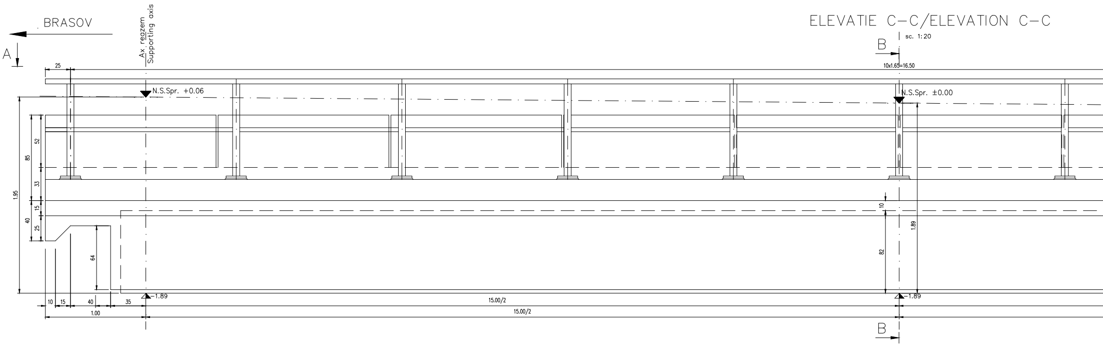
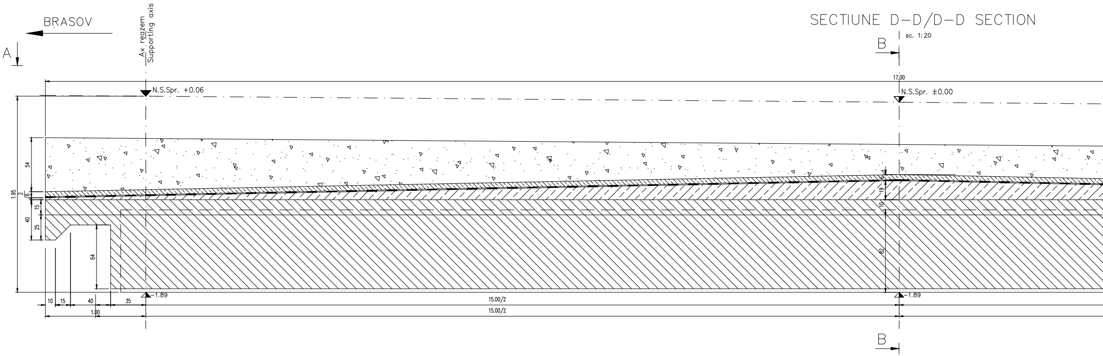
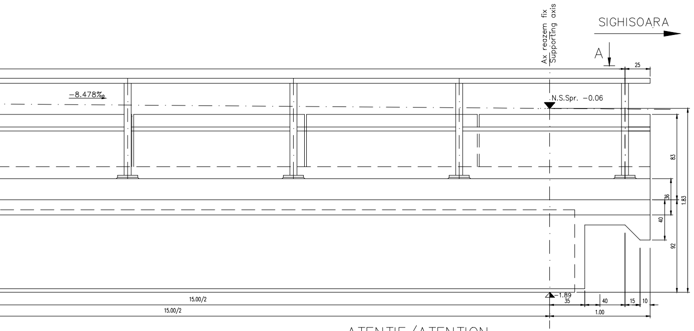
ELEVATIE C–C/ELEVATION C–C


BRASOV
A
Ax reazem
Supporting axis
sc. 1:20
B
25
10x1.65=16.50
N.S.Spr. +0.06
N.S.Spr. ±0.00
52
85
33
1.95
15
40
25
64
10
82
1.89
−1.89
10
15
40
35
1.00
15.00/2
15.00/2
B

SECTIUNE D–D/D–D SECTION

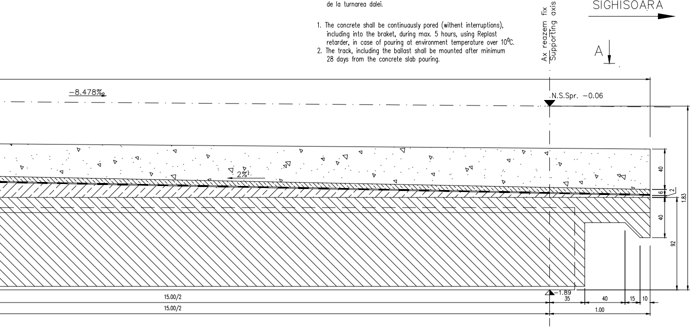

BRASOV
A
Ax reazem
Supporting axis
sc. 1:20
B
17.00
N.S.Spr. +0.06
N.S.Spr. ±0.00
54
2
6
1.95
15
40
25
64
6
19
10
82
−1.89
−1.89
10
15
40
35
1.00
15.00/2
15.00/2
B


Ax reazem fix
Supporting axis
SIGHISOARA
A
25
-8.478‰
N.S.Spr. -0.06
83
36
1.83
40
92
-1.89
15.00/2
15.00/2
35
40
15
10
1.00

ATENTIE/ATENTION

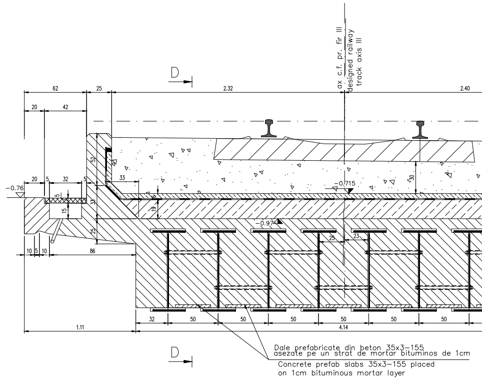
1. Turnarea betonului se va face continuu (fara intrerupere), inclusiv in console, in timp de max. 5 ore folosind intarzietor de priza Replast, in cazul turnarii la temperatura ambianta de peste 10^{0}C.
2. Montarea caii, inclusiv balastul, se va face dupa minim 28 zile de la turnarea dalei.

1. The concrete shall be continuausly pored (withent interruptions), including into the braket, during max. 5 hours, using Replast retarder, in case of pouring at environment temperature over 10^{0}C.
2. The track, including the ballast shall be mounted after minimum 28 days from the concrete slab pouring.

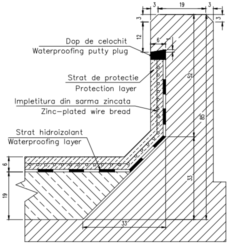

Ax reazem fix
Supporting axis
SIGHISOARA
A
-8.478‰
N.S.Spr. -0.06
2%
40
6
2
1.83
40
92
-1.89
15.00/2
15.00/2
35
40
15
10
1.00

SECTIUNE TRANSVERSALA B–B
B–B CROSS SECTION

sc. 1:20

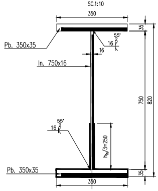

ax c.f. pr. fir III
designed railway track axis III
D
62
25
2.32
2.40
20
42
52
20
5
32
5
33
-0.76
5
15
33
25
19
6
30
-0.715
-0.97
25
23
10
5
10
86
1.11
32
50
50
50
50
50
50
4.14
D
Dale prefabricate din beton 35x3–155 asezate pe un strat de mortar bituminos de 1cm
Concrete prefab slabs 35x3–155 placed on 1cm bituminous mortar layer

DETALIU SAPA
BLANCHET–DETAIL

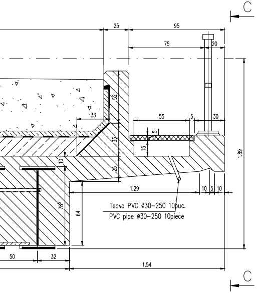

3
19
3
3
3
12
6
Dop de celochit
Waterproofing putty plug
Strat de protectie
Protection layer
Impletitura din sarma zincata
Zinc–plated wire bread
Strat hidroizolant
Waterproofing layer
52
85
33
6
19
33

GRINDA METALICA

SC.1:10


350
Pb. 350x35
16
55°
16
Inl. 750x16
35
750
820
16
55°
2
$h_w/3$=250
Pb. 350x35
350
35

MATERIALE
(– OL37 EP STAS 12187–88 elementele grinzilor met
– $S275J_3G_3$ EN 10025/2004


25
95
75
20
52
33
55
5
30
5
15
33
10
25
1.29
10
5
10
Teava PVC Ø30-250 10buc.
PVC pipe Ø30-250 10piece
78
64
1.89
50
32
1.54
C
C

NOTA

1.La executia in uzina a grinzilor metalice sudate se vor respecta cu strictete prevederile STAS 9407–75.
2.In uzina se va aplica o protectie anticoroziva pe talpile inferioare si pe o treime din inima grinzilor metalice.
3.Protectia anticoroziva se va executa dintr–un strat de baza alcatuit dintr–o pelicula de zinc de 80µm grosime si doua straturi de invelis poliuretanic, fiecare de 85µm.
Stratul de baza si un invelis poliuretanic se vor aplica in uzina, urmand ca ultimul strat poliuretanic sa fie aplicat pe santier dupa finalizarea lucrarilor la suprastructura.
4.Pregatirea suprafetelor metalice in vederea aplicarii procedeelor de protectie anticoroziva se face prin:
–Perierea de rugina cu ajutorul unor perii de sarma.
–Spalarea suprafetelor metalice.
–Degresarea cu solventi organici prin stergere sau cu emulsii.
–Dupa degresare se spala cu jet de apa pentru indepartarea urmelor de detergent. Solutia pentru degresare va fi aleasa astfel incat sa nu afecteze mediul.
Curatirea suprafetelor se va face conform gradului Sa 1 (GE 053–04 si SR EN ISO 8501–1).

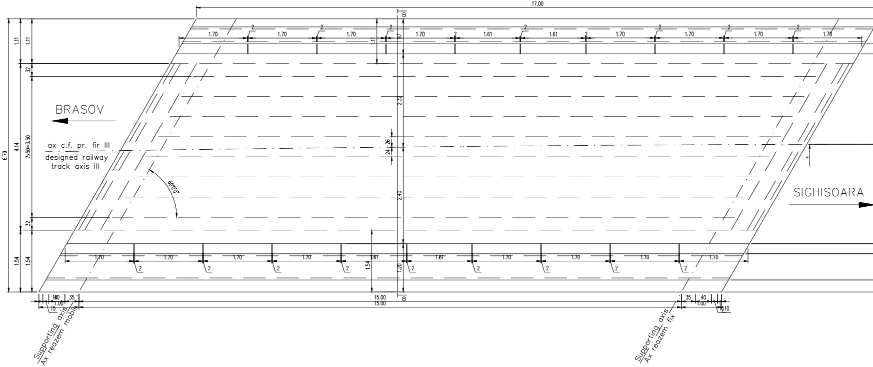
NOTE

1.The prvisions STAS 9407–75 will be stricthy observed when the welded metallic girders are manufactered in the factory.
2.In the plant, corrosion protection will be applied on the lower flanges and on one third of the web of metallic girders.
3.The protection against corrosion will consist in a primary layer made of a zinc membrane (80µm thickness) and two polyurethane covering layer, each of 85µm thickness.
The primary layer and the first polyurethane covering layer will be applied in the factory and the second polyurethane layer will be applied on site, after completing the superstructure works. finalizarea lucrarilor la suprastructura.
4.Preparing the metallic surfaces in order to apply the dorrosion–proof procedures shall be made by:
–Rust removal using wire brushes.
–Washing the metallic surfaces.
–Organic solvent degreasing by wiping or using emulsions.
–After degreasing, the surface is washed by water jet to eliminate the detergent stains. The solution selected for degreasing shall not affect the environment.
Cleaning the surfaces is made according to the Sa 1 (GE 053–04, SR EN ISO 8501–1).

alice.)

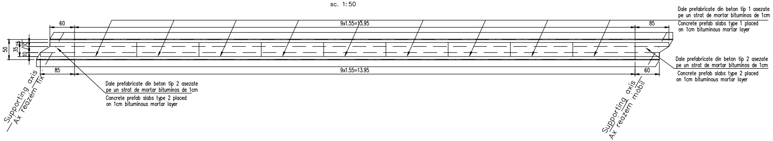
VEDERE IN PLAN A–A
PLAN VIEW A–A

sc. 1:50


17.00
B
1.70
2
1.61
1.11
.11
.87
32
2.32
BRASOV
ax c.f. pr. fir III
designed railway track axis III
6.79
4.14
7x50=3.50
24
26
60°0'0"
2.40
SIGHISOARA
1.54
1.20
15.00
15.00
B
100
1.00
15
35
40
10
5 10
Supporting axis
Ax reazem mobil
Supporting axis
Ax reazem fix

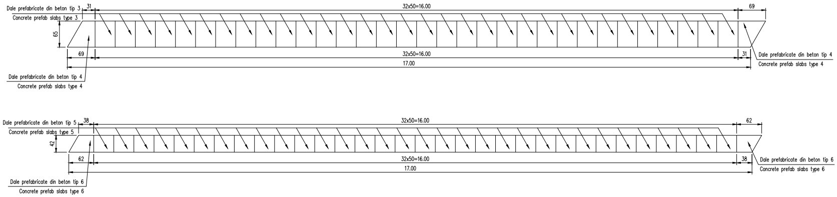
DALE PREFABRICATE PENTRU GRINZILE INGLOBATE/ CONCRETE PREFAB SLABS FOR STEEL GIRDERS ENBEDED

sc. 1:50


60
9x1.55=13.95
85
50
35
15
10
85
9x1.55=13.95
60
Dale prefabricate din beton tip 1 asezate pe un strat de mortar bituminos de 1cm
Concrete prefab slabs type 1 placed on 1cm bituminous mortar layer
Dale prefabricate din beton tip 2 asezate pe un strat de mortar bituminos de 1cm
Concrete prefab slabs type 2 placed on 1cm bituminous mortar layer
Dale prefabricate din beton tip 2 asezate pe un strat de mortar bituminos de 1cm
Concrete prefab slabs type 2 placed on 1cm bituminous mortar layer
Supporting axis
Ax reazem fix
Supporting axis
Ax reazem mobil

DALE PREFABRICATE PENTRU TROTUAR/CONCRETE PREFAB SLABS FOR SIDEWALK

sc. 1:50


Dale prefabricate din beton tip 3
Concrete prefab slabs type 3
31
32x50=16.00
69
65
69
32x50=16.00
31
17.00
Dale prefabricate din beton tip 4
Concrete prefab slabs type 4
Dale prefabricate din beton tip 4
Concrete prefab slabs type 4
Dale prefabricate din beton tip 5
Concrete prefab slabs type 5
38
32x50=16.00
62
42
62
32x50=16.00
38
17.00
Dale prefabricate din beton tip 6
Concrete prefab slabs type 6
Dale prefabricate din beton tip 6
Concrete prefab slabs type 6

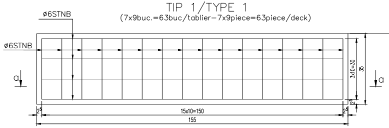
87
20
12
25
2.25
4.72
2.47
25
65
1.20
30

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

Sc. 1:10

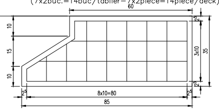
TIP 1/TYPE 1

(7x9buc.=63buc/tablier–7x9piece=63piece/deck)

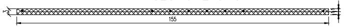

ø6STNB
ø6STNB
a
a
3x10=30
35
2⁵
2⁵
15x10=150
2⁵
155

TIP 2/TYPE 2

(7x2buc.=14buc/tablier–7x2piece=14piece/deck)

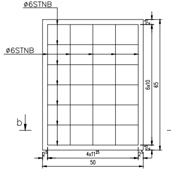

60
10
15
10
2⁵
3x10
35
2⁵
2⁵
8x10=80
2⁵
85

SECTIUNE a–a



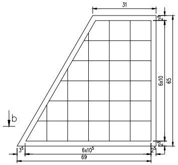
TIP 3/TYPE 3

(32buc. pentru trotuar/32piece for sidewalk)


ø6STNB
ø6STNB
b
2⁵
6x10
65
2⁵
2⁵
4x11²⁵
2⁵
50

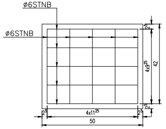
TIP 4/TYPE 4

(2buc. pentru trotuar/2piece for sidewalk)


31
b
2⁵
6x10
65
2⁵
3⁵
6x10⁵
2⁵
69

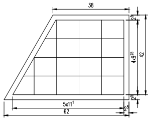
TIP 5/TYPE 5

(32buc. pentru trotuar/32piece for sidewalk)

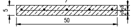

ø6STNB
ø6STNB
2⁵
4x9²⁵
42
2⁵
2⁵
4x11²⁵
2⁵
50

TIP 6/TYPE 6

(2buc. pentru trotuar/2piece for sidewalk)


38
2⁵
4x9²⁵
42
2⁵
5x11¹
2⁵
62

SECTIUNE b–b/b–b SECTION



NOTA

1. Prezentul plan s–a intocmit pe baza Dispozitiei Generale
2. Toate colturile betonului se vor tesi 25/25mm.
3. La executie se vor respecta cu strictete prevederile din ”Normativ pentru producerea betonului si executarea lucrarilor din beton, beton armat si beton precomprimat. Partea 1:Producerea betonului”, indicativ NE 012/1–2007 si ”Normativ pentru producerea betonului si executarea lucrarilor din beton, beton armat si beton precomprimat. Partea 2: Executarea lucrarilor din beton”, indicativ NE 012/2–2010, iar verificarea calitatii lucrarilor si receptionarea lor se va face conform normativului C56–1985.
4. Constructia se incadreaza in categoria de importanta B (constructii de importanta deosebita), modelul 1 de asigurare a calitatii si clasa de importanta B, conform HG 766/1997.
5. Proiectul va fi verificat la exigentele A4.2; B2.2; D2.2.

NOTE

1. This plan was drown up based on the General Disposition .
2. All concrete corners will be chamfered 25/25mm.
3. The execution will strictly comply with the provisions of ”Norm for concrete production and works execution, reinforced and pre–stressed concrete–Part 1: Practice code for concrete production NE 012/1–2007 and ”Norm for the concrete production and works execution, reinforced and pre–stressed concrete–Part 2: The execution of concrete works.” NE 012/2–2010, and the quality and the reception of the works shall be made accordingly to Norm C 56–1985.
4. The construction has been classified in B category of importance (high important constructions), model 1–ensuring the quality and class of importance B according to G.O. 766/97.
5. The project will be checked in order to comply with the A4.2; B2.2; D2.2 requirements.

EXTRAS DE ARMATURA STNB PENTRU UN TABLIER DE CALE FERATA SIMPLA
TABLE FOR REINFORCEMENTS STNB FOR SINGLE YRAK RAIWAY DECK

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	63	0.222	10.80	151,00
TIP 2 TYPE 2	STNB 6 G.Q.283	14	0.222	5.30	17,00
TIP 3 TYPE 3	STNB 6 G.Q.283	32	0.222	6.15	46,00
TIP 4 TYPE 4	STNB 6 G.Q.283	2	0.222	6.80	3.00
TIP 5 TYPE 5	STNB 6 G.Q.283	32	0.222	4.10	30,00
TIP 6 TYPE 6	STNB 6 G.Q.283	2	0.222	3.95	8.00
				TOTAL	260,00kg

LEGENDA BETOANELOR/CONCRETE LIST

▨	Beton armat in grinzi inglobate de clasa Concrete in bearings and in the deck slabs
▨	Beton de panta. Concrete in the protection layer of waterproofing system. C 25/30–CEM II/A–S 32,5–(XF3)–A/C=0,55–Dmax.16–Cl 0,20
▨	Beton in stratul de protectie a hidroizolatiei Concrete in the protection layer of waterproofing system C 25/30–CEM II/A–S 32,5–(XC4+XF3)–A/C=0,50–Dmax.16–Cl 0,20
▦	Beton in dalele prefabricate pentru trotuare Concrete in the prefab slabs required for the sidewalks
▨	Beton in dalele prefabricate pentru grinzile inglobate in beton Concrete in the prefab slabs required for the decks made out of steel girders enbeded in to concrete

In cazul in care temperatura in timpul turnarii este scazuta, se vor folosi cimenturile cu rezistenta initiala mare, R si aditivi acceleratori, iar in cazul turnarii pe timp calduros, cimenturile cu rezistenta initiala uzuala, N si aditivi intarzietori, (conform NE 012/2–2010 si tabelului 2 din SR EN 197–1:2002)

When the temperature during the casting is low, cements with high initial resistance, R and accelerating additives shall be used and when it is cast during warm weather, cements with common initial resistance – N and delaying additives shall be used (according the normNE 012/2–2010 and table 2 for the SR EN 197–1 : 2002).

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
Strat de acoperire: Concrete cover	– min. 4cm expunere in aer/air exposed
Clasa de incarcare: Load class:	– calculat cu convoiul T8.5, verificat cu convoiul UIC 71
Cofraj: Formwork:	– Metal sau lemn/Steel or wood

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D					
C					
B					
A	12.2011	Revizia 1 1 Revision	Campan Maria		
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 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	SemnŁturŁ Signature
Aprobat Approved	ķef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secşune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		

SUBCONTRACTANT / SUBCONTRACTOR

AREX
COMPANY

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	11.2011	
Întocmit Elaborated	Proiectant Designer	Campan Maria	11.2011	

Reabilitarea liniei de cale ferata Brakov - Simeria, parte componentŁ a coridorului IV Pan European, pentru circulaşa trenurilor cu viteza maximŁ 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:
P.Th. / T.D.
D.E. / E.D.

Denumire desen / Drawing Title : Interval Archita – Vanatori

POD Km. 270+941.472 L=15.00m/COFRAJ SUPRASTRUCTURA LINIA III
BRIDGE Km. 270+941.472 L=15.00m/SUPERSTRUCTURE SHUTTERING RAILWAY III

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

EA51 01 E 16 BB PV 04 4 3 008 1

420x2500