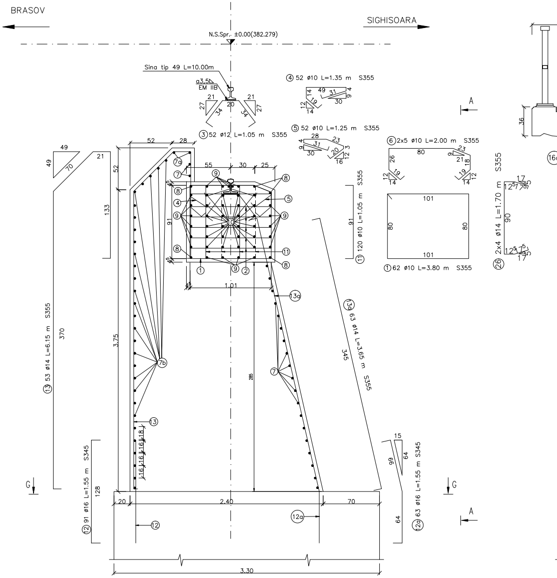
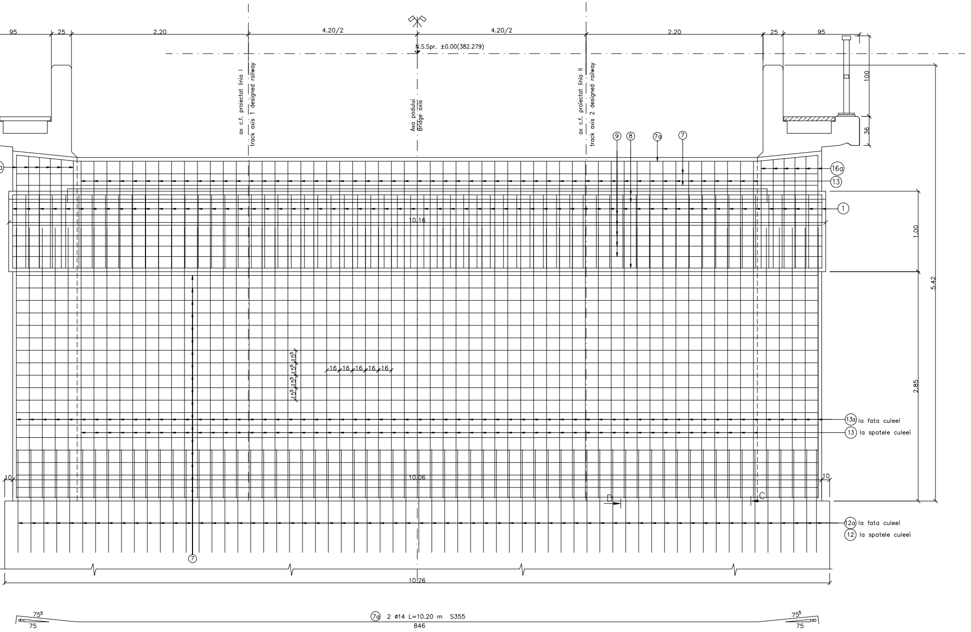
SECTIUNE TRANSVERSALA B-B/B-B CROSS SECTION

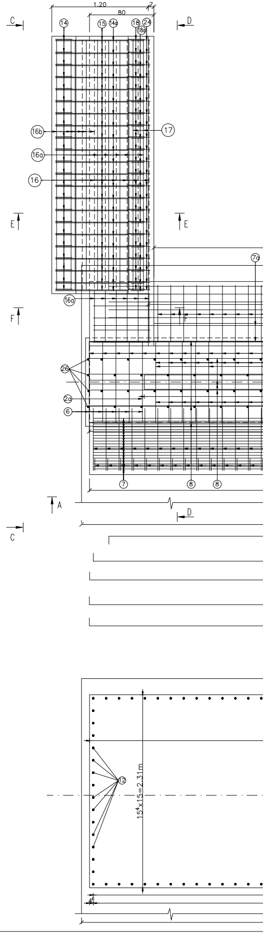
Scara/Scale 1:20


BRASOV
SIGHISOARA
N.S.Spr.- ±0.00(382.279)
Sina tip 49 L=10.00m
a3,5
EM IIB
③ 52 ø12 L=1.05 m S355
21
27
20
34
34
21
27
④ 52 ø10 L=1.35 m S355
14
49
31
4
9
30
12
19
14
⑤ 52 ø10 L=1.25 m S355
28
23
4
31
9
30
20
3
12
16
⑥ 2x5 ø10 L=2.00 m S355
80
26
23
9
21
18
12
19
14
19
12
14
① 62 ø10 L=3.80 m S355
101
80
80
101
⑪ 120 ø10 L=1.05 m S355
91
㉖ 2x4 ø14 L=1.70 m S355
17
12⁵
7⁵
5
90
12⁵
7⁵
5
17
A
A
36
16a
49
49
70
21
52
133
⑬ 53 ø14 L=6.15 m S355
370
52
28
7a
7
55
30
25
9
8
8
4
5
9
9
10
91
8
11
8
1
9
2
4.5
4.5
4.5
1.01
13a
⑬a 63 ø14 L=3.65 m S355
345
3.75
7b
285
7
13
18
16
16
16
⑫ 91 ø16 L=1.55 m S345
128
G
G
15
99
64
⑫a 63 ø16 L=1.55 m S345
64
20
2.40
70
12
12a
3.30

VEDERE A–A / A–A VIEW

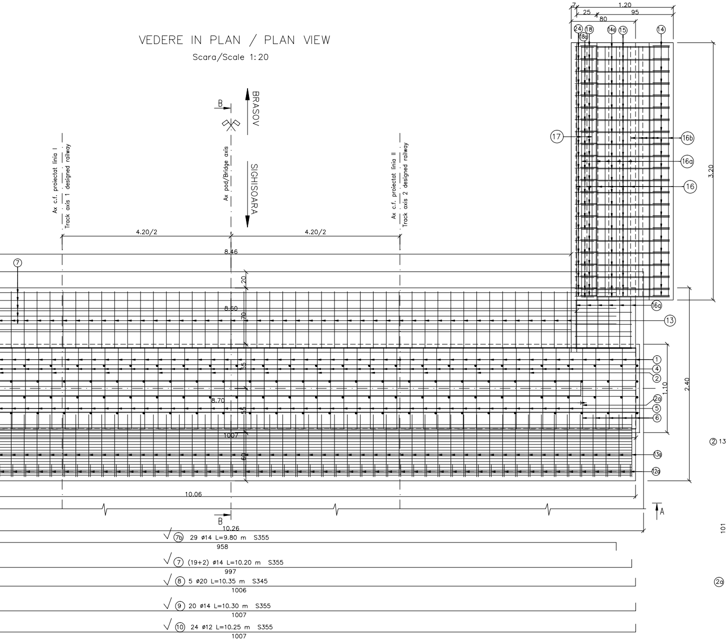
Scara/Scale 1:20

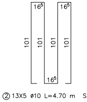

95
25
2.20
4.20/2
4.20/2
2.20
25
95
N.S.Spr. ±0.00(382.279)
ax c.f. proiectat linia I
track axis 1 designed railway
Axa podului
Bridge axis
ax c.f. proiectat linia II
track axis 2 designed railway
100
36
9
8
7a
7
16a
13
1
10.16
1.00
5.42
16
16
16
16
16
15⁵
15⁵
15⁵
15⁵
2.85
13a la fata culeei
13 la spatele culeei
10
10.06
10
D
C
12a la fata culeei
12 la spatele culeei
7
10.26
75⁵
75
7a 2 ø14 L=10.20 m S355
846
75⁵
75


1.20
80
7
C
D
14
15
14a
18
24
18a
16b
17
16a
16
E
E
7a
16a
F
F
26
2a
6
7
8
8
A
D
C
12
15⁴x15=2.31m
4⁵

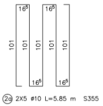
VEDERE IN PLAN / PLAN VIEW

Scara/Scale 1:20


BRASOV
SIGHISOARA
B
Ax c.f. proiectat linia I
Track axis 1 designed railway
Ax pod/Bridge axis
Ax c.f. proiectat linia II
Track axis 2 designed railway
4.20/2
4.20/2
8.46
8.60
8.70
1007
10.06
10.26
1.20
7
25
80
95
3.20
2.40
1.10
20
70
55
55
60
24
18
18a
14a
15
14
17
16b
16a
16
16a
13
1
4
2
2a
5
6
13a
12a
7
A
7b 29 ø14 L=9.80 m S355
958
7 (19+2) ø14 L=10.20 m S355
997
8 5 ø20 L=10.35 m S345
1006
9 20 ø14 L=10.30 m S355
1007
10 24 ø12 L=10.25 m S355
1007


16⁵
101
101
16⁵
101
101
16⁵

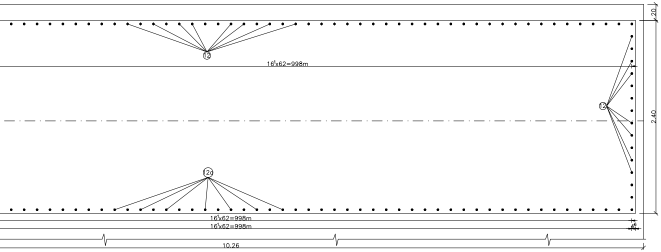
② 13X5 ø10 L=4.70 m S355


16⁵
101
101
16⁵
16⁵
101
101
101
101
16⁵

2a 2X5 ø10 L=5.85 m S355

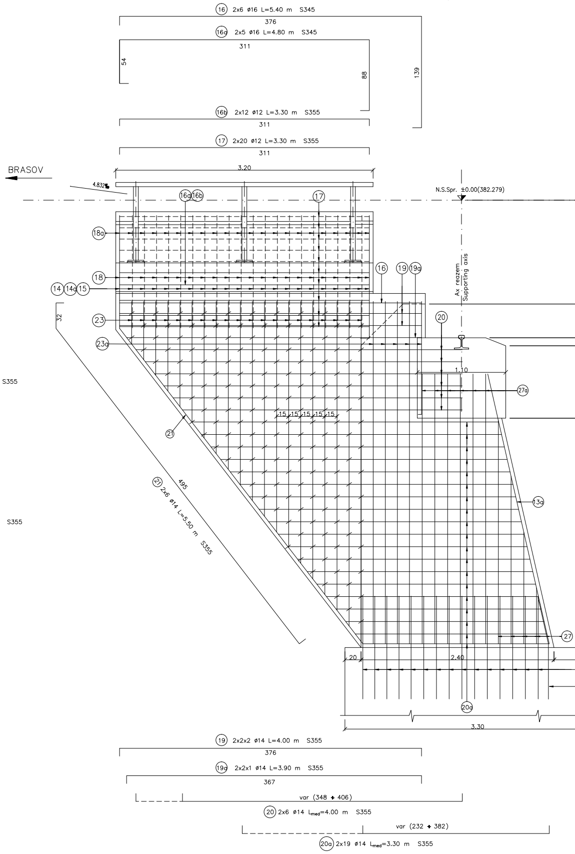
VEDERE G–G / G–G VIEW

Scara/Scale 1:20

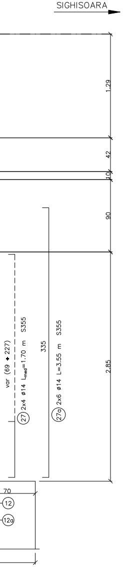

12
16'x62=998m
12
12a
16'x62=998m
16'x62=998m
10.26
20
2.40

VEDERE CULEE C–C/C–C ABUTMENT V

Scara/Scale. 1:20

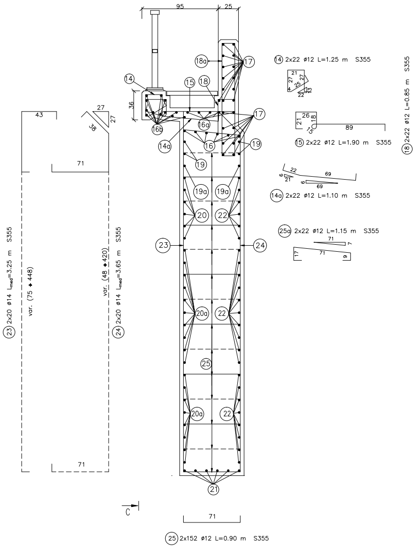

16 2x6 ø16 L=5.40 m S345
376
16a 2x5 ø16 L=4.80 m S345
311
54
88
139
16b 2x12 ø12 L=3.30 m S355
311
17 2x20 ø12 L=3.30 m S355
311
3.20
BRASOV
4.832‰
16a
16b
17
N.S.Spr. ±0.00(382.279)
18a
18
14
14a
15
16
19
19a
Ax reazem
Supporting axis
20
23
23a
32
1.10
27a
15
15
15
15
15
21
495
21 2x6 ø14 L=5.50 m S355
13a
27
20
2.40
20a
3.30
19 2x2x2 ø14 L=4.00 m S355
376
19a 2x2x1 ø14 L=3.90 m S355
367
var (348 + 406)
20 2x6 ø14 Lmed=4.00 m S355
var (232 + 382)
20a 2x19 ø14 Lmed=3.30 m S355

IEW


SIGHISOARA
1.29
42
10
90
2.85
335
var (69 ÷ 227)
27 2x4 ø14 L_{med}=1.70 m S355
27a 2x6 ø14 L=3.55 m S355
70
12
12a

SECTIUNE E–E / E–E SECTION

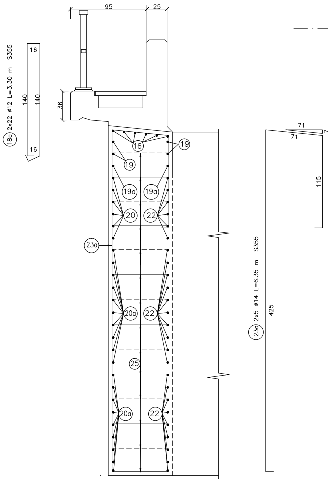
Scara/Scale 1:20


95
25
36
43
27
38
27
71
71
var. (75 ÷ 448)
23 2x20 ø14 L_{med}=3.25 m S355
var. (48 ÷ 420)
24 2x20 ø14 L_{med}=3.65 m S355
14
15
16
16a
16b
14a
17
18
18a
19
19a
20
20a
21
22
23
24
25
C
71
14 2x22 ø12 L=1.25 m S355
15 2x22 ø12 L=1.90 m S355
14a 2x22 ø12 L=1.10 m S355
25a 2x22 ø12 L=1.15 m S355
18 2x22 ø12 L=0.85 m S355
21
43
26
89
69
22
6
21
17
9

25 2x152 ø12 L=0.90 m S355

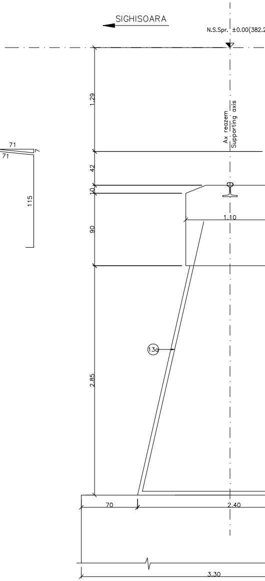
SECTIUNE F–F / F–F SECTION

Scara/Scale 1:20


18a 2x22 ø12 L=3.30 m S355
16
140
140
16
95
25
36
16
19
19a
20
22
23a
20a
25
71
71
7
115
425
23a 2x5 ø14 L=6.35 m S355

VEDERE CULEE D–D/D–D

Scara/Scale 1:20


SIGHISOARA
N.S.Spr. ±0.00(382.2
Ax reazem
Supporting axis
1.29
42
10
90
1.10
2.85
13a
70
2.40
3.30

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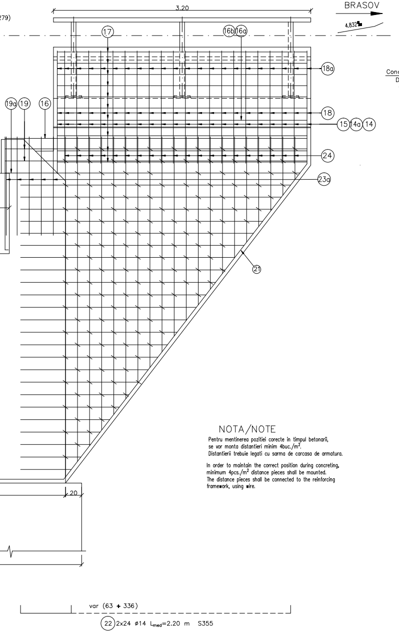
This drawing is forbidden to be copied, lent or used in other purposes than those previously approved by AREX Lider Company as its owner.

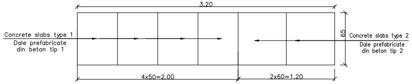
Beton: Concrete:	– C30/37 suprastructura/superstructure
Tipul grinzilor: Beams type:	– grinzi metalice sudate/steel welded girders
Otel pentru grinzi: Steel for the beams:	– (OL 37–EP) $S275J_3G_3$ (EN 10025/2004)
Armatura: Reinforcement:	– S355;S345
Strat de acoperire: Concrete cover	– min. 4cm expunere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

ABUTMENT VIEW


279)
3.20
BRASOV
4.832
17
16b
16a
18a
19a
19
16
18
15
14a
14
24
23a
21
20
var (63 + 336)
22 2x24 ø14 L$_{med}$=2.20 m S355

SCHEMA DALE PREFABRICATE TROTUAR

Scara/Scale 1:20

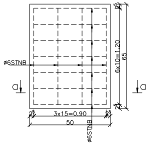

3.20
Concrete slabs type 1
Dale prefabricate
din beton tip 1
Concrete slabs type 2
Dale prefabricate
din beton tip 2
65
4x50=2.00
2x60=1.20

DALE PREFABRICATE DIN BETON/ CONCRETE PREFAB SLABS

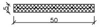
Scara/Scale 1:10

TIP 1/TYPE 1

(4+4)buc.=8buc. pentru trotuare)
(4+4)piece=8piece for sidewalk)

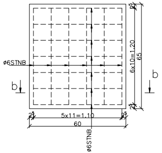

ø6STNB
a
a
3x15=0.90
50
6x10=1.20
65
ø6STNB

SECTIUNE a–a/
a–a SECTION

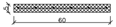


TIP 2/TYPE 2

2+2buc.=4 buc. pentru trotuare
2+2piece=4 piece for sidewalk


ø6STNB
b
b
5x11=1.10
60
6x10=1.20
65
ø6STNB

SECTIUNE b–b/
b–b SECTION



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.

EXTRAS DE ARMATURA STNB PENTRU CULEE
TABLE FOR REINFORCEMENTS STNB FOR ABUTMENT

TIP/TYPE	TIP ARMATURA TYEPE REINFOCEMENT	Nr. BUC. No. PIECE	kg/m	m/buc. m/piece	kg
TIP 1 TYPE 1	STNB 6 G.Q.283	8	0.222	5.55	10.00
TIP 2 TYPE 2	STNB 6 G.Q.283	4	0.222	7.45	7.00
				TOTAL	17,00kg

TOTAL POD (2 CULEI): 2 x 17kg=34kg
TOTAL BRIDGE (2 ABUTMENTS): 2 x 17kg=34kg

EXTRAS DE ARMATURA PENTRU O CULEE
REINFORCEMENT FOR ABUTMENT

Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355			S345	
				Φ10	Φ12	Φ14	Φ16	Φ20
1	10	3.80	62	235.60				
2	10	4.70	65	305.50				
2a	10	5.85	10	58.50				
3	12	1.05	52		54.60			
4	10	1.35	52	70.20				
5	10	1.25	52	65.00				
6	10	2.00	10	20.00				
7	14	10.20	21			214.20		
7a	14	10.35	2			20.70		
7b	14	9.95	29			288.55		
8	20	10.35	5					51.75
9	16	10.30	20				206.00	
10	12	10.25	24		246.00			
11	10	1.05	120	126.00				
12	16	1.55	91				141.05	
12a	16	1.55	63				97.65	
13	14	6.15	53			325.95		
13a	14	3.65	63			229.95		
14	12	1.25	44		55.00			
14a	12	1.10	44		48.40			
15	12	1.90	44		83.60			
16	16	5.40	12				64.80	
16a	16	4.80	10				48.00	
16b	12	3.30	24		79.20			
17	12	3.30	40		132.00			
18	12	0.85	44		37.40			
18a	12	3.30	44		145.20			
19	14	4.00	8			32.00		
19a	14	3.90	4			15.60		
20	14	3.95	12			47.40		
20a	14	3.30	38			125.40		
21	14	5.50	12			66.00		
22	14	2.20	48			105.60		
23	14	3.25	40			130.00		
23a	14	6.35	10			63.50		
24	14	3.65	40			146.00		
25	12	0.90	304		273.60			
25a	12	1.15	44		50.60			
26	14	1.70	8			13.60		
27	14	1.70	8			13.60		
27a	14	3.55	12			42.60		
Lungimi totale pe diametre			(m)	880.80	1205.60	1880.65	557.50	51.75
Masa pe metru liniar			(kg/ml)	0.617	0.888	1.208	1.578	2.466
Masa pe diametre			(kg)	543.05	1070.35	2272.60	879.92	127.62
Masa pe tip otel			(kg)	3886.00			1008.00	
Masa totala culee			(kg)	4895.00				
Pierderi 5%			(kg)	244.75				
Masa totala culee			(kg)	5150.00				

TOTAL POD (2 CULEI): 2 x 5150kg=10300.00kg
TOTAL BRIDGE (2 ABUTMENTS): 2 x 5150kg=10300.00kg

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 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

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	02.2012	
Întocmit Elaborated	Proiectant Designer	Carmen Belen	02.2012	

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h,
Tronsonul : Brasov - Sighişoara
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 - Sighişoara

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

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

Denumire desen / Drawing Title :

POD km.267+963.152 L=(12.00+35.00+12.00)m/PLAN ARMARE CULEI
BRIDGE km.267+963.152 D=(12.00+35.00+12.00)m/ABUTMENTS
REINFORCEMENT PLAN

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

E A 5 1 | 0 1 | E | 1 6 | B C | P V | 0 4 | 0 | 2 | 0 1 3 | 0

594x3400