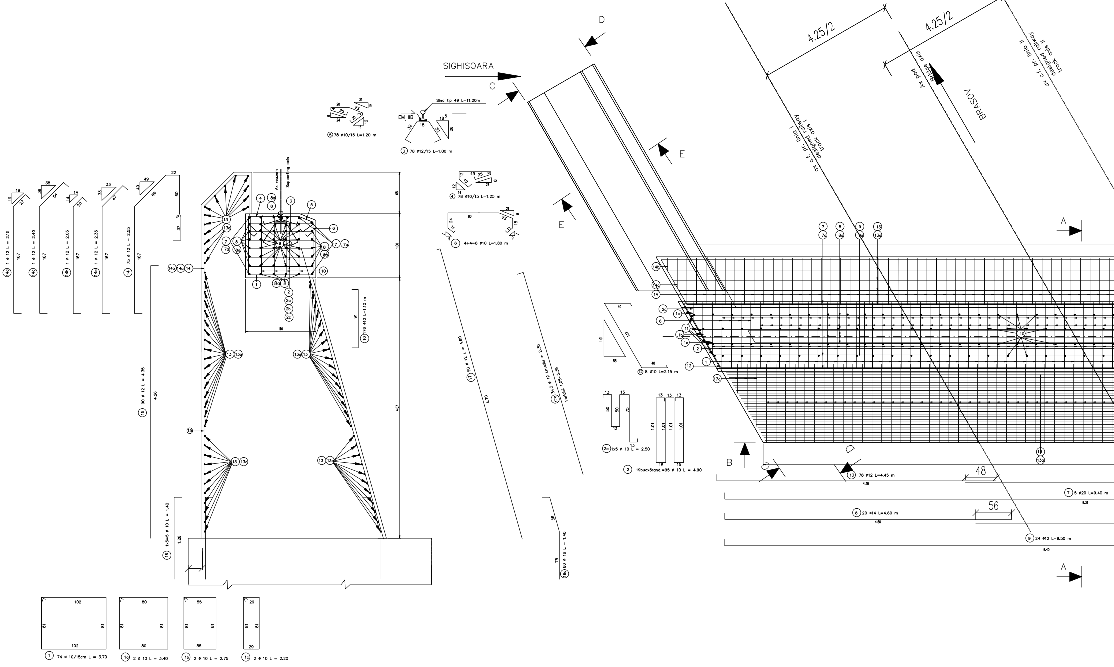
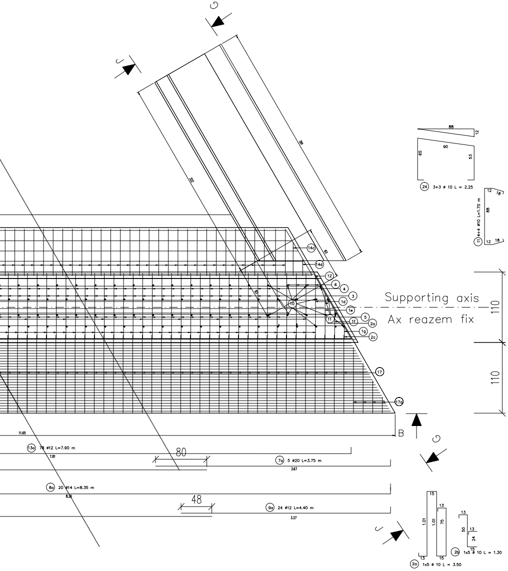
SECTIUNEA A–A SECTION
Sc. 1:50

VEDERE IN PLAN/ PLAN VIEW
Sc. 1:50

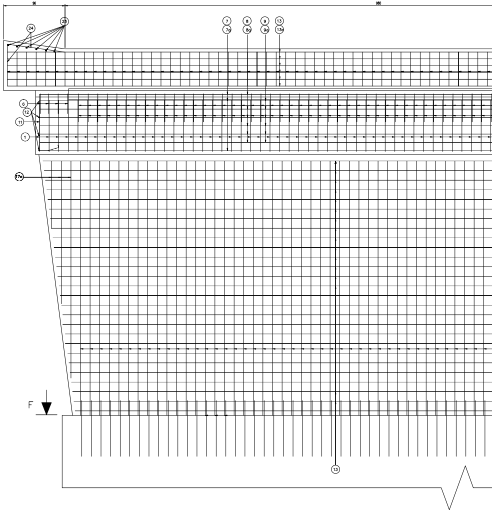

SIGHISOARA
BRASOV
Ax reazem
Supporting axis
Sina tip 49 L=11.20m
EM IIB
ax c.f. pr. linia I
designed railway
track axis I
ax c.f. pr. linia II
designed railway
track axis II
Ax pod
Bridge axis
4.25/2
4.25/2
A
B
C
D
E
5 78 ø10/15 L=1.20 m
3 78 ø12/15 L=1.00 m
4 78 ø10/15 L=1.25 m
6 4+4=8 ø10 L=1.80 m
10 176 ø10 L=1.10 m
12 8 ø10 L=2.15 m
2c 1x5 ø 10 L = 2.50
2 19bucx5rand.=95 ø 10 L = 4.90
17 90 ø 12 L = 4.80
17a 3+3 ø 12 Lmediu = 2.30
Variabil 1.05–3.39
16 1x5=5 ø 10 L = 1.40
16a 80 ø 16 L = 1.40
15 90 ø 12 L = 4.35
14d 1 ø 12 L = 2.15
14c 1 ø 12 L = 2.40
14b 1 ø 12 L = 2.05
14a 1 ø 12 L = 2.35
14 75 ø 12 L = 2.55
1 74 ø 10/15cm L = 3.70
1a 2 ø 10 L = 3.40
1b 2 ø 10 L = 2.75
1c 2 ø 10 L = 2.20
13 78 ø12 L=4.45 m
7 5 ø20 L=9.40 m
8 20 ø14 L=4.60 m
9 24 ø12 L=9.50 m
48
56



G
J
381
332
14c
14d
63
83
12
6
4
3
10
1d
1e
5
11
1f
2a
1g
2c
Supporting axis
Ax reazem fix
110
110
17
17a
11.65
B
13a 78 ø12 L=7.90 m
7.81
80
7a 5 ø20 L=3.75 m
3.67
8a 20 ø14 L=8.35 m
8.26
48
9a 24 ø12 L=4.40 m
3.27
88
12
90
65
53
24 3+3 ø 10 L = 2.25
11 4+4 ø10 L=1.70 m
12
18
88
12
18
15
1.01
1.01
13
75
15
13
50
13
24
15
2a 1x5 ø 10 L = 3.50
2b 1x5 ø 10 L = 1.30

VEDERE B-B VIEW

Sc. 1:50



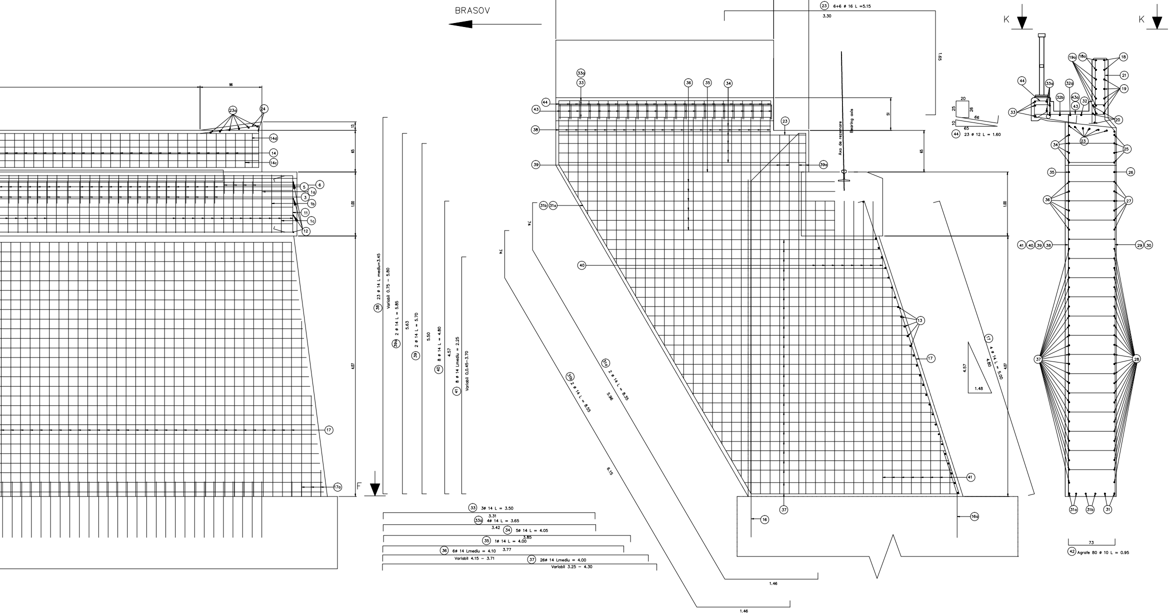
96
980
24
23
7
7a
8
8a
9
9a
13
13a
6
12
11
1
17a
F
13

VEDERE C–C VIEW

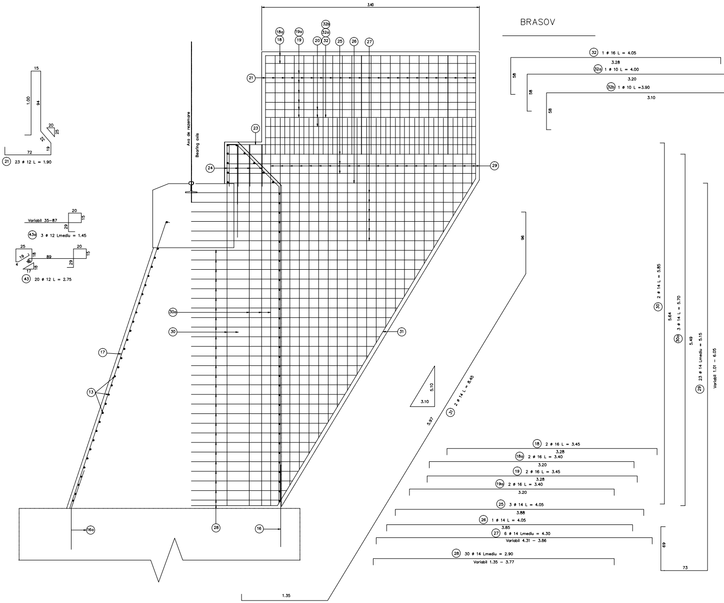
Sc. 1:50

SECTIUNEA E–E SECTION

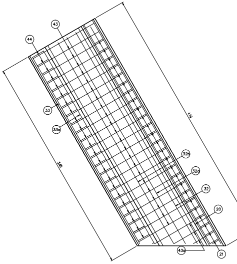
Sc. 1:50


BRASOV
K
K
F
3.40
55
96
23 6+6 ø 16 L =5.15
3.30
1.65
51
65
1.00
4.07
44 23 ø 12 L = 1.60
20
25
26
10
66
65
Axa de rezemare
Bearing axis
38 23 ø 14 L mediu=3.45
Variabil 0.75 – 5.80
39a 2 ø 14 L = 5.85
5.63
39 2 ø 14 L = 5.70
5.50
40 8 ø 14 L = 4.80
4.57
41 8 ø 14 Lmediu = 2.25
Variabil 0,0.45–3.70
31a 2 ø 14 L = 8.35
5.96
31b 2 ø 14 L = 8.55
6.15
74
74
1.46
1.46
17 4 ø 14 L = 5.00
4.80
4.57
1.48
33 3ø 14 L = 3.50
3.31
33a 4ø 14 L = 3.65
3.42
34 5ø 14 L = 4.05
3.85
35 1ø 14 L = 4.00
3.77
36 6ø 14 Lmediu = 4.10
Variabil 4.15 – 3.71
37 26ø 14 Lmediu = 4.00
Variabil 3.25 – 4.30
73
42 Agrafe 80 ø 10 L = 0.95
23a
24
14d
14
14c
5
6
1a
3
1b
11
1c
12
17
17a
33a
33
36
35
34
44
43
38
39
23
39a
31b
31a
40
13
17
41
37
16
16a
18
18a
19a
21
19
44
33a
32a
32b
43a
43
32
33
20
23
34
25
35
26
36
27
41
40
39
38
29
30
37
28
31a
31b
31

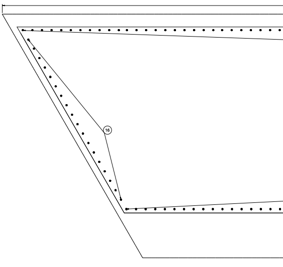
VEDERE D-D VIEW


BRASOV
15
1.00
94
20
25
20
72
19
㉑ 23 ø 12 L = 1.90
Variabil 35-87
20
15
29
43a 3 ø 12 Lmediu = 1.45
25
19
18
4
17
18
89
20
15
29
㊸ 20 ø 12 L = 2.75
3.40
18a
18
19a
19
32b
32a
20
32
25
26
27
21
23
24
29
Axa de rezemare
Bearing axis
30a
30
31
17
13
16a
28
16
5.10
3.10
5.97
31 2 ø 14 L = 8.45
96
1.35
32 1 ø 16 L = 4.05
3.28
58
32a 1 ø 10 L = 4.00
3.20
58
32b 1 ø 10 L =3.90
3.10
58
30 2 ø 14 L = 5.85
5.64
30a 3 ø 14 L = 5.70
5.49
29 23 ø 14 Lmediu = 5.15
Variabil 1.01 - 6.05
69
73
18 2 ø 16 L = 3.45
3.28
18a 2 ø 16 L = 3.40
3.20
19 2 ø 16 L = 3.45
3.28
19a 2 ø 16 L = 3.40
3.20
25 3 ø 14 L = 4.05
3.88
26 1 ø 14 L = 4.05
3.85
27 6 ø 14 Lmediu = 4.30
Variabil 4.31 - 3.86
28 30 ø 14 Lmediu = 2.90
Variabil 1.35 - 3.77

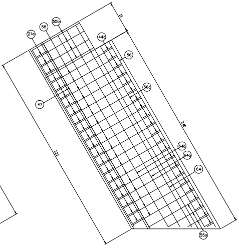
VEDERE K-K VIEW

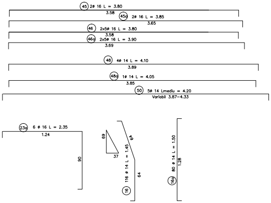

43
44
33
33a
32b
32a
32
20
43a
21
4.10
3.40

SECTIUNEA F-F SECTION (AMPRENTA ELEVAT

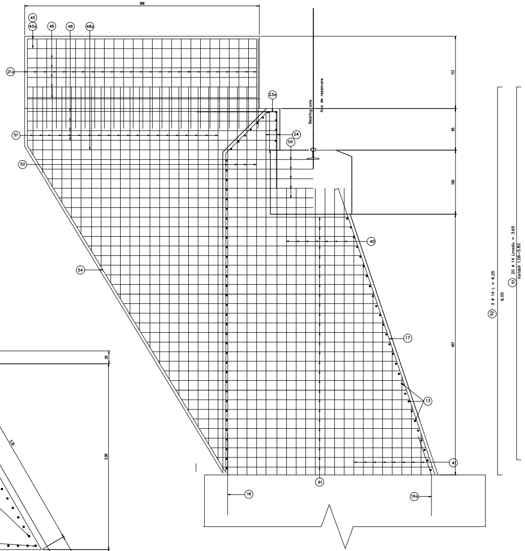


VEDERE L–L VIEW

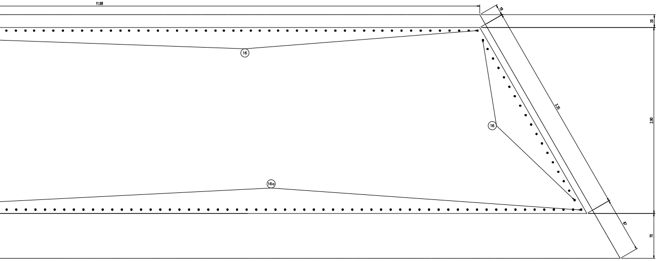

(21a)
(55)
(55b)
(44a)
(56)
(56a)
(47)
(64b)
(64a)
(64)
(55a)
51
3.40
3.22

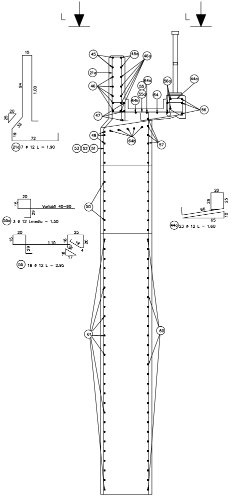

(45) 2ø 16 L = 3.80
3.58
(45a) 2ø 16 L = 3.85
3.65
(46) 2x5ø 16 L = 3.80
3.58
(46a) 2x5ø 16 L = 3.90
3.69
(48) 4ø 14 L = 4.10
3.89
(48a) 1ø 14 L = 4.05
3.85
(50) 5ø 14 Lmediu = 4.20
Variabil 3.87–4.33
(23a) 6 ø 16 L = 2.35
1.24
90
69
37
64
(16) 116 ø 14 L = 1.45
64
(16a) 80 ø 14 L = 1.50
1.28

SECTIUNE J–J SECTION


366
(45)
(45a)
(46)
(48)
(48a)
(21a)
(51)
(52)
(23a)
Bearing axis
Axa de rezemare
(24)
(50)
113
65
100
407
(40)
(54)
(17)
(13)
(41)
(61)
(16)
(16a)
(52) 3 ø 14 L = 6.25
6.05
(51) 20 ø 14 Lmediu = 3.65
Variabil 1.06–5.82

IEI PE FUNDATIE)

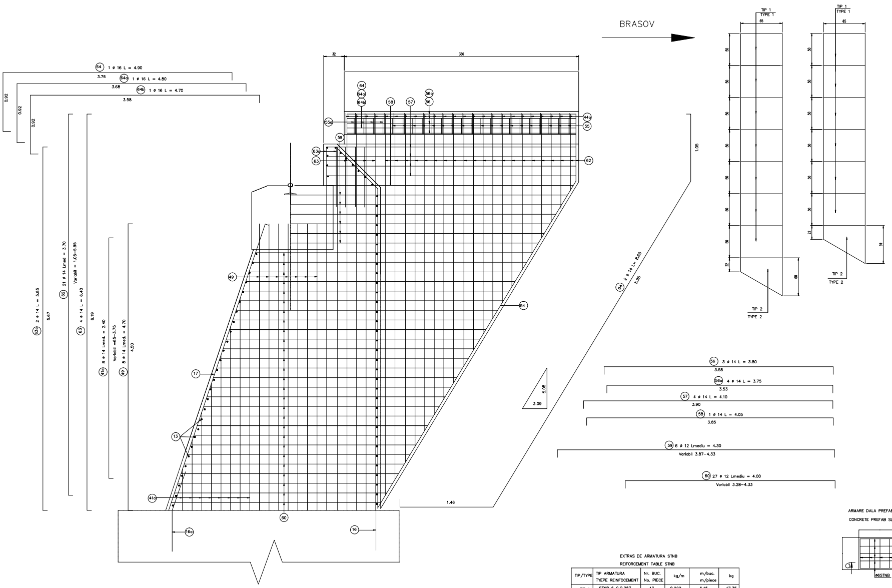

11.88
18
20
(16)
(16)
3.35
2.90
(16a)
87
70


L
L
15
94
1.00
20
25
32
19
72
(21a) 7 ø 12 L = 1.90
(45)
(45a)
(46a)
(21a)
(46)
(64a)
(56a)
(44a)
(55)
(55a)
(64)
(64b)
(56)
(47)
(48)
(64b)
(57)
(53) (52) (51)
20
15
Variabil 40–90
29
(55a) 3 ø 12 Lmediu = 1.50
(50)
20
26
25
66
10
65
(44a) 23 ø 12 L = 1.60
20
15
1.10
29
25
18
19
20
16
4
18
17
(55) 18 ø 12 L = 2.95
(61)
(60)

VEDERE G–G VIEW

DALE PREFABRICATE DIN BETON

CONCRETE PREFAB SLABS


BRASOV
(64) 1 ø 16 L = 4.90
3.76
(64a) 1 ø 16 L = 4.80
3.68
(64b) 1 ø 16 L = 4.70
3.58
0.92
0.92
0.92
(63a) 2 ø 14 L = 5.85
5.67
(62) 21 ø 14 Lmed = 3.70
Variabil = 1.05–5.95
(63) 4 ø 14 L = 6.40
6.19
(41a) 8 ø 14 Lmed. = 2.40
Variabil =65–3.75
(49) 8 ø 14 Lmed. = 4.70
4.50
32
366
(64)
(64a)
(64b)
(58)
(57)
(56a)
(56)
(44a)
(55a)
(55)
(59)
(63a)
(63)
(62)
(49)
(17)
(13)
(41a)
(54)
(60)
(16a)
(16)
1.05
(54) 2 ø 14 L= 8.65
5.95
5.08
3.09
1.46
TIP 1
TYPE 1
65
50
50
50
50
50
50
50
22
60
TIP 2
TYPE 2
TIP 1
TYPE 1
65
50
50
50
50
50
50
22
59
TIP 2
TYPE 2
(56) 3 ø 14 L = 3.80
3.58
(56a) 4 ø 14 L = 3.75
3.53
(57) 4 ø 14 L = 4.10
3.90
(58) 1 ø 14 L = 4.05
3.85
(59) 6 ø 12 Lmediu = 4.30
Variabil 3.87–4.33
(60) 27 ø 12 Lmediu = 4.00
Variabil 3.28–4.33

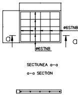
EXTRAS DE ARMATURA STNB
REIFORCEMENT TABLE STNB

TIP/TYPE	TIP ARMATURA TYEPE REINFOCEMENT	Nr. BUC. No. PIECE	kg/m	m/buc. m/piece	kg
TIP 1	STNB 6 G.Q.283	13	0.222	6.15	17.75
TIP2	STNB 6 G.Q.283	2	0.222	4.30	1.90

TOTAL 19.65 kg

TOTAl pentru 2 culei (2 abutments): 2 x 19.65kg=39.30kg

ARMARE DALA PREFABRICATA DIN
CONCRETE PREFAB SLABS REINFOR


ø6STNB
ø6STNB
a
a

SECTIUNEA a–a
a–a SECTION

BETON
RCED

EXTRAS DE ARMARE

REINFORCEMENT TABLE

Marca	Diametrul	Numar bucati asemenea	Lungimea/ bucata	Lungimi/diametre PC52				
				S355			S345	
				ø10mm	ø12mm	ø14mm	ø16mm	ø20mm
1	10	74	3.70	273.80				
1a	10	2	3.40	6.80				
1b	10	2	2.75	5.50				
1c	10	2	2.25	4.50				
2	10	95	4.90	465.50				
2a	10	5	3.50	17.50				
2b	10	5	1.30	6.50				
2c	10	5	2.50	12.50				
3	12	78	1.00		78.00			
4	10	78	1.25	97.50				
5	10	78	1.20	93.6				
6	10	8	1.80	14.40				
7	20	5	9.40					47.00
7a	20	5	3.75					18.75
8	14	20	4.60			92.00		
8a	14	20	8.35			167.00		
9	12	24	9.50		228.00			
9a	12	24	4.40		105.60			
10	10	176	1.10	193.60				
11	10	8	1.70	13.60				
12	10	8	2.15	17.20				
13	12	78	4.45		347.10			
13a	12	78	7.90		616.20			
14	12	75	2.55		191.25			
14a	12	1	2.35		2.35			
14b	12	1	2.05		2.05			
14c	12	1	2.40		2.40			
14d	12	1	2.15		2.15			
15	12	90	4.35		391.50			
16	16	116	1.45				168.20	
16a	16	80	1.50				120.00	
17	12	90	4.70		423.00			
17a	12	6	2.30		13.8			
18	16	2	3.45				6.90	
18a	16	2	3.40				6.80	
19	14	2	3.45			6.90		
19a	14	2	3.40			6.80		
20	14	3	4.65			13.95		
21	12	23	1.90		43.70			
21a	12	7	1.90		13.30			
22	10	28	2.45	61.80				
23	16	12	5.15				38.70	
23a	16	6	2.35				41.10	
24	10	6	2.25	13.50				
25	14	5	5.50			27.50		
26	14	1	4.05			4.05		
27	14	6	4.30			25.80		
28	14	30	2.90			87.00		
29	14	23	5.15			118.45		
30	14	2	5.85			11.70		
30a	14	3	5.70			17.10		
31	14	2	8.45			16.90		
31a	14	2	8.35			16.70		
31b	14	2	8.55			17.10		
32	16	1	4.05				4.05	
32a	16	1	4.00				4.00	
32b	16	1	3.90				3.90	
33	14	3	3.50			10.50		
33a	14	4	3.65			14.60		
34	14	5	4.00			28.50		
35	14	1	4.00			4.00		
36	14	6	4.10			24.60		
37	14	26	4.00			104.00		
38	14	23	3.45			73.95		
39	14	2	5.70			11.40		
39a	14	2	5.70			11.40		
40	14	8	4.80			38.40		
41	14	8	2.25			18.00		
41a	14	8	2.40			19.20		
42	10	80	0.95	76.00				
43	12	20	2.75		55.00			
43a	12	3	1.45		4.35			
44	12	23	1.60		36.80			
44a	12	23	1.60		36.80			
45	16	2	3.80				7.60	
45a	16	2	3.85				7.70	
46	14	10	3.80			38.00		
46a	14	10	3.90			39.00		
48	14	4	4.10			16.40		
49	14	8	4.70			37.6		
50	14	5	4.20			21.00		
51	14	20	3.65			73.00		
52	14	3	6.25			18.75		
54	14	2	8.65			17.30		
55	12	18	2.95		53.10			
55a	12	3	1.50		4.50			
56	14	3	3.80			11.40		
56a	14	4	3.75			15.00		
57	14	4	4.10			16.10		
58	14	1	4.05			4.05		
59	12	6	4.30		25.80			
60	12	27	4.00		108.00			
61	14	27	4.00			108.00		
62	14	21	3.70			77.70		
63	14	4	6.40			25.6		
63a	14	2	5.85			11.70		
64	16	1	4.90				4.90	
64a	16	1	4.80				4.80	
64b	16	1	4.70				4.70	
Lungimea / diametre (m)				1373.80	2784.80	1517.80	423.35	65.75
Greutatea/m (kg/m)				0.617	0.888	1.208	1.578	2.466
Greutatea/diametre (kg)				847.70	2473.00	1833.50	668.00	162.15
Greutatea totala (kg)				5984.35				
Greutatea rotunjita (kg)				5990.00				

Greutatea rotunjita pentru 2 culei (kg) =11980

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)
Strat de acoperire/concrete cover	– min. 4cm expunere in aer/air exposed

NOTA/NOTE

Pentru mentinerea pozitiei corecte in timpul betonarii, se vor monta distantieri minim 4buc./m². Distantierii trebuie legati cu sarma de carcasa de armatura.

In order to maintain the correct position during concreting, minimum 4pcs./m² distance pieces shall be mounted. The distance pieces shall be connected to the reinforcing framework, using wire.

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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

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

CLIENT / CLIENT

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 Secțiune 1 Section 1 Coordinator	C. Gambell		———
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		——

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	02.2012	———
Întocmit Elaborated	Proiectant Designer	Ioan Ramse	02.2012	

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteza maximă de 160 km/h,
Tronsonul : Brasov - Sighisoara
Rehabilitation of the railway line Brasov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Brasov - Sighisoara

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

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

Denumire desen / Drawing Title :

POD/BRIDGE Km.247+717.752 L=15.00m

PLAN ARMARE CULEEA BRASOV
BRASOV ABUTMENTS REINFORCEMENT

Codificare / Codification System	Scara / Scale 1:20	LOT / LOT	Nr. / No 01 / 01

EA51 01 E 14 BC PV 02 7 2 008 0

594 X 5950