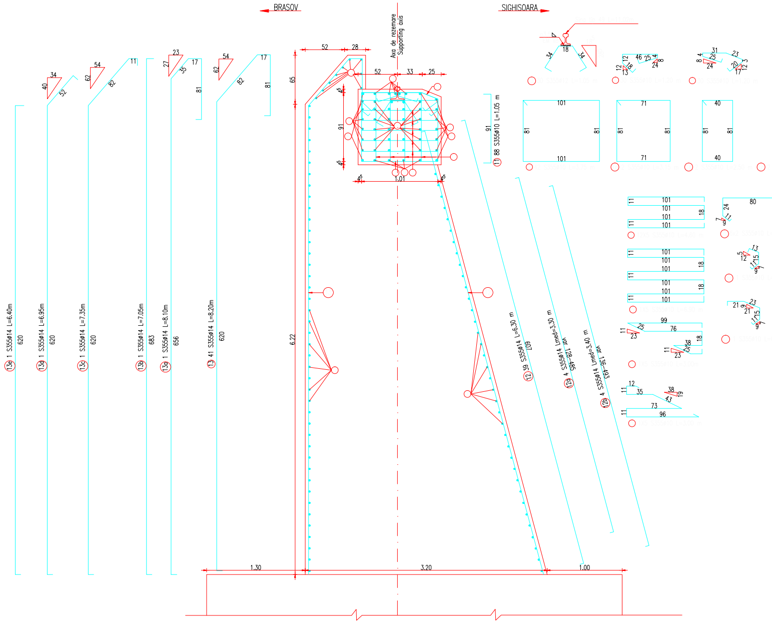
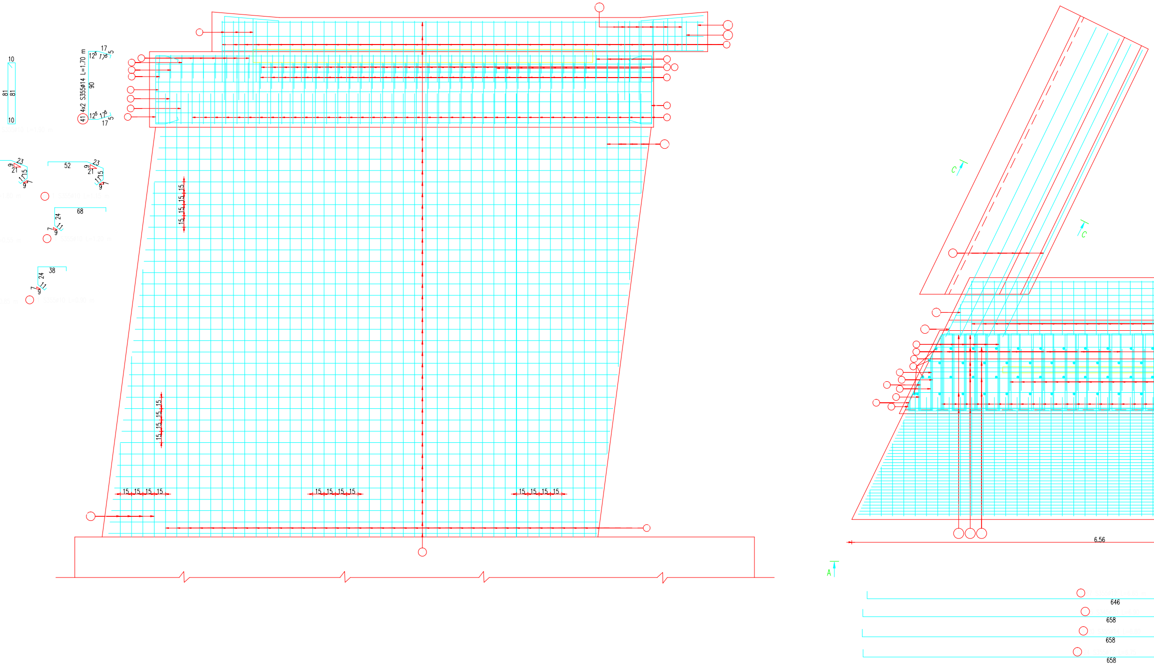
SECTIUNE TRANSVERSALA B-B
B-B CROSS SECTION

Scara/Scale 1:25


BRASOV
SIGHISOARA
Axa de rezemare
Supporting axis
Sina tip 49 L=11.02m
18
34
34
52
28
52
33
25
65
91
6.22
1.01
1.30
3.20
1.00
⑪ 88 S355ø10 L=1.05 m
91
101
81
81
101
71
71
40
40
⑫ 39 S355ø14 L=6.30 m
607
⑫a 4 S355ø14 Lmed=3.30 m
var. 128-485
⑫b 4 S355ø14 Lmed=3.40 m
var. 136-493
⑬ 41 S355ø14 L=8.20m
620
⑬a 1 S355ø14 L=8.10m
656
⑬b 1 S355ø14 L=7.05m
683
⑬c 1 S355ø14 L=7.35m
620
⑬d 1 S355ø14 L=6.95m
620
⑬e 1 S355ø14 L=6.40m
620
34
40
52
62
54
82
11
23
27
35
17
81
54
62
82
17
81
46
25
4
8
24
12
18
13
31
23
25
8 4
24
20
17
12 3
101
101
101
101
11
18
80
24
11
7
9
99
76
25
23
38
15
23
12
35
38
43
19
73
96
21
9
21
15
13
5
12

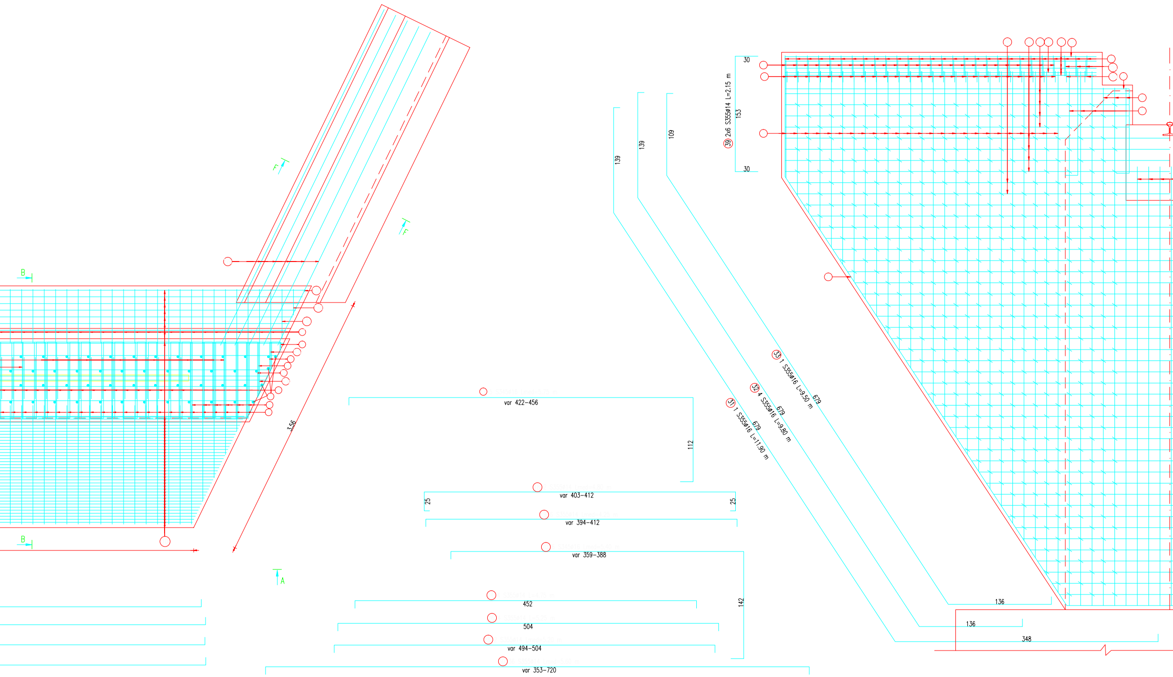
VEDERE A-A / A-A VIEW

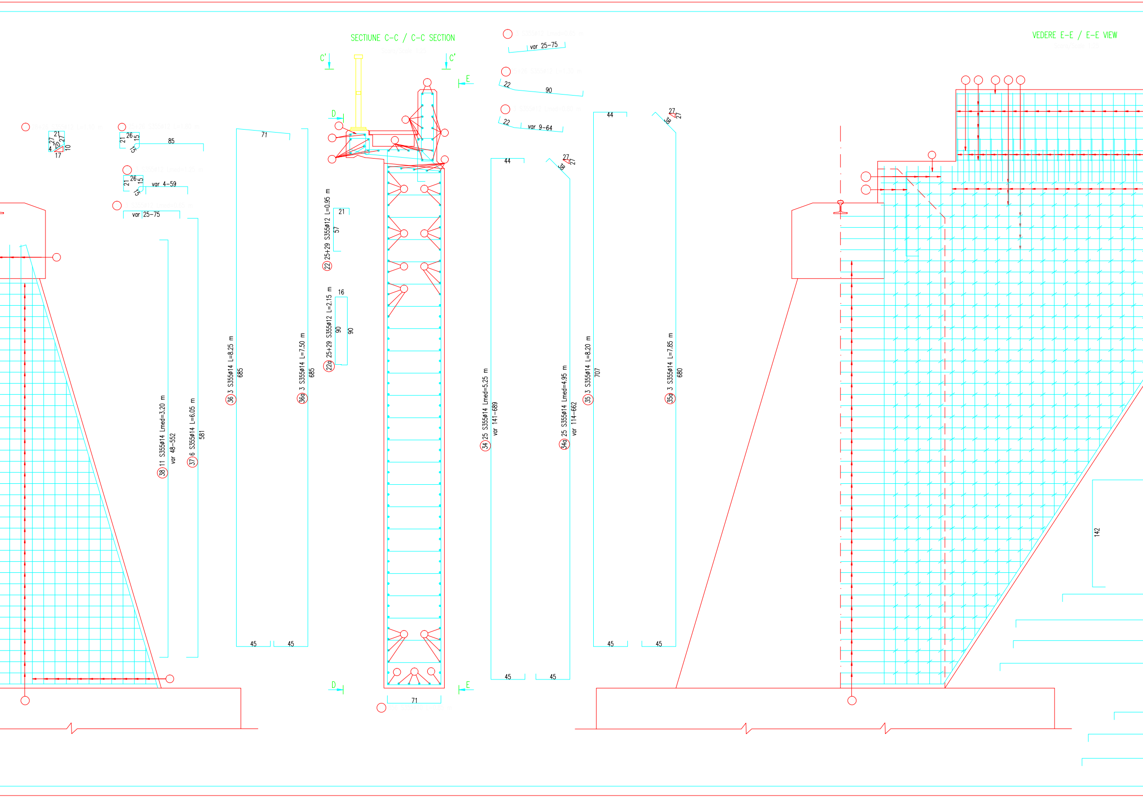
Scara/Scale 1:25


10
81
81
10
S355Ø10 L=1.90 m
41 4x2 S355Ø14 L=1.70 m
17
12⁵
17⁵
5
90
12⁵
17⁵
17
5
23
9
21
15
11
7
9
=1.80 m
52
23
9
21
15
11
7
9
1 S355Ø10 L=1.15 m
68
24
7
11
9
=0.55 m
1 S355Ø10 L=1.20 m
38
24
7
11
9
0.85 m
1 S355Ø10 L=0.90 m
15 15 15 15
15 15 15 15
15 15 15 15
15 15 15 15
15 15 15 15
C
C
6.56
A
7 37 S355Ø12 L=6.65 m
646
8 5 S345Ø20 L=6.90
658
9 20 S355Ø14 L=6.80
658
10 24 S355Ø12 L=6.75
658

VEDERE IN PLAN / PLAN VIEW

VEDERE D-D / D-D VIEW

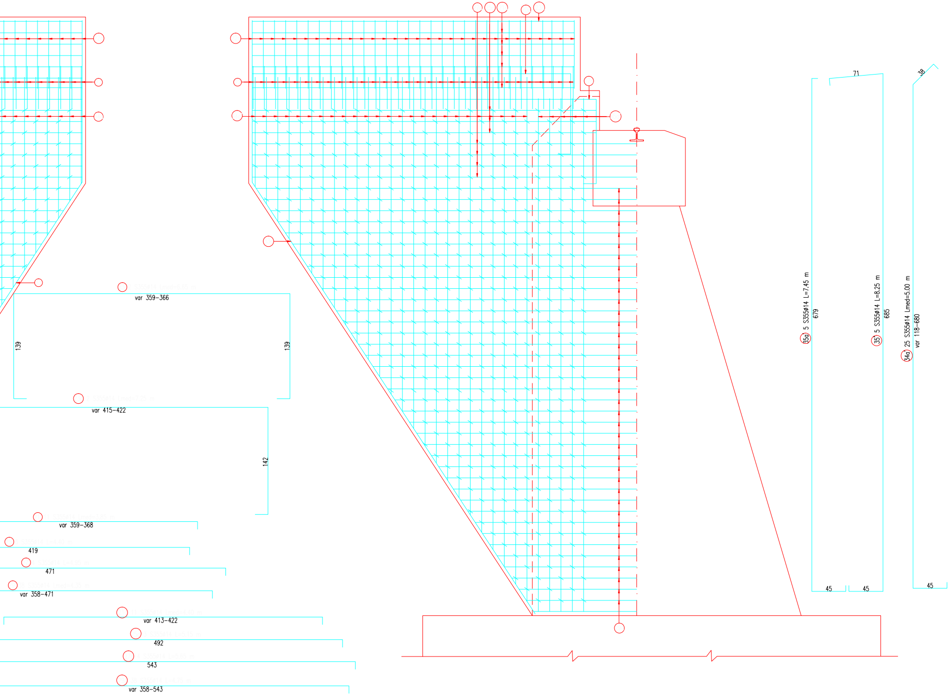

F
F
B
B
A
3.56
var 422-456
112
var 403-412
25
25
var 394-412
var 359-388
142
452
504
var 494-504
var 353-720
139
139
109
30
153
30
(39) 2x6 S355ø14 L=2.15 m
(33) 1 S355ø16 L=9.50 m
679
(32) 4 S355ø16 L=9.80 m
679
(31) 1 S355ø16 L=11.90 m
679
136
136
348



SECTIUNE C-C / C-C SECTION
Scara/Scale 1:25
VEDERE E-E / E-E VIEW
Scara/Scale 1:25
C'
C'
E
E
D
D
28+26 S355ø12 L=1.10 m
21
27
27
4
20
10
17
25+26 S355ø12 L=1.80 m
26
21
15
15
85
3 S355ø12 Lmed=1.25 m
26
21
15
15
var 4-59
3 S355ø12 Lmed=0.65 m
var 25-75
71
22 25+29 S355ø12 L=0.95 m
21
57
22a 25+29 S355ø12 L=2.15 m
16
90
90
38 11 S355ø14 Lmed=3.20 m
var 48-552
37 6 S355ø14 L=6.05 m
581
36 3 S355ø14 L=8.25 m
685
36a 3 S355ø14 L=7.50 m
685
45
45
71
3 S355ø12 Lmed=0.65 m
var 25-75
25+26 S355ø12 L=1.30 m
22
90
3 S355ø12 Lmed=0.80 m
22
var 9-64
44
27
27
38
34 25 S355ø14 Lmed=5.25 m
var 141-689
34a 25 S355ø14 Lmed=4.95 m
var 114-662
45
45
44
27
27
38
35 3 S355ø14 L=8.20 m
707
35a 3 S355ø14 L=7.85 m
680
45
45
142

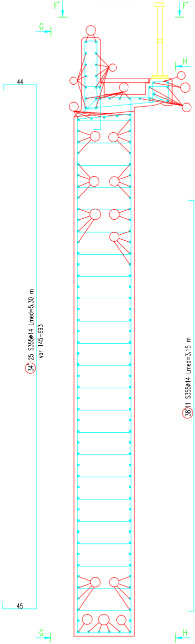
VEDERE G-G / G-G VIEW

Scala/Scale 1:25


13 2 S355ø14 Lmed=6.65 m
var 359-366
139
139
13 2 S355ø14 Lmed=7.25 m
var 415-422
142
1 11 S355ø14 Lmed=3.85 m
var 359-368
25 3 S355ø14 L=4.40 m
419
27 4 S355ø14 L=4.95 m
471
29 38 S355ø14 Lmed=4.35 m
var 358-471
21a 11 S355ø14 Lmed=4.40 m
var 413-422
25a 3 S355ø14 L=5.15 m
492
27a 4 S355ø14 L=5.65 m
543
29a 38 S355ø14 L=4.75 m
var 358-543
35a 5 S355ø14 L=7.45 m
679
45
35 5 S355ø14 L=8.25 m
71
685
45
34a 25 S355ø14 Lmed=5.00 m
38
var 118-680
45

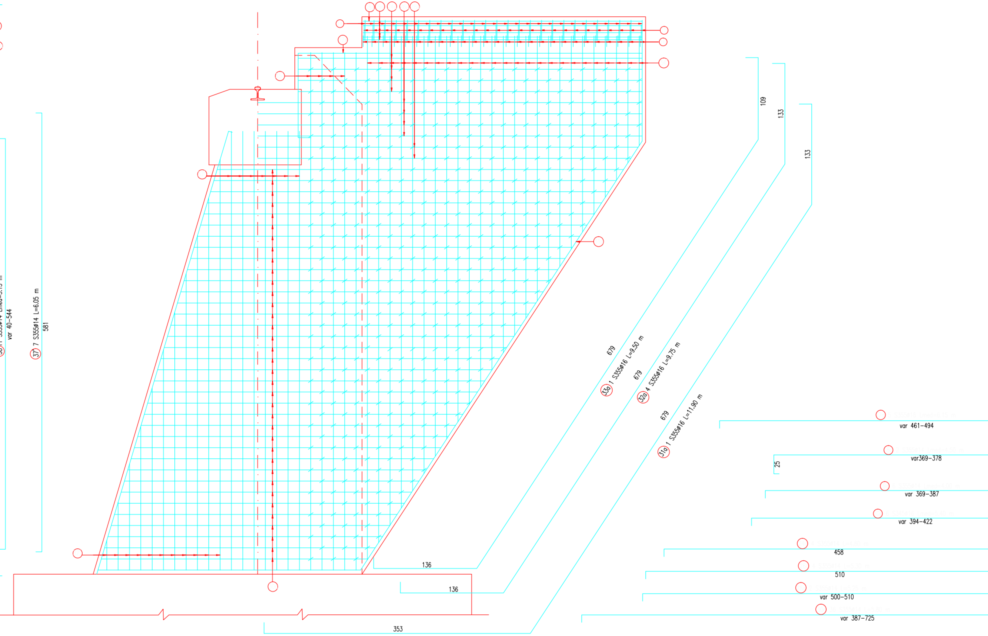
SECTIUNE F-F / F-F SECTION

Scara/Scale 1:25


F'
F'
G
H
44
45
34 25 S355Ø14 Lmed=5.30 m
var 145-693
G
H

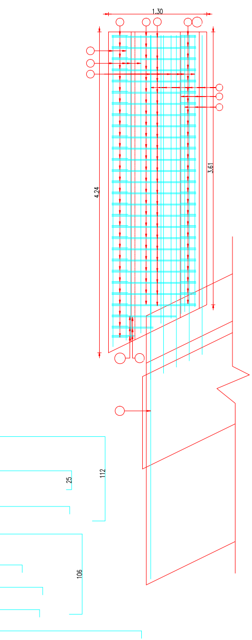
VEDERE H-H / H-H VIEW

Scara/Scale 1:25


38 11 S355Ø14 Lmed=3.15 m
var 40-544
37 7 S355Ø14 L=6.05 m
581
109
133
133
679
33a 1 S355Ø16 L=9.50 m
679
32a 4 S355Ø16 L=9.75 m
679
31a 1 S355Ø16 L=11.90 m
136
136
353
5 S355Ø16 Lmed=6.15 m
var 461-494
2 S355Ø14 Lmed=4.50 m
var369-378
25
6 S355Ø14 Lmed=4.00 m
var 369-387
6 S345Ø16 Lmed=5.40 m
var 394-422
4 S355Ø14 L=4.80 m
458
4 S355Ø14 L=5.30 m
510
2 S355Ø14 L=5.25 m
var 500-510
36 S355Ø14 L=5.80 m
var 387-725

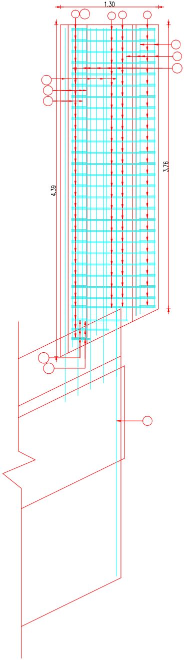
VEDERE C'-C' / C'-C' VIEW

Scara/Scale 1:25


1.30
4.24
3.61
25
112
106

VEDERE F'-F' / F'-F' VIEW

Scara/Scale 1:25



EXTRAS DE ARMATURA PENTRU O CULEE
REINFORCEMENT FOR ONE ABUTMENT

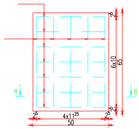
Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355			S345	
				Φ10	Φ12	Φ14	Φ16	Φ20
1	10	3,75	42	157,50				
1a	10	3,15	2	6,30				
1b	10	2,50	2	5,00				
1c	10	1,90	2	3,80				
2	10	4,60	60	276,00				
2a	10	6,90	5	34,50				
2b	10	3,00	5	15,00				
2c	10	3,00	5	15,00				
3	12	1,05	30		31,50			
4	10	1,20	30	36,00				
5	10	1,20	30	36,00				
6	10	1,80	12	21,60				
6a	10	1,15	1	1,15				
6a'	10	1,20	1	1,20				
6b	10	0,85	1	0,85				
6b'	10	0,90	1	0,90				
6c	10	0,55	1	0,55				
7	12	6,65	87		578,55			
8	20	6,90	5					34,50
9	14	6,80	20			136,00		
10	12	6,75	24		162,00			
11	10	1,05	88	92,40				
12	14	6,30	39			245,70		
12a	14	3,30	4			13,20		
12b	14	3,40	4			13,60		
13	14	8,20	41			336,20		
13a	14	8,10	1			8,10		
13b	14	7,05	1			7,05		
13c	14	7,35	1			7,35		
13d	14	6,95	1			6,95		
13e	14	6,40	1			6,40		
14	12	1,10	54		59,40			
15	12	1,80	51		91,80			
15a	12	1,25	3		3,75			
15b	12	0,65	3		1,95			
16	12	1,30	51		66,30			
16a	12	0,80	3		2,40			
16b	12	0,65	3		1,95			
17	16	5,75	5				28,75	
17a	16	6,15	5				30,75	
18	16	4,80	2				9,60	
18a	16	4,50	2				9,00	
19	14	4,25	6			25,50		
19a	14	4,00	6			24,00		
20	16	5,40	6				32,40	
20a	16	5,40	6				32,40	
21	14	3,85	11			42,35		
21a	14	4,40	11			48,40		
22	12	0,95	54		51,30			
22a	12	2,15	54		116,10			
23	14	6,65	2			13,30		
23a	14	7,25	2			14,50		
24	14	4,75	4			19,00		
24a	14	4,80	4			19,20		
25	14	4,40	3			13,20		
25a	14	5,15	3			15,45		
26	14	5,25	4			21,00		
26a	14	5,30	4			21,20		
27	14	4,95	4			19,80		
27a	14	5,65	4			22,60		
28	14	5,20	2			10,40		
28a	14	5,25	2			10,50		
29	14	4,35	38			165,30		
29a	14	4,75	38			180,50		
30	14	5,60	36			201,60		
30a	14	5,80	36			208,80		
31	16	11,90	1				11,90	

Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355			S345	
				Φ10	Φ12	Φ14	Φ16	Φ20
31a	16	11,90	1				11,90	
32	16	9,80	4				39,20	
32a	16	9,75	4				39,00	
33	16	9,50	1				9,50	
33a	16	9,50	1				9,50	
34	14	5,25	25			131,25		
34a	14	4,95	25			123,75		
34'	14	5,30	25			132,50		
34a'	14	5,00	25			125,00		
35	14	8,20	3			24,60		
35a	14	7,85	3			23,55		
35'	14	8,25	5			41,25		
35a'	14	7,45	5			37,25		
36	14	8,25	3			24,75		
36a	14	7,50	3			22,50		
37	14	6,05	6			36,30		
37'	14	6,05	7			42,35		
38	14	3,20	11			35,20		
38'	14	3,15	11			34,65		
39	14	2,15	12			25,80		
40	10	0,85	864	734,40				
41	14	1,70	8			13,60		
Lungimi totale pe diametre			(m)	1438,15	1167,00	2736,95	278,40	34,50
Masa pe metru liniar			(kg/ml)	0,617	0,888	1,208	1,578	1,578
Masa pe diametre			(kg)	886,67	1036,08	3307,37	439,41	54,45
Masa pe tip otel			(kg)	5231,00			494,00	
Masa totala culee			(kg)	5725,00				
Pierderi 5%			(kg)	286,25				
Masa totala culee			(kg)	6050,00				

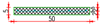
TOTAL POD (4 CULEI): 4 x 6050.00kg=24200.00kg
TOTAL BRIDGE (4 ABUTMENTS): 4 x 6050.00kg=24200.00kg

DALE PREFABRICATE DIN BETON ARMATE CU S.T.N.B.
CONCRETE PREFAB SLABS REINFORCED WITH S.T.N.B.

Scara/Scale 1:10
TIP 1/TYPE 1
(14 buc. pentru trotuar/14 piece for sidewalk)


Φ6STNB
Φ6STNB
a
a
2⁵
6x10
65
2⁵
2⁵
4x11²⁵
2⁵
50

SECTIUNE a-a/a-a SECTION



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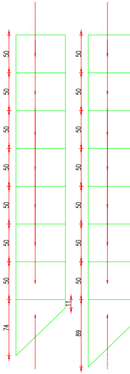
50
50
50
50
50
50
50
74
11
50
50
50
50
50
50
50
89

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

TIP/TYPE	TIP ARMATURA TYPE REINFOCEMENT	Nr. BUC. No. PIECE	kg/m	m/buc. m/piece	kg
TIP 1 TYPE 1	STNB 6 G.Q.283	14	0.222	6.15	20,00
TIP 2 TYPE 2	STNB 6 G.Q.283	1	0.222	8.80	2,00
TIP 3 TYPE 3	STNB 6 G.Q.283	1	0.222	10.00	2.50
				TOTAL	25.00kg

TOTAL POD (4 CULEI): 4 x 25kg = 100kg
TOTAL BRIDGE (4 ABUTMENTS): 4 x 25kg = 100kg

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

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 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 Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	02.2012	
Întocmit Elaborated	Proiectant Designer	Totan Ciprian	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 RACOS-CATA
POD Km 231+746.888 D=12.00m/PLAN ARMARE ELEVATII CULEI
BRIDGE Km 231+746.888 D=12.00m/ABUTMENTS ELEVATIONS REINFORCEMENT PLAN

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

EA51 01 E 12 BC PV 02 2 2 010 0