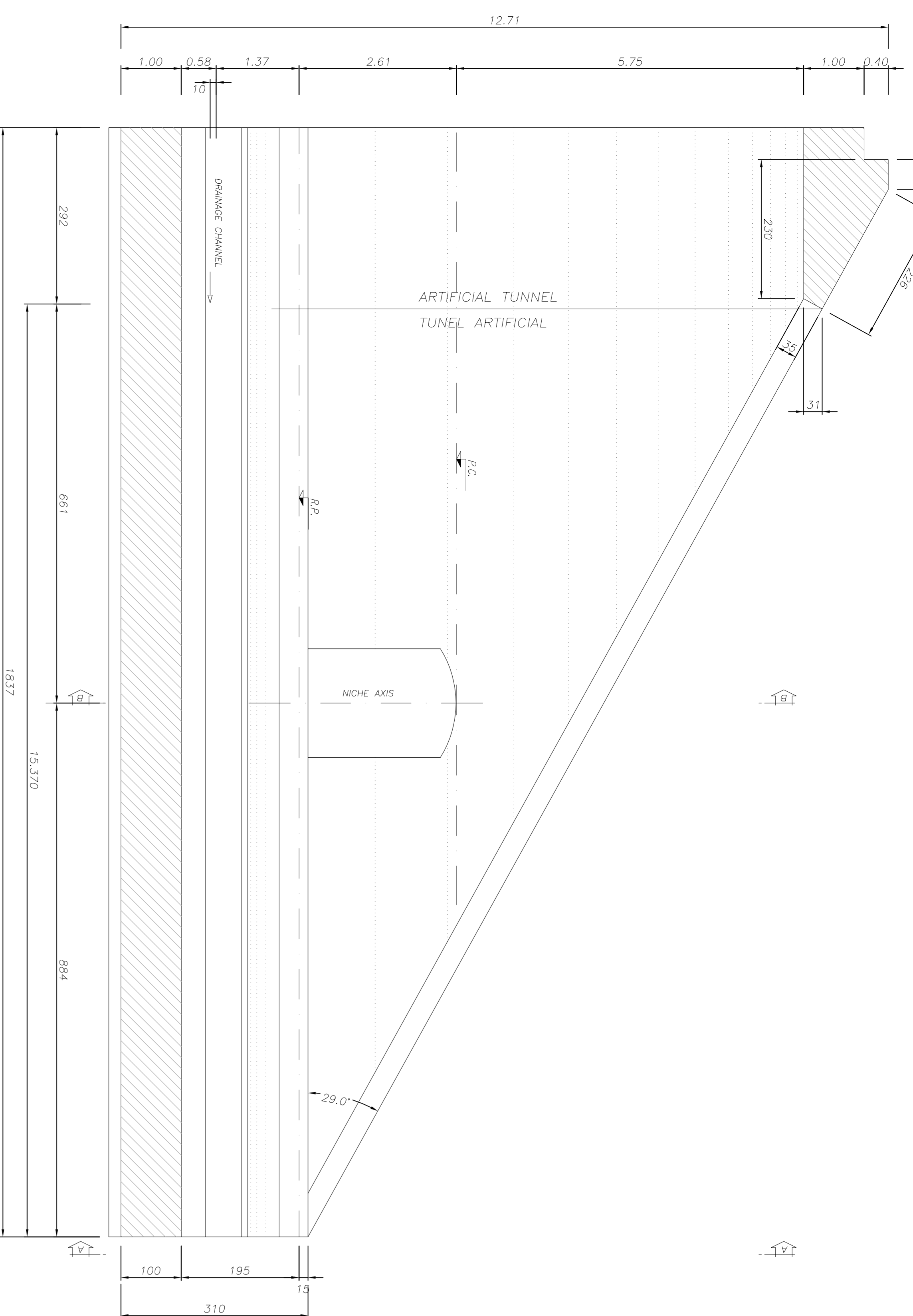
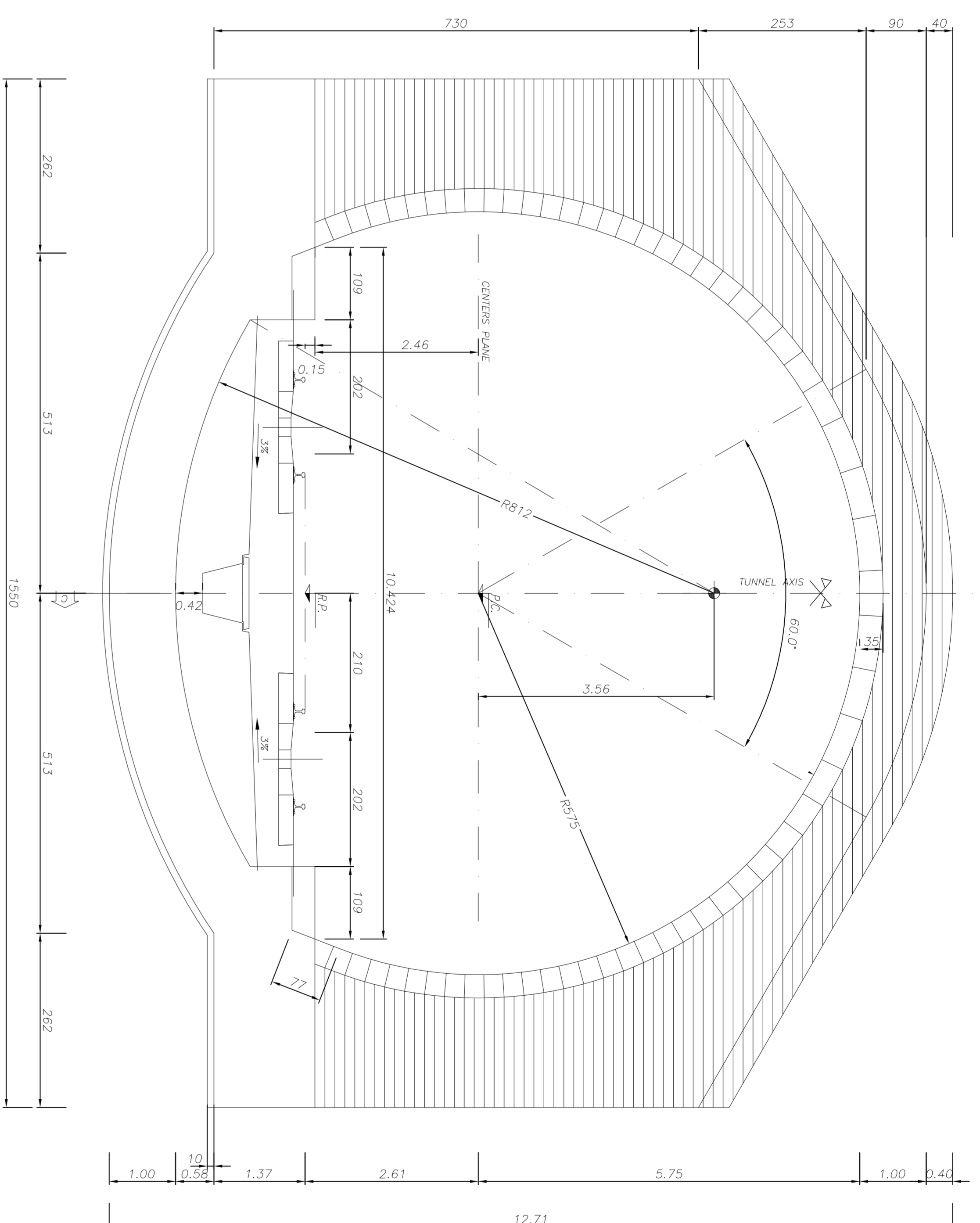


SECTION C-C  
Scale/Scara 1:50



SECTION A-A  
Scale/Scara 1:50



MATERIAL TABLE

TUNNEL INNER CONCRETE	
- Type C20	
- f <sub>ck</sub> = 20 MPa	
- Maximal aggregate size: 16mm	
- Maximal concrete cover: S1/S4	
- Exposure class related to environmental conditions: XA2	
- Class of concrete: C20	
- ρ <sub>max</sub> aggregate = 2020 kg/m <sup>3</sup>	
TUNNEL EXTERNAL CONCRETE	
- Type C15	
- f <sub>ck</sub> = 15 MPa	
- Maximal aggregate size: 16mm	
- Maximal concrete cover: S1/S5	
- Exposure class related to environmental conditions: XA2	
- Class of concrete: C15	
- ρ <sub>max</sub> aggregate = 2020 kg/m <sup>3</sup>	
REINFORCING STEEL	
- B500C, conforming by establishment	
LEAK CONCRETE	
- Type C15	
- f <sub>ck</sub> = 15 MPa	
- Cement type: CEM I/V	

LEGEND

RP = REFERENCE PLANE
EX = EXPANSION PLANE
PC = CENTERS PLANE

NOTE:  
- The integrity of the concrete structures of the artificial and natural tunnels have to be maintained in case of fire (4.2.2.3) the protection requirements for structure 150 technical specification for interoperability.

NOTE:  
- Integrative structure of beton a tunelului artificial si inlocuit, trebuie sa ramana integra in caz de incendiu (4.2.2.3) cerintele de protectie la foc pentru structura 150 Specificatia tehnica pentru interoperabilitate.

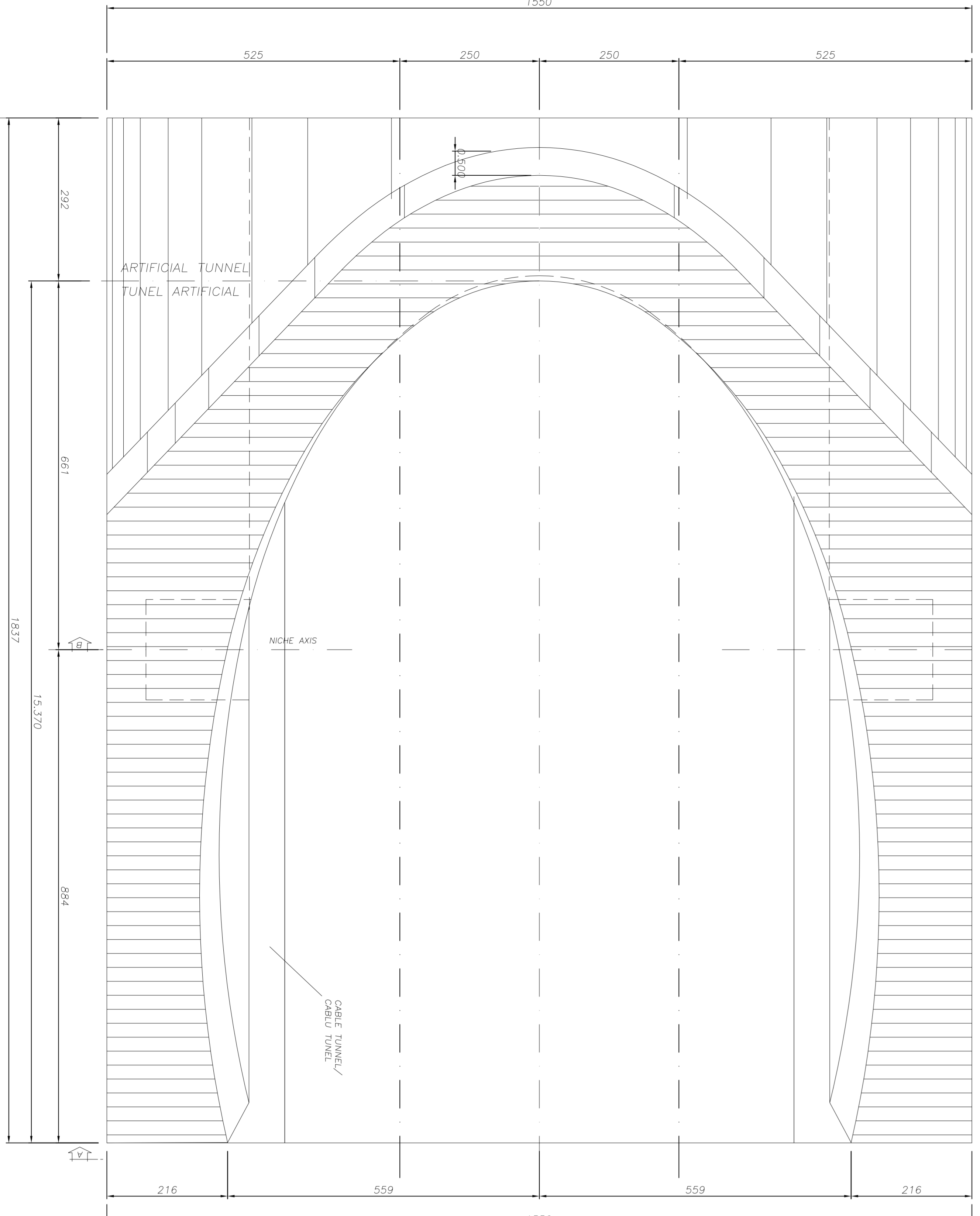
NOTE:  
- Horizontal detail has installed approximately at 1 m above walking providing a route to a safe area (4.2.2.7) Escape walkways 150.

NOTE:  
- Baza de nisa trebuie sa fie instalata aproximativ la 1 m deasupra caili de evacuare oferind un traseu sigur (4.2.2.7) evacuare include 150).

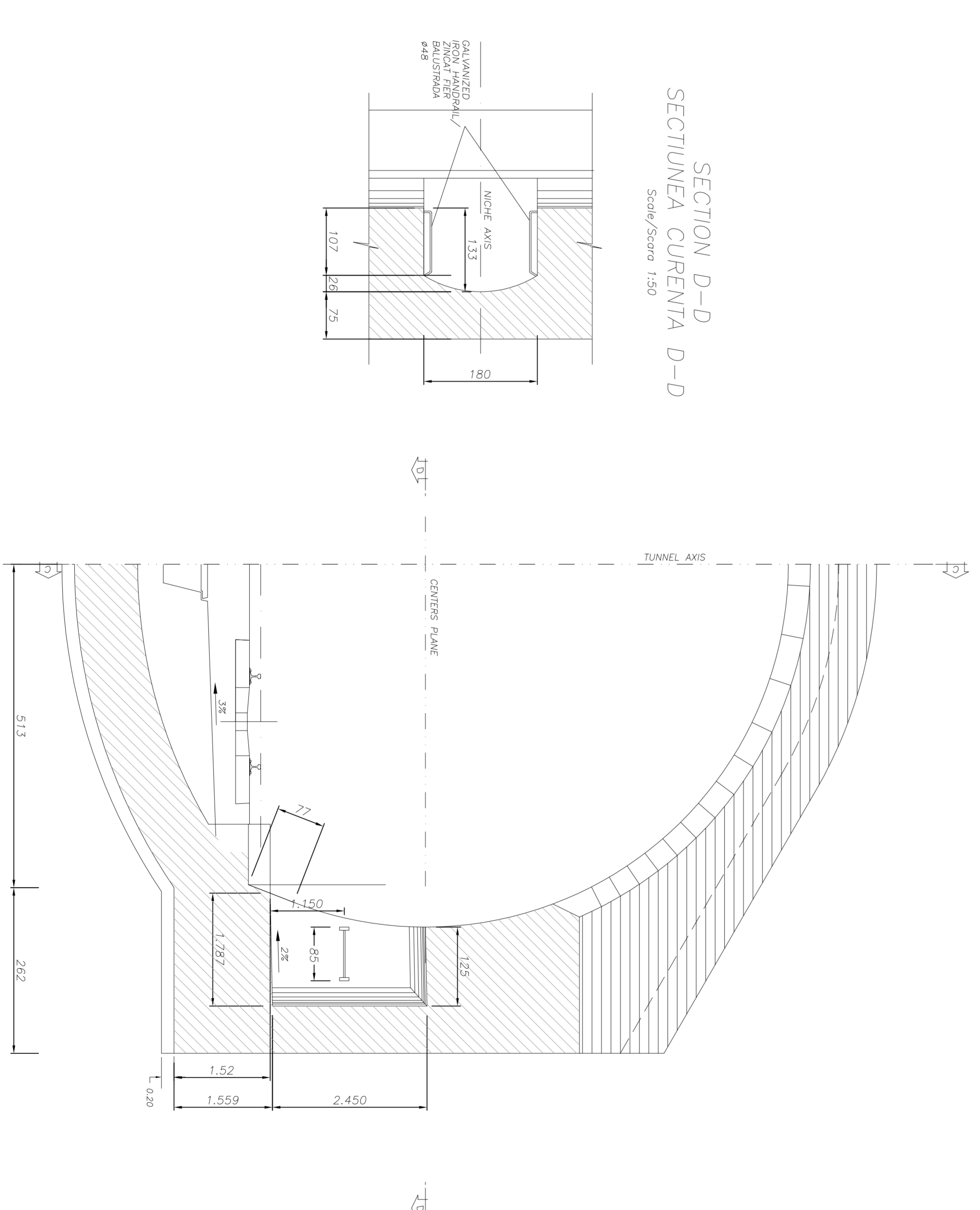
NOTE:  
- Escapa signs shall be installed on the side walls at a maximum distance between escape signs of 50m (4.2.2.7) Escape signage 150).

NOTE:  
- Semnale de evacuare trebuie sa fie instalate pe pereții laterali, la o distanță maximă între semne de evacuare de 50m (4.2.2.7) Escapa Signage 150).

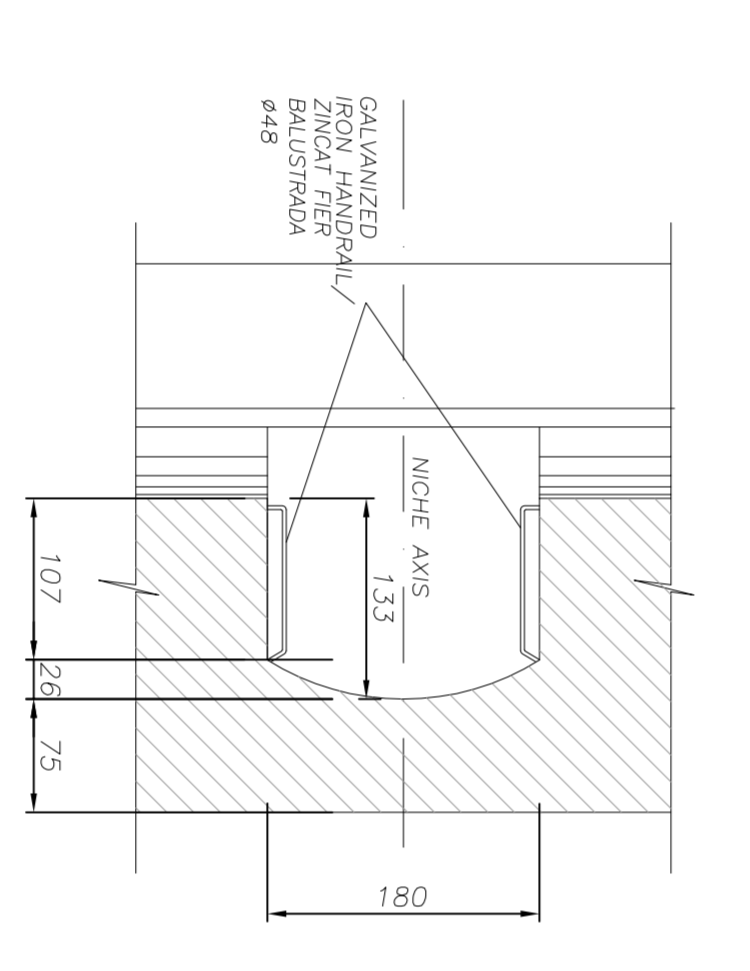
PLAN  
Scale/Scara 1:50



SECTION WITH SHELTER STAFF NICHE B-B  
Scale/Scara 1:50



SECTION D-D  
Scale/Scara 1:50



<p><b>CLIENT / CLIENT</b></p> <p><b>CFR</b> CN.C.F. "C.F.R." S.A.</p>	<p><b>CONSULTANT / CONSULTANT</b></p> <p><b>TECNIC</b> Obermeyer Civil Engineering</p>
<p><b>APPROVED</b></p> <p>R. LUTZA R. LUTZA</p>	<p><b>APPROVED</b></p> <p>C. GEMELLI C. GEMELLI</p>
<p><b>PROJECT FINANCIAT DE UNIUNEA EUROPEANA</b></p> <p>EUROPEAN UNION FINANCED PROJECT</p>	<p><b>PROIECT PROIECT</b></p> <p>F.231 / P.101</p>

**PROJECT TITLE:** ARHICTURA 1 TUNNEL

**CLIENT / CLIENT:** CN.C.F. "C.F.R." S.A.

**CONSULTANT / CONSULTANT:** TECNIC

**APPROVED:** R. LUTZA

**APPROVED:** C. GEMELLI

**PROJECT FINANCIAT DE UNIUNEA EUROPEANA:** EUROPEAN UNION FINANCED PROJECT

**PROIECT PROIECT:** F.231 / P.101