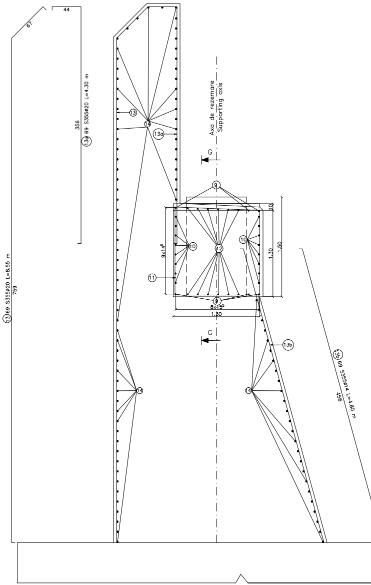
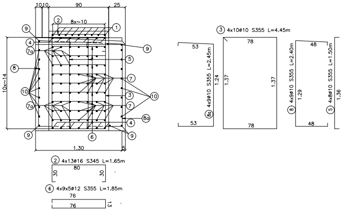
BRASOV

SECTIUNE B–B
B–B SECTION
Scara/Scale 1:20

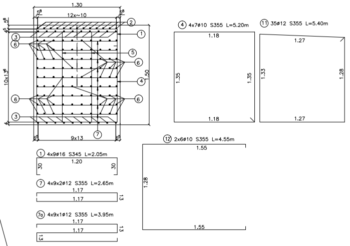
SIGHISOARA


44
67
356
(13a) 69 S355ø20 L=4.30 m
Axa de rezemare
Supporting axis
G
(9)
(10)
(12)
(10)
(11)
(13)
(14)
(13a)
9x14⁵
8x15⁵
1.30
1.30
1.50
10
(13b)
(14)
(13) 69 S355ø20 L=8.55 m
759
(13b) 69 S355ø14 L=4.80 m
458

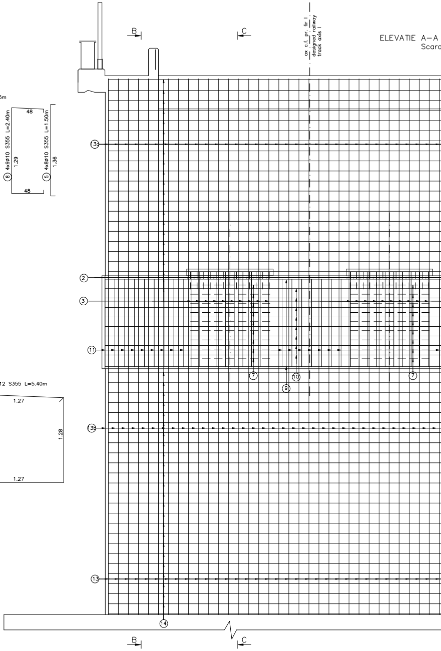
SECTIUNE C–C
C–C SECTION
Scara/Scale 1:20


1010
90
25
8x~10
10x~14
1.30
5
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(7a)
(8)
(8a)
(9)
(10)
(3) 4x10ø10 S355 L=4.45m
78
1.37
(8a) 4x9ø10 S355 L=2.45m
53
1.24
(8) 4x9ø10 S355 L=2.40m
48
1.29
(5) 4x8ø10 S355 L=1.50m
1.36
(2) 4x13ø16 S345 L=1.65m
80
30
(6) 4x9x5ø12 S355 L=1.85m
76
13

SECTIUNE G–G
G–G SECTION
Scara/Scale 1:20


1.30
5⁸
12x~10
4⁵
10x13⁸
1.50
4
6⁵
9x13
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(4) 4x7ø10 S355 L=5.20m
1.18
1.35
(11) 35ø12 S355 L=5.40m
1.27
1.33
1.28
(12) 2x6ø10 S355 L=4.55m
1.55
1.28
(1) 4x9ø16 S345 L=2.05m
1.20
30
(7) 4x9x2ø12 S355 L=2.65m
1.17
13
(7a) 4x9x1ø12 S355 L=3.95m
1.17
13

ELEVATIE A–A
Scara


B
C
ax c.f. pr. fir I
designed railway
track axis I
(13a)
(2)
(3)
(11)
(13b)
(13)
(7)
(10)
(9)
(14)

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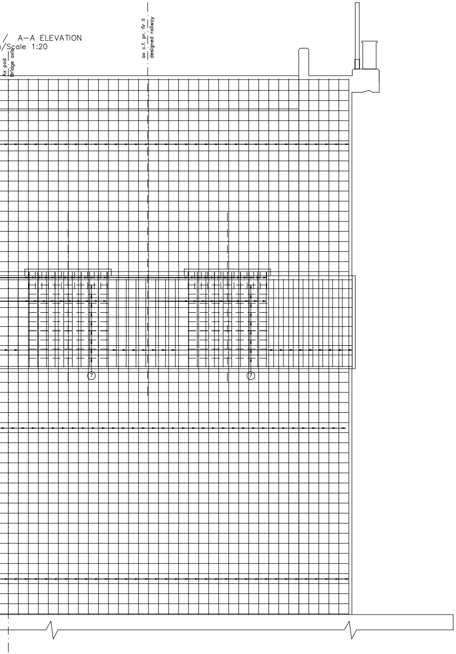
Beton: Concrete:	– C30/37 suprastructura/superstructure
Tipul grinzilor: Beams type:	– grinzi metalice sudate/steel welded girders
Otel pentru grinzi: Steel for the beams:	– (OL 37–EP) $S275J_3G_3$ (EN 10025/2004)
Armatura: Reinforcement:	– S355;S345
Strat de acoperire: Concrete cover	– min. 4cm expunere in aer/air exposed

NOTA/NOTE

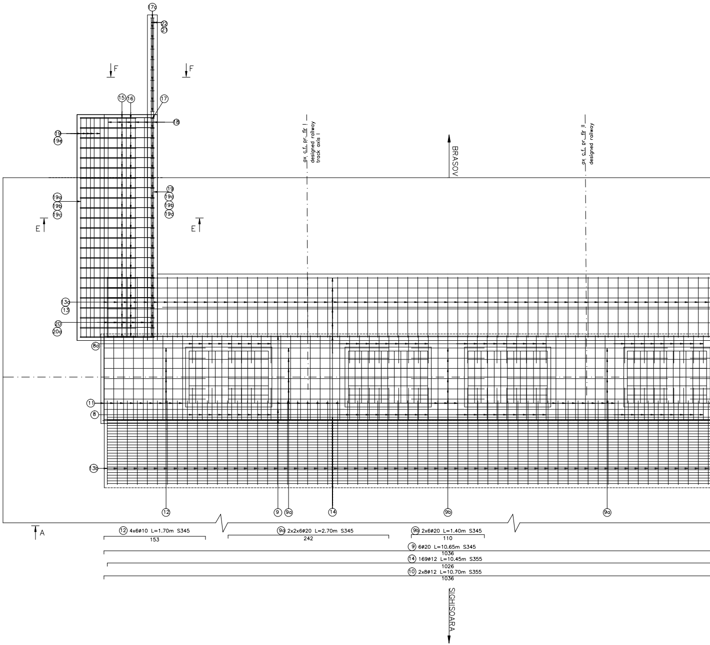
Pentru mentinerea pozitiei corecte in timpul betonarii, se vor monta distantieri minim 4buc./m^2.
Distantierii trebuie legati cu sarma de carcasa de armatura.

In order to maintain the correct position during concreting, minimum 4pcs./m^2 distance pieces shall be mounted.
The distance pieces shall be connected to the reinforcing framework, using wire.

/ A–A ELEVATION
/Scale 1:20

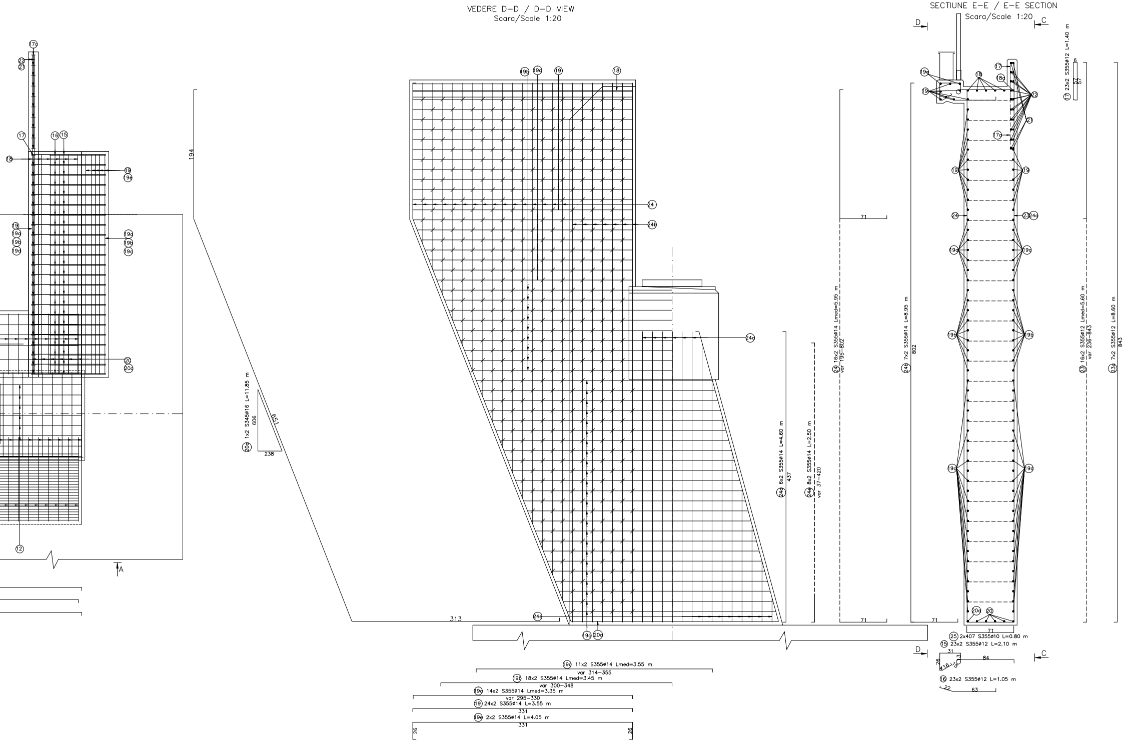

Ax pod
Bridge axis
ax c.f. pr. fir II
designed railway
7
7

VEDERE IN PLAN / PLAN VIEW
Scara/Scale 1:20


17a
22
21
F
F
15
16
17
18
19
19e
19
19a
19b
19d
19a
19b
19c
E
E
ax c.f. pr. fir I
designed railway
track axis I
BRASOV
ax c.f. pr. fir II
designed railway
13a
13
20
20a
8a
11
8
13b
12
9
9a
14
9b
9a
A
12 4x6ø10 L=1.70m S345
153
9a 2x2x6ø20 L=2.70m S345
242
9b 2x6ø20 L=1.40m S345
110
9 6ø20 L=10.65m S345
1036
14 169ø12 L=10.45m S355
1026
10 2x8ø12 L=10.70m S355
1036
SIGHISOARA

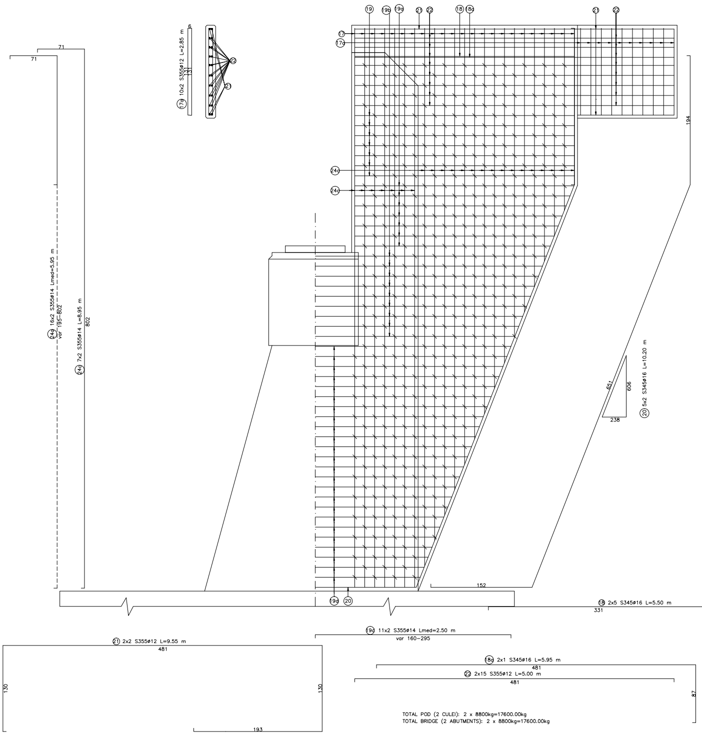
VEDERE D–D / D–D VIEW
Scara/Scale 1:20

SECTIUNE E–E / E–E SECTION
Scara/Scale 1:20


17a
22
21
17
16
15
18
19
19e
19
19a
19b
19d
19a
19b
19c
20
20a
12
A
194
20a 1x2 S345ø16 L=11.85 m
606
651
238
313
19b
19a
19
18
24
24b
24d
24e
19c
20a
24d 6x2 S355ø14 L=4.60 m
437
24e 8x2 S355ø14 L=2.50 m
var 37–420
24 16x2 S355ø14 Lmed=5.95 m
var 195–802
71
24b 7x2 S355ø14 L=8.95 m
802
71
D
C
19e
19
18
17
18a
22
21
17a
19
24
23
24a
19a
19b
19c
20a
20
71
17 23x2 S355ø12 L=1.40 m
6
57
57
23 16x2 S355ø12 Lmed=5.60 m
var 236–843
23a 7x2 S355ø12 L=8.60 m
843
25 2x407 S355ø10 L=0.80 m
15 23x2 S355ø12 L=2.10 m
31
13
26
4
16
5
84
16 23x2 S355ø12 L=1.05 m
22
63
19c 11x2 S355ø14 Lmed=3.55 m
var 314–355
19b 18x2 S355ø14 Lmed=3.45 m
var 300–348
19a 14x2 S355ø14 Lmed=3.35 m
var 295–330
19 24x2 S355ø14 L=3.55 m
331
19e 2x2 S355ø14 L=4.05 m
331
26
26

SECTIUNE F–F/F–F SECTION
Scara/Scale 1:20

VEDERE C–C / C–C VIEW
Scara/Scale 1:20


19
19b
19c
21
22
18
18a
21
22
17
17a
24a
24c
194
152
19d
20
71
71
24a 16x2 S355ø14 Lmed=5.95 m
var 195–802
24c 7x2 S355ø14 L=8.95 m
802
6
17a 10x2 S355ø12 L=2.85 m
131
131
22
21
651
606
238
20 5x2 S345ø16 L=10.20 m
18 2x5 S345ø16 L=5.50 m
331
19d 11x2 S355ø14 Lmed=2.50 m
var 160–295
21 2x2 S355ø12 L=9.55 m
481
130
130
193
18a 2x1 S345ø16 L=5.95 m
481
22 2x15 S355ø12 L=5.00 m
481
193
87

TOTAL POD (2 CULEI): 2 x 8800kg=17600.00kg
TOTAL BRIDGE (2 ABUTMENTS): 2 x 8800kg=17600.00kg

EXTRAS DE ARMATURA PENTRU O CULEE
REINFORCEMENT FOR ONE ABUTMENT

Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355			S345	
				Φ10	Φ12	Φ14	Φ16	Φ20
1	16	2.05	36				73.80	
2	16	1.65	52					
3	10	4.45	40	178.00				
4	10	5.20	28	145.60				
5	10	1.50	32	48.00				
6	12	1.85	36		66.60			
7	12	2.65	36		95.40			
7a	12	3.95	36					
8	10	2.40	36	86.40				
8a	10	2.45	36	88.20				
9	20	10.65	6					63.90
9a	20	2.70	24					64.80
9b	20	1.40	12					16.80
10	12	10.60	16		169.60			
11	12	5.40	35		189.00			
12	10	1.70	12	20.40				
13a	20	4.30	69					296.70
13b	14	4.80	69			331.20		
13	20	8.55	69					589.95
14	12	10.45	169		1766.05			
15	12	2.10	46		96.60			
16	12	1.05	46		48.30			
17	12	1.40	46		64.40			
18	16	5.50	10				55.00	
18a	16	5.95	2				11.90	
19	14	3.55	48			170.40		
19a	14	3.35	28			93.80		
19b	14	3.45	36			124.20		
19c	14	3.55	22			78.10		
19d	14	2.50	22			55.00		
19e	14	4.05	4			16.20		
20a	16	11.85	2				23.70	
20	16	10.20	10				102.00	
21	12	9.55	4		38.20			
22	12	5.00	30		150.00			
23	12	5.60	46		257.60			
23a	12	8.60	14		120.40			
24	14	5.95	32			190.40		
24a	14	5.95	32			190.40		
24b	14	8.95	14			125.30		
24c	14	8.95	14			125.30		
24d	14	4.60	12			55.20		
24e	14	2.50	16			40.00		
25	10	0.80	814	651.20				
Lungimi totale pe diametre			(m)	1217.80	3062.15	1595.50	266.40	1032.15
Masa pe metru liniar			(kg/ml)	0.617	0.888	1.208	1.578	2.47
Masa pe diametre			(kg)	750.82	2718.62	1928.02	420.47	2545.44
Masa pe tip otel			(kg)	5398.00			2965.91	
Masa totala culee			(kg)	8365.00				
Pierderi 5%			(kg)	418.25				
Masa totala culee			(kg)	8800.00				

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

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

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		

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat Approved	Responsabil Subcontractant Subcontractant Responsible	A.Stanciu - Dinulescu	02.2012	
Întocmit Elaborated	Proiectant Designer	Secu Razvan	02.2012	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă 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
VIADUCT KM.252+525.747 D=4x30.00m/PLAN ARMARE CULEI
BRIDGE Km.252+525.747 D=4x30.00m
ABUTMENTS REINFORCEMENT PLAN

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

E A 5 1 | 0 1 | E | 1 4 | B C | P V | 0 3 | 1 | 2 | 0 0 8 | 0