

ELEVATION

NOTES:

1. This rail is used for fall protection where maintenance or inspection activities are expected to take place periodically at the top of the wall. It is not intended for use where pedestrians or bicyclists are normally present.
2. Intermediate turnbuckles (Eye and Eye) to be placed in adjacent spans.
3. Cable shall not be spliced between intermediate turnbuckles and end posts.
4. All posts, cable, turnbuckles, plates, bars and hardware shall be galvanized.
5. Posts shall be vertical.
6. Alignment of holes in posts may vary to conform to top slope of retaining wall. Cable to remain parallel to top of wall.
7. The Contractor shall verify all dependent dimensions in the field before ordering or fabricating any material.
8. Typical end spans shall be constructed at changes in line where the angle of deflection is 15° or more, or where intervals reach 1000'-0" Max.
9. Provide thimbles at all cable loops.
10. Burrs shall be removed in all drilled holes prior to threading and tensioning of cable.
11. Cable shall be installed to 350 Lb (±) tension.
12. When the hand-dug hole conflicts with geomembrane or geotextile layer, it is permissible to make a cut in the geomembrane or geotextile. The cut shall be limited to the dug hole.
13. Rail shall be paid for as Safety Rail (Cable) (LF) and include all appurtenances shown.

DESIGN DATA:

AASHTO, Eighth Edition LRFD with current interims, and OSHA Safety and Health Standards

Design Method: Load and Resistance Factor Design

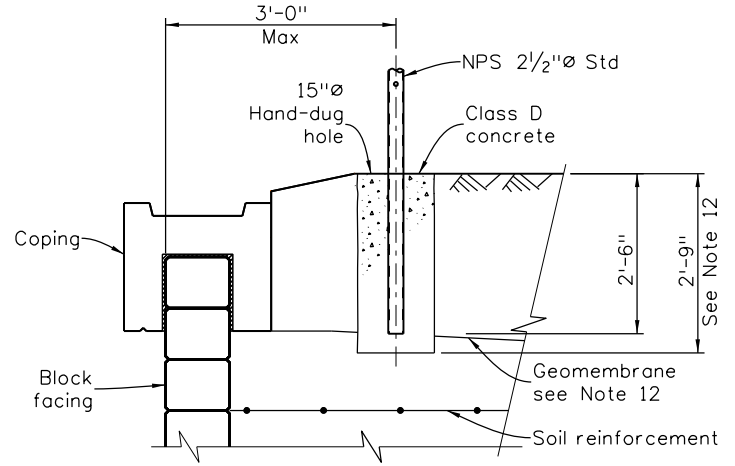
Live Load Force: P_{LL} = 0.2 Kip, OSHA 1910.29(b)(3)

Concrete: Class D Concrete: f'c = 4,500 psi

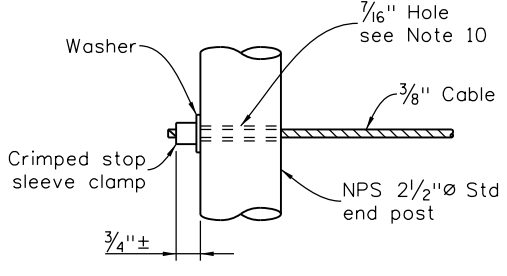
Pipe: ASTM A53 Grade B fy = 35,000 psi

Anchorage Bar, Base Plate: ASTM A572 Grade 50 fy = 50,000 psi

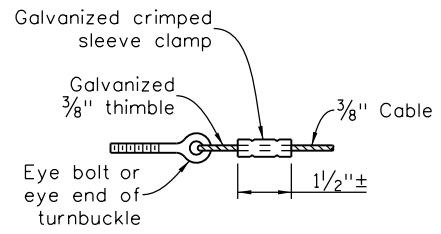
Wire (7 wire strand): ASTM A475, Utilities Grade or better



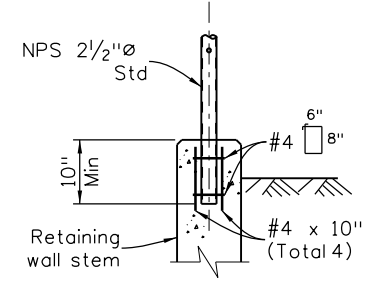
POST ANCHORAGE DETAIL
(Earth Wall)



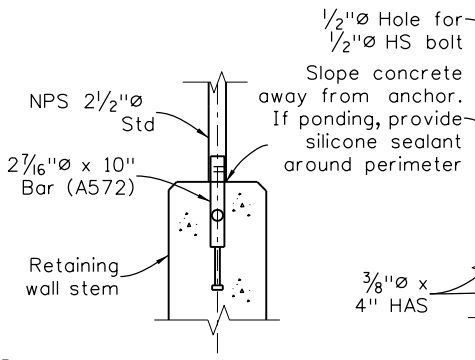
ALTERNATIVE DEAD END CABLE ANCHORAGE



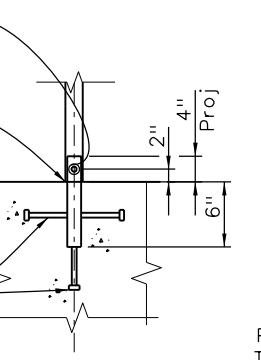
ALTERNATIVE WIRE ROPE CLIP



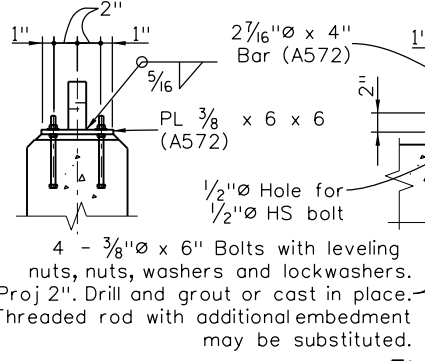
POST ANCHORAGE DETAIL



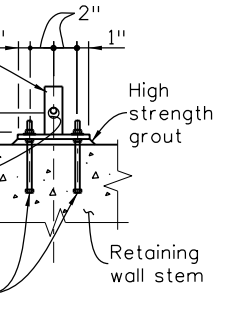
SECTION



ELEVATION



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ELEVATION

ALTERNATIVE ANCHORAGE DETAILS

Revision Dates		
8/19	4/21	3/23
		9/24

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

All seals for this set of drawings are applied to the cover page(s)

Print Date: \$DATE\$
File Name: Sheet_B-607-CR.dgn
Horiz. Scale: None Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Staff Bridge Branch

As Constructed
No Revisions:
Revised:
Void:

SAFETY RAIL (CABLE)			
Designer: XXXXXXXX	Structure Numbers: X-XX-XX		
Detailer: XXXXXXXX	Structure Numbers: X-XX-XX		
Sheet Subset: BRIDGE	Subset Sheets: BXX of XXX		

Project No./Code
Project Number
Code
Sheet Number