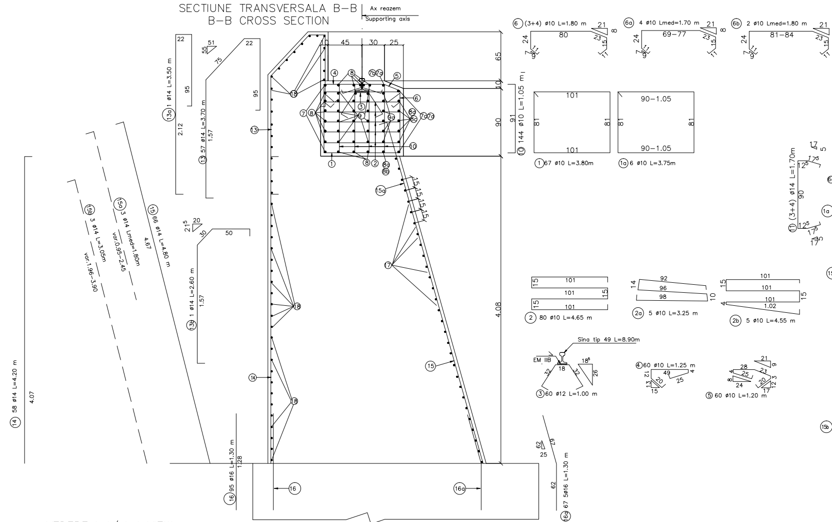
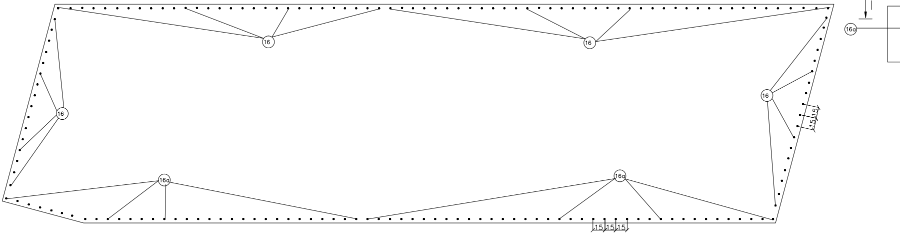
SECTIUNE TRANSVERSALA B-B
B-B CROSS SECTION



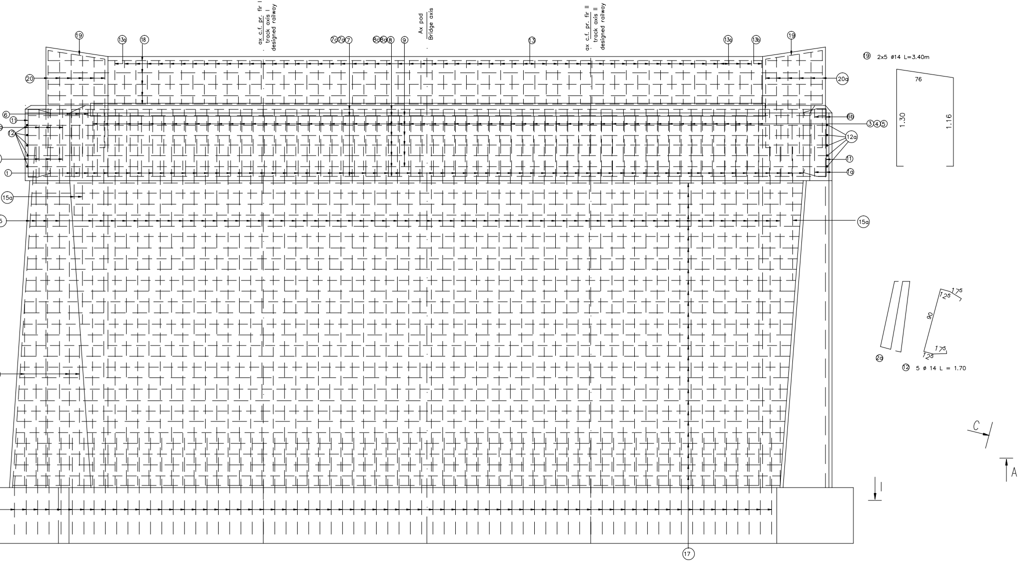
Ax reazem
Supporting axis
10
45
30
25
65
10
90
4.08
91
⑩ 144 ø10 L=1.05 m
④
⑧
⑦b ⑦a
⑤
⑥
③
⑨
⑨a
⑧a
⑦c ⑦d
⑦ ⑧
⑩
①
⑧ ②
⑧a
⑧b
⑮a
15
15
15
15
⑰
⑮
⑱
⑬
⑭
⑯
⑯a
22
95
2.12
⑬a 1 ø14 L=3.50 m
51
55
75
22
95
1.57
⑬ 57 ø14 L=3.70 m
21⁵
20
30
50
1.57
⑬b 1 ø14 L=2.60 m
⑭ 58 ø14 L=4.20 m
4.07
⑮ 66 ø14 L=4.80 m
4.67
⑮a 3 ø14 Lmed=1.80m
var.0.95-2.45
⑮b 3 ø14 L=3.05m
var.1.96-3.90
⑯ 95 ø16 L=1.30 m
1.28
62
25
67
62
⑯a 67 5ø16 L=1.30 m
⑥ (3+4) ø10 L=1.80 m
24
80
21
23
15
8
7
9
11
11
⑥a 4 ø10 Lmed=1.70 m
69-77
⑥b 2 ø10 Lmed=1.80 m
81-84
101
81
81
101
① 67 ø10 L=3.80m
90-1.05
81
81
90-1.05
①a 6 ø10 L=3.75m
⑪ (3+4) ø14 L=1.70m
17
5
17⁵
12⁵
90
12⁵
17⁵
17
15
101
101
15
101
15
② 80 ø10 L=4.65 m
14
92
96
98
10
②a 5 ø10 L=3.25 m
15
101
101
101
1.02
4
15
②b 5 ø10 L=4.55 m
Sina tip 49 L=8.90m
EM IIB
18
18⁵
32
32
26
③ 60 ø12 L=1.00 m
④ 60 ø10 L=1.25 m
49
4
12
20
25
13
15
28
25
24
21
9
23
20
17
12
3
8
4
⑤ 60 ø10 L=1.20 m

VEDERE I-I/ I-I VIEW



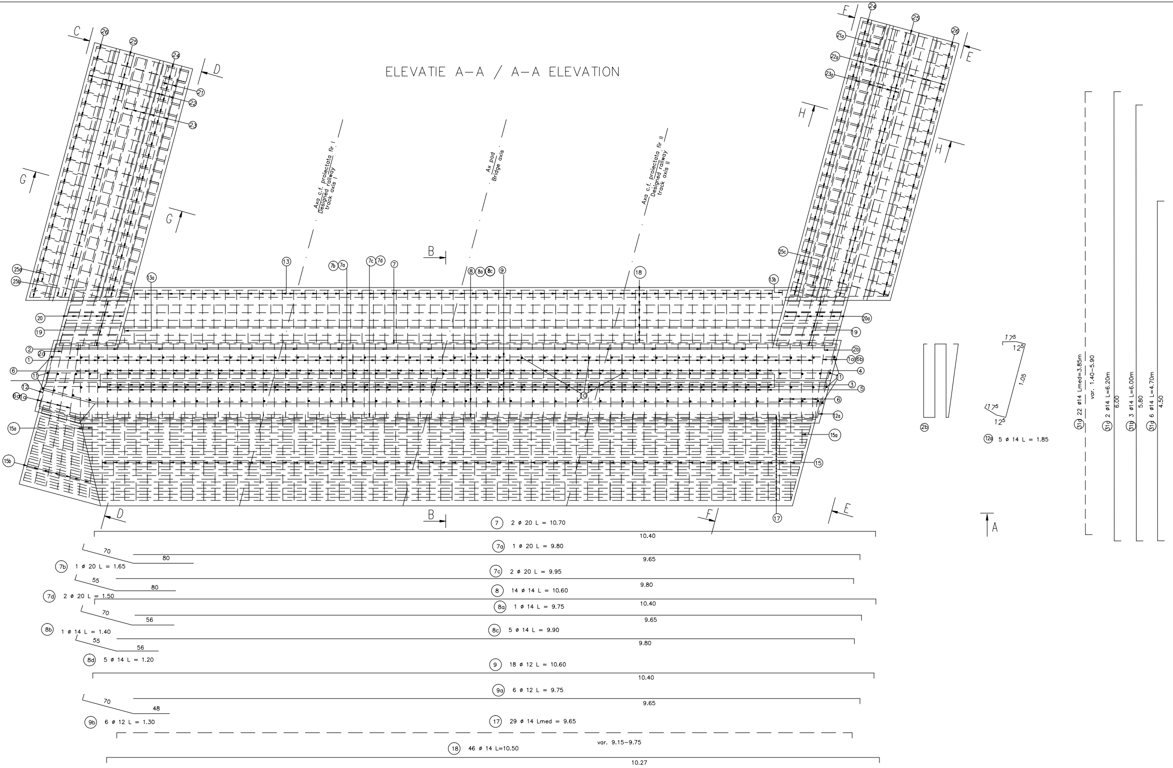
⑯
⑯
⑯
⑯
⑯a
⑯a
15
15
15
15
15
⑯a
I

ELEVATIE A–A / A–A ELEVATION

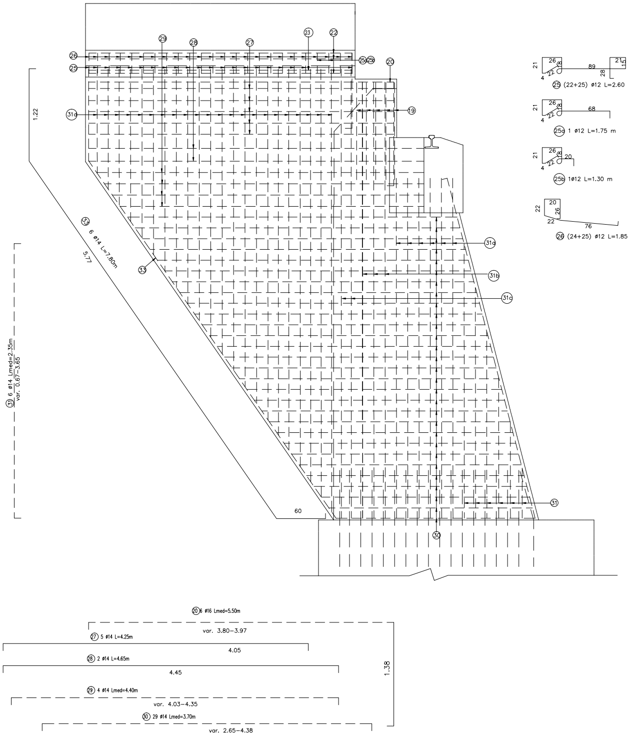


ax c.f. pr. fir I
track axis I
designed railway
Ax pod
Bridge axis
ax c.f. pr. fir II
track axis II
designed railway
⑲
⑬a
⑱
7c 7a ⑦
8c 8a ⑧
⑨
⑬
⑬a
⑬b
⑲
⑳
20a
⑥
⑪
⑫
①
15a
6b
③④⑤
12a
⑪
1a
15a
⑰
⑲ 2x5 ø14 L=3.40m
76
1.30
1.16
2a
125
175
90
125
175
⑫ 5 ø 14 L = 1.70
C
A
I

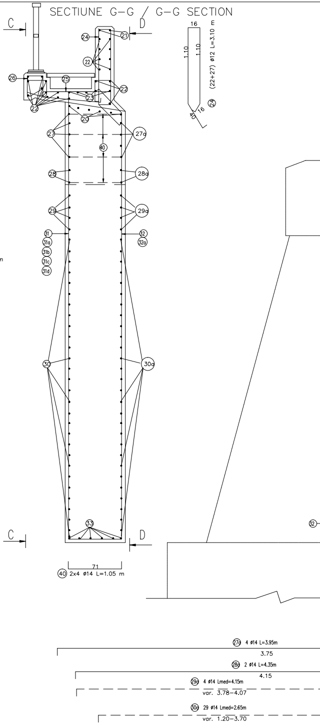
ELEVATIE A–A / A–A ELEVATION

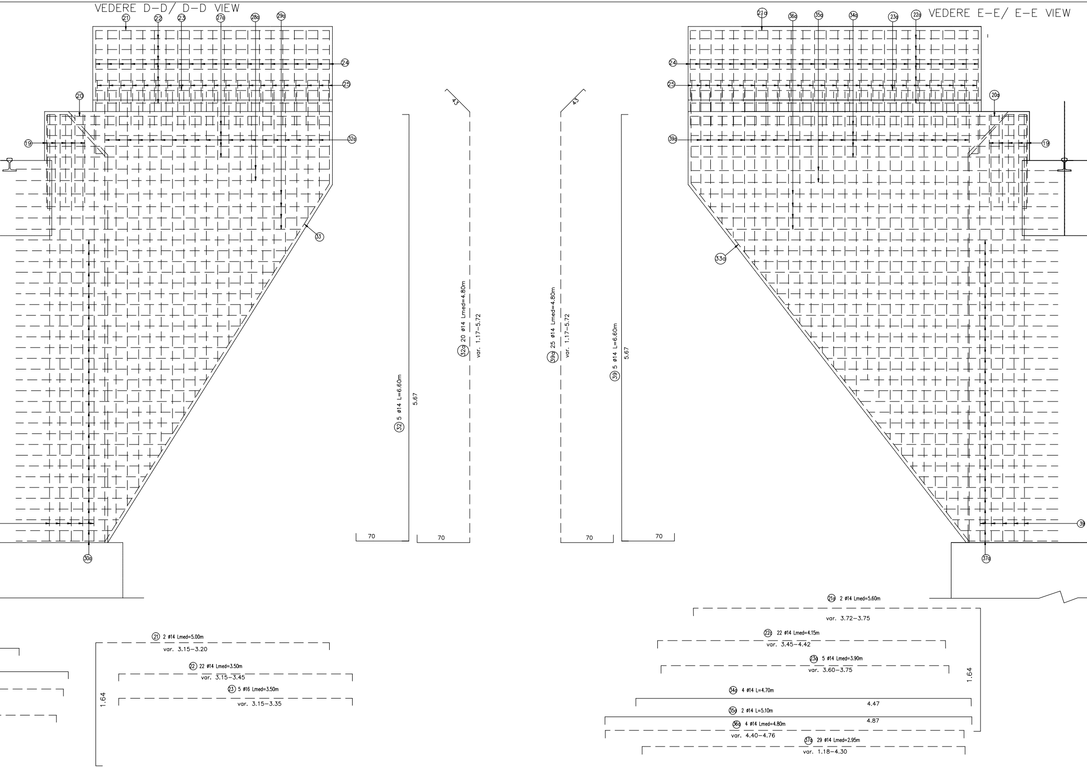

C
D
E
F
G
H
B
A
26
25
24
21
22
23
21a
22a
23a
25a
25b
25c
13
13a
13b
7b
7a
7c
7d
7
8
8a
8c
9
18
20
20a
19
2
2a
2b
1
1a
6b
6
6a
11
12
12a
3
4
5
10
15
15a
15b
17
Axa c.f. proiectata fir I
Designed railway track axis I
Ax pod
Bridge axis
Axa c.f. proiectata fir II
Designed railway track axis II
17⁵
12⁵
1.05
12a 5 ø 14 L = 1.85
31a 22 ø14 Lmed=3.85m
var. 1.40–5.90
31c 2 ø14 L=6.20m
6.00
31b 3 ø14 L=6.00m
5.80
31d 6 ø14 L=4.70m
4.50
7 2 ø 20 L = 10.70
10.40
7a 1 ø 20 L = 9.80
9.65
70
80
7b 1 ø 20 L = 1.65
7c 2 ø 20 L = 9.95
9.80
55
80
7d 2 ø 20 L = 1.50
8 14 ø 14 L = 10.60
10.40
8a 1 ø 14 L = 9.75
9.65
70
56
8b 1 ø 14 L = 1.40
8c 5 ø 14 L = 9.90
9.80
55
56
8d 5 ø 14 L = 1.20
9 18 ø 12 L = 10.60
10.40
9a 6 ø 12 L = 9.75
9.65
70
48
9b 6 ø 12 L = 1.30
17 29 ø 14 Lmed = 9.65
var. 9.15–9.75
18 46 ø 14 L=10.50
10.27

VEDERE C–C/ C–C VIEW


29
28
27
23
22
26
25
25a 25b
20
19
31d
31a
31b
31c
31
30
33
1.22
33 6 ø14 L=7.80m
5.77
60
31 6 ø14 Lmed=2.35m
var. 0.67–3.65
21
26
18
22
4
89
28
21
15
25 (22+25) ø12 L=2.60 m
68
25a 1 ø12 L=1.75 m
20
25b 1ø12 L=1.30 m
22
20
26
76
26 (24+25) ø12 L=1.85 m
20 6 ø16 Lmed=5.50m
var. 3.80–3.97
27 5 ø14 L=4.25m
4.05
28 2 ø14 L=4.65m
4.45
29 4 ø14 Lmed=4.40m
var. 4.03–4.35
30 29 ø14 Lmed=3.70m
var. 2.65–4.38
1.38

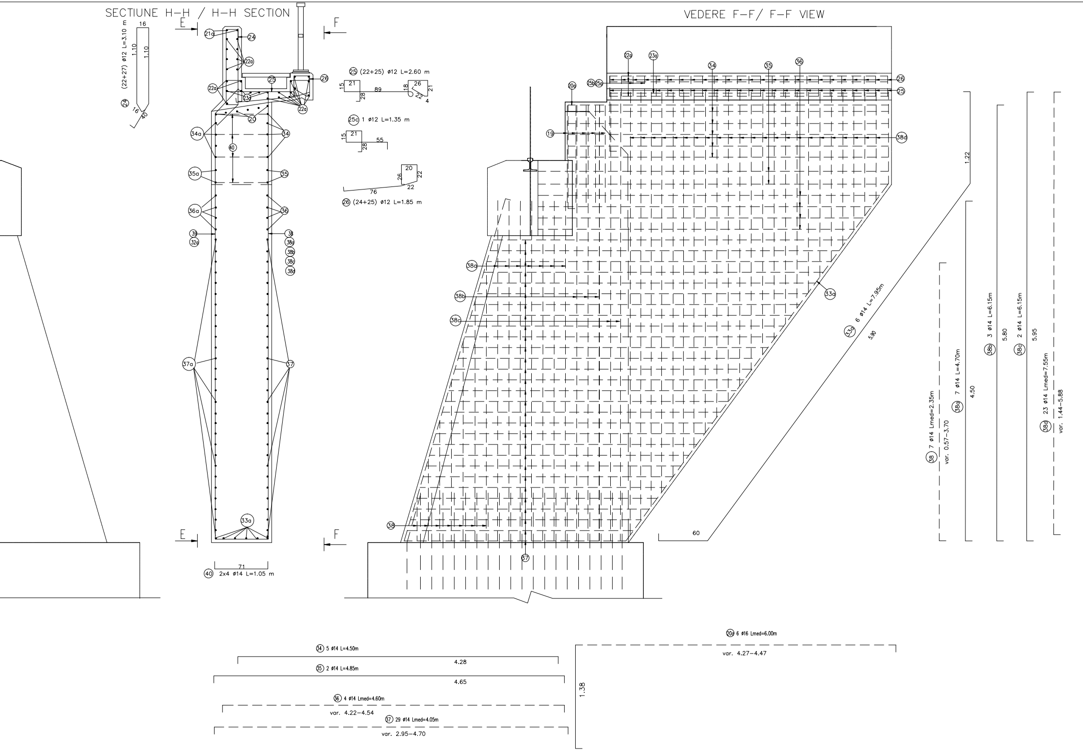
SECTIUNE G–G / G–G SECTION


C
D
24
21
22
26
25
22
23
22
20
27
27a
40
28
28a
29
29a
31
31a
31b
31c
31d
32
32a
30
30a
33
C
D
71
40 2x4 ø14 L=1.05 m
16
1.10
1.10
16
40
24 (22+27) ø12 L=3.10 m
32
27a 4 ø14 L=3.95m
3.75
28a 2 ø14 L=4.35m
4.15
29a 4 ø14 Lmed=4.15m
var. 3.78–4.07
30a 29 ø14 Lmed=2.65m
var. 1.20–3.70


VEDERE D-D/ D-D VIEW
21
22
23
27a
28a
29a
24
25
20
19
32a
33
30a
43
43
32 5 ø14 L=6.60m
5.67
70
32a 20 ø14 Lmed=4.80m
var. 1.17-5.72
70
39a 25 ø14 Lmed=4.80m
var. 1.17-5.72
70
39 5 ø14 L=6.60m
5.67
70
VEDERE E-E/ E-E VIEW
21a
36a
35a
34a
23a
22a
24
25
20a
39a
19
33a
39
37a
21 2 ø14 Lmed=5.00m
var. 3.15-3.20
22 22 ø14 Lmed=3.50m
var. 3.15-3.45
23 5 ø16 Lmed=3.50m
var. 3.15-3.35
1.64
21a 2 ø14 Lmed=5.60m
var. 3.72-3.75
22a 22 ø14 Lmed=4.15m
var. 3.45-4.42
23a 5 ø14 Lmed=3.90m
var. 3.60-3.75
1.64
34a 4 ø14 L=4.70m
4.47
35a 2 ø14 L=5.10m
4.87
36a 4 ø14 Lmed=4.80m
var. 4.40-4.76
37a 29 ø14 Lmed=2.95m
var. 1.18-4.30

SECTIUNE H-H / H-H SECTION

VEDERE F-F/ F-F VIEW



E
F
24 (22+27) ø12 L=3.10 m
16
1.10
1.10
16
40
21a
24
22a
22a
25
26
23a
22a
20
34a
34
40
35a
35
36a
36
39
32a
38
38a
38b
38c
38d
37a
37
33a
E
F
71
40 2x4 ø14 L=1.05 m
25 (22+25) ø12 L=2.60 m
15
21
28
89
18
26
21
22
4
25c 1 ø12 L=1.35 m
15
21
28
55
20
26
22
22
76
26 (24+25) ø12 L=1.85 m
22a
23a
34
35
36
20a
25b
25a
26
25
19
38d
38a
38b
38c
33a
33a 6 ø14 L=7.95m
5.90
38
37
60
1.22
4.50
5.80
5.95
38 7 ø14 Lmed=2.35m
var. 0.57-3.70
38a 7 ø14 L=4.70m
38b 3 ø14 L=6.15m
38c 2 ø14 L=6.15m
38d 23 ø14 Lmed=7.55m
var. 1.44-5.88
34 5 ø14 L=4.50m
4.28
35 2 ø14 L=4.85m
4.65
36 4 ø14 Lmed=4.60m
var. 4.22-4.54
37 29 ø14 Lmed=4.05m
var. 2.95-4.70
20a 6 ø16 Lmed=6.00m
var. 4.27-4.47
1.38

EXTRAS DE ARMATURA PENTRU O CULEE
REINFORCEMENT FOR ONE ABUTMENT

Marca	Diametrul	Nr.buc	Lung/buc	S355			S345	
				□10	□12	□14	□16	□20
1	10	67	3,80	254,60				
1a	10	6	3,75	22,50				
2	10	80	4,65	372,00				
2a	10	5	3,25	16,25				
2b	10	5	4,55	22,75				
3	12	60	1,00		60,00			
4	10	60	1,25	75,00				
5	10	60	1,20	72,00				
6	10	7	1,80	12,60				
6a	10	4	1,70	6,80				
6b	10	2	1,80	3,60				
7	20	2	10,70					21,40
7a	20	1	9,80					9,80
7b	20	1	1,65					1,65
7c	20	2	9,95					19,90
7d	20	2	1,50					3,00
8	14	14	10,60			148,40		
8a	14	1	9,75			9,75		
8b	14	1	1,40			1,40		
8c	14	5	9,90			49,50		
8d	14	5	1,20			6,00		
9	12	18	10,6		190,80			
9a	12	6	9,75		58,50			
9b	12	6	1,30		7,80			
10	10	144	1,05	151,20				
11	14	7	1,70			11,90		
12	14	5	1,70			8,50		
12a	14	5	1,85			9,25		
13	14	57	3,70			210,90		
13a	14	1	3,50			3,50		
13b	14	1	2,60			2,60		
14	14	58	4,20			243,60		
15	14	66	4,80			316,80		
15a	14	3	1,80			5,40		
15b	14	3	3,05			9,15		
16	14	102	1,30			132,60		
16a	14	69	1,30			89,70		
17	14	29	9,65			279,85		
18	14	46	10,50			483,00		
19	14	10	3,40			34,00		
20	16	6	5,50				33,00	
20a	16	6	6,00				36,00	
21	14	2	5,00			10,00		
21a	14	2	5,60			11,20		
22	14	22	3,50			77,00		
22a	14	22	4,15			91,30		
23	16	5	3,50				17,50	
23a	16	5	3,90				19,50	
24	12	49	3,10		151,90			
25	12	47	2,60		122,20			
25a	12	1	1,75		1,75			
25b	12	1	1,30		1,30			
25c	12	1	1,35		1,35			
26	12	49	1,85		90,65			
27	14	5	4,25			21,25		
27a	14	4	3,95			15,80		
28	14	2	4,65			9,30		
28a	14	2	4,35			8,70		
29	14	4	4,40			17,60		
29a	14	4	4,15			16,60		
30	14	29	3,70			107,30		
30a	14	29	2,65			76,85		
31	14	6	2,35			14,10		
31a	14	6	4,70			28,20		
31b	14	3	6,00			18,00		
31c	14	2	6,20			12,40		
31d	14	22	3,85			84,70		
32	14	5	6,60			33,00		
32a	14	20	4,80			96,00		
33	14	6	7,80			46,80		
33a	14	6	7,95			47,70		
34	14	7	9,75			68,25		
34a	14	4	4,70			18,80		
35	14	2	4,85			9,70		
35a	14	2	5,10			10,20		
36	14	4	4,60			18,40		
36a	14	4	4,80			19,20		
37	14	29	4,05			117,45		
37a	14	29	2,95			85,55		
38	14	7	2,35			16,45		
38a	14	7	4,70			32,90		
38b	14	3	6,00			18,00		
38c	14	2	6,15			12,30		
38d	14	23	7,55			173,65		
39	14	5	6,60			33,00		
39a	14	25	4,80			120,00		
40	14	8	1,05			8,40		
LUNGIMI/□(m)				1009,30	686,25	3661,85	106,00	55,75
GREUTATI/ML (kg)				0,617	0,888	1,208	1,578	2,465
GREUTATI/□				625	610	4425	170	140
GREUTATI PE TIP DE OTEL (kg)				5660			310	
PIERDERI 5% (kg)				300				
GREUTATE TOTALA CULEE (kg)				6300				

TOTAL 2 CULEI /TOTAL 2 ABUTMENTS : 2 x 6300kg=12600kg

Beton armat/Reinforced concrete:	– C35/45 bancheta, zid de garda/ bench,wall guard – C25/30 elevatie, ziduri intoarse/ elevation, reverted walls
Armatura / reinforcement:	–S355 (PC 52; ø10–ø14) –S345 (PC 52; ø16–ø28)
Strat de acoperire/concrete cover	– min. 4cm expunere in aer/air exposed

Se interzice copierea, difuzarea, imprumutarea sau utilizarea in alte scopuri, fara permisiunea AREX Lider Company ca proprietar al desenului. This drawing is forbidden to be copied, lent or used in other purposes than those previously approved by AREX Lider Company as its owner.

D					
C					
B					
A					
Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANȚAT DE UNIUNEA EURO
EUROPEAN UNION FINANCED PR

CLIENT / CLIENT

C.N.C.F. "C.F.R." - S.A.

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		VK

SUBCONTRACTANT / SUBCONTRACTOR

AREX Lider COMPANY

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	02.2012	
Întocmit Elaborated	Proiectant Designer	Mihai Ady Nicolae	02.2012	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte component ă a coridorului IV Pan European, pentru circula ţia trenurilor cu viteza maxim ă de 160 km/h,
Tronsonul : Braşov - Sighişoara
Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Braşov - Sighişoara

Proiect/Project
2004/RO/16/P/PA/003

Faza / Phase:
D.E. / E.D.

Denumire desen / Drawing Title :

INTERVAL/SECTION: CATA – ARCHITA
POD/BRIDGE Km.242+992,058 L=16,00m
PLAN ARMARE CULEE
ABUTMENTS REINFORCEMENT PLAN

Codificare / Codification System	Scara / Scale 1:25	LOT / LOT	Nr. / No 01 / 01

E A 5 1 0 1 E 1 4 B C P V 0 2 6 2 0 0 7 0