

**REFERENCES:**

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND UNDERSTANDING THE REFERENCED CODES AND STANDARDS. ALL REFERENCES MUST BE CURRENT WITHIN THE LAST FIVE YEARS. THE FOLLOWING CODES AND STANDARDS ARE REFERENCED IN THE STRUCTURAL NOTES:

- ASTM A6 STANDARD SPECIFICATION FOR GENERAL REQUIREMENTS FOR ROLLED STRUCTURAL STEEL BARS, PLATES, SHAPES, AND SHEET PILING
- ASTM A36 STANDARD SPECIFICATION FOR CARBON STRUCTURAL STEEL
- ASTM A53 STANDARD SPECIFICATION FOR PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED, WELDED AND SEAMLESS
- ASTM A123 STANDARD SPECIFICATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS
- ASTM A153 STANDARD SPECIFICATION FOR ZINC COATING (HOT DIP) ON IRON AND STEEL HARDWARE
- ASTM A307 STANDARD SPECIFICATION FOR CARBON STEEL BOLTS AND STUDS, 60 000 PSI TENSILE STRENGTH
- ASTM A325 STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH
- ASTM A490 STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, ALLOY STEEL, HEAT TREATED, 150 KSI MINIMUM TENSILE STRENGTH
- ASTM A500 STANDARD SPECIFICATION FOR COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES
- ASTM A563 STANDARD SPECIFICATION FOR CARBON AND ALLOY STEEL NUTS
- ASTM A568 STANDARD SPECIFICATION FOR STEEL, SHEET, CARBON, STRUCTURAL, AND HIGH-STRENGTH, LOW-ALLOY, HOT-ROLLED AND COLD-ROLLED, GENERAL REQUIREMENTS FOR
- ASTM A572 STANDARD SPECIFICATION FOR HIGH-STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STRUCTURAL STEEL
- ASTM A780 STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT DIP GALVANIZED COATINGS
- ASTM A992 STANDARD SPECIFICATION FOR STRUCTURAL STEEL SHAPES
- ASTM B633 STANDARD SPECIFICATION FOR ELECTRODEPOSITED COATINGS OF ZINC ON IRON AND STEEL
- ASTM B695 STANDARD SPECIFICATION FOR COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL
- ASTM F436 STANDARD SPECIFICATION FOR HARDENED STEEL WASHERS

AISC MANUAL OF STEEL CONSTRUCTION

ASCE 07 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES  
 AWS D1.1 STRUCTURAL WELDING CODE – STRUCTURAL STEEL  
 INTERNATIONAL BUILDING CODE

**GENERAL NOTES:**

1. PLANS, SECTIONS, AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.
2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND REFERENCES AS INDICATED IN THESE NOTES.
3. ALL WORK DESCRIBED BY THESE DRAWINGS SHALL BE PERFORMED BY A QUALIFIED CONTRACTOR WITH A MINIMUM OF 5 YEARS OF PAST EXPERIENCE IN THE WORK BEING PERFORMED.
4. THESE STRUCTURAL NOTES PROVIDE STANDARDS FOR MATERIALS AND WORKMANSHIP FOR THE STRUCTURAL PORTION OF THE JOB. REFERENCE THE ARCHITECTURAL DRAWINGS FOR GENERAL NOTES WHICH ADDRESS REQUIREMENTS FOR THE CONTRACTOR, SAFETY, LIMITS OF SCOPE AND LIABILITY, AND EXPECTED WORKMANSHIP.
5. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY THE EXISTING STRUCTURE TO VERIFY DIMENSIONS, ELEVATIONS, FRAMING, ETC. WHICH AFFECT THE WORK SHOWN ON THE DRAWINGS.
6. DISCREPANCIES: THE CONTRACTOR SHALL INFORM GLOTEL IN WRITING, DURING THE BIDDING PER OF ANY DISCREPANCIES OR OMISSIONS ON THE DRAWINGS, THE SPECIFICATIONS, OR WITH RESPECT TO EXISTING CONDITIONS FROM THE SITE SURVEY. UPON RECEIPT OF SUCH INFORMATION, THE PROJECT REPRESENTATIVE WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED.

**SHOP DRAWINGS:**

1. ALL FABRICATION / SHOP DRAWINGS ARE TO BE REVIEWED FOR COMPLIANCE TO THE STRUCTURAL DRAWINGS AND SIGNED OFF BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION.

**BOLTS AND SCREWS:**

1. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED HIGH STRENGTH ASTM A325 OR A490 BOLTS WITH THREADS EXCLUDED IN SHEAR PLANE. U-BOLTS ARE ASTM A307 WITH LOCKING DEVICE EXCEPT WHERE NOT APPLICABLE.
2. NUTS CONFORM TO ASTM A563. WASHERS CONFORM TO ASTM F436.
3. THREADED RODS CONFORM TO ASTM A36 UNLESS SPECIFIED OTHERWISE.
4. ANCHOR RODS CONFORM TO ASTM F1554.
5. FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES.
6. ALL BOLTS AT EVERY CONNECTION SHALL BE INSTALLED SNUG FIT UNTIL THE SECTION IS FULLY COMPACTED, AND THEN TIGHTENED FURTHER BY AISC – "TURN OF THE NUT", TIGHTENING SHALL PROGRESS SYSTEMATICALLY.
7. BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS SHALL BE TENSIONED 1/3 TURN BEYOND SNUG FIT. BOLT LENGTHS OVER 4 DIAMETERS SHALL BE 1/2 TURN BEYOND SNUG FIT.
8. ALL BOLTED CONNECTIONS SHALL USE LOCK WASHERS.

**CORROSION CONTROL:**

1. ALL STEEL MEMBERS SHALL HAVE CORROSION CONTROL AS STATED BELOW:
  - STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123
  - FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153, ASTM B695 CLASS 50, OR BE ELECTRO-GALVANIZED PER ASTM B633. (A490 BOLTS SHALL NOT BE HOT DIPPED GALVANIZED)
  - GUYS STANDS SHALL BE PROTECTED IN ACCORDANCE WITH ASTM A475 OR A586 MINIMUM CLASS A COATING
  - GUY ANCHORAGE IN DIRECT CONTACT OF GROUND SHALL BE HOT DIPPED GALVANIZED PER ASTM A123
  - ALL REPAIRS SHALL BE PROTECTED IN ACCORDANCE WITH ASTM A780
2. ALL FIELD CUT SURFACES SHALL BE REPAIRED WITH (2) COATS OF A 95% ZINC RICH PAINT PER ASTM A780.
3. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH (2) COATS OF ZINC RICH PAINT.
- 4.

**DESIGN CRITERIA:**

- 2018 INTERNATIONAL BUILDING CODE
- TIA 222

**SEISMIC DESIGN:**

LATITUDE = 47.181444  
 LONGITUDE = -122.296528  
 MAPPED PARAMETER,  $S_s = 0.996$  (USGS)  
 MAPPED PARAMETER,  $S_1 = 0.35$  (USGS)  
 RISK CATEGORY = III  
 IMPORTANCE FACTOR,  $I_e = 1.0$   
 SITE CLASS = D  
 SEISMIC DESIGN CATEGORY = D  
 AMPLIFICATION FACTOR,  $A_p = 1$   
 RESPONSE FACTOR,  $R_p = 2.5$

**WIND DESIGN CRITERIA:**

EXPOSURE = C  
 BASIC WIND SPEED,  $V = 105$  MPH  
 TOPOGRAPHIC FACTOR,  $K_{zt} = 0.95$   
 GROUND ELEVATION FACTOR,  $K_e = 1.0$   
 DIRECTIONALITY FACTOR,  $K_d = 0.95$   
 SHIELDING FACTOR,  $K_s = 0.90$   
 GUST FACTOR,  $G_H = 1.10$



5628 AIRPORT WAY  
 SOUTH, SUITE 330  
 SEATTLE, WA 98108

RFDS VERSION 2

**SE04823C**  
 WASHINGTON STATE  
 FAIR/LIGHT POLE

902 S MERIDIAN  
 PUYALLUP, WA 98371  
 PIERCE COUNTY

**REVISIONS**

DRAWN BY		CHECKED		APPROVED	
RLD		NIL		RM	
REV.	DATE	DESCRIPTION	BY		
A	01/21/22	ISSUED FOR 90% CD REVIEW	RLD		
0	03/16/22	ISSUED FOR 100% CONSTRUCTION	RLD		



TITLE  
 STRUCTURAL NOTES

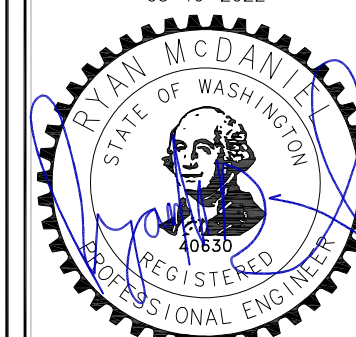
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**S-1**

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03-16-2022



EXPIRES 01-09-2023

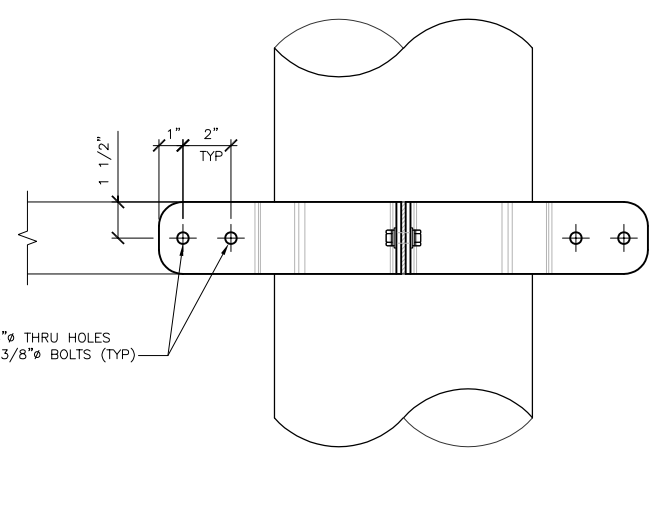
TITLE  
FRP ANTENNA CANISTER DETAILS

SHEET

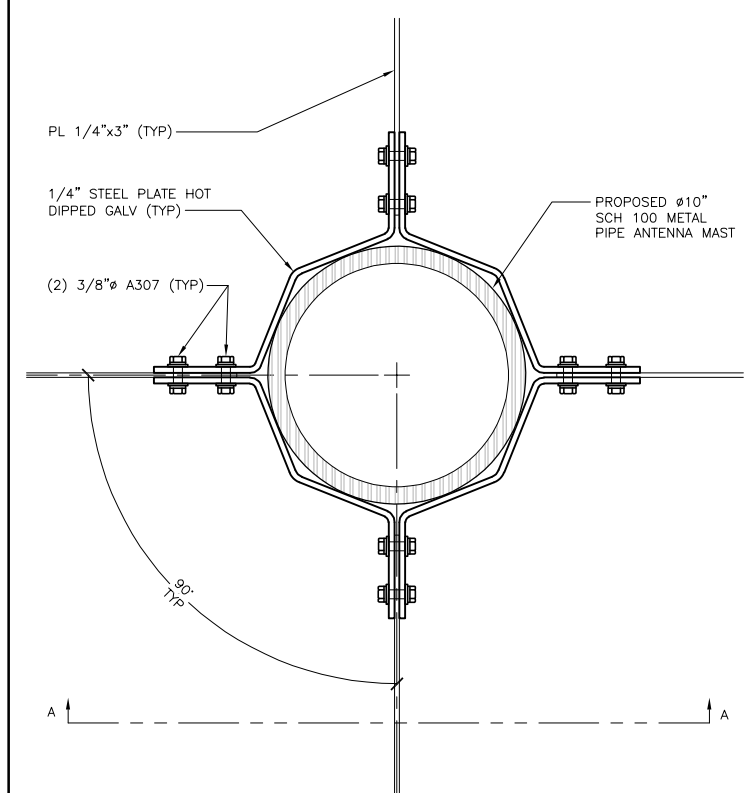
S-2

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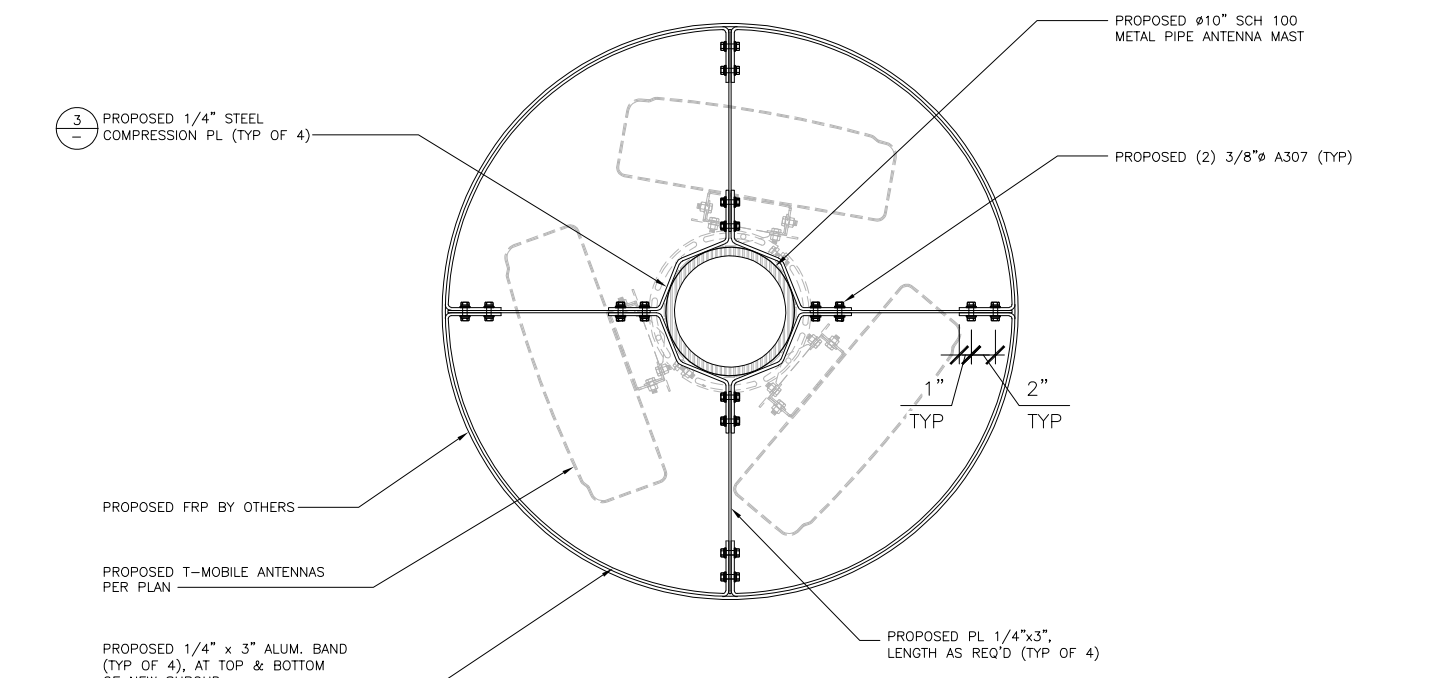
NOTE:  
PROPOSED FRP CANISTERS TO BE PAINTED  
TO MATCH THE EXISTING LIGHT POLE.



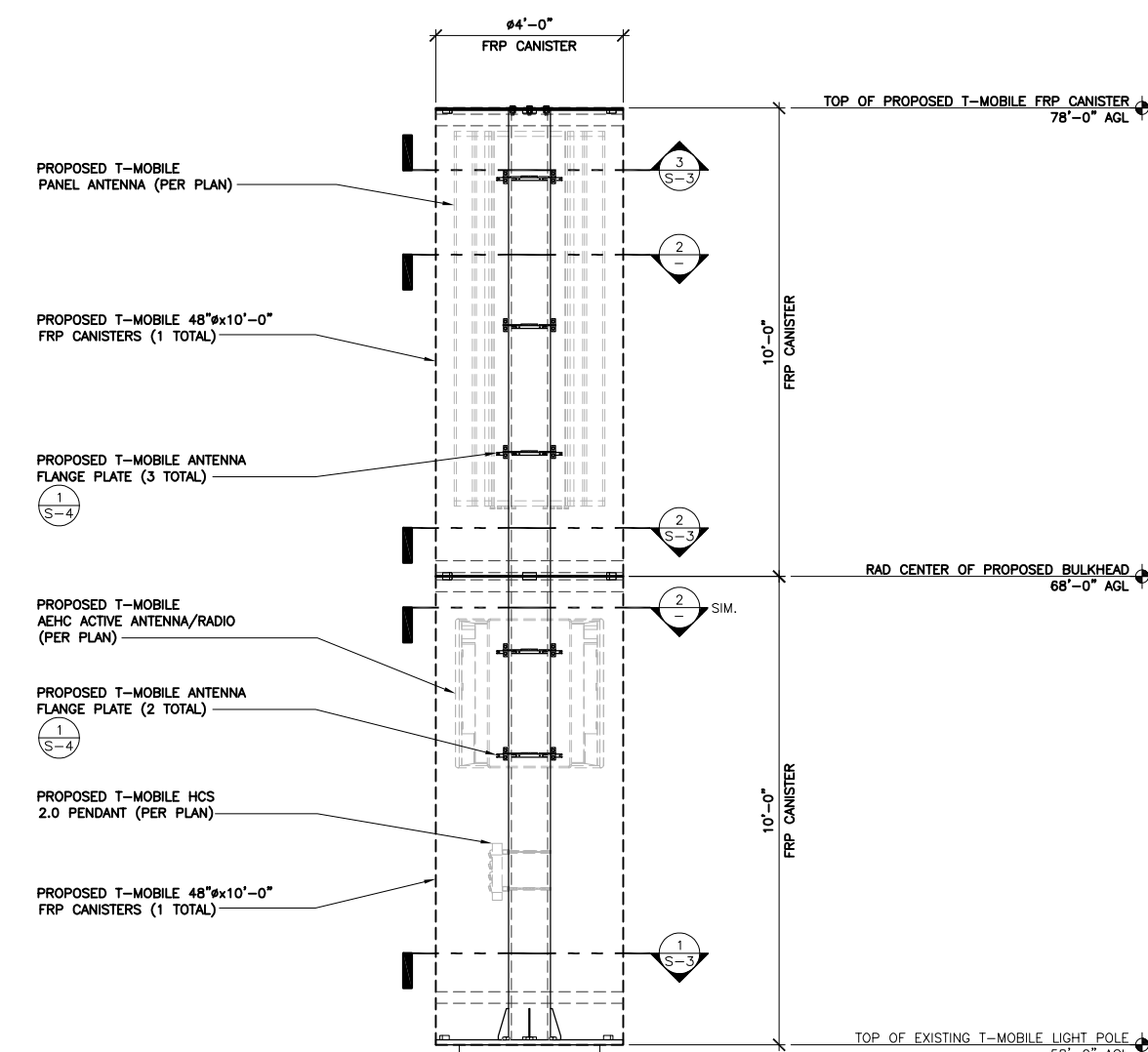
24"x36" SCALE: 3" = 1'-0"  
11"x17" SCALE: 1-1/2" = 1'-0"  
**TYPICAL COMPRESSION PLATE 4**



24"x36" SCALE: 3" = 1'-0"  
11"x17" SCALE: 1-1/2" = 1'-0"  
**FRP CANISTER CONNECTION 3**



24"x36" SCALE: 1" = 1'-0"  
11"x17" SCALE: 1/2" = 1'-0"  
**FRP ANTENNA CANISTER PLAN 2**

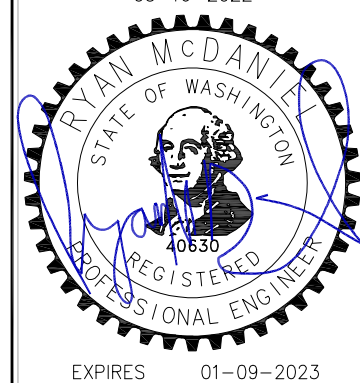


24"x36" SCALE: 1/2" = 1'-0"  
11"x17" SCALE: 1/4" = 1'-0"  
**FRP ANTENNA CANISTER ELEVATION 1**

REVISIONS

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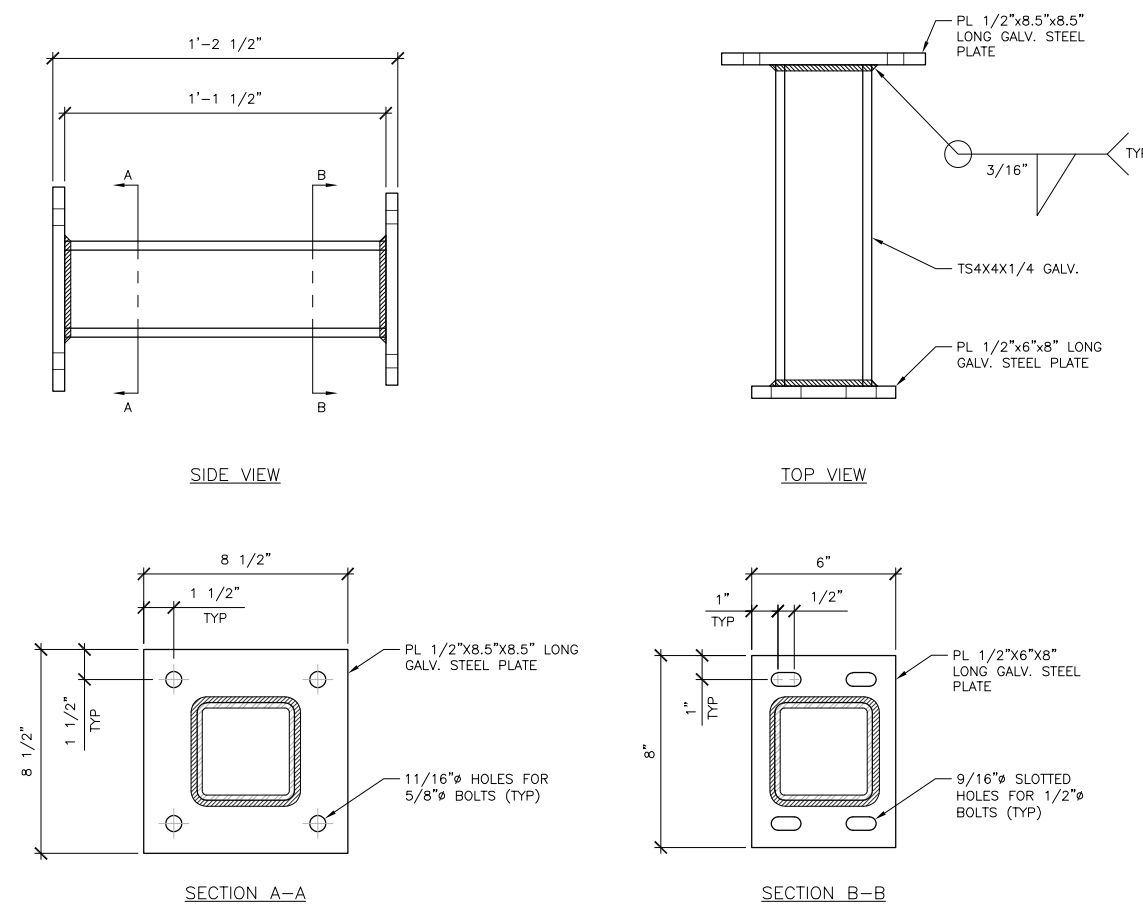
03-16-2022



TITLE  
FRP RRH UNIT CANISTER DETAILS

SHEET  
S-2.1

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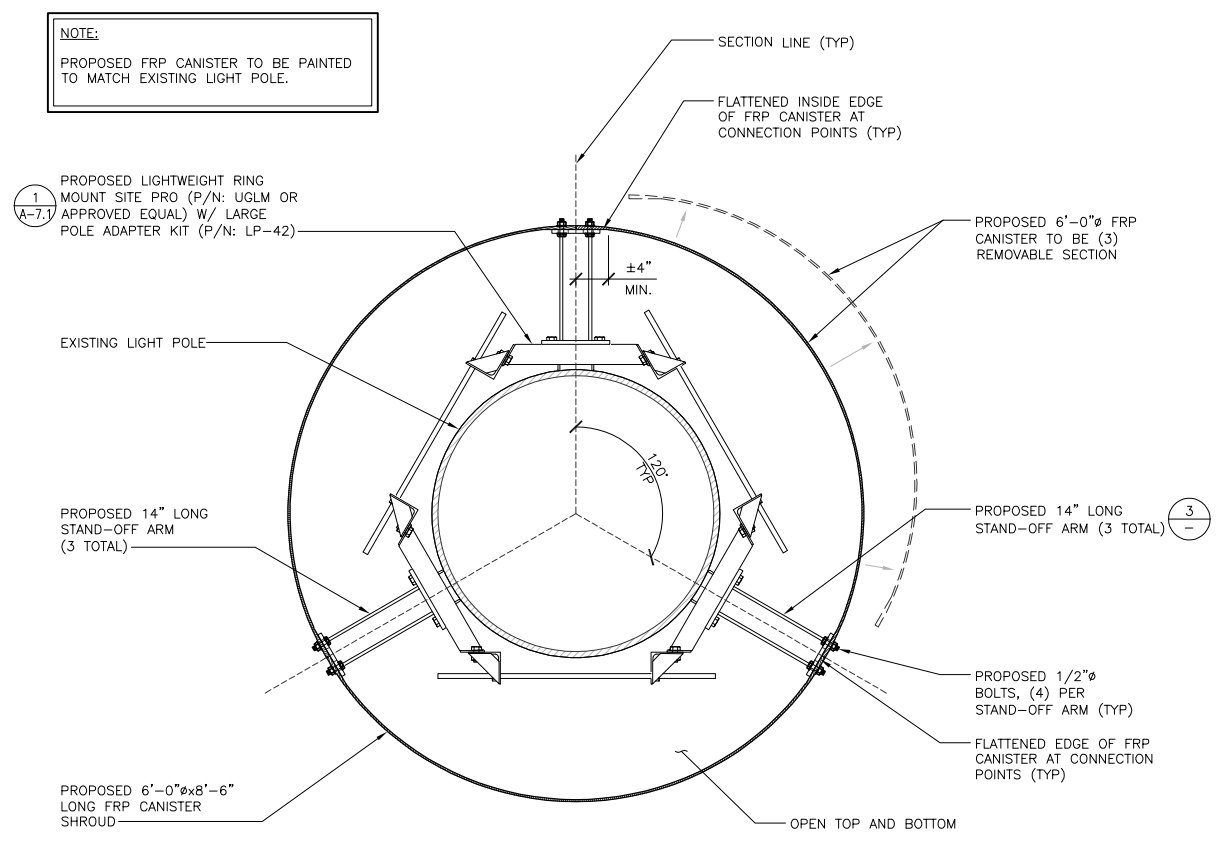


NOT USED 4

STAND-OFF ARM 3

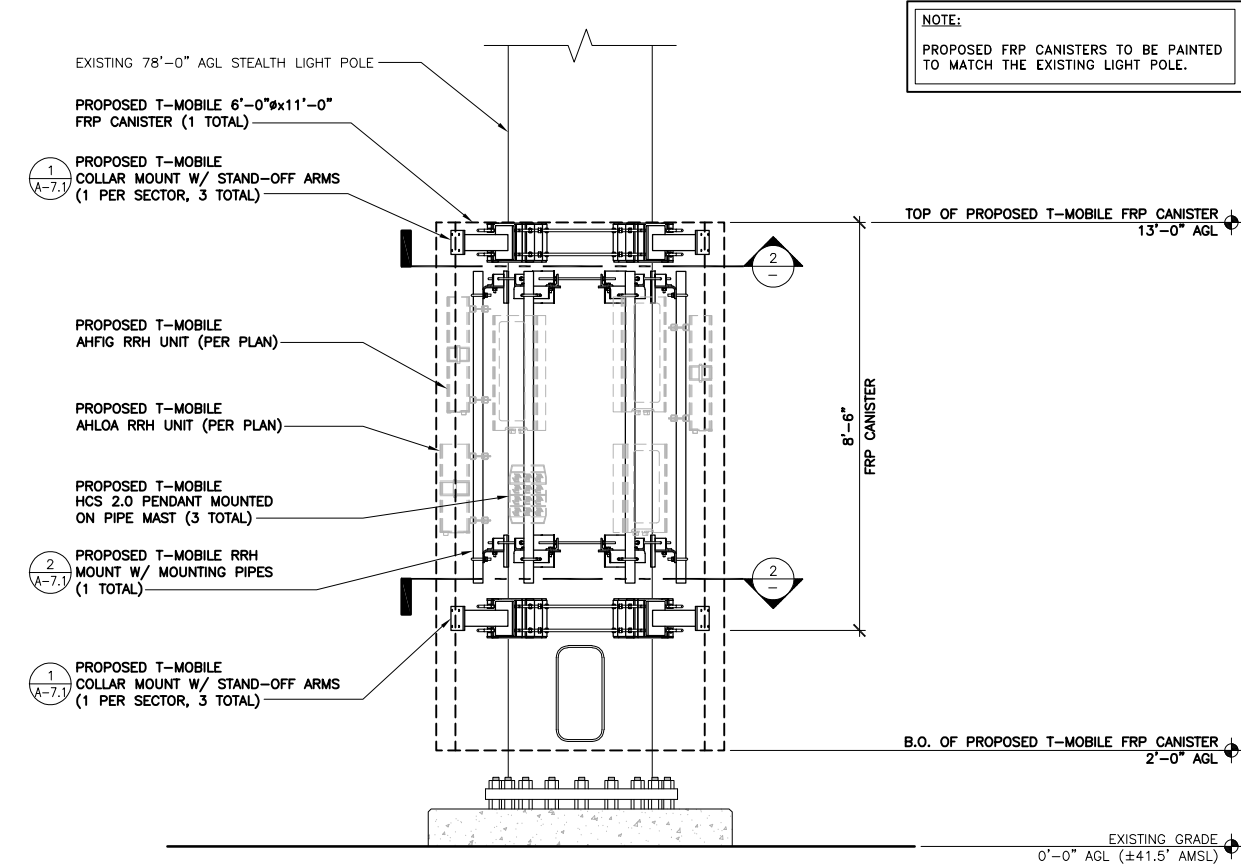
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24"x36" SCALE: 3" = 1'-0"  
11"x17" SCALE: 1-1/2" = 1'-0"



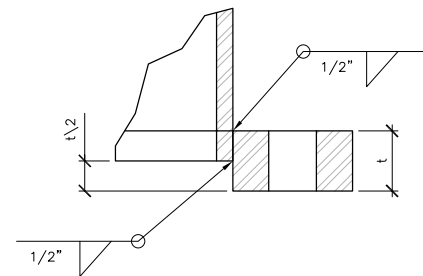
FRP RRH UNIT CANISTER PLAN 2

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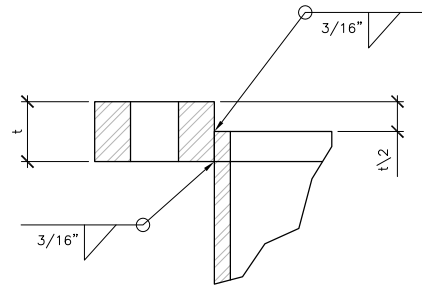


FRP RRH CANISTER ELEVATION 1

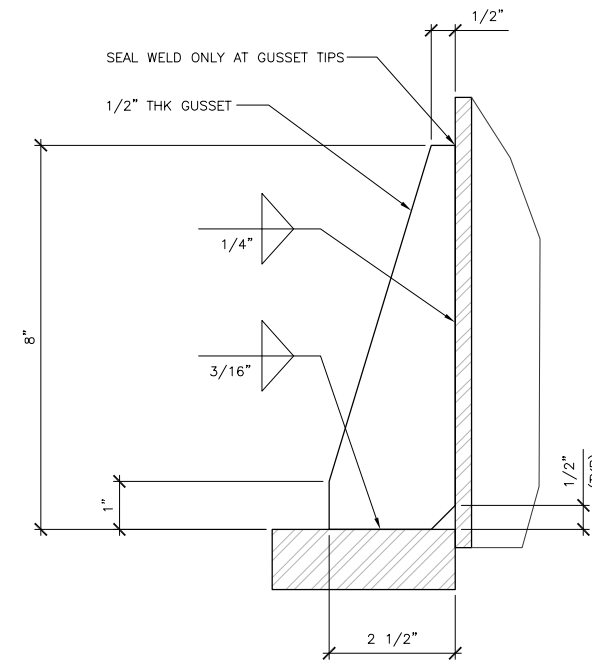
24"x36" SCALE: 1/2" = 1'-0"  
11"x17" SCALE: 1/4" = 1'-0"



SECTION A-A



SECTION B-B



SECTION C-C

24"x36" SCALE: 6" = 1'-0"  
11"x17" SCALE: 3" = 1'-0"

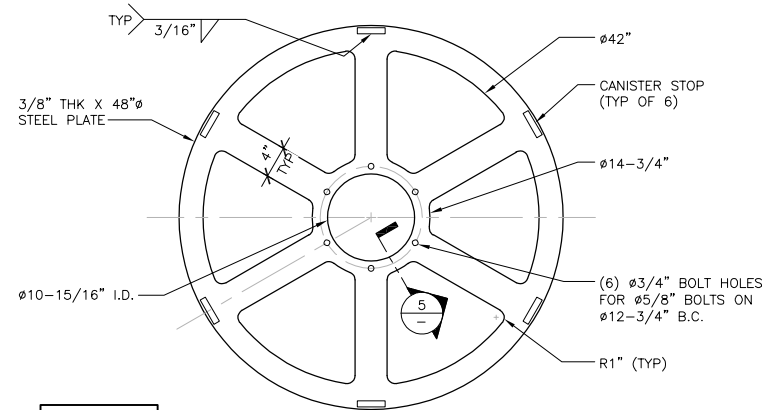
MAST & PLATE CONNECTION 6

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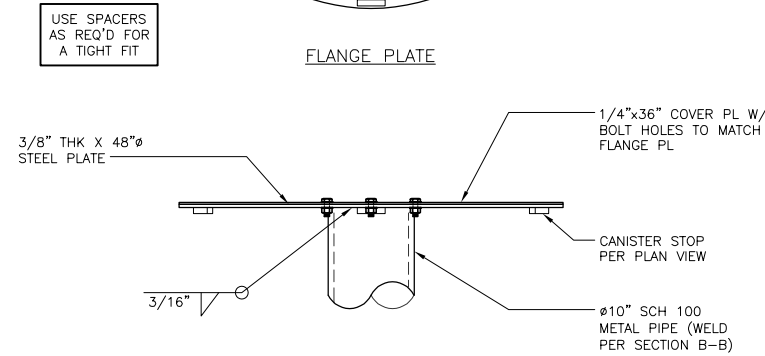
MAST & PLATE CONNECTION 5

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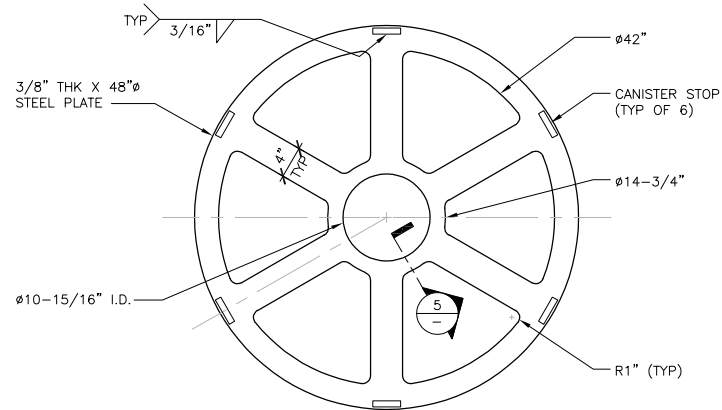
TYPICAL GUSSET PLATE CONNECTION 4



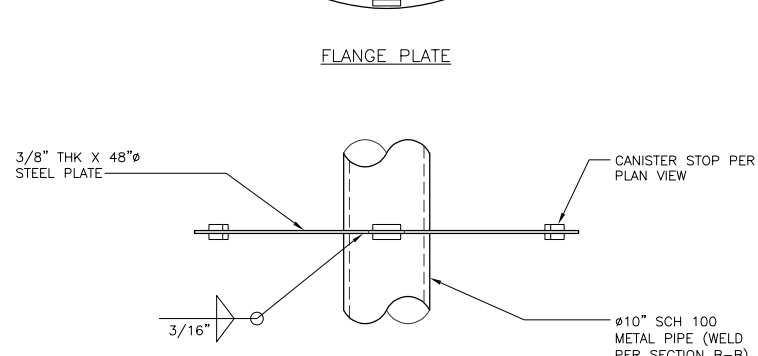
FLANGE PLATE



ELEVATION VIEW



FLANGE PLATE



ELEVATION VIEW

24"x36" SCALE: 1" = 1'-0"  
11"x17" SCALE: 1/2" = 1'-0"

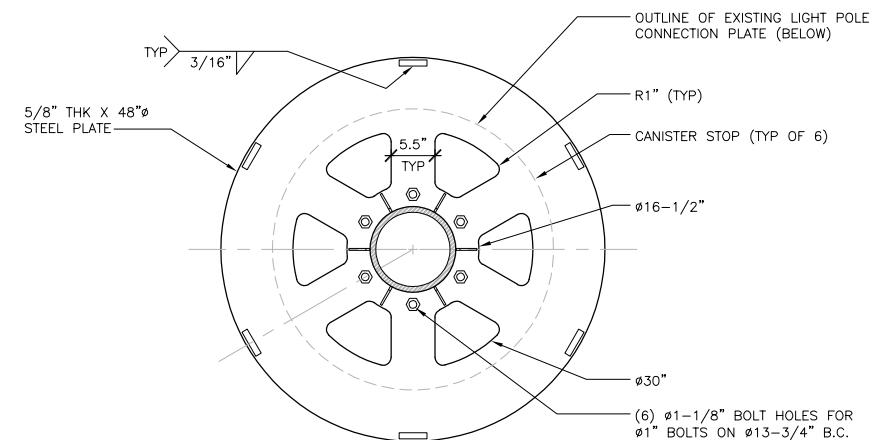
TOP CANISTER PLATE CONNECTION 3

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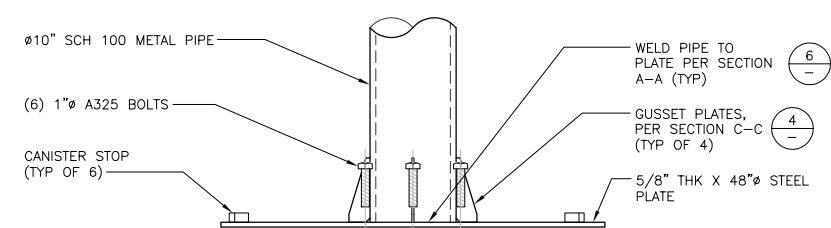
BULKHEAD CONNECTION 2

24"x36" SCALE: 1" = 1'-0"  
11"x17" SCALE: 1/2" = 1'-0"

ANTENNA MAST & STEEL PLATE CONNECTION @ POLE 1



SPOKED PLATE



ELEVATION VIEW

T-Mobile

RYKA CONSULTING

5628 AIRPORT WAY  
SOUTH, SUITE 330  
SEATTLE, WA 98108

RFDS VERSION 2

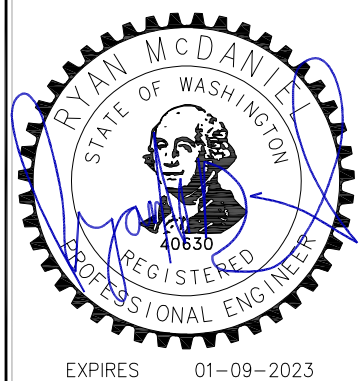
SE04823C  
WASHINGTON STATE  
FAIR/LIGHT POLE

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PUYALLUP, WA 98371  
PIERCE COUNTY

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TITLE  
STRUCTURAL DETAILS

SHEET

S-3

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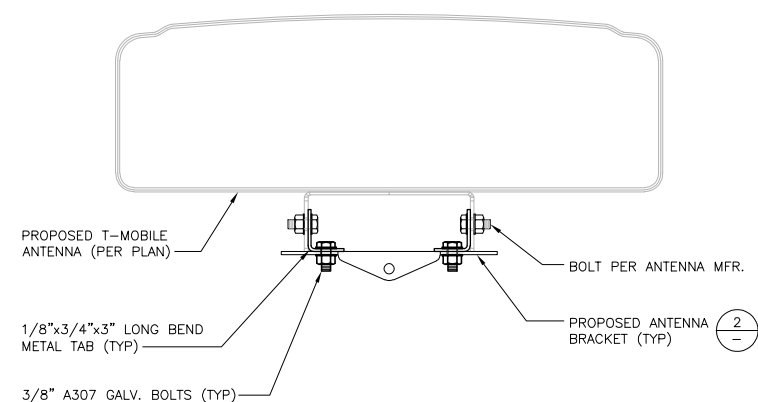
03-16-2022

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TITLE  
STRUCTURAL DETAILS

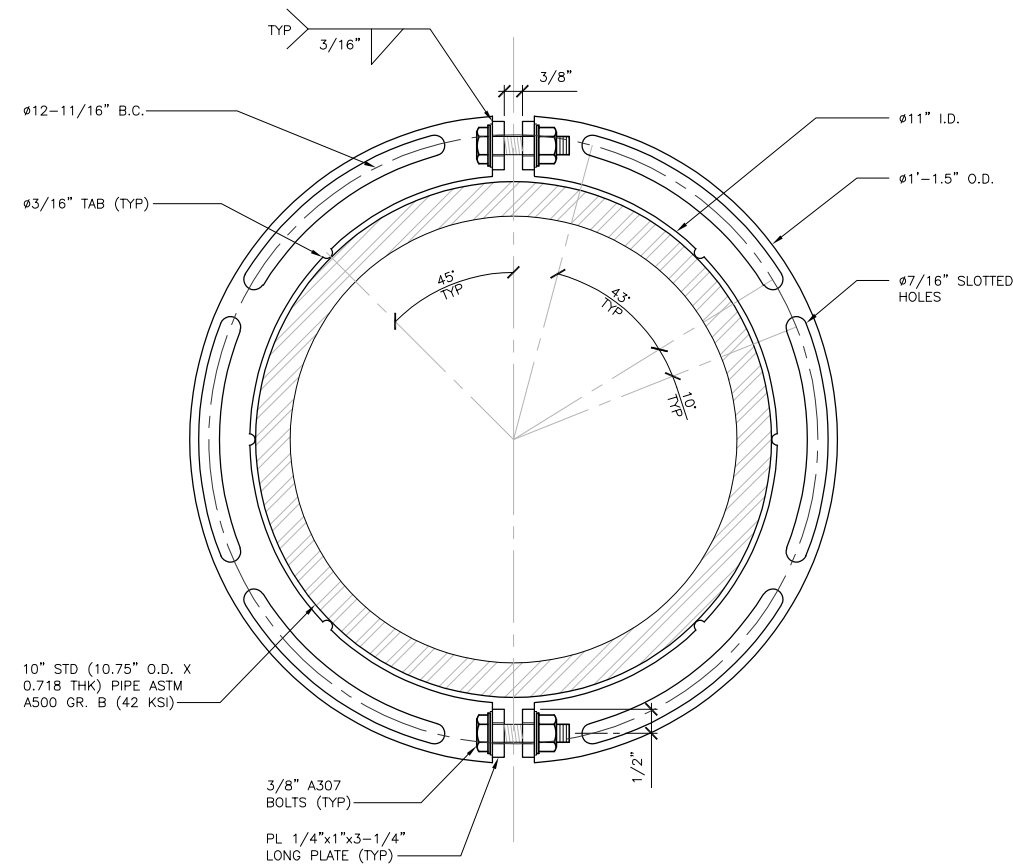
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**S-4**

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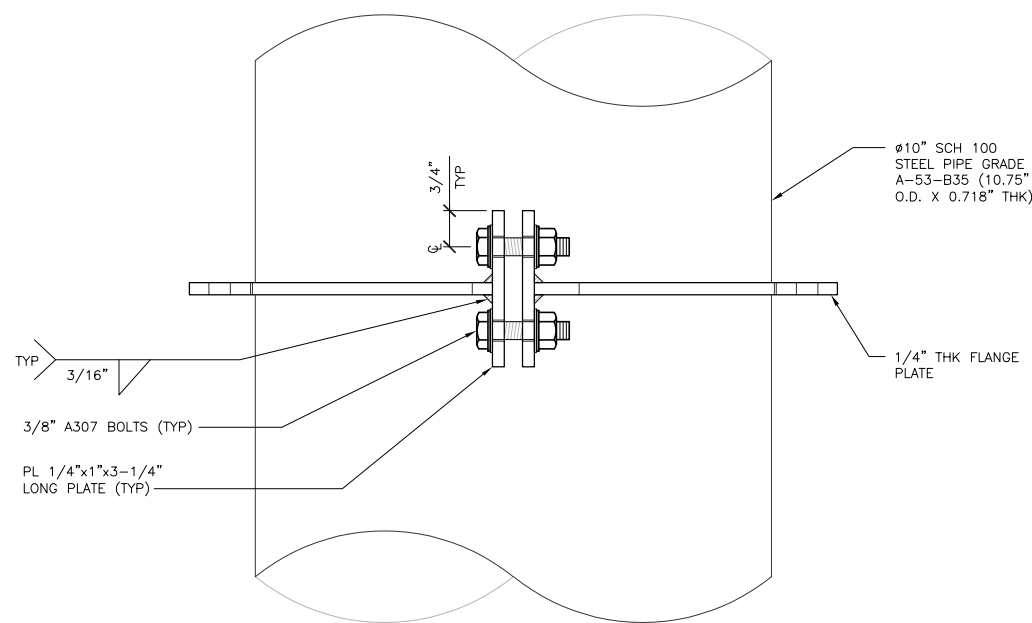


24"x36" SCALE: 3" = 1'-0"  
11"x17" SCALE: 1-1/2" = 1'-0"

ANTENNA MOUNTING **3**



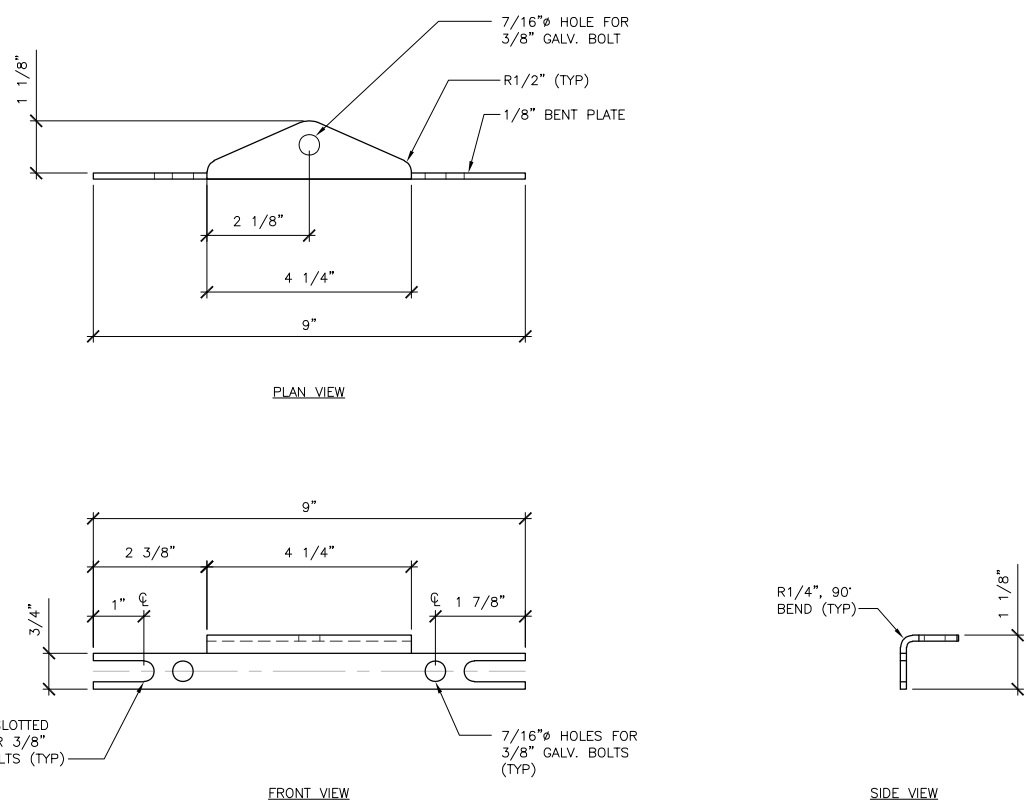
PLAN VIEW



ELEVATION VIEW

24"x36" SCALE: 6" = 1'-0"  
11"x17" SCALE: 3" = 1'-0"

ANTENNA FLANGE PLATE **1**



24"x36" SCALE: 6" = 1'-0"  
11"x17" SCALE: 3" = 1'-0"

ANTENNA MOUNTING BRACKET **2**