

ATTACHMENT 2

LARSON[®] CAMOUFLAGE

1501 South Euclid Avenue
 Tucson, AZ 85713
 (520) 294-3900
 www.larsoncamo.com



DATE: 7/24/2012 DESIGNED: LCC DRAFTER: BAD

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |
| | |
| | |

WATERTOWN 130' TALL MONOPINE

LARSON CAMOUFLAGE Job:
611200

LOCATION:

**655 BASSETT ROAD
 WATERTOWN, CT 06795
 LITCHFIELD COUNTY**

DRAWING INDEX

- T1 TITLE SHEET
- S1 ELEVATION VIEW & NOTES
- S2 DETAILS
- S3 FOUNDATION

SPECIAL INSPECTIONS:

1. STEEL FABRICATION SHALL BE DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
2. NO FIELD WELDING SHALL BE PERMITTED
3. THE FOLLOWING SPECIAL INSPECTIONS SHALL BE REQUIRED PER CHAPTER 17 OF THE 2010 CBC:
 - PERIODIC SPECIAL INSPECTION OF HIGH-STRENGTH BOLTING
 - CONTINUOUS SPECIAL INSPECTION OF DRILLING OPERATIONS FOR PIER FOUNDATIONS
 - CONTINUOUS SPECIAL INSPECTION TO VERIFY LOCATION, PLUMBNESS, DIAMETER, AND LENGTH OF PIER FOUNDATIONS
 - PERIODIC SPECIAL INSPECTION OF PLACEMENT OF REINFORCING STEEL
 - CONTINUOUS SPECIAL INSPECTION OF ANCHOR BOLTS PRIOR TO AND DURING CONCRETE PLACEMENT
 - CONTINUOUS SPECIAL INSPECTION OF CONCRETE PLACEMENT

STRUCTURAL OBSERVATION:

NO STRUCTURAL OBSERVATION IS REQUIRED.

LARSON CAMOUFLAGE

1501 South Euclid Avenue
 Tucson, AZ 85713
 (520) 294-3900
 www.larsoncamo.com

JOB #: 611200

TITLE SHEET

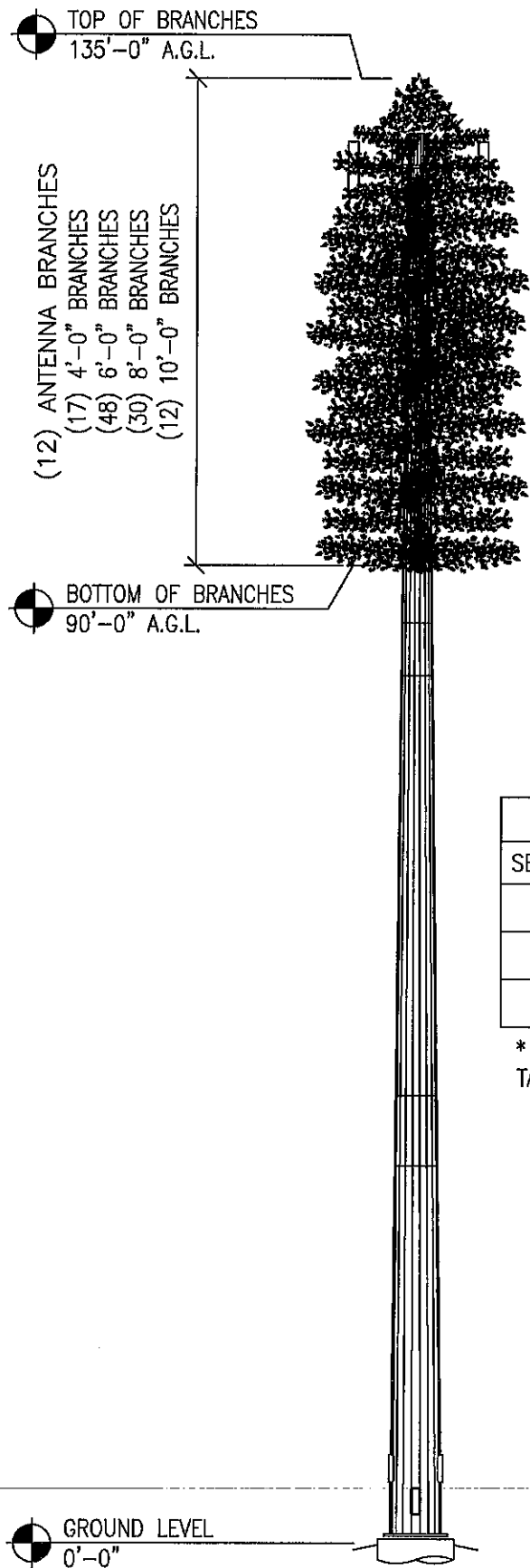
WATERTOWN
 130' TALL MONOPINE

655 BASSETT ROAD
 WATERTOWN, CT 06795

U1223-226-121

T1

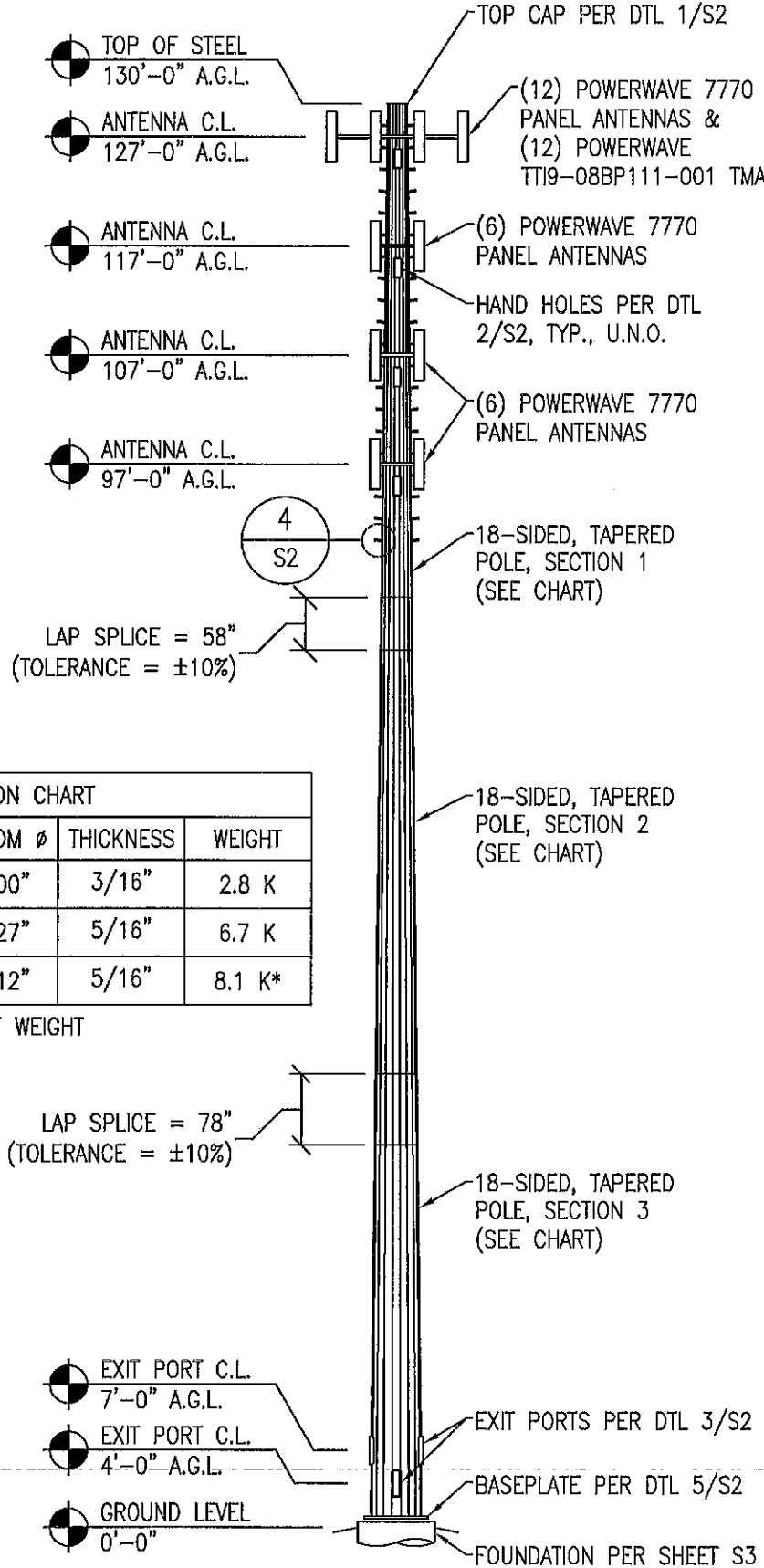
REV
0



BRANCHES ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE NOT SHOWN TO SCALE.

| MONOPOLE SECTION CHART | | | | | |
|------------------------|--------|------------|---------------|-----------|--------|
| SECTION | LENGTH | TOP ϕ | BOTTOM ϕ | THICKNESS | WEIGHT |
| 1 | 50'-0" | 21.00" | 35.00" | 3/16" | 2.8 K |
| 2 | 50'-0" | 33.27" | 47.27" | 5/16" | 6.7 K |
| 3 | 40'-4" | 44.83" | 56.12" | 5/16" | 8.1 K* |

* INCLUDES BASEPLATE & EXIT PORT WEIGHT
TAPER = 0.28 IN/FT



ELEVATIONS

NT.S. 1

GENERAL DESIGN NOTES:

STRUCTURAL DESIGN IS BASED ON THE CALIFORNIA BUILDING CODE, 2010 EDITION (2009 IBC) AND THE TIA-222-G STANDARD

DESIGN LOADS:

WIND:
 BASIC WIND SPEED: 100 MPH (3-SEC GUST)
 IMPORTANCE FACTOR: 1.00
 STRUCTURE CLASS: II
 EXPOSURE: C
 TOPOGRAPHIC CATEGORY: 1
 CREST HEIGHT: 0 FT

ICE: 1.00" RADIAL ICE THICKNESS @ 40 MPH (3-SEC GUST) PER THE TIA-222-G STANDARD

SEISMIC:

IMPORTANCE FACTOR: 1.00
 OCCUPANCY CATEGORY: II
 MAPPED SPECTRAL RESPONSE ACCELERATIONS:
 $S_s = 0.250g$, $S_1 = 0.065g$
 SITE CLASS: D
 SPECTRAL RESPONSE COEFFICIENTS:
 $S_{D1} = 0.267g$, $S_{D2} = 0.103g$
 SEISMIC DESIGN CATEGORY: D
 BASIC SEISMIC-FORCE-RESISTING-SYSTEM:
 TELECOMMUNICATION TOWER: STEEL POLE
 SEISMIC BASE SHEAR, V: 2.7 K
 SEISMIC RESPONSE COEFFICIENT, C_s : 0.090
 RESPONSE MODIFICATION FACTOR, R: 1.5
 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

MATERIAL NOTES:

- 18-SIDED MONOPOLE SHAFT STEEL SHALL CONFORM w/ ASTM A572 GR. 65, U.N.O.
- BASE PLATE STEEL SHALL CONFORM w/ ASTM A572, GR 50, U.N.O.
- ACCESS PORT STEEL SHALL CONFORM w/ ASTM A572 GR. 65, U.N.O.
- ALL OTHER STEEL SHAPES & PLATES SHALL CONFORM w/ ASTM A36, U.N.O.
- ALL BOLTS FOR STEEL-TO-STEEL CONNECTIONS SHALL CONFORM w/ ASTM A325N, U.N.O.
- ALL ANCHOR BOLTS SHALL CONFORM w/ ASTM A615 GR. 75, U.N.O.
- ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE w/ THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY AWS D1.1.
- ALL STEEL SURFACES SHALL BE GALVANIZED IN ACCORDANCE w/ ASTM A123 AND ASTM A153 STANDARDS.
- ALL BOLTED CONNECTIONS SHALL BE TIGHTENED TO "SNUG-TIGHT" CONDITION AS DEFINED BY THE AISC MANUAL.

BASE DESIGN REACTIONS:

MOMENT, M = 3,735 K-FT (1.6 WIND)
 SHEAR, V = 38.9 K (1.6 WIND)
 AXIAL, P = 63.6 K (1.2 DEAD + 1.0 ICE)

VECTOR ENGINEERS
 9138 s. State St., Suite 101 (801) 960-1776
 Sandy, UT 84070 (801) 990-1776 FAX

| DATE: 7/24/2012 | DESIGNED: LCC | DRAFTER: BAD |
|-----------------|---------------|--------------|
| REVISIONS | | |
| DATE | DESCRIPTION | |
| | | |
| | | |
| | | |

LARSON CAMOUFLAGE
 1501 South Euclid Avenue
 Tucson, AZ 85713
 (520) 294-3900
 www.larsoncamo.com

ELEVATION VIEW & NOTES
 WATERTOWN
 130' TALL MONOPOLE
 655 BASSETT ROAD
 WATERTOWN, CT 06795

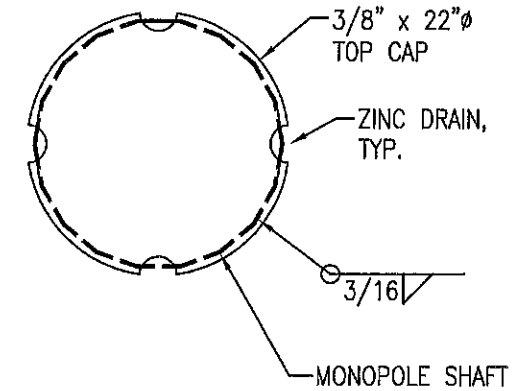
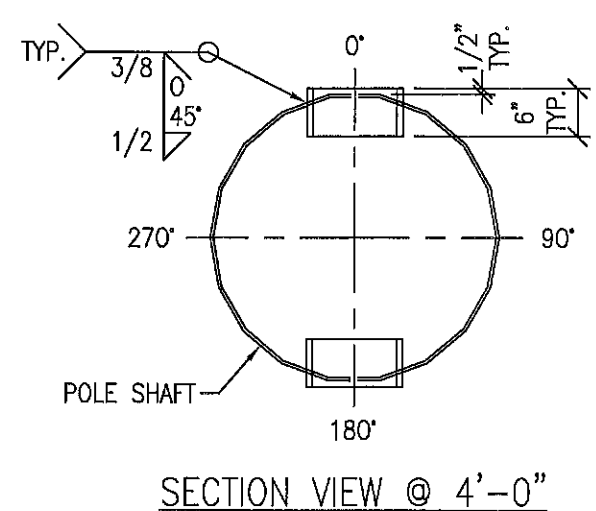
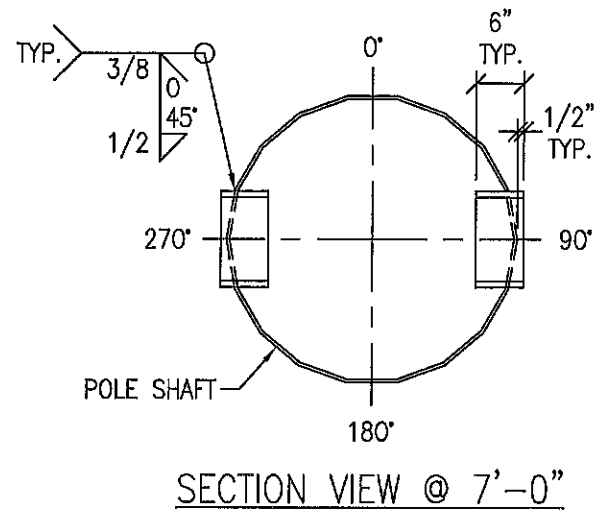
U1223-226-121

S1 REV 0

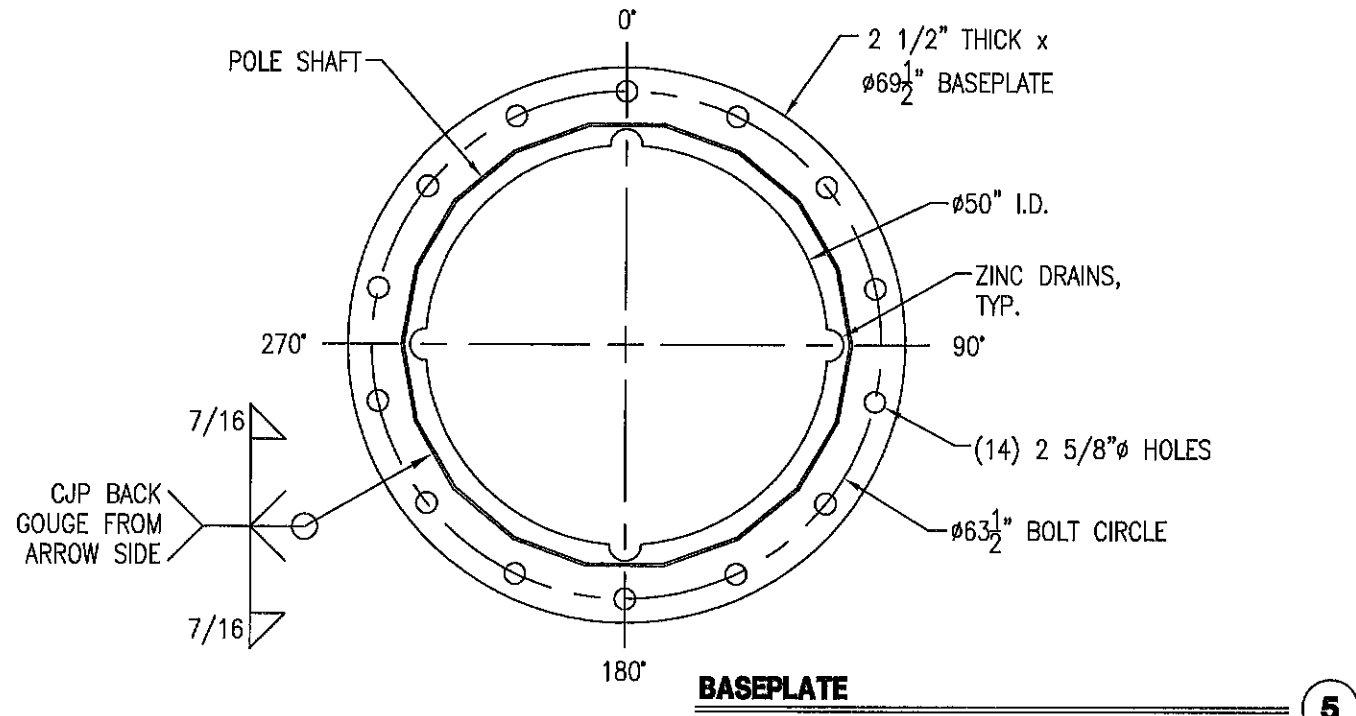
JOB #: 611200

DATE: 7/24/2012 DESIGNED: LCC DRAFTER: BAD

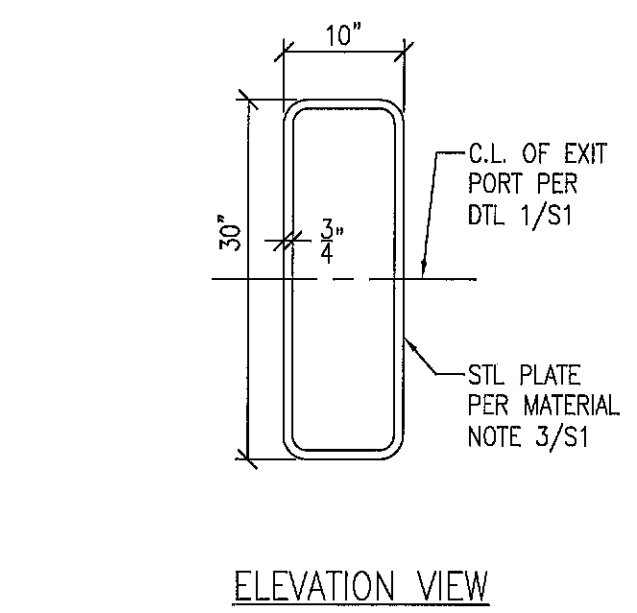
| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |
| | |
| | |
| | |



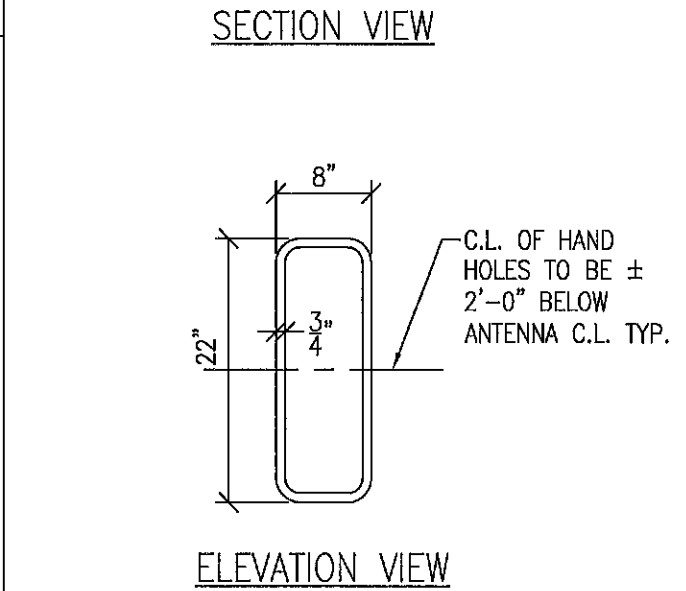
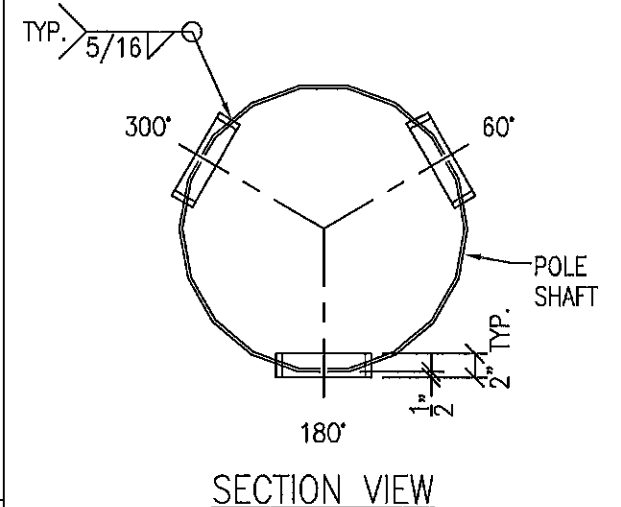
TOP CAP N.T.S. 1



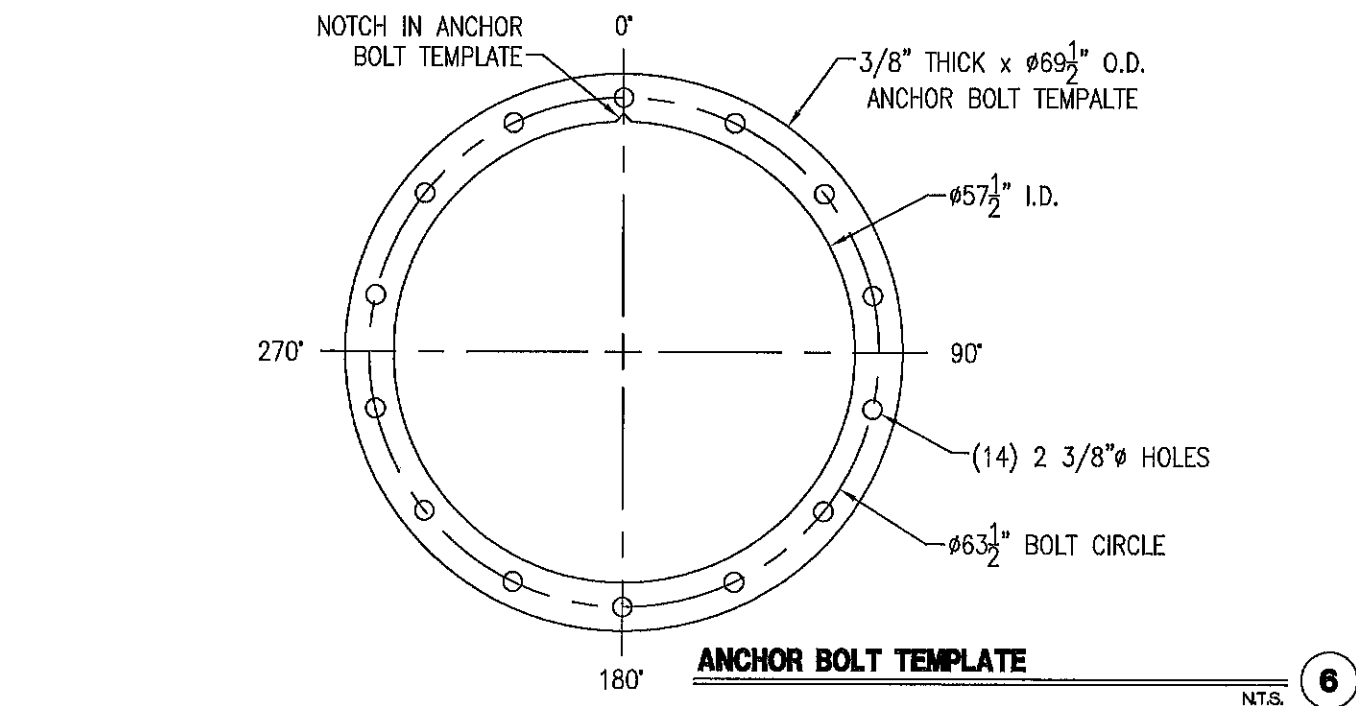
BASEPLATE N.T.S. 5



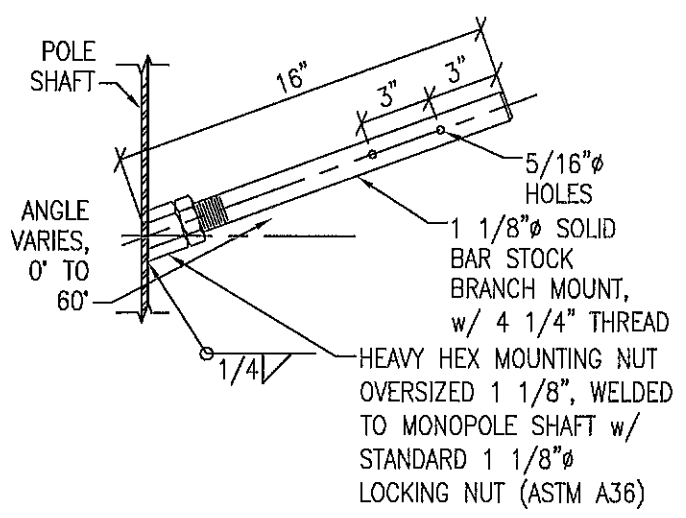
EXIT PORTS N.T.S. 3



HAND HOLES N.T.S. 2



ANCHOR BOLT TEMPLATE N.T.S. 6



TYPICAL BRANCH RECEPTACLE N.T.S. 4

LARSON CAMOUFLAGE
1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com
JOB #: 611200

DETAILS
WATERTOWN
130' TALL MONOPINE
655 BASSETT ROAD
WATERTOWN, CT 06795

U1223-226-121

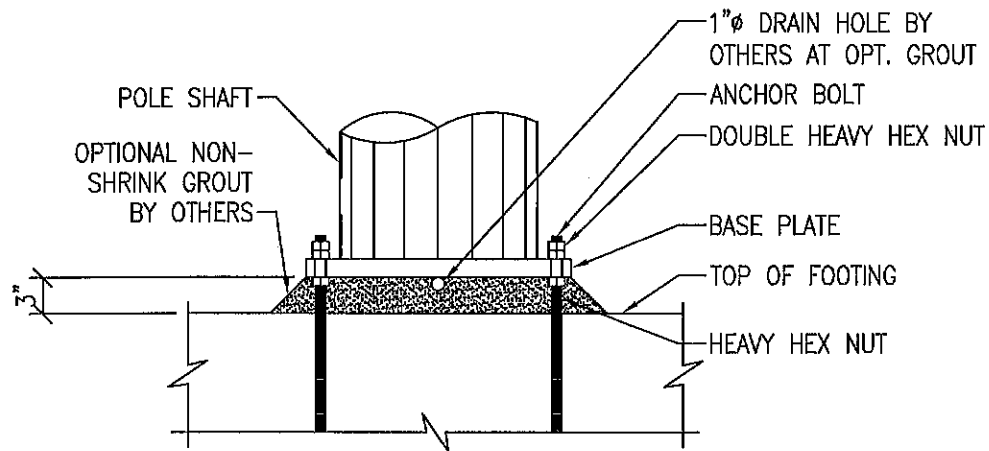
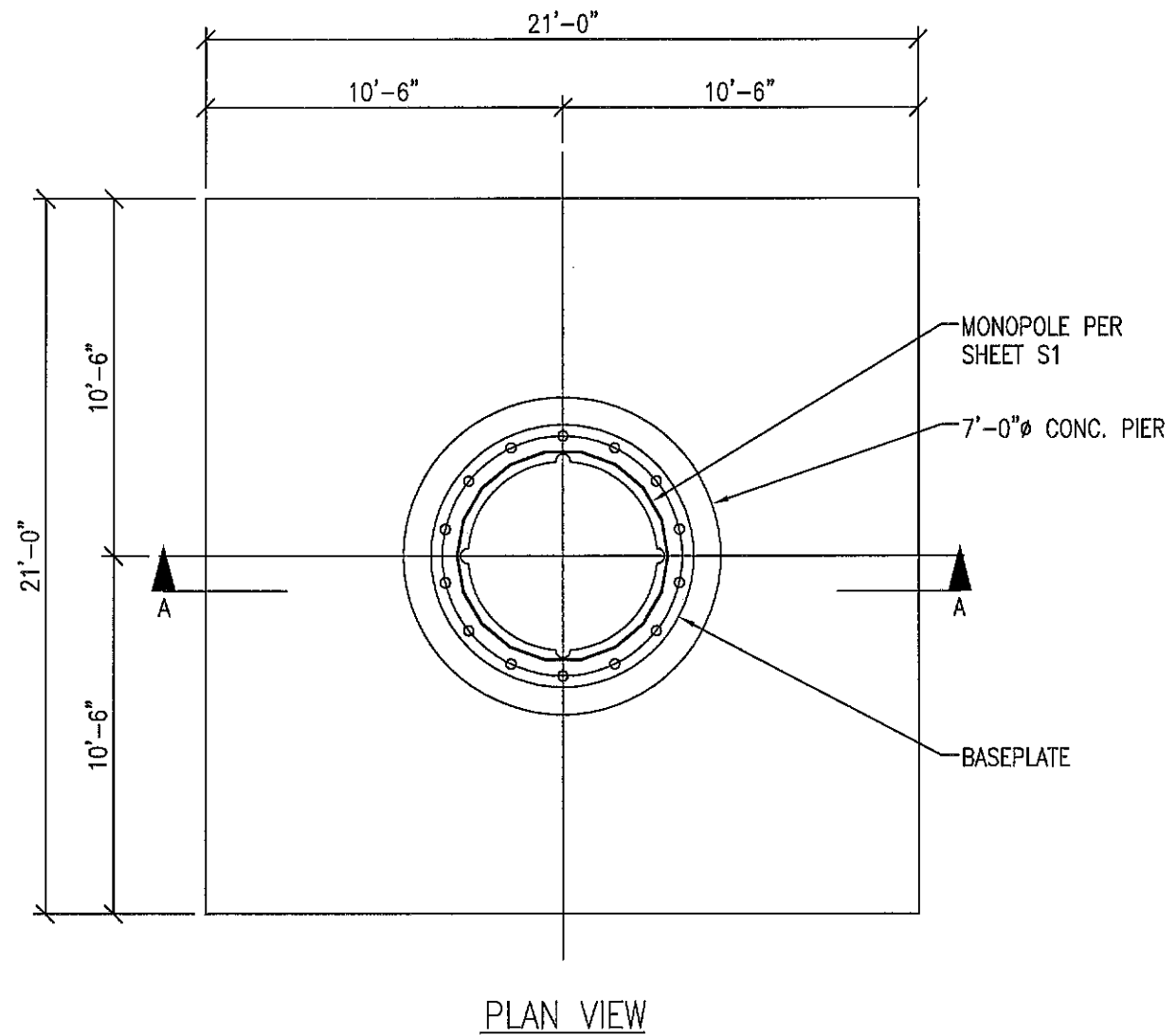
S2 REV 0

FOUNDATION NOTES:

1. FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT:

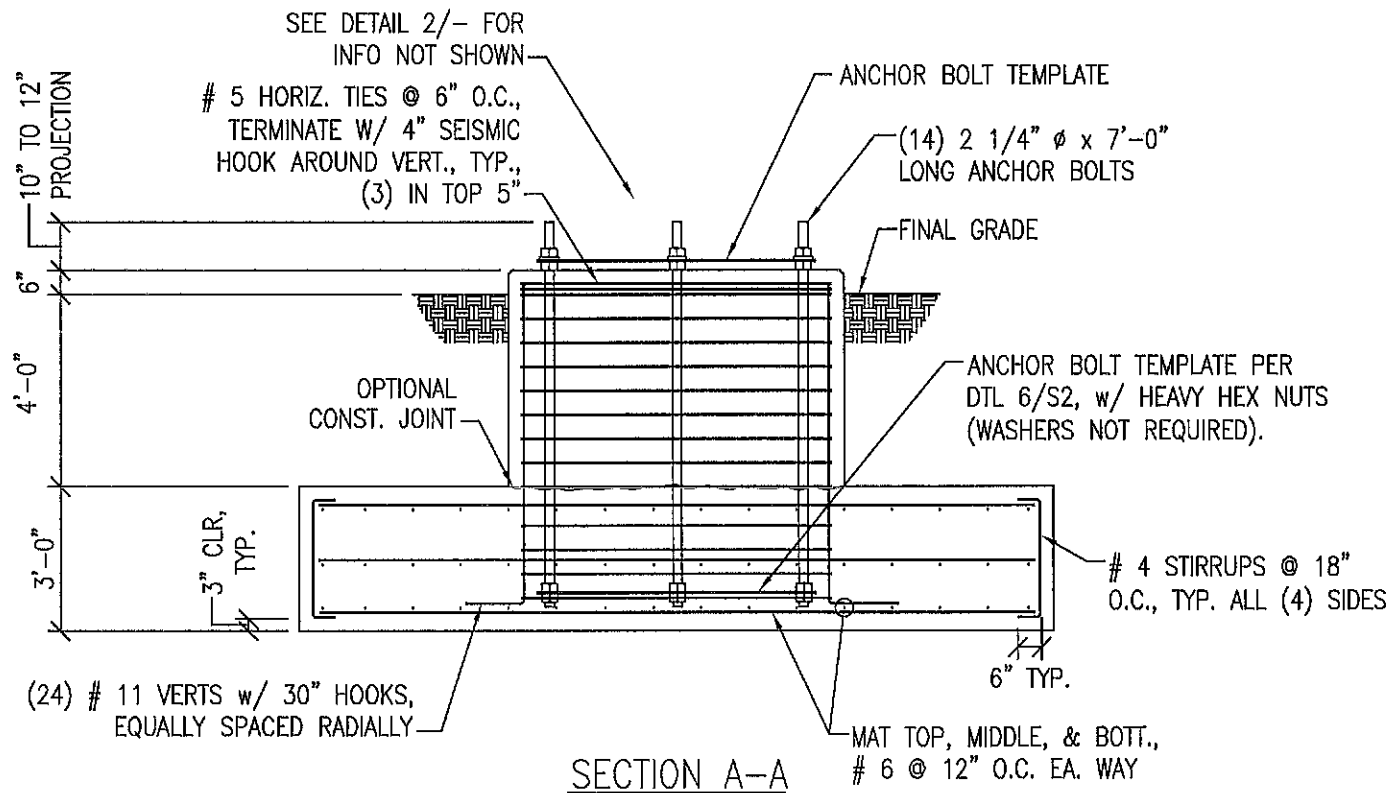
BERKSHIRE GEO-TECHNOLOGIES
DATE: 7/16/2012

2. ALL CONCRETE SHALL USE TYPE I OR II PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED ($6 \pm 1.5\%$). CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.50. CONCRETE SHALL HAVE A SLUMP OF 5" (± 1). ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-08.
3. REINFORCING STEEL SHALL CONFORM WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THIS DRAWING.
4. INSTALLATION OF MAT FOUNDATION SHOULD BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER FIRM. GEOTECHNICAL ENGINEER TO PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORD PURPOSES.
5. TOTAL ESTIMATED CONCRETE FOR MAT FOUNDATION = 55.4 CUBIC YARDS.



NON-SHRINK GROUT SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 6000 PSI @ 28 DAYS

BASE PLATE SHALL NOT BE GROUTED UNTIL AFTER THE STRUCTURE HAS BEEN INSTALLED AND PLUMBED



MAT FOUNDATION

DATE: 7/24/2012 DESIGNED: LCC DRAFTER: BAD

| REVISIONS | |
|-----------|-------------|
| DATE | DESCRIPTION |
| | |
| | |
| | |
| | |

LARSON CAMOUFLAGE

1501 South Euclid Avenue
Tucson, AZ 85713
(520) 294-3900
www.larsoncamo.com

JOB #: 611200

FOUNDATION

WATERTOWN
130' TALL MONOPOLE

655 BASSETT ROAD
WATERTOWN, CT 06795

U1223-226-121

S3

REV
0