

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES  
AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  
  
2018 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS  
2018 INTERNATIONAL FIRE CODE (IFC)  
2018 INTERNATIONAL ENERGY CONSERVATION CODE

PROPERTY LEGAL DESCRIPTION:

SEE SCHEDULE "C" OF TITLE REPORT

AT&T

SITE NUMBER:

OL0734

SITE NAME:

OLYMPIA MISSION CREEK

SITE TYPE:

MONOPINE / WUC

ADDRESS:

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506

PARCEL ID:

80800400300

NEW BUILD LTE ONLY 1C: MRWOR005896

5G NR 1SR: MRWOR067548

LTC 3C: MRWOR067551

LTC 2C: MRWOR067713

LTC 4C: MRWOR067553

5G NR 1SR CBAND: TBD

USID: 319980

FA CODE: 10578441

PROJECT TEAM

APPLICANT / LESSEE:

NEW CINGULAR WIRELESS PCS, LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

CONSTRUCTION MANAGER:

CONTACT: TOM LOGAN  
EMAIL: tl804w@att.com  
PH: (253) 709-0317

A&E MANAGER:

J5 INFRASTRUCTURE PARTNERS  
CONTACT: JARRETT ELLINGTON  
EMAIL: jellington@j5ip.com  
PH: (706) 294-1479

PROJECT MANAGER:

J5 INFRASTRUCTURE PARTNERS  
CONTACT: SARA MITCHELL  
EMAIL: samitchell@j5ip.com  
PH: (971) 281-1422

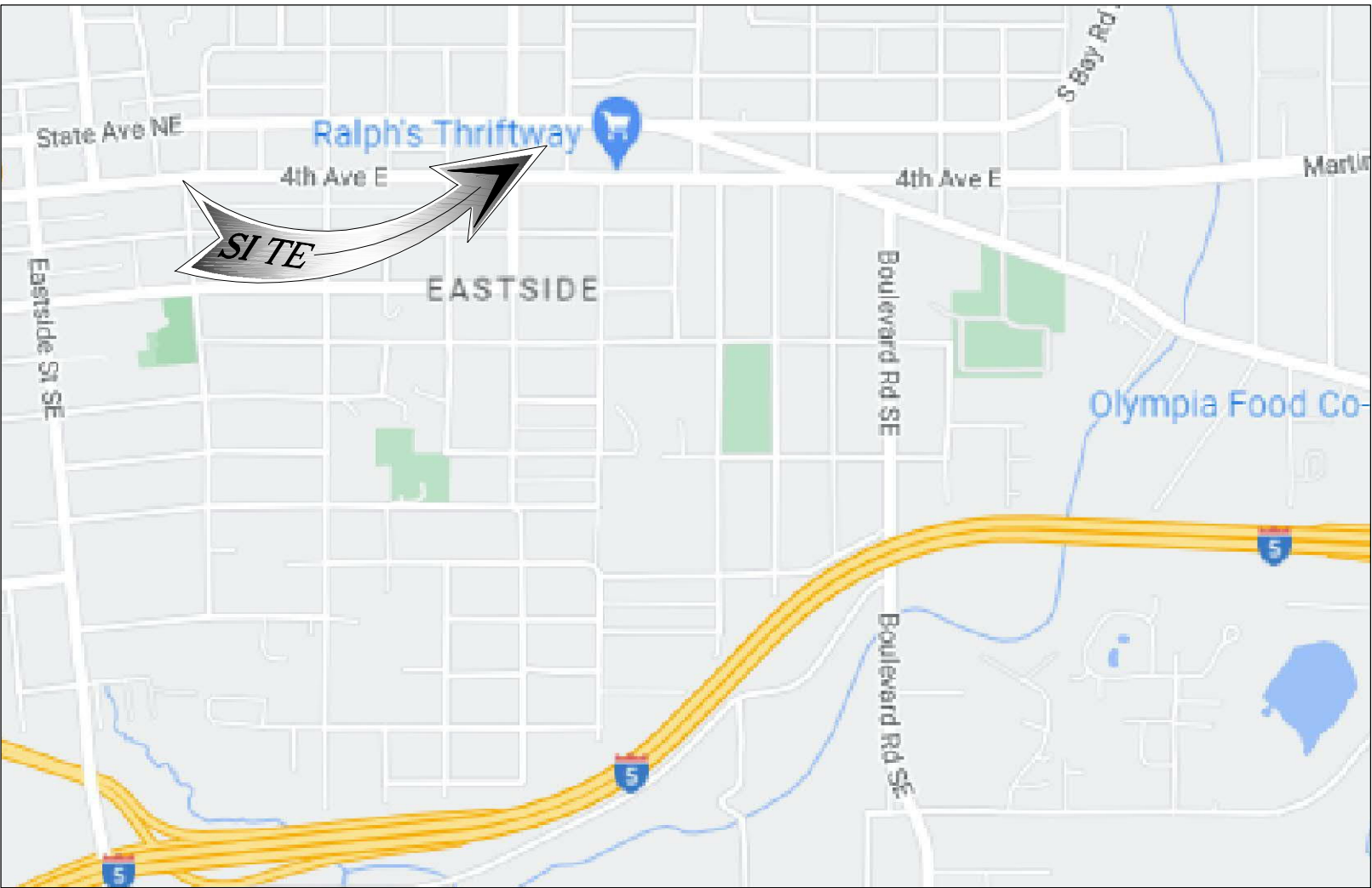
SITE ACQUISITION:

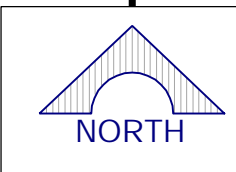
J5 INFRASTRUCTURE PARTNERS  
CONTACT: KELLY LEA  
EMAIL: klea@j5ip.com  
PH: (503) 380-2717

ZONING:


J5 INFRASTRUCTURE PARTNERS  
CONTACT: PHILLIP KITZES  
EMAIL: pkitzes@j5ip.com  
PH: (206) 227-7445

VICINITY MAP





LOCAL MAP



PROJECT DESCRIPTION

PROPOSED SITE BUILD OF AN UNMANNED TELECOMMUNICATIONS FACILITY, CONSISTING OF THE FOLLOWING:

TOWER/ANTENNA SOW:

- INSTALLATION OF (1) AT&T 120'-0" HIGH MONOPINE
- INSTALLATION OF (1) AT&T 5'-0" LIGHTNING ROD
- INSTALLATION OF (9) AT&T PANEL ANTENNAS
- INSTALLATION OF (9) AT&T REMOTE RADIO UNITS (RRU'S)
- INSTALLATION OF (6) AT&T RRH MOUNTS
- INSTALLATION OF (2) AT&T DC-9 SURGE SUPPRESSORS
- INSTALLATION OF (3) AT&T V-FRAME ANTENNA MOUNTS

EQUIPMENT SOW:

- INSTALLATION OF AN AT&T 20'-2" X 33'-9" (573 SQ. FT.) TELECOMMUNICATION COMPOUND LEASE AREA
- INSTALLATION OF AN AT&T 19'-0" X 32'-7", 6'-0" HIGH WOOD FENCE
- INSTALLATION OF (1) AT&T WALK-UP CABINET (WUC) ON CONCRETE PAD
- INSTALLATION OF (1) AT&T 30KW AC DIESEL BACK-UP GENERATOR ON CONCRETE PAD
- INSTALLATION OF (1) AT&T 200A AC POWER PANEL
- INSTALLATION OF (8) AT&T BATTERIES
- INSTALLATION OF (1) AT&T H-FRAME W/ UTILITY EQUIPMENT
- INSTALLATION OF (1) AT&T CABLE BRIDGE
- INSTALLATION OF (1) AT&T CABLE SLACK BOX
- INSTALLATION OF (6) AT&T DC POWER & (2) 24 PAIR FIBER CABLE TRUNKS
- INSTALLATION OF (1) AT&T SPD SURGE SUPPRESSOR BOX
- INSTALLATION OF (8) AT&T RECTIFIERS
- INSTALLATION OF (1) AT&T BASEBAND UNIT
- INSTALLATION OF (1) AT&T GPS ANTENNA
- INSTALLATION OF (4) SHRUBS

DEMO SOW:

- REMOVAL OF (E) SHRUBS

PROJECT AREA:

- 20'-2" X 33'-9" (573 SQ. FT.) LEASE AREA

SITE INFORMATION

PROPERTY OWNER:

ELKS LODGE  
1818 4TH AVENUE EAST  
OLYMPIA, WA 98506

JURISDICTION:

CITY OF OLYMPIA

WIND LOADS:

105 MPH (3-SECOND GUST)

EXPOSURE CATEGORY:

C

SEISMIC ZONE:

1

FLOOD ZONE:

---

PARCEL ID #:

80800400300

ZONING:

HIGH DENSITY CORRIDOR (HDC-2)

LATITUDE (NAD 83):

47.04659°

LONGITUDE (NAD 83):

-122.87704°

IMPERVIOUS SURFACE:

0 SQ. FT.

BASE OF EXISTING STRUCTURE:

±0' (±201.46' AMSL)

TOP OF EXISTING STRUCTURE:

±120' (±321.46' AMSL)

TOP OF STRUCTURE WITH PROPOSED EXTENSION:

±1250' (±326.46' AMSL)

ACCESSIBILITY REQUIREMENTS:

FACILITY IS AN UNMANNED EQUIPMENT SPACE NOT INTENDED FOR HUMAN HABITATION AND ONLY FREQUENTLY VISITED BY MAINTENANCE PERSONAL. ACCESSIBILITY IS NOT REQUIRED PER IBC 2018, SECTION 1103.2.9 (EQUIPMENT SPACES)

TOWER OWNER:

AT&T

POWER AGENCY:

PUGET SOUND ELECTRIC

TELEPHONE AGENCY:

TBD

RFDS VERSION:

FINAL/1.0

DATE UPDATED:

6/21/2022

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWINGS

THESE PLANS ARE FORMATTED TO BE FULL SIZE AT 24" X 36". CONTRACTORS SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

STATEMENTS

STRUCTURAL ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWINGS SET. FOR ANALYSIS OF EXISTING AND/OR PROPOSED COMPONENTS, REFER TO STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.  
  
ANTENNA MOUNT ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWING SET. FOR ANALYSIS OF MOUNT TO SUPPORT EXISTING AND/OR PROPOSED COMPONENTS, REFER TO ANTENNA MOUNT STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.

DRIVING DIRECTIONS

DIRECTIONS FROM AT&T OFFICE LOCATED AT 19801 SW 72ND AVE, TUALATIN, OR 97062:

1. HEAD EAST TOWARD SW 72ND AVE (10 FT)

2. TURN RIGHT TOWARD SW 72ND AVE (128 FT)

3. TURN RIGHT ONTO SW 72ND AVE (489 FT)

4. TURN LEFT AT THE 1ST CROSS STREET ONTO SW SAGERT ST (0.4 MI)

5. TURN LEFT ONTO SW 65TH AVE (0.5 MI)

6. CONTINUE ONTO SW NYBERG ST (0.2 MI)

7. USE THE RIGHT LANE TO MERGE ONTO I-5 N VIA THE RAMP TO PORTLAND (0.3 MI)

8. MERGE ONTO I-5 N (9.5 MI)


9. USE THE MIDDLE 2 LANES TO STAY ON I-5 N (0.4 MI)

10. KEEP RIGHT TO STAY ON I-5 N (116 MI)

11. TAKE EXIT 107 FOR PACIFIC AVE (0.5 MI)

12. TURN LEFT ONTO PACIFIC AVE SE (1.2 MI)

13. USE THE LEFT LANE TO MERGE ONTO STATE AVE NE AND SITE WILL BE ON THE LEFT (0.1 MI)



800-227-2600

Call 2 Full Working Days In Advance

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REV.

Licenser:

Sheet Title:

TITLE SHEET

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T-1







## SITE WORK GENERAL NOTES

1. THE SUBCONTRACTOR SHALL CONTRACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES, SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A.) FALL PROTECTION B.) CONFINED SPACE C.) ELECTRICAL SAFETY D.) TRENCHING AND EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER, AND/OR LOCAL UTILITIES.
6. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
7. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW, OR ICE SHALL BE PLACED IN ANY FILL OR EMBANKMENT.
9. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT, OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
11. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
12. NOTICE TO PROCEED - NO WORK TO COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF A PURCHASE ORDER.
13. ALL CONSTRUCTION MEANS AND METHODS: INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL ADHERE TO ANSI/TIA-1019 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD. UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS.
  - 4.1. CONCRETE CAST AGAINST EARTH: 3" MIN.
  - 4.2. CONCRETE EXPOSED TO WEATHER:
    - 4.2.1. #6 AND LARGER - 2" MIN.
    - 4.2.2. #5 AND SMALLER & WWF. - 1 1/2" MIN.
  - 4.3. CONCRETE NOT EXPOSED TO WEATHER OR NOT CAST AGAINST THE GROUND:
    - 4.3.1. SLAB AND WALLS 3/4" MIN.
    - 4.3.2. BEAMS AND COLUMNS 1 1/2" MIN.
5. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
- |                 |                                   |
|-----------------|-----------------------------------|
| CONTRACTOR -    | J5 INFRASTRUCTURE PARTNERS        |
| SUBCONTRACTOR - | GENERAL CONTRACTOR (CONSTRUCTION) |
| CARRIER -       | AT&T                              |
| OEM -           | ORIGINAL EQUIPMENT MANUFACTURER   |
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE THEMSELVES, WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND AT&T
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. 'KITTING LIST' SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS. THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND AT&T PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT THE SUBCONTRACTOR'S EXPENSE; TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION, TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

CHECKED BY:

[illegible]

Licensors:

Sheet Title:

## GENERAL NOTES












Sheet Number:

GN-2









|    |   | <b>SAFETY DATA SHEET</b>  |               |  |  | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
|--|---|---|---------------|---|--|--|----------------------------------|---|-------------------------|---------------------------------|--|--|--------|---------------|----------|---|---|---|-----|-----------|-----------|--|-----------|---------|-----------------------|--|--|---------------|-----------|--------|--------------|-----------|--|-----------------------|-----------|--|---------------------------------|-----------|--|-------------------|-----------|--|-------------------|-----------|--|--|-----------|--|---------------------|------------|--|-------------------------------|----|--|--------|--|--|---------------------|----|-------|
| <b>II. PRODUCT IDENTIFICATION</b><br>Chemical Trade Name (as used on label): <b>Sealed Lead Battery</b><br>Aqueous and dry batteries manufactured using factory modified versions of Cyclone®, Genial®, 888, XE2®, Armanite Plus®, or Large TPPL®.<br>Synonyms:<br>Sealed Lead Acid Battery, VRLA Battery<br>Manufacturer's Name/Address:<br>EnerSys Energy Products Inc. (Formerly Hawker Energy Products Inc.)<br>617 N. Ridgeway Drive<br>Warrington, MO 64093-0501<br>CHEMTREC DOMESTIC: 800-24-9300 CHEMTREC INTL: 708-527-9877   |   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>III. GHS HAZARD IDENTIFICATION</b><br><table border="1"> <tr> <th>HEALTH</th> <th>ENVIRONMENTAL</th> <th>PHYSICAL</th> </tr> <tr> <td>           Acute Toxicity (Oral/Dermal/Inhalation) Category 4<br/>           Skin Corrosion/Irritation Category 1A<br/>           Eye Damage Category 1<br/>           Reproductive Category 1A<br/>           Carcinogenicity (Lead compounds) Category 1B<br/>           Carcinogenicity (acid mist) Category 1A<br/>           Specific Target Organ Toxicity (repeated exposure) Category 2         </td> <td>           Aquatic Chronic 1<br/>           Aquatic Acute 1         </td> <td>           Explosive Chemical, Division 1.3         </td> </tr> </table>  |   | HEALTH  | ENVIRONMENTAL | PHYSICAL  | Acute Toxicity (Oral/Dermal/Inhalation) Category 4<br>Skin Corrosion/Irritation Category 1A<br>Eye Damage Category 1<br>Reproductive Category 1A<br>Carcinogenicity (Lead compounds) Category 1B<br>Carcinogenicity (acid mist) Category 1A<br>Specific Target Organ Toxicity (repeated exposure) Category 2 | Aquatic Chronic 1<br>Aquatic Acute 1   | Explosive Chemical, Division 1.3 | <b>IV. GHS LABEL</b><br><table border="1"> <tr> <th>HEALTH</th> <th>ENVIRONMENTAL</th> <th>PHYSICAL</th> </tr> <tr> <td>  </td> <td>  </td> <td>  </td> </tr> </table> |                         |                                 |  |  | HEALTH | ENVIRONMENTAL | PHYSICAL |  |  |  |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| HEALTH   | ENVIRONMENTAL   | PHYSICAL  |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Acute Toxicity (Oral/Dermal/Inhalation) Category 4<br>Skin Corrosion/Irritation Category 1A<br>Eye Damage Category 1<br>Reproductive Category 1A<br>Carcinogenicity (Lead compounds) Category 1B<br>Carcinogenicity (acid mist) Category 1A<br>Specific Target Organ Toxicity (repeated exposure) Category 2   | Aquatic Chronic 1<br>Aquatic Acute 1  | Explosive Chemical, Division 1.3  |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| HEALTH   | ENVIRONMENTAL   | PHYSICAL  |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
|   |  |  |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>Precautionary Statements</b><br>DANGER!<br>Causes severe skin burns and serious eye damage.<br>May damage fertility or the unborn child if ingested or inhaled.<br>May cause cancer if ingested or inhaled.<br>Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure.<br>May form explosive vapors outside during charging.<br>Extremely flammable gas (hydrogen).<br>Explosive, fire, blast, or projection hazard.<br>May cause harm to breast-fed children.<br>Harmful if swallowed, inhaled, or contact with skin.<br>Causes skin irritation, serious eye damage.  |   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>II. COMPOSITION/INFORMATION ON INGREDIENTS</b><br><table border="1"> <tr> <th>Components</th> <th>CAS Number</th> <th>Approximate % by Weight</th> </tr> <tr> <td><b>Inorganic Lead Compound:</b></td> <td></td> <td></td> </tr> <tr> <td>Lead</td> <td>7439-92-1</td> <td>45 - 60</td> </tr> <tr> <td>Lead Dioxide</td> <td>1309-60-0</td> <td>13 - 25</td> </tr> <tr> <td>Tin</td> <td>7440-31-5</td> <td>0.1 - 0.2</td> </tr> <tr> <td><b>Sulfuric Acid Electrolyte (Sulfuric Acid/Water)</b></td> <td>7664-93-9</td> <td>13 - 20</td> </tr> <tr> <td><b>Case Material:</b></td> <td></td> <td></td> </tr> <tr> <td>Polypropylene</td> <td>9003-07-0</td> <td>5 - 10</td> </tr> <tr> <td>Polyethylene</td> <td>9003-03-6</td> <td></td> </tr> <tr> <td>Styrene Acrylonitrile</td> <td>9003-54-7</td> <td></td> </tr> <tr> <td>Acrylonitrile Butadiene Styrene</td> <td>9003-56-9</td> <td></td> </tr> <tr> <td>Styrene Butadiene</td> <td>9003-53-8</td> <td></td> </tr> <tr> <td>Polyethylacrylate</td> <td>9002-86-2</td> <td></td> </tr> <tr> <td>Polybutadiene, Hard Rubber, Polyethylene</td> <td>9002-88-4</td> <td></td> </tr> <tr> <td>Polyphenylene Oxide</td> <td>25134-01-4</td> <td></td> </tr> <tr> <td>Polybutadiene/Polyester Alloy</td> <td>--</td> <td></td> </tr> <tr> <td>Other:</td> <td></td> <td></td> </tr> <tr> <td>Absorbent Glass Mat</td> <td>--</td> <td>1 - 2</td> </tr> </table> |   |   |               |   |  |  | Components                       | CAS Number  | Approximate % by Weight | <b>Inorganic Lead Compound:</b> |  |  | Lead   | 7439-92-1     | 45 - 60  | Lead Dioxide  | 1309-60-0   | 13 - 25   | Tin | 7440-31-5 | 0.1 - 0.2 | <b>Sulfuric Acid Electrolyte (Sulfuric Acid/Water)</b> | 7664-93-9 | 13 - 20 | <b>Case Material:</b> |  |  | Polypropylene | 9003-07-0 | 5 - 10 | Polyethylene | 9003-03-6 |  | Styrene Acrylonitrile | 9003-54-7 |  | Acrylonitrile Butadiene Styrene | 9003-56-9 |  | Styrene Butadiene | 9003-53-8 |  | Polyethylacrylate | 9002-86-2 |  | Polybutadiene, Hard Rubber, Polyethylene | 9002-88-4 |  | Polyphenylene Oxide | 25134-01-4 |  | Polybutadiene/Polyester Alloy | -- |  | Other: |  |  | Absorbent Glass Mat | -- | 1 - 2 |
| Components   | CAS Number  | Approximate % by Weight   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>Inorganic Lead Compound:</b>  |   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Lead   | 7439-92-1   | 45 - 60   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Lead Dioxide   | 1309-60-0   | 13 - 25   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Tin  | 7440-31-5   | 0.1 - 0.2   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>Sulfuric Acid Electrolyte (Sulfuric Acid/Water)</b>   | 7664-93-9   | 13 - 20   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| <b>Case Material:</b>  |   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polypropylene  | 9003-07-0   | 5 - 10  |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polyethylene   | 9003-03-6   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Styrene Acrylonitrile  | 9003-54-7   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Acrylonitrile Butadiene Styrene  | 9003-56-9   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Styrene Butadiene  | 9003-53-8   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polyethylacrylate  | 9002-86-2   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polybutadiene, Hard Rubber, Polyethylene   | 9002-88-4   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polyphenylene Oxide  | 25134-01-4  |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Polybutadiene/Polyester Alloy  | --  |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Other:   |   |   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |
| Absorbent Glass Mat  | --  | 1 - 2   |               |   |  |  |                                  |   |                         |                                 |  |  |        |               |          |   |   |   |     |           |           |  |           |         |                       |  |  |               |           |        |              |           |  |                       |           |  |                                 |           |  |                   |           |  |                   |           |  |  |           |  |                     |            |  |                               |    |  |        |  |  |                     |    |       |

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|--|--|--------------------------|--|---|--|--|
|    |  | <b>SAFETY DATA SHEET</b> |  |  |  | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |
| <b>II. PRODUCT IDENTIFICATION</b><br>Inorganic lead and sulfuric acid electrolyte are the primary components of every battery manufactured by EnerSys Energy Products. There are no mercury or cadmium containing products present in batteries manufactured by EnerSys Energy Products.   |  |                          |  |   |  |  |
| <b>IV. FIRST AID MEASURES</b><br><b>Inhalation:</b><br>Sulfuric Acid: Remove to fresh air immediately. If breathing is difficult, give oxygen. Consult a physician.<br>Lead: Remove from exposure, gagle, wash nose and lips; consult physician.<br><b>Ingestion:</b><br>Sulfuric Acid: Give large quantity of water, do not induce vomiting or aspiration into the lungs may occur and can cause permanent injury or death; consult a physician.<br>Lead: Consult physician immediately.<br><b>Skin:</b><br>Sulfuric Acid: Flush with large amounts of water for at least 15 minutes, remove contaminated clothing completely, including shoes. If symptoms persist, seek medical attention. Wash contaminated clothing before reuse. Discard contaminated shoes.<br>Lead: Wash immediately with soap and water.<br><b>Eyes:</b><br>Sulfuric Acid and Lead: Flush immediately with large amounts of water for at least 15 minutes while lifting lids.<br>Seek immediate medical attention if eyes have been exposed directly to acid.   |  |                          |  |   |  |  |
| <b>V. FIRE FIGHTING MEASURES</b><br>Flash Point: N/A<br>Flammable Limits: LEL = 4.1% (Hydrogen Gas) UEL = 74.2% (Hydrogen Gas)<br>Extinguishing Media: Carbon dioxide, foam, dry chemical. Avoid breathing vapors. Use appropriate media for surrounding fire.<br><b>Special Fire Fighting Procedures:</b><br>If batteries are on charge, shut off power. Use positive pressure, self-contained breathing apparatus. Water applied to electrolyte generates heat and causes it to spatter. Wear acid-resistant clothing, gloves, and eye protection.<br>Note that storage of series connected batteries may still pose risk of electric shock even when charging equipment is shut down.<br><b>Chemical Fire and Explosion Hazards:</b><br>Highly flammable hydrogen gas is generated during charging and operation of batteries. To avoid risk of fire or explosion, keep sparks or other sources of ignition away from batteries. Do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries. Follow manufacturer's instructions for installation and service.   |  |                          |  |   |  |  |
| <b>VI. ACCIDENTAL RELEASE MEASURES</b><br><b>Spill or Leak Procedures:</b><br>Stop flow of material, contain/absorb small spills with dry sand, earth, and vermiculite. Do not use combustible materials. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of unneutralized acid to sewer. Acid must be managed in accordance with local, state, and federal regulations.<br>Consult state environmental agency and/or federal EPA.  |  |                          |  |   |  |  |
| <b>VII. HANDLING AND STORAGE</b><br><b>Handling:</b><br>Unless involved in recycling operations, do not breach the casing or empty the contents of the battery.<br>There may be increasing risk of electric shock from strings of connected batteries.<br>Keep connections tightly closed when not in use. If battery case is broken, avoid contact with internal components.<br>Keep vent caps on and cover terminals to prevent short circuits. Place cardboard between layers of stacked commercial batteries to avoid damage and short circuits.<br>Keep away from combustible materials, organic chemicals, reducing substances, metals, strong oxidizers and water. Use banding or stretch wrap to secure items for shipping.<br><b>Storage:</b><br>Store batteries in cool, dry, well-ventilated areas with impervious surfaces and adequate containment in the event of spills. Batteries should also be stored under roof for protection against adverse weather conditions. Separate from incompatible materials. Store and handle only in areas with adequate water supply and spill control. Avoid damage to containers. Keep away from fire, sparks and heat. Keep away from metallic objects which could bridge the terminals on a battery and create a dangerous short-circuit.<br><b>Charging:</b><br>There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby.<br>Wear face and eye protection when near batteries being charged. |  |                          |  |   |  |  |



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|   |   |  |  |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
|---|---|--|--|---|-------------|--|----------------|-------------|--|----------------|----------------|-----|-------------------------|----|----------------------|------|--------------------------|----------------|---------------------------------------|-------------|-----------------------|-----|--------------|----------|--------------------------|--|------------------------------|-----------------|------------------------------|------------------|----------------------|---|--|--|
|   |   | <b>SAFETY DATA SHEET</b>                 |  |  |             | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| <b>VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION</b><br>Exposure Limits (mg/m3) Note: N.E. = Not Established  |   |  |  |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| INGREDIENTS (Chemical/Common Name)  | OSHA PEL  | ACGIH                                    | US NIOSH                                 | Quebec PEL  | Ontario OEL | EU OEL   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Lead and Lead Compounds (Inorganic)   | 0.05  | 0.05                                     | 0.05                                     | 0.05  | 0.05        | 0.15 (d)   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Tin   | 2   | 2  | 2  | 2   | 2           | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Sulfuric Acid Electrolyte   | 1   | 0.2                                      | 1  | 1   | 0.2         | 0.05 (g)   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polypropylene   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polyethylene  | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Styrene Acrylonitrile   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Acrylonitrile Butadiene Styrene   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Styrene Butadiene   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polyethylacrylate   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | 1           | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polybutadiene, Hard Rubber, Polyethylene  | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polyphenylene Oxide   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polybutadiene/Polyester Alloy   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Polybutadiene   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Absorbent Glass Mat   | N.E.  | N.E.                                     | N.E.                                     | N.E.  | N.E.        | N.E.   |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| <b>NOTES:</b><br>(a) As inhalable aerosol<br>(c) Thoracic fraction<br><b>Respiratory Controls (Ventilation):</b><br>Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid-resistant.<br>Handle batteries cautiously to avoid spills. Make certain vent caps are on securely. Avoid contact with internal components. Wear protective clothing, eye and face protection when filling, charging or handling batteries. Do not allow metallic materials to simultaneously contact both the positive and negative terminals of the batteries. Charge the batteries in areas with adequate ventilation. General dilution ventilation is acceptable.<br><b>Respiratory Protection (NIOSH/MSHA approved):</b><br>None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed the PEL, use NIOSH or MSHA approved respiratory protection.<br><b>Skin Protection:</b><br>If battery case is damaged, use rubber or plastic acid-resistant gloves with elbow-length gauntlets, acid-resistant apron, clothing and boots.<br><b>Eye Protection:</b><br>If battery case is damaged, use chemical goggles or face shield.<br><b>Other Protection:</b><br>Under severe exposure emergency conditions, wear acid-resistant clothing and boots. |   |  |  |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| <b>IX. PHYSICAL AND CHEMICAL PROPERTIES</b><br><b>Properties Listed Below are for Electrolyte:</b> <table border="1"> <tr> <td>Boiling Point:</td> <td>203 - 240°F</td> <td>Specific Gravity (H<sub>2</sub>O = 1):</td> <td>1.215 to 1.350</td> </tr> <tr> <td>Melting Point:</td> <td>N/A</td> <td>Vapor Pressure (mm Hg):</td> <td>10</td> </tr> <tr> <td>Solubility in Water:</td> <td>100%</td> <td>Vapor Density (AIR = 1):</td> <td>Greater than 1</td> </tr> <tr> <td>Evaporation Rate: (Butyl Acetate = 1)</td> <td>Less than 1</td> <td>% Volatile by Weight:</td> <td>N/A</td> </tr> <tr> <td>Flash Point:</td> <td>&gt; 1 to 2</td> <td>Auto-ignition Temp (°C):</td> <td>Below room temperature (as hydrogen gas)</td> </tr> <tr> <td>LEL (Lower Explosive Limit):</td> <td>4.1% (Hydrogen)</td> <td>UEL (Upper Explosive Limit):</td> <td>74.2% (Hydrogen)</td> </tr> <tr> <td>Appearance and Odor:</td> <td colspan="3">Manufactured article no apparent odor. Electrolyte is a clear liquid with a sharp, penetrating, pungent odor.</td> </tr> </table>   |   |  |  |   |             |  | Boiling Point: | 203 - 240°F | Specific Gravity (H <sub>2</sub> O = 1): | 1.215 to 1.350 | Melting Point: | N/A | Vapor Pressure (mm Hg): | 10 | Solubility in Water: | 100% | Vapor Density (AIR = 1): | Greater than 1 | Evaporation Rate: (Butyl Acetate = 1) | Less than 1 | % Volatile by Weight: | N/A | Flash Point: | > 1 to 2 | Auto-ignition Temp (°C): | Below room temperature (as hydrogen gas) | LEL (Lower Explosive Limit): | 4.1% (Hydrogen) | UEL (Upper Explosive Limit): | 74.2% (Hydrogen) | Appearance and Odor: | Manufactured article no apparent odor. Electrolyte is a clear liquid with a sharp, penetrating, pungent odor. |  |  |
| Boiling Point:  | 203 - 240°F   | Specific Gravity (H <sub>2</sub> O = 1): | 1.215 to 1.350                           |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Melting Point:  | N/A   | Vapor Pressure (mm Hg):                  | 10                                       |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Solubility in Water:  | 100%  | Vapor Density (AIR = 1):                 | Greater than 1                           |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Evaporation Rate: (Butyl Acetate = 1)   | Less than 1   | % Volatile by Weight:                    | N/A                                      |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Flash Point:  | > 1 to 2  | Auto-ignition Temp (°C):                 | Below room temperature (as hydrogen gas) |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| LEL (Lower Explosive Limit):  | 4.1% (Hydrogen)   | UEL (Upper Explosive Limit):             | 74.2% (Hydrogen)                         |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |
| Appearance and Odor:  | Manufactured article no apparent odor. Electrolyte is a clear liquid with a sharp, penetrating, pungent odor. |  |  |   |             |  |                |             |  |                |                |     |                         |    |                      |      |                          |                |                                       |             |                       |     |              |          |                          |  |                              |                 |                              |                  |                      |   |  |  |



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|---|--|--------------------------|--|---|--|--|
|    |  | <b>SAFETY DATA SHEET</b> |  |  |  | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |
| <b>X. STABILITY AND REACTIVITY</b><br>Stability: Stable X, Unstable<br>This product is stable under normal conditions at ambient temperatures.<br>Conditions To Avoid: Prolonged overcharge; sources of ignition<br>Incompatibility: (Materials to avoid)<br>Sulfuric Acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metal, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas.<br>Lead Compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganates, peroxides, nascent hydrogen and reducing agents.<br><b>Hazardous Decomposition Products:</b><br>Sulfuric Acid: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, and hydrogen sulfide.<br>Lead Compounds: High temperature likely to produce toxic metal fumes, vapor, or dust, contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.<br><b>Hazardous Polymerization:</b><br>Will not occur   |  |                          |  |   |  |  |
| <b>XI. TOXICOLOGICAL INFORMATION</b><br><b>Routes of Entry:</b><br>Sulfuric Acid: Harmful by all routes of entry.<br>Lead Compounds: Hazardous exposures can occur only when product is heated, oxidized or otherwise processed or damaged to create dust, vapor or fume. The presence of nascent hydrogen may generate highly toxic arsine gas.<br><b>Inhalation:</b><br>Sulfuric Acid: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation.<br>Lead Compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.<br><b>Ingestion:</b><br>Sulfuric Acid: May cause severe irritation of mouth, throat, esophagus and stomach.<br>Lead Compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to systemic toxicity and must be treated by a physician.<br><b>Skin Contact:</b><br>Sulfuric Acid: Severe irritation, burns and ulceration.<br>Lead Compounds: Not absorbed through the skin.<br><b>Eye Contact:</b><br>Sulfuric Acid: Severe irritation, burns, cornea damage, and blindness.<br>Lead Compounds: May cause eye irritation.<br><b>Effects of Overexposure - Acute:</b><br>Sulfuric Acid: Severe skin irritation, damage to cornea, upper respiratory irritation.<br>Lead Compounds: Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscle aches and weakness, sleep disturbance and irritability.<br><b>Effects of Overexposure - Chronic:</b><br>Sulfuric Acid: Possible erosion of tooth enamel, inflammation of nose, throat and bronchial tubes.<br>Lead Compounds: Anorexia, constipation, particularly of the motor nerves, with weak deep kidney damage; reproductive changes in males and females. Repeated exposure to lead and lead compounds in the workplace may result in nervous system toxicity. Some toxicologists report abnormal conduction velocities in persons with blood lead levels of 50mg/100 ml or higher. Heavy lead exposure may result in central nervous system damage, encephalopathy and damage to the blood-forming (hematopoietic) tissues.<br><b>Carcinogenicity:</b><br>Sulfuric Acid: The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as a Group 1 carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of this product, such as overcharging, may result in the generation of sulfuric acid mist.<br>Lead Compounds: Lead is listed as a Group 2A carcinogen; likely to be harmful at certain doses. Per the guidance found in OSHA 29 CFR 191.0.1200 Appendix F, this is approximately equivalent to GHS Category 1B. Proof of carcinogenicity in humans is lacking at present.<br><b>Medical Conditions Generally Aggravated by Exposure:</b><br>Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of sulfuric acid with skin may aggravate diseases such as eczema and contact dermatitis. Lead and its compounds can aggravate some forms of kidney, liver and neurological diseases. |  |                          |  |   |  |  |

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|--|--|--------------------------|--|---|--|--|
|   |  | <b>SAFETY DATA SHEET</b> |  |  |  | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |
| <b>XII. ECOLOGICAL INFORMATION</b><br><b>Environmental Fate:</b><br>Lead is very persistent in soil and sediments. No data on environmental degradation. Mobility of metallic lead between ecological compartments is slow. Bioaccumulation of lead occurs in aquatic and terrestrial animals and plants but little bioaccumulation occurs through the food chain.<br>Most studies include lead compounds and not elemental lead.<br><b>Environmental Toxicity: Aquatic Toxicity:</b><br>Sulfuric acid: 24 hr LC50, freshwater fish (Danish blue perch): 82 mg/L<br>96 hr LC50, freshwater fish (Oryzias latipes): 22 mg/L<br>Lead: 48 hr LC50 (modeled for aquatic invertebrates): <1 mg/L, based on lead bioassay<br><b>Additional Information:</b><br>- No known effects on stratospheric ozone depletion<br>- Volatile organic compounds: 0% (by Volume)<br>- Water Discharging Class (WGC): NA                  |  |                          |  |   |  |  |
| <b>XIII. DISPOSAL CONSIDERATIONS (UNITED STATES)</b><br><b>Special Handling:</b> Send to secondary lead smelter for recycling. Special lead-acid batteries are not regulated as hazardous waste when the requirements of 40 CFR Section 266.80 are met. This should be managed in accordance with approved local, state and federal regulations. Consult state environmental agency and/or federal EPA.<br><b>Electrolyte:</b><br>Place neutralized slurry into sealed container and handle as applicable with state and federal regulations. Large water-diluted slurry, after neutralization and testing, should be managed in accordance with approved local, state and federal regulations. Consult state environmental agency and/or federal EPA.<br>Following local, State/Provincial, and Federal/National regulations applicable to end-of-life characterization will be the responsibility of the end-user. |  |                          |  |   |  |  |

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|   |            | <b>SAFETY DATA SHEET</b> |  |  |  | Form #: SDS 853026<br>Revised: AB<br>Supersedes: AA (06-16-19)<br>ECD #: 1001828 |                |            |                      |      |           |         |   |           |         |     |           |           |
|--|------------|--------------------------|--|---|--|--|----------------|------------|----------------------|------|-----------|---------|---|-----------|---------|-----|-----------|-----------|
| <b>XIV. TRANSPORT INFORMATION</b><br><b>U.S. DOT:</b><br>Exempt from the hazardous materials regulations (HMR) because the batteries meet the requirements of 49 CFR 173.159(d) and 49 CFR 173.159(e) of the U.S. Department of Transportation HMR. Battery and outer package must be marked "NONSPILLABLE" or "NONSPILLABLE BATTERY". Battery terminals must be protected against short circuits.<br><b>ATA Dangerous Goods Regulations (DGR):</b><br>Exempt from the dangerous goods regulations because the batteries meet the requirements of Packing Instruction 972 and Special Provisions A67 of the International Air Transport Association (IATA) Dangerous Goods Regulations and International Civil Aviation Organization (ICAO) Technical Instructions. Battery Terminals must be protected against short circuits.<br>The words "NOT RESTRICTED", SPECIAL PROVISION A67 must be provided when the air waybill is issued.<br><b>IMDG:</b><br>Exempt from the dangerous goods regulations for transport by sea because the batteries meet the requirements of Special Provision 238 of the International Maritime Dangerous Goods Code (IMDG CODE). Battery terminals must be protected against short circuits.<br><b>Requirements for Safe Shipping and Handling of Certain Cells:</b><br>Warning - Electrical Fire Hazard - Protect against shorting. Terminals can short and cause a fire if not insulated during shipping. Cyclic product must be labeled "NONSPILLABLE" during shipping. Follow all federal shipping regulations. See section IX of this sheet and CFR 49 Parts 171 through 180, available online at: www.govaccess.gov.<br><b>Requirements for Shipping Certain Product as Single Cells:</b><br>Protective caps or other durable inert material must be used to insulate each terminal of each cell unless cells are shipping in the original packaging from EnerSys in full box quantities. Protective caps are available for all cell sizes by contacting EnerSys Customer Service at 1-800-361-2837.<br><b>Requirements for Shipping Certain Product Assembled Into Multicell Batteries:</b><br>Assembled batteries must have short circuit protection during shipping. Exposed terminals, connectors, or lead wires must be insulated with a durable inert material to prevent exposure during shipping.  |            |                          |  |   |  |  |                |            |                      |      |           |         |   |           |         |     |           |           |
| <b>XV. REGULATORY INFORMATION</b><br><b>UNITED STATES:</b><br>EPA KARA Title III:<br>Section 302 (EPCRA Extremely Hazardous Substances (EHS))<br>Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 lbs.<br>EPCRA Section 302 notification is required if 1,000 lbs or more of sulfuric acid is present at one site (40 CFR 370.11). For more information consult 40 CFR Part 355. The quantity of sulfuric acid will vary by battery type. Contact your EnerSys representative for additional information.<br>Section 304 (EPCRA Hazardous Substances):<br>Reportable Quantity (RQ) for spilled 100% sulfuric acid under EPCRA (Superfund) and EPCRA (Emergency Planning and Community Right to Know Act) is 1,000 lbs. State and local reportable quantities for spilled sulfuric acid may vary.<br>Section 311/313 Hazard Concentrations:<br>EPCRA Section 312 Tier Two reporting is required for non-automotive batteries if sulfuric acid is present in quantities of 500 lbs or more and/or if lead is present in quantities of 10,000 lbs or more. For more information consult 40 CFR 370.10 and 40 CFR 370.40.<br>Section 313 EPCRA Reporting:<br>40 CFR section 373.38 (b) states: If a toxic chemical is present in an article at a covered facility, a person is not required to consider the quantity of the toxic chemical present in that article when determining whether an applicable threshold has been met under § 372.25, § 372.27, or § 372.28 or determining the amount of release to be reported under § 372.30. This exemption applies whether the person received the article from another person or the person produced the article. However, this exemption applies only to the quantity of the toxic chemical present in the article.<br><b>Supplier Notification:</b><br>This product contains toxic chemicals, which may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements. If you are a manufacturing facility under SIC codes 20 through 39, the following information is provided to enable you to complete the required reports:<br><table border="1"> <tr> <th>Toxic Chemical</th> <th>CAS Number</th> <th>Approximate % by Wt.</th> </tr> <tr> <td>Lead</td> <td>7439-92-1</td> <td>45 - 60</td> </tr> <tr> <td>Sulfuric Acid Electrolyte (Sulfuric Acid/Water)</td> <td>7664-93-9</td> <td>13 - 20</td> </tr> <tr> <td>Tin</td> <td>7440-31-5</td> <td>0.1 - 0.2</td> </tr> </table> See 40 CFR Part 370 for more details.<br>If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year.<br>The Section 313 supplier notification requirement does not apply to batteries, which are "consumer products". |            |                          |  |   |  |  | Toxic Chemical | CAS Number | Approximate % by Wt. | Lead | 7439-92-1 | 45 - 60 | Sulfuric Acid Electrolyte (Sulfuric Acid/Water) | 7664-93-9 | 13 - 20 | Tin | 7440-31-5 | 0.1 - 0.2 |
| Toxic Chemical   | CAS Number | Approximate % by Wt.     |  |   |  |  |                |            |                      |      |           |         |   |           |         |     |           |           |
| Lead   | 7439-92-1  | 45 - 60                  |  |   |  |  |                |            |                      |      |           |         |   |           |         |     |           |           |
| Sulfuric Acid Electrolyte (Sulfuric Acid/Water)  | 7664-93-9  | 13 - 20                  |  |   |  |  |                |            |                      |      |           |         |   |           |         |     |           |           |
| Tin  | 7440-31-5  | 0.1 - 0.2                |  |   |  |  |                |            |                      |      |           |         |   |           |         |     |           |           |

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PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

CHECKED BY:

|   |          |        |
|---|----------|--------|
| A | 11/07/22 | 90% CD |
|---|----------|--------|

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|-----|------|-------------|

Licensor:

Sheet Title:  
**MATERIAL SAFETY  
DATA SHEET & LEAD  
ACID BATTERY -1**

Sheet Number:

**GN-4**



SAFETY DATA SHEET

Form #: SDS 853026

Revision: A3

Supersedes: AA (06-16-19)

ECN #: 1001828

TSCA:

TSCA Section 8b – Inventory Status: All chemicals comprising this product are either exempt or listed on the TSCA Inventory.

TSCA Section 12b (40 CFR Part 707.60(b)): No notice of export will be required for articles, except PCB articles, unless the Agency so requires in the context of individual sections 5, 6, or 7 actions.

TSCA Section 13 (40 CFR Part 707.26): No import certification required (EPA 309-33-99-001, June 1999, Introduction to the Chemical Import Requirements of the Toxic Substances Control Act, Section IV.A).

RCRA:

Spent Lead-Acid Batteries are subject to stream/land handling requirements when managed in compliance with 40 CFR section 266.69 or 40 CFR part 273. Waste sulfuric acid is a characteristic hazardous waste; EPA hazardous waste number D002 (corrosivity) and D006 (toxic).

CAA:

EnerSys supports preventative actions concerning ozone depletion in the atmosphere due to emission of CFCs and other ozone depleting chemicals (ODCs), defined by the USEPA as Class I substances. Pursuant to Section 601 of the Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, EnerSys established a policy to eliminate the use of Class I ODCs prior to the May 15, 1993 deadline.

STATE REGULATIONS (US):

Transition 66:

Warning: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.

INTERNATIONAL REGULATIONS:

Distribution into Quebec to follow Canadian Controlled Product Regulations (CPR) 24(1) and 24(2).

Distribution into the EU to follow applicable Directives in the Use, Import/Export of the product as sold.

ENV. OTHER INFORMATION:

Revised: A3 (04-25-17)

NFPA Hazard Rating for Sulfuric Acid:

Flammability (F+): 0

Reactivity (Yellow): 2

Health (Blue): 3

Sulfuric acid is water-reactive if concentrated.

DISCLAIMER

This Safety Data Sheet is created by the manufacturer to comply with the requirements of 39 CFR 1910.1200. To the extent allowed by law, the manufacturer hereby expressly disclaims any liability to any third party, including users of this product, including, but not limited to, consequential or other damages, arising out of the use of, or reliance on, this Safety Data Sheet.

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Telecommunications

NEBS™ Compliant\*

Battery Performance Specifications

Visit us at [www.enersys.com](http://www.enersys.com)

RESERVE POWER

\*NEBS™ Compliant (SBS Core Models only) Following: SBS 8, SBS 9, SBS 10, SBS 11, SBS 12, SBS 13, SBS 14, SBS 15, SBS 16, SBS 17, SBS 18, SBS 19, SBS 20, SBS 21, SBS 22, SBS 23, SBS 24, SBS 25, SBS 26, SBS 27, SBS 28, SBS 29, SBS 30, SBS 31, SBS 32, SBS 33, SBS 34, SBS 35, SBS 36, SBS 37, SBS 38, SBS 39, SBS 40, SBS 41, SBS 42, SBS 43, SBS 44, SBS 45, SBS 46, SBS 47, SBS 48, SBS 49, SBS 50, SBS 51, SBS 52, SBS 53, SBS 54, SBS 55, SBS 56, SBS 57, SBS 58, SBS 59, SBS 60, SBS 61, SBS 62, SBS 63, SBS 64, SBS 65, SBS 66, SBS 67, SBS 68, SBS 69, SBS 70, SBS 71, SBS 72, SBS 73, SBS 74, SBS 75, SBS 76, SBS 77, SBS 78, SBS 79, SBS 80, SBS 81, SBS 82, SBS 83, SBS 84, SBS 85, SBS 86, SBS 87, SBS 88, SBS 89, SBS 90, SBS 91, SBS 92, SBS 93, SBS 94, SBS 95, SBS 96, SBS 97, SBS 98, SBS 99, SBS 100, SBS 101, SBS 102, SBS 103, SBS 104, SBS 105, SBS 106, SBS 107, SBS 108, SBS 109, SBS 110, SBS 111, SBS 112, SBS 113, SBS 114, SBS 115, SBS 116, SBS 117, SBS 118, SBS 119, SBS 120, SBS 121, SBS 122, SBS 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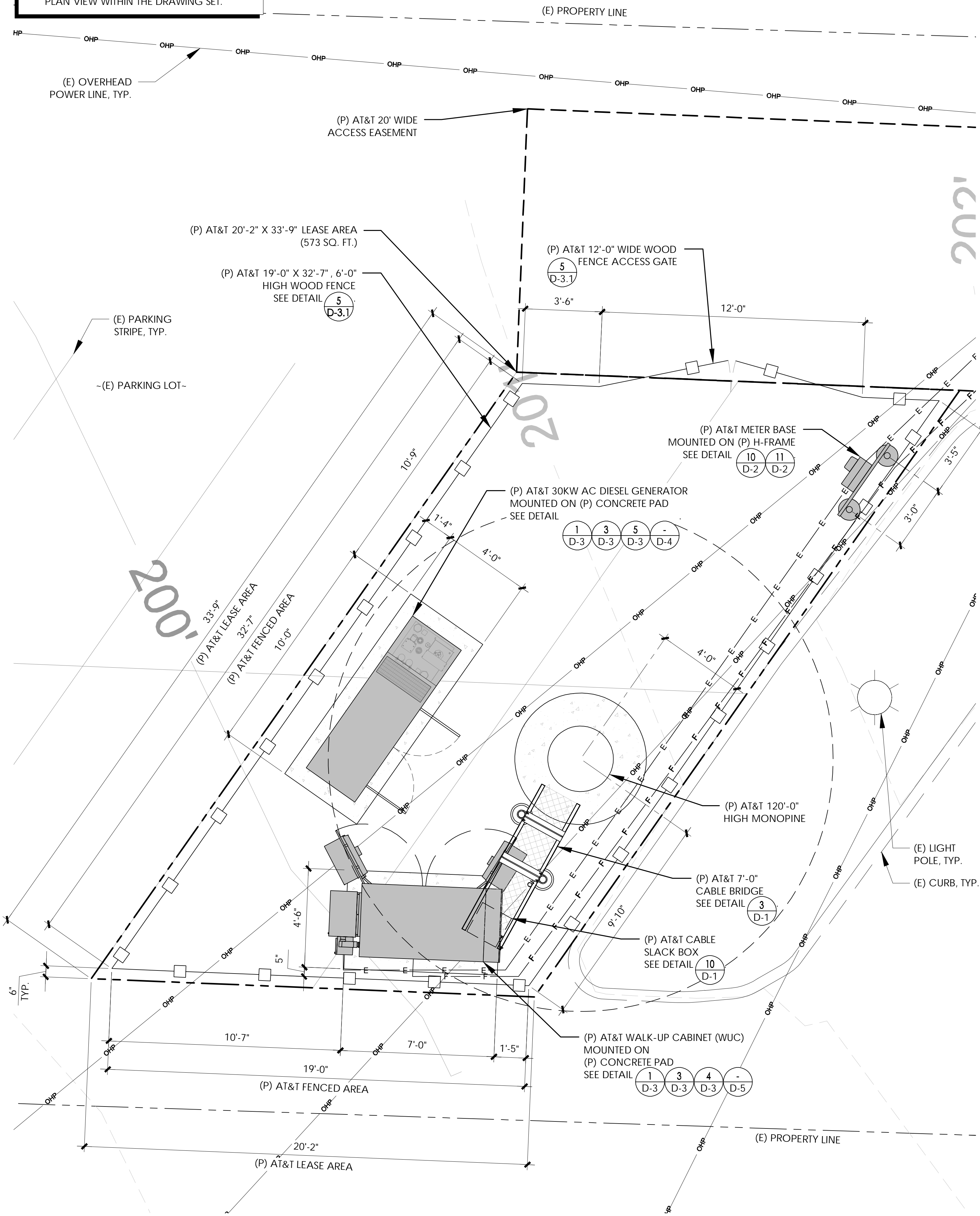








NOTE:  
1. (P) AT&T ANTENNA MOUNT NOT DEPICTED  
IN THIS VIEW FOR CLARITY. FOR LOCATIONS  
OF THESE ITEMS, PLEASE REFER ANTENNA  
PLAN VIEW WITHIN THE DRAWING SET.

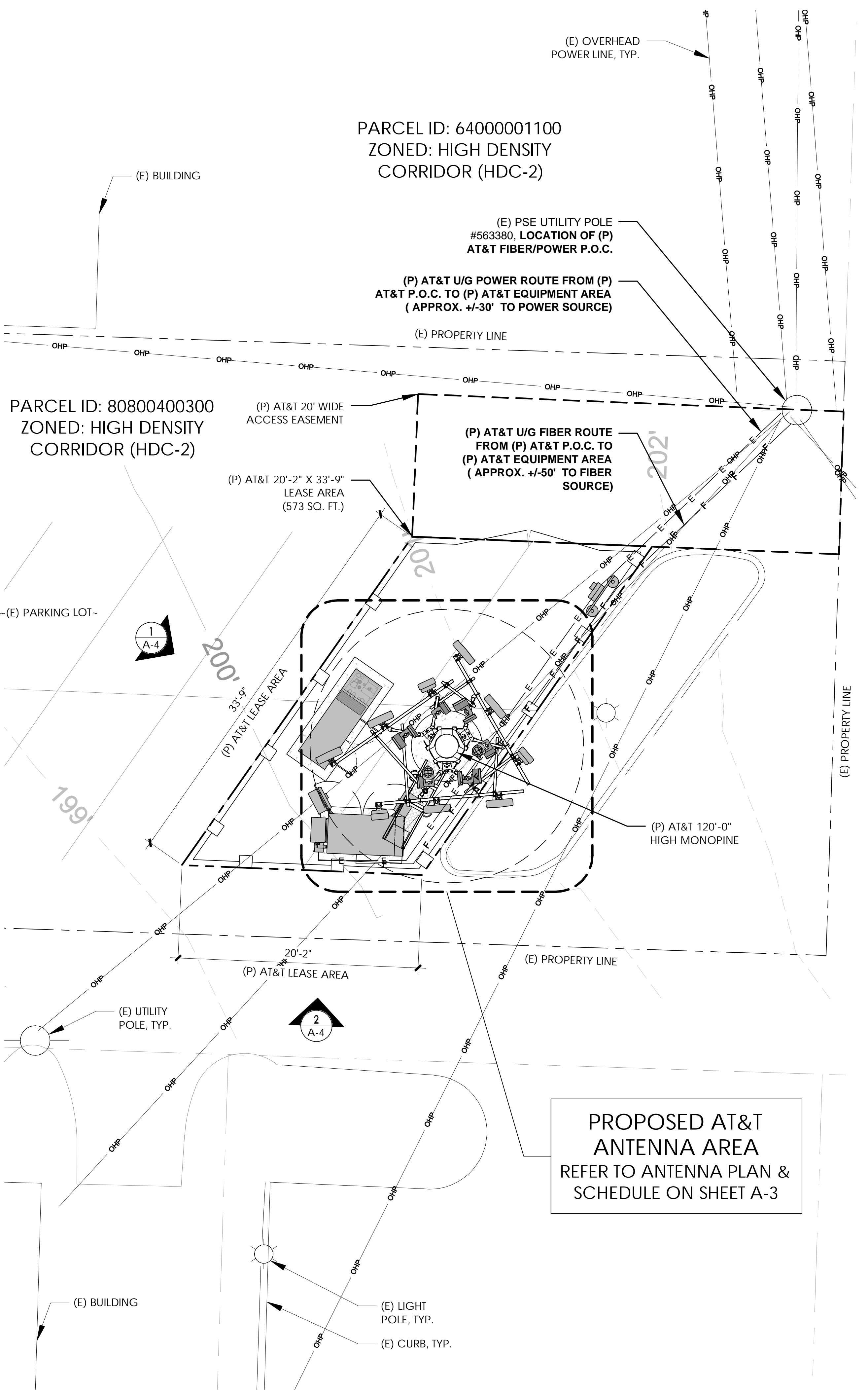


COMPOUND PLAN

24"x36" SCALE: 3/8" = 1'-0"



ENLARGED SITE PLAN

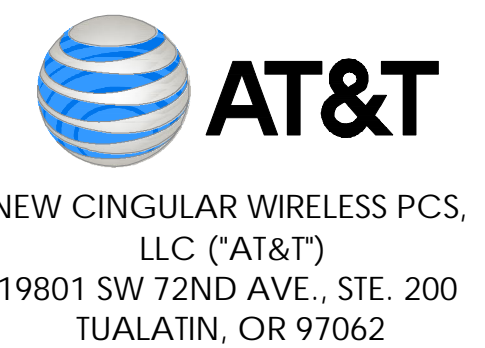


PROPOSED AT&T  
ANTENNA AREA  
REFER TO ANTENNA PLAN &  
SCHEDULE ON SHEET A-3

24"x36" SCALE: 3/16" = 1'-0"



PREPARED FOR



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IRVINE, CA 92618

J5 PROJECT ID: P-068910

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OLYMPIA, WA 98506  
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| A | 11/07/22 | 90% CD |
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Licensor:

Sheet Title:

ENLARGED SITE PLAN  
& COMPOUND PLAN

Sheet Number:

A-2

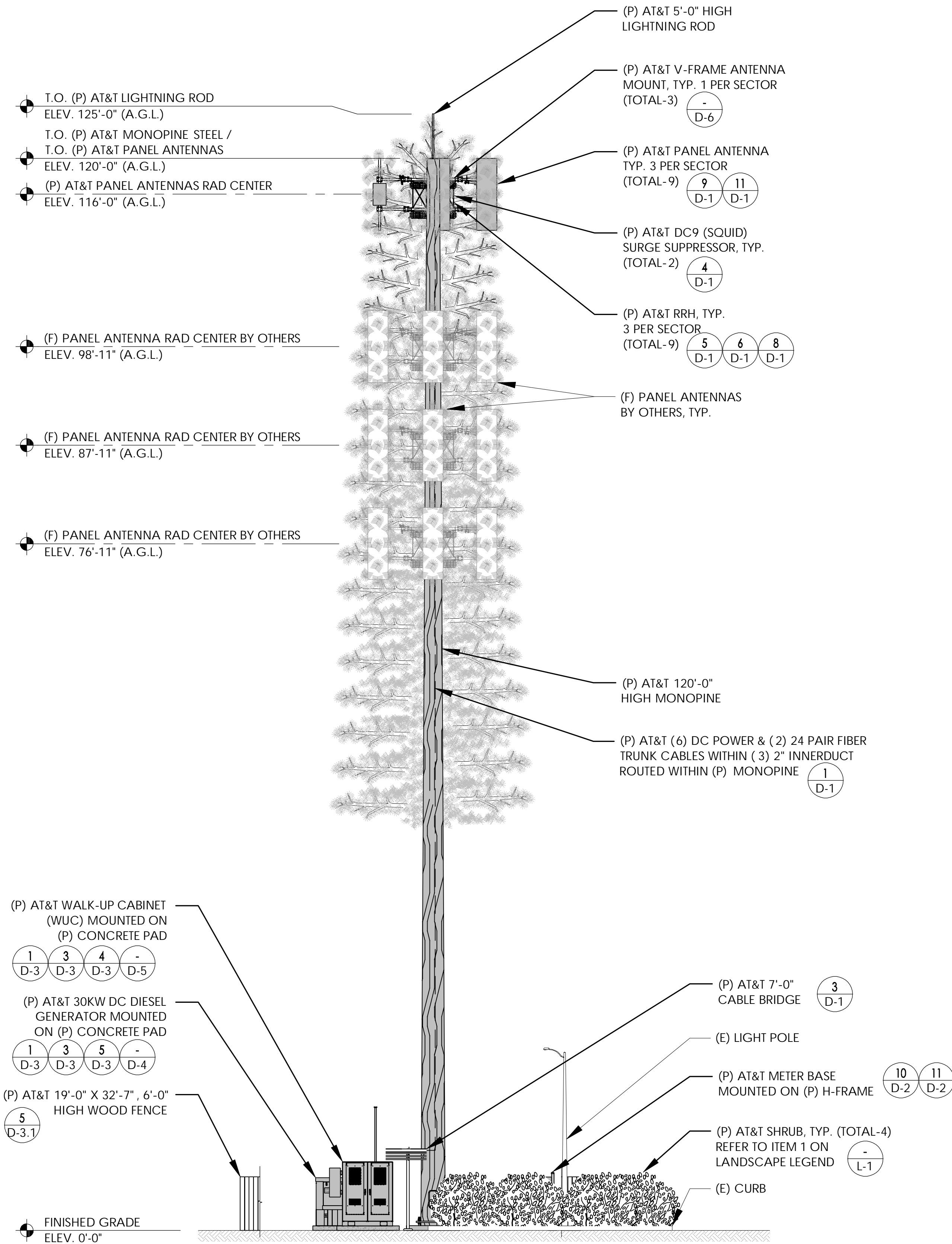






NOTE:  
1. ALL RELEVANT STRUCTURAL ANALYSIS IS UNDER A SEPARATE PERMIT BY OTHERS.

NOTE:  
1. AT&T RRU'S, TMA'S, AND SURGE ARRESTORS NOT DEPICTED IN THIS VIEW FOR CLARITY. FOR LOCATIONS OF THESE ITEMS, PLEASE REFER TO PREVIOUS PLANS VIEWS WITHIN THE DRAWING SET

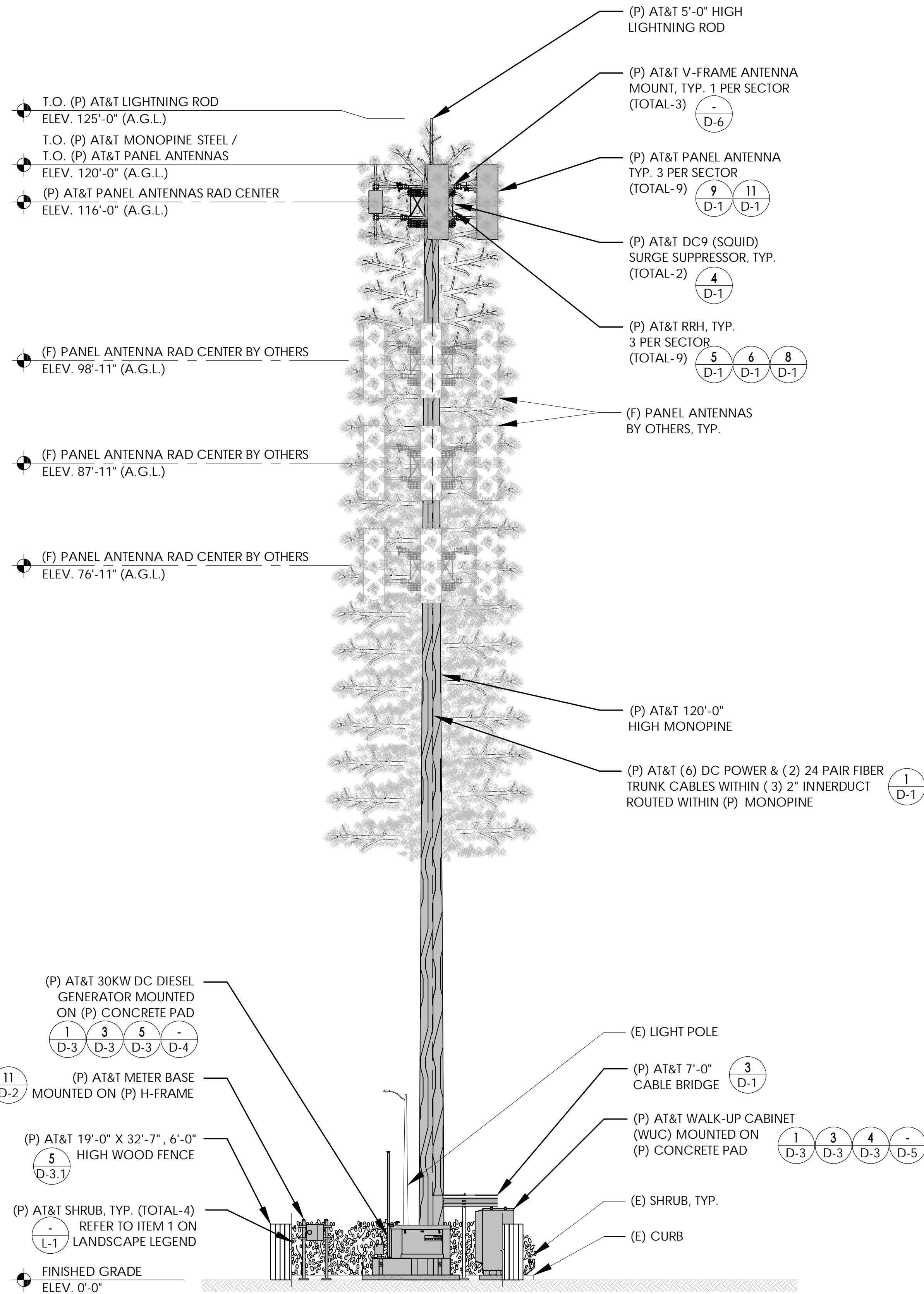


WEST ELEVATION

24"x36" SCALE: 1/8" = 1'-0" 8' 6' 4' 2' 0' 8'

NOTE:  
1. ALL RELEVANT STRUCTURAL ANALYSIS IS UNDER A SEPARATE PERMIT BY OTHERS.

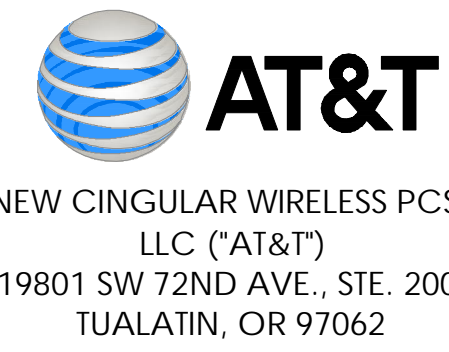
NOTE:  
1. AT&T RRU'S, TMA'S, AND SURGE ARRESTORS NOT DEPICTED IN THIS VIEW FOR CLARITY. FOR LOCATIONS OF THESE ITEMS, PLEASE REFER TO PREVIOUS PLANS VIEWS WITHIN THE DRAWING SET



SOUTH ELEVATION

24"x36" SCALE: 1/8" = 1'-0" 8' 6' 4' 2' 0' 8'

PREPARED FOR



Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

CHECKED BY:

A 11/07/22 90% CD

REV DATE DESCRIPTION

Licensor:

Sheet Title:

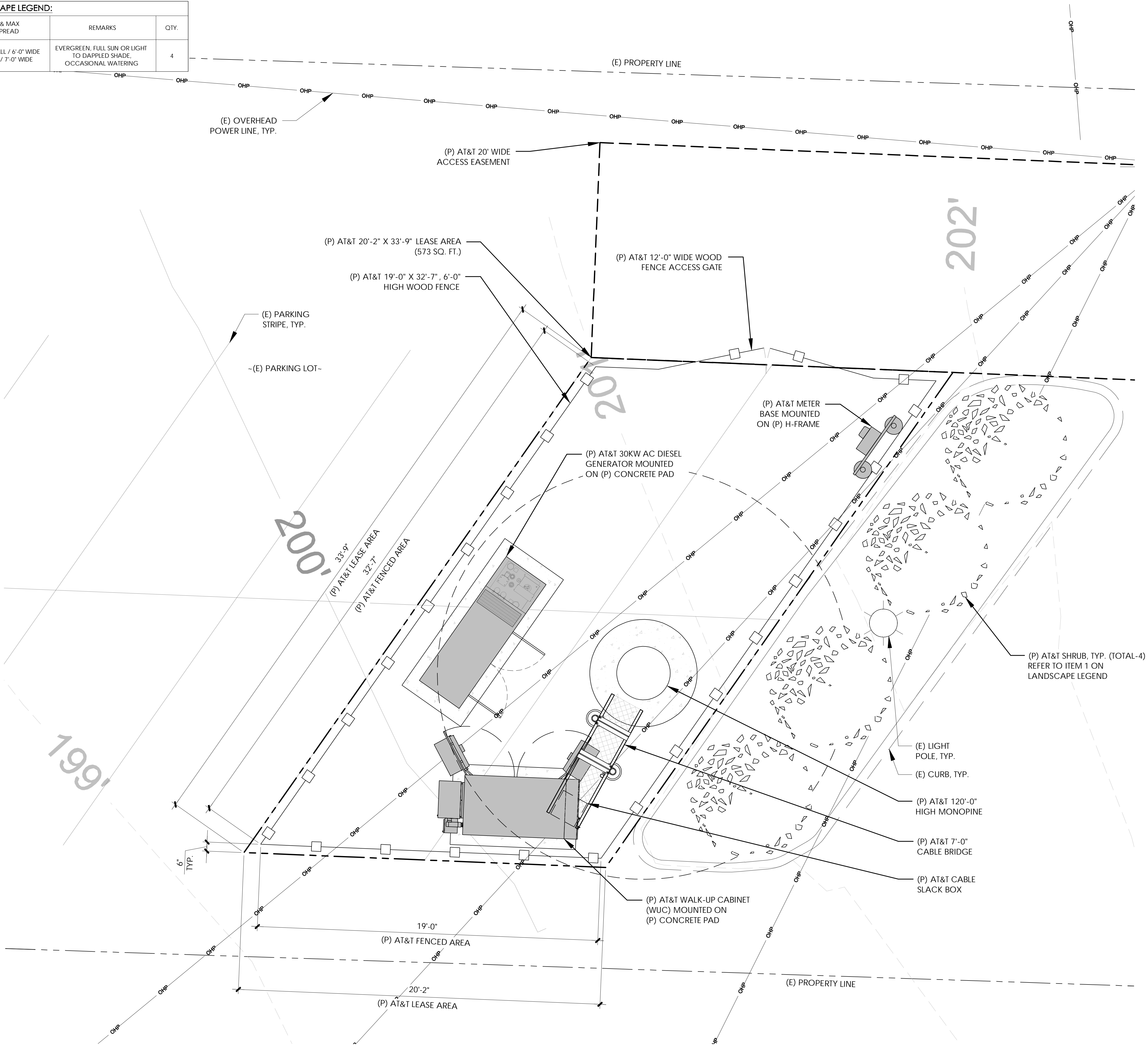
ELEVATIONS

Sheet Number:

A-4



| LANDSCAPE LEGEND: |  |   |  |      |
|-------------------|--|---|--|------|
| ITEM              | BOTANICAL / COMMON NAME  | PLANTING & MAX HEIGHT / SPREAD                                    | REMARKS  | QTY. |
| 1                 | BERBERIS X GLADWYNENSIS 'WILLIAM PENN' / WILLIAM PENN BARBERRY | PLANTING: 5'-0" TALL / 6'-0" WIDE<br>MAX: 6'-0" TALL / 7'-0" WIDE | EVERGREEN, FULL SUN OR LIGHT TO DAPPLED SHADE, OCCASIONAL WATERING | 4    |



PREPARED FOR



NEW CINGULAR WIRELESS PCS, LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**

OLYMPIA MISSION CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

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REV DATE DESCRIPTION

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Sheet Title:

LANDSCAPE PLAN

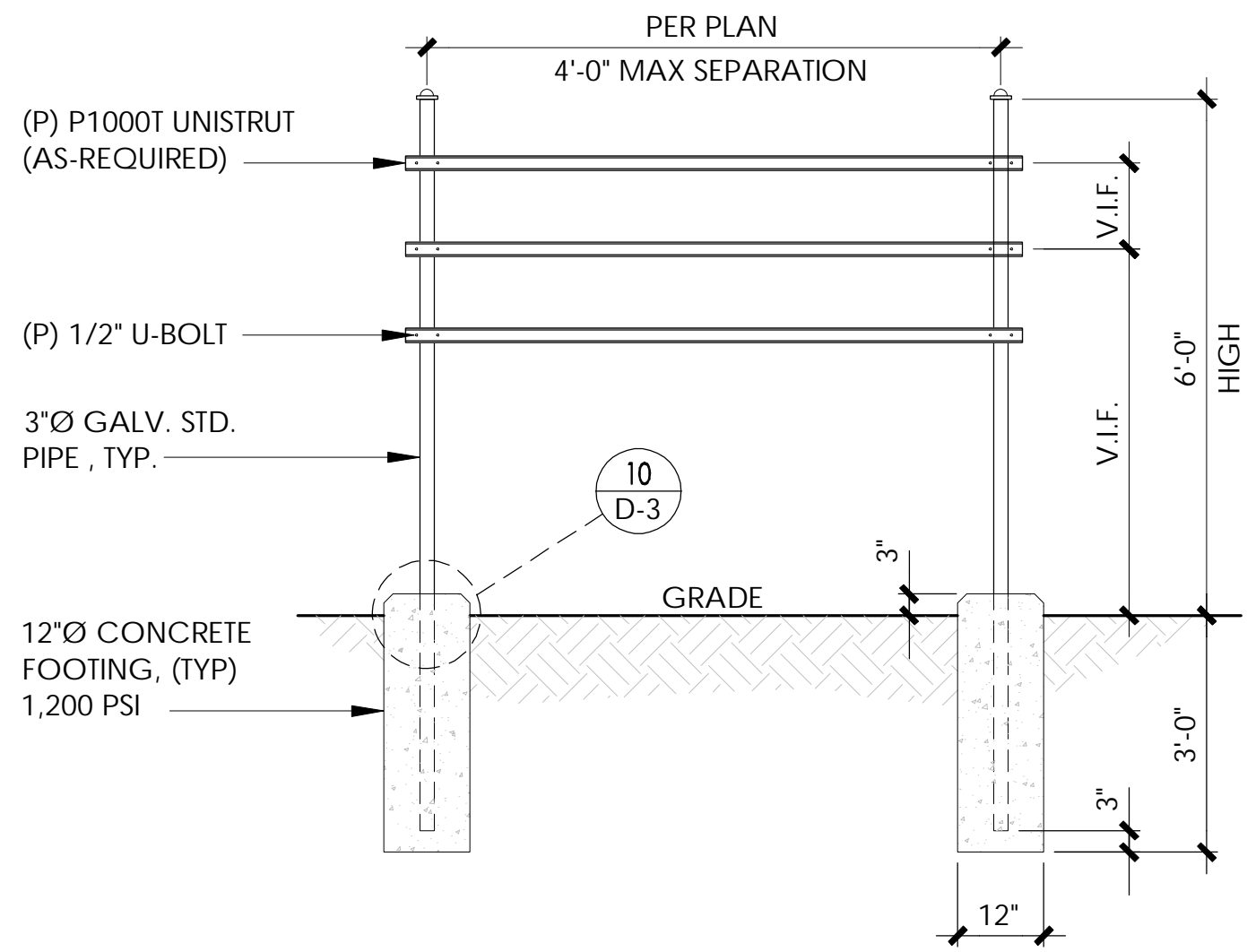
Sheet Number:

L-1

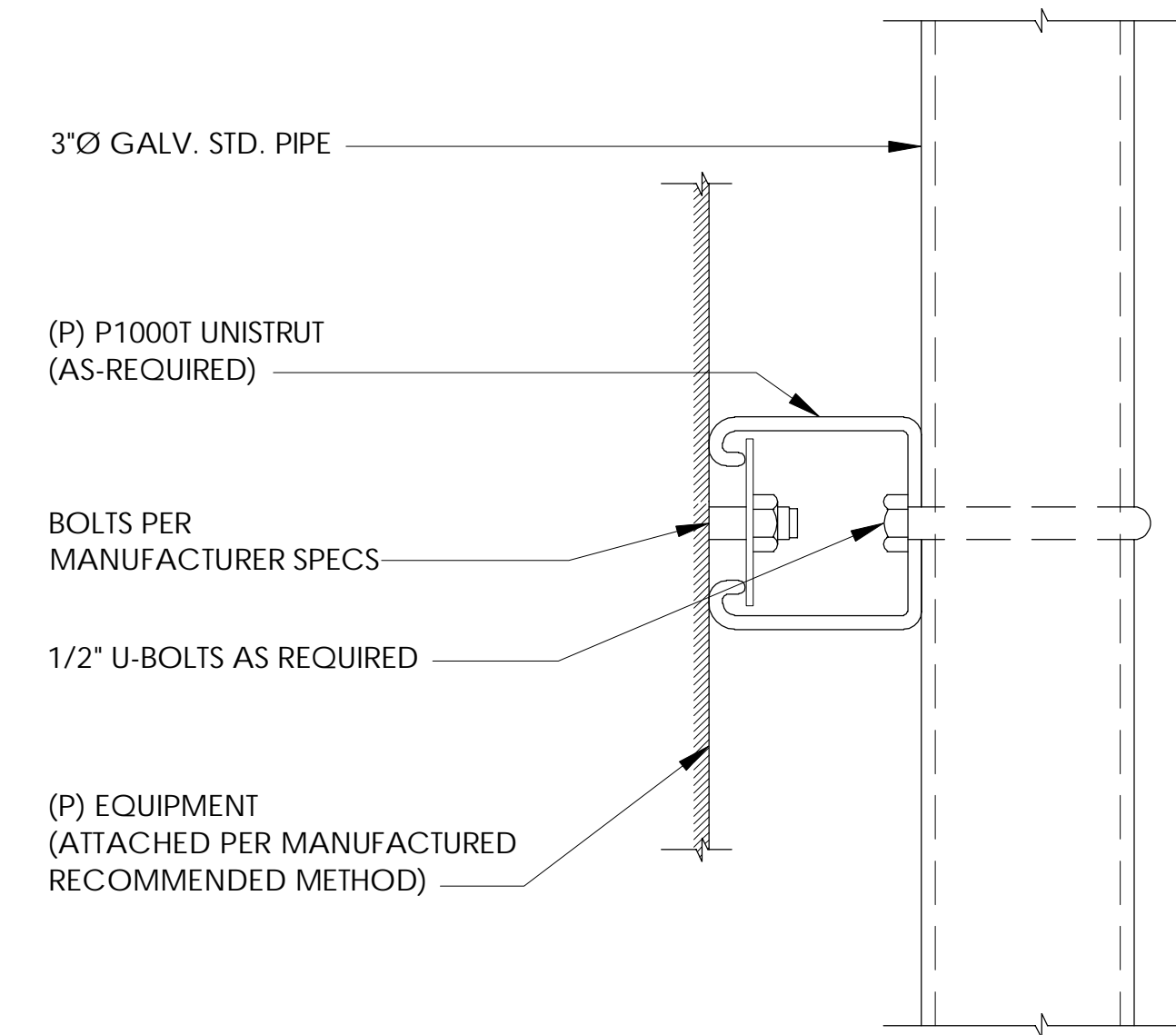








10 H-FRAME DETAIL  
N.T.S.



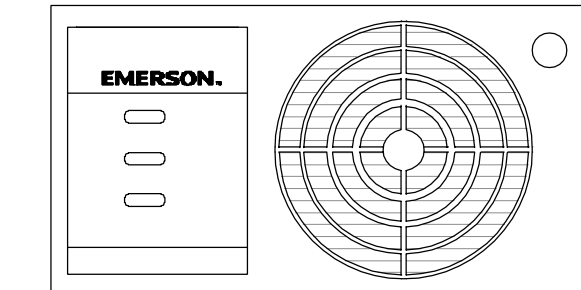
11 EQUIPMENT MOUNTING TO H-FRAME DETAIL  
N.T.S.

8 NOT USED  
N.T.S.

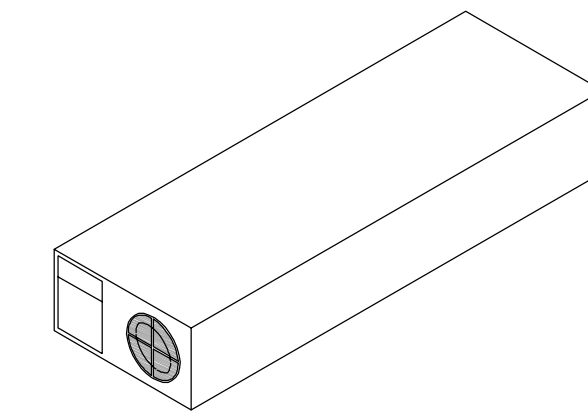
5 NOT USED  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED  
MOUNTING HARDWARE.

HIGH EFFICIENCY, -48 VDC,  
40 A/2000 W, 208/240 VAC SINGLE-PHASE  
INPUT (DERATES AT 120 VAC)



FRONT VIEW



ISOMETRIC VIEW

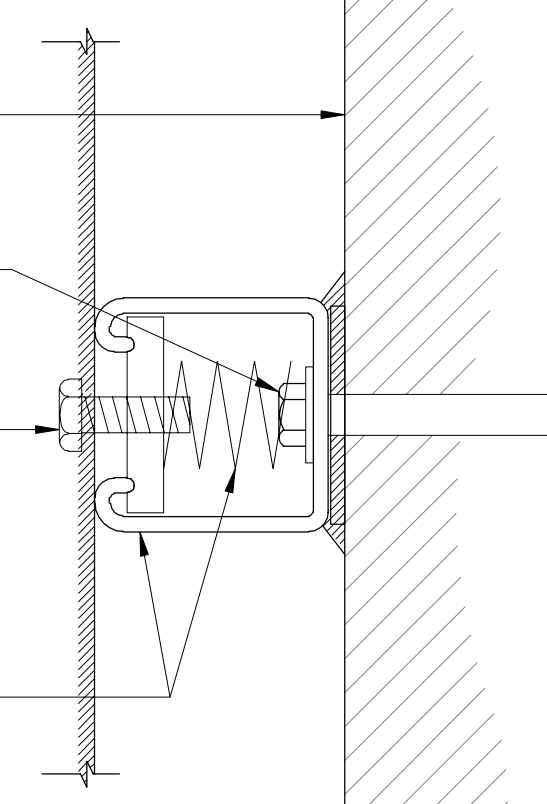
1 RECTIFIER MODULE  
N.T.S.

WUC INSULATED  
WALL PANEL

CONTRACTOR TO VERIFY  
MOUNTING METHOD PERMISSIBLE  
BY THE WIC MANUFACTURER

(P) EQUIPMENT MOUNTED  
PER MANUFACTURERS SPECS

(P) UNISTRUT P1000 WITH P1007  
NUTS WITH SPRING, AS REQUIRED  
PER EQUIPMENT MANUFACTURE'S  
SPECIFICATIONS



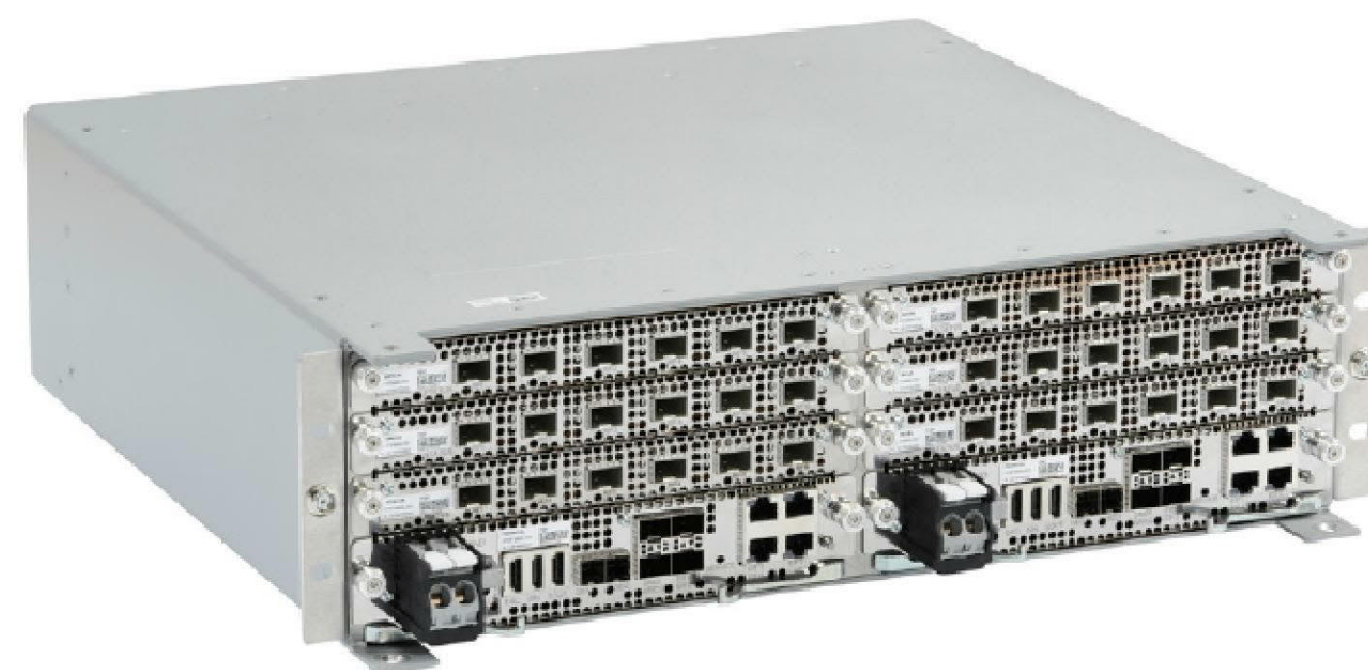
2 EQUIPMENT MOUNTING DETAIL  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED  
MOUNTING HARDWARE.

EQUIPMENT SPECIFICATIONS

MFG: NOKIA  
MODEL: FSM4 BASEBAND  
HEIGHT: 5.04 IN  
DEPTH: 15.75 IN  
WIDTH: 17.6 IN

WEIGHT: 22.27 LBS (MIN.)  
51.81 LBS (MAX.)



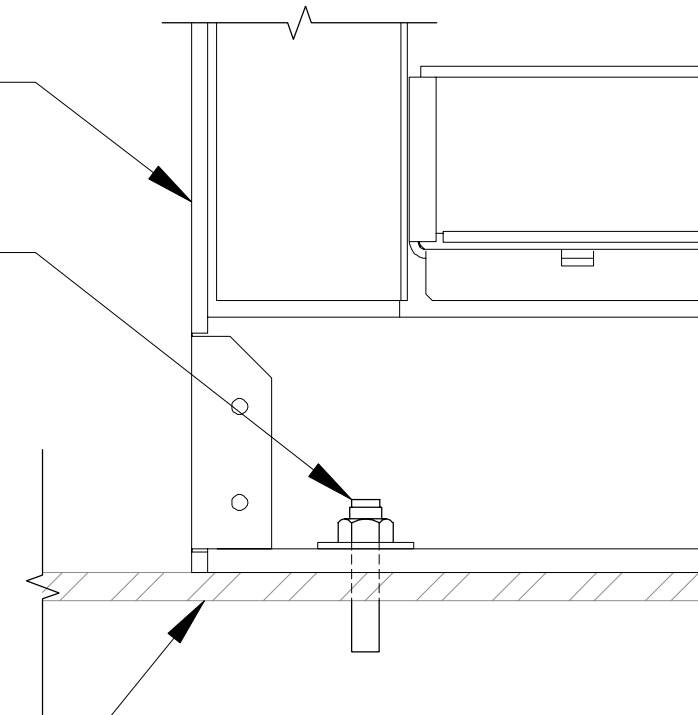
9 FSM4 BASE BAND DETAIL  
N.T.S.

NOTE:  
1. EQUIPMENT RACK INSTALLED AND ANCHORED  
IN ACCORDANCE WITH THE MANUFACTURER'S  
GUIDLINE AND REQUIREMENT

(P) EQUIPMENT RACK

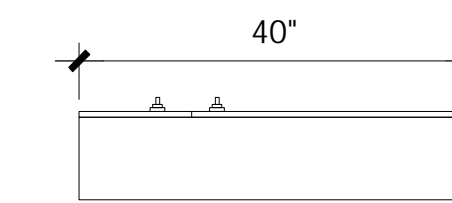
(P) EQUIPMENT RACK  
ANCHORAGE

(P) WIC FLOOR

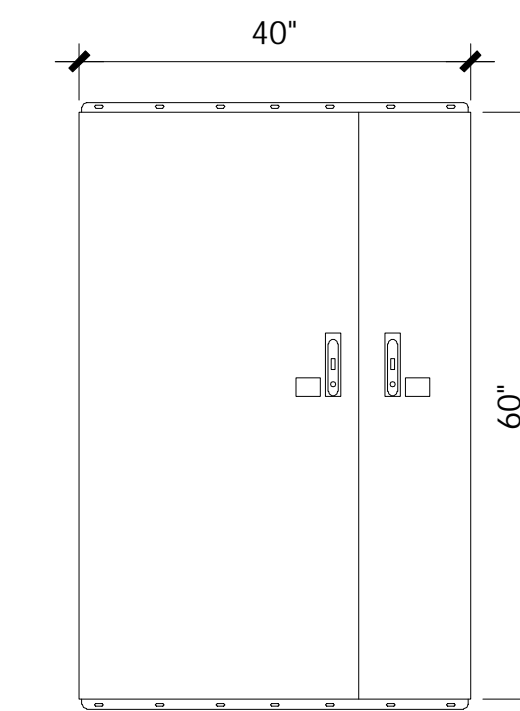


6 RACK ANCHORAGE  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED  
MOUNTING HARDWARE.



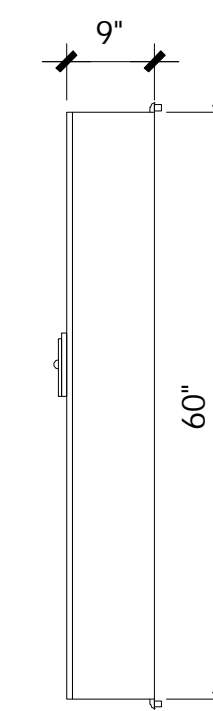
TOP



FRONT

EQUIPMENT SPECIFICATIONS

MFG: VERTIV  
MODEL: SPD BOX F1011259  
HEIGHT: 60.0 IN  
WIDTH: 40.0 IN  
DEPTH: 9.0 IN



SIDE

3 SPD BOX  
N.T.S.

PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**

OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

CHECKED BY:

| A | 11/07/22 | 90% CD |
|---|----------|--------|
|---|----------|--------|

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|-----|------|-------------|

Licensor:

Sheet Title:

DETAILS

Sheet Number:

D-2









J5 PROJECT ID: P-068910

**OL0734**  
OLYMPIA MISSION  
CREEK

CHECKED BY:

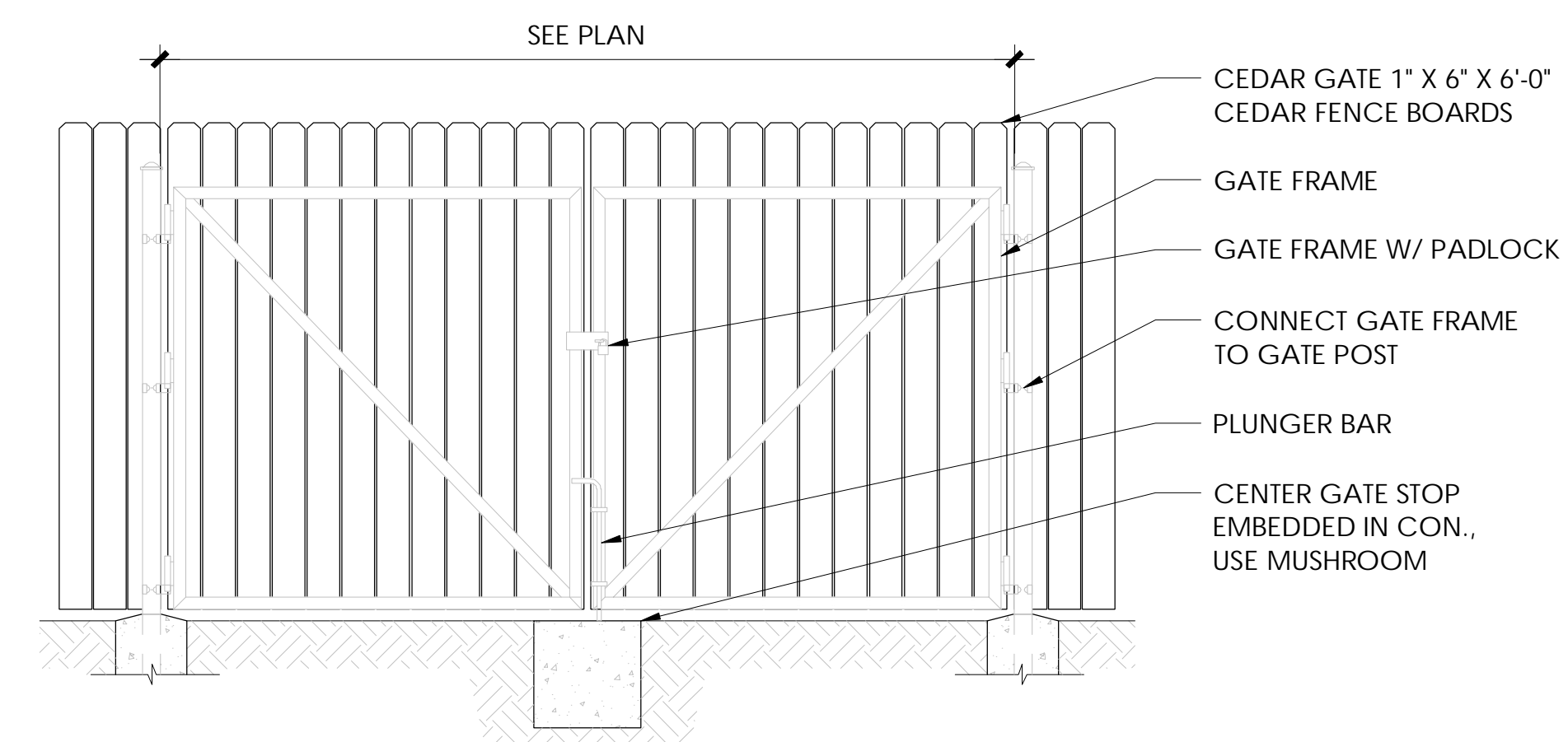
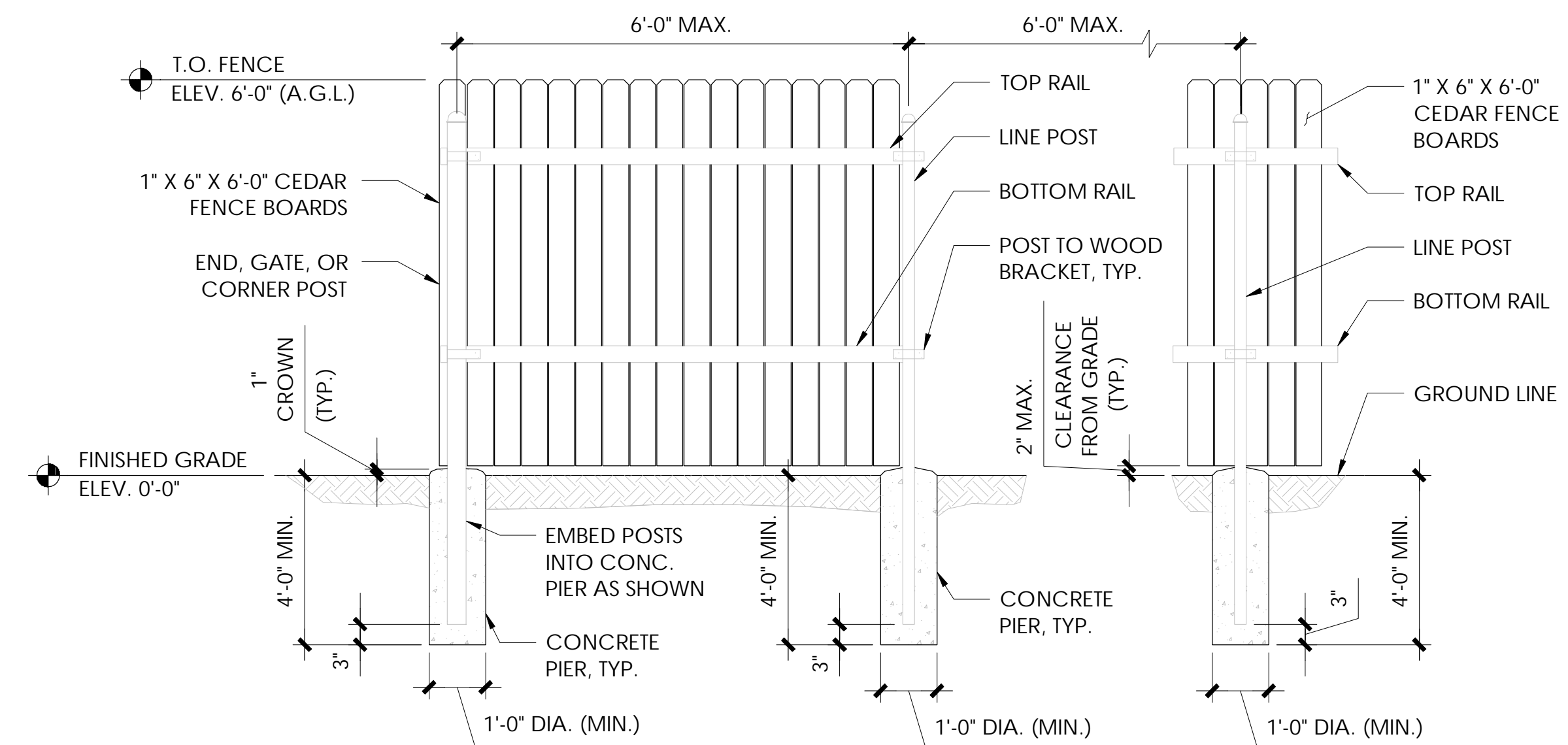
[illegible]

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|-----|------|-------------|

## DETAILS

D-3.1

1. POST PIPE SIZES ARE FENCE INDUSTRY STANDARD. ALL PIPE TO BE GALV. (HOT-DIP, ASTM A120 GRADE "A" STEEL). CROSS BRACE ALL POSTS EXCEPT INTERMEDIATES.
2. FENCE LINE GRADE SHALL BE AS UNIFORM AS POSSIBLE SO THE TOP OF THE FENCE HAS A UNIFORM, SMOOTH APPEARANCE.
3. MINOR GRADING WORK ALONG THE FENCE MAY BE REQUIRED TO ACHIEVE UNIFORM FENCE GRADE.



5 CEDAR FENCE DETAIL  
N.T.S.

10 NOT USED  
N.T.S.

7 NOT USED  
N.T.S.

11 NOT USED  
N.T.S.

8 NOT USED  
N.T.S.

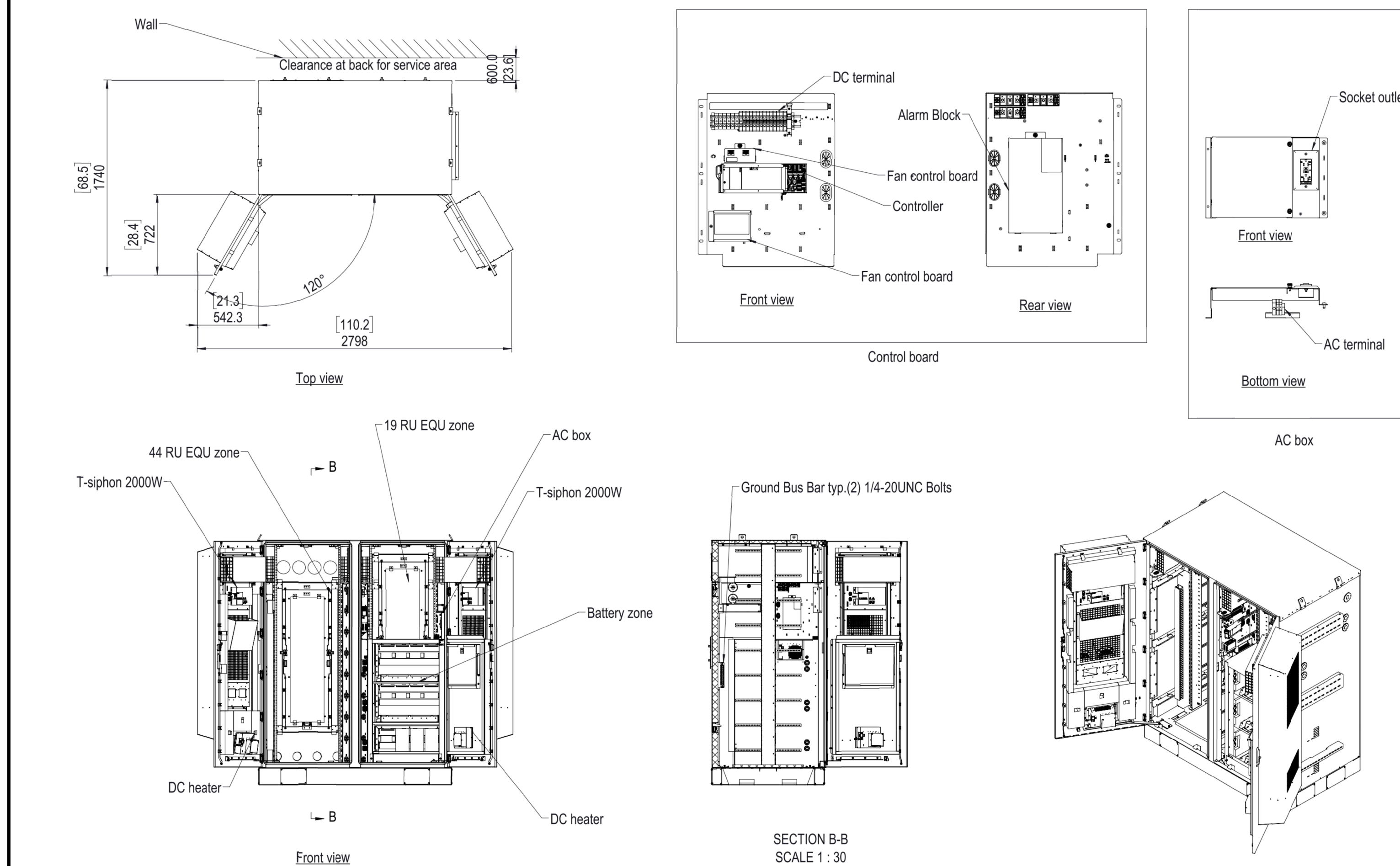
6 NOT USED  
N.T.S.

3 NOT USED  
N.T.S.

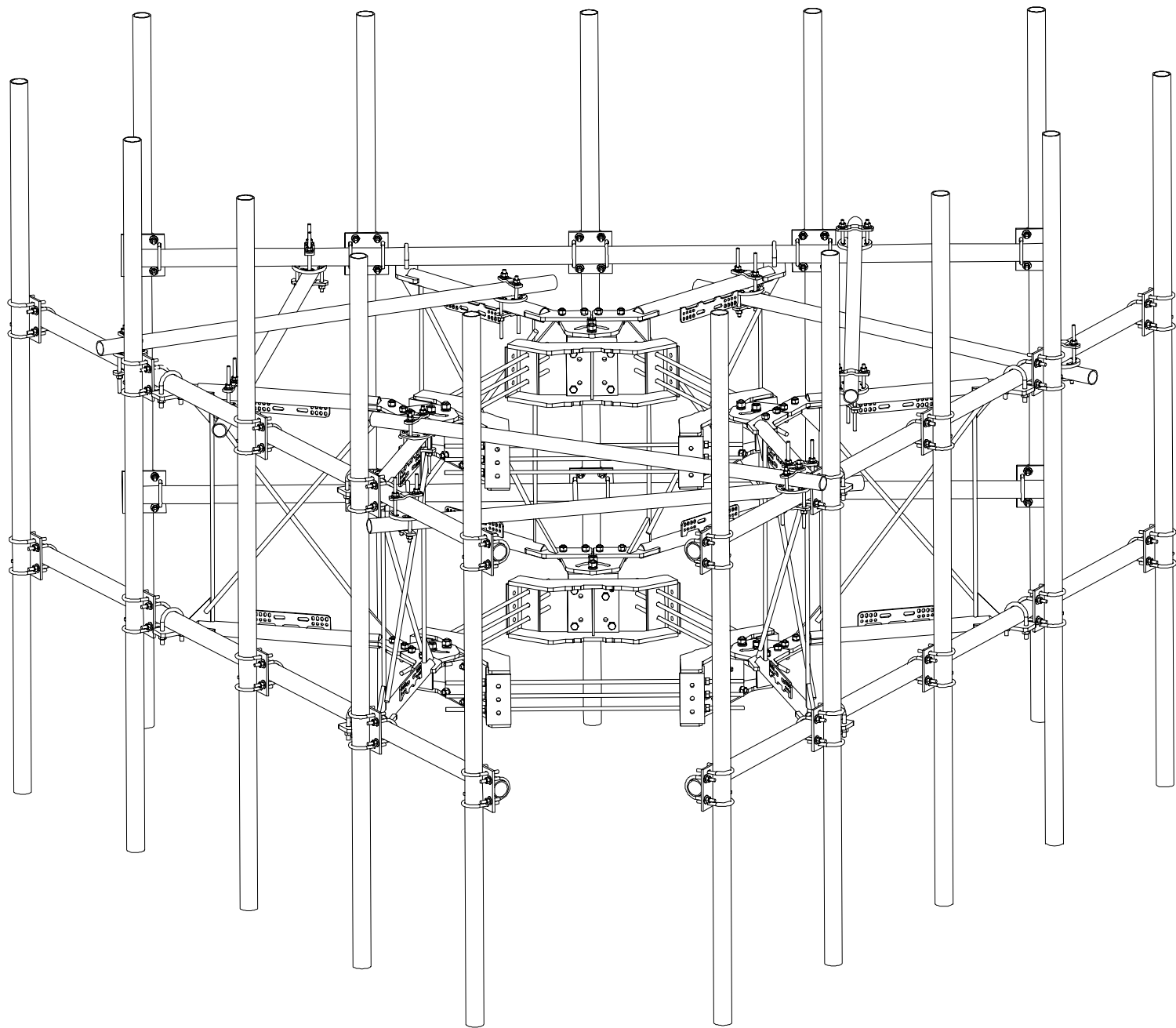




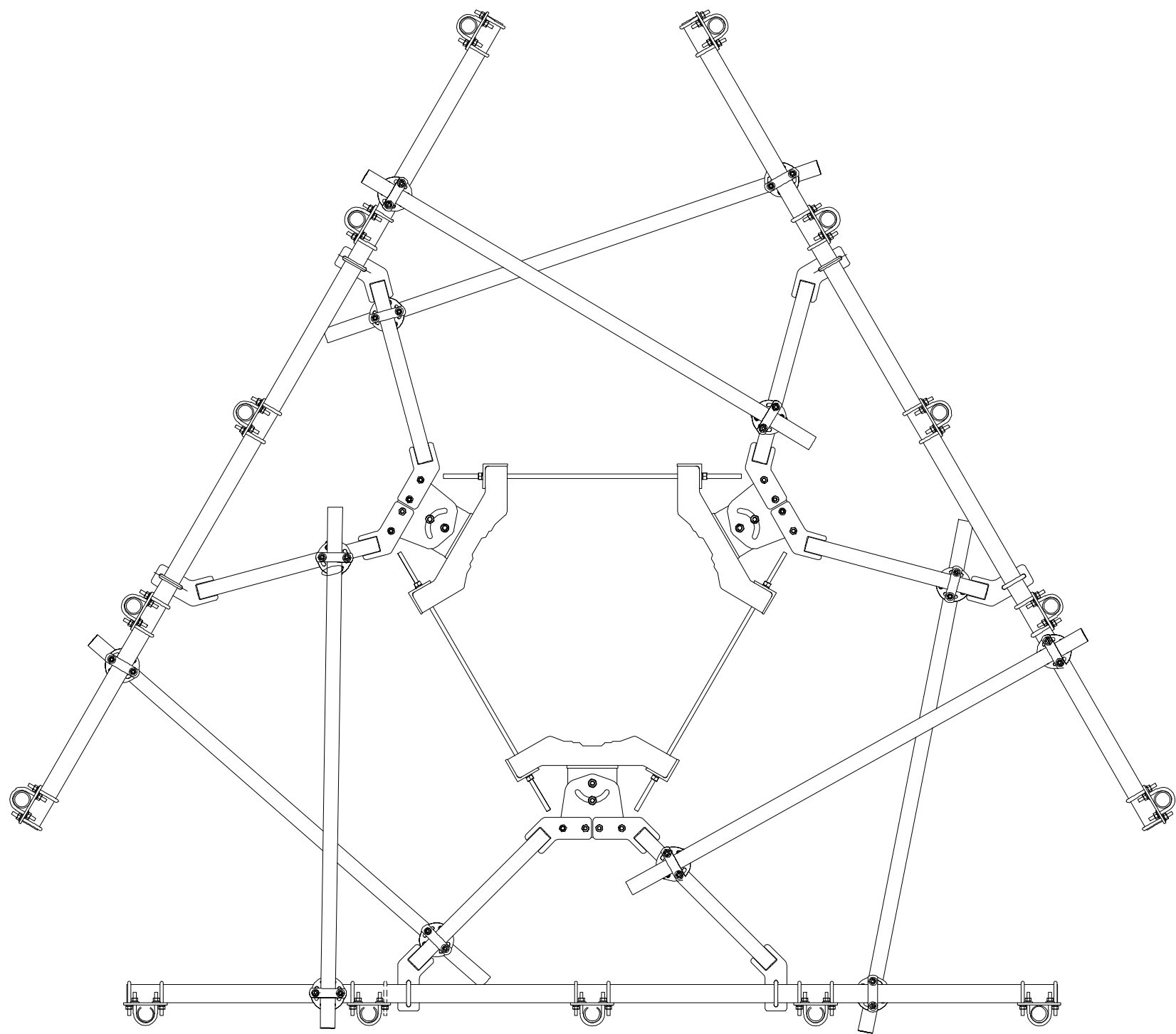








| PARTS LIST |     |          |  |             |                  |
|------------|-----|----------|--|-------------|------------------|
| ITEM       | QTY | PART NO. | PART DESCRIPTION                               | LENGTH      | UNIT WT. NET WT. |
| 1          | 6   | X-LVWRM  | RING MOUNT WELDMENT                            |             | 68.91 412.85     |
| 2          | 6   | X-RMBP   | RING MOUNT BENT PLATE CONNECTION               | 15 1/2 in   | 17.02 102.13     |
| 3          | 6   | X-VFAPL4 | VFA-HD PIVOT PLATE                             | 12 in       | 15.88 95.30      |
| 4          | 6   | X-VFAW   | SUPPORT ARM                                    |             | 71.41 428.44     |
| 5          | 30  | SCX2     | CROSSOVER PLATE                                | 7 in        | 4.80 143.89      |
| 6          | 6   | P284     | 2-3/8" X 84" SCH 40 GALVANIZED PIPE            | 84 in       | 26.91 161.47     |
| 7          | 15  | P30120   | 2-7/8" x 120" (2-1/2" SCH. 40) GALVANIZED PIPE | 120 in      | 58.07 870.99     |
| 8          | 6   | P30150   | 2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE | 150 in      | 76.94 461.62     |
| 9          | 12  | X-127594 | FLAT DISK CLAMP PLATE 4" CENTERS (GALV.)       |             | 2.51 30.08       |
| 10         | 24  | X-100064 | CLAMP (4" V-CLAMP) GALVANIZED                  |             | 0.92 22.12       |
| 11         | 12  | A34212   | 3/4" x 2-1/2" UNC HEX BOLT (A325)              | 2 1/2 in    | 0.48 5.75        |
| 12         | 18  | G34FW    | 3/4" HDG USS FLATWASHER                        |             | 0.06 1.06        |
| 13         | 12  | G34LW    | 3/4" HDG LOCKWASHER                            |             | 0.04 0.51        |
| 14         | 12  | G34NUT   | 3/4" HDG HEAVY 2H HEX NUT                      |             | 0.21 2.55        |
| 15         | 18  | G58R-48  | 5/8" x 48" THREADED ROD (HDG.)                 |             | 4.18 75.27       |
| 16         | 12  | X-UB5300 | 5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)      |             | 1.15 13.79       |
| 17         | 24  | A582112  | 5/8" x 2-1/2" HDG A325 HEX BOLT                | 2 1/2 in    | 0.33 8.02        |
| 18         | 24  | A582114  | 5/8" x 2-1/4" HDG A325 HEX BOLT                | 2 1/4 in    | 0.31 7.50        |
| 19         | 108 | G58LW    | 5/8" HDG LOCKWASHER                            |             | 0.03 2.82        |
| 20         | 108 | G58NUT   | 5/8" HDG HEAVY 2H HEX NUT                      |             | 0.13 14.03       |
| 21         | 120 | X-UB1300 | 1/2" X 3" X 5" X 2" GALV U-BOLT                |             | 0.74 88.64       |
| 22         | 24  | G12065   | 1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD     | 5 1/2 in    | 0.41 9.83        |
| 23         | 24  | G1204    | 1/2" x 4" HDG HEX BOLT GR5 FULL THREAD         | 4 in        | 0.27 6.48        |
| 24         | 288 | G12FW    | 1/2" HDG USS FLATWASHER                        | 3/32 in     | 0.03 9.82        |
| 25         | 288 | G12LW    | 1/2" HDG LOCKWASHER                            | 1/8 in      | 0.01 4.00        |
| 26         | 288 | G12NUT   | 1/2" HDG HEAVY 2H HEX NUT                      |             | 0.07 20.63       |
|            |     |          |  | TOTAL WT. # | 2999.58          |



NOTE:  
1. FOR INFORMATION PURPOSES ONLY.

PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
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TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSION  
CREEK

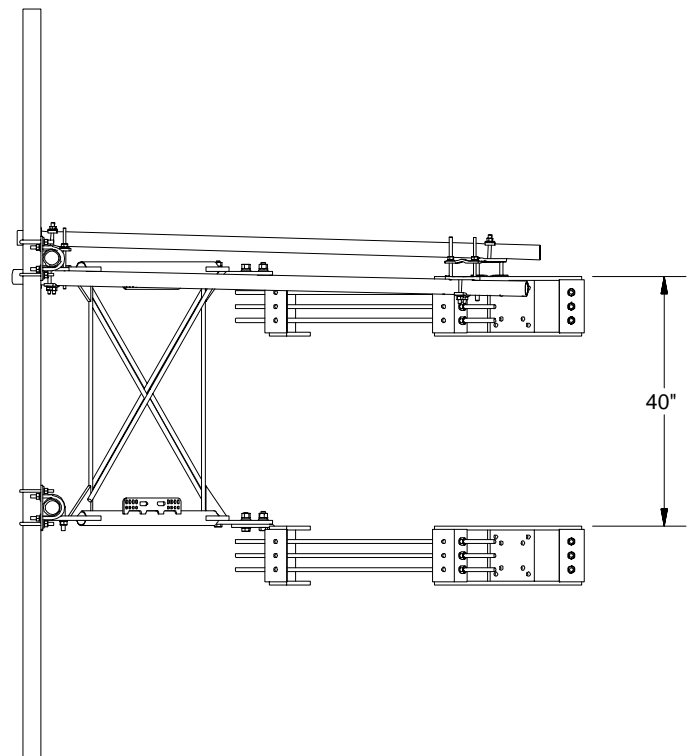
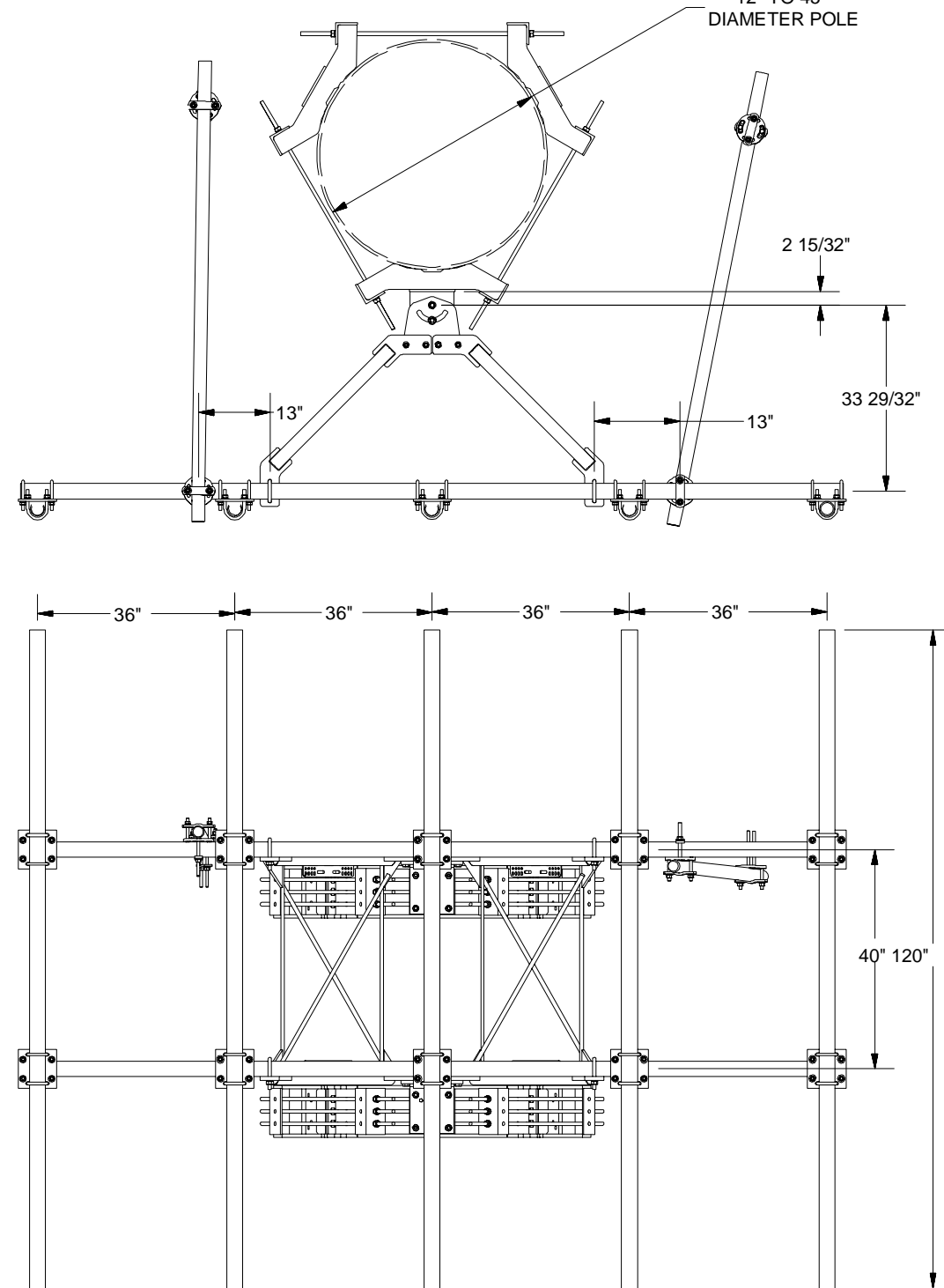
1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

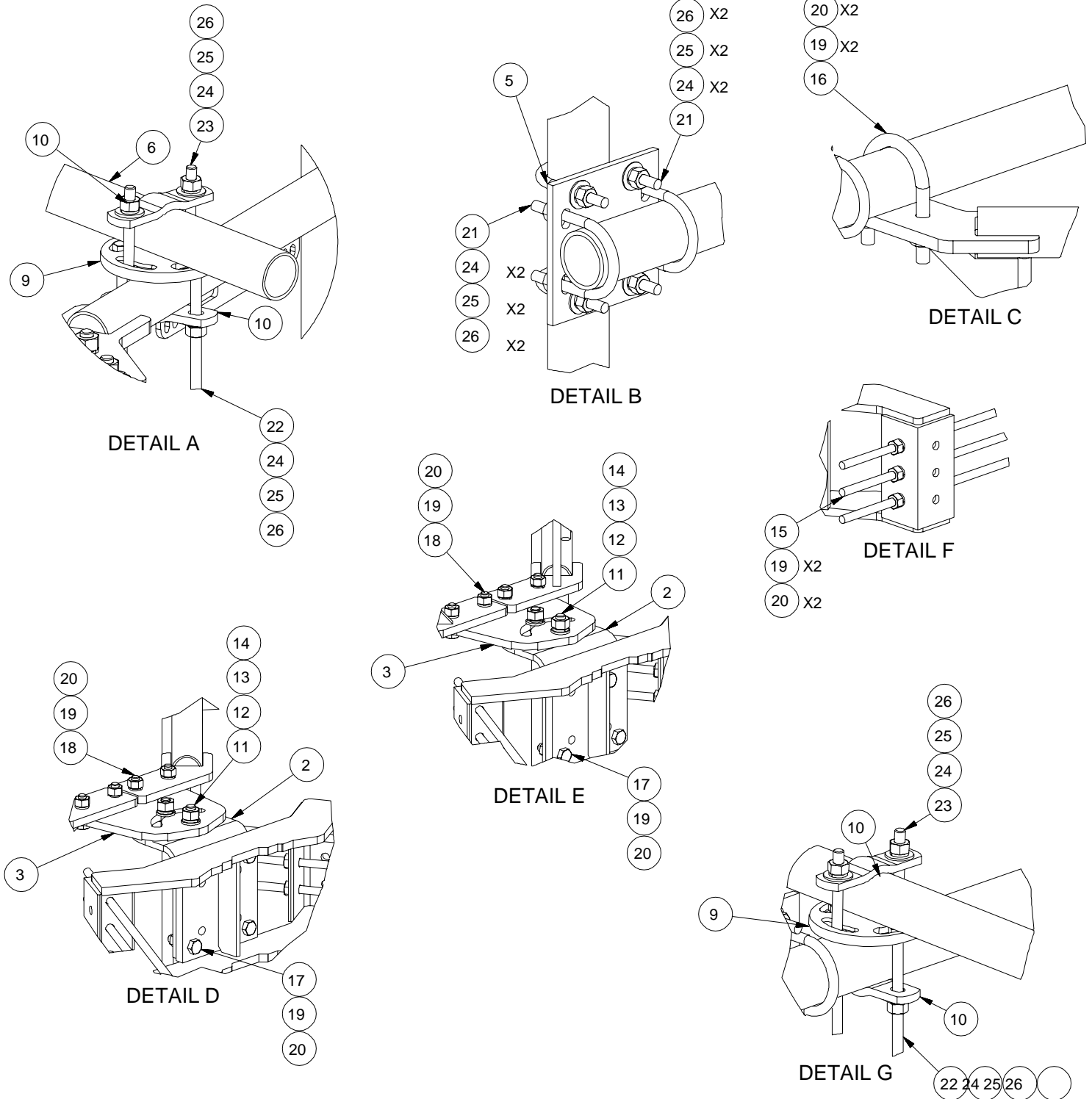
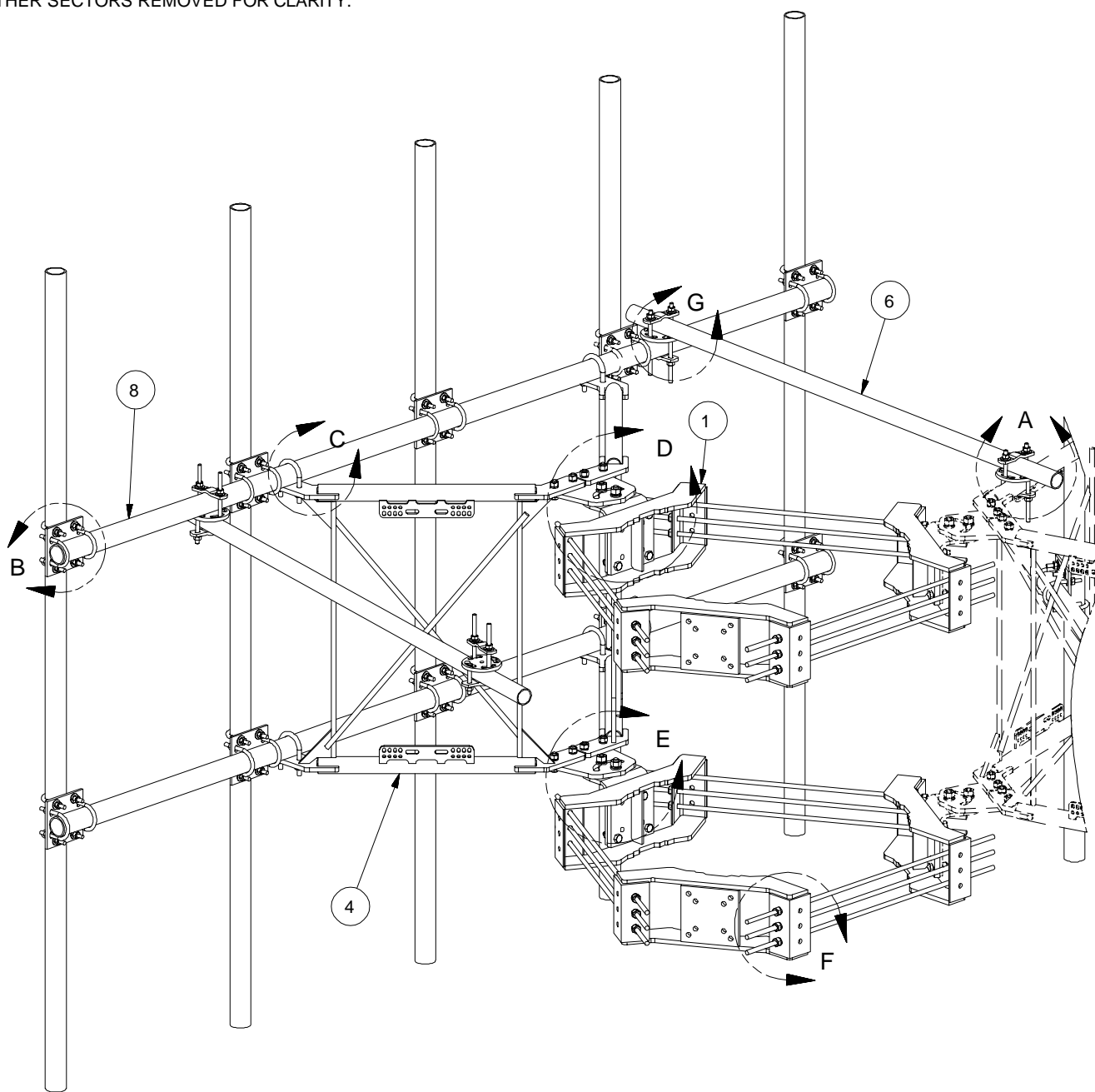
CHECKED BY:

A 11/07/22 90% CD

NOTE:  
OTHER SECTORS REMOVED FOR CLARITY.



NOTE:  
OTHER SECTORS REMOVED FOR CLARITY.



TOLERANCE NOTES  
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030"$ )  
DRILLED AND GAS CUT HOLES ( $\pm 0.030"$ ) - NO CONING OF HOLES  
LASER CUT EDGES AND HOLES ( $\pm 0.010"$ ) - NO CONING OF HOLES  
BENDS ARE  $\pm 1/2$  DEGREE  
ALL OTHER MACHINING ( $\pm 0.030"$ )  
ALL OTHER ASSEMBLY ( $\pm 0.060"$ )  
PROPRIETARY NOTE:  
THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION  
THREE SECTORS HEAVY WLL FRAME  
AND MONOPOLE ATTACHMENT HARDWARE  
WITH FIVE MOUNTING PIPES  
CPD NO. DRAWN BY ENG. APPROVAL  
CEK 10/26/2018  
CLASS SUB DRAWING USAGE CHECKED BY  
81 02 CUSTOMER BMC 10/29/2018

SITE PRO 1  
A valmont COMPANY  
Engineering Support Team:  
1-888-753-7446  
Locations:  
New York, NY  
Atlanta, GA  
Los Angeles, CA  
Plymouth, IN  
Salem, OR  
Dallas, TX  
PART NO. VFA12-M3-WLL  
DWG. NO. VFA12-M3-WLL  
3 OF 4

TOLERANCE NOTES  
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030"$ )  
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PART NO. VFA12-M3-WLL  
DWG. NO. VFA12-M3-WLL  
4 OF 4

Licensor:

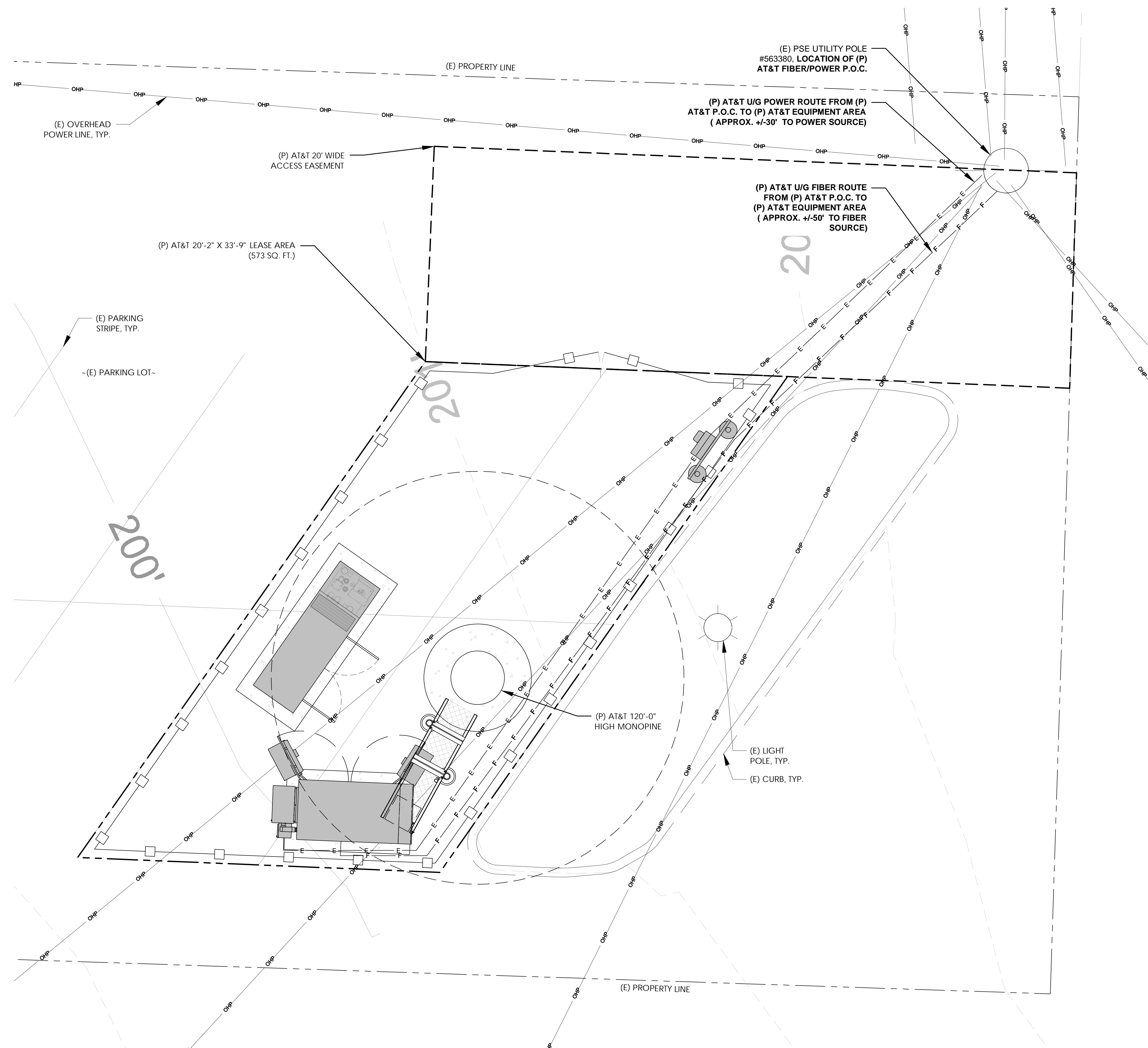
Sheet Title:

ANTENNA MOUNT  
DETAILS

Sheet Number:

D-6





PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

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OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

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| A | 11/07/22 | 90% CD |
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| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|-----|------|-------------|

Licensors:

Sheet Title:

## UTILITY PLAN

Sheet Number:

E-1



NOTES:

1. ALL WORK TO CONFORM TO N.E.C. LATEST STATE ADOPTED EDITION.
2. LABEL SERVICE DISCONNECT WITH A RED TAG.
3. SWITCH LEG CONDUCTORS SHALL BE THE SAME COLOR AS CIRCUIT CONDUCTORS.
4. PULL ONE GROUND CONDUCTOR PER FLEXIBLE NONMETALLIC CONDUIT. FOR ALL OTHER CIRCUITS PULL A SEPARATE CONDUCTOR.
5. ALL GFCI RECEPTACLES TO HAVE A DEDICATED GROUND WIRE.
6. EQUIPMENT TERMINATION LUGS AND CONDUCTORS ARE RATED AT A MINIMUM OF 75°C.
7. CONDUIT REQUIREMENTS
  - UNDERGROUND PVC (SCH 40 OR 80)
  - INDOOR: EMT (RGS IN TRAFFIC AREAS)
  - OUTDOOR (ABOVE GRADE): RGS

**ABBREVIATIONS:**

|      |   |
|------|---|
| BCW  | BARE COPPER WIRE                                  |
| BTS  | BASE TRANSCIVER STATION                           |
| C    | CONDUIT   |
| (E)  | EXISTING  |
| EG   | EQUIPMENT GROUND                                  |
| (F)  | FUTURE  |
| FACP | FIRE ALARM CONTROL PANEL                          |
| GEN  | GENERATOR   |
| IG   | ISOLATED GROUND                                   |
| IMC  | INTERMEDIATE METAL CONDUIT                        |
| LFMC | LIQUID TIGHT FLEXIBLE METAL CONDUIT               |
| MCM  | MILLION CIRCULAR MILLS                            |
| MI   | MECHANICAL INTERLOCK                              |
| MP&S | SEE MECHANICAL PLANS &<br>SPECIFICATIONS          |
| (N)  | NEW   |
| NEMA | NATIONAL ELECTRICAL<br>MANUFACTURER'S ASSOCIATION |
| NL   | NIGHT LIGHT - FIXTURE TO BE<br>UNSWITCHED         |
| PFB  | PROVISION FOR FUTURE BREAKER                      |
| PVC  | POLYVINYL CHLORIDE CONDUIT                        |
| (R)  | RELOCATE  |
| RG   | RELAY TO MONITOR GENERATOR POWER                  |
| RU   | RELAY TO MONITOR UTILITY POWER                    |
| TYP  | TYPICAL   |
| UON  | UNLESS OTHERWISE NOTED                            |
| VP   | WEATHERPROOF                                      |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER                  |

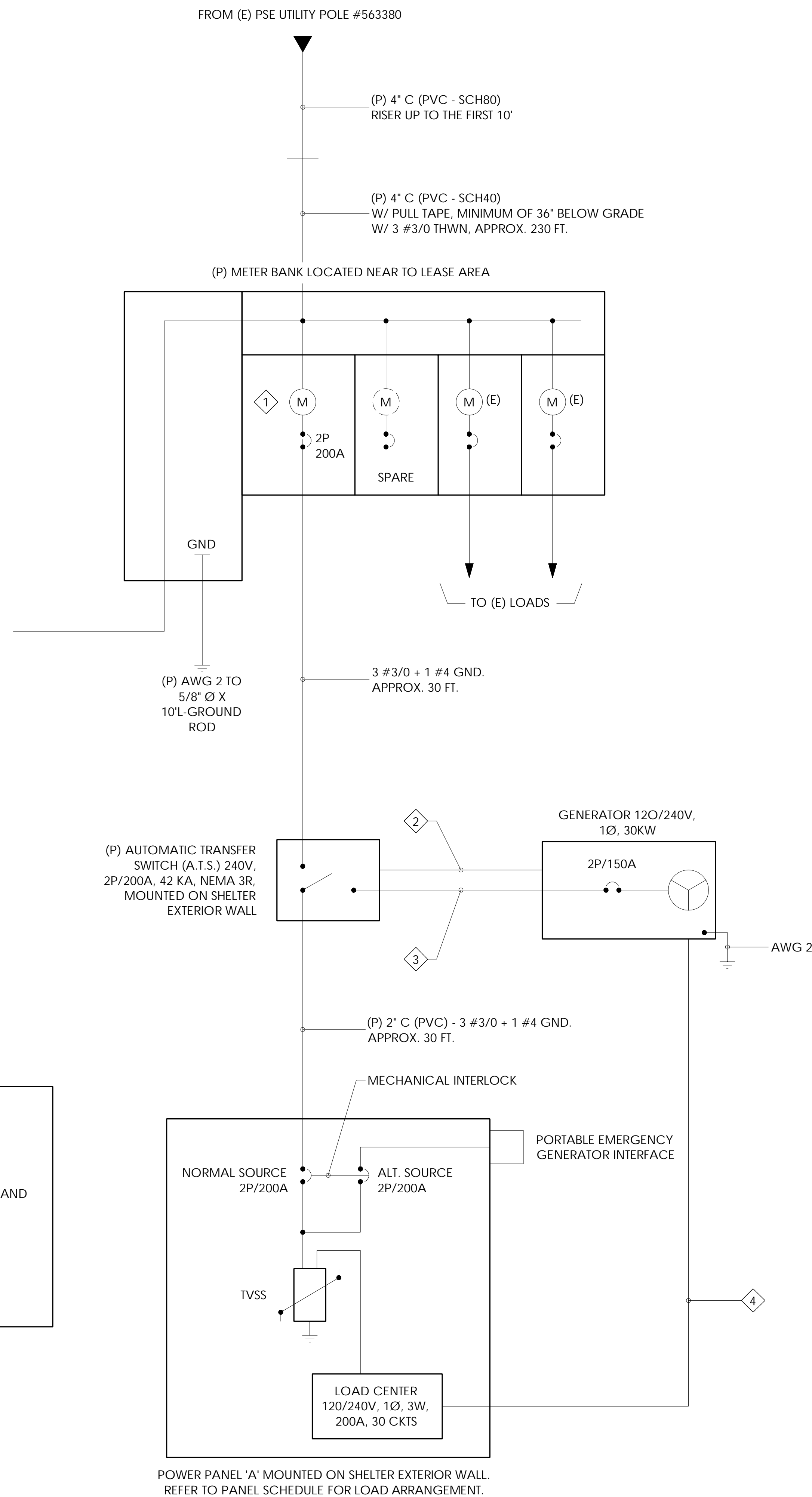
NOTE: SYMBOLS INDICATED ABOVE MAY NOT NECESSARILY APPEAR AS PART OF THESE DRAWINGS IF NOT REQUIRED.

| VOLTAGE: 120/240V, 1 PHASE, 200A, 22 KAIC |         |                          |      |     |     |         |   |     |     | MOUNTING: SURFACE                          |                          |                  |         |
|---|---------|--------------------------|------|-----|-----|---------|---|-----|-----|--|--------------------------|------------------|---------|
| MAIN CB: 2P/200A                          |         |                          |      |     |     |         |   |     |     | NEMA: 3R                                   |                          |                  |         |
| BRANCH CB: TYPE 00                        |         |                          |      |     |     |         |   |     |     | LOCATION: MOUNTED ON SHELTER EXTERIOR WALL |                          |                  |         |
| PANEL 'A'                                 |         |                          |      |     |     |         |   |     |     |  |                          |                  |         |
| VOLT AMPS                                 |         | DESCRIPTION              | POLE | BRK | CKT | VA/LINE |   | CKT | BRK | POLE                                       | DESCRIPTION              | VOLT AMPS        |         |
| PHASE A                                   | PHASE B |                          |      |     |     | A       | B |     |     |  |                          | PHASE A          | PHASE B |
| 2112                                      |         | SHELVES 1 & 3 RECTIFIERS | 2    | 30  | 1   | +       | + | 2   | 20  | 1  | G.F.I. (INTERNAL)        | 180              |         |
|   | 2112    | -                        | -    | -   | 3   | +       | + | 4   | 30  | 2  | SHELVES 1 & 3 RECTIFIERS |                  | 2112    |
| 2112                                      |         | SHELVES 1 & 3 RECTIFIERS | 2    | 30  | 5   | +       | + | 6   | -   | -  | -                        | 2112             |         |
|   | 2112    | -                        | -    | -   | 7   | +       | + | 8   | 30  | 2  | SHELVES 2 & 4 RECTIFIERS |                  | 2112    |
| 2112                                      |         | SHELVES 2 & 4 RECTIFIERS | 2    | 30  | 9   | +       | + | 10  | -   | -  | -                        | 2112             |         |
|   | 2112    | -                        | -    | -   | 11  | +       | + | 12  | 30  | 2  | SHELVES 1 & 3 RECTIFIERS |                  | 2112    |
|   |         | SPACE                    |      |     | 13  | +       | + | 14  | -   | -  | -                        | 2112             |         |
|   |         |                          |      |     | 15  | +       | + | 16  |     |  | SPACE                    |                  |         |
|   |         |                          |      |     | 17  | +       | + | 18  |     |  |                          |                  |         |
|   |         |                          |      |     | 19  | +       | + | 20  |     |  |                          |                  |         |
|   |         |                          |      |     | 21  | +       | + | 22  |     |  |                          |                  |         |
|   | 180     | G.F.I.                   | 1    | 20  | 23  | +       | + | 24  | 20  | 1  | BATTERY CHARGER          |                  | 360     |
| 1200                                      |         | HVAC                     | 2    | 20  | 25  | +       | + | 26  | 20  | 1  | HEATER                   | 480              |         |
|   | 1200    | -                        | -    | -   | 27  | +       | + | 28  | 15  | 1  | EXT LIGHTS               |                  | 100     |
| 720                                       |         | OUTLETS                  | 1    | 20  | 29  | +       | + | 30  | 20  | 1  | INTERIOR LIGHT           | 200              |         |
| 8256                                      | 7716    |                          |      |     |     |         |   |     |     |  |                          | 7196             | 6796    |
| PHASE A = 15,452                          |         |                          |      |     |     |         |   |     |     |  |                          | PHASE B = 14,512 |         |
| CONNECTED LOAD = 29,964 VA                |         |                          |      |     |     |         |   |     |     |  |                          |                  |         |
| CONNECTED AMPS = 124.9 A                  |         |                          |      |     |     |         |   |     |     |  |                          |                  |         |

2 AC PANEL SCHEDULE  
N.T.S.

KEY NOTES:

- |   |   |
|---|---|
| 1 | NOT USED  |
| 2 | (P) 1" C (PVC) - 10 #14 FOR CONTROL AND START-UP. REFER TO GENERATOR AND A.T.S. SPECS. FOR WIRING CONNECTION. |
| 3 | (P) 2" C (PVC) - 3 #3/0 + 1 #4 GND., APPROX. 30 FT.   |
| 4 | (P) 1" C (PVC) - 4 #12 + 2 #12 GND. FOR BATTERY CHARGER & HEATER.   |



1 SINGLE-LINE DIAGRAM (SLD)  
N.T.S.

PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**

OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

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[illegible]

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Sheet Title:

## ELECTRICAL PANEL SCHEDULE & SLDG

Sheet Number:

E-2



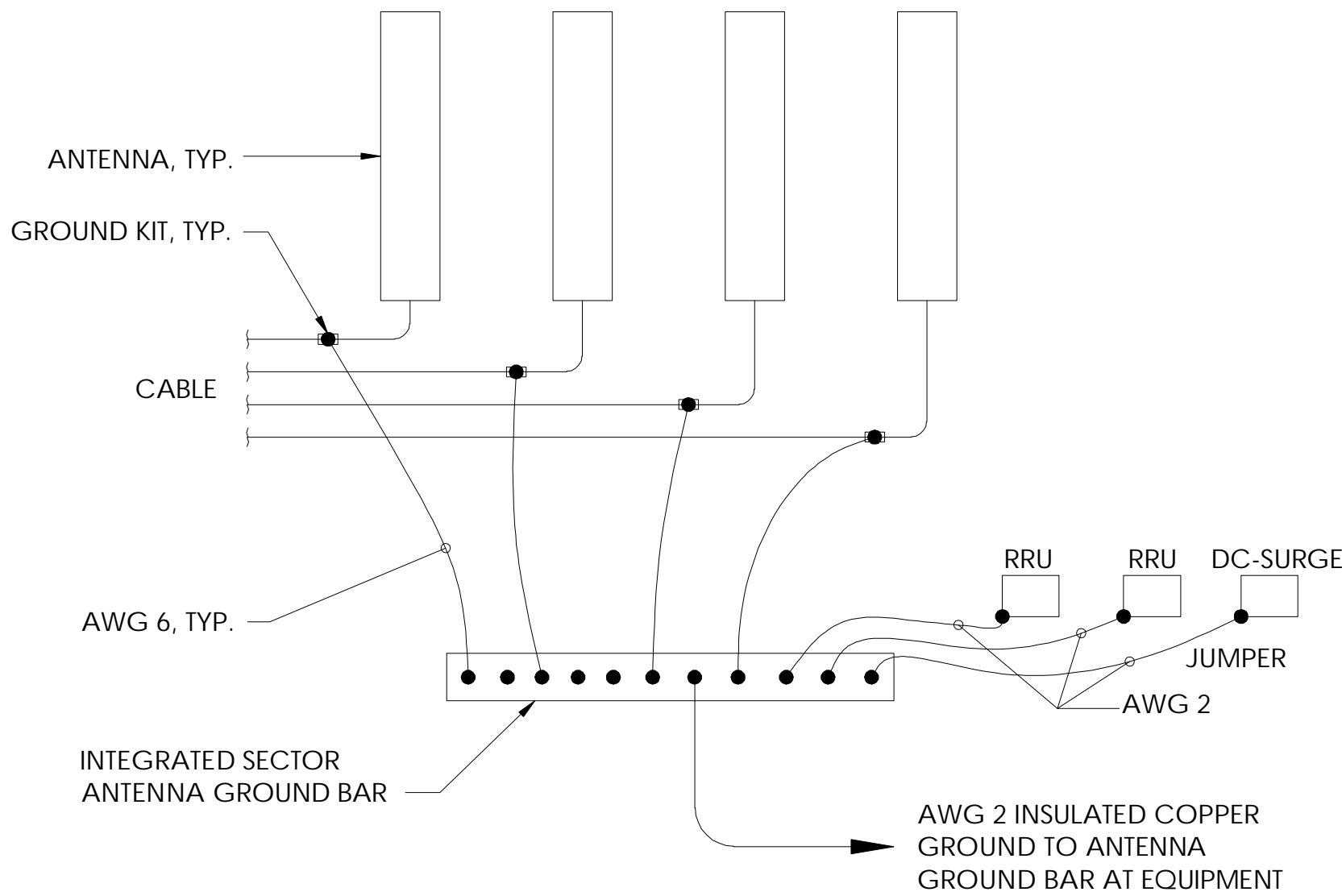
GROUNDING NOTES:

1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.
2. ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
3. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.
4. ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE.
5. GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE.
6. INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.
7. EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.
8. GROUND BARS:

A) EQUIPMENT GROUND BUS BAR (EGB) LOCATED AT THE BOTTOM OF ANTENNA POLE/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.
9. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
11. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).
12. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE. IF CHAIN LINK LID IS USED, THEN GROUND LID ALSO.
13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.
14. ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.
15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
16. USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR. NO "DOUBLE-UP" OF LUGS.
17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.
18. NO LB'S ALLOWED ON GROUNDING.
19. PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.
20. ALL ELECTRICAL AND GROUNDING AT THE CELL SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER SPECIFICATION.
21. IF THE AC PANEL IN THE POWER CABINET IS WIRED AS SERVICE ENTRANCE, THE AC SERVICE GROUND CONDUCTOR SHALL BE CONNECTED TO GROUND ELECTRODE SYSTEM. WHEN THE AC PANEL IN THE POWER CABINET IS CONSIDERED A SUB-PANEL, THE GROUND WIRE SHALL BE INSTALLED IN THE AC POWER CONDUIT. THE INSTALLATION SHALL BE PER LOCAL AND NATIONAL ELECTRIC CODE (NFPA-70).
22. EXOTHERMIC WELDING IS RECOMMENDED FOR GROUNDING CONNECTION WHERE PRACTICAL. OTHERWISE, THE CONNECTION SHALL BE MADE USING COMPRESSION TYPE-2 HOLES. LONG BARREL LUGS OR DOUBLE CRIMP CLAMP "C" CLAMP. THE COPPER CABLES SHALL BE COATED WITH ANTIOXIDANT (COPPER SHIELD) BEFORE MAKING THE CONNECTIONS. THE MANUFACTURER'S TORQUING RECOMMENDATIONS ON THE BOLT ASSEMBLY TO SECURE CONNECTIONS SHALL BE FOLLOWED.
23. THE ANTENNA CABLES SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN FOR LIGHTING PROTECTION. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUSS AT THE LOWER MOST POINT OF A VERTICAL RUN JUST BEFORE IT BEGINS TO BEND TOWARD THE HORIZONTAL PLANE. WIRE RUNS TO GROUND SHALL BE KEPT AS STRAIGHT AND SHORT AS POSSIBLE. ANTENNA CABLE SHIELD SHALL BE GROUNDED JUST BEFORE ENTERING THE CELL CABINET. ANY ANTENNA CABLES OVER 200 FEET IN LENGTH SHALL ALSO BE EQUIPPED WITH ADDITIONAL GROUNDING AT MID-POINT.

24. ALL GROUNDING CONDUCTORS INSIDE THE BUILDING SHALL BE RUN IN CONDUIT RACEWAY SYSTEM, AND SHALL BE INSTALLED AS STRAIGHT AS PRACTICAL WITH MINOR BENDS TO AVOID OBSTRUCTIONS. THE BENDING RADIUS OF ANY #2 GROUNDING CONDUCTOR IS 8". PVC RACEWAY MAY BE FLEXIBLE OR RIGID PER THE FIELD CONDITIONS. GROUNDING CONDUCTORS SHALL NOT MAKE CONTACT WITH ANY METALLIC CONDUITS, SURFACES OR EQUIPMENT.
25. PROVIDE PVC SLEEVES WHERE GROUNDING CONDUCTORS PASS THROUGH THE BUILDING WALLS AND /OR CEILINGS.
26. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUSS IN THE PANEL BOARD.
27. GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
28. ALL PROPOSED GROUNDING CONDUCTORS SHALL BE ROUTED AND CONNECTED TO THE MAIN GROUND BAR OR EXISTING GROUND RING.

3 GROUNDING NOTES  
N.T.S.



- NOTES:
1. GROUND BAR LOCATION IS SCHEMATIC AS SHOWN ON THIS SHEET AND ACTUAL LOCATION OF INSTALLATION WILL BE DETERMINED BY THE INSTALLER.
2. REFER TO ANTENNA PLAN FOR EXACT NUMBER OF ANTENNA, RRU AND DC SURGE SUPPRESSOR

4 TYP. ANTENNA GROUNDING DIAGRAM

1 NOT USED

2 NOT USED

PREPARED FOR



NEW CINGULAR WIRELESS PCS,  
LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



23 MAUCHLY #110  
IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**

OLYMPIA MISSION  
CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

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| A | 11/07/22 | 90% CD |
|---|----------|--------|
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| REV | DATE | DESCRIPTION |
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GROUNDING NOTES

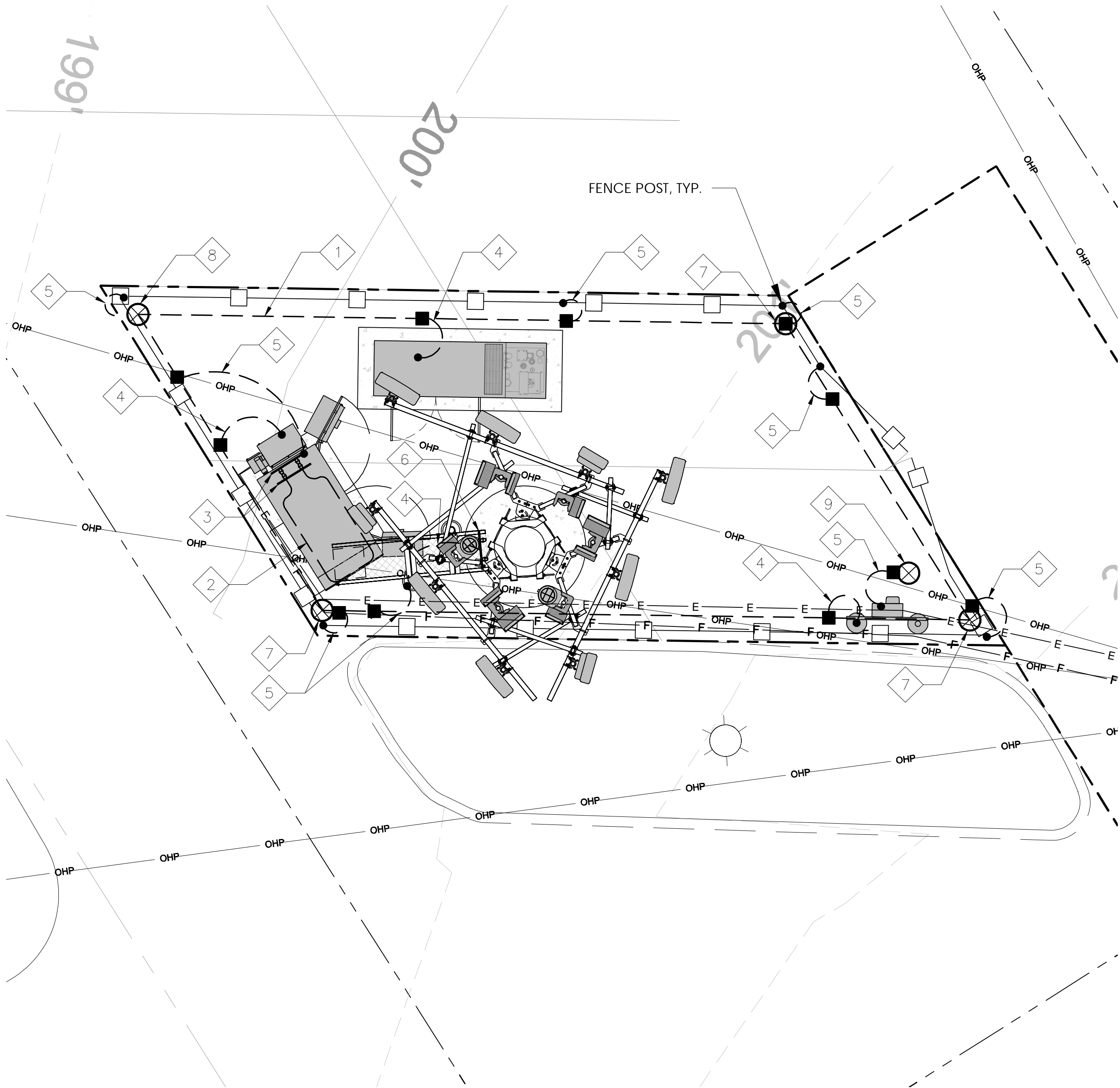
Sheet Number:

G-1



KEY NOTES:

- 1 (P) AWG 2 BCW GROUND RING BURIED 30" BELOW GRADE.
- 2 (P) AWG 2 INSULATED COPPER GROUND (HALO GROUND) CONNECTED TO EQUIP. INSIDE THE WUC PROVIDED AND INSTALLED BY WUC MANUFACTURER
- 3 (P) EQUIP. GROUND BAR INSIDE AND OUTSIDE OF WUC.
- 4 (P) AWG 2 INSULATED COPPER GROUND.
- 5 (P) AWG 2 BCW.
- 6 (P) ANTENNA GROUND BAR AT BOTTOM OF MONOPOLE.
- 7 (P) GROUND ROD.
- 8 (P) GROUND TEST WELL.
- 9 (P) ISOLATED GROUND ROD.

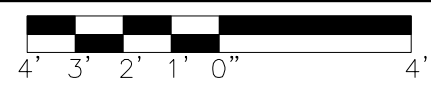


GROUNDING LEGEND

- CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- GROUND ROD

EQUIPMENT GROUNDING PLAN

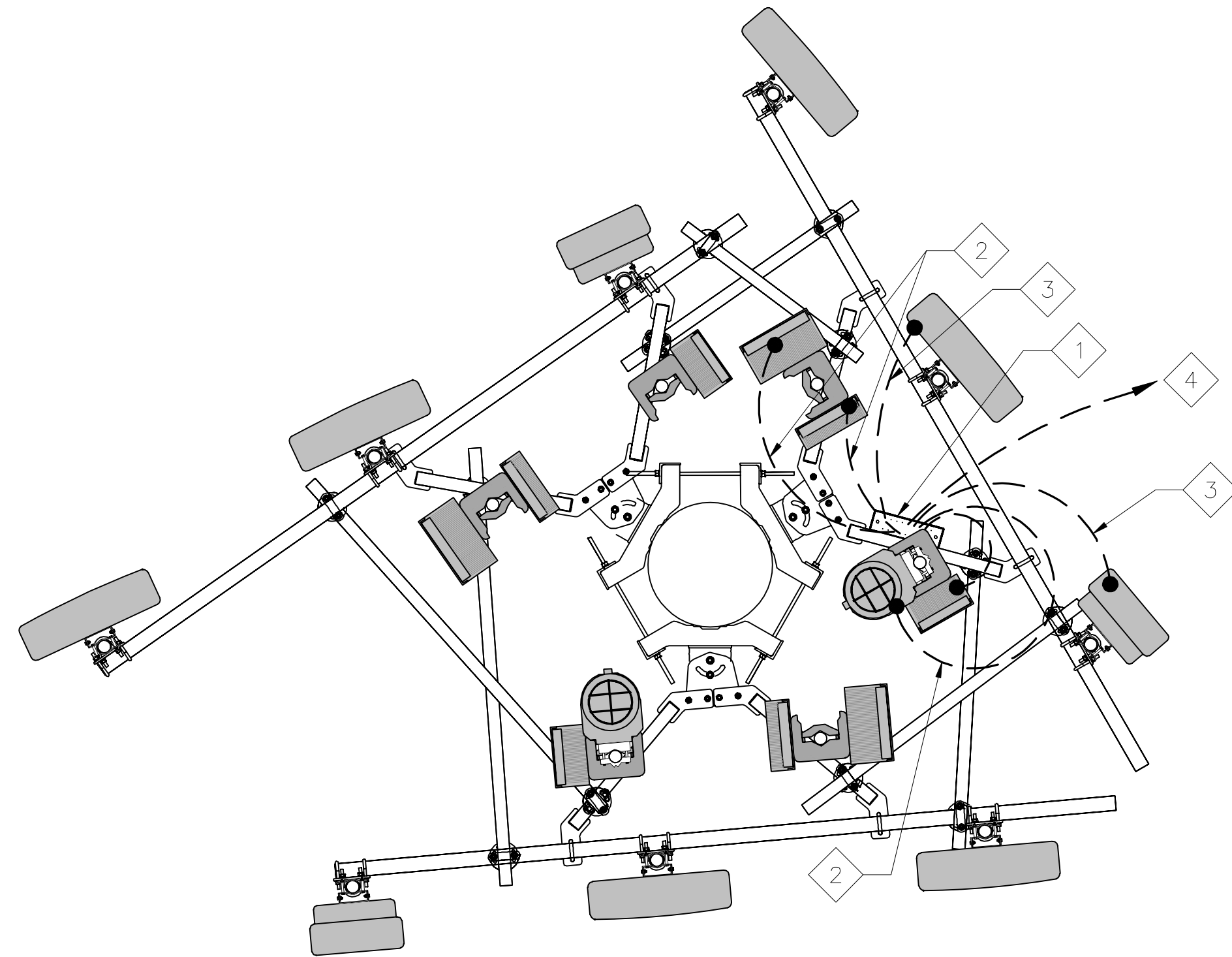
24"x36" SCALE: 1/4" = 1'-0"



3

KEY NOTES:

- 1 ANTENNA GROUND BAR AT EACH SECTOR.
- 2 AWG 2 INSULATED COPPER GROUND FROM (P) RRH AND DC9.
- 3 AWG 6 INSULATED COPPER GROUND WIRE FROM ANTENNA GROUND KIT TO ANTENNA GROUND BAR.
- 4 AWG 2 INSULATED COPPER GROUND TO ANTENNA GROUND BAR AT BOTTOM OF POLE



GROUNDING LEGEND

- CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- GROUND ROD

ANTENNA GROUNDING PLAN (TYP. PER SECTOR)

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



1

PREPARED FOR



NEW CINGULAR WIRELESS PCS, LLC ("AT&T")  
19801 SW 72ND AVE., STE. 200  
TUALATIN, OR 97062

Vendor:



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IRVINE, CA 92618

J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSION CREEK

1818 4TH AVENUE EAST  
OLYMPIA, WA 98506  
PARCEL ID: 80800400300

DRAWN BY: JBE

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A 11/07/22 90% CD

REV DATE DESCRIPTION

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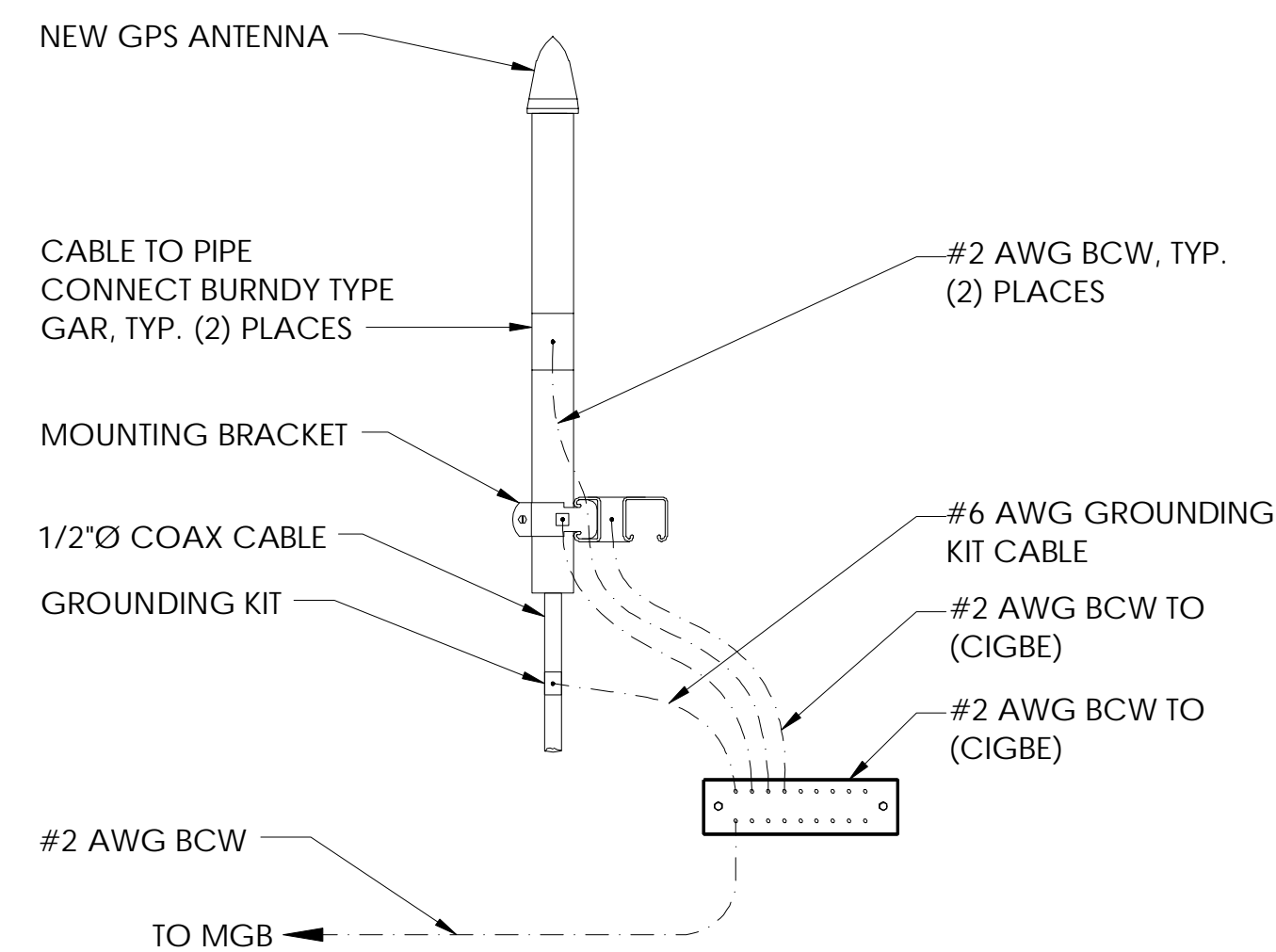
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GROUNDING PLANS

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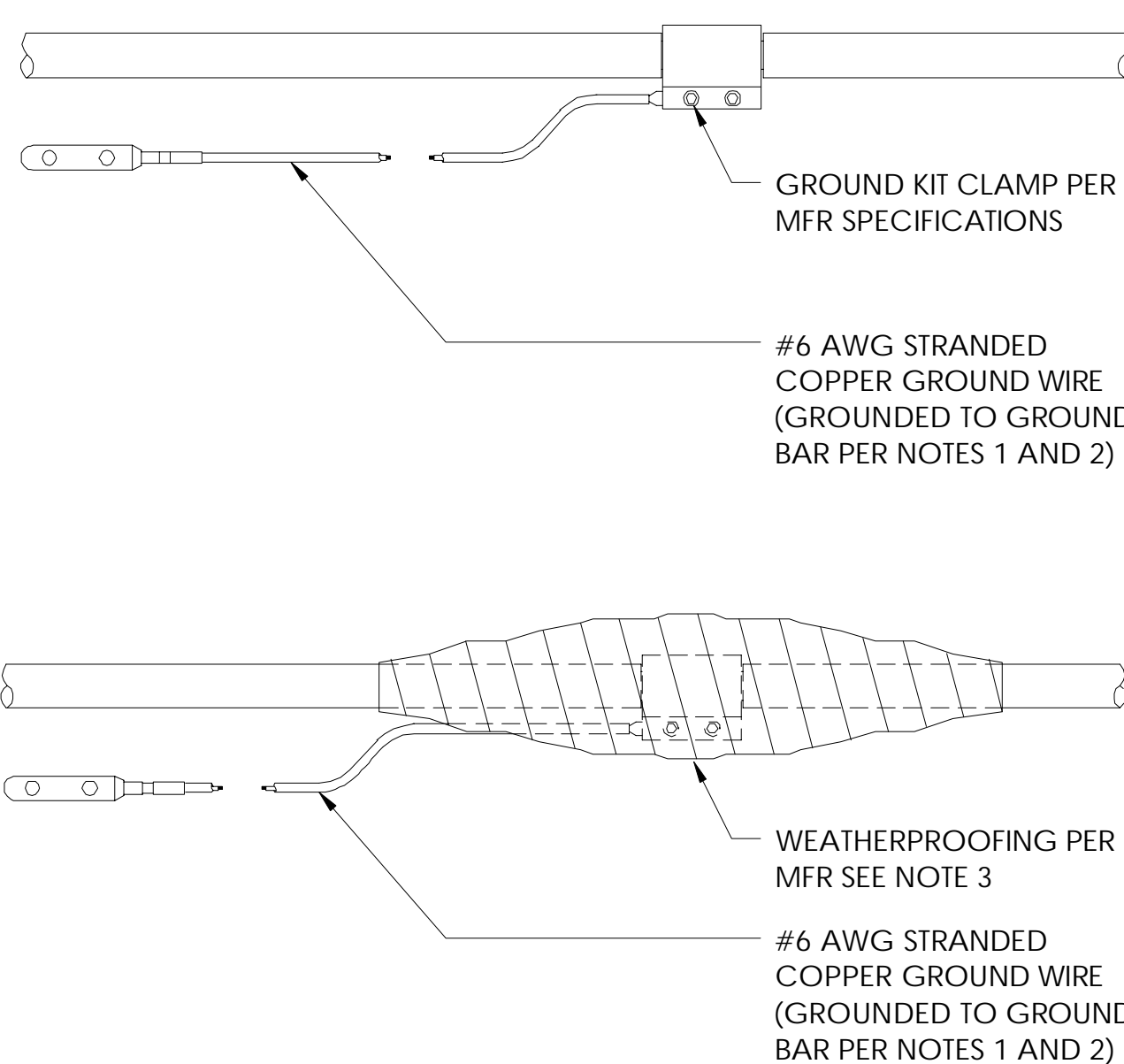
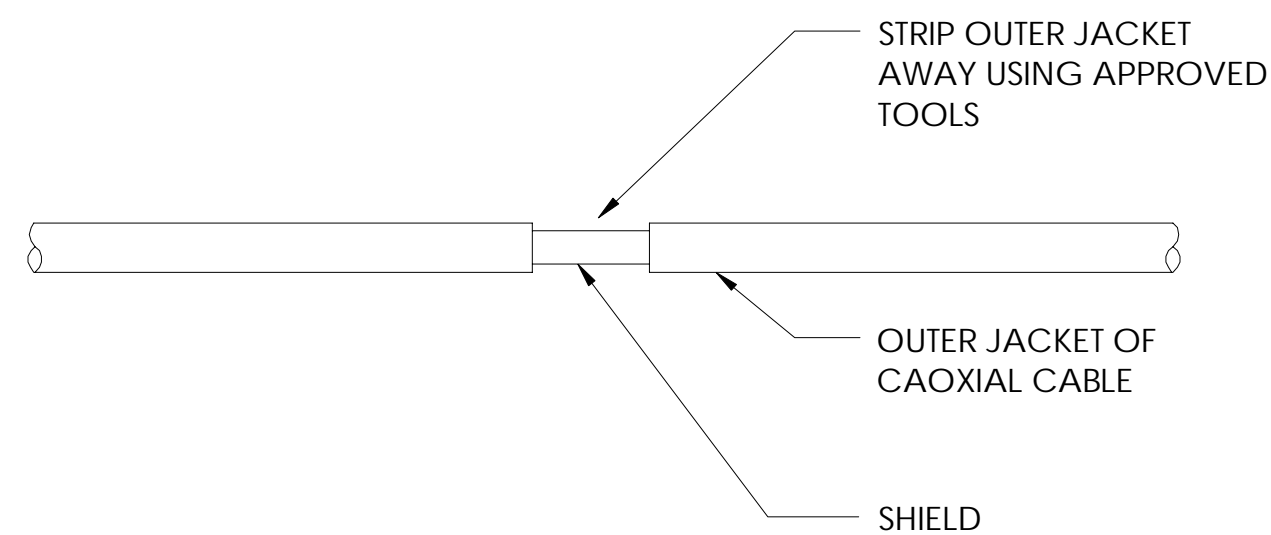
G-2



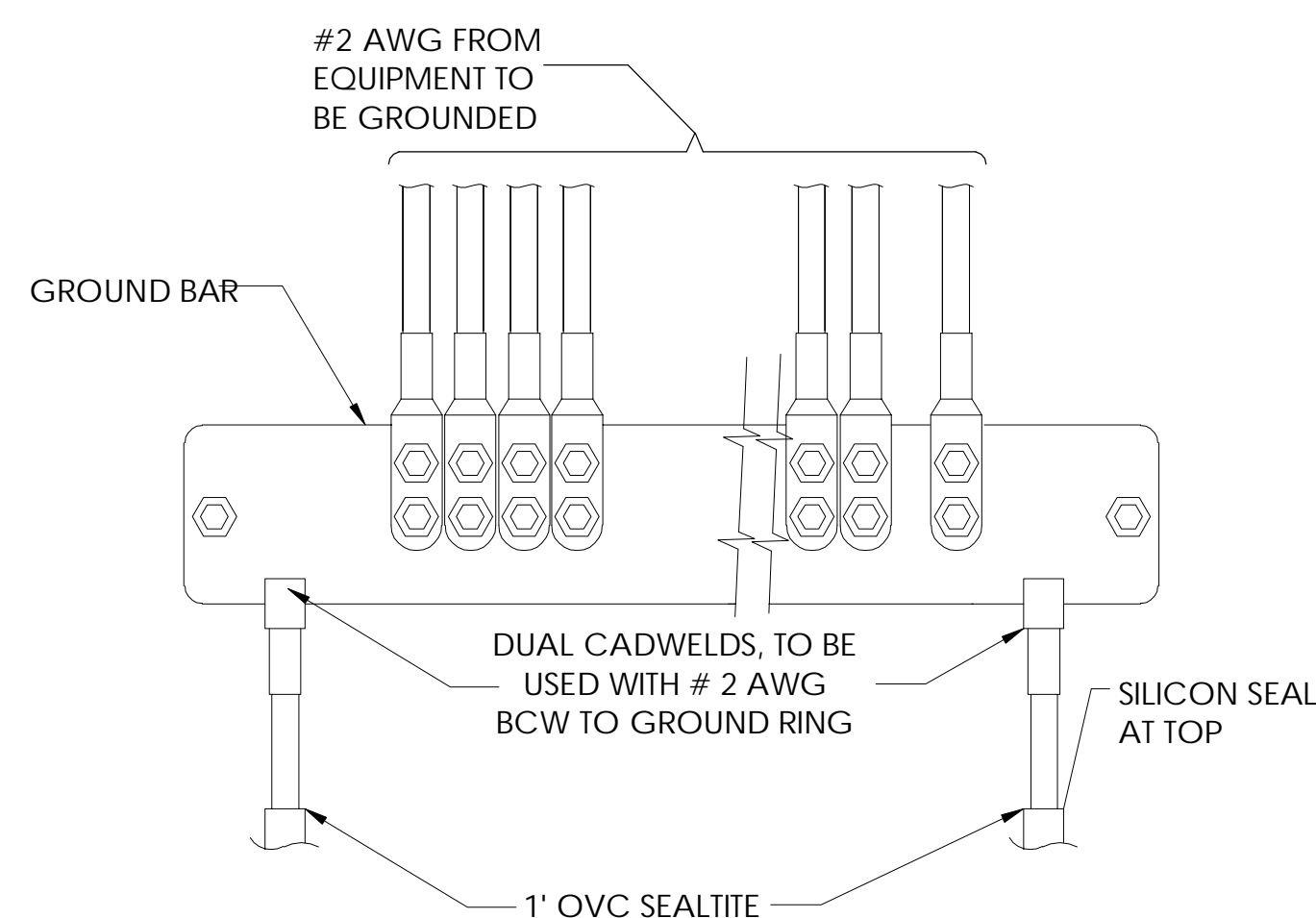


10 GPS ANTENNA GROUNDING  
N.T.S.

- |   |
|---|
| NOTES:  |
| <ol style="list-style-type: none"> <li>DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR</li> <li>GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MFR</li> <li>WEATHER PROOFING SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY THE CABLE MFR</li> </ol> |

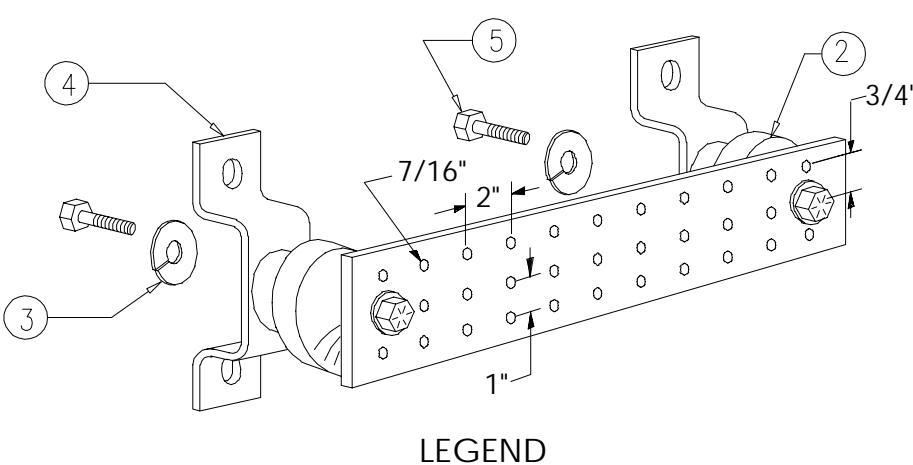


11 NOT USED  
N.T.S.



- NOTE:
1. CONTRACTOR TO UTILIZE KOPR-SHIELD (THANS & BETTS) ON ALL LUG CONNECTIONS OR APPROVED EQUAL
  2. ALL LUGS TO BE DUAL HOLE LONG BARREL AND CRIMPED TWICE WITH MFR'S RECOMMENDED TOOL

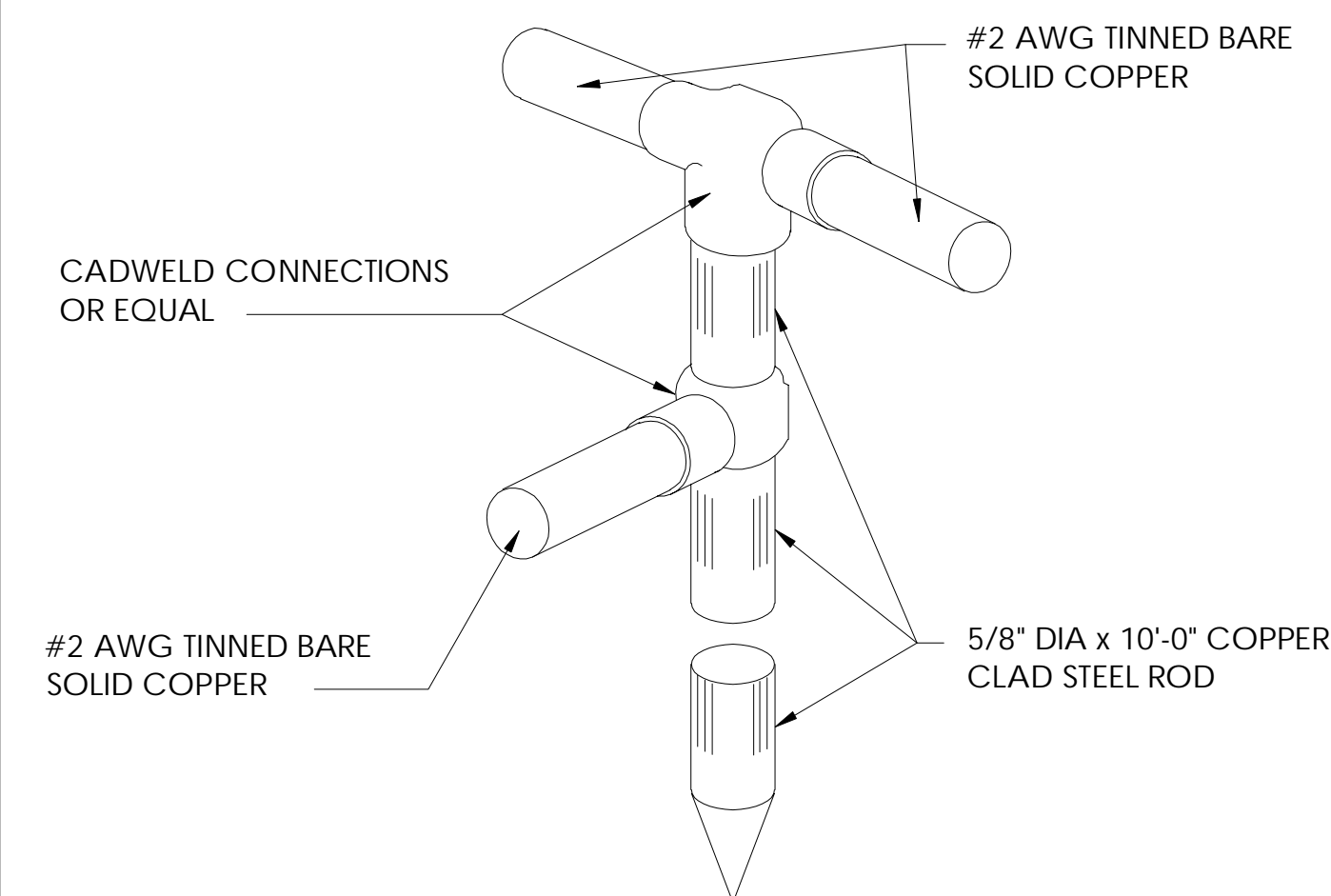
4 GROUND BAR CONNECTION  
N.T.S.



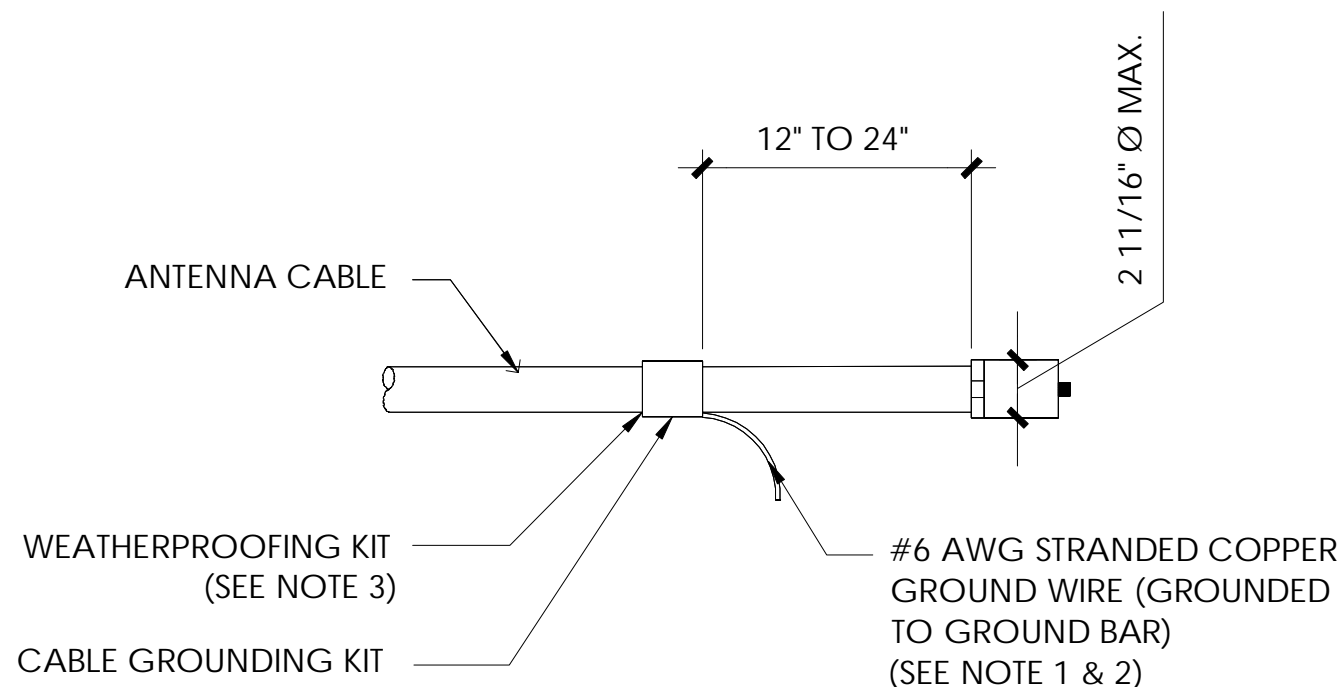
- 1- COPPER GROUND BAR, "X 1/4"X 20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
- 2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
- 3- 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL
- 4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056 OR EQUAL
- 5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1 OR EQUAL
- 6- INSULATORS SHALL BE ELIMINATED WHEN BONDING DIRECTLY TO TOWER/MONOPOLE STRUCTURE. CONNECTION TO TOWER/MONOPOLE STRUCTURE SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

NOTE: ALL HARDWARE SHALL BE STAINLESS STEEL

5 GROUND BAR DETAIL  
N.T.S.

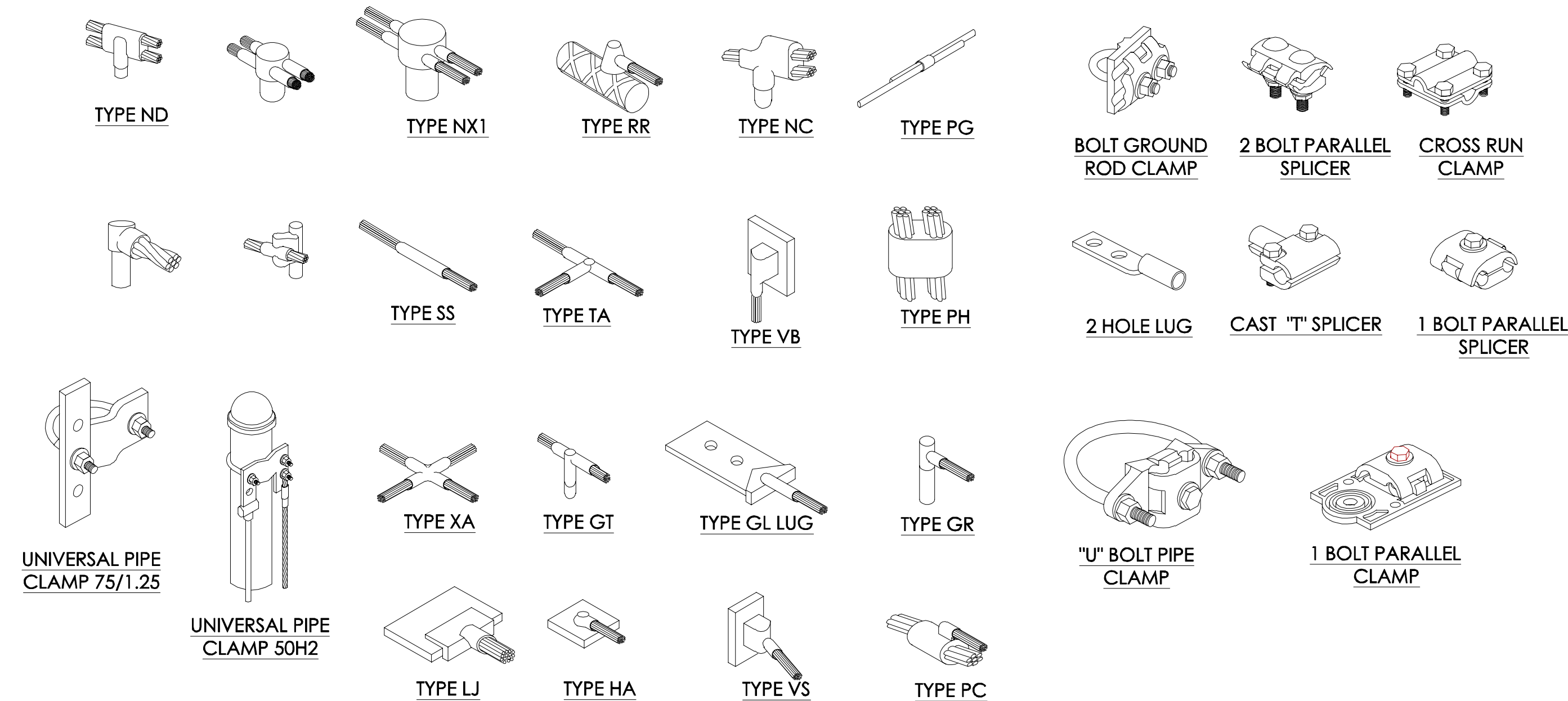


2 GROUND ROD DETAIL  
N.T.S.



- |              |  |
|--------------|--|
| <b>NOTE:</b> |  |
| 1.           | DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT WIRE DOWN TO GROUND BAR.               |
| 2.           | GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.      |
| 3.           | WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.) |

9 CONNECTION OF GROUND KIT TO ANTENNA CABLE  
N.T.S.



6 TYPICAL MECHANICAL CONNECTIONS  
N.T.S.

12 NOT USED  
N.T.S.

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Vendor:



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J5 PROJECT ID: P-068910

Issued For:

**OL0734**  
OLYMPIA MISSIO  
CREEK

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OLYMPIA, WA 98506  
PARCEL ID: 80800400300

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## GROUNDING DETAILS

Sheet Number:

G-3