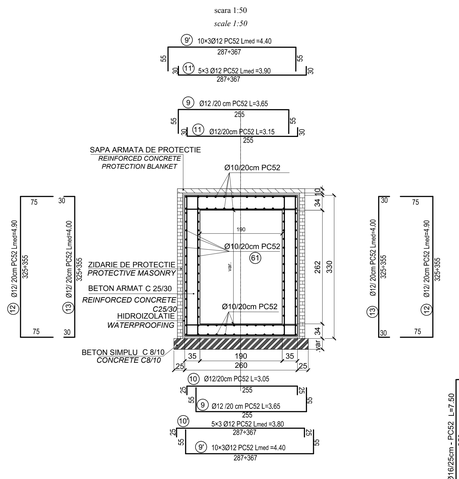
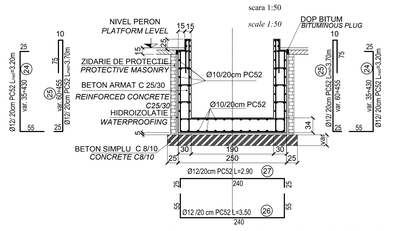
SECTIUNE : F-F
SECTION : F-F

scara 1:50
scale 1:50



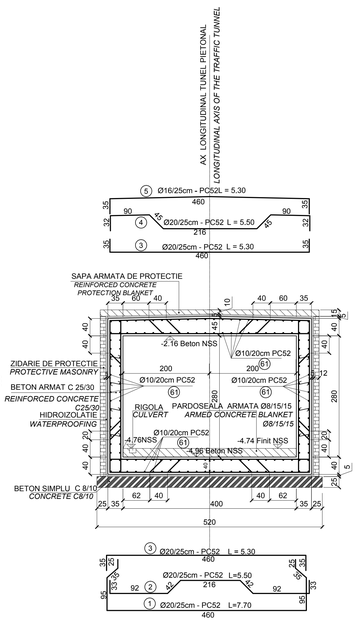
SECTIUNE : G-G
SECTION : G-G

scara 1:50
scale 1:50



SECTIUNE : E-E
SECTION : E-E

scara 1:50
scale 1:50



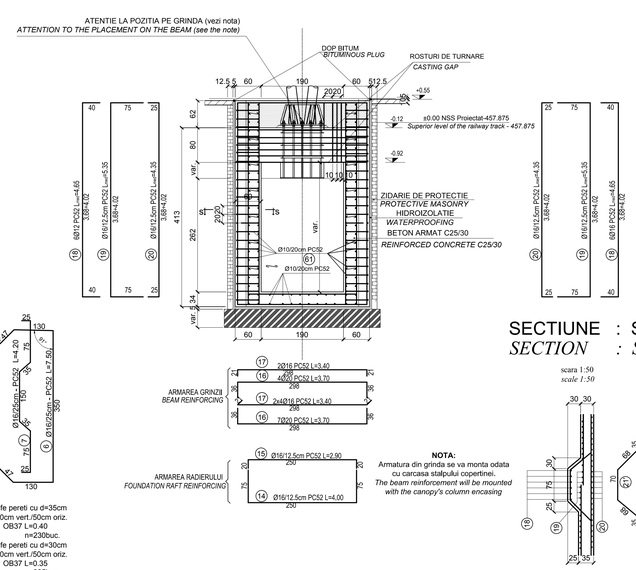
Agrafe pereti cu d=35cm
64 Ø6/60cm vert./50cm oriz.
OB37 L=0.40
n=230buc.
Agrafe pereti cu d=30cm
65 Ø6/60cm vert./50cm oriz.
OB37 L=0.35
n=885buc.

Capre radier + planseu
cu d=40...45cm
62 Ø12 - 2buc./mp
PC52 L=1.40
n=473buc.

Capre radier scari
cu d=30cm.
63 Ø12 - 2buc./mp
PC52 L=1.20
n=308buc.

SECTIUNE : F'-F'
SECTION : F'-F'

scara 1:50
scale 1:50



NOTA:
Armatura din grinda se va monta odata cu carcasa stalpului copertinei.
The beam reinforcement will be mounted with the canopy's column encasing

SECTIUNE : S-S
SECTION : S-S

scara 1:50
scale 1:50

RECOMANDARI TEHNOLOGICE SPECIFICE PENTRU FUNDATII STALPI COPERTINE PE TUNEL

Pentru pozitionarea carcasei cu buloanele de ancoraj in grinda tunelului se vor realiza urmatoarele :

In plan orizontal:

Se materializeaza axa copertinei (din dreptul grinzii), pe cofraj.
Se introduce carcasa in cofraj si se asigura verticalitatea buloanelor pe cele doua directii rectangulare
Se alinieaza **axa carcasei** cu **axa copertinei**, prin deplasarea carcasei in lungul grinzii

In plan vertical:

Cota superioara a grinzii tunelului (C.S.G.) trebuie sa fie la -0,12 m fata de N.S.S. proiectat (din dreptul grinzii) ; vezi : Sectiuni l ongitudinale prin scari acces tunel
OBSERVATIE 2 : In statiile in care niveleta este orizontala, C.S.G.stanga este identica cu C.S.G.dreapta, In statiile in care niveleta are panta ascendenta sau descendenta (dupa caz), C.S.G.stanga difera de C.S.G.dreapta, dar sunt intotdeauna la -0,12 m fata de N.S.S. proiectat (conf. punctului 2 - recomandari tehnologice generale)**Armare, betonare:**

Se armeaza grinda

Partea superioara a carcasei buloanelor de ancoraj se va asigura obligatoriu intr-un tipar pentru a se evita deplasarile accidentale la turnarea betonului.
Se betoneaza grinda.

SPECIFIED TECHNOLOGICAL RECOMMENDATIONS FOR CANOPY FOUNDATION ABOVE TUNNEL

To place the the anchoring bolts case in the tunnel beam, the following will be carried out :

Horizontal alignment:

The axis of the canopy (nearby the beam) will be marked on the shuttering.
The case will be introduced into the shuttering and the verticality of bolts will be provided on the two rectangular directions
*The **case axis** will be lined up with the **canopy axis**, by moving the case along the beam.*

Vertical level alignment:

The tunnel beam upper level (C.S.G.) shall be placed at -0,12 m from the designed rail upper level , R.U.L. (nearby the beam); see:Longitudinal sections through the tunnel access stairs
REMARK 2 : In the stations where the level is horizontal, C.S.G.left is identical to C.S.G.right. In the stations where the level follows the upward / downward slope (depending on the case), C.S.G.left is different from C.S.G.right, but they are always placed at -0,12 m from the designed rail upper level R.U.L. ; (conf. conditions mentioning at point 2 - general technological recommendations).

Reinforcing, concreting:

The beam will be reinforced (according to the :Tunnel beams reinforcing details)
The upper part of the anchoring bolt case will be compulsorily secured with a frame to avoid accidental shifting during concrete casting.
The beam will be concreted.

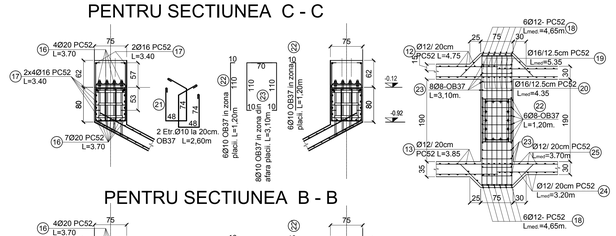
PENTRU EXTRASUL DE ARMATURA VEZI PLAN TUNEL
FOR THE REINFORCEMENT TABLE SEE THE TUNNEL PLAN

Beton simplu/ *Plain concrete* - C8/10 -P4 -T3 - IIA - I32.5 (R)	
Beton armat/ *Reinforcing concrete* - C25/30-P4 -T3 - IIA - I42.5 (R)	
Armaturi/ *Reinforcements* - PC 52	
Armaturi/ *Reinforcements* - OB 37	

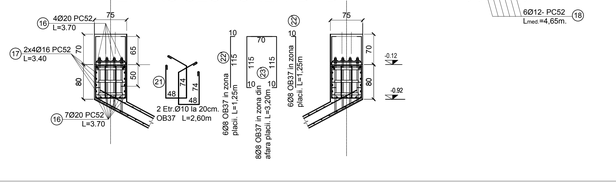
DETALII ARMARE GRINDA PE TUNEL

scara 1:50

PENTRU SECTIUNEA C - C

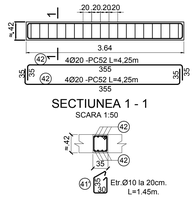


PENTRU SECTIUNEA B - B



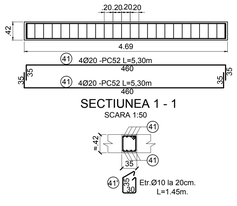
ARMARE GRINDA G_1 - 35×42 -3buc.

SCARA 1:50



ARMARE GRINDA G_2 - 35×42 -2buc.

SCARA 1:50



NOTA:
Este absolut necesara confirmarea caracteristicilor terenului de fundare (de catre proiectantul geotehnician), dupa executarea sapaturilor/umpluturilor (dupa caz).
La executarea sapaturilor / umpluturilo, se va realiza un foraj suplimentar, de verificare, in amplasamentul tunelului pentru a se verifica daca informatiile din forajele pentru proiectare sunt corecte . In cazul in care exisat eventuale diferente, lucrarile proiectate se vor adapta conform rezultatului acestor studii geotehnice de verificare.

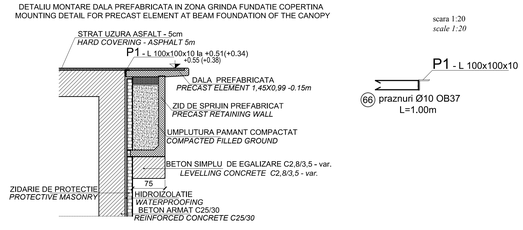
NOTE:
It is absolutely necessary that the geo-technitian designer confirms characteristics of the foundation ground after carrying out the excavations / fillings (depending on the case). During the excavation / filling works, one supplementary checking borehle will be made in the tunnels location to see if the information from the borehole for the design stage are correct.

EXTRAS LAMINATE

Pozitia	Denumirea	Grosime	Latime	Lungime	Greutate/ml	Tip Otel	Nr. Buc	Gr. Pozitie	Gr. Totala
elementului	elementului	(mm)	(mm)	(mm)	(kg/ml)			(kg/buc)	(kg)
P1	Tabla groasa	10	100	750	7.85	OL52	10	5.888	58.875
TOTAL GREUTATE SUBANSAMBLE NETIPIZATE (kg)									**58.875**
GREUTATE ELECTROZI DE SUDURA 3% (kg)									**1.766**
GREUTATE grund 0.4% (kg)									**0.236**
TOTAL GENERAL(kg)									**61**

DETALIU MONTARE DALA PREFABRICATA IN ZONA GRINDA FUNDATIE COPERTINA
MOUNTING DETAIL FOR PRECAST ELEMENT AT BEAM FOUNDATION OF THE CANOPY

scara 1:20
scale 1:20



P1 - L 100x100x10

66 praznuri Ø10 OB37 L=1.00m

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

C.N.C.F. "C.F.R." - S.A.
CLIENT / CLIENT

ITALFERR GRUPPO FERROVIE DELLO STATO *Joint Venture Asador* · Scott Wilson · OBERMEYER PLANEN + BERATEN GmbH · TECNIC Consulting Engineers

CONSULTANT / CONSULTANT

			Data / Date	Semnătură / Signature
Aprobat / Approved	Şef proiect / Project manager	R. Liuzza	12.2011	
Aprobat / Approved	Coordonator Secţiune 1 / Section 1 Coordinator	C. Gambelli	12.2011	
Verificat / Checked	Verificator / Verifier	Giuseppe Fioravanti	12.2011	

SUBCONTRACTANT / SUBCONTRACTOR — ANEX

Aprobat / Approved	Responsabil Subconsultant / Subconsultant Responsible	A.Stanciu - Dinulescu	12.2011	
Intocmit / Elaborated	Proiectant / Designer	Catalin Alexandrescu	12.2011	

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.

Denumire desen / Drawing Title :
STATIA ARCHITA -TUNEL PIETONAL SECTIUNI TRANSVERSALE E-E; F-F; F'-F'; G-G;
DETALII ARMARE GRINZI PE TUNEL
ARCHITA STATION -PEDESTRIAN TUNNEL CROSS SECTIONS F-F; E-E; F'-F';G-G;
TUNNEL BEAMS REINFORCEMENT DETAILS

Codificare / Codification System																Scara / Scale 1:50	LOT / LOT	Nr. / No 01 / 01
E	A	5	1	0	1	E	1	5	W	B	C	C	0	0	7	4	0	1	2	0

2½A2(1050×594)=0.62m²