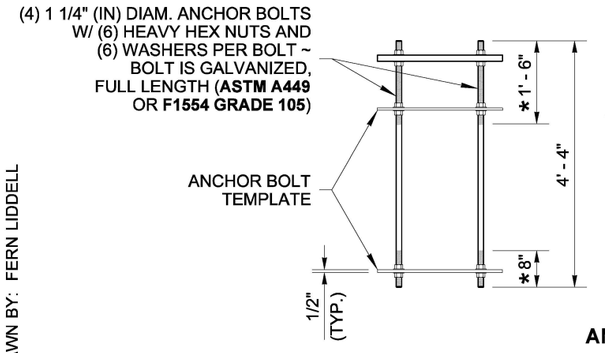
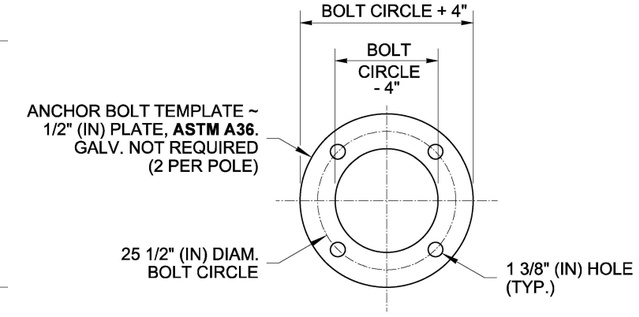
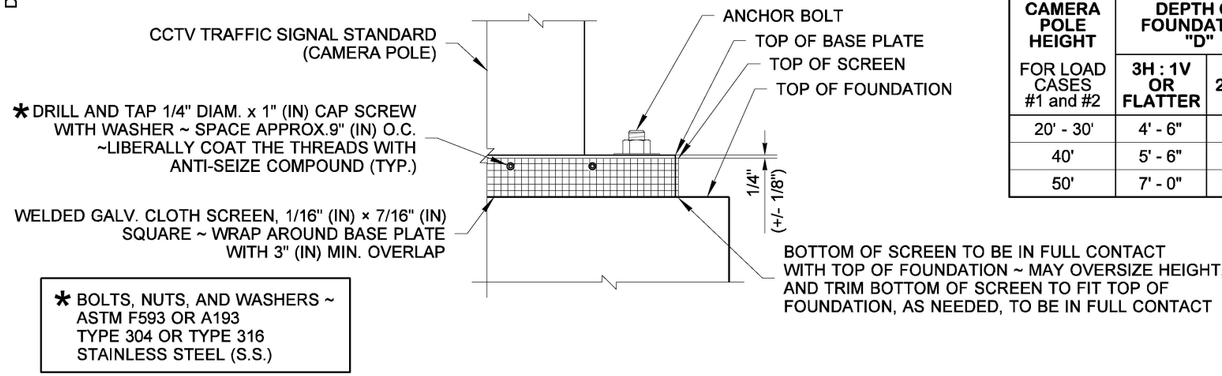
DRAWN BY: FERN LIDDELL





ANCHOR BOLT ASSEMBLY

* THREADED LENGTH



* BOLTS, NUTS, AND WASHERS ~ ASTM F593 OR A193 TYPE 304 OR TYPE 316 STAINLESS STEEL (S.S.)

CAMERA POLE HEIGHT	DEPTH OF FOUNDATION "D"		ANCHOR BOLT ASTM A449 OR F1554 GR 105		
FOR LOAD CASES #1 and #2	3H : 1V OR FLATTER	2H : 1V	DIAMETER	LENGTH	BOLT CIRCLE
20' - 30'	4' - 6"	6' - 6"	1 1/4"	4' - 4"	25 1/2"
40'	5' - 6"	7' - 6"	1 1/4"	4' - 4"	25 1/2"
50'	7' - 0"	9' - 0"	1 1/4"	4' - 4"	25 1/2"

NOTES

1. These Foundations are designed for a minimum of 1,500 PSF allowable lateral bearing pressure for the soil. A Special Foundation shall be required for soil with allowable lateral bearing pressure lower than 1,500 PSF.
2. These Foundations are designed for installation on level ground, or on sloping ground, not to exceed 2H : 1V slopes. Slopes steeper than 2H : 1V require a special design.
3. Where a foundation is constructed within a Media Filter Drain, the foundation depth shown in the Contract Plans shall be increased by the depth of the Media filter Drain.
4. Foundations not within the parameters of this standard require Special Design. Contact the **WSDOT Bridge and Structures Office** through the Engineer for Special Foundation Designs.
5. The top 2' - 0" of the foundation shall use a smooth form (such as paper or cardboard). After the concrete has cured, this entire form shall be removed.

DESIGN CRITERIA:

This structure has been designed according to the Fifth Edition **2009 AASHTO Standard Specifications** for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. Basic wind velocity is 90 MPH. Design Life/Recurrence Interval 50 years and Fatigue Category III.

WIND VELOCITY:

90 MPH
Maximum Pole Deflection shall not exceed 0.7" in 30 MPH and 1.4" in 70 MPH wind.

LOAD CASE # 1

Camera (1) - EPA = 4.00 sq. ft. @ 2' - 0" above pole top, and:

Dish (1) - 1' - 0" diameter @ pole top level.

LOAD CASE # 2

Camera (1) - EPA = 4.00 sq. ft. @ 2' - 0" above pole top, and:

Camera (2) - EPA = 0.54 sq. ft. each @ 1' - 0" and 2' - 0" from pole top, and:

NEMA Cabinet (2) - EPA = 1.33 sq. ft. each @ 3' - 8" from pole top, install both NEMA cabinets back to back, and:

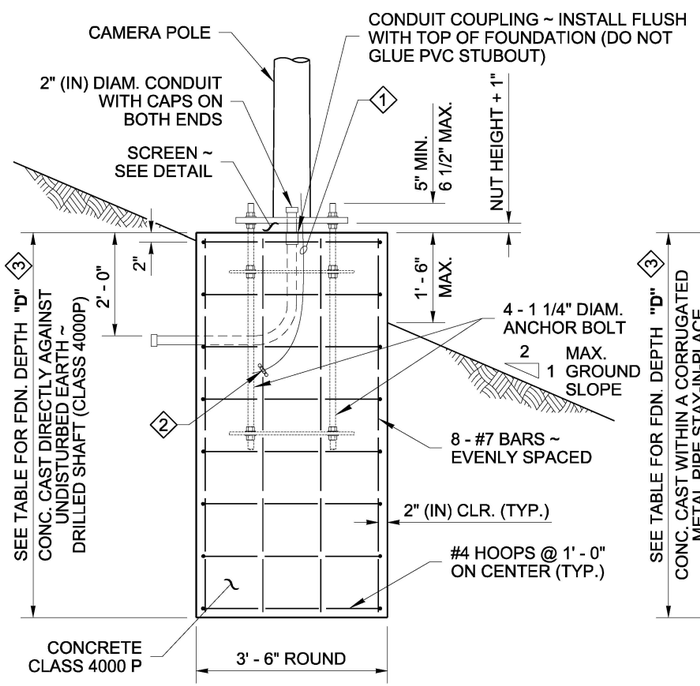
Radio Equipment (2) - EPA = 2.25 sq ft. each @ 2' - 0" and 9' - 0" from pole top.

EPA = Effective Projected Area

ALTERNATE #2 - CONSTRUCTION METHOD

① Shoring or Extra Excavation as required. Excavated area shall be backfilled with Controlled-Density Fill (CDF), or with soil in accordance with **Standard Specification Section 8-20.3(2)** and Compaction Method 1 of **Standard Specification Section 2-09.3(1)E**.

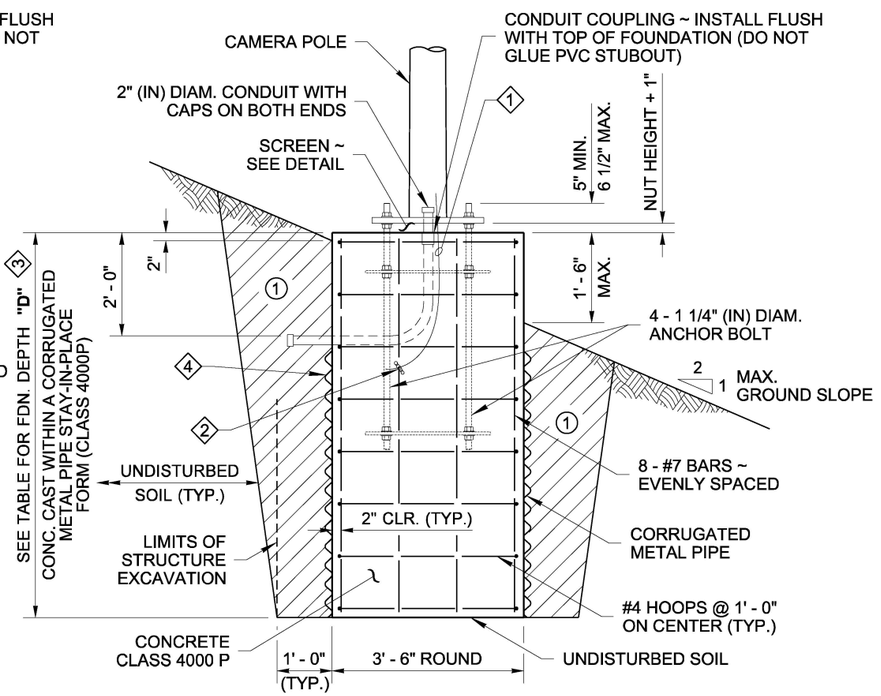
WELDED GALVANIZED CLOTH SCREEN



FOUNDATION REINFORCEMENT DETAIL

(CONCRETE CAST DIRECTLY AGAINST UNDISTURBED EARTH)

ALTERNATE # 1



FOUNDATION REINFORCEMENT AND BACKFILL DETAIL

④ (CONCRETE CAST INSIDE CORRUGATED METAL PIPE STAY-IN-PLACE FORM) (SEE NOTE 5)

ALTERNATE # 2

① GROUNDING CONDUCTOR # 4 AWG STRANDED COPPER WITH 3' (FT) MIN. SLACK. ROUTE CONDUCTOR TO CCTV TRAFFIC SIGNAL STANDARD (CAMERA POLE) GROUNDING STUD.

② CLAMP CONDUCTOR TO STEEL REINFORCING WITH LISTED CONNECTOR SUITABLEFOR USE EMBEDDED IN CONCRETE.

③ SEE NOTE 3.

Aug 26, 2022

TYPE CCTV TRAFFIC SIGNAL STANDARD (CAMERA POLE) FOUNDATION DETAILS STANDARD PLAN J-29.10-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark Gaines
Mark Gaines (Aug 26, 2022 10:36 PDT)

Aug 26, 2022

STATE DESIGN ENGINEER

Washington State Department of Transportation