

**GENERAL NOTES**

**DESIGN:**  
AASHTO LRFD Bridge Design Specifications,  
4th Edition with California Amendments.

**PRESTRESSING STEEL:**

Bars - ASTM Designation: A722 Type II (150 ksi)

Strand Tendons-ASTM Designation: A416  
(270 Ksi Low Relaxation steel)

FTL = Factored Test Load per anchor (Kips)

fpu = Minimum tensile strength of prestressing steel

As = Minimum cross sectional area of prestressing steel in ground anchor (square inch)

$As(\text{Min}) = \frac{1.0 \text{ FTL}}{0.75 \text{ fpu}}$  (Strands)

$As(\text{Min}) = \frac{1.0 \text{ FTL}}{0.80 \text{ fpu}}$  (Bars)

**NOTES:**

- (A) Level of initial grouting for drilled hole 6" in diameter or smaller
- (B) Level of secondary grouting
- (C) Level of initial grouting inside corrugated sheathing
- (D) Bonded length shall be determined by the contractor
- (E) For unbonded length, see PROJECT PLANS
- (F) For inclination, see PROJECT PLANS
- (G) Face of Wall Excavation

**NOTES:**

- 1. Anchorage enclosure shall only be used when anchor head assembly is not enclosed in concrete.
- 2. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize after fabrication.
- 3. Silicone sealant to cover full width of flange.
- 4. Steel tube (Min thickness = 1/4") welded to bearing plate. Galvanize assembly after fabrication
- 5. Steel tube welded to bearing plate. Inside diameter of steel tube (Min thickness = 1/4") to be 1" greater than outside diameter of smooth sheathing.
- 6. Galvanize assembly after fabrication.
- 7. For other wall details, see PROJECT PLANS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
X	X	X	X	X	X

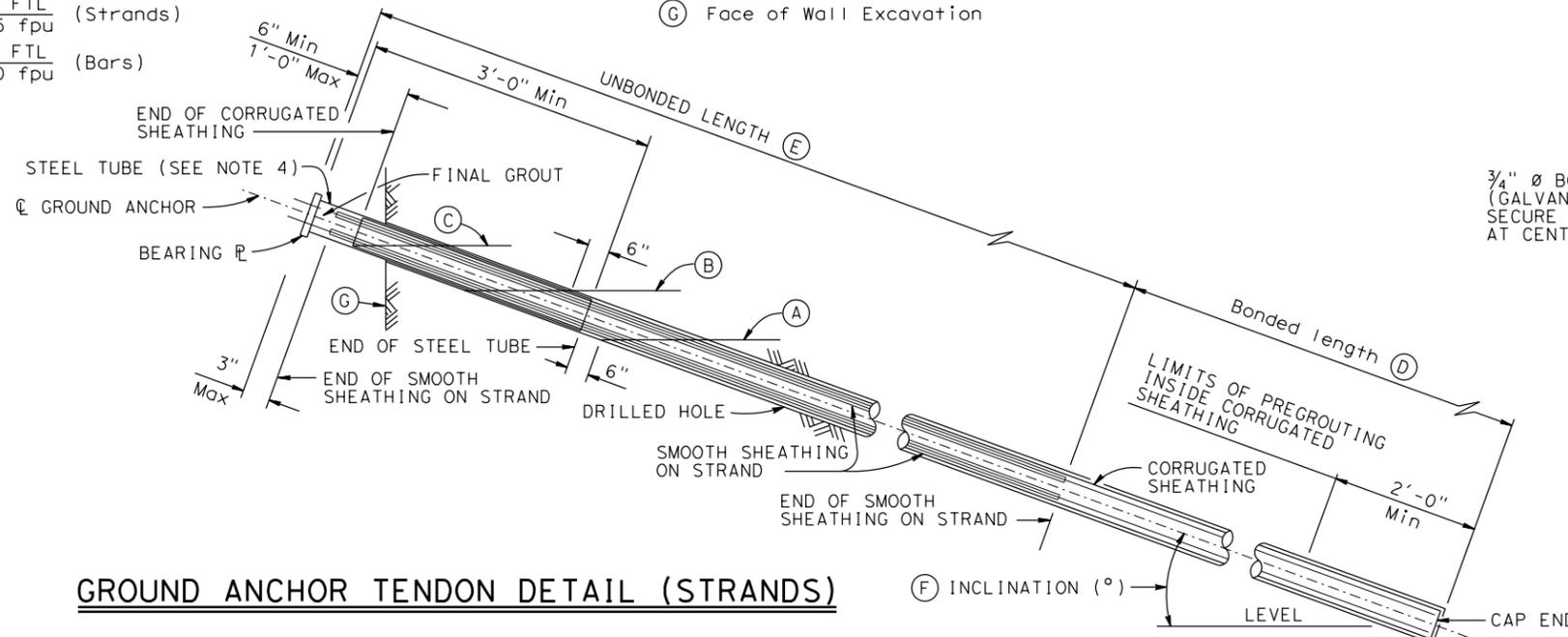
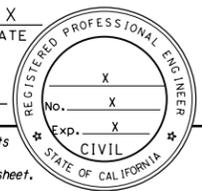
REGISTERED CIVIL ENGINEER	DATE
X	X

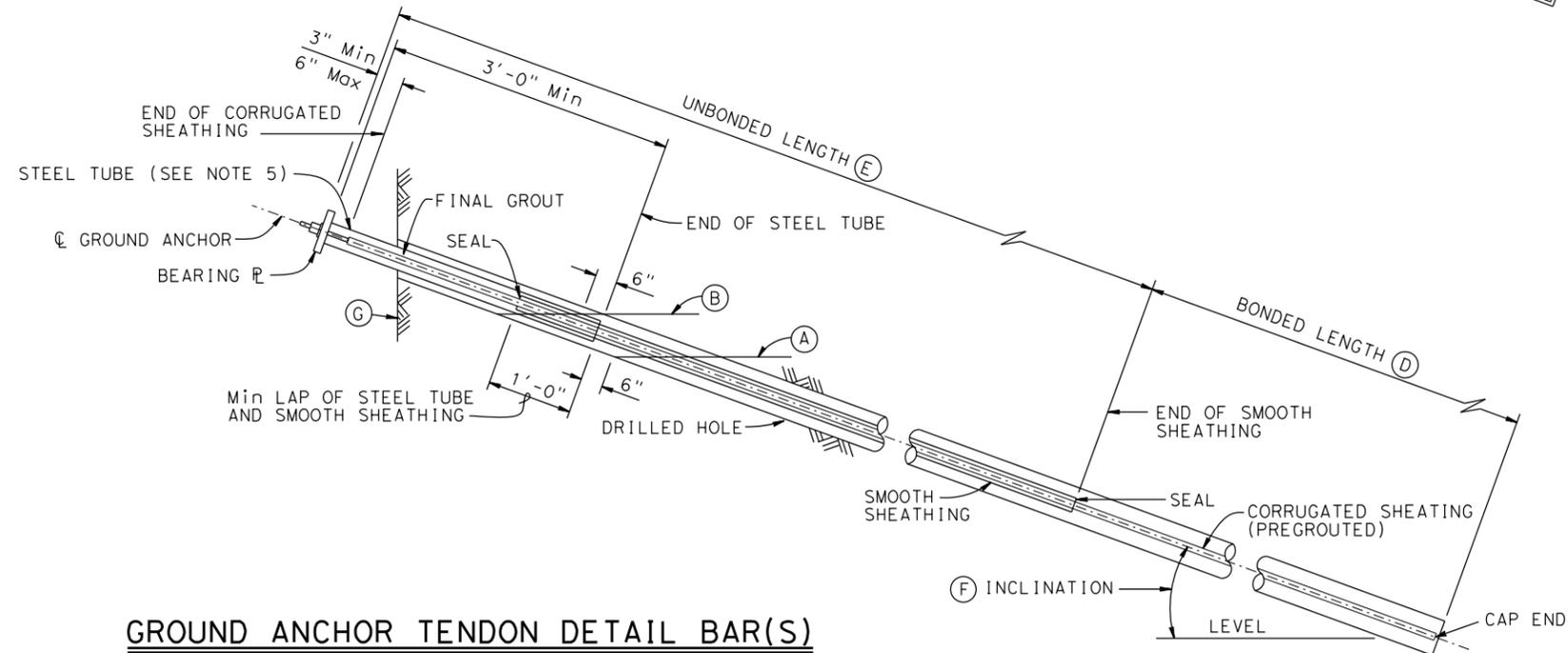
PLANS APPROVAL DATE
X

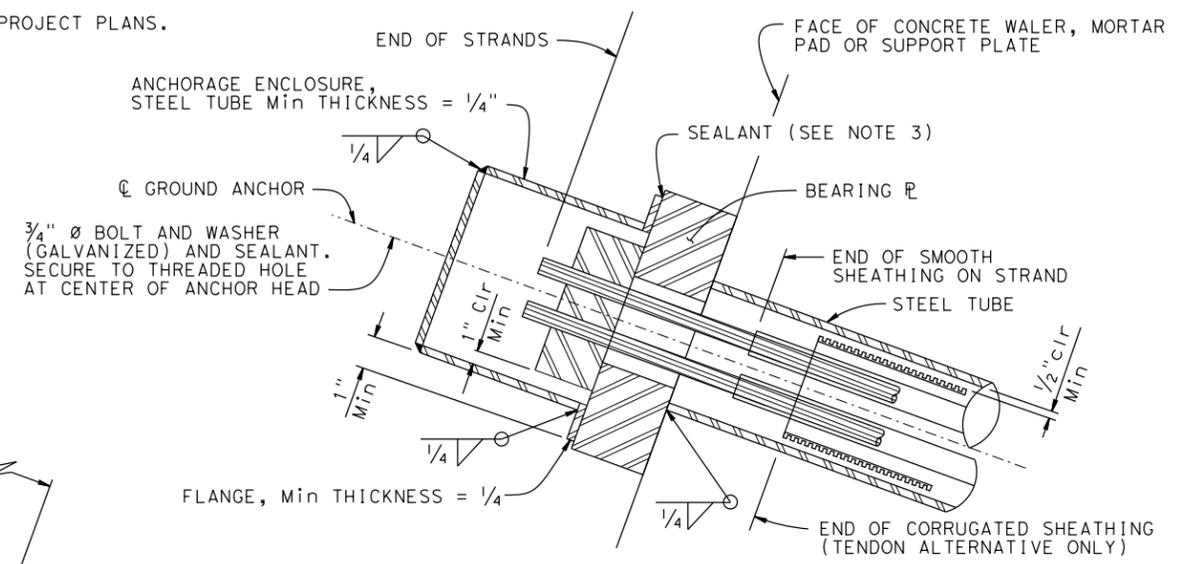
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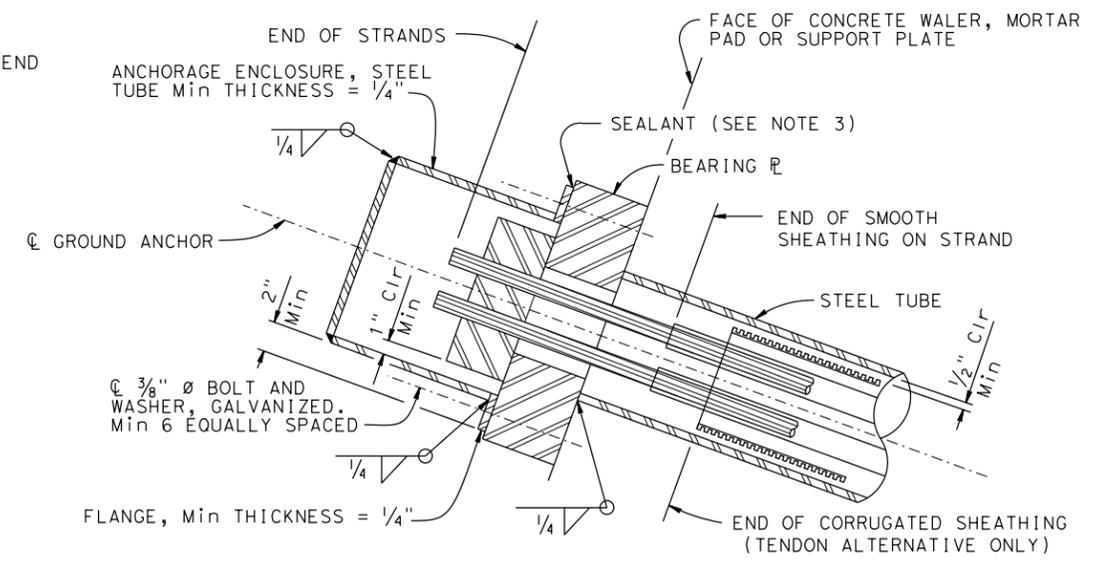
**GROUND ANCHOR TENDON DETAIL (STRANDS)**



**GROUND ANCHOR TENDON DETAIL BAR(S)**



**ALTERNATIVE X**



**ALTERNATIVE Y**

**ANCHORAGE ENCLOSURE DETAILS**

NO SCALE

STANDARD DRAWING
FILE NO. <b>xs12-040</b>
APPROVAL DATE July 2014

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. X	X
		POST MILE X	

SUB HORIZONTAL GROUND ANCHOR DETAILS	
REVISION DATES	SHEET OF
6-24-14	X X