HISTORIC AND DESIGN REVIEW COMMISSION June 19, 2019

HDRC CASE NO: 2019-284

COMMON NAME: ROW near 1119 N ST Marys

ADDRESS: 1119 N ST MARYS

LEGAL DESCRIPTION: NCB 820 BLK 30 LOT 3, 4, 5 & 6

ZONING: FBZ T5-1, RIO-2

CITY COUNCIL DIST.:

APPLICANT: Kevin Bowyer/Verizon Wireless (c/o Modus Inc)

OWNER: DELGADO JOHN F

TYPE OF WORK: Installation of a new pole for network node equipment

APPLICATION RECEIVED: May 17, 2019 **60-DAY REVIEW:** July 16, 2019 **CASE MANAGER:** Huy Pham

REOUEST:

The applicant is requesting a Certificate of Appropriateness for approval to install a new wood pole for network node equipment in the right-of-way near 602 N Alamo (29.434912, -98.487019).

APPLICABLE CITATIONS:

Historic Design Guidelines

6. Non-Residential and Mixed Use Streetscapes

A. STREET FURNITURE

- i. *Historic street furniture*—Preserve historic site furnishings, including benches, lighting, tree grates, and other features.
- ii. *New furniture*—Use street furniture such as benches, trash receptors, tree grates, and tables that are simple in design and are compatible with the style and scale of adjacent buildings and outdoor spaces when historic furnishings do not exist.

UDC Sec. 37 - Appendix A. - Right-of-way Network Node Design Manual

b. Design District Aesthetic Requirements.

In addition to the design requirements in Division III of this Manual, the following aesthetic requirements shall apply in Design Districts:

- 1. New node support poles in districts designated as Design Districts in this Manual shall be placed within ten feet of interior lot lines.
- 2. In no event shall new node support poles be placed in front of the front façade of primary structures on any property designated as Historic or within fifteen hundred (1500) feet of the brass monument viewshed marker in front of a structure designated by the United Nations as a UNESCO World Heritage site.
- 3. Network nodes, node support poles, and related equipment shall require camouflage or concealment measures to mitigate the impact or improve the aesthetics of the installation, as determined by the Historic Preservation Officer based on the unique circumstances of the design district or impacted property.
 - A. New network nodes mounted to existing poles shall be low profile and flush mounted to the greatest extent feasible. Network nodes must be painted to match the support pole or structure on which they are mounted.
 - B. The installation of new node support poles is discouraged in Historic Districts, Downtown "D", River Improvement Overlay Districts, Viewshed Protection and Mission Protection Overlay Districts. The Historic Preservation Officer may require concealment of the support pole in the form of aesthetically appropriate street lamps, site elements, district signage, or other stealth methods. The color of any new support pole or concealment solution shall be determined by the Historic Preservation Officer based on site specific conditions.
 - i. New node support poles must generally be located at commercial corners and intersections.
 - ii. New node support poles must be separated from other node support poles or existing poles by a distance of 250 feet.
 - iii. Where a separation requirement cannot be met, network nodes are preferred to be mounted to existing poles or installed with a stealth method.

- iv. The height of new node support poles should not exceed the established predominant height of other poles and historic site elements located within 500 feet of the proposed installation.
- v. New node support poles must be painted and not exceed 8" in diameter at the widest portion of the pole.
- C. Ground-mounted equipment must be integrated into the overall design of an installation, camouflaged or concealed based on site specific conditions, and positioned to mitigate visual or physical obstructions to nearby historic features as recommended by the Historic Preservation Officer.

c. Decorative Poles.

In accordance with Chapter 284, installation or attachment of wireless communications equipment, including antennas, network nodes, transport facilities, and related equipment is prohibited on all decorative streetlight poles in Design Districts.

(Ord. No. <u>2017-08-31-0609</u>, § 1, 8-31-17)

FINDINGS:

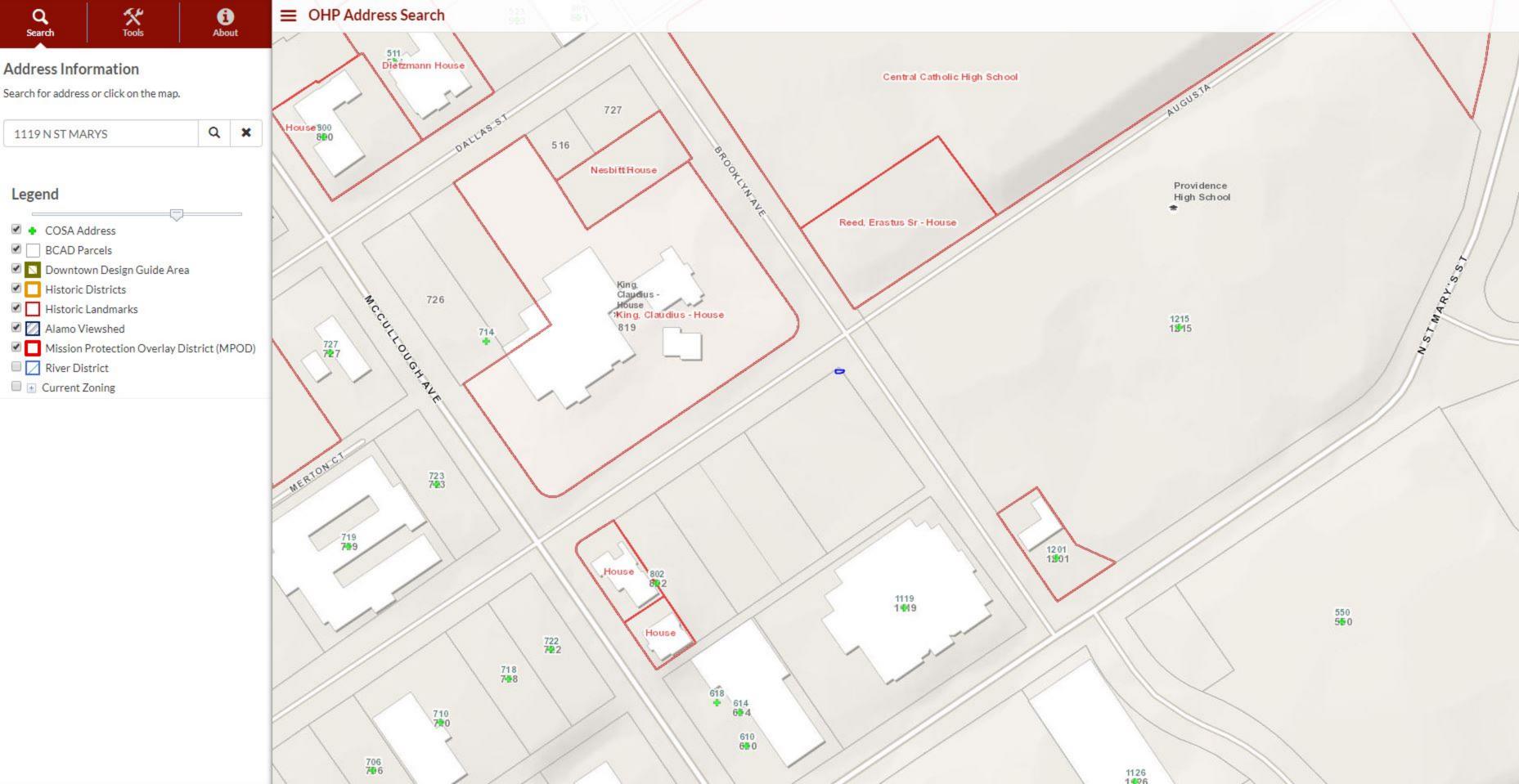
- a. PURVIEW The applicant has proposed to install a new wood pole featuring network node equipment in the right-of-way at the southern corner of the intersection at Augusta and Brooklyn, closest to the property at 1119 N St Mary's. The proposed pole is located within 200 feet of individually designated properties at 802 Augusta, 726 Brooklyn (which has been relocated), and 1403 N St Mary's, as well as located within RIO-2. Per the Unified Development Code Sec. 37, the network node must be in compliance with Appendix A. Right-of-Way Network Node Design Manual: Division IV. General Aesthetic Requirements and Division V. Additional Aesthetic Requirements in Design Districts in addition to the Historic Design Guidelines for Site Elements.
- b. DESIGN REVIEW COMMITTEE The applicant met with staff and the Design Review Committee on June 12, 2019, to review potential designs for new network poles in areas within the HDRC's purview. Both the applicant and committee members emphasized and understood that each new request would be treated on a case by case basis specific to the immediate context of the proposed location of the new pole. General comments from the committee members included: 1) documented infeasibility of collocations should be submitted and presented to the full commission, 2) the applicant should consider incorporating a distinction between wood utility poles and new network poles and that wood poles may not always be the most appropriate solution just because existing nearby poles are wood.
- c. PROJECT DESCRIPTION The applicant has provided the following project description: "Permit # 326013. XY coordinates are (29.434912, -98.487019). The proposed wood utility pole site is abutting the south corner of August Street and Brooklyn Avenue. The pole will be brand new Verizon wood utility pole. Verizon wireless proposed to install a new wireless communication site. The scope will consist of the following: antenna & associated, cabling, spacing of support elements, signage, and utility lines. Based on previous communication with OHP, we are proposing to stealth the antenna equipment as shown in the photo sims."
- d. LOCATION The applicant has proposed to install a new wood pole featuring network node equipment in the right-of-way at the southern corner of the intersection at Augusta and Brooklyn, closest to the property at 1119 N St Mary's, at the approximate coordinates (29.434912, -98.487019). Per the Design Manual 3.B.i., new poles must be generally located at commercial corners and intersections. Staff finds that the proposed location is generally appropriate given that it is at a commercial intersection and at the corner of a parking lot of a non-historic structure.
- e. SEPARATION The applicant has proposed to install the new pole within the immediate block as multiple existing utility poles. Per the Design Manual 3.B.ii., new poles must be separated from existing poles by 250 feet. Staff finds that the proposed location is not separated by more than 250 feet.
- f. COLLOCATION Per the Design Manual 3.B.iii, where a separation requirement cannot be met, new nodes are preferred to be mounted to existing poles or installed with a stealth method. Staff finds that a collocation on existing poles should be explored prior to consideration of a new stealth pole. A letter from the owner-operator of the existing nearby poles and/or an engineer's letter noting the feasibility of collocation will suffice as a supporting document for this finding.
- g. HEIGHT The applicant has proposed to install a wood pole including node equipment featuring a total of thirty feet (30') from grade. Per the Design Manual 3.B.iv., the height of new node support poles should not exceed the established predominant height of other poles and historic site elements located within 500 feet of the proposed installation. Staff finds that the proposed height is subordinate to existing poles within proximity.

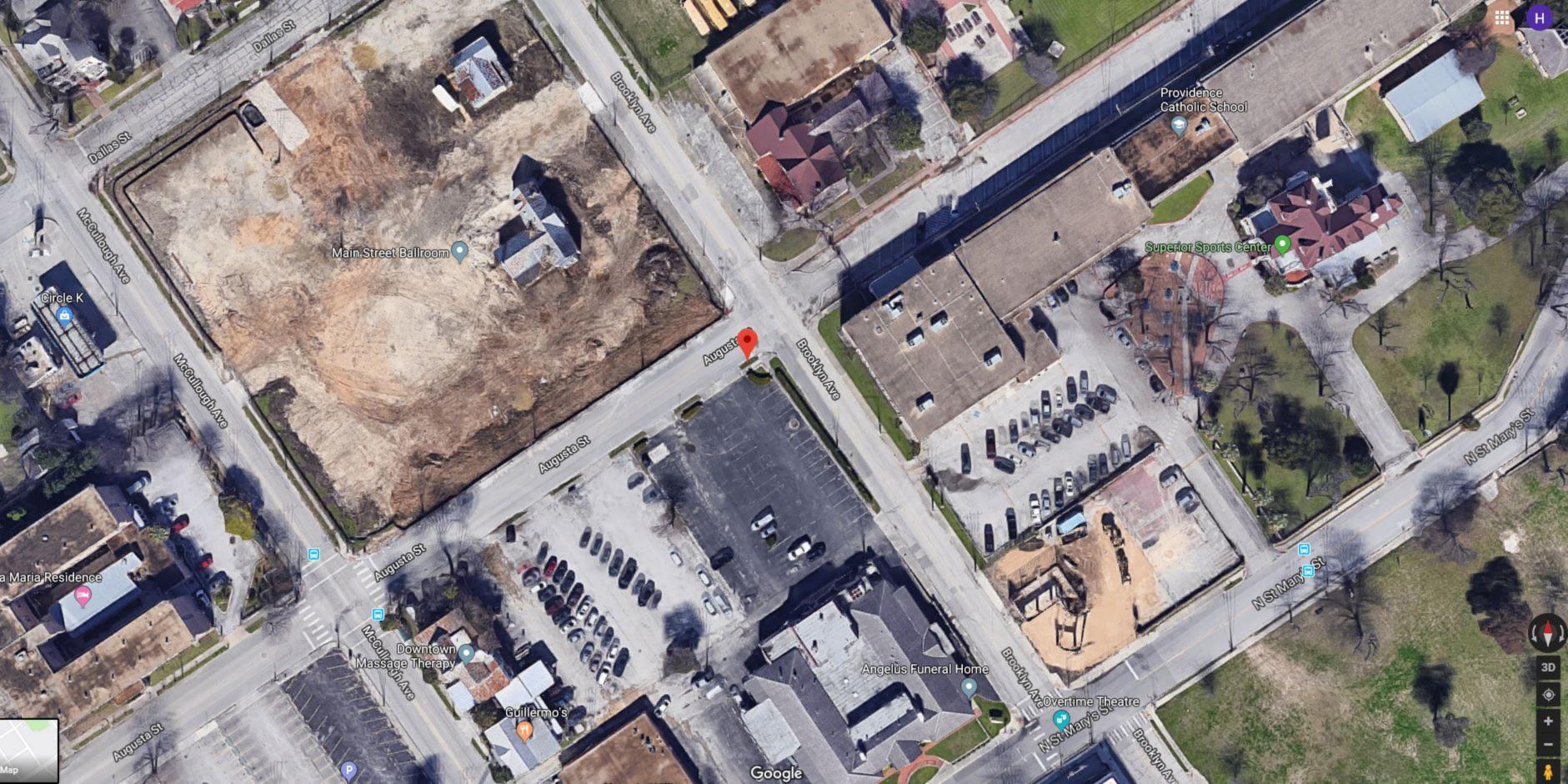
- h. DIAMETER The applicant has proposed to install a pole that is 32 inch (32") in diameter excluding the meter boxes at the pedestrian level and the antenna cabinets at the top. Per the Design Manual 3.B.v., new poles should not exceed 8 inches (8") in diameter at the widest portion of the pole. Staff finds that the proposed pole diameter is four times wider allowed by the design manual.
- i. DESIGN The applicant has proposed to install a wood pole with a meter socket (box), service disconnect (box) and linear conduit up to six feet (6') and three (3) au/rap units (grey cabinets) that are 11.4 inch wide, 14.6 inch tall, and extend no more than one feet (1') from the wood pole. The applicant referenced existing wood utility poles in selecting the pole type in this location. Per the Design Manual 3.B.: *The Historic Preservation Officer may require concealment of the support pole in the form of aesthetically appropriate street lamps, site elements, district signage, or other stealth methods. The color of any new support pole or concealment solution shall be determined by the Historic Preservation Officer based on site specific conditions.* Staff finds that no effort has been made to conceal or relate the proposed new pole to the existing context or site elements at N Mesquite except the use of a wood pole and matching equipment color.

RECOMMENDATION:

Staff does not recommend approval of the new network pole based on findings a through i. While approval may still be issued at the commission's discretion, the following requirements have not been met per the Right-of-way Network Node Design Manual:

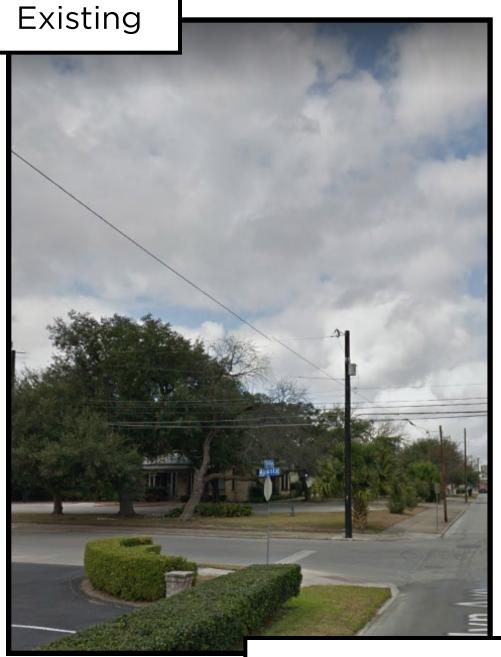
- i. COLLOCATION Documented efforts to explore a nearby collocation have not been submitted.
- ii. SEPARATION The proposed pole is not separated from existing poles by more than 250 feet.
- iii. DIAMETER The proposed pole is not less than 8 inches at its widest portion.
- iv. DESIGN Matching wood material to existing poles does not constitute a stealth aesthetic.

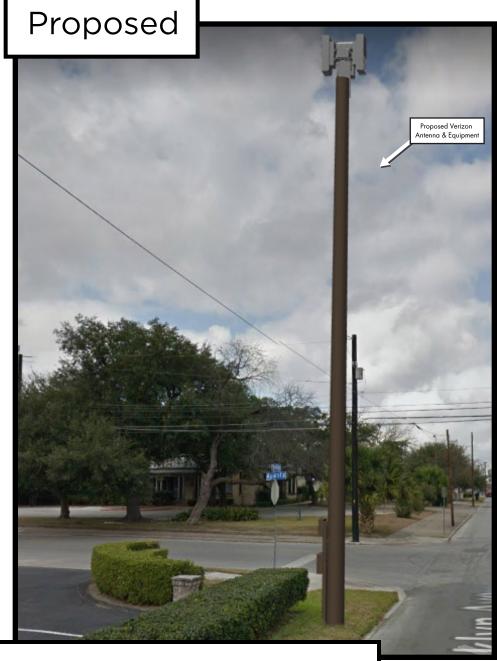












View from Brooklyn St looking north at site

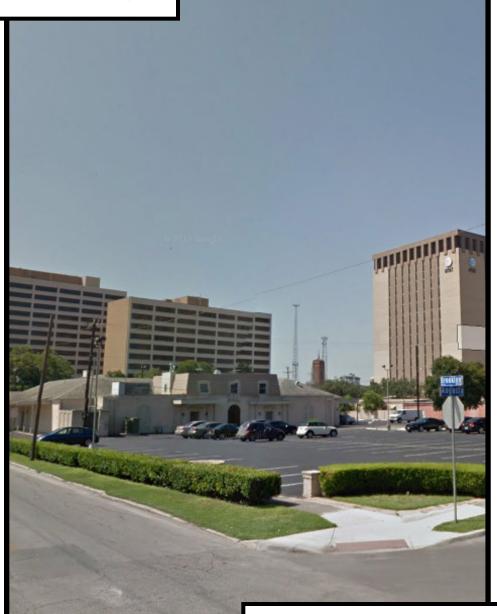




AUGUSTA BROOKLYN
Photosim Produced on 01-18-2019

Existing







View from Augusta St looking northwest at site





AUGUSTA BROOKLYN
Photosim Produced on 01-18-2019



SITE NAME: PROJECT NUMBER:

LOCATION CODE: PROJECT ID:

SITE ADDRESS:

COUNTY:

POLE TYPE:

SADT AUGUSTA BROOKLYN SC

20181815324

497419

15180085

819 AUGUSTA ST

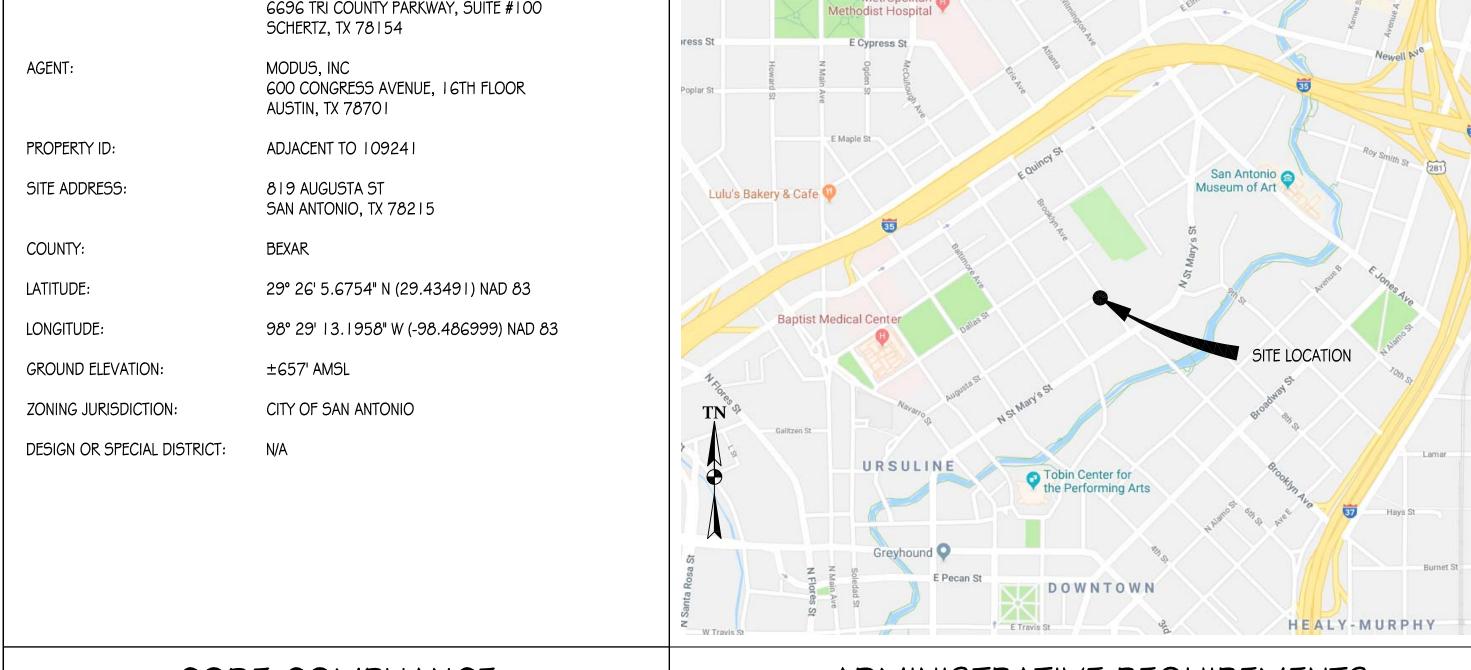
SAN ANTONIO, TX 78215

BEXAR

BRAND NEW VERIZON WOOD UTILITY POLE

SITE INFORMATION VICINITY MAP SITE LOCATION PROJECT DESCRIPTION POLE OWNER: **VERIZON WIRELESS** PROJECT DESCRIPTION APPLICANT: **VERIZON WIRELESS** 6696 TRI COUNTY PARKWAY, SUITE #100 SCHERTZ, TX 78154 MODUS, INC SCOPE OF WORK \$ SITE COMPLETION CHECKLIST 600 CONGRESS AVENUE, 16TH FLOOR AUSTIN, TX 78701 ADJACENT TO 109241

- - SIGNAGE FCC MANDATED RF WARNING SIGNAGE SHALL FACE OUT TO STREET.
 - UTILITY LINES PROPOSED UTILITY LINES BETWEEN EXISTING POINT OF CONNECTION \$ EQUIPMENT TO BE UNDERGROUND.



CODE COMPLIANCE ADMINISTRATIVE REQUIREMENTS

CONTRACTOR SHALL VERIFY ALL PLANS \$ (E) DIMENSIONS \$ CONDITIONS ON THE JOB SITE \$ SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. IF USING II" X 17" PLOT, DRAWINGS WILL BE HALF SCALE.

At all services & grounding trenches, provide "WARNING" tape at 12" below grade.

NATIONWIDE UNDERGROUND SERVICE ALERT

"CALL BEFORE YOU DIG"

811/800-227-2600

MODUS PROJECT MANAGER: KEVIN BOWYER

SITE LOCATION

PROJECT TEAM

MODUS, INC 600 CONGRESS AVENUE, 16TH FLOOR AUSTIN, TX 78701 (408) 219-5442

KBOWYER@MODUS-CORP.COM

MODUS CONSTRUCTION MANAGER: KRESSTON HAYNES MODUS, INC 600 CONGRESS AVENUE, 16TH FLOOR AUSTIN, TX 78701

(209) 938-7251 KHAYNES@MODUS-CORP.COM

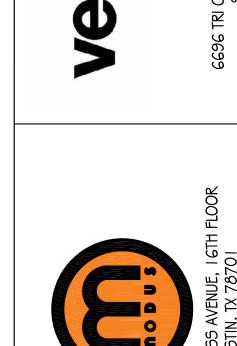
VERIZON WIRELESS CONSTRUCTION ENGINEER CARLOS RANGEL 6696 TRI COUNTY PARKWAY, SUITE #100 SCHERTZ, TX 78154 (210) 347-4919 CARLOS.RANGEL@VERIZON.COM

ARCHITECT/ENGINEER ON RECORD: BRET McCOMB PRECISION DESIGN & DRAFTING INC 1 1768 ATWOOD ROAD, SUITE #20 **AUBURN, CA 95603** (530) 823-6546 BRET@PDND.COM

DRAWING INDEX

10-1	TITLE STILLT
GC-I	SITE PLAN
GC-2	ENLARGED SITE PLAN & ANTENNA PLANS
GC-3	ELEVATIONS
GN-1	EQUIPMENT DETAILS
GN-2	CONSTRUCTION DETAILS
E-1	SINGLE-LINE DIAGRAM & DETAILS
F_2	FLECTRICAL DIACRAMS

SHEET TITLE





SADT AUGUSTA BROOKLYN SC

819 AUGUSTA ST SAN ANTONIO, TX 78215

		ISSUE STATUS				
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			01/16/1	9	CD 90%	
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		CHECKED BY:		T	T. DICARLO	
		APPROVED BY:		E	В. МсСОМВ	
		DATE:			01/16/19	

TITLE SHEET

SHEET TITLE:

SHEET NUMBER

5-

1. 2015 INTERNATIONAL BUILDING CODE 2. 2015 INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS 3. 2015 INTERNATIONAL MECHANICAL CODE

ALL WORK & MATERIALS SHALL BE PERFORMED & 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

4. 2015 INTERNATIONAL PLUMBING CODE

CONFORMING TO THESE CODES:

5. 2015 INTERNATIONAL EXISTING BUILDING CODE

6. 2015 INTERNATIONAL FUEL GAS CODE

7. 2015 INTERNATIONAL FIRE CODE

8. 2015 INTERNATIONAL ENERGY CONSERVATION CODE

9. 2014 NATIONAL ELECTRIC CODE

10. LOCAL ORDINANCES AND AMENDMENTS

II. ANSI/EIA-TIA-222-G

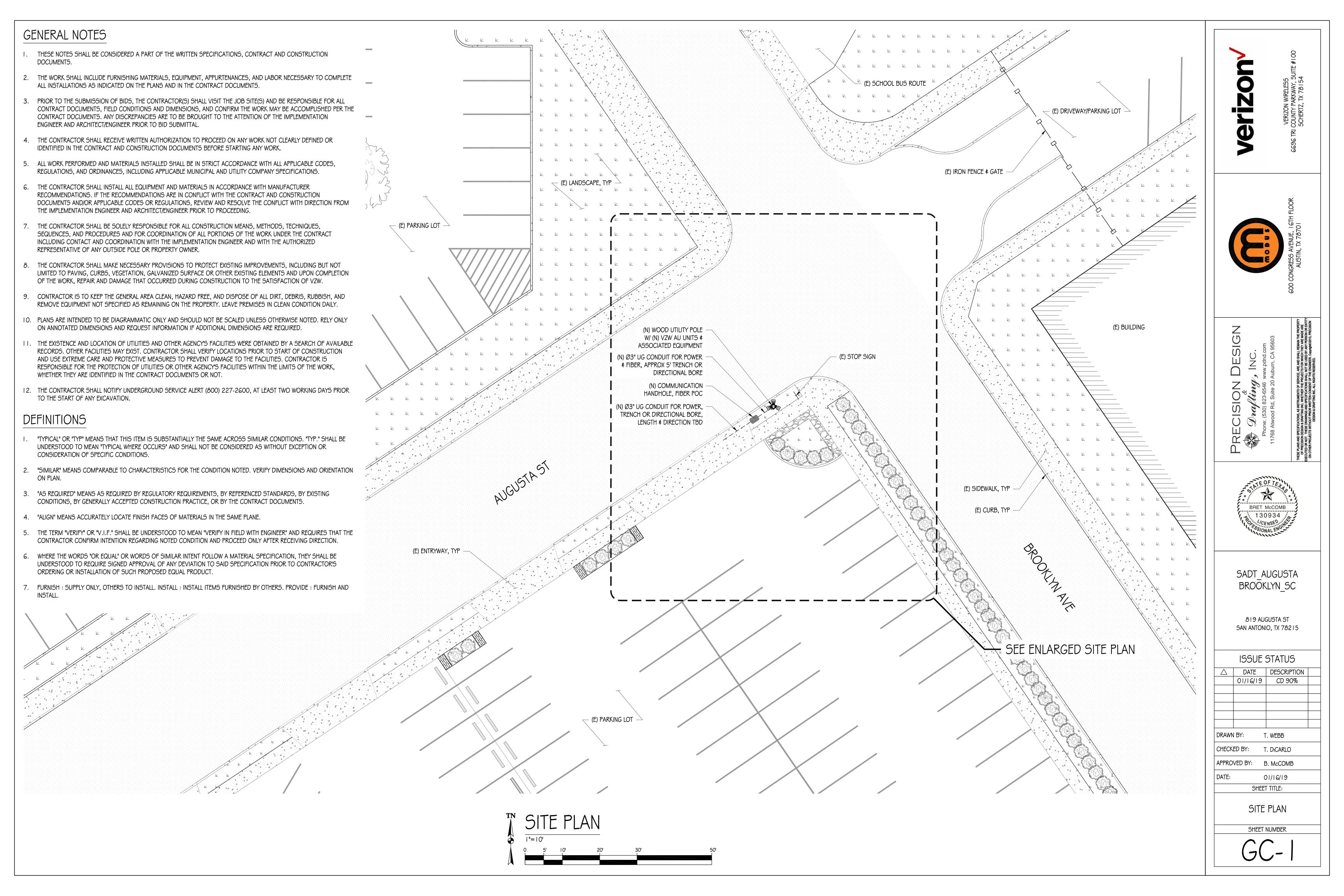
ALONG WITH ANY OTHER APPLICABLE LOCAL \$ STATE LAWS AND REGULATIONS.

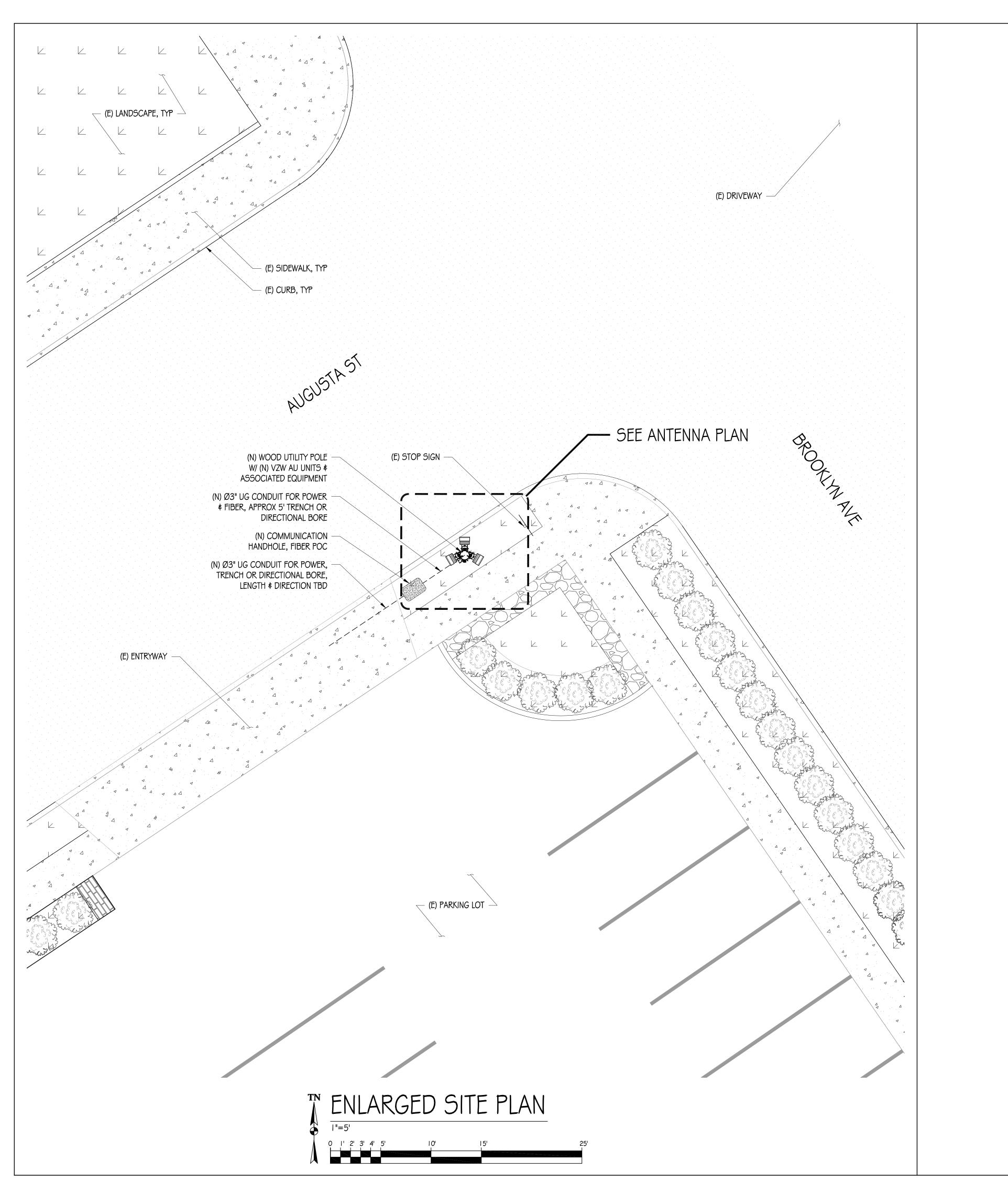
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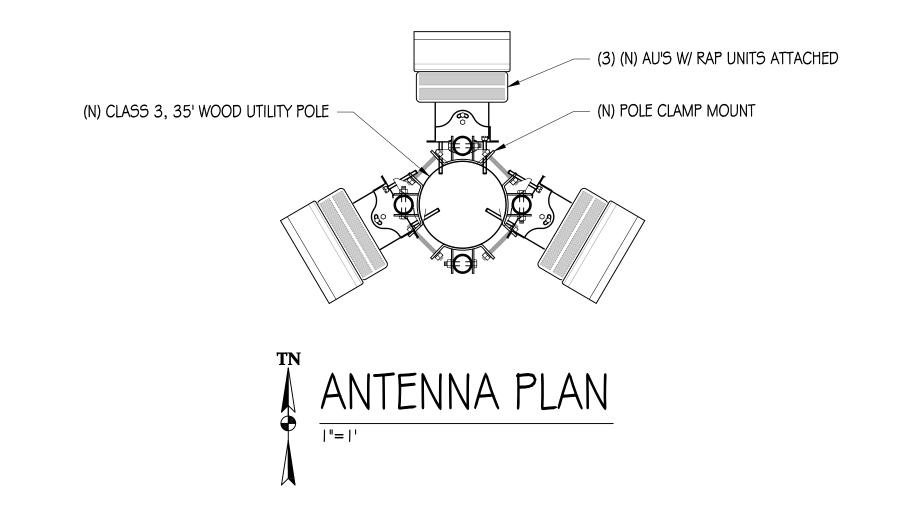
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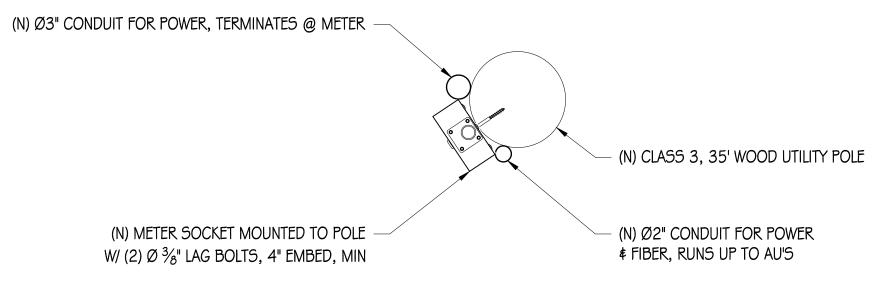
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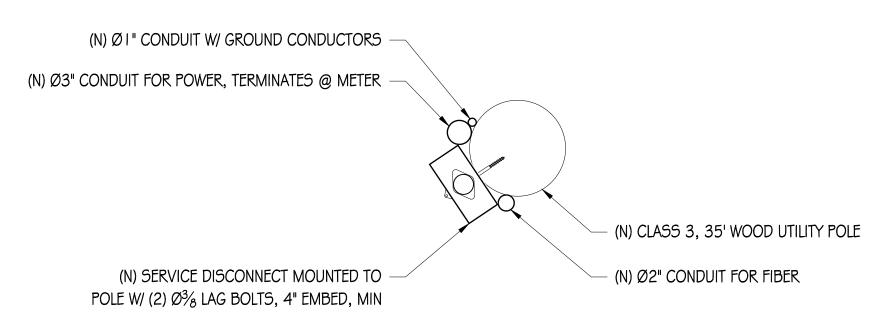














erizon

VERIZON WIRELESS 6696 TRI COUNTY PARKWAY, SU SCHERTZ, TX 78 I 54



PRECISION DESIGN

Representations, As instruments of service, are and shall remore the property



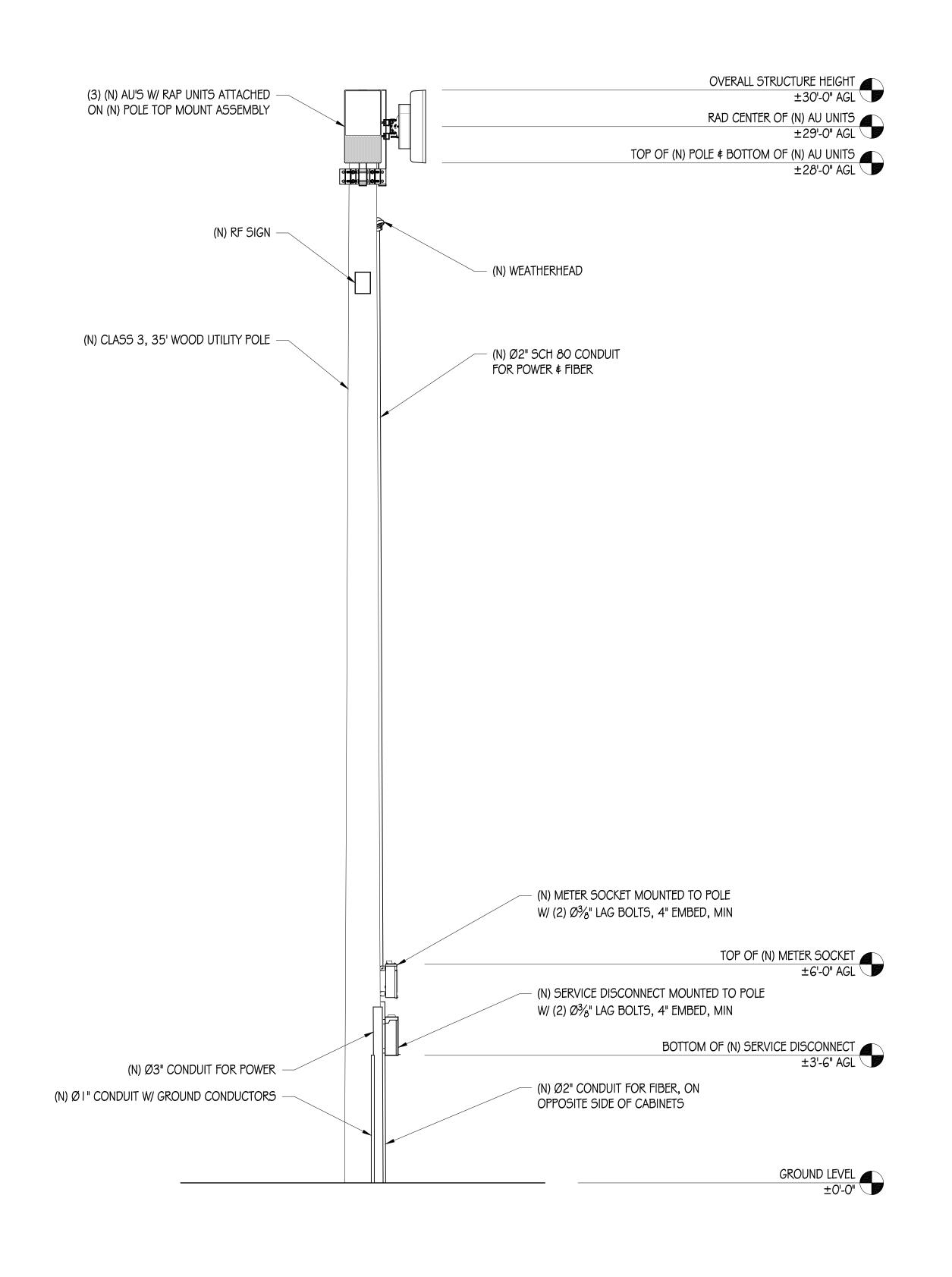
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819 AUGUSTA ST SAN ANTONIO, TX 78215

ISSUE STATUS			
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DRAWN BY: T.		. WEBB	
CHECKED BY:		T. DICARLO	
APPRO	VED BY:	В. МсСОМВ	
DATE:		01/16/19	
SHEET TITLE:			
ENLARGED SITE PLAN			

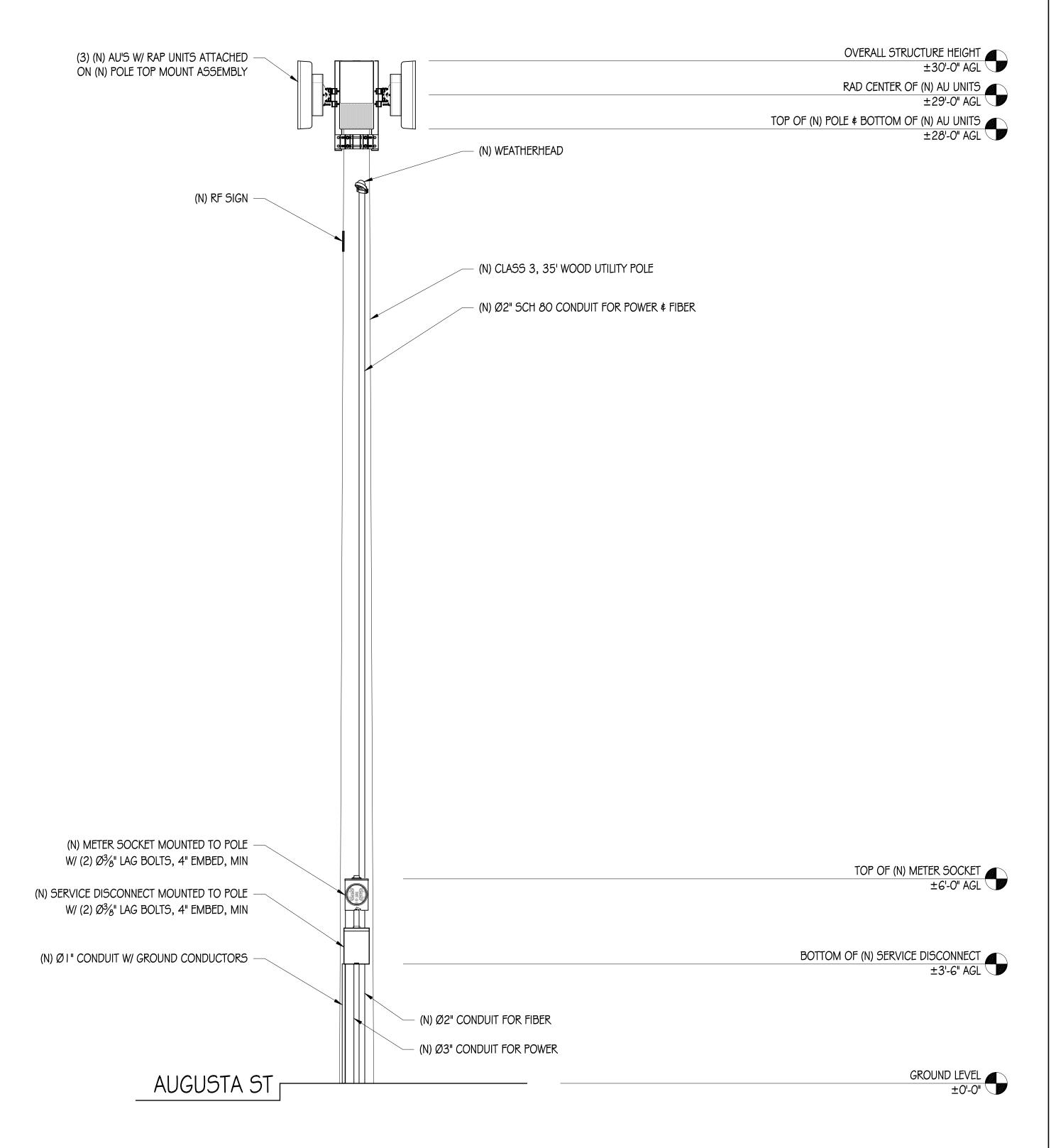
\$ ANTENNA PLANS

SHEET NUMBER



NORTHWEST ELEVATION

1/2"=1'-0"



SOUTHWEST ELEVATION

1/2"=1'-0"

erizon

VERIZON WIRELESS 6696 TRI COUNTY PARKWAY, SUITE #1



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819 AUGUSTA ST SAN ANTONIO, TX 78215

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CHECKED BY:		T. DICARLO		
APPROVED BY:		E	B. McCOMB	
DATE:		(01/16/19	

ELEVATIONS

SHEET NUMBER

GC-3

SHEET TITLE:

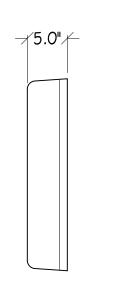
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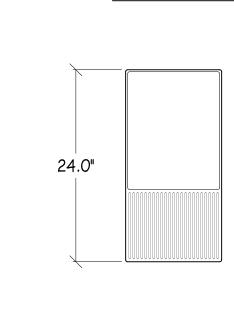
WIND AREA: VOLUME: WEIGHT: DIMENSIONS:

2.0 SQ FT 0.78 CU FT 48.5 LBS 24.0" TALL X 12.0" WIDE X 6.0" DEEP

12.0"

TOP VIEW





SIDE VIEW

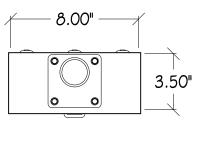
FRONT VIEW



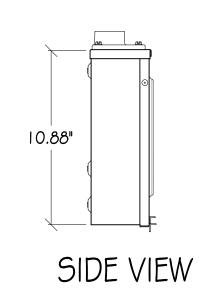
METER CAN

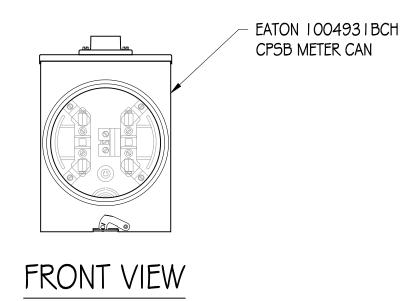
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TOP VIEW



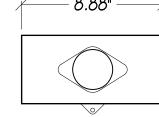


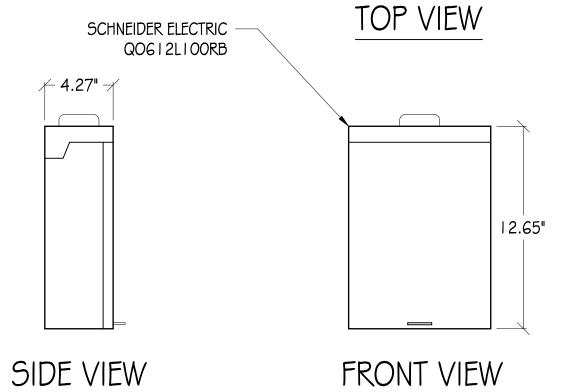


LOAD CENTER

WIND AREA: VOLUME: WEIGHT: DIMENSIONS:

0.780 SQ FT 0.278 CU FT 9.68 LBS 12.65" TALL X 8.88" WIDE X 4.27" DEEP





LOAD CENTER/AC DISCONNECT

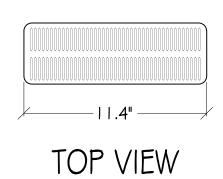
NOKIA RAP UNIT

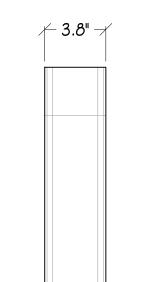
WIND AREA: **VOLUME:** WEIGHT:

DIMENSIONS:

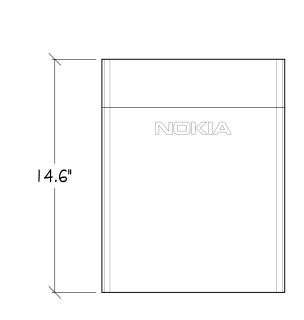
1.16 SQ FT 0.366 CU FT 19.8 LBS 14.6" TALL X 11.4" WIDE

X 3.8" DEEP





SIDE VIEW



FRONT VIEW

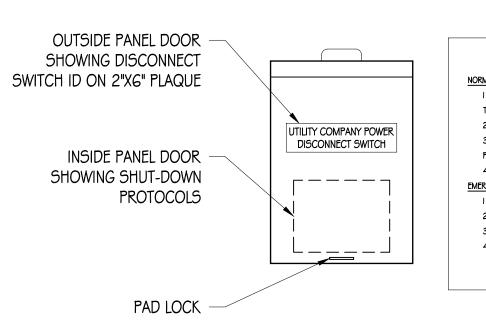


NOTES:

I. (N) VINYL SIGN TO BE PROVIDED BY VERIZON WIRELESS AND BE PLACED ON THE POLE 3' BELOW ANTENNA LEVEL. COLOR TO BE DETERMINED PRIOR TO INSTALL.







SHUTDOWN DISCONNECT NORMAL SHUT-DOWN PROTOCOLS I . CALL (800) 264-6620 NOC 24HRS PRIOR TO SCHEDULE A SHUT-DOWN DAY AND 2. GIVE NOC THE NODE NUMBER _____ 3. ON SCHEDULE DAY OF SHUT-DOWN, PULL THE DISCONNECT HANDLE TO THE "OFF" 4. CALL NOC WHEN WORK IS COMPLETED. EMERGENCY SHUT-DOWN PROTOCOLS 1. CALL (800) 264-6620 NOC 2. GIVE NOC THE NODE NUMBER __ 3. PULL THE DISCONNECT HANDLE TO THE "OFF" POSITION. 4. CALL NOC WHEN THE WORK IS COMPLETED. SHUT-DOWN PROTOCOL ON 3"X4" LABEL

DISCONNECT SIGNAGE



I . SITE ID WILL BE SWITCH #, SITE # \$ SITE NAME 2. SIGN PROVIDED BY GC MOUNTED TO OUTSIDE OF SERVICE DISCONNECT VERIZON WIRELESS TRI COUNTY PARKWAY, SUITE #100 SCHERTZ, TX 78154





SADT AUGUSTA BROOKLYN_SC

819 AUGUSTA ST SAN ANTONIO, TX 78215

ISSUE STATUS				
	DATE	DESCRIPTION		
	01/16/19	CD 90%		
DRAWN BY: T. WEBB				
CHECKED BY: T. DICARLO				

APPROVED BY: B. McCOMB 01/16/19

> **EQUIPMENT** DETAILS

SHEET TITLE:

GN-

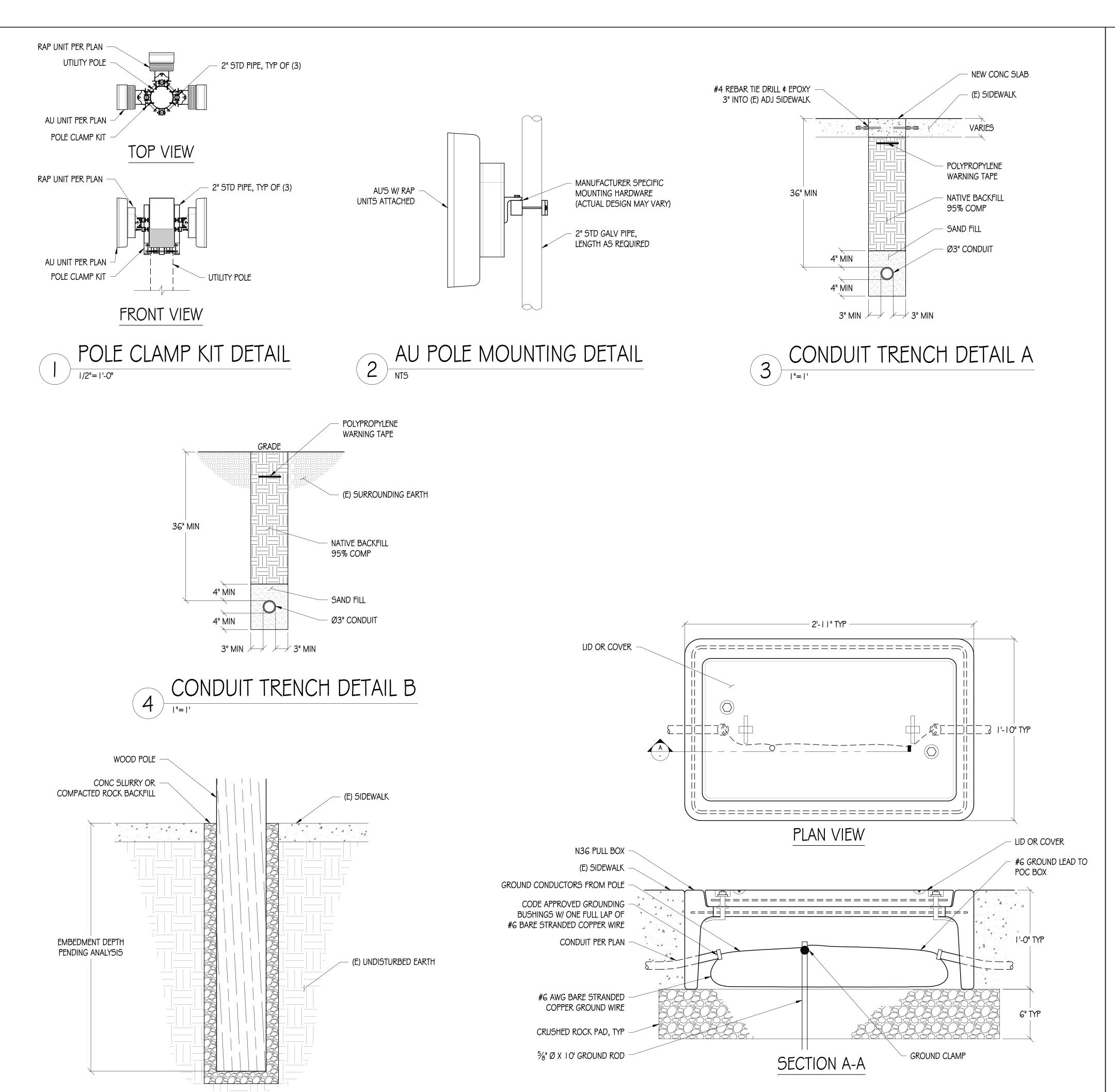
SHEET NUMBER

CONCRETE NOTES

- 1. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14.
- 2. CONTRACTOR SHALL VERIFY SITE CONDITIONS \$ ALL DIMENSIONS PRIOR TO STARTING WORK. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES.
- 3. CEMENT SHALL CONFORM TO ASTM C | 50, TYPE ||.
- 4. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33.
- 5. ALL CONCRETE SHALL BE A 5 SACK MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- 6. ALL REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO ASTM A6 I 5 UNLESS OTHERWISE NOTED. SEE PLAN FOR SIZE AND PLACEMENT.
- 7. MINIMUM LAP SPLICE SHALL BE 40 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- 8. MINIMUM BEND DIAMETER SHALL BE 6 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- 9. MINIMUM REINFORCING COVERAGE IS 2" UNLESS OTHERWISE NOTED.
- IO. CONCRETE SHALL BE PLACED AGAINST FIRM UNDISTURBED SOIL AT DEPTH SHOWN.
- I I. BOTTOM OF ALL FOOTING TRENCHES SHALL BE CLEAN AND LEVEL.
- 12. ALL BOLTS & THREADED RODS SHALL BE ASTM F1554 GR 36, MINIMUM, UNLESS OTHERWISE NOTED; NEW, & WITHOUT SIGNIFICANT RUST. TOP 2 FEET & HARDWARE TO BE GALVANIZED PER ASTM A123.
- 13. A ½" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE NOTED.

SIDEWALK GENERAL NOTES

- I. SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.
- 2. WHERE UNSUITABLE SUBGRADE MATERIAL IS ENCOUNTERED, REMEDIAL WORK SHALL BE DONE UNDER THE DIRECTION OF THE CITY ENGINEER, INCLUDES BUT IS NOT LIMITED TO, REMOVING UNSUITABLE MATERIAL AND PLACING A LAYER OF CLASS II AGGREGATE BASE UNDER THE INSTALLATION.
- 3. UNDERCUT SUBGRADE FOR GUTTER OR SIDEWALK SHALL BE FILLED WITH APPROVED GRANULAR MATERIAL.
- 4. SAWCUTS MUST BE FULL DEPTH.
- 5. NEW WORK SHALL MATCH EXISTING SCORE AND COLOR.
- 6. SUBGRADE SHALL BE THOROUGHLY WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
- 7. CONCRETE SHALL BE CLASS B-5 SACK MIX WITH $^3\!\!4$ INCH MAXIMUM AGGREGATE.
- 8. CONCRETE SHALL HAVE A SLUMP OF NOT MORE THAN 4 INCHES.
- 9. NO ADMIXTURES SHALL BE USED WITHOUT THE PERMISSION OF THE CITY ENGINEER.
- 10. ½" THICK EXPANSION JOINTS SHALL BE PLACED ON BOTH SIDES OF DRIVEWAY APPROACHES, CURB, GUTTER, AND SIDEWALK RETURN POINTS AND AT 20' ON CENTER.
- II. WEAKENED PLANE JOINTS AT LEAST 1/2" DEEP SHALL BE PLACED AT THE CENTER OF DRIVEWAYS AND 20' ON CENTER.
- 12. /4" DEEP SCORE MARKS SHALL BE PLACED AS DESCRIBED IN THE STANDARD SPECIFICATIONS OR AS DIRECTED BY CITY ENGINEER.
- 13. NO CONCRETE SHALL BE PLACED UNTIL THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE HAS INSPECTED AND APPROVED FORMS OF SUBGRADE.
- 14. ALL EXPOSED EDGES SHALL BE ROUNDED WITH 1/2" RADIUS TOOL.
- 15. ALL SURFACES SHALL BE BROOM FINISHED UNLESS OTHERWISE NOTED.
- 16. CURBS, SIDEWALKS AND DRIVEWAY APPROACHES SHALL BE BACKFILLED WITHIN 7 DAYS AFTER PLACING CONCRETE. THIS SHALL INCLUDE ANY REQUIRED AC PATCHWORK.
- 17. FORM FACES SHALL NOT VARY FROM THE DIMENSIONS SHOWN BY MORE THAN .02 FEET. FORMS SHALL MEET GRADE.
- 18. UNLESS OTHERWISE SPECIFIED ON THE APPROVED PLANS, CONCRETE SHALL BE CURED BY MEANS OF THE IMPERVIOUS MEMBRANE METHOD.
- 19. A MINIMUM OF 6" OF ASPHALT SHALL BE REMOVED ALONG THE GUTTER LIP FOR THE INSTALLATION OF FORMS. FOR CURB AND GUTTER INSTALLATIONS AC SHALL BE BROUGHT TO FINISH GRADE OF FORMS AND TRANSITIONED AS REQUIRED BY THE CITY ENGINEER.
- 20. ALL FACE ANGLE INSTALLATIONS IN RETURNS SHALL MATCH EXISTING RADIUS OF CURB.



POLE EMBEDMENT DETAIL





PRECISION DESIGN

Rhone: (530) 823-6546 www.pdnd.com
11768 Atwood Rd, Suite 20 Auburn, CA 95603

THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERT OF PRECISION DESIGN & DRAFTING INC. WHETHER THE PROJECTS FOR WHICH THEY ARE MADE ARE TO SERVINGED BY AND THE LIGHT OF THE LIGHT



SADT_AUGUSTA BROOKLYN_SC

819 AUGUSTA ST SAN ANTONIO, TX 78215

	ISSUE STATUS				
Δ	DATE	DESCRIPTION			
	01/16/19	CD 90%			
DRAWN BY: T. WEBB					
CHECK	. DICARLO				
APPROVED BY: B. McCOMB					
DATE:		01/16/19			
	SHEET TITLE:				
CONSTRUCTION					

SHEET NUMBER

GN-2

TYP PULL BOX

DETAILS

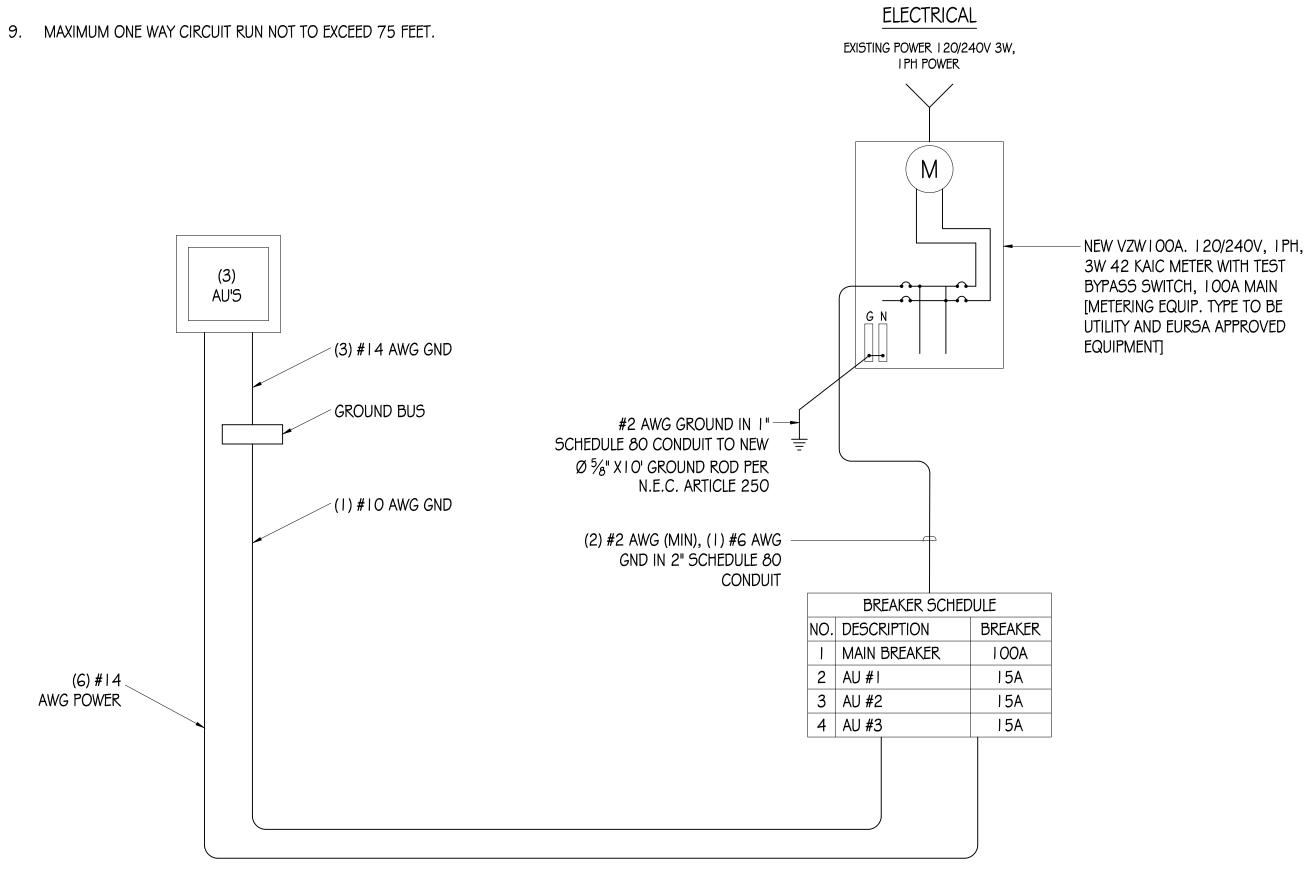
GENERAL ELECTRICAL NOTES:

- PROVIDE ALL ELECTRICAL WORK \$ MATERIALS AS SHOWN ON THE DWGS, AS CALLED FOR HEREIN, \$ AS IS NECESSARY TO FURNISH A COMPLETE INSTALLATION.
- 2. THE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ADOPTED TEXAS ELECTRICAL CODE, ALL OTHER APPLICABLE CODES AND ORDINANCES \$ THE REQUIREMENTS OF THE FIRE MARSHALL. ALL EQUIPMENT \$ WIRING SHALL BEAR THE APPROVAL STAMP OF UNDERWRITERS LABORATORY (UL) OR AN APPROVED TESTING LABORATORY, PAYMENT FOR ALL INSPECTION FEES AND PERMITS ARE PART OF THIS CONTRACT.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF ALL MATERIALS \$ EQUIPMENT FOR THE ENTIRE INSTALLATION \$ UNIT COMPLETION OF WORK, ERECT & MAINTAIN APPROVED & SUITABLE BARRIERS, PROTECTIVE DEVICES & WARNING SIGNS, BE FULLY RESPONSIBLE FOR ANY LOSS OR INJURY TO PERSONS OR PROPERTY RESULTING FROM NEGLIGENCE AND/OR ENFORCEMENT OF ALL SAFETY PRECAUTIONS \$ WARNINGS.
- 4. COORDINATE THE ELECTRICAL INSTALLATION WITH ALL OTHER TRADES.
- 5. ALL SAW CUTTING, TRENCHING, BACK FILLING & PATCHING SHALL BE PART OF THIS CONTRACT.
- 6. FINALIZE ALL ELECTRICAL SERVICE ARRANGEMENTS, INCLUDING VERIFICATION OF LOCATIONS, DETAILS, COORDINATION OF THE INSTALLATION & PAYMENT OF ACCRUED CHARGES WITH LOCAL POWER COMPANY, VERIFY LOCATION FOR FACILITIES & DETAILS WITH POWER UTILITY, IN ADDITION TO THE REQUIREMENTS SHOWN IN THE CONTRACT DOCUMENTS, WORK SHALL COMPLY WITH CONSTRUCTION STANDARDS \$ SERVICE REQUIREMENTS OF THE RESPECTIVE UTILITIES, INCLUDING ANY SUPPLEMENTAL DWGS ISSUED \$ SHALL BE SUBJECT TO APPROVAL OF THESE UTILITIES.
- 7. ALL WIRING SHALL BE COPPER. INSULATION FOR BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "THWN" CONDUCTORS LARGER AND #6 AWG MAY BE TYPE "THWN" OR "TWN".
- 8. PROVIDE CONDUIT SEALS FOR ALL CONDUITS PENETRATING WEATHERPROOFING OR WEATHERPROOF ENCLOSURE ENVELOPE. MASTIC SEAL ALL CONDUIT OPENING PENETRATIONS COMPLETELY WATERTIGHT.
- 9. UNLESS SHOWN OTHERWISE, FUSED DISCONNECT SWITCHES SHALL BE PROVIDED WITH LOW-PEAK, S\DUAL ELEMENT FUSES SIZED TO EQUIPMENT NAMEPLATE FUSE CURRENT RATING. MOTOR STARTERS SHALL BE PROVIDED WITH SIMILARLY SIZED FUSIBLE ELEMENTS. SWITCHES AND OTHER OUTDOOR EQUIPMENT SHALL BE RATED NEMA 3R AND/OR UL LISTED FOR WET ENVIRONMENT.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE GROUNDING SYSTEM AND ENSURING A 5 OHM OR LESS GROUNDING PATH, ADDITIONAL GROUND RODS AND/OR CHEMICAL ROD SYSTEM SHALL BE USED TO ACHIEVE THIS REQUIREMENT IF THE GIVEN DESIGN CANNOT BE MADE TO ACHIEVE THIS REQUIREMENT.

POWER AND TELCO NOTES:

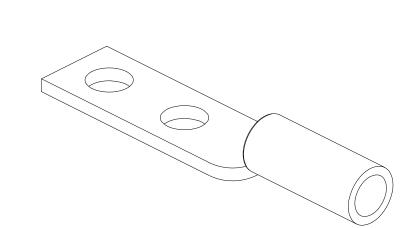
- I. POWER AND TELCO POINTS OF CONNECTION AND ANY EASEMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE BY THE UTILITY COMPANIES.
- 2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR FINAL AND EXACT WORK/MATERIALS REQUIREMENTS AND CONSTRUCT TO UTILITY ENGINEERING PLANS AND SPECIFICATIONS ONLY WHERE APPLICABLE PER PROJECT SCOPE OF WORK.
- 3. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, PULL WIRES, CABLE PULL BOXES, CONCRETE ENCASEMENT OF CONDUIT, TRANSFORMER PAD, BARRIERS, POLE RISER. TRENCHING, BACK FILL, AND UTILITY FEES, AND INCLUDE REQUIREMENTS IN SCOPE.
- 4. CONTRACTOR SHALL LABEL ALL MAIN DISCONNECT SWITCHES AS REQUIRED BY CODE.
- 5. CONTRACTOR SHALL PROVIDE METER WITH DIST. PANEL AND BREAKERS FOR POWER TO THE BTS UNITS AND THE BTS/ UTILITY CABINET.
- 6. ALL SERVICE EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.
- 7. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE ENTRANCE EQUIPMENT WITH FAULT CURRENT RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT FROM THE POWER. UTILITY.

8. FIELD ROUTE CONDUIT TO CABINETS AS REQUIRED.



GROUNDING CONDUIT OR HALF ROUND UTILITY POLE RESTORE SURFACE TO FINISH SURFACE COMPOUND ORIGINAL CONDITION DIRT, GRAVEL OR OTHER HANDHOLE -(E) SIDEWALK TEST LOOP 8" MAX BELOW GRADE 1'-6" MIN TYP GROUND CLAMP Ø5/8" X 10' GROUND ROD

- PER PLAN -



GROUND ROD WIRE CLAMP

2-HOLE LB GROUND LUG

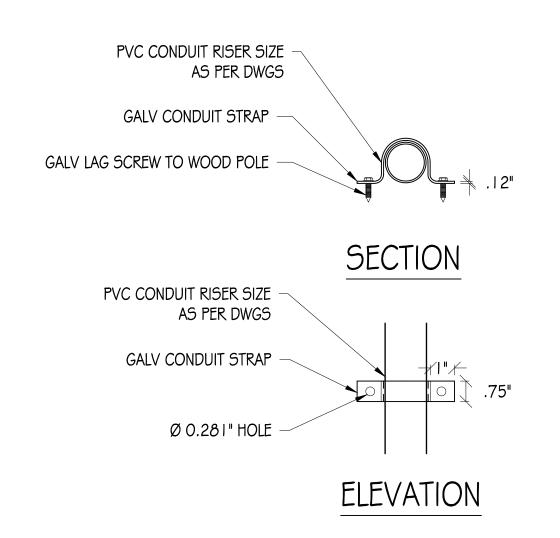
TYP MECHANICAL CONNECTIONS



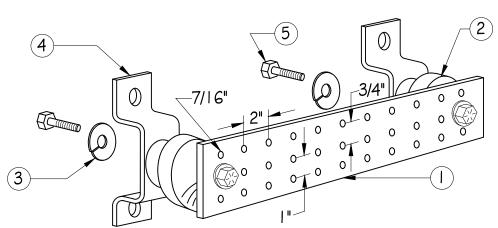
I. IF GROUND ROD IS INSTALLED ON SIDEWALK AREA, CORE

DRILL SIDEWALK PRIOR TO INSTALLING INSPECTION WELL

2. EXPOSED CONCRETE TO HAVE BROOM FINISH







NOTES:

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









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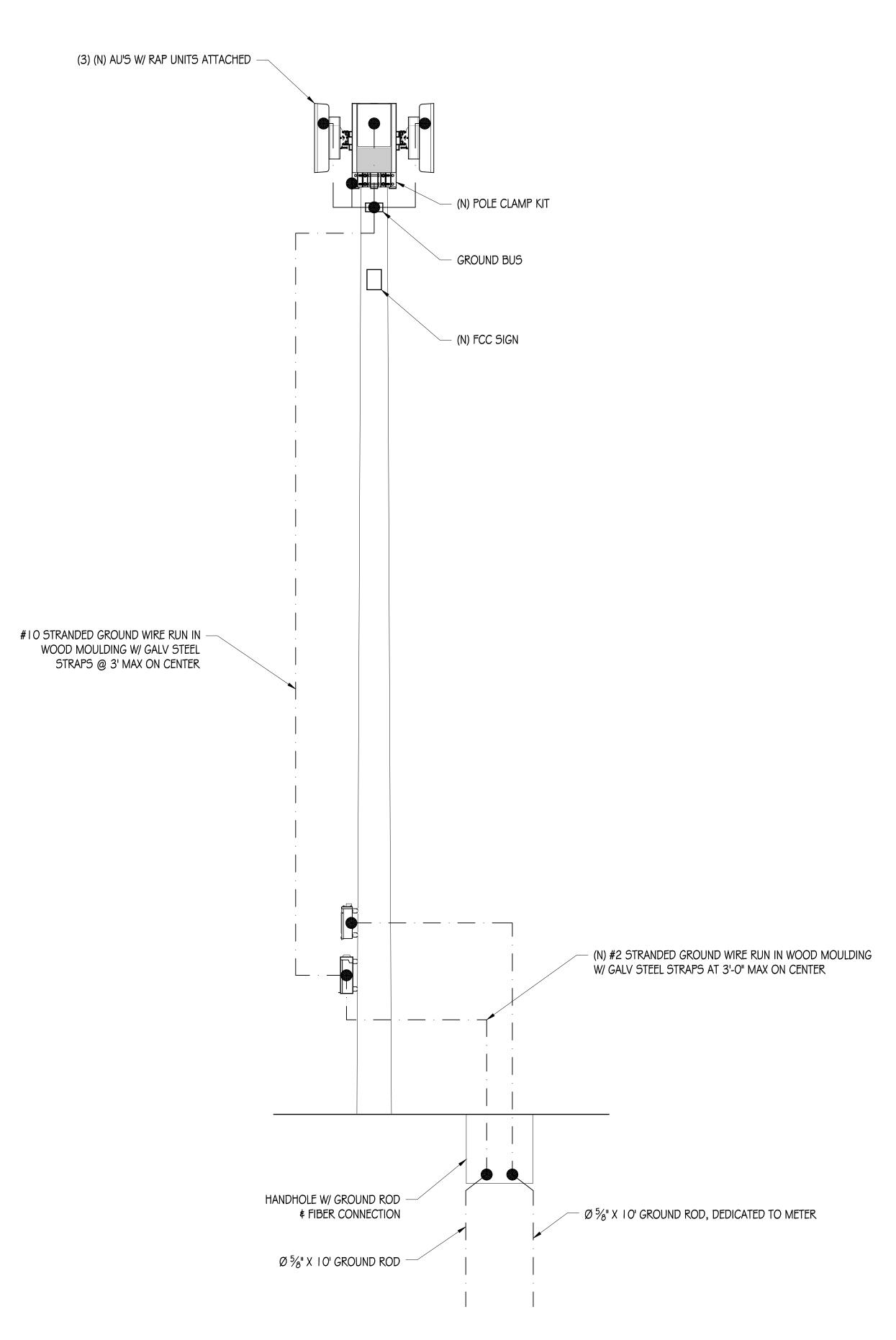
SINGLE-LINE DIAGRAM **# DETAILS**

SHEET TITLE:

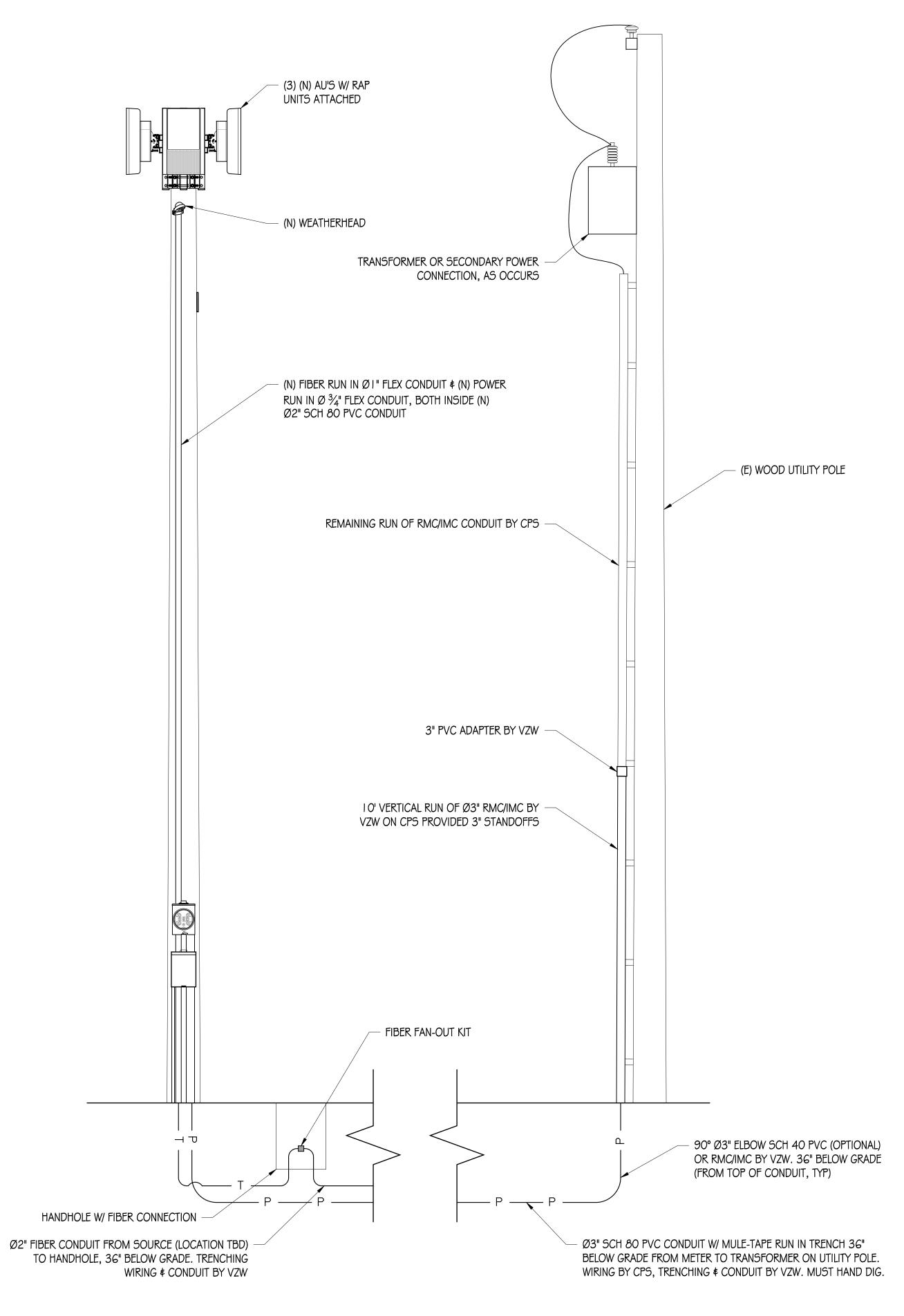
SHEET NUMBER

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SINGLE-LINE DIAGRAM



POLE GROUNDING DIAGRAM



POWER CONNECTION DIAGRAM

ITS





PRECISION DESIGN

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SHEET TITLE: ELECTRICAL

SHEET NUMBER

DIAGRAMS

E-2