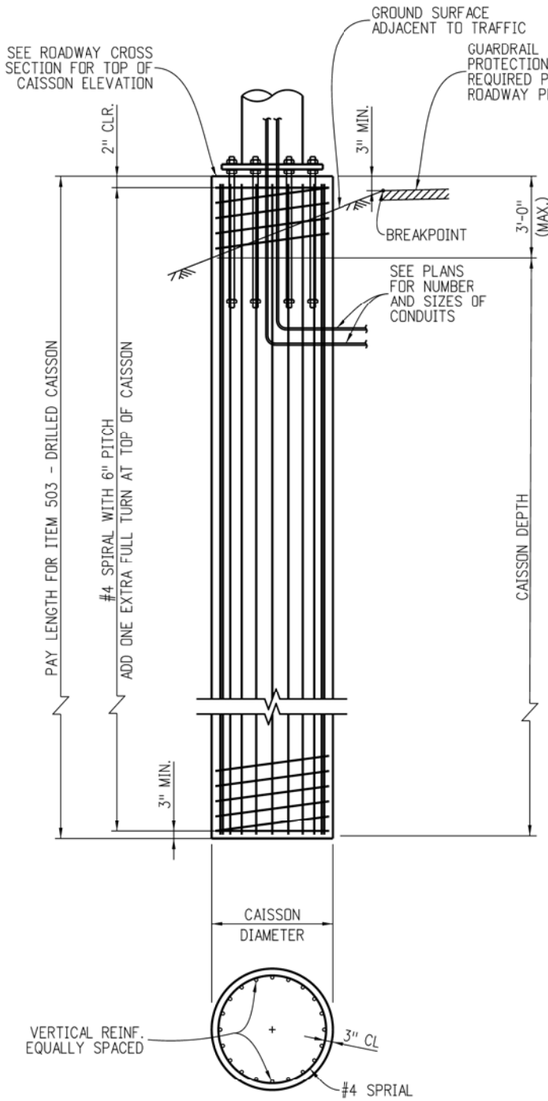
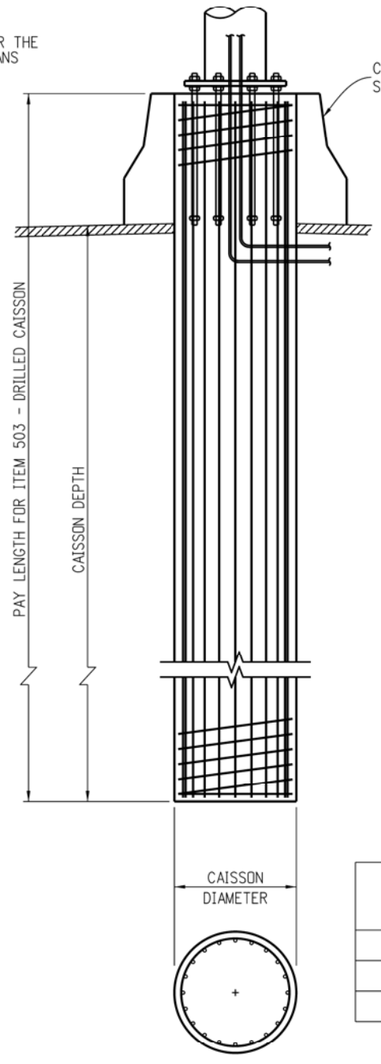
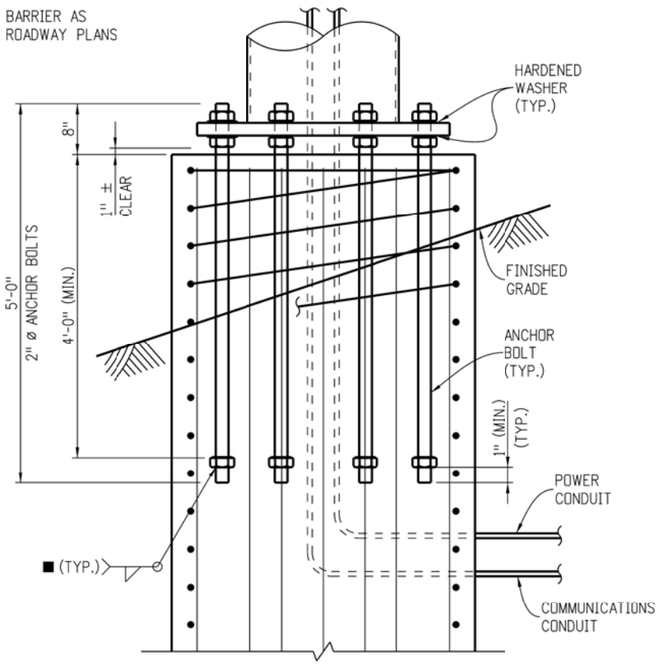


ROADSIDE SHOULDER INSTALLATION



MEDIAN RAIL INSTALLATION
(SEE ROADSIDE SHOULDER INSTALLATION FOR ADDITIONAL INFORMATION)



ANCHOR BOLT DETAIL
■ WELDING PROCEDURE IS NOT REQUIRED FOR THIS WELD

POLE HEIGHT	PIPE O.D. AT BASE (IN)	CAISSON DIAMETER (IN)	CAISSON DEPTH (FT)	VERTICAL REINF.
50'	15	36	15	12 - #9
60'	19	42	18	14 - #9
70'	24	48	21	18 - #9

CAISSON FOUNDATION DETAILS

CAISSON DRILLING AND INSTALLATION NOTES

1. CAISSONS SHALL BE PLACED AGAINST UNDISTURBED EARTH. WET OR CAVING HOLES SHALL BE BACKFILLED WITH FLOW-FILL AND REDRILLED AFTER A THREE DAY CURING PERIOD WITHOUT THE USE OF A CASING; OR OTHER METHOD APPROVED BY THE ENGINEER.

2. THE DESIGN HEREIN ASSUMES THAT POLE SUPPORTS ARE INSTALLED WITHIN THE ROADWAY PRISM WITH THE FOLLOWING SOIL PARAMETERS:

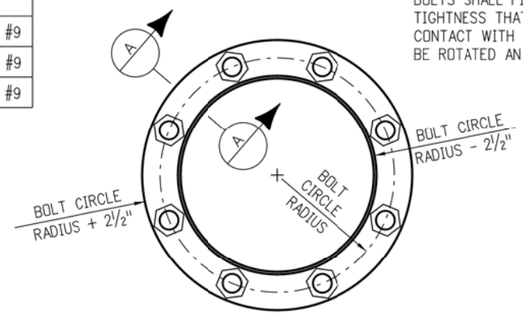
   SOIL DENSITY = 110 LB./CU. FT.
   SOIL COHESION = 750 LB./SQ. FT. FOR MEDIUM STIFF COHESIVE SOIL
   SOIL ϕ ANGLE = 30° FOR MEDIUM DENSE COHESIONLESS SOIL
   SF = 3.0 FOR FLEXURAL RESISTANCE.

3. CONTACT THE ENGINEER IF ANY OF THE FOLLOWING SOIL CONDITIONS ARE ENCOUNTERED DURING DRILLING:
   (A) POLE SUPPORT WILL NOT BE INSTALLED WITHIN THE ROADWAY PRISM.
   (B) THE SOIL HAS A HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY.
   (C) THE SITE WON'T SUPPORT THE WEIGHT OF THE DRILLING RIG.
   (D) THE FOUNDATION SOILS ARE NOT HOMOGENOUS.
   (E) FIRM BEDROCK IS ENCOUNTERED.
   (F) HIGH GROUNDWATER IS ENCOUNTERED.
   (G) LARGE BOULDERS ARE ENCOUNTERED.

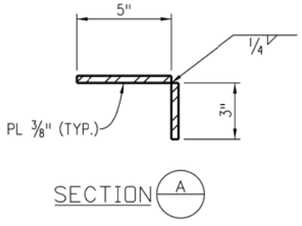
4. THE CONTRACTOR SHALL PROVIDE A SURVEY OF THE POLE FOUNDATION TO VERIFY PLACEMENT SOON AFTER WORK ON THE FOUNDATION HAS BEEN COMPLETED. THE SURVEY SHALL CONFORM TO THE REQUIREMENTS OF SECTION 625, CONSTRUCTION SURVEYING. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COPY OF THE SURVEY NOTES DETAILING THE FOUNDATION LOCATION AND ELEVATION AND THE ANCHOR BOLT LOCATIONS, PROJECTIONS, AND ORIENTATIONS. THE ELEVATION OF THE GROUND SURROUNDING THE FOUNDATION SHALL ALSO BE PROVIDED. THE CONTRACTOR SHALL COMPARE THE SURVEY INFORMATION TO THE REVIEWED SHOP DRAWINGS AND RECONCILE ANY DIFFERENCES BETWEEN THEM. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ADJUSTMENTS OR MODIFICATIONS TO THE ENGINEER FOR APPROVAL.

NOTES

1. THREAD UPPER 8" AND GALVANIZE UPPER 1'-0" OF THE ANCHOR BOLTS.
2. ANCHOR BOLTS SHALL BE SET WITH A STEEL TEMPLATE UNTIL THE CONCRETE HAS CURED AT LEAST TWO DAYS.
3. THERE SHALL BE NO GROUT PAD INSTALLED ON TOP OF THE EXISTING FOUNDATIONS.
4. THE ANCHOR BOLTS SHALL BE TIGHTENED USING THE TURN-OF-NUT METHOD. THE BOLTS SHALL FIRST BE TIGHTENED TO SNUG TIGHT, WHICH IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN THE UPPER AND LOWER NUTS/WASHERS ARE IN FIRM CONTACT WITH THE BASE PLATE. THE UPPER AND LOWER NUTS SHALL EACH THEN BE ROTATED AN ADDITIONAL ⅓ TURN (30° ± 5°) USING A SLUGGING WRENCH.



BOLT TEMPLATE
(8 BOLT SHOWN, 4 BOLT SIMILAR)



SECTION A

Print Date: 9/26/2012		Sheet Revisions			Colorado Department of Transportation	As Constructed	CCTV POLE WITH LOWERING DEVICE			Project No./Code
File Name: CCTV_04of4.dgn		Date:	Comments	Init.		No Revisions:				BR 0061-083
Horiz. Scale: 1:1.00057 Vert. Scale: As Noted	R-X				425 C Corporate Circle Golden, CO 80401 Phone: 303-512-5801 FAX: 303-512-5878	Revised:	Designer: MDF	Structure Numbers		
Unit Information JS					HQ ITS Branch JS	Void:	Detailer: JRM			Sheet Number
							Sheet Subset: ITS	Subset Sheets: 4 of 4		

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