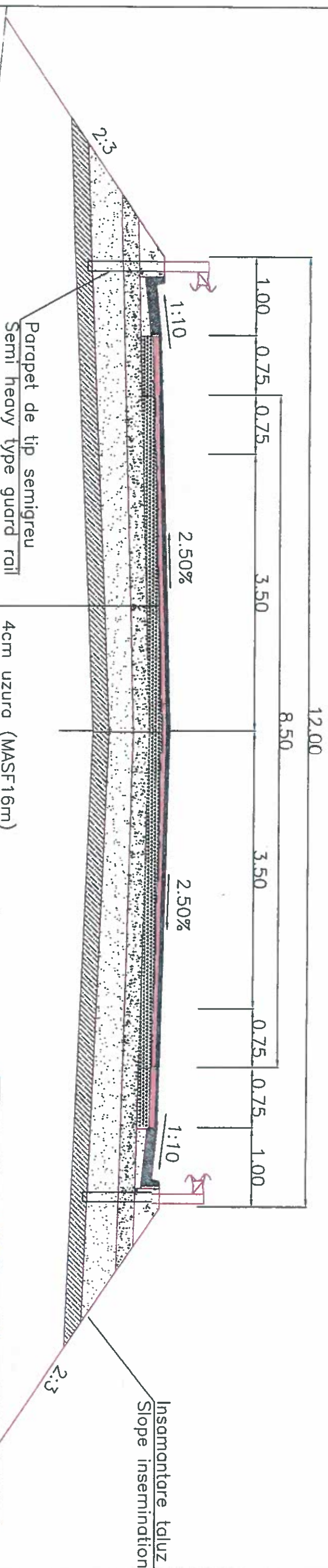


PROFIL TRANSVERSAL TIP - RAMBLEU

3.00m<H<6.00m

TIPYCAL CROSS-SECTION - FILL



APLICABILITATE/APPLICABILITY		
STRAT DE FORMA / FORMATION LAYER		
No.	de la / from	pana la / to L (m)
1	0+350	0+410 60
2	2+570	2+670 100
3	5+750	5+830 80
4	6+330	6+410 80
5	8+370	8+430 60
6	8+590	8+660 70
7	8+990	9+070 80
TOTAL L:		530

Nota:

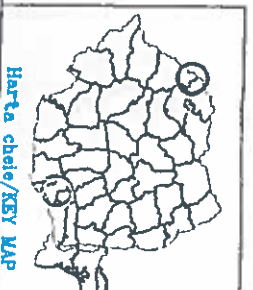
Tipul de sant la piciorul taluzului si distantele aplicabile vor fi in conformitate cu planşa PT - 006

4cm uzura (MASF16m)
4cm wearing course (MASF16m)
6cm binder (BAD25)
6cm binder (BAD25)
15cm strat de baza (AB2 31.5mm)
15cm base course (AB2 31.5mm)
20cm piatra sparta amestec optimal 63mm
20cm crushed stone optimal mix 63mm
30cm balast
30cm ballast

20cm strat forma - pamint tratat cu var
20cm formation layer - lime treated earth
umplutura cu pamant cf. caiet de sarcini
filling according to the technical specifications

APLICABILITATE/APPLICABILITY			
RIGOLA DE ACOSTAMENT / SHOULDER GUTTER			
STANGA / LEFT		DREAPTA / RIGHT	
de la / from	pana la / to L(m)	de la / from	pana la / to L(m)
0+345	0+415 70	0+345	0+415 70
2+550	2+650 140	2+550	2+650 140
5+755	5+825 70	5+755	5+825 70
6+325	6+410 85	6+325	6+410 85
8+380	8+425 45	8+380	8+425 45
8+580	8+650 80	8+580	8+650 80
8+985	9+070 85	8+985	9+070 85
TOTAL Stanga L:		TOTAL Dreapta L:	
575		575	
TOTAL L:		TOTAL L:	
		1150	

APLICABILITATE/APPLICABILITY			
PARAPET TIP SEMIGREU / MEDIUM HEAVY TPE GUARD RAIL			
STANGA / LEFT		DREAPTA / RIGHT	
de la / from	pana la / to L(m)	de la / from	pana la / to L(m)
0+345	0+415 70	0+345	0+415 70
2+550	2+690 140	2+550	2+690 140
5+755	5+825 70	5+755	5+825 70
6+325	6+410 85	6+325	6+410 85
8+380	8+425 45	8+380	8+425 45
8+580	8+660 80	8+580	8+660 80
8+985	9+070 85	8+985	9+070 85
TOTAL Stanga L:		TOTAL Dreapta L:	
575		575	
TOTAL L:		TOTAL L:	
		1150	



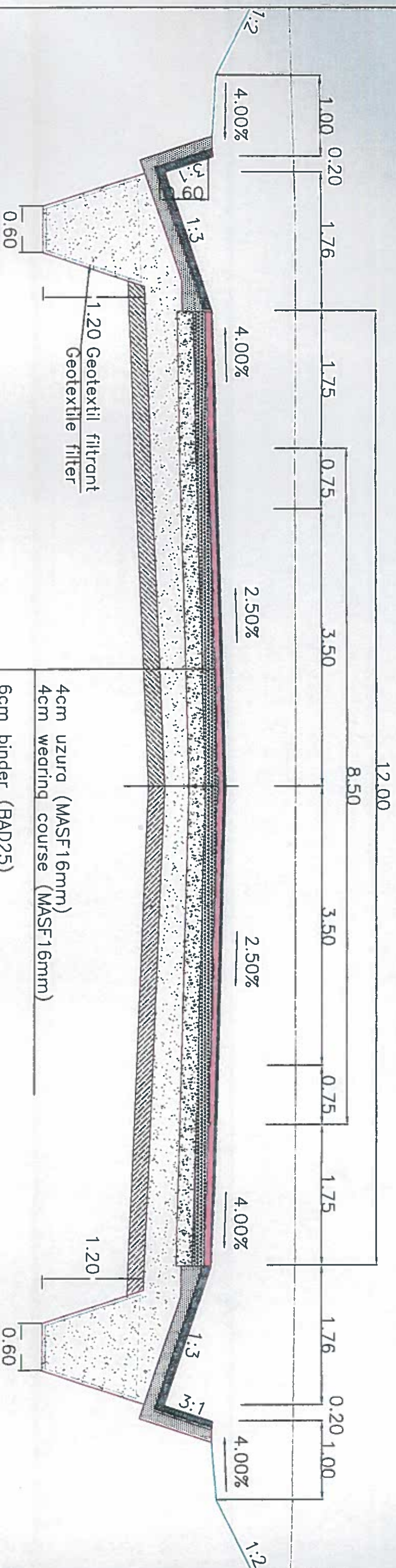
PROIECT TITLU / TITLU PROJECT

Technical assistance for reviewing and updating the existing documentation for the rehabilitation of the road section Bucuresti-Adunarii Copceni and for the construction of the bypasses at Socueni, Valea lui Mihai and Carai

Asistenta tehnica pentru revizuirea si actualizarea Studiului de fezabilitate existent, elaborarea Proiectului Tehnic la nivel de Detalii de Executie, a Documentatiei de Atribuire pentru reabilitarea sectiunii Bucuresti - Adunarii Copceni si construirea variantei ocolitoare Socueni, Valea lui Mihai si Carai

VERIFICATOR PROJECT		ROAD WORKS / LUCRARI DE DRUM	
DESIGNAT	Teh. Sorin VASILESCU	CAREI BYPASS PROFILE TRANSVERSALE TIP TYPICAL CROSS SECTIONS Scara/Scale 1:50	
PROIECTAT	Ing. Catalin GRIJANU		
VERIFICAT	Ing. Mircea RADULESCU		
MANAGER DE PROIECT	Ing. Mircea RADULESCU		
SEF EQUIPA PROIECTARE	Ing. Armandu PEZZONI		
Data	14.12.2015		
PROIECT	DATE		
PHASE	2005/017-353.04.05		
P	T	D	E
0	0	0	3

PROFIL TRANSVERSAL TIP - DEBLEU TYPICAL CROSS-SECTION - CUT



APLICABILITATE/APPLICABILITY					
DREN LONGITUDINAL / LONGITUDINAL DRAIN					
STANGA / LEFT			DREAPTA / RIGHT		
de la / from	pana la / to	L(m)	de la / from	pana la / to	L(m)
0+150	0+310	160	0+150	0+310	160
0+450	0+510	60	0+450	0+510	60
0+950	1+010	60	0+950	1+010	60
1+410	1+490	80	1+410	1+490	80
2+710	2+830	120	2+710	2+830	120
3+530	3+680	150	3+530	3+680	150
5+370	5+570	200	5+370	5+570	200
TOTAL Stanga L:		830	TOTAL Dreapta L:		830
			TOTAL L:		1660

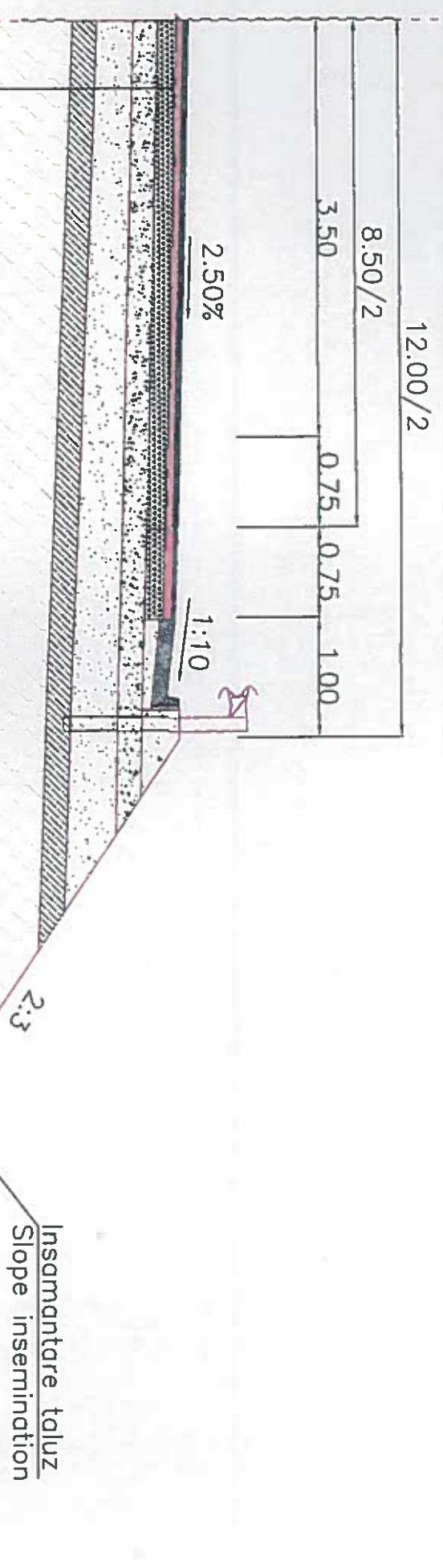
APLICABILITATE/APPLICABILITY					
STRAT DE FORMA / FORMATION LAYER					
STANGA / LEFT			DREAPTA / RIGHT		
de la / from	pana la / to	L(m)	de la / from	pana la / to	L(m)
0+150	0+310	160	0+150	0+310	160
0+450	0+510	60	0+450	0+510	60
0+950	1+010	60	0+950	1+010	60
1+410	1+490	80	1+410	1+490	80
2+710	2+830	120	2+710	2+830	120
3+530	3+680	150	3+530	3+680	150
5+370	5+570	200	5+370	5+570	200
TOTAL Stanga L:		830	TOTAL Dreapta L:		830
			TOTAL L:		1660

20cm strat forma - pamint tratat cu var
20cm formation layer - lime treated earth
30cm balast
30cm ballast



				PROJECT TITLE / TITLU PROIECT Technical assistance for reviewing and updating the existing feasibility study, preparing the detailed design and tender documentation for the rehabilitation of the road section Bucuresti - Adunesti Copceni and for the construction of the bypasses at Saculesti, Valea lui Mihai and Carai	
VERIFICATOR PROIECT Ing. Sorin VASILACHE Ing. Catalin GRUJANU Ing. Mircea RADULESCU Ing. Mircea RADULESCU Ing. Amanda PEZZONI Data: IAI 2013		ROAD WORKS / LUCRARI DE DRUM CAREI BYPASS PROFILE TRANSVERSAL TIP TYPICAL CROSS SECTIONS Scara/Scale 1:50		PHASE 2005/017-553.04.03 P T D E PT 0 0 4	

PROFIL TRANSVERSAL II - VALMILEU
H>6.00m
TYPICAL CROSS-SECTION - FILL



APLICABILITATE/APPLICABILITY					
RIGOLA DE ACOS TAMENT / SHOULDER GUTTER					
STANGA / LEFT			DREAPTA / RIGHT		
de la / from	pana la / to	L(m)	de la / from	pana la / to	L(m)
5+835	6+000	165	5+835	6+000	165
6+070	6+325	255	6+070	6+325	255
TOTAL Stanga L:		420	TOTAL Dreapta L:		420
			TOTAL L:		840

APLICABILITATE/APPLICABILITY					
PARAPET TIP SEMIGREU / MEDIUM HEAVY TPE GUARD RAIL					
STANGA / LEFT			DREAPTA / RIGHT		
de la / from	pana la / to	L(m)	de la / from	pana la / to	L(m)
5+835	6+000	165	5+835	6+000	165
6+070	6+325	255	6+070	6+325	255
TOTAL Stanga L:		420	TOTAL Dreapta L:		420
			TOTAL L:		840

APLICABILITATE/APPLICABILITY			
STRAT DE FORMA / FORMATION LAYER			
No.	de la / from	pana la / to	L (m)
1	5+830	6+000	170
2	6+070	6+330	260
		TOTAL L:	430

20cm strat forma - pamint tratat cu var
20cm formation layer - lime treated earth
umplutura cu pamant cf. caiet de sarcini
filling according to the technical specifications

Nota:
Tipul de sant la piciorul taluzului si distantele aplicabile vor fi in conformitate cu planșa PT - 006

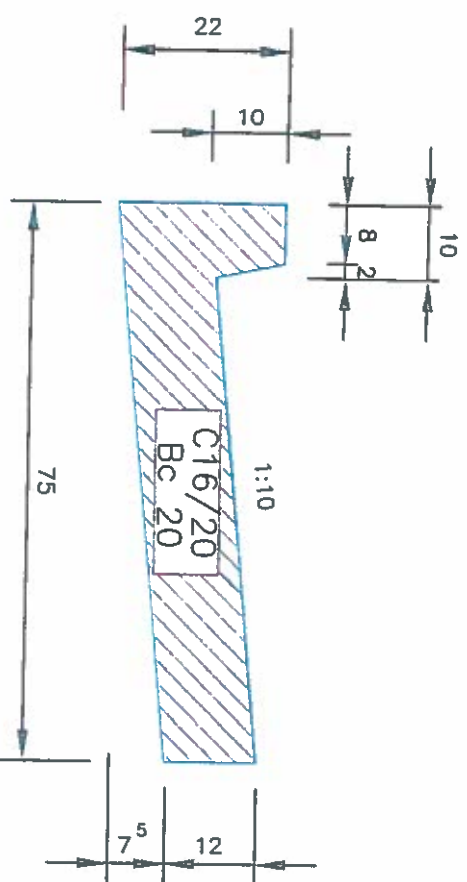


				PROJECT TITLE / TITLU PROIECT		VERIFICATOR PROIECT		ROAD WORKS / LUCRARI DE DRUM	
INVESTOR/INVESTITOR		COMPANIA NATIONALA DE AUTOSTRAZI SI DRUMURI NATIONALE		TEHNICAL assistance for reviewing and updating the existing feasibility study, for the rehabilitation of the road section of the Buceuresti-Adunaltii Copceni and for the construction of the bypasses at Socueni, Valea lui Mihai and Carai		DESIGNAT		CAREI BYPASS	
DESIGNER/PROIECTANT		SI DIN ROMANIA		Asistenta tehnica pentru revizuirea si actualizarea Studiului de fezabilitate existent, elaborarea Proiectului Tehnic la nivel de Detaliu de Executie, a Documentatiei de Atribuire pentru reabilitarea sectiunii Buceuresti - Adunaltii Copceni si construirea variantei ocolitoare Socueni, Valea lui Mihai si Carai		PROIECTAT		PROFILE TRANSVERSALE TIP	
IN ASSOCIATION WITH		promtec		Ing. Sorin VASILACHE		VERIFICAT		TYPICAL CROSS SECTIONS	
				Ing. Gheorghe GRIGORU		LUCRARE DE PROIECT		Scale/Scale 1:50	
				Ing. Mircea RADULESCU		SEF EQUIPA PROIECTARE			
				Ing. Armando PEZZONI		Data			
				MAY 2013		P			
						T			
						D			
						E			
						PT			
						0			
						0			
						5			

RIGOLA de ACOSTAMENT
SHOULDER GUTTER

DETALIU ELEMENT PREFABRICAT
PRECAST UNIT DETAIL

Latime/Width 0.50m
Scara / Scale 1:10



EXTRAS DE MATERIALE PENTRU 1ml. RIGOLA
hr=10cm

TIPUL RIGOLEI	Pietris Gravel	Nisip Sand	Ciment Cement	Elemente prefabricate Precast units
TYPE OF GUTTER	7-31	0-7		
mc	mc	to	to	
0.061	0.114	0.033	0.22	

CARACTERISTICI TEHNICE
TECHNICAL FEATURES
Volum/Volume : 0.05 mc
Greutate/Weight : 110 kg
Latime/Width : 0.50 m

Beton Concrete	C16/20(Bc20)
Clasa de expunere Class of exposure	2b
Grad de impermeabilitate Impermeability degree	P8
Grad de gelivitate Frost clefiness degree	G100
Tip de ciment Cement type	I 32.5(R) II/A-S 32.5(R)
Raport a/c max max w/c ratio	0.45

APLICABILITATE/APPLICABILITY					
RIGOLA DE ACOSTAMENT / SHOULDER GUTTER					
STANGA / LEFT			DREAPTA / RIGHT		
de la / from	pana la / to	L(m)	de la / from	pana la / to	L(m)
0+333	0+420	87	0+340	0+420	80
2+550	2+725	175	2+585	2+730	145
3+870	3+925	55	3+850	3+925	75
5+695	5+999	304	5+670	5+999	329
6+071	6+460	389	6+071	6+475	404
8+325	8+435	110	8+330	8+450	120
8+600	8+655	55	8+575	8+655	80
8+990	9+050	60	9+025	9+060	35
TOTAL Stanga L:		1235	TOTAL Dreapta L:		1268
			TOTAL L:		2503



PROJECT TITLE / TITLU PROIECT

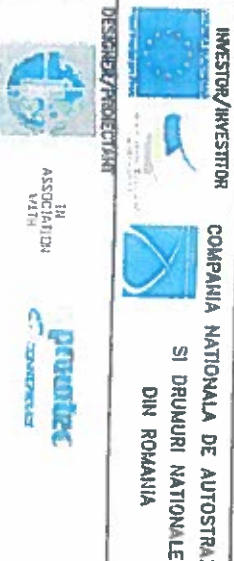
Asistența tehnică pentru revizuirea și actualizarea Studiului de
Fezabilitate existent, elaborarea Proiectului Tehnic la nivel de
Detaliu de Execuție, a Documentației de Atribuire pentru
realizarea secțiunii București - Adunații Copaceni și construirea
variantelor de circulație Saceni, Valca lui Mihai și Corei

ROAD WORKS / LUCRARI DE DRUM

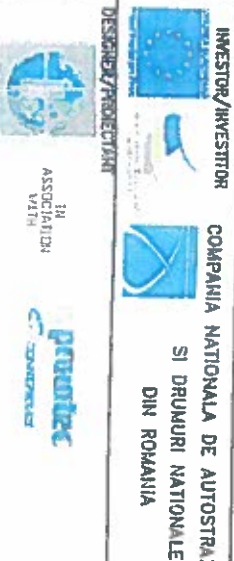
CAREI BYPASS

RIGOLA de ACOSTAMENT
SHOULDER GUTTER

SCARA/SCALE 1:10



INVESTITOR/INVESTITOR
COMANIA NATIONALA DE AUTOSTRAZI
SI DRUMURI NATIONALE
DIN ROMANIA



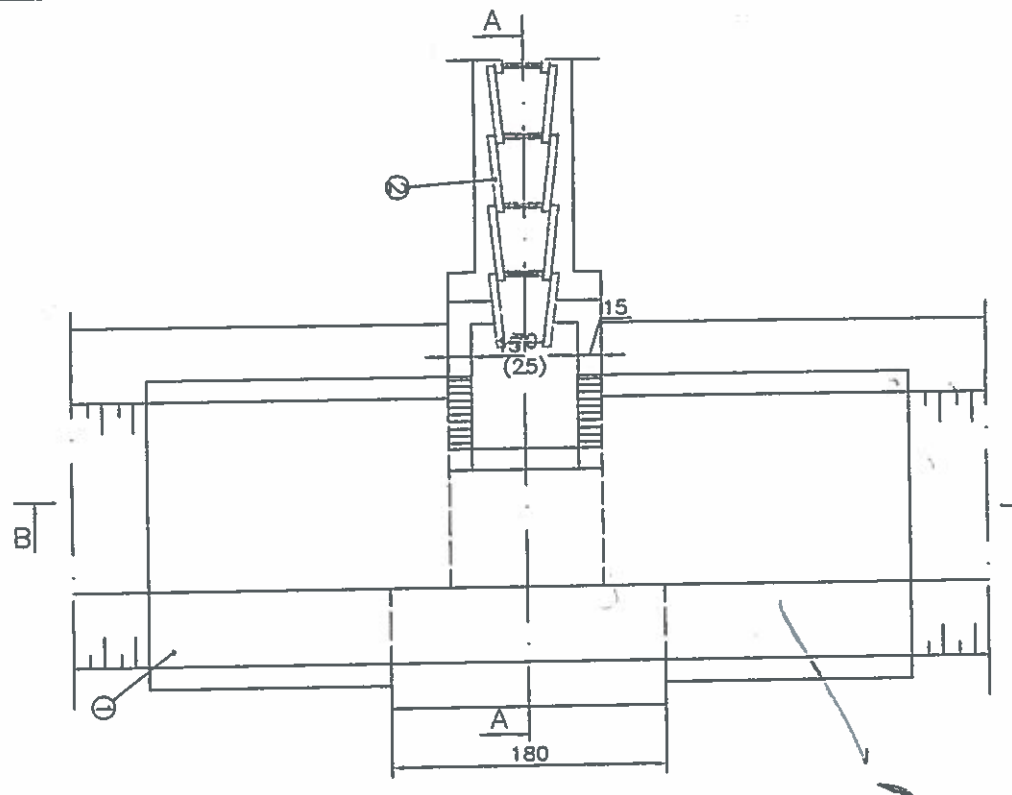
VERIFICATOR PROIECT

VERIFICATOR PROIECT

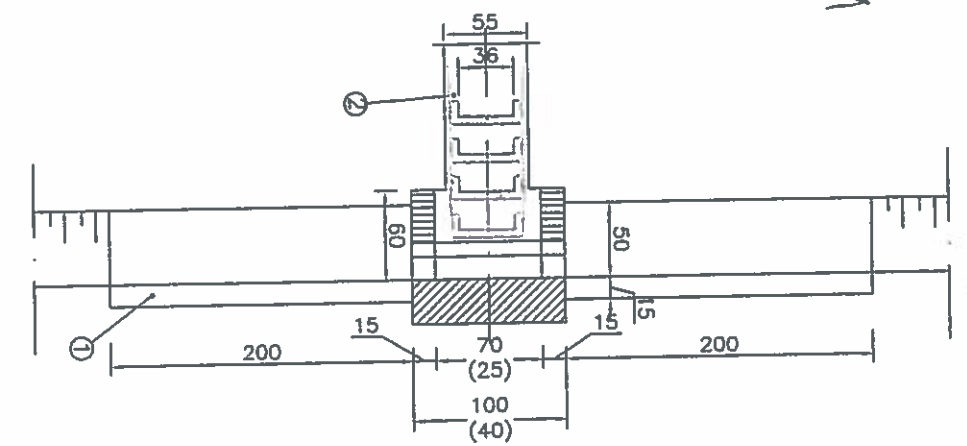
VERIFICATOR PROIECT

VERIFICATOR PROIECT

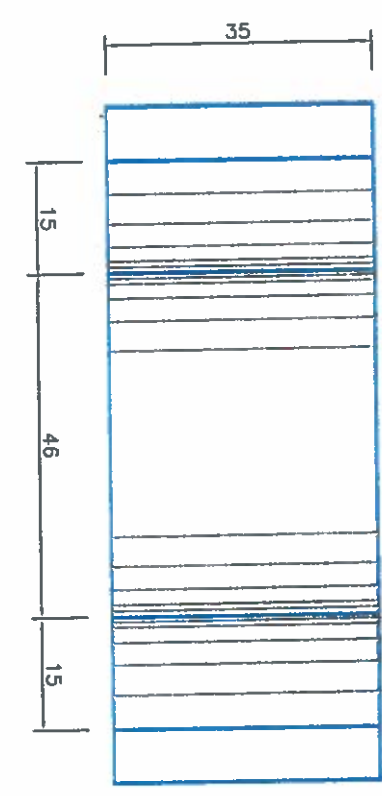
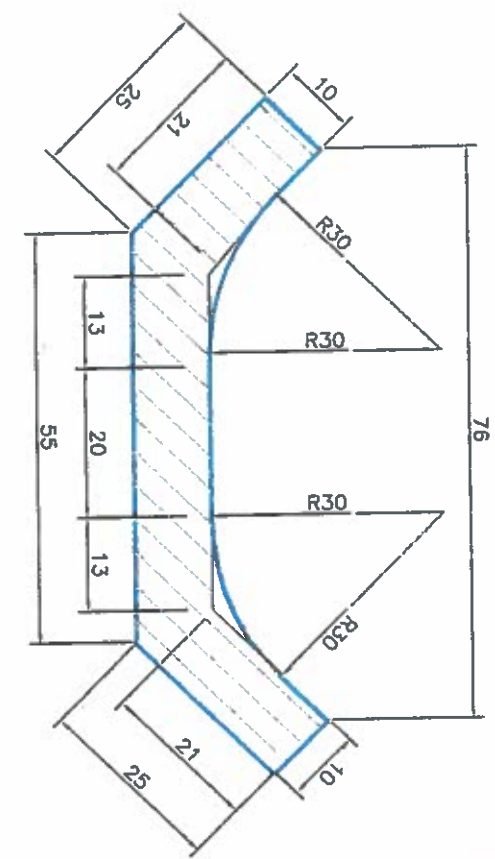
ELEVATIE Scara 1:50



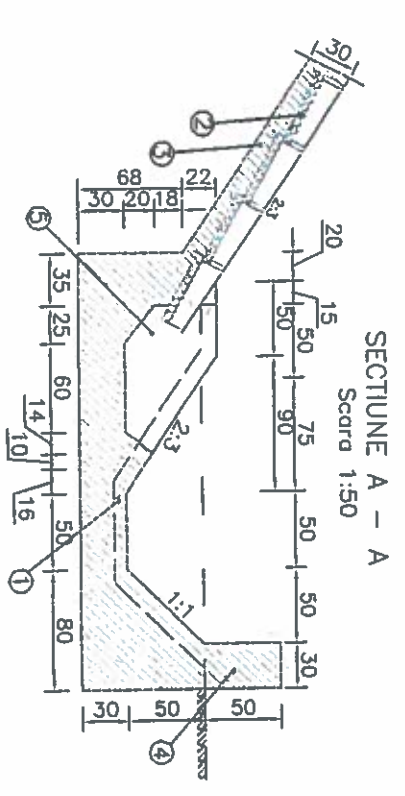
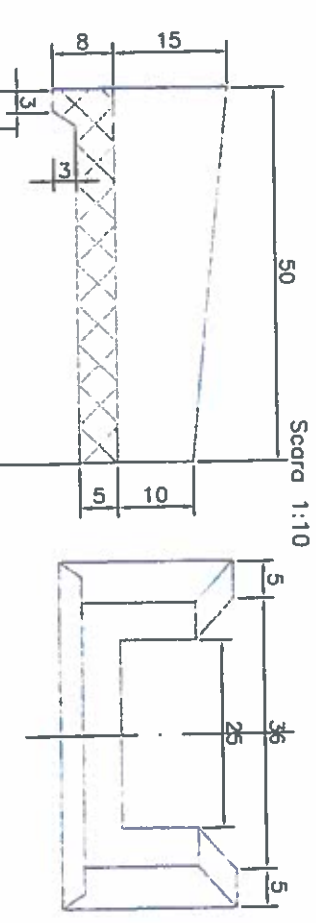
SECTIUNE B - B Scara 1:50



DETALIU PENTRU ELEMENTUL 1 Scara 1:10



DETALIU PENTRU ELEMENTUL 2 Scara 1:10



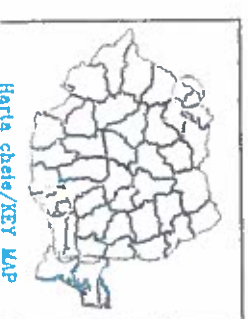
SECTIUNE A - A Scara 1:50

- 1 - Sant prefabricat din beton simplu;
- 2 - Elemente prefabricate din beton simplu pentru cosuri pe taluzuri;
- 3 - Pat de beton simplu B200;
- 4 - Dig local, in zona casului, pentru mentinerea apei in sant;
- 5 - Camera de cadere, pentru atenuarea energiei apei.

PROIECT TITLU / TITLU PROJECT

VERIFICATOR PROIECT

ROAD WORKS / LUCRARI DE DRUM



Asistenta tehnica pentru revizuirea si actualizarea Studiului de Fezabilitate existent, elaborarea Proiectului Tehnic la nivel de Detalii de Executie, a Documentului de Atribuire pentru reabilitarea sectiunii Bucuresti - Adunatii Copaceni si construirea variantei ocolitoare Socurenii, Valcea la Kilul si Cerei

DESEINAT	VERIFICAT	ING. EMI	ING. EMI
PROIECTAT	PROIECTAT	ING. EMI	ING. EMI
VERIFICAT	VERIFICAT	ING. EMI	ING. EMI
MANAGER DE PROIECT	MANAGER DE PROIECT	ING. EMI	ING. EMI
SET ECHIPA PROIECTARE	SET ECHIPA PROIECTARE	ING. EMI	ING. EMI
DATA	DATA	ING. EMI	ING. EMI

CAREI BYPASS
CASIURI PE TALUZE
SIDE DITCHES ON SLOPES
SCARA/SCALE 1:10; 1:50

NOTA:
Cotele trecute in paranteze se refera la casuri pe taluzuri ramblee cu inclinatii cuprinse intre 5% si 15%.



APLICABILITATEA PENTRU CASURI PE TALUZE / SIDE DITCHES ON SLOPE									
STANGA / LEFT					DREAPTA / RIGHT				
No.	km	L(m)	No.	km	L(m)	No.	km	L(m)	No.
1	0+370	10,7	1	0+370	10,0	1	0+370	10,0	1
2	0+420	5,5	2	0+420	6,1	2	0+420	6,1	2
3	2+600	12,2	3	2+600	12,3	3	2+600	12,3	3
4	2+650	11,5	4	2+730	10,0	4	2+730	10,0	4
5	2+720	6,7	5	3+925	5,4	5	3+925	5,4	5
6	3+925	5,3	6	5+595	4,9	6	5+595	4,9	6
7	5+595	3,6	7	5+673	6,0	7	5+673	6,0	7
8	5+673	5,1	8	5+740	8,5	8	5+740	8,5	8
9	5+740	7,7	9	5+800	10,8	9	5+800	10,8	9
10	5+800	10,0	10	5+850	12,9	10	5+850	12,9	10
11	5+850	12,3	11	5+900	14,9	11	5+900	14,9	11
12	5+900	14,3	12	5+950	17,0	12	5+950	17,0	12
13	5+950	16,1	13	5+989	18,6	13	5+989	18,6	13
14	5+989	17,9	14	6+071	21,2	14	6+071	21,2	14
15	6+071	20,2	15	6+120	21,5	15	6+120	21,5	15
16	6+120	20,6	16	6+170	20,6	16	6+170	20,6	16
17	6+170	20,0	17	6+220	19,0	17	6+220	19,0	17
18	6+220	18,1	18	6+270	17,4	18	6+270	17,4	18
19	6+270	16,8	19	6+320	14,7	19	6+320	14,7	19
20	6+320	14,4	20	6+370	11,9	20	6+370	11,9	20
21	6+370	11,4	21	6+420	8,6	21	6+420	8,6	21
22	6+420	8,0	22	6+470	6,0	22	6+470	6,0	22
23	6+460	5,9	23	8+380	6,4	23	8+380	6,4	23
24	8+380	6,8	24	8+450	5,8	24	8+450	5,8	24
25	8+430	6,1	25	8+580	6,1	25	8+580	6,1	25
26	8+600	5,9	26	9+060	5,6	26	9+060	5,6	26
27	9+050	5,6							
TOTAL Stanga L:		299	TOTAL Dreapta L:		302			302	
		TOTAL L:			601			601	