

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

**European Investment Bank**  
**Road Sector Program Support Project**

**Rehabilitation of M2 Chisinau - Orhei –  
Sarateni Road km 54+850 – km 71+165**

**VOLUME 3**

**DRAWINGS**

**ICB: RSPSP/2010/ICB02**

Invitation for Bids no **RSPSP/2010/ICB02/W03**

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Volume 2	Technical specification
Volume 3	Drawings
Volume 3a	Drawing appendices

**List of Drawings**  
**Lista Planșelor**

N <sub>o</sub> Drawing	Denumirea	Name
1	2	3
<b>Road</b>		
<b>DA - Drum auto</b>		
1.	Date generale	General data
2.	Plan drum PC 539+91 - PC 551+50	Road plan PC 539+91 - PC 551+50
3.	Plan drum PC 551+50 - PC 563+09	Road plan PC 551+50 - PC 563+09
4.	Plan drum PC 563+09 - PC 574+67	Road plan PC 563+09 - PC 574+67
5.	Plan drum PC 574+67 - PC 586+20	Road plan PC 574+67 - PC 586+20
6.	Plan drum PC 586+20 - PC 597+83	Road plan PC 586+20 - PC 597+83
7.	Plan drum PC 597+83 - PC 609+45	Road plan PC 597+83 - PC 609+45
8.	Plan drum PC 609+45 - PC 621+00	Road plan PC 609+45 - PC 621+00
9.	Plan drum PC 621+00 - PC 632+50	Road plan PC 621+00 - PC 632+50
10.	Plan drum PC 632+50 - PC 644+11	Road plan PC 632+50 - PC 644+11
11.	Plan drum PC 644+11 - PC 655+55	Road plan PC 644+11 - PC 655+55
12.	Plan drum PC 655+55 - PC 667+00	Road plan PC 655+55 - PC 667+00
13.	Plan drum PC 667+00 - PC 682+41	Road plan PC 667+00 - PC 682+41
14.	Plan drum PC 682+41 - PC 694+00	Road plan PC 682+41 - PC 694+00
15.	Plan drum PC 694+00 - PC 705+40	Road plan PC 694+00 - PC 705+40
16.	Plan drum PC 705+40 - PC 711+64.70	Road plan PC 705+40 - PC 711+64.70
17.	Profil Longitudinal PC 548+00- PC 563+50	Longitudinal Profile PC 548+00- PC 563+50
18.	Profil Longitudinal PC 563+50- PC 579+00	Longitudinal Profile PC 563+50- PC 579+00
19.	Profil Longitudinal PC 579+00- PC 594+00	Longitudinal Profile PC 579+00- PC 594+00
20.	Profil Longitudinal PC 594+00- PC 609+00	Longitudinal Profile PC 594+00- PC 609+00
21.	Profil Longitudinal PC 609+00- PC 624+00	Longitudinal Profile PC 609+00- PC 624+00
22.	Profil Longitudinal PC 624+00- PC 639+00	Longitudinal Profile PC 624+00- PC 639+00
23.	Profil Longitudinal PC 639+00- PC 654+00	Longitudinal Profile PC 639+00- PC 654+00
24.	Profil Longitudinal PC 654+00- PC 669+00	Longitudinal Profile PC 654+00- PC 669+00
25.	Profil Longitudinal PC 669+00- PC 684+00	Longitudinal Profile PC 669+00- PC 684+00
26.	Profil Longitudinal PC 684+00- PC 699+00	Longitudinal Profile PC 684+00- PC 699+00
27.	Profil Longitudinal PC 699+00- PC 711+64.70	Longitudinal Profile PC 699+00- PC 711+64.70
28.	Profil transversal tip I	Typical cross sections I
29.	Profil transversal tip II	Typical cross sections II
30.	Profil Transversal Terasamente PC 550+00 - PC 562+50	Cross Sections of Earthwork PC 545+00 - PC 562+50

31.	Profil Transversal Terasamente PC 565+00 - PC 577+50	Cross Sections of Earthwork PC 565+00 - PC 577+50
32.	Profil Transversal Terasamente PC 580+00 - PC 594+00	Cross Sections of Earthwork PC 580+00 - PC 594+00
33.	Profil Transversal Terasamente PC 596+50 - PC 609+50	Cross Sections of Earthwork PC 596+50 - PC 609+50
34.	Profil Transversal Terasamente PC 612+00 - PC 614+50	Cross Sections of Earthwork PC 612+00 - PC 614+50
35.	Profil Transversal Terasamente PC 615+00 - PC 617+50	Cross Sections of Earthwork PC 615+00 - PC 617+50
36.	Profil Transversal Terasamente PC 618+00 - PC 621+00	Cross Sections of Earthwork PC 618+00 - PC 621+00
37.	Profil Transversal Terasamente PC 623+50 - PC 636+50	Cross Sections of Earthwork PC 623+50 - PC 636+50
38.	Profil Transversal Terasamente PC 639+50 - PC 654+00	Cross Sections of Earthwork PC 639+50 - PC 654+00
39.	Profil Transversal Terasamente PC 656+50 - PC 670+00	Cross Sections of Earthwork PC 656+50 - PC 670+00
40.	Profil Transversal Terasamente PC 673+00 - PC 685+50	Cross Sections of Earthwork PC 673+00 - PC 685+50
41.	Profil Transversal Terasamente PC 688+50 - PC 702+00	Cross Sections of Earthwork PC 688+50 - PC 702+00
42.	Profil Transversal Terasamente PC 704+50 - PC 711+50	Cross Sections of Earthwork PC 704+50 - PC 711+50
43.	Constructia rigolei de scurgere a apei	Construction of drainage kerb
44.	Podete existente tip	Existing typical culverts
45.	Santuri laterale tip $i < 5\%$	Typical lined side drain $i < 5\%$
46.	Constructia casului pe acostament	Drainage chutes
47.	Camin de disipare pentru casiuri	Construction of the dissipator chutes
48.	Drum lateral tip	Typical side road
49.	Acces in curte	Entrance to properties
50.	Planul organizarii circulatiei rutiere PC 542+00 - PC 552+50	Plan of Road traffic management PC 542+00 - PC 552+50
51.	Planul organizarii circulatiei rutiere PC 552+50 - PC 563+00	Plan of Road traffic management PC 552+50 - PC 563+00
52.	Planul organizarii circulatiei rutiere PC 563+00 - PC 573+50	Plan of Road traffic management PC 563+00 - PC 573+50
53.	Planul organizarii circulatiei rutiere PC 573+50 - PC 584+00	Plan of Road traffic management PC 573+50 - PC 584+00
54.	Planul organizarii circulatiei rutiere PC 584+00 - PC 594+50	Plan of Road traffic management PC 584+00 - PC 594+50
55.	Planul organizarii circulatiei rutiere PC 594+50 - PC 605+00	Plan of Road traffic management PC 594+50 - PC 605+00
56.	Planul organizarii circulatiei rutiere PC 605+00 - PC 615+50	Plan of Road traffic management PC 605+00 - PC 615+50
57.	Planul organizarii circulatiei rutiere PC 615+50 - PC 626+00	Plan of Road traffic management PC 615+50 - PC 626+00
58.	Planul organizarii circulatiei rutiere PC 626+00 - PC 636+50	Plan of Road traffic management PC 114+00 - PC 121+00
59.	Planul organizarii circulatiei rutiere PC 636+50 - PC 647+00	Plan of Road traffic management PC 636+50 - PC 647+00
60.	Planul organizarii circulatiei rutiere	Plan of Road traffic management

	PC 647+00- PC 657+50	PC 647+00- PC 657+50
61.	Planul organizarii circulatiei rutiere PC 657+50 - PC 668+00	Plan of Road traffic management PC 657+50 - PC 668+00
62.	Planul organizarii circulatiei rutiere PC 668+00 - PC 678+50	Plan of Road traffic management PC 668+00 - PC 678+50
63.	Planul organizarii circulatiei rutiere PC 678+50 - PC 689+00	Plan of Road traffic management PC 678+50 - PC 689+00
64.	Planul organizarii circulatiei rutiere PC 689+00 - PC 699+50	Plan of Road traffic management PC 689+00 - PC 699+50
65.	Planul organizarii circulatiei rutiere PC 699+50 - PC 706+50	Plan of Road traffic management PC 699+50 - PC 706+50
66.	Planul organizarii circulatiei rutiere PC 706+50 - PC 711+64.70	Plan of Road traffic management PC 706+50 - PC 711+64.70
67.	Semnalizare rutiera provizorie	Temporary road work signs
68.	Semnalizare rutiera provizorie	Temporary road work signs
69.	Semnalizare rutiera provizorie	Temporary road work signs
70.	Parapet metalic	Safety barrier for gantries
71.	Parapet metalic	Safety barrier for gantries
72.	Parapet metalic	Safety barrier for gantries
73.	Suport de instalatie a indicatoarelor rutiere	Supports for signs installed
74.	Indicator rutier individual 5.61.2	Nonstandard road signs 5.61.2
75.	Indicator rutier individual 5.61.2	Nonstandard road signs 5.61.2
76.	Indicator rutier individual 5.63.1;5.64	Nonstandard road signs 5.63.1;5.64
<b>Bridge, Km 61+700</b>		
<b>P - Pod, Km 61+700</b>		
77.	Date generale	General data
78.	Planul trecerii de pod	Layout of Bridge Deck and Carriageway
79.	Dispozitia generala.Fatada.	General plan.Front
80.	Dispozitia Generala.Plan	General Plan
81.	Dispozitia Generala.Sectiunea transv.Culee	General plan.Cross-section-Abutment.
82.	Dispozitia generala.Specificatii.	General plan.Specification
83.	Zid de garda.Monolit	Safety wall.Cast-in-situ
84.	Specificatia.Zid de garda.	Quantities.Safety wall.
85.	Bancheta cuzenetilor.	Bearing concrete on collar-beam
86.	Dala suprastructurii 6	Deck slab
87.	Dala suprastructurii 6*	Deck Slab
88.	Dala suprastructurii.Carcas	Slab deck.Cage
89.	Dala de racordare.	Approach slab.
90.	Schema de cofraj.Bloc	Formwork.Blocks.
91.	Schema de cofraj.Bloc	Formwork.Blocks.
92.	Placa zidului de sprijin	Retaining wall
93.	Specificatie.Placii zidului de sprijin	Quantities for retaining wall
94.	Trotuar din beton armat cu lățimea de 0,75 m	RC walkway 0.75m wide
95.	Parapeți metalici de siguranță a circulației vehiculelor	Bridge guardrails. Guardrail posts
<b>Bridges Km 69 + 063</b>		
<b>P – Poduri Km 69 + 063</b>		
96.	Pod, Km 69 + 063	Bridge. Km 69 + 063
97.	Socul parapetilor de siguranta a circulatiei	Stab foundation of guardrail

	vehiculelor	
98.	Piese înglobate PÎ-1, PÎ-2, PÎ-3	Embedded base plates PÎ-1, PÎ-2, PÎ-3
99.	Parapeți metalici de siguranță a circulației vehiculelor	Bridge guardrails.
100.	Parapeți metalici de siguranță a circulației vehiculelor. Stâlpii parapeților CMIQ*, CД-3*.	Bridge guardrails. Guardrail posts
101.	Parapeți metalici de siguranță a circulației vehiculelor. Element de fixare a țevii.	Bridge guardrails. Pipe brackets
102.	Hidroizolarea suprastructurii și îmbrăcămintea rutieră	Waterproofing to bridge deck and asphalt

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	

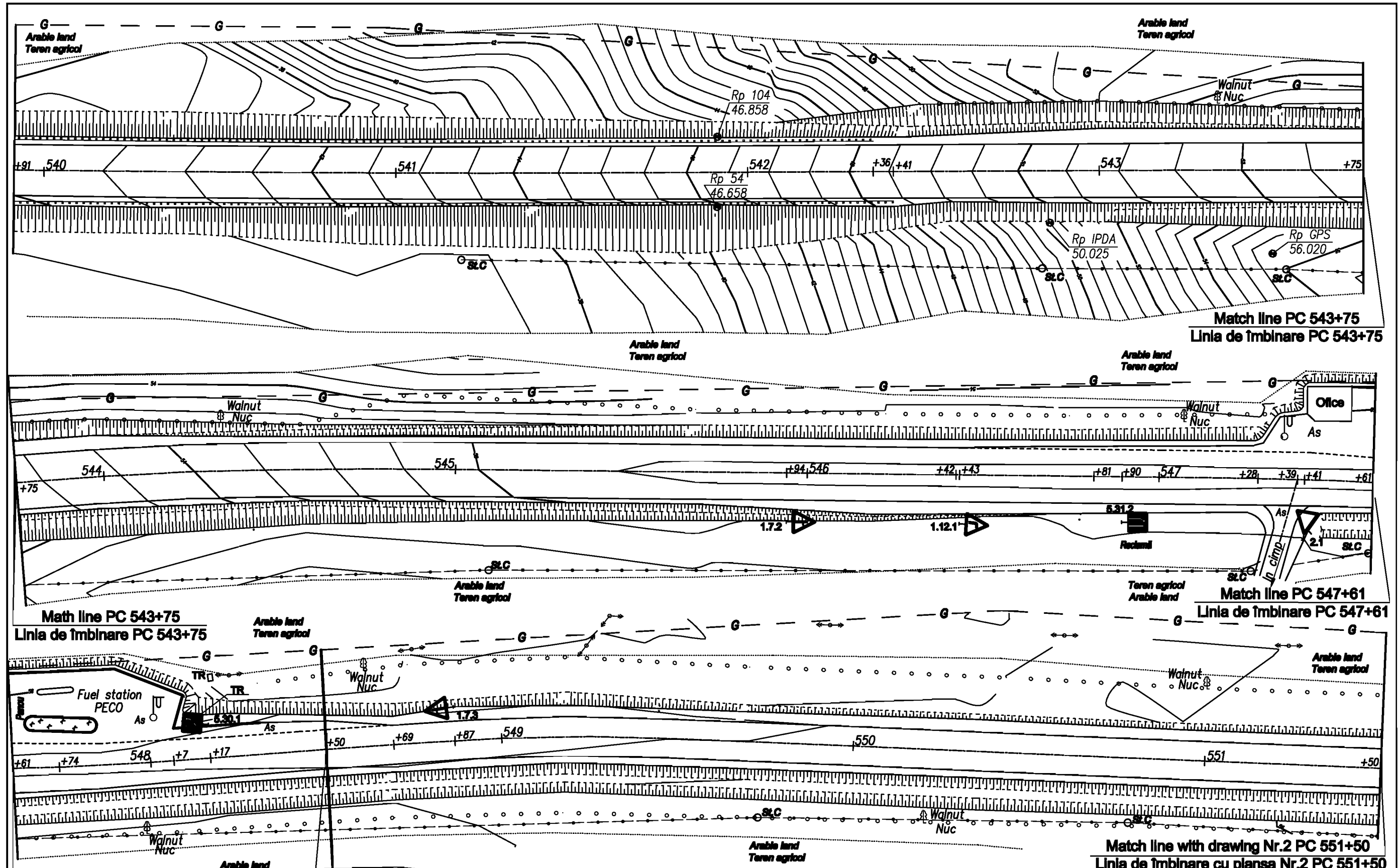
SCHEDULE OF BASIC SETS OF DRAWINGS FOR ROADS  
BORDEROUL DESENELOR SETULUI -DA

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	1-15	
3	Longitudinal profile Profil longitudinal	PL-DA	1-11	
4	Typical cross sections Profile transversale tip	PTT-DA	1-2	
5	Cross sections of earthwork Profile transversale terasamente	PT-DA	1-13	
6	Construction of drainage kerb Constructia rigolei de scurgere a apei	CRS-DA	1	
7	Existing typical culverts Podete existente tip	PET-DA	1	
8	Typical lined side drain 1;2 i<5% Santuri laterale tip 1;2 i<5%	SLT-DA	1	
9	Drainage chutes Constructia casilui pe acostament	CCA-DA	1	
10	Construction of the dissipator chute Camin de disipare pentru casiuri	CDC-DA	1	
11	Typical side road Drum lateral tip	DLT-DA	1	
12	Entrance to properties Acces in curti	AC-DA	1	
13	Plan of road traffic management Planul organizarii circulatiei rutiere	POCR-DA	1-17	
14	Temporary road work signs Semnalizare rutiera provizorie	SRP-DA	1-3	
15	Safety barrier for gantries Parapet metalic	PM-DA	1-3	
16	Supports for signs installed Suport de instalare a indicatoarelor rutiere	SIIR-DA	1	
17	Nonstandart road signs Indicator rutier individual	IRI-DA	1-3	

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

Item No Nr.d/o	Name Denumirea	Index Marcarea	Drawings Planse	Note Nota
1	Bridge. Pod	P-P	1	
2	Stab foundation of guardrail Socul parapetilor de siguranta a circulatiei vehiculilor	SP-P	1	
3	Embedded base plates Piese inglobate Pl-1, Pl-2, Pl-3	PI-P	1	
4	Bridge guardrails. Guardrail posts Parapeti metalici de siguranta a circulatiei vehiculelor	PMS-P	1	
5	Bridge guardrails. Guardrail posts Parapeti metalici de siguranta a circulatiei vehiculelor Stilpii parapetilor CML*, CD-3*	PMS-P	1	
6	Bridge guardrails. Pipe brackets Parapeti metalici de siguranta a circulatiei vehiculelor Element de fixare a tevii	PMS-P	1	
7	Waterproofing to bridge deck and asphalt Hidroizolarea suprastructurii si imbracamintea rutiera	HS-P	1	

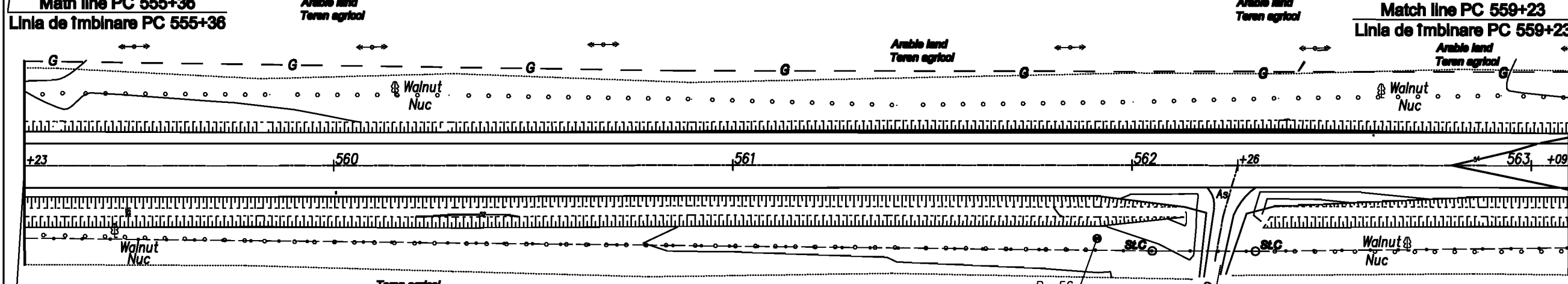
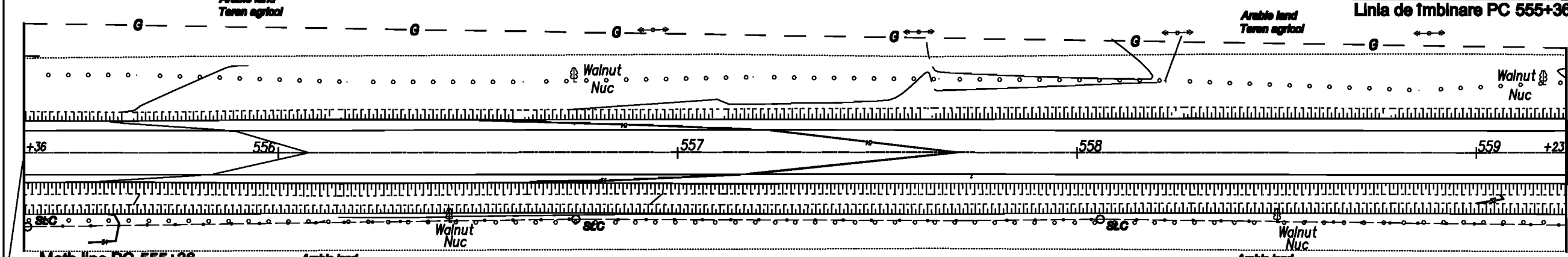
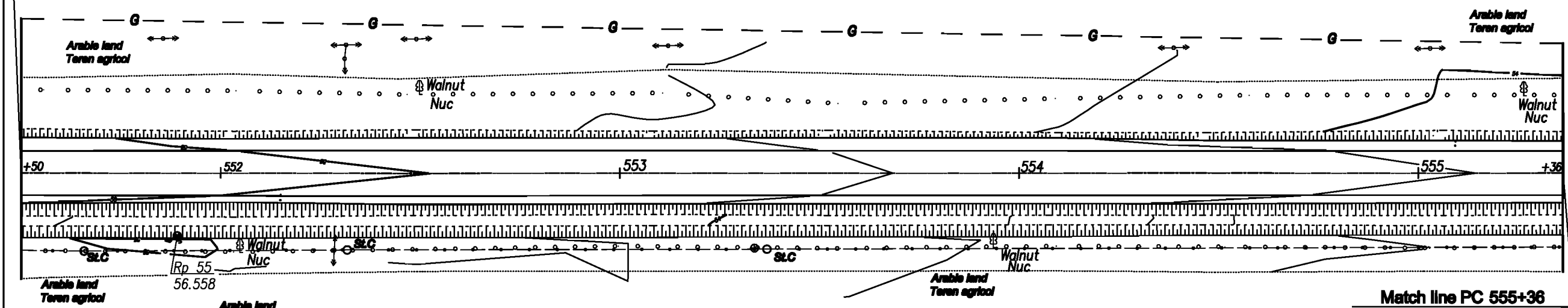
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>			
<b>Road Sector Programme Support Project</b>					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza	Date	12.2007
		Designed	Gisca	Scale	
	Drawing title	Checked	Bogza	Drawing	
	<b>General data Date generale</b>	Control STAS	Belic		DG-DA-1



European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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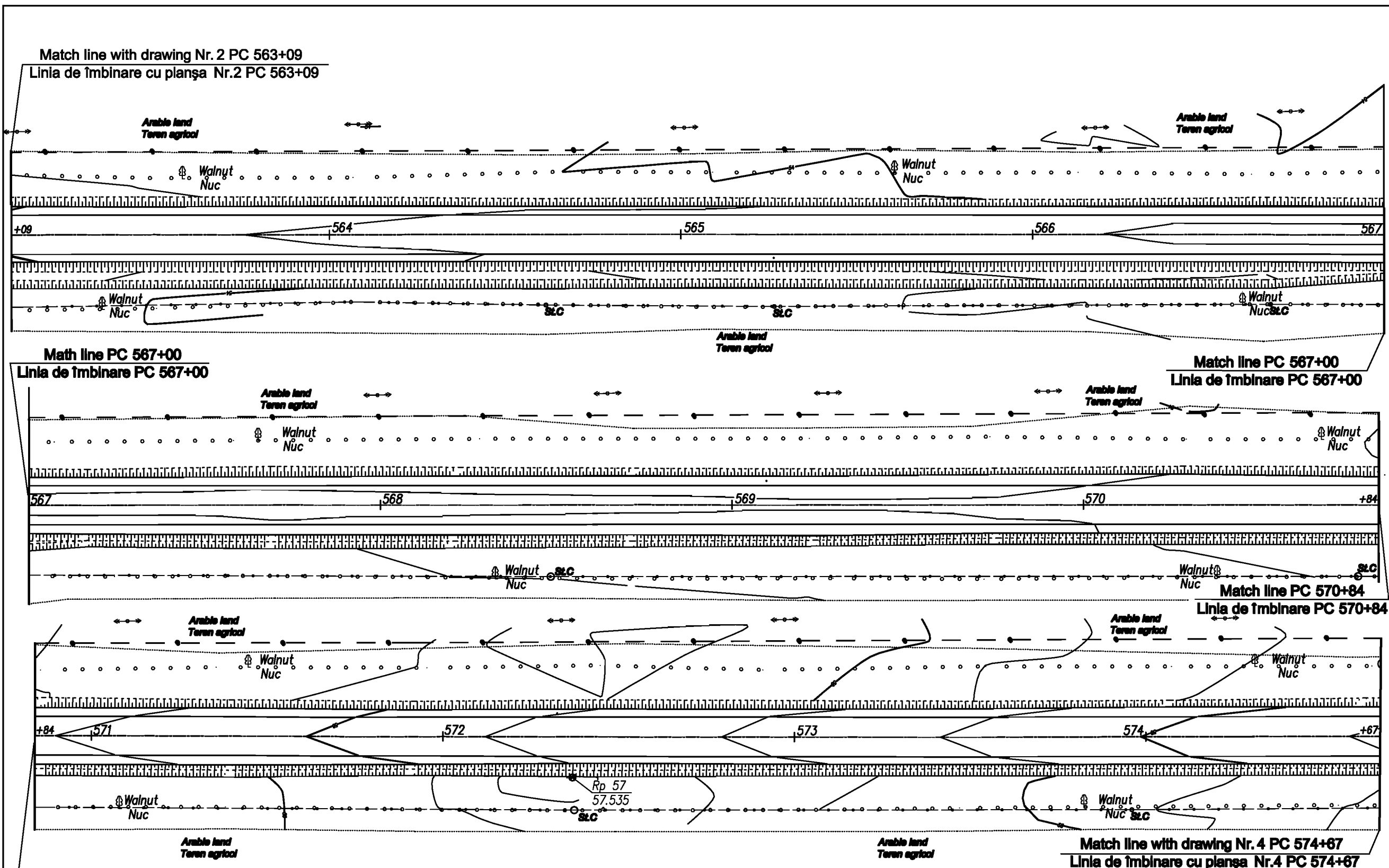


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 Linia de îmbinare cu planșa Nr.1 PC 551+50



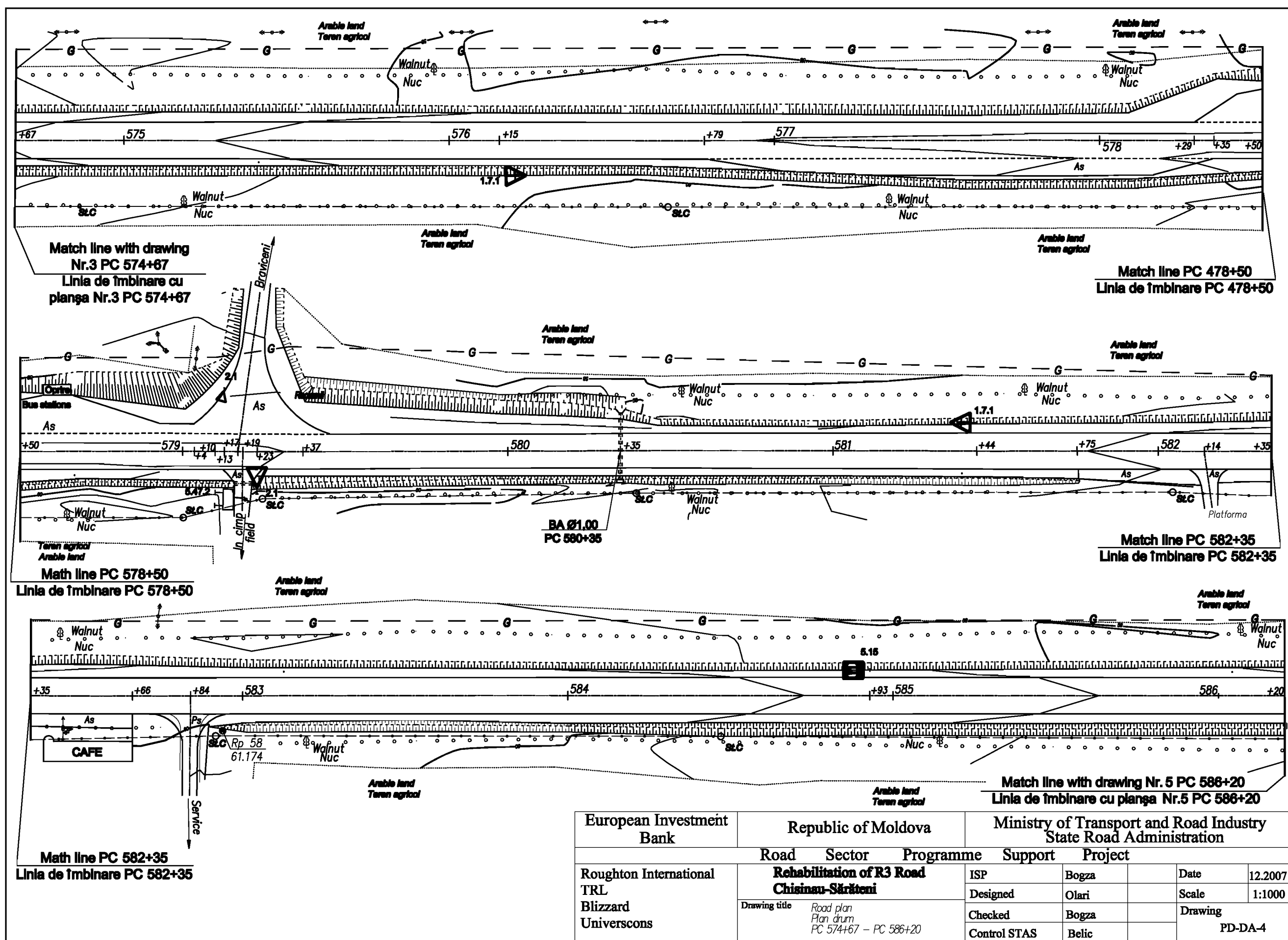
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 Linia de îmbinare cu planșa Nr.3 PC 563+09

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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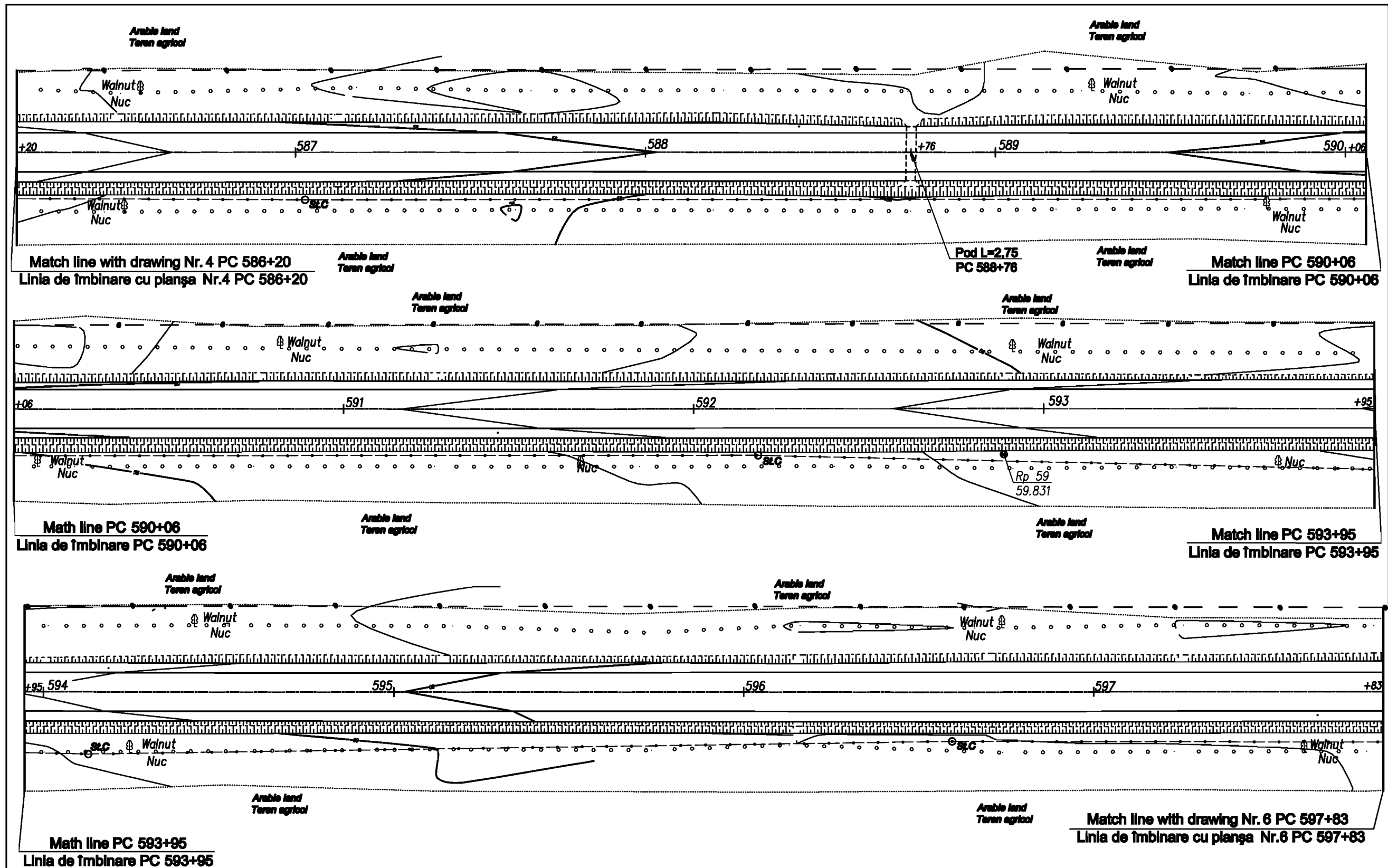


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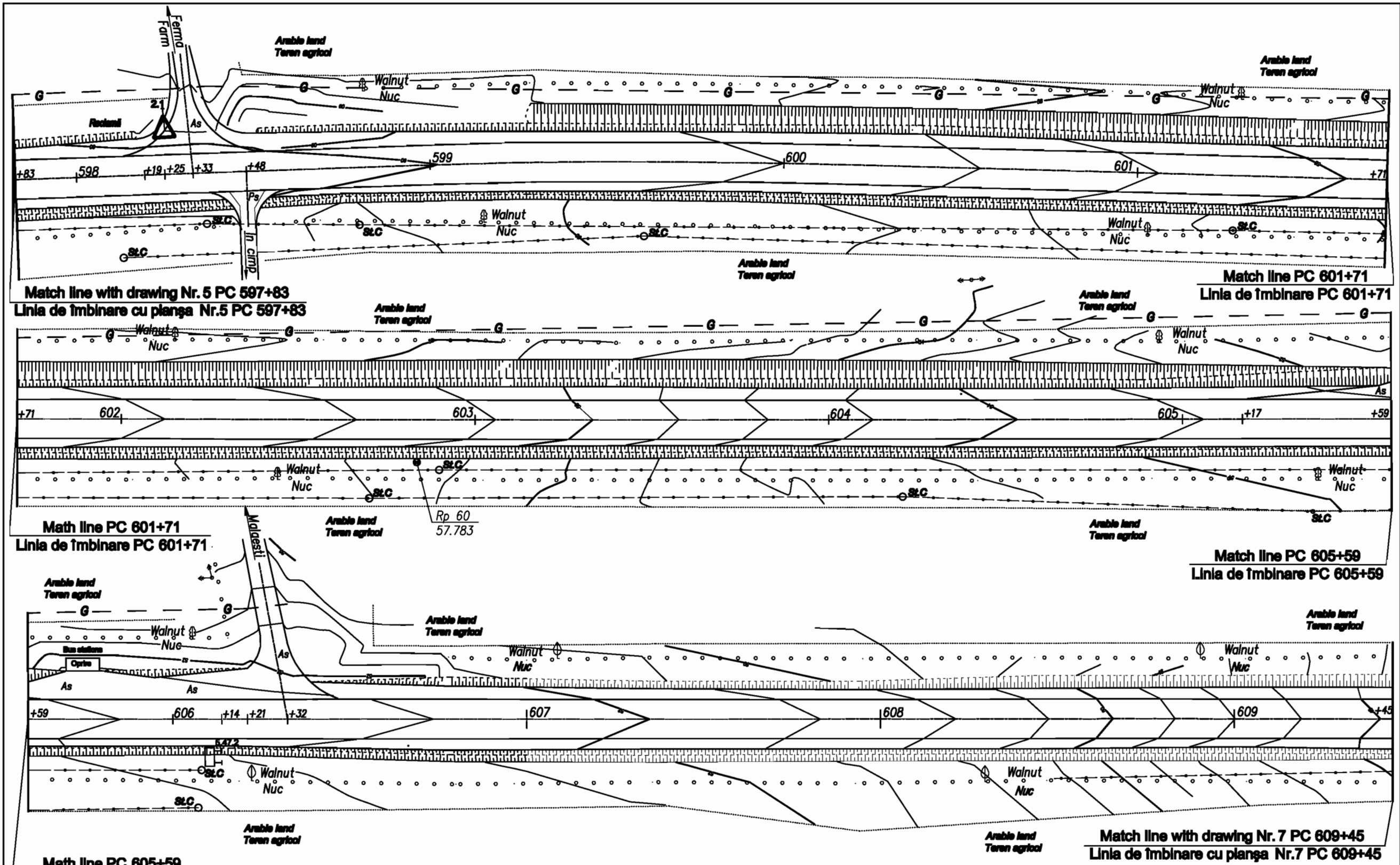
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Road Sector Programme Support Project					
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Universcons		Control STAS	Belic		



European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
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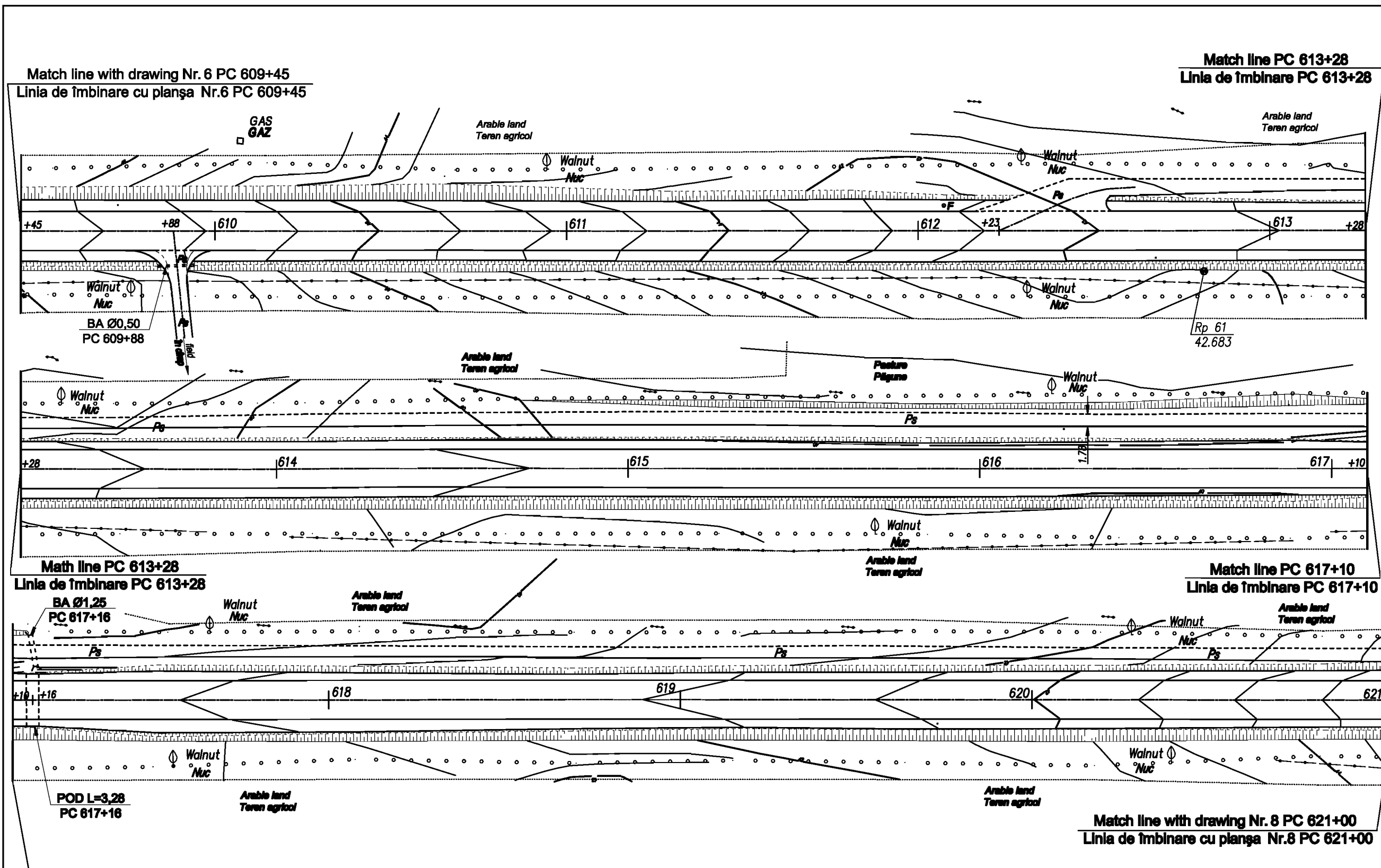


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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		Control STAS	Belic		



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Linia de îmbinare PC 605+59

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
		Road Sector Programme Support Project			
Roughton International	<b>Rehabilitation of R3 Road Chisinau-Săriteni</b> Drawing title Road plan Plan drum PC 597+83 - PC 609+45	ISP	Bogza	Date	12.2007
TRL		Designed	Olari	Scale	1:1000
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Universcons		Control STAS	Belic		PD-DA-6



Match line with drawing Nr. 6 PC 609+45  
Linia de îmbinare cu planșa Nr.6 PC 609+45

Match line PC 613+28  
Linia de îmbinare PC 613+28

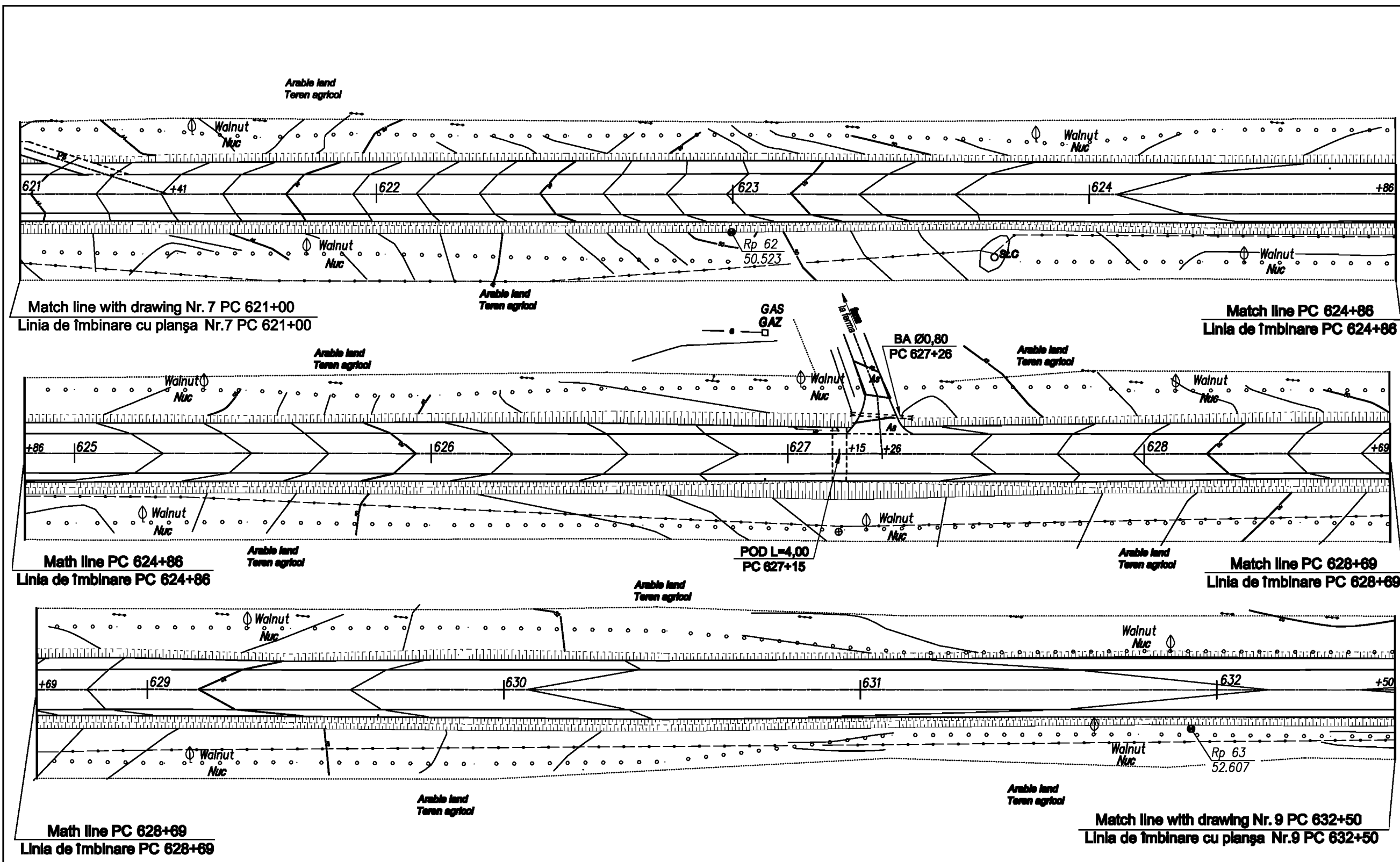
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Linia de îmbinare PC 617+10

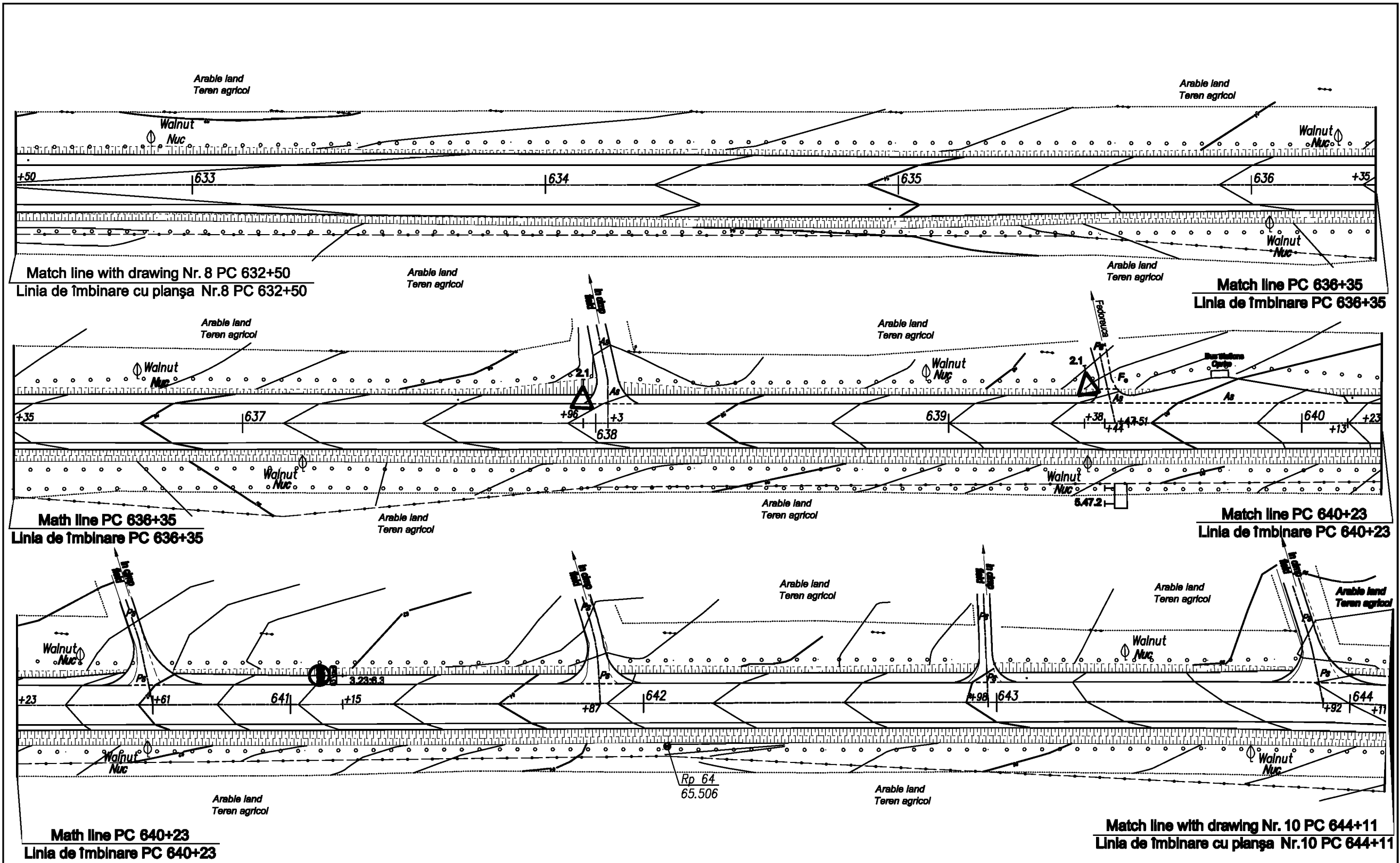
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Linia de îmbinare PC 617+10

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Linia de îmbinare cu planșa Nr.8 PC 621+00

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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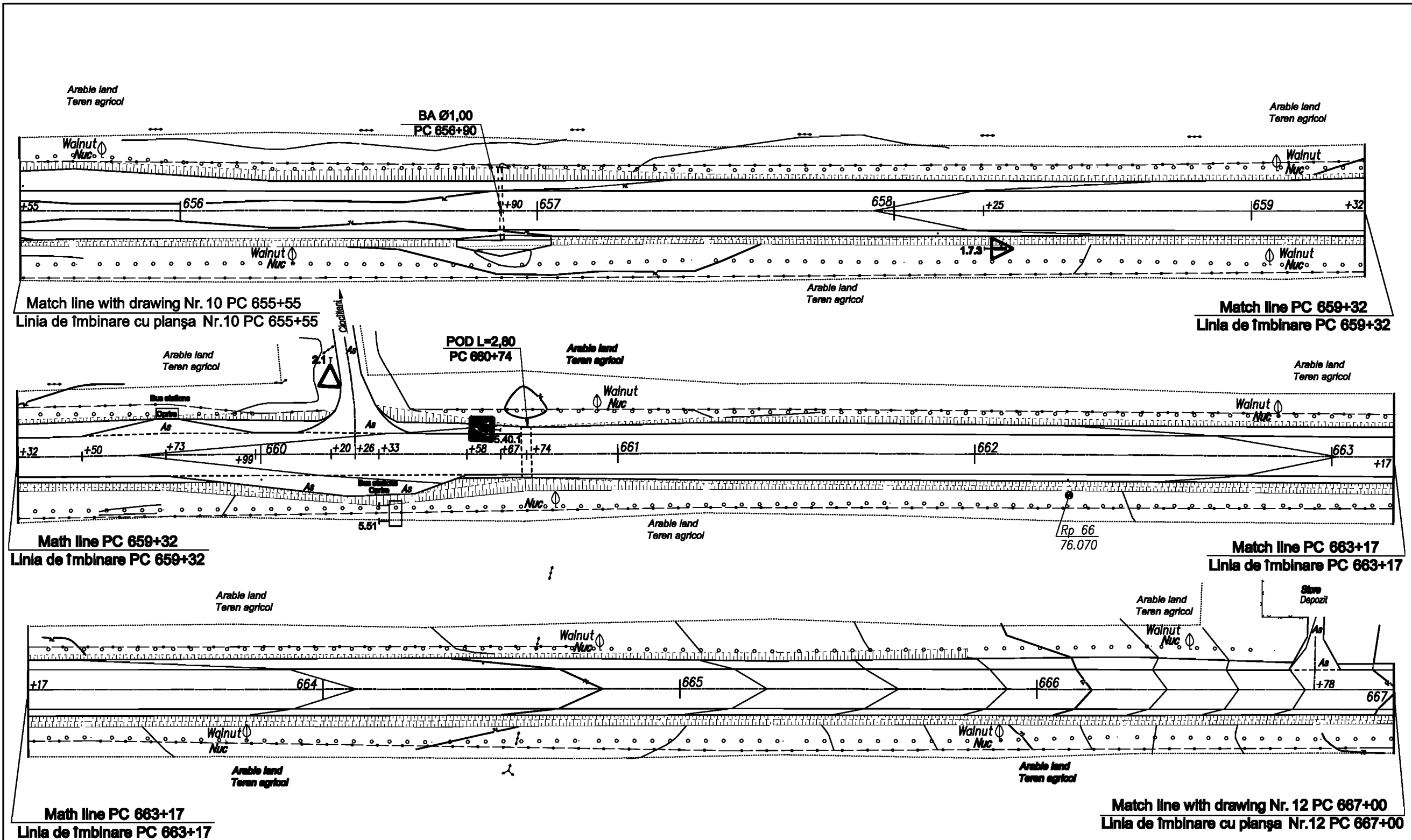
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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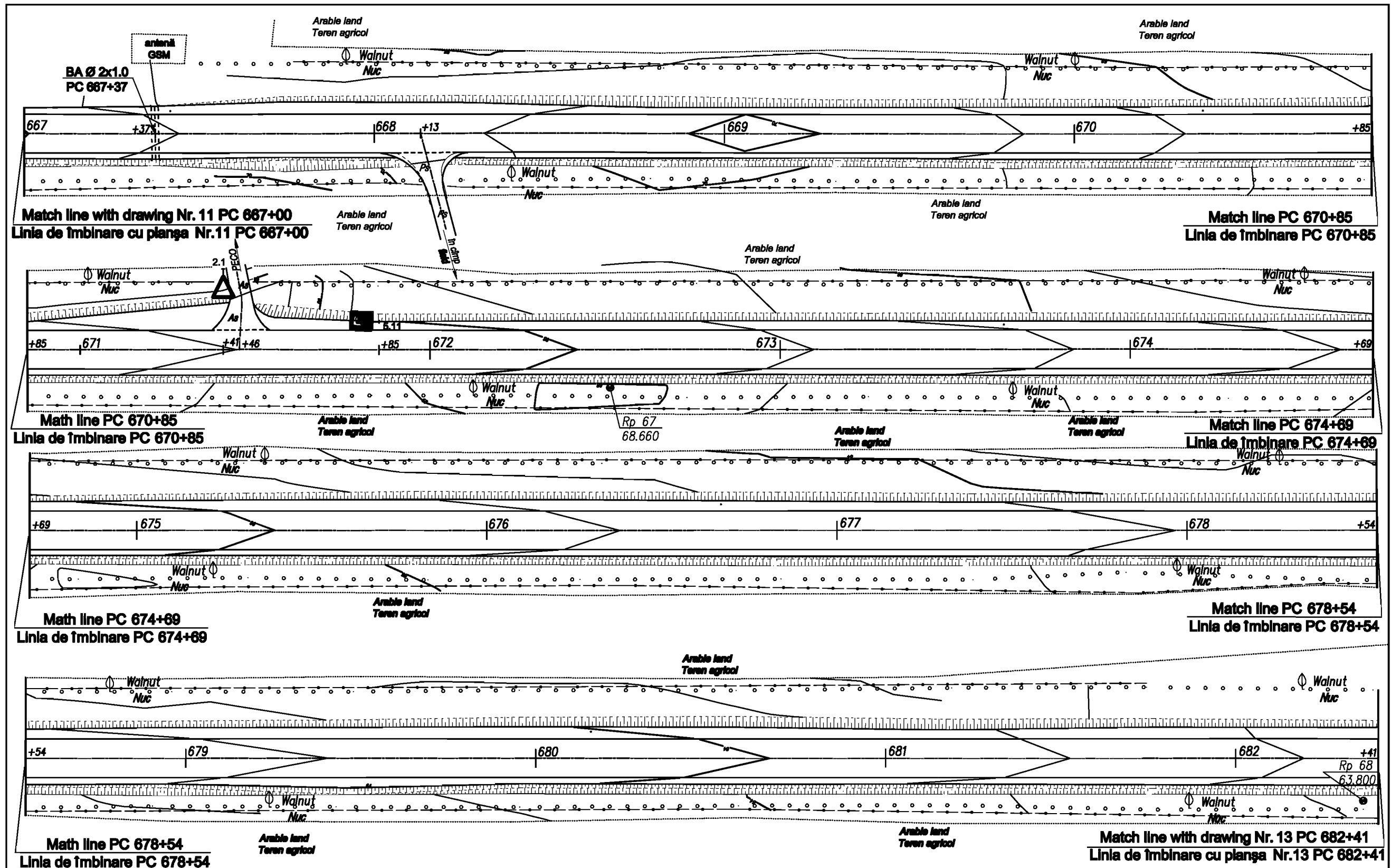
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
		Road Sector Programme Support Project			
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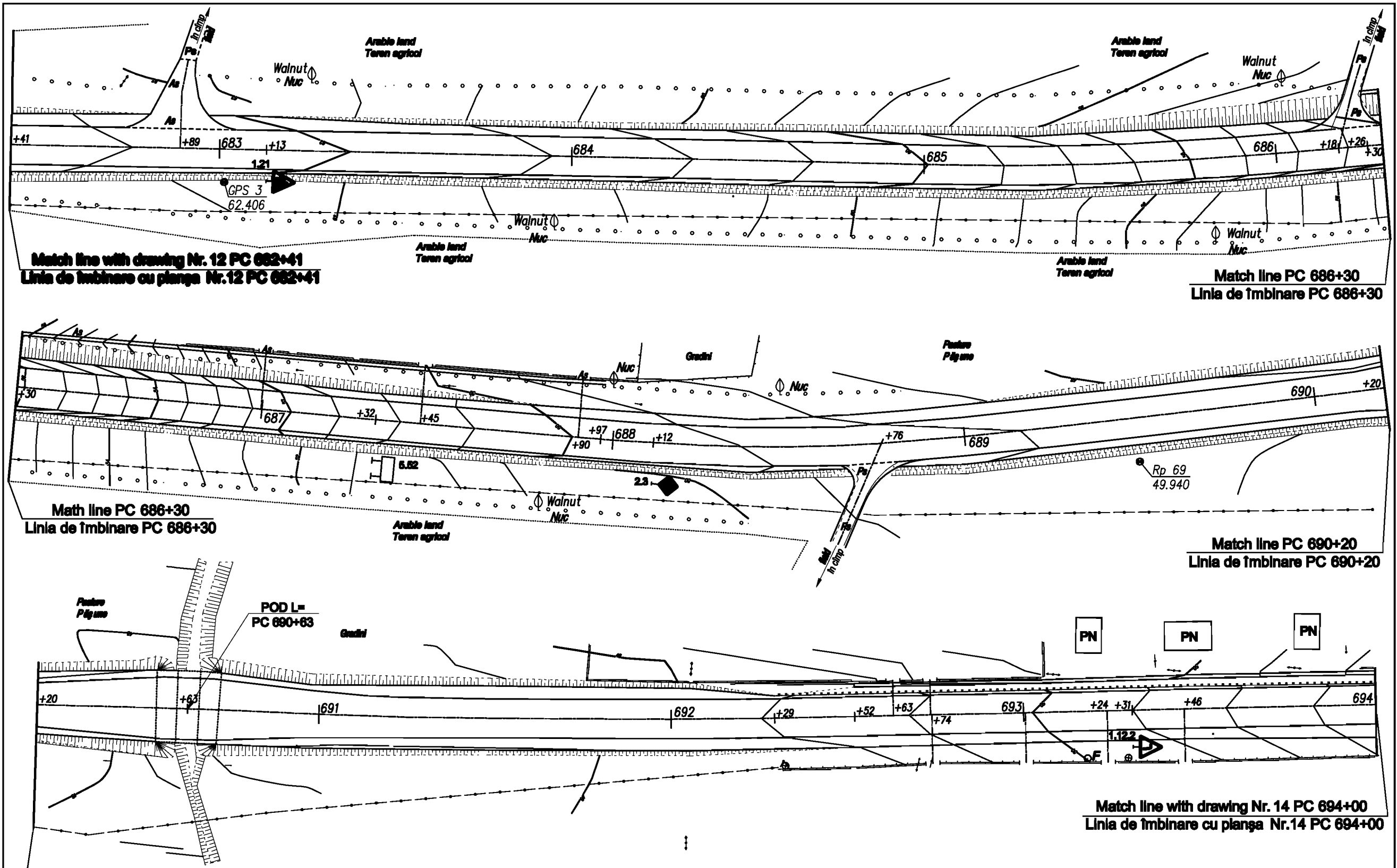




European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
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European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project		ISP	Bogza	Date	12.2007
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Universcons					



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Match line PC 686+30  
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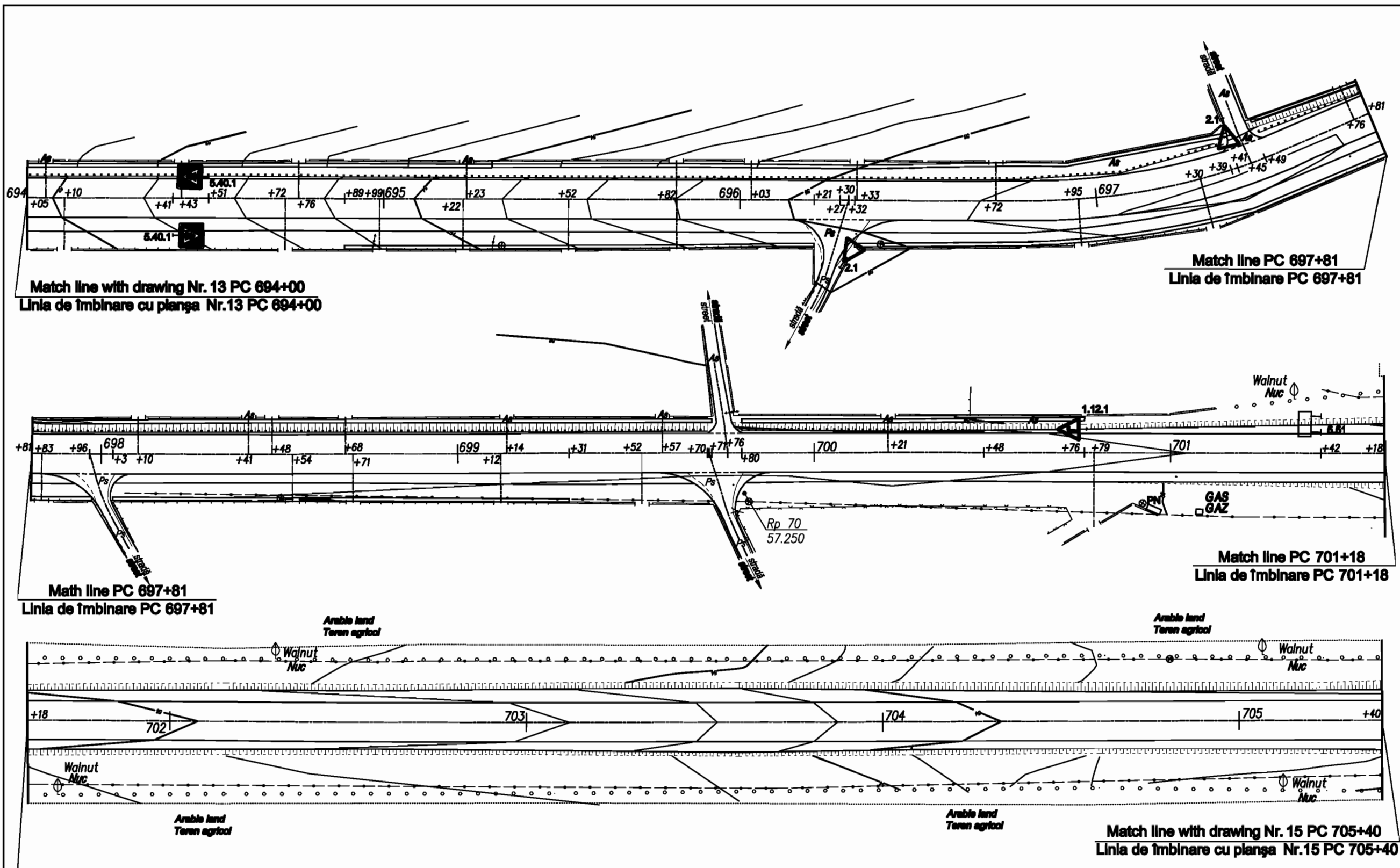
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Math line PC 690+20  
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Match line with drawing Nr. 14 PC 694+00  
 Linia de îmbinare cu planșa Nr.14 PC 694+00

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
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Universcons		Control STAS	Belic		PD-DA-13
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Linia de îmbinare cu planșa Nr.13 PC 694+00

Match line PC 697+81  
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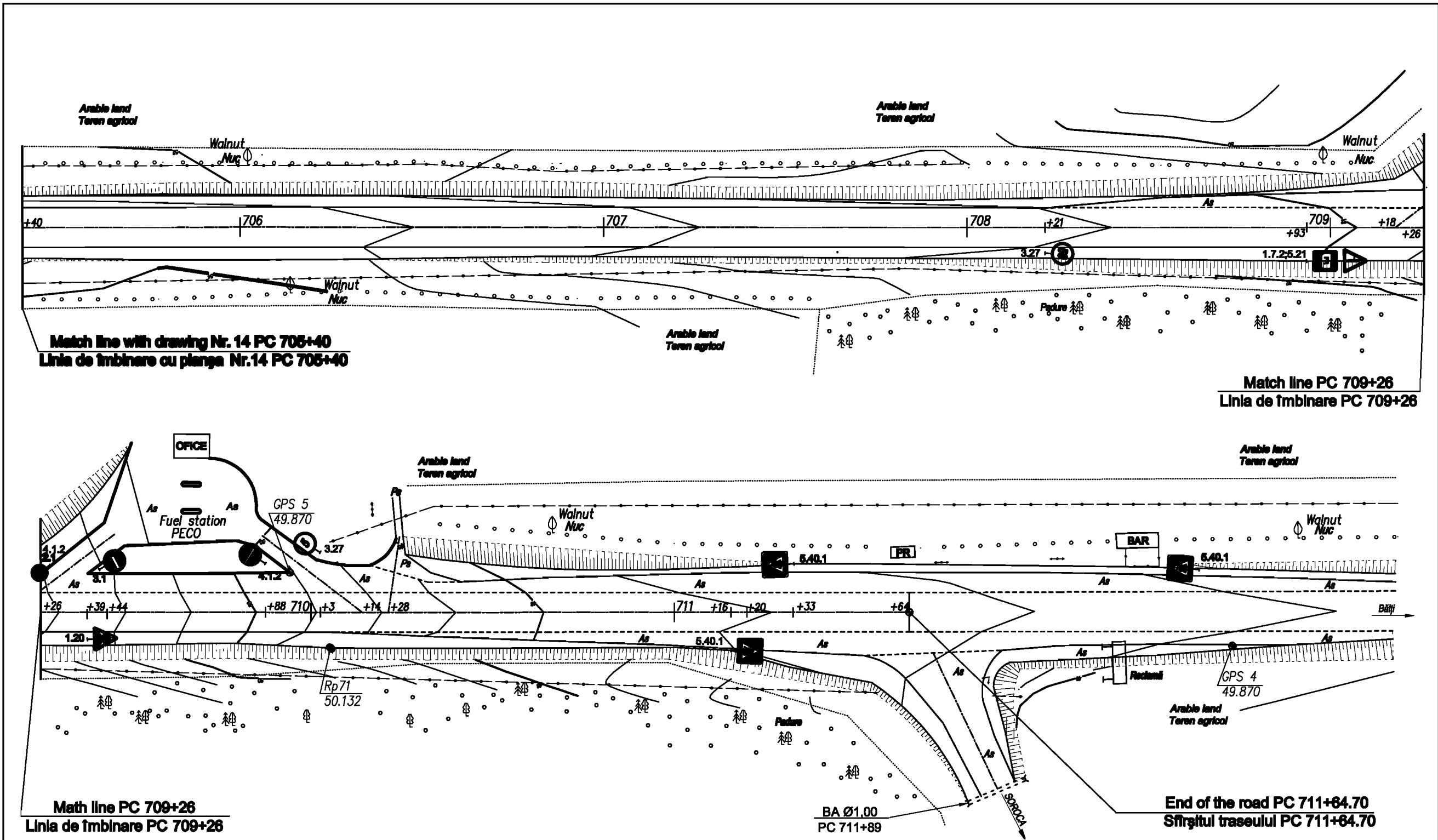
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Match line PC 701+18  
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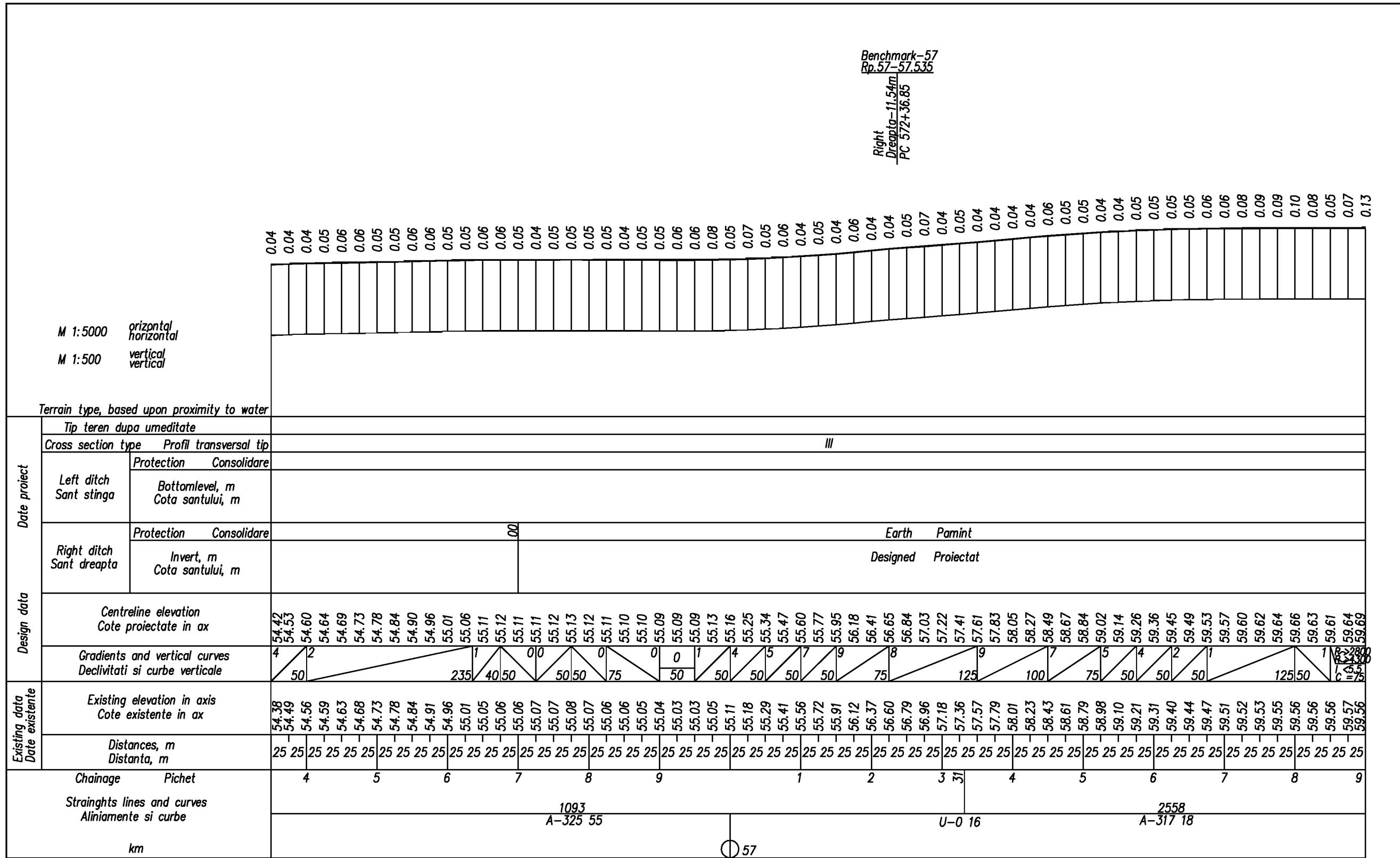
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Linia de îmbinare cu planșa Nr.15 PC 705+40

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	<b>Rehabilitation of R3 Road Chisinau-Săriteni</b>		ISP	Bogza	Date	12.2007
TRL			Designed	Olari	Scale	1:1000
Blizzard	Drawing title	Road plan Plan drum PC 694+00 - PC 705+40	Checked	Bogza	Drawing PD-DA-14	
Universcons	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	<b>Rehabilitation of R3 Road Chisinau-Sărăteni</b> Drawing title Road plan Plan drum PC 705+40 – PC 711+64.70	ISP	Bogza	Date	12.2007
		Designed	Olari	Scale	1:1000
		Checked	Bogza	Drawing	
		Control STAS	Belic		PD-DA-15

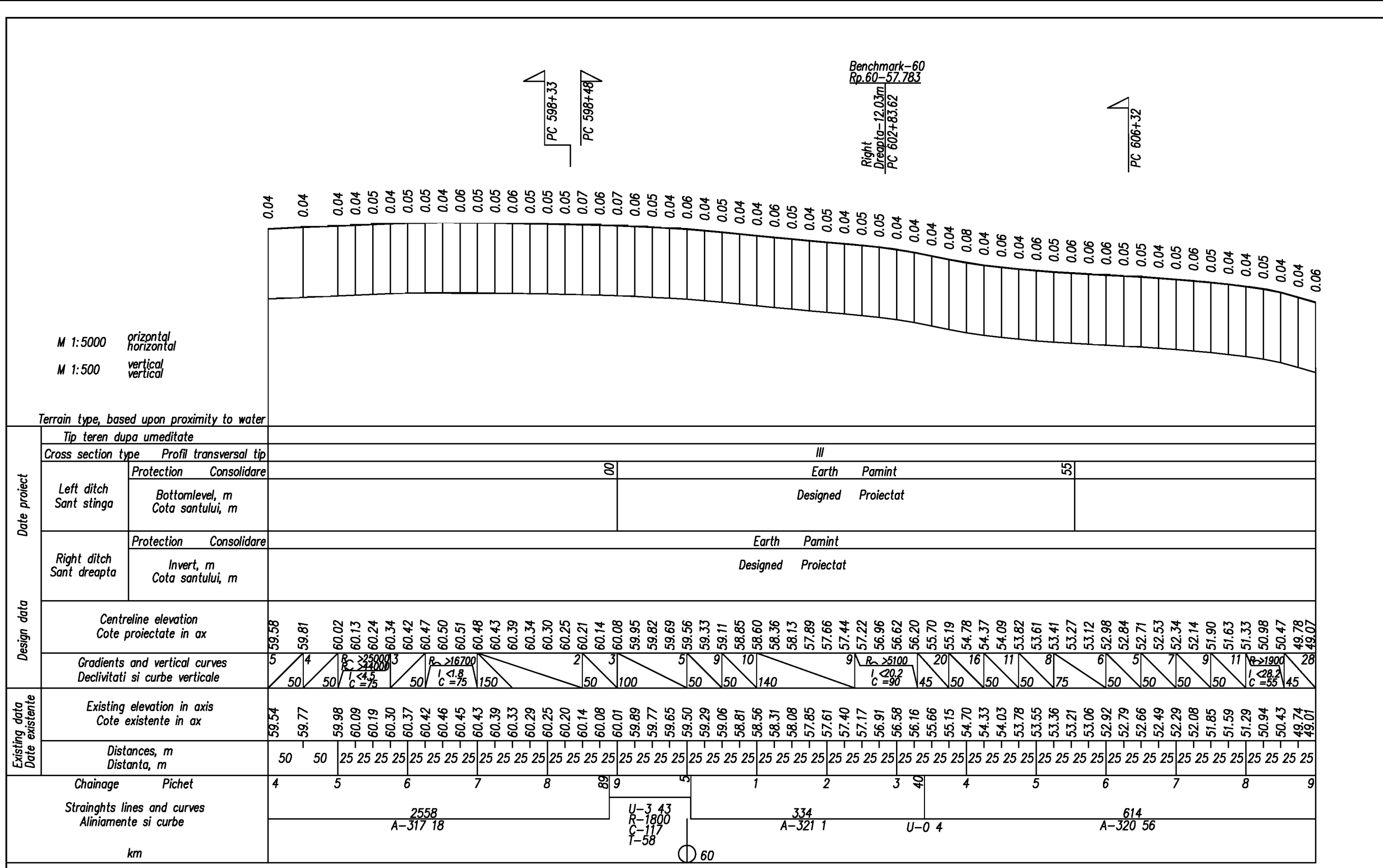




European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Gisca	Scale	1:500
	Longitudinal Profile Profil Longitudinal		Checked	Bogza	Drawing	
	PC 563+50 - PC 579+00		Control STAS	Belic	PL-DA-2	

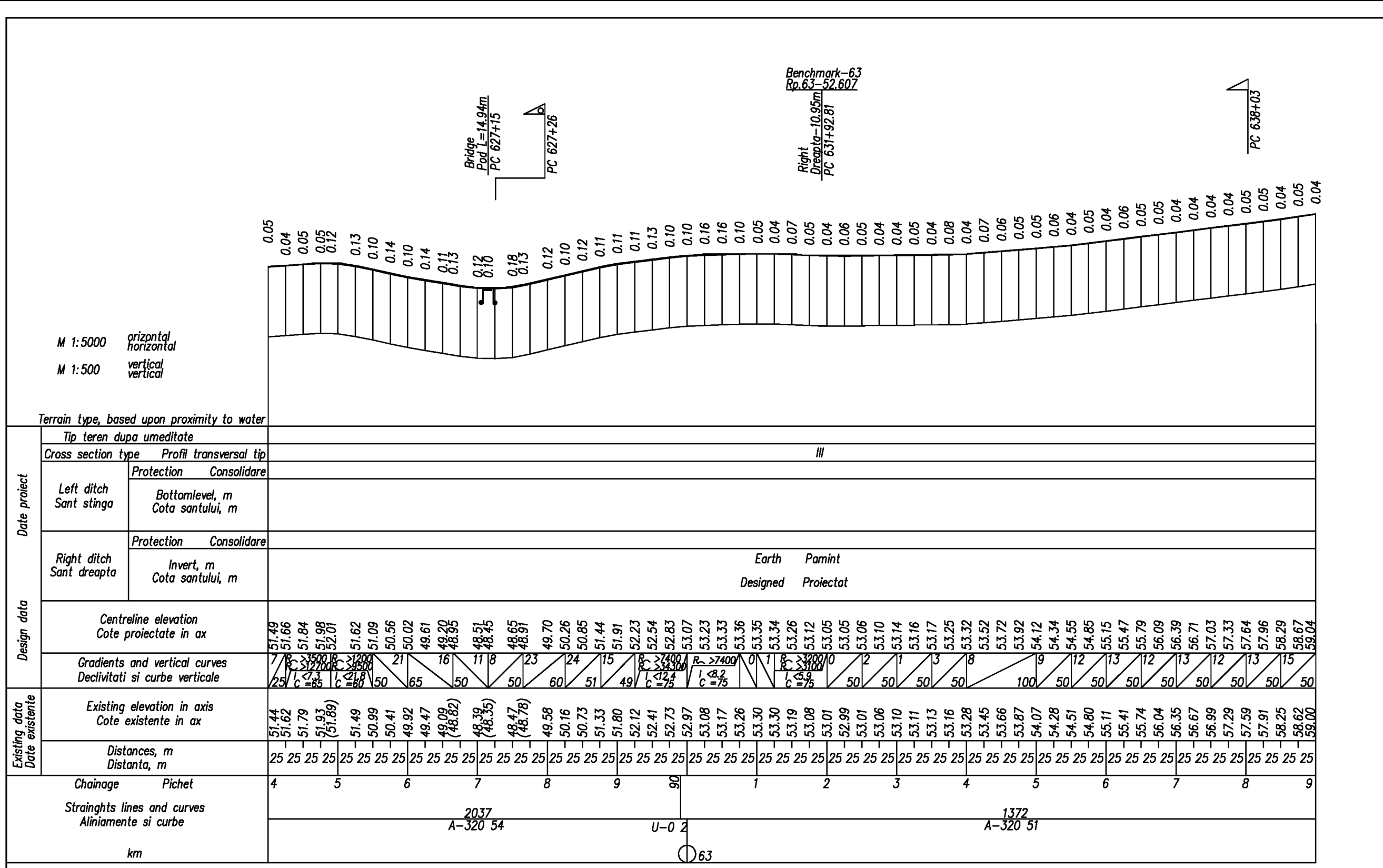






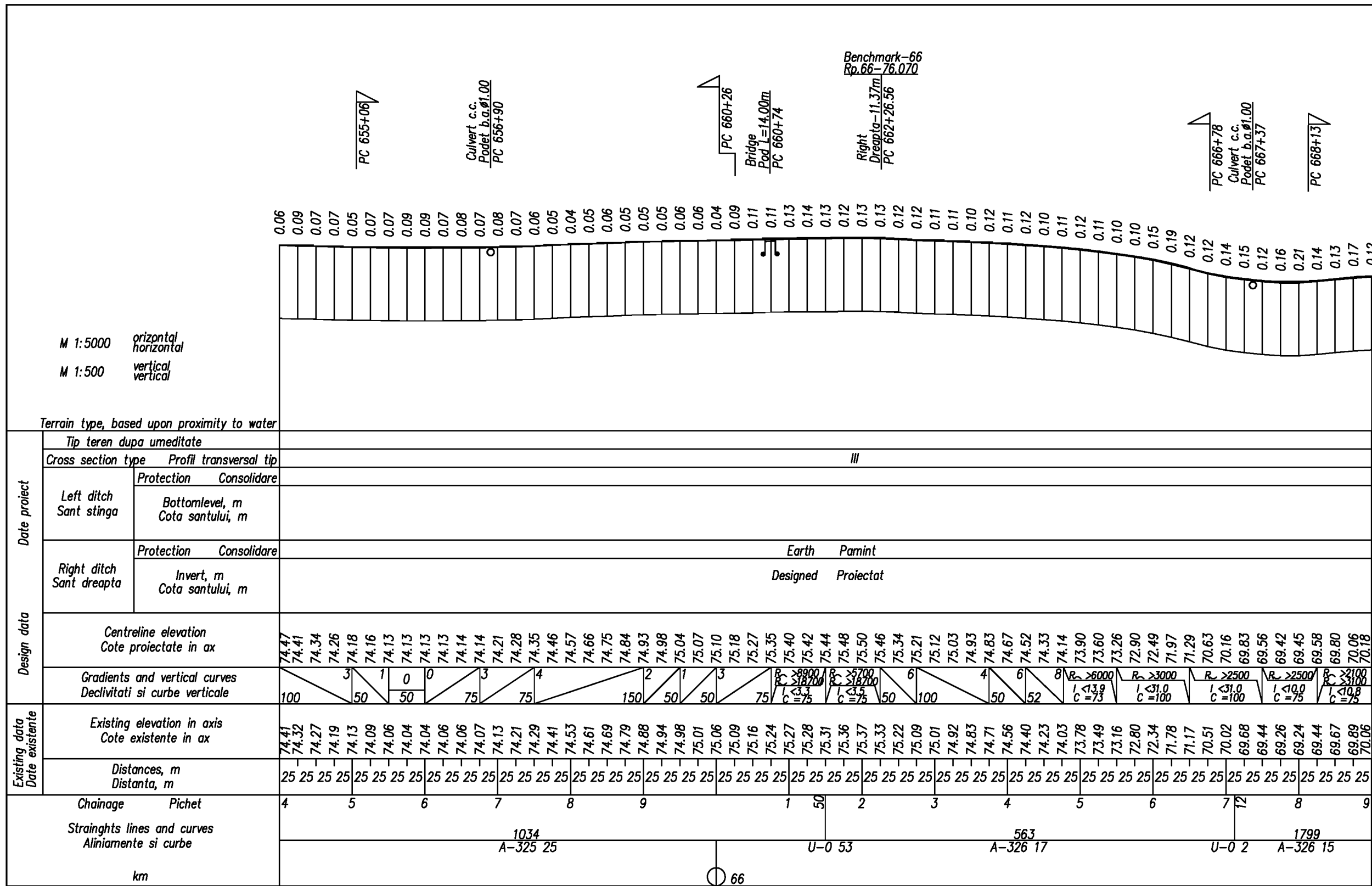
<b>European Investment Bank</b>	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni Drawing title Longitudinal Profile Profil Longitudinal PC 594+00 - PC 609+00	ISP	Bogza	Date	12.2007
		Designed	Gisca	Scale	1:500
		Checked	Bogza	Drawing	<b>PL-DA-4</b>
		Control STAS	Belic		





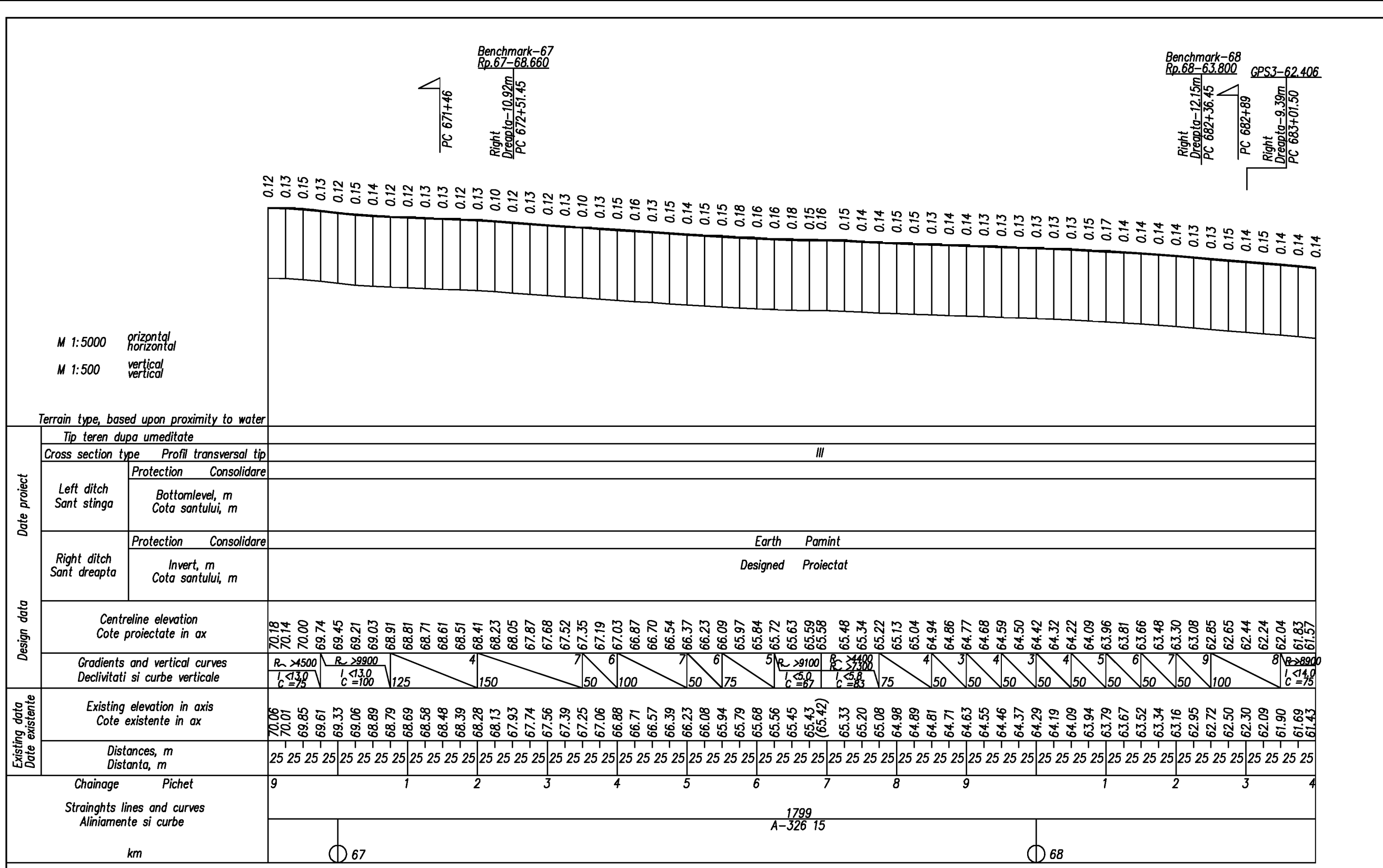
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni		ISP	Bogza	Date	12.2007
	Drawing title		Designed	Gisca	Scale	1:500
	Longitudinal Profile Profil Longitudinal		Checked	Bogza	Drawing	PL-DA-6
	PC 624+00 - PC 639+00		Control STAS	Belic		





Date proiect		Tip teren dupa umeditate	
Cross section type		Profil transversal tip	
Left ditch Sant stinga	Protection	Consolidare	
	Bottomlevel, m Cota santului, m		
Right ditch Sant dreapta	Protection	Consolidare	
	Invert, m Cota santului, m	Earth Pamint Designed Proiectat	
Centreline elevation Cote proiectate in ax		74.47	74.41
Gradients and vertical curves Declivitati si curbe verticale		100	50
Existing elevation in axis Cote existente in ax		74.41	74.32
Distances, m Distanta, m		25	25
Chainage Pichet		4	5
Straights lines and curves Aliniamente si curbe		1034 A-325 25	
km		66	

<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>					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	1:500
	Longitudinal Profile Profil Longitudinal	Checked	Bogza	Drawing	<b>PL-DA-8</b>
	PC 654+00 - PC 669+00	Control STAS	Belic		

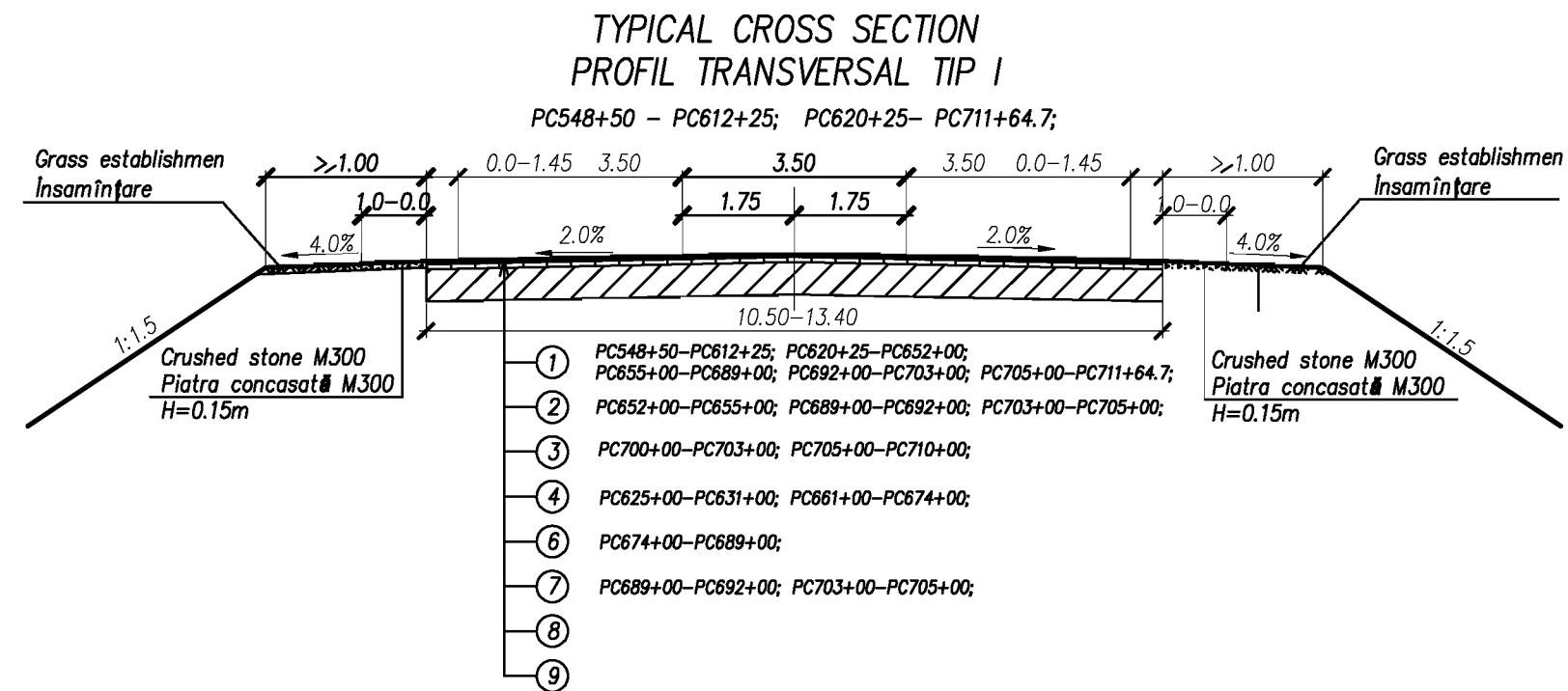


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Longitudinal Profile Profil Longitudinal PC 669+00 - PC 684+00	Designed	Gisca	Scale	1:500
		Checked	Bogza	Drawing	PL-DA-9
		Control STAS	Belic		



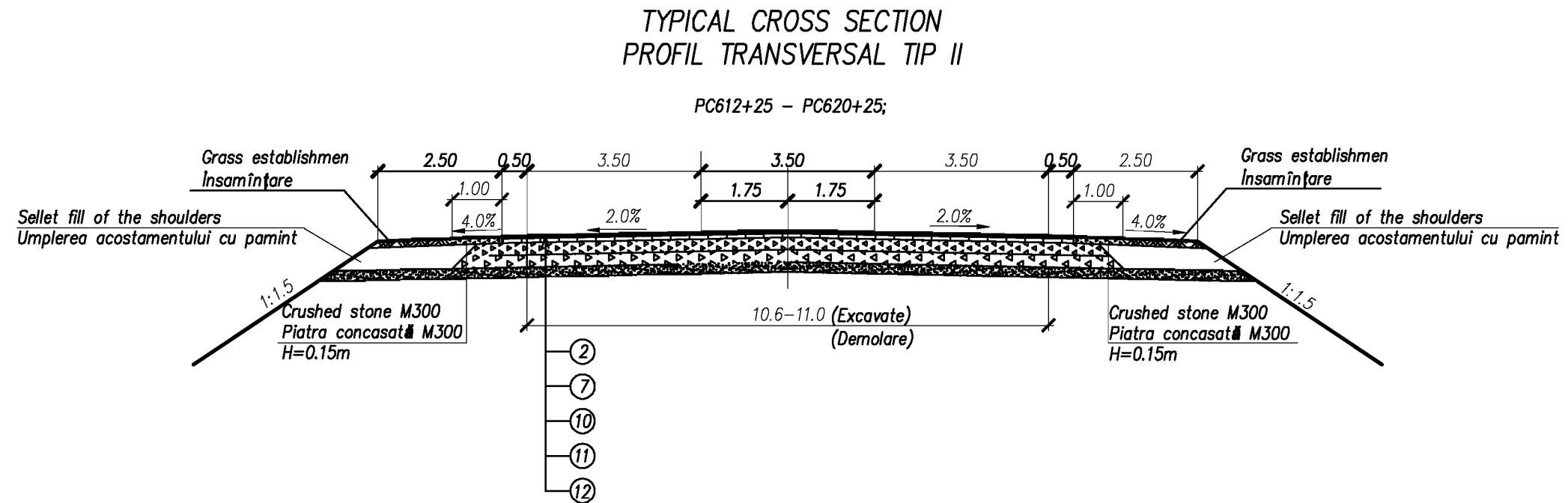






①	Beton asfaltic cu granulație fină dens Tip A M1	–4.0cm	Fine grained dense asphalt type A M1
②	Beton asfaltic cu granulație fină dens Tip A M1	–6.0cm	Fine grained dense asphalt type A M1
③	Beton asfaltic cu granulație fină poros M1	–4.0cm	Coarse-grained asphalt concrete M 1
④	Beton asfaltic cu granulație fină poros M1	–6.0cm	Coarse-grained asphalt concrete M 1
⑥	Beton asfaltic cu granulație mare poros M1	–8.5cm	Coarse-grained asphalt concrete M 1
⑦	Beton asfaltic cu granulație mare poros M1	–9.0cm	Coarse-grained asphalt concrete M 1
⑧	Egalizare cu beton asfaltic cu granulație fină poros M1 – 2–8cm		Coarse-grained asphalt concrete M 1
⑨	Sistem rutier existent	–60–92cm	Existing road structure

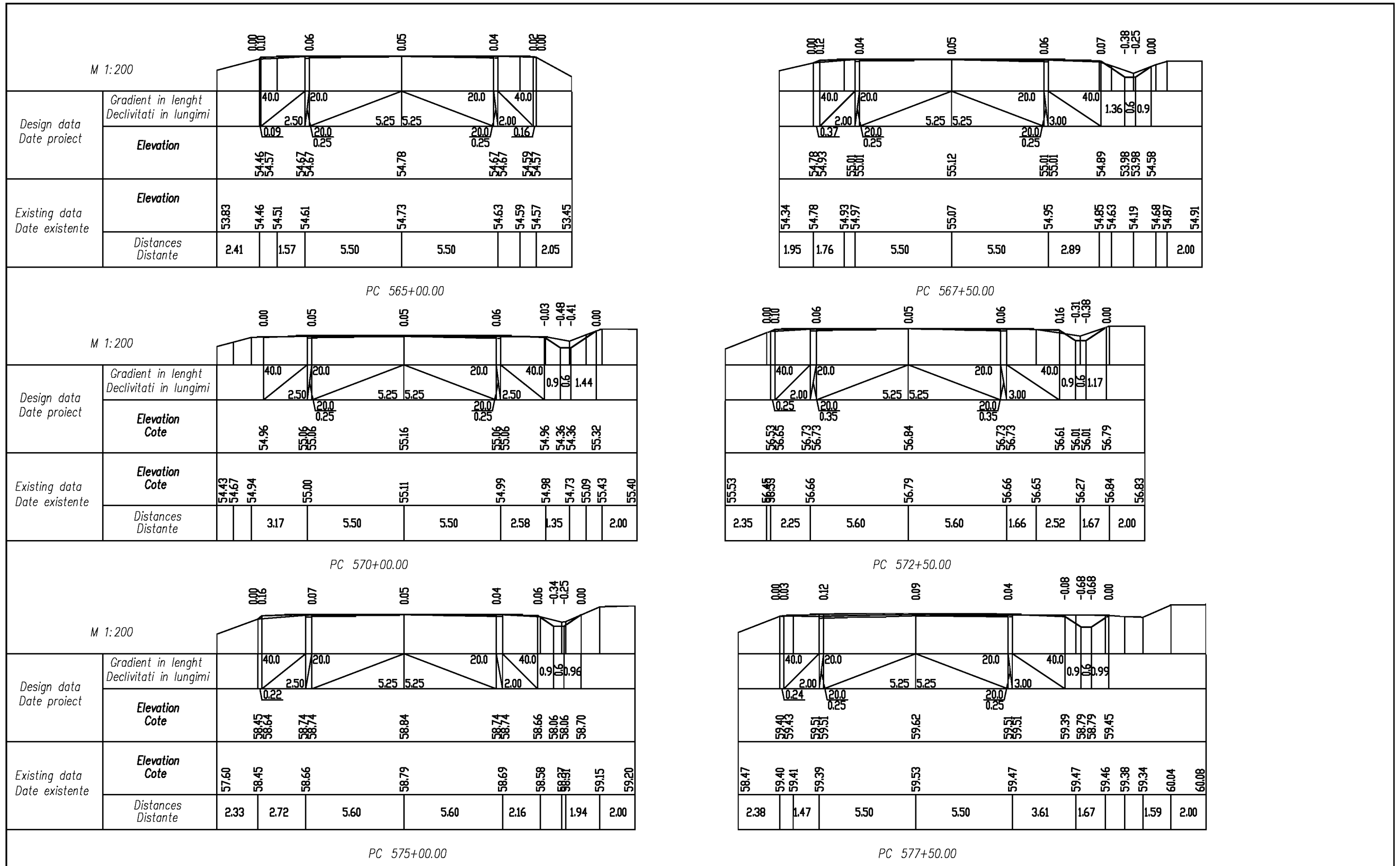
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project		
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni		ISP	Bogza	Date	12.2007
	Drawing title Typical cross sections I Profile transversale tip I		Designed	Belic	Scale	1:100
			Checked	Gisca	Drawing	
			Control STAS	Bogza		PTT-DA-1



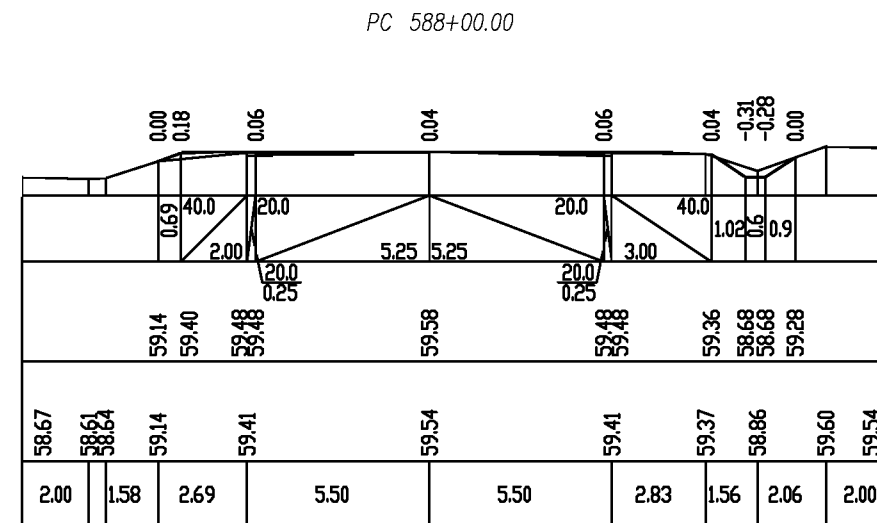
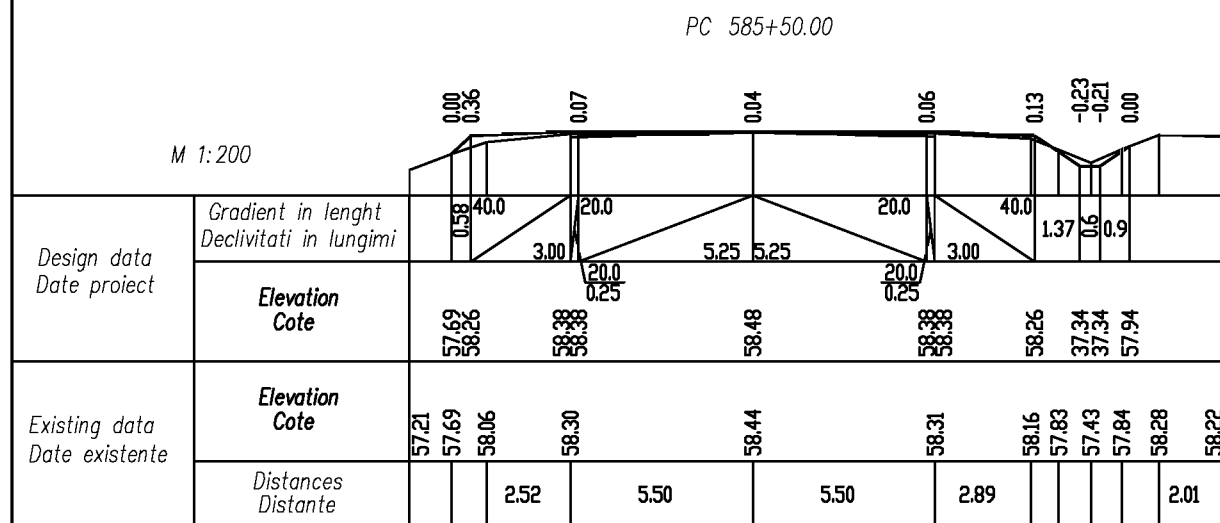
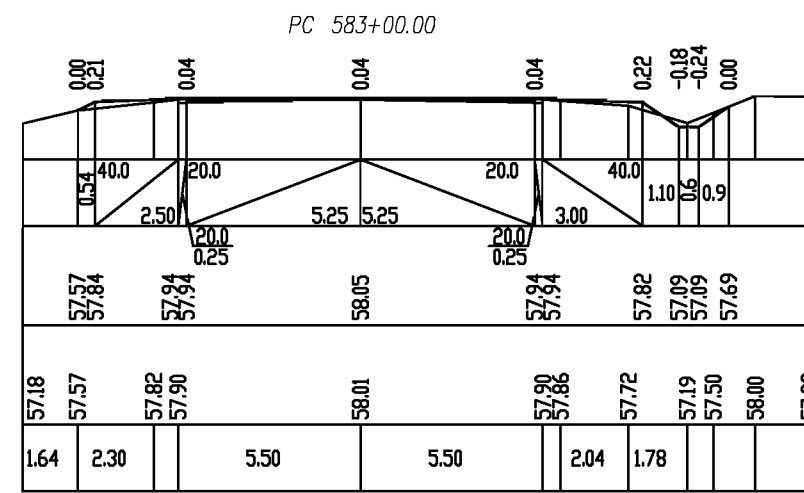
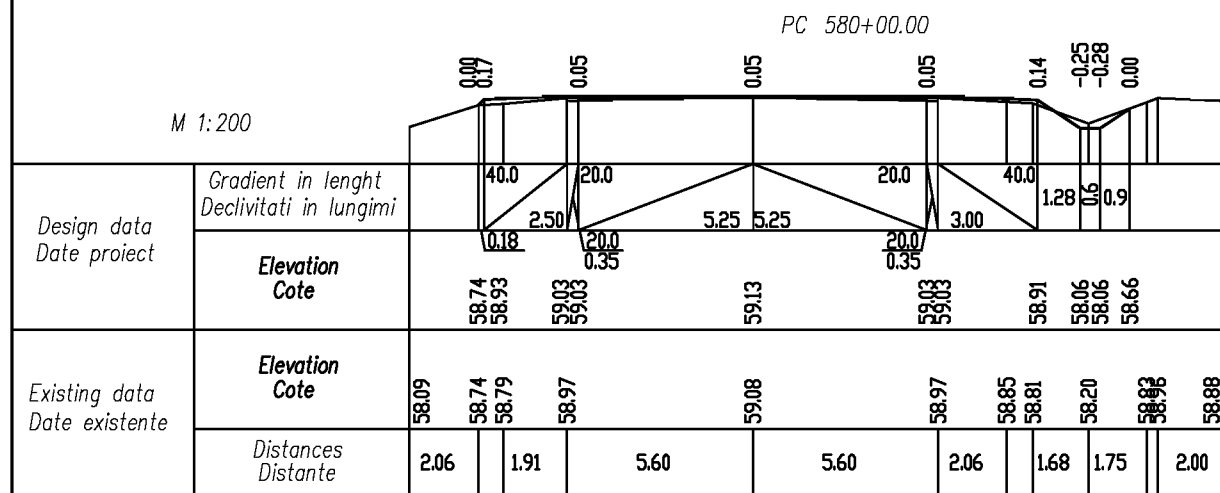
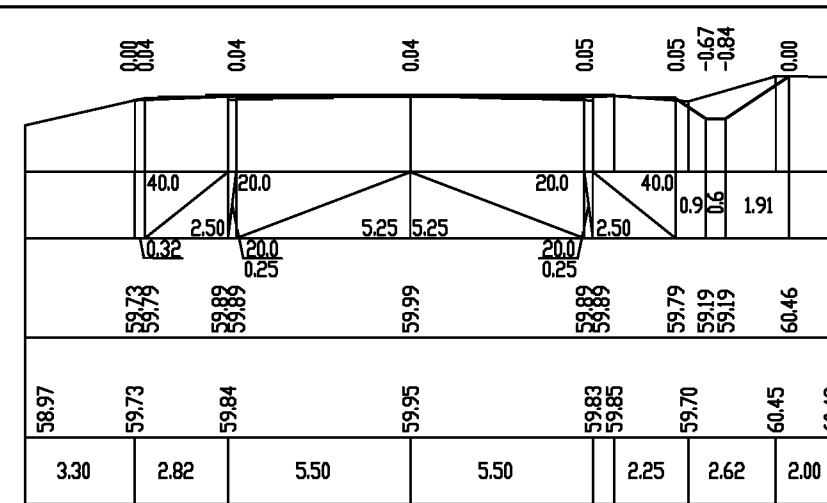
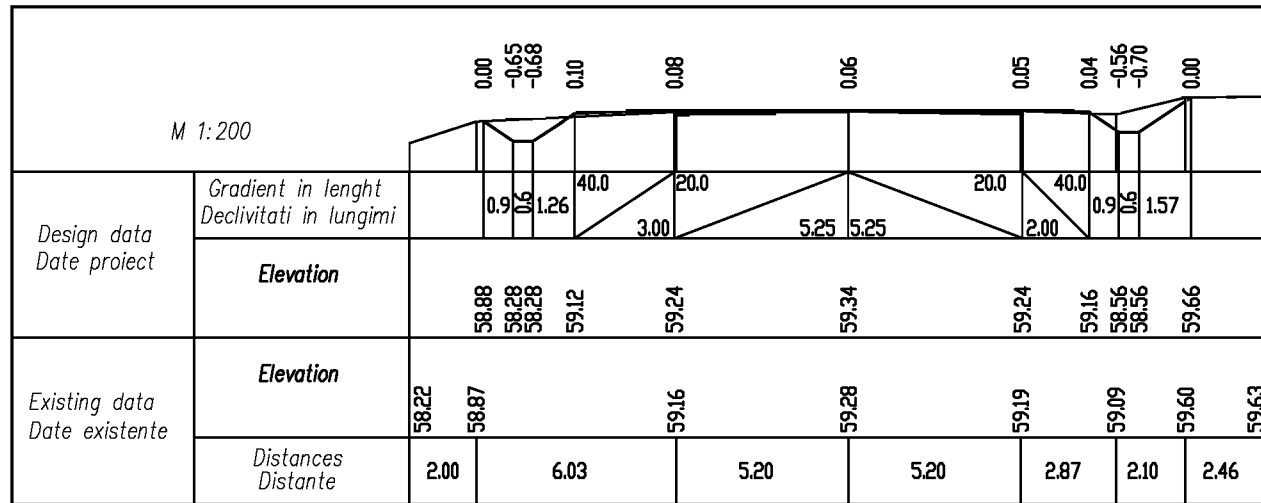
①	Beton asfaltic cu granulație fină dens Tip A M1	– 4.0cm	Fine grained dense asphalt type A M1
②	Beton asfaltic cu granulație fină dens Tip A M1	– 6.0cm	Fine grained dense asphalt type A M1
⑦	Beton asfaltic cu granulație mare poros M1	– 9.0cm	Coarse-grained asphalt concrete M 1
⑧	Egalizare cu beton asfaltic cu granulație fină poros M1	– 2–8cm	Coarse-grained asphalt concrete M 1
⑨	Sistem rutier existent	– 68–110cm	Existing road structure
⑩	Piatra comcasată M 1000	– 25.0cm	Crushed stone M1000
⑪	Piatra comcasată M 300	– 25.0cm	Crushed stone M300
⑫	Nisip	– 20.0cm	Sand

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Belic	Scale	1:500
	<b>Typical cross section II Profil transversal tip II</b>	Checked	Gisca	Drawing	
		Control STAS	Bogza		<b>PTT-DA-2</b>





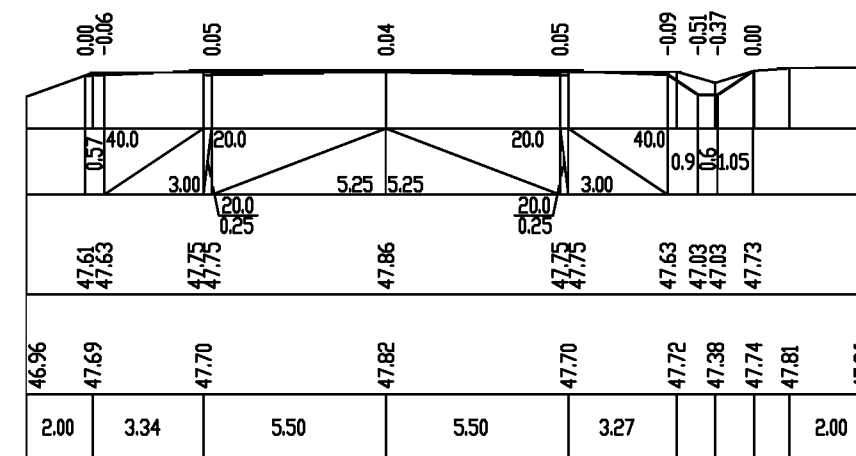
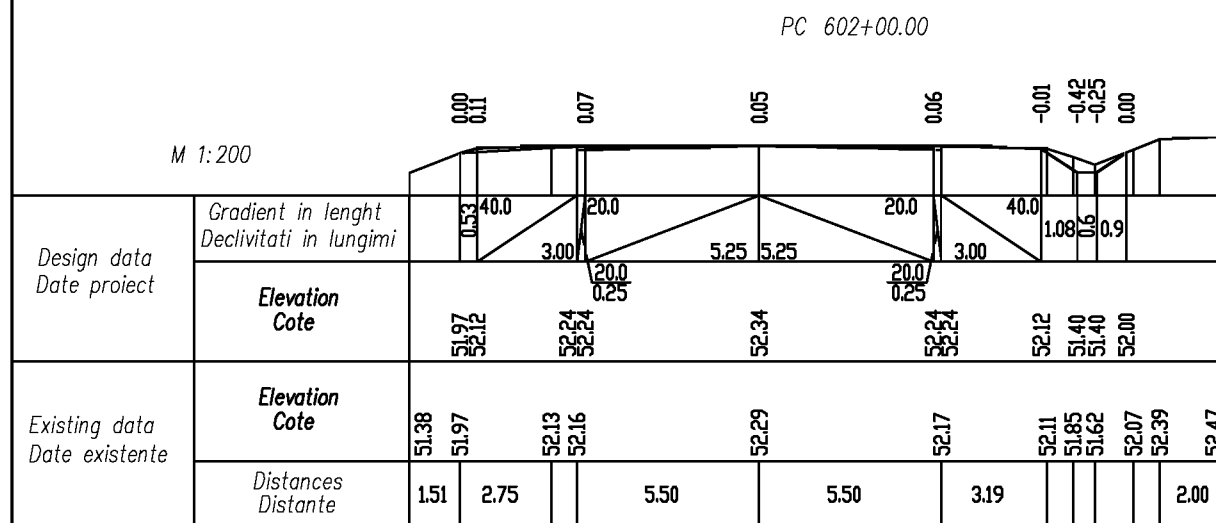
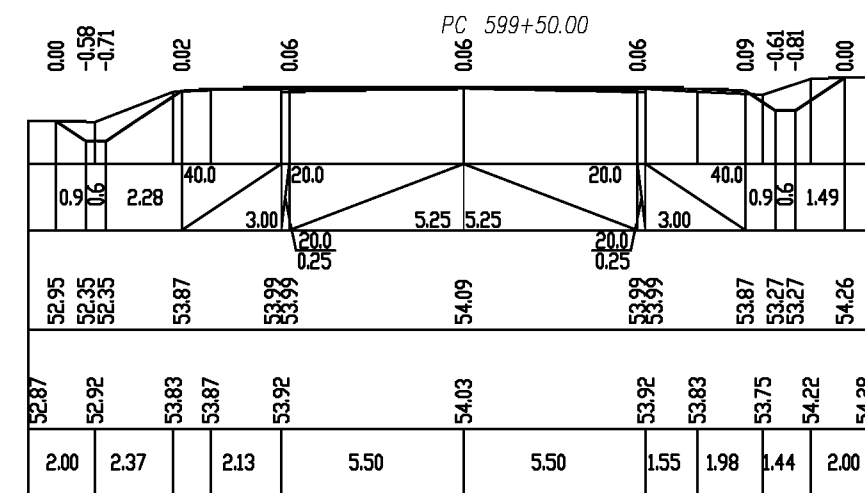
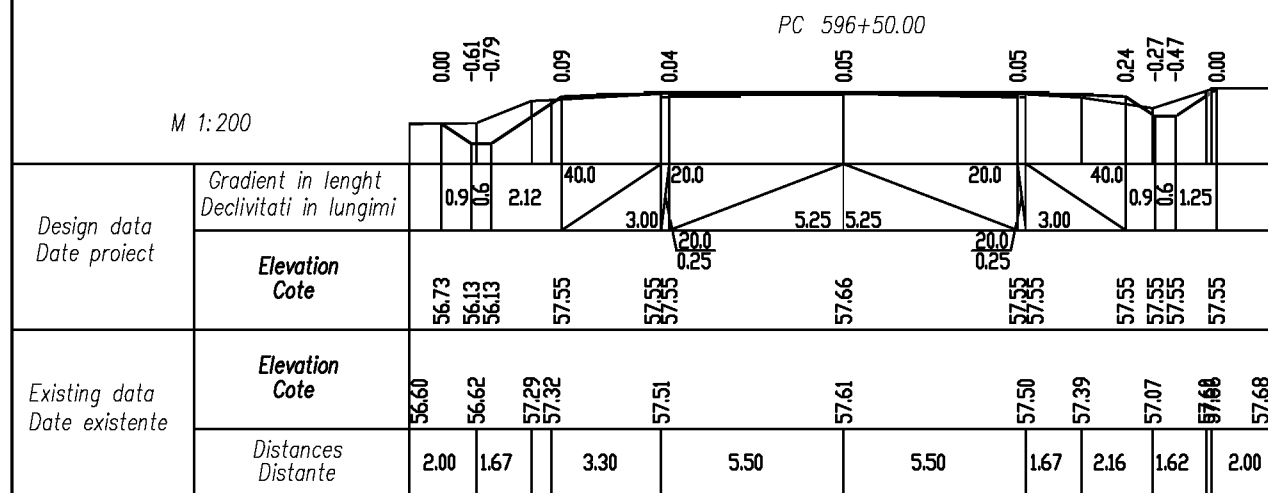
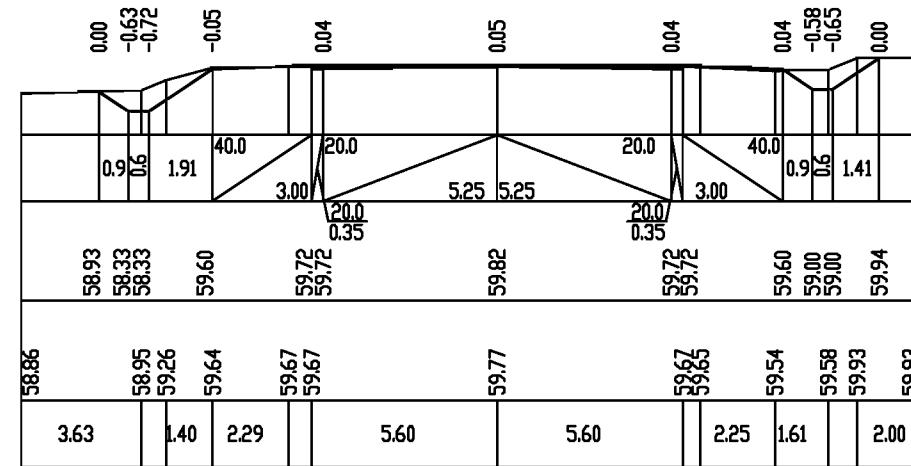
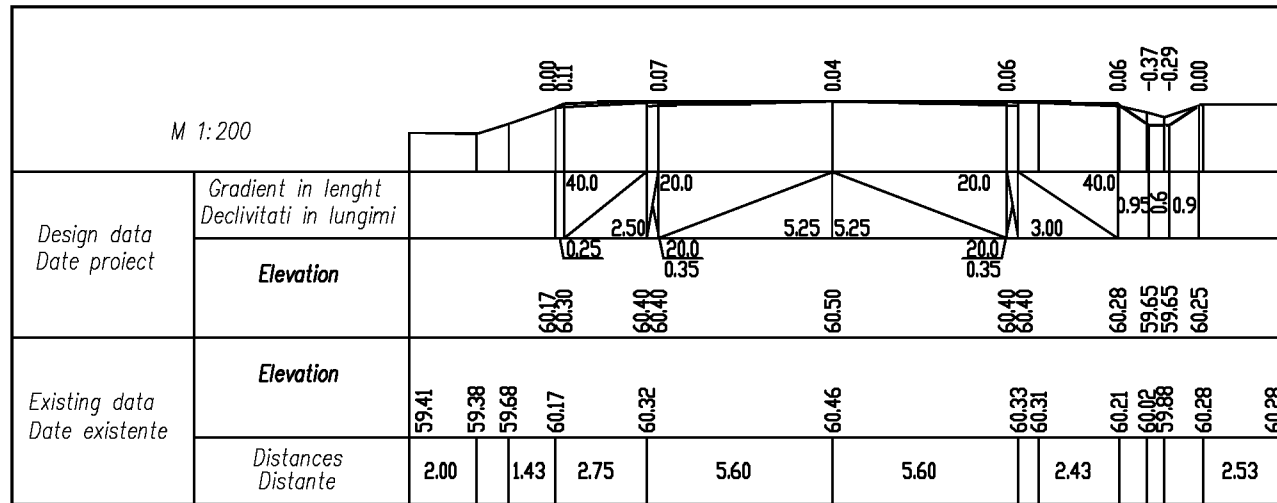
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b> <small>Drawing title</small> <b>Cross Sections of Earthwork Profile Transversale Terrasamente PC 565+00 - PC 577+50</b>		ISP	Bogza	Date	12.2007
			Designed	Plinachi	Scale	1:200
			Checked	Bogza	Drawing	PT-DA-2
			Control STAS	Belic		



PC 591+00.00

PC 594+00.00

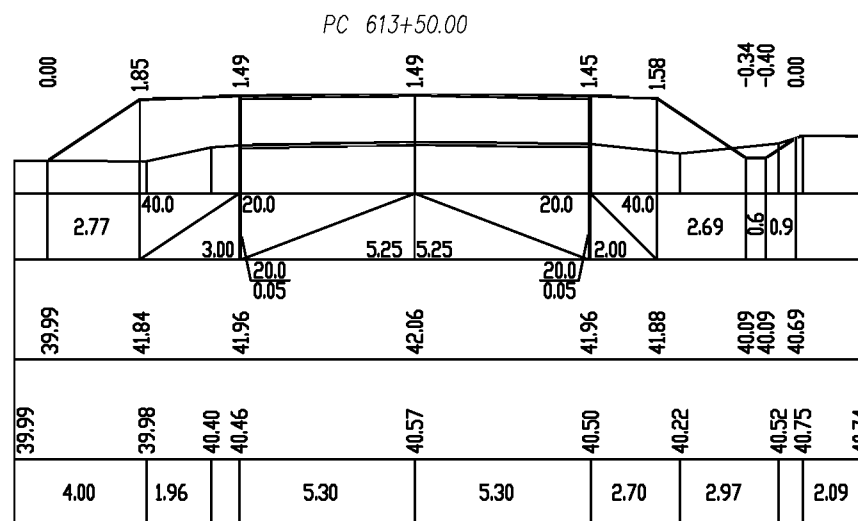
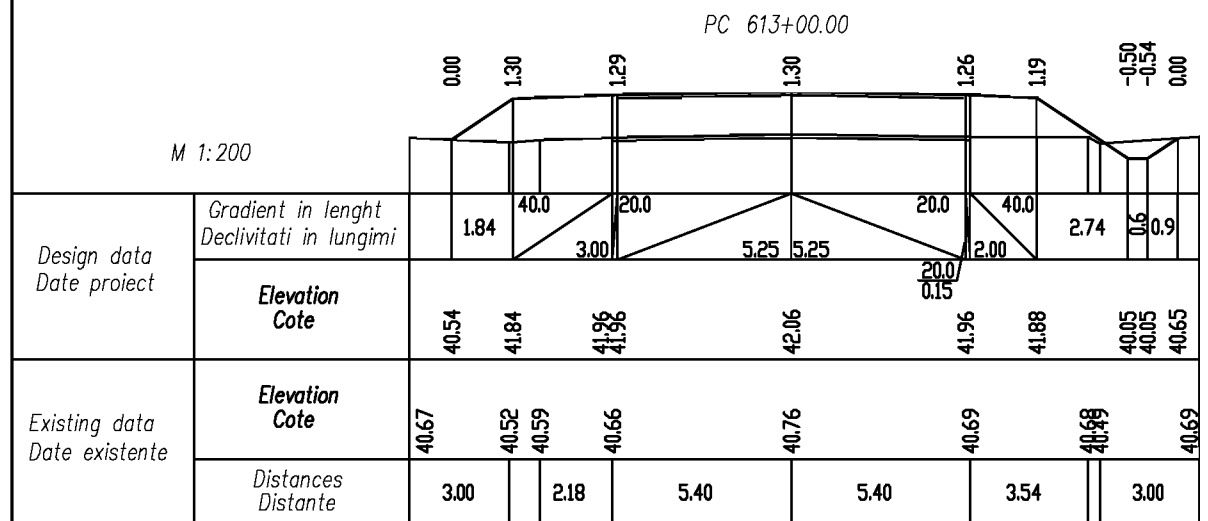
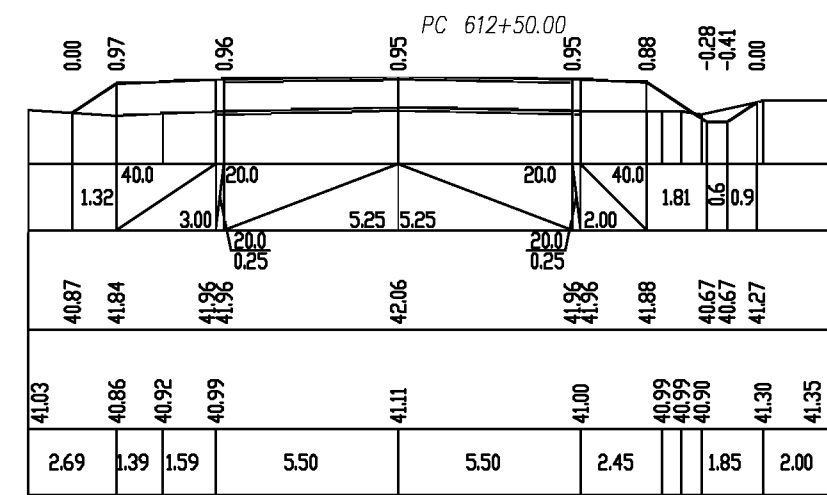
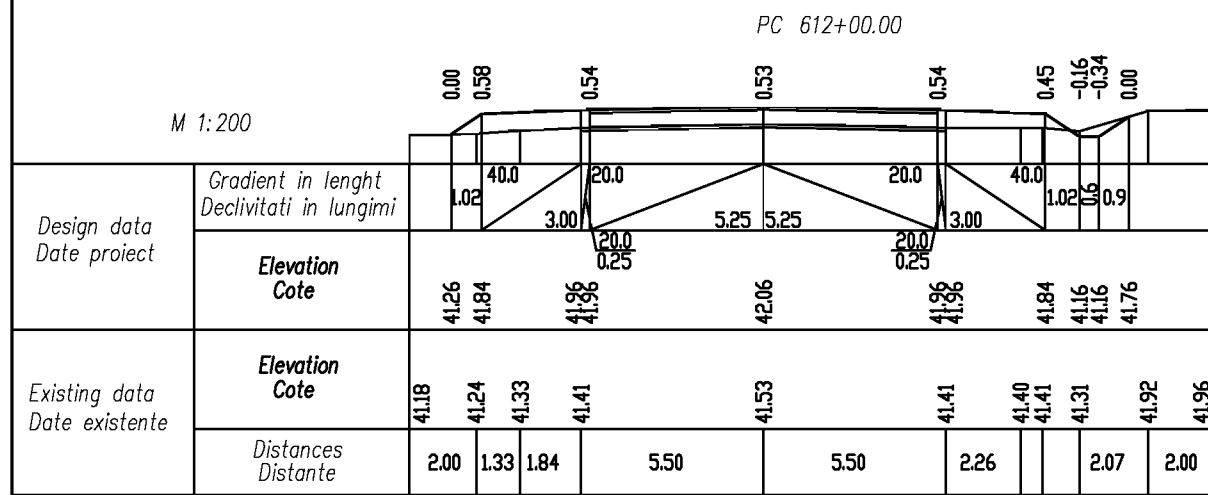
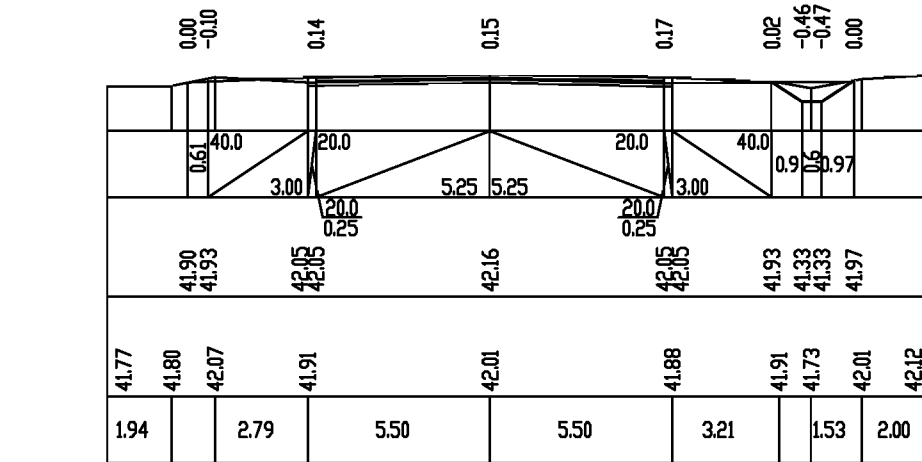
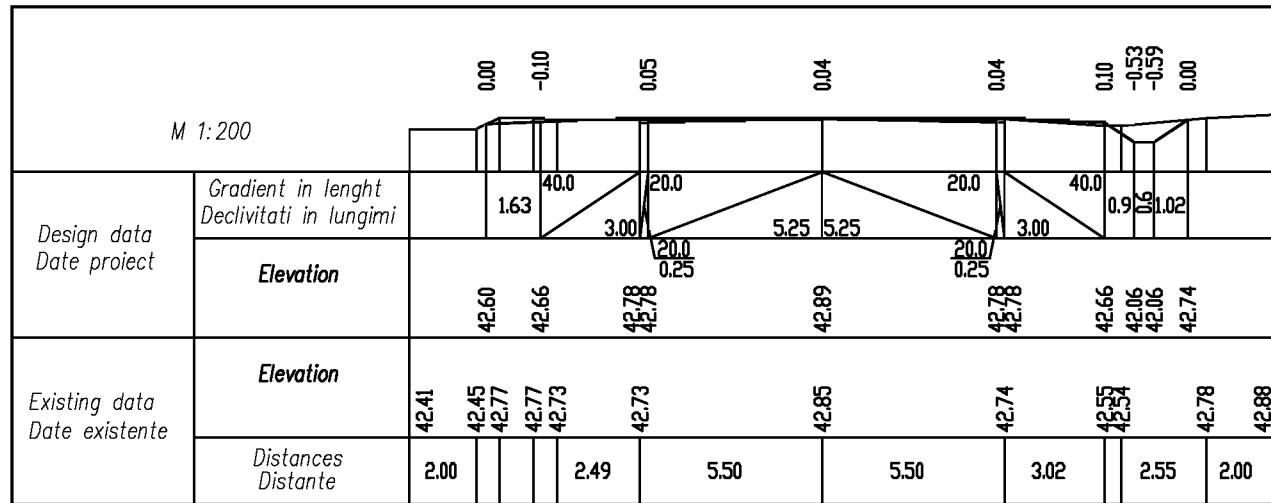
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>		<b>ISP</b>	<b>Bogza</b>	<b>Date</b>	<b>12.2007</b>
	<b>Cross Sections of Earthwork Profile Transversale Terassamente PC 580+00 - PC 594+00</b>		<b>Designed</b>	<b>Plinachi</b>	<b>Scale</b>	<b>1:200</b>
			<b>Checked</b>	<b>Bogza</b>	<b>Drawing</b>	
			<b>Control STAS</b>	<b>Belic</b>		<b>PT-DA-3</b>



PC 607+00.00

PC 609+50.00

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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Cross Sections of Earthwork Profile Transversale Terassamente PC 596+50 - PC 609+50	Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-4
		Control STAS	Belic		

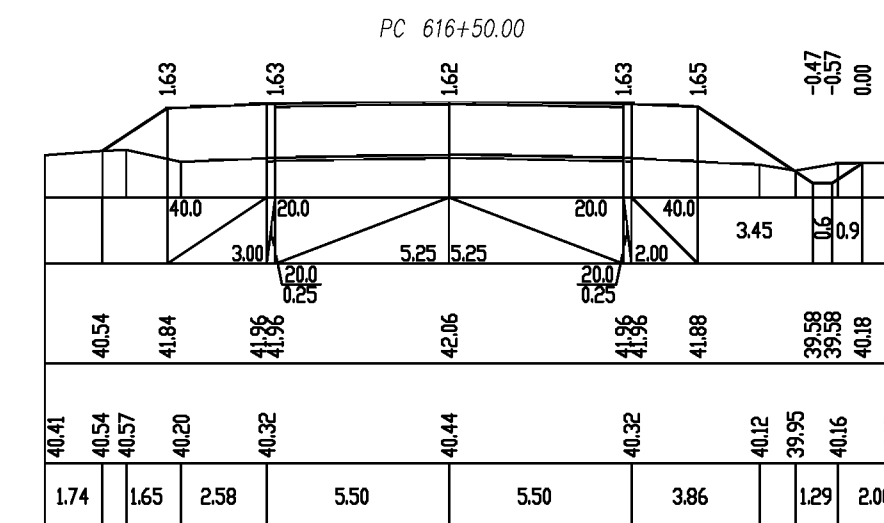
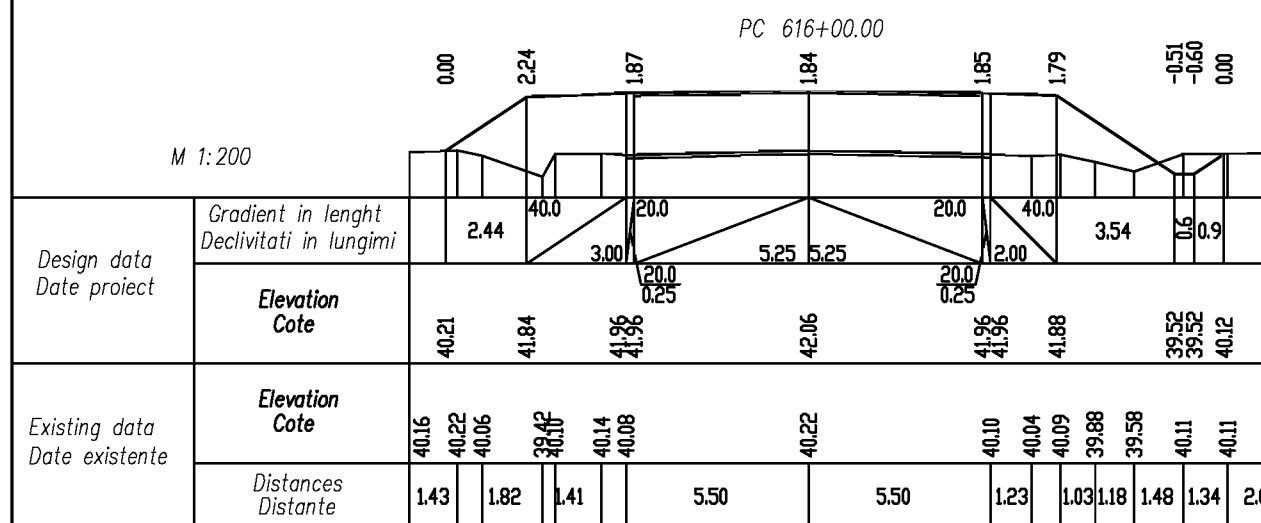
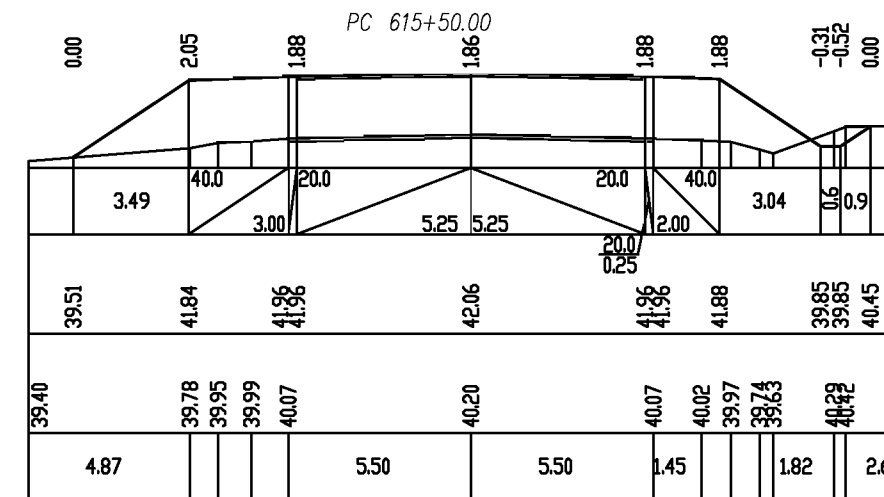
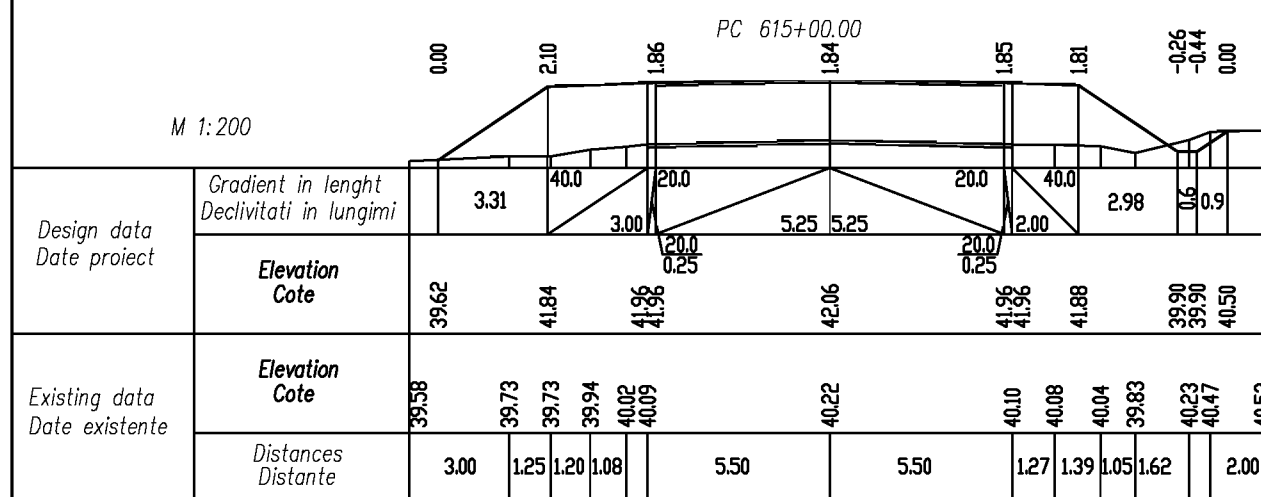
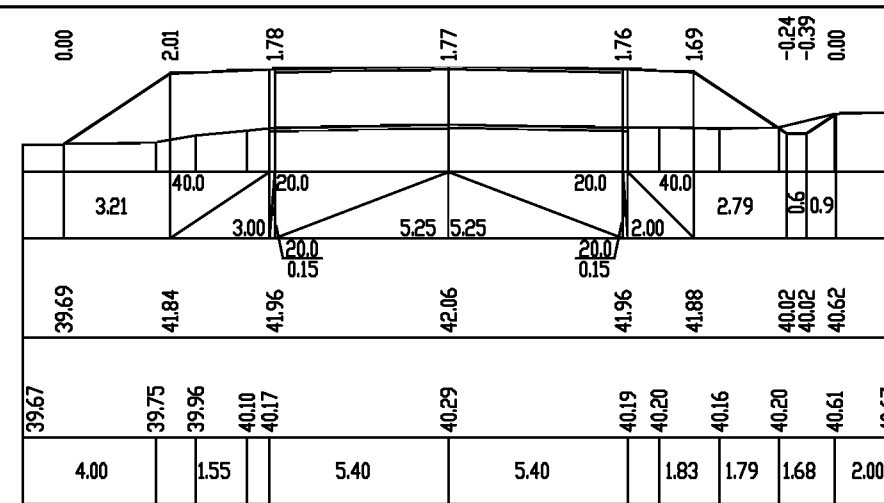
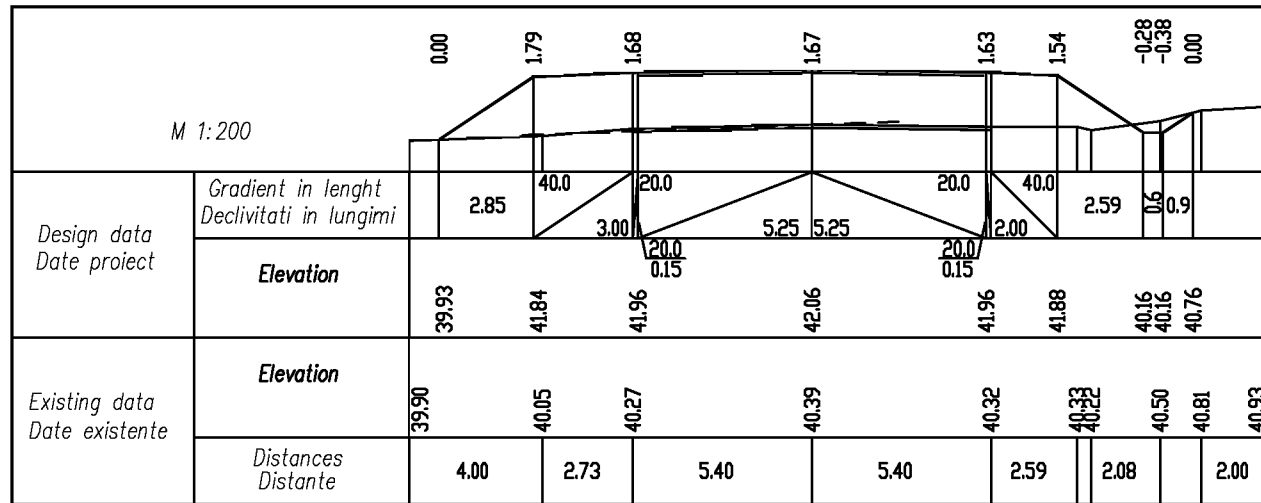


PC 614+00.00

PC 614+50.00

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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Cross Sections of Earthwork Profile Transversale Terassamente PC 612+00 - PC 614+50	Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-5
		Control STAS	Belic		

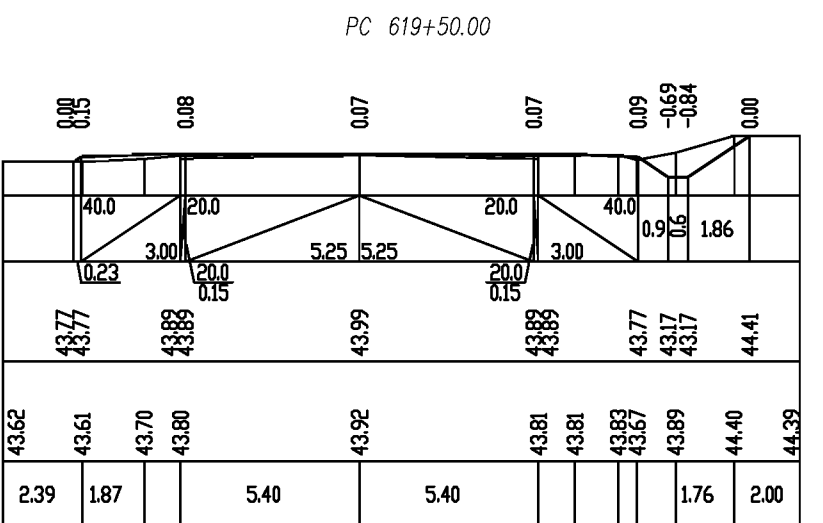
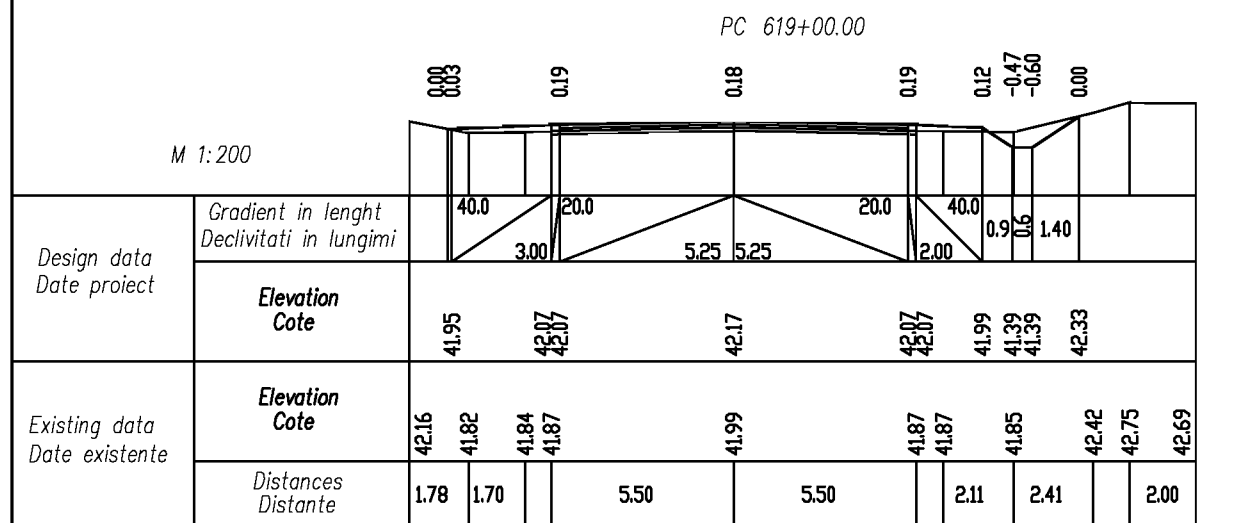
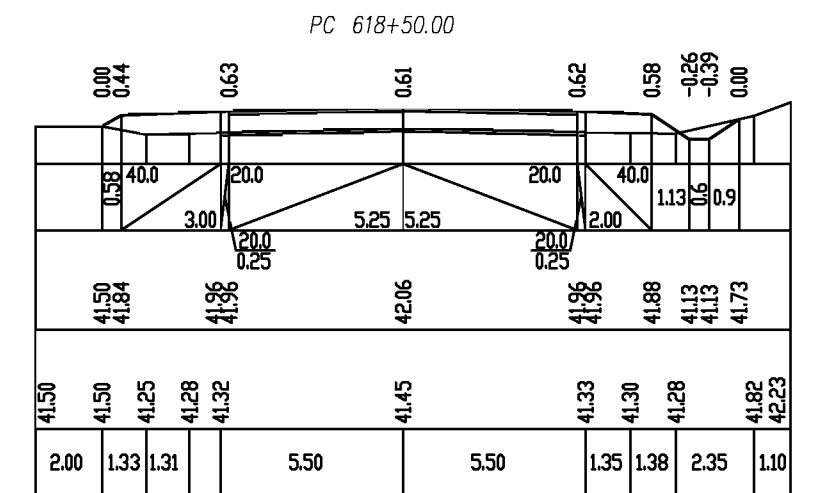
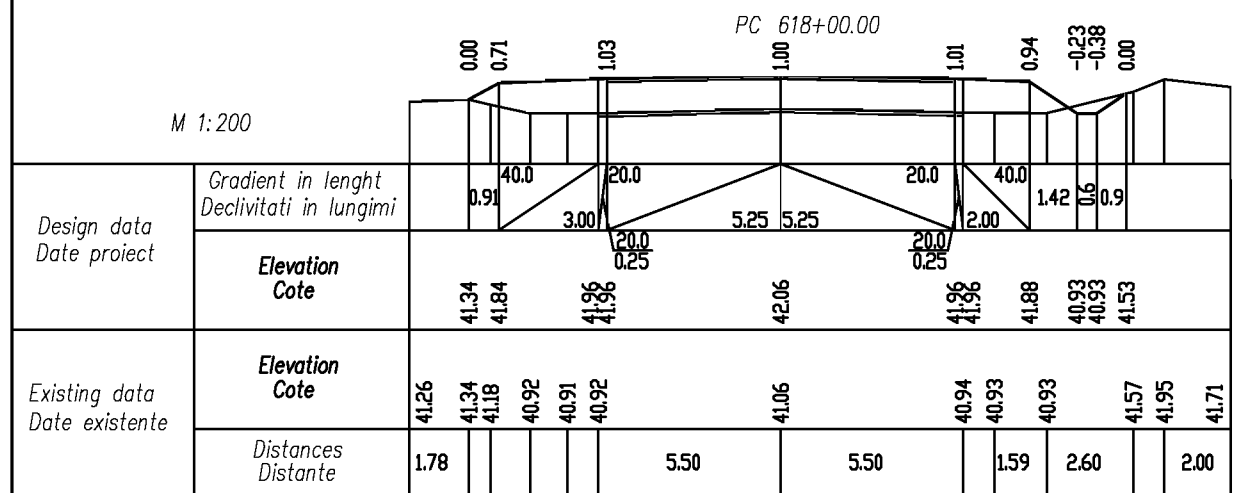
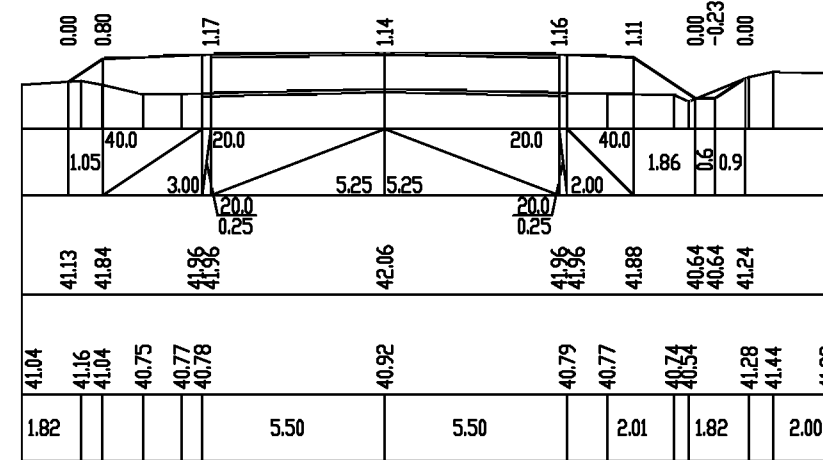
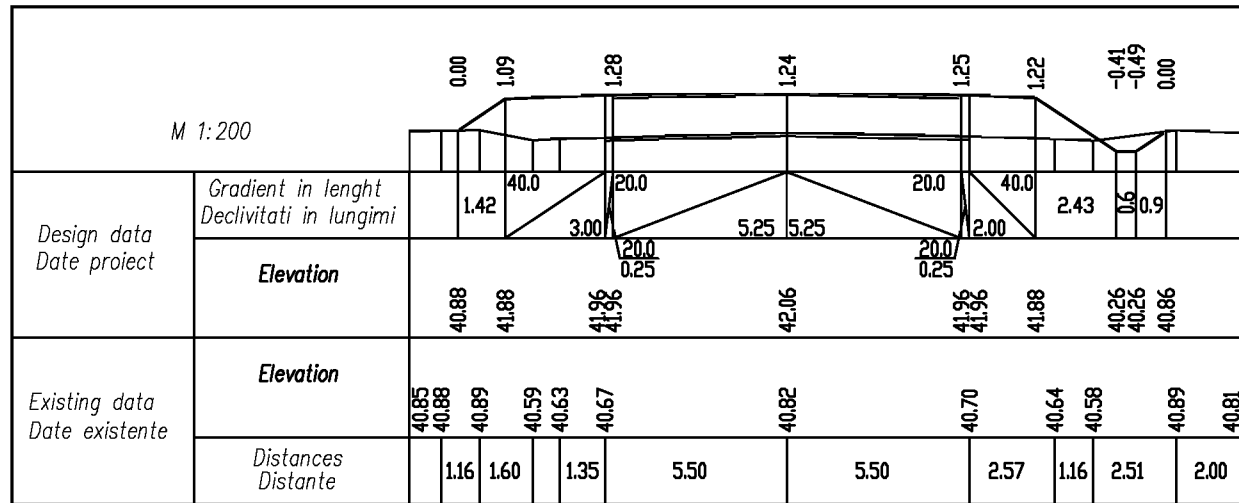




PC 617+00.00

PC 617+50.00

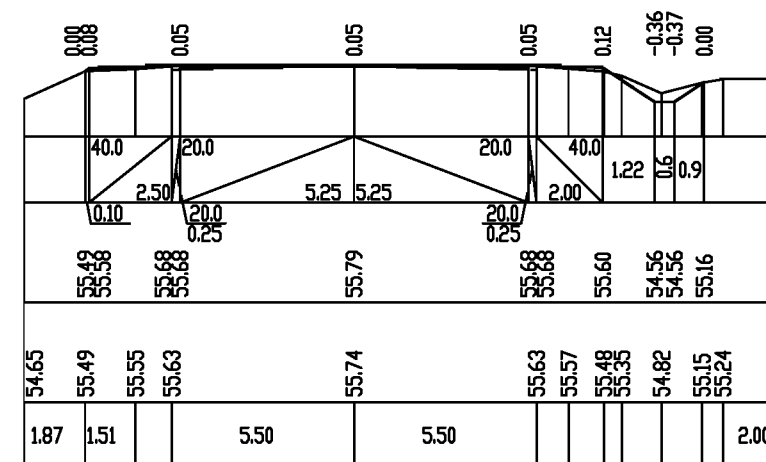
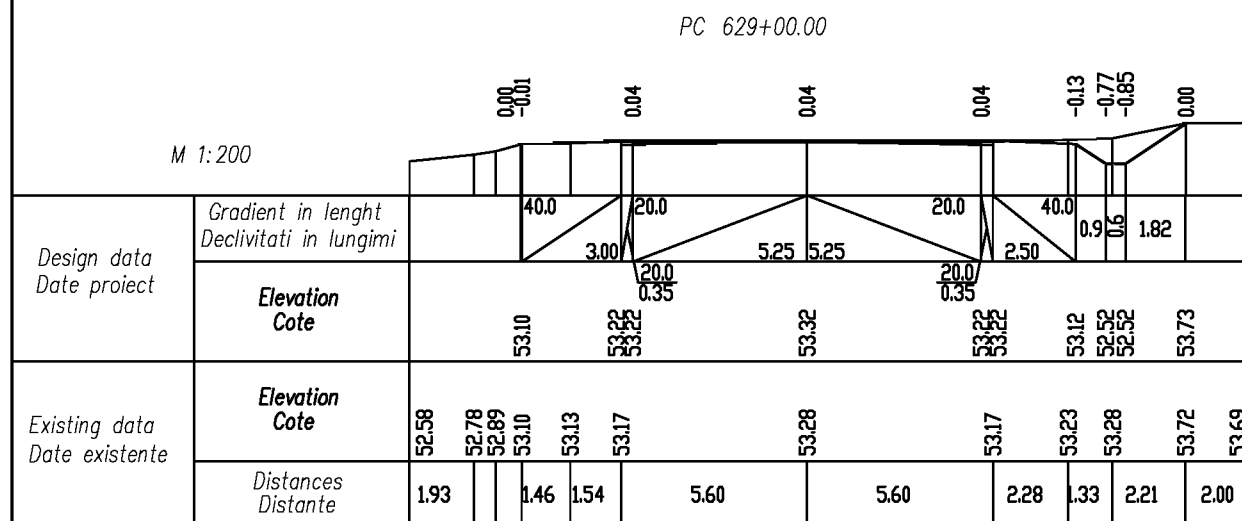
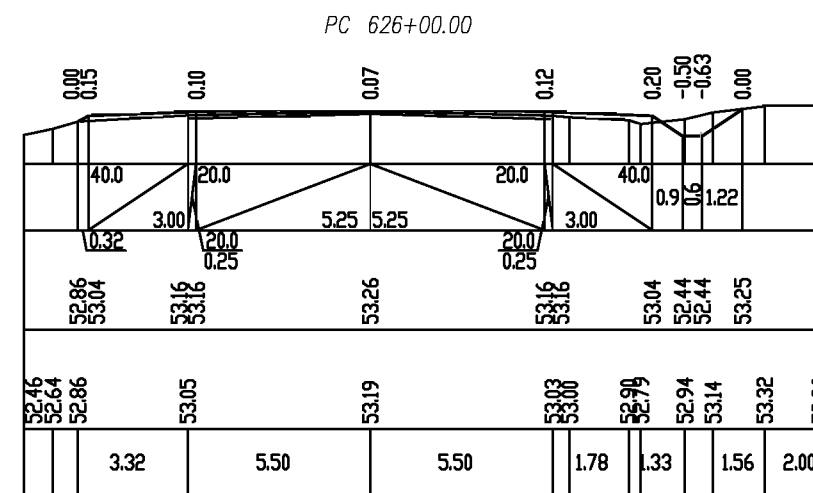
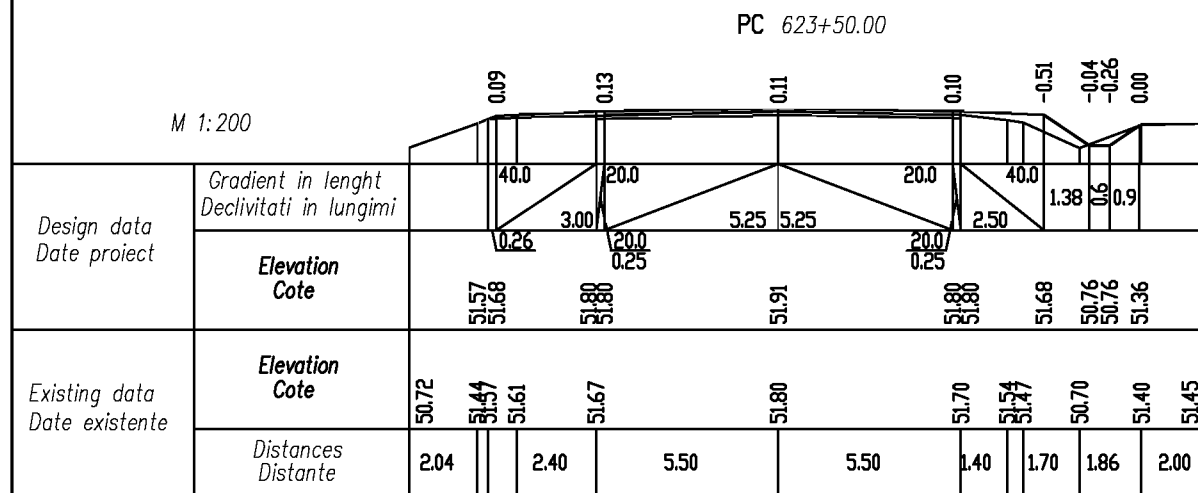
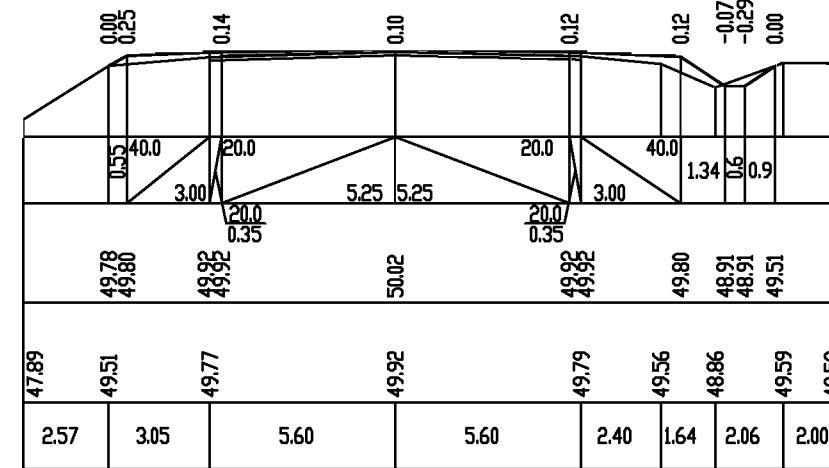
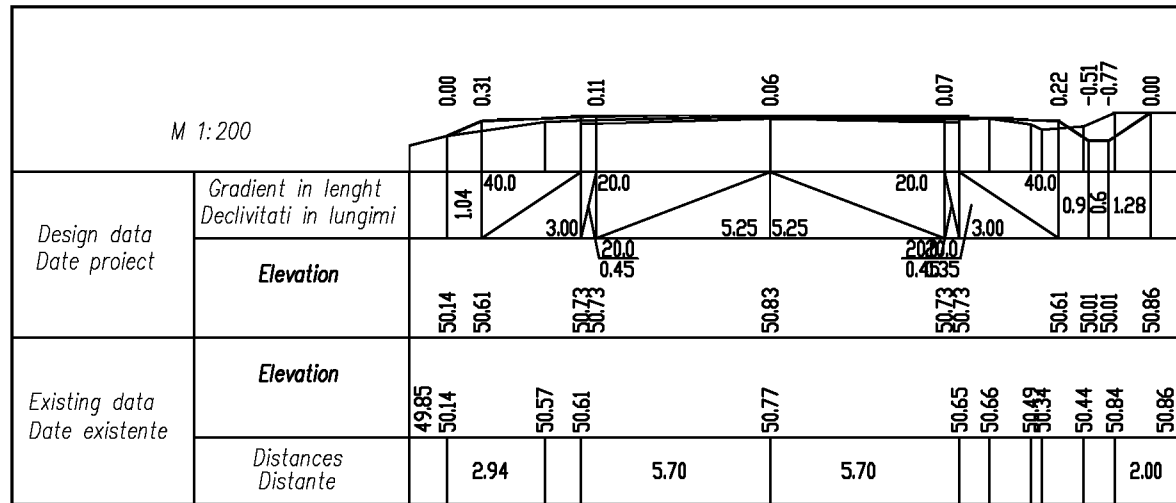
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date	12.2007
	Drawing title <b>Cross Sections of Earthwork Profile Transversale Terrasamente PC 615+00 - PC 617+50</b>		Designed	Plinachi	Scale	1:200
			Checked	Bogza	Drawing	PT-DA-6
			Control STAS	Belic		



PC 620+00.00

PC 621+00.00

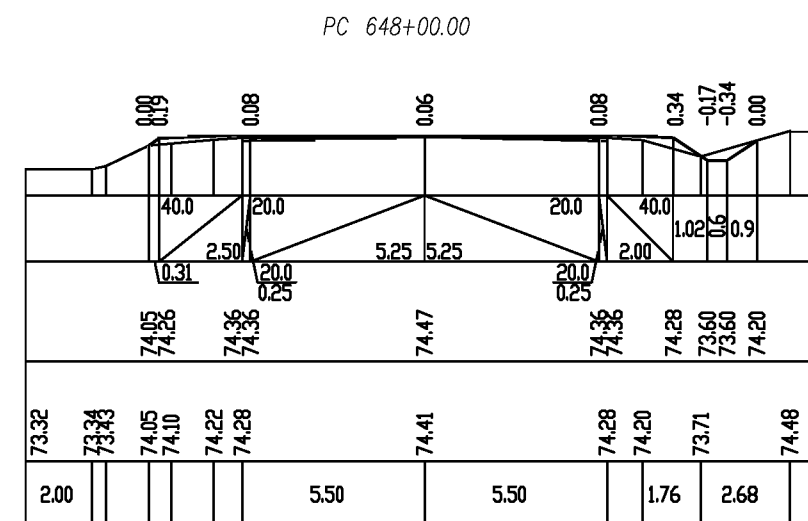
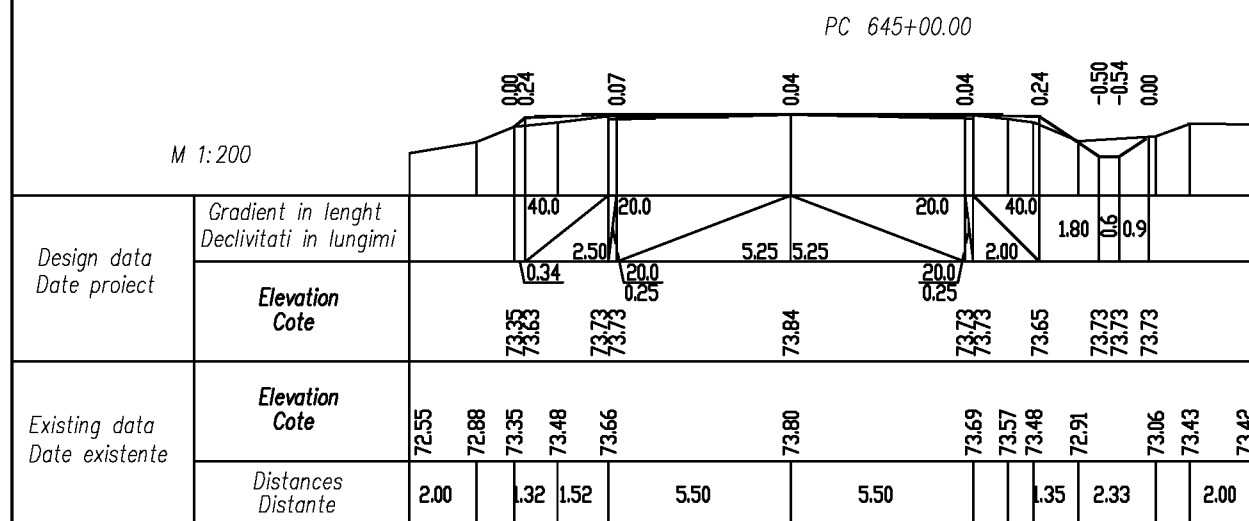
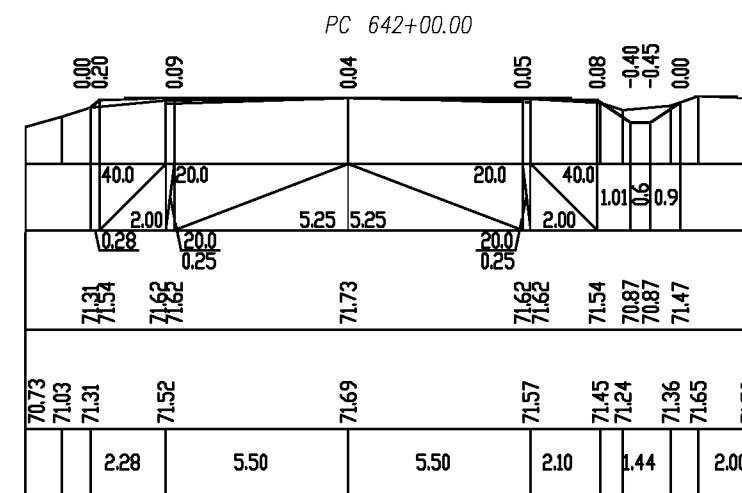
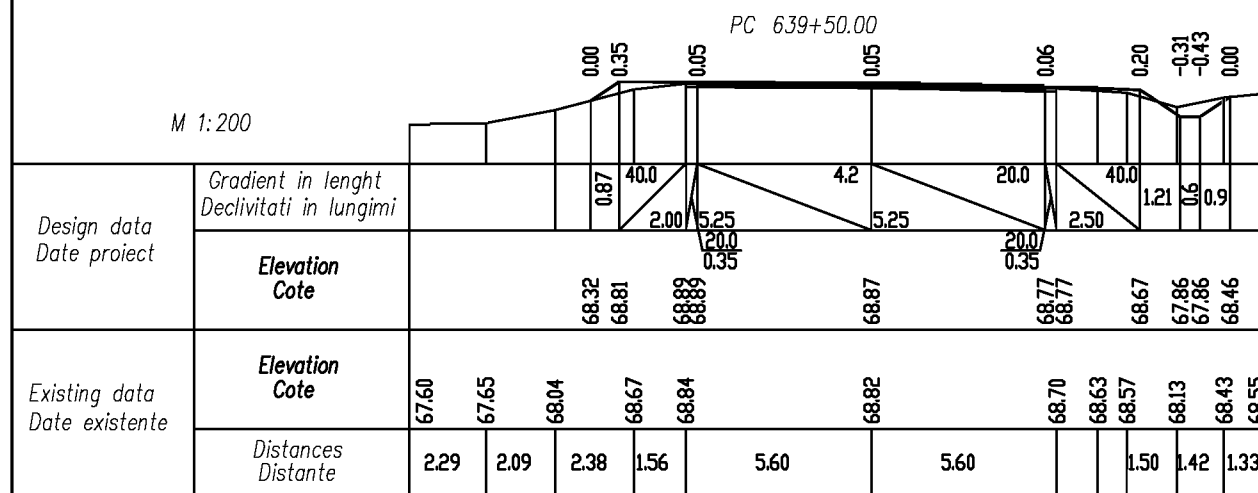
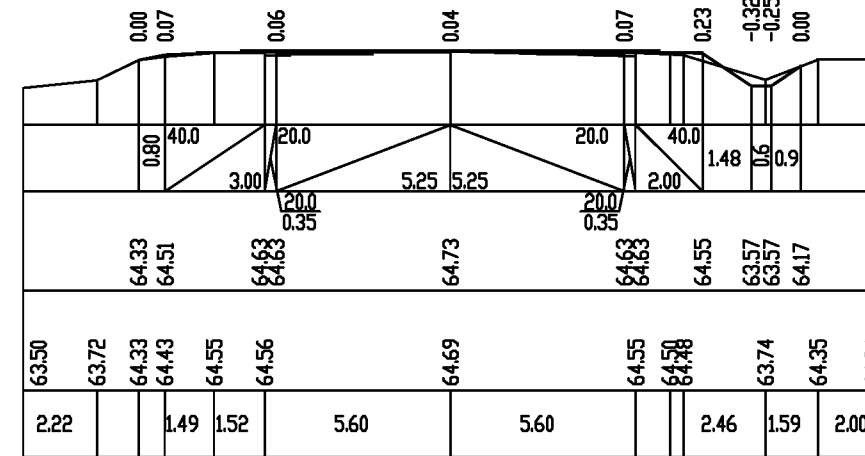
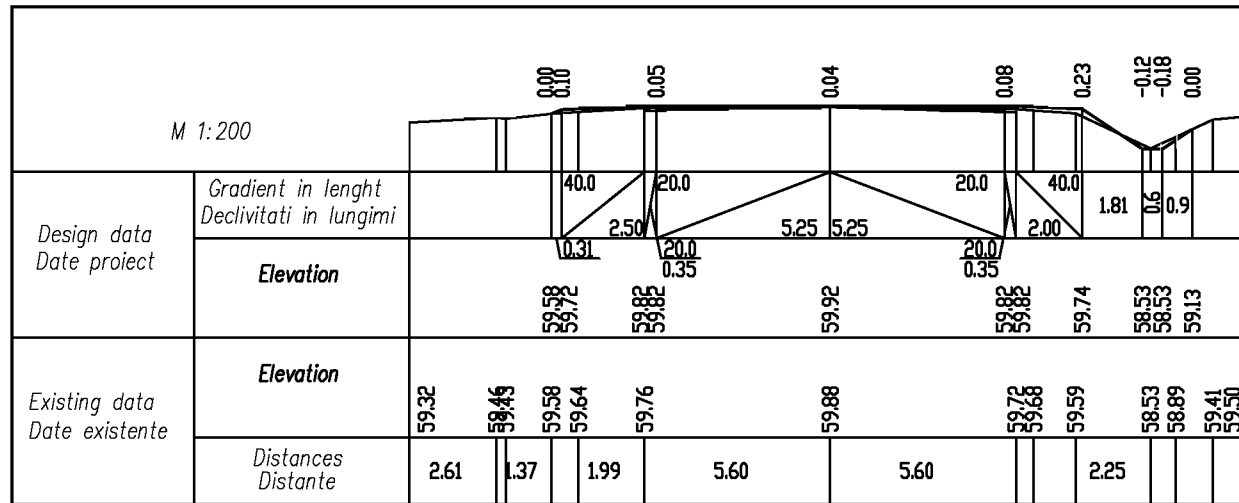
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date	12.2007
	<small>Drawing title</small> Cross Sections of Earthwork Profile Transversale Terassamente PC 618+00 - PC 621+00		Designed	Plinachi	Scale	1:200
			Checked	Bogza	Drawing	PT-DA-7
			Control STAS	Belic		



PC 634+00.00

PC 636+50.00

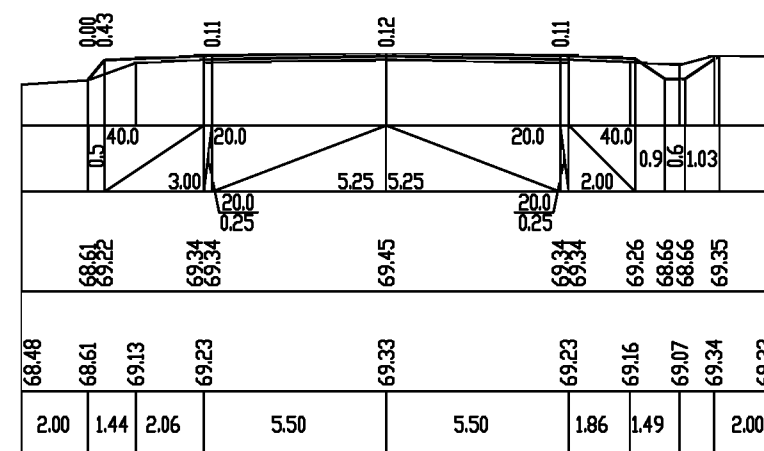
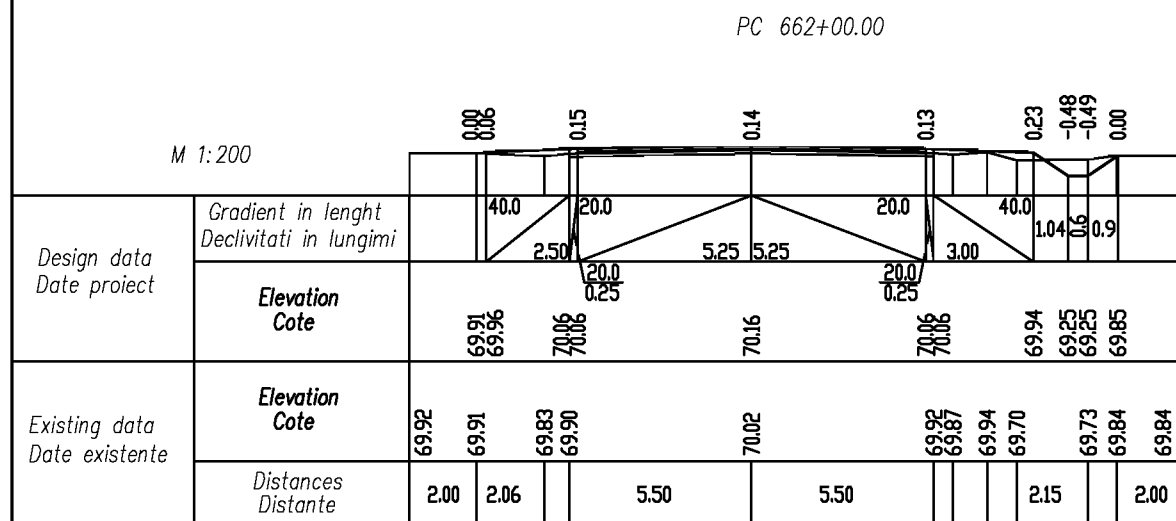
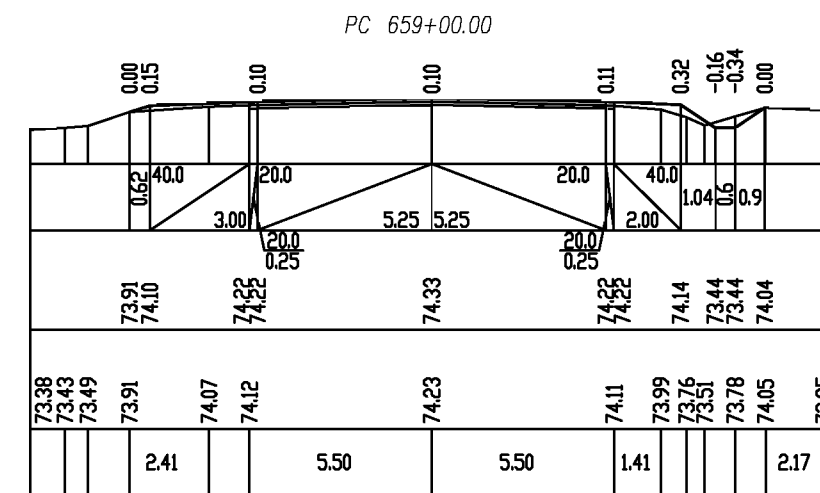
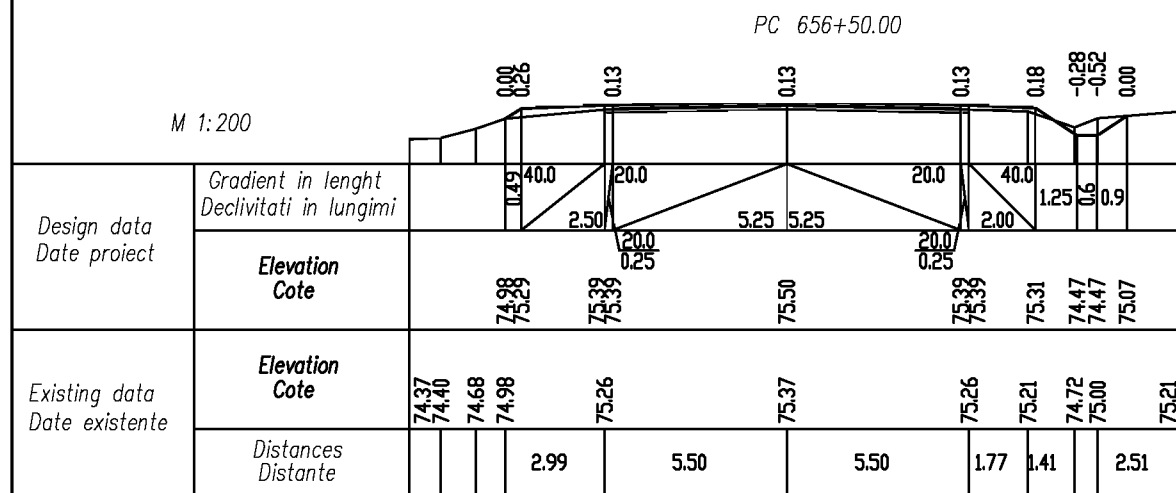
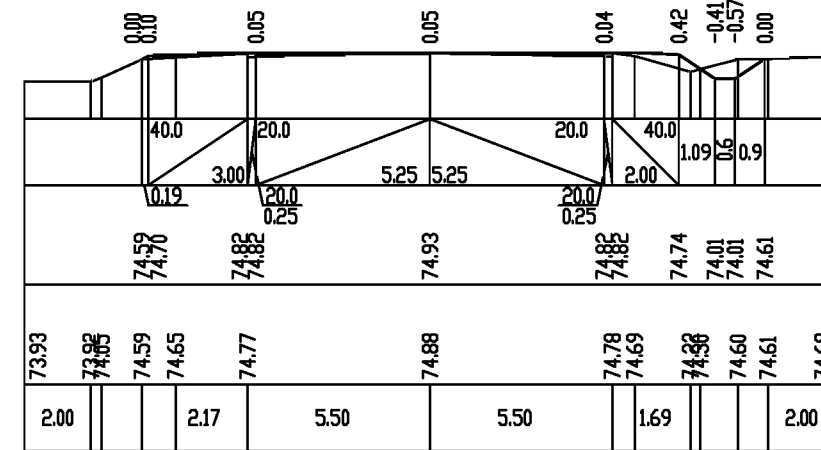
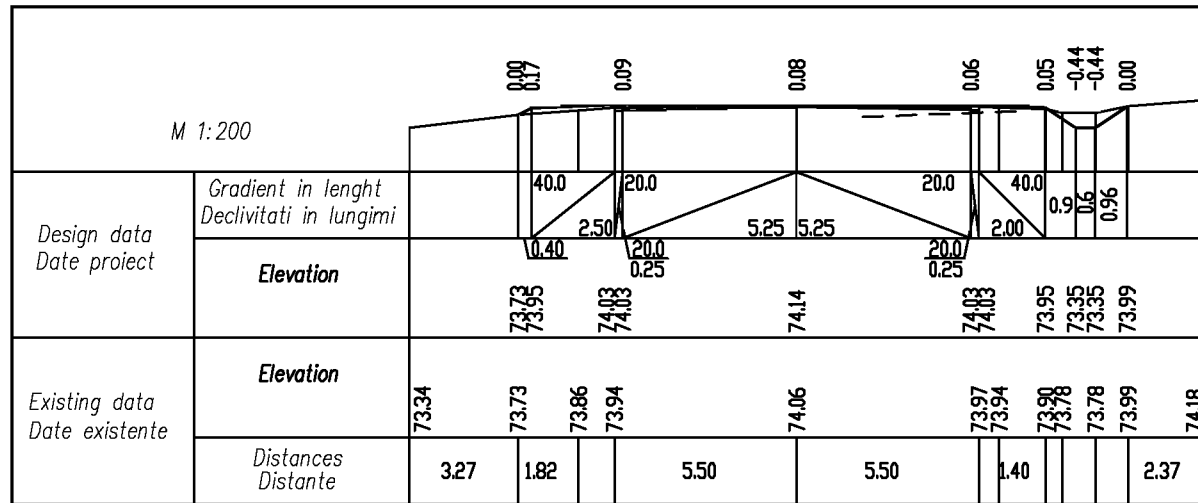
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
<b>Road Sector Programme Support Project</b>					
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Cross Sections of Earthwork Profile Transversale Terassamente PC 623+50 - PC 636+50	Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-8
		Control STAS	Belic		



PC 651+00.00

PC 654+00.00

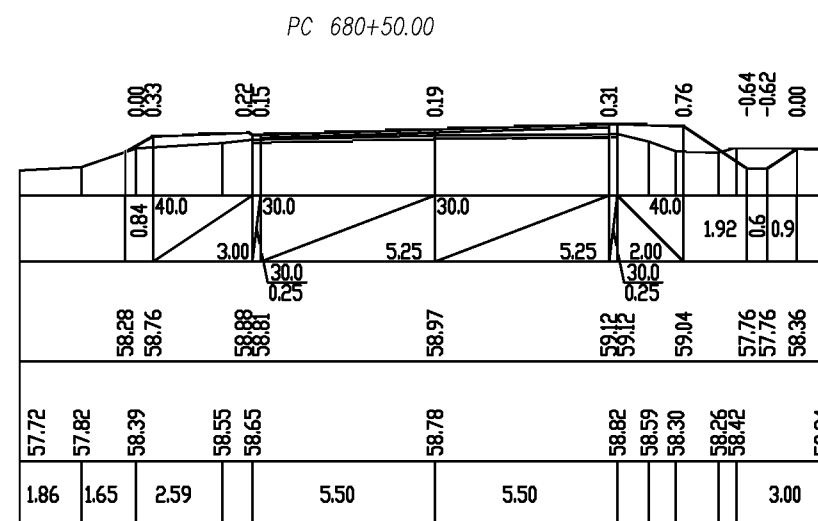
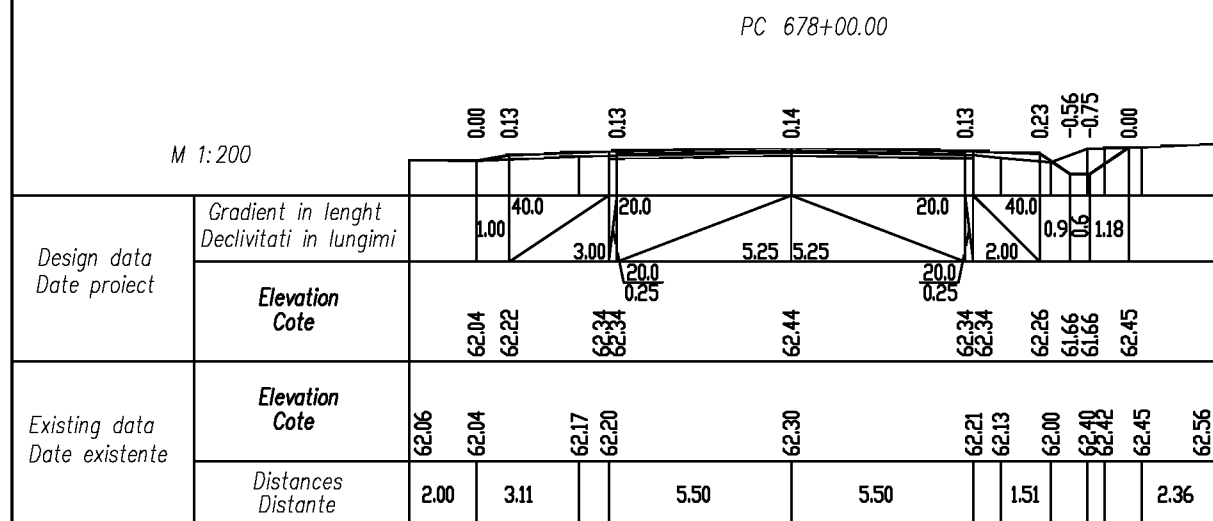
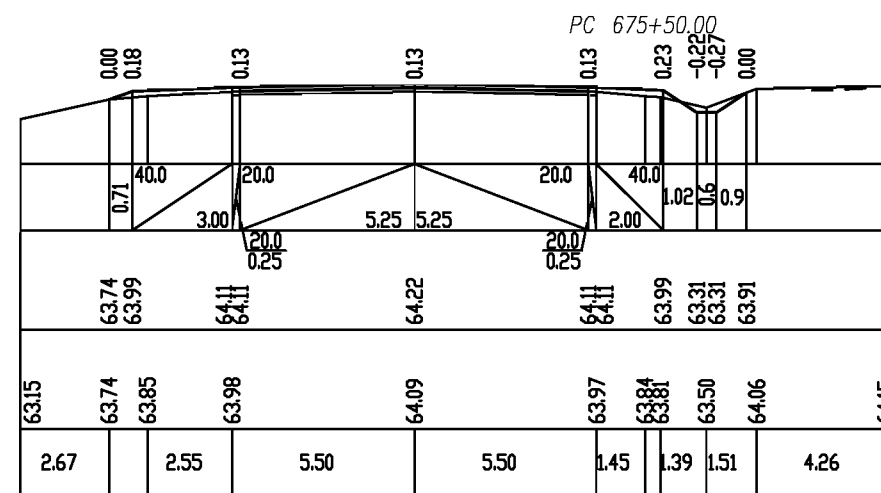
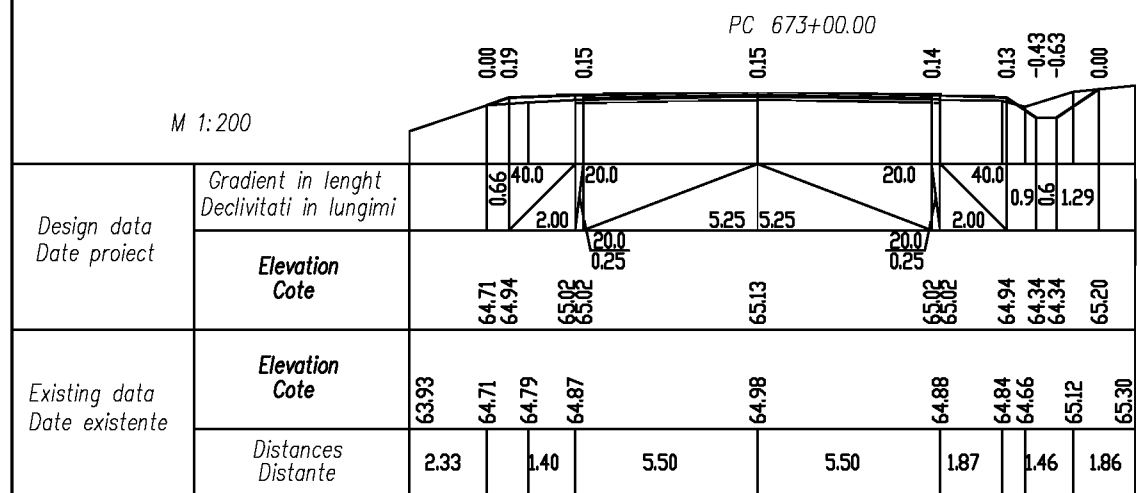
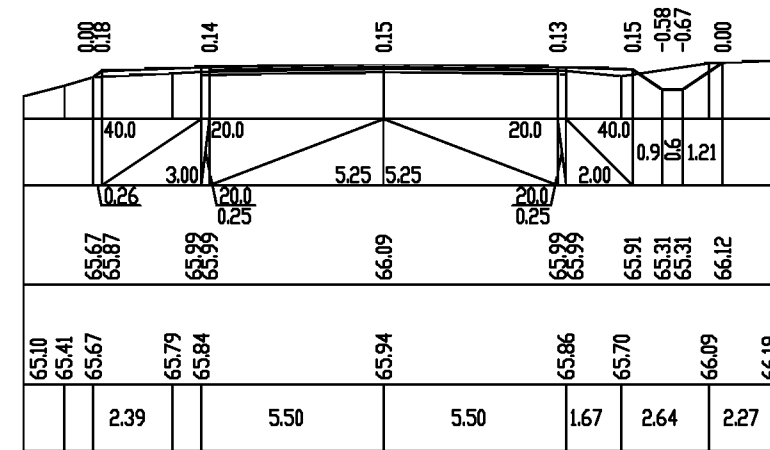
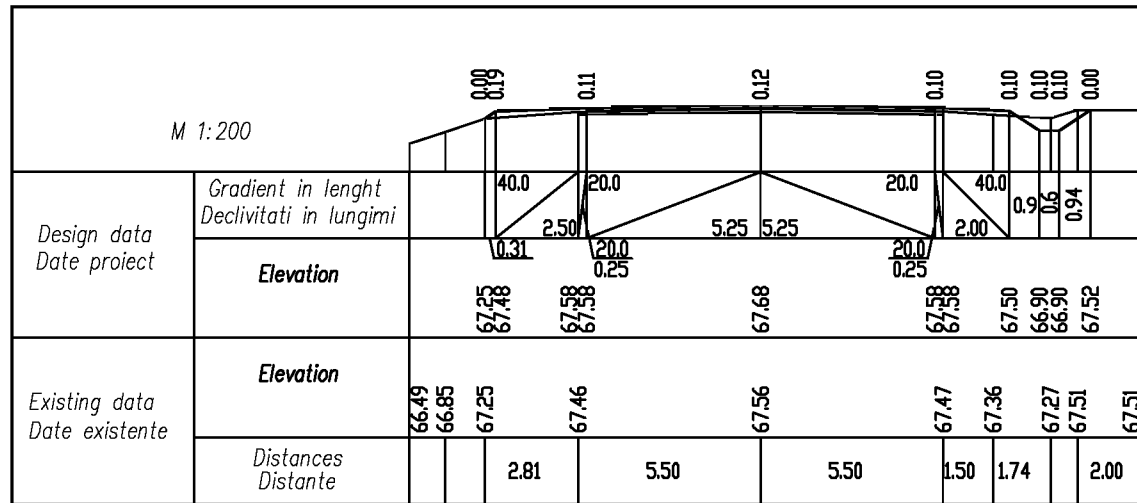
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>				
<b>Road Sector Programme Support Project</b>						
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date	12.2007
	<small>Drawing title</small> Cross Sections of Earthwork Profile Transversale Terrasamente PC 639+50 - PC 654+00		Designed	Plinachi	Scale	1:200
			Checked	Bogza	Drawing	PT-DA-9
			Control STAS	Belic		



PC 667+00.00

PC 670+00.00

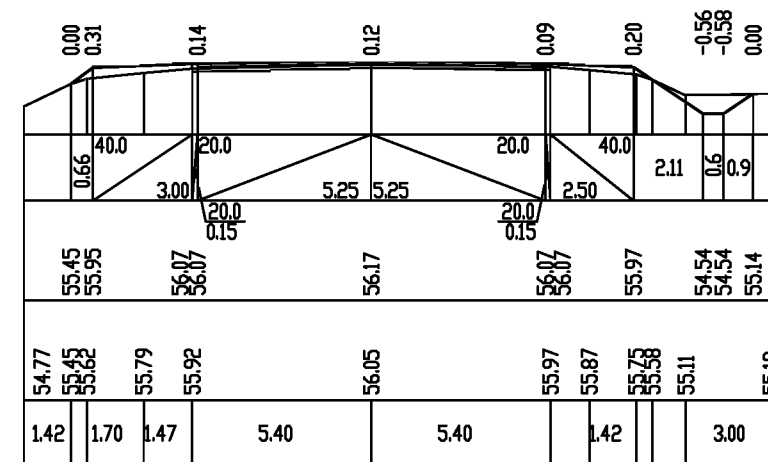
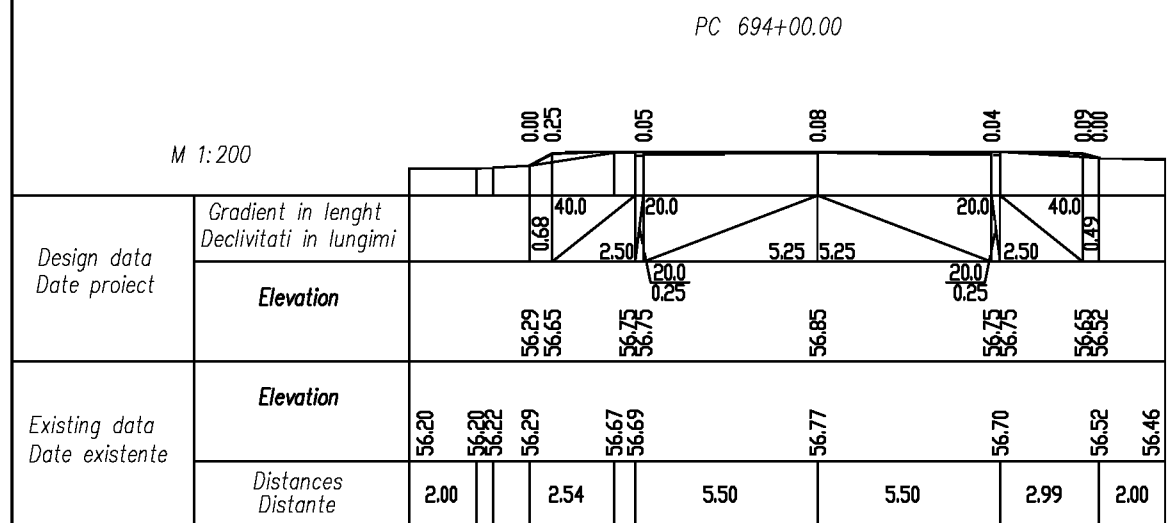
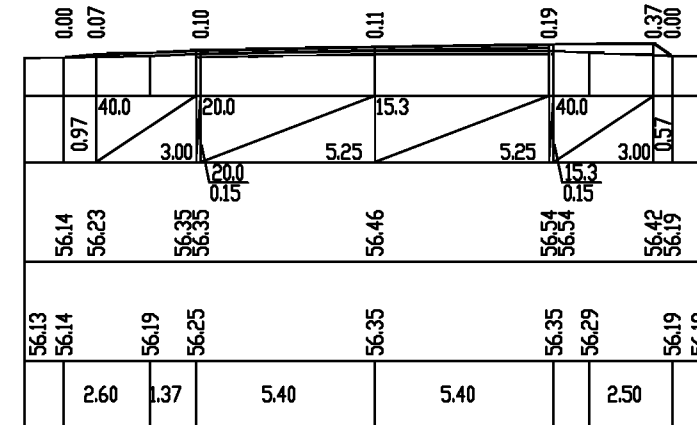
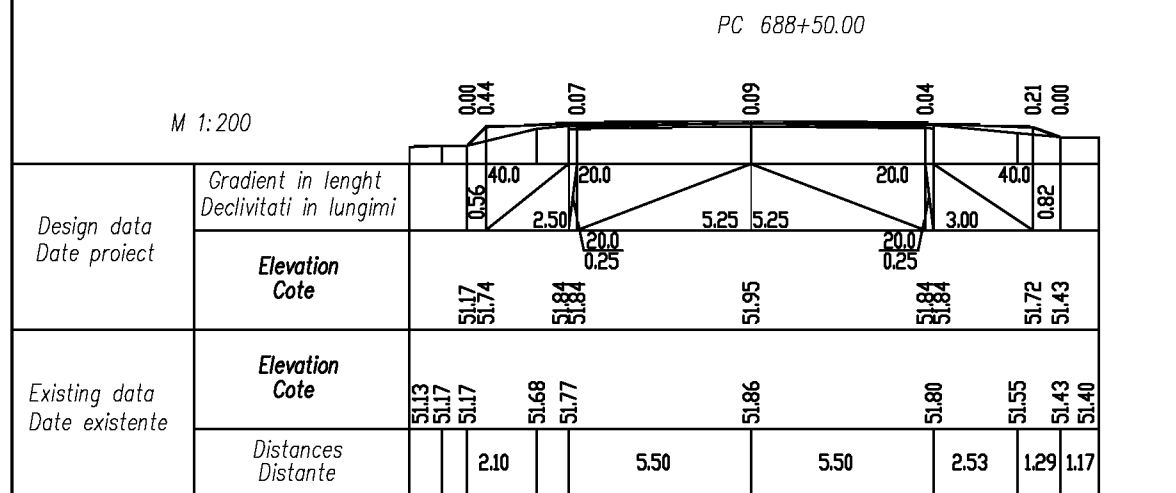
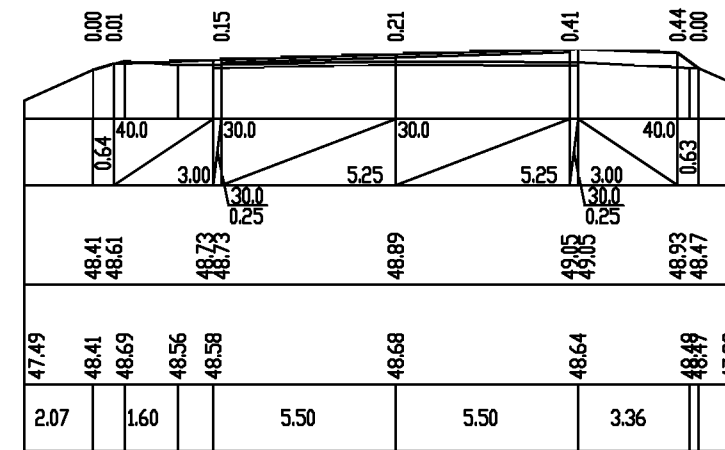
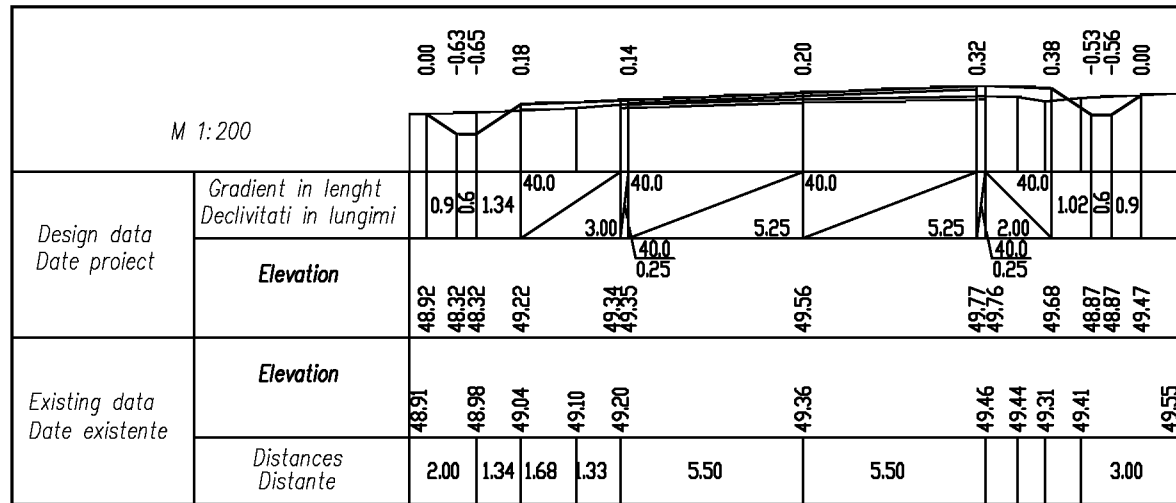
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Cross Sections of Earthwork Profile Transversale Terasamente PC 656+50 - PC 670+00	Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-10
		Control STAS	Belic		



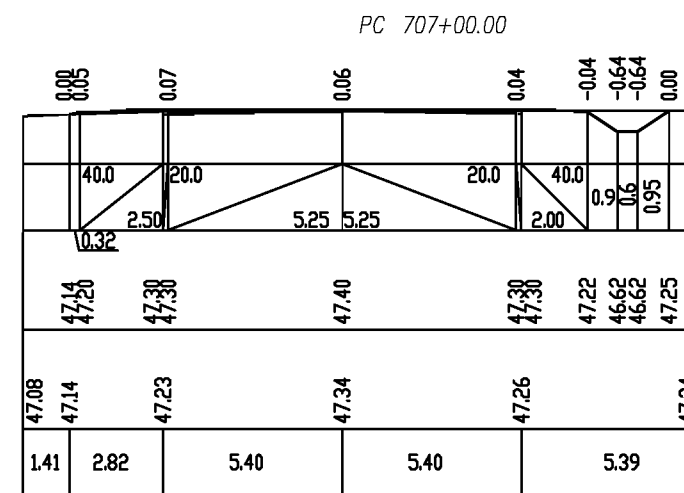
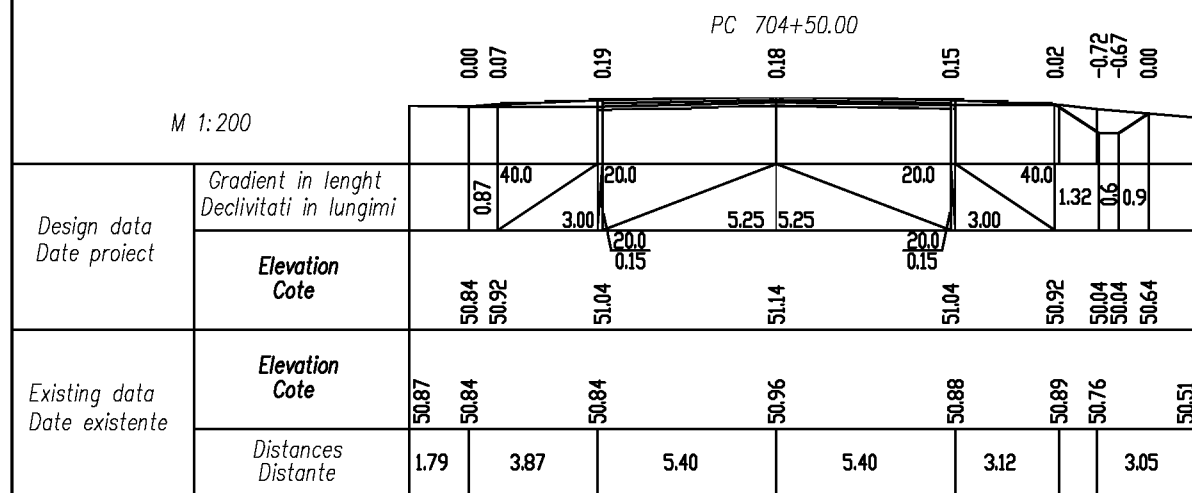
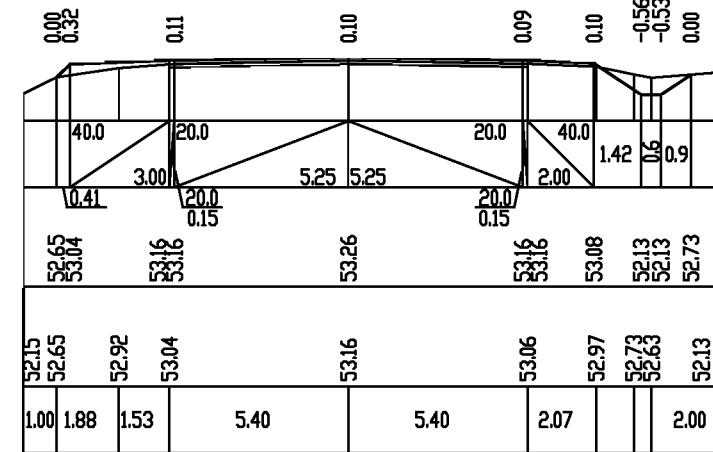
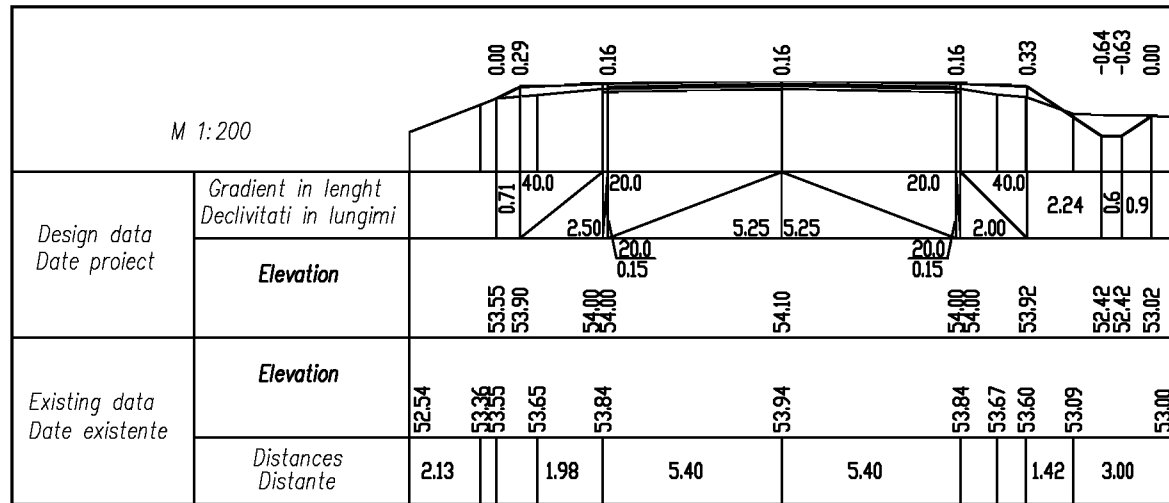
PC 683+00.00

PC 685+50.00

<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 M 2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date	12.2007
	<small>Drawing title</small> Cross Sections of Earthwork Profile Transversale Terassamente PC 673+00 - PC 685+50		Designed	Plinachi	Scale	1:200
			Checked	Bogza	Drawing	PT-DA-11
			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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Cross Sections of Earthwork Profile Transversale Terasamente PC 688+50 - PC 702+00	Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-12
		Control STAS	Belic		

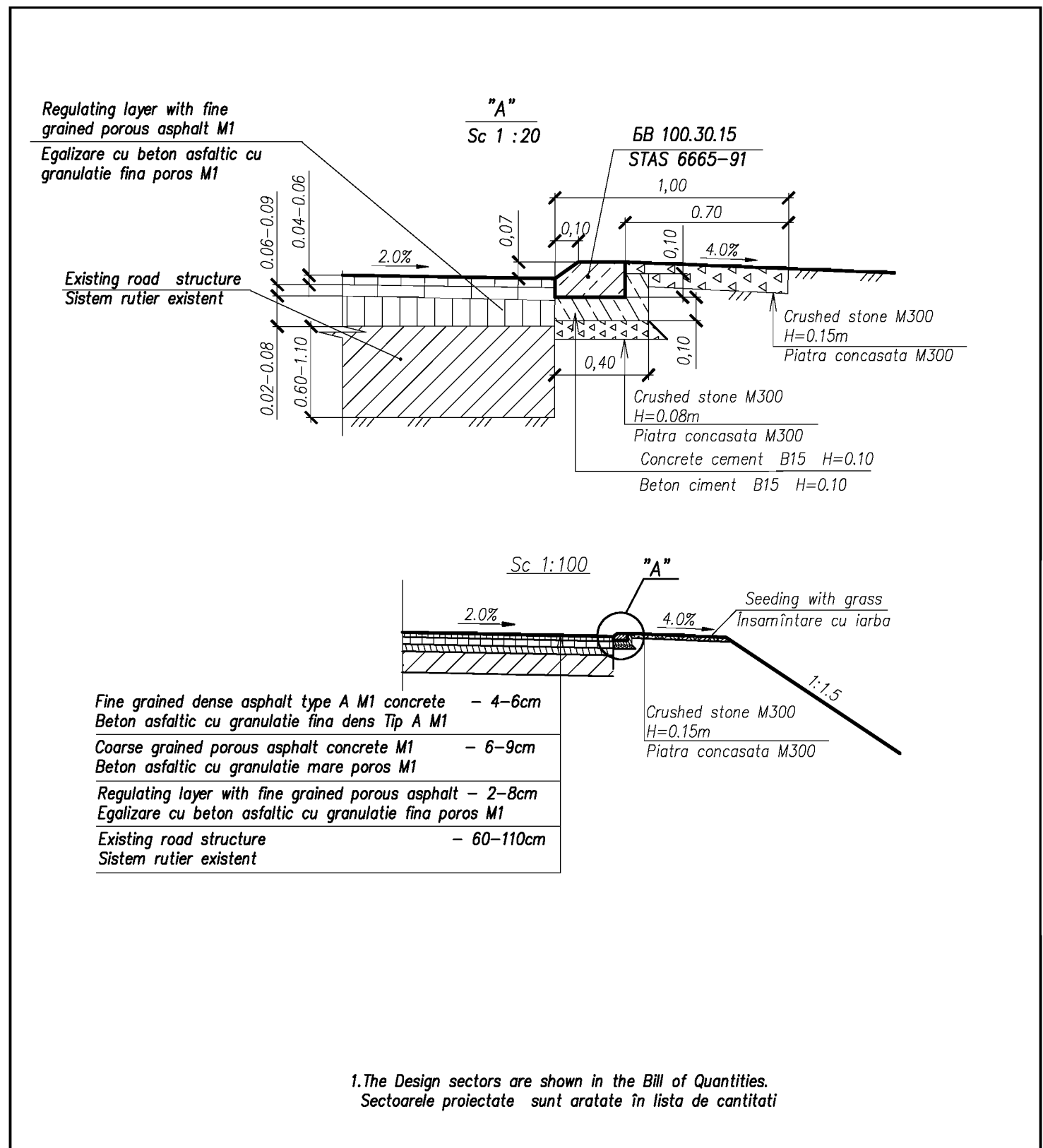


PC 709+50.00

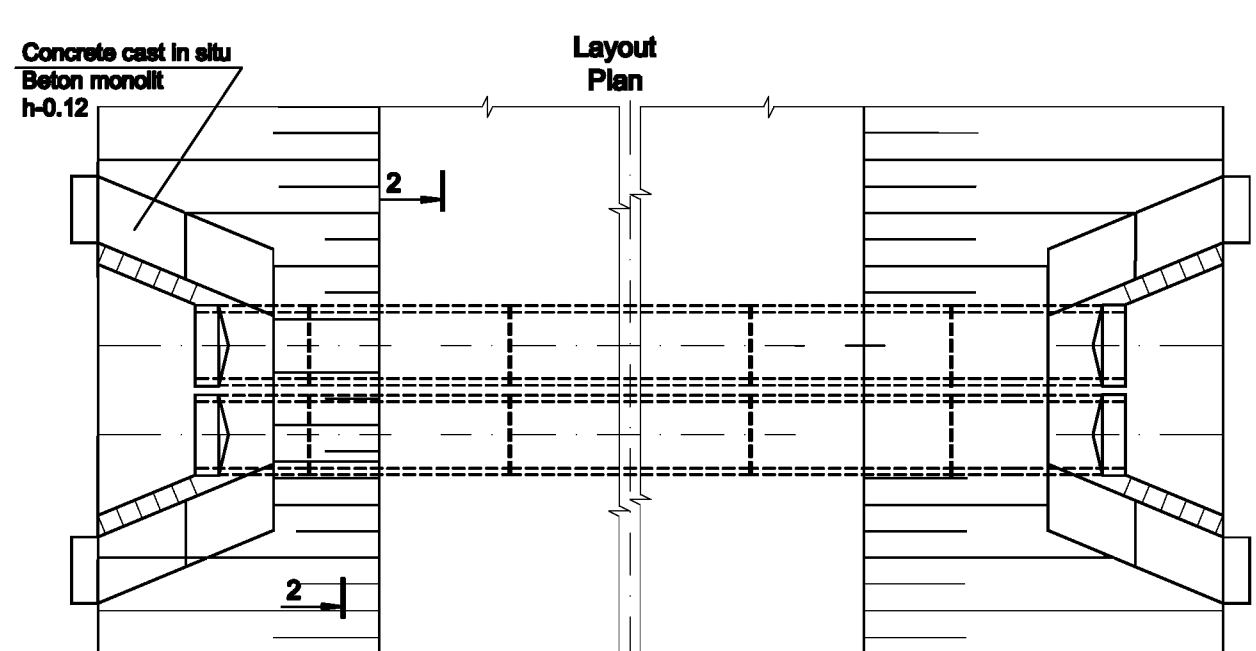
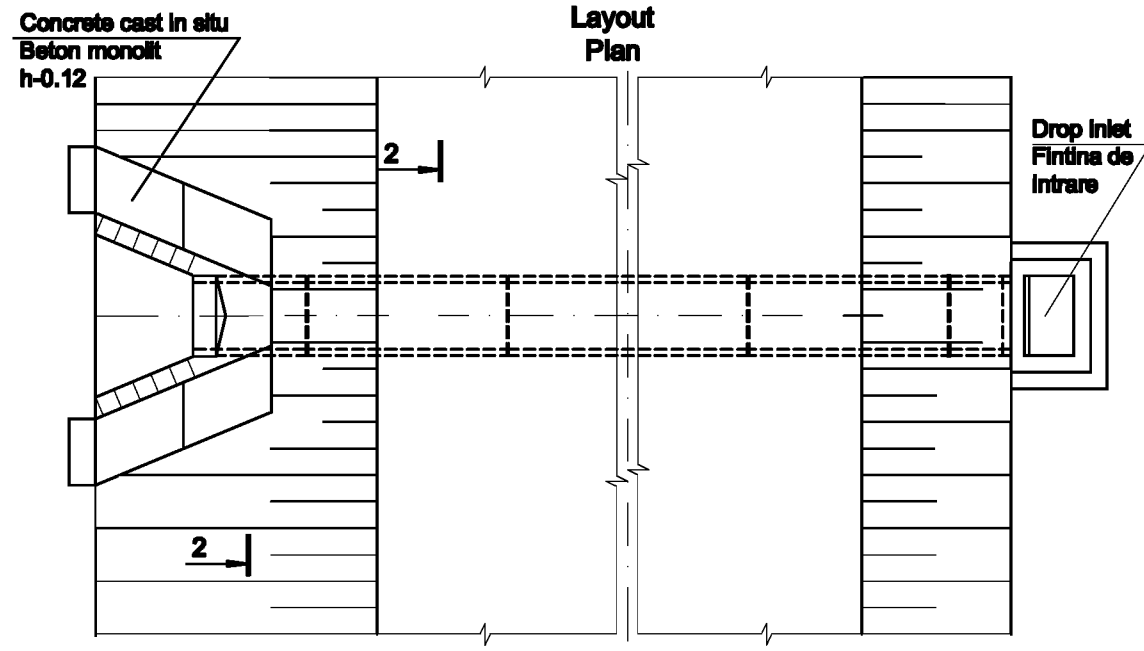
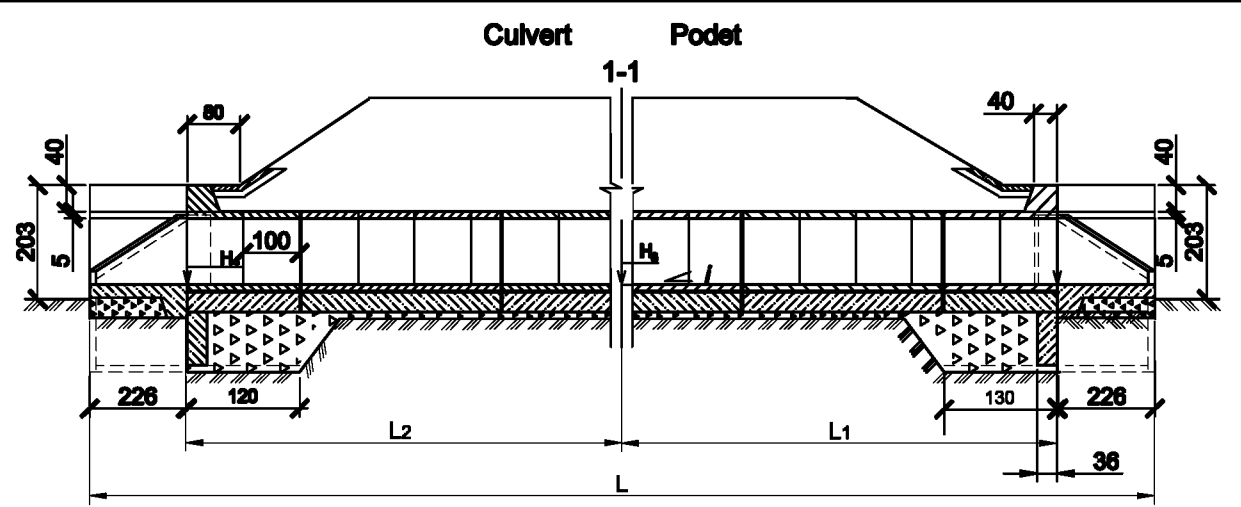
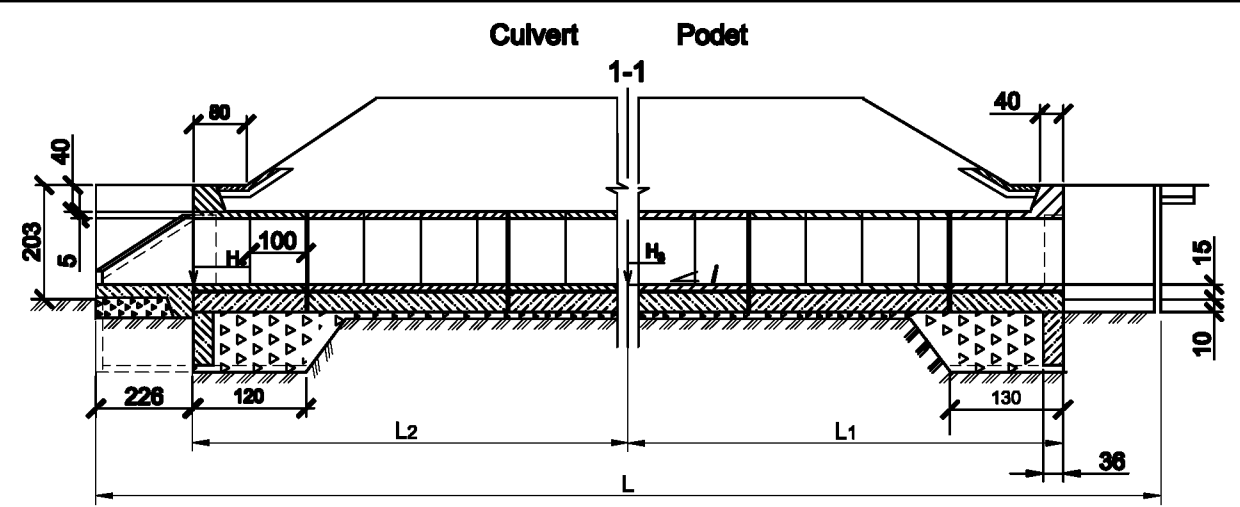
PC 711+50.00

<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 M 2 Road Chisinau-Sărăteni</b> <small>Drawing title</small> <b>Cross Sections of Earthwork Profile Transversale Terasamente PC 704+50 - PC 711+50</b>	ISP	Bogza	Date	12.2007
		Designed	Plinachi	Scale	1:200
		Checked	Bogza	Drawing	PT-DA-13
		Control STAS	Belic		

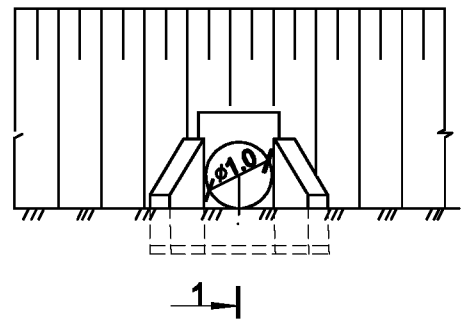




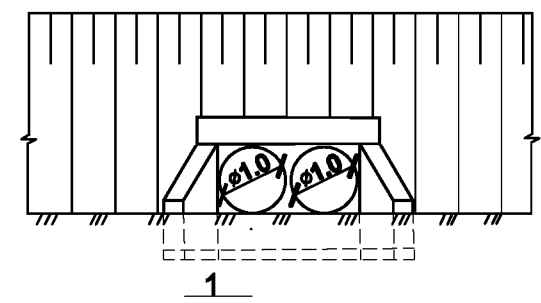
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>			
<b>Road Sector Programme Support Project</b>					
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza	Date	12.2007
		Designed	Belic	Scale	
	<b>Construction of drainage kerb Constructia rigolei de scurgere a apei</b>	Checked	Gisca	<b>Drawing</b>	<b>CRS-DA-1</b>
		Control STAS	Bogza		



Note. Nota.  
Culverts. Podetele:  
PC580+35; PC 656+90 - Ø1.0m.

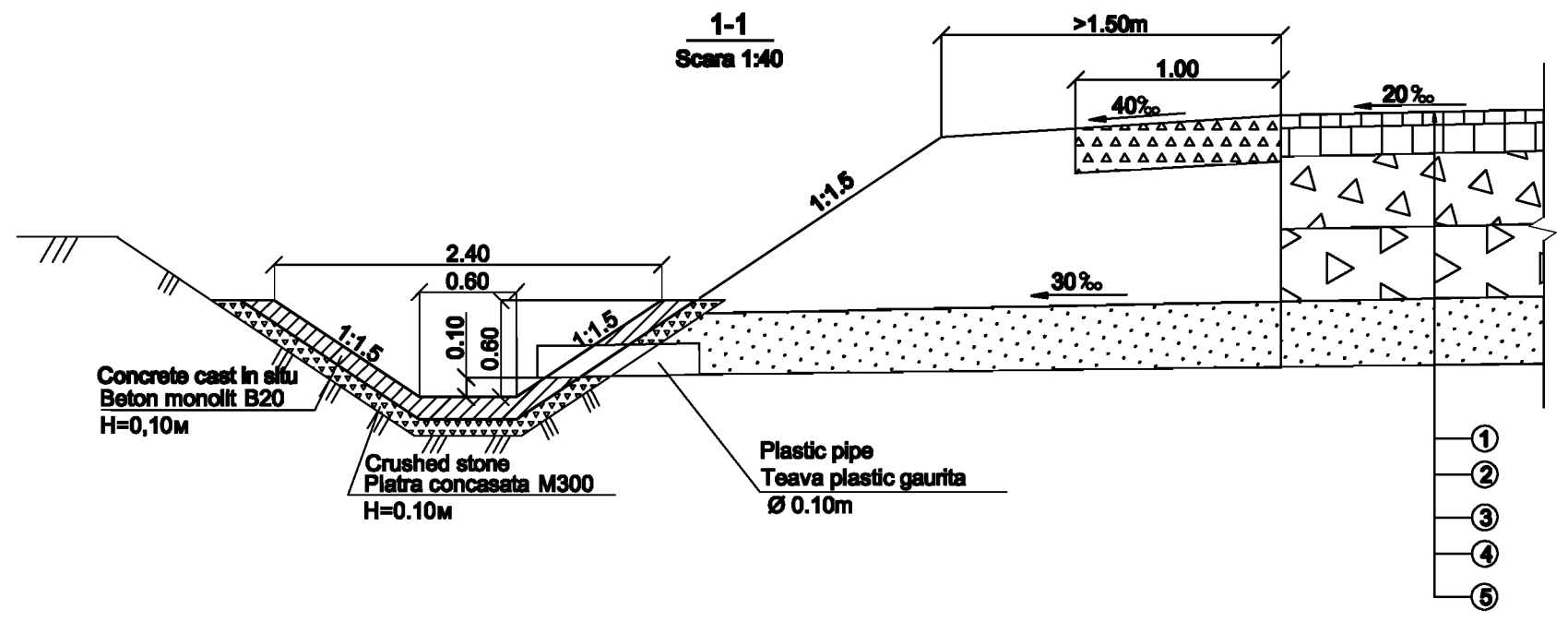
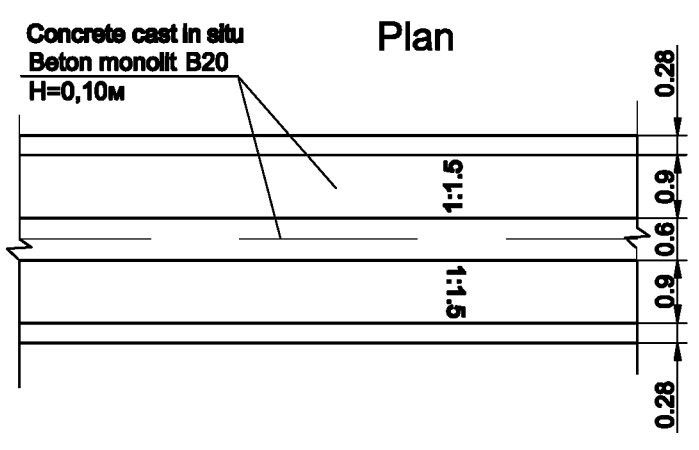
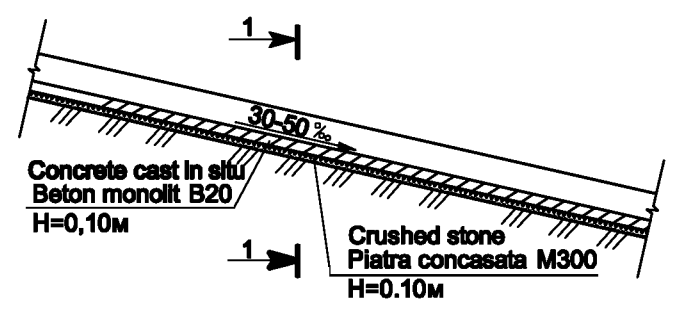


Note. Nota.  
Culvert. Podet:  
PC 687+37 - Ø1.0m\*2.



European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme Support		Project	
Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Sărăteni	Designed	Plinschi	Scale	
Blizzard	Drawing title	Checked	Bogza	Drawing	PET-DA-1
Universcons	Existing typical culverts Podete existente tip	Control STAS	Belic		

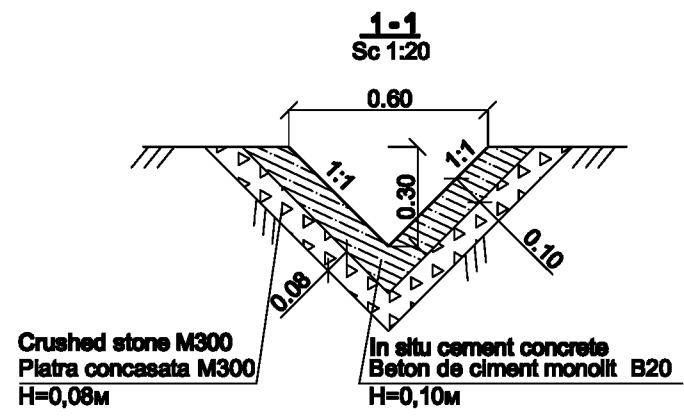
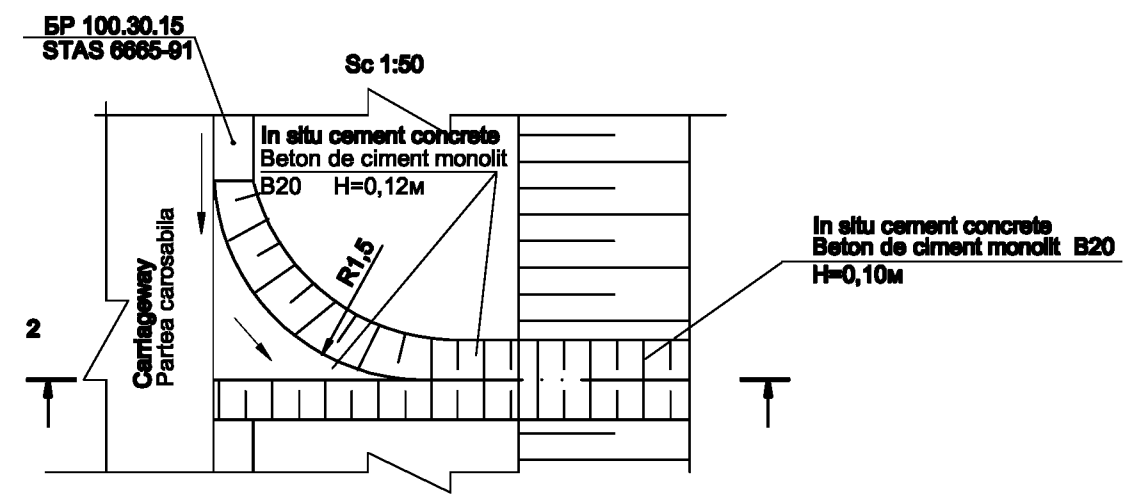
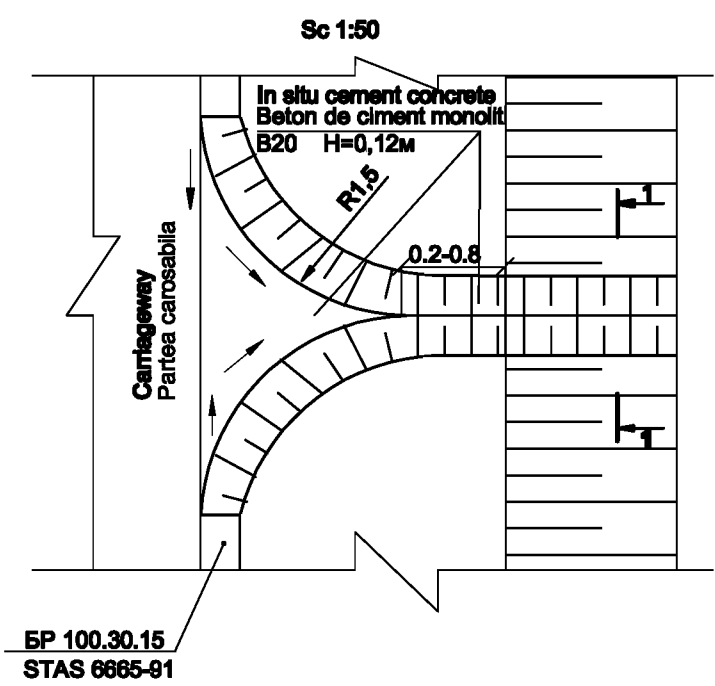
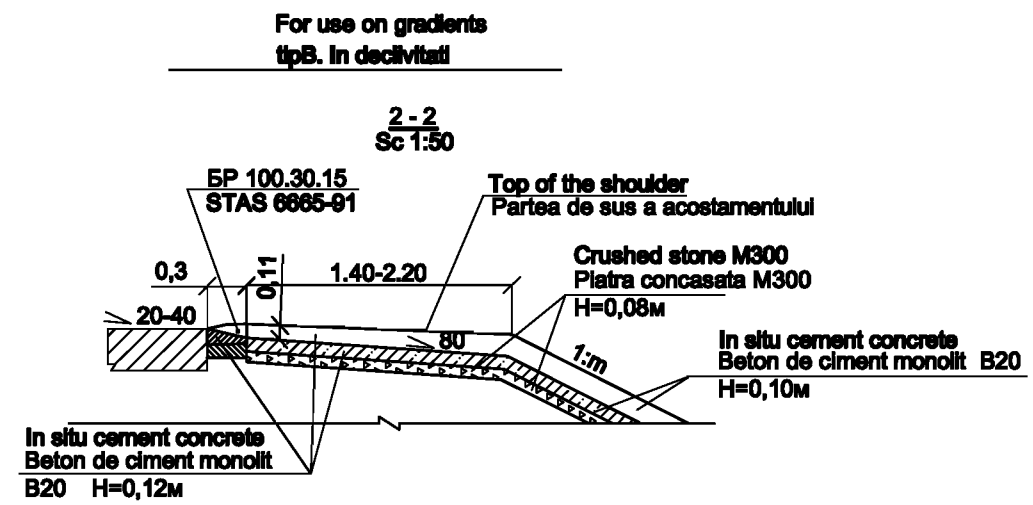
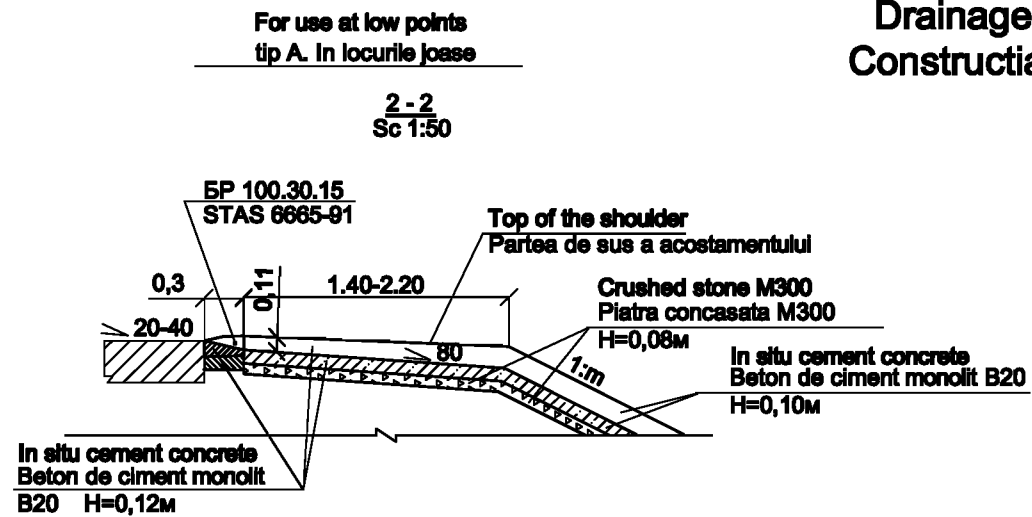
Tip 1. Trapezoidal lined side drain  
 Longitudinal section in axis  
 Sant trapezoidal  
 Sectiune longitudinalala in ax



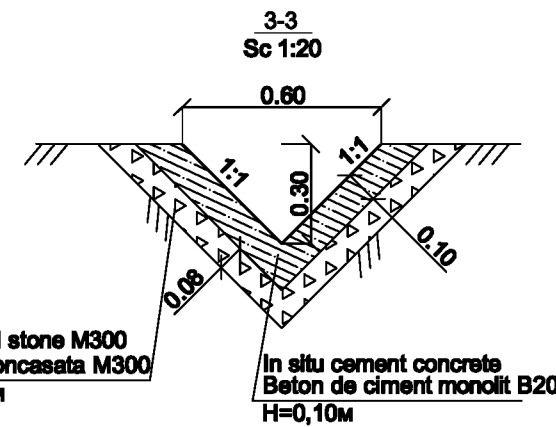
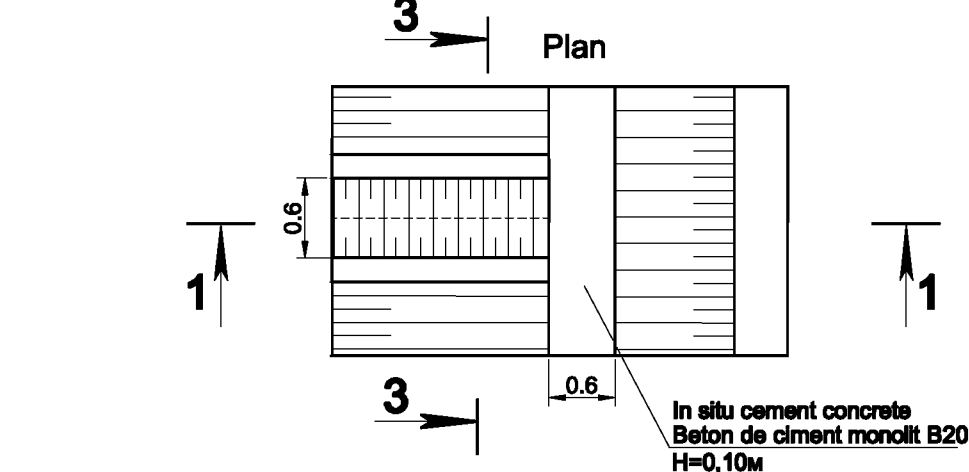
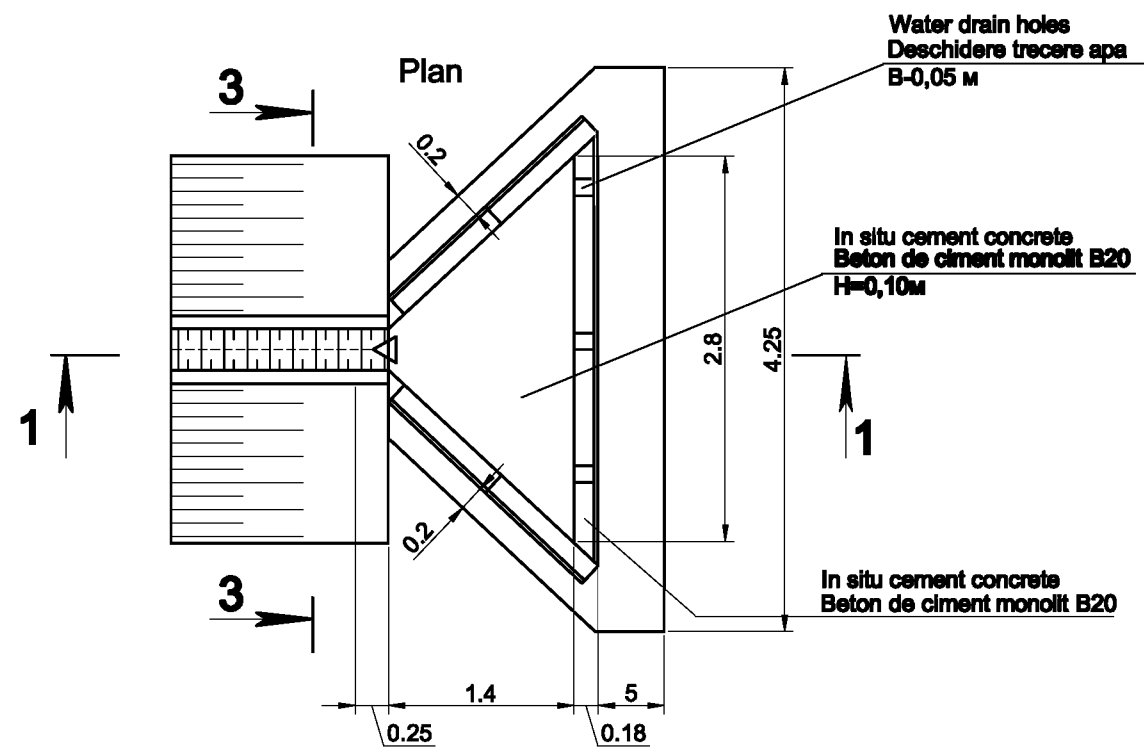
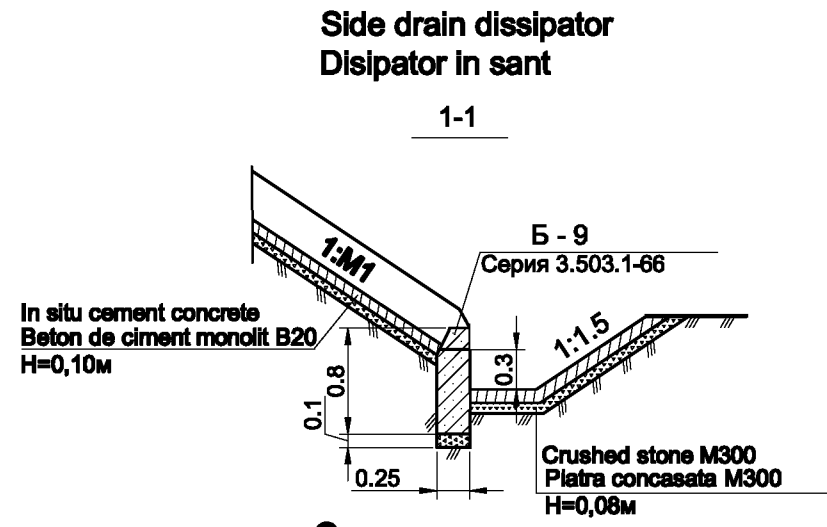
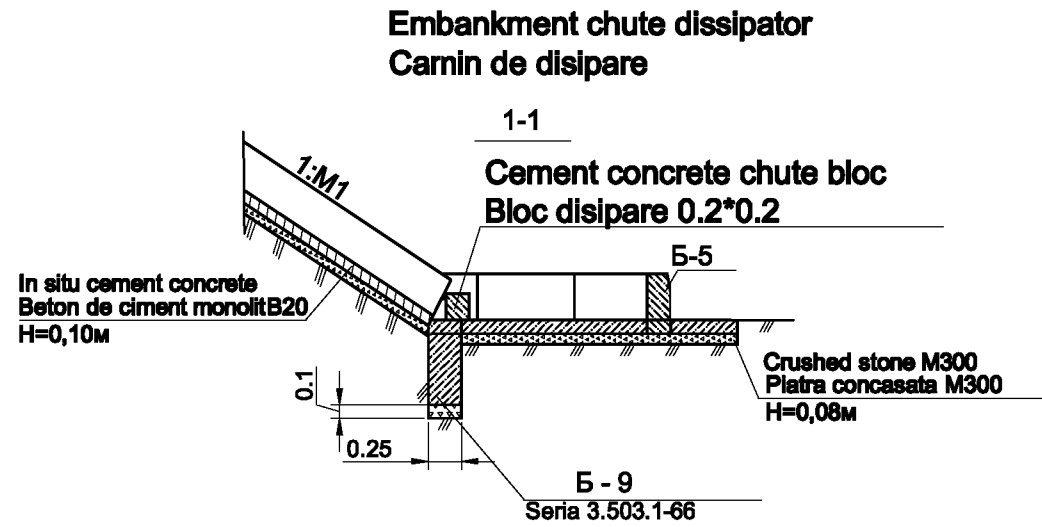
- ① -Fine graind dense asphalt type A M1  
Beton asfalt cu granulatie fina dens h-4cm
- ② -Coarse graind porous asphalt type M  
Beton asfalt cu granulatie mare poros M1 h-8.5cm
- ③ -Crushed stone M1000  
Piatra concasata M1000 h-22.5cm
- ④ -Crushed stone M300  
Piatra concasata M300 h-22.5cm
- ⑤ -Sand  
Nisip h-20cm

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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
		Designed	Gisca	Scale	
	Drawing title Typical lined side drain 1 i<5% Santuri laterale tip 1 i<5%	Checked	Bogza	Drawing	
		Control STAS	Belic		SLT-DA-1

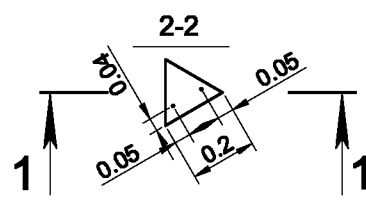
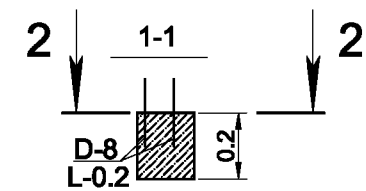
### Drainage chutes Constructia casiuului



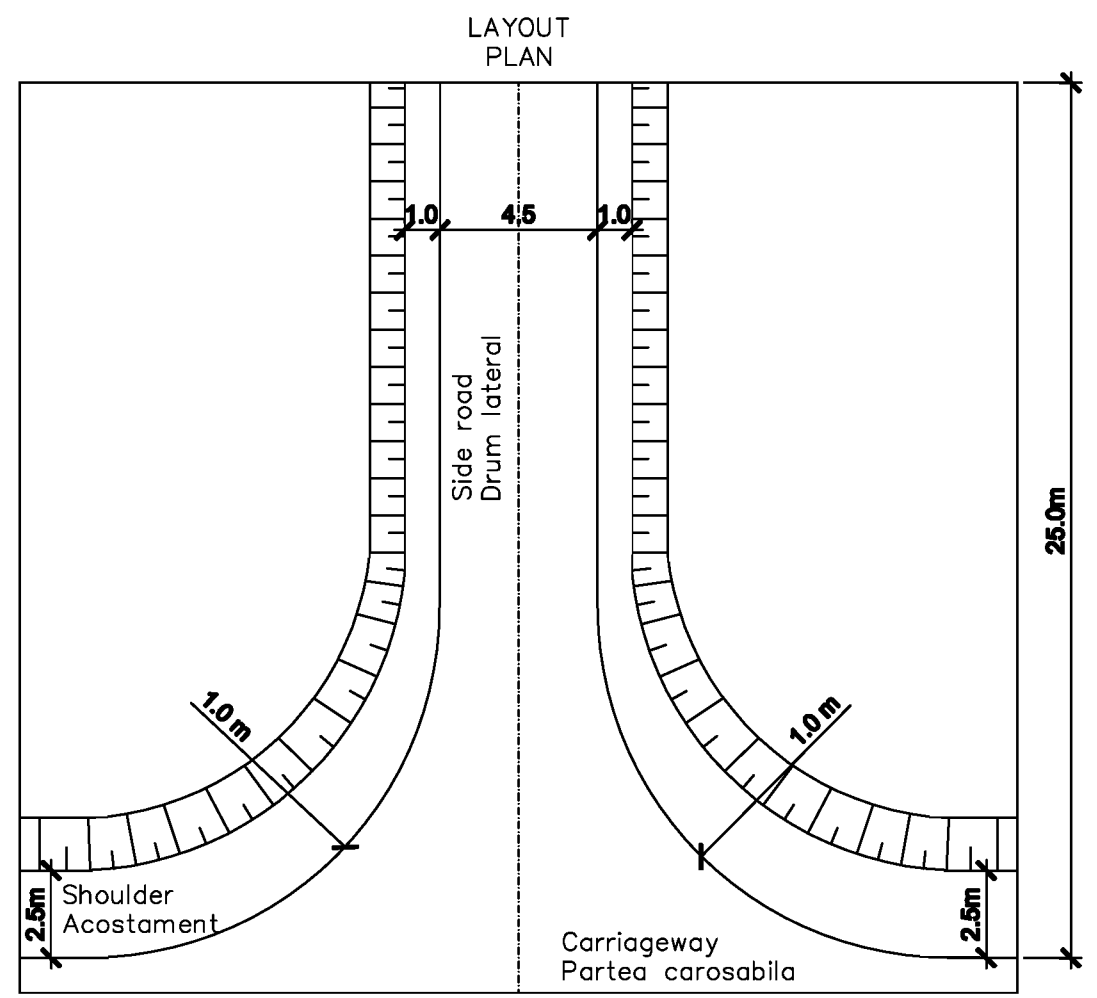
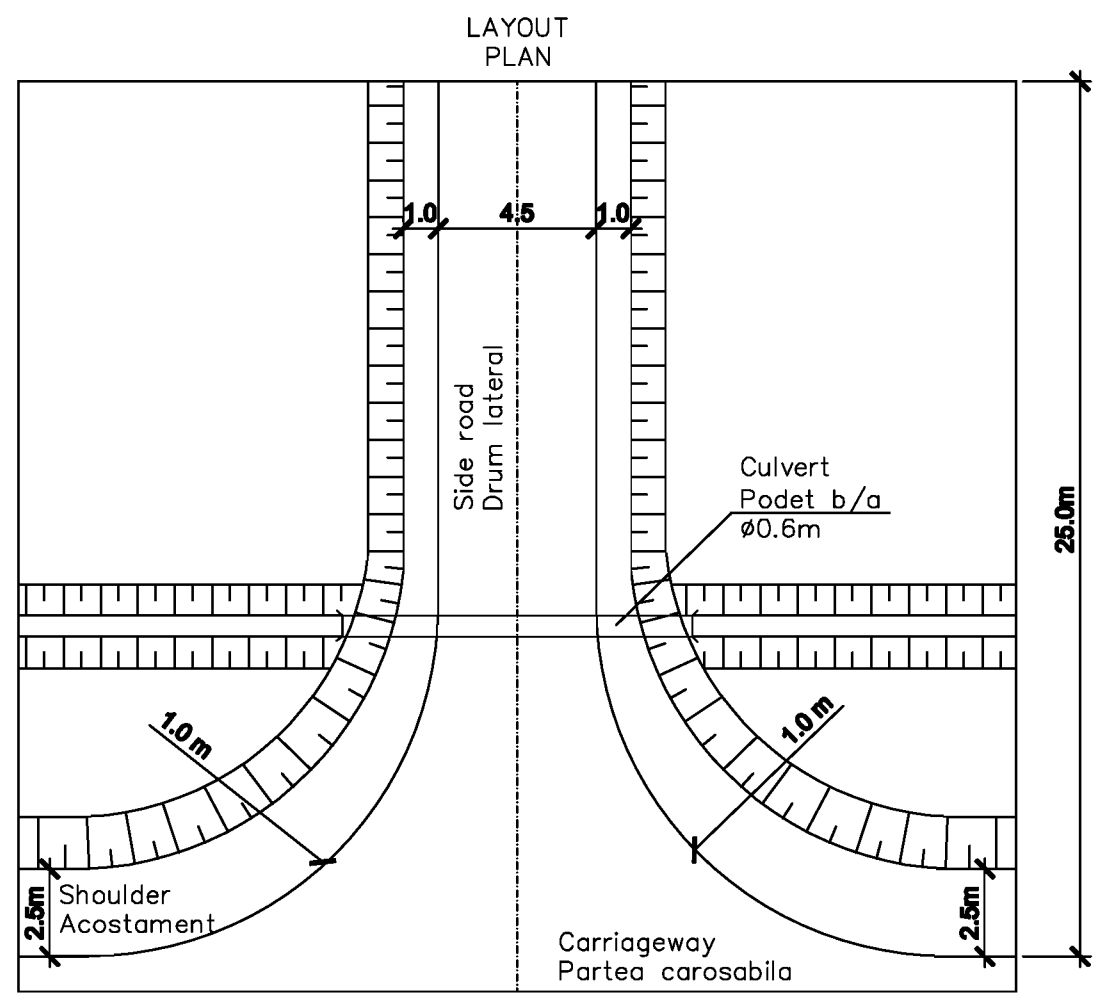
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	
	Drainage chutes Constructia casiuului pe acostament	Checked	Bogza	Drawing	
		Control STAS	Belic		CCA-DA-1



**Chuta bloc**  
**Bloc disipare**  
 Sc 1:20

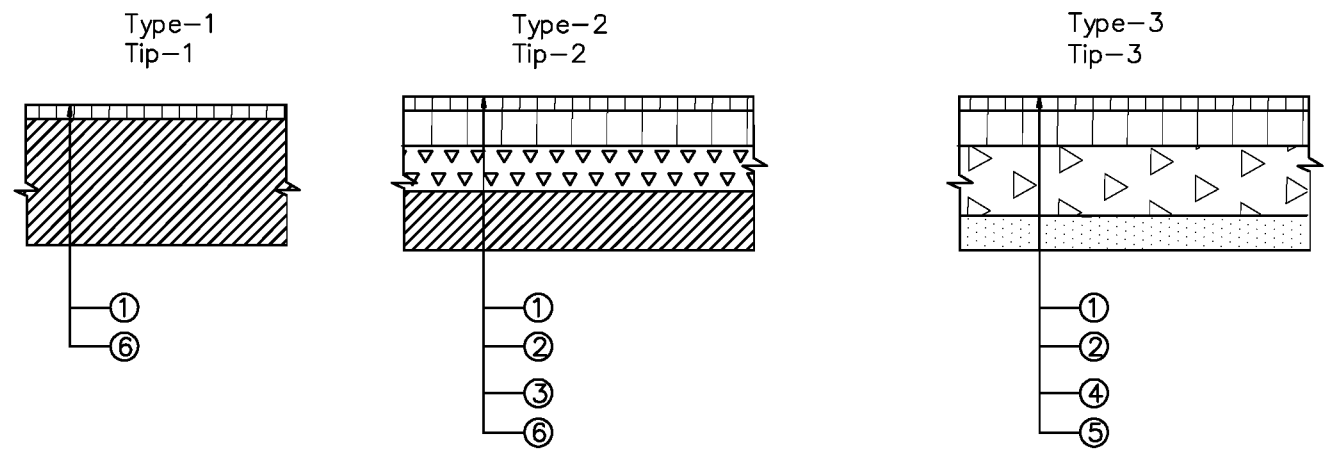


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry			
	Road Sector Programme Support Project		State Road Administration		
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Gisca	Scale	
	Construction of the dissipator chutes Carmin de disipare pentru casuiri	Checked	Bogza	Drawing	
		Control STAS	Belic		CDC-DA-1

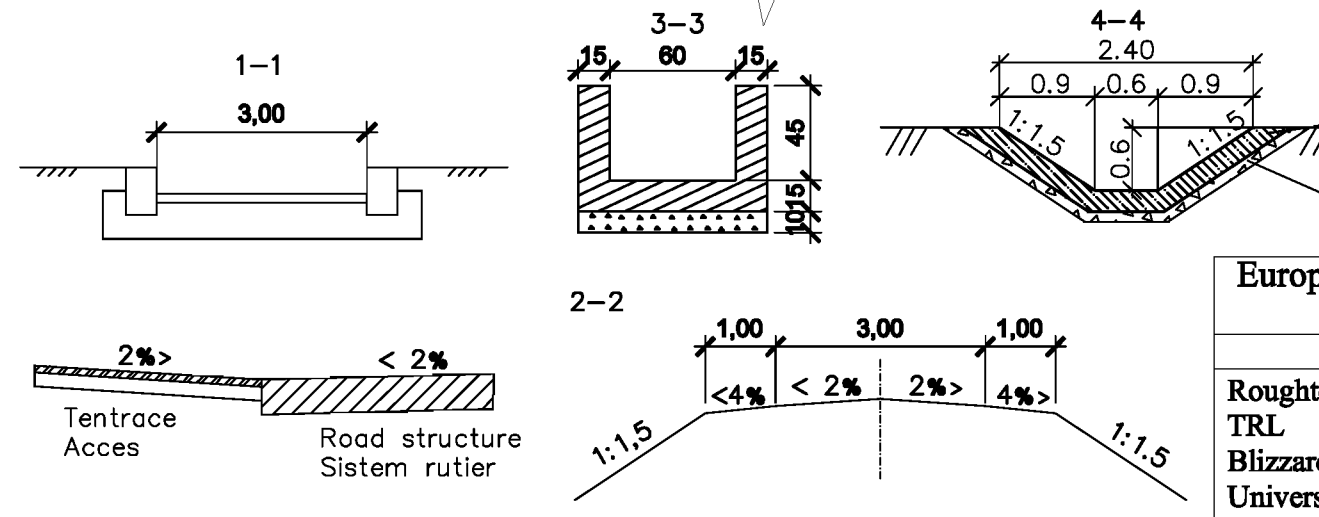
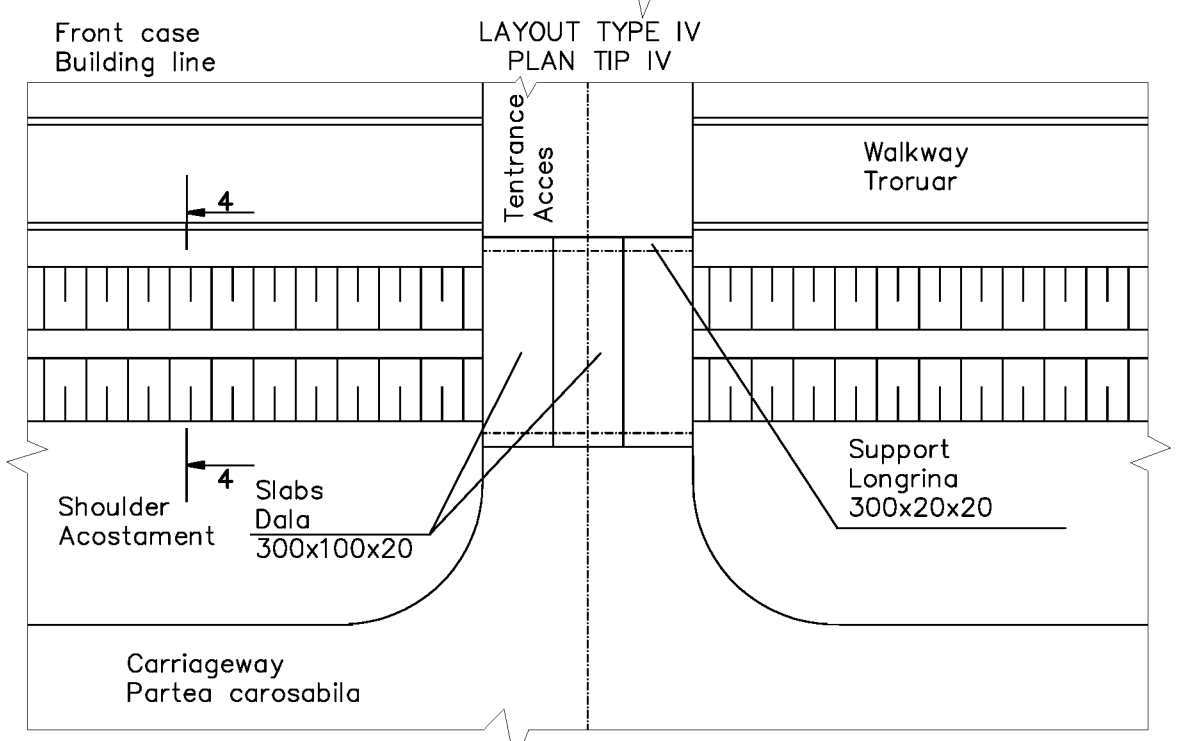
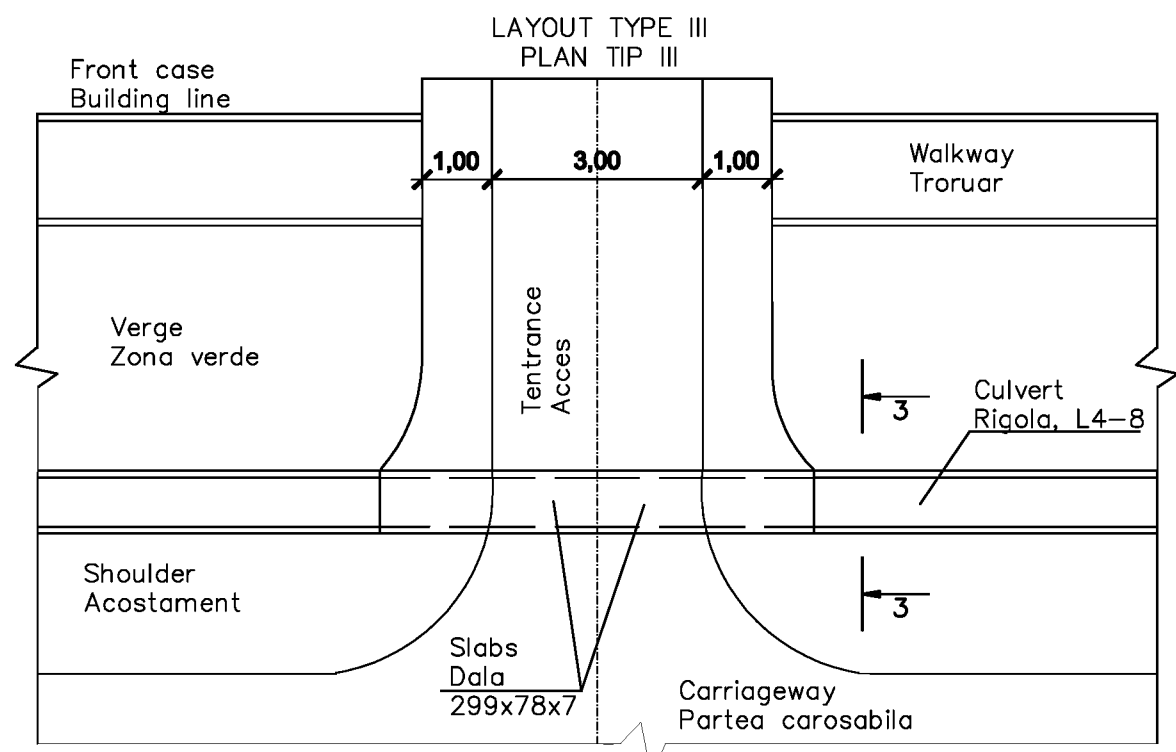
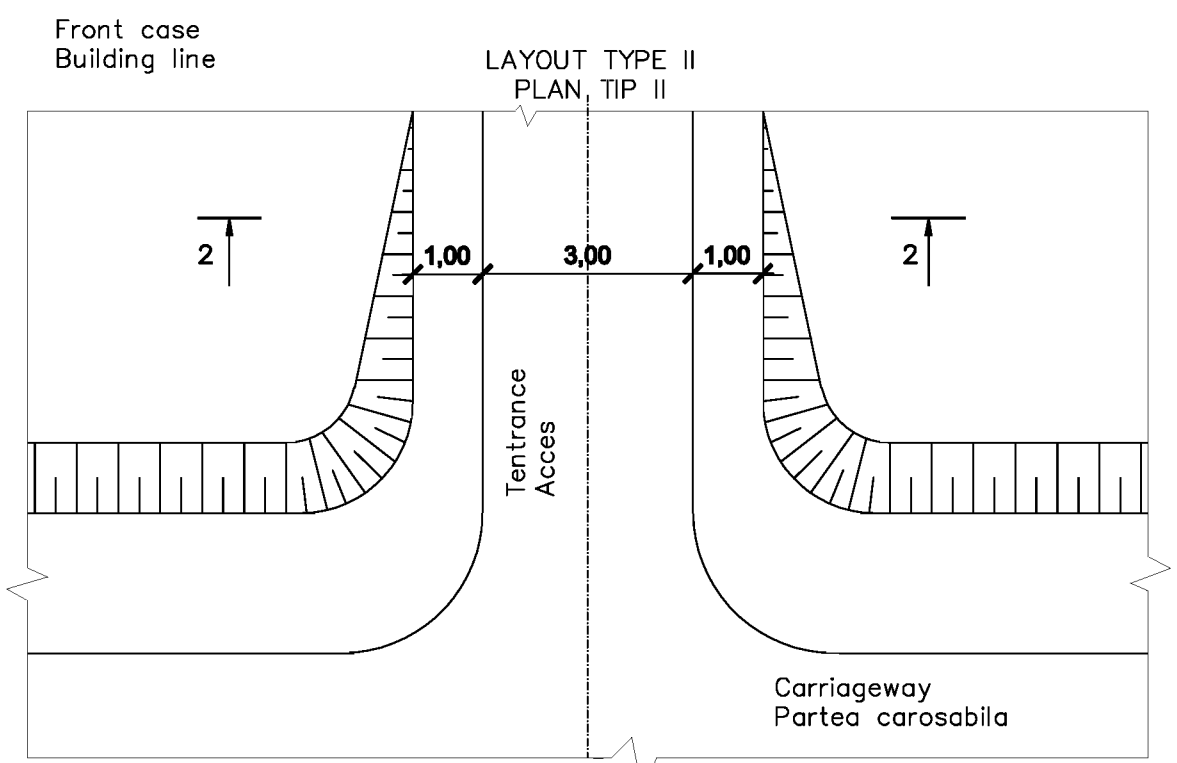
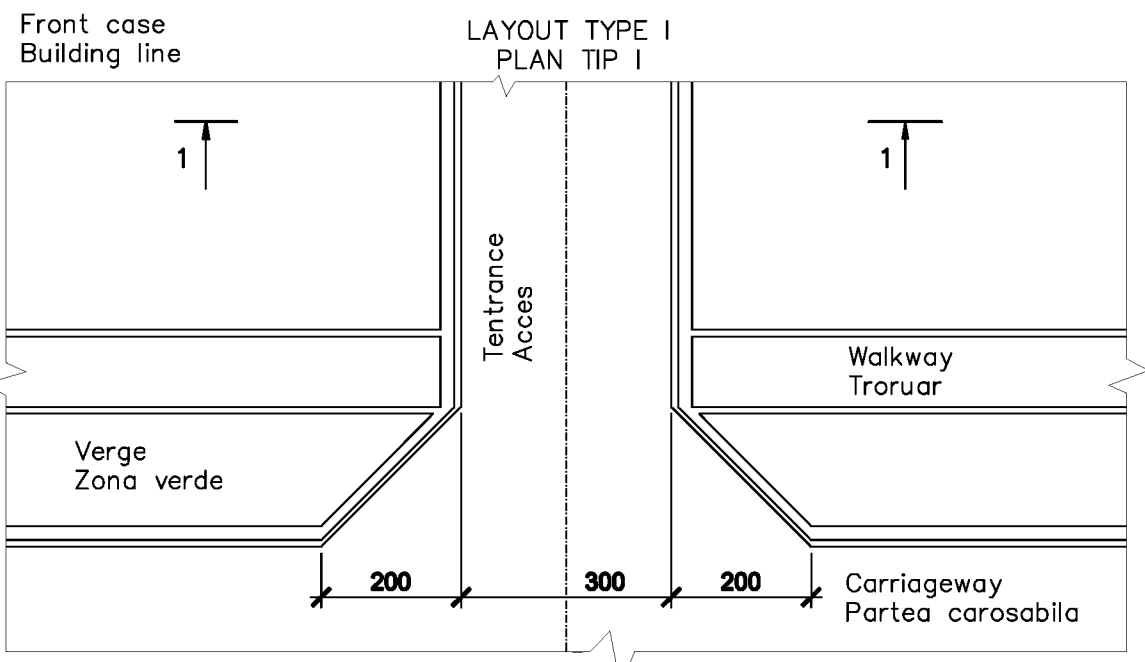


**Structure of pavement  
Constructia sistemului rutier**

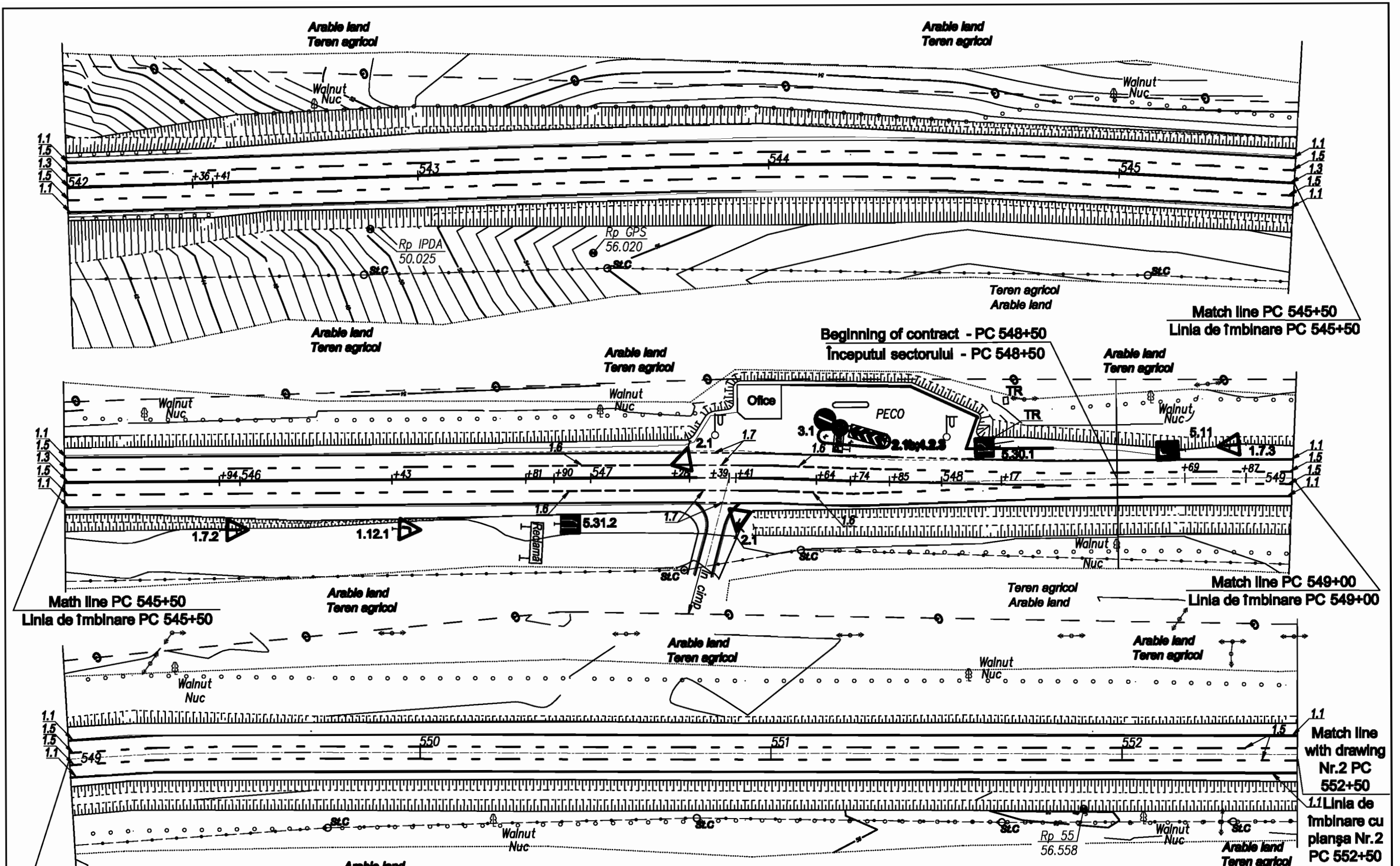
- ① - Fine grained dense asphalt type A M1  
Beton asfaltic cu granulatie fina dens tip A M1 h-4cm
- ② - Coarse grained porous asphalt type M1  
Beton asfaltic cu granulatie mare poros M1 h-8cm
- ③ - Crushed stone M300  
Piatra concasata M300 h-15cm
- ④ - Crushed stone M300  
Piatra concasata M300 h-25cm
- 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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Typical side road Drum lateral tip	Designed	Gisca	Scale	1:200
		Checked	Bogza	Drawing	DLT-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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Entrance to properties Acces in curti	Designed	Gisca	Scale	1:500
		Checked	Bogza	Drawing	AC-DA-1
Control STAS	Belic				

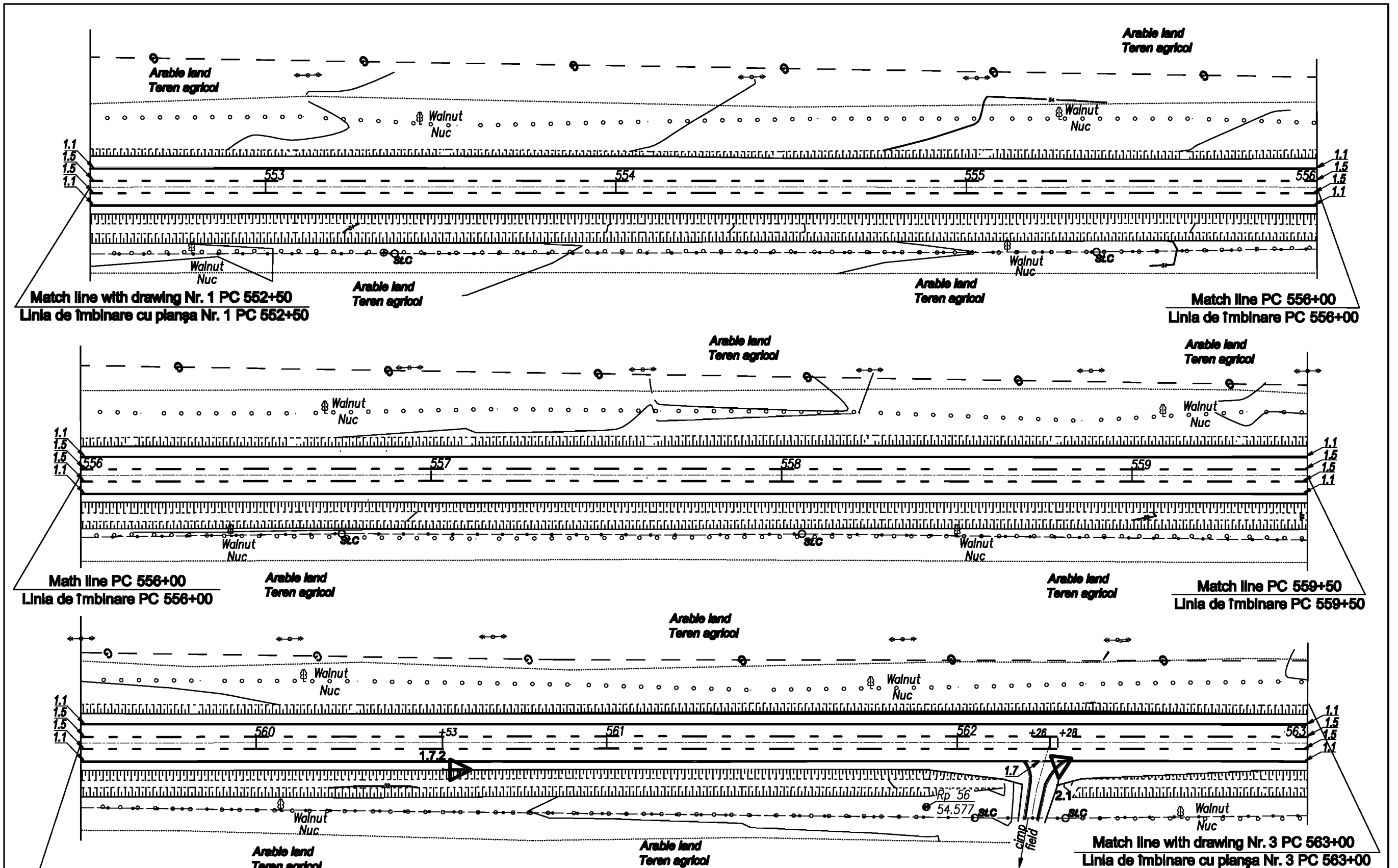


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	<b>Rehabilitation of M2 Road Chisinau-Săriteni</b> Drawing title <b>Plan of road traffic management Planul organizarii circulatiei rutiere PC 542+00 - PC 552+00</b>	ISP	Bogza	Date	12.2007
TRL		Designed	Plinschi	Scale	1:1000
Blizzard		Checked	Bogza	Drawing	
Universcons		Control STAS	Belic	POCR-DA-1	

Math line PC 549+00  
Linia de îmbinare PC 549+00

Match line with drawing Nr.2 PC 552+50  
Linia de îmbinare cu planșa Nr.2 PC 552+50





Match line with drawing Nr. 1 PC 552+50  
Linia de îmbinare cu planșa Nr. 1 PC 552+50

Match line PC 556+00  
Linia de îmbinare PC 556+00

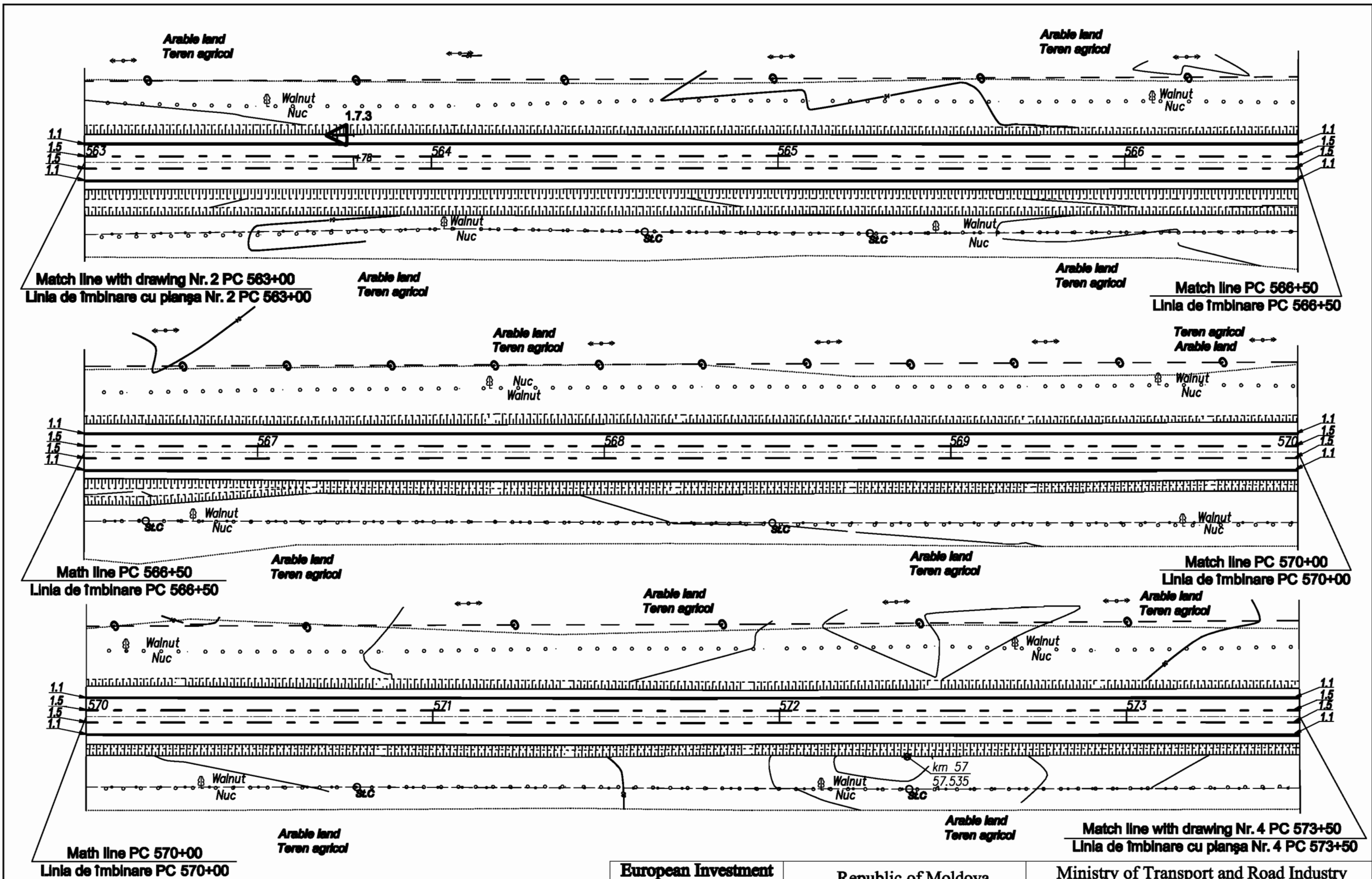
Math line PC 556+00  
Linia de îmbinare PC 556+00

Match line PC 559+50  
Linia de îmbinare PC 559+50

Math line PC 559+50  
Linia de îmbinare PC 559+50

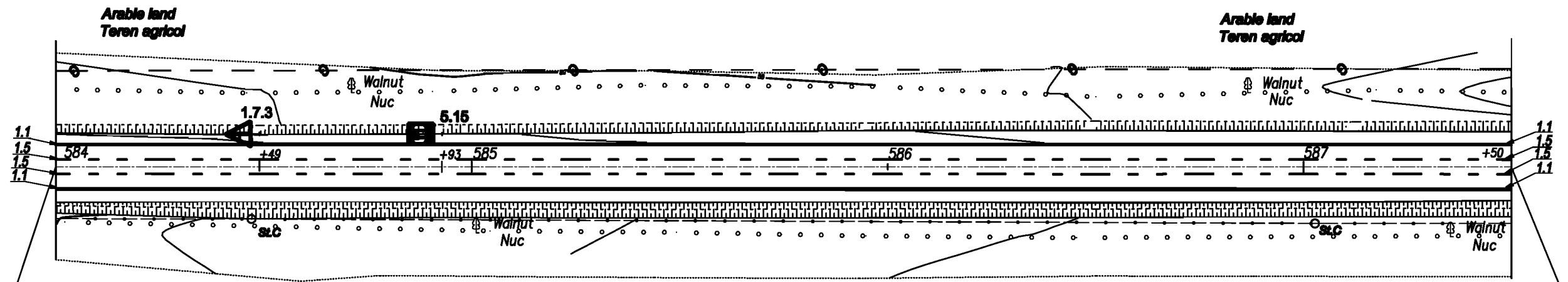
Match line with drawing Nr. 3 PC 563+00  
Linia de îmbinare cu planșa Nr. 3 PC 563+00

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	<b>Rehabilitation of M2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date 12.2007
TRL	Drawing title <b>Plan of road traffic management Planul organizarii circulatiei rutiere PC 552+50 - PC 563+00</b>		Designed	Plinschi	Scale 1:1000
Blizzard			Checked	Bogza	Drawing POCR-DA-2
Universcons			Control STAS	Belic	



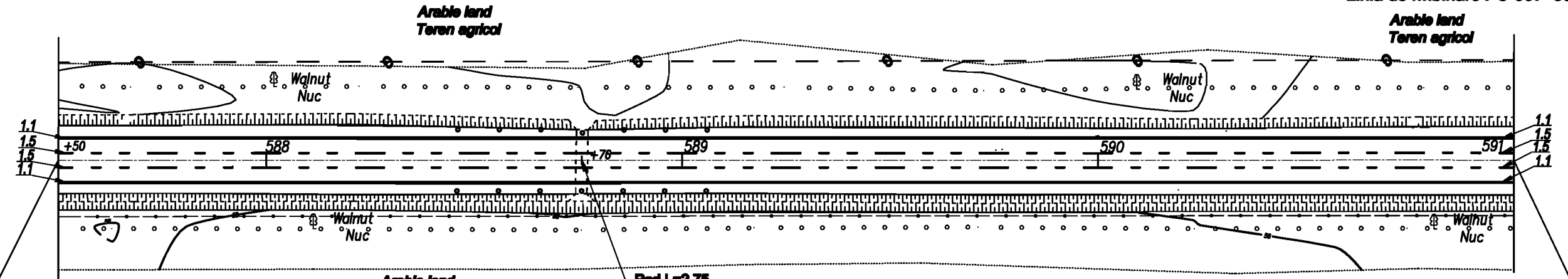
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărăteni		ISP	Bogza	Date	12.2007
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 563+00 - PC 573+50		Designed	Plinschi	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-3	





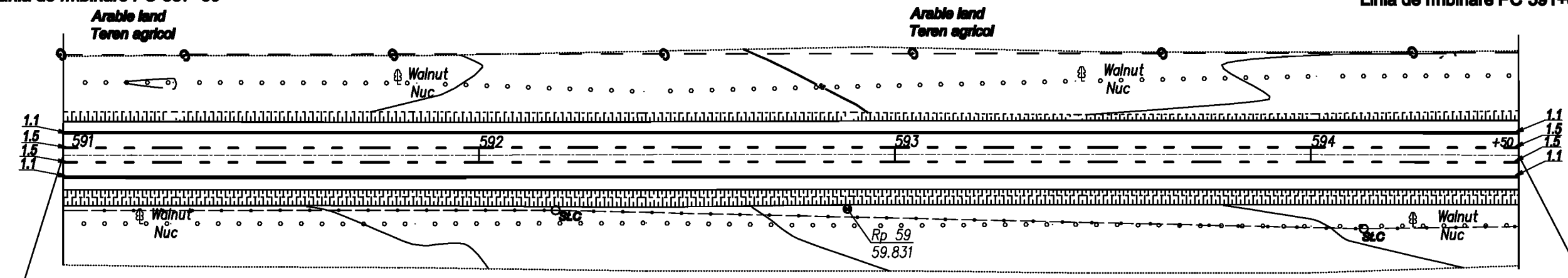
Match line with drawing Nr. 4 PC 584+00  
Linia de îmbinare cu planșa Nr. 4 PC 584+00

Match line PC 587+50  
Linia de îmbinare PC 587+50



Math line PC 587+50  
Linia de îmbinare PC 587+50

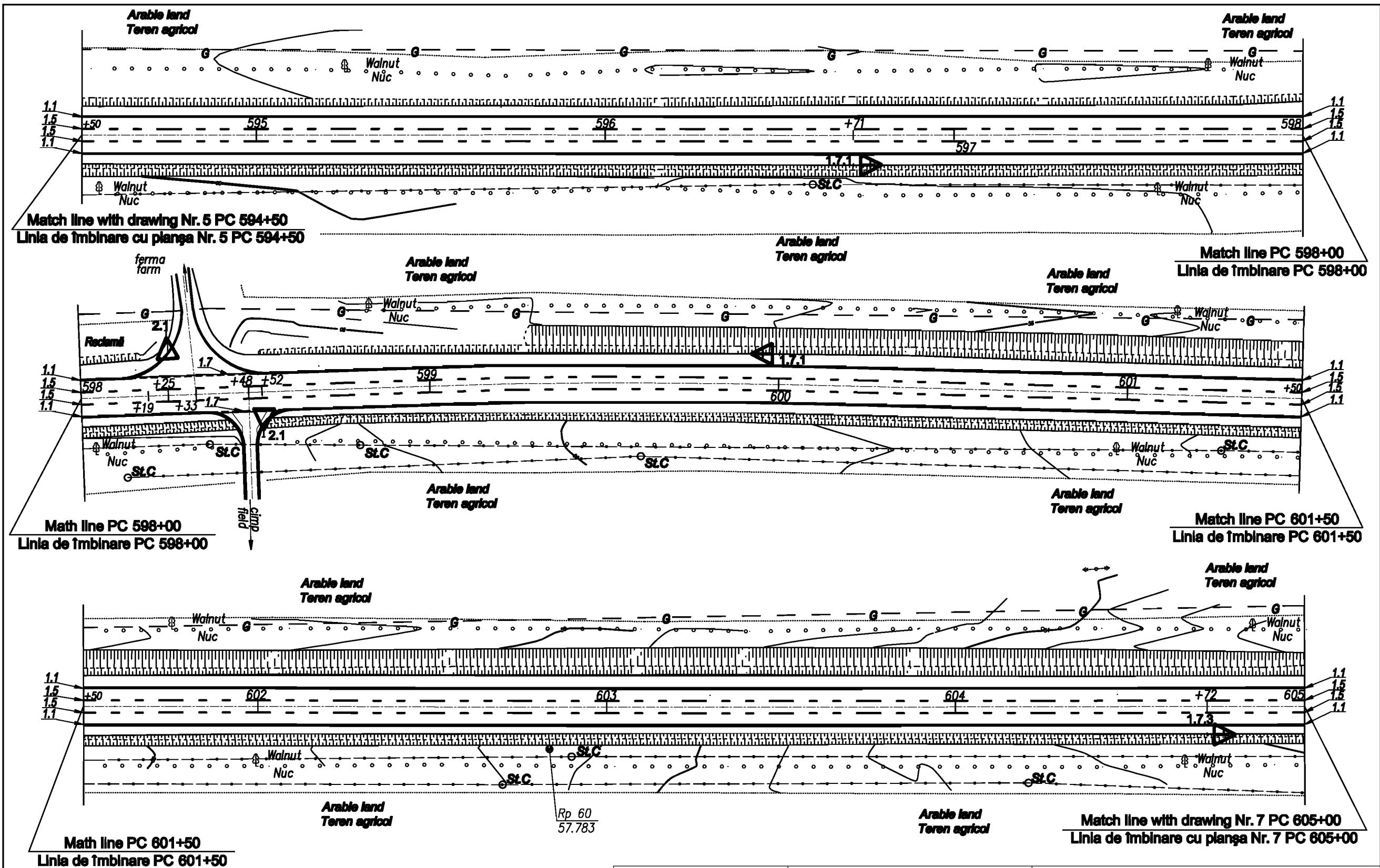
Match line PC 591+00  
Linia de îmbinare PC 591+00



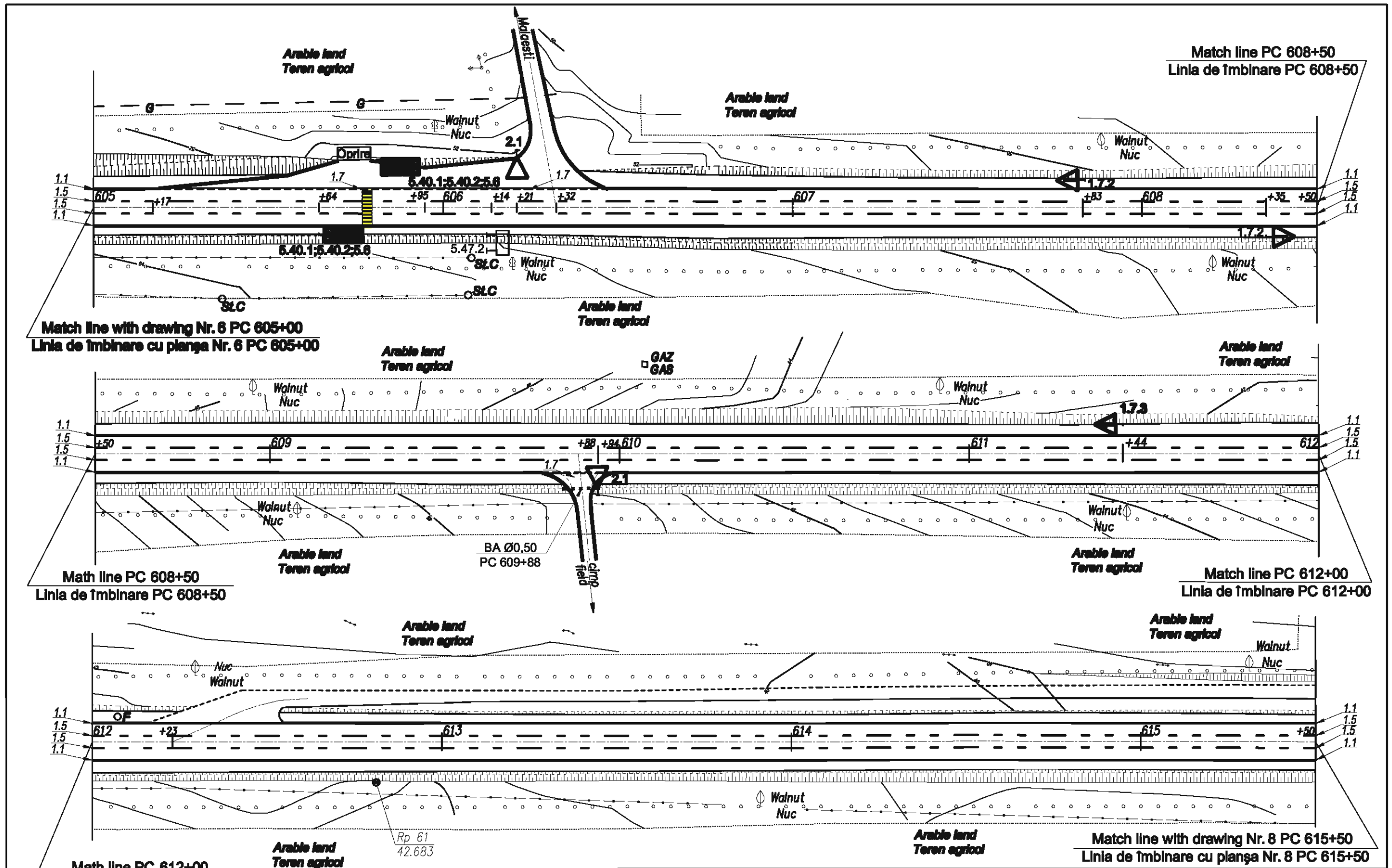
Math line PC 591+00  
Linia de îmbinare PC 591+00

Match line with drawing Nr. 6 PC 594+50  
Linia de îmbinare cu planșa Nr. 6 PC 594+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 M2 Road Chisinau-Sărăteni Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 584+00 - PC 594+50	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:1000
		Checked	Bogza	Drawing	POCR-DA-5
		Control STAS	Belic		

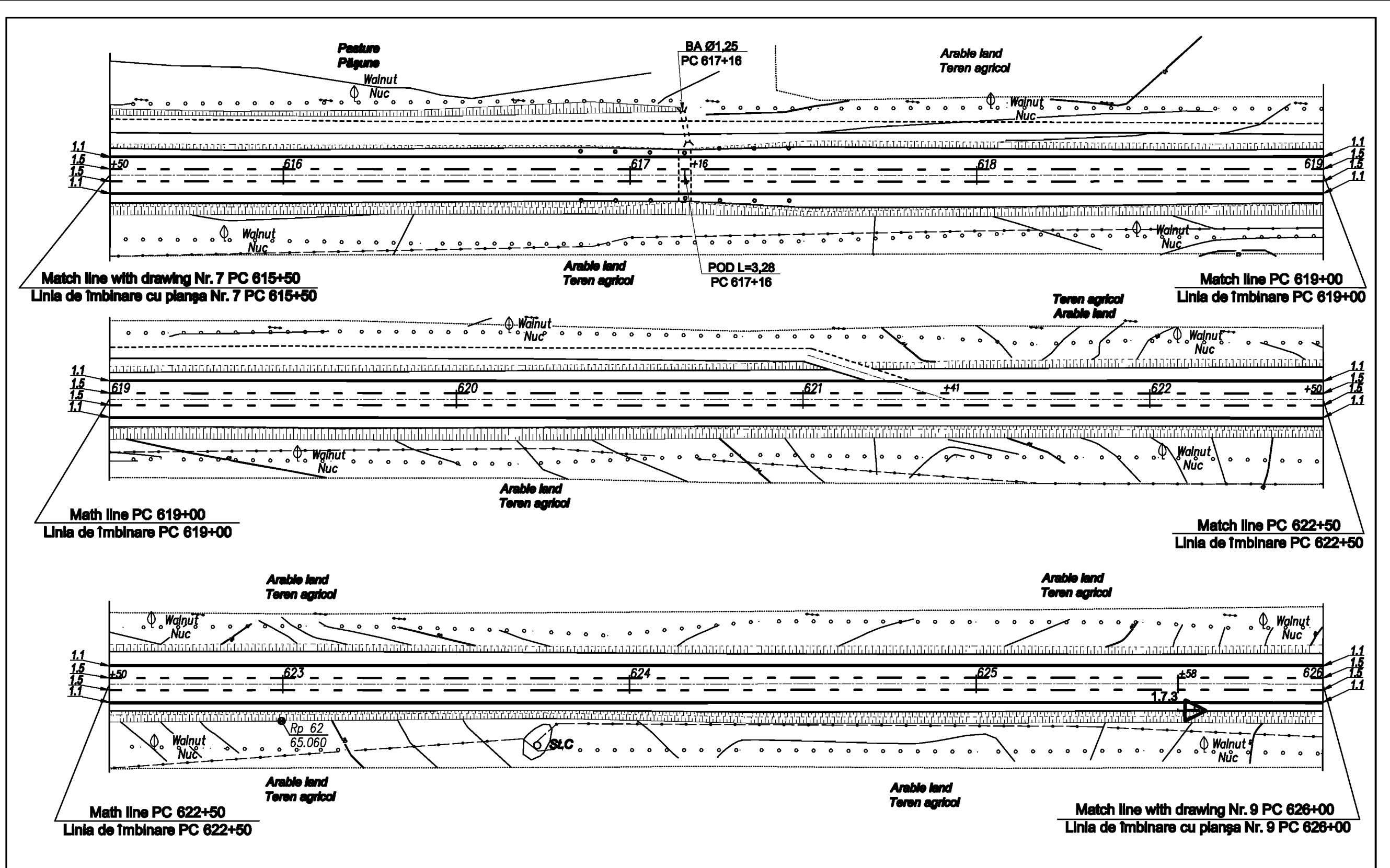


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M2 Road Chisinau-Sărăteni</b>		ISP	Bogza	Date	12.2007
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 594+50 - PC 605+00		Designed	Plinschi	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-6	

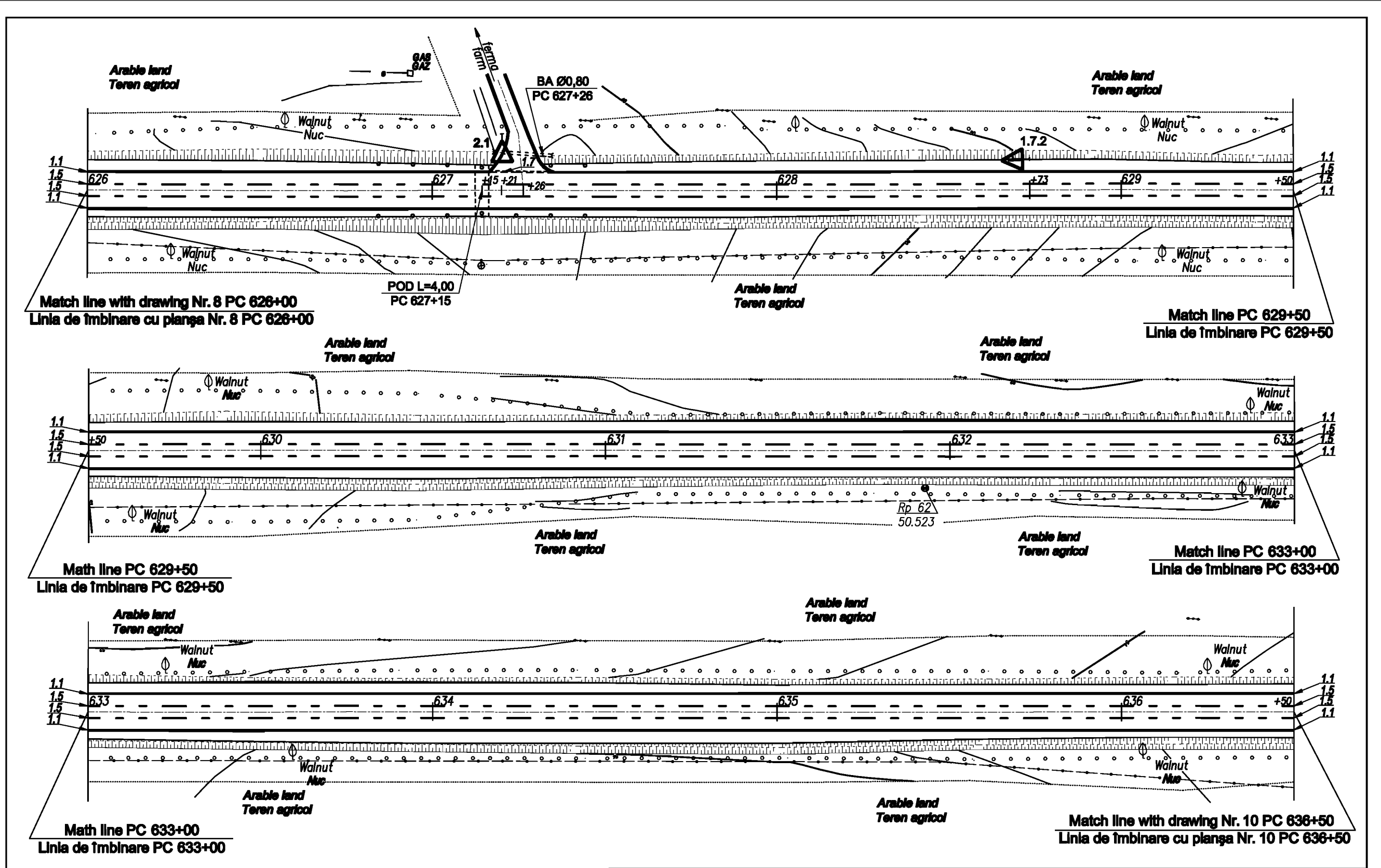


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M2 Road Chisinau-Sărateni</b>		ISP	Bogza	Date
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 605+00 - PC 615+50		Designed	Plinschi	Scale
			Checked	Bogza	Drawing
			Control STAS	Belic	POCR-DA-7
				Date	12.2007
				Scale	1:1000
				Drawing	POCR-DA-7



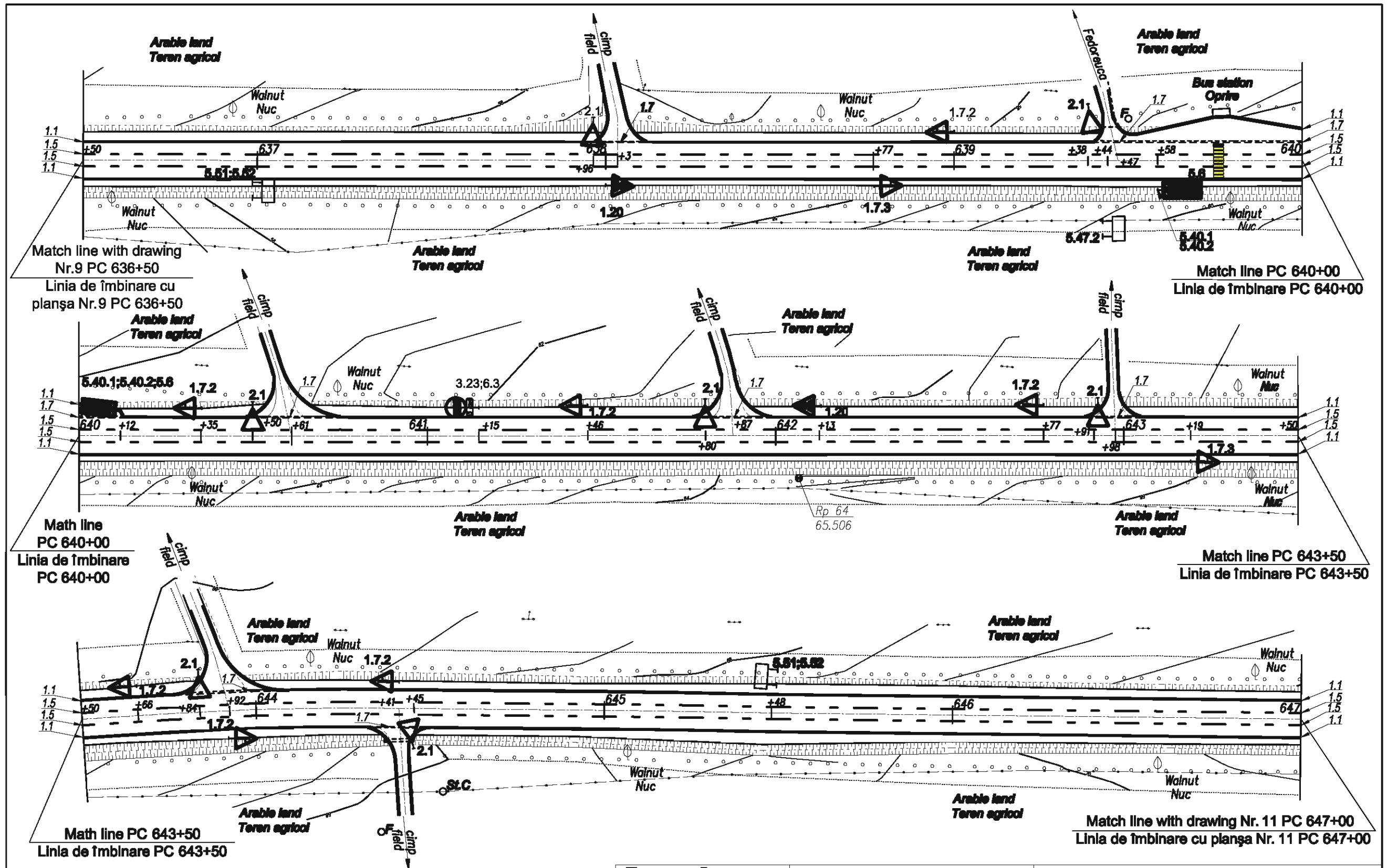


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărăteni Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 615+50 - PC 626+00	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:1000
		Checked	Bogza	Drawing	POCR-DA-8
		Control STAS	Belic		

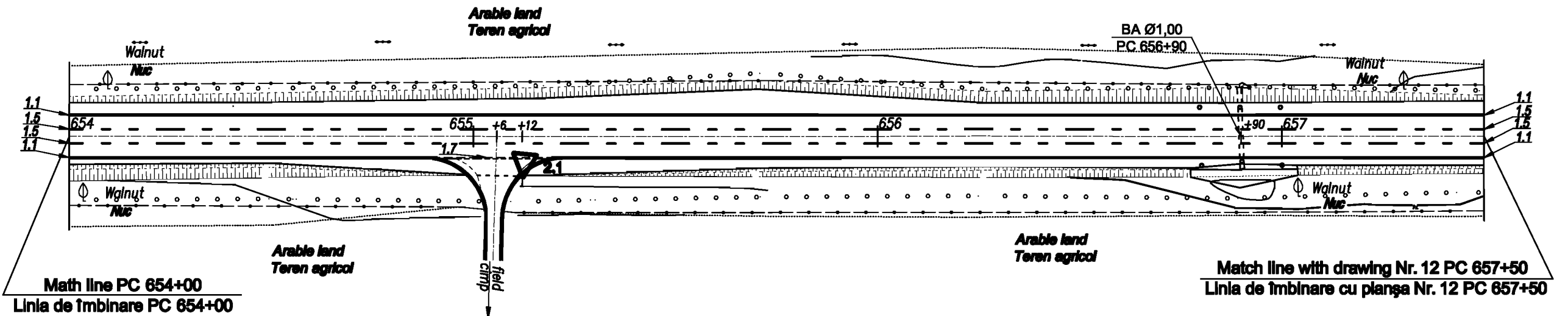
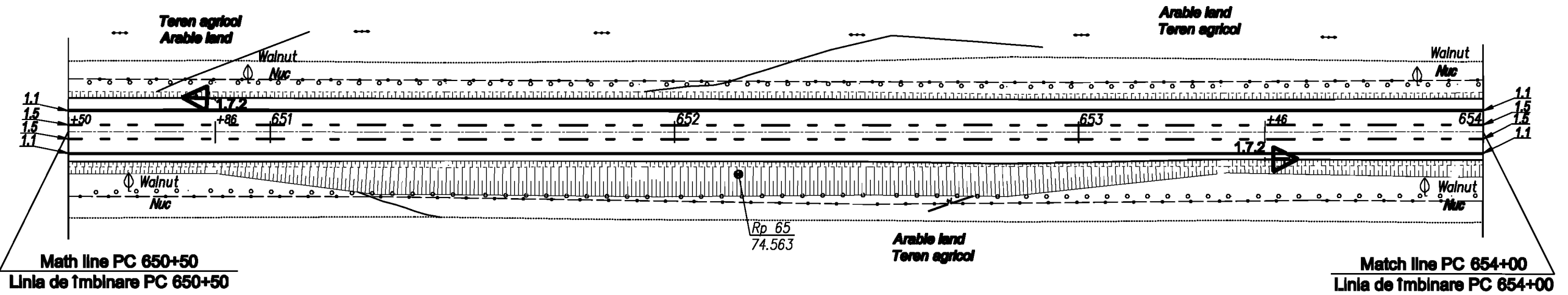
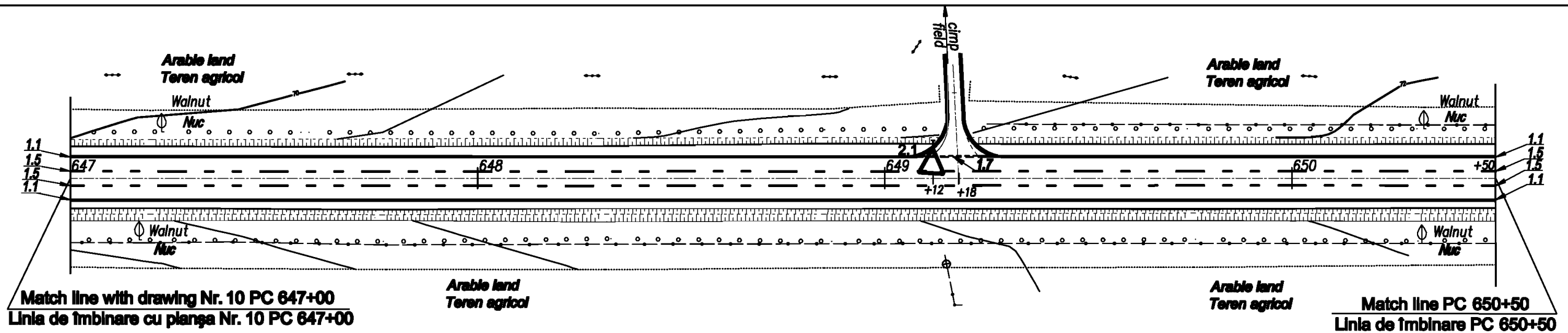


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărăteni		ISP	Bogza	Date	12.2007
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 626+00 - PC 636+50		Designed	Plinschi	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-9	

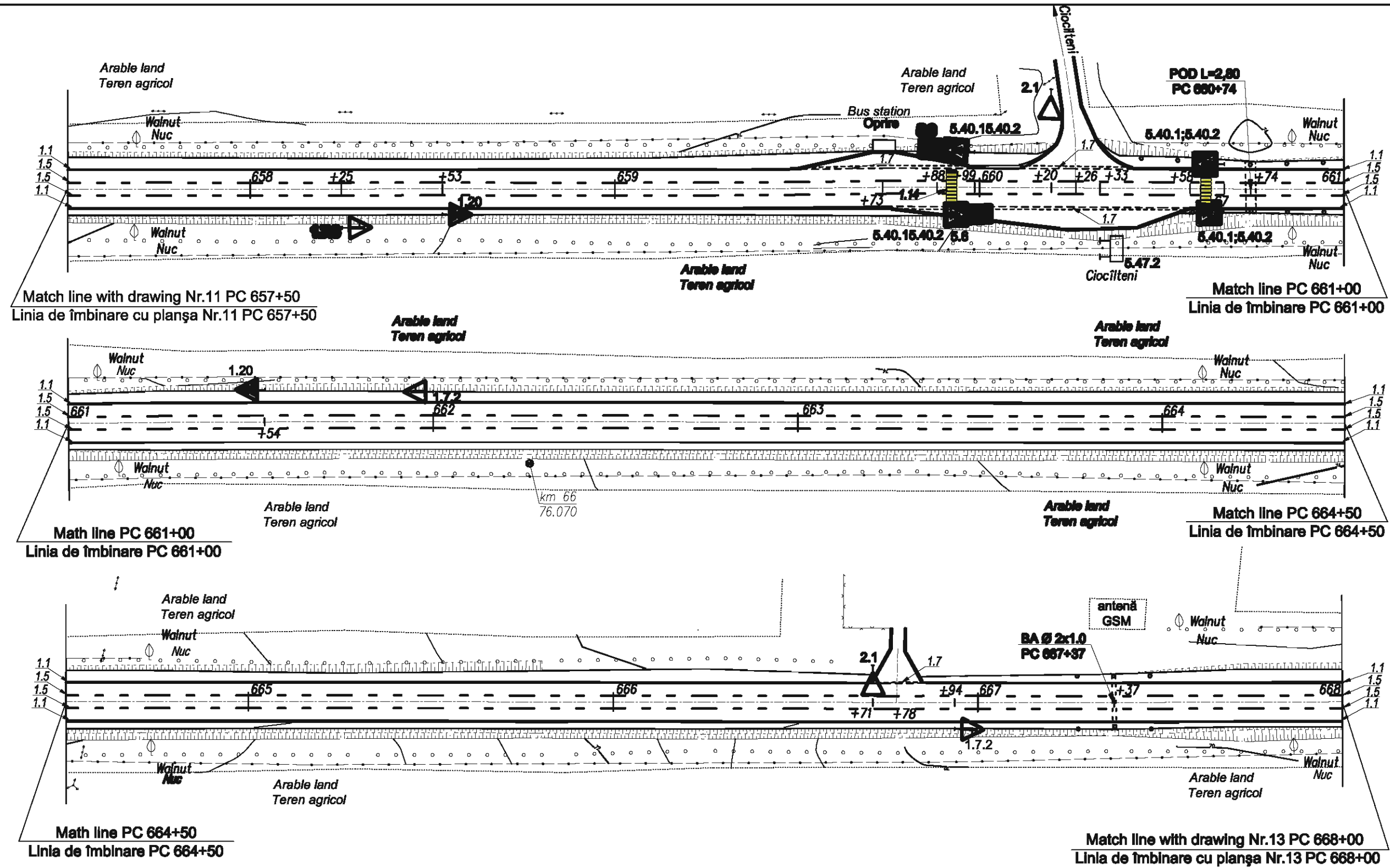




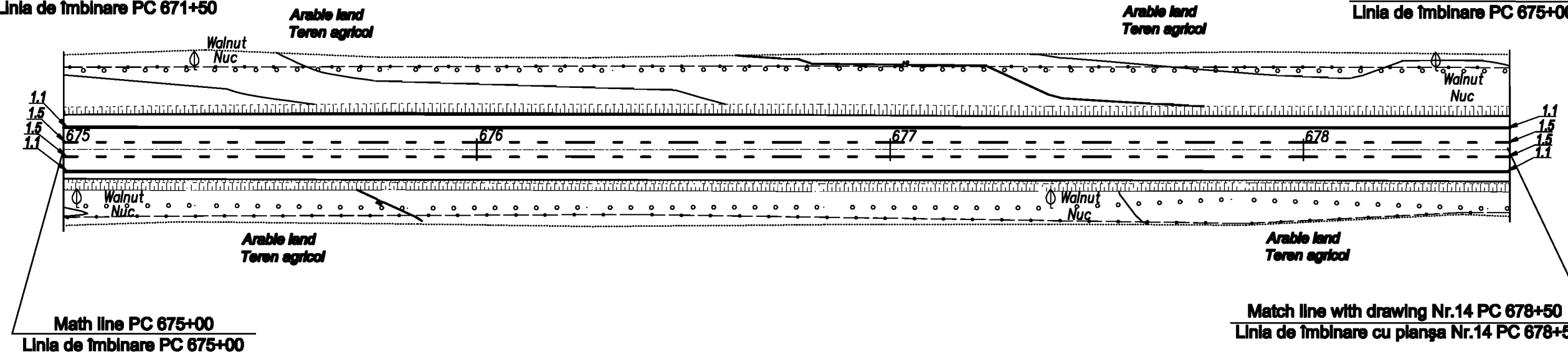
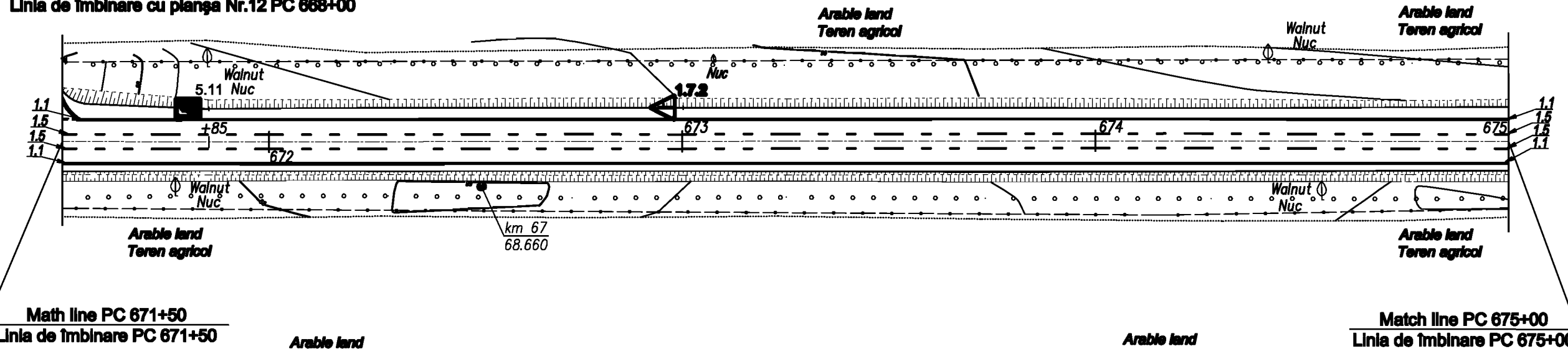
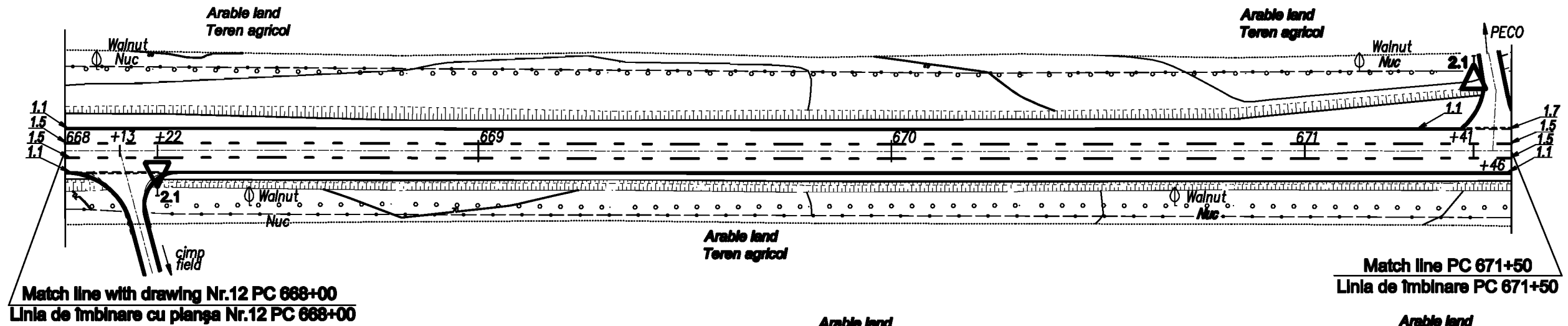
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M2 Road Chisinau-Sărateni</b>		ISP	Bogza	Date	12.2007
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 636+50 - PC 647+00		Designed	Plinschi	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-10	



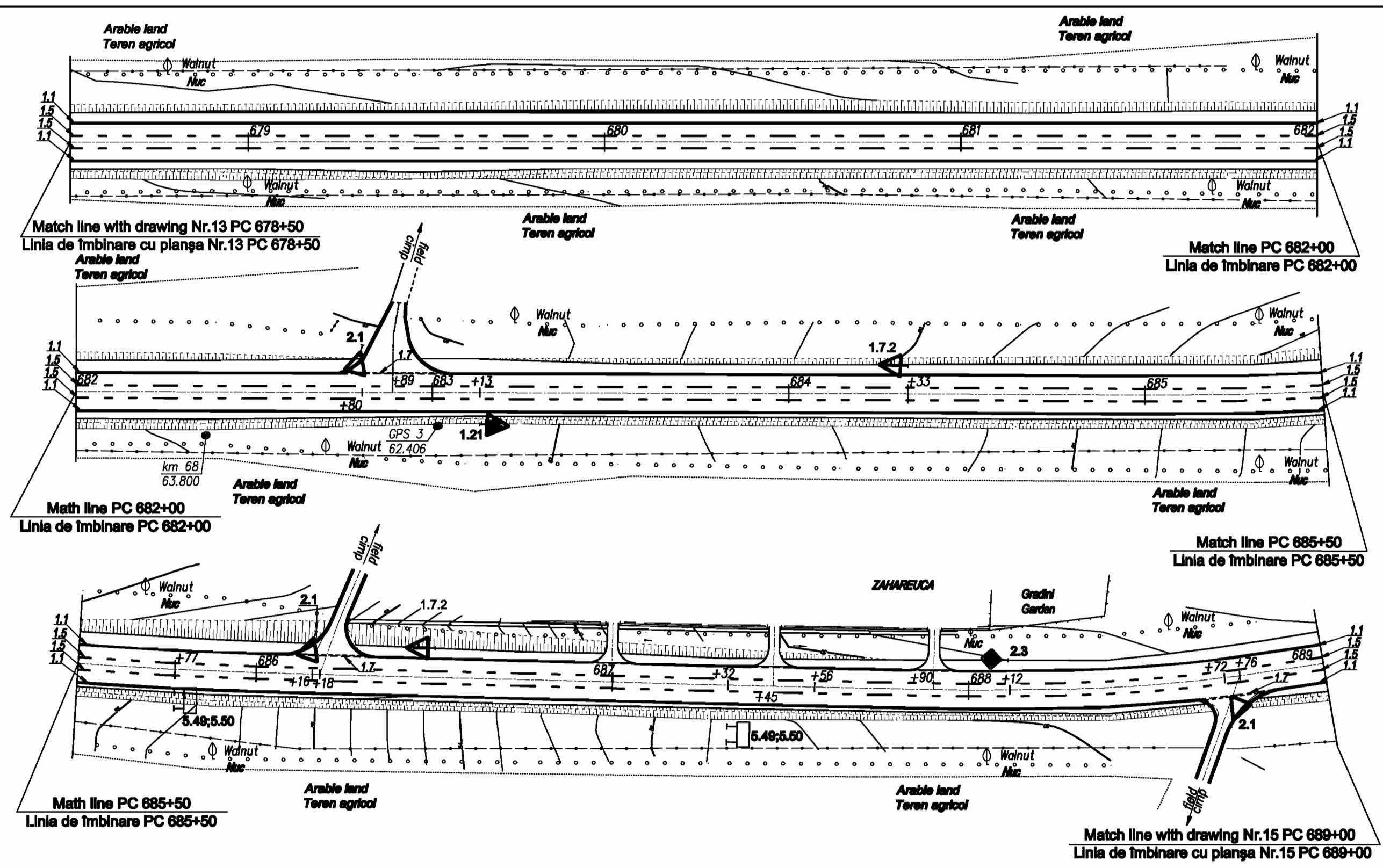
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărățeni		ISP	Bogza	Date	12.2007
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 647+00 - PC 657+50		Designed	Plinschi	Scale	1:1000
			Checked	Bogza	Drawing	
			Control STAS	Belic	POCR-DA-11	



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	<b>Rehabilitation of M2 Road Chisinau-Sărateni</b>		ISP	Bogza	Date
	Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 657+50 - PC 668+00		Designed	<b>Pinschi</b>	Scale
			Checked	Bogza	Drawing POCR-DA-12
			Control STAS	Belic	
				Date	12.2007
				Scale	1:1000

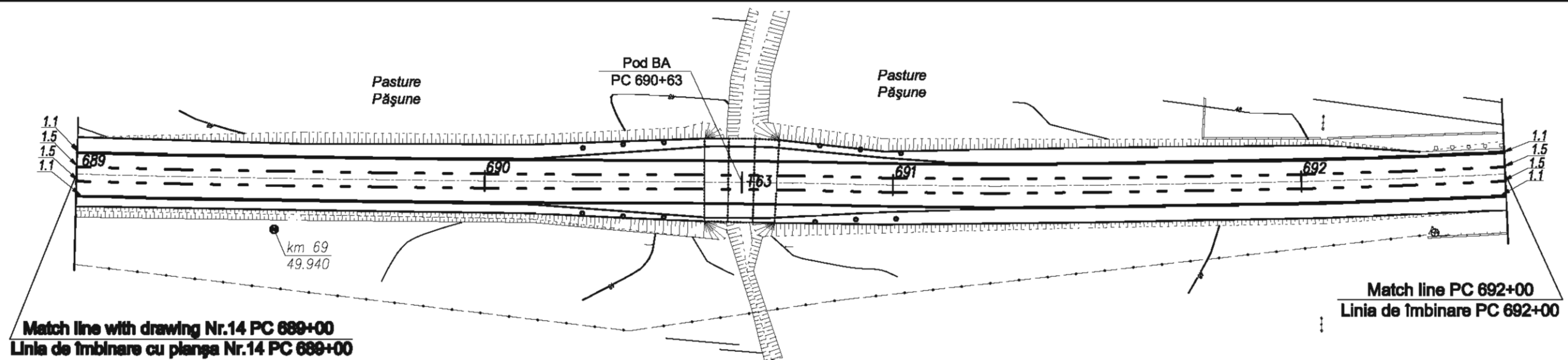


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:1000
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		Control STAS	Belic	POCR-DA-13	



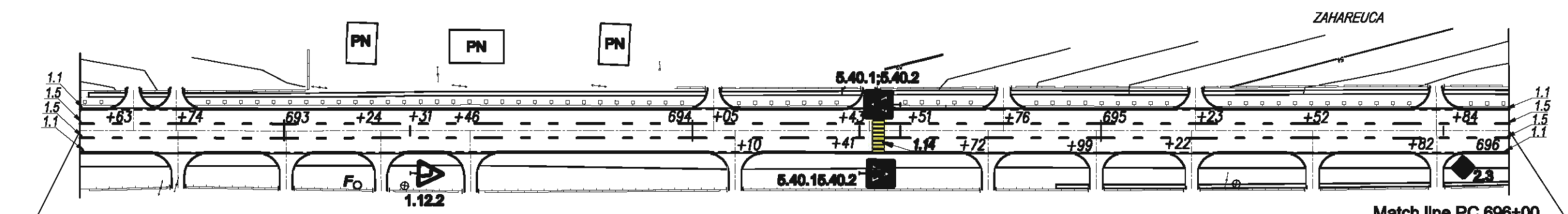
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M2 Road Chisinau-Sărăteni Drawing title Plan of road traffic management Planul organizarii circulatiei rutiere PC 678+50 - PC 689+00	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:1000
		Checked	Bogza	Drawing	
		Control STAS	Belic		POCR-DA-14





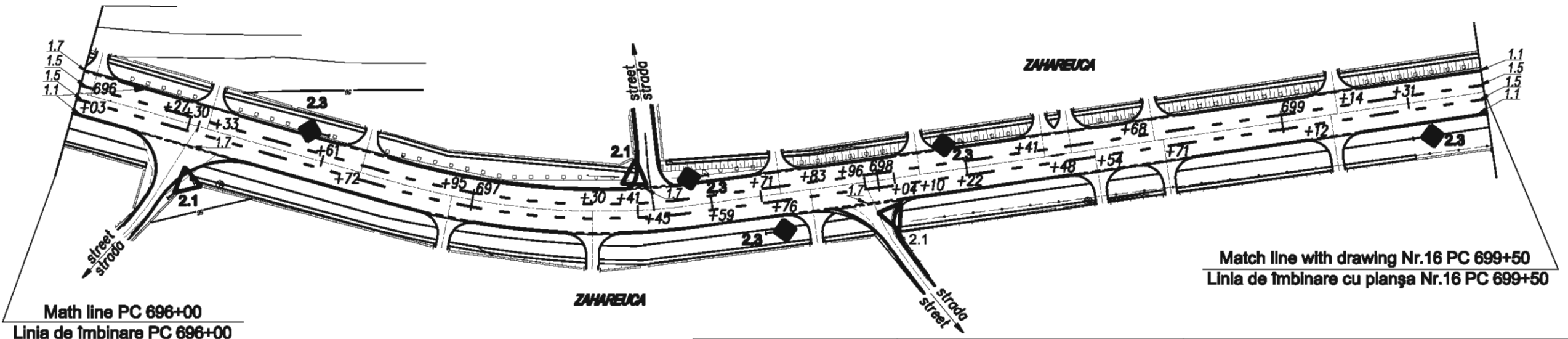
Match line with drawing Nr.14 PC 689+00  
Linia de îmbinare cu planșa Nr.14 PC 689+00

Match line PC 692+00  
Linia de îmbinare PC 692+00



Math line PC 692+50  
Linia de îmbinare PC 692+50

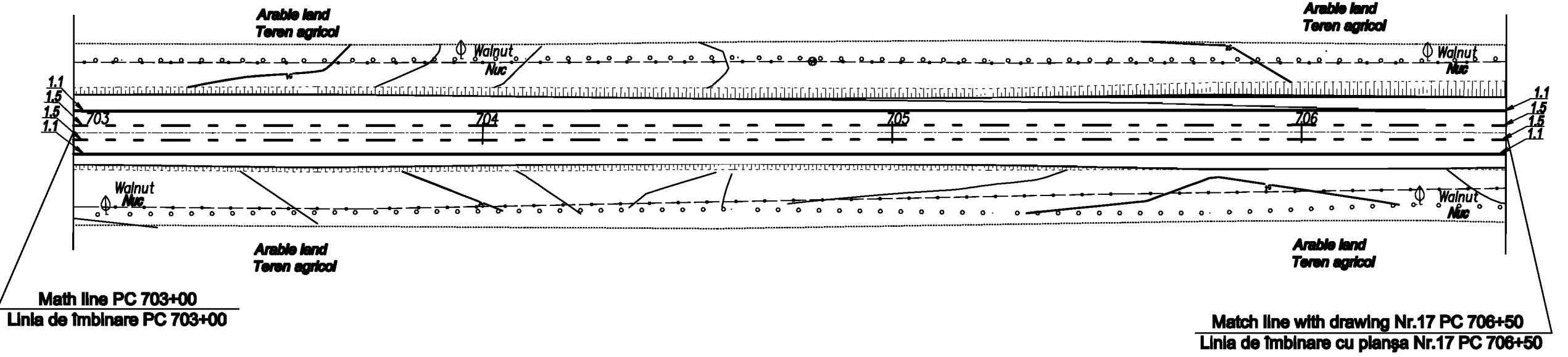
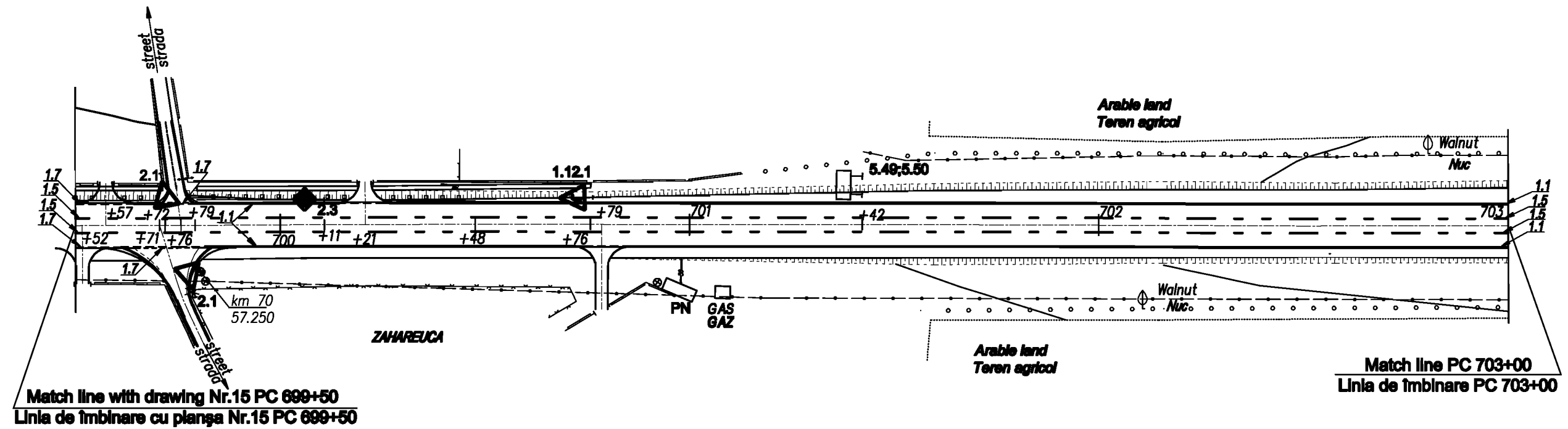
Match line PC 696+00  
Linia de îmbinare PC 696+00



Math line PC 696+00  
Linia de îmbinare PC 696+00

Match line with drawing Nr.16 PC 699+50  
Linia de îmbinare cu planșa Nr.16 PC 699+50

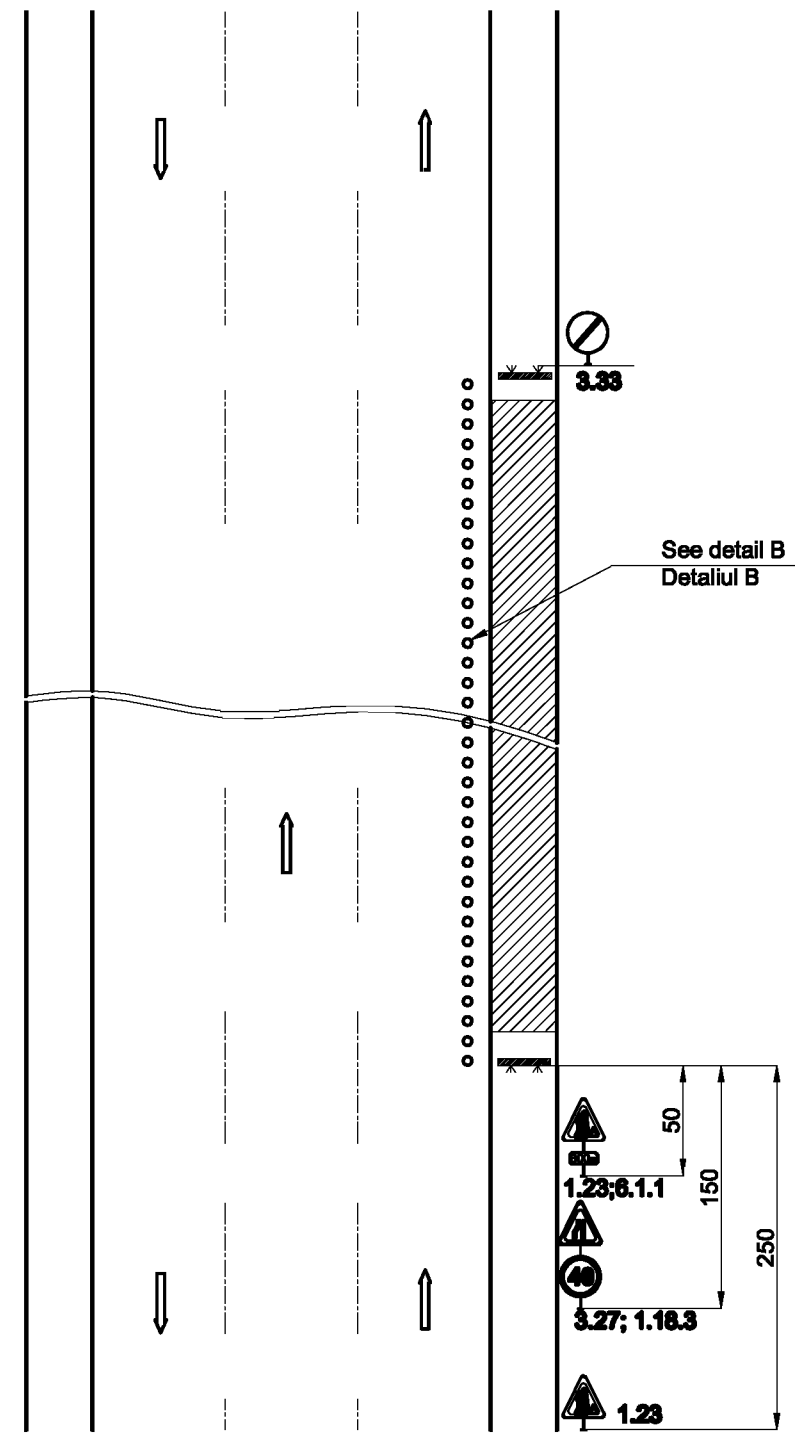
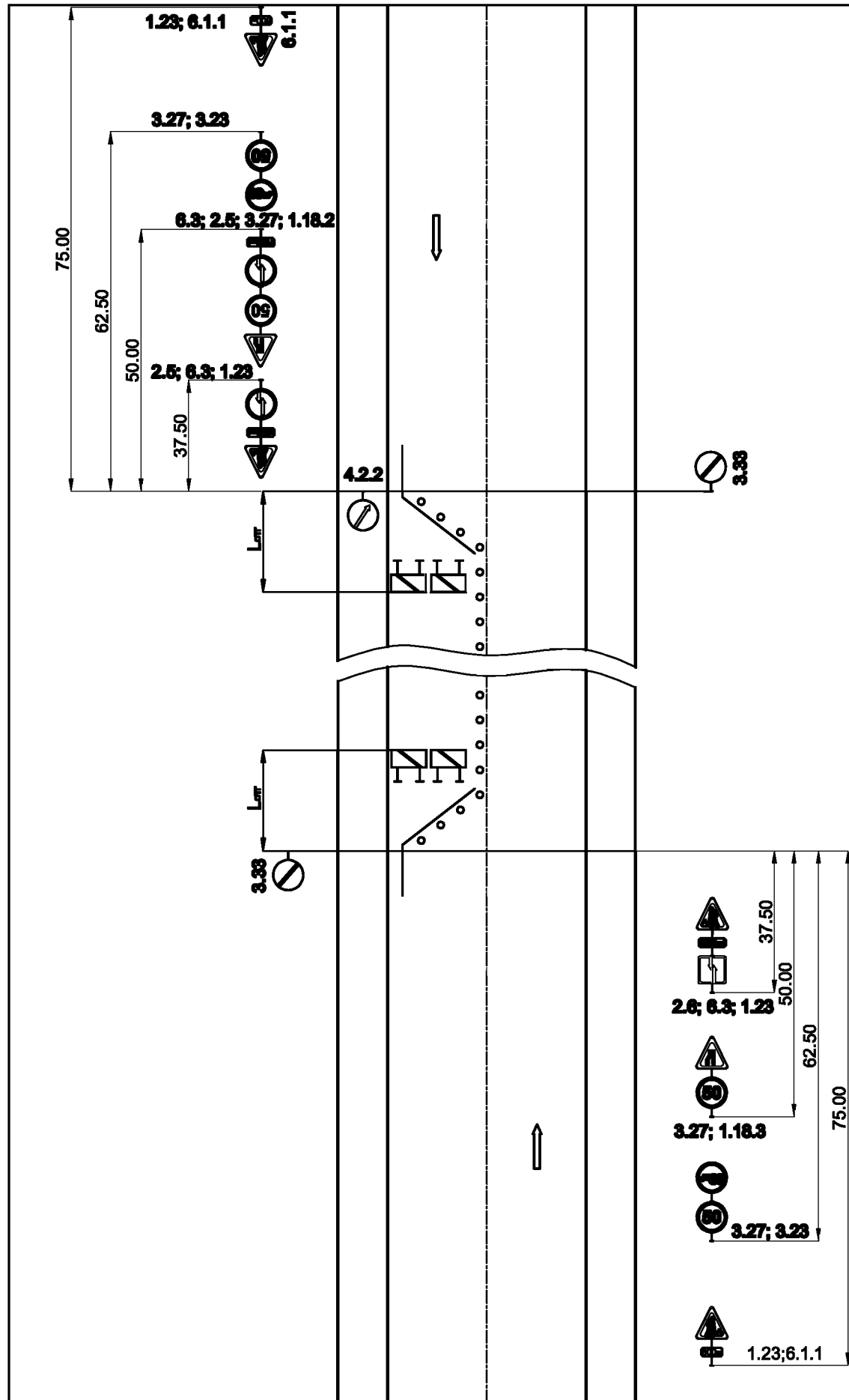
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of M2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
TRL	Drawing title Plan of road traffic management Planul organizării circulației rutiere PC 689+00 - PC 699+50	Designed	Plinschi	Scale	1:1000
Blizzard		Checked	Bogza	Drawing	
Universcons		Control STAS	Belic	POCR-DA-15	



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 M2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	1:1000
	Drawing title Planul organizarii circulatiei rutiere PC 699+50 - PC 706+50	Checked	Bogza	Drawing	POCR-DA-16
		Control STAS	Belic		

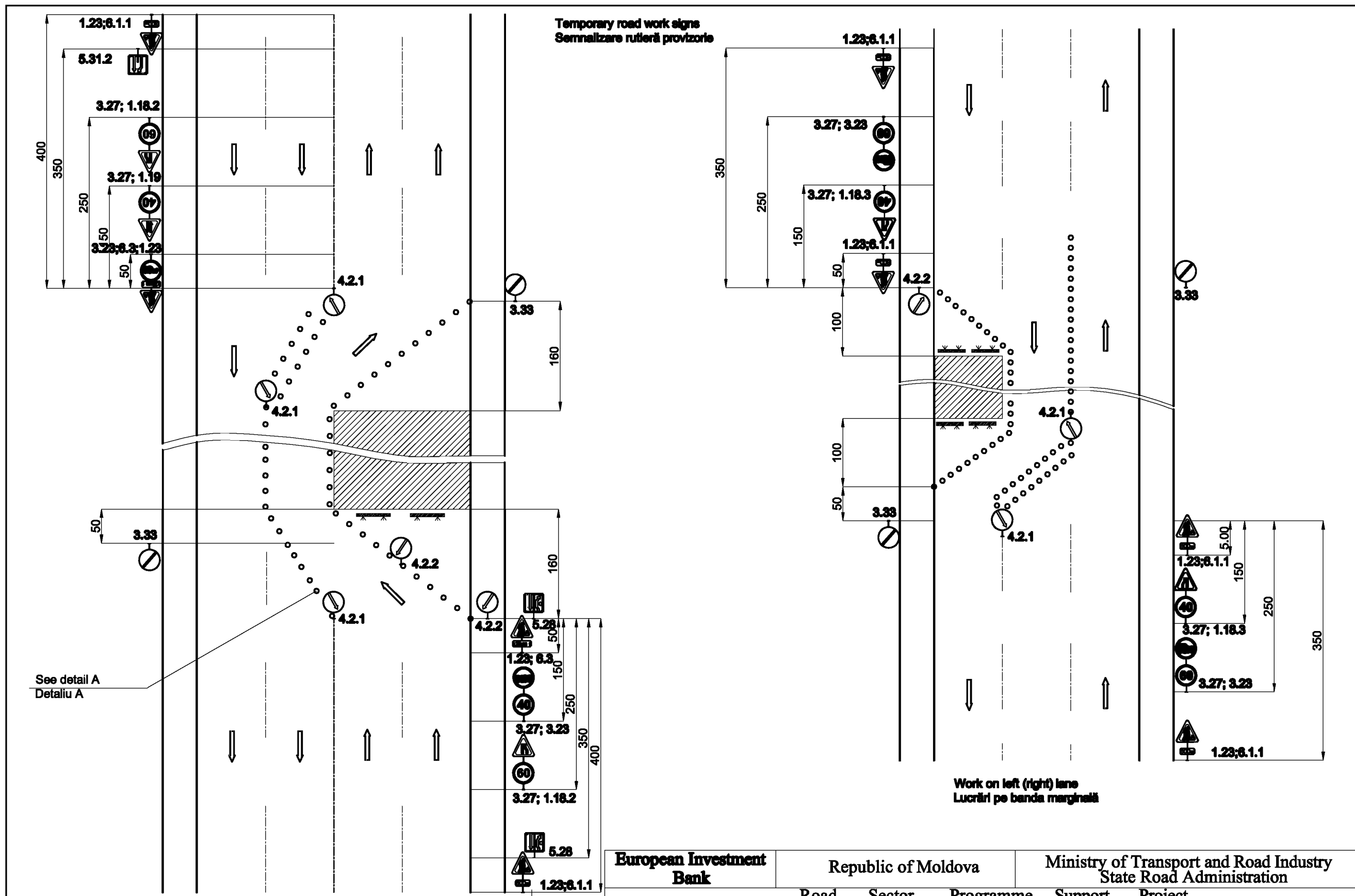






Work on shoulder  
Lucrări pe acostament

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
TRL		Designed	Gisca	Scale	
Blizzard	Drawing title Temporary road work signs Semnalizare rutiera provizorie	Checked	Bogza	Drawing	SRP-DA-1
Universcons		Control STAS	Belic		

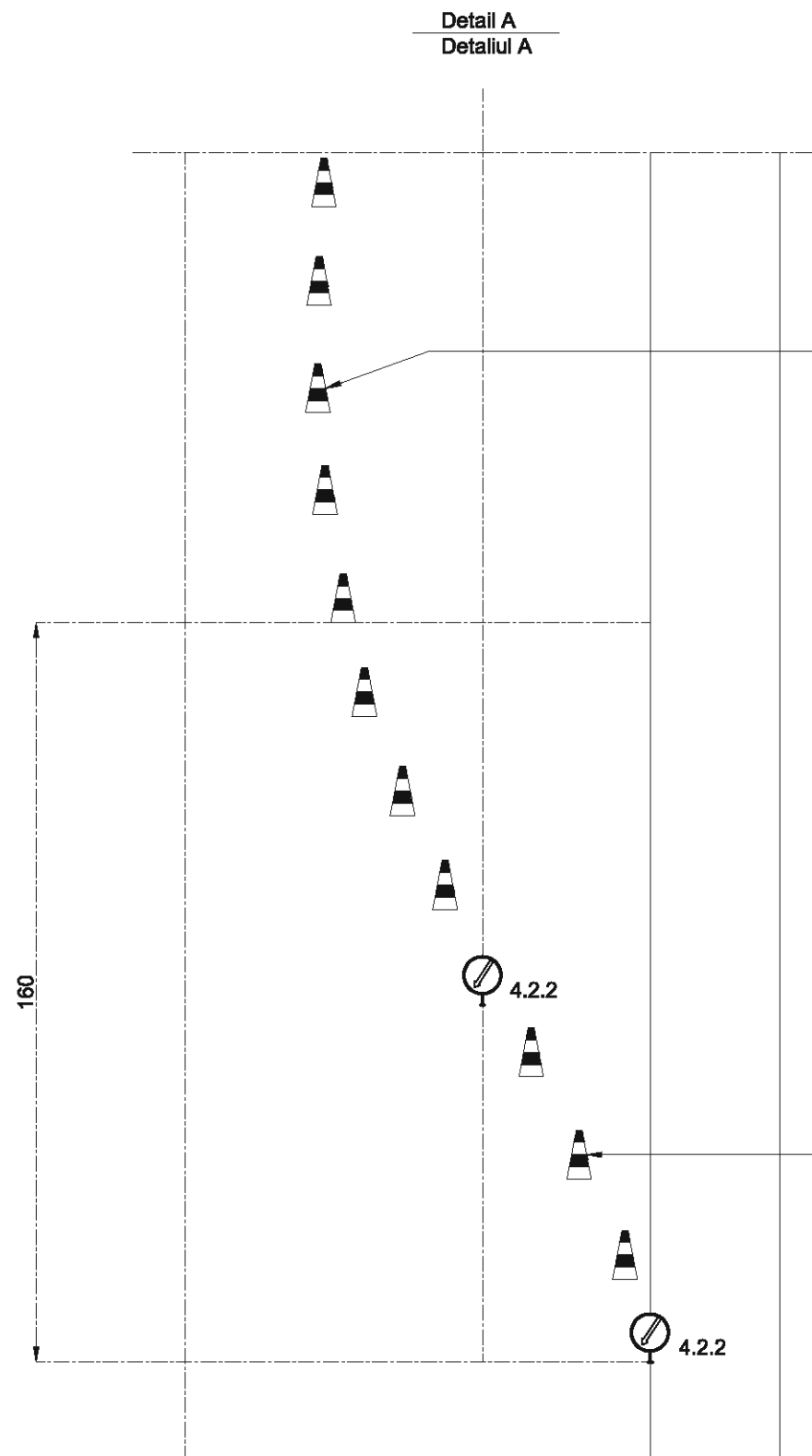


See detail A  
Detaliu A

All dimensions mentioned in m  
Dimensiunile în m

Work on two lanes of the carriageway  
Lucrări pe două benzi

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



Work on two lanes of the carriageway  
Lucrări pe două benzi

4-8 cones / 100m during day and night respectively  
4-8 conuri / 100m ziua si noaptea inclusiv

32 cones  
32 conuri



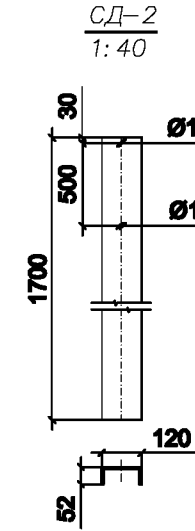
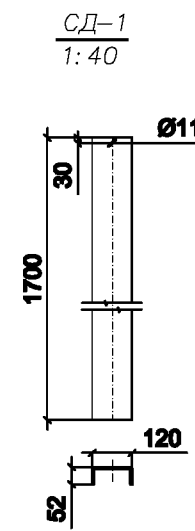
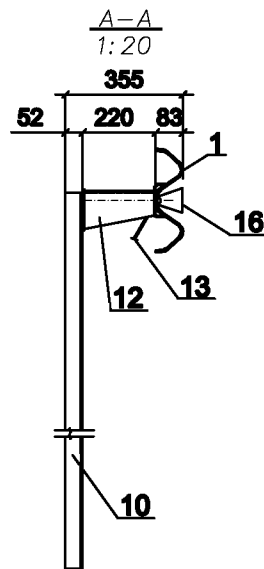
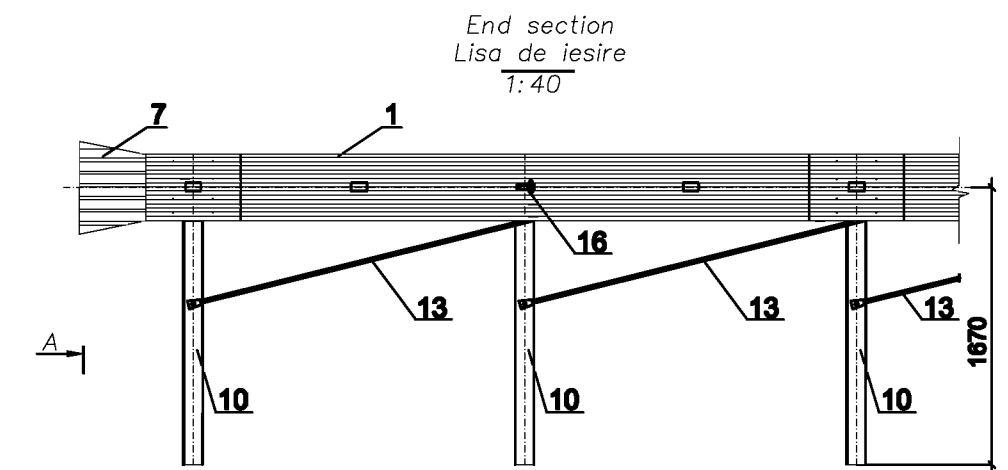
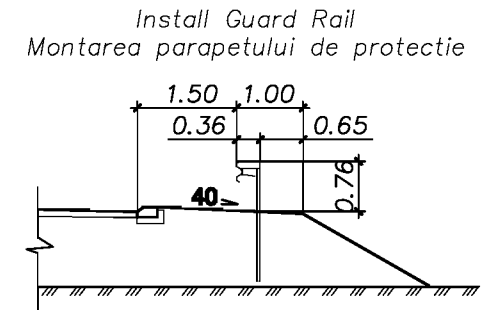
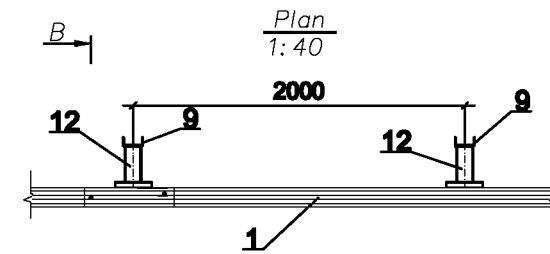
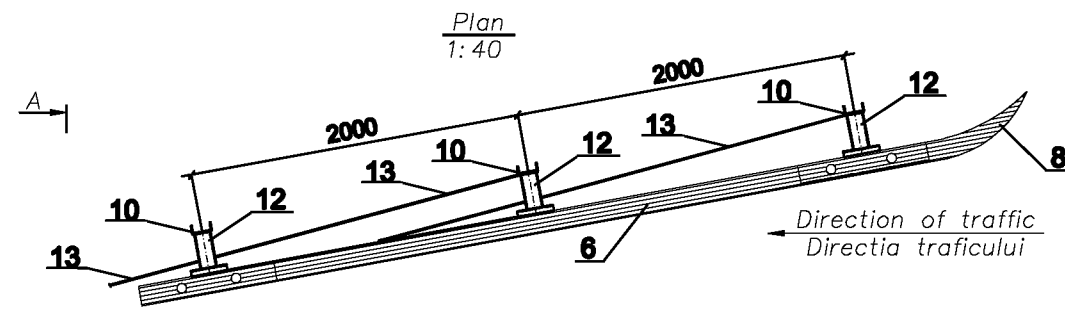
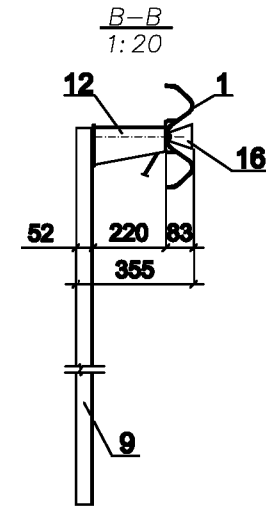
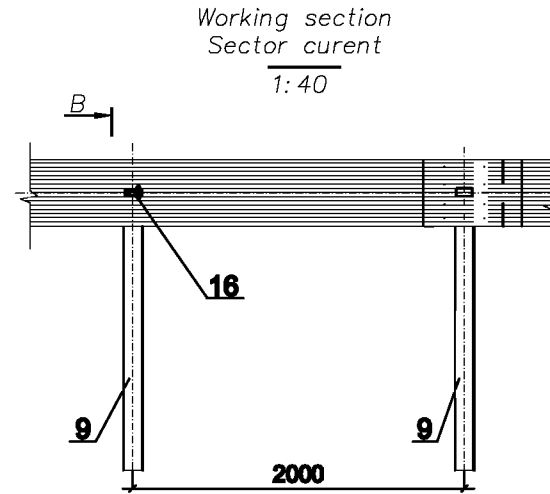
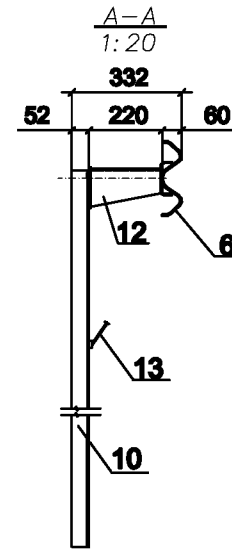
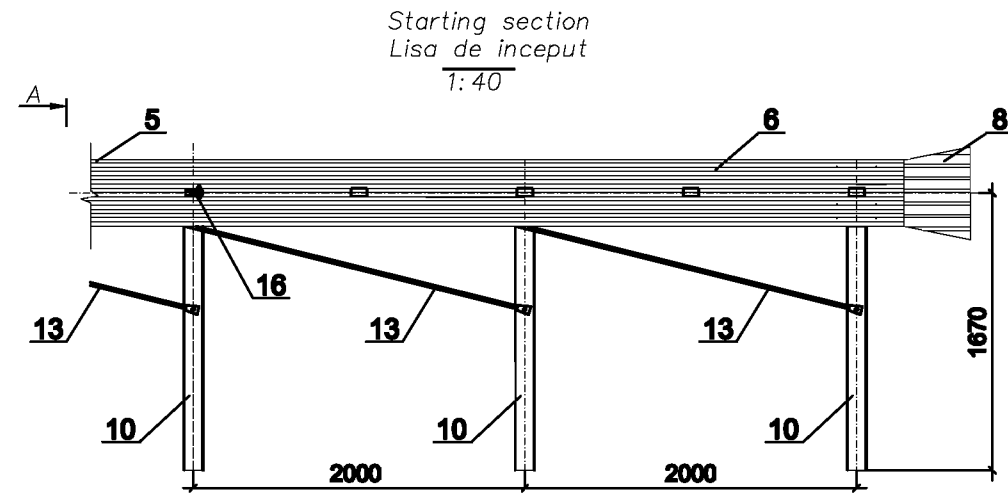
4 cones / 100m  
4 conuri / 100m

Safety barriers  
Barieră de protecție

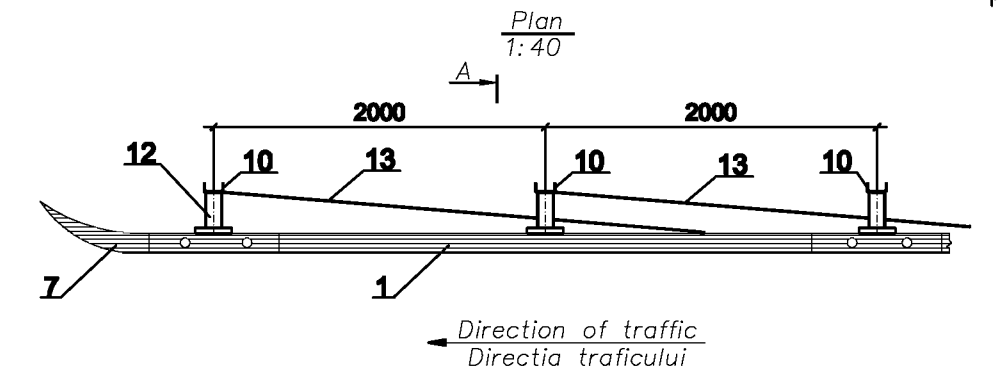
Work on shoulder  
Lucrări pe acostament

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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
		Designed	Gisca	Scale	
		Checked	Bogza	Drawing	SRP-DA-3
		Control STAS	Belic		

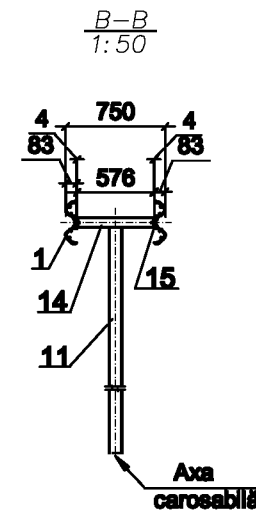
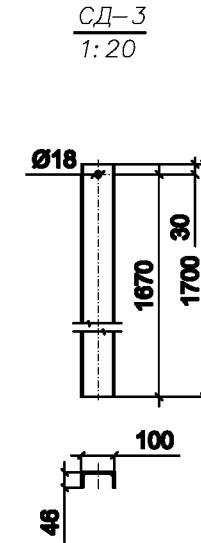
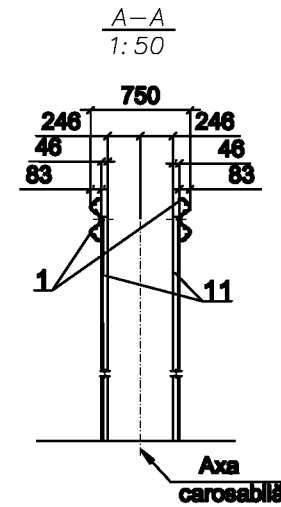
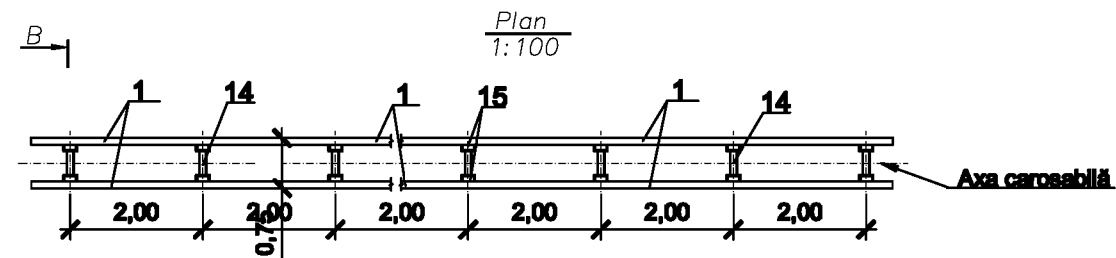
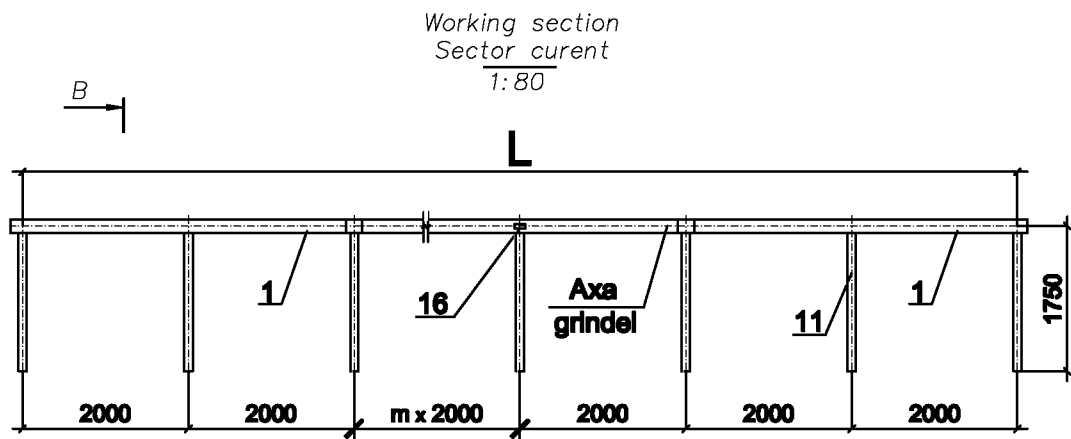
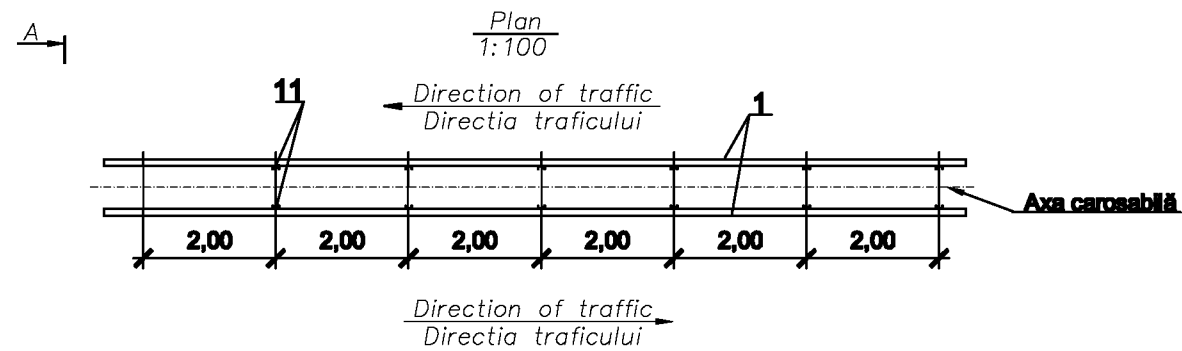
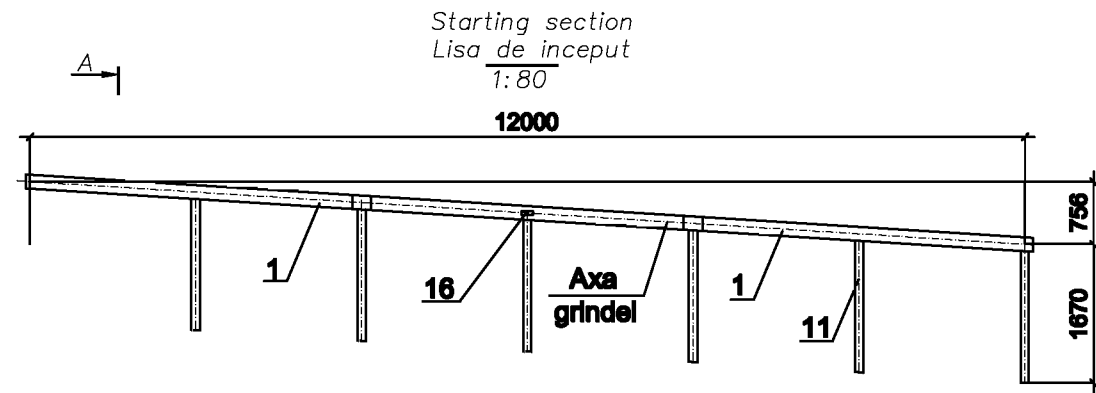
SAFETY BARRIER FOR GANTRIES  
GLISIERA PROTECTOR



- 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 ЮК
- 13 - Cuple diagonale СДД
- 14 - Consolă-Bară КР - 1
- 15 - Crampon СК - 1
- 16 - Element reflector ЭС - 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 M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Safety barrier for gantries Parapet metalic tip 11 ДО-ММ.Н	Designed	Mardari	Scale	
		Checked	Bogza	Drawing	PM-DA-1
		Control STAS	Belic		

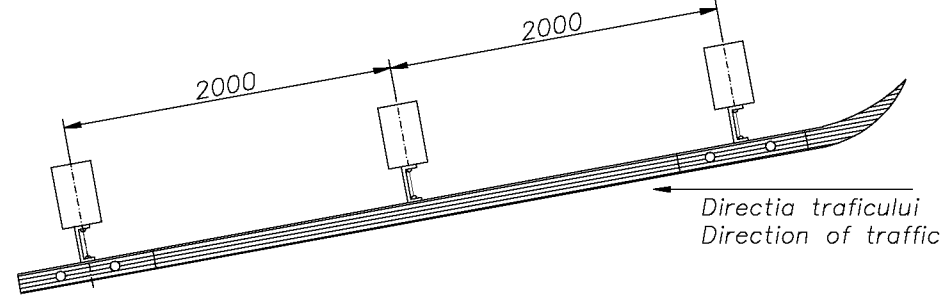
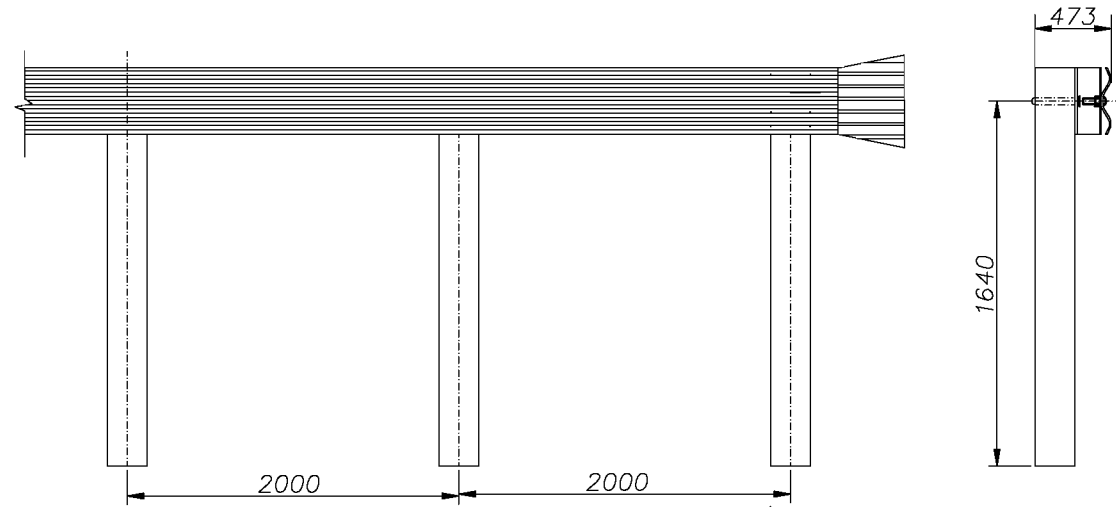


- 1 - Secția grinzii C5-1
- 11 - Stîlp CД - 3
- 14 - Consolă-Bară KP - 1
- 15 - Crampon CK - 1
- 16 - Element reflector ЭС - 1

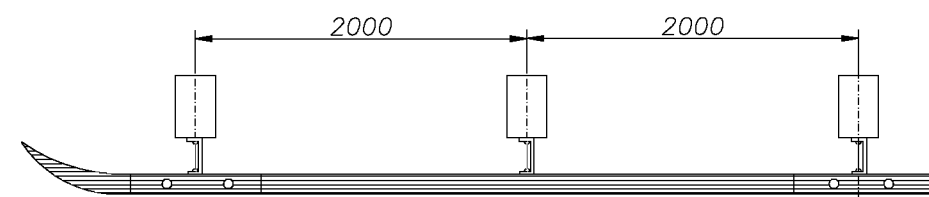
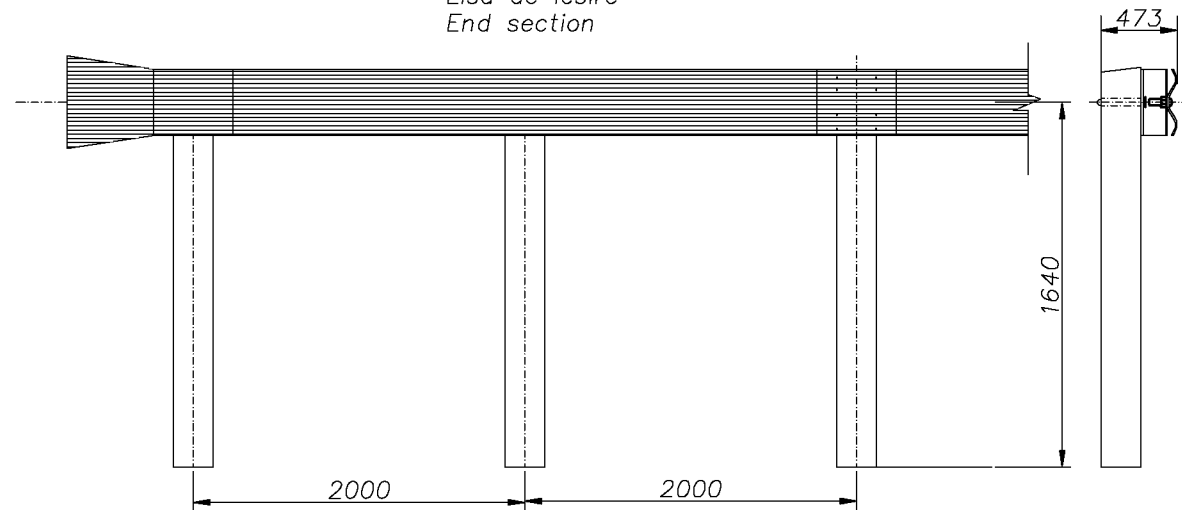
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni Drawing title Safety barrier for gantries Parapet metalic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

GLISIERA PROTECTOR  
SAFETY BARIER FORGANTRIES

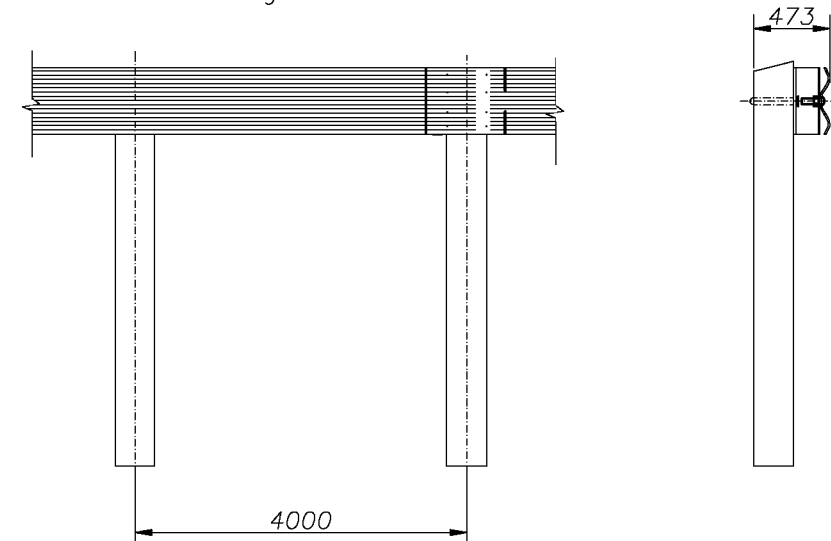
Lista de inceput  
Starting section



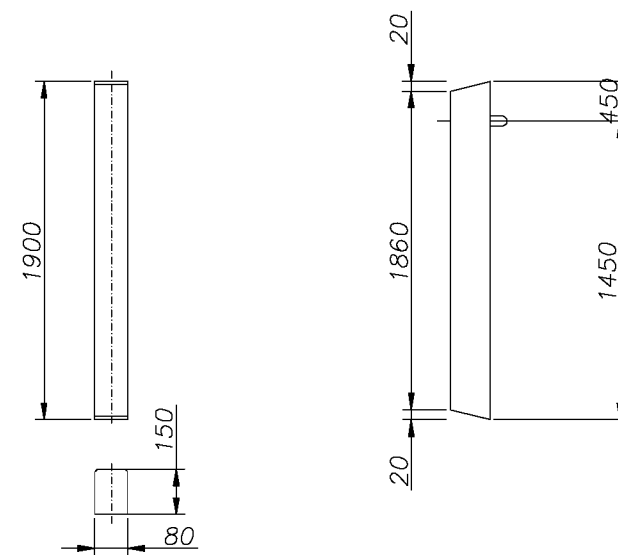
Lisa de iesire  
End section



Sector curent  
Working section

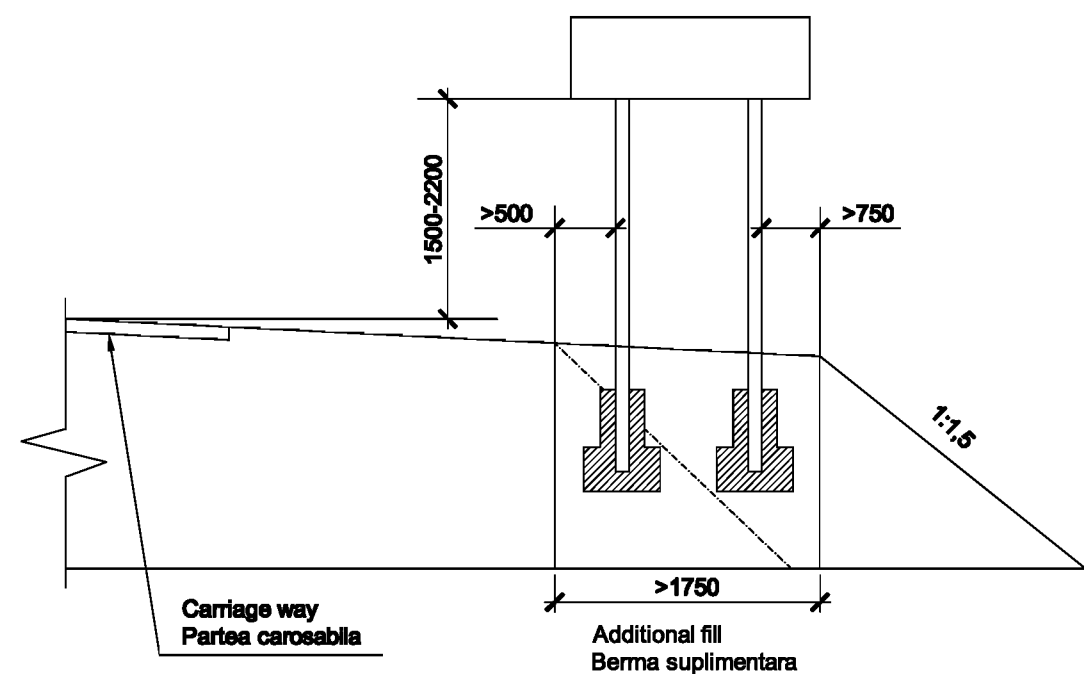
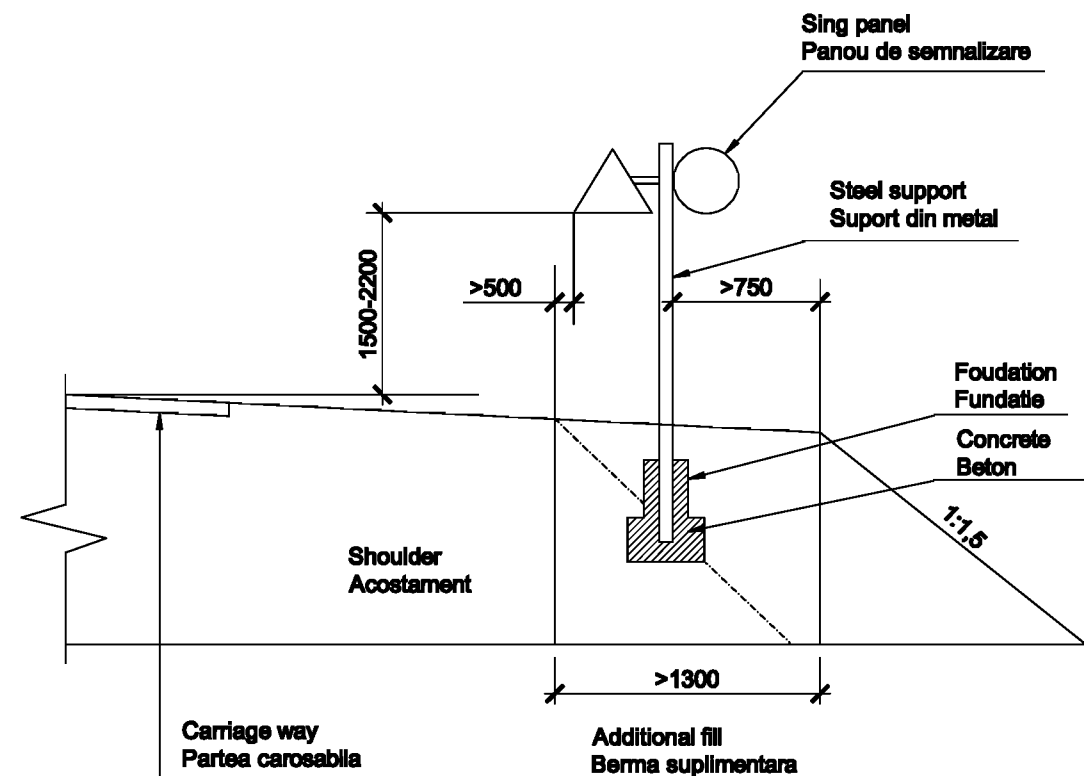


Stilp de dirijare  
Delineators

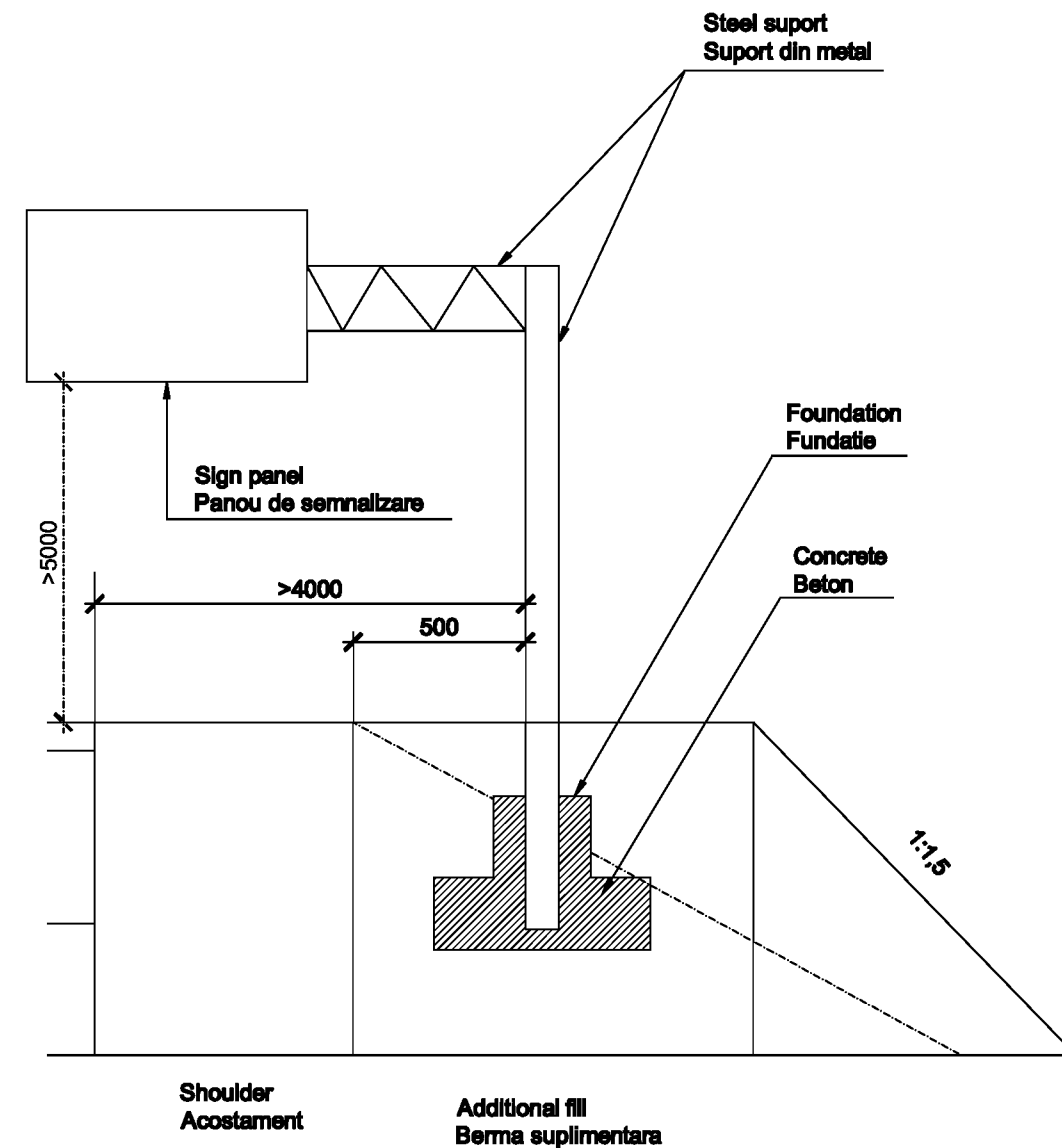


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector	Programme	Support	Project	
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
	Drawing title Safety barrier for gantries Parapet metalic	Designed	Plinschi	Scale	
		Checked	Bogza	Drawing	PM-DA-3
		Control STAS	Belic		

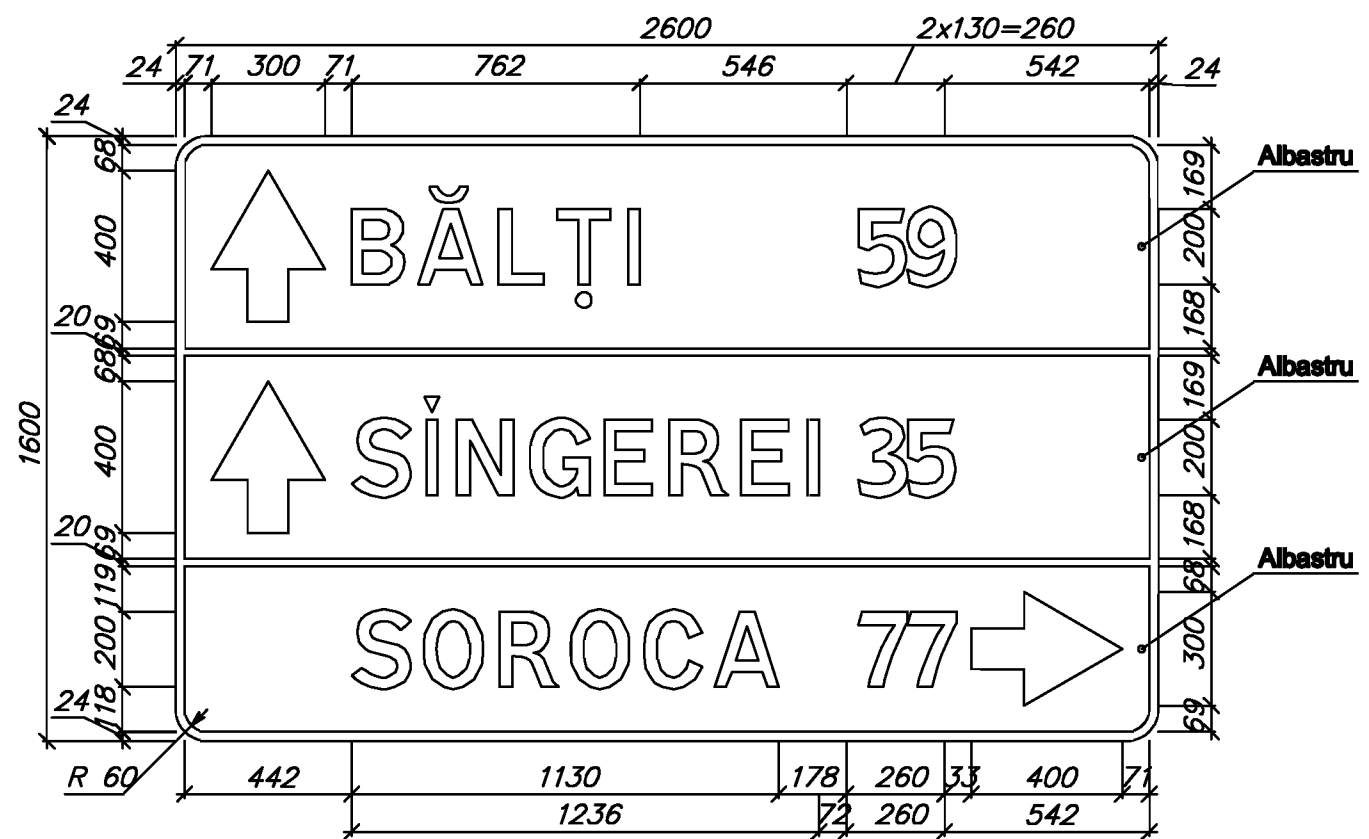
Existing and disigned supports for signs installed at the edge of road earth bed  
Suport de semnalizare existent și proiectate, instalate la marginea terasamentului



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	Rehabilitation of M 2 Road Chisinau-Sărăteni	ISP	Bogza	Date	12.2007
TRL		Designed	Plinschi	Scale	
Blizzard	Drawing title Existing and disigned supports for sings installed. Suporturi existente și proiectate de instalatie a semnelor rutiere	Checked	Bogza	Drawing	SIIR-DA-1
Universcons		Control STAS	Belic		

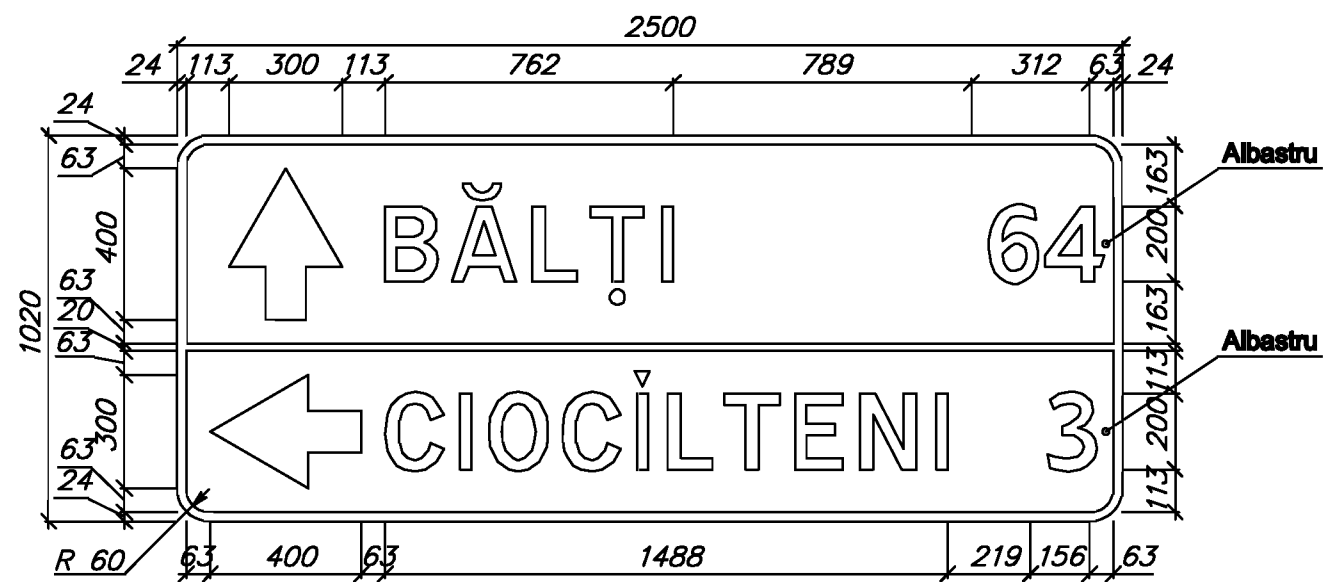


**Nota**

Numar indicator: 5.61.2  
 Panou: 2600 x 1600 mm  
 Fon: Albastru  
 Suprafata: 4.16 m<sup>2</sup>  
 Scara: 1 : 20

<b>European Investment Bank</b>	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza		Date	12.2007
		Designed	Plinschi		Scale	<b>1:1000</b>
	Drawing title Nonstandard road signs 5.61.2 Indicator rutier individual 5.61.2	Checked	Bogza		Drawing IRI-DA 1	
		Control STAS	Belic			

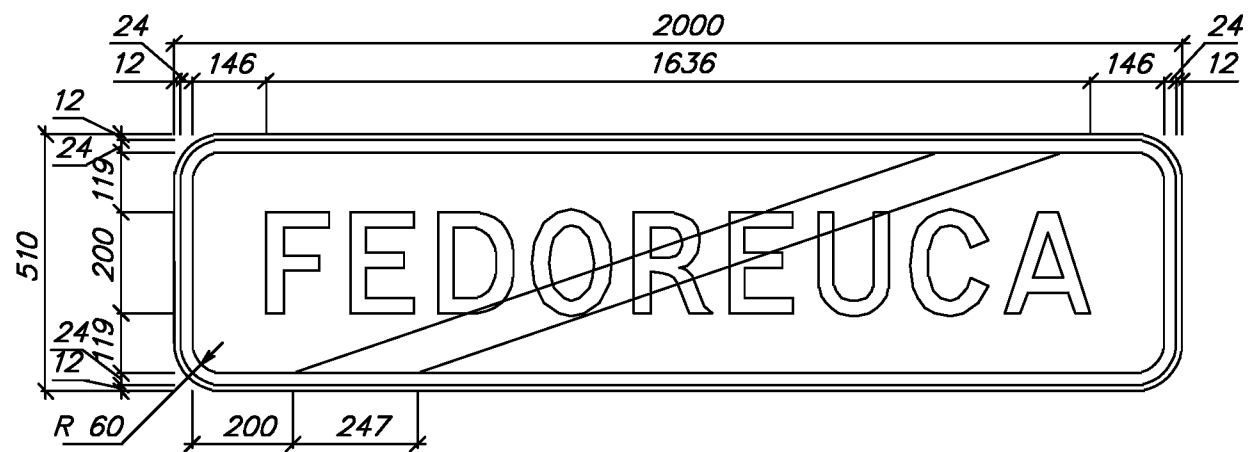
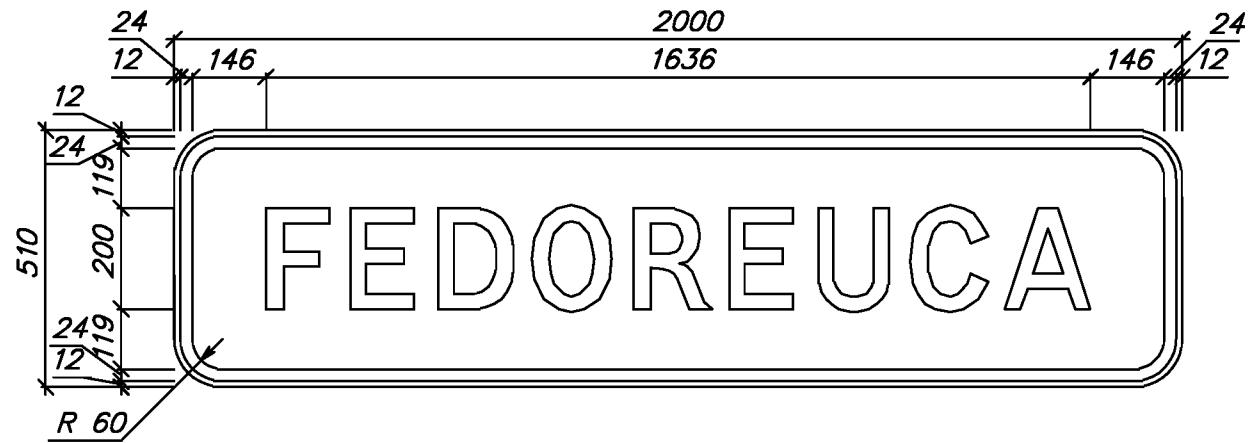




**Nota**

Numar indicator: 5.61.2  
 Panou: 2500 x 1020 mm  
 Fon: Albastru  
 Suprafata: 2.55 m<sup>2</sup>  
 Scara: 1 : 20

<b>European Investment Bank</b>	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza	Date	12.2007
		Designed	Plinschi	Scale	<b>1:1000</b>
	Drawing title Nonstandard road signs 5.61.2 Indicator rutier individual 5.61.2	Checked	Bogza	Drawing	IRI-DA 2
		Control STAS	Belic		



**Nota**

**Numar Indicator: 5.631;5.64**  
**Panou: 2000 x 510 mm**  
**Fon: Alb**  
**Suprafata: 1.02 m<sup>2</sup>**  
**Scara: 1 : 15**

<b>European Investment Bank</b>	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project					
Roughton International TRL Blizzard Universcons	<b>Rehabilitation of M 2 Road Chisinau-Sărăteni</b>	ISP	Bogza		Date	12.2007
	Drawing title	Designed	Plinschi		Scale	<b>1:1000</b>
	Nonstandard road signs 5.63.1;5.64 Indicator rutier individual 5.63.1;5.64	Checked	Bogza		Drawing	IRI-DA 3
		Control STAS	Belic			

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

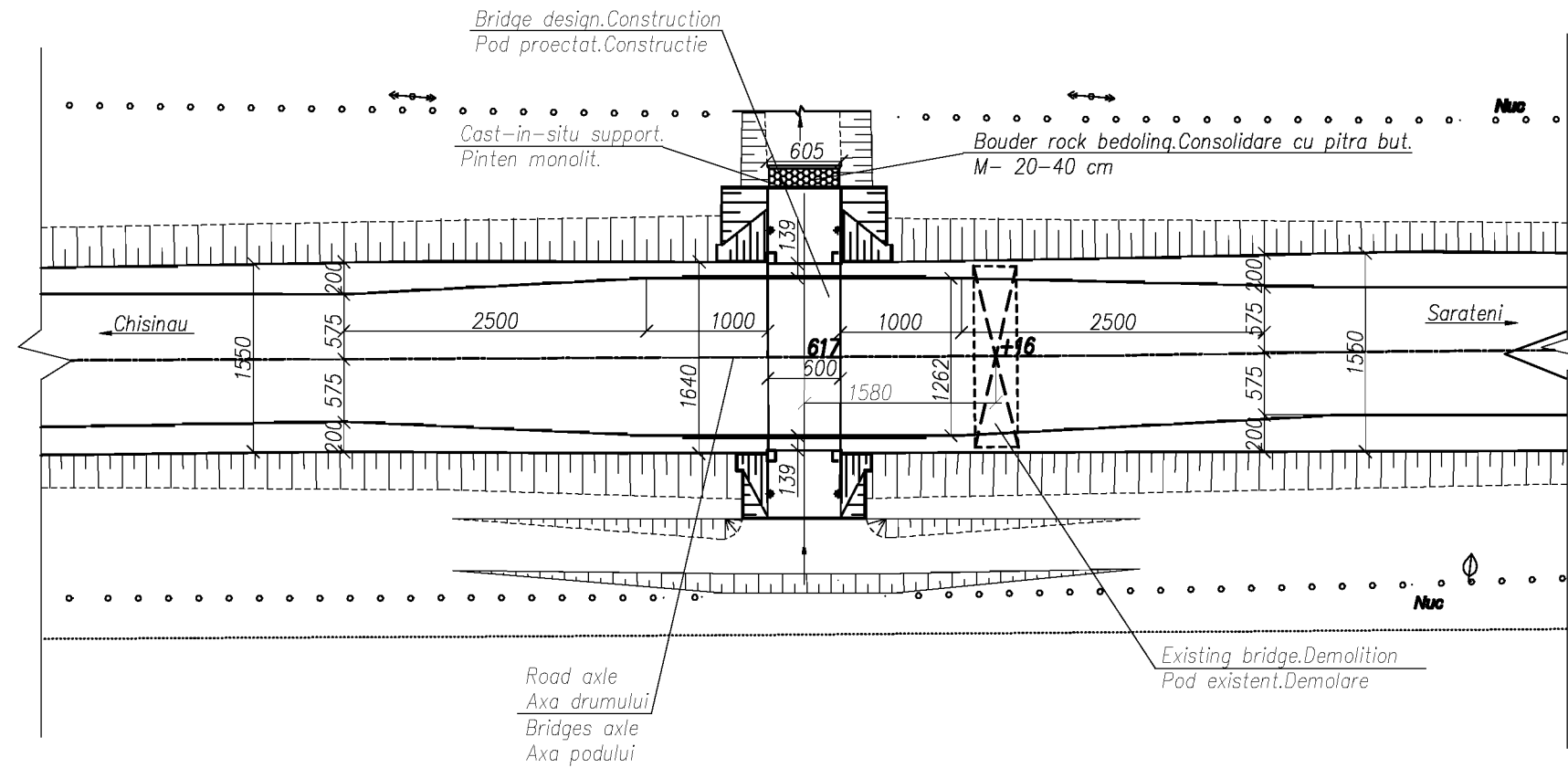
Item No. Nr.d/o	Name Denumirea	Index Marcarea	Drawings Planse	Note Nota
1	General data. Date generale.	DG-P 1	1	
2	Layout of Bridge Deck and Carriageway Planul trecerii de pod	PT-P 2	1	
3	General plan.Front Dispozitia generala.Fatada.	DGF-P 3	1	
4	General Plan Dispozitia Generala.Plan	DGP-P 4	1	
5	General plan.Cross-section-Abutment. Dispozitia Generala.Sectiunea transv.Culee	DGT-P 5	1	
6	General plan.Specification Dispozitia generala.Specificatii.	DGS-P 6	1	
7	Safety wall.Cast-in-situ Zid de garda.Monolit	ZG-P 7	1	
8	Quantities.Safety wall. Specificatia.Zid de garda.	SZG-P 8	1	
9	Bearing concrete on collar-beam Bancheta cuzenitelor.	BC-P 9	1	
10	Deck slab Dala suprastructurii 6	DD-6-P 10	1	
11	Deck Slab Dala suprastructurii 6*	DS6*-P 11	1	
12	Slab deck.Cage Dala suprastructurii.Carcas	CD-P 12	1	
13	Approach slab. Dala de racordare.	DR-P 13	1	
14	Formwork.Blocks. Schema de cofraj.Bloc	SCB-P 14	1	
15	Formwork.Blocks. Schema de cofraj.Bloc	SCB-P 15	1	
16	Retaining wall Placa zidului de sprijin	PZS-P 16	1	
17	Quantities for retaining wall Specificatie.Placii zidului de sprijin	SPZS-P 17	1	
18	RC walkway 0.75m wide Trotuar din beton armat cu lăţimea de 0,75 m	TB-P 18	1	
19	Bridge guardrails. Guardrail posts Parapeţi metalici de siguranţă a circulaţiei vehiculelor	PMS-P 19	1	

**List of references to documents  
Lista referintelor la documente.**

Reference.Indicare	Item.Denumirea	Note.Nota
<b>BTII 21-79</b>	Deck slabs of 12 and 18m, reinforced with prestressed steel type A-III. Dale cu lungimea de 12,18 m cu armatura pretensionata de otel clasa A-III.	<b>Guardrails Parapet</b>
<b>Series 3.503.1-75 Seria</b>	PC RC slab bridge deck of 6 and 9 m long on piers of piles. Poduri rutiere cu deschideri de 6 si 9 m din elemente de bet.armat prefabricate,rezemati pe piloti.	<b>Slabs 1IIP6,1* Dala.</b>
<b>Series 3.503.9-80 Seria(in respect.Aplicat)</b>	RC prismatic piles for bridge piers. Piloti din beton armat pentru rezemarea podurilor.	
<b>Series 3.503-1-79 Seria</b>	Pier of RC piles of bridge decks less than 24 m long. Reazem pe piloti pentru poduri din b/a cu deschideri de pina la 24 m.	
<b>Series 3.503-41 Seria</b>	Approach to the bridges and over passes. Racordarea podurilor rutiere si a viaductelor cu rambleu.	
<b>Series 503-09-7,84 Seria</b>	Draining structures of the road network. Edificii pentru evacuarea apelor pe dr.auto din retelele generale a SSSR.	
<b>Series 3.503.1-66 Seria</b>	PC RC units for draining structures of the road. Elemente prefabricate din b/a a edificiilor pentru evacuarea apelor la drumuri auto.	
<b>Series 3.503.1-101 Seria</b>	Waterproofing of cariagway,and Proprietary of expansion joints on bridge and averpass deck less than 33m long. Hidroizolarea partii carosabile,acoperirea rosturilor de delatatie la podurilor rutiere si viaducte cu deschideri de pina la 33 m.	
<b>Series 3.503.1-156 Seria</b>	Protection to river bed and cones,embankment slopes an small and niddle sized bridges and culvert. Consolidarea albiilor,conurilor si taluzurile rambleelor la poduri mici,mijlocii si podete.	

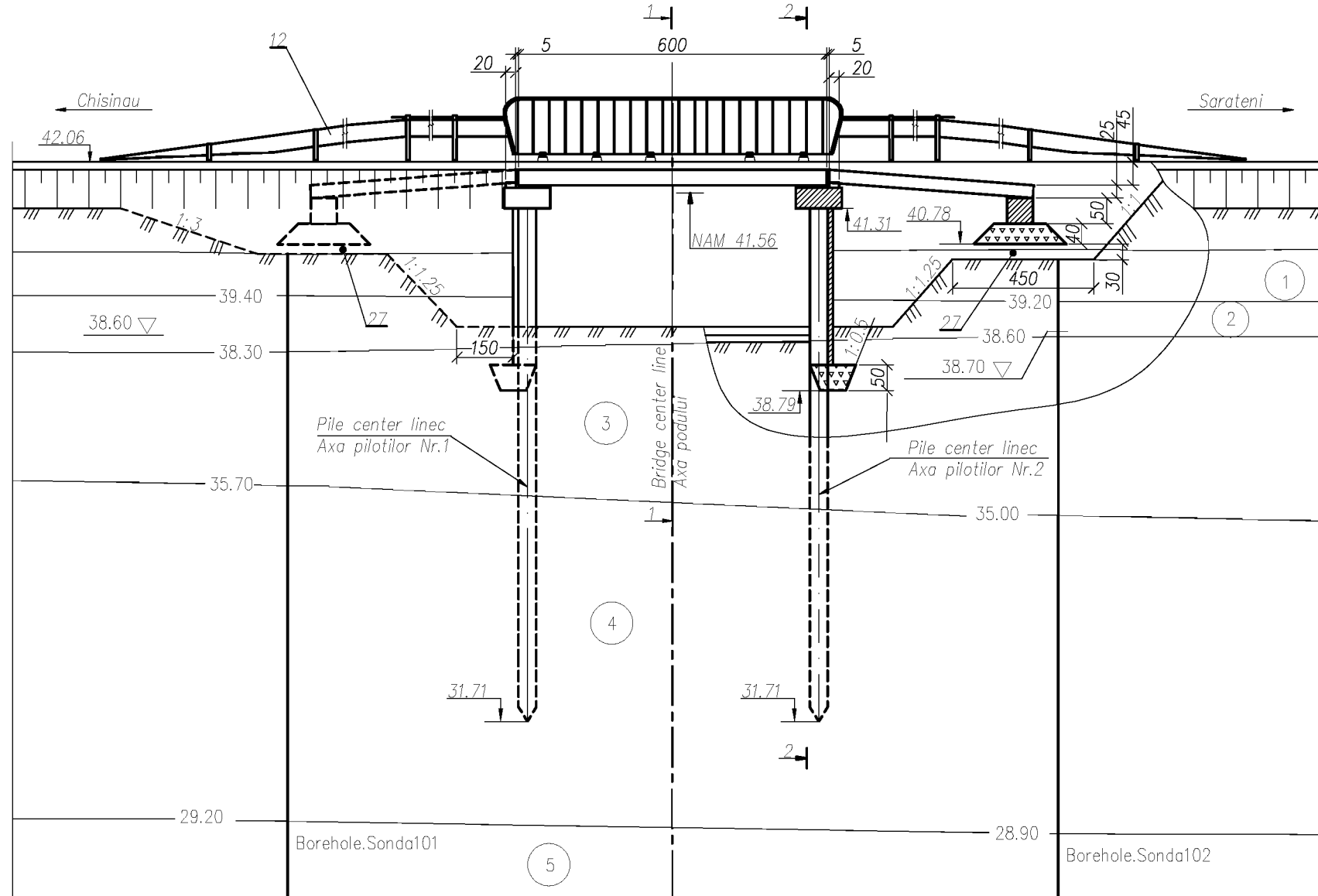
<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry State Road Administration</b>			
<b>Road Sector Programme Support Project</b>					
<b>Roughton International TRL Blizzard Universcons</b>	<b>Rehabilitation of M 2 Road Chisinau-Sarateni.Pod PC 617+00</b>	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	1:500
	General data Date generale	Checked	Ungureanu	Drawing	DG-P 1
		Control STAS	Belic		

**Layout of Bridge Deck and Carriageway**  
**Planul trecerii de pod**



<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 M 2 Road Chisinau-Sarateni.Pod PC 617+00</b> Drawing title Layout of Bridge Deck and Carriageway Planul trecerii de pod	ISP	Bogza	Date	12.2007
		Designed	Cecan	Scale	1:500
		Checked	Ungureanu	Drawing PT-P 2	
		Control STAS	Belic		

Longitudinal profile  
Profil longitudinal



CONVENTIONAL IDENTIFICATION. INDICI DE BAZA

- nQiv  
Fill—crushed stone,sand,asphalt concrete,loamy soil.  
Umplutura pamint-petris,nisip ,asfaltobeton,sol argilos.
- nQiv  
Clay with all kind of vegetation remains.  
Argila cu resturi organice.
- aldlQiii-iv  
Heavy loamy soil with sand interlayers.  
Sol argilos-nisipos prafos cu straturi de nisip.  
n8a,2 ИГЭ-I
- aldlQiii-iv  
Average grained sand with fine sand and gravel.  
Nisip cu granulatie medie cu straturi de nisip fin si pietris.  
n.27a,8 ИГЭ-II
- N1s2  
Colloidal clay.  
Argila prafosa.  
n.27a,8 ИГЭ-III
- n.33a,8** Classification by soil exploitation deficiency.  
Clasificarea solorilor dupa dificultatea lor de exploatare.  
(CHУПНВ-5-82, c6.1 m.1)

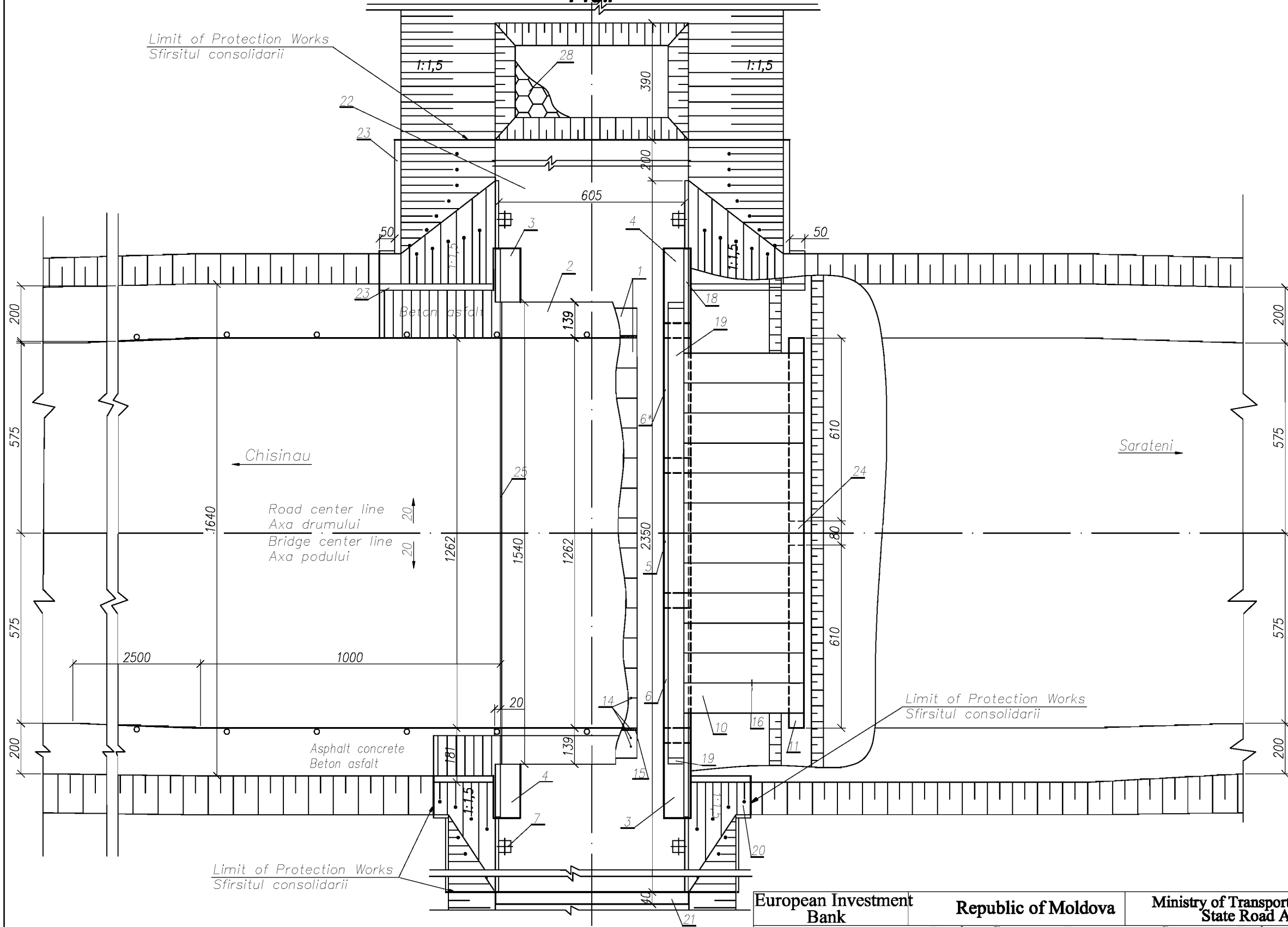
Cota proiect Design level	Slopes and vertical curves Declivitatea si curbe verticale	0				
	Road center line levels Cotele pe axa drumului	42.06	42.06	42.06	42.06	42.06
Cota teren Control level	Ground level Cota teren	41.31	38.70	38.70	38.70	41.31
	Distance.Distanta	2.10	6.11	2.10		
Chainage.Pichet		617+00				

SOIL CONDITION.STAREA SOLULUI

Clay sand.Sol nisipos	Loamy soil,clay.Sol argilos,argile
	Hard.Dure
	Semihard.Semidure
	Refractar low plastic.Grad de plasticitate mare.
Watersaturated.Saturat cu apa.	

<b>European Investment Bank</b>	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-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
	Drawing title General plan.Front Dispozitia generala.Fatada.	Designed	Cocan	Scale	
		Checked	Ungureanu	Drawing	
		Control STAS	Botic	DGF-P 3	

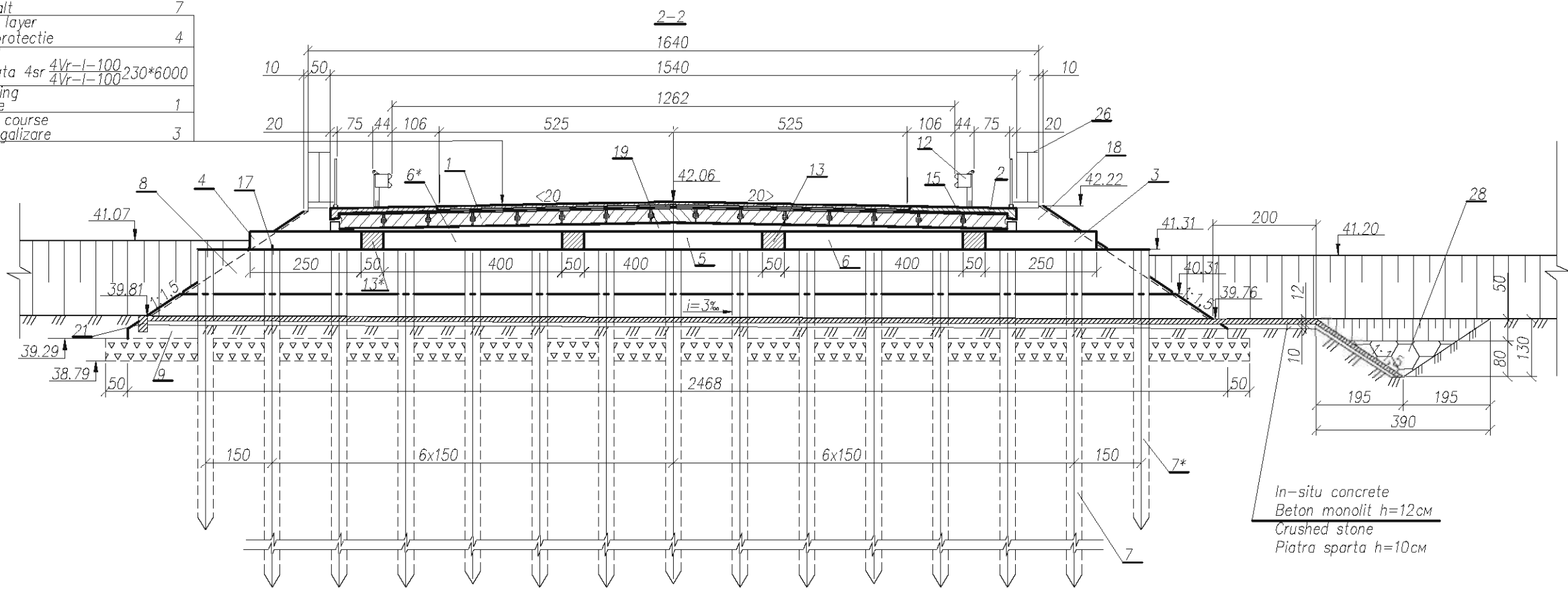
**Layout Plan**



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	<b>Rehabilitation of M 2 Road Chisinau-Sarateni.Pod PC 617+00</b>		ISP	<b>Bogza</b>	Date 12.2007
	Drawing title General Plan Dispozitia Generala.Plan		Designed	<b>Cecan</b>	Scale
			Checked	<b>Ungureanu</b>	Drawing
			Control STAS	<b>Belic</b>	DGP-P 4

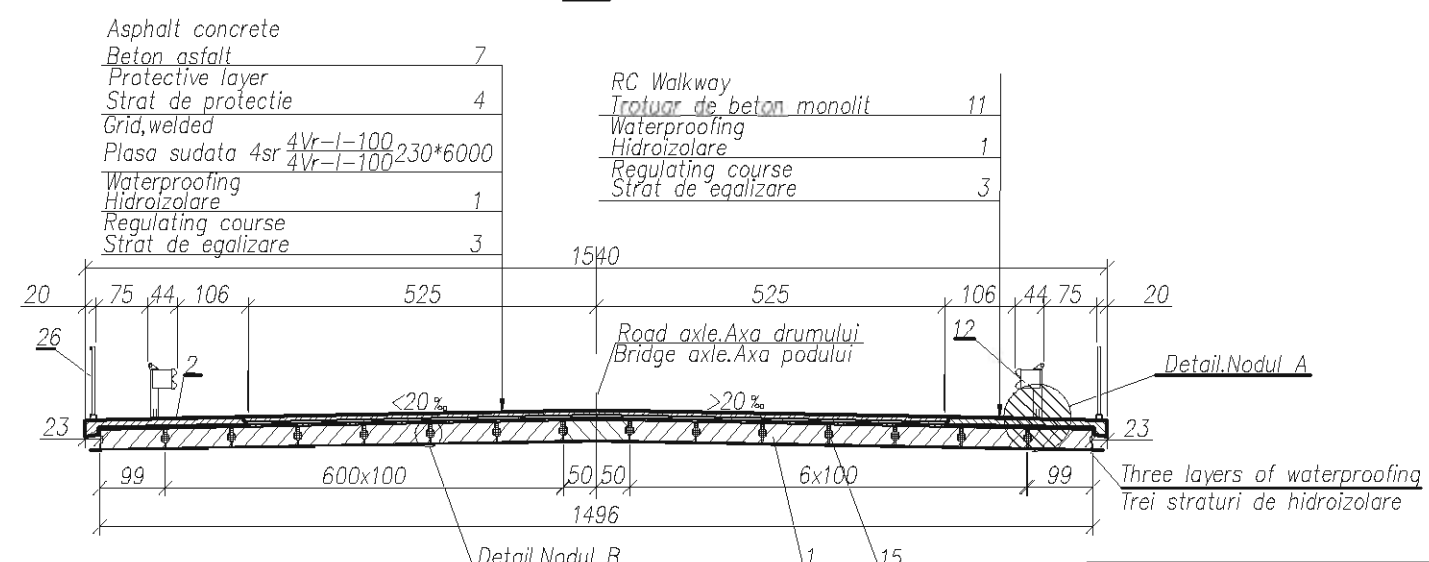
Asphalt concrete	7
Beton asfalt	7
Protective layer	4
Strat de protectie	4
Grid,welded	
Plasa sudata 4sr 4Vr-l=100	230*6000
Waterproofing	1
Hidroizolare	1
Regulating course	3
Strat de egalizare	3

**Cross section**  
**Profil transversal**

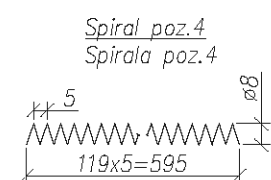
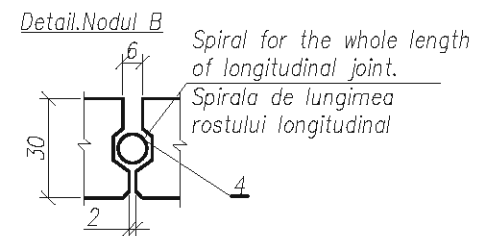
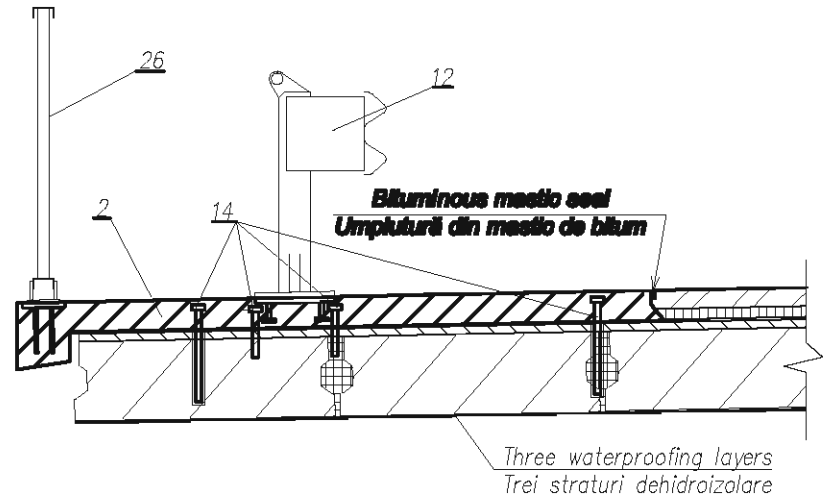


In-situ concrete  
Beton monolit h=12cm  
Crushed stone  
Piatra sparta h=10cm

**Cross section**  
**Profil transversal**



**Detail.Nodul A**  
**Fixing the walkway blocks with concrete**  
**Incastrarea blocului de trotuar**

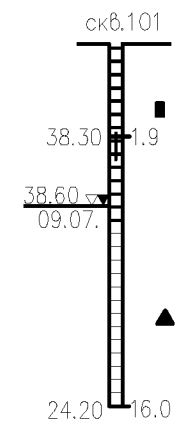


European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector	Programme Support	Project		
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
	General title	Designed	Cecan	Scale	
	Dispozitia Generala.Sectiunea transv.Culee	Checked	Ungureanu	Drawing	
		Control STAS	Belic		DGT-P 5

Marca, Pozi.	Reference.Indicare	Item.Denumirea	Quantity. Cantitati	Unit weight Masa uni.,kg	Note. Nota
<b>Precast RC units.Elemente prefabricate din bet.armat</b>					
1	Paper.Plansa DS6(*)-P 10(11)	Slab structure span. Dalele suprastructurii.	15	2600	1.03m <sup>3</sup>
3	Paper.Plansa SCB-P 14-15	Collar-beam.Rigla 15H 25-1-1*	2	2000	0.78m <sup>3</sup>
4	-//-//-//-	15H 25-1-2*	2	2000	0.78m <sup>3</sup>
5	-//-//-//-	15H 40-1-3*	2	3224	1.25m <sup>3</sup>
6	-//-//-//-	15H 40-1-3**T	2	3224	1.25m <sup>3</sup>
6*	-//-//-//-	15H 40-1-3**H	2	3224	1.25m <sup>3</sup>
7	Design-Type.Pr.tip 3.501-86	Piles.Pilot SM 10-35T5	26	3100	1.25m <sup>3</sup>
7*	Design-Type.Pr.tip 3.501-86	SM 6-35T3	4	1900	0.76m <sup>3</sup>
Wallssl.Ziduri					
8	Paper.Plansa PZS-P 16	PZS-1	52	381	0.15m <sup>3</sup>
9	Paper.Plansa PZS-P 16	PZS-2	4	382	0.15m <sup>3</sup>
10	Paper.Plansa DR-P 13	Approach slab.Dala de racordare.	24	2350	0.94m <sup>3</sup>
11	Design-Type.Proiect tip.3.503-41.V.2	Precast Bearing beam.Langrina prefab.	4	4300	6.84m <sup>3</sup>
<b>Cast-in-situ structure.Constructii monolite</b>					
2	Paper.Plansa TB-P 18	RC Walkway.Trotuar din beton monolit			3.48m <sup>3</sup>
13/13*	Design-Type.Proiect tip.3.503-IS	Jointing of collar-beam slabs.Unirea riglei	4/4		0.18m <sup>3</sup>
14	Design-Type. Proiect tip.3.503-1-75,3 1300-01	Dowel bars.Conector	96	1,2 Kg	
15	1600-01	Cast-in-situ.Monolit	2		0.51m <sup>3</sup>
16	Design-Type.Proiect tip.3.503-41.V.1	Jointing of approach slabs. Unirea dalelor de racordare	22		0.06m <sup>3</sup>
17	Design-Type.Proiect tip.3.503-79	Piles with collar beam.Pilot cu rigla.	26		0.1m <sup>3</sup>
18	Design-Type.Pr.tip.3.503-IS;ZG-P 7	Abutment wall.Zid da garda	2		1.72m <sup>3</sup>
19	Design-Type.Pr.tip.3.503-IS;ZG-P 9	Bearing concrete on collar-beam. <b>Bancheta cuzinetilor.</b>	2		1.14m <sup>3</sup>
20	Design-Type.Pr.tip 3.507.1-156	Consolidation to slopes.Consolidare taluz	1		6.6 m <sup>3</sup>
21		Support.Pinten40x50 cm	1		1.7m <sup>3</sup>
22	Design-Type.Pr.tip 3.501.0-29	Protection to River bed.Consolidare albiei	1		16.6m <sup>3</sup>
23	Design-Type.Pr.tip 3.501.1-156	Support.Pinten75x21 cm	1		4.64m <sup>3</sup>
24	Design-Type.Pr.tip 3.503-41,v.1	Jointing of bearing beams.Irbinare langrinda	2		0.24m <sup>3</sup>
	Design-Type.Pr.tip 3.503.1-81	Protective layer.Strat de protectie	1		2.43m <sup>3</sup>
	Design-Type.Pr.tip 3.503.1-81	Regulating course.Strat de egalizare	1		2.6m <sup>3</sup>
	Design-Type.Pr.tip 3.503.1-81	Grid,welded Plasa sudata 4sr 4Vr-1-100 4Vr-1-100 230*6000	4	31.3	
	Design-Type.Pr.tip 3.503.1-81	Asphalt concrete.Beton asfalt	1		45.0m <sup>3</sup>
25	Design-Type.Pr.tip 3.503.1-101	Expansion joint.Rost de delatare	2		14.4m.l
Bridge parapet rails.Elemente metalice ale parapetului pe pod.					
26	Design-Type.Pr.tip BT121-79	Pedestrian parapets.Parapet pietonal.	1		14.4m.l
12	Paper.Plansa PMS-P 19	Bridge guardrails.Guardrail posts. Parapeti metalici de siguranta a circulatiei vehiculelor.	2		35m.l
27		Filter fill.Sol drenant.	1		30,39m <sup>3</sup>
28		Boulder rock bedding.Consolidare cu pitra but.	1		4.6m <sup>3</sup>

### Descriptions soil.Characteristicile solului.

Nr.laeyr. Nr.strat.	Item layer.Denumirea stratului	$\gamma_s$ g/cm <sup>3</sup>	C, KPa	$\varphi$ ,	$\sigma$	IL	$R_0$ KPa	Type of soil by seismicity. Categ.solului dupa seismic.
1	Fill-crushed stone,sand,asphalt concrete,loamy soil. Umplutura pamint-petris,nisip,asfaltobeton,sol argilos.							
2	Clay with all kind of vegetation remains. Argila cu resturi organice.							
3	Colloidal clay with interlayers of sand. Argila prafoasa cu straturi de nisip. n8a,z ИГЭ-I	1.85	13	17	0.815	0.28	209*	II
4	Average grained sand with fine sand and gravel. Nisip cu granulatie medie cu straturi de nisip fin is pietris. n.27a,b ИГЭ-II						400*	II
5	Colloidal clay. Argila prafoasa. n.27a,b ИГЭ-III	1.79	27	14	0.953	-0.0	343*	II



Cross-section. Sectiunea excavarii.

Sampling Location of soil with undisturbed structure. Locul selectarii probelor de sol cu o structura integra.

Absolute groundwater appeared and stabilised level date of measurement. Cota absoluta a nivelului aparut si a celui stabilizat al apelor subterane. Data masurarilor.

Sampling location of soil with disturbed structure. Locul selectarii probelor de sol cu o structura neintegra.

On RHC-depth of base of layer and bare-hole face. In Dreapta-adincimea stratului de jos si a sondei.

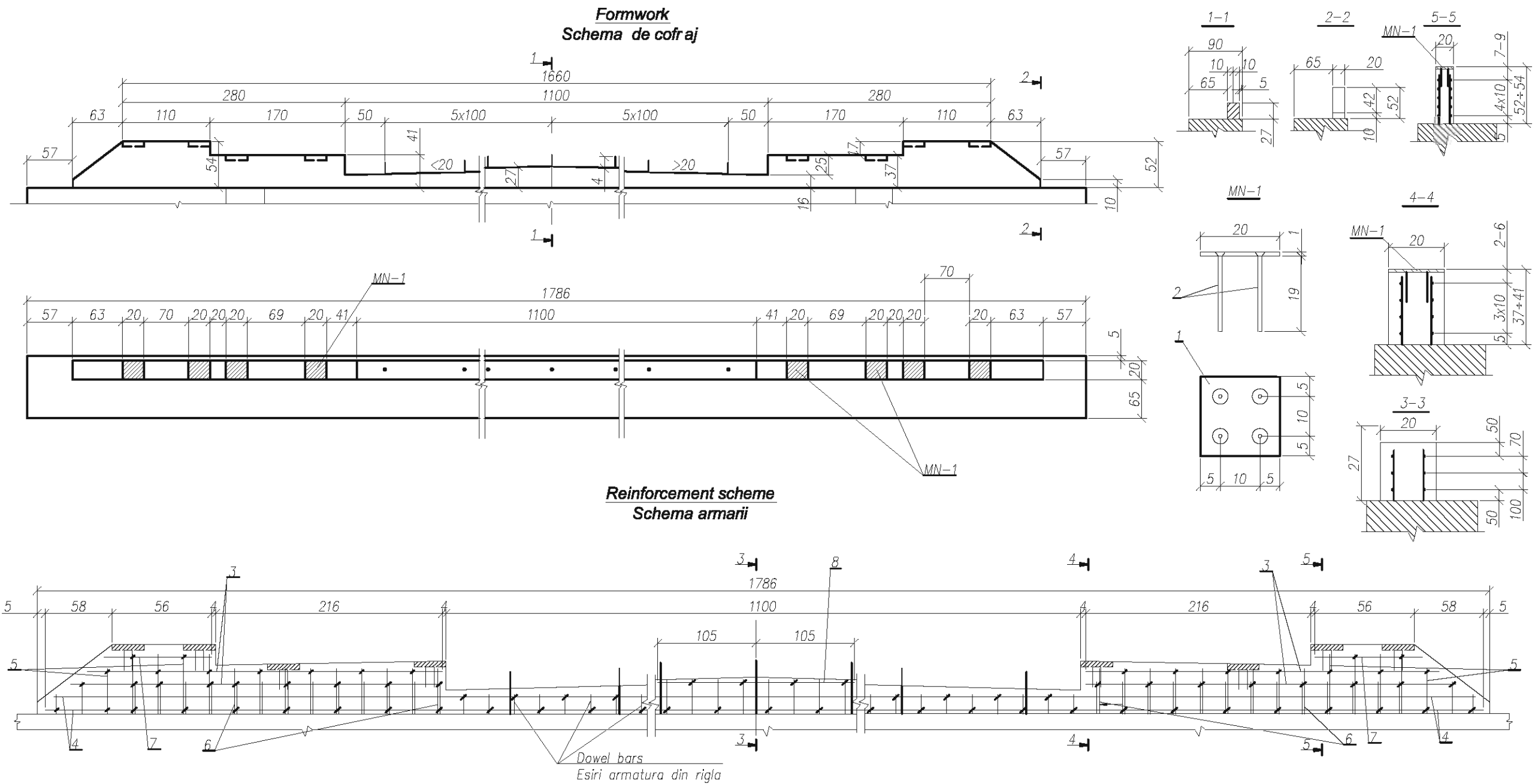
On LHS absolute level of base of layer and bare-hole face. In stinga-cota absoluta a stratului de jos si a sondei.

### Bridge hydraulic indices Indici hidraulici a podului

Nr.	Reference.Indicare	Units of measurement Unitati de masura.	Quantity. Cantitati.
1	Estimated flow Q.Volumul calculat Q.	m <sup>3</sup> /sec	39.9
2	Outlet velocity.Viteza la iesire.	m/sec	4.8

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 M 2 Road Chisinau-Sarateni.Pod PC 617+00 Drawing title General plan.Specification Dispozitia generala.Specificatii.	ISP	Bogza	Date	12.2007
		Designed	Cecan	Scale	
		Checked	Ungureanu	Drawing	DGS-P 6
		Control STAS	Belic		





Consumption of steel for the elements  
Consumul de metal pentru element, kg

Element Type Marca elementului	Reinforcement.Piese armate					Total	Reinforcement.Piese armate					Total Consum total	
	Bar type, Clasa armaturii						Total	Bar type, Clasa armaturii					
	A-I		A-III					A-III		Total			
	ГОСТ 5781-82*							ГОСТ 5781-82*					
ø6	ø8	Total	ø14	Total	ø10	-10x200	Total	ø10	-10x200	Total			
Zid de garda	13.08	40.22	53.30	211.04	211.04	157.74	0.40	3.10	3.50	3.50	161.74		

Welding p.5.6 to dowel bars is carried out according toГОСТ 14098-91,type of connection: C23-P3.  
Sudarea p.5,6 ale armaturii din rigla se va efectua conform ГОСТ 14098-91 tipul imbinarii C23-P3

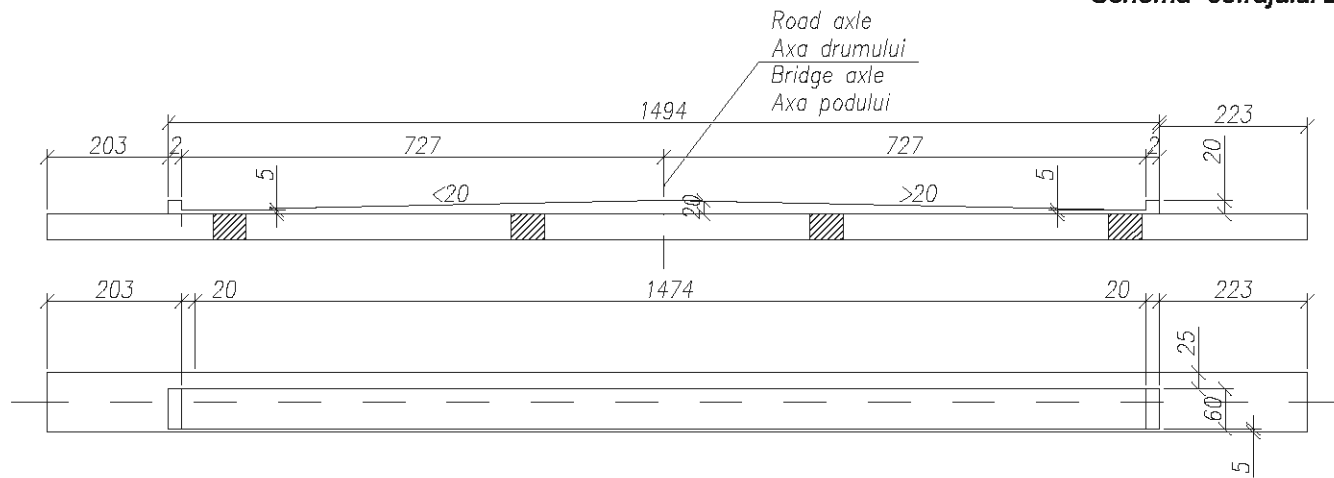
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme Support		Project	
Roughton International	Rehabilitation of M 2 Road Chisinau-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
TRL		Designed	Cecan	Scale	
Blizzard	Drawing title	Checked	Ungureanu	Drawing	ZG-P 7
Universcons	Safety wall.Cast-in-situ Zid de garda.Monolit	Control STAS	Belic		

**Quantities for safety wall.  
Specificatia zidului de garda**

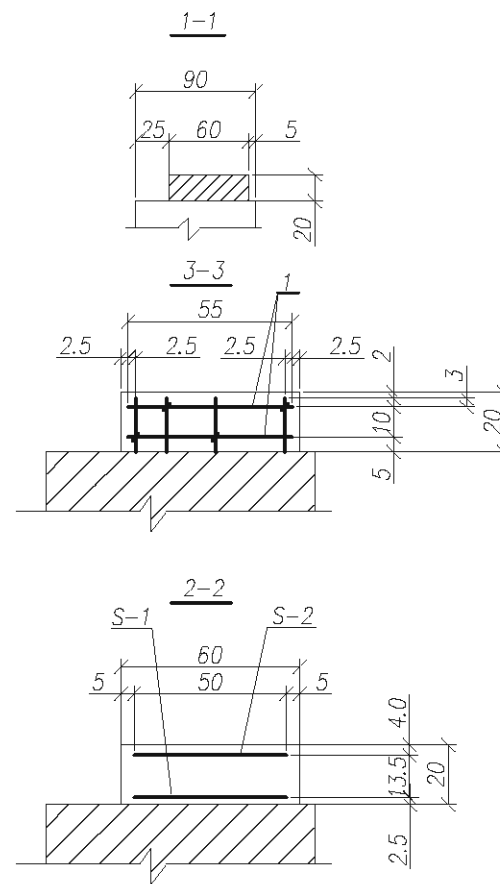
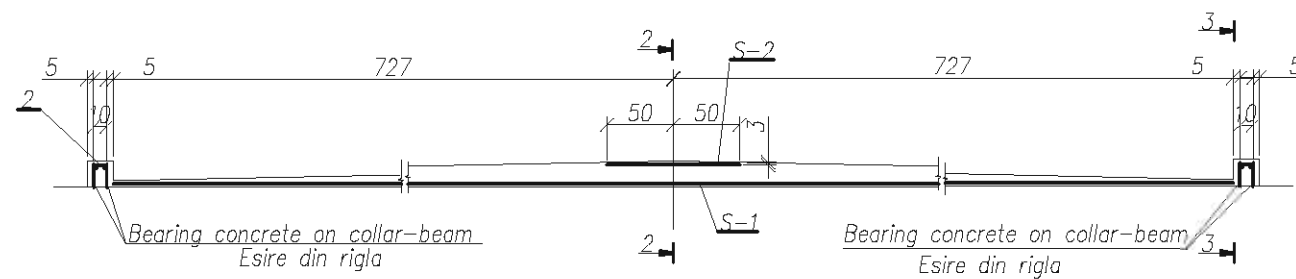
<i>Msrca. Pozi.</i>	<i>Reference.Indicare</i>	<i>Item.Denumirea</i>	<i>Quantity. Cantitati.</i>	<i>Masa.unit.,Kg</i>	<i>Note. Nota.</i>
		<i>Embedded elements.Piese de baza</i>			
		<i>MN-1</i>	8	3.5	
1	ГОСТ 103-76	-200x10; l=200	1	3.10	
2	ГОСТ 5781-82*	Ø10 A-III, l=200	4	0.10	
		<i>Detail.Detalii</i>			
3	ГОСТ 5781-82*	Ø8 A-I, l=2960	8	1.20	
4	ГОСТ 5781-82*	Ø8 A-I, l=177730	4	7.00	
5	ГОСТ 5781-82*	Ø14 A-III, l=450	16	0.54	
6	ГОСТ 5781-82*	Ø14 A-III, l=380	44	4.60	
7	ГОСТ 5781-82*	Ø8 A-I, l=620	4	0.24	
8	ГОСТ 5781-82*	Ø8 A-I, l=2100	2	0.83	
9	ГОСТ 5781-82*	Ø6 A-I, l=550	109	0.12	
		<i>Materials.Material:</i>			
	ГОСТ 26633-91	Concrete.Beton clasa: B25, F200, W6			1.72 m³

<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 M 2 Road Chisinau-Sarateni.Pod PC 617+00</b>	ISP	Bogza	Date	12.2007
		Designed	Cecan	Scale	
	<b>Drawing title Quantities.Safety wall. Specificatia.Zid de garda.</b>	Checked	Ungureanu	Drawing SZG-P 8	
		Control STAS	Belic		

**Formwork BC-1**  
**Schema cofrajului BC-1**



**Reinforcement**  
**Schema armarii**



**Tabel of elements**  
**Tabela pieselor**

Pozition Pozitia	Shape.Schita
2	

**Consumption of steel for the elements, Kg**  
**Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate				Total Consum total
	Bar type, Clasa armaturii				
	A-I		V-II		
	ГОСТ 5781-82*				
	ø6	Total	ø4	Total	
Bancheta cuzenet	1.6	1.6	17.6	17.6	19.2

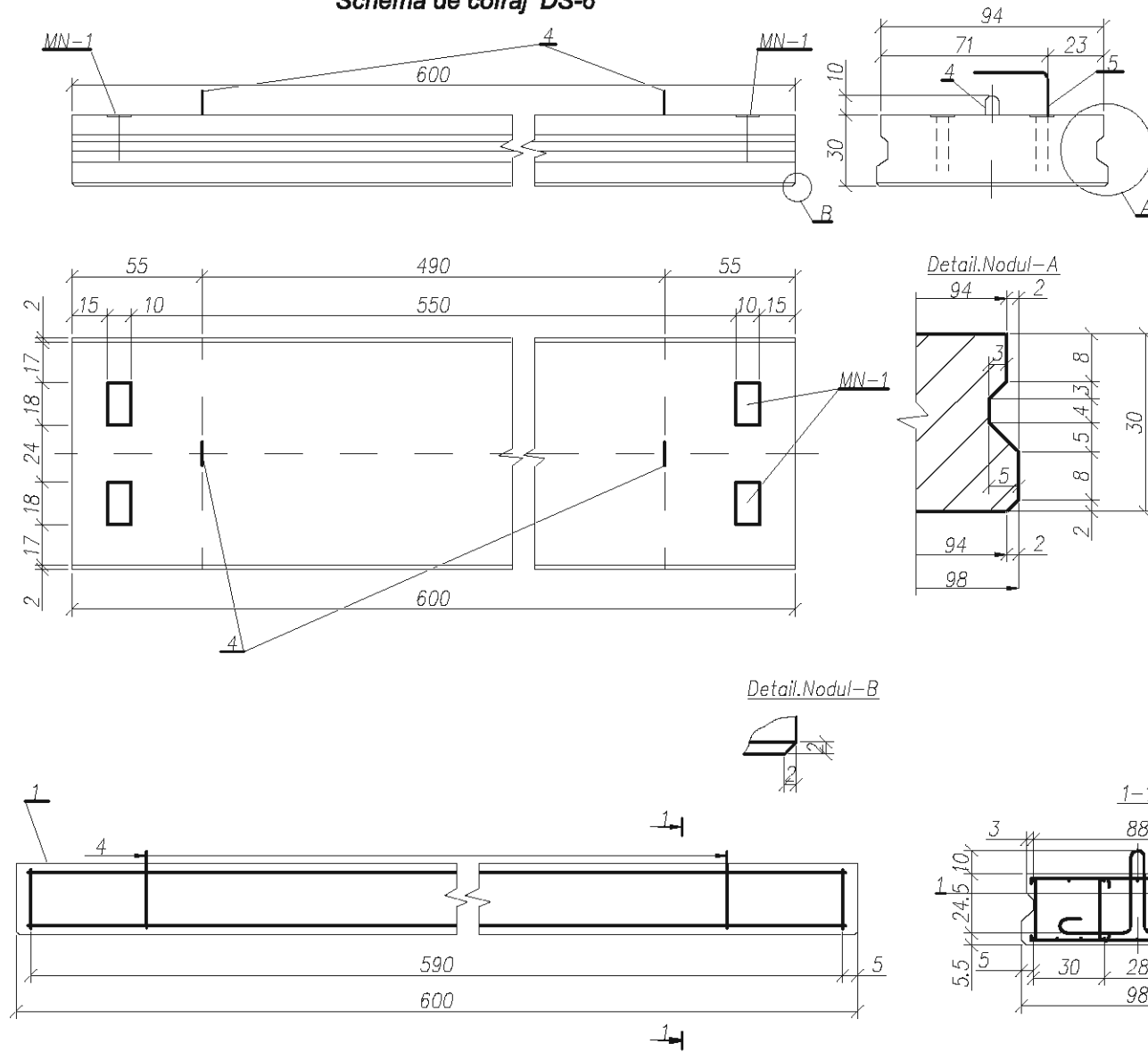
Note  
Nota:  
Dimensions—in cm.  
Dimensiunile sunt date in cm.

**Quantities abutment end walls.**  
**Specificatia banchetei cuzenet.**

Marca, Pozi.	Reference.Indicare	Item.Denumirea	Quantity Cantitati	Masa.unit.,Kg	Note Nota.
		Assembly units.Unitati asamblare			
		Grid.Plasa S-2	1	1.10	
	ГОСТ 23279-85	4sr 4Vr-II-100 50*1000	1	1.10	
		Grid.Plasa S-1	1	16.5	
	ГОСТ 23279-85	4sr 4Vr-II-100 50*1454	1	16.5	
		Elements.Piese			
1	ГОСТ 5781-82*	ø6 A-I, l=550	8	0.10	
2	ГОСТ 5781-82*	ø6 A-I, l=300	8	0.10	
		Materials.Materiale			
	ГОСТ 26633-91*	Concrete.Beton clasa:B25,F200,W6			1.14 m <sup>3</sup>

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry</b> <b>State Road Administration</b>			
<b>Road Sector</b>		<b>Programme Support</b>		<b>Project</b>	
<b>Roughton International</b> <b>TRL</b> <b>Blizzard</b> <b>Universcons</b>	<b>Rehabilitation of M 2 Road</b> <b>Chisinau-Sarateni.Pod PC 617+00</b>	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	
	Bearing concrete on collar-beam	Checked	Ungureanu	Drawing	BC-P 9
	Bancheta cuzenetilor.	Control STAS	Belic		

**Formwork DS-6**  
**Schema de cofraj DS-6**



**Quantities for bridge deck.**  
**Specificatia deschiderii de constructie.**

format	Zone.Zona	Pozi.	Reference.Indicare	Item.Denumirea	Quantity.Cantitati.	Note.Nota. Unit weight,Kg Masa.unit.,Kg
				Assembly units.Unitati asamblare		
A3	I		Paper.Plansa CD-P 12	Cage.Carcasa Cr-1	1	248.9
				Main elements.Piese de baza		
				MN-1	4	1.8
B4	2*		ГОСТ 5781-82**	∅12 A-III, l=190	2	0.2
B4	3*		ГОСТ 103-76**	-10x100l, l=180	1	1.4
				Elements.Piese		
B4	4*		ГОСТ 5781-82**	∅18 A-I, l=1500	2	3.0
				Materials.Materiale		
				ГОСТ 26633-91*		1.74 m³
				Concrete.Beton clasa:B25,F200,W6		

Position: 2,3,4,5-cm.Tabele of elements  
Pozitia: 2,3,4,5-cm. Lista pieselor

**Consumption of steel for the elements, kg**  
**Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate					Reinforcement.Piese armate					Total Consumptia Consum total			
	Steel type. Clasa armaturii					Steel type. Clasa armaturii								
	A-I		A-III			A-I		A-III 16-						
	ГОСТ 380-88					ГОСТ 380-88								
	∅10	Total	∅10	∅20	Total	Total	∅18	Total	∅12	Total	-10x100	Total	Total	
DD-6	81.4	81.4	25.9	141.6	167.5	248.9	6.0	6.0	1.6	1.6	5.6	5.6	13.2	262.1

- 1.Block weight  
Masa blocului 4350 Kg
- 2.Conditions of slab manufacturing see TPI series 3.503.1-75  
Conditia de pregatire a dalelor priveste TPI seria 3.503.1-75
- 3.Dimensions-in cm.  
Dimensiunile sunt date in cm.

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

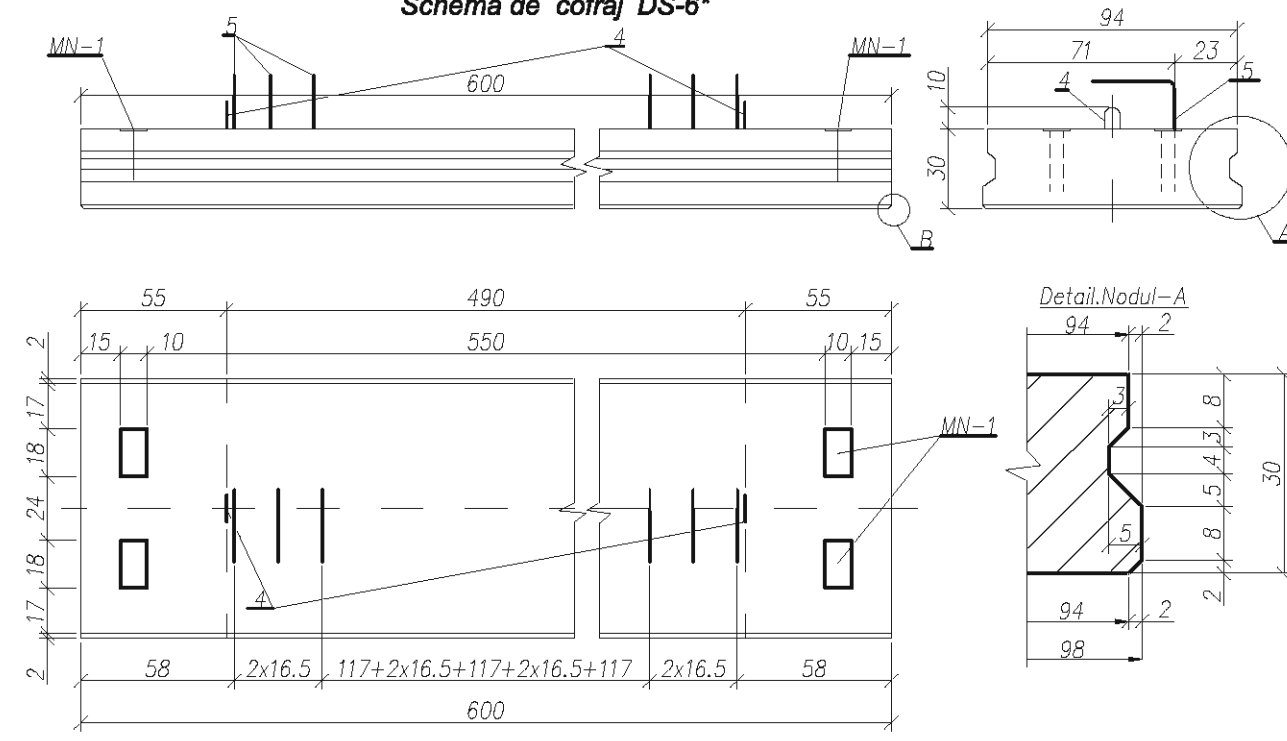
Pozition Pozitia	Shape.Schita
MN-1	

**Table (continuation)**  
**Continuarea tabelii**

Pozition Pozitia	Shape.Schita
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 M 2 Road Chisinau-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	
	Deck slab Dala suprastructurii 6	Checked	Ungureanu	Drawing	DD-6-P 10
		Control STAS	Belic		

**Formwork DS-6\***  
**Schema de cofraj DS-6\***

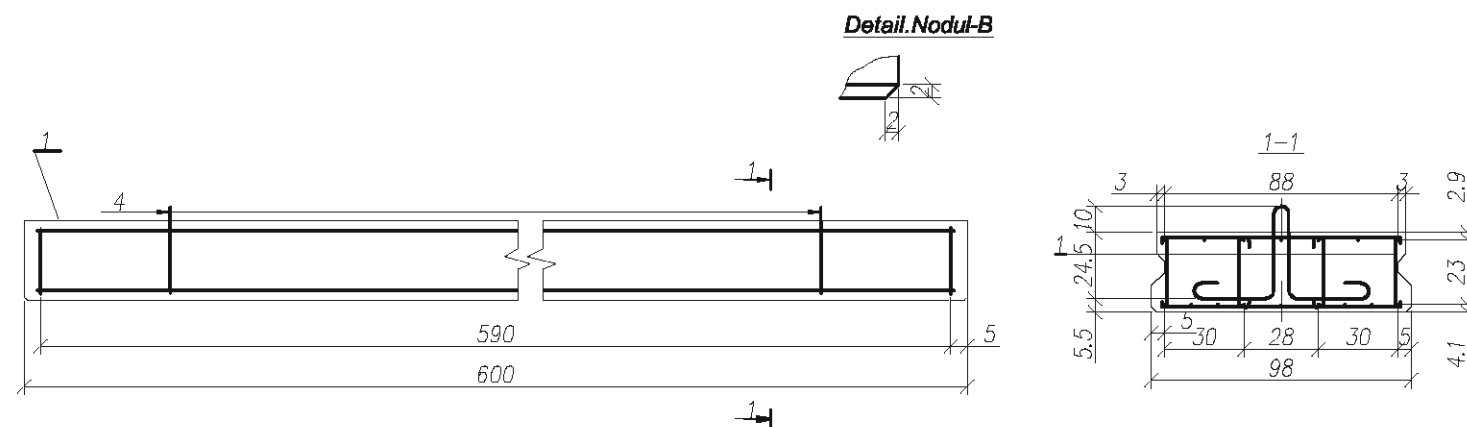


**Quantities for bridge deck.**  
**Specificatia deschiderii de constructie.**

format	Zone.Zona	Poziti.	Reference.Indicare	Item.Denumirea	Quantity.Cantitati.	Note.Nota. Unit weight,Kg Masa.unit.,Kg
				Assembly units.Unitati asamblare		
A3	I		Paper.Plansa CD-P 12	Cage.Carcasa Cr-1	1	248.9
				Main elements.Piese de baza MN-1	4	1.8
B4	2*		ГОСТ 5781-82**	ø12 A-III, l=190	2	0.2
B4	3*		ГОСТ 103-76**	-10x100l, l=180	1	1.4
				Elements.Piese		
B4	4*		ГОСТ 5781-82**	ø18 A-I, l=1500	2	3.0
B4	5*		ГОСТ 5781-82**	ø12 A-III, l=704	12	0.6
				Materials.Materiale		
			ГОСТ 26633-91*	Concrete.Beton clasa:B25,F200,W6		1.74 m³

Position: 2,3,4,5-cm. Table of elements  
Pozitia: 2,3,4,5-cm. Lista pieselor

Pozition Pozitia	Shape.Schita
5	



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

Pozition Pozitia	Shape.Schita
MN-1	

**Table continuation**  
**Continuarea tabelii**

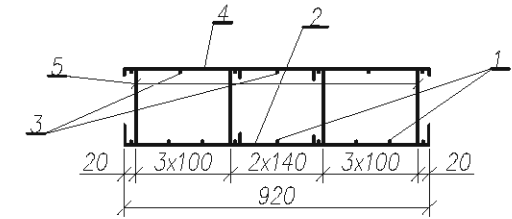
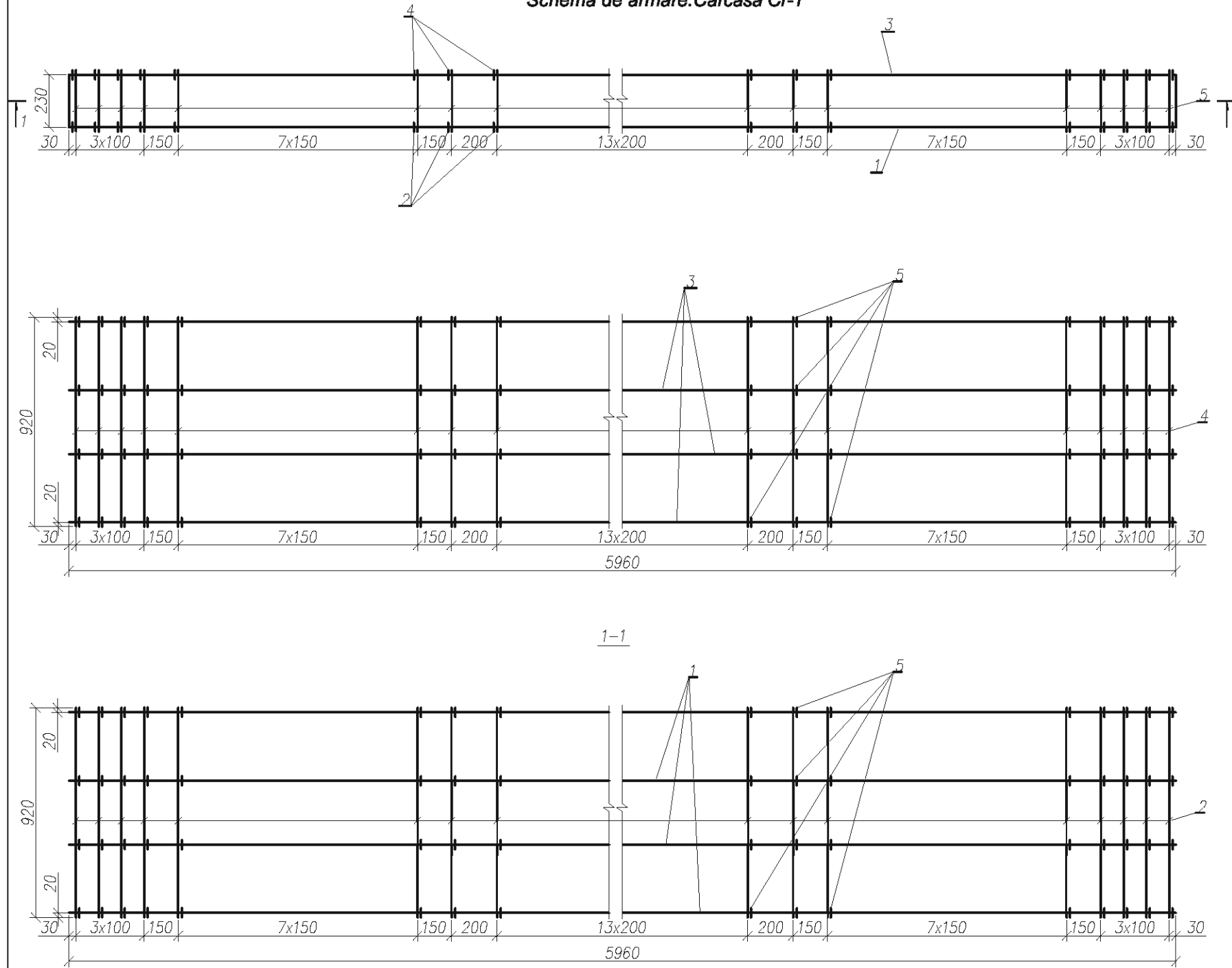
Pozition Pozitia	Shape.Schita
4	

**Consumption of steel for the elements**  
**Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate						Reinforcement.Piese armate						Total Consum total	
	Bar type. Clasa armaturii			Bar type. Clasa armaturii			Bar type. Clasa armaturii			Bar type. Clasa armaturii				
	A-I		A-III	A-I		A-III	A-I		A-III	A-I		A-III		
	ГОСТ 380-88		ГОСТ 380-88	ГОСТ 380-88		ГОСТ 380-88	ГОСТ 380-88		ГОСТ 380-88	ГОСТ 380-88		ГОСТ 380-88		
	ø10	Total	ø10	ø20	Total	Total	ø18	Total	ø12	Total	-10x100	Total	Total	
DD-6*	81.4	81.4	25.9	141.6	167.5	248.9	6.0	6.0	8.8	8.8	5.6	5.6	20.4	269.3

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry</b>			
		<b>State Road Administration</b>			
	<b>Road Sector</b>	<b>Programme</b>	<b>Support</b>	<b>Project</b>	
<b>Roughton International</b>	<b>Rehabilitation of M 2 Road</b>	<b>ISP</b>	<b>Bogza</b>	<b>Date</b>	<b>12.2007</b>
<b>TRL</b>	<b>Chisinau-Sarateni.Pod PC 617+00</b>	<b>Designed</b>	<b>Cecan</b>	<b>Scale</b>	
<b>Blizzard</b>	<b>Drawing title</b>	<b>Checked</b>	<b>Ungureanu</b>	<b>Drawing</b>	
<b>Universcons</b>	<b>Deck Slab</b>	<b>Control STAS</b>	<b>Belic</b>	<b>DS6*-P 11</b>	
	<b>Dala suprastructurii 6*</b>				

**Reinforcement.Cage Cr-1**  
**Schema de armare.Carcasa Cr-1**



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

Position Pozitia	Shape.Schita
1	
2	
4	
5	

**Consumption of steel for the elements, kg**  
**Consumul de metal pentru element, kg**

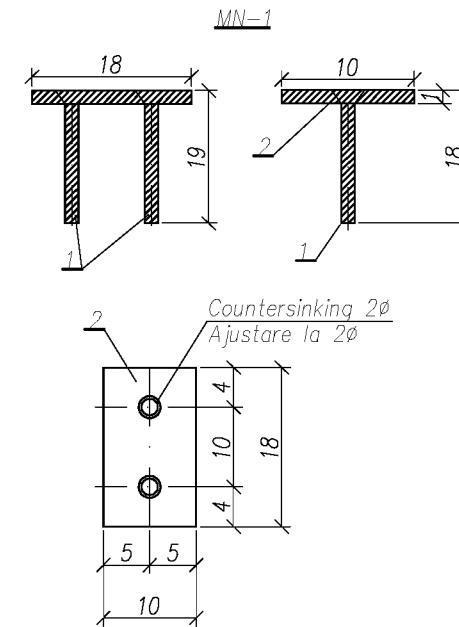
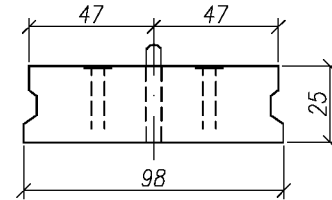
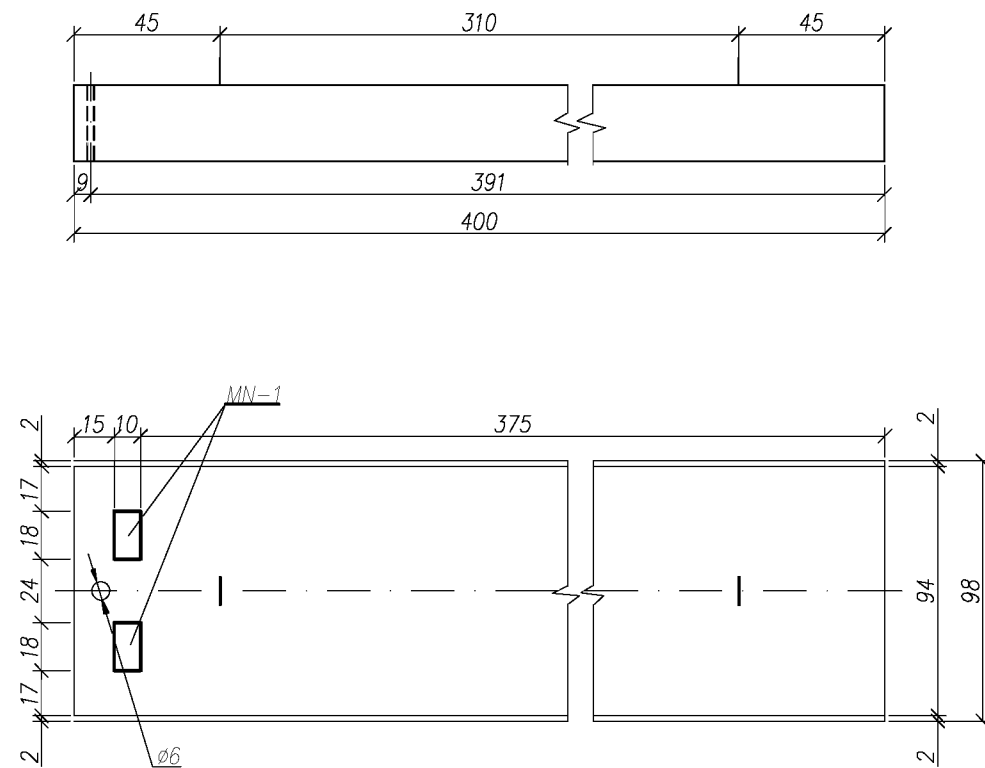
Element Type Marca elementului	Reinforcement.Piese armate						Total Consumption Consum total
	Bar type, Clasa armaturii						
	A-I		A-III		Total		
	ГОСТ 5781-82**						
	ø10	-	Total ø10	ø20	Total		
Carcasa-1	81.4	-	81.4	25.9	141.6	167.5	248.9

**Quantities for Cage Cr-1**  
**Specificatia carcasi Cr-1**

Format Zone.Zona Poziti.	Reference.Indicare	Item.Denumirea	Quantity. Cantitati	Note.Nota. Unit weight,Kg Masa.unit.,Kg
		Cage.Carcasa Cr-1		248.9
1	ГОСТ 5781-82**	ø20 A-III, l=6370	9	15.73
2	ГОСТ 5781-82**	ø10 A-I, l=960	37	0.60
3	ГОСТ 5781-82**	ø10 A-III, l=5960	7	3.70
4	ГОСТ 5781-82**	ø10 A-I, l=1040	37	0.60
5	ГОСТ 5781-82**	ø10 A-I, l=400	148	0.25

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry</b> <b>State Road Administration</b>			
<b>Roughton International</b>		<b>Road Sector Programme Support Project</b>			
<b>TRL</b>		<b>Rehabilitation of M 2 Road</b>	<b>ISP</b>	<b>Bogza</b>	<b>Date</b> 12.2007
<b>Blizzard</b>		<b>Chisinau-Sarateni.Pod PC 617+00</b>	<b>Designed</b>	<b>Cecan</b>	<b>Scale</b>
<b>Universcons</b>		<b>Dala suprastructurii.Carcas</b>	<b>Checked</b>	<b>Ungureanu</b>	<b>Drawing</b> CD-P 12
			<b>Control STAS</b>	<b>Belic</b>	

**Formwork  
Schema de cofraj**



**Consumption of steel for the elements, kg  
Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate							Total	Reinforcement.Piese armate							Total	Total Consum total	
	Bar type. Clasa armaturii								Bar type. Clasa armaturii									
	A-I			A-III					A-I			A-III		Steel sheet Laminare	Total			
	ГОСТ 5781-82**								ГОСТ 5781-82**					ГОСТ 103-76				
ø6	ø10	Total	ø16	ø10	ø10	Total	ø14	ø18	ø25	Total	ø12	Total	-10x100	Total				
	8.2	14.7	22.9	50.1	-	-	50.1	73.0	3.0	-	-	3.0	0.8	0.8	2.8	2.8	6.6	79.6

**Specification approach slab.  
Specificatia dalei de racordare.**

format Zone.Zona Pozi.	Reference.Indicare	Item.Denumirea	Quantity. Cantitati.	Note.Nota. Unit weight,Kg Masa.unit.,Kg
		Embedded elements.Piese inglobate		
		MN-1	2	1.8Kg
1	ГОСТ 5781-82**	ø-12A-III, l=190	2	0.2Kg
2	ГОСТ 103-76*	-10x100, l=180	1	1.4Kg
		Materials.Materiale		
	ГОСТ 26633-91	Concrete.Beton clasa:B25,F200,W6		0.94m <sup>3</sup>

1.Reinforcement of approach slab see Design-Type 3.503-41,  
2-nd edition.

Armarea placilor de racordare vezi proiectul tip seria  
3.503-41.editia 2.

2.Embedded elements MH-1 to be used for expansion joints.  
Piesele inglobate MH-1 de instalat pentru alcatuirea  
rostrurilor de delatatie

3.Welding to be done by electrodes 342A according to  
ГОСТ 14098-85.

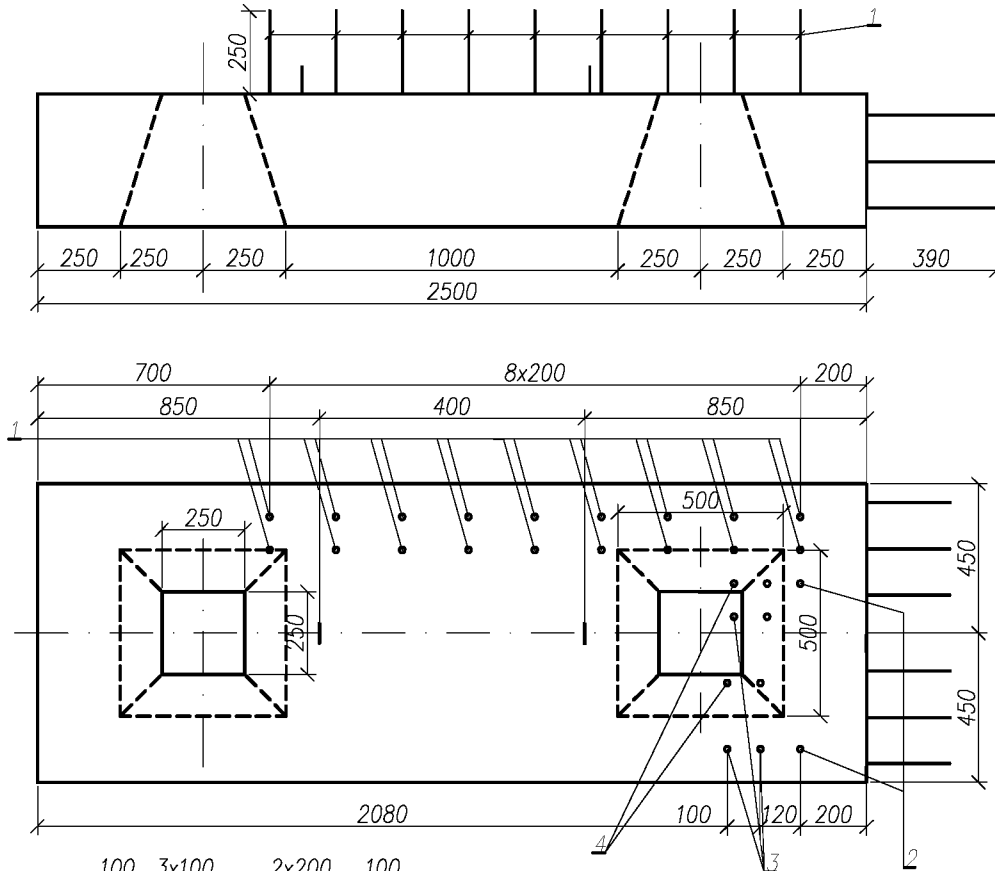
Sudarea se va executa cu electroade de tip 342A  
conform ГОСТ 14098-85.

4.All dimensions-in cm.

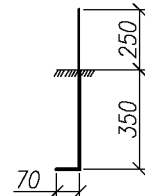
Dimensiunile sunt date in cm.

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 M 2 Road Chisinau-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	
	Approach slab. Dala de racordare.	Checked	Ungureanu	Drawing	DR-P 13
		Control STAS	Belic		

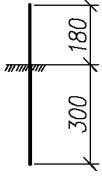
**Formworks for collar-beam.**  
**Schema cofrajului riglei: 1 BH 25-1-1\*(1BH 25-1-2\*)**



**Dowel bars**  
**Inglobare poz.1**



**Dowel bars**  
**Inglobare poz.2**



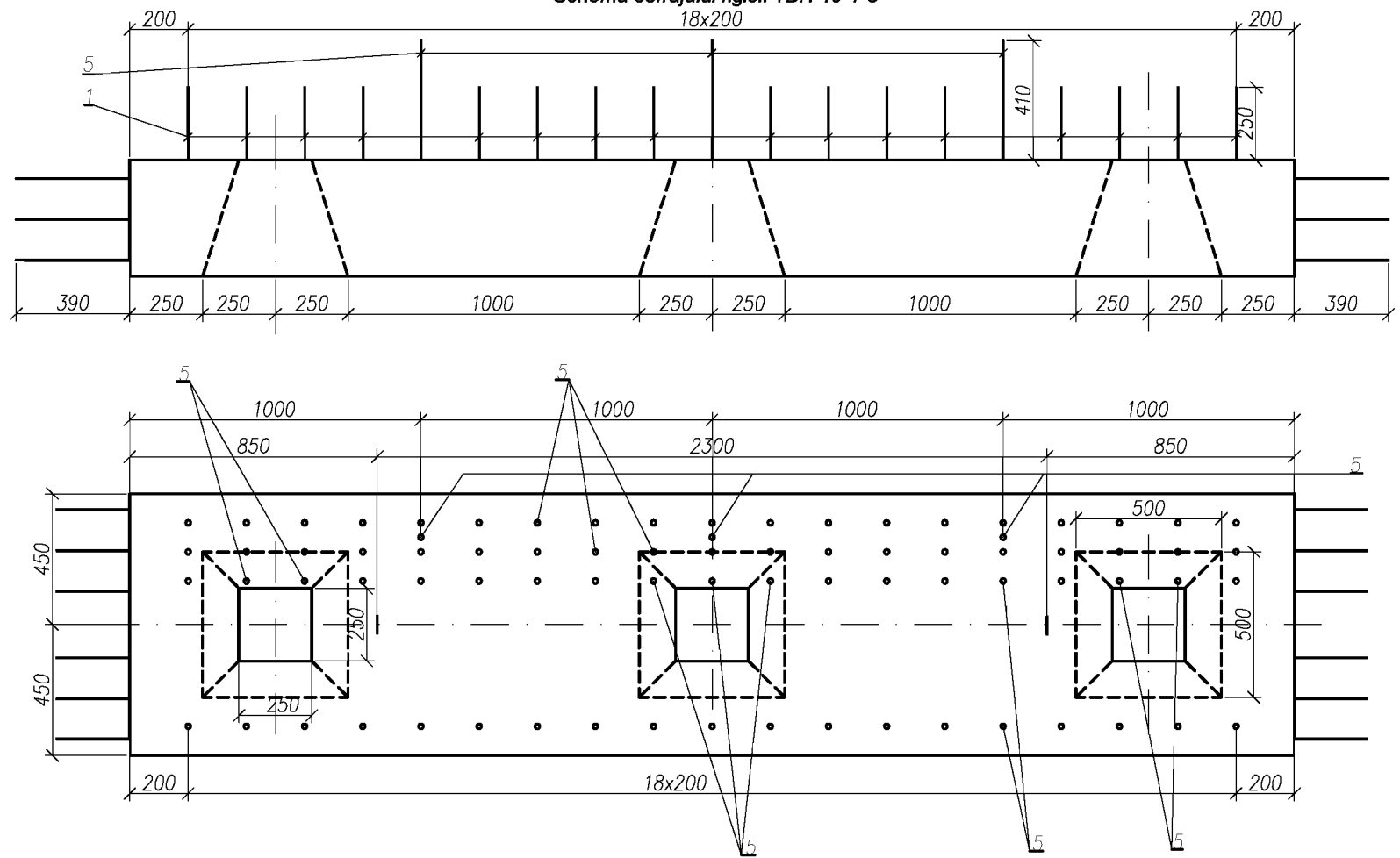
**Quantities for collar-beam elements.**  
**Specificatia pieselor aplicate la rigla 1BH 25-1-1\***

formal	Zone	Zona	Poz.	Reference.Indicare	Item.Denumirea	Quantity	Note
			1	ГОСТ 5781-82*	ø14 A-III, l=600	18	0.70 kg
			2	ГОСТ 5781-82*	ø10 A-III, l=480	2	0.30 kg
			3	ГОСТ 5781-82*	ø14 A-III, l=600	2	0.70 kg
			4	ГОСТ 103-76**	l=610	5	0.70 kg
				ГОСТ 26633-91	Concrete.Beton clasa:B25,F200,W6		0.78 m <sup>3</sup>

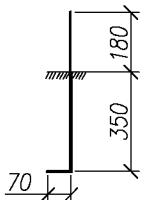
**Quantities for collar-beam elements.Specificatia pieselor aplicate la rigla 1BH 40-1-3\***

formal	Zone	Zona	Poz.	Reference.Indicare	Item.Denumirea	Quantity	Note
			1	ГОСТ 5781-82*	ø14 A-III, l=600	38	0.70 kg
			2	ГОСТ 5781-82*	ø10 A-III, l=480	31	0.30 kg
			5	ГОСТ 5781-82*	ø22 A-III, l=760	3	2.30 kg
			6	ГОСТ 5781-82*	ø10 A-III, l=490	7	0.30 kg
				ГОСТ 26633-91	Concrete.Beton clasa:B25,F200,W6		1.25 m <sup>3</sup>

**Formworks for collar-beam.**  
**Schema cofrajului riglei: 1BH 40-1-3\***



**Dowel bars**  
**Inglobare poz.3**



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

Position	Shape.Schita
6	
4	

**European Investment Bank**

**Republic of Moldova**

**Ministry of Transport and Road Industry**  
**State Road Administration**

**Road Sector Programme Support Project**

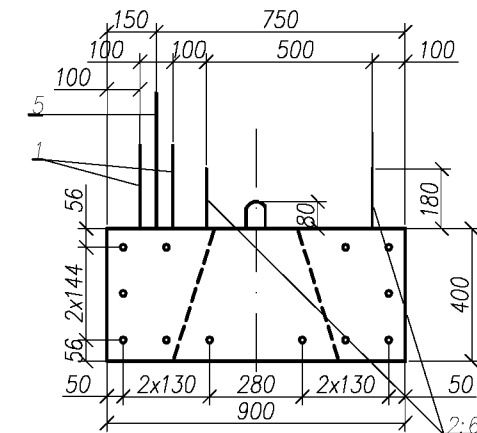
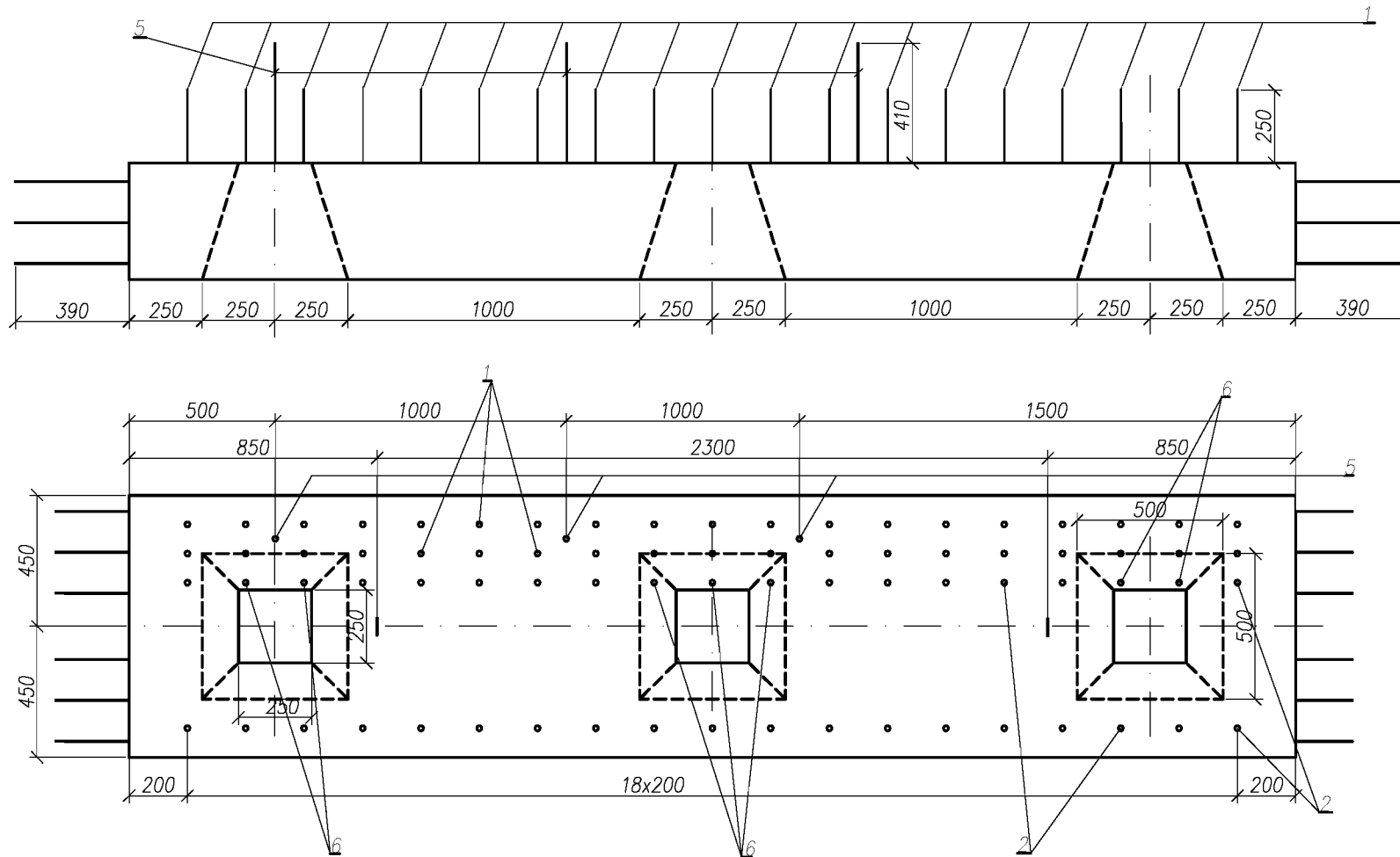
**Roughton International**  
**TRL**  
**Blizzard**  
**Universcons**

**Rehabilitation of M 2 Road**  
**Chisinau-Sarateni.Pod PC 617+00**  
Drawing title  
**Formwork.Blocks.**  
**Schema de cofraj.Bloc**

ISP	Bogza	Date	12.2007
Designed	Cecan	Scale	
Checked	Ungureanu	Drawing	SCB-P 14
Control STAS	Belic		



**Formworks for collar-beam.**  
**Schema cofrajului riglei: 1BH 40-1-3\*\*T (1BH 40-1-3\*\*H)**



**Dowel bars**  
**Inglobare poz.5**



**Quantities for collar-beam elements.**  
**Specificatia pieselor aplicate la rigla 1BH 40-1-3\*\*H**

format	Zone.Zona	Poz.	Reference.Indicare	Item.Denumirea	Quantity. Cantitati.	Note Nota.
		1	ГОСТ 5781-82*	Ø14 A-III, l=600	38	0.70 kg
		2	ГОСТ 5781-82*	Ø10 A-III, l=480	31	0.30 kg
		5	ГОСТ 5781-82*	Ø22 A-III, l=760	3	2.30 kg
		6	ГОСТ 5781-82*	Ø10 A-III, l=490	7	0.30 kg
				Materials.Materiale		
			ГОСТ 26633-91*	Concrete.Beton clasa:B25,F200,W6		1.25 m <sup>3</sup>

**Consumption of steel for the elements, kg**  
**Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate							Total	Reinforcement.Piese armate							Total	Total Consumption Consum total
	Bar type.Clasa armaturii								Bar type.Clasa armaturii								
	A-I			A-III					A-I			A-III					
	ГОСТ 5781-82*	ГОСТ 5781-82*		ГОСТ 5781-82*		ГОСТ 5781-82*			ГОСТ 5781-82*	ГОСТ 5781-82*		ГОСТ 5781-82*		ГОСТ 5781-82*			
1BH 25-1-1*	54.0	5.0	59.0	31.2	22.8	54.0	113.0	2.8		2.8	0.6	17.5	2.8	18.10	22.90	133.9	
1BH 40-1-3*	81.0	8.4	89.4	47.8	38.4	86.2	175.6	3.8	3.8	11.4	26.6	6.9	44.90	48.70	224.3		
1BH 40-1-3**T	81.0	8.4	89.4	47.8	38.4	86.2	175.6	3.8	3.8	11.4	26.6	6.9	44.90	48.70	224.3		

Blocks 1BH 25-1-2\* u 1BH 40-1-3\*\*H symmetrically to block 1BH 25-1-1\* u 1BH 40-1-3\*\*  
Block weight: 1BH 25-1-1\*-2006 KG  
1BH 40-1-3\*-3224 KG  
1BH 40-1-3\*\*H-3224KG  
The embedded elements to be directly used during in situ concret e casting between collar-beam blocks and piles(poz.3)  
Reinforcement of blocks-see Design-Type 3.503.1-79.2.

Blocurile 1BH 25-1-2\* u 1BH 40-1-3\*\*H coincid reflectarii blocurilor: 1BH 25-1-1\* u 1BH 40-1-3\*\*  
Masa blocurilor: 1BH 25-1-1\*-2006 KG  
1BH 40-1-3\*-3224 KG  
1BH 40-1-3\*\*H-3224KG  
Piese aplicate, care nimeresc in locurile monolitizarii pilotilor cu rigla(vezi poz.3), de instalat nemijlocit in procesul de monolitizare.  
Armarea blocurilor vezi proiectul tip seria: 3.503.1-79.2 .

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry</b> <b>State Road Administration</b>			
	<b>Road Sector</b>	<b>Programme</b>	<b>Support</b>	<b>Project</b>	
<b>Roughton International</b>	<b>Rehabilitation of M 2 Road</b>	<b>ISP</b>	<b>Bogza</b>	<b>Date</b>	<b>12.2007</b>
<b>TRL</b>	<b>Chisinau-Sarateni.Pod PC 617+00</b>	<b>Designed</b>	<b>Cecan</b>	<b>Scale</b>	
<b>Blizzard</b>	<b>Drawing title</b>	<b>Checked</b>	<b>Ungureanu</b>	<b>Drawing</b>	
<b>Universcons</b>	<b>Formwork.Blocks.</b> <b>Schema de cofraj.Bloc</b>	<b>Control STAS</b>	<b>Belic</b>	<b>SCB-P 15</b>	

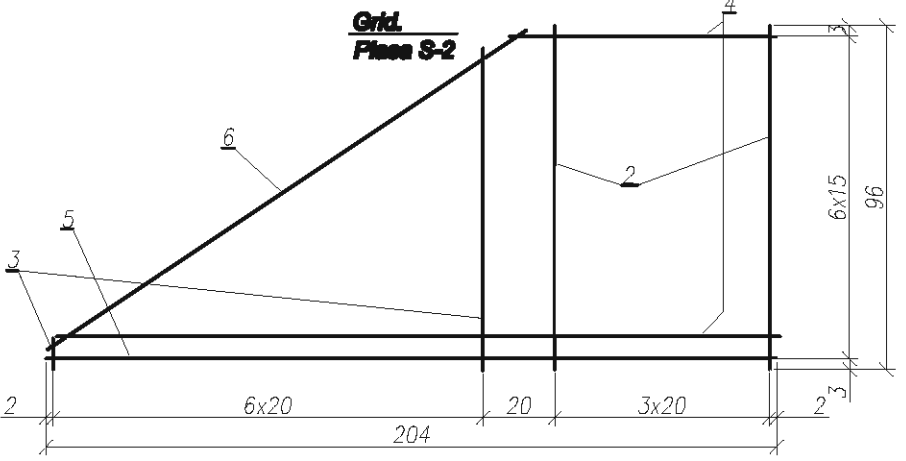
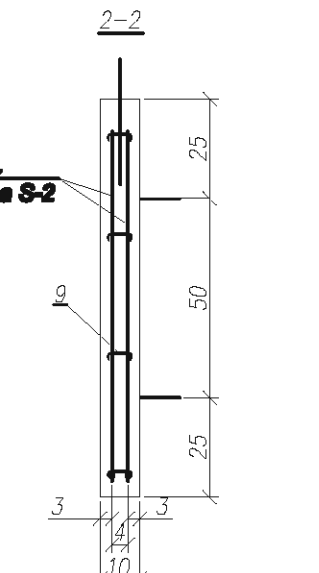
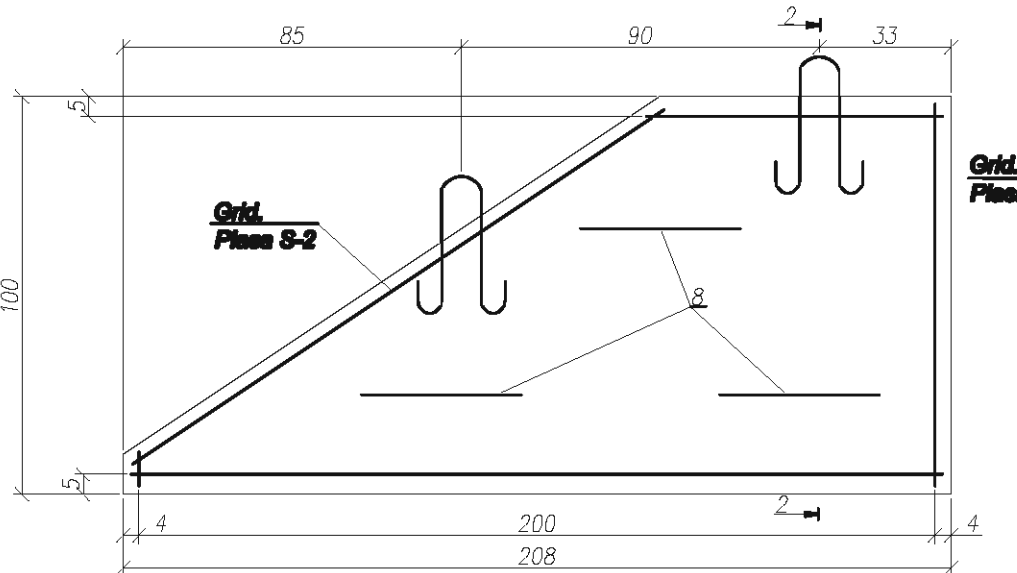
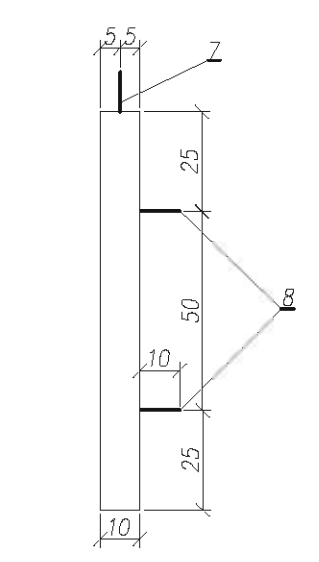
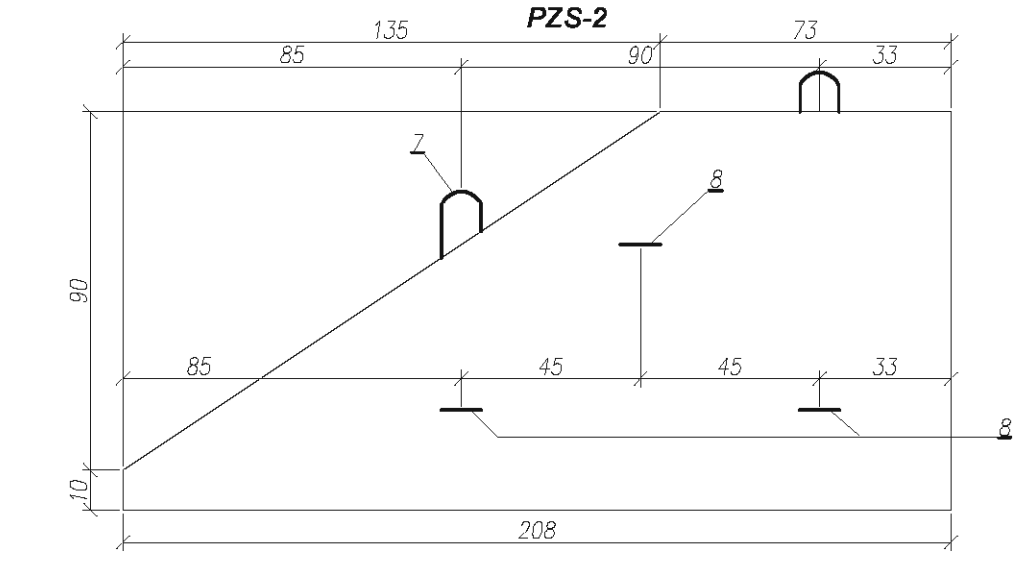
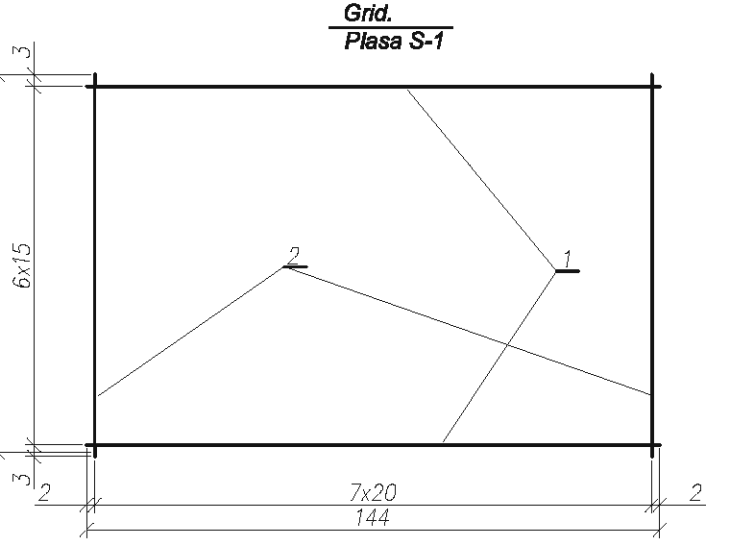
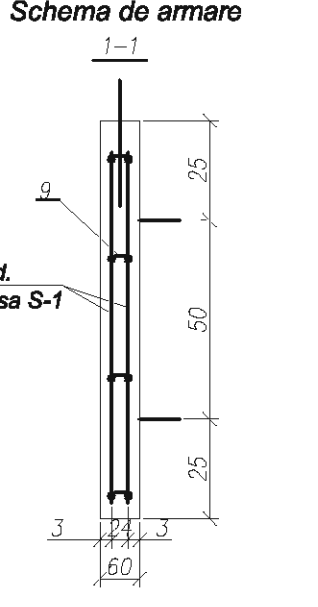
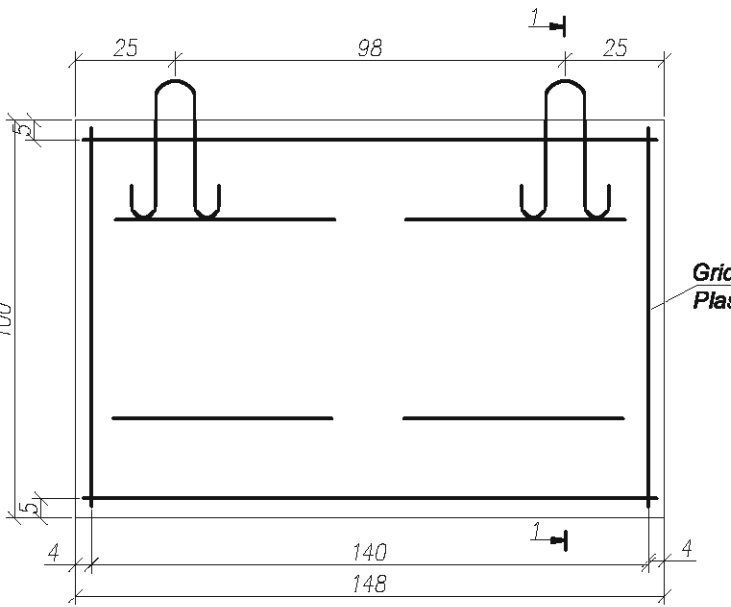
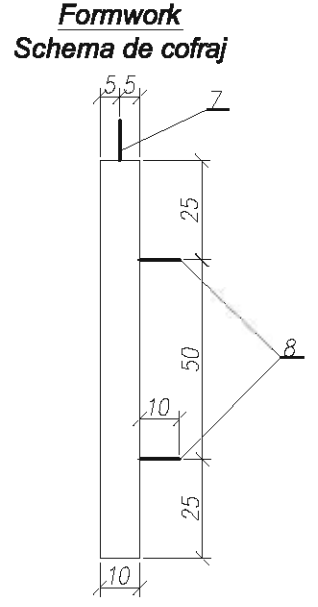
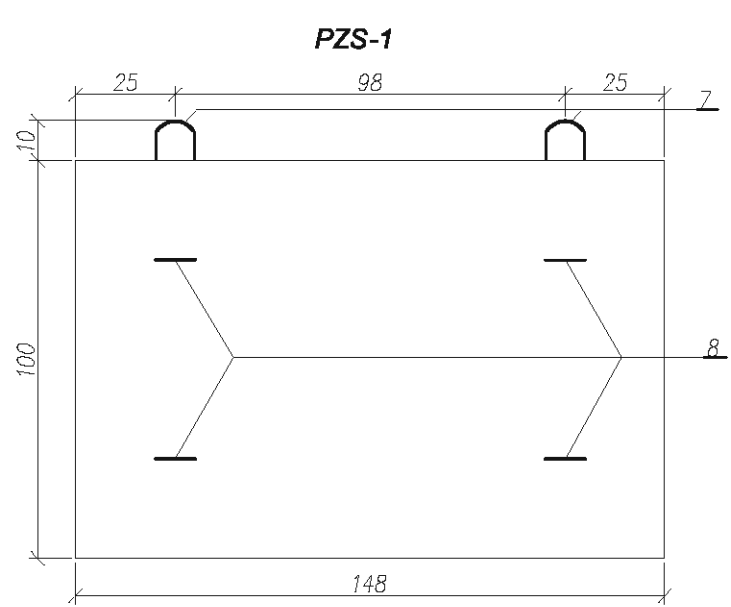


Table of elements  
Tabela pieselor

Position Pozitia	Shape.Schita
8	
7	
9	

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 M 2 Road Chisinau-Sarateni.Pod PC 617+00	ISP	Bogza	Date	12.2007
	Drawing title	Designed	Cecan	Scale	
	Retaining wall Placa zidului de sprijin.	Checked	Ungureanu	Drawing	PZS-P 16
		Control STAS	Belic		

**Quantities for retaining wall  
Specificatia pentru placa zidului de sprijin**

format	Zone.Zona	Pozi.	Reference.Indicare	Item.Denumirea	Quantity.Cantitati.	Note.Nota. Unit weight,Kg Masa.unit.,Kg
				<b>PZS-1</b>		
				Assembly units.Unitati asamblare		
				Grid.Plasa S-1	2	7.9 Kg
	1		ГОСТ 5781-82**	Ø10 A-III, l=1440	7	0.9 Kg
	2		ГОСТ 5781-82**	Ø6 A-I, l=960	8	0.2 Kg
				Detail.Detalii		
	7		ГОСТ 5781-82**	Ø8 A-I, l=1000	2	0.4 Kg
	8		ГОСТ 5781-82**	Ø8 A-I, l=1000	7	0.4 Kg
	9		ГОСТ 5781-82**	Ø6 A-I, l=160	28	0.1 Kg
				Materials.Materiale		
			ГОСТ 26633-91	Concrete.Beton clasa:B25,F200,W6	-	0.15 m <sup>3</sup>
				<b>PZS-2</b>		
				Assembly units.Unitati asamblare		
	2		ГОСТ 5781-82**	Grid.Plasa S-2	2	8.6 Kg
	3		ГОСТ 5781-82**	Ø6 A-I, l=960	4	0.2 Kg
	4		ГОСТ 5781-82**	Ø6 A-I, l=960-60,l=510	7	0.1 Kg
	5		ГОСТ 5781-82**	Ø10 A-III, l=2000-690,l=1345	6	0.8 Kg
	6		ГОСТ 5781-82**	Ø10 A-III, l=2040	1	1.3 Kg
				Ø10 A-III, l=1600	1	1.0 Kg
				Detail.Detalii		
	7		ГОСТ 5781-82**	Ø8 A-I, l=1000	2	0.4 Kg
	8		ГОСТ 5781-82**	Ø8 A-I, l=1000	3	0.4 Kg
	9		ГОСТ 5781-82**	Ø6 A-I, l=160	30	0.1 Kg
				Materials.Materiale		
			ГОСТ 26633-91	Concrete.Beton clasa:B25,F200,W6	-	0.15 m <sup>3</sup>

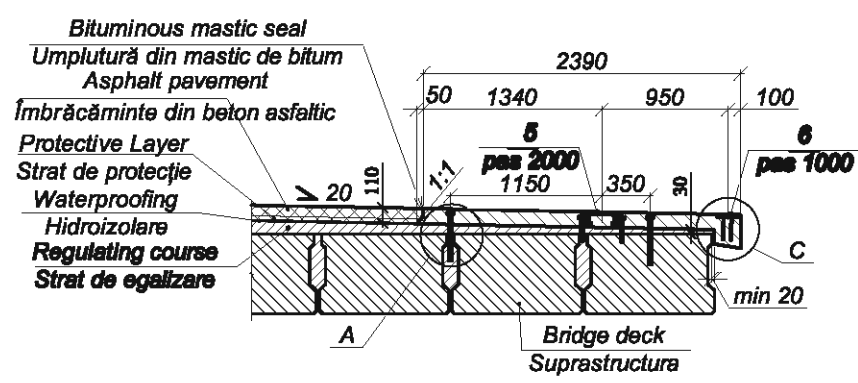
**Consumption of steel for the elements  
Consumul de metal pentru element, kg**

Element Type Marca elementului	Reinforcement.Piese armate					Total Consum total
	Bar type. Clasa armaturii					
	A-I		A-III			
	ГОСТ 5781-82**					
	Ø6	Ø8	Ø10	Total	Total	
<b>PZS-1</b>	6.0	2.4	12.6	21.0	21.0	21.0
<b>PZS-2</b>	5.8	2.4	17.2	22.4	22.4	22.4

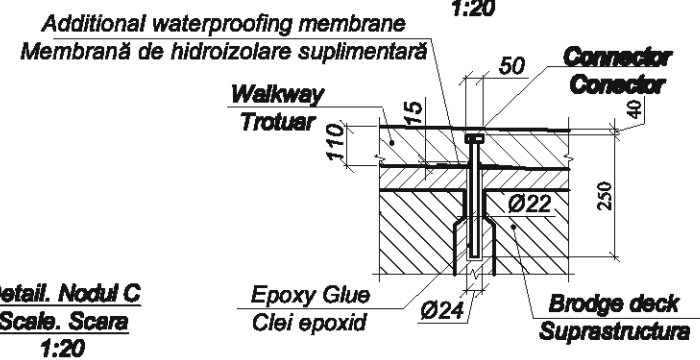
Masa placii : SPZ-1 - 381Kg  
 SPZ-2 - 382Kg  
 Weinght of slab: SPZ-1 - 381Kg  
 SPZ-2 - 382Kg

<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 M 2 Road Chisinau-Sarateni.Pod PC 617+00</b>	<b>ISP</b>	<b>Bogza</b>	<b>Date</b>	<b>12.2007</b>
	<b>Drawing title Quantities for retaining wall Specificatie.Placa zidului de sprijin</b>	<b>Designed</b>	<b>Cecan</b>	<b>Scale</b>	
		<b>Checked</b>	<b>Ungureanu</b>	<b>Drawing</b>	<b>SPZS-P 17</b>
		<b>Control STAS</b>	<b>Belic</b>		

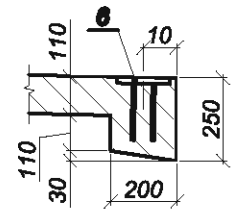
**RC walkway 1.5m wide for slab bridge deck**  
**Trotuar din beton armat pentru lățimea de 0,75 m pentru suprastructură din dale**  
**Formwork. Schema de cofraj**  
**Scale. Scara 1:50**



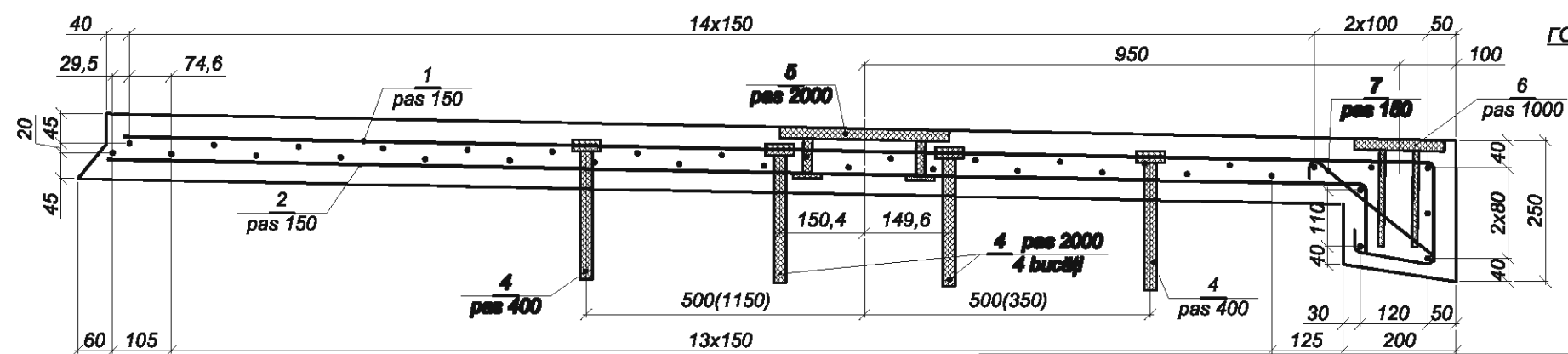
**Detail. Nodul A**  
**Scale. Scara 1:20**



**Detail. Nodul C**  
**Scale. Scara 1:20**



**Reinforcement Schema de armare**  
**Scale. Scara 1:10**



**Quantities for walkways, 0.75m wide, 2m long**  
**Specificația blocului de trotuar cu lățimea de 0,75m pentru 2 m de lungime**

Formet	Zone	Posiția	Referențe. Indicativ	Item. Denumirea	Quantity. Cant.	Note. Notă
Assembly elements Elemente de asamblare						
FP	1		ГОСТ 5781-82*	Ø14 A-III, l=2490	13	3,0 kg
FP	2		ГОСТ 5781-82*	Ø14 A-III, l=2350	13	2,8 kg
FP	3		ГОСТ 5781-82*	Ø12 A-III, l=2000	36	1,8 kg
FP	4			Connector Conector	14	1,2 kg
A4	5			Embedded base plate Piesă înglobată P1-1	1	22,1 kg
A4	6			Embedded base plate Piesă înglobată P1-3	2	0,4 kg
FP	7		ГОСТ 5781-82*	Ø8 A-I, l=500	13	0,2 kg
Materials Materiale						
			ГОСТ 26633-91*	Beton cl. B30, F200, W4		0,58 m³

**Consumption of steel for 2m of element, kg**  
**Consumul de metal pentru 2m de element, kg**

Element Type Marca elementului	Reinforcement. Piese de armare						Embedded elements. Piese înglobate								Total weight Greutate totală	
	Bar type. Clasa armăturii		Steel type. Marca metalului				Bar type. Clasa armăturii		Steel type. Marca metalului							
	A-I	A-III	ГОСТ 5781-82*				A-II	BCm3an2								
	Ø8	Rez.	Ø12	Ø14	Rez.	Total	Ø16	Ø22	Rez.	300x20	100x20	50x20	50x10	Rez.		Total
Trotuar 0,75 m	2,6	2,6	64,8	75,4	140,2	142,8	5,6	14,0	19,6	16,5	10,0	3,2	2,75	32,5	52,1	194,9

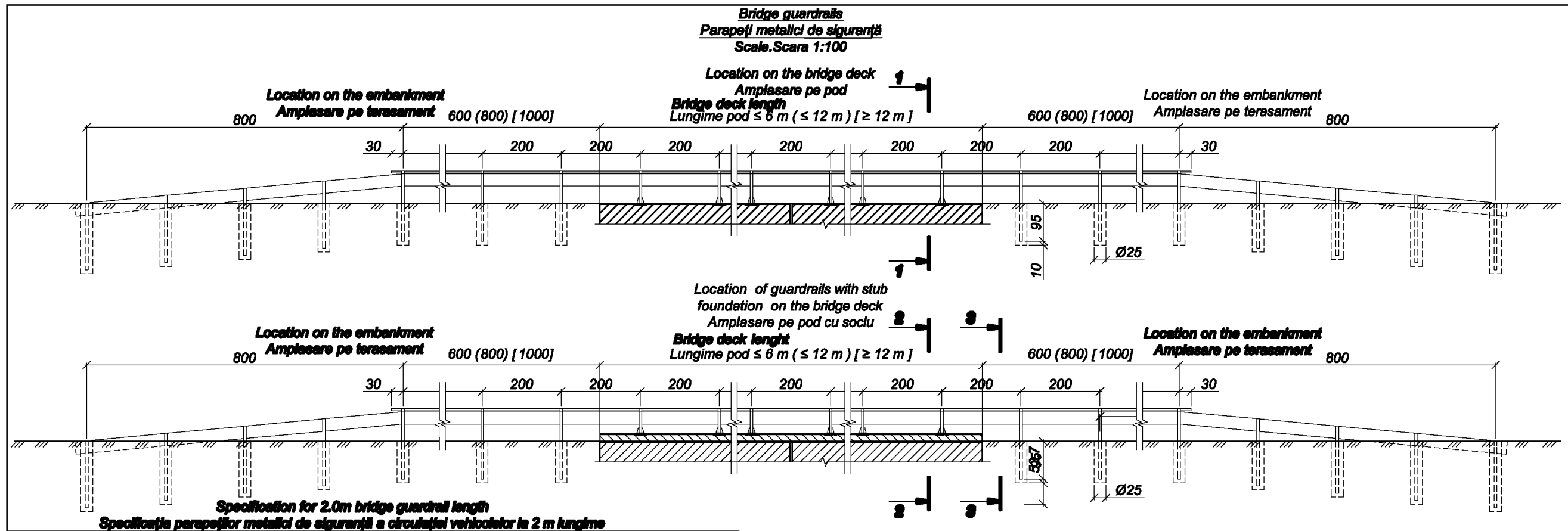
**Table of elements (continuation)**  
**Continuarea tabelul pieselor**

Poz.	Shape Echiz
7	

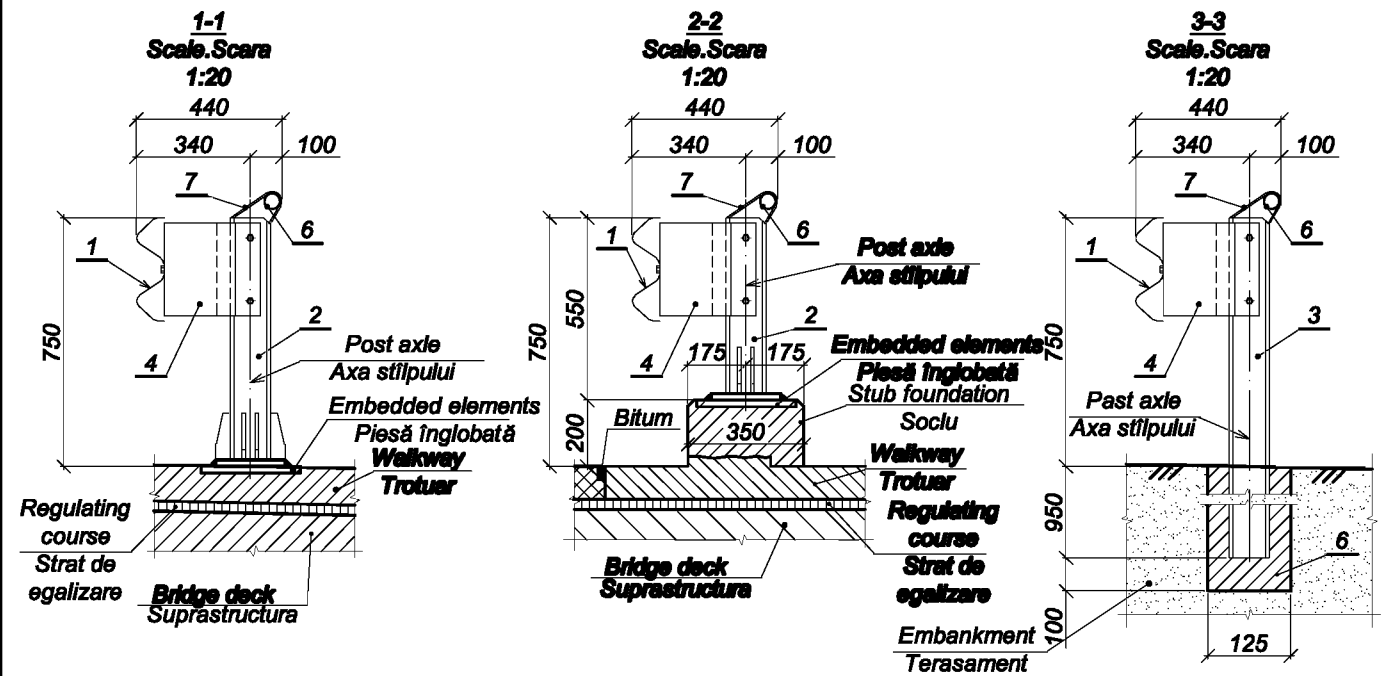
**Notă: Note:**

- The figures in brackets refer to bridge deck slab with gaps.  
Datele din paranteze se referă la suprastructură din plăci cu goluri.
- For each embedded base plate P1-1 (poz.5) - 4 units of connectors  
Pentru fiecare piesă înglobată P1-1 (poz.5) se prevede amplasarea a 4 bucăți de conectori.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme Support Project				
Roughton International	Rehabilitation of R14 Road	ISP	Bogza	Date	12.2007
Blizzard	Balti-Saratenii	Designed	Cocan	Scale	
Universcons	Drawing title RC walkway 0.75m wide Trotuar din beton armat cu lățimea de 0,75 m	Checked	Ungureanu	Drawing	
		Control STAS	Belic		TB-P-18



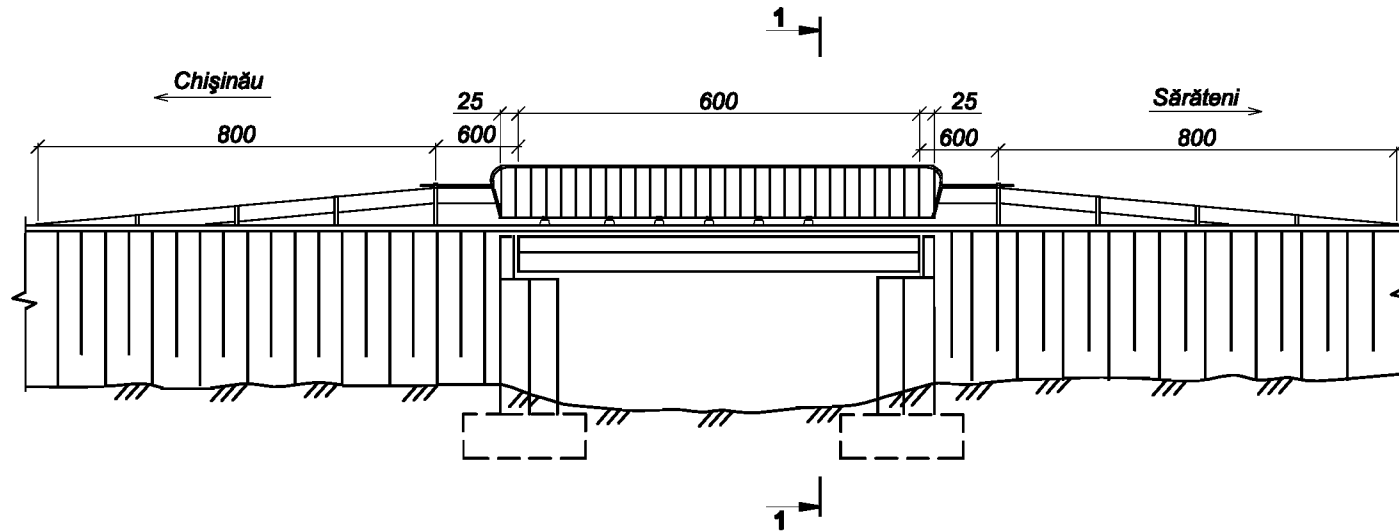
Formet	Zone. Zona	Position	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note
				<b>Safety guardrails on bridge deck with /without stub foundation and on embankment</b> <b>Parapeți de siguranță pe pod / pe pod cu soclu și terasament</b>		
				<b>Elements</b> <b>Piese</b>		
FP	1		ГОСТ 8240-89	W-type guardrail Profil lisă	1	185,2 kg
FP	2		ГОСТ 8240-89	Guardrail post Stîlpul parapețului CM / CML*	1 / 1	17,7 / 15,4kg
FP	3		ГОСТ 8240-89	Guardrail post Stîlpul parapețului СД-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, bucle, 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 for 4m length la 4m lungime
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*	Materials Materiale		
				Concrete.Beton cl. B20, F200, W4		0,07 m <sup>3</sup>



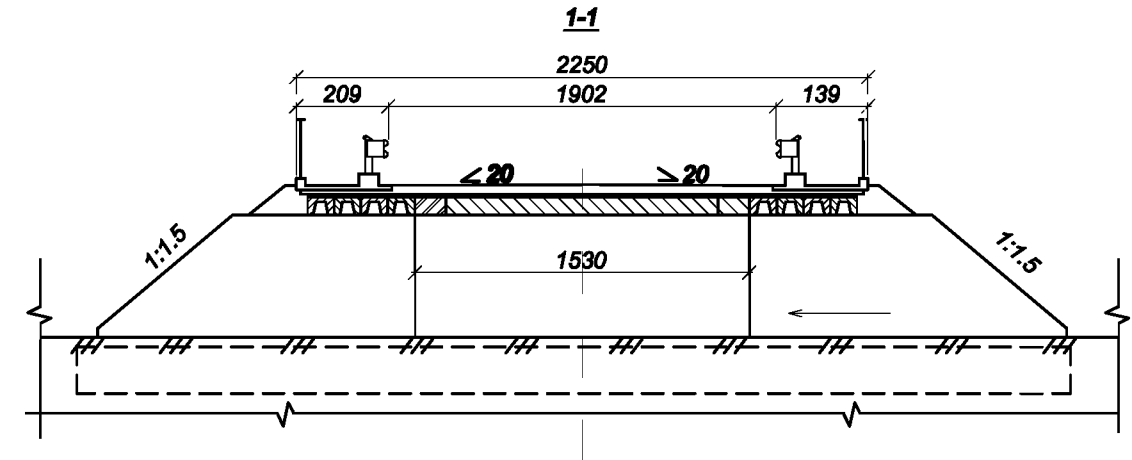
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme		Support Project			
Roughton International	Rehabilitation of R14 Road	ISP	Bogza	Date	12.2007
TRL	Balti-Sarateni	Designed	Cecan	Scale	
Blizzard	Drawing title	Checked	Ungureanu	Drawing	
Universcons	Parapeți metalici de siguranță a circulației vehiculelor	Control STAS	Belic		PMS-P-19

**DISPOZIȚIE GENERALĂ - GENERAL ARRANGEMENT**

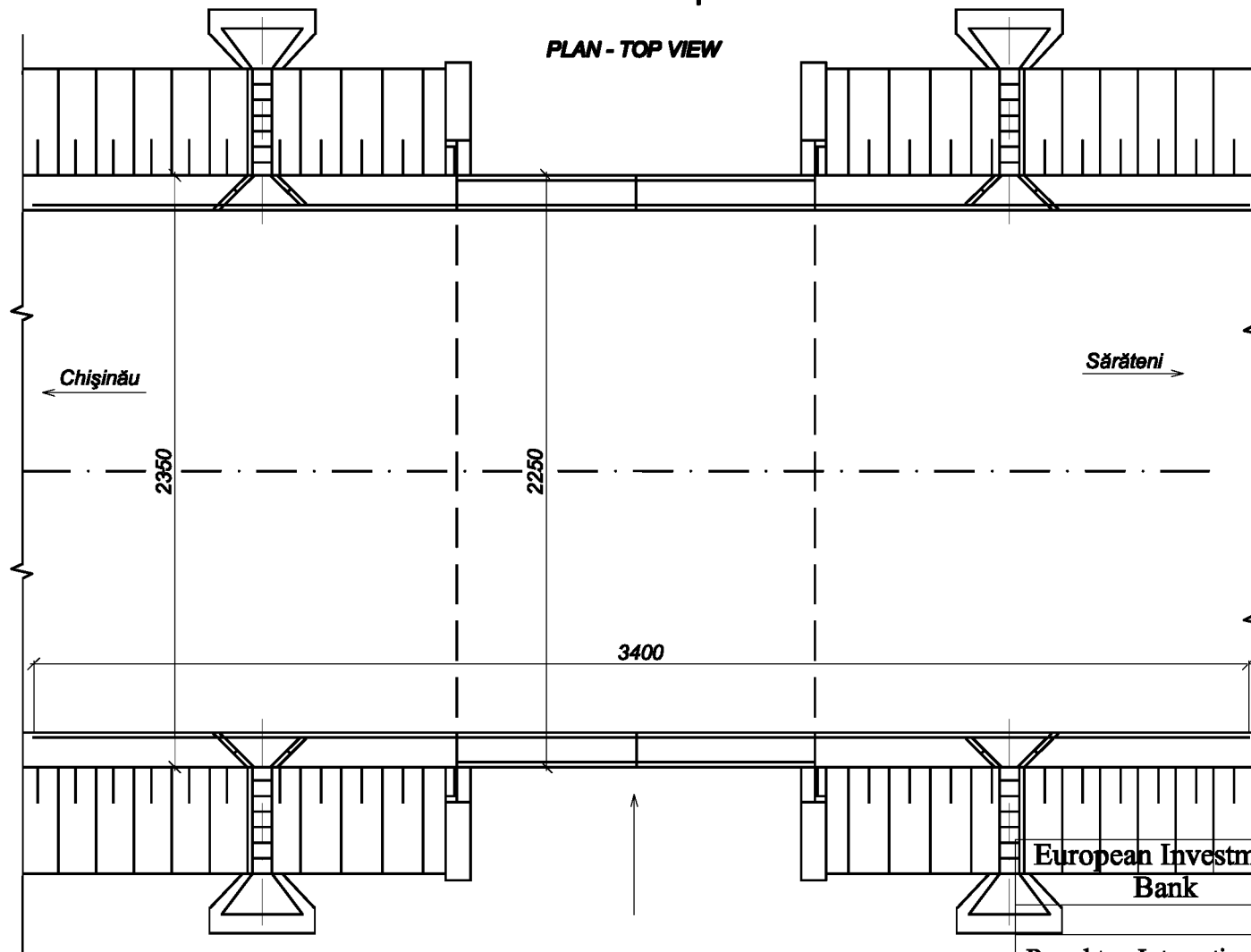
**ELEVAȚIE - SIDE ELEVATION**



**SECȚIUNE TRANSVERSALĂ - CROSS SECTION**



**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

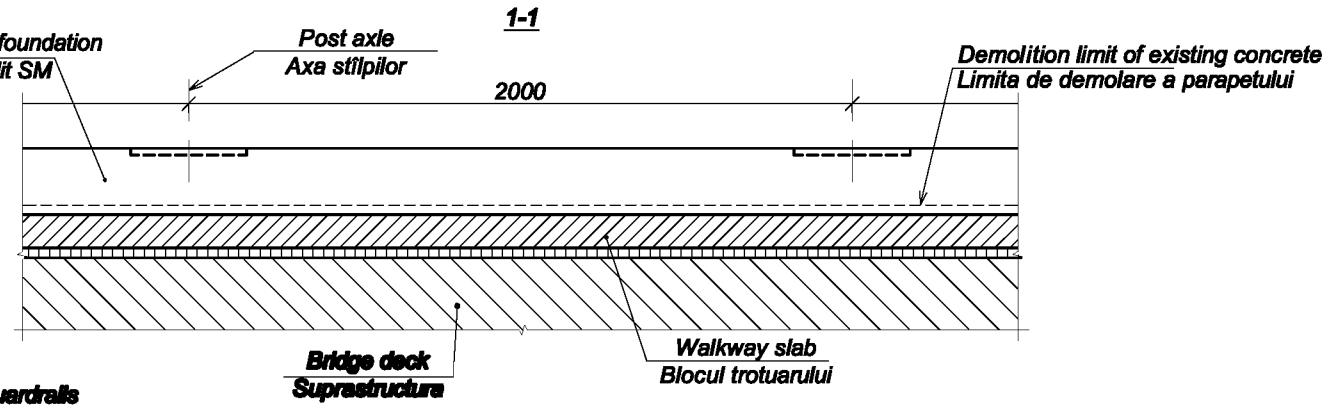
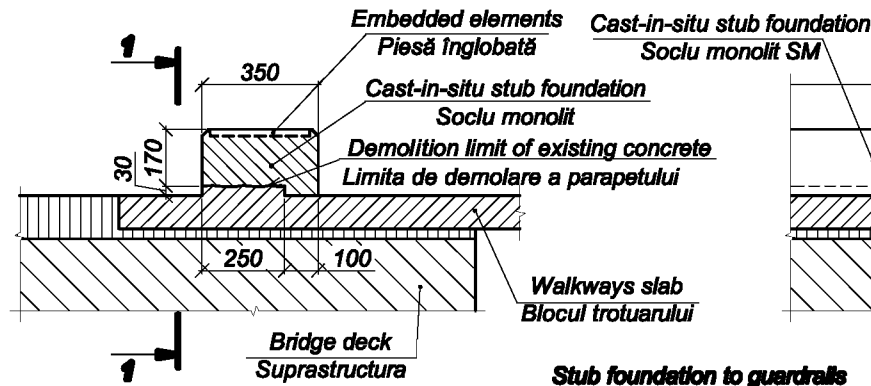
Rehabilitation of M 2 Road  
Orhei-Sarateni

Drawing title

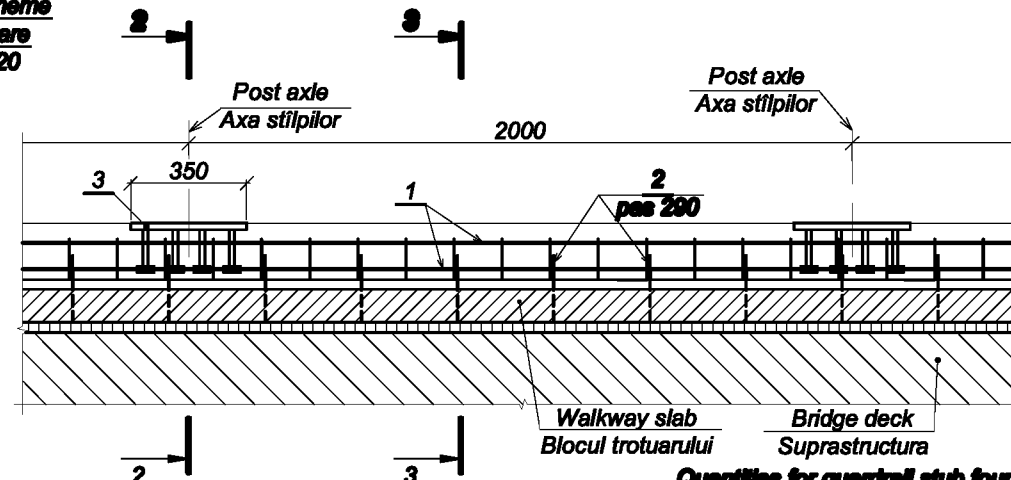
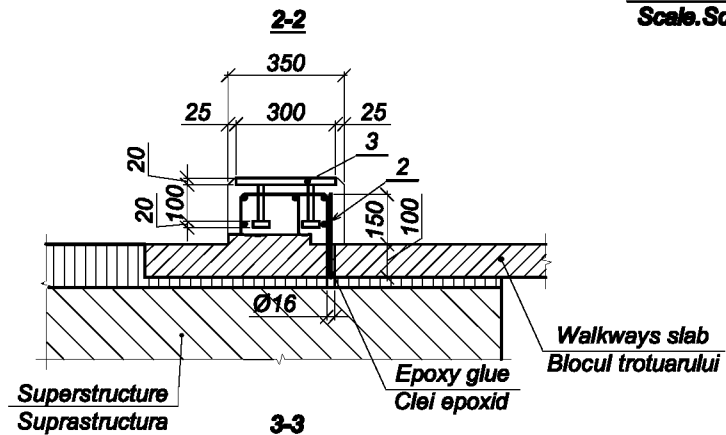
**Bridge.Pod, Km 00 + 063**

ISP	Bogza	Date	12.2007
Designed	Cecan	Scale	1:500
Checked	Cecan	Drawing	P-P-1
Control STAS	Belic		

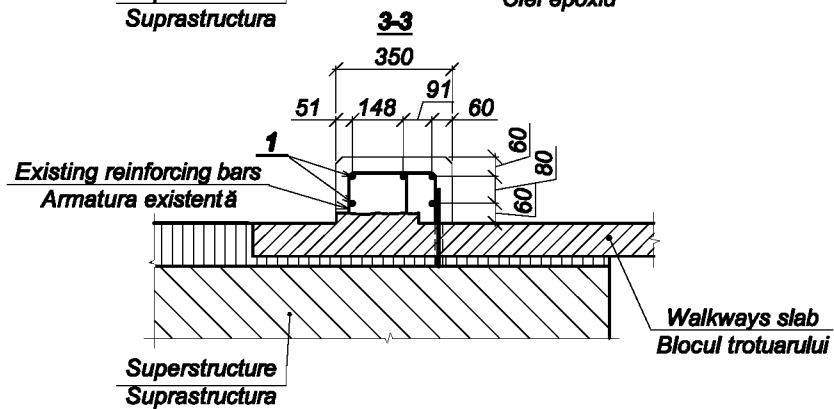
**Stub foundation to guardrails**  
**Socul parapetilor de siguranță**  
**Formwork. Schema de cofraj**  
**Scale. Scara 1:20**



**Stub foundation to guardrails**  
**Socul parapetilor de siguranță**  
**Reinforcement scheme**  
**Schema de armare**  
**Scale. Scara 1:20**



Notă: Note  
 For bridges at: Km 69+063.  
 Pentru podurile: Km 69+063.



**Consum of steel for 2m length of element**  
**Consumul de metal pentru 2m lungime a elementului, kg**

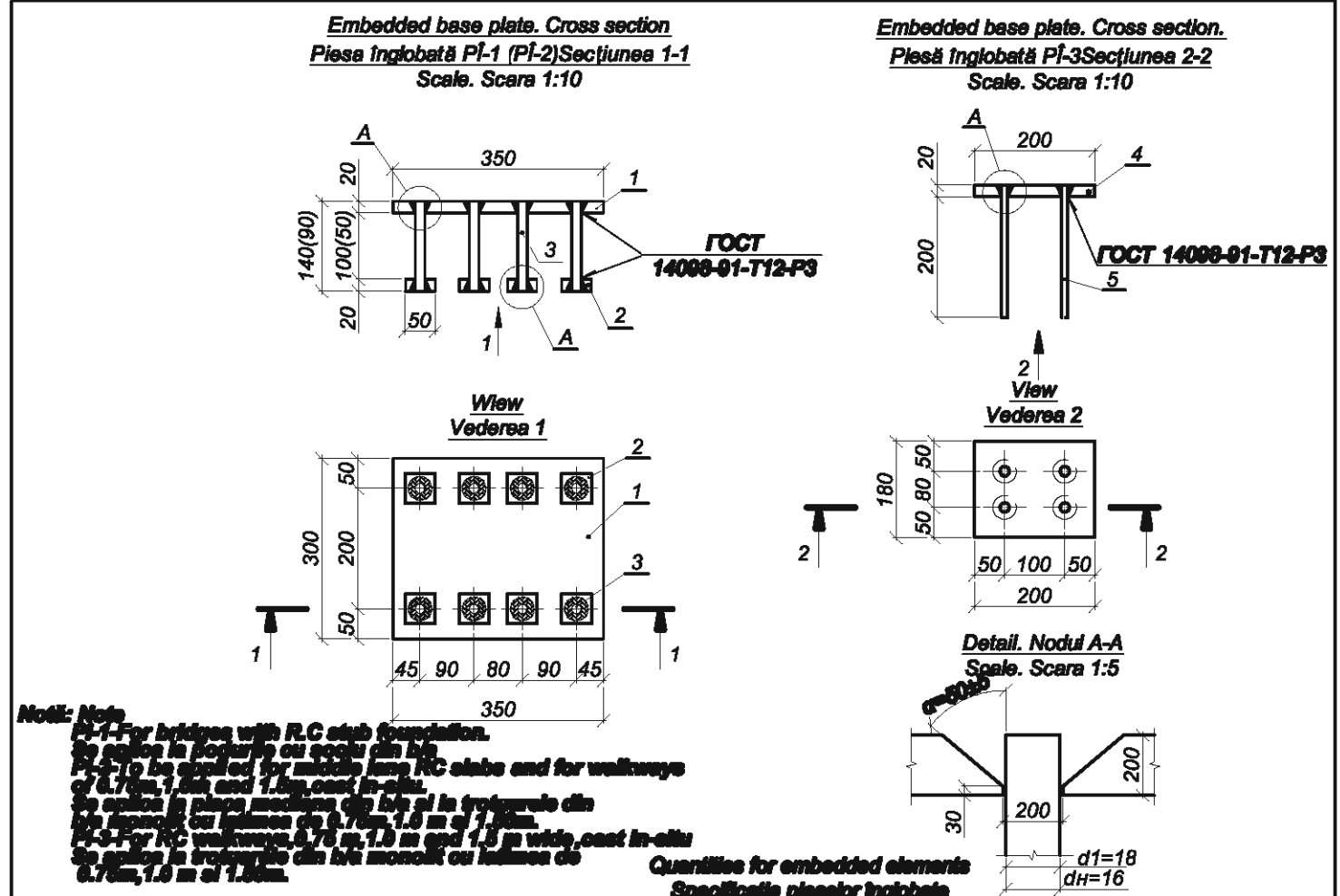
Element Type Marca elementului	Reinforcement. Piese de armare			Embedded elements. Piese înglobate							Total weight Greutate totală
	Bar type. Clasa armaturii			Clasa armaturii							
	A-III			A-II			BCm3on2				
	Ø14 Rez. Total			GOCT 5781-82*			GOCT 103-76**				
	Ø14	Rez.	Total	Ø16	Rez.	300x20	-	50x20	Rez.	Total	
Stub foundation Socul	14,1	14,1	14,1	2,4	2,4	16,5	-	3,2	19,7	22,1	36,2

**Quantities for guardrail stub foundation, 2m long**  
**Specificația soclului parapetilor metalici de siguranță la 2 m lungime**

Format	Zone. Zona	Position. Poziția	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note. Notă
				<b>Assembly elements</b> <b>Elemente de asamblare</b>		
FP	1		GOCT 5781-82*	Ø14 A-III, l=2000	5	2,4 kg
FP	2		GOCT 5781-82*	Ø14 A-III, l=250	7	0,3 kg
FP	3			Embedded elements Piesă înglobată P1-1	1	22,1 kg
				<b>Materials</b> <b>Materiale</b>		
			GOCT 26633-91*	Concrete Beton cl. B30, F200, W4		0,13 m³
				Epoxy glue Clei epoxid		0,001 m³

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

<b>European Investment Bank</b>	<b>Republic of Moldova</b>	<b>Ministry of Transport and Road Industry</b> <b>State Road Administration</b>			
	<b>Road Sector</b>	<b>Programme Support</b>	<b>Project</b>		
Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Sarateni	Designed	Cecan	Scale	1:500
Blizzard	Drawing title: Stub foundation of Guardrail	Checked	Bogza	Drawing	SP-P-1
Universcons	Socul parapetilor de siguranță a circulației vehiculelor	Control STAS	Belic		



**Notă: Note**  
 P1-1 For bridges with R.C slab foundation.  
 Se aplică în podurile cu soclu din beton armat.  
 P1-2 To be applied for middle lane R.C slabs and for walkways of 6.7m, 1.0m and 1.5m, cast in-situ.  
 Se aplică în placi, medii de cale și în trotuarele din beton armat cu lățimi de 6.7m, 1.0 m și 1.5m.  
 P1-3 For R.C walkways 6.7m, 1.0 m and 1.5 m wide, cast in-situ.  
 Se aplică în trotuarele din beton armat cu lățimi de 6.7m, 1.0 m și 1.5m.

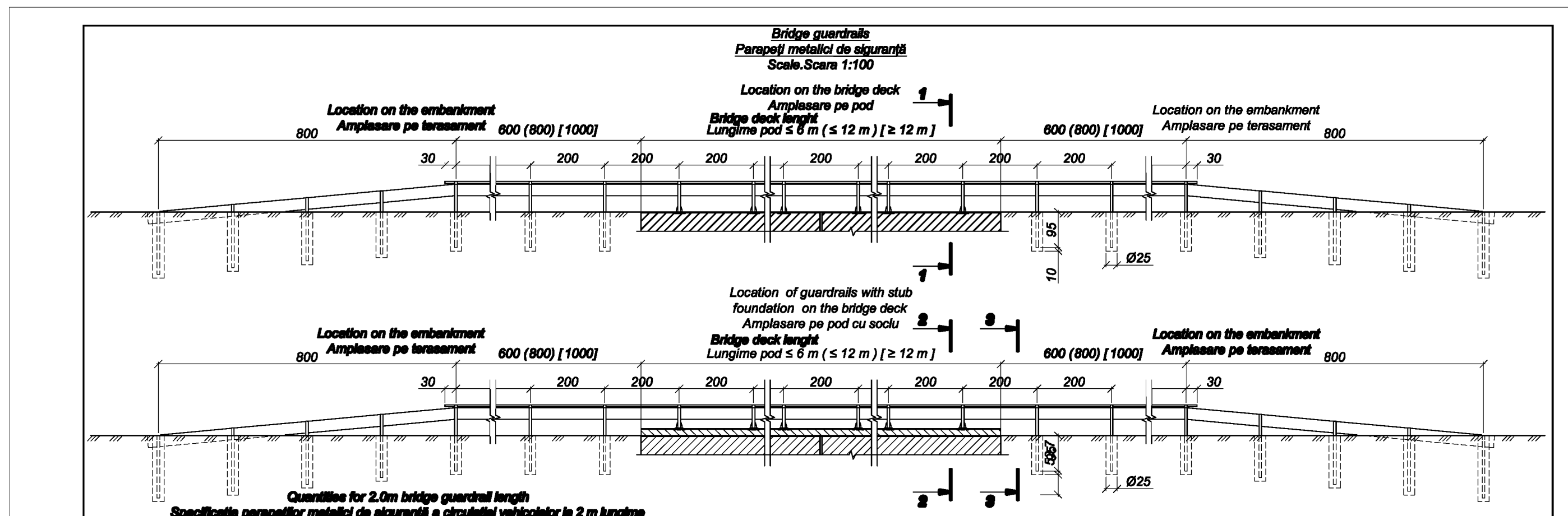
Quantities for embedded elements  
 Specificația pieselor înglobate

Format	Zone, Zona	Pozition	Mark	Item.	Quantity.	Note
		Pozitia	Marcaj, simbol	Denumirea	Cant.	Notă
				<b>Embedded base plate</b> <b>Piesă înglobată P1-1 (P1-2)</b>		22,1 kg
				<b>Elements</b> <b>Piese</b>		
FP	1		<b>GOCT 103-76°</b>	-20x300, l=350	1	16,5 kg
FP	2		<b>GOCT 103-76°</b>	-20x50, l=50	8	0,4 kg
FP	3		<b>GOCT 5781-82°</b>	Ø16 A-II, l=140 (90)	8	0,3 kg
				<b>Embedded base plate</b> <b>Piesă înglobată P1-3</b>		6,6 kg
				<b>Elements</b> <b>Piese</b>		
FP	4		<b>GOCT 103-76°</b>	-20x180, l=200	1	5,0 kg
FP	5		<b>GOCT 5781-82°</b>	Ø16 A-II, l=220	4	0,4 kg

Nr. inv. orig. Schimb. nr. Scurt în chisă

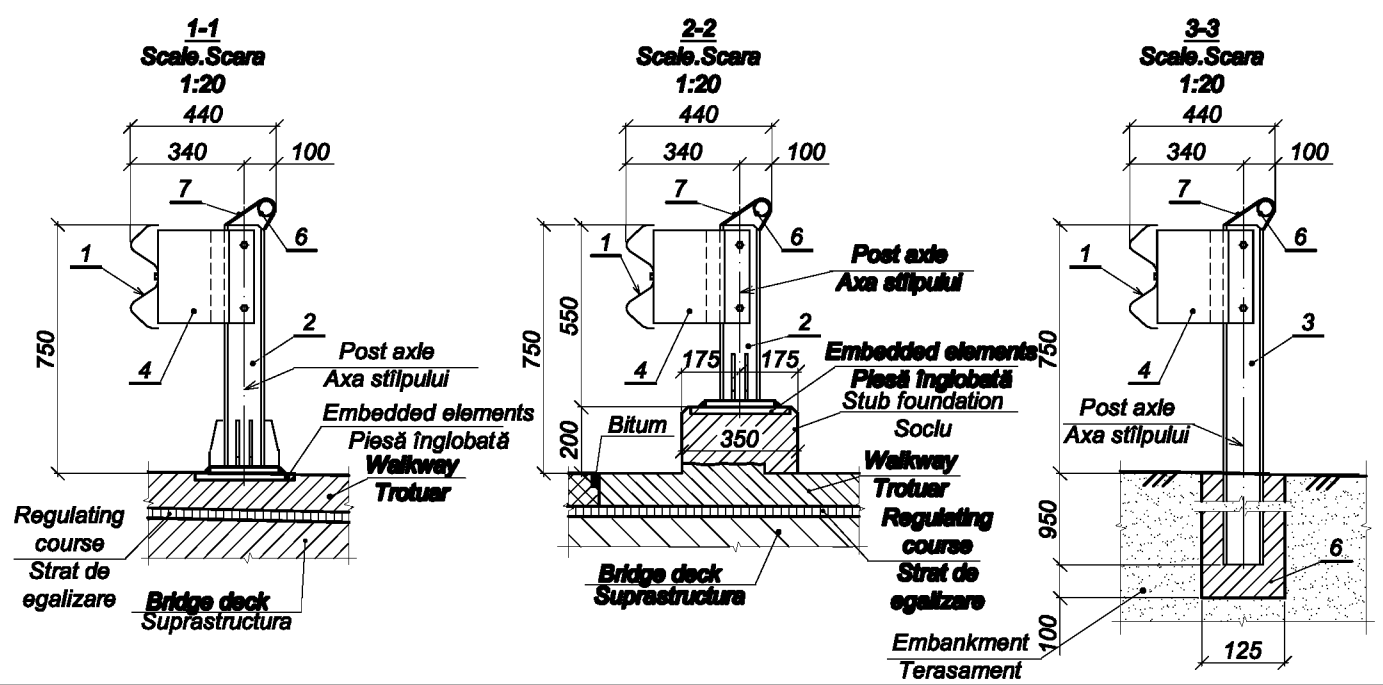
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector Programme Support Project					
Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Sarateni	Designed	Cecan	Scale	1:500
Blizzard	Drawing title	Checked	Bogza	Drawing	<b>P1-P1</b>
Universcons	<b>Embedded base plates</b> <b>Piese înglobate P1-1, P1-2, P1-3</b>	Control STAS	Belic		





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

Formet	Zone	Position	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note
				<b>Safety guardrails on bridge deck with /with out stub foundation and on embankment</b> <b>Parapeți de siguranță pe pod / pe pod cu soclul terasament</b>		
				<b>Elements</b> <b>Piese</b>		
FP	1		ГОСТ 8240-89	W-type guardrail Profil lisa	1	185,2 kg
FP	2		ГОСТ 8240-89	Guardrail post Stilpul parapețului CM / CML*	1 / 1	17,7 / 15,4kg
FP	3		ГОСТ 8240-89	Guardrail post Stilpul parapețului 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, buioane, 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 for 4m length la 4m lungime
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 m <sup>3</sup>

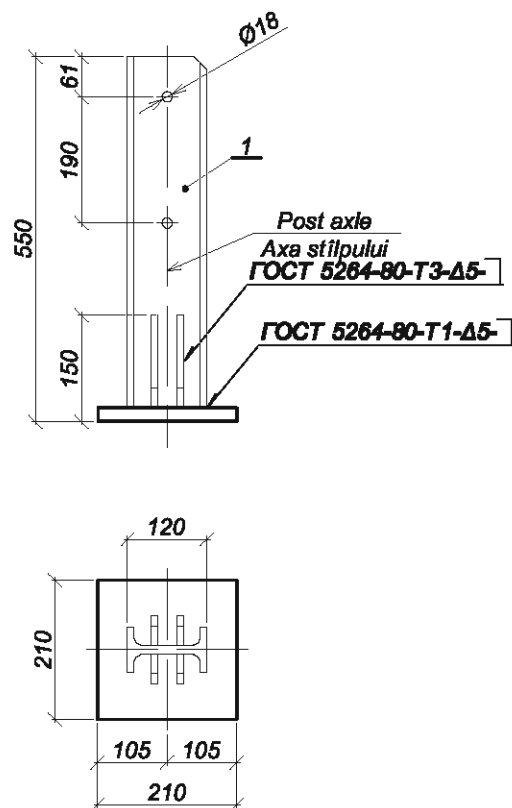


Nr. inv. org. Schimb. nr. Semnat in data

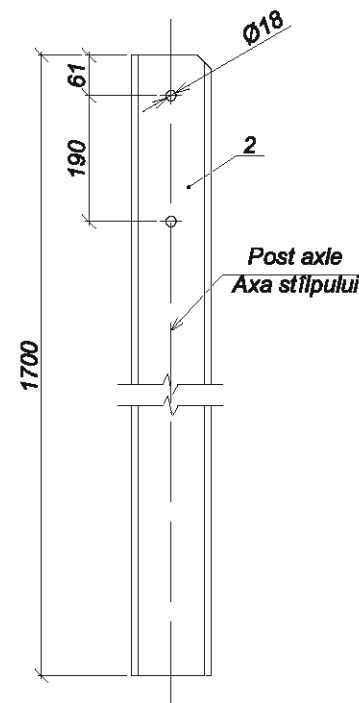
Notă: Note  
For all bridges.

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector	Programme Support	Project		
Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
Blizzard	Chisinau-Sarateni	Designed	Cecan	Scale	1:500
Universcons	Drawing title <b>Bridge guardrails. Guardrail posts.</b> <b>Parapeți metalici de siguranță a circulației vehiculelor.</b>	Checked	Bogza	Drawing	PMS-P-1
		Control STAS	Belic		

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



**Bridge guardrail posts**  
**Stilpul parapetului CD-3\***  
Scale. Scara 1:10



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

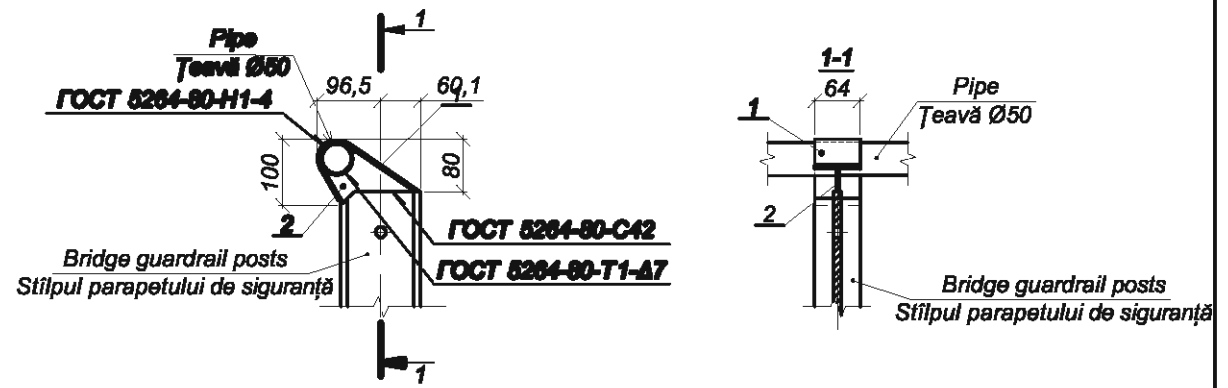
Formet	Zone, Zona	Position	Referenș. Indicativ	Item. Denumirea	Quantity	Note
				<b>Elements. Piese</b>		
FP	1		GOCT 26804-86	Guardrail posts Stilpul parapetului CMLI*	1	15,4kg
FP	2		GOCT 8240-89	Guardrail post Stilpul parapetului CD-3*	1	19,6 kg

Notă: Note  
For all bridges.  
La toate podurile.

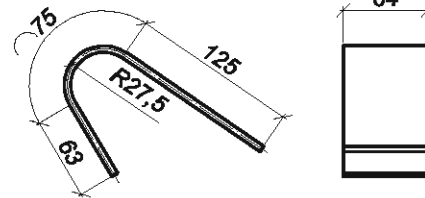
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International TRL Blizzard Universcons	Rehabilitation of M 2 Road Chisinau-Sarateni		ISP	Bogza	Date	12.2007
	Drawing title <i>Bridge guardrails. Guardrail posts</i> <i>Parapeți metalici de siguranță a circulației</i> <i>vehiculelor. Stilpii parapetilor CMLI*, CD-3*</i>		Designed	Cecan	Scale	1:500
			Checked	Bogza	Drawing	<b>FMS-P-1</b>
			Control STAS	Belic		

Nr. inv. orig. Scurt în cheie

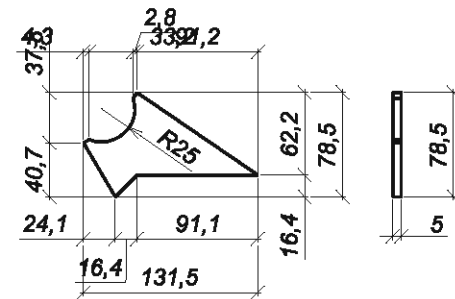
**Pipe bracket**  
**Element de fixare a țevii**  
**Scale. Scara 1:10**



**Pozition. Pozitia 1**  
**Scale. Scara 1:5**



**Pozition. Pozitia 2**



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

Format	Zone. Zone	Pozition. Pozitie	Reference. Indicativ	Item. Denumirea	Quantity. Cant.	Note. Notă
				<b>Elemente. Piese</b>		
FP	1		GOCT 103-76*	Embedded element. Platbandă -5x64, l=263	1	0,7 kg
FP	2		GOCT 103-76*	Cantilever. Consolă -5x79, l=132	1	0,4 kg

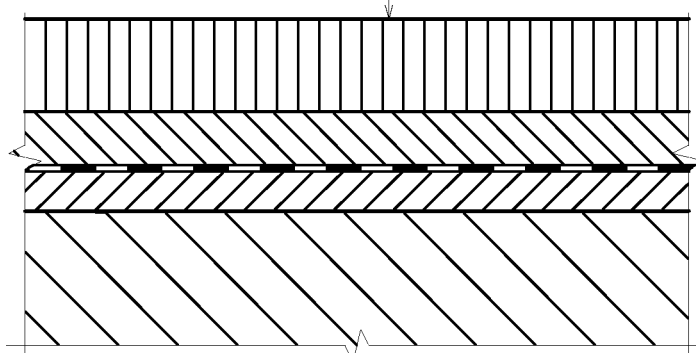
**Note ;Notă:**  
**Steel type**  
**Marca oțelului 16Д conform GOCT 6713-80**  
**Weight of bracket**  
**Masa elementului de fixare- 1,1 kg.**

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

<b>Nr. inv. orig.</b>	<b>Semnat în data</b>	<b>Solimb. nr.</b>	European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
			Road Sector Programme Support Project					
<b>Nr. inv. orig.</b>	<b>Semnat în data</b>	<b>Solimb. nr.</b>	Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
			TRL	Chisinau-Sarateni	Designed	Cecan	Scale	1:500
			Blizzard Universcons	Drawing title <i>Bridge guardrails.Pipe brackets.</i> <i>Parapeți metalici de siguranță a circulației</i> <i>vehiculelor. Element de fixare a țevii.</i>	Checked Control STAS	Bogza Belic	Drawing	<b>PMS-P-1</b>

**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 1m2 of waterproofing**  
**Specificația pentru îmbrăcămintea rutieră pentru 1m² de acoperire**

Formet	Zone	Position	Reference	Item	Quantity	Note
			Indicativ	Denumirea	Cant.	Notă
		1	ГОСТ 9128-84	Beton, din asfalt concrete tipuri, M4 betonobeton, beton asfaltic tip E, M-1, din agregate naturale, h=7cm	-	0,07 m²
		2	Pr. tip Serie 3.503.1-101 Ediția 0	Protective layer of reinforced concrete Strat de protecție, beton armat d.B25, F200, W3, h=4cm	-	0,04 m²
		3	BCH 32-81	Waterproofing membrane Hidroizolarea, membră DERBIGUM GC, h=0,5cm	-	1,0 m²
		4	Pr. tip Serie 3.503.1-101 Ediția 0	Regulating concrete layer Strat de egalizare, beton d.B25, F200, W3, h=3cm	-	0,03 m²

Notă: Note  
For all bridges.  
La toate podurile.

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

<b>European Investment Bank</b>	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
	Road Sector Programme	Support	Project		
Roughton International	Rehabilitation of M 2 Road	ISP	Bogza	Date	12.2007
TRL	Chisinau-Sarateni	Designed	Cecan	Scale	1:500
Blizzard	Waterproofing to bridge deck and asphalt laying	Checked	Bogza	Drawing	<b>HS-P-1</b>
Universcons	Hidroizolarea suprastructurii și îmbrăcămintea rutieră	Control STAS	Belic		