armat	CP-P	1	
4	Bridge deck. Tablierul suprastructurii	TS-P	1	
5	Expansion joints. Rost de dilatatie	RD-P	1	
6	Bridge deck . Guardrail stub foundation Tablierul suprastructurii. Soclul parapetului de siguranta Sc1-1,Sc1-2	TS-P	1	
7	Embedded base plates Piese înglobate PI-1, PI-2, PI-3	PI-P	1	
8	Approach to the bridge 4.0m long Racordarea podului cu terasamentul Lungimea de 4,0 m	RP-P	1	
9	Approach slab PR 1-4 4.0m long Placa de racordare PR 1-4 Lungimea 4,0 m	PR-P	1	
10	Pedestrian parapets Parapeti metalici pietonali	PMP-P	1	
11	Bridge guardrails. Guardrail posts Parapeti metalici de siguranta a circulatiei vehiculelor	PMS-P	1-3	
12	Waterproofing to bridge deck and asphalt Hidroizolarea suprastructurii si îmbracamintea rutiera	HS-P	1	
13	Protection of the semicone slopes with reinforced concrete of 8cm thickness axer a leyr of crushed stone of 10cm cu thickuess	CC-P	1	
14	Consolidarea conurilor si a taluzurilor cu beton armat			

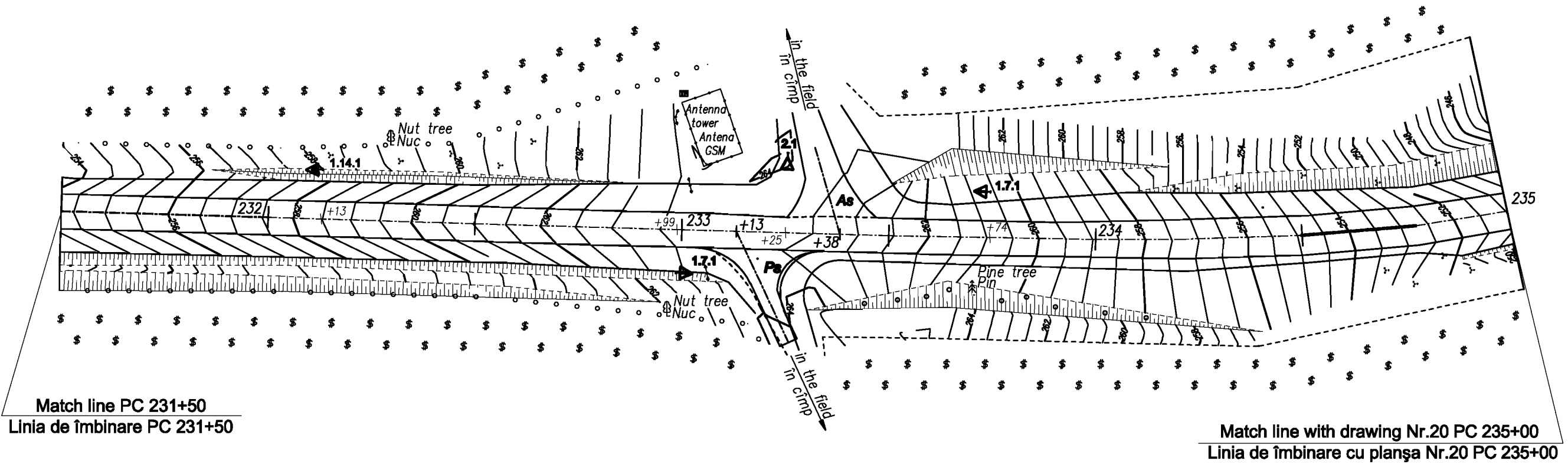
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Road Sector Programme Support Project					
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		Designed	Gisca	Scale	
	Drawing title General data Date generale	Checked	Bogza	Drawing	DG-AD-1
		Control STAS	Belic		





Match line with drawing  
Nr.18 PC 220+00  
Linia de îmbinare cu  
planşa Nr.18 PC 220+00

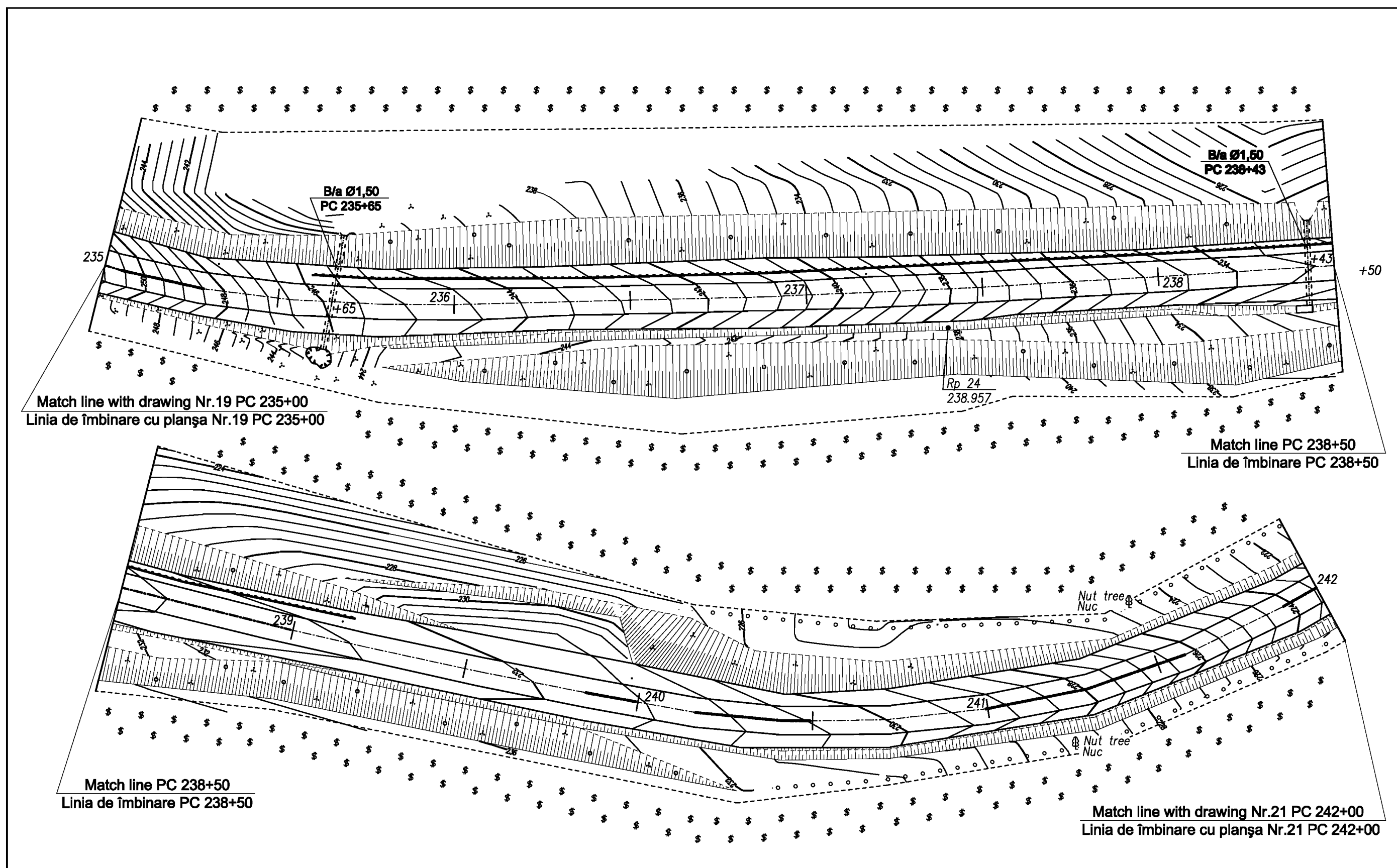
Match line PC 231+50  
Linia de îmbinare PC 231+50



Match line PC 231+50  
Linia de îmbinare PC 231+50

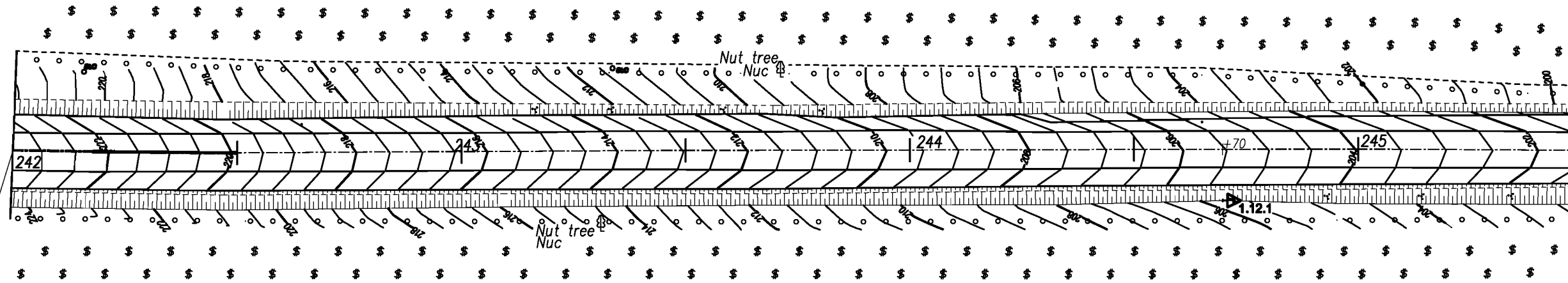
Match line with drawing Nr.20 PC 235+00  
Linia de îmbinare cu planşa Nr.20 PC 235+00

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
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		Control STAS	Belic		



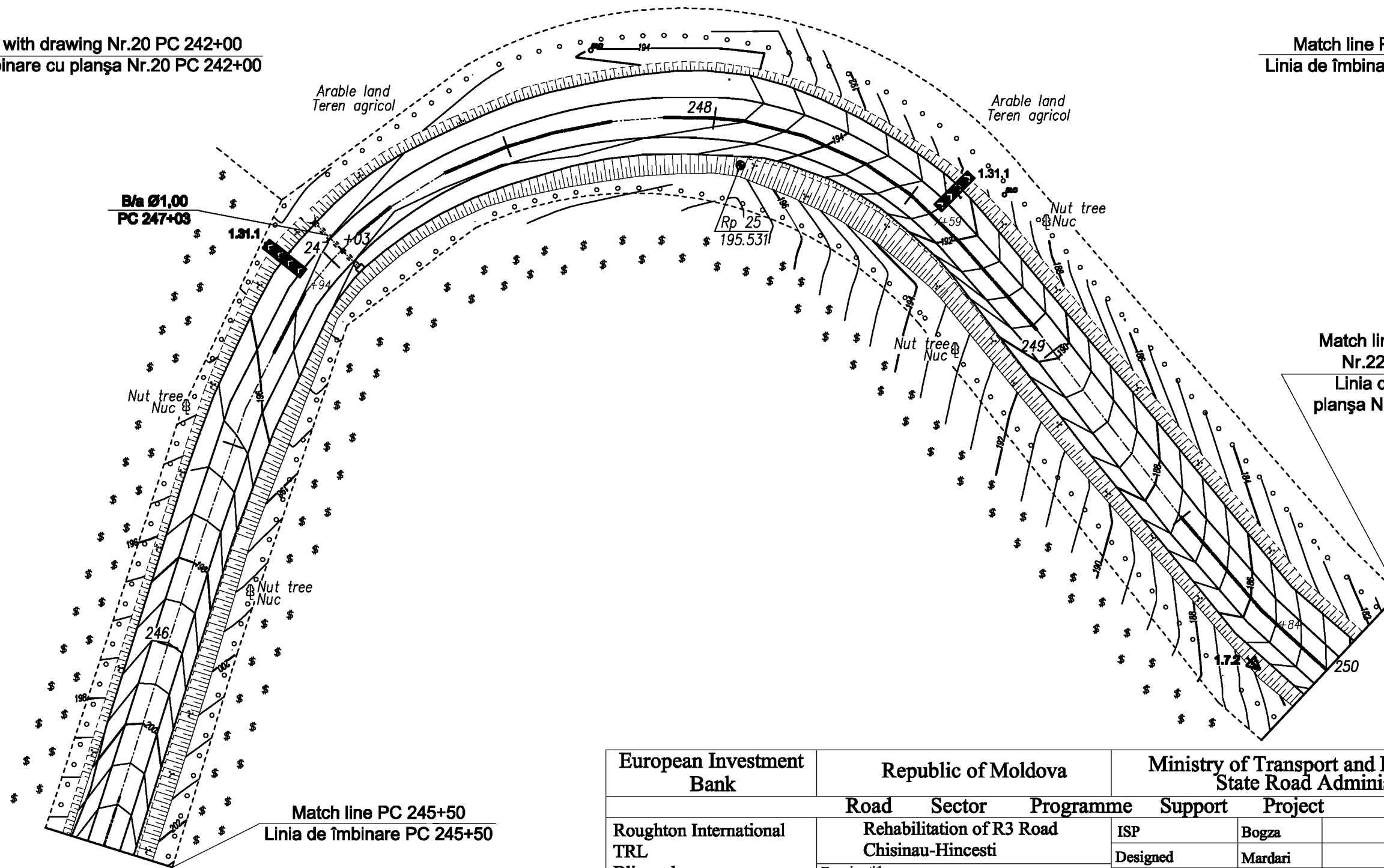
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Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
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		Control STAS	Belic		





Match line with drawing Nr.20 PC 242+00  
Linia de îmbinare cu planșa Nr.20 PC 242+00

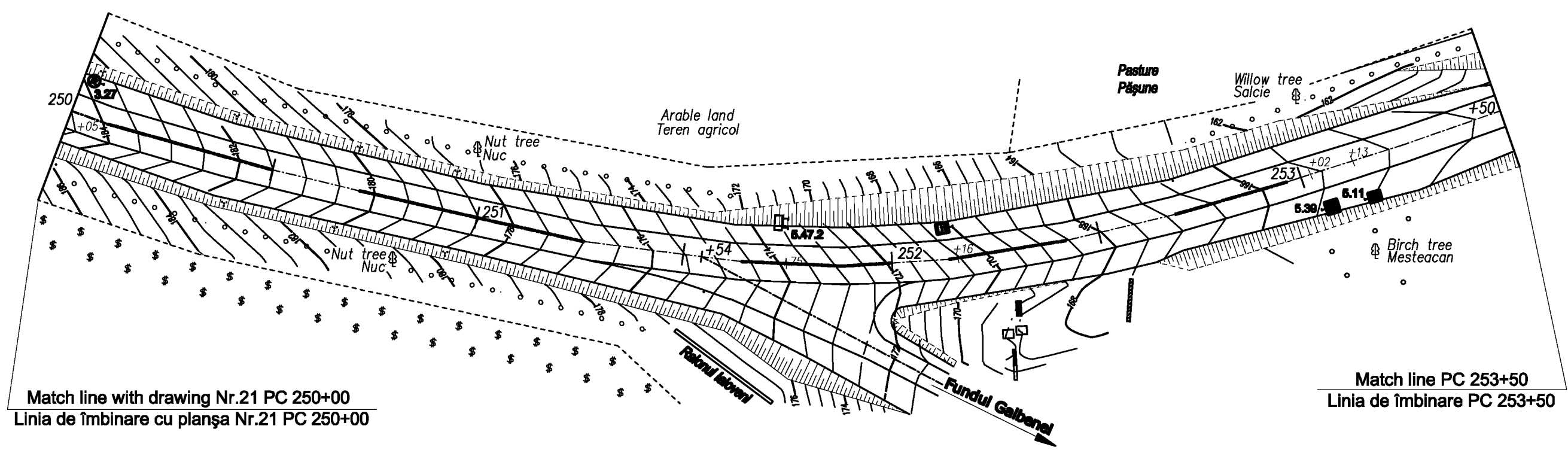
Match line PC 245+50  
Linia de îmbinare PC 245+50



Match line with drawing  
Nr.22 PC 250+00  
Linia de îmbinare cu  
planșa Nr.22 PC 250+00

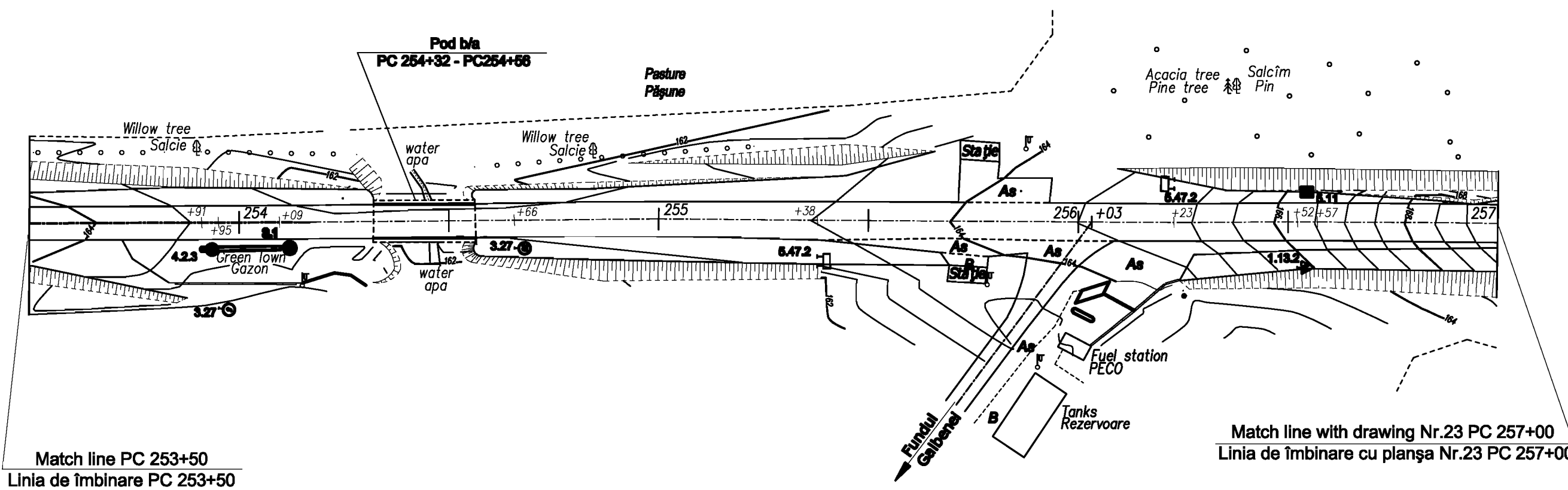
Match line PC 245+50  
Linia de îmbinare PC 245+50

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title Road plan PC 242+00 - PC 250+00 Plan drum PC 242+00 - PC 250+00	Designed	Mardari	Scale	1:1000
		Checked	Bogza	Drawing	PD-DA-4
		Control STAS	Belic		



Match line with drawing Nr.21 PC 250+00  
Linia de îmbinare cu planșa Nr.21 PC 250+00

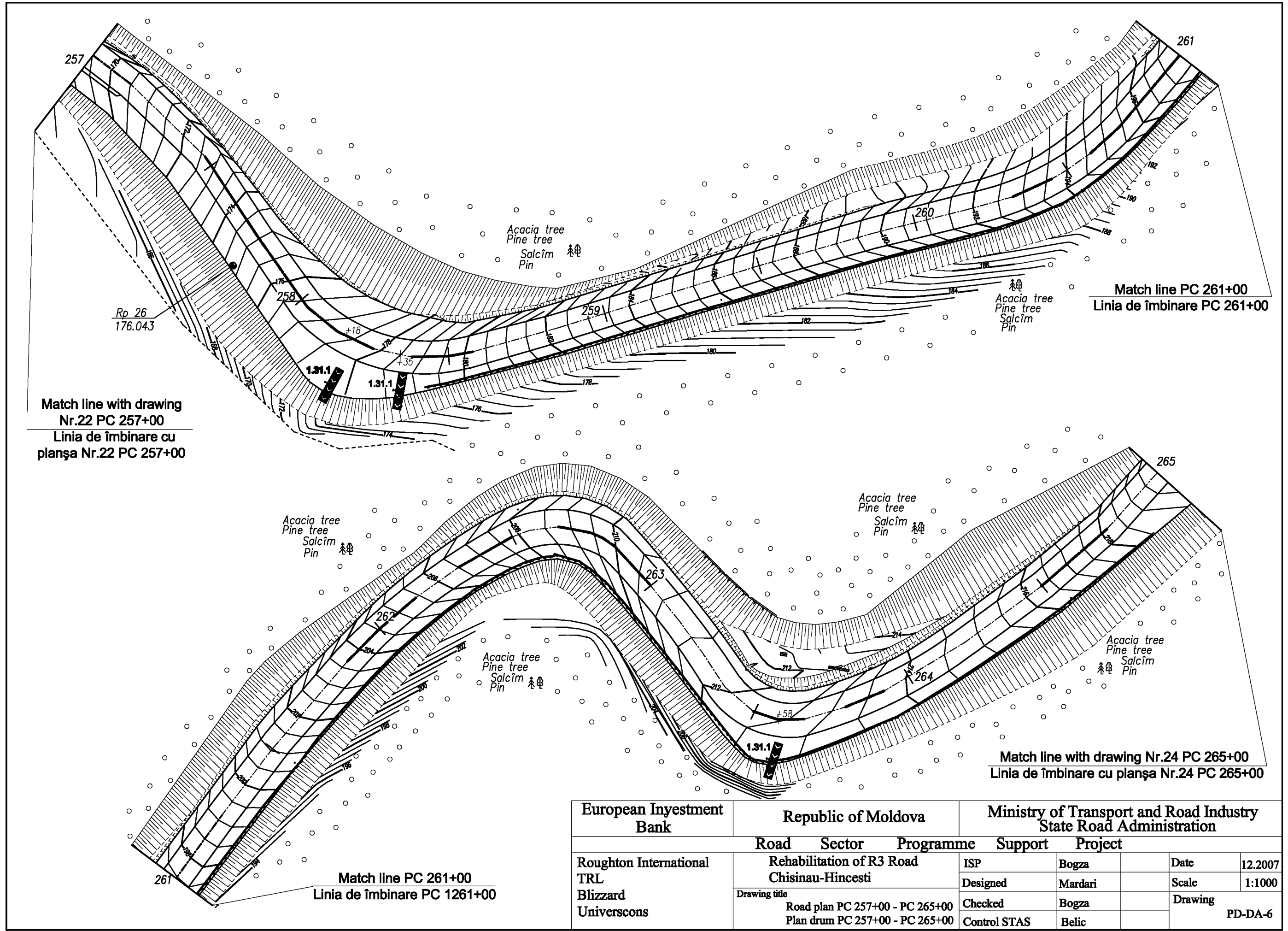
Match line PC 253+50  
Linia de îmbinare PC 253+50



Match line PC 253+50  
Linia de îmbinare PC 253+50

Match line with drawing Nr.23 PC 257+00  
Linia de îmbinare cu planșa Nr.23 PC 257+00

European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
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	Plan drum PC 250+00 - PC 257+00		Control STAS	Belic		



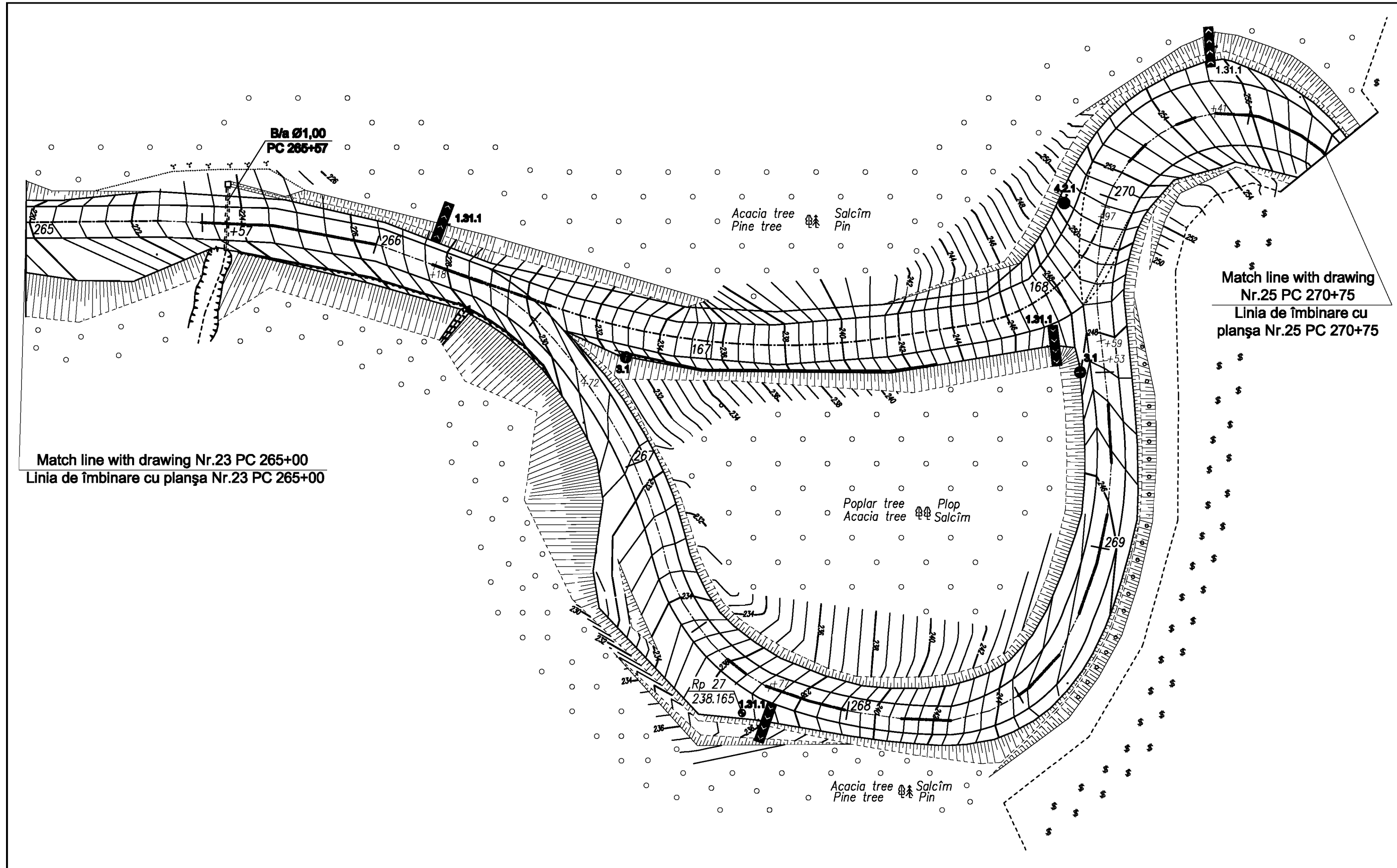
Match line with drawing  
Nr.22 PC 257+00  
Linia de îmbinare cu  
planșa Nr.22 PC 257+00

Match line PC 261+00  
Linia de îmbinare PC 261+00

Match line with drawing Nr.24 PC 265+00  
Linia de îmbinare cu planșa Nr.24 PC 265+00

Match line PC 261+00  
Linia de îmbinare PC 1261+00

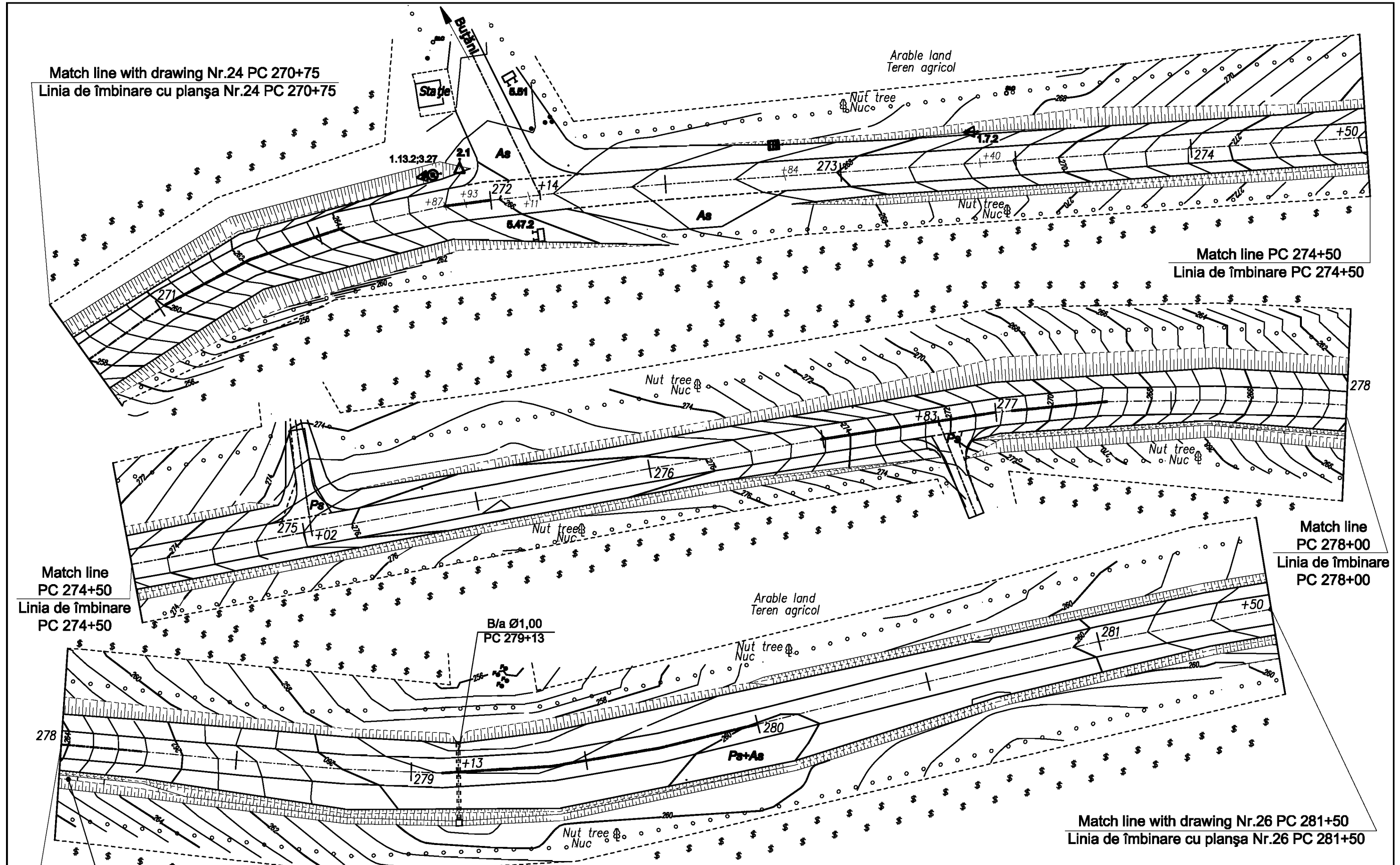
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
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		Control STAS	Belic		



Match line with drawing Nr.23 PC 265+00  
Linia de îmbinare cu planșa Nr.23 PC 265+00

Match line with drawing  
Nr.25 PC 270+75  
Linia de îmbinare cu  
planșa Nr.25 PC 270+75

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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Match line with drawing Nr.24 PC 270+75  
Linia de îmbinare cu planșa Nr.24 PC 270+75

Match line PC 274+50  
Linia de îmbinare PC 274+50

Match line PC 274+50  
Linia de îmbinare PC 274+50

Match line PC 278+00  
Linia de îmbinare PC 278+00

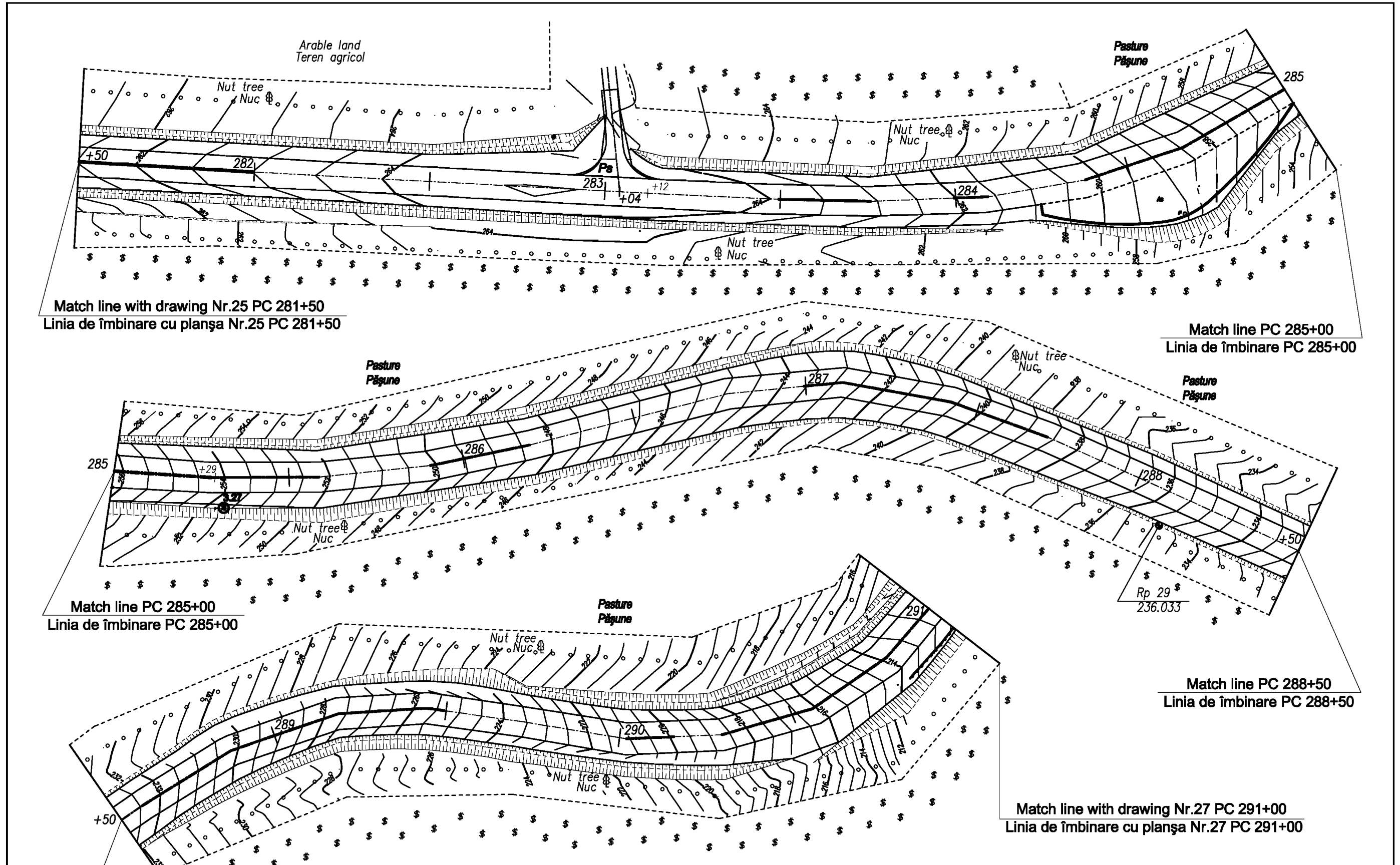
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Linia de îmbinare cu planșa Nr.26 PC 281+50

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Linia de îmbinare PC 278+00

European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
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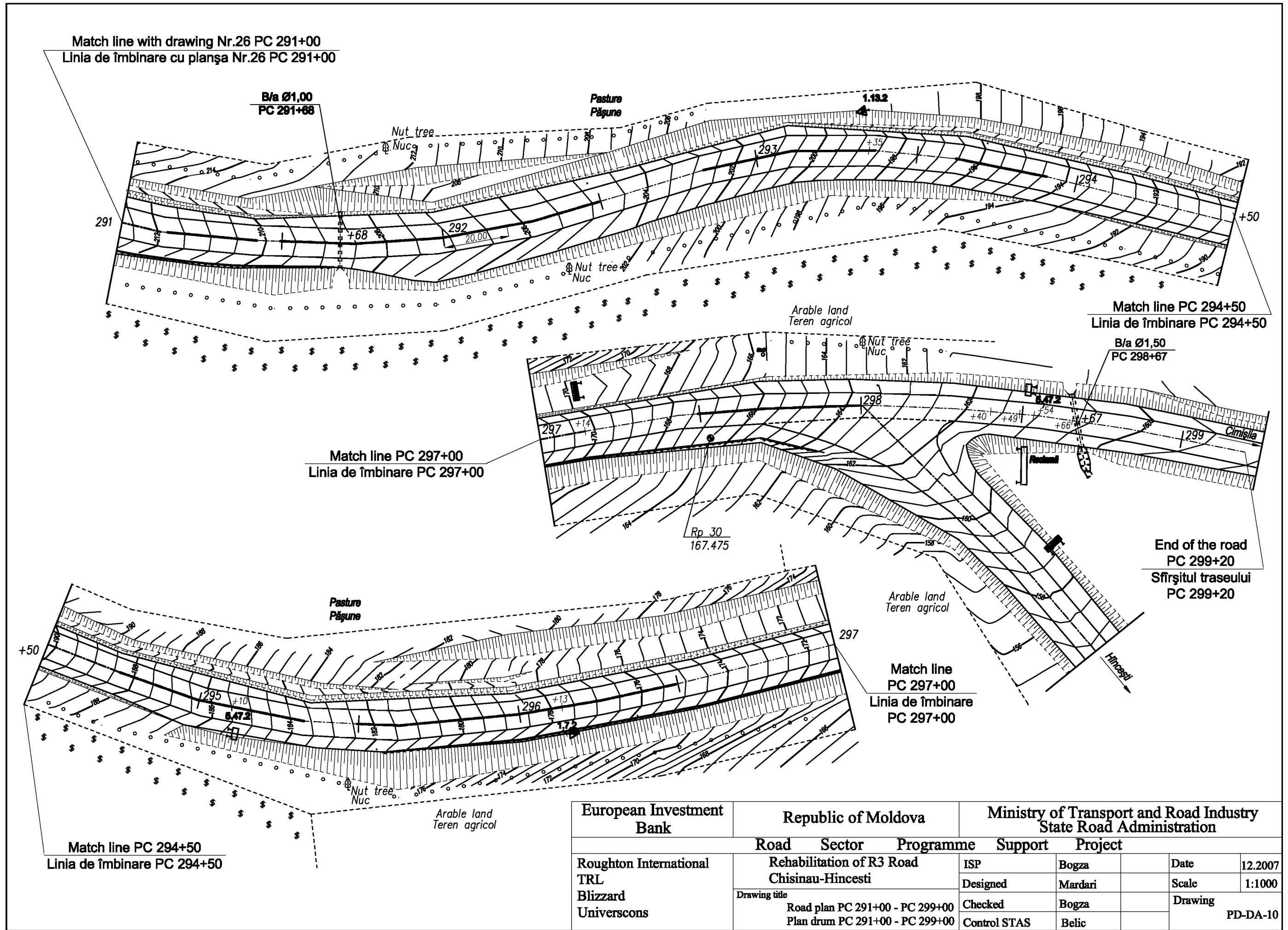
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264.774

B/a Ø1,00  
PC 279+13



European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector	Programme	Support	Project	
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TRL	Chisinau-Hincesti	Designed	Mardari	Scale	1:1000
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Universcons	Road plan PC 281+50 - PC 291+00 Plan drum PC 281+50 - PC 291+00	Control STAS	Belic	PD-DA-9	

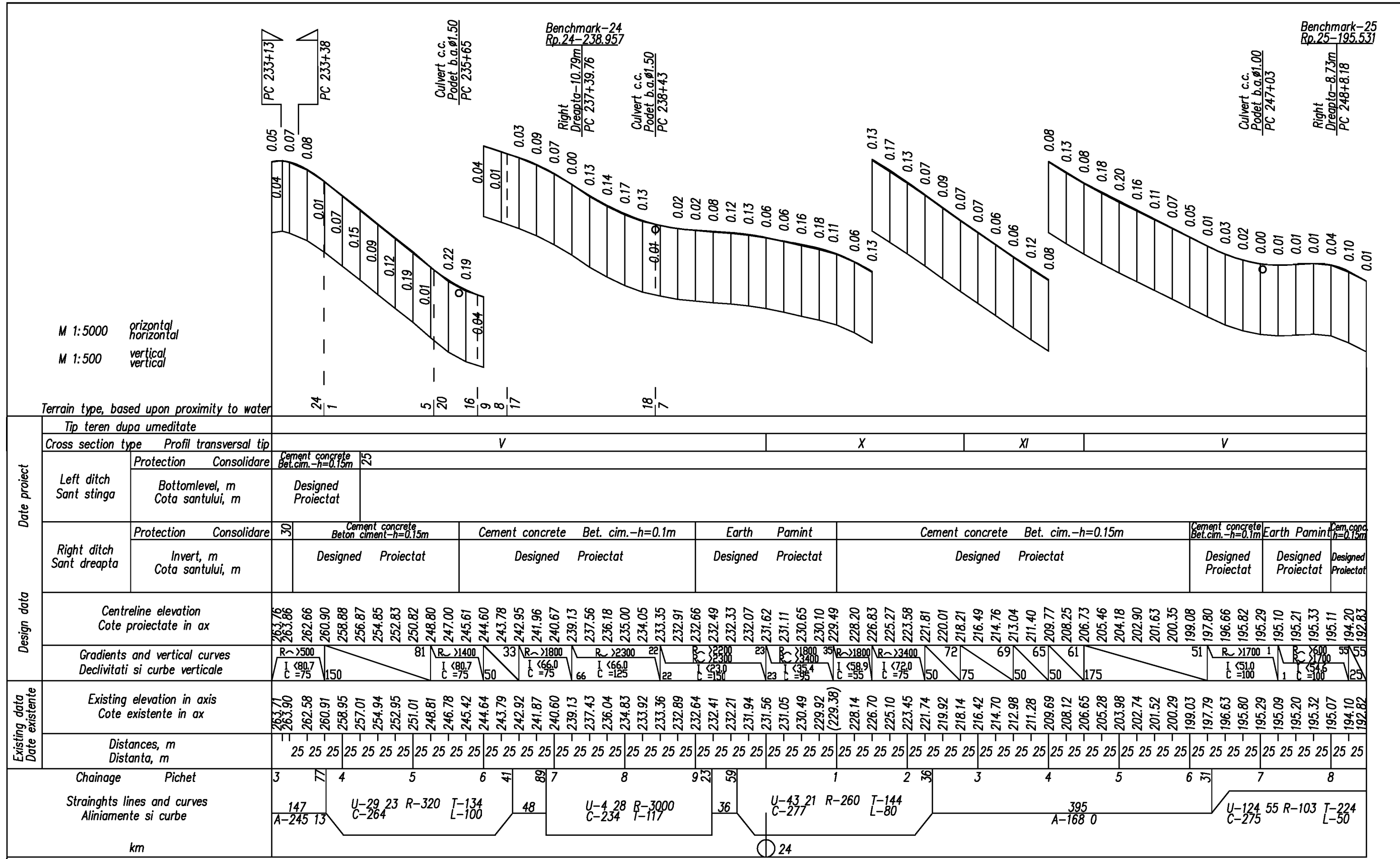




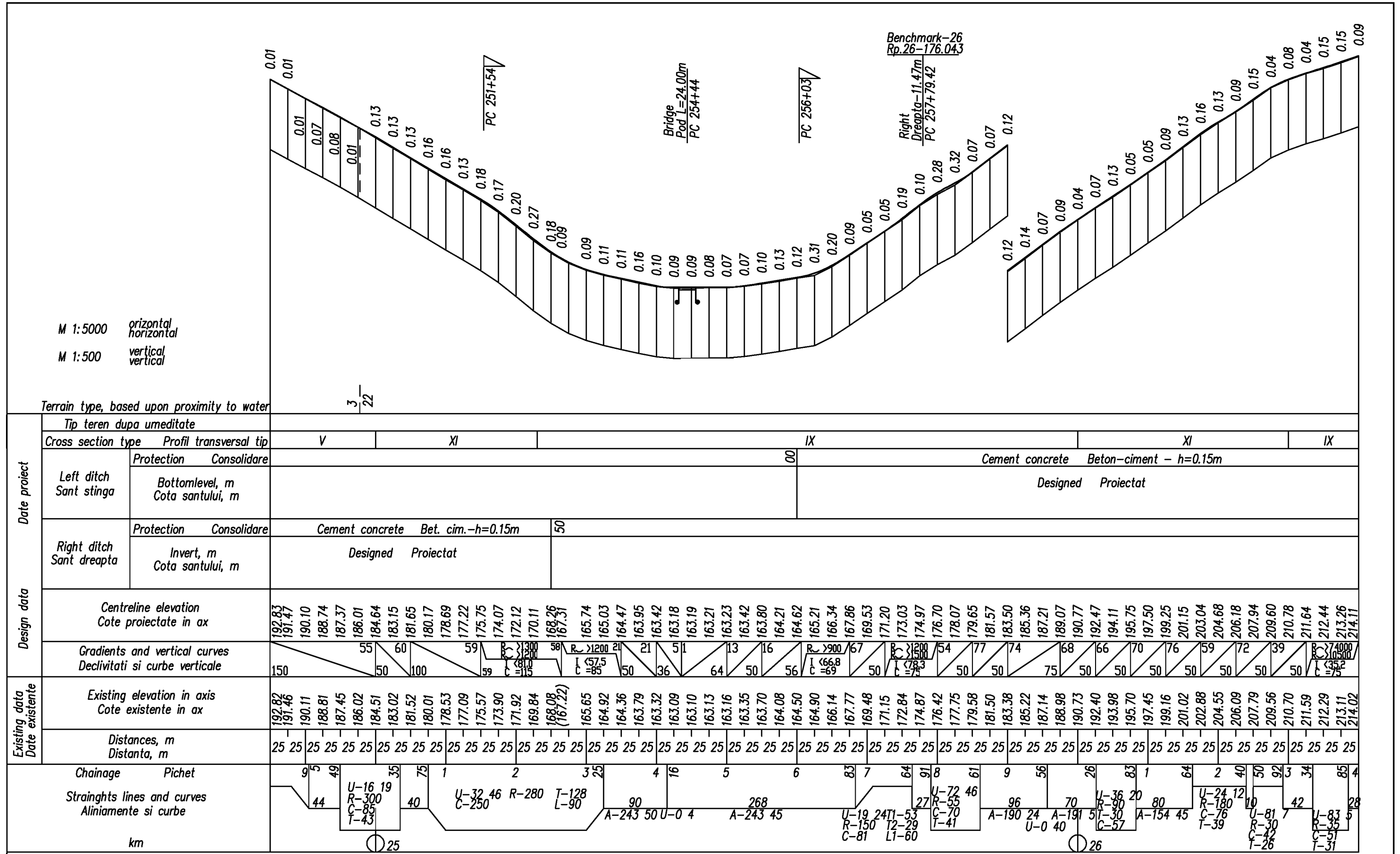
European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
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European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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	Drawing title <b>Longitudinal Profile Profil Longitudinal PC 233+00 - PC 248+50</b>	Designed	Gisca	Scale	
		Checked	Bogza	<b>Drawing</b>	
		Control STAS	Belic	<b>FL-DA-2</b>	



M 1:5000 horizontal  
M 1:500 vertical

Terrain type, based upon proximity to water

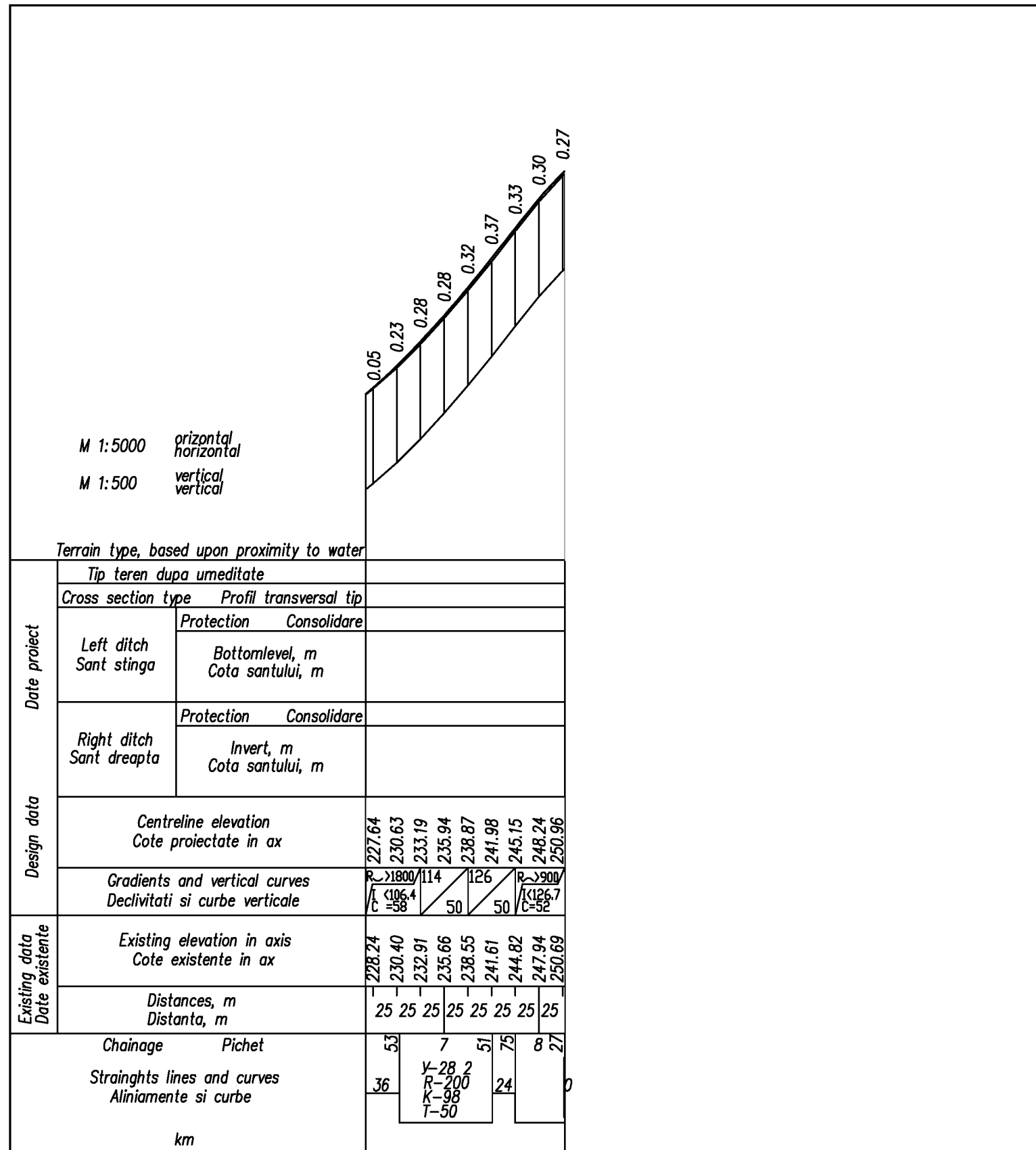
Date proiect	Tip teren dupa umeditate		
	Cross section type Profil transversal tip	V	XI
Left ditch Sant stinga	Protection Consolidare	00	
	Bottomlevel, m Cota santului, m	Cement concrete Beton-ciment - h=0.15m	
Right ditch Sant dreapta	Protection Consolidare	Cement concrete	Bet. cim.-h=0.15m
	Invert, m Cota santului, m	Designed	Proiectat
Design data	Centreline elevation Cote proiectate in ax	192.83	191.47
	Gradients and vertical curves Declivitati si curbe verticale	150	50
Existing data Date existente	Existing elevation in axis Cote existente in ax	192.82	191.46
	Distances, m Distanta, m	25	25
Chainage Pichet	Straight lines and curves Aliniamente si curbe	U-16 19 R-300 C-85 T-43	U-32 46 R-280 T-128 L-90
	km	25	26

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
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		Control STAS	Belic	PL-DA-3	

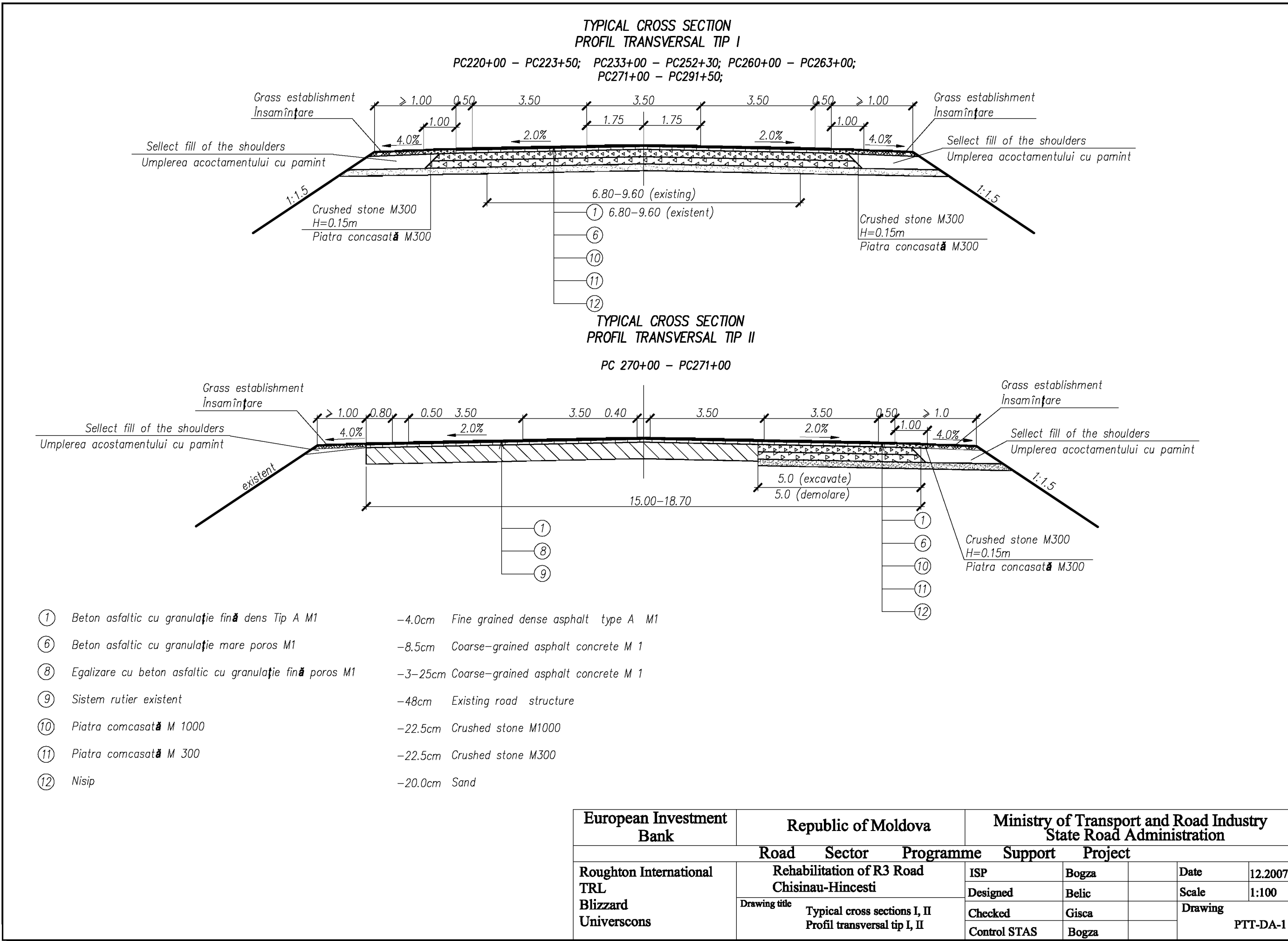








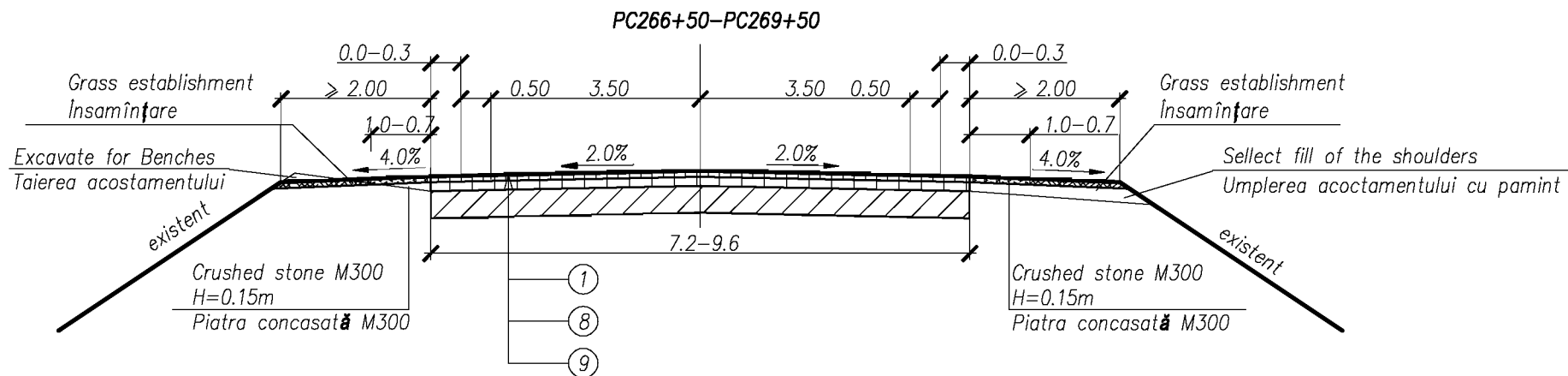
European Investment Bank		Republic of Moldova		Ministry of Transport and Road Industry State Road Administration		
Road Sector Programme Support Project						
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	Drawing title <b>Longitudinal Profile: Southbound                  Profil Longitudinal: Sens opus                  PC 266+17 - PC 268+27</b>		Designed	Gisca	Scale	
			Checked	Bogza	<b>Drawing PL-DA-7</b>	
			Control STAS	Belic		



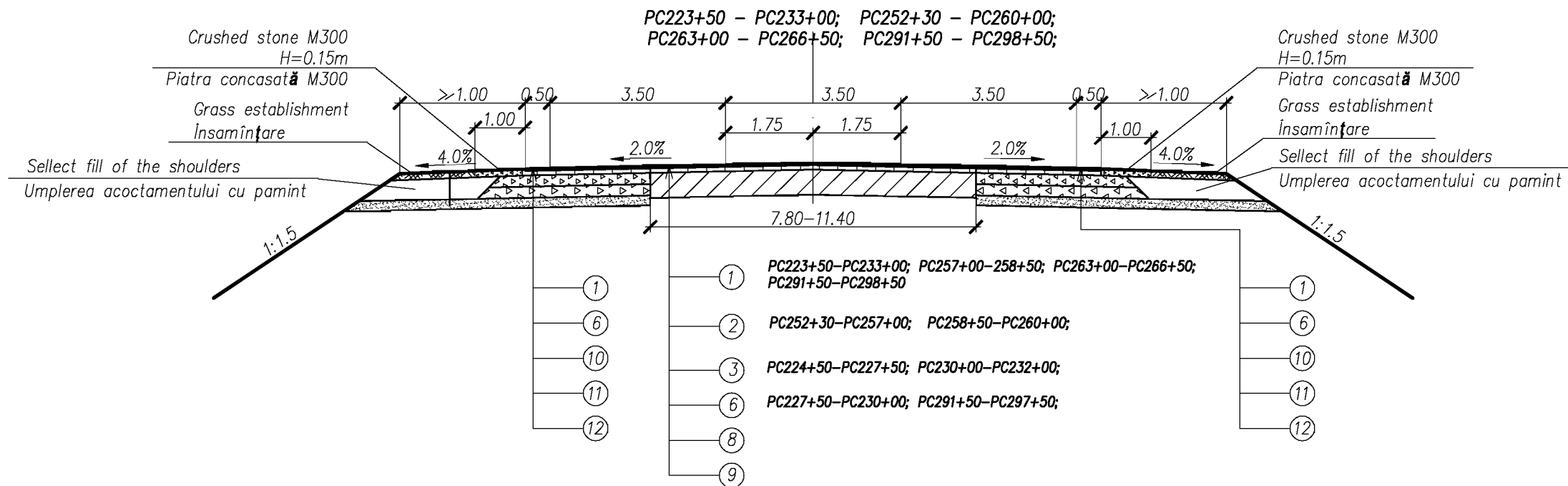
- ① Beton asfaltic cu granulație fină dens Tip A M1 -4.0cm Fine grained dense asphalt type A M1
- ⑥ Beton asfaltic cu granulație mare poros M1 -8.5cm Coarse-grained asphalt concrete M 1
- ⑧ Egalizare cu beton asfaltic cu granulație fină poros M1 -3-25cm Coarse-grained asphalt concrete M 1
- ⑨ Sistem rutier existent -48cm Existing road structure
- ⑩ Piatra comcasată M 1000 -22.5cm Crushed stone M1000
- ⑪ Piatra comcasată M 300 -22.5cm Crushed stone M300
- ⑫ Nisip -20.0cm Sand

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	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Belic	Scale	1:100
	Typical cross sections I, II Profil transversal tip I, II		Checked	Gisca	Drawing	PTT-DA-1
			Control STAS	Bogza		

**TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP III**



**TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP IV**

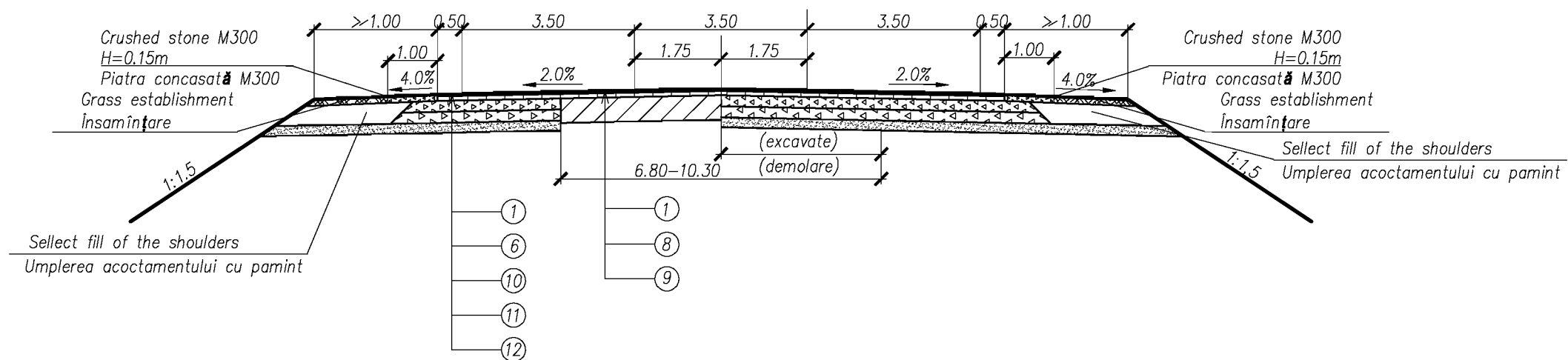


- ① Beton asfaltic cu granulație fină dens Tip A M1 – 4.0cm Fine grained dense asphalt type A M1
- ② Beton asfaltic cu granulație fină dens Tip A M1 – 6.0cm Fine grained dense asphalt type A M1
- ③ Beton asfaltic cu granulație fină poros M1 – 4.0cm Coarse-grained asphalt concrete M 1
- ⑥ Beton asfaltic cu granulație mare poros M1 – 8.5cm Coarse-grained asphalt concrete M 1
- ⑧ Egalizare cu beton asfaltic cu granulație fină poros M1 – 3-15cm Coarse-grained asphalt concrete M 1
- ⑨ Sistem rutier existent – 47-50cm Existing road structure
- ⑩ Piatra comcasată M 1000 – 22.5cm Crushed stone M1000
- ⑪ Piatra comcasată M 300 – 22.5cm Crushed stone M300
- ⑫ Nisip – 20.0cm Sand

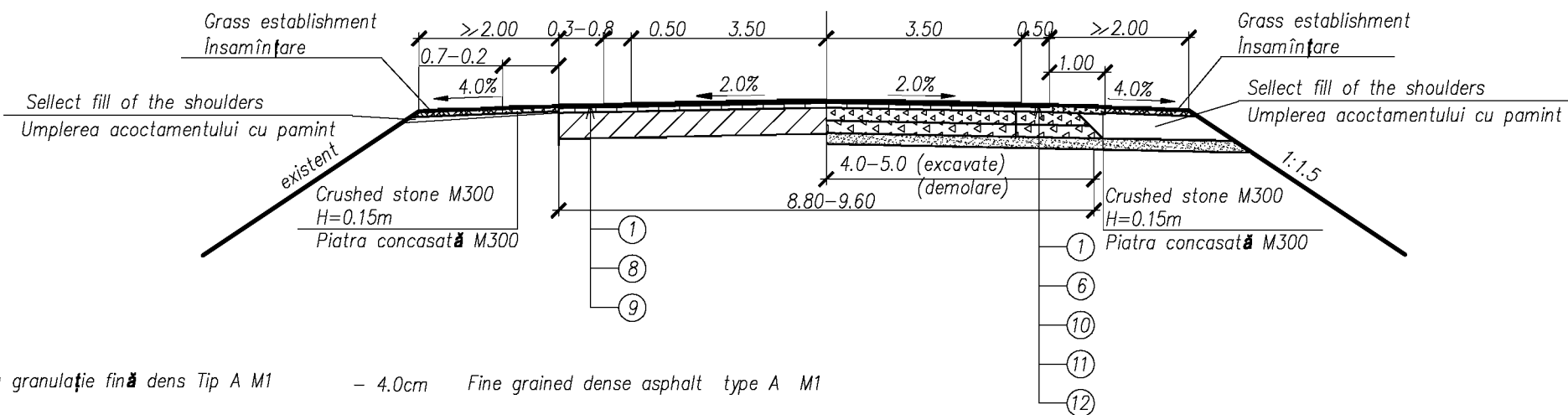
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Belic	Scale	1:100
	Typical cross sections III, IV Profil transversal tip III, IV	Checked	Gisca	Drawing	PTT-DA-2
		Control STAS	Bogza		



**TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP V  
PC298+50 – PC299+20;**

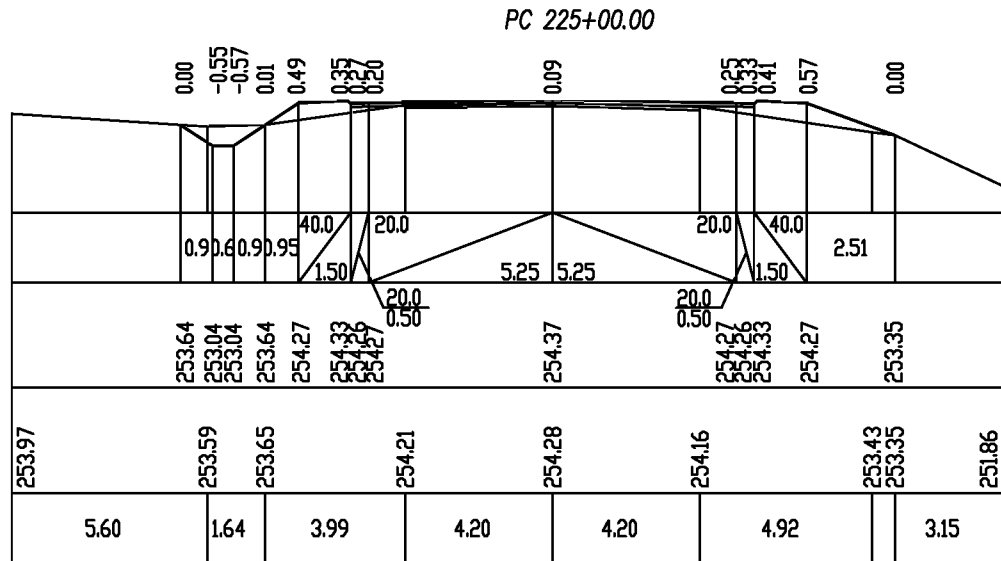
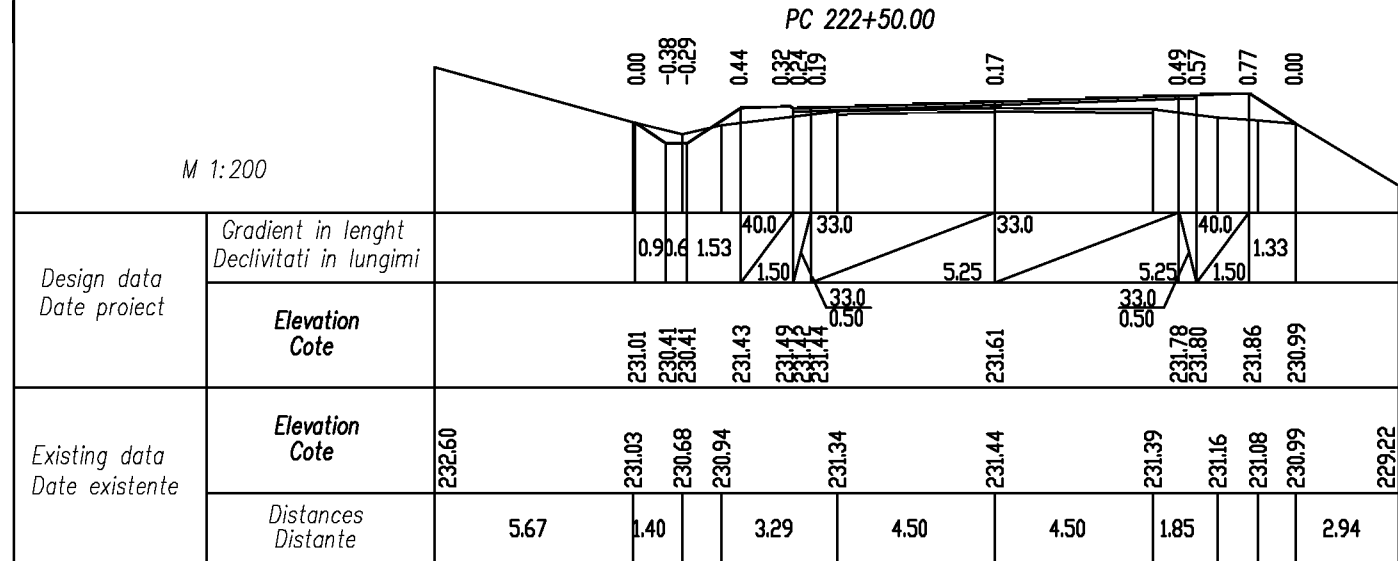
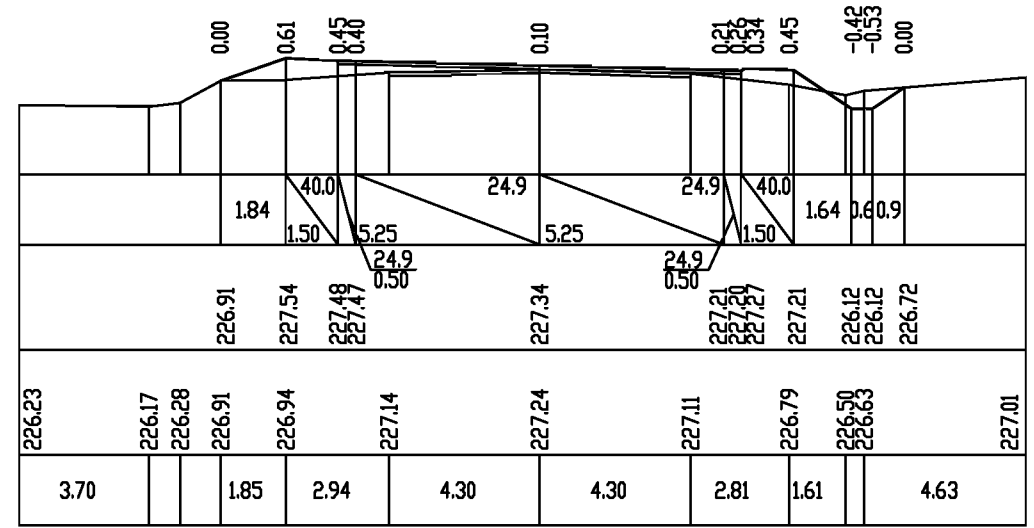
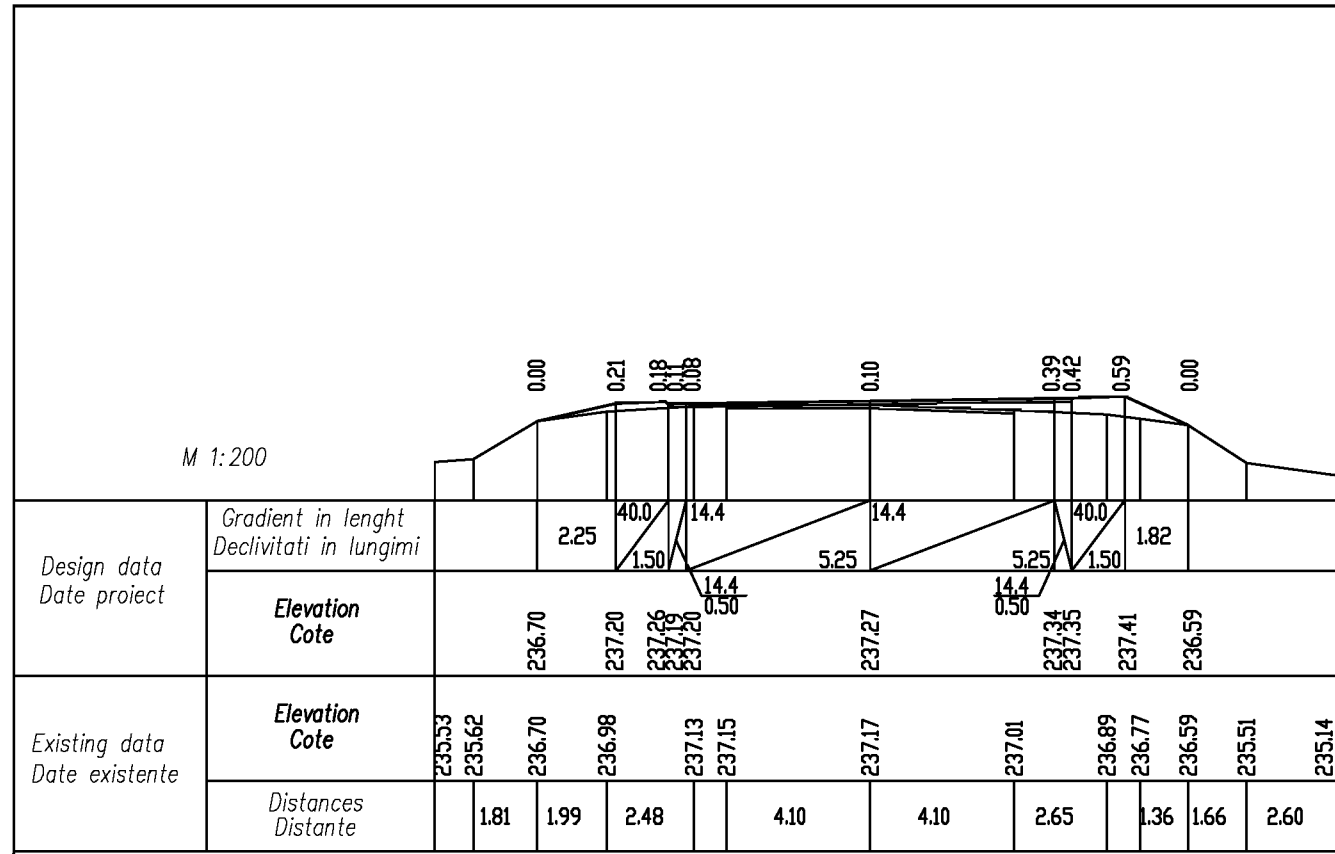


**TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP VI  
PC269+50-PC270+00**

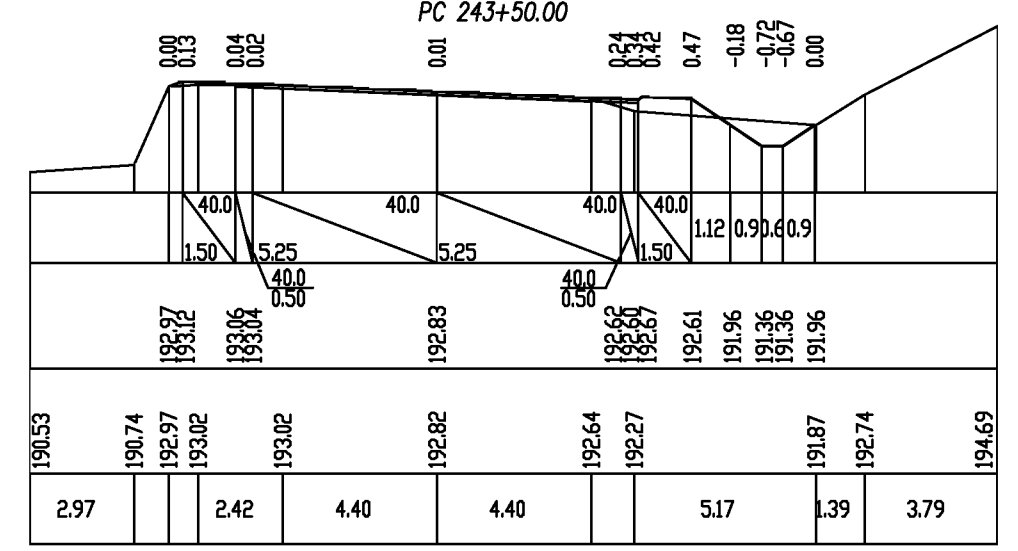
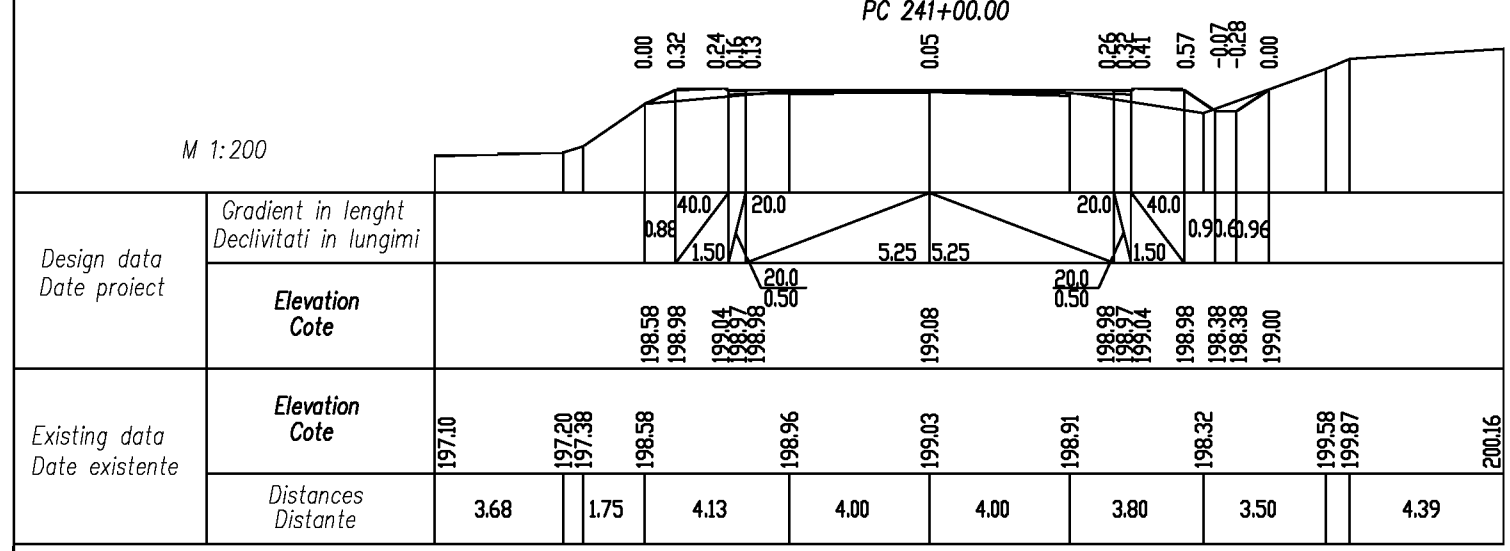
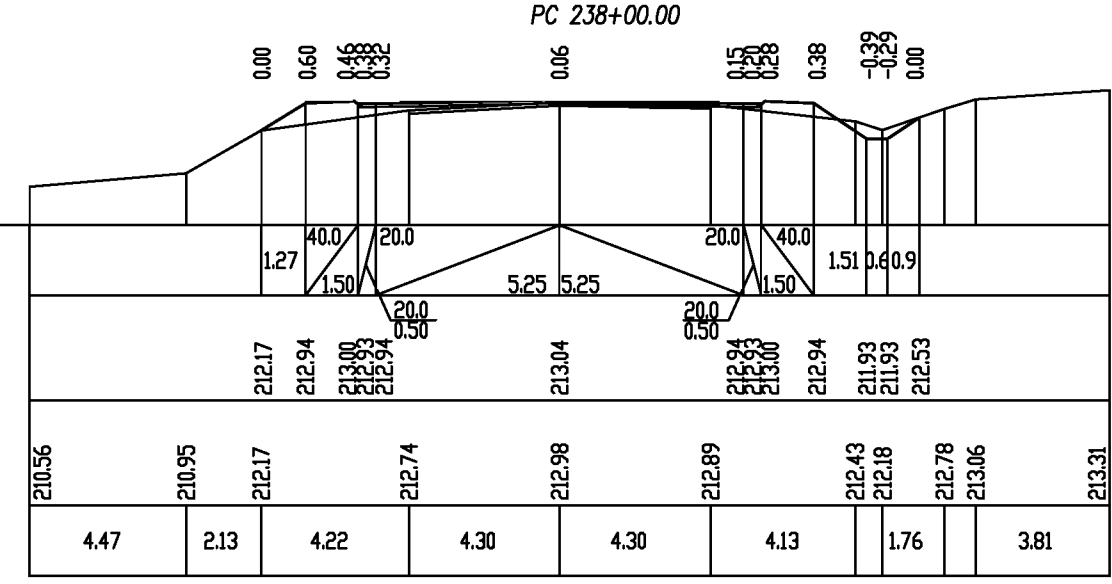
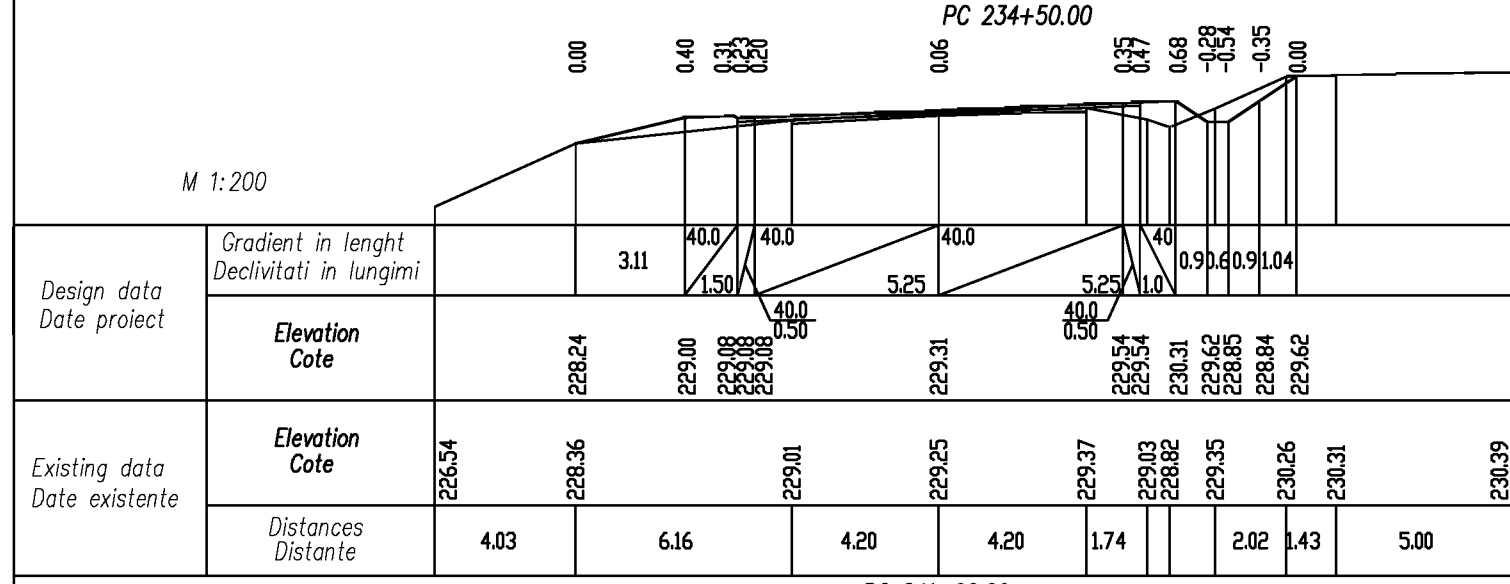
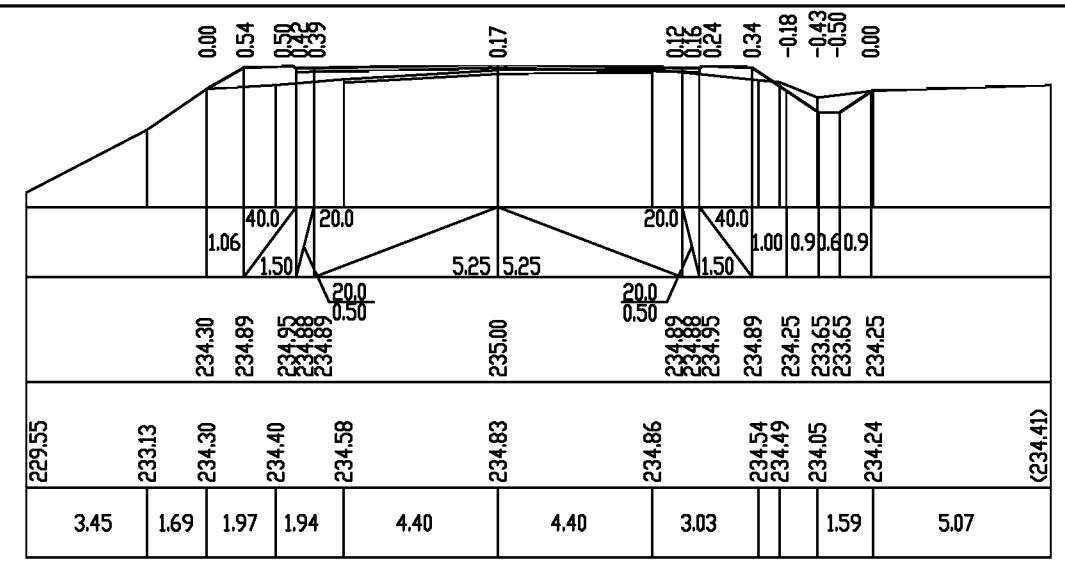
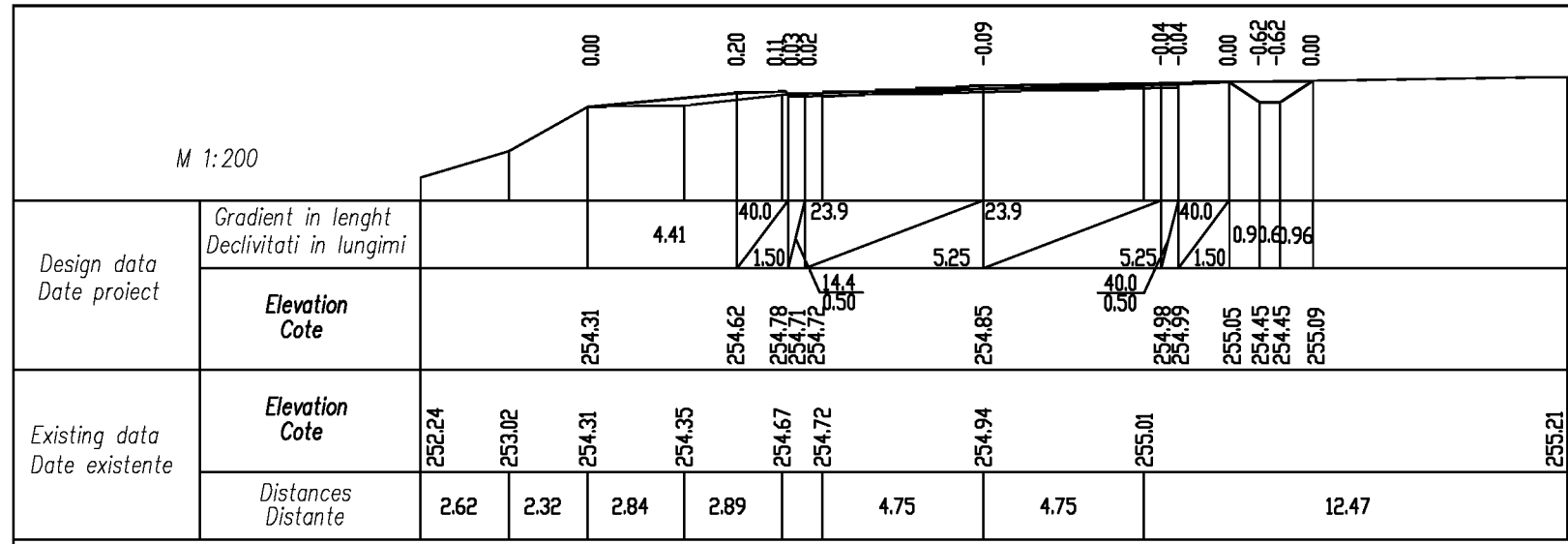


- ① Beton asfaltic cu granulație fină dens Tip A M1 – 4.0cm Fine grained dense asphalt type A M1
- ⑥ Beton asfaltic cu granulație mare poros M1 – 8.5cm Coarse-grained asphalt concrete M 1
- ⑧ Egalizare cu beton asfaltic cu granulație fină poros M1 – 3-15cm Coarse-grained asphalt concrete M 1
- ⑨ Sistem rutier existent – 47-50cm Existing road structure
- ⑩ Piatra comcasată M 1000 – 22.5cm Crushed stone M1000
- ⑪ Piatra comcasată M 300 – 22.5cm Crushed stone M300
- ⑫ Nisip – 20.0cm Sand

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of R3 Road Chisinau-Hincesti</b>		ISP	Bogza	Date	12.2007
			Designed	Belic	Scale	1:100
	Drawing title <b>Typical cross sections V, VI Profil transversal tip V, VI</b>		Checked	Gisca	Drawing	PTT-DA-3
			Control STAS	Bogza		

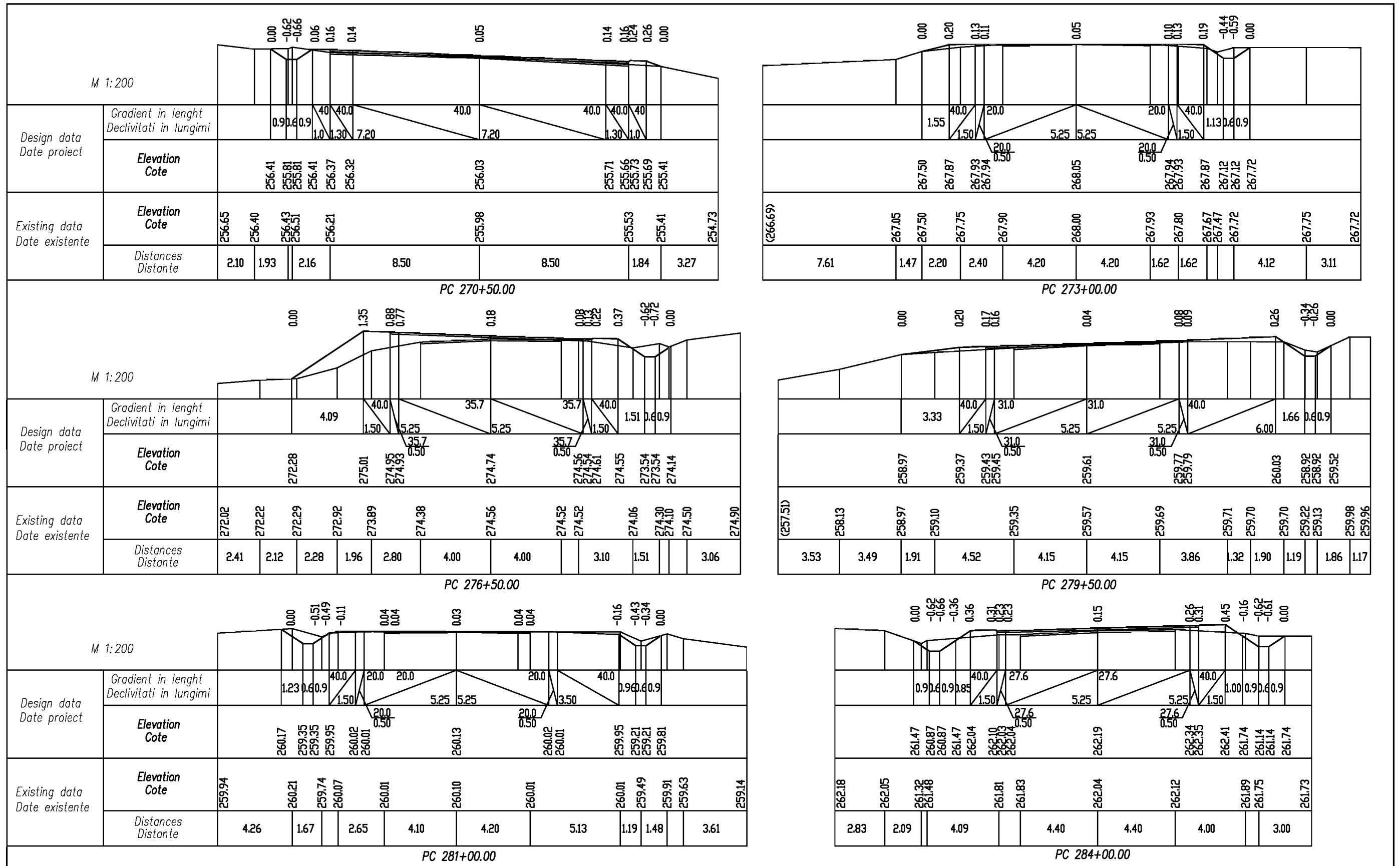


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Cross Sections of Earthwork Profil Transversal Terasamente PC 216+00 - PC 231+50	Designed	Gisca	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-1
		Control STAS	Belic		

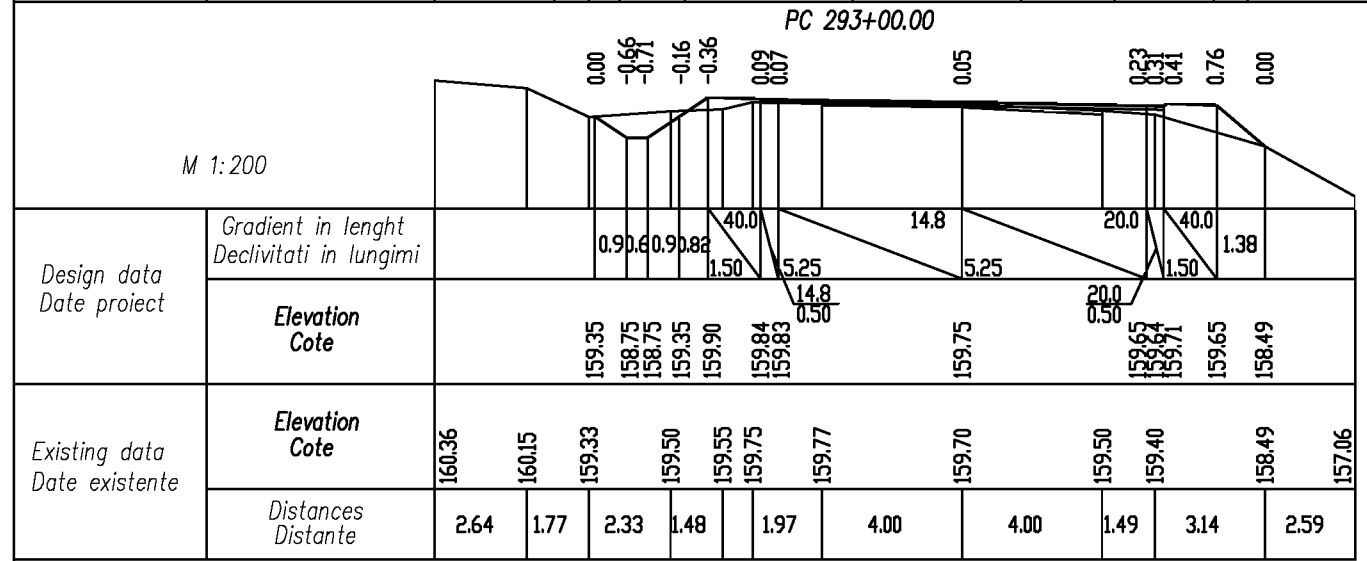
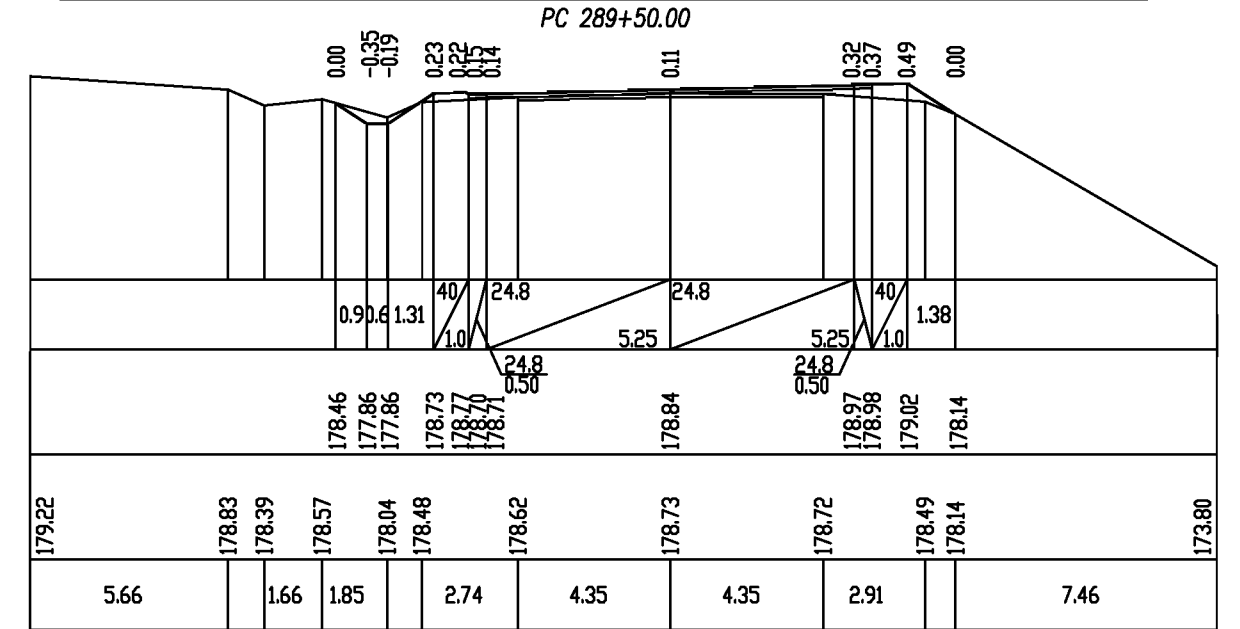
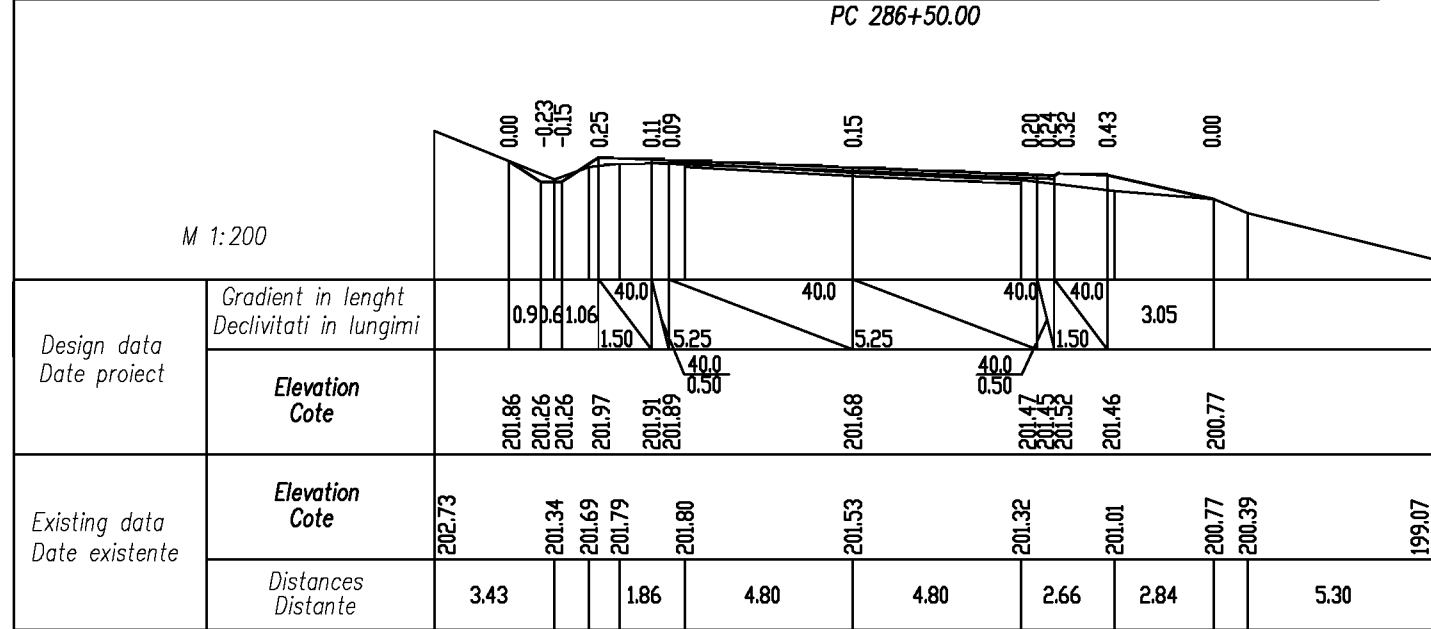
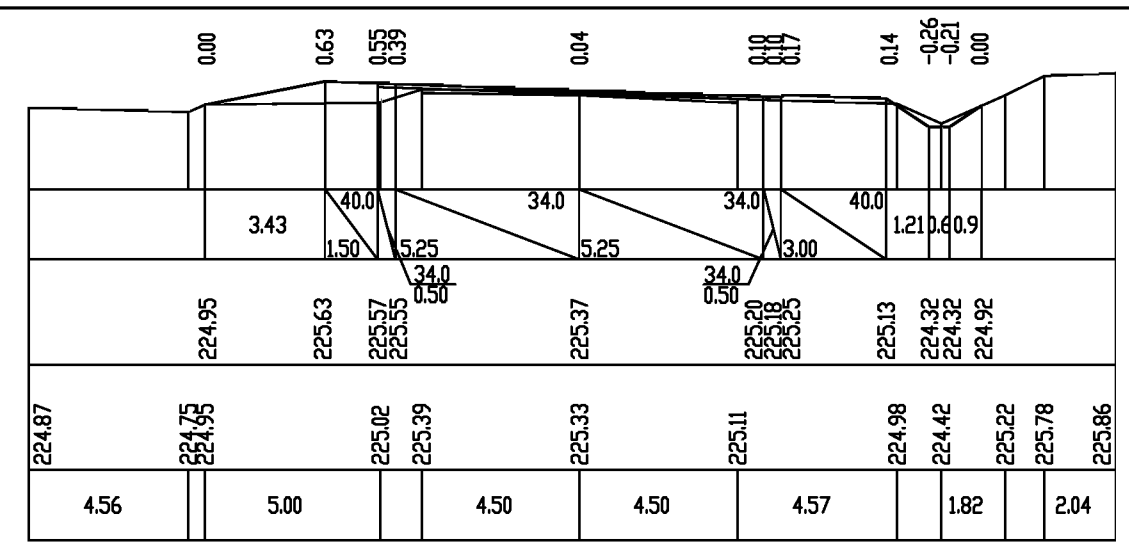
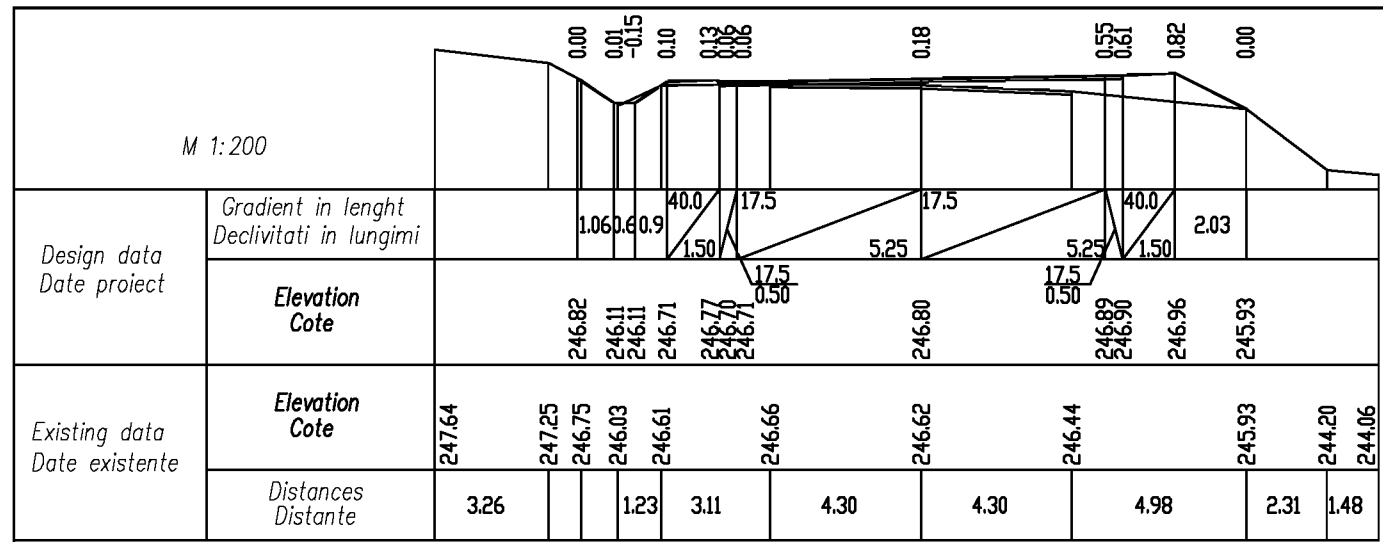


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Gisca	Scale	1:200
	Cross Sections of Earthwork Profil Transversals Terasamente PC 234+50 - PC 248+50		Checked	Bogza	Drawing	PT-DA-2
		Control STAS	Belic			



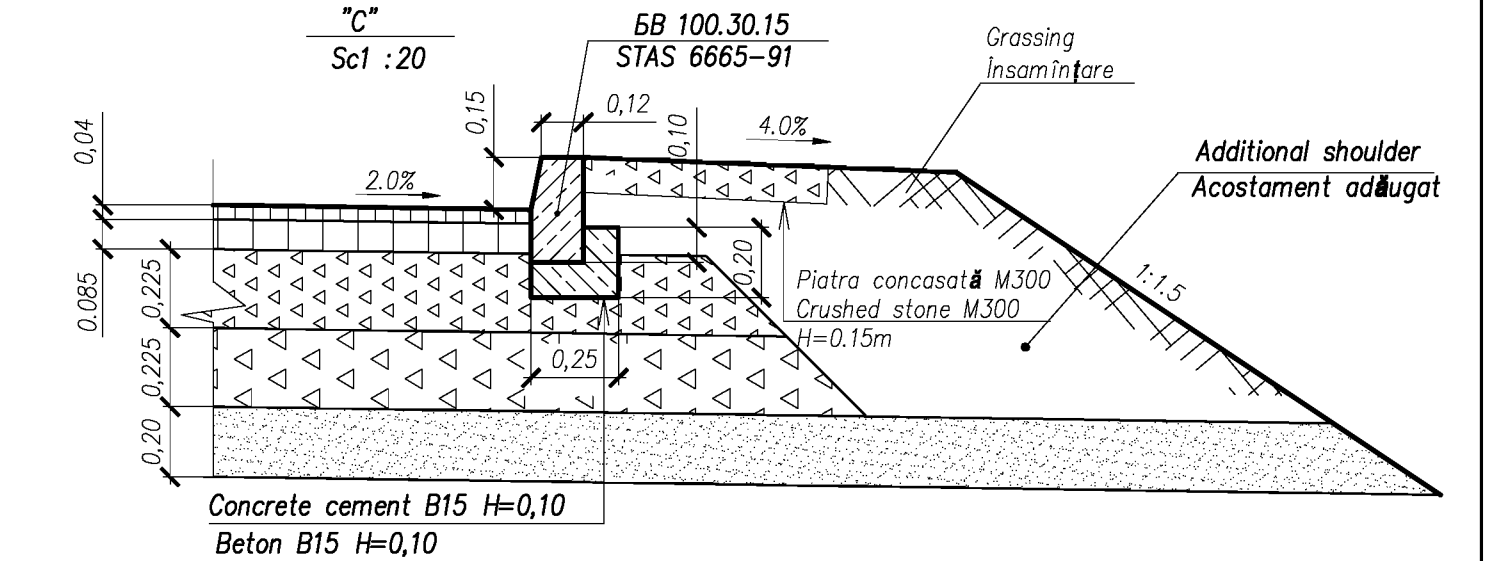
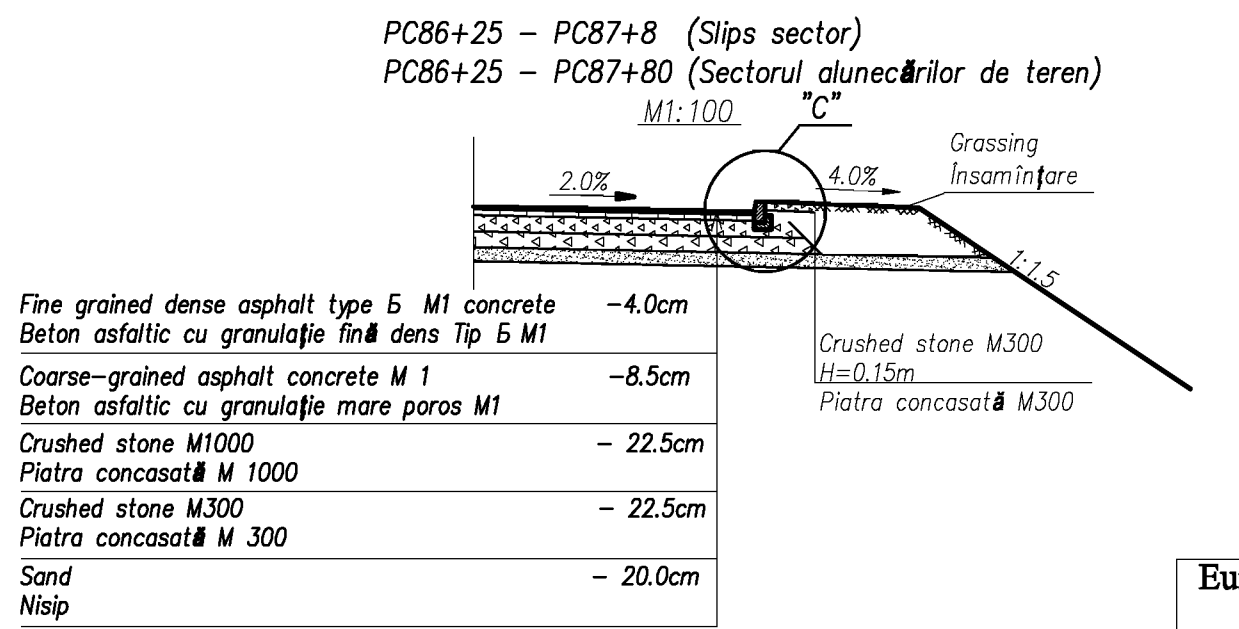
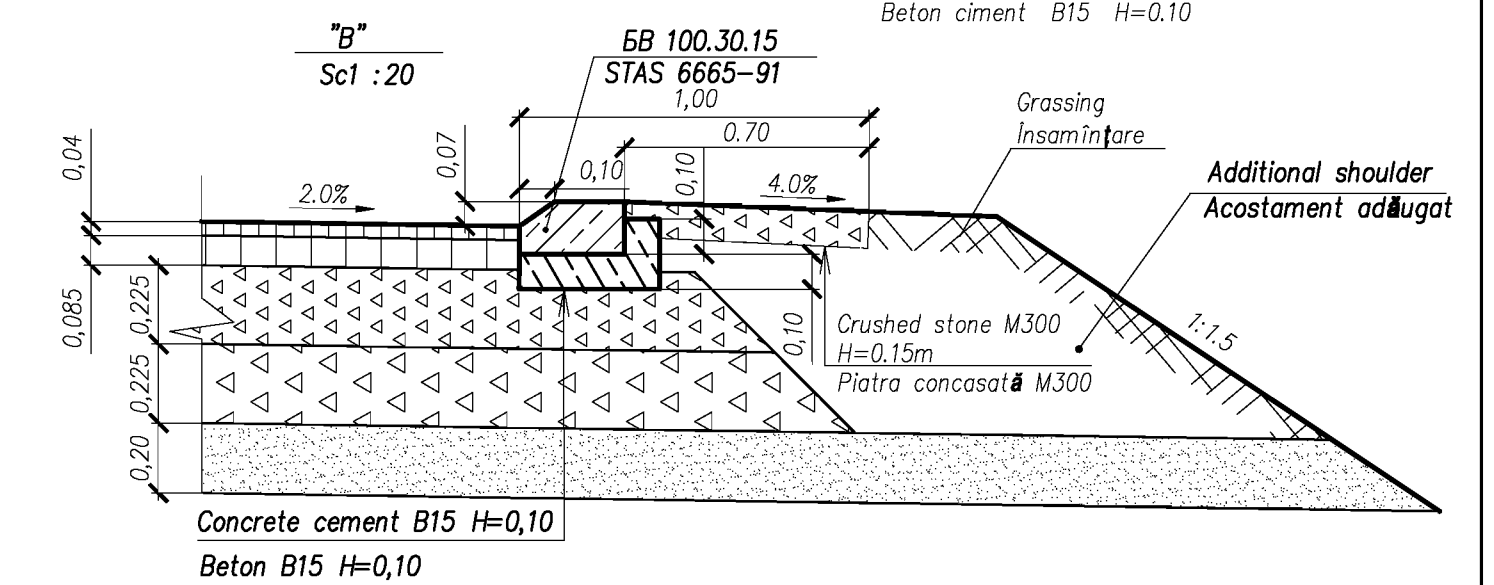
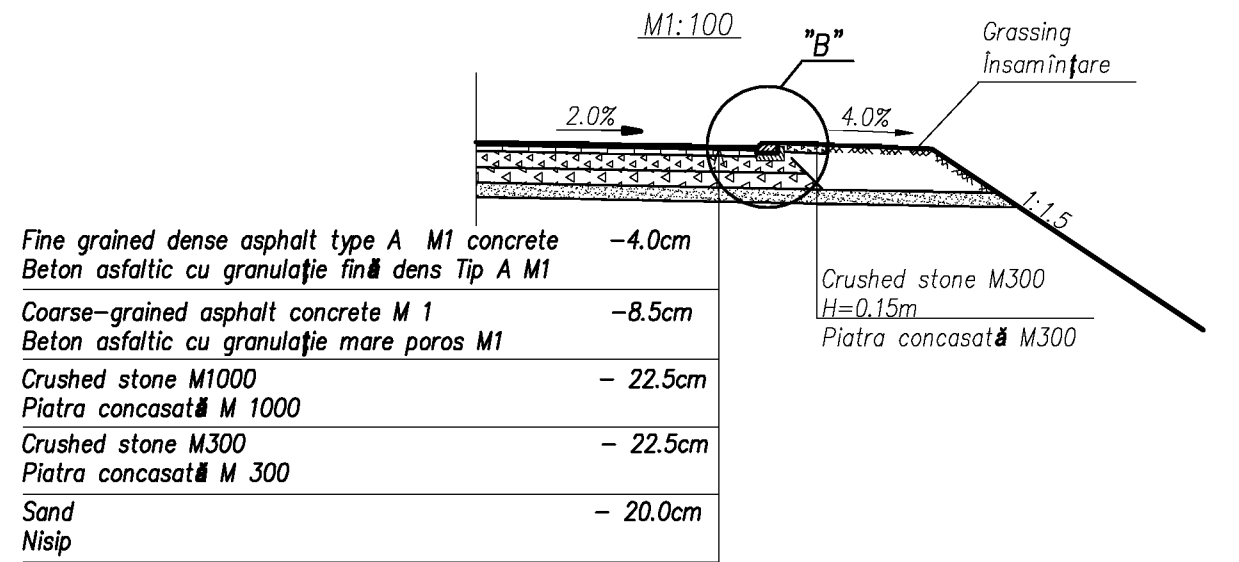
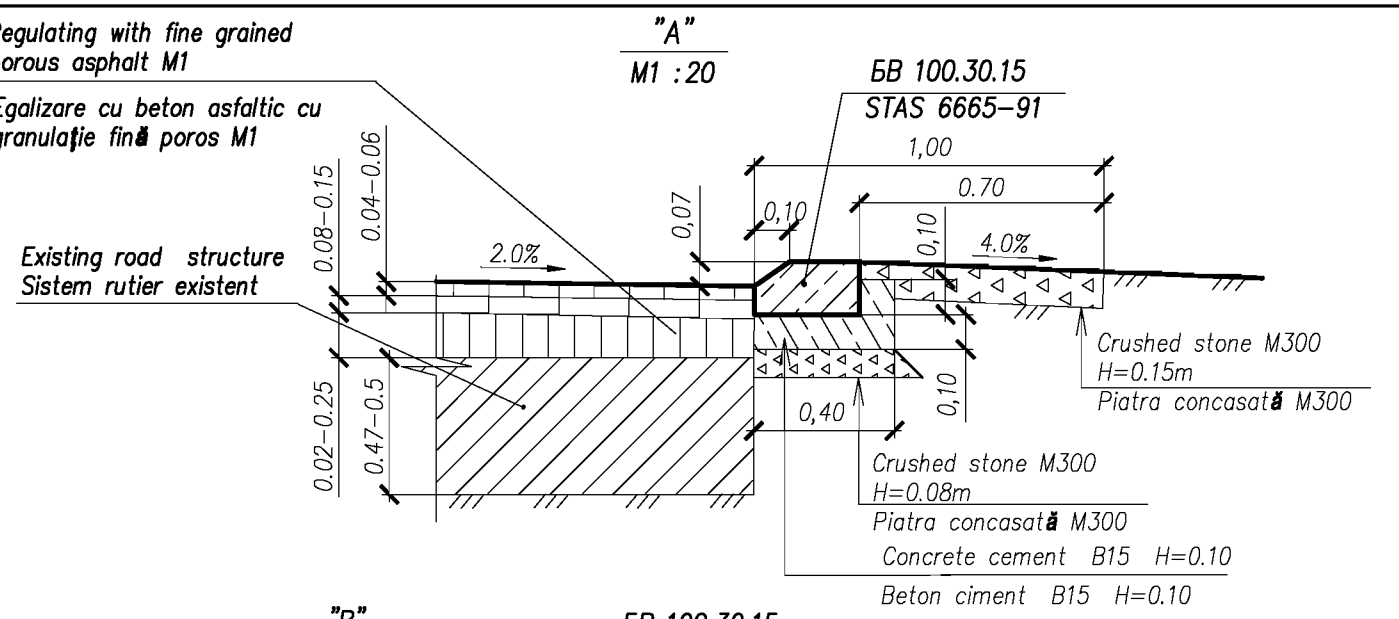
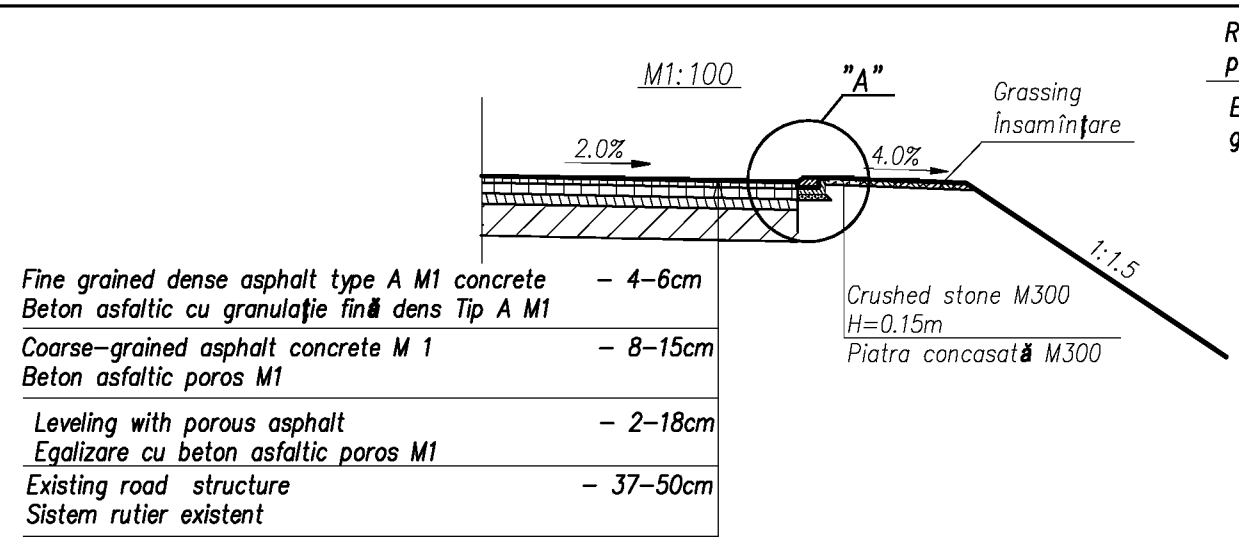


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration		
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date
	Drawing title <b>Cross Sections of Earthwork Profil Transversal Terasamente PC 270+50 - PC 284+00</b>		Designed	Gisca	Scale
			Checked	Bogza	Drawing
			Control STAS	Belic	<b>PT-DA-4</b>
					12.2007
					1:200



PC 299+00.00												
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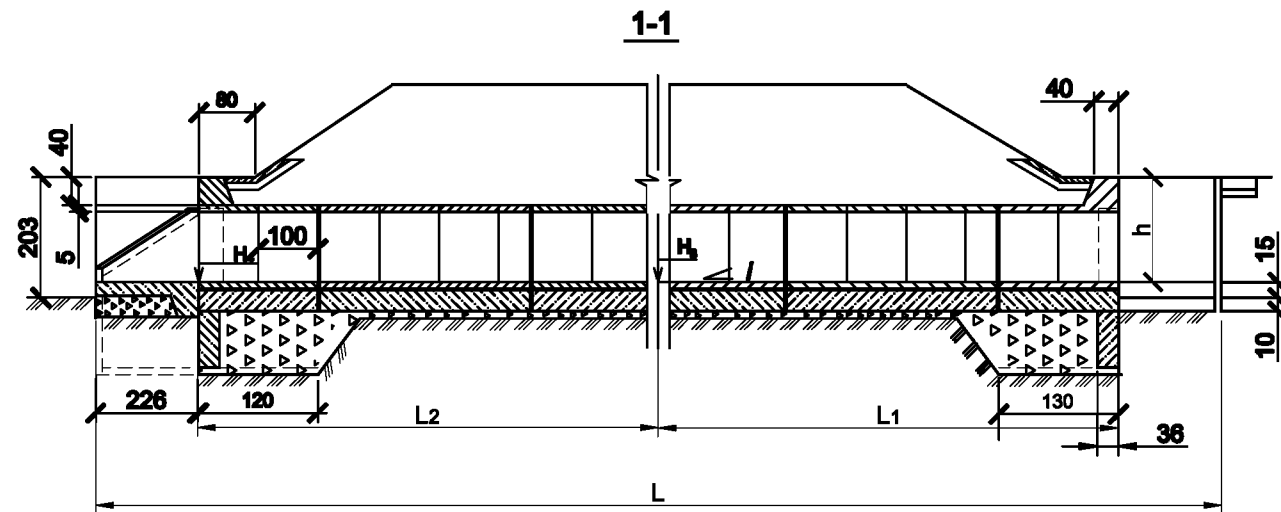
European Investment Bank		Republic of Moldova			Ministry of Transport and Road Industry State Road Administration			
		Road Sector Programme Support Project						
Roughton International TRL Blizzard Universcons		Rehabilitation of R3 Road Chisinau-Hincesti			ISP Bogza		Date 12.2007	
		Drawing title Cross Sections of Earthwork Profil Transversal Terasamente PC 286+50 - PC 299+00			Designed Gisca		Scale 1:200	
					Checked Bogza		Drawing PT-DA-5	
					Control STAS Belic			



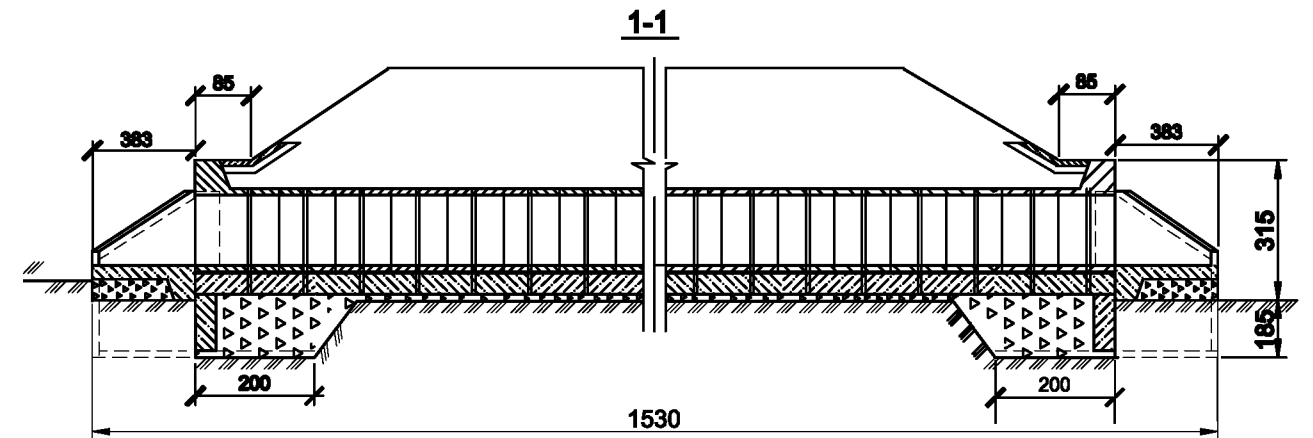
1. The Design sectors are shown in the Bill of Quantities.  
Sectoarele proiectate sunt arătate în listă de cantitatea

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Belic	Scale	
Blizzard	Construction of drainage kerb	Checked	Gisca	Drawing	
Universcons	Construcția rigolei de scurgere a apei	Control STAS	Bogza		CRS-DA-1

Culvert tipical. Podeț tip

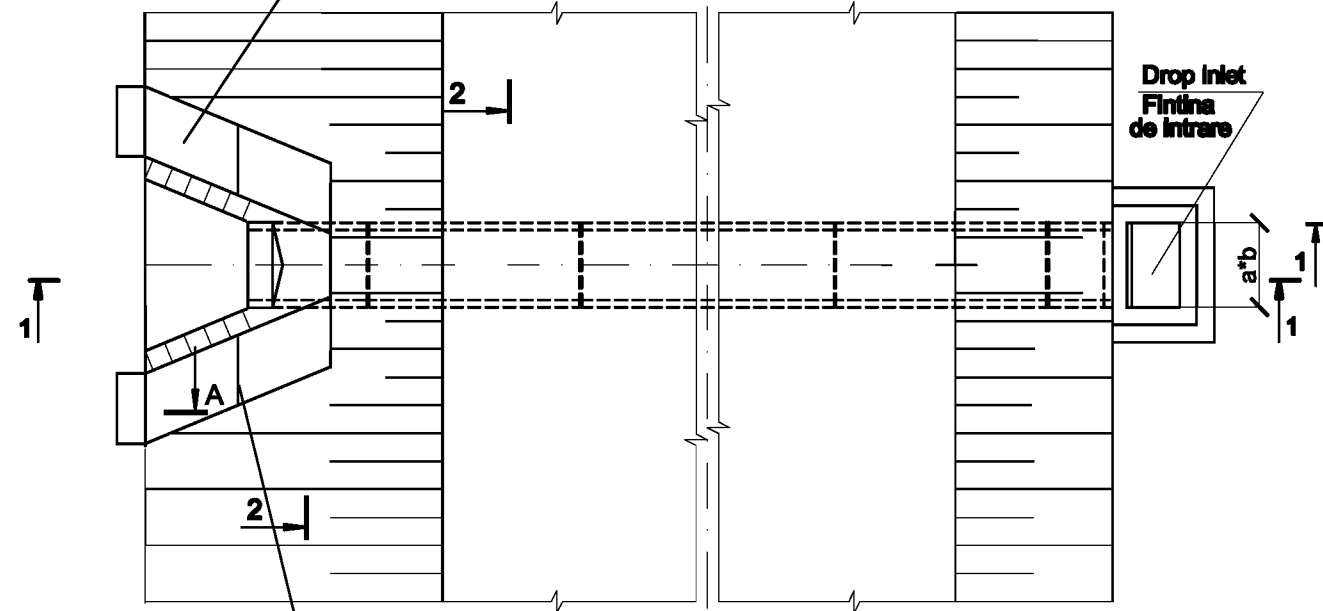


Culvert .Podeț, Pc 91+24

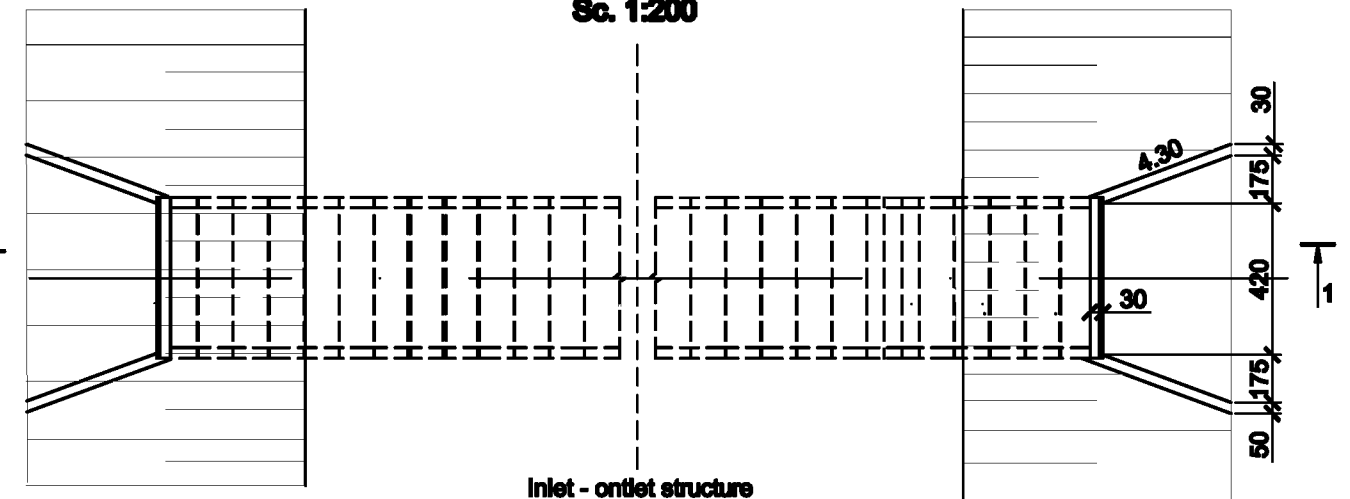


Concrete cast in situ  
Beton monolit B 20 h-0.12

Plan. Plan

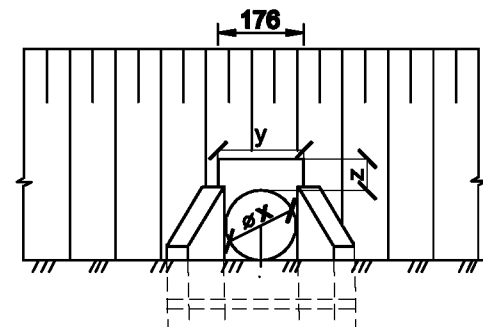


Plan. Plan  
Sc. 1:200



Inlet - onțiet structure  
Capat amonte-aval  
Sc. 1:100

Inlet - onțiet structure  
Capat amonte-aval

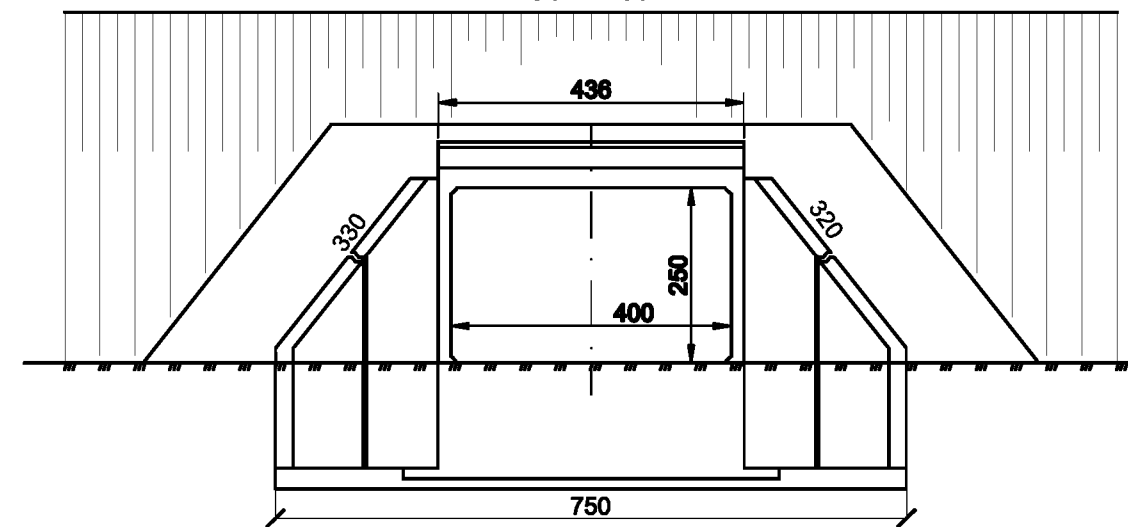


Note. Nota.

Culverts. Podete Ø 1.0 m.:  
PC 116+73; PC 140+66; PC 147+47;  
PC 181+75; PC 209+19; PC 213+19;  
PC 247+03; PC 265+57; PC 279+13;  
PC 291+68.

Culverts. Podete Ø 1.5 m.:  
PC 235+64; PC 238+43; PC 298+67.

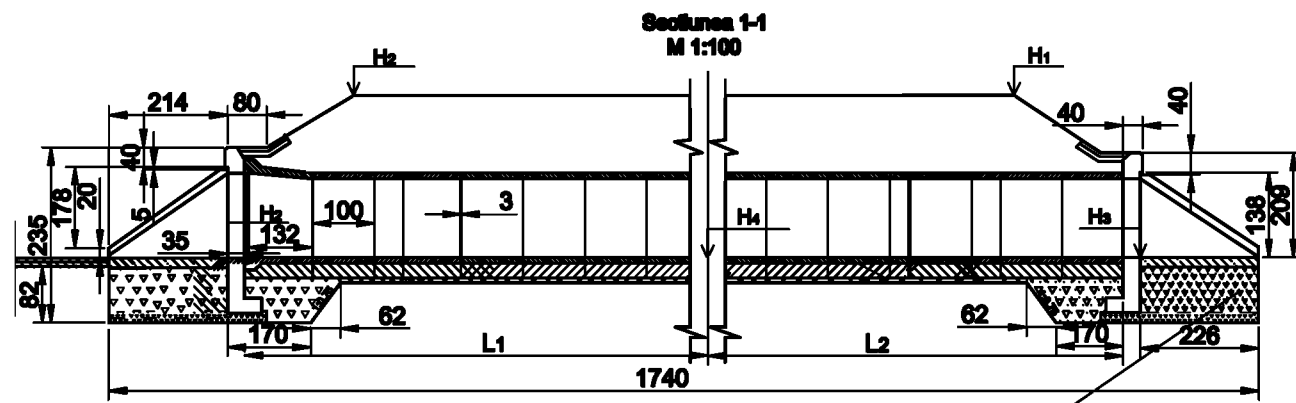
Ovidal Culverts. Podet ovoidal Ø 1.5-  
PC 226+24



European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	
	Existing typical culverts Podete existente tip	Checked	Bogza	Drawing	
		Control STAS	Belic		PET-DA-1

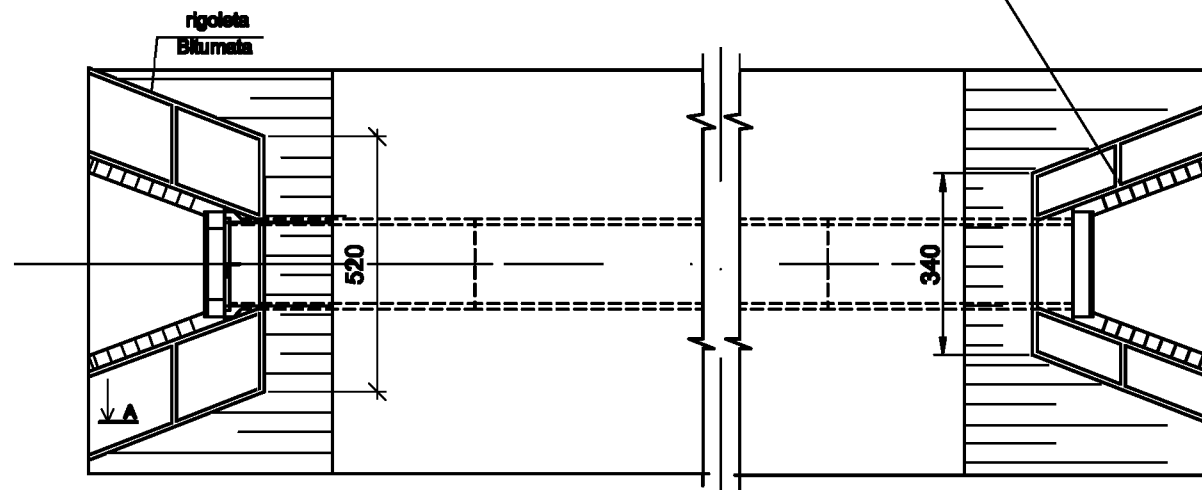


Culvert .Podeț PC 298+67

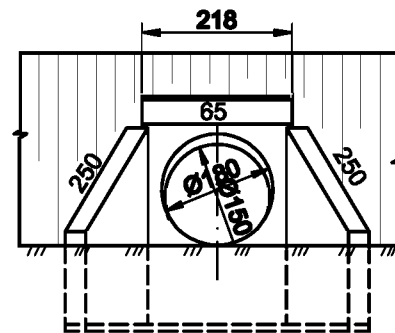


Plan. Plan

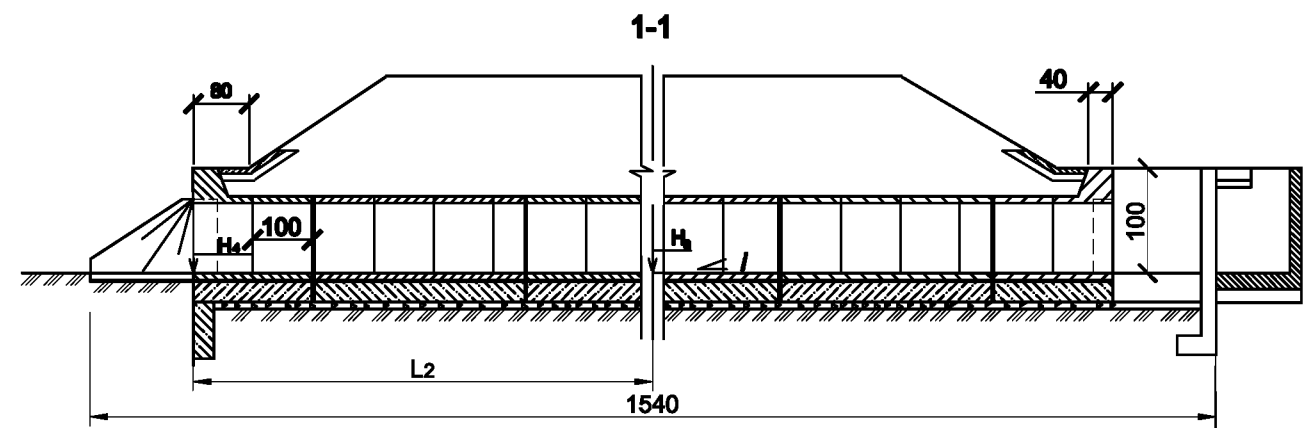
Concrete cast in situ  
Beton monolit B 20 h-0.12



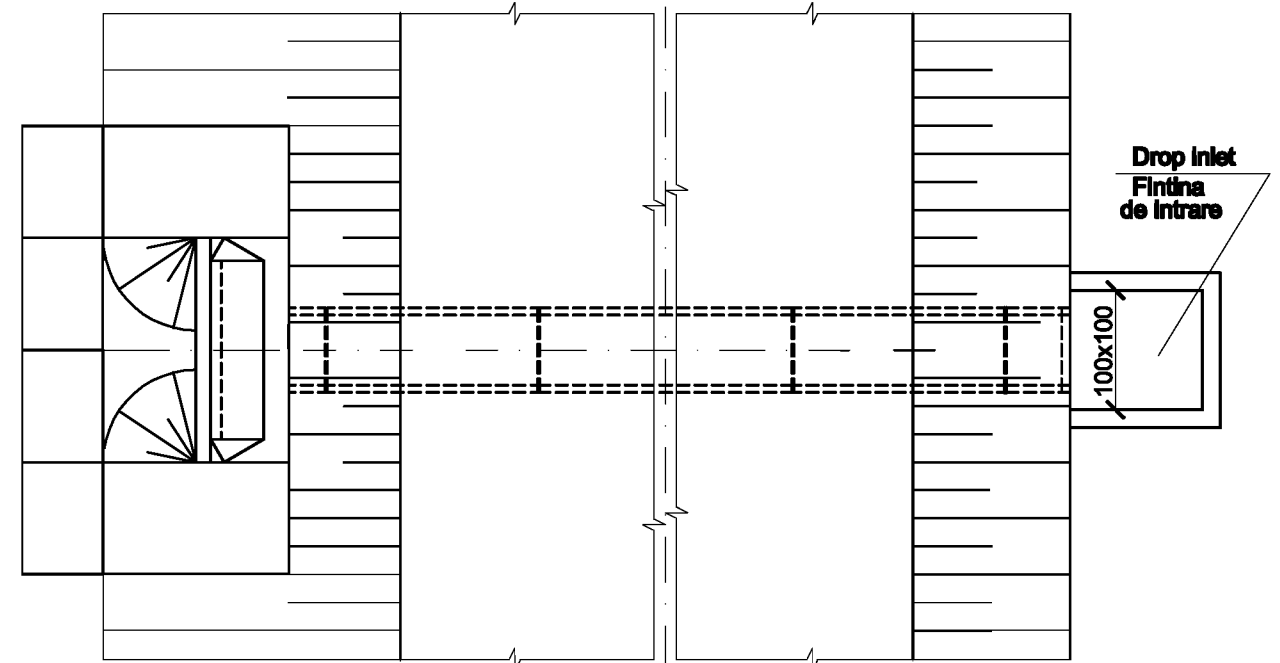
Inlet - outlet structure  
Capat amonte-aval



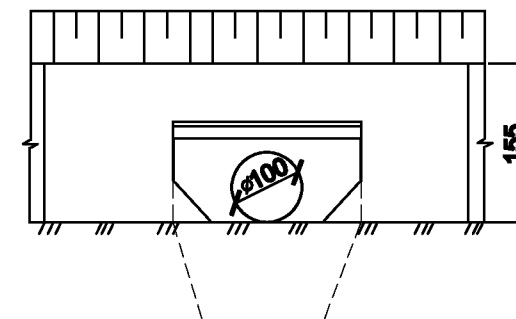
Culvert .Podeț PC 247+03



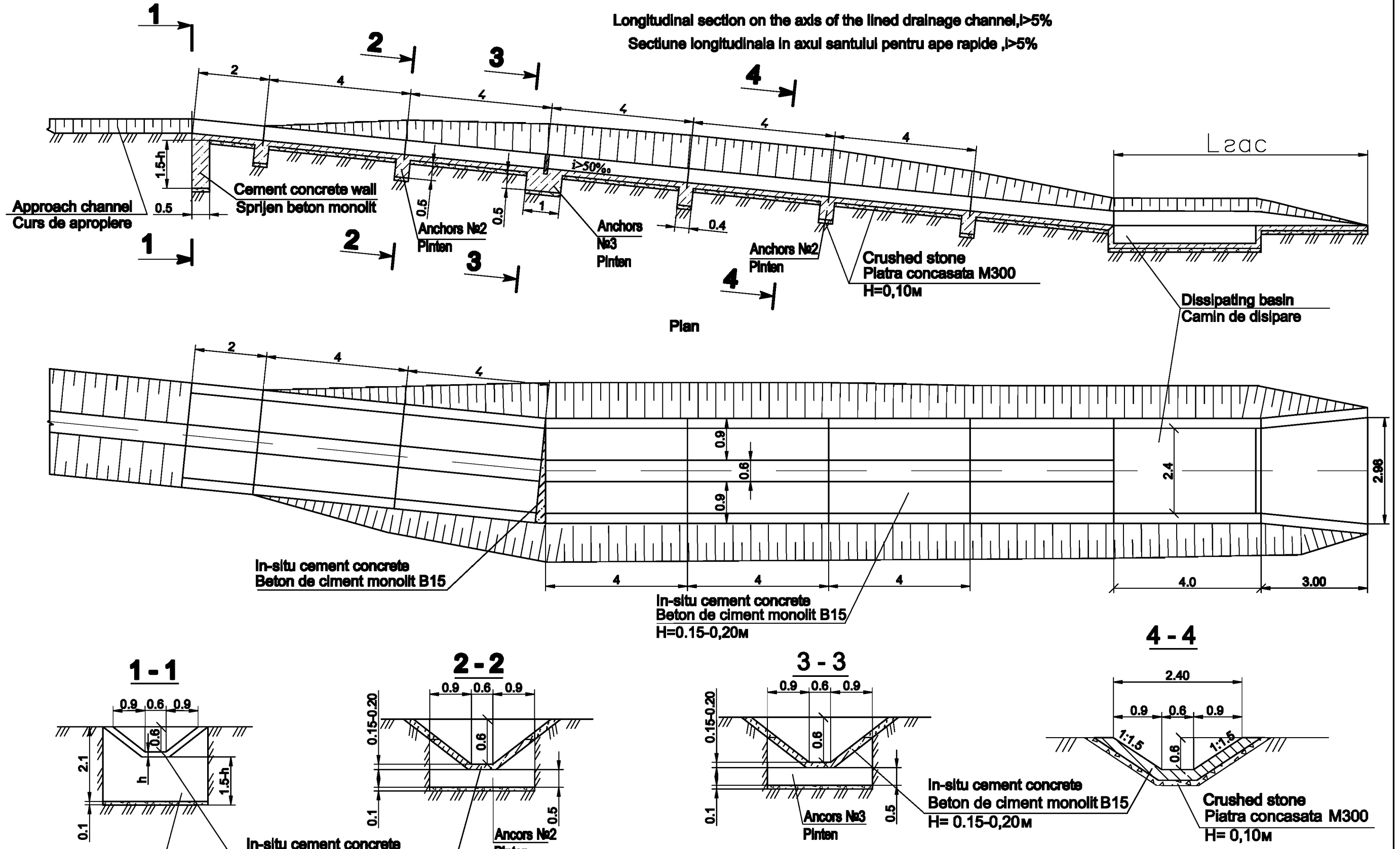
Plan. Plan



Inlet - outlet structure  
Capat amonte-aval



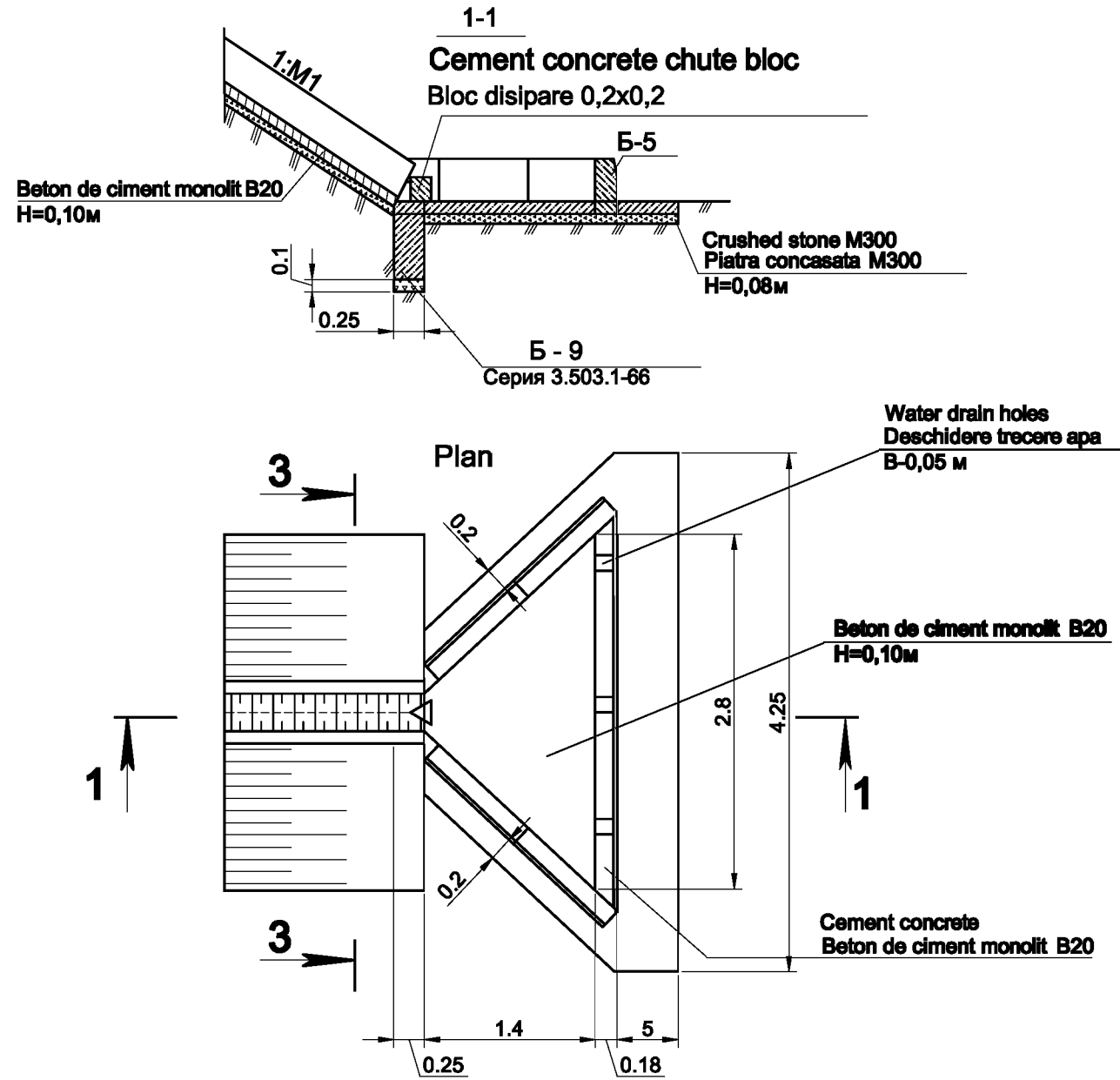
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Existing typical culverts Podete existente tip PC 298+67; PC 247+03	Designed	Gisca	Scale	
		Checked	Bogza	Drawing	
		Control STAS	Belic		PET-DA-2



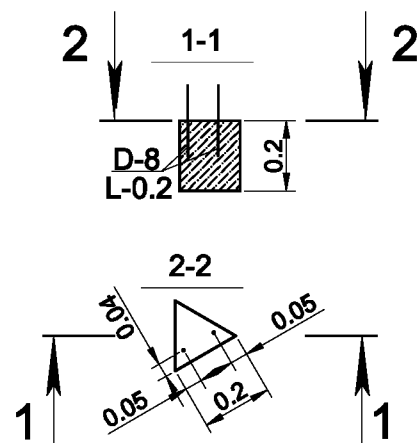
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Gisca	Scale	
Blizzard	Drawing title	Checked	Bogza	Drawing	
Universcons	Typical lined side drain $i > 5\%$ Santuri laterale tip $i > 5\%$	Control STAS	Belic		SLT-DA-1



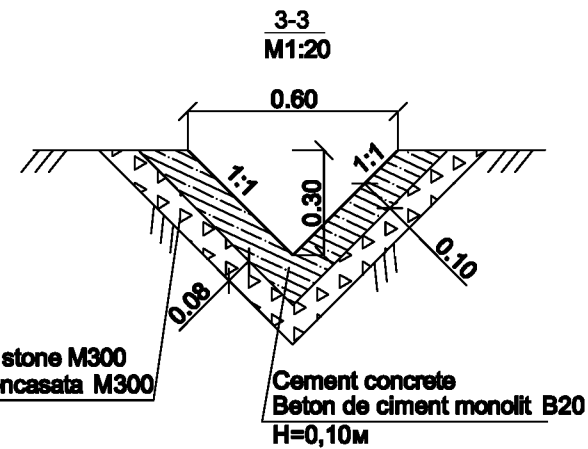
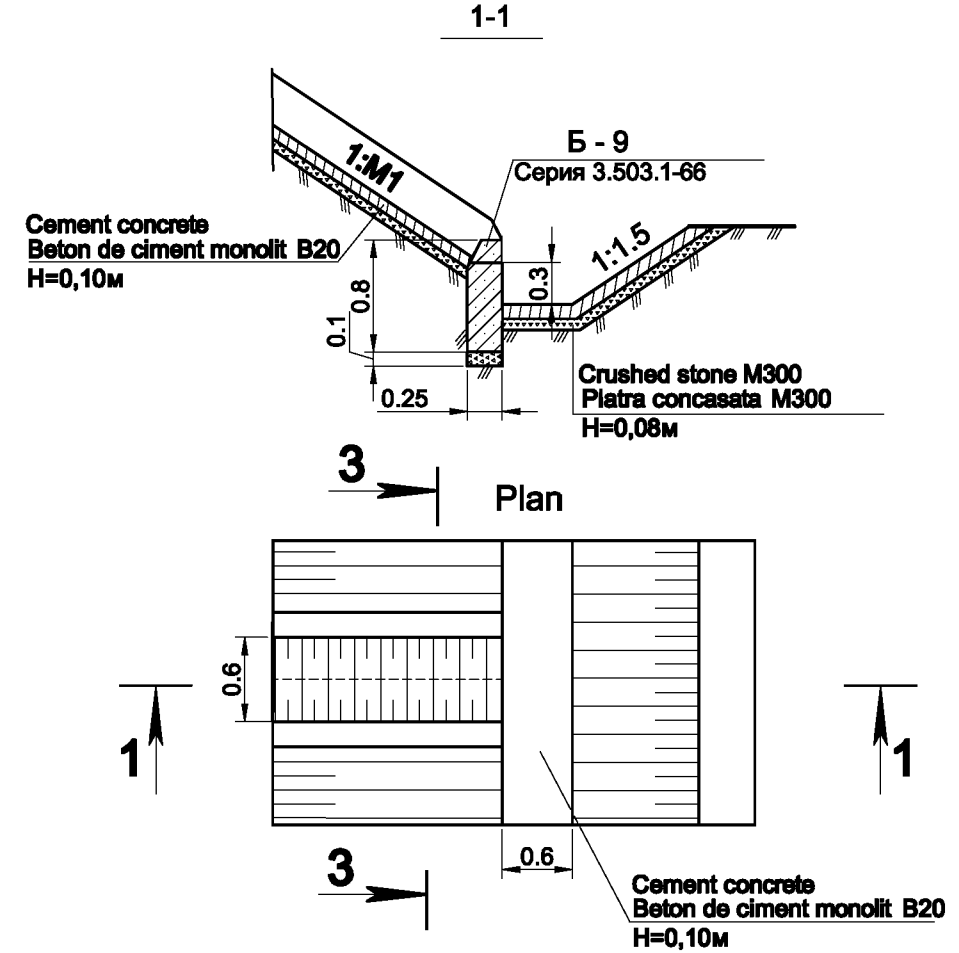
**Embankment chute dissipator**  
Camin de disipare



**M1:20 Chuta bloc**  
Bloc disipare

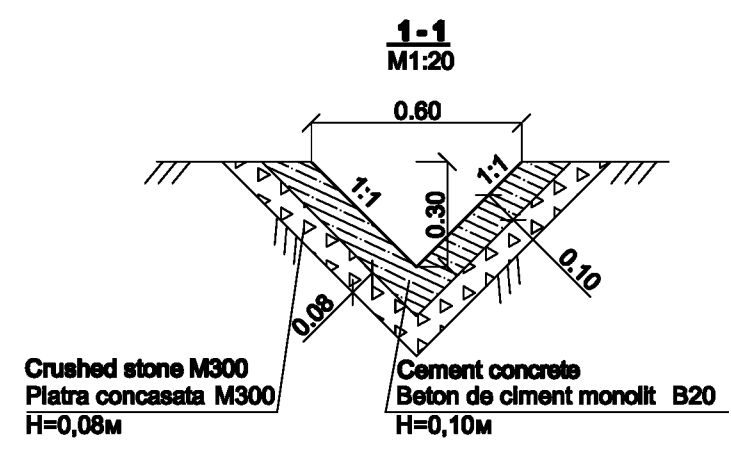
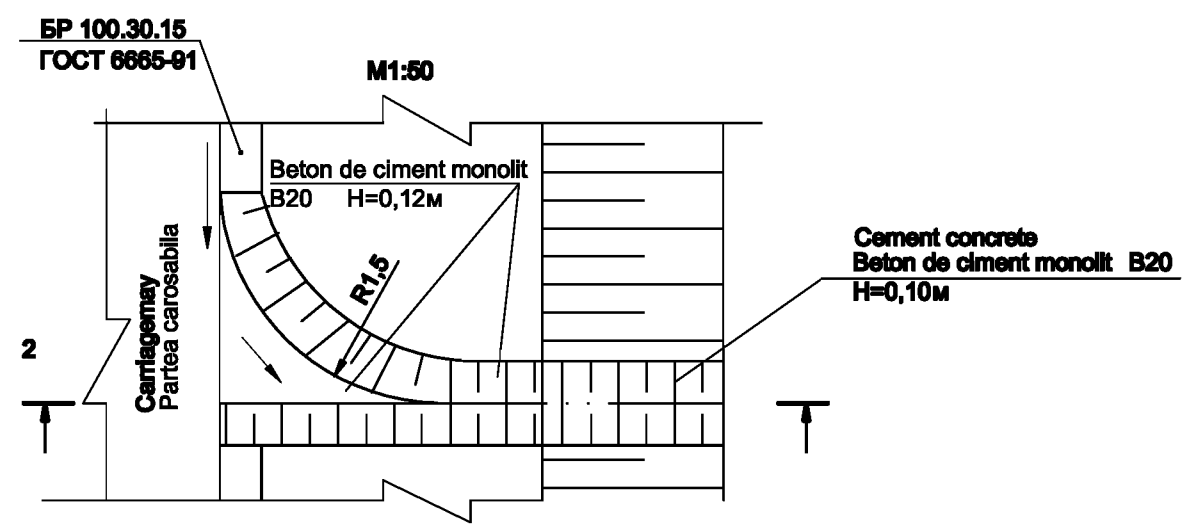
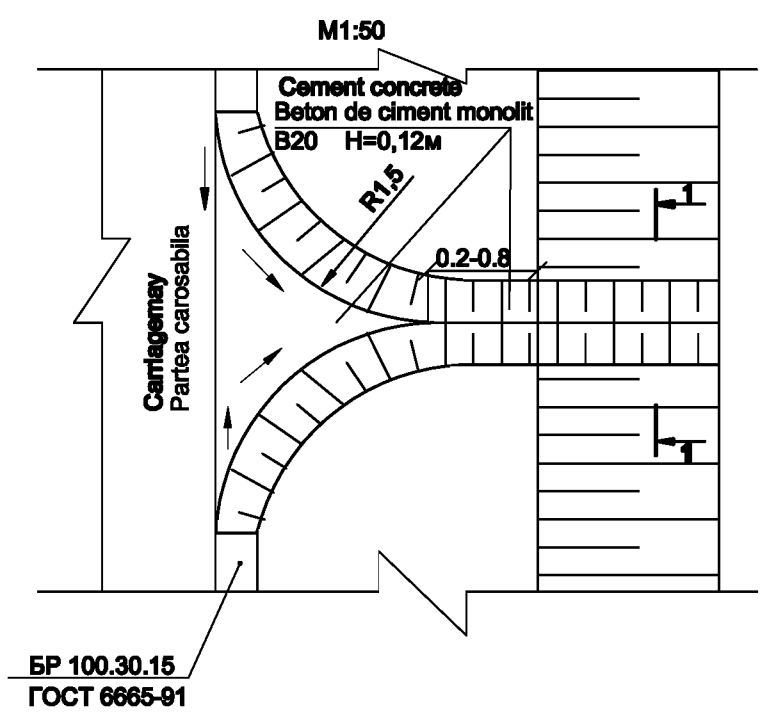
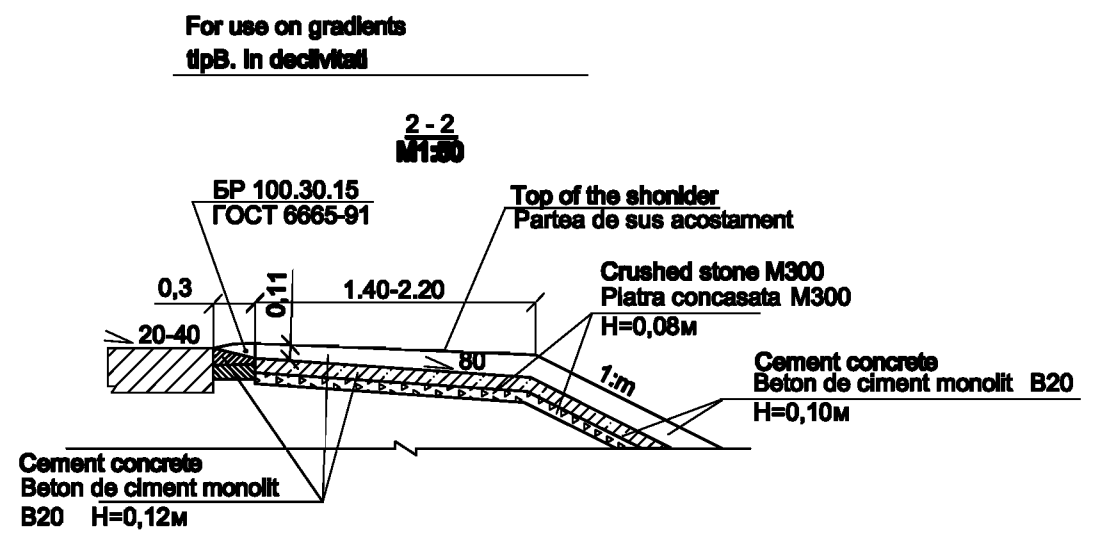
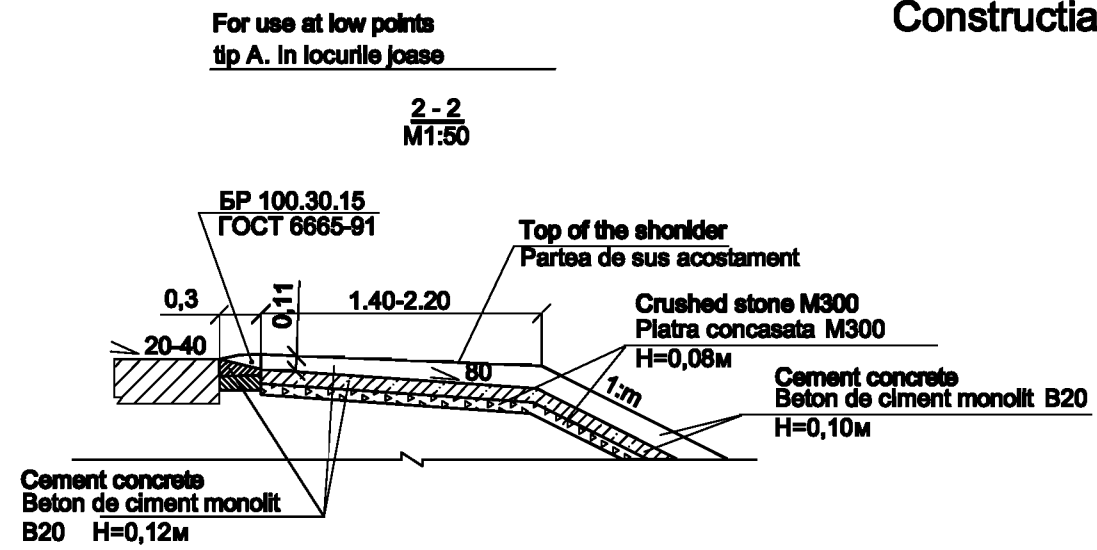


**Side drain dissipator**  
Disipator in sant

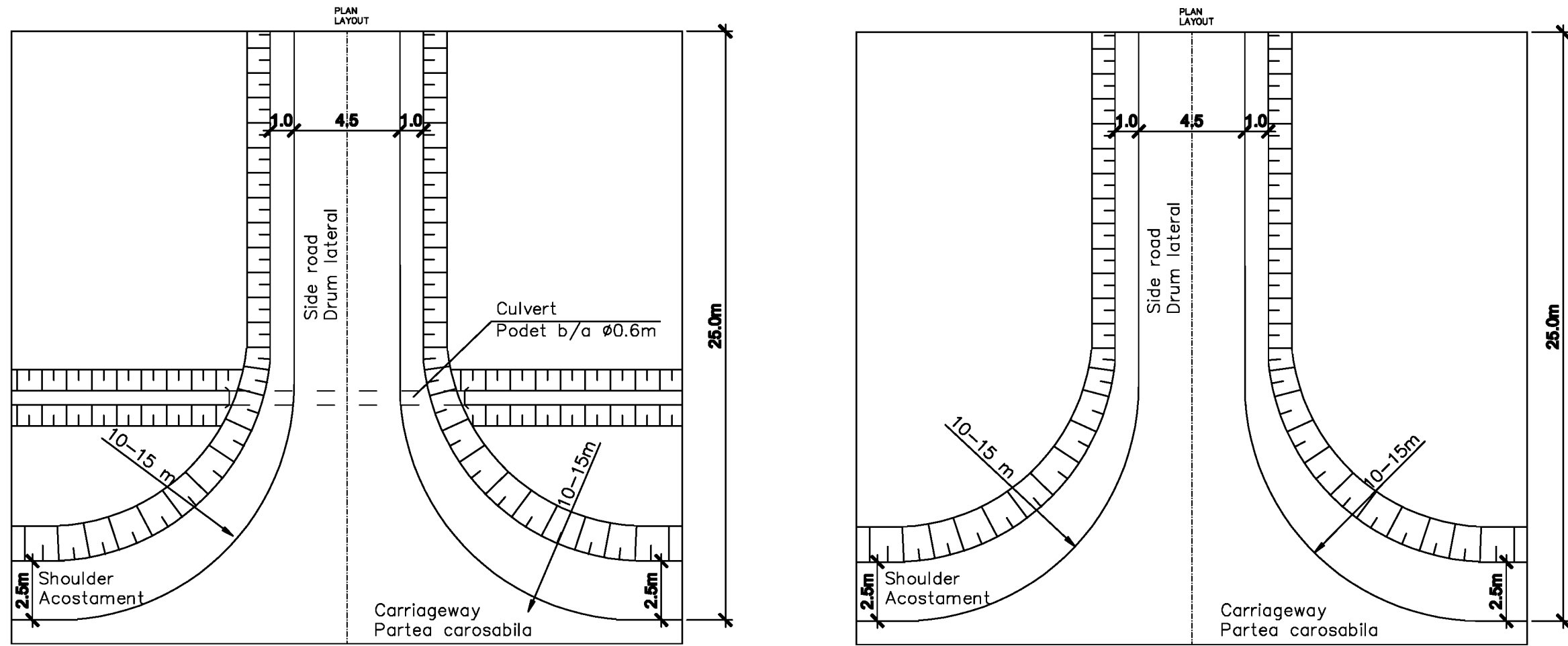


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Sarateni	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	
	Construction of the dissipator chutes Camin de disipare pentru casiuri	Checked	Bogza	Drawing	
		Control STAS	Belic		CDC-DA-1

### Drainage chute Constructia casii

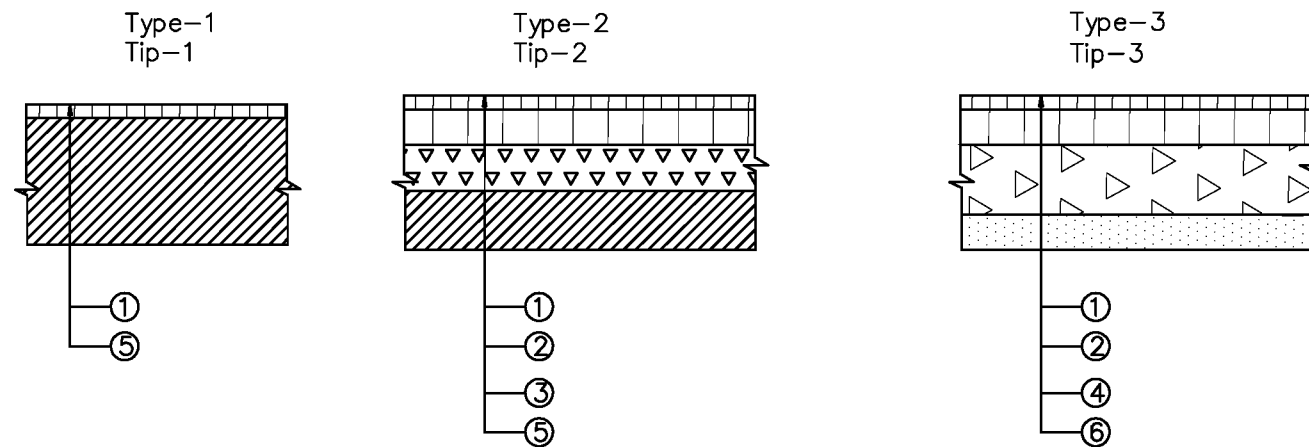


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title <b>Drainage chutes</b> Constructia casiiului pe acostament	Designed	Gisca	Scale	
		Checked	Bogza	Drawing	
		Control STAS	Belic		CCA-DA-1



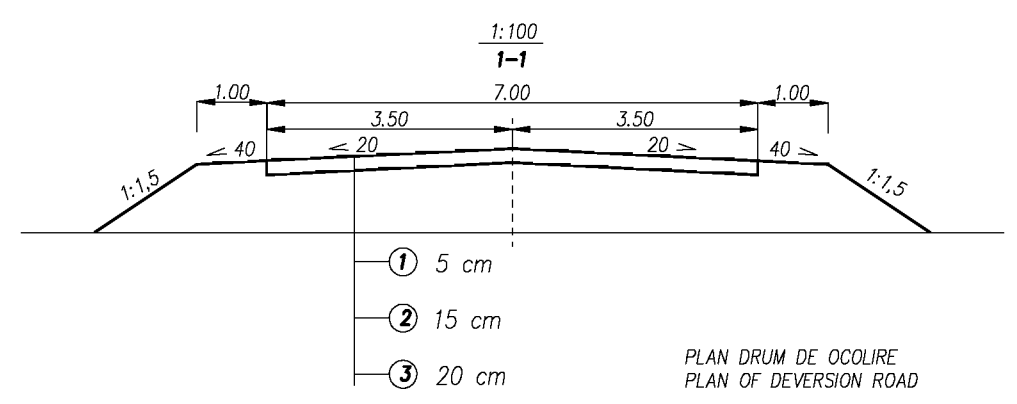
**Road pavement structure  
Constructia sistemului rutier**

- ① - Fine graind dense asphalt type A M1  
Beton asfalt cu granulatie fina dens h-4cm
- ② - Coarse graind porous asphalt type M  
Beton asfalt cu granulatie mare poros M1 h-8cm
- ③ - Crushed stone M300  
Piatra concasata M300 h-15cm
- ④ - Crushed stone M300  
Piatra concasata M300 h-25cm
- ⑤ - Sand  
Nisip h-10cm
- ⑥ - Existing road structure  
Imbracaminte existenta

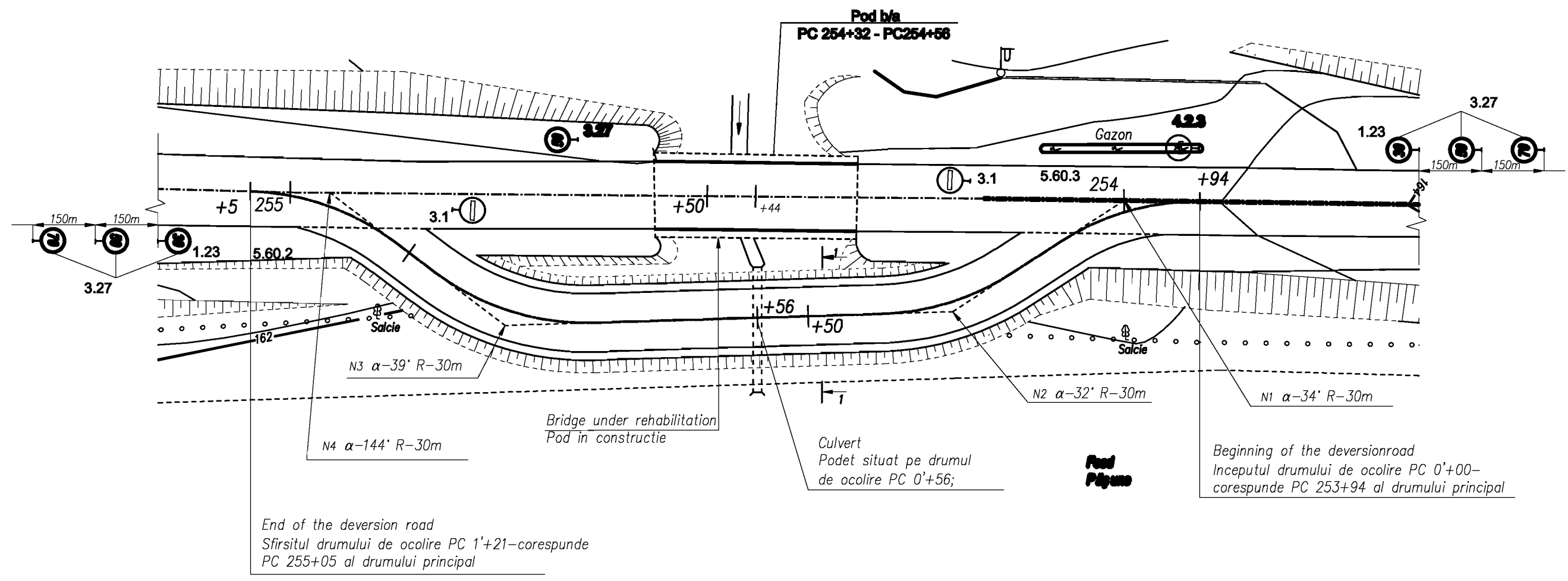


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Gisca	Scale	1:200
	Typical side road Drum lateral tip		Checked	Bogza	Drawing	DLT-DA-1
			Control STAS	Belic		

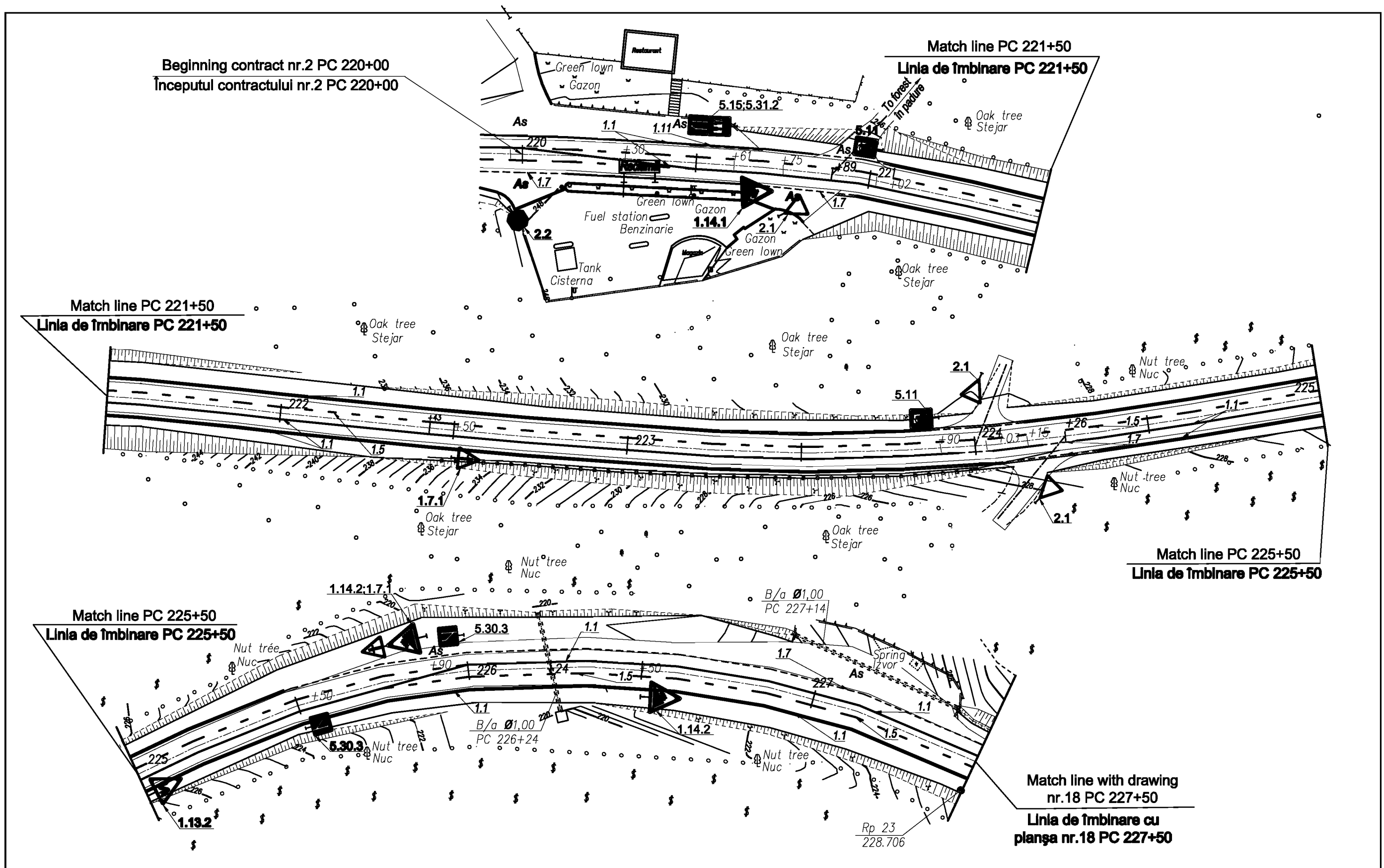
PROFIL TRANSVERSAL TIP DRUM DE OCOLIRE  
TYPICAL CROSS SECTION ON DEVIATION ROAD



- ① Beton asfaltic cu granulatie fina compact Tip B M-III  
Compact bine-grained asphalt - type - B M-III concrete
- ② Piatra concasata M-1000  
Crushed stone M-1000
- ③ Piatra concasata M300  
Crushed stone M300

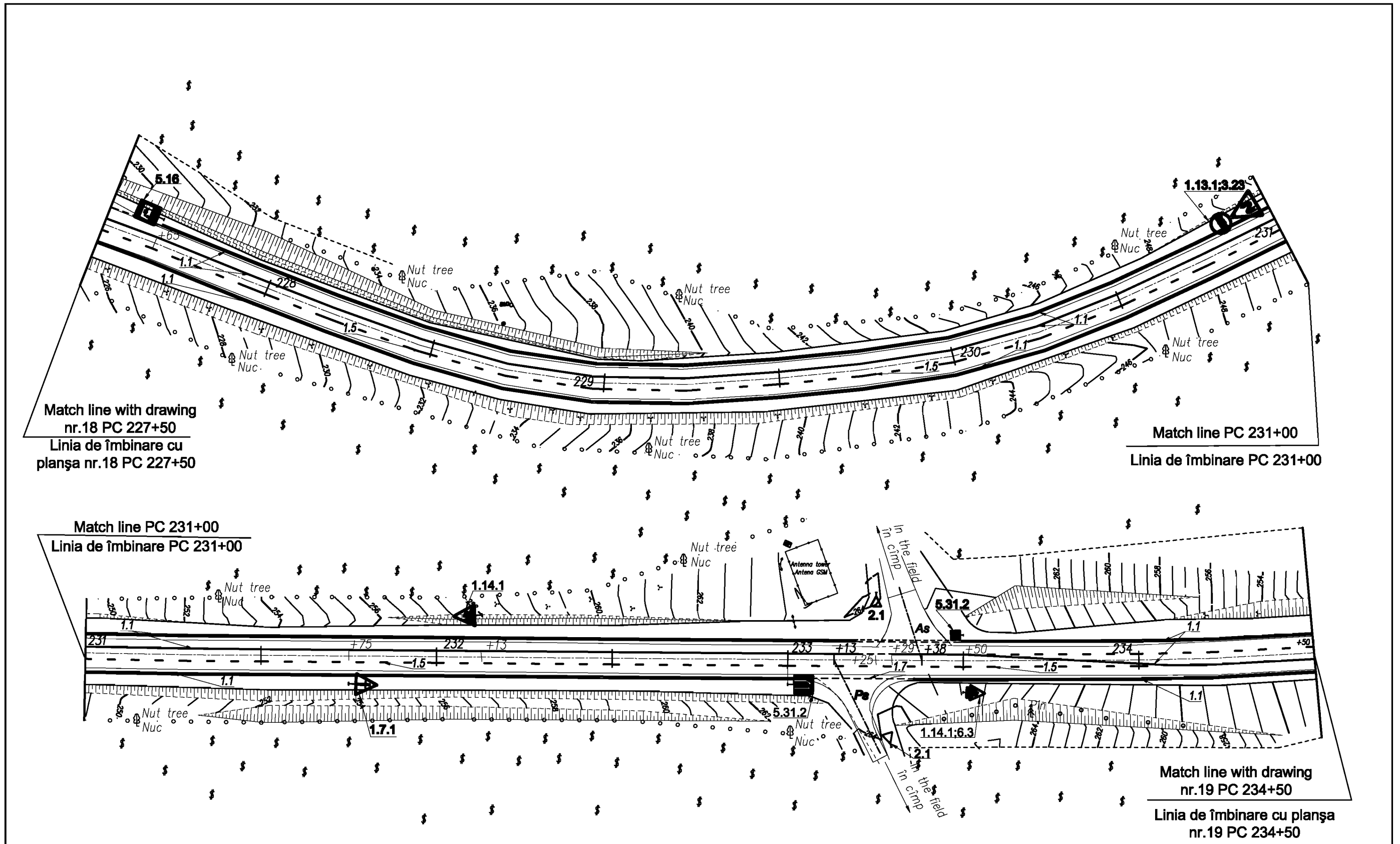


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Mardari	Scale	1:500
	Plan of the diversion road km 25 Plan drum de ocolire km 25		Checked	Bogza	Drawing	PDO-DA-1
			Control STAS	Belic		

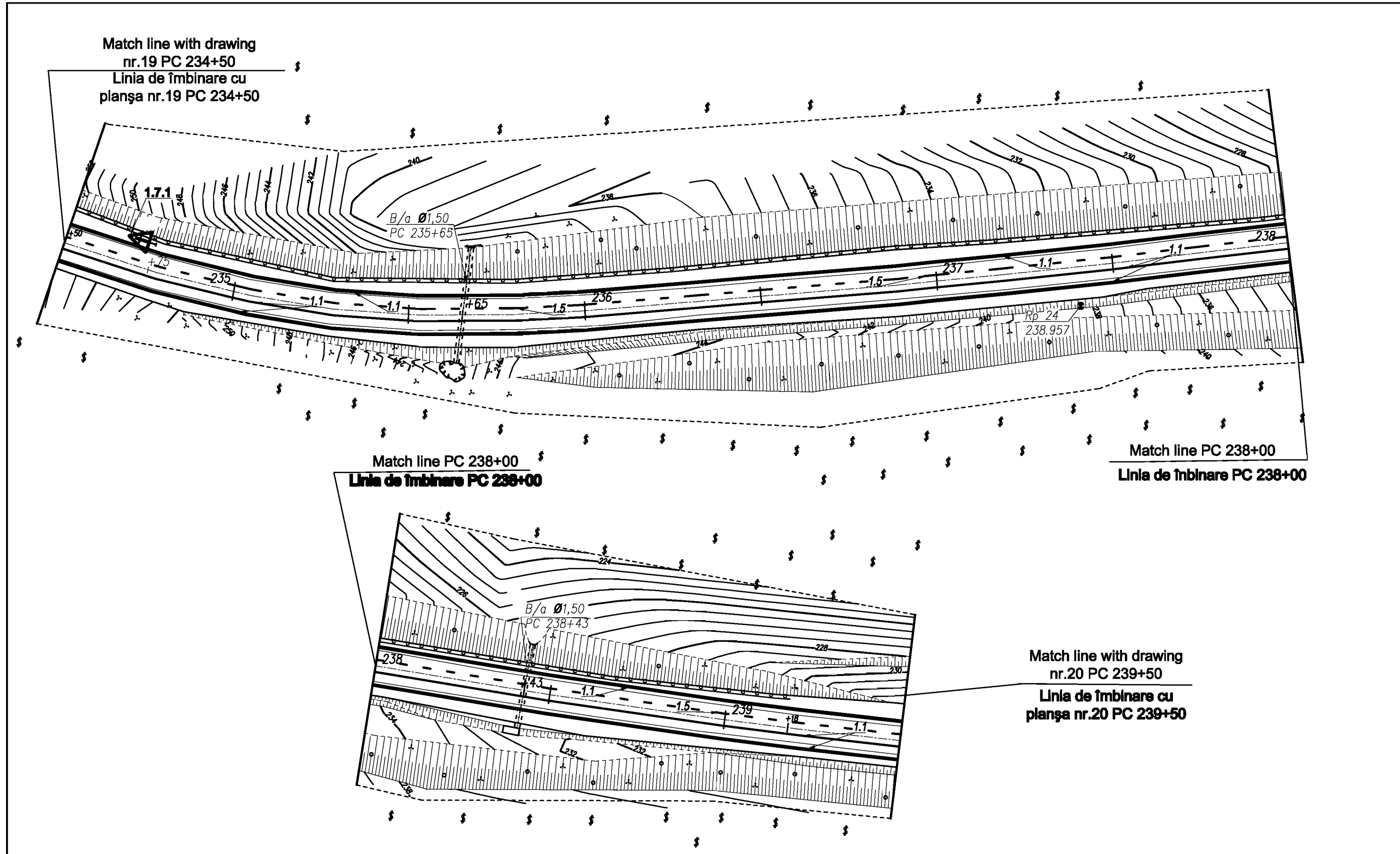


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 220+00 - PC 227+50		Designed	Olari	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-1	





European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 227+50 - PC 234+50		Designed	Mardari	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-2	



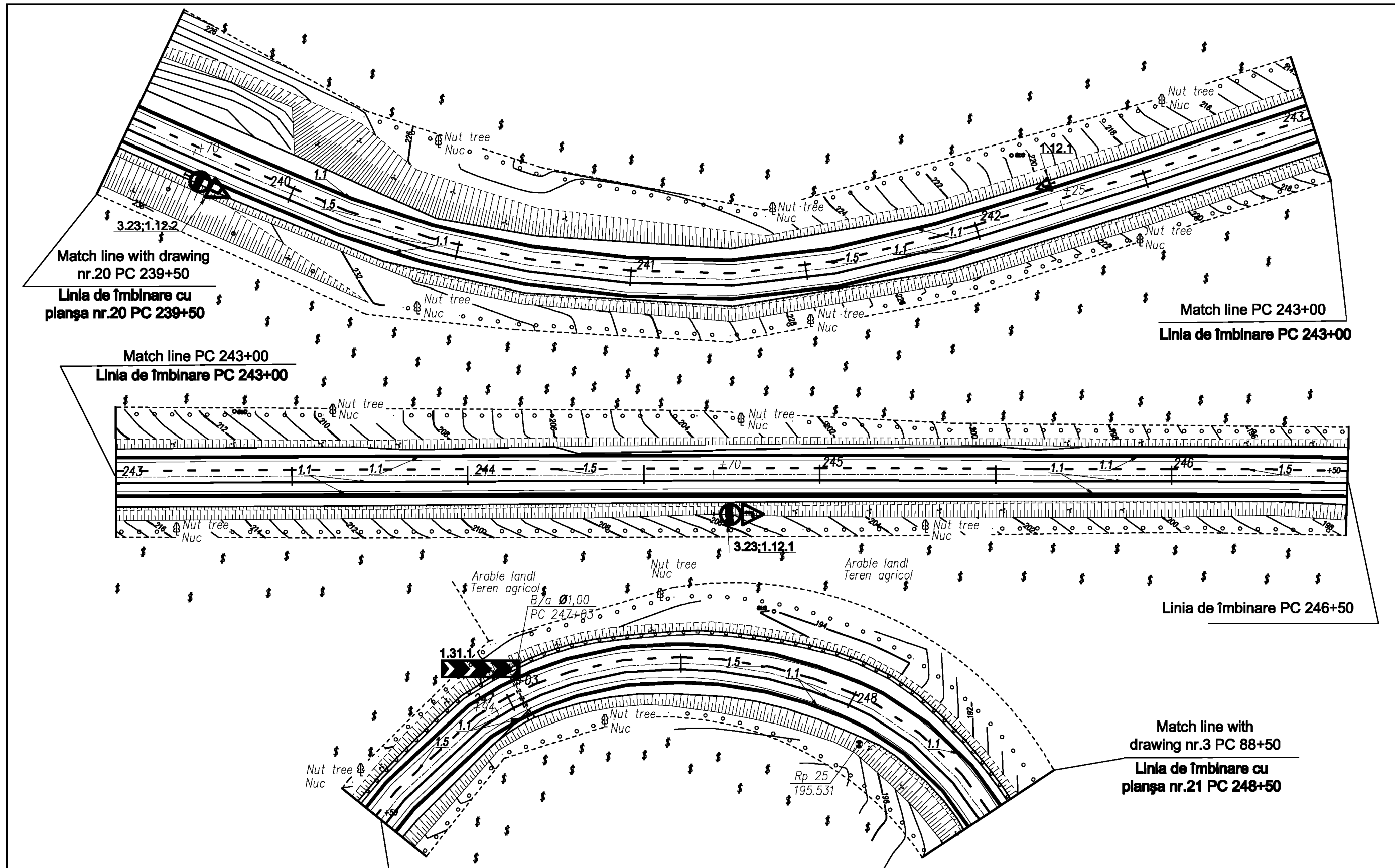
Match line with drawing  
nr.19 PC 234+50  
Linia de îmbinare cu  
planșa nr.19 PC 234+50

Match line PC 238+00  
Linia de îmbinare PC 238+00

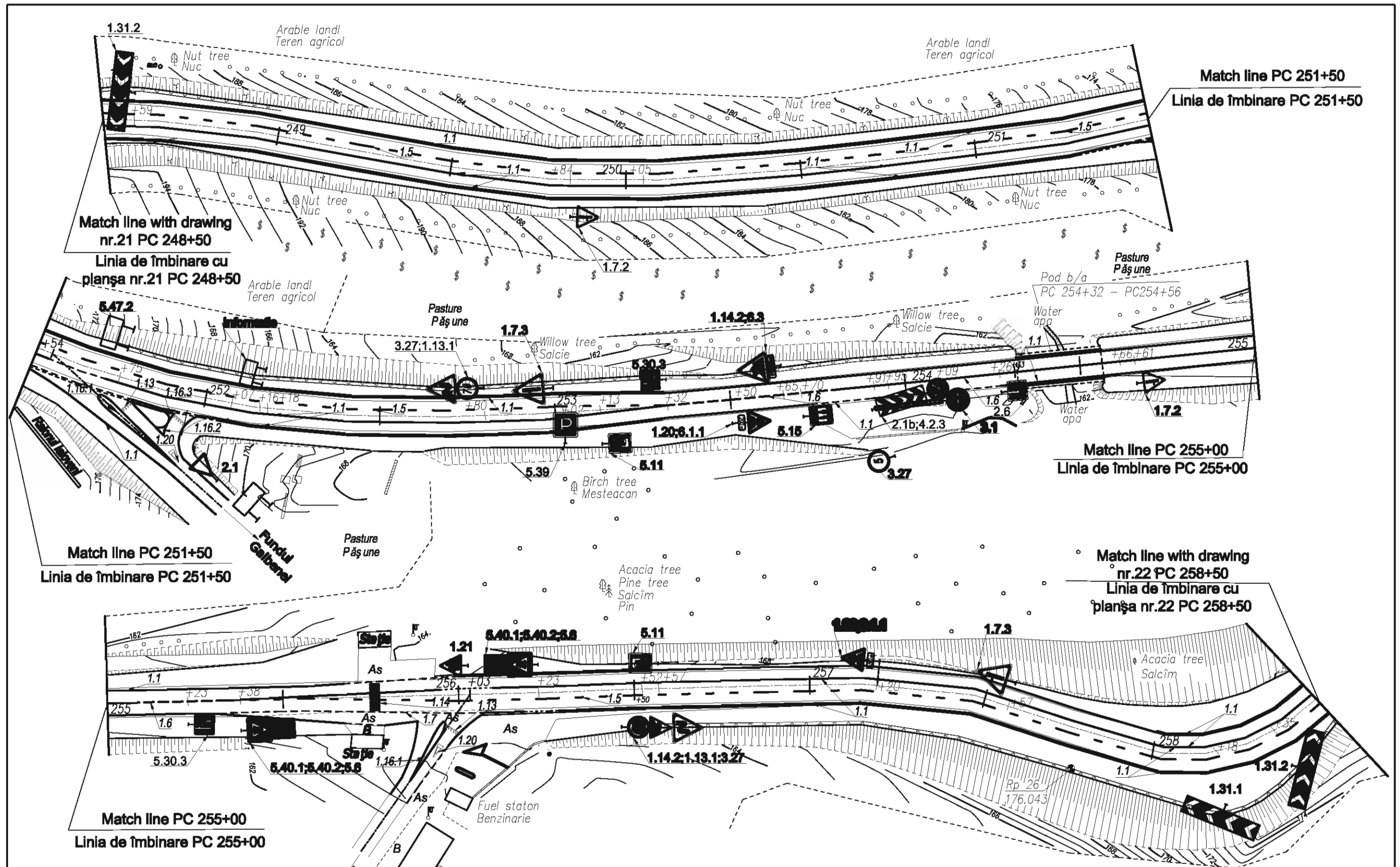
Match line PC 238+00  
Linia de îmbinare PC 238+00

Match line with drawing  
nr.20 PC 239+50  
Linia de îmbinare cu  
planșa nr.20 PC 239+50

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 234+50 - PC 239+50	Designed	Mardari	Scale	1:1000
		Checked	Bogza	Drawing	POCR-DA-3
		Control STAS	Belic		



European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 239+50 - PC 248+50		Designed	Olari	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-4	

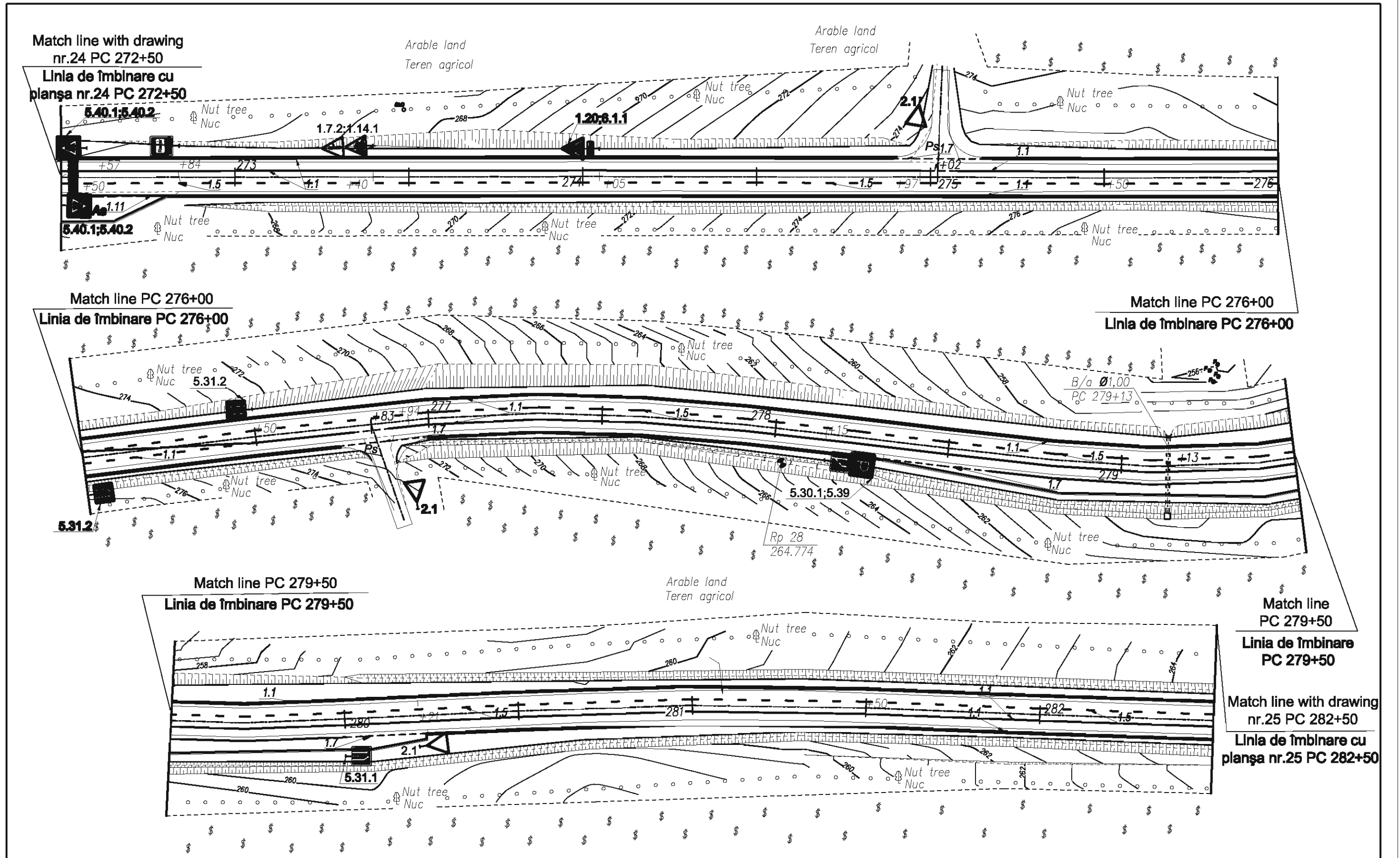


European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme		Support Project			
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title <b>Plan of Road traffic management Planul organizarii circulatiei rutiere PC 248+50 - PC 258+50</b>		Designed	<b>Olari</b>	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-5	

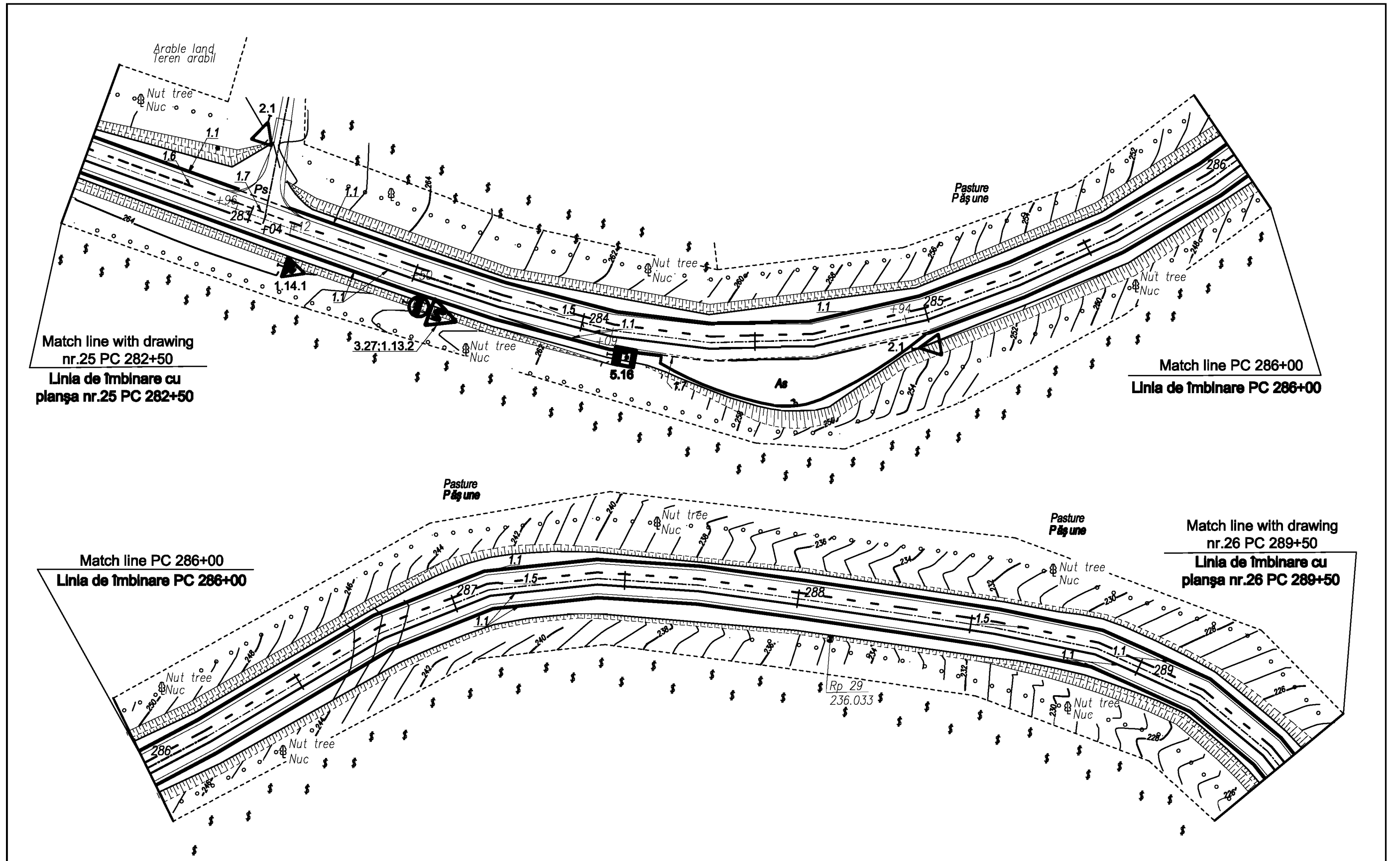








European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP Designed Checked Control STAS	Bogza Olari Bogza Belic	Date Scale Drawing	12.2007 1:1000 POCR-DA-8
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 272+50 - PC 282+50				



Match line with drawing  
nr.25 PC 282+50  
Linia de îmbinare cu  
planșa nr.25 PC 282+50

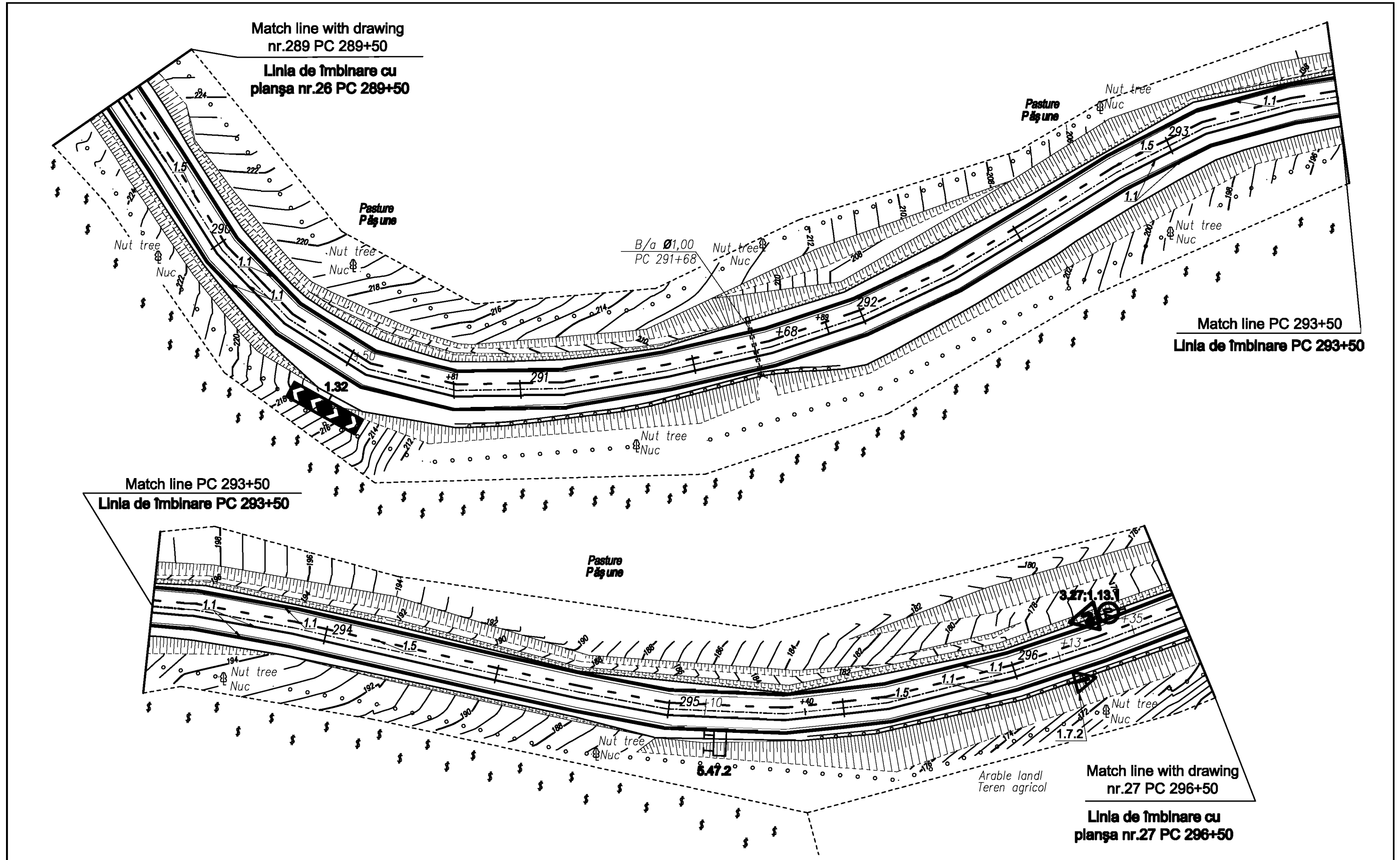
Match line PC 286+00  
Linia de îmbinare PC 286+00

Match line PC 286+00  
Linia de îmbinare PC 286+00

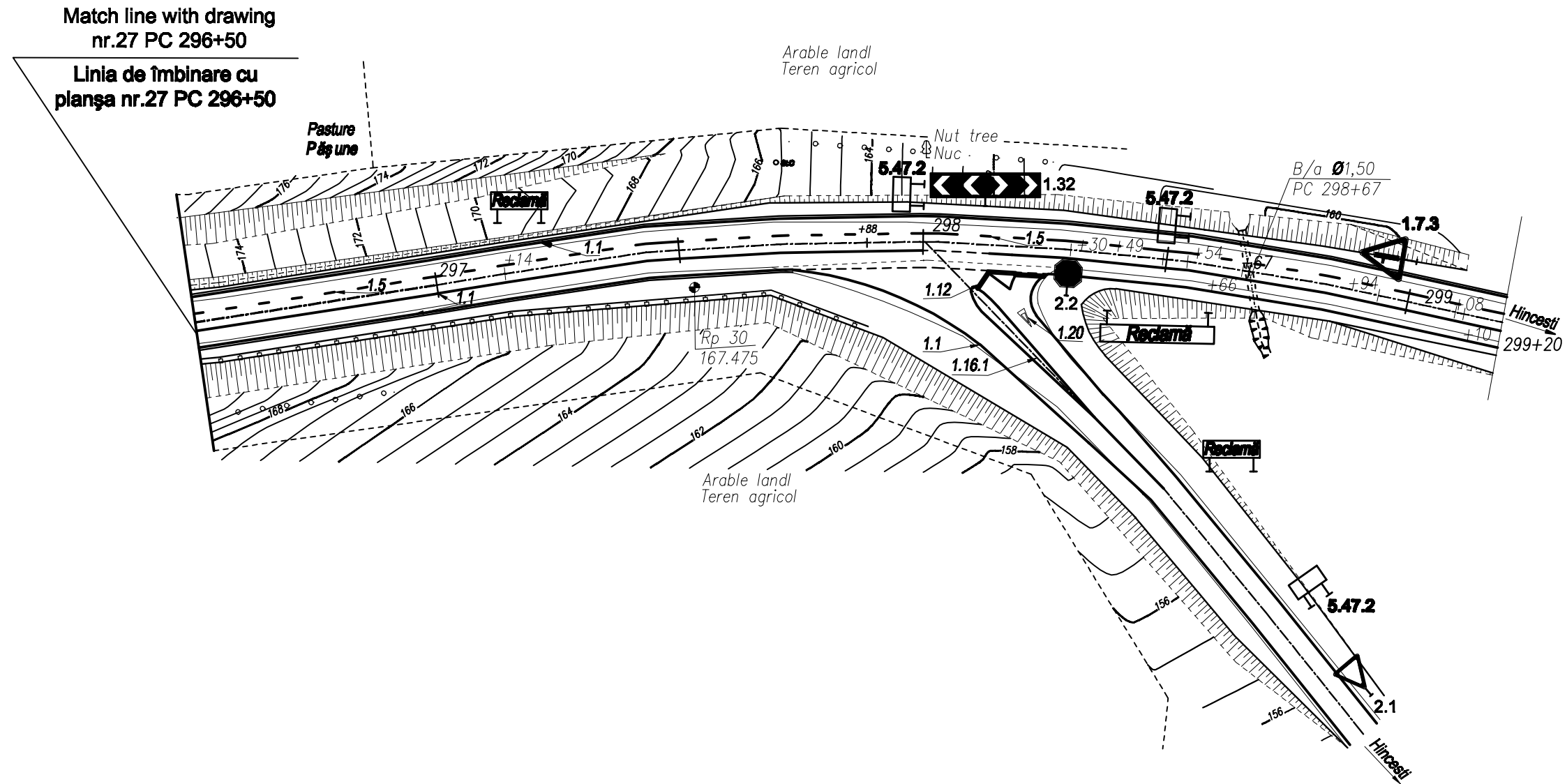
Match line with drawing  
nr.26 PC 289+50  
Linia de îmbinare cu  
planșa nr.26 PC 289+50

European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 282+50 - PC 289+50		Designed	Olari	Scale	1:1000
			Checked	Bogza	Drawing POCR-DA-9	
	Control STAS	Belic				

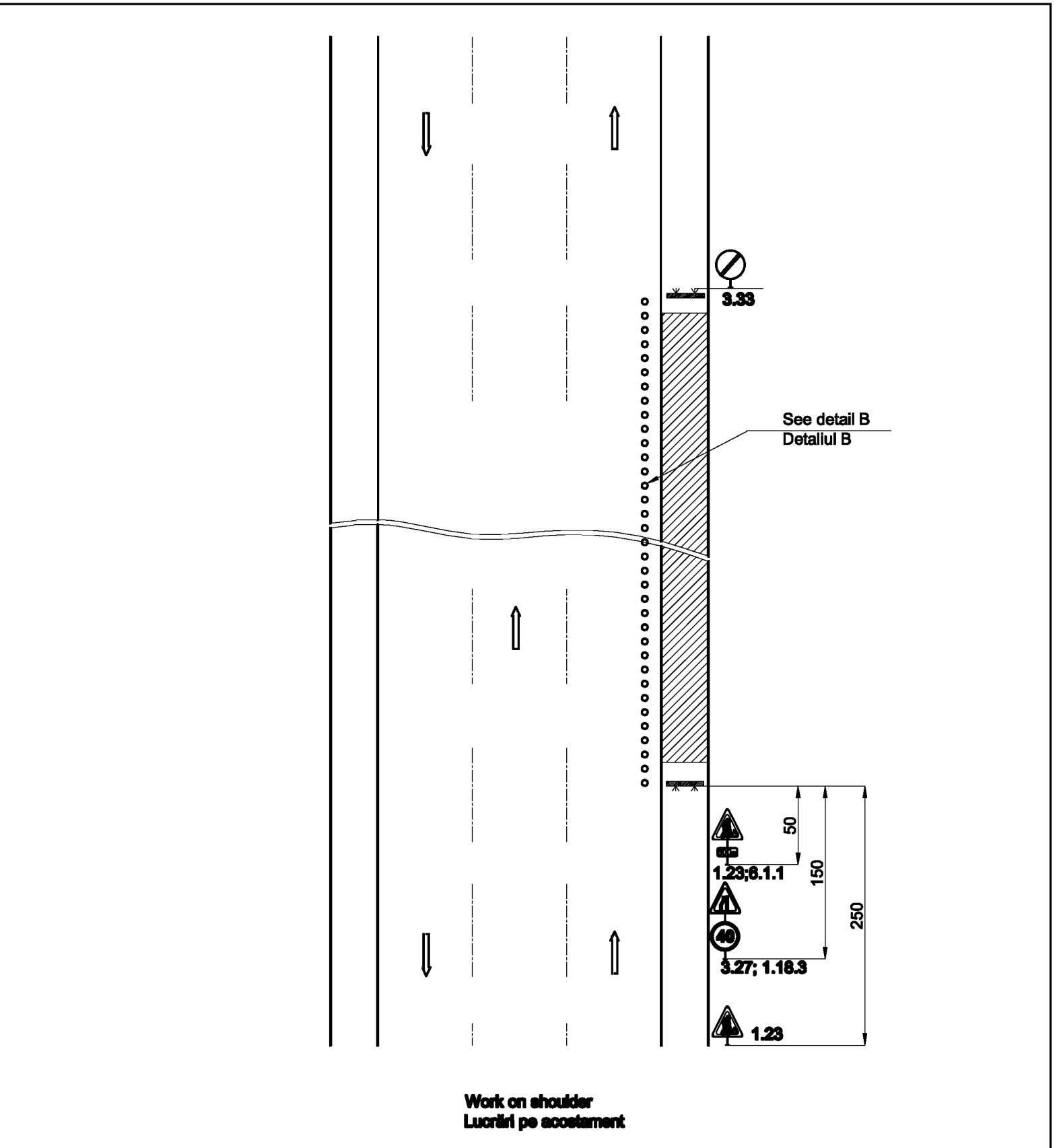
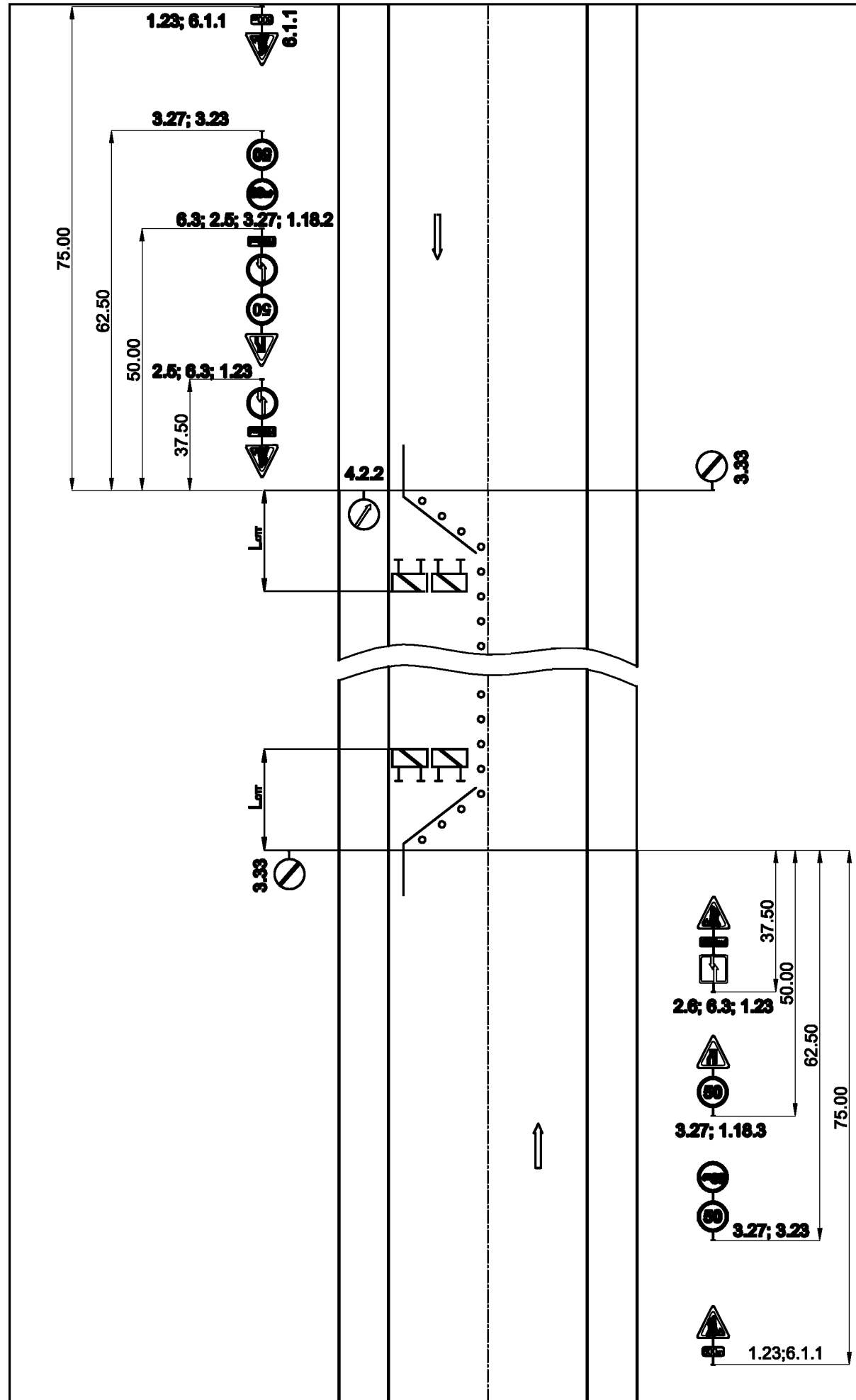




European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 289+50 - PC 296+50	Designed	Olari	Scale	1:1000
		Checked	Bogza	Drawing	POCR-DA-10
		Control STAS	Belic		

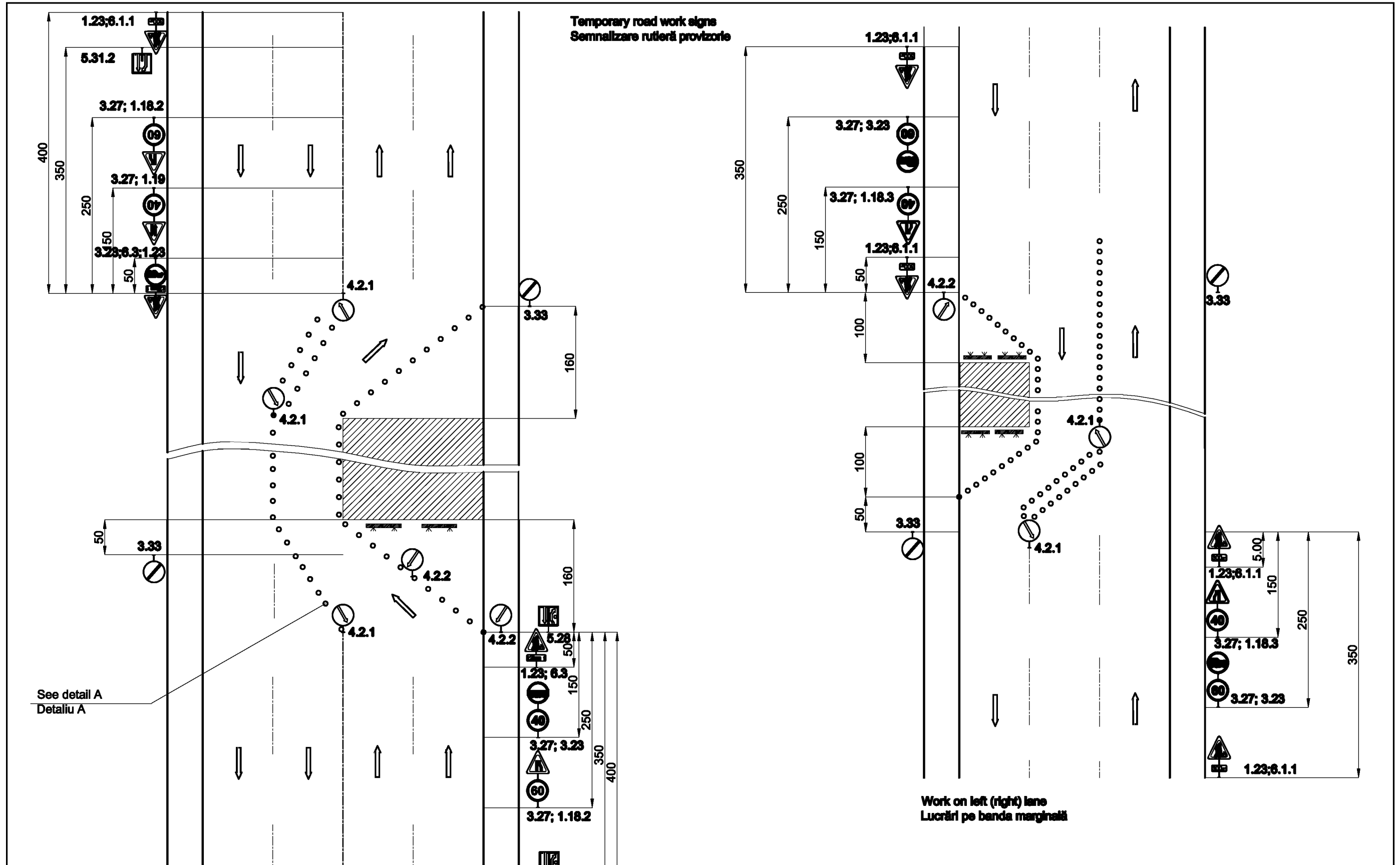


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title Plan of Road traffic management Planul organizarii circulatiei rutiere PC 296+50 - PC 299+20	Designed	Olari	Scale	1:1000
		Checked	Bogza	Drawing POCR-DA-11	
		Control STAS	Belic		

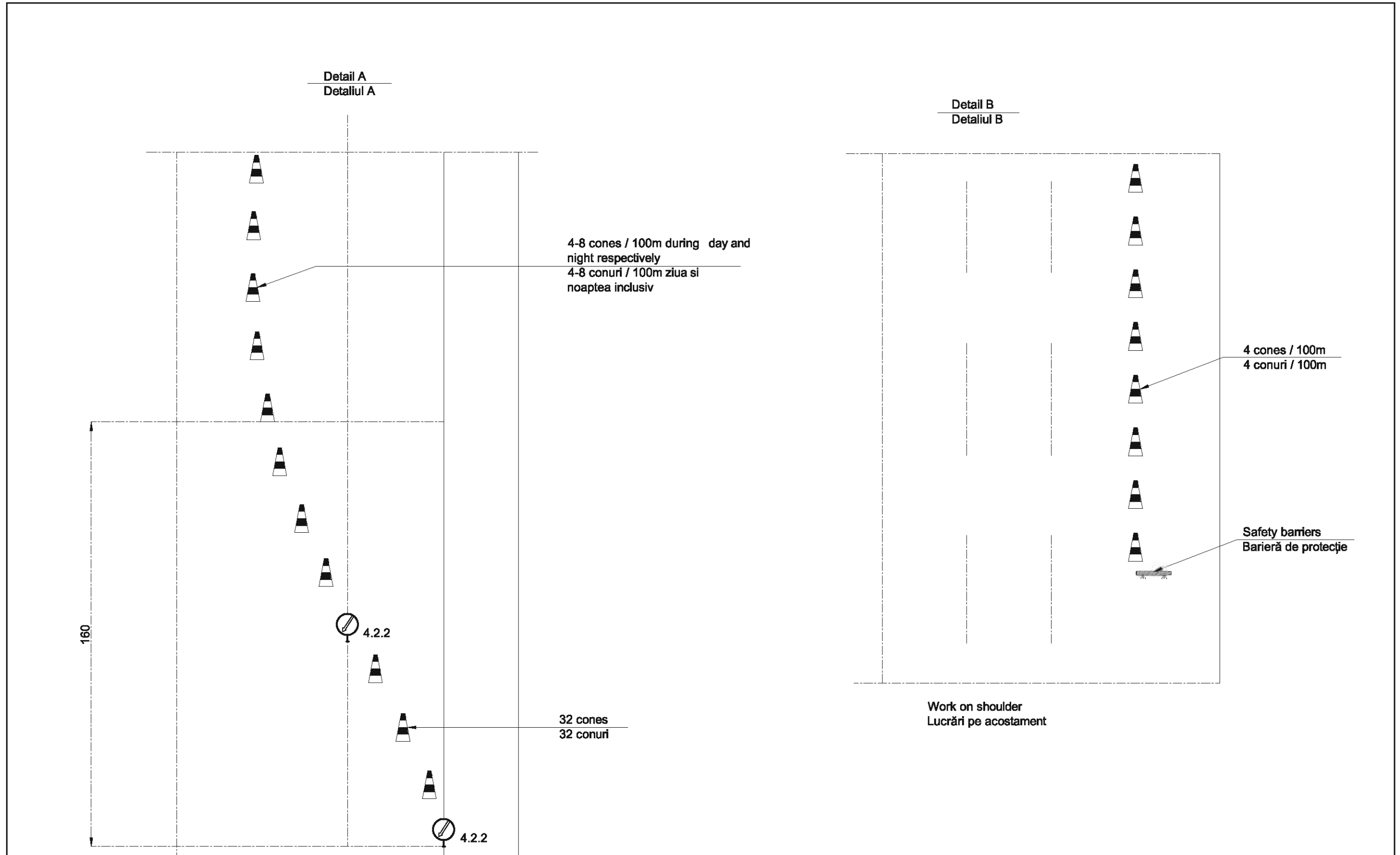


Work on shoulder  
Lucrări pe acostament

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
		Designed	Gisca	Scale	
	Drawing title Temporary road work signs Semnalizare rutiera provizorie	Checked	Bogza	Drawing	SRP-DA-1
		Control STAS	Belic		

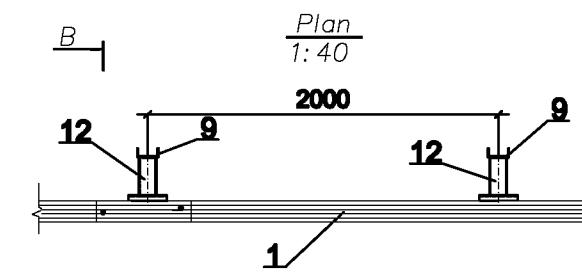
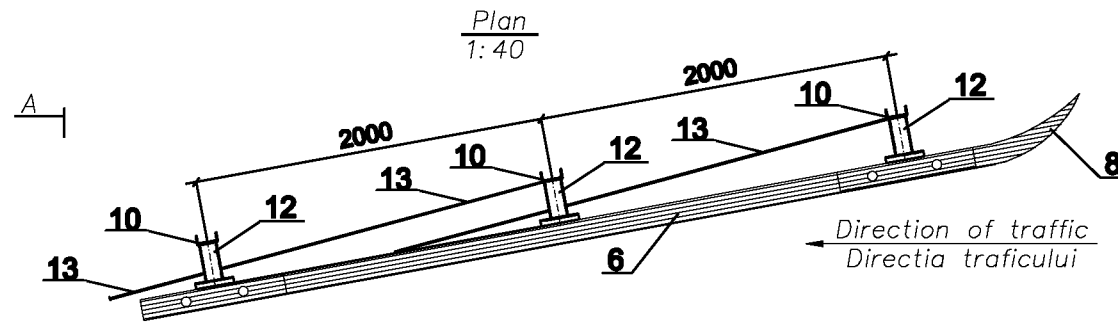
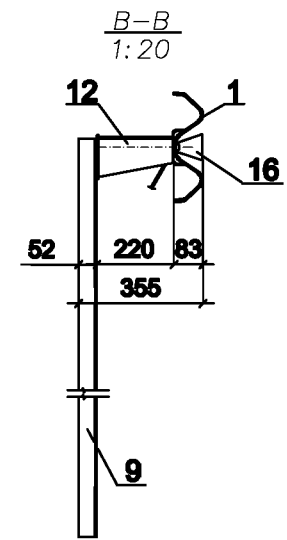
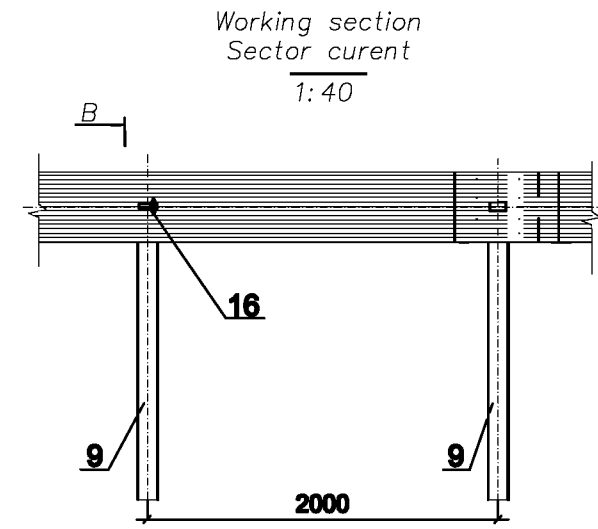
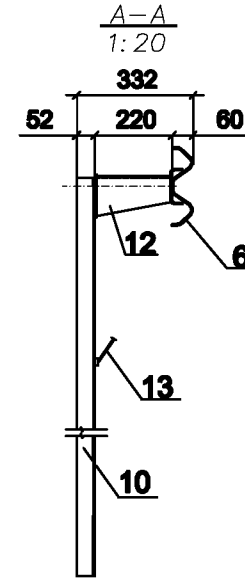
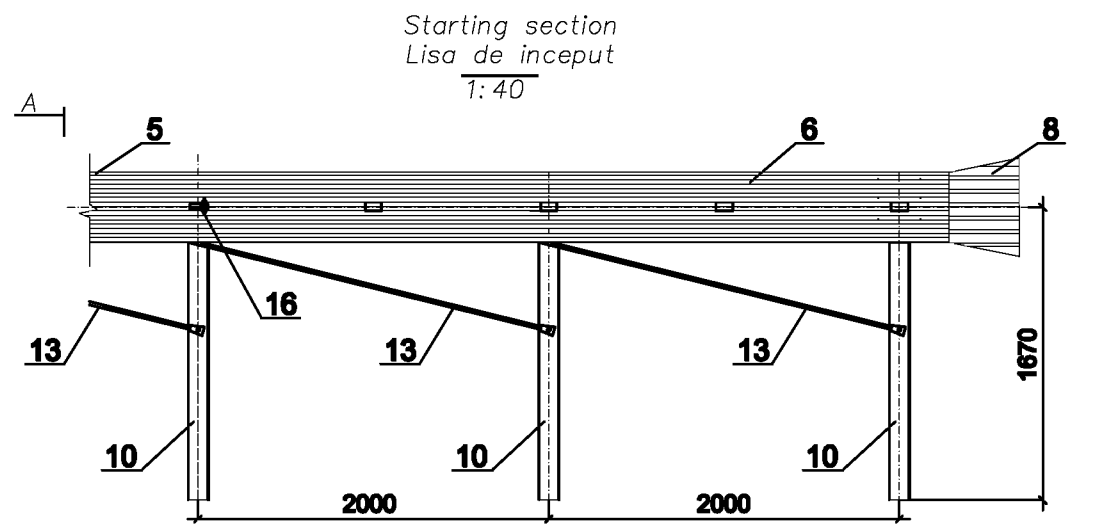


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
Drawing title		Designed	Gisca	Scale	
Temporary road work signs Semnalizare rutiera provizorie		Checked	Bogza	Drawing	
		Control STAS	Belic	<b>SRP-DA-2</b>	

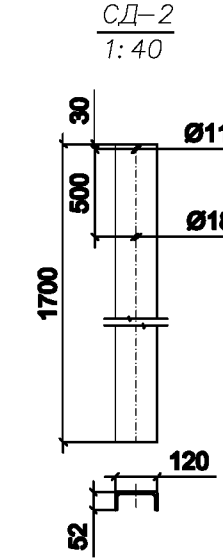
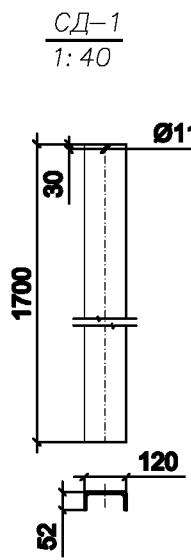
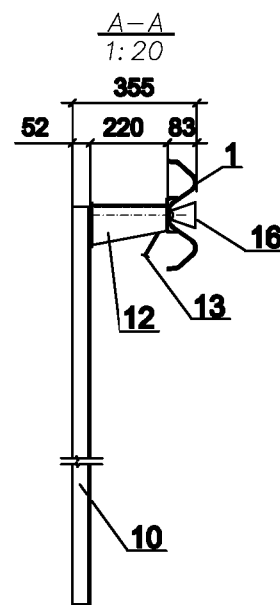
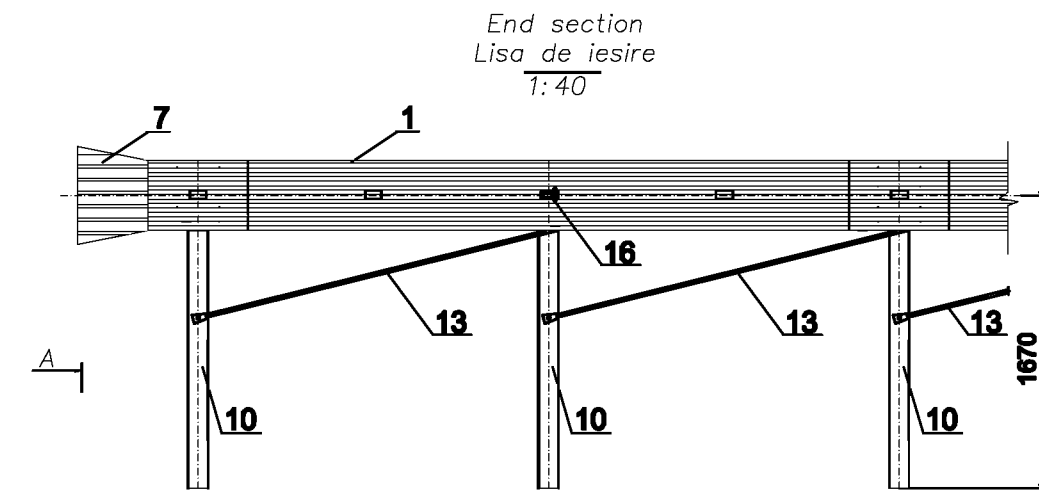
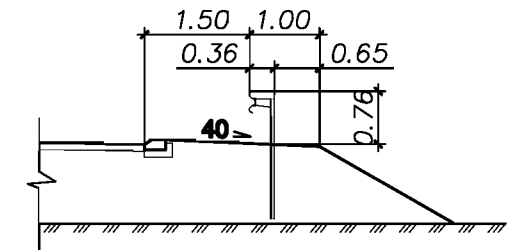


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	
	Temporary road work signs Semnalizare rutiera provizorie	Checked	Bogza	Drawing	
		Control STAS	Belic		<b>SRP-DA-3</b>

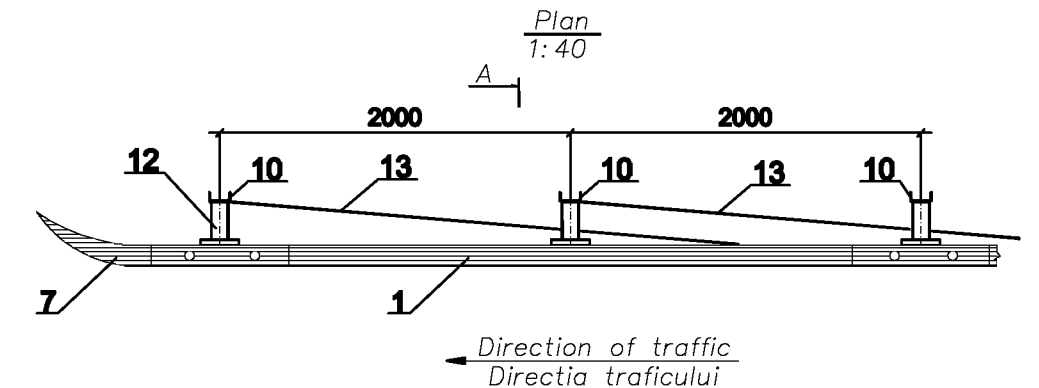
SAFETY BARRIER FOR GANTRIES  
GLISIERA PROTECTOR



Install Guard Rail  
Montarea parapetului de protectie

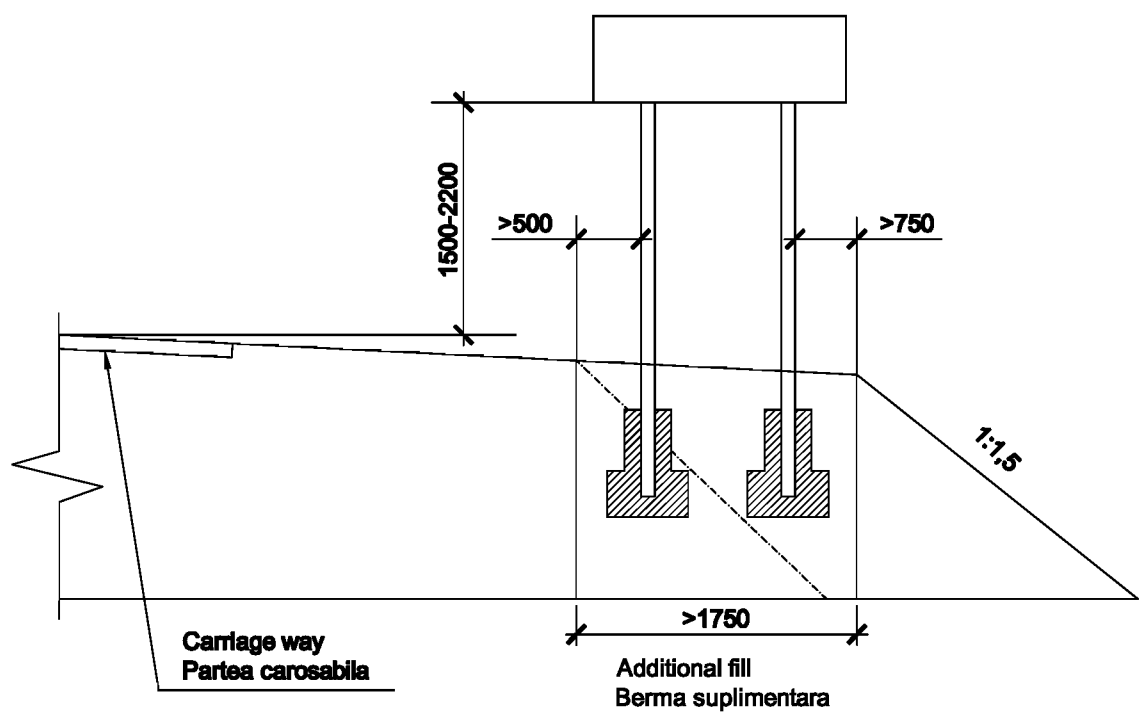
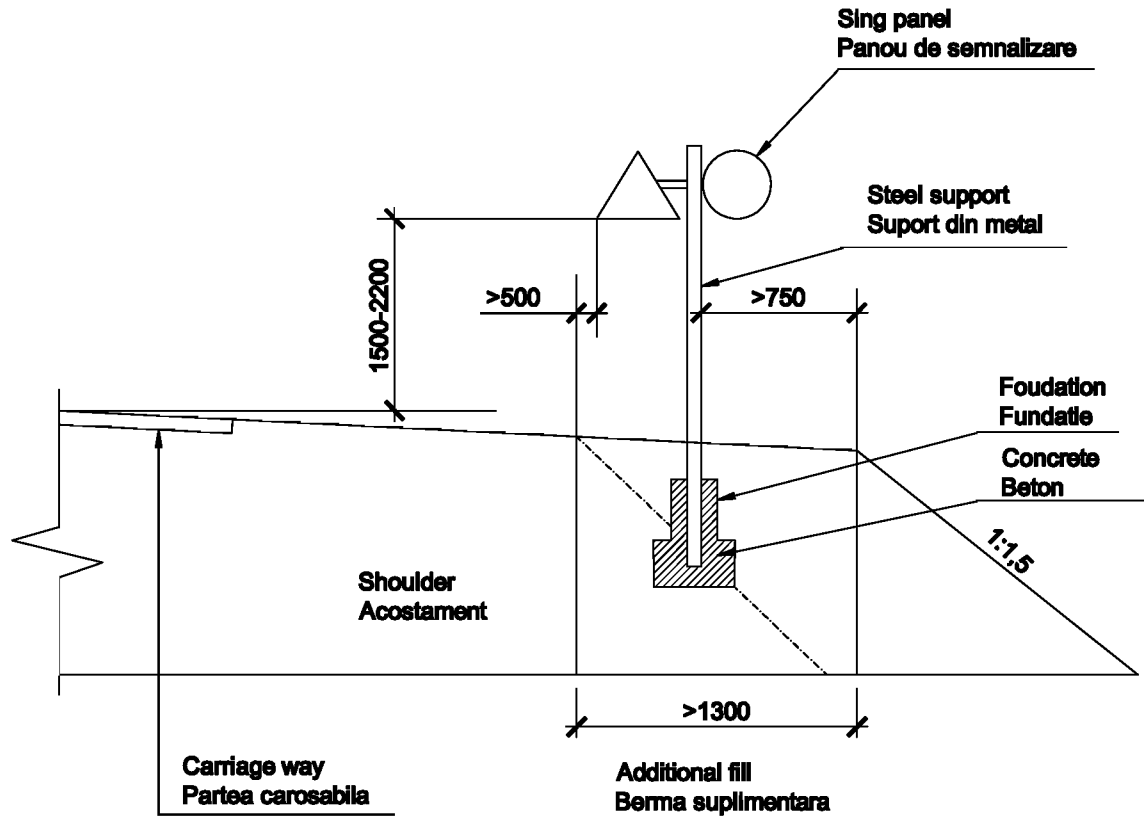


- 1 - Secția grinzii C5 - 1
- 5 - Secția grinzii C5 - 5
- 6 - Secția grinzii C5 - 6
- 7 - Element final ЭК - 1
- 8 - Element final ЭК - 2
- 9 - Stîlp СД - 1
- 10 - Stîlp СД - 2
- 12 - Consolă rigidă КК
- 13 - Cuplare diagonală СДД
- 14 - Consolă-Bară КР - 1
- 15 - Crampon СК - 1
- 16 - Element reflector ЭС - 1

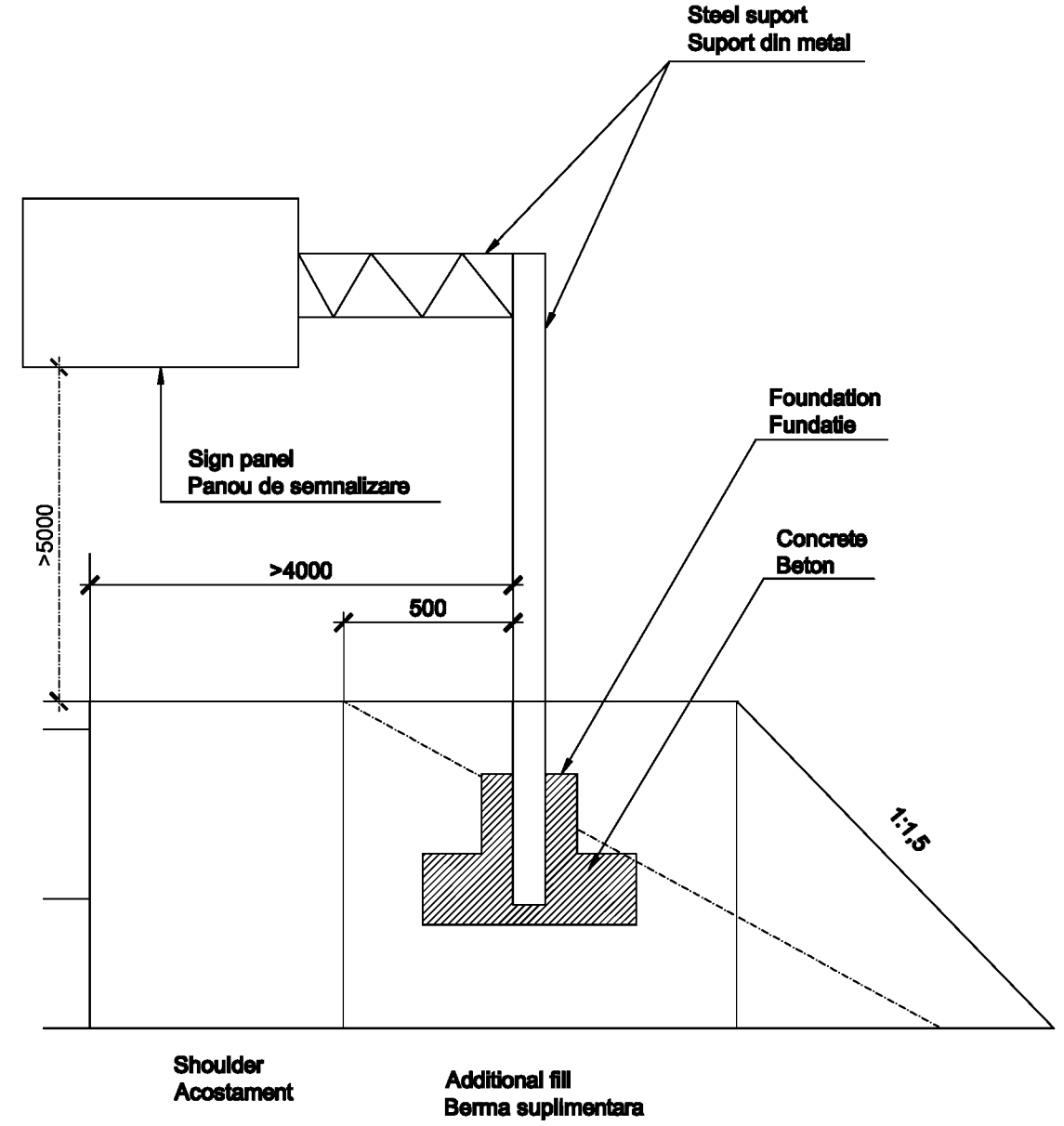


EBRD	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme		Support Project			
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Orhei		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Mardari	Scale	
	Safety barrier for gantries Parapet metalic tip 11 ДО-ММ.2		Checked	Bogza	Drawing	
			Control STAS	Belic		PM-DA-1

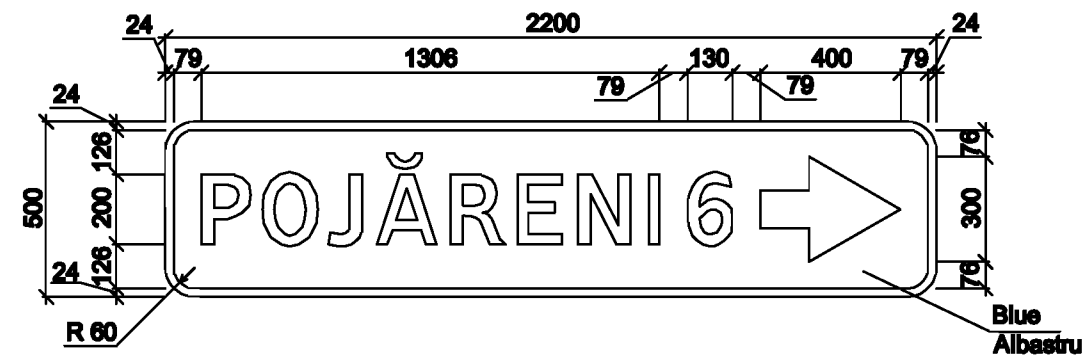
Existing and disigned supports for signs installed at the edge of road earth bed  
Suport de semnalizare existent și proiectate, instalate la marginea terasamentului



Existing supports for overhead road signs  
Suport existent pentru indicatoarele instalate deasupra partii carosabile.



European Investment Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme		Support Project			
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti		ISP	Bogza	Date	12.2007
	Drawing title Existing and disigned supports for sings installed. Suporturi existente și proiectate de instalatie a semnelor rutiere		Designed	Gisca	Scale	
			Checked	Bogza	Drawing	SISR-DA-1
			Control STAS	Belic		

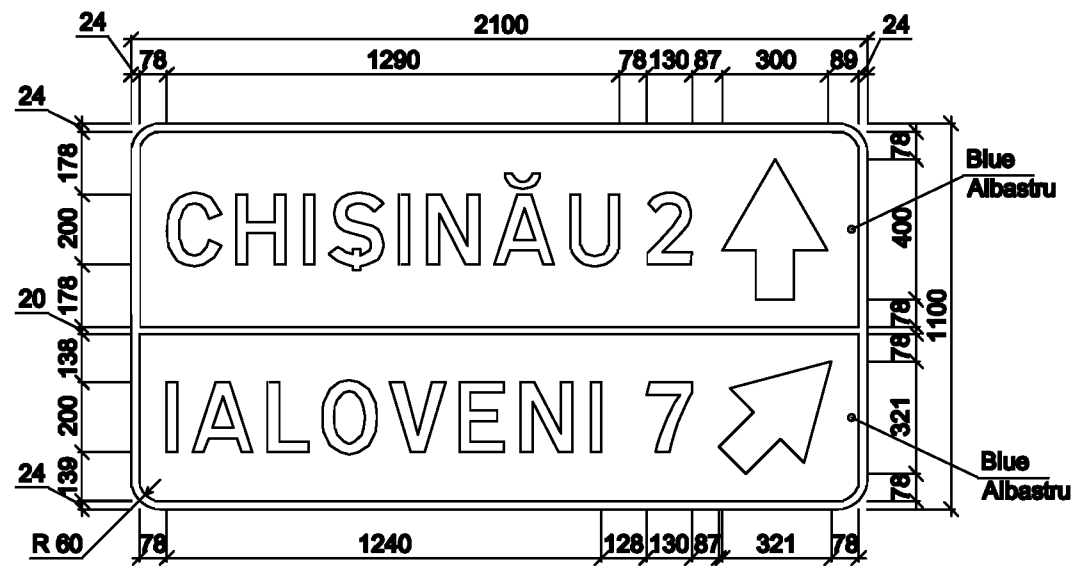


**Note**  
**Nota**

No of sing. Numar Indicator: 5.47.2  
 Sing. Panou: 2200 x 500 mm  
 Color. Fon: Blue. Alabastru  
 Ares. Suprafata: 1.10 m<sup>2</sup>  
 Scale. Scara: 1 : 20

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:20
	<small>Drawing title</small> Nonstandard road signs 5.47.2 Indicator rutier individual 5.47.2	Checked	Bogza	Drawing	IRI-DA - 1
		Control STAS	Belic		





Note  
Nota

No of sing. Numar Indicator: 5.47.2  
 Sing. Panou: 2100 x 1100 mm  
 Color. Fon: Blue. Albastru  
 Ares. Suprafata: 2.31 m<sup>2</sup>  
 Scara: 1 : 20

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title Nonstandard road signs 5.47.2 Indicator rutier individual 5.47.2	Designed	Plinschi	Scale	1:20
		Checked	Bogza	Drawing	IRI-DA - 2
		Control STAS	Belic		



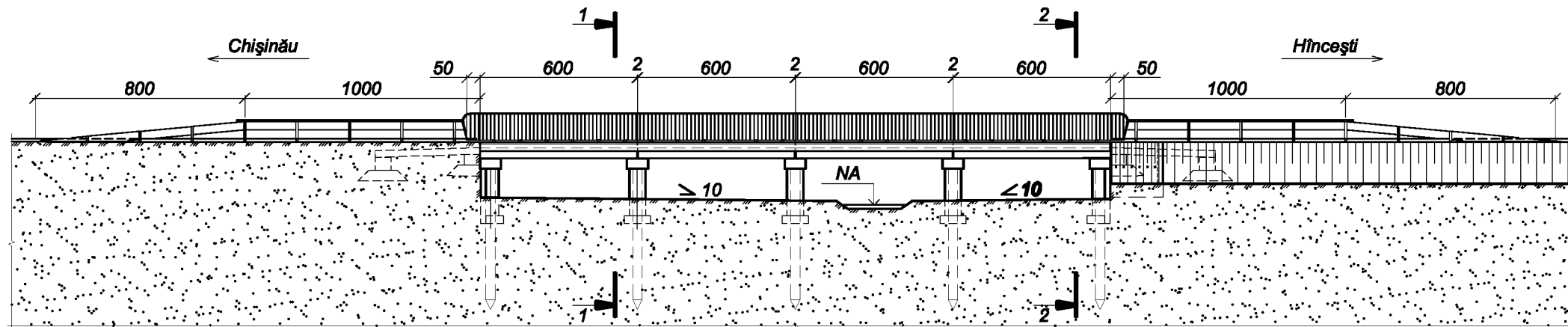
Note  
Nota

No of sing. Numar indicator: 5.47.2  
 Sing. Panou: 2600 x 1500 mm  
 Color. Fon: Blue. Albastru  
 Ares. Suprafata: 3.90 m<sup>2</sup>  
 Scale. Scara: 1 : 20

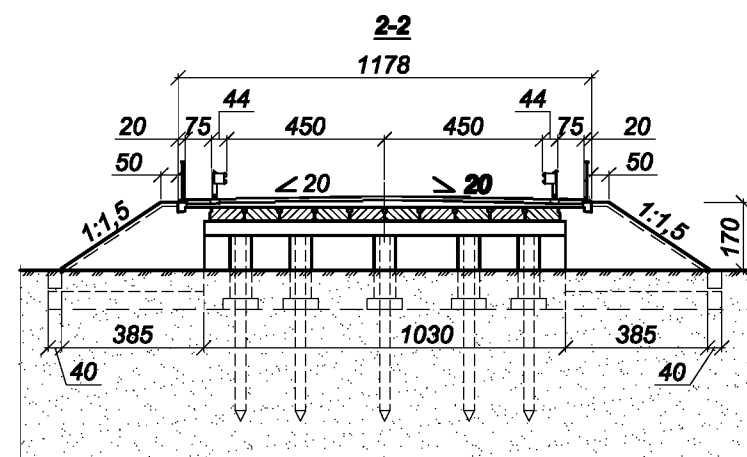
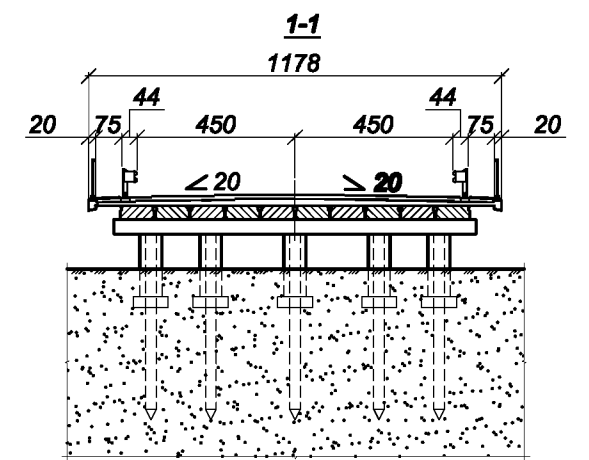
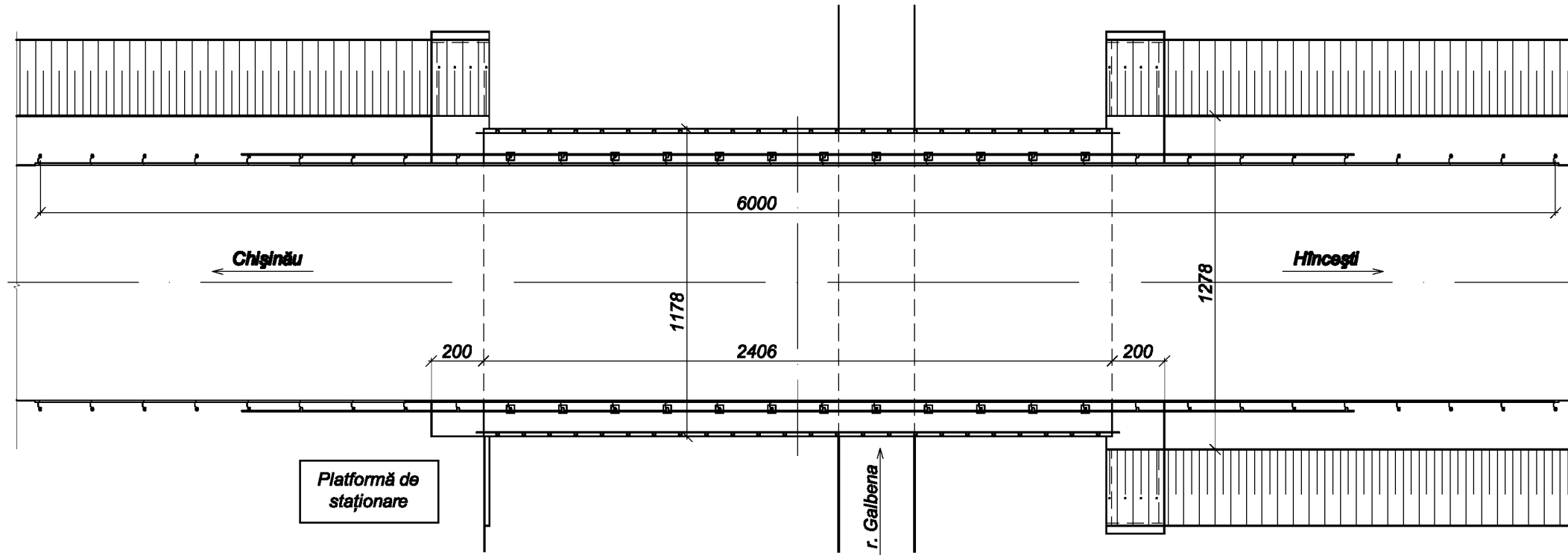
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title <b>Nonstandard road signs 5.47.2</b> <b>Indicator rutier individual 5.47.2</b>	Designed	Plinschi	Scale	1:20
		Checked	Bogza	Drawing	IRI-DA - 3
		Control STAS	Belic		

DISPOZIȚIE GENERALĂ - GENERAL ARRANGEMENT

ELEVAȚIE - SIDE ELEVATION

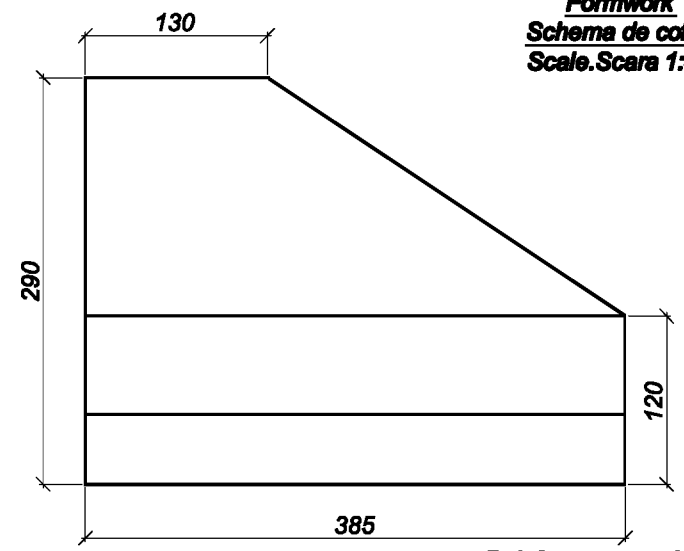


PLAN - TOP VIEW

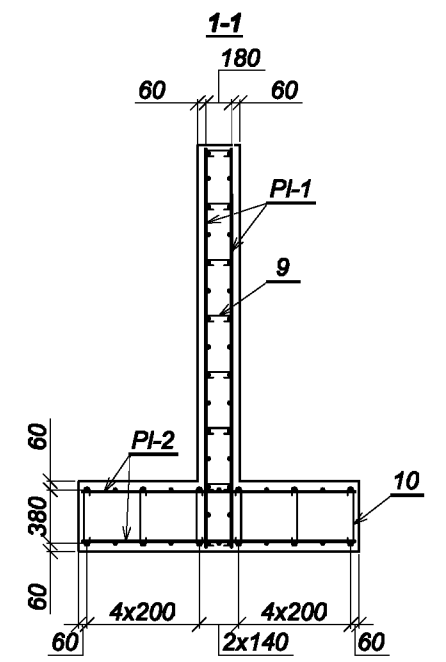
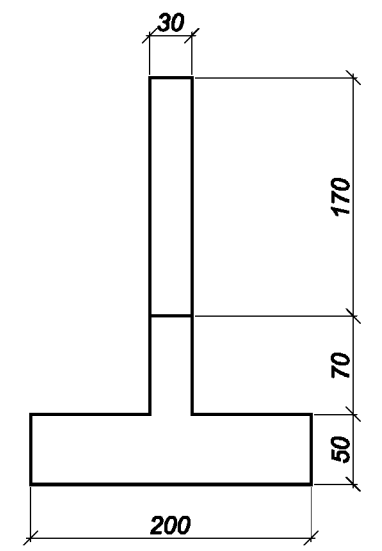
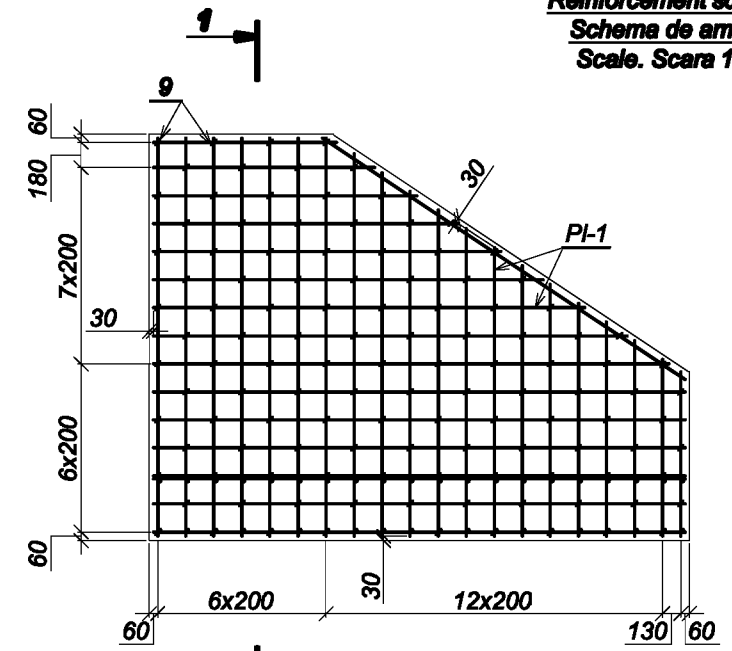


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	
	Bridge.Pod Km 25 + 444	Checked	Bogza	Drawing	P-P-5
		Control STAS	Belic		

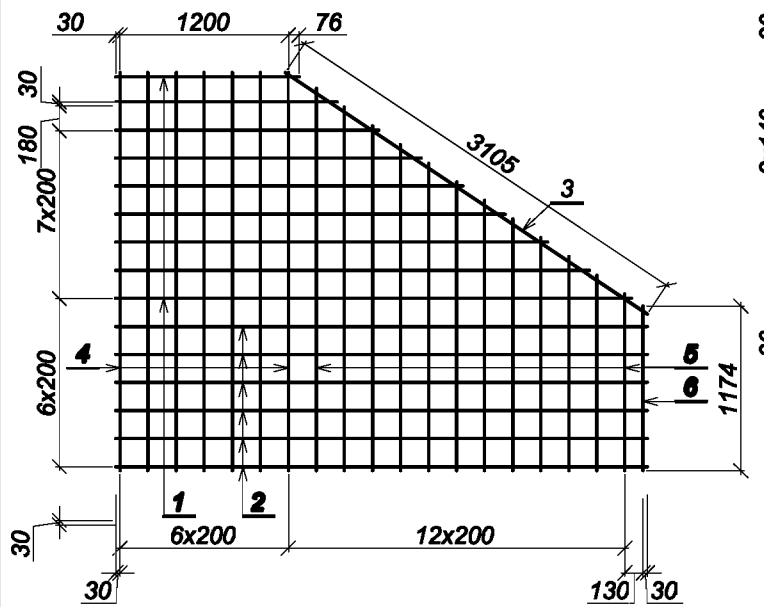
**Formwork**  
**Schema de cofraj**  
**Scale. Scara 1:50**



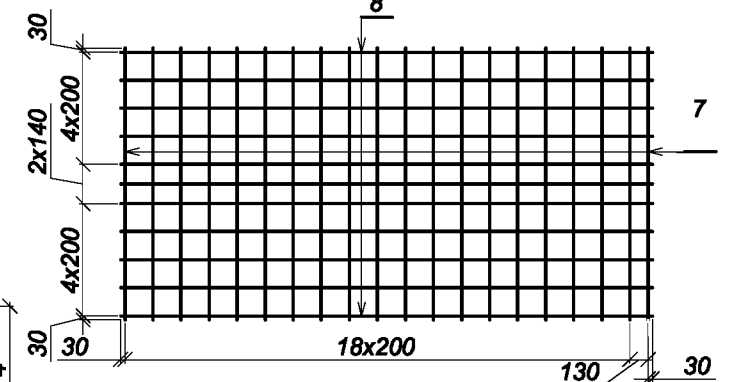
**Reinforcement scheme**  
**Schema de armare**  
**Scale. Scara 1:50**



**Grid**  
**Plasa PL-1**



**Grid**  
**Plasa PL-2**



**Specification for the wingwall on a direct foundation of RC**  
**Specificatia pentru aripa de taluz pe fundatie directa din beton armat**

Format	Zone	Position	Reference	Item	Quantity	Note
			Indicativ	Denumirea	Cant.	Notii
<b>Assembly elements</b> <b>Elemente de asamblare</b>						
Grid Plasa PL-1					2	114,9 kg
FP	1		ГОСТ 5781-82°	Ø14 A-III, l=1306+3676, average l. lmed=2491	9	3,2 kg
FP	2		ГОСТ 5781-82°	Ø14 A-III, l=3790	6	4,6 kg
FP	3		ГОСТ 5781-82°	Ø14 A-III, l=3105	1	3,8 kg
FP	4		ГОСТ 5781-82°	Ø14 A-III, l=2840	7	3,5 kg
FP	5		ГОСТ 5781-82°	Ø14 A-III, l=1261+2727, average l. lmed=1994	12	2,4 kg
FP	6		ГОСТ 5781-82°	Ø14 A-III, l=1174	1	1,4 kg
Grid Plasa PL-2					2	98,6 kg
	7		ГОСТ 5781-82°	Ø14 A-III, l=1940	20	2,4 kg
	8		ГОСТ 5781-82°	Ø14 A-III, l=3790	11	4,6 kg
<b>Elements</b> <b>Piese</b>						
	9		ГОСТ 5781-82°	Ø6 A-I, l=350	120	0,07 kg
	10		ГОСТ 5781-82°	Ø6 A-I, l=580	110	0,13 kg
<b>Materials</b> <b>Materiale</b>						
			ГОСТ 26633-91	Concrete. Beton B25, F200, W6		5,98 m³

**Tabel of elements (continuation)**  
**Continuarea tabelul pieselor**

Poz.	Shape
	Eschiz
9	
10	

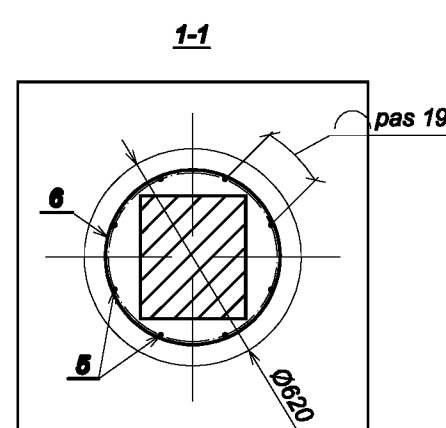
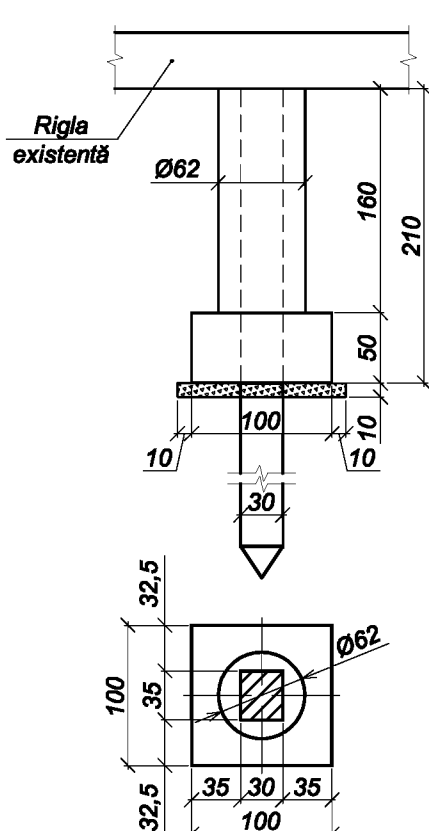
**Consumul de metal pentru un element, kg**

Element Type	Reinforcement				Total weight
	Piese de armare				
	Bar type		Clasa armaturii		
Marca elementului	ГОСТ 5781-82°				Greutate totala
	Ø6	Rez.	Ø14	Rez.	
Slope wingwall	22,7	22,7	427,0	427,0	449,7
Aripa de taluz					

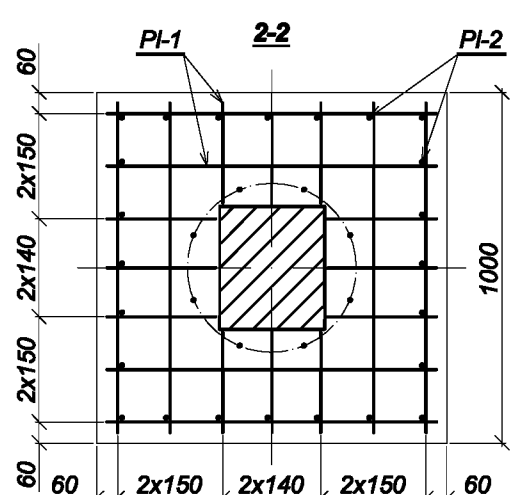
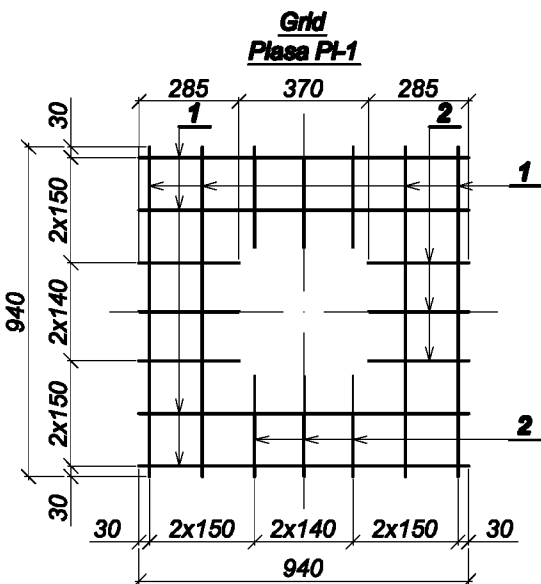
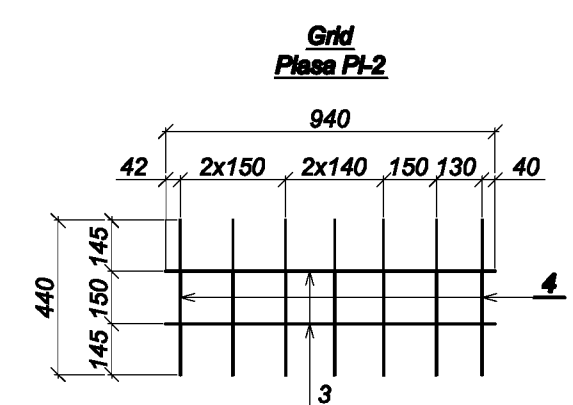
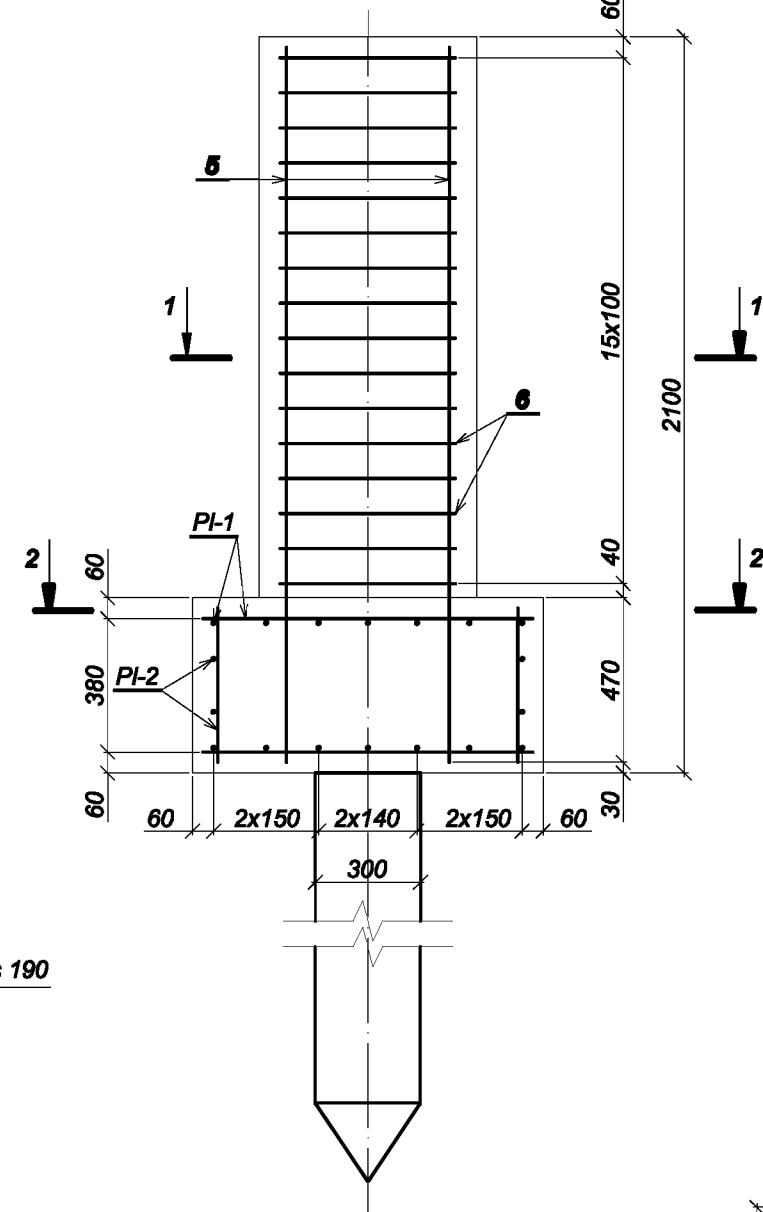
Nr. inv. orig. Seriat la data Schimb. nr.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector	Programme Support	Project		
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti, Km 25+444.	Designed	Cecan	Scale	
Blizzard	Drawing title	Checked	Bogza	Drawing	AT-P-1
Universcons	<b>Wingwall on a direct foundation of RC</b> <b>Aripa de taluz pe fundatie directa din beton armat</b>	Control STAS	Belic		

**Formwork**  
**Schema de cofraj**  
Scale. Scara 1:50



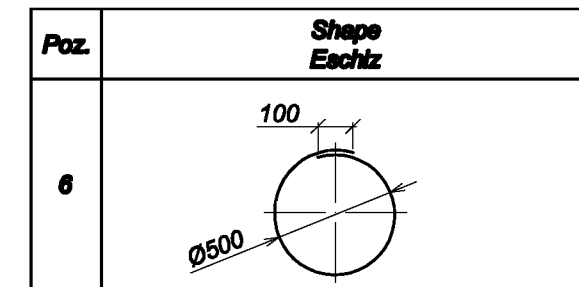
**Reinforcement scheme**  
**Schema de armare**  
Scale. Scara 1:50



**Quantities for strengthening of piles with RC**  
**Specificația consolidării piloților cu beton armat**

Format	Zone. Zone	Position	Reference	Item	Quantity	Note
		Pozitie	Indicativ	Denumirea	Cant.	Notă
<b>Assembly elements</b> <b>Elemente de asamblare</b>						
Grid Plasa PL-1						
					2	10,0 kg
FP	1		ГОСТ 5781-82*	Ø12 A-III, l=940	8	0,8 kg
FP	2		ГОСТ 5781-82*	Ø12 A-III, l=285	12	0,3 kg
Grid Plasa PL-2						
FP	3		ГОСТ 5781-82*	Ø12 A-III, l=940	2	0,8 kg
FP	4		ГОСТ 5781-82*	Ø12 A-III, l=440	7	0,4 kg
<b>Elements</b> <b>Piese</b>						
FP	5		ГОСТ 5781-82*	Ø12 A-III, l=2040	8	1,8 kg
FP	6		ГОСТ 5781-82*	Ø8 A-I, l=1672	16	0,7 kg
<b>Materials</b> <b>Materialie</b>						
			ГОСТ 28633-91	Concrete. Beton B25, F200, W6		0,72 m³

**Table of elements**  
**Tabela pieselor**



**Consumption of steel for one element**  
**Consumul de metal pentru un element, kg**

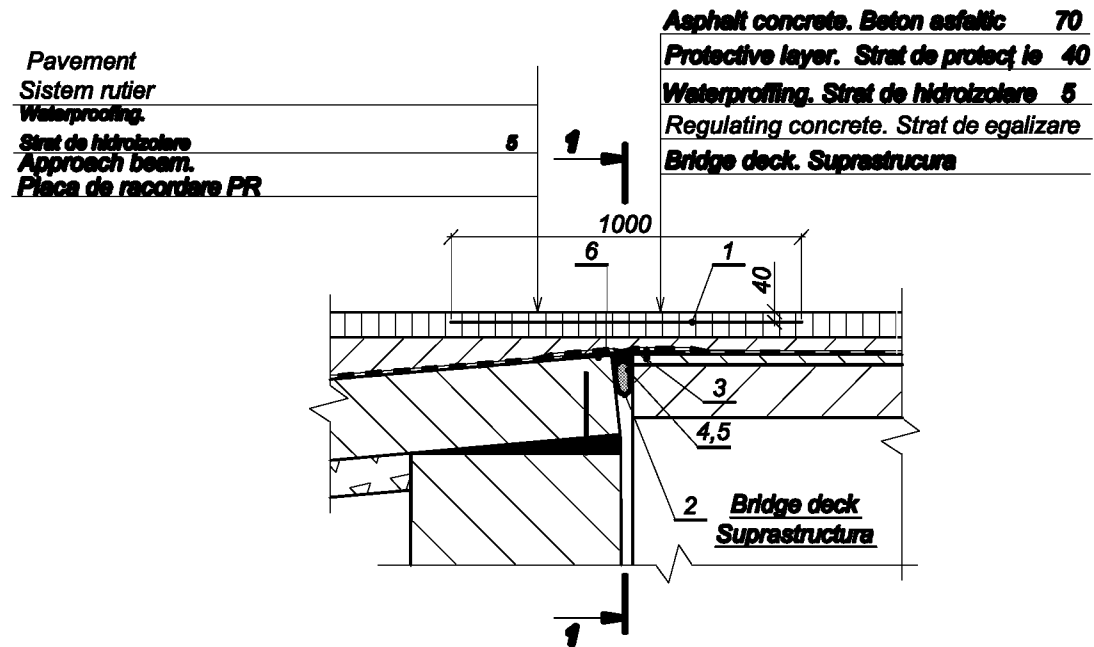
Element Type Marca elementului	Reinforcement Piese de armare				Total weight Greutate totală
	Bar type Clasa armaturii				
	A-I		A-III		
	ГОСТ 5781-82*				
	Ø8	Rez.	Ø12	Rez.	Total
Strengthening of piles Consolidarea piloților	11,2	11,2	52,0	52,0	63,2

Nr. inv. orig. Seria nr. data Schimb. nr.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road Chisinau-Hincesti, Km 25+444.	ISP	Bogza	Date	12.2007
Blizzard	Drawing title	Designed	Cecan	Scale	
Universcons	Strengthening of piles with RC surround Consolidarea piloților cu beton armat	Checked	Bogza	Drawing	CP-P-1
		Control STAS	Belic		



**Expansion joint at the abutment**  
**Rostul de dilatație la culee**  
 Scale. Scara 1:20

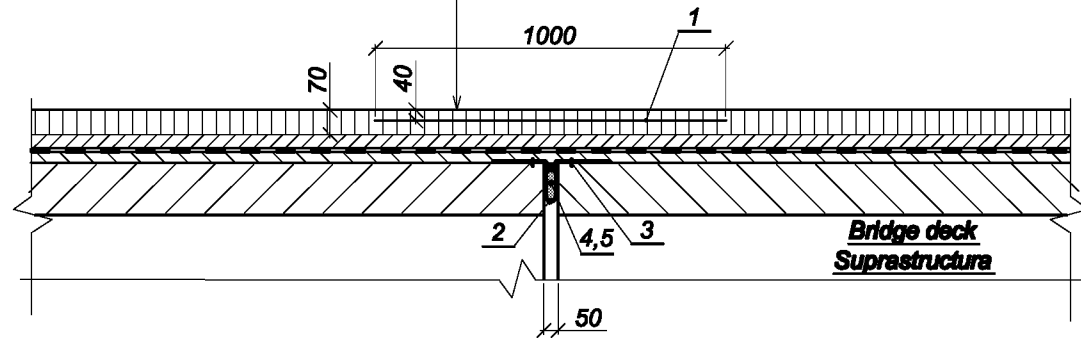


Pavement  
 Sistem rutier  
 Waterproofing.  
 Strat de hidroizolare  
 Approach beam.  
 Placa de racordare PR

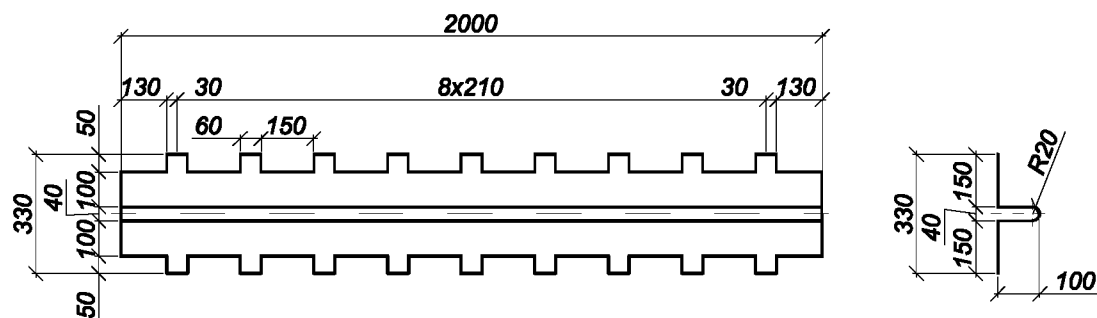
Asphalt concrete. Beton asfaltic 70  
 Protective layer. Strat de protecție 40  
 Waterproofing. Strat de hidroizolare 5  
 Regulating concrete. Strat de egalizare  
 Bridge deck. Suprastructura

**Joints between the spans**  
**Rostul între deschideri**  
 Scale. Scara 1:20

Asphalt concrete. Beton asfaltic 70  
 Protective layer. Strat de protecție 40  
 Waterproofing. Strat de hidroizolare 5  
 Regulating concrete. Strat de egalizare  
 Bridge deck. Suprastructura



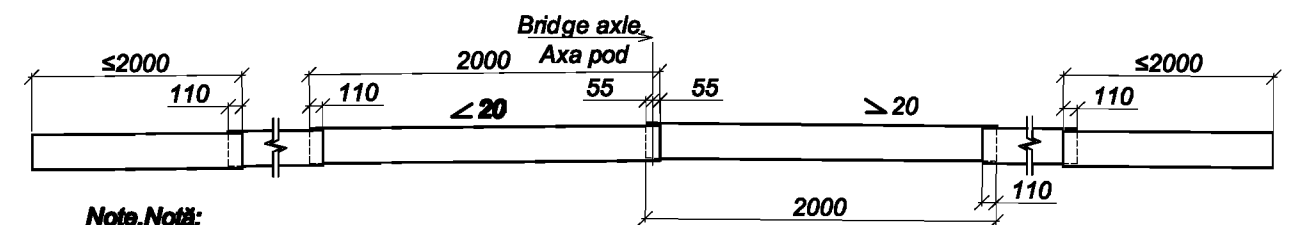
**Lyre-shaped brass sheet**  
**Liră din tablă de alamă (poz.3)**  
 Scale. Scara 1:20



**Quantities for 1 lin.m of expansion joints**  
**Specificația rostriilor de dilatație pentru 1 m.linier**

Formet	Zone. Zona	Position. Poziția	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note. Notă
				<b>Expansion joint at the abutment</b> <b>Rost de dilatație la culee</b>		
FP	1		Pr.tip seria 3.503.1-101, ediția 0	Glass fibre mesh Plasă C/PIA/7 cu fibre de sticlă, L=1,0 m	-	1,0 m <sup>2</sup>
FP	2		ГОСТ 19904-74	Lyre-shaped brass sheet Lira din tablă de alamă	-	0,5 m <sup>2</sup>
FP	3		ГОСТ 19904-74	Steel expansion bolts Dibluri de oțel, L=5cm	12	0,008 kg
FP	4		Pr.tip seria 3.503.1-101, ediția 0	Bituminous mastic Mastic de bitum	-	1,5 kg
FP	5		Pr.tip seria 3.503.1-101, ediția 0	Hemp rope saturated with bitumen Frînghie din cânepă îmbibată cu bitum	-	0,7 kg
FP	6		CHu/T 3.06.04-91	Epoxy Glue. Clei epoxid	-	0,6 kg
				<b>Span joints</b> <b>Rost între deschideri</b>		
	1		Pr.tip seria 3.503.1-101, ediția 0	Glass fibre mesh Plasă C/PIA/7 cu fibre de sticlă, L=1,0 m	-	1,0 m <sup>2</sup>
	2		ГОСТ 19904-74	Lyre-shaped brass sheet Lira din tablă de alamă	-	0,5 m <sup>2</sup>
	3			Steel expansion bolts Dibluri de oțel, L=5cm	12	0,008 kg
	4		Pr.tip seria 3.503.1-101, ediția 0	Bituminous mastic Mastic de bitum	-	1,5 kg
	5		Pr.tip seria 3.503.1-101, ediția 0	Hemp rope saturated with bitumen Frînghie din cânepă îmbibată cu bitum	-	0,7 kg
	6		CHu/T 3.06.04-91	Epoxy Glue Clei epoxid	-	0,6 kg

**1-1**  
**(modul de instalare a lirelor)**  
**(Method of lyre-shaped sheet installation)**



Note. Notă:

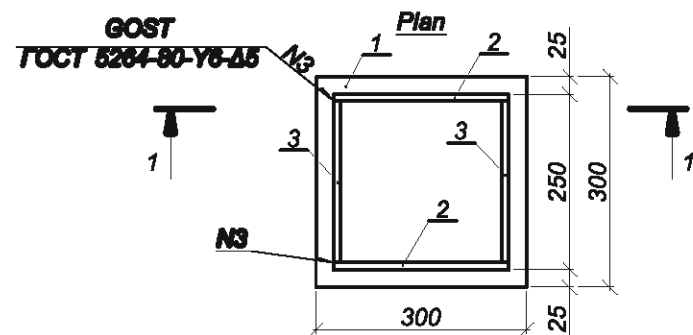
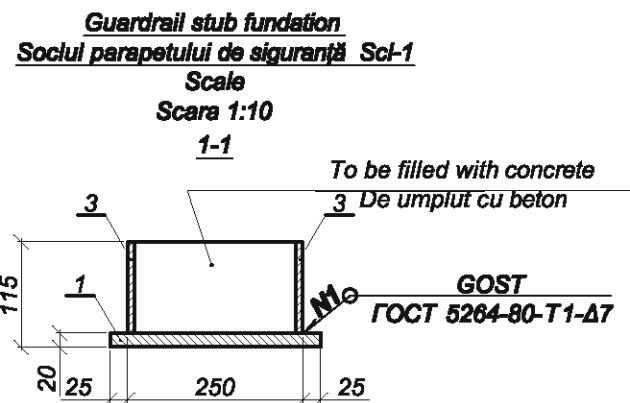
1. Brass type: sec Pr.tip 3.503.1-101.  
Marca alamel vezi Pr.tip 3.503.1-101.
2. The Layer-Shaped (brass) element shall be glued to the top surface of brass sheet the deck and approach slabs with epoxy glue.  
Înainte de fixare, suprafața de rezemare a lirei din tablă de alamă și suprafața betonului de suport se ung cu clei epoxid cu grosimea de 2mm.

Notă: Note

For bridge at: Km 25+444.  
Pentru podul: Km 25+444.

Nr. inv. orig. Seria nr. data Schimb. nr.

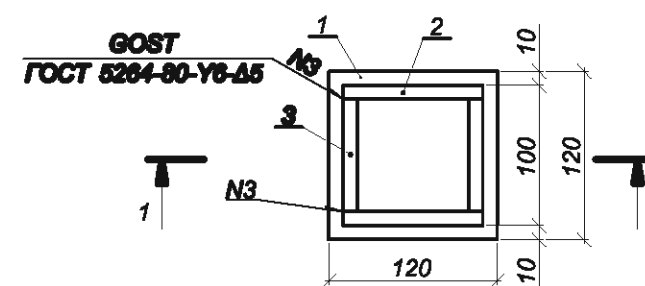
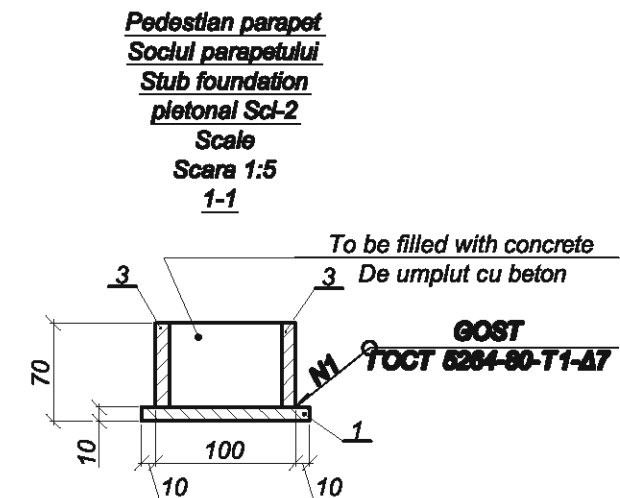
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title	Checked	Bogza	Drawing	
Universcons	Expansion joints Rost de dilatație	Control STAS	Belic		RD-P-1



**Specification for guardrail stub foundation**  
**Specificația pentru soclu parapetului de siguranță Sc1-1**

Format	Zone	Position	Reference Indicativ	Item Denumirea	Quantity. Cant.	Note Notă
				<b>Elements Piese</b>		
		1	GOST 1577-93	-20x300, l=300	1	14,1kg
		2	GOST 103-76*	-10x95, l=250	2	2,6kg
		3	GOST 103-76*	-10x95, l=230	2	2,3 kg
				<b>Materials Materiale</b>		
			GOST 26633-91	Beton cl.B25, F200, W6	-	0,007 m³

Steel Type 16D - Gost 6713-90  
Marca oțelului 16D conform GOST 6713-90  
Stub weight - 40.7, including steel 23.9 kg  
Masa soclului - 40,7 kg, inclusiv oțel 23,9kg



**Specification for parapet stub foundation**  
**Specificația pentru soclu parapetului pietonai Sc1-2**

Format	Zone	Position	Reference Indicativ	Item Denumirea	Quantity. Cant.	Note Notă
				<b>Elements. Piese</b>		
		1	GOST 103-76*	-10x120, l=120	1	1,2 kg
		2	GOST 103-76*	-10x60, l=100	2	0,5 kg
		3	GOST 103-76*	-10x60, l=80	2	0,4 kg
				<b>Materials. Materiale</b>		
			GOST 26633-91	Beton cl.B25, F200, W6	-	0,003 m³

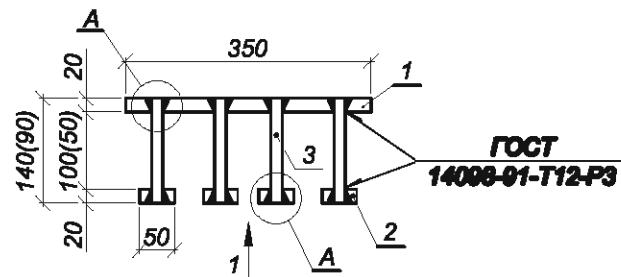
Steel Type 16D - GOST 6713-90  
Marca oțelului 16D conform GOST 6713-90  
Stub weight-10.2, including steel 3.0  
Masa soclului - 10,2 kg, inclusiv oțel 3,0 kg

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

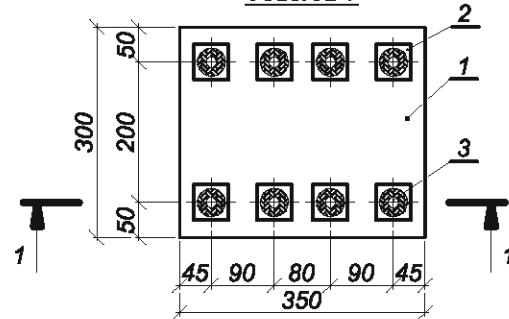
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road Chisinau-Hincesti, Km 25+444.	ISP	Bogza	Date	12.2007
TRL		Designed	Cecan	Scale	
Blizzard	Drawing title Bridge deck.Guardrail stub foundation. Tablierul suprastructurii.	Checked	Bogza	Drawing	
Universcons	Soclu parapetului de siguranță Sc1-1, Sc1-2	Control STAS	Belic		TS-P-1



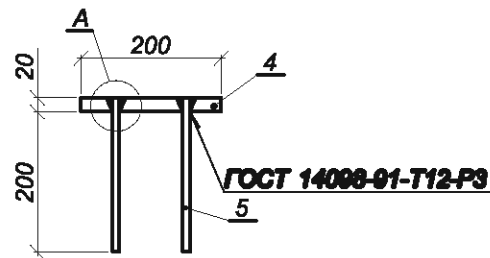
**Embedded base plate. Cross section**  
**Piesă înglobată P1-1 Secțiunea 1-1**  
 Scale. Scara 1:10



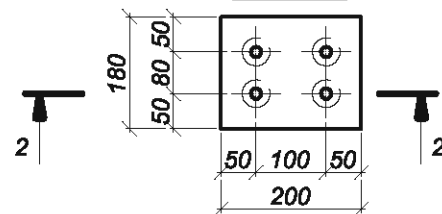
**View**  
**Vederea 1**



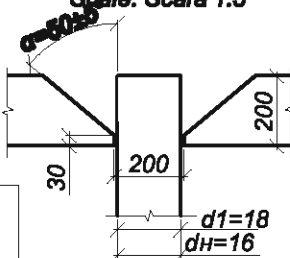
**Embedded base plate. Cross section**  
**Piesă înglobată P1-3 Secțiunea 2-2**  
 Scale. Scara 1:10



**View**  
**Vederea 2**



**Detail. Nodul A-A**  
 Scale. Scara 1:5



**Notă: Note**  
 P1-1 For bridge at Km 25+444.  
 P1-1 Se aplică la podul Km 25+444.  
 P1-3 For bridge at Km 25+444.  
 P1-3 Se aplică la podul Km 25+444.

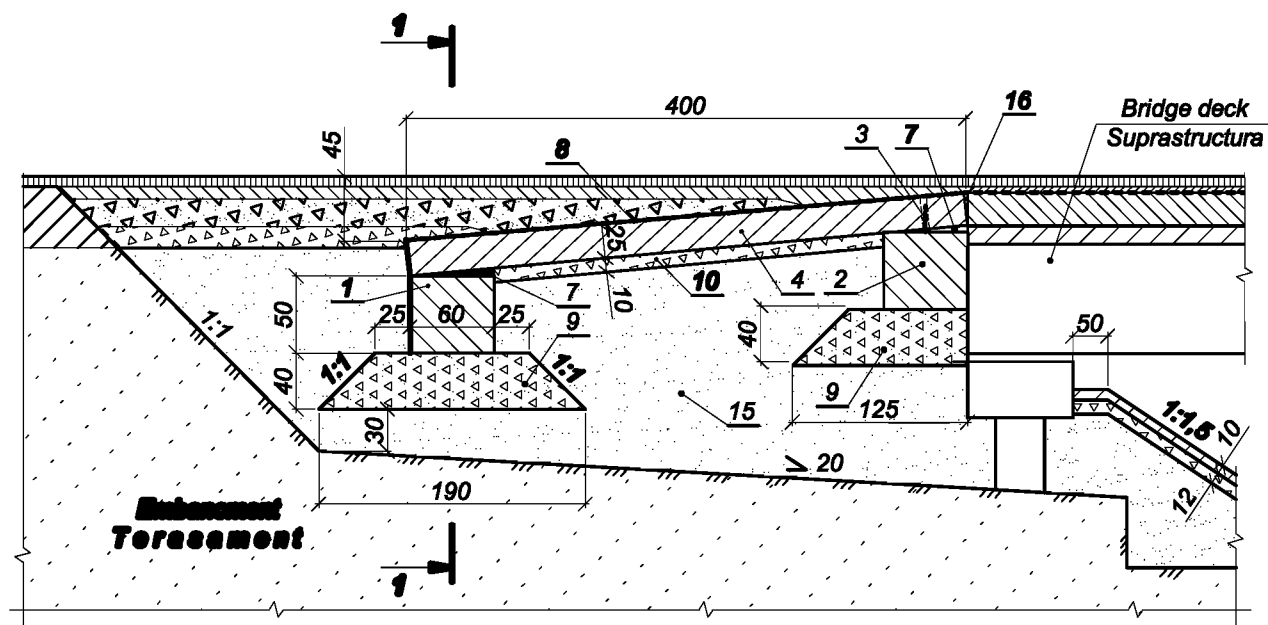
**Specification embedded elements**  
**Specificația pieselor înglobate**

Format	Zone.	Position	Mark	Item.	Quantity.	Note
	Zona.	Pozitia	Marcaj, simbol	Denumirea	Cant.	Notă
				<b>Embedded base plate</b> <b>Piesă înglobată P1-1(P1-2)</b>		<b>22,1 kg</b>
				<b>Elements</b> <b>Piese</b>		
FP	1		<b>GOCT 103-76*</b>	<b>-20x300, l=350</b>	<b>1</b>	<b>16,5 kg</b>
FP	2		<b>GOCT 103-76*</b>	<b>-20x50, l=50</b>	<b>8</b>	<b>0,4 kg</b>
FP	3		<b>GOCT 5761-82*</b>	<b>Ø16 A-II, l=140 (90)</b>	<b>8</b>	<b>0,3 kg</b>
				<b>Embedded base plate</b> <b>Piesă înglobată P1-3</b>		<b>6,6 kg</b>
				<b>Elements</b> <b>Piese</b>		
FP	4		<b>GOCT 103-76*</b>	<b>-20x180, l=200</b>	<b>1</b>	<b>5,0 kg</b>
FP	5		<b>GOCT 5761-82*</b>	<b>Ø16 A-II, l=220</b>	<b>4</b>	<b>0,4 kg</b>

Nr. inv. orig. / Schimb. nr. / Semnal la data

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
Blizzard	Drawing title	Designed	Cecan	Scale	
Universcons	<b>Embedded base plates</b> <b>Piese înglobate P1-1, P1-2, P1-3</b>	Checked	Bogza	Drawing	PI-P-1
		Control STAS	Belic		

**Bridge approach slab**  
**Racordarea podului cu terasamentul**  
**Scale.Scara 1:50**

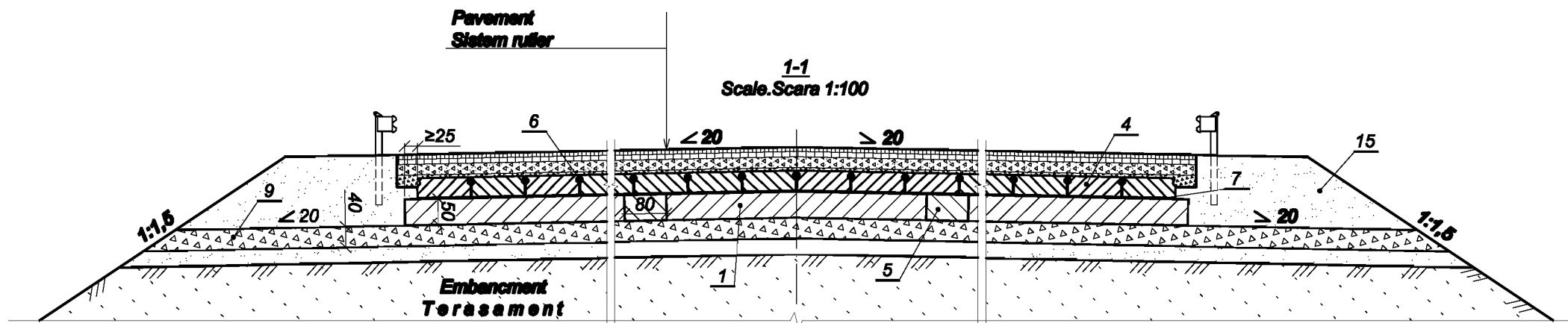


**Quantities for 1.0m of the approach slab**  
**Specificația pentru 1,0 m<sup>2</sup> de racordare a podului cu terasamentul**

Formet	Zone. Zone	Position	Reference	Item	Quantity	Note
			Indicativ	Denumirea	Canit.	Notă
		1	Pr. tip Seria 3.503-41, ediția II	Precast Bearing beam Longrină prefabricată	-	0,3 m <sup>3</sup>
		2	Pr. tip Seria 3.503-41, ediția II	In situ concrete bearing beam Longrină monolit	-	0,3 m <sup>3</sup>
		3	Pr. tip Seria 3.503-41, ediția II	Approach slab Placa de racordare PR 1-4	-	0,26 m <sup>3</sup>
		4	Pr. tip Seria 3.503-41, ediția I, pl.43	In-situ concrete between PC bearing beams Nodul monolit dintre blocurile longrinei	-	0,24 m <sup>3</sup>
		5	Pr. tip Seria 3.503-41, ediția I, pl.43	In-situ concrete between PC approach slabs Nodul monolit dintre plăcile de racordare	-	0,02 m <sup>3</sup>
		6	Pr. tip Seria 3.503-41, ediția I, pl.43	Cement and sand mortar M200 bed to approach slab. Pat de mortar de ciment cu nisip M200 la rezemarea plăcilor de racordare.	-	0,003 m <sup>3</sup>
		7	BCH 32-81	Waterproofing to jointing elements Hidroizolarea elementelor de racordare	-	1,0 m <sup>2</sup>
		8	Pr. tip Seria 3.503-41, ediția I	Crushed stone bed Pat din piatră spartă M400, h=40cm	-	1,02 m <sup>3</sup>
		9	Pr. tip Seria 3.503-41, ediția I	Crushed stone layer Strat din piatră spartă M400, h=10cm	-	0,07 m <sup>3</sup>
		10	ГОСТ 9128-84	Fine asphalt concrete Type B, M II. Beton asfaltic Tip B, M-II cu agregate mărunte, h=3+4 cm.	-	1,6 m <sup>2</sup>
		11	ГОСТ 9128-84	Porous coarse asphalt concrete type B, M-II Beton asfaltic poros Tip B, M-II cu agregate mășcate, h=6 cm.	-	1,5 m <sup>2</sup>
		12	ГОСТ 23558-94	Porous coarse asphalt concrete type B, M II Beton asfaltic poros Tip B, M-II cu agregate mășcate, h=8 cm.	-	1,0 m <sup>2</sup>
		13	ГОСТ 23558-94	Granite chippings stabilized with 6% of cement Cibură de granit stabilizat ă cu 6% de ciment M400, h=16 cm.	-	0,6 m <sup>2</sup>
		14	ГОСТ 23735-79	Asnd and gravel Nisip cu petriș	-	2,6 m <sup>3</sup>
		15		Expansion joints Rost de dilatație	-	-

**Pavement Sistem rutier**

**1-1**  
**Scale.Scara 1:100**

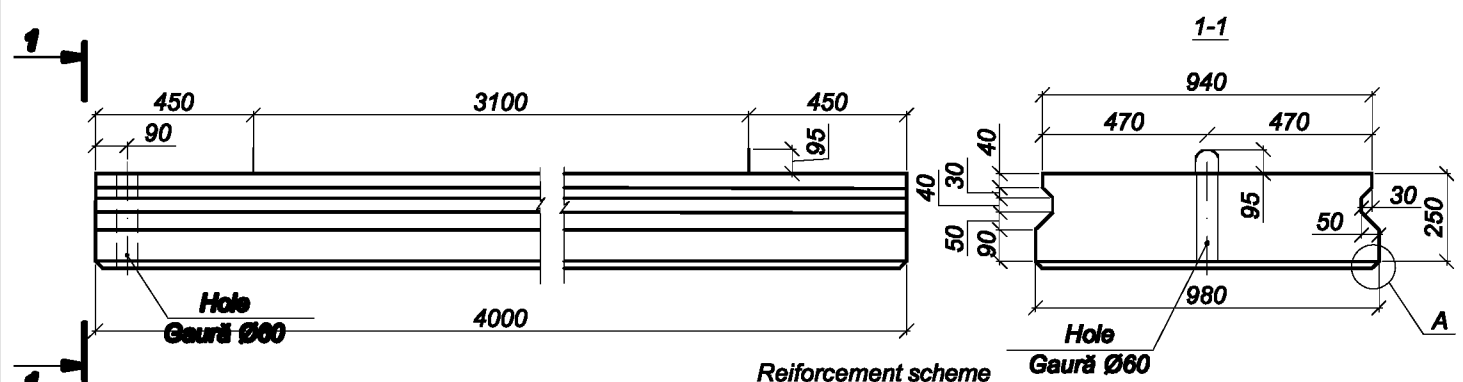


Notă: Note  
For bridge at:Km 25+444.  
Pentru podul:Km 25+444.

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

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title <b>Approach to the bridge 4.0m long</b>	Checked	Bogza	Drawing	RP-P-1
Universcons	<b>Racordarea podului cu terasamentul</b>	Control STAS	Belic		
	<b>Lungimea de 4,0 m</b>				

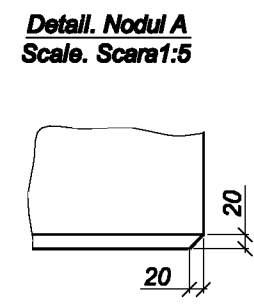
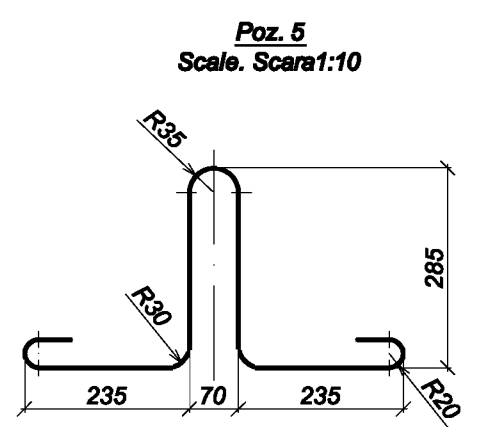
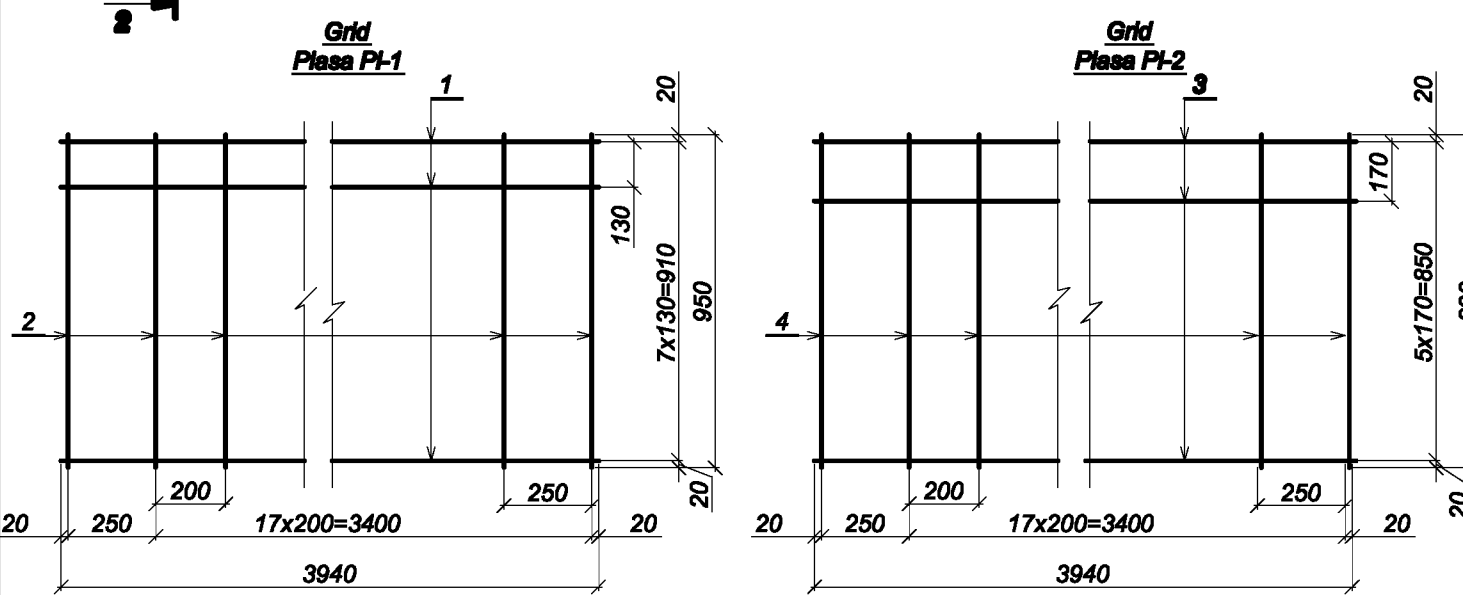
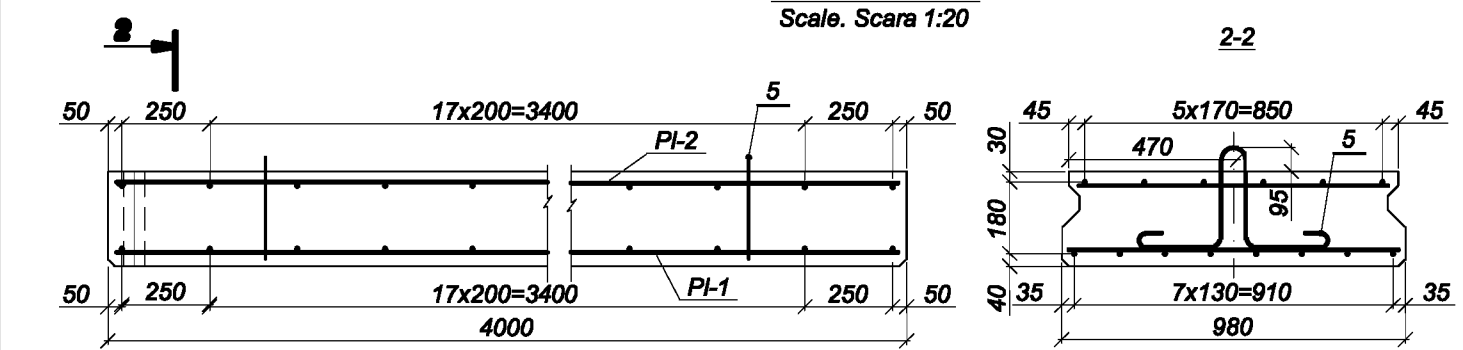
**Formwork**  
**Schema de cofraj**  
**Scalr.Scara 1:20**



**Reinforcement scheme**  
**Schema de armare**  
**Scale. Scara 1:20**

**Quantities for approach slab PR 1-4.**  
**Specificație pentru placa de racordare PR 1-4**

Formet	Zona. Zona	Position	Referință Indicativ	Item Denumirea	Quantity Cant.	Note Notă
<b>Assembly elements</b> <b>Piese de asamblare</b>						
				Grid Plasa PL-1	1	53,6 kg
	1		ГОСТ 5781-82**	Ø 16A-III, l=3940	8	6,2 kg
	2		ГОСТ 5781-82**	Ø 6A-I, l=950	20	0,2 kg
				Grid Plasa PL-2	1	18,4 kg
	3		ГОСТ 5781-82**	Ø 10A-I, l=3940	6	2,4
	4		ГОСТ 5781-82**	Ø 6A-I, l=890	20	0,2
<b>Embedded element</b> <b>Ureche de montaj</b>						
	5		ГОСТ 5781-82**	Ø 14A-I, l=1250	2	1,5 kg
<b>Materials</b> <b>Materiale</b>						
			ГОСТ 26633-91	Beton B25, F200, W6		0,94 m³



**Consumption of steel for one element**  
**Consumul de metal pentru un element, kg**

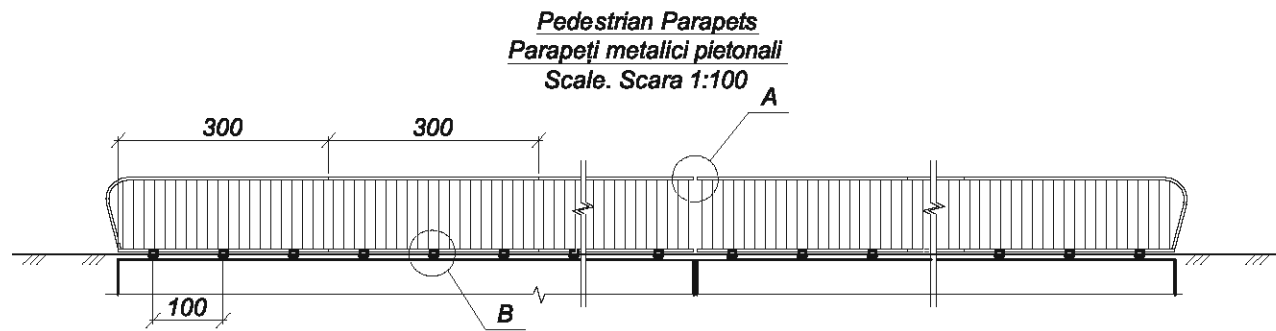
Element type Marca elementului	Reinforcement. Piese din armatură						Total weight Greutate totală
	Bar type. Clasa armaturii						
	A-I, Cm3cn ГОСТ 380-88*			A-III, 25Г2С			
	ГОСТ 5781-82*						
	Ø 6	Ø 10	Ø 14	Rez.	Ø 16	Rez.	Total
PR 1-4	8,0	14,4	3,0	25,4	49,6	49,6	75,0

Notă: Note  
For bridge at: Km 25+444.  
Pentru podul: Km 25+444.

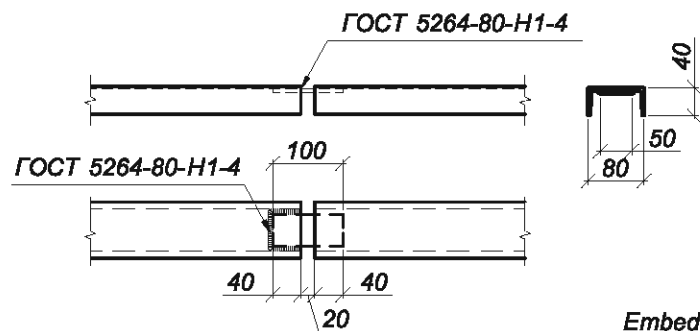
Note: 1. The grid to be manufactured by welding  
2. Weight of grid  
Notă: 1. Plasele de confecționat prin sudare.  
2. Masa plasei 2,35t.

Nr. inv. orig. Seria în data Schimb. nr.

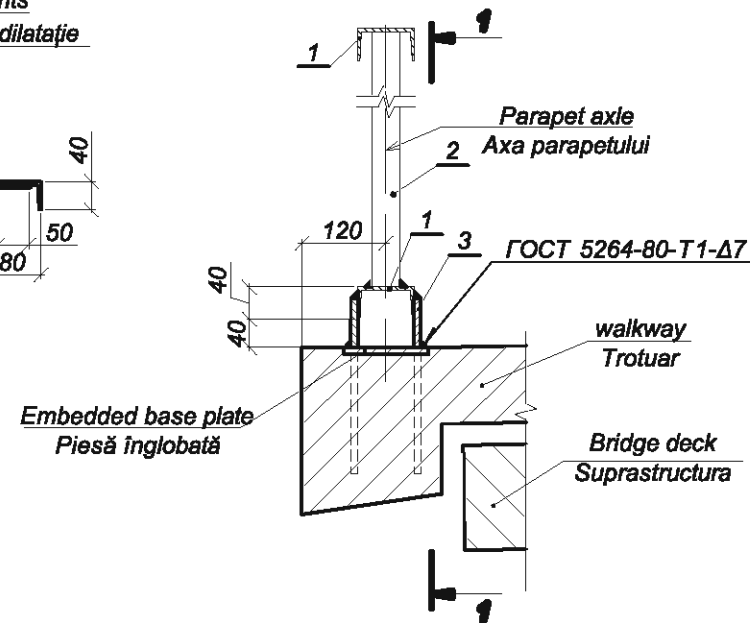
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title <b>Approach slab PR 1-4 4.0m long</b>	Checked	Bogza	Drawing	PR-P-1
Universcons	<b>Placa de racordare PR 1-4</b> <b>Lungimea 4,0 m</b>	Control STAS	Belic		



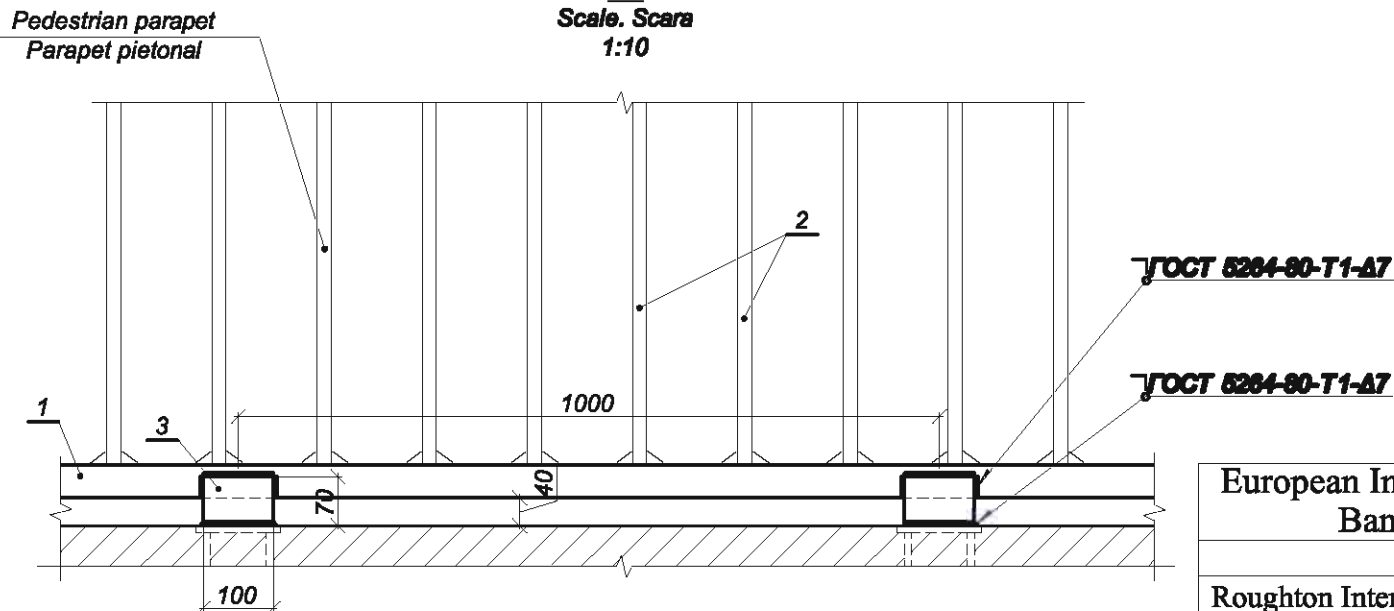
**Detail. Nodul A**  
Jointing of elements at expansion joints  
Îmbinarea elementului deasupra rostului de dilatație  
Scale. Scara 1:10



**Detail. Nodul B**  
Scale. Scara 1:10



**1-1**  
Scale. Scara 1:10



**Quantities for 1m long pedestrian parapets**  
Specificația parapetilor metalici pietonali la 1 m lungime

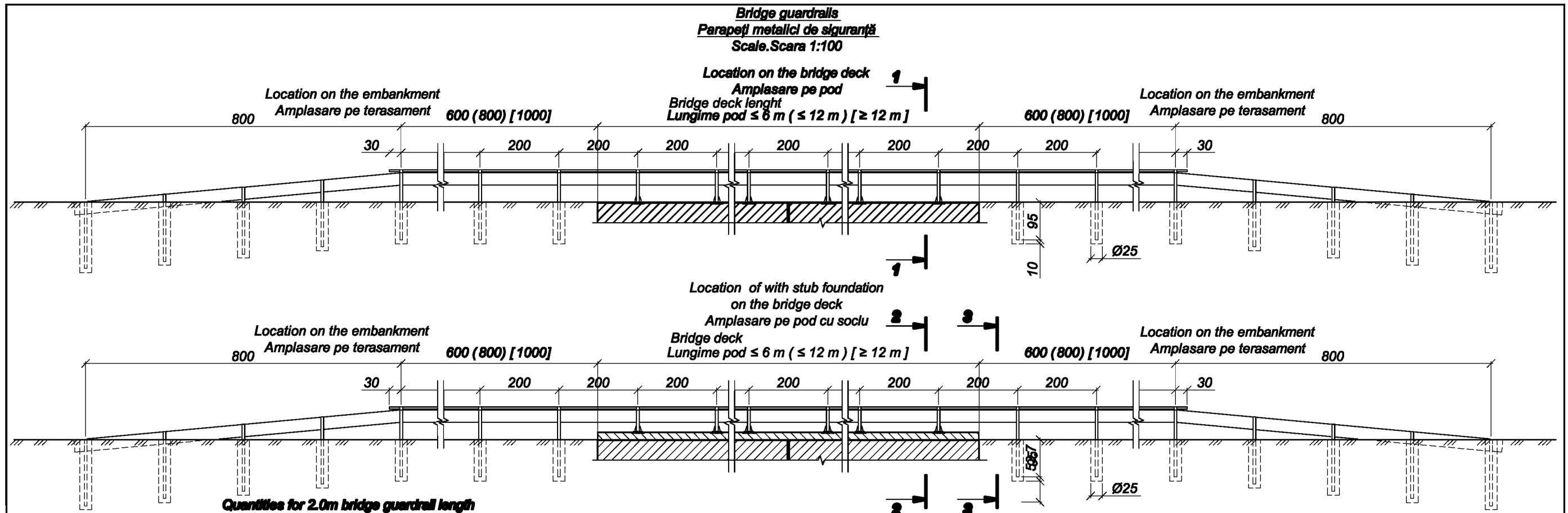
Format	Zone. Zona	Position	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note Notă
				<i>Elements</i> <i>Piese</i>		
A3	1		ГОСТ 8240-89	[ Nr.8, l=1000	2	7,1 kg
A3	2		ГОСТ 103-76*	-10x40, l=1010	6	3,2 kg
FP	3		<b>ГОСТ 103-76*</b>	Embedded base plate Platbandă de fixare -10x70, l=100	2	0,55 kg

**Consumption of steel for 1m pedestrian parapet - 31.0kg**  
**Consumul oțelului pentru 1m lungime a parapetilor metalici pietonali- 31,0 kg**

Notă: Note  
For bridge at Km 25+444.  
Pentru podul: Km 25+444.

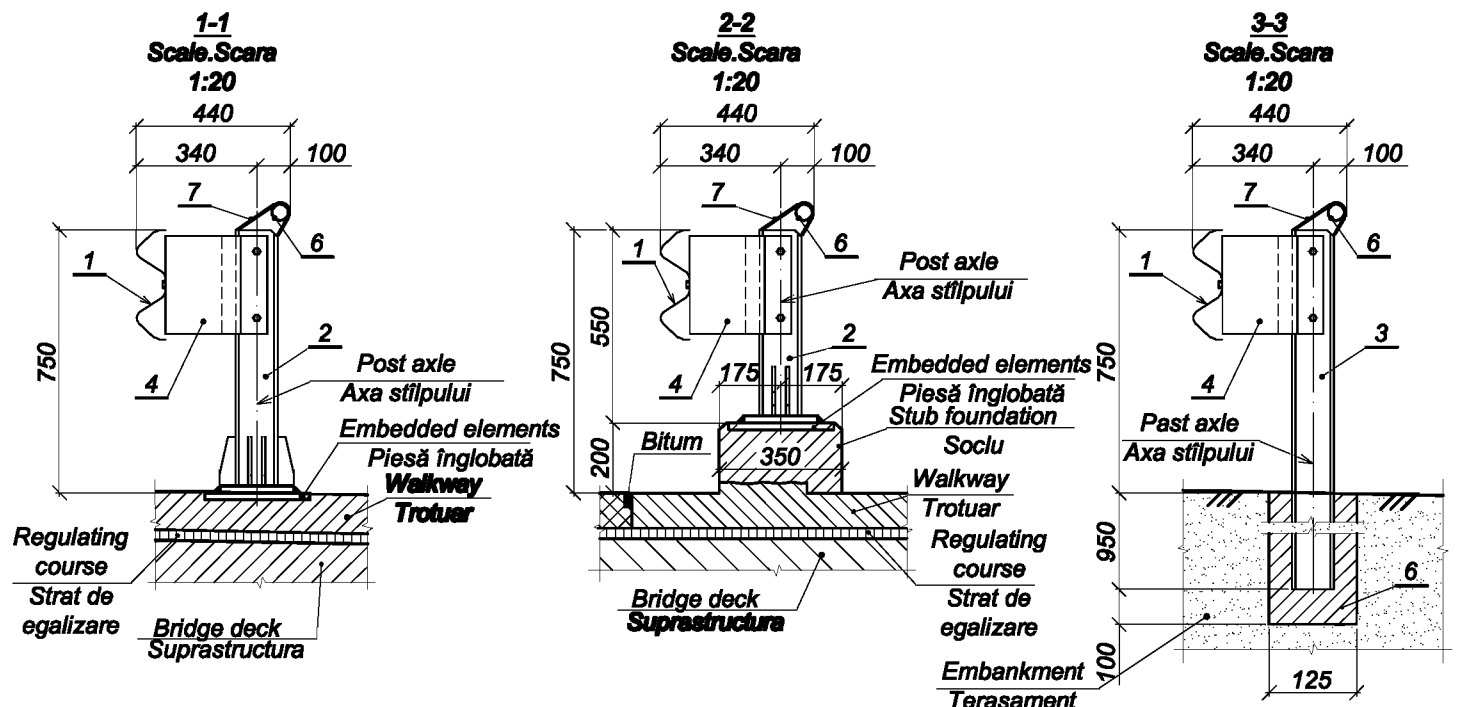
Nr. inv. orig. / Semnal la data / Schimb. nr.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
TRL		Designed	Cecan	Scale	
Blizzard	Drawing title <i>Pedestrian parapets</i> <i>Parapeți metalici pietonali</i>	Checked	Bogza	Drawing	
Universcons		Control STAS	Belic		PMP-P-1



Quantities for 2.0m bridge guardrail length  
 Specificația parapetilor metalici de siguranță a circulației vehiculelor la 2 m lungime

Format	Zone	Posiția	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note Notă
				Safety guardrails on bridge deck with /with out stub foundation and on embankment Parapeți de siguranță pe pod / pe pod cu soclul terasament		
				<b>Elements Piese</b>		
FP	1		ГОСТ 8240-89	W-type guardrail Profil IISă	1	185,2 kg
FP	2		ГОСТ 8240-89	Guardrail post Stilpul parapetului CM / CMLI*	1/1	17,7 / 15,4kg
FP	3		ГОСТ 8240-89	Guardrail post Stilpul parapetului CД-3*	1	19,6 kg
FP	4		Pr. tip Seria 3.503.1-81.3-1-10, Ediția 3-1	Spacer KA, bolts, washer, nut Amortizator KA, buloane, piulițe, șalbe	set	
FP	5		Pr. tip Seria 3.503.1-81.3-1-12, Ediția 3-1	Reflector Reflector YC-1	1	0,1 kg la 4m lungime for 4m length
A3	6		ГОСТ 8732-78*	Pipe Teavă de metal Ø50, δ=2,5	1	5,9 kg
A3	7			Pipe bracket Element de fixare a țevii	1	1,1 kg
			ГОСТ 26633-91*	Concrete. Beton cl. B20, F200, W4		0,07 m³

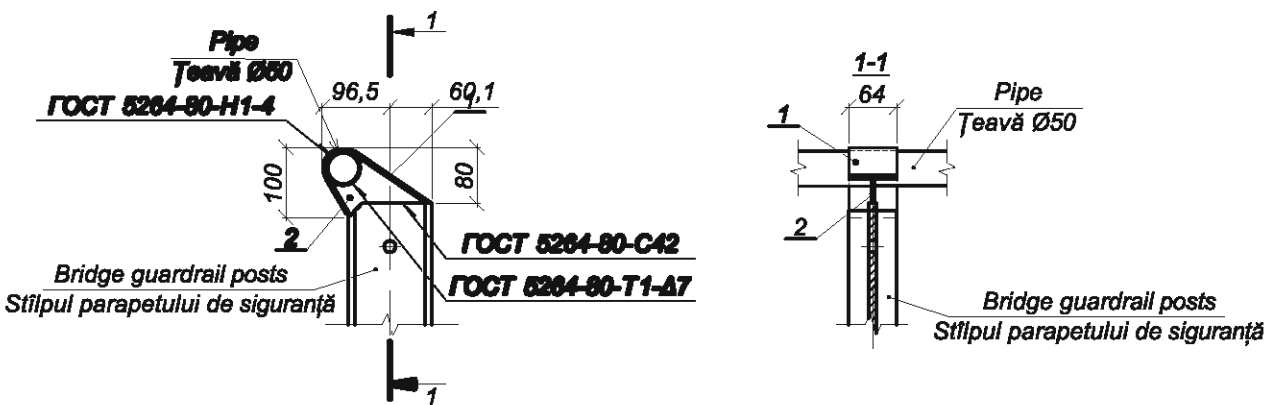


Notă: Note  
 For all bridges.  
 La toate podurile.

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

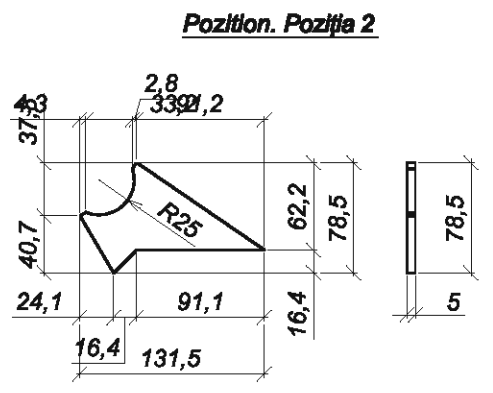
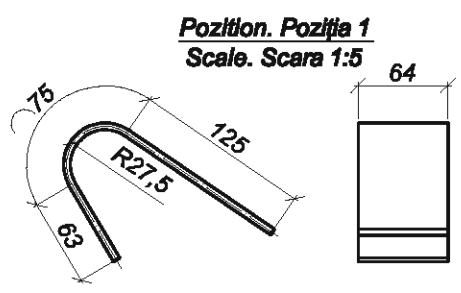
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme	Support Project			
Roughton International	Rehabilitation of R3 Road Chisinau-Hincesti	ISP	Bogza	Date	12.2007
Blizzard	Drawing title <b>Bridge guardrails. Guardrail posts.</b> Parapeți metalici de siguranță a circulației vehiculelor.	Designed	Cecan	Scale	
Universcons		Checked	Bogza	Drawing	PMS-P-1
		Control STAS	Belic		

**Pipe bracket**  
**Element de fixare a țevii**  
**Scale. Scara 1:10**



**Quantities for pipe bracket**  
**Specificația pentru element de fixare a țevii**

Format	Zone. Zona	Position. Poziția	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note. Notă
				<b>Elements. Plese</b>		
FP	1		GOCT 103-76*	Embedded element. Platbandă -5x64, l=263	1	0,7 kg
FP	2		GOCT 103-76*	Canilever. Consolă -5x79, l=132	1	0,4 kg



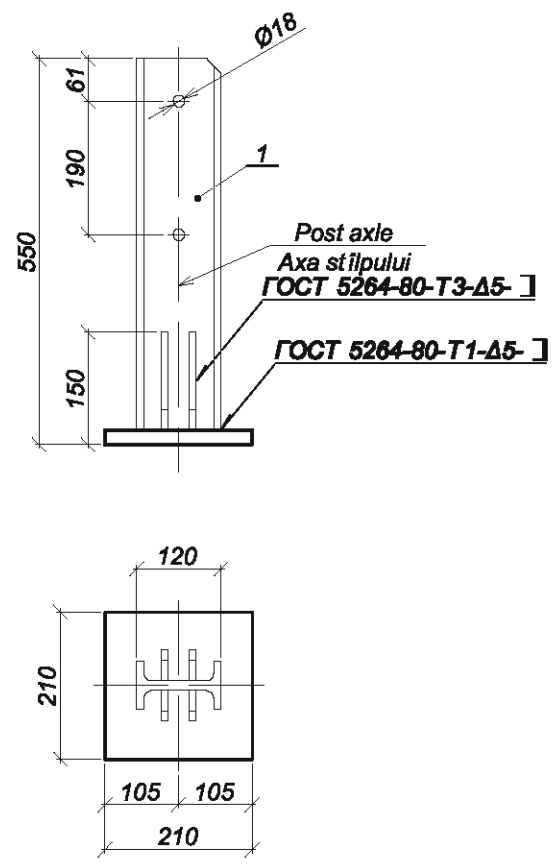
**Note ;Notă:**  
**Steel type**  
**Marca oțelului 16Д conform GOCT 6713-80**  
**Weight of bracket**  
**Masa elementului de fixare- 1,1 kg.**

**Notă: Note**  
**For all bridges.**  
**La toate podurile.**

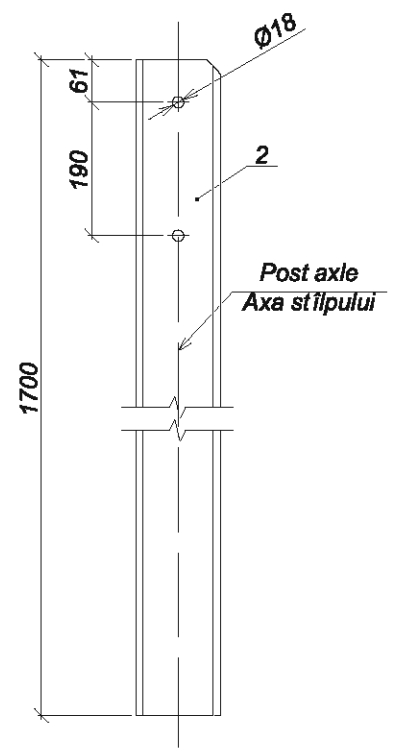
**Nr. inv. orig.** **Semnăt. la data** **Schimb. nr.**

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title <b>Bridge guardrails.Pipe brackets .</b>	Checked	Bogza	Drawing	PMS-P-2
Universcons	<b>Parapeți metalici de siguranță a circulației vehiculelor. Element de fixare a țevii.</b>	Control STAS	Belic		

**Bridge guardrail posts**  
**Stîlpul parapetului CMLI\***  
Scale. Scara 1:10



**Bridge guardrail posts**  
**Stîlpul parapetului CI-3\***  
Scale. Scara 1:10



**Quantities for bridge guardrail posts**  
**Specificația pentru stîlpi parapetilor de siguranță**

Format	Zone	Position	Reference. Indicativ	Item. Denumirea	Quantity	Note
				<b>Elements. Piese</b>		
FP	1		ГОСТ 26804-86	Guardrail posts Stîlpul parapetului CMLI*	1	15,4kg
FP	2		ГОСТ 8240-89	Guardrail post Stîlpul parapetului CI-3*	1	19,6 kg

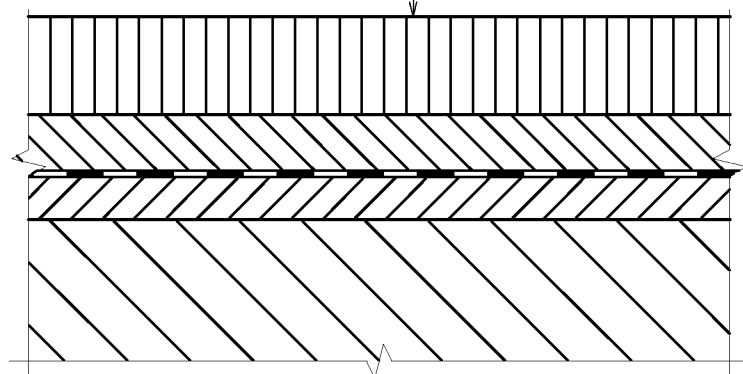
Nr. inv. orig. **Semnal la data** **Schimb. nr.**

**Notă: Note**  
For all bridges.  
La toate podurile.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title <i>Bridge guardrails. Guardrail posts</i>	Checked	Bogza	Drawing	PMS-P-3
Universcons	<b>Parapeți metalici de siguranță a circulației vehiculelor. Stîlpi parapetilor CMLI*, CI-3*</b>	Control STAS	Belic		

**Waterproofing to bridge deck  
and asphalt laying**  
**Hidroizolarea suprastructurii  
și îmbrăcămintea rutieră**

Asphalt concrete. Beton asfaltic	(poz.1)	70
Protective layer. Strat de protecție	(poz.2)	40
Waterproofing. Strat de hidroizolare	(poz.3)	5
Regulating concrete. Strat de egalizare	(poz.4)	≥30
Bridge deck. Suprastructura		



**Quantities for 1m<sup>2</sup> of waterproofing**  
**Specificația pentru îmbrăcămintea rutieră pentru 1m<sup>2</sup> de acoperire**

Formet	Zone	Zone	Position	Reference	Item	Quantity	Note
			Pozitia	Indicativ	Denumirea	Cant.	Notă
			1	ГОСТ 9128-84	Dense, fine asphalt concrete type B, M-I Îmbrăcămintea, beton asfaltic tip B, M-I, dens cu agregate mărunte, h=7cm	-	0,07 m <sup>3</sup>
			2	Typical Design Series 3.503.1-101.Edition 0 Pr. tip Serie 3.503.1-101.Ediția 0	Protective layer of reinforced concrete Strat de protecție, beton armat cLB25, F200, WG, h=4cm	-	0,04 m <sup>3</sup>
			3	BCH 32-81	Water proofing, membrane Hidroizolarea, membrana DERBIGUM GC, h=0,5 cm	-	1,0 m <sup>2</sup>
			4	Typical Design Series 3.503.1-101.Edition 0 Pr. tip Serie 3.503.1-101.Ediția 0	Regulating concrete layer Strat de egalizare, beton cLB25, F200, WG, h=3cm	-	0,03 m <sup>3</sup>

**Notă: Note**  
For all bridges.  
La toate podurile.

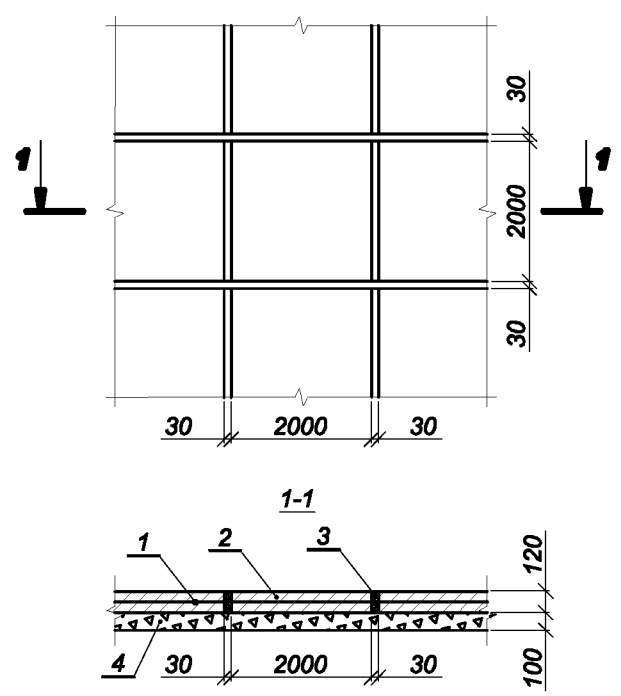
Schimb. nr.

Semnat la data

Nr. inv. orig.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title <b>Waterproofing to bridge deck and asphalt laying. Hidroizolarea suprastructurii și îmbrăcămintea rutieră</b>	Checked	Bogza	Drawing	
Universcons		Control STAS	Belic		HS-P-1





Quantities for 1.0m<sup>2</sup> of strengthening  
 Specificația pentru 1,0 m<sup>2</sup> de consolidare

Formet	Zone. Zone	Position	Referință Indicativ	Item Denumirea	Quantity Cant.	Note Notă
		1	Pr. tip Seria 3.501.1-156, ediția 0	Grid. Plasa Ø6 A-I, ГOCT 5761-82*, 20x20	-	2,2 kg
		2	ГOCT2063-85	Concrete. Beton B20, F200, W6	-	0,5 m <sup>3</sup>
		3	Pr. tip Seria 3.503.1-101, ediția 0	Bituminous mastic. Mastic de bitum	-	0,01 m <sup>3</sup>
		4	ГOCT 8267-93	Crushed stone h=10 cm. Petră spartă h=10 cm	-	0,04 m <sup>3</sup>

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

**Notă: Note**  
 Protection of 12 cm thickness for bridge at Km 25+444.  
 Consolidarea cu grosimea arstatului de 12 cm se aplica la podul la Km 25+444.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of R3 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Hincesti	Designed	Cecan	Scale	
Blizzard	Drawing title: Protection of the semicone slopes with reinforced concrete of 8cm thickness over a layer of crushed stone 10cm cu thickness.	Checked	Bogza	Drawing	CC-P-1
Universcons	Consolidarea conurilor și a taluzurilor cu beton armat.	Control STAS	Belic		