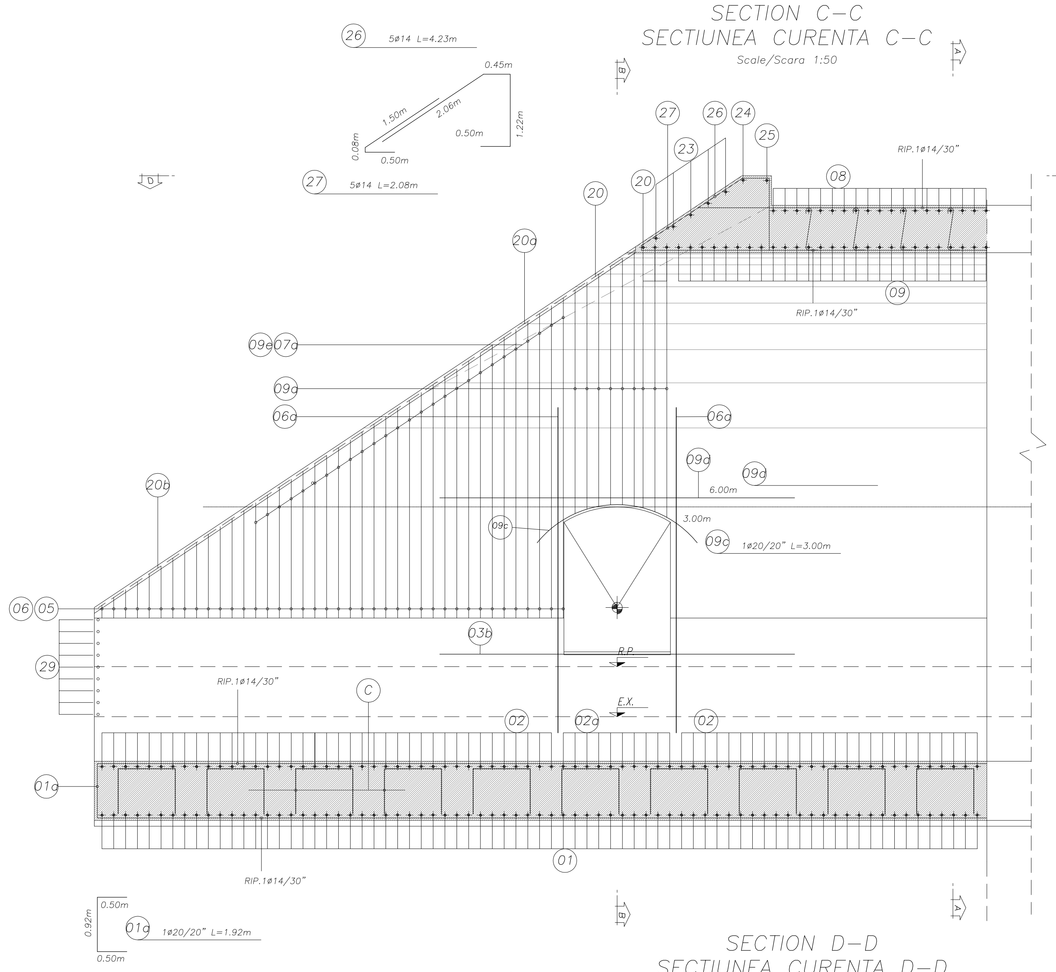
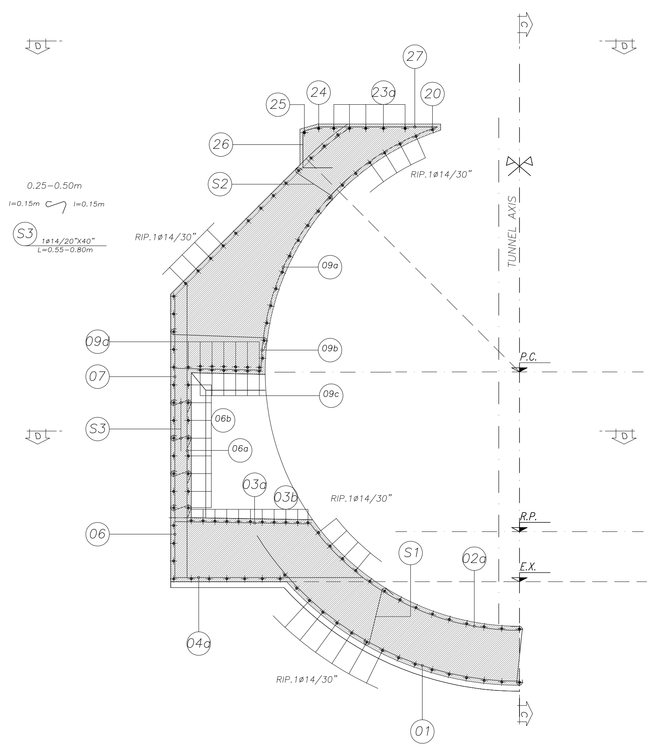
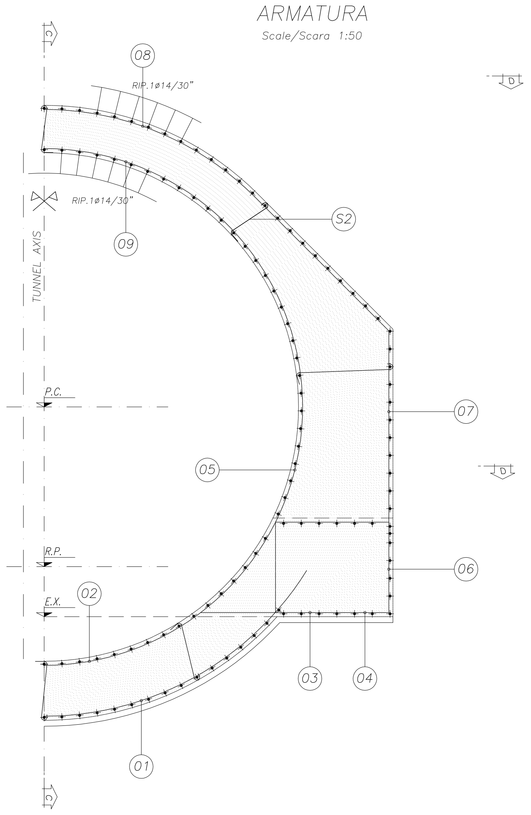
SECTION C–C
SECTIUNEA CURENTA C–C
Scale/Scara 1:50



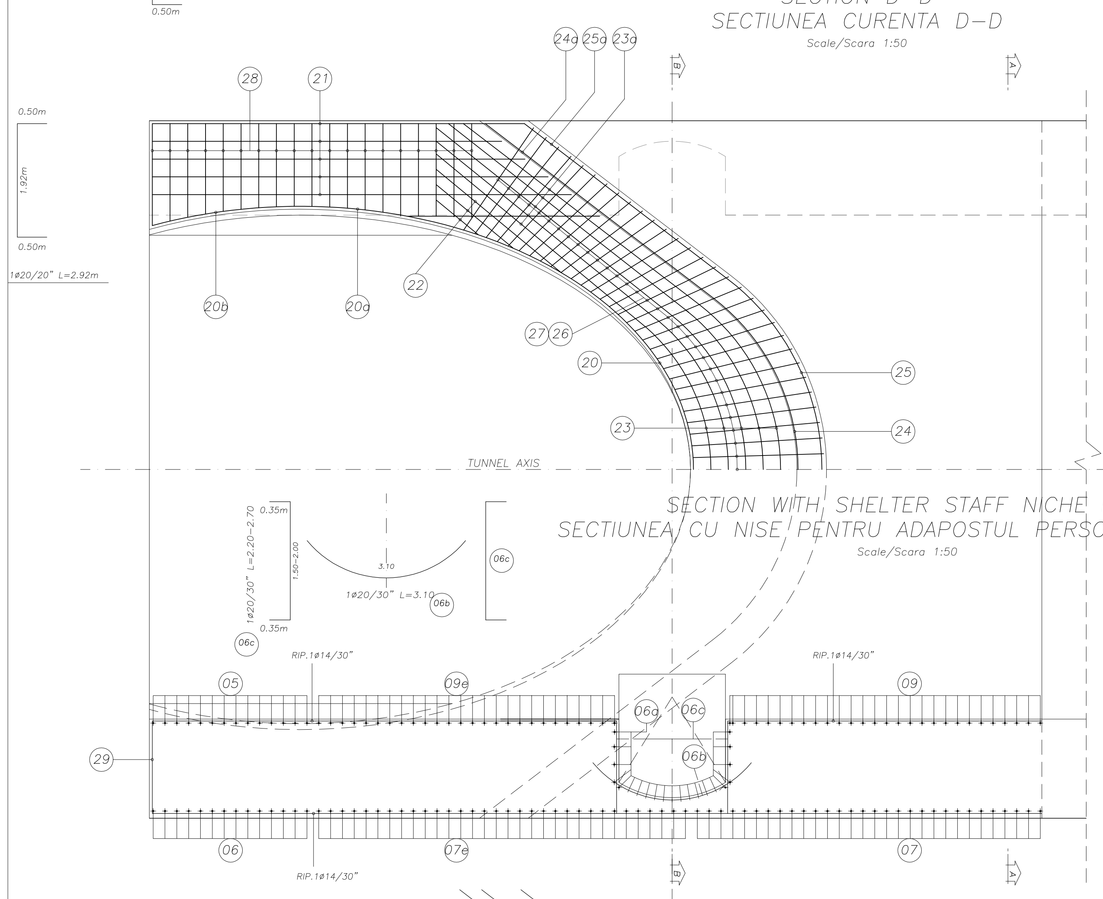
SECTION WITH SHELTER STAFF NICHE B–B
SECTIUNEA CU NISE PENTRU ADAPOSTUL PERSONALULUI B–B
Scale/Scara 1:50



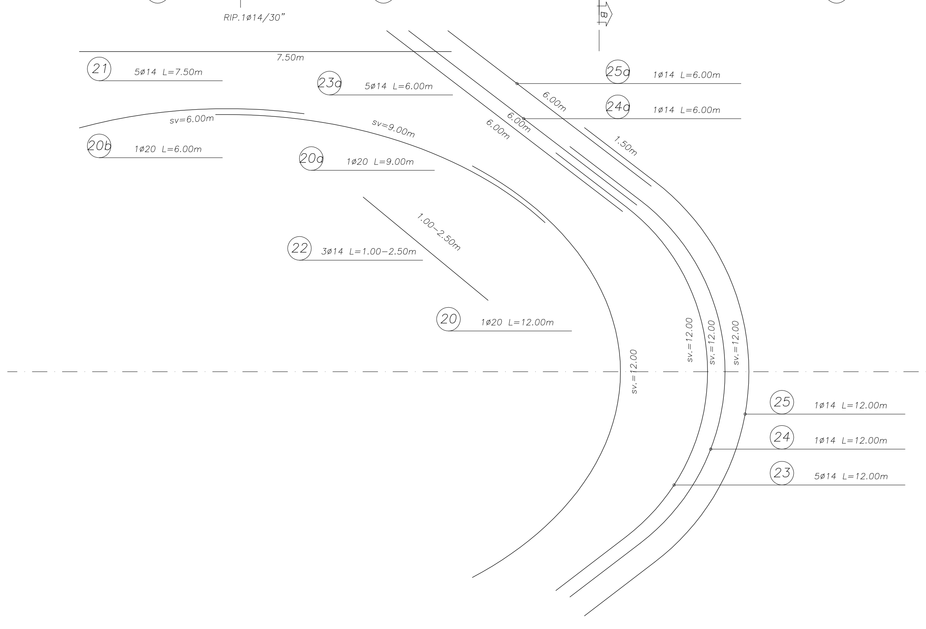
CURRENT SECTION A–A
SECTIUNEA CURENTA A–A
REINFORCEMENTS
ARMATURA
Scale/Scara 1:50

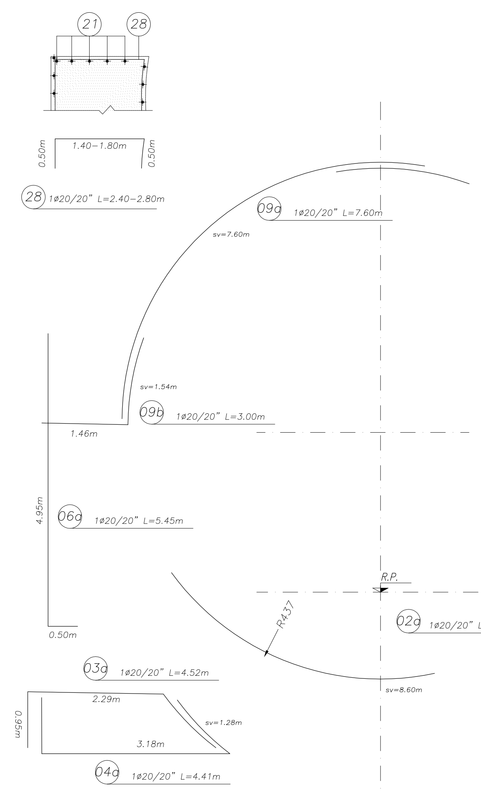


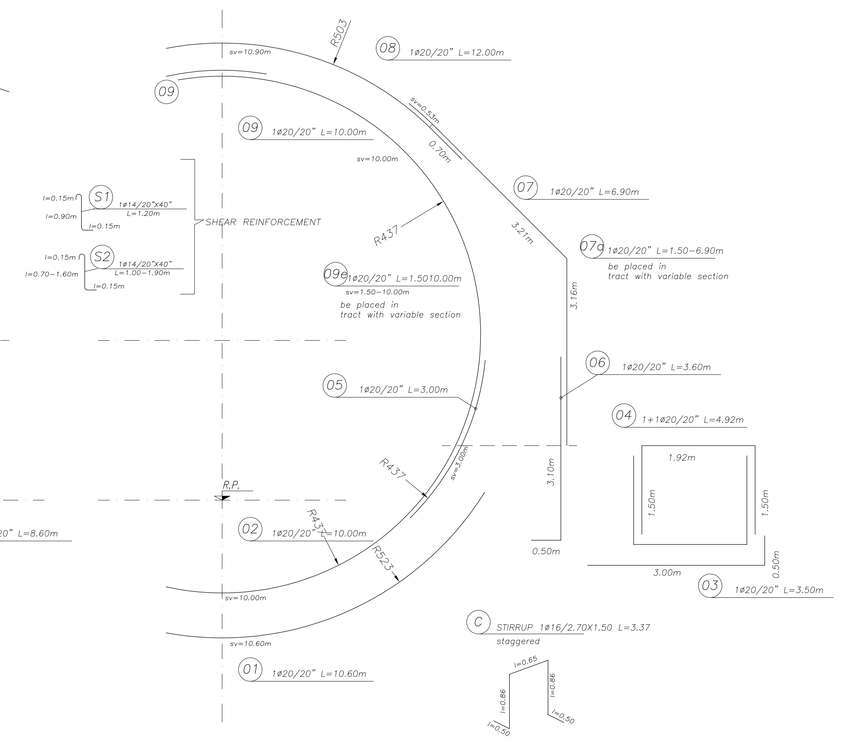
SECTION D–D
SECTIUNEA CURENTA D–D
Scale/Scara 1:50



SECTION WITH SHELTER STAFF NICHE E–E
SECTIUNEA CU NISE PENTRU ADAPOSTUL PERSONALULUI E–E
Scale/Scara 1:50







STEELS TABLE

REINFORCING STEEL:

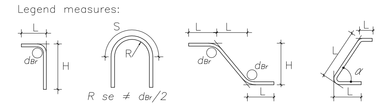
– B450C (weldable)

Bending diameter d_{Br} :

ø Bar < ø20 –> $d_{Br} = 6ø$

ø Bar ø20–ø26 –> $d_{Br} = 8ø$

Legend measures:



MATERIAL TABLE

TUNNEL INVERT CONCRETE:

– Type C2
– fck >=30 MPa
– Water/cement ratio <0.50
– Minimun structural Class S3/S4
– Exposure class related to environmental conditions: XA2
– Cement type CEM III/V
– Class of chloride content Cl 0.20
– ø max aggregate = 32 mm

TUNNEL CROWN CONCRETE:

– Type C1
– fck >=30 MPa
– Water/cement ratio <0.50
– Minimun structural Class S4/S5
– Exposure class related to environmental conditions: XA2
– Cement type CEM III/V
– Class of chloride content Cl 0.20
– ø max aggregate = 32 mm

REINFORCING STEEL:

– B450C controled by establishment
– Weldable

LEAN CONCRETE:

– Type I
– fck >=12 MPa
– Cement type CEM I/V

LEGEND

RP = REFERENCE PLANE
EX = EXCAVATIONS PLANE
PC = CENTERS PLANE

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 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	Tunel Expert Tunnel Expert	C. Gambelli		
Întocmit Elaborated	Proiectant Designer	C.Gambelli		

SUBCONSULTANT / SUBCONSULTANT

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible			
Întocmit Elaborated	Proiectant Designer			

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă de 160 km/h. Sectiune 1 Brasov - Sighisoara

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 1 Brasov - Sighisoara

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

Faza / Phase: P.Th. / T.D.

Denumire desen / Drawing Title : **HOMOROD TUNNEL**
ENTRANCE RACOS SIDE
Tunnel entrance portal: Reinforcement
Portalul de Intrare In tunel: Armaturi

Codificare / Codification System	Scara / Scale	LOT	Nr. / No
E A 5 1 0 1 C 1 2 B B G A 0 3 0 0 0 0 8 0	variat / various		-