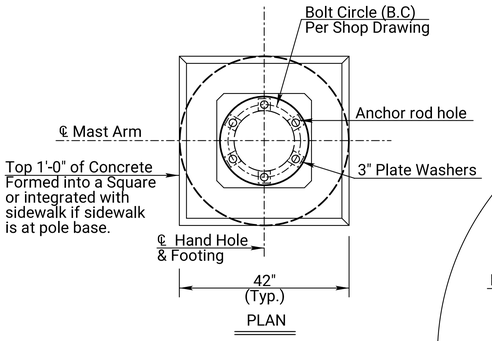
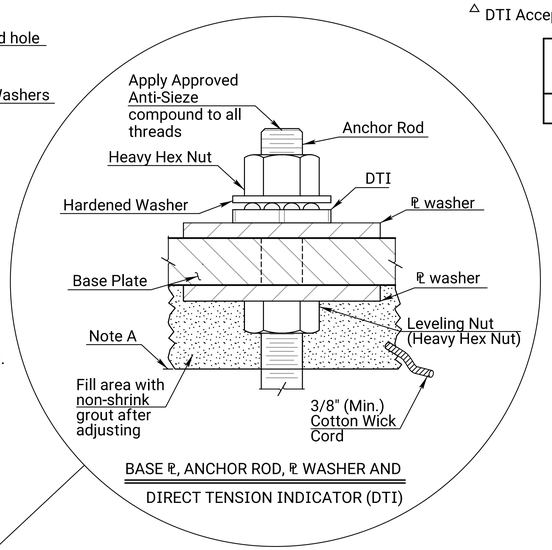


PLAN

Note A:
Top of Foundation OR Top of Sidewalk (if sidewalk at pole base). See Traffic Signal Plan Sheet for Approx. Elevation



BASE ℟, ANCHOR ROD, ℟ WASHER AND DIRECT TENSION INDICATOR (DTI)

△ DTI Acceptable Range of Compression Load

△ DTI (Kips)	Anchor Rod Size
59.6 to 65.9	1¾"

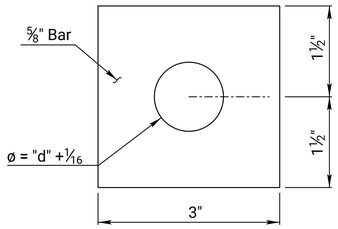
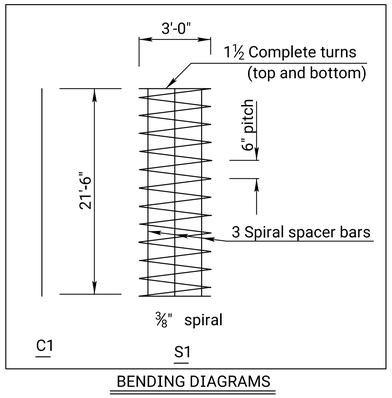
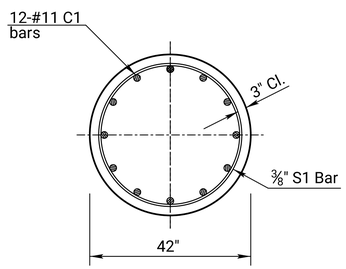


PLATE WASHER

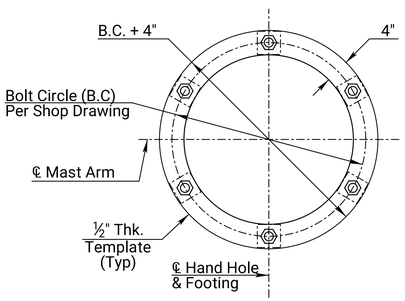


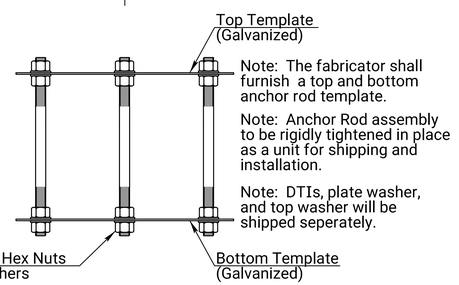
BENDING DIAGRAMS

ELEVATION



SECTION A-A





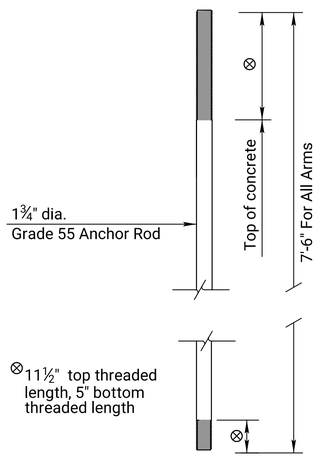
Note: The fabricator shall furnish a top and bottom anchor rod template.

Note: Anchor Rod assembly to be rigidly tightened in place as a unit for shipping and installation.

Note: DTIs, plate washer, and top washer will be shipped seperately.

TOP AND BOTTOM TEMPLATE DETAIL

(Not all anchor rods shown)



ANCHOR ROD DETAILS

(6 per pole Grade 55)

Design Specifactions:

AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, Sixth Edition 2013 and Current Interims

Reinforced Concrete Design - AASHTO Standard Specifications for Highway Bridges, 17th Edition

Unit Stresses:

Concrete (Grade 4.0)	f'c = 4,000 psi
Reinforcing Steel (Grade 60)	Fy = 60,000 psi
Anchor Rod (ASTM F1554, Grade 55)	Fy = 55,000 psi

Foundation Data:

Φ = 5° or greater
c = 500 psf or greater

NOTE: Minimum allowable end bearing of 2,700 psf and a minimum allowable skin friction of 450 psf were used for design. Soils having propertities less than these must have calculations submited to the city for review.

GENERAL NOTES

Anchor rod hardware conforming to ASTM A563 heavy hex nuts, ASTM A709 grade 50 plate washers, ASTM F436 flat washers, and ASTM F2437 DTI washers with a compression load that complies with the DTI Acceptable Range of Compression Load, as shown in the table

All high strength bolts, anchor rods (entire length), steel fasters and hardware shall be galvanized.

Excavate and cast footing to neat lines except to 1'-0"(+/-) which shall be formed . Immediately before placing any concrete, the contractor shall remove all loose material from the bottom of the hole. All soil used for backfilling around the top of the footing shall be thoroughly compacted as it is placed. All excess excavation shall be disposed of as approved by the engineer.

Poles and Mast Arms shall be constructed per the latest City of Wichita Standard Specifications for Traffic Signal Construction and contract plans.

Drilled shafts shall be constructed according to the latest City of Wichita Specifications.

FOUNDATION DETAILS ON THIS SHEET SHALL APPLY TO ALL TRAFFIC SIGNAL POLES ON THIS PROJECT ONLY.

TranSystems
245 NORTH WACO
SUITE 222
WICHITA, KANSAS 67202
PHONE: 316-303-3000
FAX: 316-462-5629

CONSULTANTS:

29TH STREET N & GREENWICH ROAD
TRAFFIC SIGNALIZATION
WICHITA, KANSAS

CITY OF WICHITA

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO: 472-085773
SCALE: NTS
DATE: 12/20/2022
DESIGNED BY: LCM
DRAWN BY: SSP
CHECKED BY: SGE

SHEET TITLE:
TRAFFIC SIGNAL FOUNDATION DETAILS

SHEET NO.
7
SHEET 7 OF 17

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12/20/2022 - 7:22:14 PM - c:\transystems\ow_local\transyscorp-pw1\spaff\d1176435\Special Foundation Design.dgn

IF THIS DRAWING IS LESS THAN 22" X 36" IT IS A REDUCED SIZE DRAWING