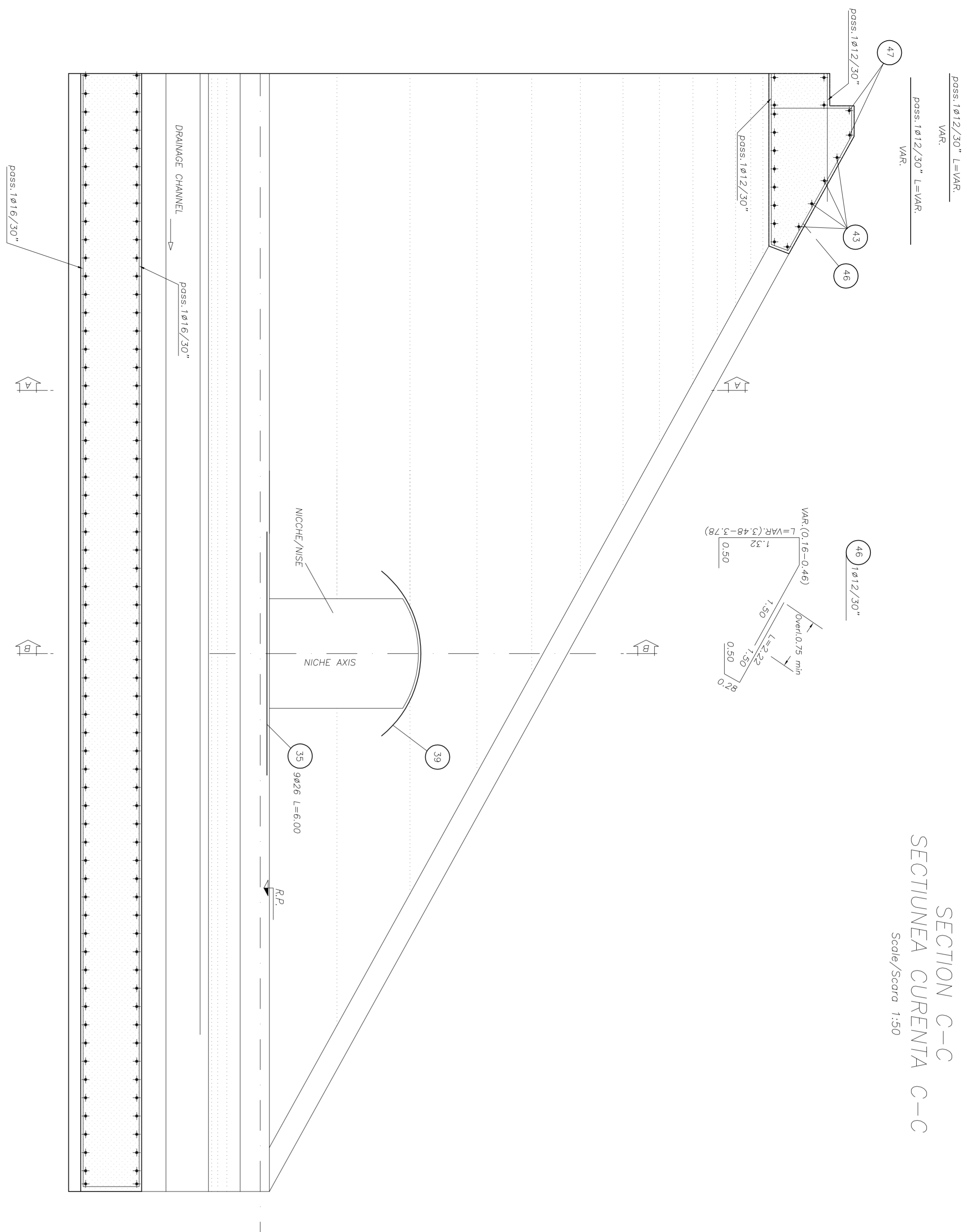
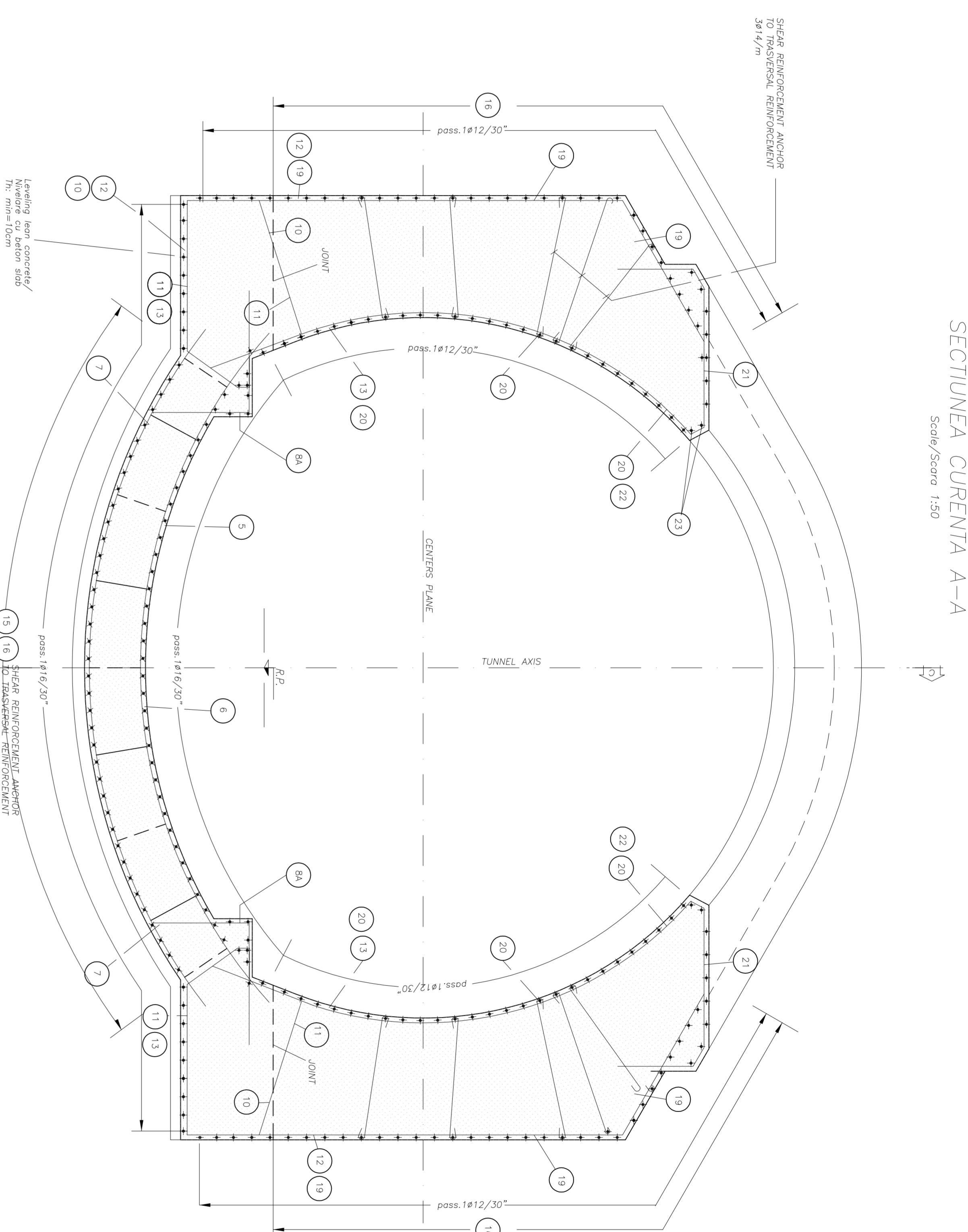


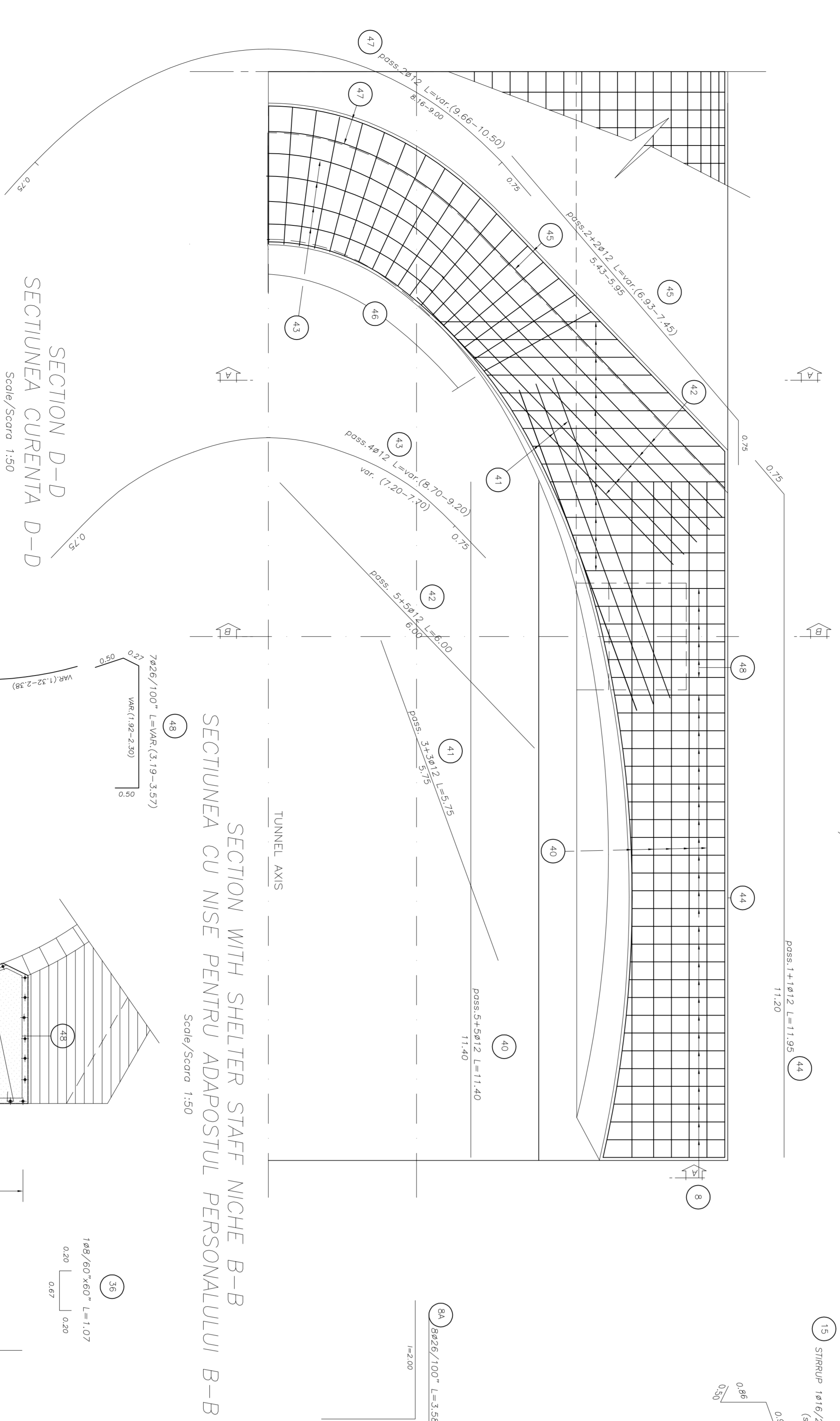
SECTION C-C  
SECTIUNEA CURENTA C-C  
Scale/Scara 1:50



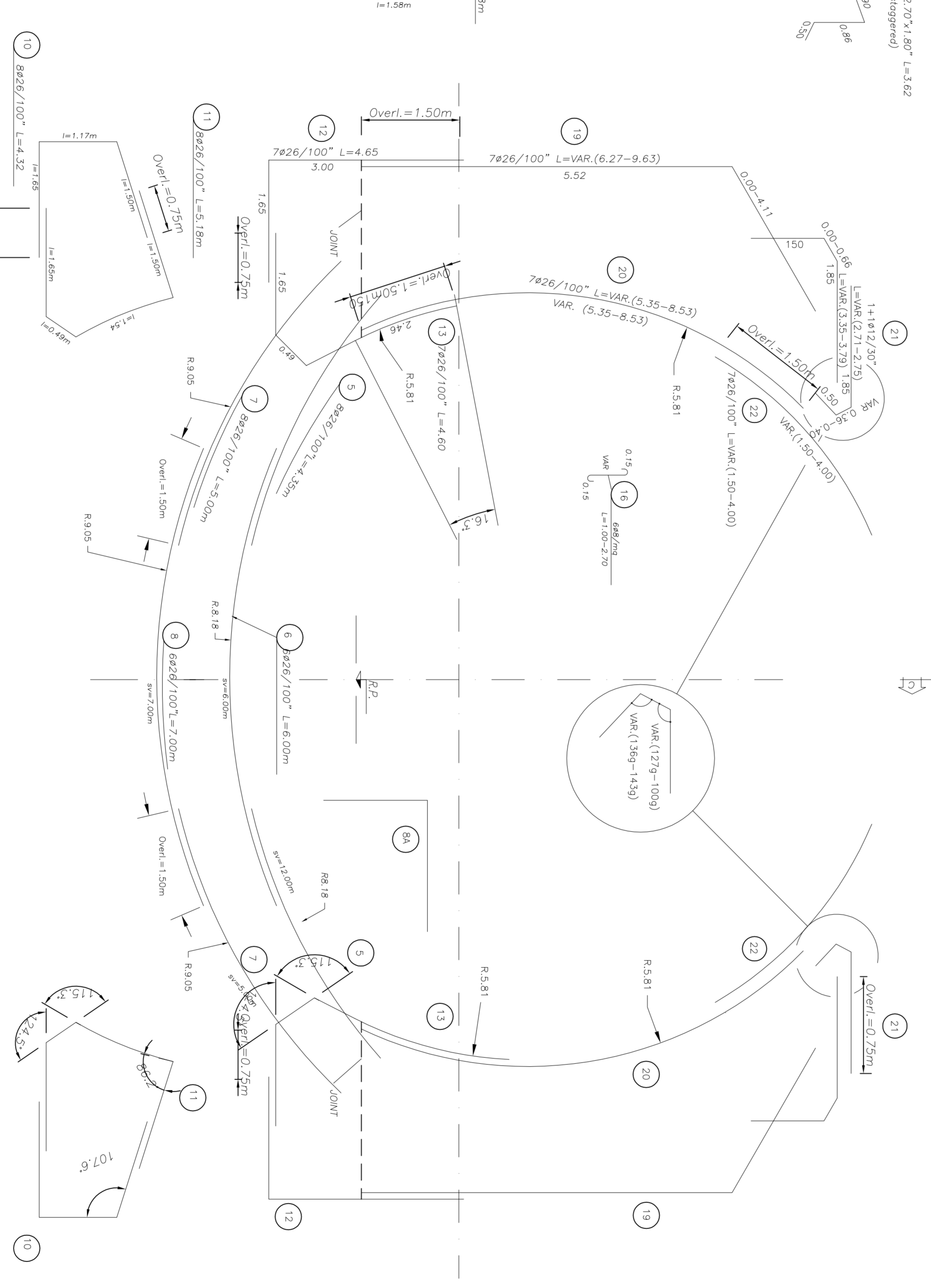
SECTION A-A  
SECTIUNEA CURENTA A-A  
Scale/Scara 1:50



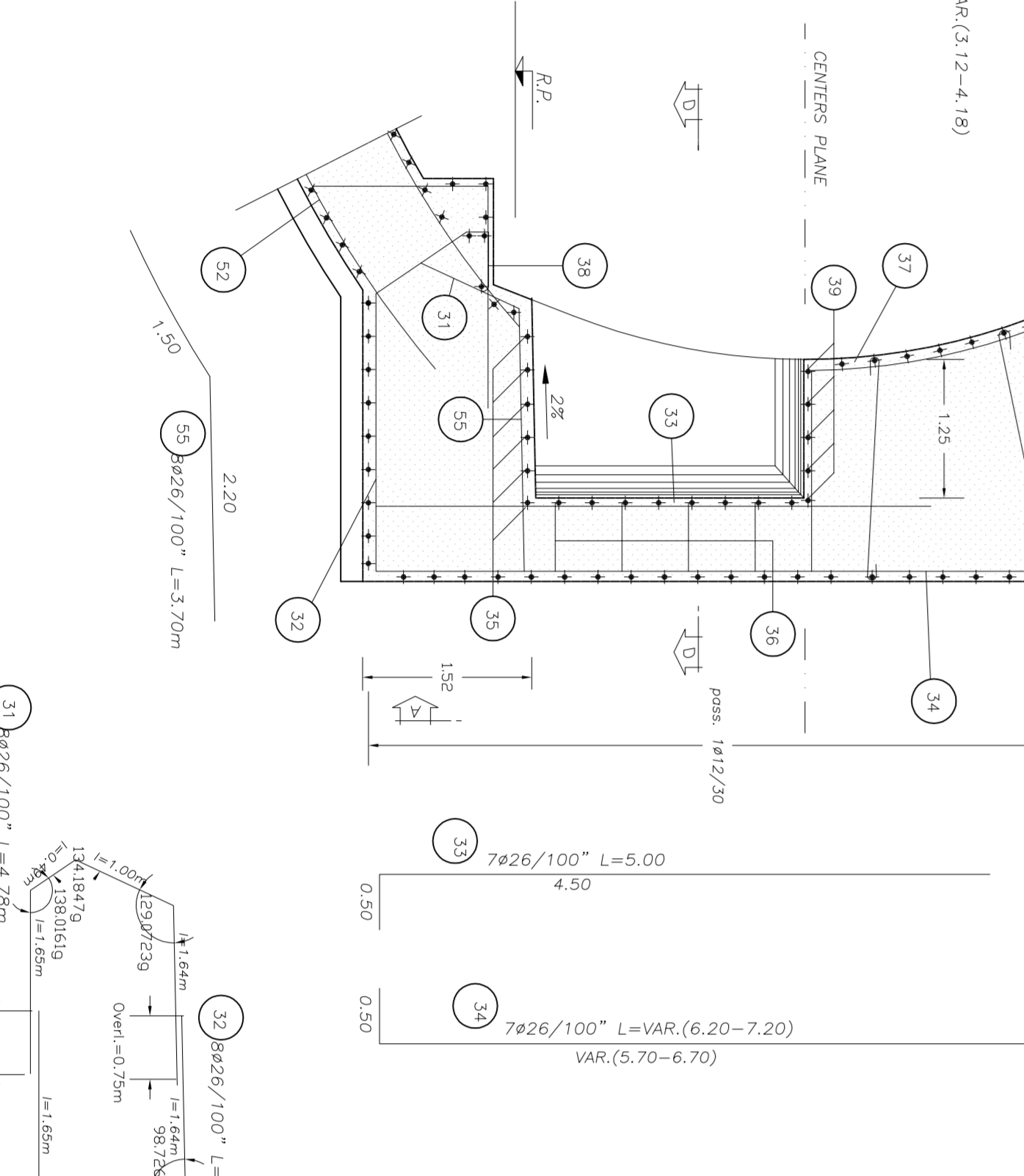
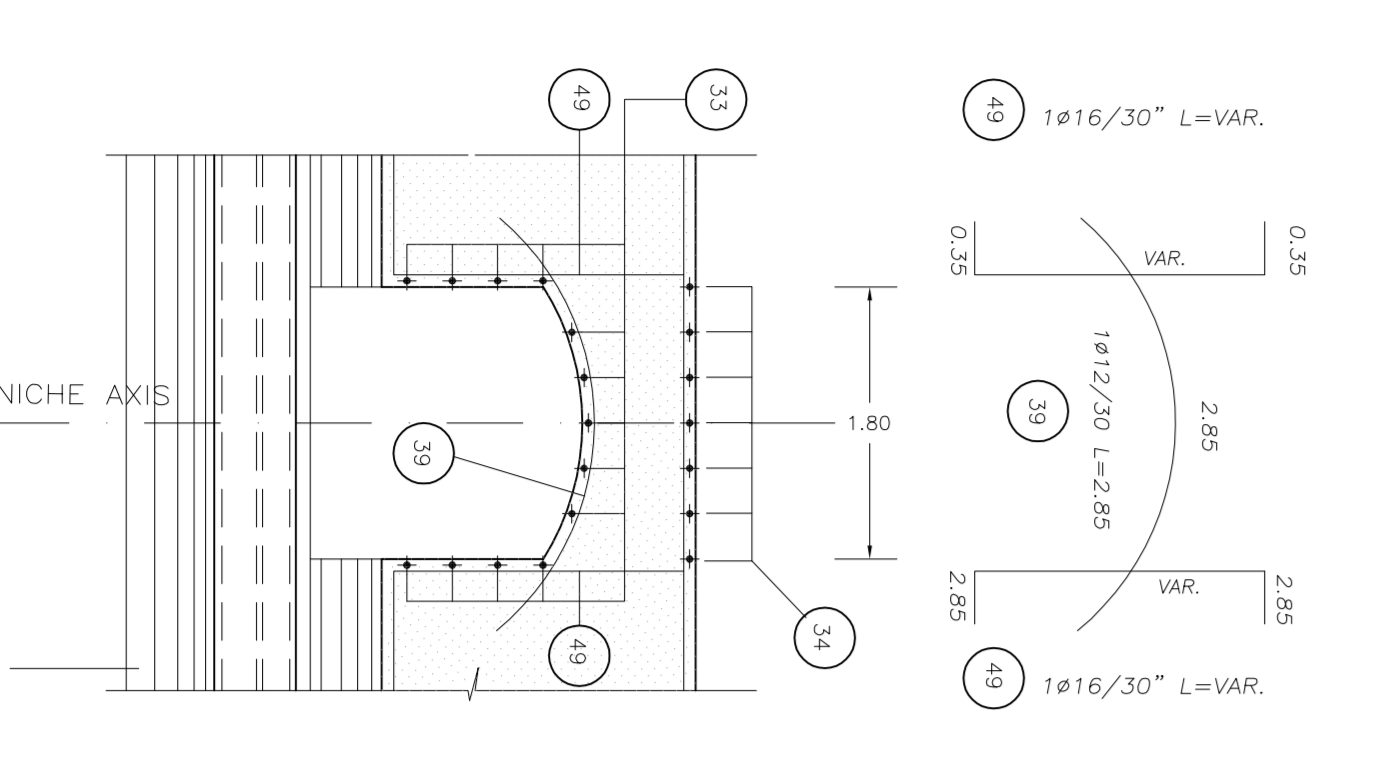
PLAN  
Scale/Scara 1:50



SECTION B-B  
SECTIUNEA CU NISE PENTRU ADAPOSTUL PERSONALULUI B-B  
Scale/Scara 1:50



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



**STEELS TABLE**

**REINFORCING STEEL:**

- BRC2 (molded)
- Bending diameter  $R_{b1}$ :
- $R_{b1} < 40d \rightarrow R_{b1} = 4d$
- $R_{b1} 40d < R_{b2} \rightarrow R_{b1} = R_{b2}$
- $R_{b2} 40d < R_{b3} \rightarrow R_{b1} = R_{b3}$

Legend measures:

**MATERIAL TABLE**

**TUNNEL INNER CONCRETE:**

- Type C20
- $f_{ck} = 20$  MPa
- $f_{td} = 1.5 \cdot f_{ctk} = 1.5 \cdot 0.25 \cdot f_{ck} = 0.75 \cdot f_{ck} = 15$  MPa
- Maximum aggregate size: 16mm
- Maximum aggregate content: 51%
- Exposure class related to environmental conditions: XA2
- Class of concrete: C20
- Class of concrete: C20
- $\rho_{max}$  aggregate = 20 mm

**TUNNEL EXTERNAL CONCRETE:**

- Type C15
- $f_{ck} = 15$  MPa
- $f_{td} = 1.5 \cdot f_{ctk} = 1.5 \cdot 0.25 \cdot f_{ck} = 0.75 \cdot f_{ck} = 11.25$  MPa
- Maximum aggregate size: 16mm
- Maximum aggregate content: 51%
- Exposure class related to environmental conditions: XA2
- Class of concrete: C15
- Class of concrete: C15
- $\rho_{max}$  aggregate = 20 mm

**REINFORCING STEEL:**

- BRC2, provided by establishment
- BRC2, provided by establishment

**LEARN CONCRETE:**

- Type C15
- $f_{ck} = 15$  MPa
- $f_{td} = 1.5 \cdot f_{ctk} = 1.5 \cdot 0.25 \cdot f_{ck} = 0.75 \cdot f_{ck} = 11.25$  MPa
- Current type: C15 / V

**LEGEND**

RP = REFERENCE PLANE  
EX = EXCAVATIONS PLANE  
PC = CENTER PLANE

Index	Date	Modification	Project	Author/Consultant	Approved/Client
A					
B					
C					

**CLIENT / CLIENT**

**CFR**

**CN.C.F. "C.F.R." - S.A.**

**CONSULTANT / CONSULTANT**

**TECNIC**

**OBBERMEYER**

**JOHN - BERBERICH**

**SUBCONSULTANT / SUBCONSULTANT**

**ARCHITECTA 1 TUNNEL**

**ENTRANCE ARCHITECTURE**

**EA51 01 C 14 BB GA 07 0 0 009 0**