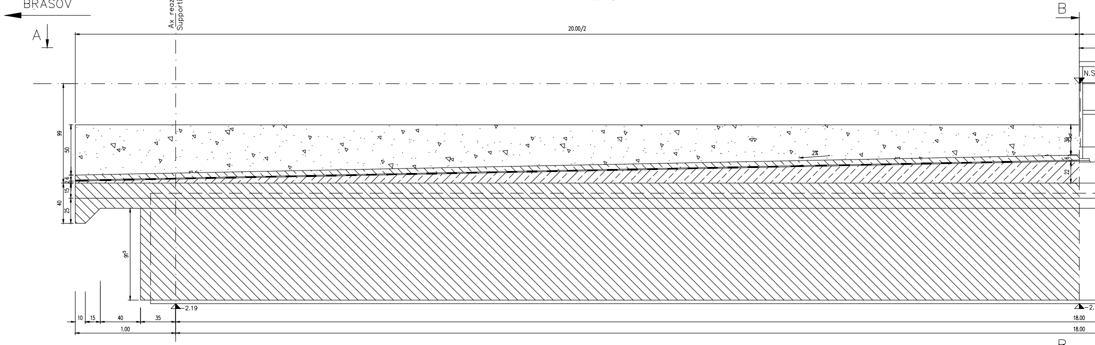
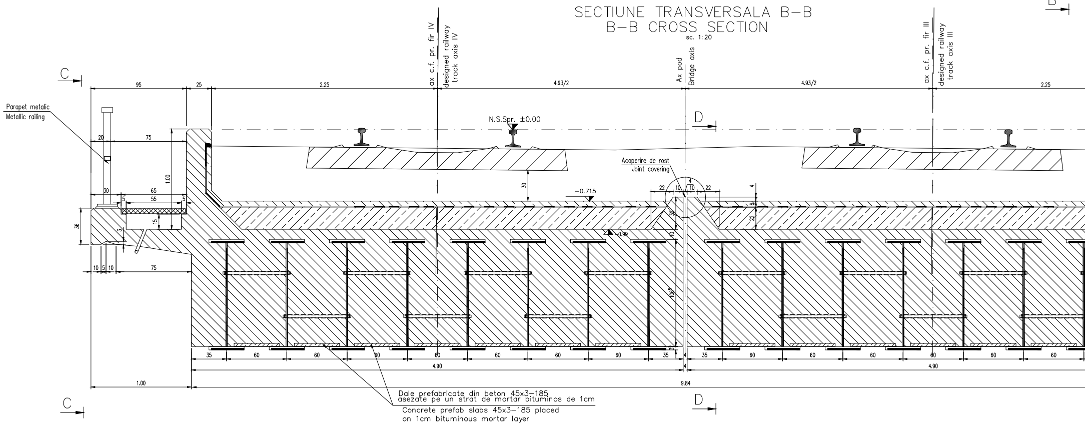
SECTIUNE D–D/D–D SECTION

sc. 1:20


BRASOV
A
Ax reazem fix
Supporting axis
20.00/2
B
N.S
2%
99
50
6
6
15
40
25
91⁵
30
6
22
2.19
10
15
40
35
1.00
18.00
18.00
B

SECTIUNE TRANSVERSALA B–B
B–B CROSS SECTION

sc. 1:20

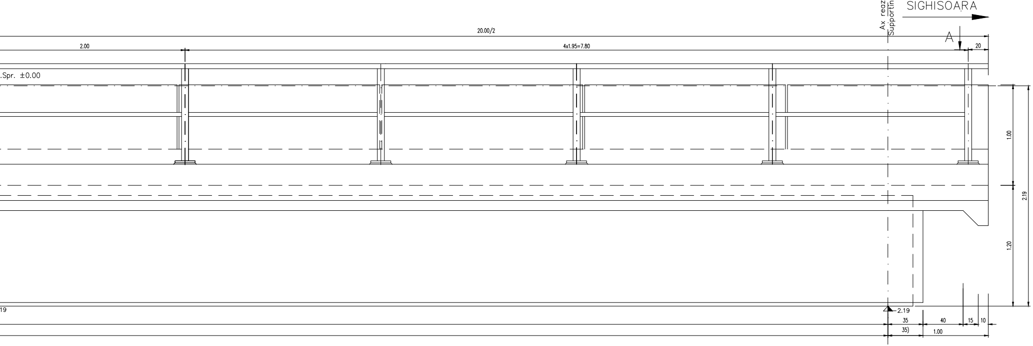

C
95
25
2.25
ax c.f. pr. fir IV
designed railway track axis IV
4.93/2
Ax pod
Bridge axis
4.93/2
ax c.f. pr. fir III
designed railway track axis III
2.25
Parapet metalic
Metallic railing
N.S.Spr. ±0.00
D
20
75
1.00
30
65
5
55
5
36
15
3
10
5
10
75
30
−0.715
Acoperire de rost
Joint covering
22
10
4
10
22
4
6
22
32
10
−0.99
106⁵
35
60
60
60
60
60
60
35
4
35
60
60
60
60
60
4.90
4
4.90
1.00
9.84
C
D

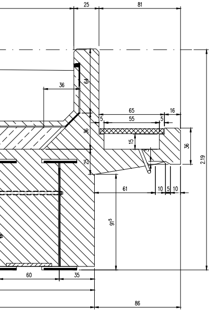
Dale prefabricate din beton 45x3–185 asezate pe un strat de mortar bituminos de 1cm

Concrete prefab slabs 45x3–185 placed on 1cm bituminous mortar layer

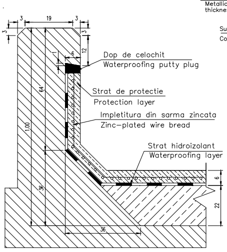
ELEVATIE C–C/ELEVATION C–C

sc. 1:20

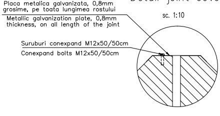

Ax reazem
Supporting axis
SIGHISOARA
20.00/2
2.00
4x1.95=7.80
A
20
.Spr. ±0.00
1.00
2.19
1.20
19
2.19
35
35)
40
15
10
1.00


25
81
36
64
65
55
5
5
16
36
15
36
25
2.19
61
10
5
10
91⁵
60
35
86

DETALIU SAPA
BLANCHET–DETAIL

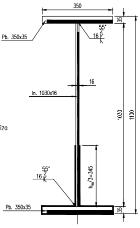

3
19
3
3
3
12
6
1
64
1.00
36
36
6
22
Dop de celochit
Waterproofing putty plug
Strat de protectie
Protection layer
Impletitura din sarma zincata
Zinc-plated wire bread
Strat hidroizolant
Waterproofing layer

Detaliul acoperire de rost
Detail joint covering


Placa metalica galvanizata, 0,8mm grosime, pe toata lungimea rostului
Metallic galvanization plate, 0,8mm thickness, on all length of the joint
sc. 1:10
Suruburi conexpand M12x50/50cm
Conexpand bolts M12x50/50cm

GRINDA METALICA

SC.1:10


350
35
Pb. 350x35
55°
16
16
In. 1030x16
1030
1100
h_w/3=345
55°
16
Pb. 350x35
35

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°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°C.
2. The track, including the ballast shall be mounted after minimum 28 days from the concrete slab pouring.

MATERIALE
(– OL37 EP STAS 12187–88 elementele grinzilor metalice)
- S275J_3G_3 EN 10025/2004

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 alcatu 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 053–0 si SR EN ISO 8501–1).

NOTE

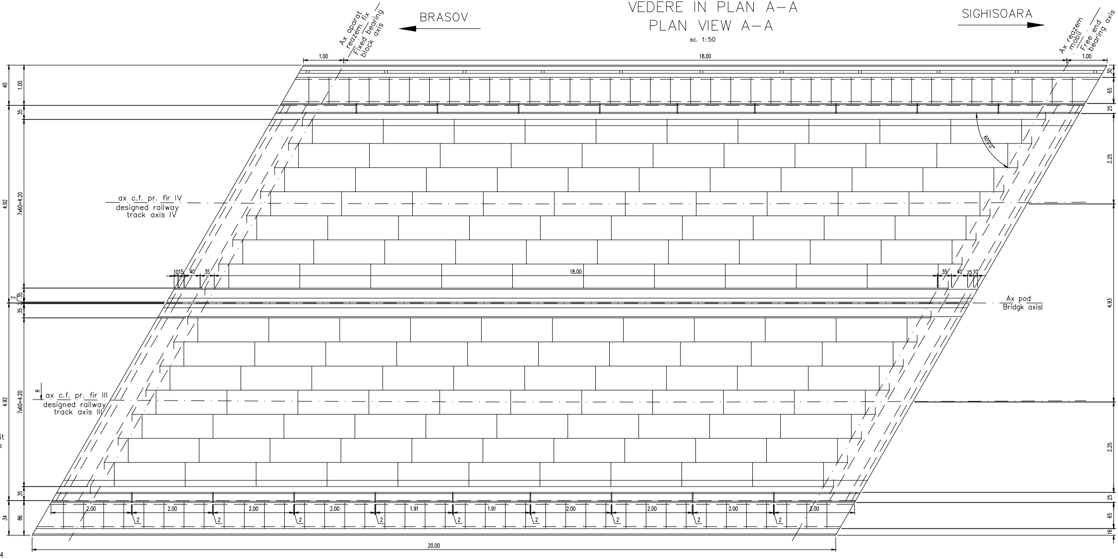
1.The prvisions STAS 9407–75 will be stricthy observed when the welded metallic girders are manufactered in the factory.
2.In the plant, corrosion protection will be applied on the lower flanges and on one third of the web of metallic girders.
3.The protection against corrosion will consist in a primary 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).

De

Dal

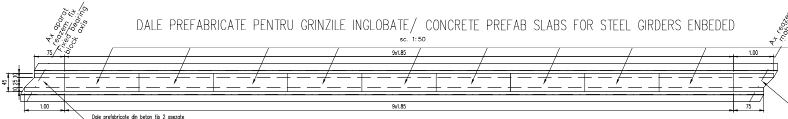
VEDERE IN PLAN A–A
PLAN VIEW A–A

sc. 1:50


BRASOV
SIGHISOARA
Ax aparat reazem fix
Fixed bearing block axis
Ax reazem mobil
Free end bearing axis
1.00
18.00
1.00
40
1.00
35
4.92
7x60=4.20
ax c.f. pr. fir IV
designed railway track axis IV
60°00'
2.25
10 15 40 35
18.00
35 40 15 10
2
35
Ax pod
Bridgk axisl
4.93
R
ax c.f. pr. fir III
designed railway track axis III
4.92
7x60=4.20
35
34
86
2.00
2
1.91
2.25
25
65
16
30
20.00
4

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

sc. 1:50


Ax aparat reazem fix
Fixed bearing block axis
Ax reazem mobil
75
9x1.85
1.00
45
10 25 10
1.00
9x1.85
75

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

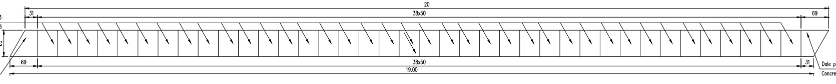
Beton: Concrete:	– C30/37 suprastructura/su
Tipul grinzilor: Beams type:	– grinzi metalice sudate/ste
Otel pentru grinzi: Steel for the beams:	– (OL 37–EP) $S275J_3G_3$ (EN
Armatura: Reinforcement:	– S355
Strat de acoperire: Concrete cover	– min. 4cm expunere in aer
Clasa de incarcare: Load class:	– calculat cu convoiul T8.5, convoiul UIC 71
Cofraj: Formwork:	– Metal sau lemn/Steel or

DALE PREFABRICATE PENTRU TROTUAR/ CONCRETE PREFAB SLABS FOR SIDEWALK

sc. 1:50

ale prefabricate din beton tip 3

Concrete prefab slabs type 3


20
31
38x50
69
65
69
38x50
31
19.00

e prefabricate din beton tip 4

Concrete prefab slabs type 4

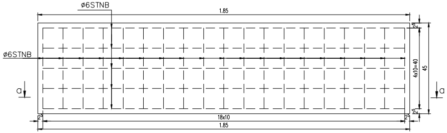
Dale prefabricate din beton tip 4

Concrete prefab slabs type 4

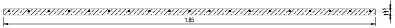
DALE PREFABRICATE DIN BETON ARMATE CU S.T.N.B. CONCRETE/ PREFAB SLABS REINFORCED WITH S.T.N.B.

TIP 1/TYPE 1

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

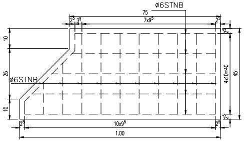

ø6STNB
1.85
ø6STNB
a
a
2⁵
4x10=40
45
2⁵
18x10
1.85

SECTIUNE a–a/a–a SECTION



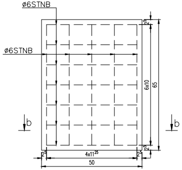
TIP 1/TYPE 1

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

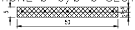

ø6STNB
75
2⁵ 3⁵
7x9⁵
10
25
10
ø6STNB
2⁵
4x10=40
45
10x9⁵
1.00

TIP 3/TYPE 3

(38buc. pentru trotuar/38piece for sidewalk)

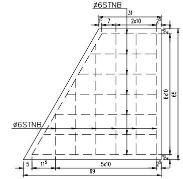

ø6STNB
ø6STNB
b
b
2⁵
6x10
65
4x11²⁵
50

SECTIUNE b–b/b–b SECTION



TIP 4/TYPE 4

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


ø6STNB
31
1⁵
7
2x10
2⁵
ø6STNB
6x10
65
5
11⁵
5x10
69

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	16.60	235,00
TIP 2 TYPE 2	STNB 6 G.Q.283	14	0.222	8.25	26,00
TIP 3 TYPE 3	STNB 6 G.Q.283	38	0.222	6.15	52.00
TIP 4 TYPE 4	STNB 6 G.Q.283	2	0.222	6.85	3.00
				TOTAL	325,00kg

TOTAL POD (2 TABLIERE): 2 x 325kg=650kg
TOTAL BRIDGE (2 DECKS): 2 x 325kg=650kg

LEGENDA BETOANELOR/CONCRETE LIST

▨	Beton armat in grinzi inglobate de clasa Concrete in bearings and in the deck slabs C 30/37–CEM II/A–S 42,5–(XC4+XF3+XA1)–A/C=0,50–Dmax.16–Cl 0,20
▨	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 C 25/30–CEM II/A–S 32,5–(XC4+XF3+XA1)–A/C=0,50–Dmax.22–Cl 0,20
▨	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 C 35/45–CEM II/A–S 42,5–(XC4+XF3+XA2)–A/C=0,50–Dmax.8–Cl 0,10

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 (conf. 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 norm NE 012/2–2010 and table 2 for the SR EN197–1:2002).

perstructure

el welded girders

10025/2004)

/air exposed

verificat cu

wood

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.

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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

CFR

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

AREX

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	10.2011	
Întocmit Elaborated	Proiectant Designer	Campan Maria	10.2011	

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:
P.Th. / T.D.
D.E. / E.D.

Denumire desen / Drawing Title : **STATIA / STATION RACOS**

POD / BRIDGE Km 223+203.050 D=18.00m

COFRAJ SUPRASTRUCTURA LINIILE III, IV
/ UPERSTRUCTURE SHUTTERING RAYLAWAY III, IV

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

EA51 01 E 11 BB PV 02 3 3 007 1

420x2530