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PROJECT INFORMATION

PARENT TRACT LEGAL DESCRIPTION:

AS RECORDED IN FILE NUMBER 2004-29917 OF THE OFFICIAL RECORDS OF DENTON COUNTY, TEXAS - BEING ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATED IN THE STEPHEN RIGGS SURVEY, ABSTRACT NO. 1088, DENTON COUNTY, TEXAS, AND BEING A PART OF A 6.744-ACRE TRACT CONVEYED BY T.R. SMITH TO W.H. DALTON ON FEBRUARY 20, 1969, AS RECORDED IN VOLUME 580, PAGE 567, DEED RECORDS, DENTON COUNTY, TEXAS.

LESSEE'S PROPOSED PREMISES DESCRIPTION:

BEING A LESSEE'S PROPOSED 30'x40' PREMISES CONTAINING 0.0275 (1.200.0 SQ. FT.) OF LAND LOCATED IN THE STEPHEN RIGGS SURVEY, ABSTRACT NO. 1088, DENTON COUNTY, TEXAS, AND BEING OUT OF AND PART OF A 1.544-ACRE TRACT CONVEYED TO CECIL DALTON FAMILY FUNERAL HOME LTD AS RECORDED IN FILE NO. 2004-29917 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS, SAID 0.0275-ACRE TRACT WITH ALL CONTROL REFERRED TO THE TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202) NORTH AMERICAN DATUM OF 1983.

1.544 ACRES TOTAL ACREAGE:

PROJECT SITE ACREAGE: 0.0275 ACRES

SCOPE OF WORK

PROPOSED DEVELOPMENT OF AN UNMANNED WIRELESS FACILITY CONSISTING OF NEW EQUIPMENT CABINETS ON 4'x14' PAD, NEW GENERATOR ON 4'x8' PAD, NEW PERFECT VISION ANTENNA MOUNT WITH DIRECTIONAL ANTENNAS AND RADIO EQUIPMENT, & NEW GPS. THE FACILITY WILL HAVE A FENCED COMPOUND. ANTENNAS TO BE MOUNTED ON NEW STEEL MONOPOLE TOWER.



MDG: 5000915429

SPM: 17148134

PROJECT DATA	PROJECT PARTICIPANTS	VICINITY MAP SCALE: 1" = 1,000'
APPLICANT:LANDLORD:VERIZON WIRELESSCECILE DALTON FAMILY FUNERAL600 HIDDEN RIDGEHOME, LTD.IRVING, TX 750381550 NORTH STEMMONS FREEWAYCONTACT: ALFREDO HERNAEZLEWISVILLE, TEXAS, 75057PHONE: (817) 975-8399CONTACT: CECILE DALTONPHONE: 972-436-6511	ARCHITECTS / ENGINEERSELECTRICAL ENGINEERARCHCOMM LLC.EDWARD C. MONACO P.E., INC.1006 BECKETT2318 SAN PEDRO AVE., STE #2SAN ANTONIO, TEXAS 78213SAN ANTONIO, TEXAS 78212PHONE: (210) 308-9905PHONE: (210) 541-0200FIRM NUMBER: F-15659FIRM NUMBER: F-15659	Image: Market in the second
JURISDICTION: CITY OF LEWISVILLE	CONSTRUCTION ENGINEER SURVEYOR ALFREDO HERNAEZ 3D DESIGN & ENGINEERING, INC. (817) 975-8399 21502 E. WINTER VIOLET CT CYPRESS, TEXAS 77433 PHONE: (832) 510-9621	STRUCTED
CONSTRUCTION TYPE: UNMANNED TELECOMMUNICATIONS	CONSTRUCTION MANAGER TRACY REEVES	A1-1 A1-2 A2 JONES SL A2-1
GROUND ELEVATION: 555.2' AMSL	(682) 831-3245	A C C C C C C C C C C C C C C C C C C C
LATITUDE: 33° 03′ 57.77" N		
LONGITUDE: 97° 00' 50.38" W		$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} $
BUILDING CODES	UTILITIES	PROPRIETARY INFORMATION
THIS PROJECT WAS DESIGNED IN ACCORDANCE WITH: 2021 INTERNATIONAL BUILDING CODE	ELECTRIC COMPANY DME	NOT FOR USE OR DISCLOSURE OUTSIDE VERIZON E5 WIRELESS EXCEPT UNDER WRITTEN AGREEMENT APPEI
2020 NATIONAL ELECTRIC CODE	TELCO PROVIDER: TBD	APPE 1 - 4 5 - 7 8 - 13

E911 ADDRESS:

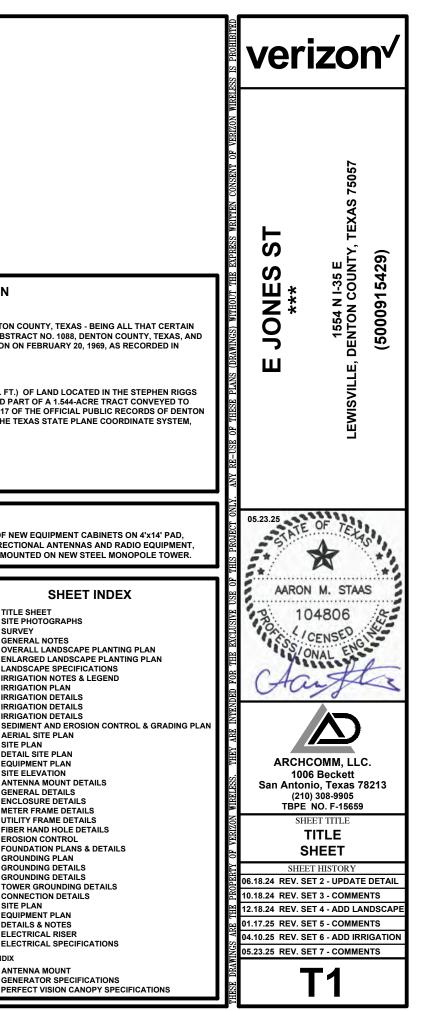
1550 N STEMMONS FWY

LEWISVILLE, DENTON COUNTY, TEXAS 75057

LEWISVILLE, DENTON COUNTY, TEXAS 75057

PARCEL/PROPERTY ADDRESS:

1554 N I-35 E



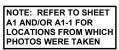




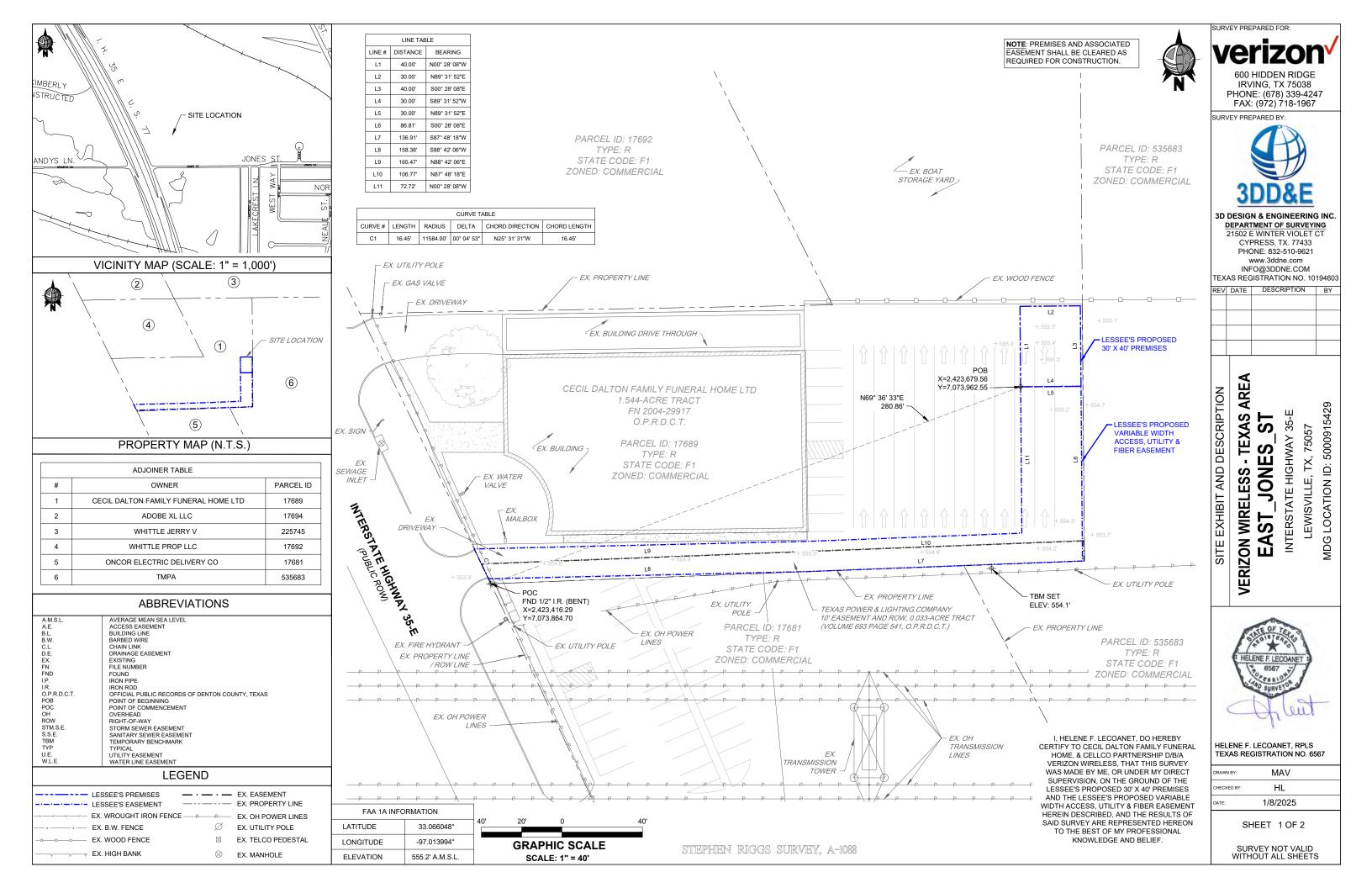




DALTON & SON FUNERAL HOME







PARENT TRACT LEGAL DESCRIPTION:

(AS RECORDED IN FILE NUMBER 2004-29917 OF THE OFFICIAL RECORDS OF DENTON COUNTY, TEXAS)

BEING ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATED IN THE S. RIGGS SURVEY, ABSTRACT NO. 1088, DENTON COUNTY, TEXAS, AND BEING PART OF A 6.744 ACRE TRACT CONVEYED BY T.R. SMITH TO W.H. DALTON ON FEBRUARY 20, 1969, AS RECORDED IN VOLUME 580, PAGE 567, DEED RECORDS, DENTON COUNTY, TEXAS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN AT THE MOST NORTHERLY NORTHWEST CORNER OF SAID 6.744 ACRE TRACT; THENCE SOUTH 89 DEGREES 34 MINUTES EAST, 198.0 FEET TO AN IRON PIN

THENCE SOUTH 00 DEGREES 34 MINUTES 50 SECONDS WEST, 277.3 FEET TO AN IRON PIN;

THENCE SOUTH 88 DEGREES 51 MINUTES WEST, 295.22 FEET TO AN IRON PIN ON THE EAST RIGHT OF WAY LINE OF INTERSTATE HIGHWAY 35-E;

THENCE NORTHWESTERLY ALONG THE EAST RIGHT OF WAY OF SAID HIGHWAY, AND WITH A CURVE TO THE LEFT, WHOSE CHORD IS NORTH 24 DEGREES 47 MINUTES 23 SECONDS WEST, A TOTAL DISTANCE OF 149.17 FEET TO AN IRON PIN;

THENCE EAST, 234.8 FEET TO AN IRON PIN:

THENCE NORTH 25 DEGREES 50 MINUTES WEST, 166.07 FEET TO THE PLACE OF BEGINNING AND CONTAINING IN ALL 1.544 ACRES OF LAND, MORE OR LESS.

LESSEE'S PROPOSED 30'X40' PREMISES DESCRIPTION:

BEING A LESSEF'S PROPOSED 30'X40' PREMISES CONTAINING 0 0275 ACRES (1 200 00 SQUARE FEET) OF LAND LOCATED IN THE STEPHEN RIGGS SURVEY ABSTRACT NO. 1088. DENTON COUNTY, TEXAS, AND BEING OUT OF AND PART OF A 1.544-ACRE TRACT CONVEYED TO CECIL DALTON FAMILY FUNERAL HOME LTD AS RECORDED IN FILE NUMBER 2004-29917 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS, SAID 0.0275-ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS WITH ALL CONTROL REFERRED TO THE TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983:

COMMENCING AT A FOUND 1/2" IRON ROD (BENT) BEING THE SOUTHWEST CORNER OF SAID 1.544-ACRE TRACT LYING IN THE EASTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 35-E AND HAVING A STATE PLANE COORDINATE VALUE OF X=2,423,416.29 (E), Y=7,073,864.70 (N);

THENCE NORTH 69 DEGREES 36 MINUTES 33 SECONDS EAST, 280.86 FEET TO THE POINT OF BEGINNING AND SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT HAVING A STATE PLANE COORDINATE VALUE OF X=2,423,679.56 (E), Y=7,073,962.55 (N);

THENCE NORTH 00 DEGREES 28 MINUTES 08 SECONDS WEST, 40.00 FEET TO THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT:

THENCE NORTH 89 DEGREES 31 MINUTES 52 SECONDS EAST, 30.00 FEET TO THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE SOUTH 00 DEGREES 28 MINUTES 08 SECONDS EAST, 40.00 FEET TO THE SOUTHEAST CORNER OF THE HEREIN DESCRIBED TRACT

THENCE SOUTH 89 DEGREES 31 MINUTES 52 SECONDS WEST, 30.00 FEET TO THE POINT OF BEGINNING, CONTAINING 0.0275 ACRES (1,200.00 SQUARE FEET) OF LAND.

LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY, AND FIBER EASEMENT DESCRIPTION:

BEING A LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY, AND FIBER FASEMENT CONTAINING 0.1526 ACRES (6.648.01 SQUARE FEET) OF LAND LOCATED IN THE STEPHEN RIGGS SURVEY, ABSTRACT NO. 1088, DENTON COUNTY, TEXAS, AND BEING OUT OF AND PART OF A 1.544-ACRE TRACT CONVEYED TO CECIL DALTON FAMILY FUNERAL HOME LTD AS RECORDED IN FILE NUMBER 2004-29917 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY TEXAS, SAID 0 1526-ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS WITH ALL CONTROL REFERRED TO THE TEXAS STATE PLANE COORDINATE SYSTEM. NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF

COMMENCING AT A FOUND 1/2" (BENT) IRON ROD BEING THE SOUTHWEST CORNER OF SAID 1.544-ACRE TRACT LYING IN THE EASTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 35-E AND HAVING A STATE PLANE COORDINATE VALUE OF X=2.423.416.29 (E), Y=7.073.864.70 (N):

THENCE NORTH 69 DEGREES 36 MINI ITES 33 SECONDS EAST 280.86 FEET TO THE POINT OF BEGINNING AND NORTHERLY CORNER OF THE HEREIN DESCRIBED TRACT HAVING A STATE PLANE COORDINATE VALUE OF X=2,423,679,56 (E), Y=7,073,962,55 (N);

THENCE NORTH 89 DEGREES 31 MINUTES 52 SECONDS EAST, 30.00 FEET TO THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE SOUTH 00 DEGREES 28 MINUTES 08 SECONDS EAST, 86.81 FEET TO THE SOUTHEAST CORNER OF THE HEREIN DESCRIBED TRACT, LYING IN THE SOUTHERLY PROPERTY LINE OF SAID 1.544-ACRE TRACT

THENCE SOUTH 87 DEGREES 48 MINUTES 18 SECONDS WEST, 136.91 FEET ALONG SAID SOUTHERLY PROPERTY LINE OF THE 1.544-ACRE TRACT TO A SOUTHERLY CORNER OF THE HEREIN DESCRIBED TRACT

THENCE SOUTH 88 DEGREES 42 MINUTES 06 SECONDS WEST, 158.38 FEET TO THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT LYING IN SAID EASTERLY RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY 35-E COMMON WITH THE WESTERLY PROPERTY LINE OF SAID 15,444-ACRE TRACT

THENCE NORTHWESTERLY ALONG A CURVE TO THE LEFT AND SAID COMMON LINE, THROUGH A CENTRAL ANGLE OF 00 DEGREES 04 MINUTES 53 SECONDS TO THE WEST CORNER OF THE HEREIN DESCRIBED TRACT, SAID CURVE HAVING A RADIUS OF 11,584.00 FEET, AN ARC LENGTH OF 16.45 FEET AND A LONG CHORD BEARING NORTH 25 DEGREES 31 MINUTES 31 SECONDS WEST, 16,45 FEET

THENCE NORTH 88 DEGREES 42 MINI ITES 06 SECONDS EAST, 165 47 FEET TO A NORTHERLY CORNER OF THE HEREIN DESCRIBED TRACT.

THENCE NORTH 87 DEGREES 48 MINUTES 18 SECONDS EAST, 106 77 FEET TO AN INTERIOR FUL NORTHERLY CORNER OF THE HEREIN DESCRIBED TRACT

THENCE NORTH 00 DEGREES 28 MINUTES 8 SECONDS WEST, 72.72 FEET TO THE POINT OF BEGINNING, CONTAINING 0.1526 ACRES (6,648.01 SQUARE FEET) OF LAND.

GENERAL NOTES:

- ALL BEARINGS ARE GRID BEARINGS BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 AND ARE ROUNDED TO THE NEAREST SECOND. ALL DISTANCES ARE REPRESENTED IN GRID VALUES, BASED ON SAID HORIZONTAL DATUM AND ARE MEASURED IN US SURVEY FEET TO THE NEAREST HUNDREDTH OF FOOT
- 2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID18) AND ARE DETERMINED TO THE NEAREST TENTH OF FOOT.
- 3. PROVIDED ELEVATIONS, LATITUDE AND LONGITUDE VALUES ARE FROM GPS OBSERVATIONS (TYPE OF EQUIPMENT: TRIMBLE R2-TDC600, DATE OF SURVEY: 08/22/2023)
- BASIS OF BEARING: GPS OBSERVATIONS CONDUCTED AT THE TIME OF THE SURVEY.
- 5 BASIS OF FLEVATION: GPS OBSERVATIONS CONDUCTED AT THE TIME OF THE SURVEY
- THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY AND NO BOUNDARY SURVEY OF THE PARENT TRACT WAS PERFORMED.
- THIS SURVEY CONTAINS A DRAWING AND METES & BOUNDS DESCRIPTIONS FOR A LESSEE'S PROPOSED 30'X40' PREMISES AND A LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY, AND FIBER EASEMENT THAT WERE PREPARED FOR THE EXCLUSIVE USE OF VERIZON AND EXCLUSIVELY FOR THE TRANSFER OF THE LESSEE'S PREMISES AND EASEMENT SHOWN HEREON. THE PREMISES AND ASSOCIATED EASEMENT WILL NOT BE MONUMENTED.
- 8. A TEMPORARY BENCHMARK HAS BEEN SET UP FOR CONSTRUCTION PURPOSES.
- THIS SURVEY WAS BASED ON INFORMATION PROVIDED IN THE ABSTRACTOR'S CERTIFICATE ISSUED BY PRECISE LAND RECORDS. NO.: 33593-GINSBERG JACOBS 9 LLC. SITE NAME: EAST JONES ST. ISSUE DATE: JULY 21, 2023.
- 10. NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC SURVEY
- 11. ALL ZONING INFORMATION SHOULD BE VERIFIED WITH PROPER ZONING OFFICIALS.
- 12. UTILITIES AS SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS CONDUCTED ON 08/22/2023. UNDERGROUND UTILITIES MAY EXIST AND WERE NOT PHYSICALLY LOCATED AS A PART OF THIS SURVEY. SURVEYOR DOES NOT GUARANTEE UTILITIES SHOWN ON THE SURVEY ARE IN EXACT POSITIONS CONTRACTOR MUST ALWAYS CALL 811 PRIOR TO DIGGING.
- 13. AT THE TIME OF THE SURVEY, THE LESSEE'S PROPOSED 30'X40' PREMISES AND THE LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY. AND FIBER FASEMENT LIED WITHIN AN LINSHADED AREA OF MINIMAL FLOOD HAZARD ZONE & ACCORDING TO FEMA FIRM PANEL MAP NUMBER 48121C0535G EFFECTIVE 04/18/2011 (DENTON COUNTY, TEXAS).
- 14. DATA REFLECTED ON THE ADJOINER MAP AND IN THE ADJOINER TABLE IS BASED ON ONLINE PARCEL MAP DATA THAT WAS NOT INCLUDED IN THE ABSTRACTOR'S CERTIFICATE ISSUED BY PRECISE LAND RECORDS, NO.: 33593-GINSBERG JACOBS LLC, SITE NAME: EAST JONES ST, ISSUE DATE: JULY 21, 2023. SURVEYOR TAKES NO RESPONSIBILITY FOR ITS ACCURACY
- 15. LESSEE'S PROPOSED PREMISES AND LESSEE'S PROPOSED EASEMENT PLACEMENT ARE PER LAND OWNER, A&E, OR CUSTOMER DIRECTION AND DO NOT REFLECT ENGINEERING OR REAL ESTATE ASSESSMENT BY 3D DESIGN AND ENGINEERING, INC.

EXCEPTIONS:

EXCEPTIONS HEREON WERE LISTED IN THE ABSTRACTOR'S CERTIFICATE ISSUED BY PRECISE LAND RECORDS, NO.: 33593-GINSBERG JACOBS LLC, SITE NAME: EAST JONES ST. ISSUE DATE: JULY 21, 2023;

EASEMENT AND RIGHT OF WAY DATED DECEMBER 12, 1973 AND FILED DECEMBER 28, 1973 TO TEXAS POWER & LIGHT COMPANY AND RECORDED IN VOLUME 693, PAGE 541. (EXCEPTION IS LOCATED WITHIN THE PARENT TRACT AND WITHIN THE LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY, AND FIBER EASEMENT, BUT IS NOT LOCATED WITHIN THE LESSEE'S PROPOSED 30'X40' PREMISES)

SANITARY SEWER EASEMENT DATED MARCH 9, 1993 AND FILED APRIL 20, 1993 TO THE CITY OF LEWISVILLE AND RECORDED IN DOCUMENT NO. 93-R0023493. (EXCEPTION IS LOCATED WITHIN THE PARENT TRACT, BUT IS NOT LOCATED WITHIN THE LESSEE'S PROPOSED 30'X40' PREMISE, NOR WITHIN THE LESSEE'S PROPOSED VARIABLE WIDTH ACCESS UTILITY AND FIBER FASEMENT)

MEMORANDUM OF OIL AND GAS LEASE DATED DECEMBER 18, 2008 AND FILED DECEMBER 29, 2008 TO CHEROKEE HOM PRODUCTION, LP AND RECORDED IN DOCUMENT NO. 2008-136551. (EXCEPTION IS BLANKET IN NATURE AND IS NOT PLOTTABLE)

HAZARDOUS SUBSTANCES CERTIFICATE AND INDEMNITY AGREEMENT DATED SEPTEMBER 15, 2022 AND FILED SEPTEMBER 16, 2022 AMONG CECIL DALTON FAMILY FUNERAL HOME, LTD, AND INDEPENDENT BANK AND RECORDED IN DOCUMENT NO. 2022-134097. (EXCEPTION ACTS AS A BLANKET AGREEMENT AND IT IS NOT PLOTTABLE)

I, HELENE F. LECOANET, DO HEREBY CERTIFY TO CECIL DALTON FAMILY FUNERAL HOME & CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS THAT THIS SURVEY WAS MADE BY ME. OR UNDER MY DIRECT SUPERVISION, ON THE GROUND OF THE LESSEE'S PROPOSED 30' X 40' PREMISES AND THE LESSEE'S PROPOSED VARIABLE WIDTH ACCESS, UTILITY & FIBER EASEMENT HEREIN DESCRIBED, AND THE RESULTS OF SAID SURVEY ARE REPRESENTED HEREON TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF



GENERAL NOTES:

- 1. FOR THE PURPOSE OF THESE CONSTRUCTION DOCUMENTS, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR - GENERAL CONTRACTOR OWNER - OWNER OF THE SITE PROJECT MANAGER - NEW CARRIER'S PROJECT MANAGER
- 2. CARE SHALL BE TAKEN TO PROTECT THE SITE AND THE SURROUNDING AREA FROM FIRE HAZARD DURING 'HOT' OPERATIONS. ADEQUATE EQUIPMENT, PERSONNEL AND EMERGENCY COMMUNICATIONS SHALL BE PROVIDED TO PROTECT LIFE AND PROPERTY IN AND SURROUNDING THE CONSTRUCTION SITE.
- 3. ALL EXCAVATIONS SHALL BE BARRICADED FOR PERSONNEL PROTECTION AND IF CONCRETE PIERS ARE DRILLED. THEY SHALL BE FILLED BY END OF DAY.
- 4 VERIFY REQUIREMENTS OF OTHER TRADES PRIOR TO PROCEEDING WITH FABRICATION OR INSTALLATION OF MATERIALS.
- 5. COMPLETE SHOP DRAWINGS SHALL BE PROVIDED FOR ALL FABRICATED ITEMS FOR REVIEW PRIOR TO FABRICATION. DRAWINGS CONTAINED IN THESE CONSTRUCTION DOCUMENTS SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS.
- 6. THE BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE WITH NO ADDITIONAL COSTS TO THE OWNER/LESSOR/PROJECT MANAGEMENT TEAM FOR ALL FEES, PERMITS, INSPECTION FEES RELATED TO THIS PROJECT. OR SEE THAT ANY AND ALL SUCH CHARGES ARE PAID BY THE RESPECTIVE SUBCONTRACTORS ASSOCIATED WITH THIS PROJECT.
- 7. DIMENSIONS NOTED AS '+/-' OR 'VERIFY' ARE BASED ON MATCHING EXISTING CONDITIONS AND MAY VARY SLIGHTLY FROM THE DIMENSIONS AS SHOWN. NOTIFY THE ARCHITECT / ENGINEER AND CARRIER'S PROJECT MANAGER IF SIGNIFICANT VARIATIONS ARE ENCOUNTERED AT THE SITE.
- THE NATURE OF THE SITE RELATED ACTIVITIES REQUIRES THAT ACCESS TO THE 8. SITE MUST BE MANAGED AT ALL TIMES DURING HOURS OF OPERATION AND WHEN THE SITE IS UNATTENDED. WORK WITH THE OWNERS REPRESENTATIVE FOR SAFETY AND SECURITY AT ALL TIMES.
- 9. CONTRACTORS SHALL BE REQUIRED TO PICK UP ALL OWNER SUPPLIED EQUIPMENT AS DIRECTED BY THE PROJECT MANAGER WITH NO ADDITIONAL COST TO THE JOB.
- 10. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- 11. CONTRACTOR SHALL HAVE A PRECONSTRUCTION MEETING WITH THE CARRIER'S PROJECT MANAGER TO DISCUSS ALL ASPECTS OF THE SCOPE OF THESE DRAWINGS TO ENSURE HE IS FAMILIAR WITH AND UNDERSTANDS ALL REQUIREMENTS AND INTENT OF EACH ACTIVITY.
- 12. THE CONTRACTOR SHALL REVIEW, BE THROUGHLY FAMILIAR WITH AND UNDERSTAND ALL DOCUMENTS CONCERNING THIS PROJECT INCLUDING, BUT NOT LIMITED TO, THIS SET OF DOCUMENTS; TOWER AND TOWER FOUNDATION DRAWINGS; SHELTER AND/OR PLATFORM DRAWINGS (IF APPLICABLE); RF TRANSPARENT CONCEALMENT SCREEN DRAWINGS (IF APPLICABLE) AND ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES & ORDINANCES.
- 13. NO WORK OF ANY KIND SHALL BE ACCOMPLISHED BY ANY TRADE IN FRONT OF ANY OPERATING ANTENNA.
- 14. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL FABRICATED STEEL ITEMS SHALL BE HOT DIPPED GALVANIZED PRIOR TO SHIPPING TO THE SITE.

EXISTING TOWERS:

- 1. CONTRACTOR SHALL ATTAIN AND VERIFY "STRUCTURAL ANALYSIS REPORT" OF EXISTING TOWER FOR STRUCTURAL ADEQUACIES AND EXACT PLACEMENT OF ANTENNAS AND CABLING. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STRUCTURAL ANALYSIS REPORT AND NOTIFY ARCHCOMM LLC IN THE CASE OF A DISCREPANCY. ANY STRUCTURAL MODIFICATIONS, IF REQUIRED, SHALL BE DONE PRIOR TO THE INSTALLATION OF NEW ANTENNAS, CABLING & OTHER FOUIPMENT
- 2. THE EXISTING TOWERS CAPACITY TO SUPPORT NEW EQUIPMENT IS IN PART BASED ON THE ASSUMPTION THAT IT WAS BUILT AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION (REFER TO STRUCTURAL ENGINEERS ANALYSIS & REPORT). THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING TOWER PRIOR TO THE START OF ANY NEW CONSTRUCTION AND REPORT TO THE PROJECT MANAGER ANY CONDITION THAT HE BELIEVES IS NOT IN KEEPING WITH TIA-222-H ANNEX J: MAINTENANCE AND CONDITION ASSESSMENT.

EXISTING CONDITIONS:

- 1. DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT NO DISRUPTION OF EXISTING FACILITY OPERATIONS WILL OCCUR.
- 2. THIS BUILDER/SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING FACILITIES AND SHALL REPLACE OR REPAIR TO THE ORIGINAL CONDITION AS DETERMINED BY THE PROJECT MANAGER.
- 3. CUT AND PATCH ANY AREAS WHERE REQUIRED BY THE SCOPE OF THIS PROJECT. MATCH EXISTING WORK AND MATERIALS EVEN IF SUCH WORK FALLS OUTSIDE OF THE LIMITS OF THIS CONTRACT.
- 4. THE OWNER OF THE SITE RETAINS SALVAGE RIGHTS TO ALL MATERIALS AND EQUIPMENT REMOVED FROM THE EXISTING WORK. MATERIALS AND EQUIPMENT NOT CLAIMED BY THE OWNER SHALL BECOME THE PROPERTY OF THE BUILDER/SUBCONTRACTOR WHO SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE REMOVAL AND APPROPRIATE DISPOSAL THEREOF.
- 5. VERIFY ALL EXISTING SITE CONDITIONS, QUANTITIES AND DIMENSIONS BEFORE STARTING WORK. NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK
- 6. ALL BIDDERS SHALL VISIT THE SITE BEFORE BIDDING TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS.
- 7. CARE SHALL BE TAKEN TO LOCATE ALL EXISTING UNDERGROUND OBSTRUCTIONS, UTILITIES AND/OR EASEMENTS BEFORE DIGGING OR DRILLING ON THE SITE.
- 8. UTILITY CHECK BEFORE COMMENCING ANY WORK AT THE SITE, CONTACT THE ONE CALL SYSTEM IN THE STATE IN WHICH UNDERGROUND WORK IS BEING DONE. REFER TO ONE CALL NOTE ON SITE PLAN.

CONSTRUCTION CODES:

- 1. ALL WORK SHALL BE ACCOMPLISHED AS PER ALL APPLICABLE CURRENT STATE, LOCAL AND NATIONAL CODES. THESE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
 - INTERNATIONAL BUILDING CODE (OR LOCAL ACCEPTED CODE)
- NATIONAL FIRE PROTECTION ASSOCIATION -NFPA 70, NATIONAL ELECTRIC CODE THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION -SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF
- STRUCTURAL STEEL FOR BUILDINGS.
- THE AMERICAN CONCRETE INSTITUTE-BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE.
- AMERICAN WELDING SOCIETY-
- STRUCTURAL WELDING CODE- STEEL. TOWER DESIGN - STANDARD PER EIA/TIA-
- TIA 222 H SPECIFICATIONS.
- TIA 607 GROUNDING & BONDING REQUIREMENTS FOR TELECOMMUNICATIONS. TIA 568 COMMERCIAL BUILDING TELECOMMUNICATION WIRING STANDARD.
- TIA 569 COMMERCIAL BUILDING STANDARDS FOR TELECOMMUNICATION
- PATHWAYS AND SPACES.
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)-IEEE 81 GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE & EARTH SURFACE POTENTIALS OF A GROUND SYSTEM. IEEE 1100 - RECOMMENDED PRACTICE FOR POWERING & GROUNDING OF
- ELECTRONIC EQUIPMENT. IEEE C62.41 - RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS.
- ANSI T1.311-
- FOR TELECOM DC POWER SYSTEMS TELECOM, ENVIRONMENTAL PROTECTION.

HANDICAP REQUIREMENTS: THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ADA ACCESS REQUIREMENTS DO NOT APPLY.

OTHER REQUIREMENTS: THIS FACILITY HAS NO PLUMBING OR PARKING.

2. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT. THE SPECIFIC REQUIREMENT SHALL GOVERN.

FLOOD HAZARD ZONES:

1. ALL SITES LOCATED WITHIN A FLOOD HAZARD ZONE SHALL HAVE TOP OF

SITE DEVELOPMENT & FINISHING NOTES:

- 1. DIGGING AND EXCAVATION HAND DIG ALL EXCAVATIONS AND TRENCHES IN AREAS SUSPECTED TO CONTAIN EXISTING GROUNDING CONDUCTORS, GROUND RODS, POWER/TELCO CABLES OR OTHER BURIED UTILITIES.
- 2. COLLOCATION SITE FINISHING UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER'S PROJECT MANAGER, AREAS OF COMPOUND EXPANSION OR ITEM #3 BELOW.
- 3. NEW CARRIER'S SITE FINISH STANDARD PROVIDE A MINIMUM 4" THICK TRANSPORTATION REQUIREMENTS FOR TYPE 'A', GRADE 2 MATERIAL THAT WAS SCARIFIED AND RECOMPACTED TO 95% PROCTOR DENSITY.
- 4. REPAIR/REPLACE AT NO ADDITIONAL EXPENSE TO THIS CONTRACT, ANY CONSTRUCTION RELATED DAMAGE TO ANY EXISTING SITE ELEMENTS OR WORK, SHALL BE PUT IN A PRECONSTRUCTION CONDITION TO THE SATISFACTION OF THE NEW CARRIER'S PROJECT MANAGER.
- BACKFILL ALL BORROWED FILL MATERIAL SHALL BE EQUAL TO STATE SPECIFICATION FOR TYPE A, GRADE 1 OR 2, COMPACTED TO 95% PROCTOR DENSITY. WHERE TRENCHING IS REQUIRED BACKFILLING WITH 5. 6" COMPACTED DEPTH AND TO 95% PROCTOR DENSITY FLUSH TO THE SURFACE OF THE FINISHED COMPACTED SUB-GRADE.
- 6. UNLESS INDICATED OTHERWISE, SITES SHALL NOT HAVE SLOPES GREATER THAN 1/4" PER FOOT AND THE AREA IMMEDIATELY AROUND NEW FROM THE EQUIPMENT.
- 7. SITES COVERED WITH EXISTING ASPHALT AND/OR CONCRETE UNLESS ASPHALT AND/OR CONCRETE WITHIN THE LEASE AREA. ONCE ALL INTO SUBGRADE. BASE MATERIAL BELOW PAVING SHALL COMPLY WITH NOTE 5 ABOVE.
- 8. SITES REQUIRING RETAINING WALLS -WALLS SHALL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER AND BE EQUAL TO "KEYSTONE RETAINING WALL SYSTEMS", (952) 897-1040). UNITS SHALL BE KEYSTONE STANDARD UNITS INSTALLED ON AN UNREINFORCED CONCRETE OR CRUSHED STONE LEVELING PAD (AS SPECIFIED BY ENGINEER). SYSTEM SHALL BE COMPLETE TO INCLUDE DRAINAGE TILE (IF REQUIRED), DRAINAGE FILL, AS DESIGNED BY ENGINEER. RETAINING WALL DESIGN SHALL BE SUBMITTED FOR APPROVAL.

SLAB AND/OR TOP OF GRATING RAISED TO BE AT LEAST 12" ABOVE THE BASE FLOOD ELEVATION. THIS INCLUDES SHELTERS, RAISED EQUIPMENT PLATFORMS, GENERATORS, FUEL TANKS AND ALL ELECTRICAL EQUIPMENT.

SPACE LOCATED WITHIN THE LEASED AREA SHALL BE FINISHED TO THE SAME STANDARD AS THE BALANCE OF THE EXISTING COMPOUND OR AT THE SOLE DISCRETION OF THE NEW CARRIER'S PROJECT MANAGER. THE FINISH STANDARD OF THE NEW CARRIER SHALL BE PROVIDED. REFER TO

LAYER OF CRUSHED STONE (APPROX. 1" DIAMETER W/O FINES) OVER 6 MIL. WEED BARRIER, OVER 6" COMPACTED BASE. FILL MATERIAL SHALL BE EQUAL TO CRUSHED LIMESTONE CONFORMING TO STATE DEPARTMENT OF COMPACTED TO 95% PROCTOR DENSITY OVER A COMPACTED SUB-GRADE

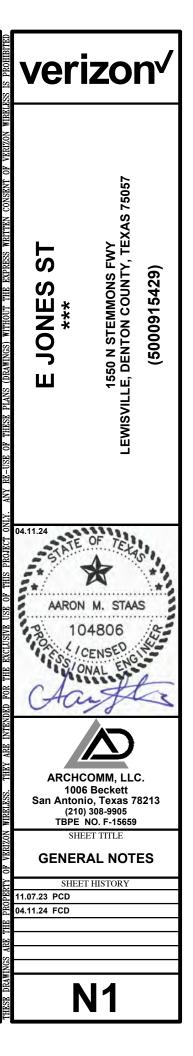
FINISHES WITHIN THE COMPOUND, IN ADJACENT AND/OR ALONG ROUTES TO THE WORK AREA, HOWEVER INCIDENTAL TO THE PROSECUTION OF THE

MATERIALS EXCAVATED FROM THE TRENCH WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE NEW CARRIER'S PROJECT MANAGER. ALL TRENCH BACK FILLING SHOULD BE COMPACTED IN LIFTS NOT TO EXCEED

EQUIPMENT SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY

NOTED OTHERWISE ON THE SITE PLAN, SAW-CUT & REMOVE ALL EXISTING COMPONENTS OF NEW CONSTRUCTION ARE IN PLACE, FURNISH & INSTALL. NEW ASPHALT AND/OR CONCRETE (AS NOTED IN SITE PLAN) TO MATCH EXISTING SO AS TO SEAL ENTIRE BASE AREA AGAINST WATER INTRUSION

A CONTECH COMPANY, 4444 W, 78TH STREET MINNEAPOLIS, MN, 55435 KEYSTONE CAP, SOIL STABILIZING & REINFORCING FABRIC GRID, ETC., ALL



- REFER TO SPECIFICATIONS FOR ALL CONTRACT PLANTING.
- INSTALL APPROVED IMPORTED PLANTING MIX TO MIN. DEPTH OF 6" IN ALL AREAS SCHEDULED AS LANDSCAPE PLANTING AREAS. 2 INSTALL APPROVED IMPORTED TOPSOIL TO 4" DEPTH IN ALL TURFGRASS AREAS. З.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES IN THE FIELD PRIOR TO INSTALLATION AND MUST REPORT ANY DEVIATION IN SITE 4
- CONDITIONS TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK IN THE AFFECTED AREA. WHERE SHOWN ON THESE PLANS, UTILITY INFORMATION IS PROVIDED FOR REFERENCE ONLY. REF. CIVIL AND MEP PLANS FOR ALL UTILITY 5
- INFORMATION. VERIFY LOCATION AND DEPTH OF ALL EXISTING AND PROPOSED UTITILIES PRIOR TO ANY EXCAVATION. IN THE EVENT POTENTIAL CONFLICT(S) 6.
- OCCUR BETWEEN UTILITIES AND LANDSCAPE IMPROVEMENTS, IMMEDIATELY CEASE WORK IN THE AFFECTED AREA, REPORT THE CONFLICT(S) TO THE OWNER'S REPRESENTATIVE, AND DO NOT PROCEED UNTIL RECEIPT OF SPECIFIC WRITTEN DIRECTION.

URBAN DEER NOTES:

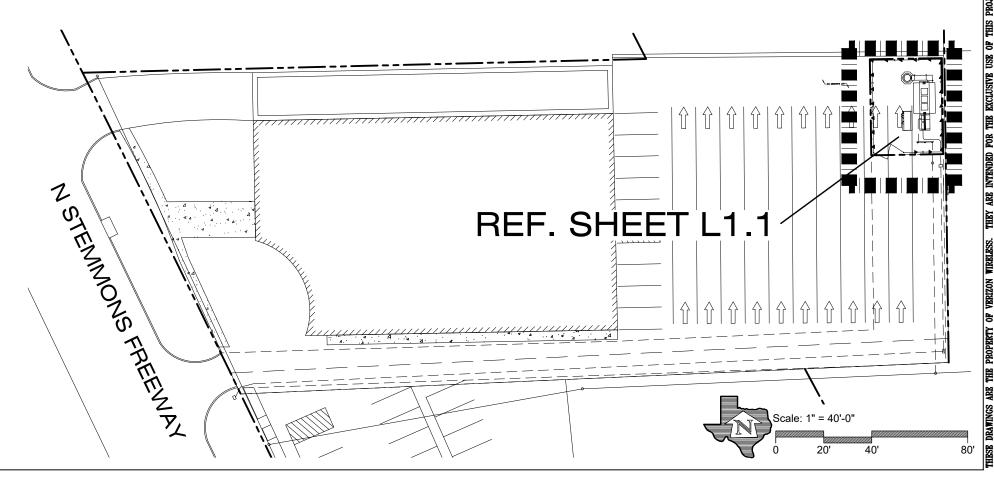
- 1. AT THE TIME THESE DOCUMENTS WERE PREPARED THE LANDSCAPE ARCHITECT WAS NOT AWARE OF A LOCAL URBAN DEER POPULATION. IN THE EVENT AN URBAN DEER POPULATION IS DISCOVERED, CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTING ALL NEWLY-INSTALLED 2.
- PLANTS THROUGH THE 30-DAY MAINTENANCE PERIOD.
- APPLY "LIQUID FENCE" (OR APPROVED EQUAL) TO ALL PLANTS AS NEEDED TO DISCOURAGE BROWSING BY DEER. ANY NEWLY-INSTALLED PLANTS EATEN OR BROWSED BY DEER PRIOR TO THE EXPIRATION OF THE 30-DAY MAINTENANCE PERIOD SHALL BE З.
- 4. REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

OVERHEAD ELECTRIC NOTES:

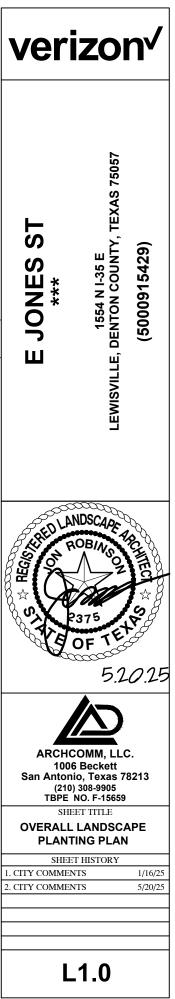
- ALL PROPOSED LARGE SPECIES TREES (AS DEFINED BY THE UNIFIED DEVELOPMENT CODE IN EFFECT HEREOF) SHALL BE PLANTED NO CLOSER 1. THAN 20' TO ALL OVERHEAD ELECTRIC UTILITY LINES.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD LOCATING ALL OVERHEAD ELECTRIC UTILITY LINES AND ENSURING THAT NO LARGE SPECIES 2. TREES ARE PLANTED WITHIN 20' OF ANY OVERHEAD ELECTRIC UTILITY LINES.
- WHERE CITY INSPECTORS FIND ANY PROPOSED LARGE SPECIES TREES TO BE IN VIOLATION OF PROXIMITY TO OVERHEAD ELECTRIC UTILITY LINES, 3. THE CONTRACTOR SHALL RELOCATE TREES AT NO ADDITIONAL COST TO THE OWNER.

VINE PLANTING AND MAINTENANCE NOTES:

- 1. VINE IS ESPALIERED TO THE PROPOSED FENCE AND TRAINED AS VINE.
- 2. IRRIGATION SHALL BE PROVIDED FOR EACH VINE PER IRRIGATION PLANS.









PLANT SCHEDULE

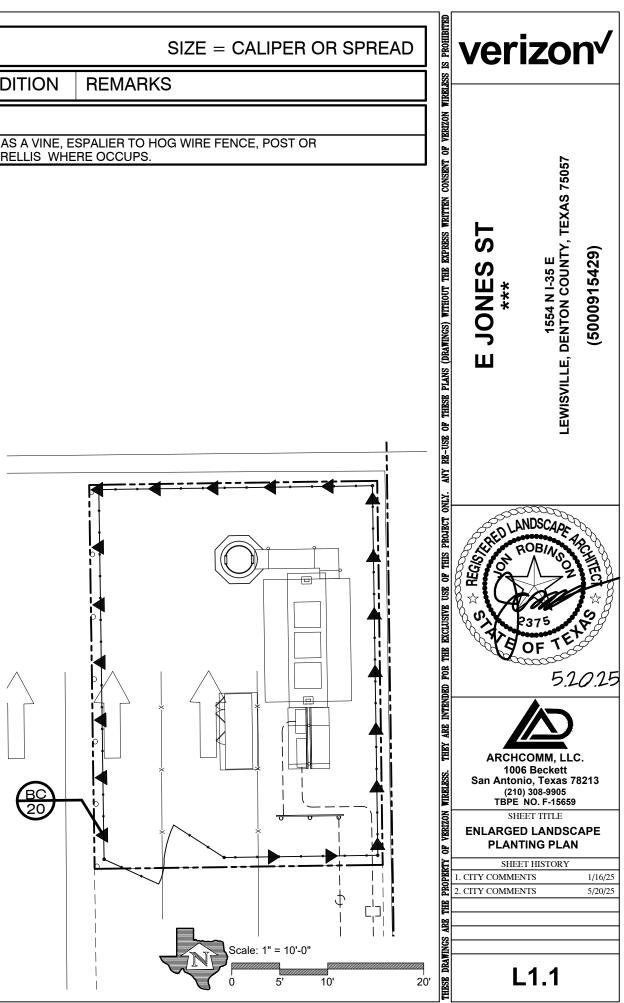
늘							—
L	SYM.	SCIENTIFIC NAME	COMMON NAME	HGT.	SIZE	CONDITION	F

VINES

BC	Bignonia capreolata	Crossvine	-	5 GAL.	PLANT AS A VINE, ESPALIER TO HOG WIRE FENO WIRE TRELLIS WHERE OCCUPS.



VICINITY MAP (N.T.S.)



PART 1 - GENERAL

- 1.1 Work Included
- A. Place and spread topsoil and planting mix.
- Excavate and prepare plant pits.
- C. Place plants in pits and backfill with planting mix.
- D. Prune plants.
- E. Apply mulch to planter areas.
- F. Guarantee plants.
- G. Inspect plants during the Guarantee Period.
- 1.2 Reference Standards

A. Nomenclature and size. All plants must be true to name and size in conformance with the following standards:

B. American Joint Committee on Horticultural Nomenclature, 1942 ed. of Standardized Plant Names (Mount Pleasant Press, J. Horace McFarland Co., Harrisburg PA)

- C. American Standard of Nursery Stock, 1973 ed. (American Association of Nurserymen, Inc., Washington DC)
- 1.3 Submittals

A. Submit weed control program in accordance with Sec. 01300

B. Indicate chemicals to be employed, manufacturer's printed instructions as to dilution and application, solution strength, application method, rates, and frequency, and frequency of manual weeding.
 C. Submit chemical manufacturer's written certificate that material proposed for use meets local, state, and federal regulations for the type of material proposed and that the material is not toxic to humans and animals if applied ber the manufacturer's written cities.

- 1.4 Product Delivery, Storage, and Handling
- A. Handle and store all materials in such a manner as to prevent damage.
- 1.5 Existing Conditions

Prior to commencement of work, investigate the site, locate and identify all existing underground utilities that may conflict with the installation of the work described in the contract documents, and notify the Landscape Architect of the conflict and do not proceed with construction in the affected area without specific direction.
 B. Protect identified utilities from damage during installation.

1.6 Guarantee

A. All plants will be guaranteed against defects, including death and unsatisfactory growth, for a period of 12 months following the date of Substantial Completion. If replacement plants are installed, they will be guaranteed for an additional 12 months following their installation.

1.7 Responsibilities of Owner and Contractor

A. The Contractor will provide monthly inspections of the project during construction and the guarantee period and immediately provide to the Owner and the Landscape Architect a written report identifying any irregularities which affect the guarantee.

B. The Contractor will monitor any construction, whether conducted by other trades or the Owner's employees, adjacent to new and existing plants. The Contractor

will identify and document any damage to the plants and immediately notify the Landscape Architect of same. The Contractor will replace any damaged plants at no expense to the Owner. Any reimbursement from other trades or contractors shall be the sole responsibility of the Contractor.

- C. The Contractor will remove and replace all dead plants.
- D. The Contractor will ensure all plants are installed in an upright position and to proper finish grade and will reset any plants not installed accordingly.

E. The Contractor will have the sole responsibility for ensuring that all plants are maintained and watered adequately.

1.8 Final Inspection

A. At the conclusion of the guarantee period, the Landscape Architect will inspect the planting to assess the final acceptance of the installation. Only plants that are alive and healthy will be accepted. The Contractor will replace any plants that are dead or, in the sole opinion of the Landscape Architect, in an unhealthy or unsightly condition or have lost their natural form due to dead or removed branches. The Contractor will bear the cost of replacing any plants.

1.9 Quality Assurance

A. Before entering into a contract with any subcontractor, the General Contractor will investigate the proposed subcontractor's reputation and ability to perform the work and determine whether the subcontractor is stable, reputable, and skilled in this area of work. The General Contractor will require and review a minimum of the following submittals:

1. Experience. The subcontractor will be a single firm specializing in landscape installation with a minimum 5 years documented experience. Documentation will demonstrate a minimum 10 installations of equal or greater size. The subcontractor will furnish the name, address, and telephone number for both the General Contractor and Owner on these projects, as well as the contract price, the company name under which the work was performed, and completion date.

2. Personnel. The subcontractor will provide a list of the project manager and foreman proposed to complete the work, their years of experience in the industry, any formal training, and years of service with the current company. If a separate irrigation subcontractor is to be used, the same information will be provided.

3. Business Expertise. The subcontractor will submit a current audited financial statement, current insurance certificate, contact information for their insurance company, bonding capacity and bonding company, and contact information for their bonding company.

B. Should the subcontractor selected by the General Contractor default on the contract, fail to complete the work in conformance with the Contract Documents, or enter into bankruptcy, the Owner will pay the Landscape Architect as an additional service for any additional work occasioned by the subcontractor's default

PART 2 - PRODUCTS

2.1 Materials

A. Topsoil. Provided by the landscape subcontractor from local sources, sandy loam which is fertile, friable, surface soil. Topsoil will be free of rocks, stones, subsoil, building debris, weeds, grass, clay lumps, and other materials which would be detrimental to turfgrass growth. Topsoil composition will be not less than 7% nor more than 12% clay and not more than 12% silt.

B. Planting Mix. Plant mix composition will be 35% compost, 33% red sand, 16% composted topsoil, and 16% pine bark mulch.

C. Commercial Fertilizer. Complete fertilizer of neutral character, with some elements derived from organic sources and containing available plant nutrients in the following percentages:

1. For trees and shrubs - Woodace Top Dress Special (20-4-11, 8 - 9 month formula) at a rate of 5 to 10 lbs. per 100 SF.

2.2 Plant Materials

A. The drawings contain a complete list of plant species, quantities, sizes, and other requirements. In the event that discrepancies occur between the quantities of plants indicated on the plant list and as indicated on the drawings, the plant quantities shown on the drawings will be given precedence.

B. No substitutions of plants will be permitted without express prior written authorization by the Landscape Architect.

C. All plants will comply with state and federal inspection and diseases infestation laws.

D. All plants will be typical of their species or variety, with normal, well-developed branches and vigorous root systems.

E. All plants will be healthy and vigorous, free from defects, disfiguration, knots, abrasions, sunscald, diseases, insect eggs or larvae, borers, and all other forms of diseases or infestations.

F. All plants will be nursery stock. Any plants gathered from native stands must be kept under nursery conditions for a minimum of 1 full growing season, must be free from all foreign plants and weeds, and must meet all other requirements of the Contract Documents.

G. Container grown plants must exhibit development of fibrous roots and have a root mass that will retain its shape when removed from the container. Plants grown in smaller containers must have root growth sufficient to reach the sides of the container. Root-bound container-grown plants will be rejected.

H. Container sizes of a large grade than listed in the American Standard for Nursery Stock (ASNS) shall be determined by the volume of the root ball specified in the ASNS for plants of the same size.

All bare root plants must have a heavy, fibrous root system and dormant buds at the time of planting.
 All plants must have average height and spread proportions and branching habit in accordance with the appropriate sections of the ASNS

K. All plants which have girdled roots, stem, or major branch, have deformities of the stem or major branch, lack symmetrical growth habits, have dead or defoliated portions, or have any defect, injury, or conditions which in the sole opinion of the Landscape Architect renders them unsuitable, will be rejected.

L. Balled and burlapped plants must have a solid ball of earth of minimum specified size held securely in place by burlap and stout rope. Oversized or exceptionally heavy plants will be accepted provided the size of the root ball or spread of the roots is increased proportionally. Root balls must be tight, unbroken, and free of weed or foreign plant growth. Root balls shall have the following depth-to-diameter ratios: root ball diameters of less than 20" = minimum depth of 75% of the diameter; root ball diameters of 20" to 30" = minimum depth of 2/3 of the diameter; root ball diameters over 30" = minimum depth of 60% of the diameter.

M. Plants delivered as a single unit of 25 or less of the same size, species, and variety must be clearly marked and tagged. Plants delivered in large quantities of more than 25 must be segregated as to variety, grade, and size, and 1 plant in each 25 plants, or fraction thereof, of each size, species, and variety, must be tagged.

N. Plants stored under temporary conditions will be the responsibility of the Contractor and must be protected at all times from extreme weather conditions by insulating the root balls with sawdust, soil, mulch, or other approved measure. Plants stored on paved areas must be separated from the pavement with an insulating layer.

O. Protecting stored plants from theft or vandalism will be the sole responsibility of the Contractor. Any stolen plants will be replaced at no cost to the Owner.

2.3 Miscellaneous Materials

Mulch. Shredded native mulch applied to a depth of 4" beneath all new trees and 4" beneath all shrubs.
 Stakes. Sound new hardwood, treated softwood, or redwood stakes, free of knot holes and other

B. Stakes. Sound new hardwood, treated softwood, or redwood stakes, free of knot holes and other defects, or metal stakes. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, minimum 12-gauge, with zinc-coated turnbuckles. Provide minimum ½" diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size, to protect tree trunks and branches from damage by wires. All new trees are to be staked.

C. Anti-Dessicant: Emulsion type, film-forming agent designed to permit transpiration but retard excessive loss of moisture from plants. Deliver in manufacturer's full identified containers and mix in accordance with manufacturer's instructions.

D. Plastic trunk protectors: Provide ArborGard+, AG 9-4+ by Deep Root Partners, L.P. (or equal), (1-800-458-7668) to protect new trees from damage by string trimmers and mowers.

PART 3 - EXECUTION

3.1 Inspection

A. Inspect existing site conditions and progress of other trades before commencing landscape installation.

B. Verify that construction has progressed to a point at which the landscape will not be adversely affected by subsequent construction and that existing conditions are acceptable for landscape installation.

C. Report adverse conditions to the Landscape Architect and do not proceed with the work until adverse conditions have been rectified.

D. Commencement of the landscape installation will constitute acceptance of the site conditions without qualification.

3.2 Preparation of Subsoil

A. Inspect subsoil for the presence of objectionable materials such as rocks (2" diameter and greater), concrete waste, building debris, weeds, grass, and other material that would be detrimental to the growth of plants and turfgrass. Protect existing underground improvements from damage.

B. Cultivate the subsoil to a depth of 3" or, if the subsoil is compacted due to heavy equipment traffic or storage, cultivate to a depth of 6".

3.4 Planting

D. The Contractor will begin planting when other work divisions such as topsoil spreading have progressed sufficiently to permit planting.
 E. Planting will occur where it is shown on the Contract Documents unless obstruction overhead or underground are encountered or where changes in construction have been made. Prior to the excavation of shrub or tree pits, the Contractor will locate and identify all underground utility lines, electrical cables, irrigation lines, and conduits. If such obstructions are found, promptly notify the Landscape Architect and do not proceed without clear direction.

F. No planting pits will be excavated until the proposed locations and plant sizes have been reviewed and approved by the Landscape Architect. Each plant will be planted in an individual pit dug with straight vertical sides. All plants will be set such that their original soil level is equal to the ultimate finish grade. No filling will be done around the trunks and stems. All ropes, wires, staves, etc., will be removed from the sides and top of the root ball and removed from the pit before filling. Burlap will be properly cut and removed from the sides of the root ball. When a depth is specified for the plant pit, it will be construed as the depth below adjacent finish grade. Excess excavation from plant pits shall be either used elsewhere or removed from the site entirely.

G. The Landscape Architect will review and approve the location and orientation of all plants prior to excavation of their pits. All trees will be planted in pits a minimum 24" greater in diameter than the container size or spread of their roots. In the event that solid rock is encountered in the bottom of the pit, break up and loosen the sides and bottom of the pit so that water will drain effectively. The pit will be a minimum of 9" deeper than the depth of the root ball and will have a crown from the middle to the sides in order to direct drainage away from the root ball. Place planting mix in heyers no greater than 9" and tamp down to avoid settling. Provide enough planting mix to bring to finish grade and form a saucer with a minimum 4" lip around the perimeter of the tree's root ball so water will pond and soak into the root ball.

H. Stake trees immediately after planting, then remove the stakes after one (1) year.
 If deciduous trees are planted in full-leaf, spray with anti-dessicant to provide an adequate film over the trunk, branches, stems, and foliage.

3.5 Maintenance and Restoration
A. The Contractor will ensure adequate and proper care of all plants and work done on this project until final acceptance, but in no case less than 30 days following Substantial Completion. This will include keeping all plants in a healthy growing condition by watering, cultivating, pruning, and spraying, keeping the planting areas free from insect infestation, weeds and grass, litter, and debris, and retaining the finish grade in a neat and uniform manner. Plant crowns, runners, and branches will be kept free of mulch at all times.
B. Upon completion of the initial planting, the Landscape Architect will make an inspection of all plantings and notify the Contractor in writing of any replacements or corrective actions necessary to meet the provisions of the Contract Documents. The Contract will then replace all the rejected or missing plants and perform the specified

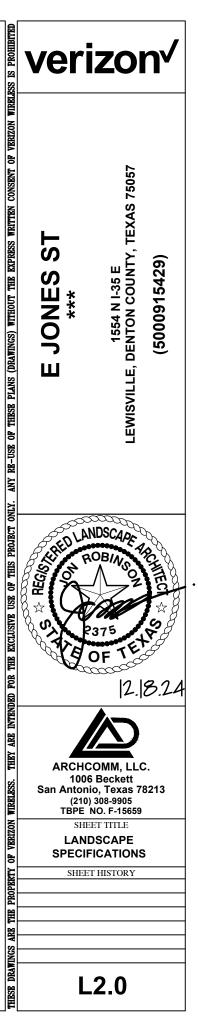
Contract will then replace all the reject corrective measures. C. All replacement plants will be o

3.6 Acceptance

A. Upon receipt of a written request from the Contractor at least seven (7) prior, the Landscape Architect will inspect the planting and maintenance to determine its completion and the beginning of the guarantee period. All plants must be alive and healthy in order for the installation to be considered complete. Where inspected work does not comply with the requirements of the Contract Documents, replace rejected work and continue to perform the specified maintenance until the Landscape Architect re-inspects the work and finds it acceptable. Remove rejected plants and materials from the site.

END OF SECTION

C. All replacement plants will be of the same species, size, and quality. All rejected plants will be replaced within 30 days of notification.



DESIGN STATISTICS FOR CALCULATIONS	
Total Zone Flow:	1.4 g.p.m.
Electric Valve Size:	1"
Static Pressure Less 10% (static @ 65 psi):	58.5 p.s.i.
ACCUMULATIVE LOSSES FROM CITY MAIN TO FURTHE	
Sprinkler head requirement:	30 p.s.i.
Zone Pipe/Fitting Loss:	n/a
1" Electric Valve Loss:	3.0 p.s.i.
Elevation Net Loss (+- FT.):	n/a
System Mainline Loss (1" Sch-40 Main):	0.01 p.s.i.
Backflow Preventer Loss (1"):	3.0 p.s.i.
Water Meter Loss (5/8"):	0.2 p.s.i.
Master Electric Valve Loss ("):	n/a
Type K Copper Service Loss:	
Total Net Loss:	6.20 p.s.i.
Design Pressure:	36.20 p.s.i.

essure prior to starting work. Contractor shall notify Owner's Rep essure deficiencies or any other on site problems that may alter the effectiveness o the system. Pipe has been size to insure that velocity does not exceed 5 FPS, do not change pipe size in the field without consulting system designer

CRITICAL LOSS CHART

TYPICAL WEEKLY SCHEDULE BASED ON PRECIPITATION RATE

Precipitation Rate (in/hr)	Water Desired (in/wk)	Time/Cycle (min)	No. of Zones	Total [·] Min.	Time * Hrs.
Turf Rotor Zone.64MP Rotator Spray.44Turf Drip Zones.88Drip Zones.55Tree Bubblers3.87	.80 .80 .80	88.0	1	88	1.5
	Total System Hour	rs of Operation F	Per Week		1.5

TI WILL BE NECESSARY TO WATER MULTIPLE ZONES AT ONE TIME TO MEET WATERING WINDOW . A TYPICAL SCHEDULE WOULD ALLOW WATERING TO OCCUR TWO TIMES PER WEEK. TOTAL WATERING TIME WOULD BE DIVIDED BY THE NUMBER OF WATERING DAYS. THIS SCHEDULE IS DESIGNED FOR SUMMER WATER USAGE AND ESTABLISHMENT OF NEW PLANTING.

VALVE SCHEDULE

- CONSTRUCTION NOTES: 1. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH THE SPECIFICATIONS AND ALL SUBMITTAL REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE FOR SITE INSPECTIONS AS SPECIFIED IN THE SPECIFICATIONS. FAILURE TO NOTIFY THE OWNER'S REPRESENTATIVE DOES NOT RELIEVE THE CONTRACTOR FROM INSPECTION APPROVAL AND WILL REQUIRE THE CONTRACTOR TO UNCOVER WORK AS REQUIRED FOR APPROVAL AT THE COST OF THE CONTRACTOR. IRRIGATION CONTRACTOR IS TO INFORM OWNER'S REPRESENTATIVE OF THE START DATE OF WORK.
- 2. THE IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. IRRIGATION CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.
- 3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WITHOUT VERIFYING ACTUAL ON-SITE WATER PRESSURE FROM THE SOURCE. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- 4. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS AS REQUIRED TO ACCOMPLISH IRRIGATION INSTALLATION.
- 5 DUE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS SLEEVES, ETC., WHICH MAY BE REQUIRED, IRRIGATION CONTRACTOR SHALL DOE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS SLEEVES, ETC., WHICH WAT BE REQUIRED. INCIGATED CONTRACTOR STATUS CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FUNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHAL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND WITHIN PROPERTY LINES.
- 6. DURING INSTALLATION IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO COORDINATE PIPING WITH THE LANDSCAPE SUBCONTRACTOR TO AVOID CONFLICT WITH PROPOSED PLANTING. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION SUBCONTRACTOR TO MOVE PIPING TO ALLOW PROPER PLACEMENT OF PLANT MATERIAL. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- NO MACHINE TRENCHING IS TO BE DONE WITHIN THE DRIPLINE OF EXISTING TREES. TRENCHING IS TO BE DONE BY HAND, AIR-SPADE OR BY TUNNELING UNDER ROOT SYSTEM BY METHOD APPROVED BY LANDSCAPE ARCHITECT. PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND EXISTING TREES AS POSSIBLE TO AVOID DAMAGE TO THE ROOT SYSTEMS. DO NOT CUT ANY ROOT OVER 3/4" DIAMETER UNLESS APPROVAL FROM THE LANDSCAPE ARCHITECT IS FIRST OBTAINED. ANY CUTS MADE SHALL BE CLEAN AND WITHOUT FRAYED ENDS
- IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVES AND CHASES WHEREVER PIPING OR CONDUIT PASSES, UNDER ALL PAVING, THROUGH WALLS, ETC. ALL SLEEVE LOCATIONS MAY NOT BE SHOWN ON PLAN, COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS, GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS AS REQUIRED. ALL SLEEVE AND CHASE LOCATIONS ARE NOT NOTED ON PLAN. ALL SLEEVES 4" OR LESS SHALL BE SCH-40 PVC, ALL SLEEVES 6" OR GREATER SHALL BE CLASS-200 PVC. ALL SLEEVES TO BE SIZED TWICE THE DIAMETER OF PIPE OR COMBINATION OF PIPES ENCLOSED WITHIN THE SLEEVE.
- CONFIRM STATIC WATER PRESSURE AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS LESS THAN STATED IN PRESSURE CALCULATIONS DO NOT PROCEED UNTIL DIRECTED SO BY THE LANDSCAPE ARCHITECT. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A 9. PRESSURE REDUCING VALVE SHALL BE INSTALLED, REFER TO DETAILS FOR MODEL
- 10. ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVE. PRESSURE AT ANY POINT WITHIN A ZONE SHALL NOT VARY BY MORE THAN 10% FROM THE DESIGN SPRINKLER OPERATING PRESSURE. SEE SPECIFICATIONS FOR TESTING.
- 11. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN THE STATE OF TEXAS. CONTRACTOR MUST CONFORM TO ALL CODES AS STATED IN SECTION 344 OF THE TEXAS WATER CODE AS OUTLINED BY TCEQ
- 12. OBTAIN COVERAGE TEST APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO PLANTING, SODDING OR SEEDING,
- 13. ALL UNDESIGNATED END LATERAL PIPING SHALL BE Z" IN SPRAY ZONES AND X4" IN ROTOR ZONES
- 14. SPRINKLER HEAD SPACING SHALL NOT EXCEED 50% OF SPRAY DIAMETER BASED ON MANUFACTURERS OPERATING SPECIFICATIONS. SPRINKLER HEAD SPACING SHALL BE DESIGNED FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED AS PER MANUFACTURER'S RECOMMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED SO THAT IRRIGATION IS NOT APPLIED TO VEHICULAR TRAFFIC LANES. OTHER PAVEMENT OR STRUCTURES.
- 15. ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE, ALL SPRAY HEADS SHALL BE LOCATED 6" FROM PAVEMENT, CURBS OR EDGE OF
- 16. VALVE AND CIRCUITS SHALL BE SEPARATED BASED ON WATER USE. SO THAT TURE AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUND COVER AREAS
- 17. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM STATIC PRESSURE ON SITE PRIOR TO STARTING WORK, REFER TO NOTES #9 AND #10.
- 18. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES CONTAINED IN THESE DOCUMENTS.
- 19. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY, INSTALL PIPES IN ADJACENT SLEEVES WITHIN LANDSCAPE AREAS.
- 20. 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER WITH A HARDWIRE CONNECTION APPROVED AND INSTALLED BY A LICENSED ELECTRICAN.
- 21. SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT
- 22. SERVICEABLE CHECK VALVES SHALL BE REQUIRED ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE
- 23. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMING, CONTROLLERS SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPABILITY OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN SENSOR SHUT-OFF DEVICE.
- 24. ALL IRRIGATION WIRES SHALL BE UL LISTED FOR DIRECT UNDERGROUND BURIAL AND SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATIONS. 3M-DBY WATERPROOF CONNECTORS TO BE USED ON ALL WIRE CONNECTIONS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT.
- 25. ALL IRRIGATION HEADS SHALL BE ADJUSTED TO MINIMIZE OVER-SPRAY ONTO ALL IMPERVIOUS SURFACES
- 26. ALL PIPE CONNECTIONS SHALL BE PRIMED WITH AN APPROVED COLOR PRIMER BEFORE BEING CHEMICAL WELDED.
- 27. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE ORDERED FROM SUPPLIERS OR DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN ACCEPTANCE. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
- 29. ALL TEMPORARY IRRIGATION SHALL BE DESIGNED PRIOR TO INSTALLATION BY A STATE OF TEXAS LICENSED IRRIGATOR. THE DESIGN IS TO BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCING INSTALLATION OF THE TEMPORARY SYSTEM.
- 30. IRRIGATION CLOSEOUT DOCUMENTS SHALL INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.
- CHART CONTAINING ZONE NUMBER, PRECIPITATION RATE AND GPM. LOCATION OF EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE.



DOUBLE CHECK BACKFLOW DEVICE, 1" WATTS 007 PER LOCAL CODES. CONTROLLER - HUNTER NODE-100 CONTROLLER. FINAL LOCATION IS TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE ARCHITECT WEATHER SENSOR - HUNTER RAIN-CLIK SENSOR. FINAL LOCATION IS TO BE DETERMINED AFTER CONSULTING WITH LANDSCAPE ARCHITECT. NETAFIM DRIP CONTROL ZONE VALVE - REFERENCE DETAILS - ZONE IDENTIFICATION ZONE SIZE IN GALLONS PER MINUTE
 VALVE SIZE THIS ZONE LATERAL LINE - USE CLASS 315 ON 1/2" PIPE AND CLASS 200 IPS PVC ON 3/4" AND LARGER PIPE. DO NOT DEVIATE ON SIZING WITHOUT CONSULTING WITH PROJECT DESIGNER. SLEEVE - USE TWO (2) SIZES LARGER THAN SPRINKLER PIPE DESIGNATED FOR CROSSING PAVING ON ALL LATERAL LINES. USE SCH-40 PVC PIPE, VALVE WIRING MAY BE RUN IN THE SAME SI FEVES NOTE: REFER TO SHEET LI 2.1 to LI 2.3 FOR DETAILS FIELD LOCATE BY STAKING, THE CONTROLLER, WATER METER, BACKFLOW DEVICE, MASTER VALVE AND FLOW SENSOR FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION ATEMENT OF IRRIGATION DESIGN STANDARDS CONFORMITY This plan is complete and conforms to the design and installation parameters of the irrigation design and equipment standards set out by the City of Lewisville, Texas and TCEQ (Texas Com ission on Environmental Quality mile . O. Runket Wade O. Radlet TX LI # 22397 SPECIAL NOTES: 1. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND DEPENDENCES AND CODES AND WILL STATE MANDATED IRRIGATION ORDINANCES AND CODES AND WILL

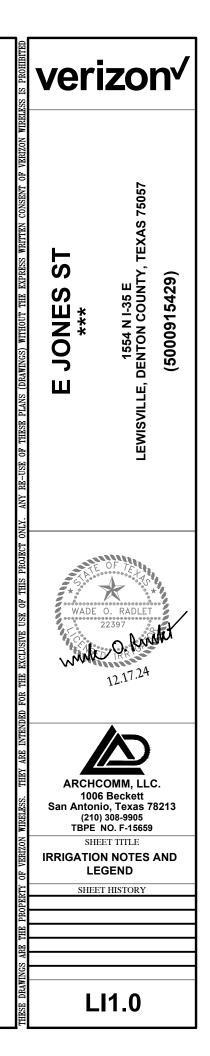
SECURE ALL REQUIRED PERMITS.

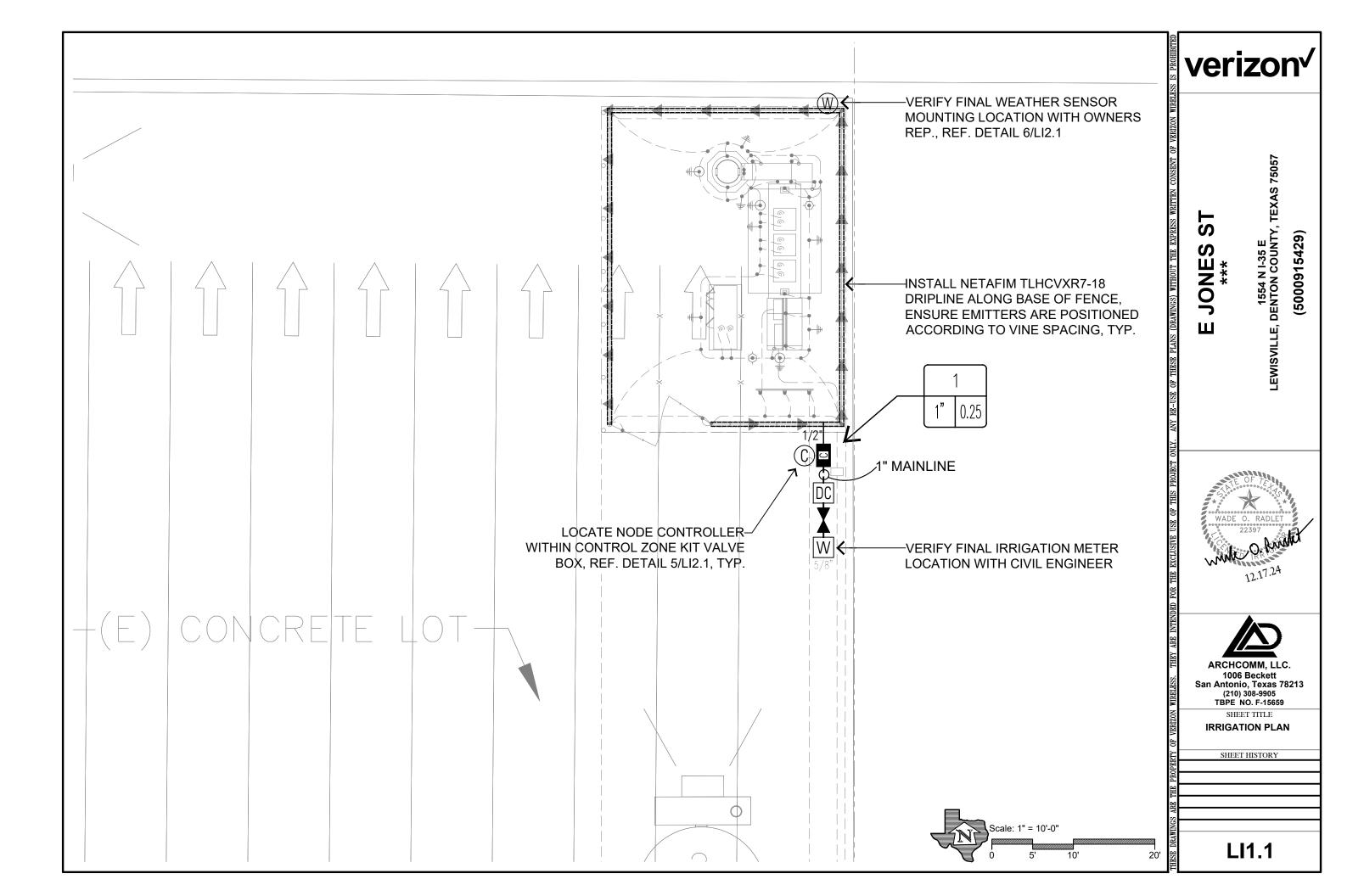
2. ALL WIRES, CONTROL VALVES, AND PRESSURIZED WATER SUPPLY LINES SHALL NOT BE LOCATED WITHIN THE EXISTING ROW OR OUTSIDE PROPERTY BOUNDABIES

"Irrigation in Texas is regulated by the Texas Comm Environmental Quality (TCEQ), MC-178, PO Box 13087, Austin, Texas 78711-3087 TCEQ's website is: www.tceq.state.tx.us"

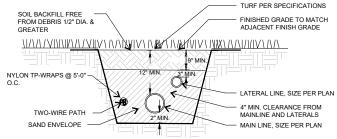
W DEDICATED 5/8" IRRIGATION WATER METER. DC 0 \odot С MANUAL VALVE- SIZE OF MAINLINE MAIN LINE - USE SCH-40 PVC PIPE, SIZE AS INDICATED ON PLANS 1-1/2* LEGEND





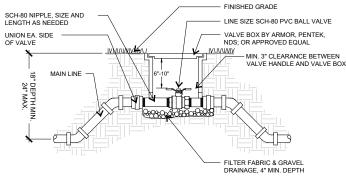


4" MIN. CLEARANCE FROM TWO-WIRE PATH MAINLINE AND LATERALS FILTER FABRIC & GRAVEL SAND ENVELOPE MAIN LINE, SIZE PER PLAN DRAINAGE, 4" MIN. DEPTH PROVIDE CLEARANCE 4 MANUAL ISOLATION VALVE 7 TRENCH PROFILE

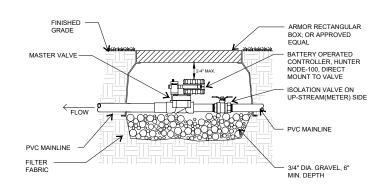




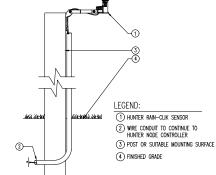
NOTE: 1. MAINLINE DEPTH MAY VARY BETWEEN 12" AND 24" WITH 12" MIN. AT TOP OF PIPE



5 IRRIGATION CONTROLLER

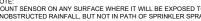


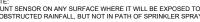


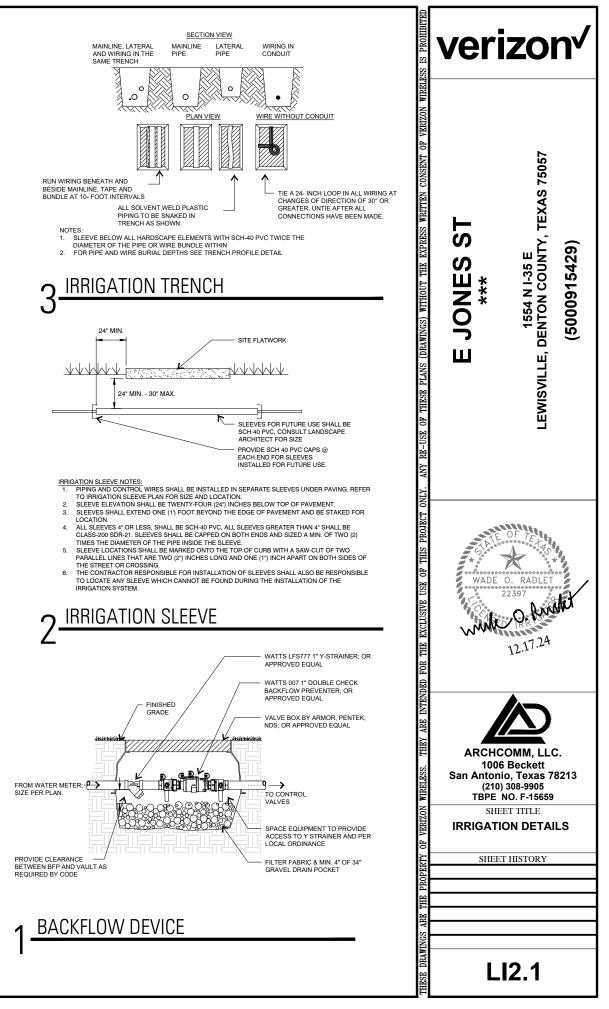


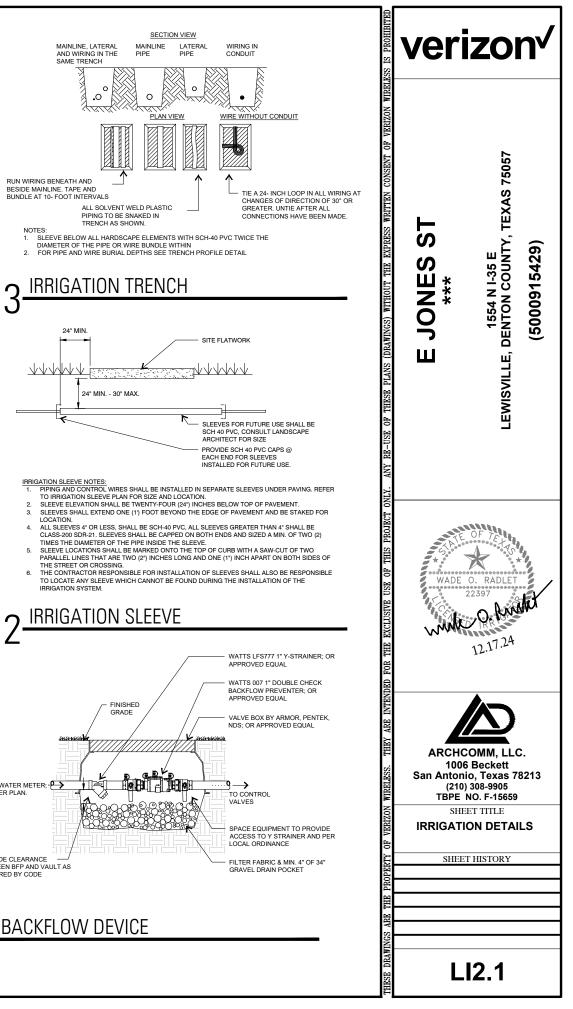
NOTE: MOUNT SENSOR ON ANY SURFACE WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL, BUT NOT IN PATH OF SPRINKLER SPRAY

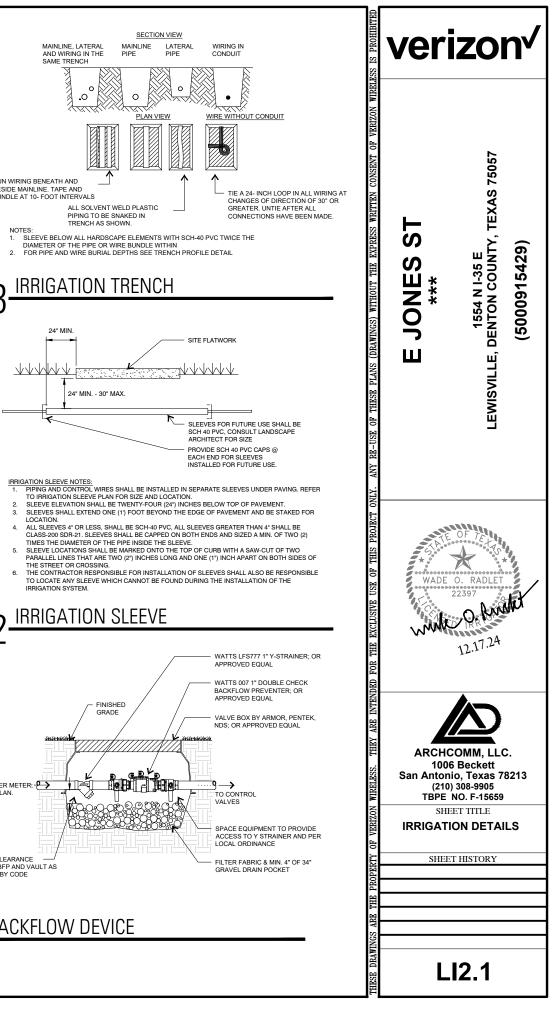


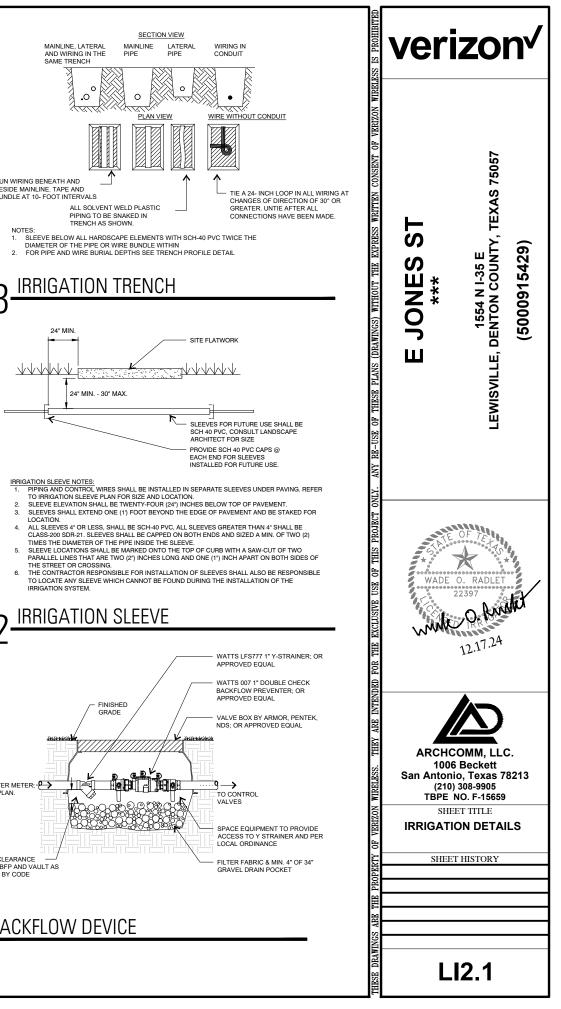


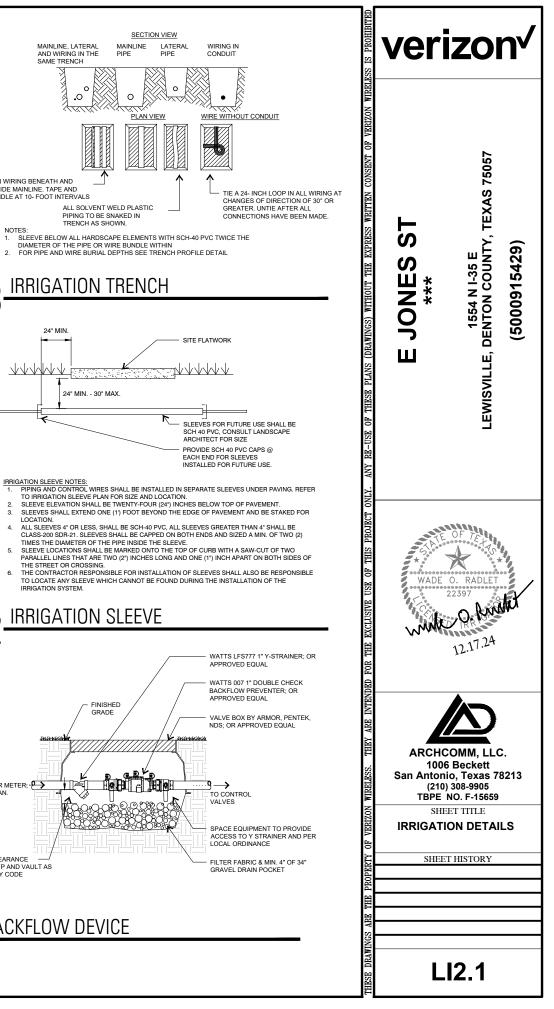




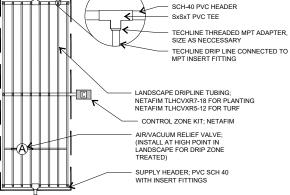








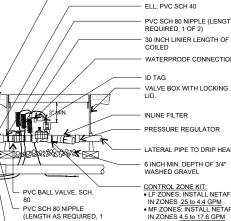




TECHLINE INSERT FITTINGS BY NETAFIM; FLUSH VALVE

(LENGTH AS REQUIRED, 1 OF 2) - ELL: PVC SCH 40 - PVC MAINLINE SCH 40 CONTROL ZONE KIT

1



FINISH GRADE

4 DRIP DESIGN NOTES

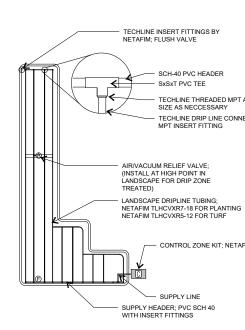
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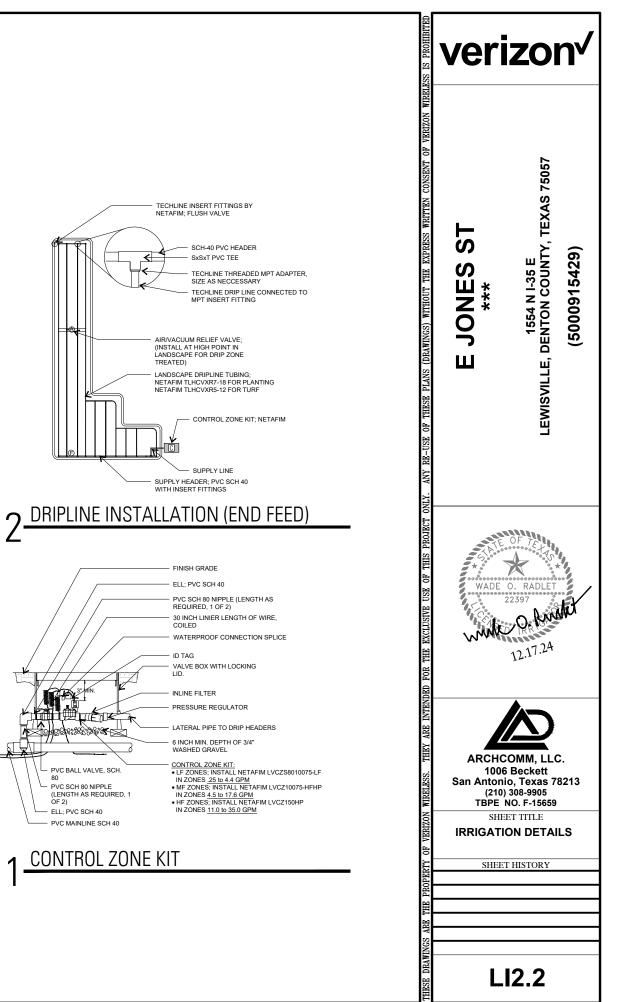
AND MAXIMIZE ZONE SIZE WHEN INSTALLING HCVXR SERIES DRIPLINE.

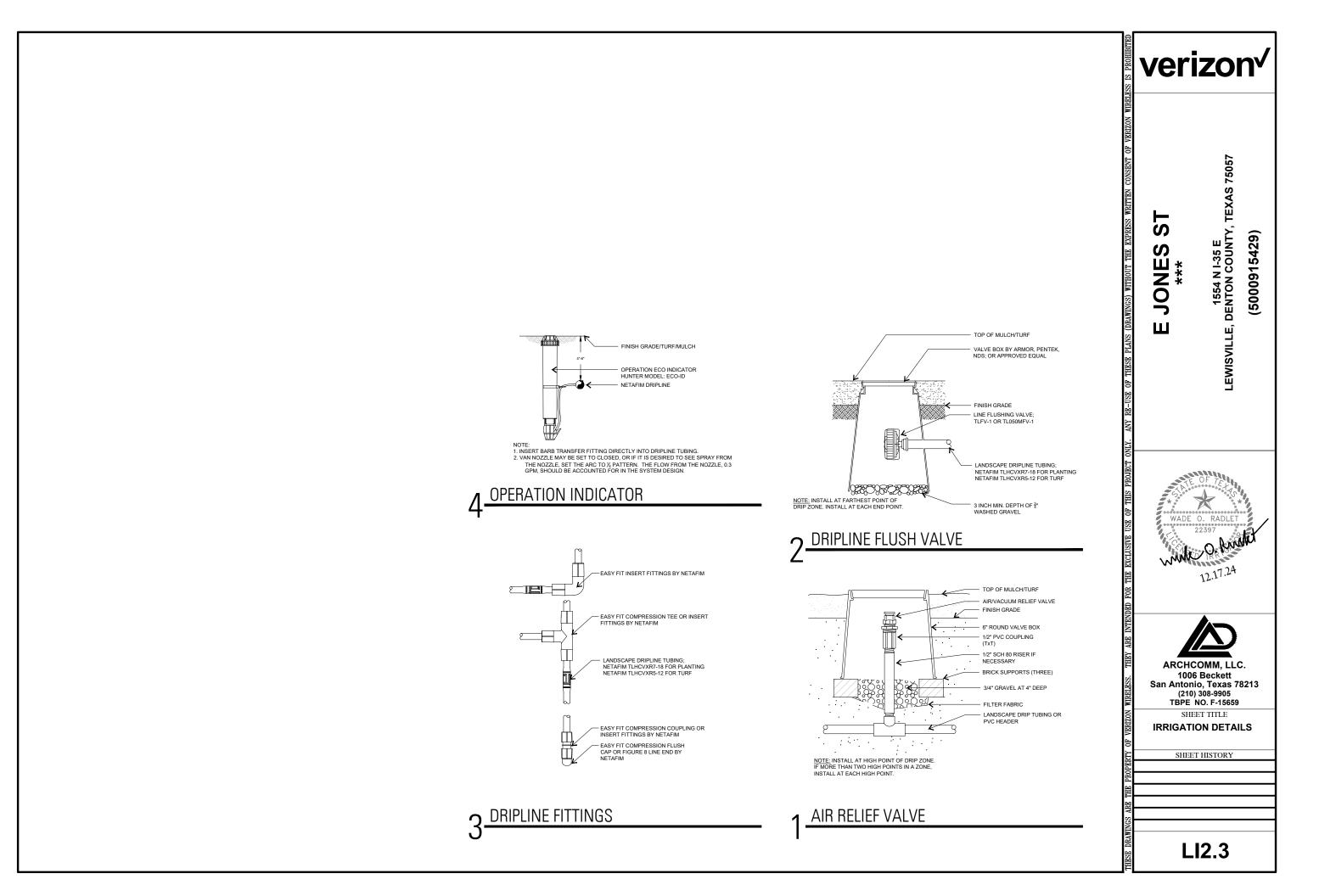
	(17 NIN HCVAR SERIES	5 DRIPLINE)
	TOTAL ZONE FLOW	PIPE SIZE
	UP TO 5 GPM	1/2" SCH 40 PVC or 1/2" CLASS 315 PVC
	5.1 TO 8 GPM	3/4" CLASS 200 PVC
	8.1 TO 13 GPM	1" CLASS 200 PVC
	13.1 TO 22 GPM	1-1/4" CLASS 200 PVC
	22.1 TO 31 GPM	1-1/2" CLASS 200 PVC
NC	TE: A 45 PSI PRESSUP	RE REGULATOR IS RECOMMENDED TO OBTAIN MAXIMUM RUN LENGTHS

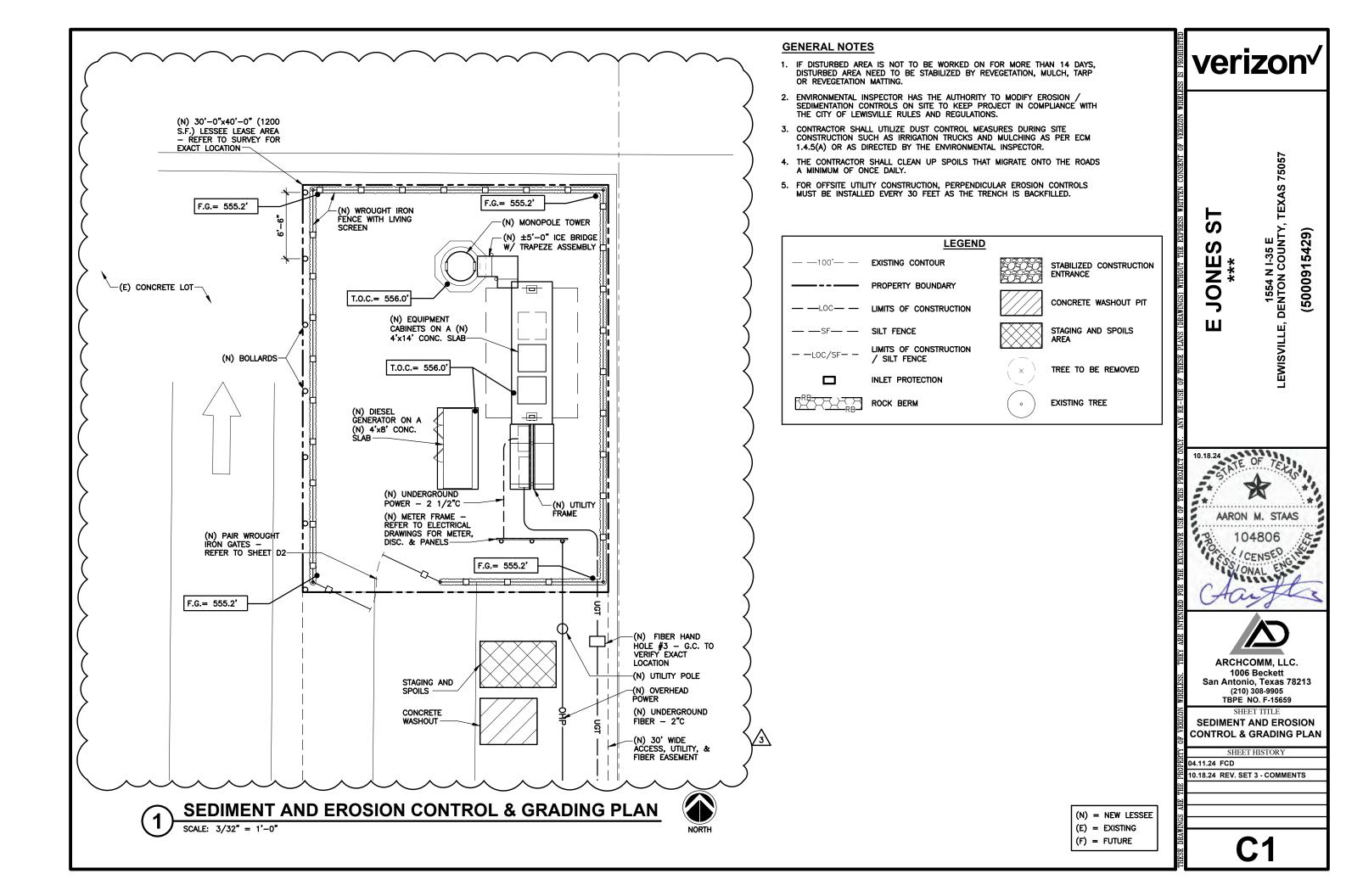
PROPER SIZING OF SUPPLY AND EXHAUST HEADERS

- WHEN CONFILIOTS OCCUR BE IWEEN THESE DRAWINGS AND THE MANUFACTURER'S SPECIFICATIONS DEFER TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
 EACH DRIP ZONE SHALL HAVE A DRIP SYSTEM OPERATION INDICATOR, AS MANUFACTURED BY NETAFIM. INSTALL PER NETAFIM RECOMMENDATIONS.
- 6.) WHEN CONFLICTS OCCUR BETWEEN THESE DRAWINGS AND THE
- INSTALLATION OF EUFICIA TIONS. 5) NETAFIM HCXXR SERIES DRIP LINE SHALL BE USED AS FOLLOWS; TURF AREAS; TLHCVXR5-12, ROWS SPACED AT 12 INCHES BED AREAS; TLHCVXR7-18, ROWS SPACED AT 18 INCHES BED AREAS WITH SLOPE 3:1 OR MORE; TLHCVXR7-12
- MANUFACTURER SPACED A MAX. OF 3' ON CENTER. 4) DRIP LATERALS SHOWN ON THE PLANS ARE USED TO INDICATE ZONING SIZES AND RELATIONSHIPS, INSTALLATION OF DRIP ZONES SHALL FOLLOW ONE OF THE TWO METHODS DESCRIBED IN DTLS. 2/3-LI 2.2. AND NETAFIM'S RECOMMENDED INSTALLATION SPECIFICATIONS.
- IN TURE AREAS. 2.) STAGGER EMITTER SPACING IN PARALLEL ROWS TO CREATE TRIANGULAR WETTING PATTERN. 3.) ALL DRIP LINE SHALL BE SECURED USING SOIL STAPLES AS SUPPLIED BY THE MANUFACTURER SPACED A MAX. OF 3' ON CENTER.
- 1.) DRIP LINE SHALL BE BURIED 3" TO 5" BELOW FINISHED SOIL GRADE IN PLANTING BEDS AFTER PLANTING AND BEFORE MULCH AND 4" TO 6" BELOW FINISHED GRADE IN TURE AREAS.



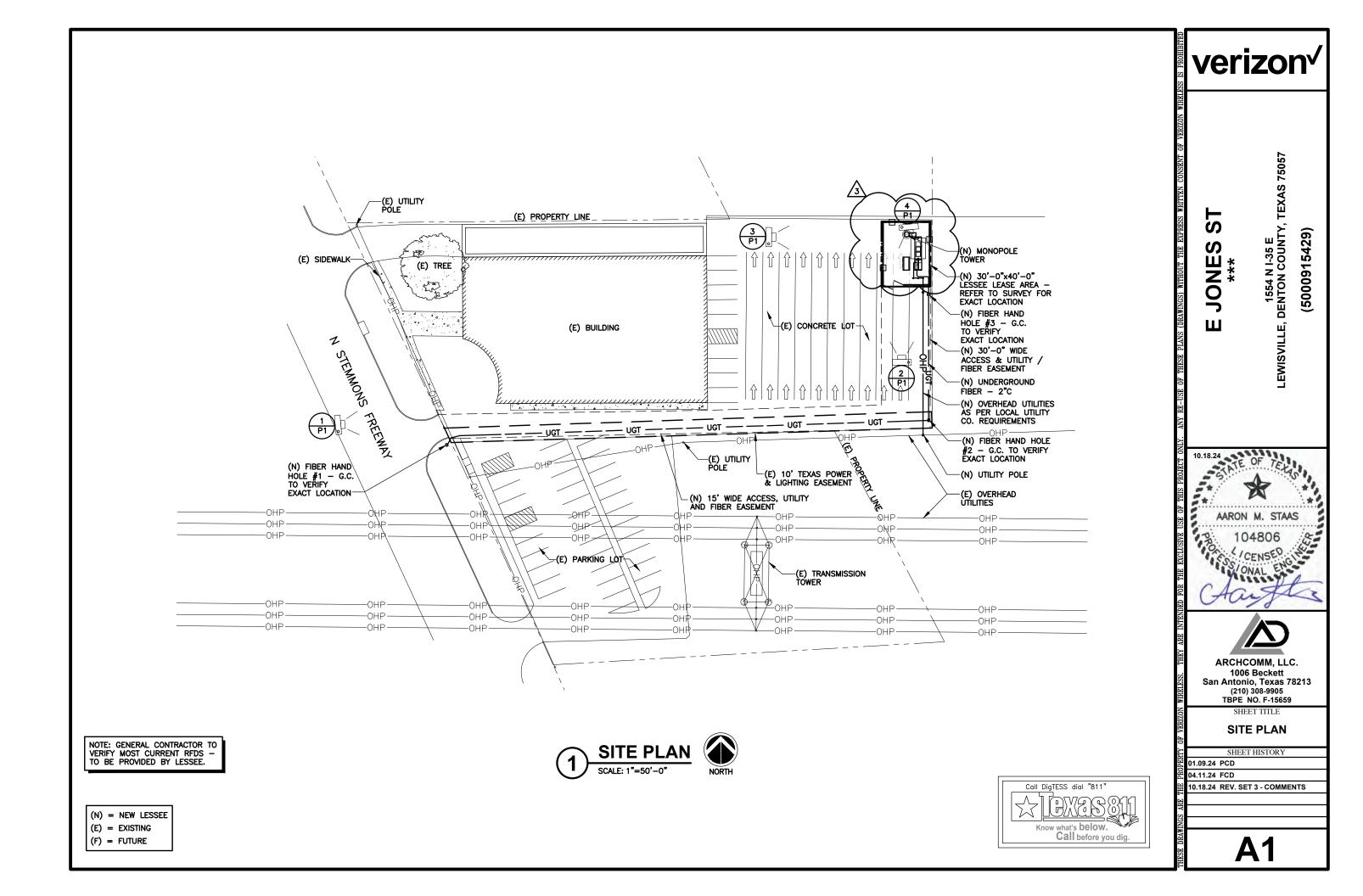


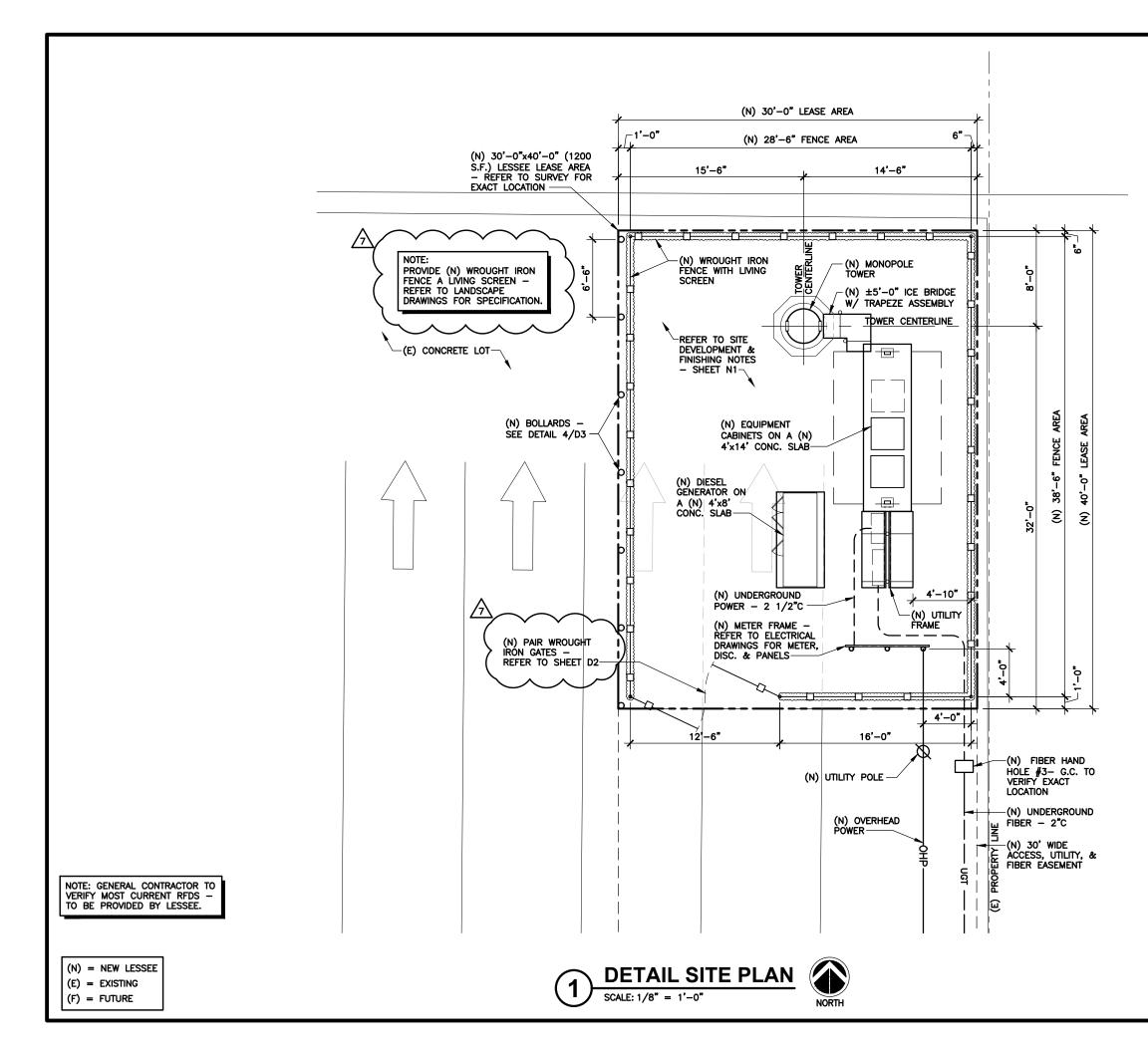


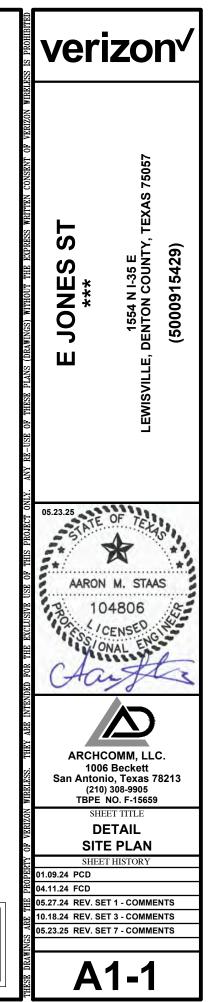




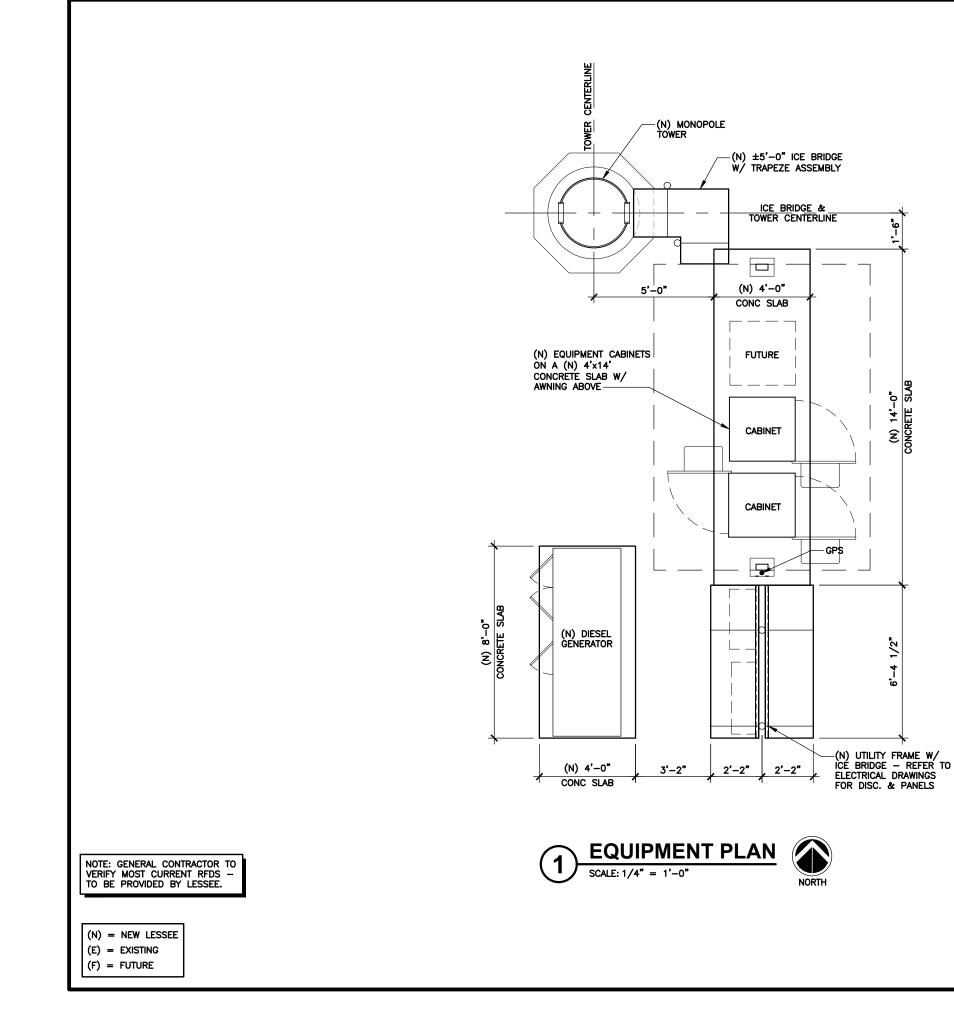


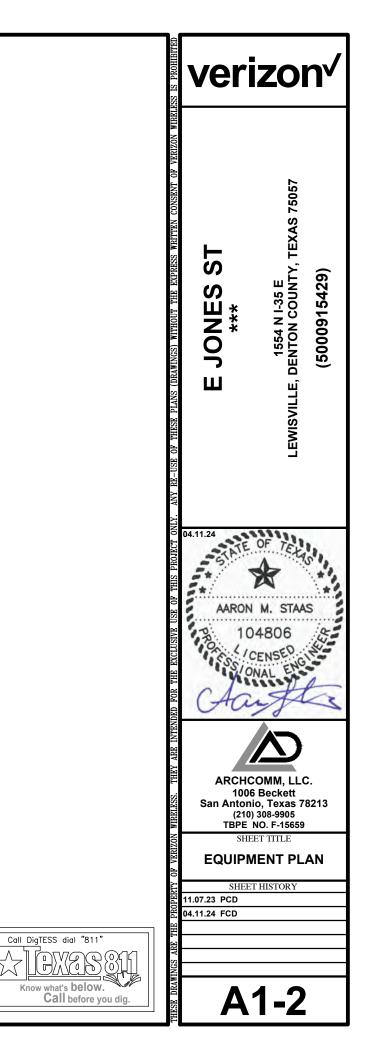


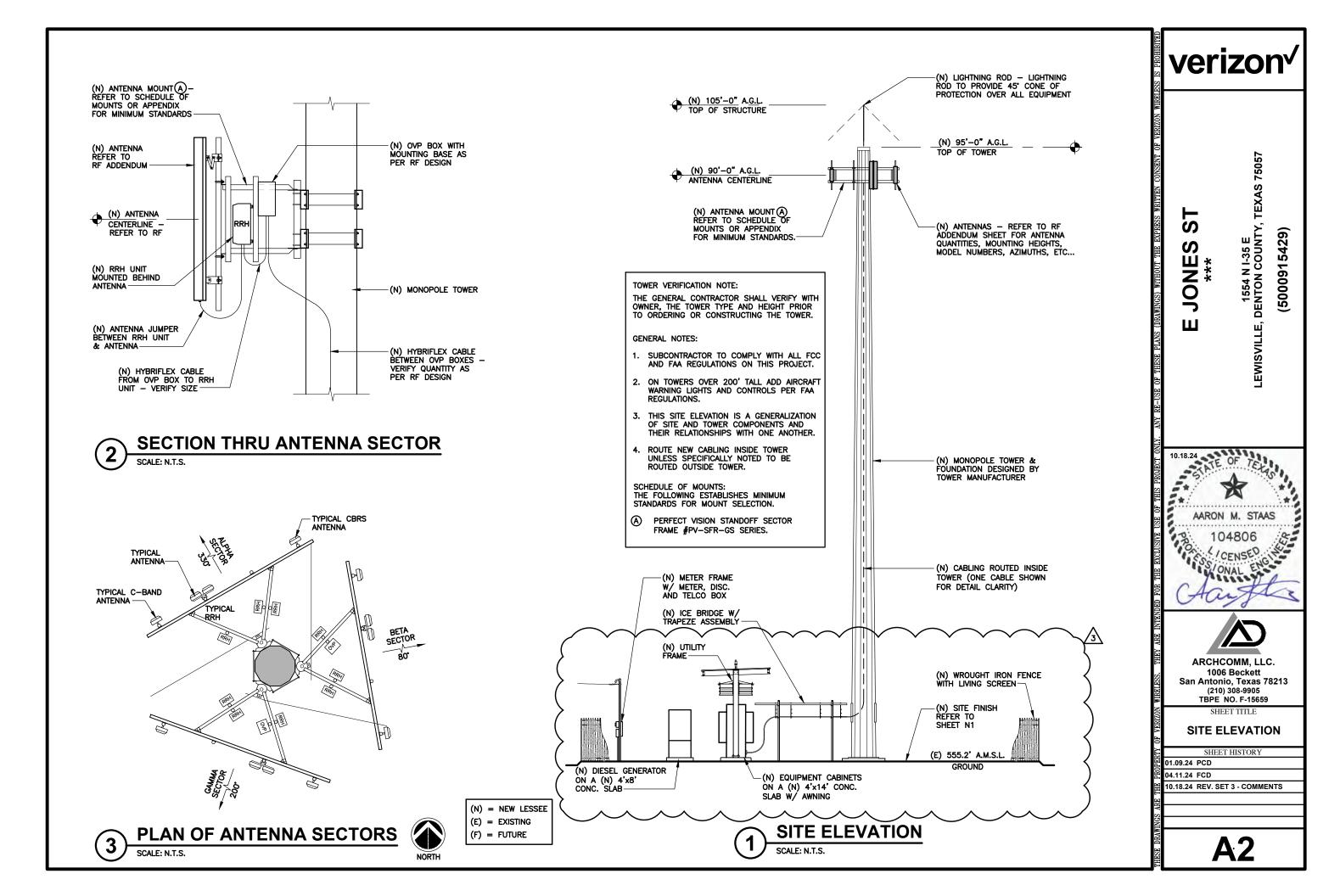


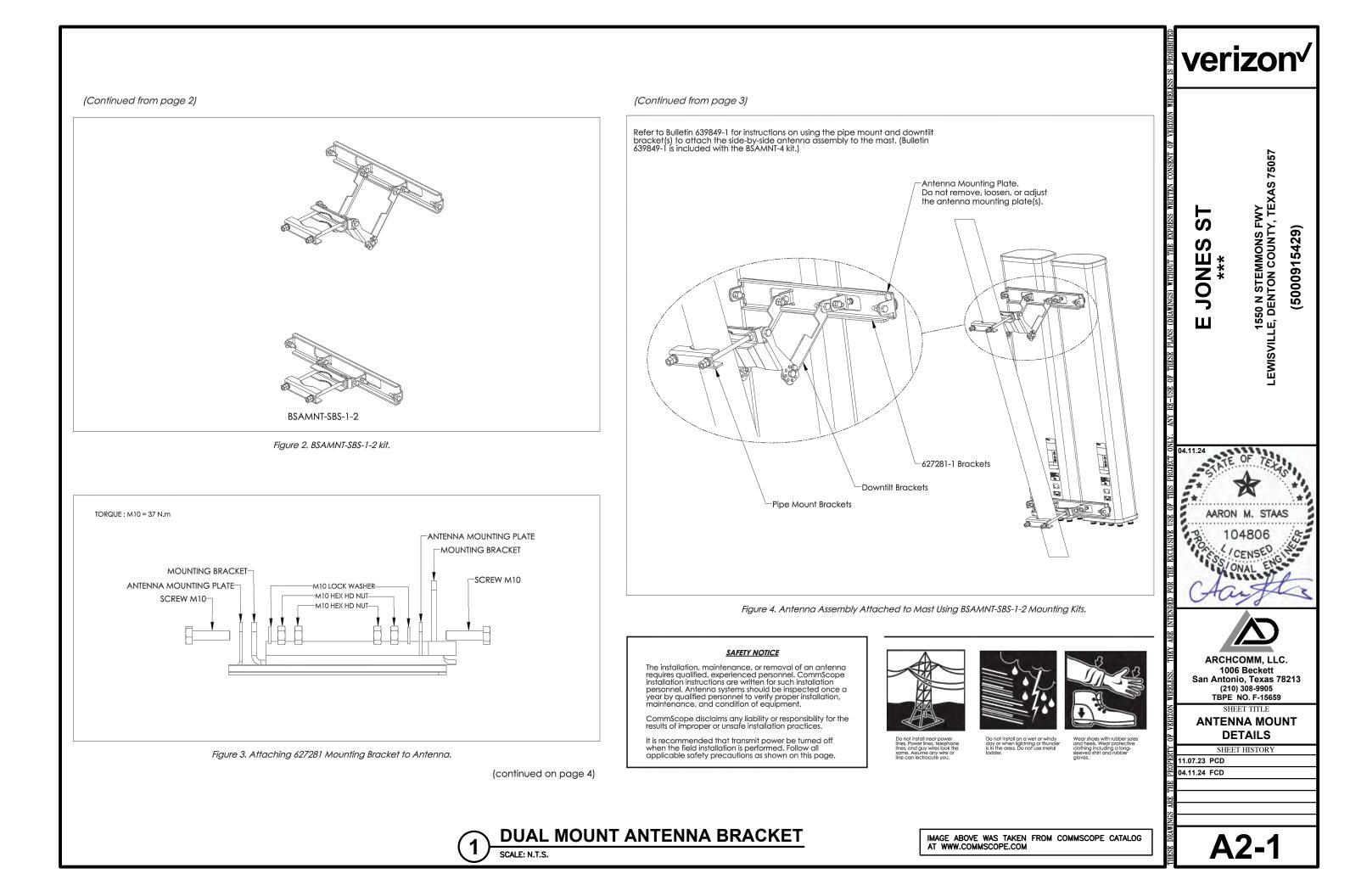


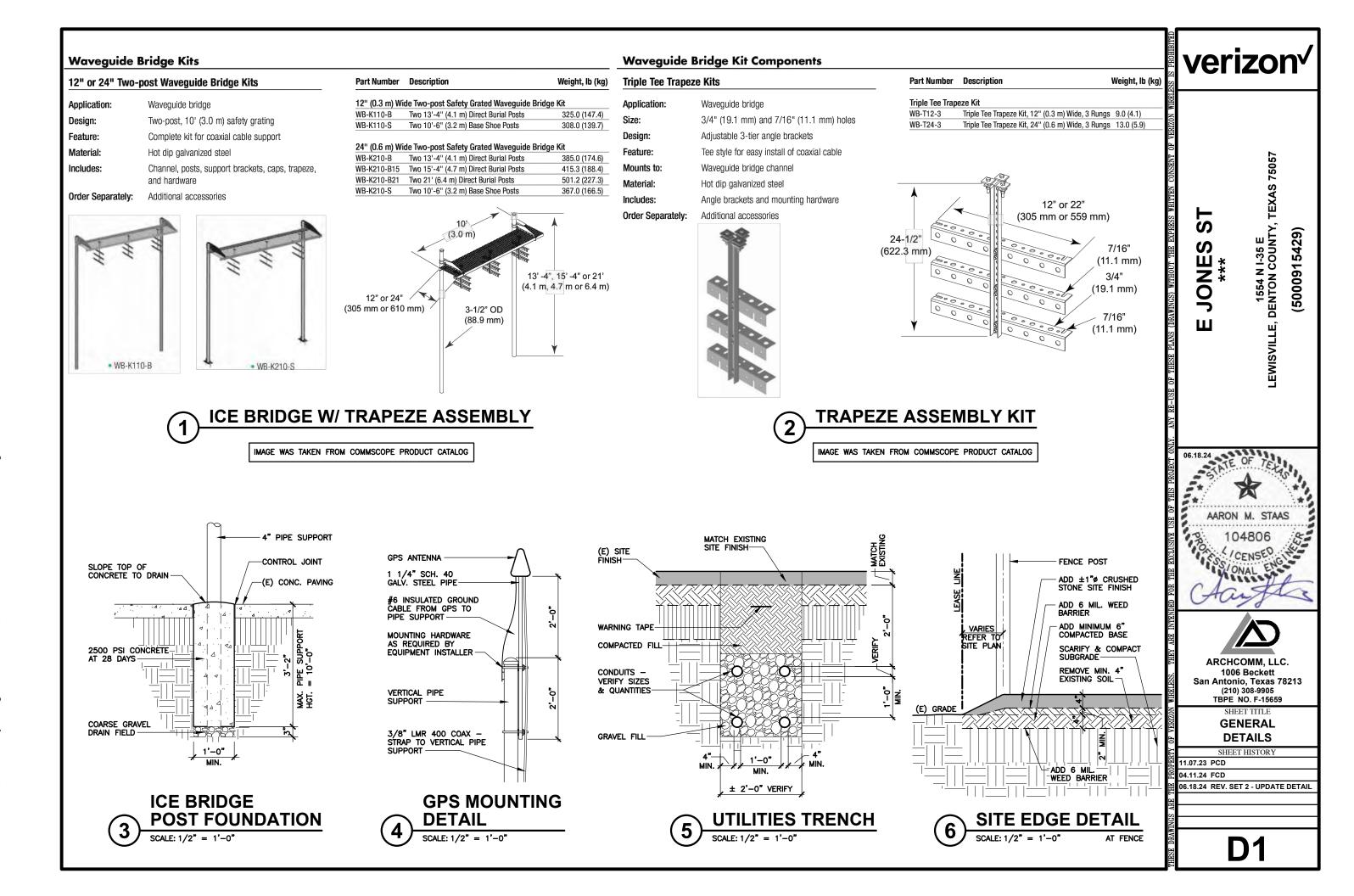


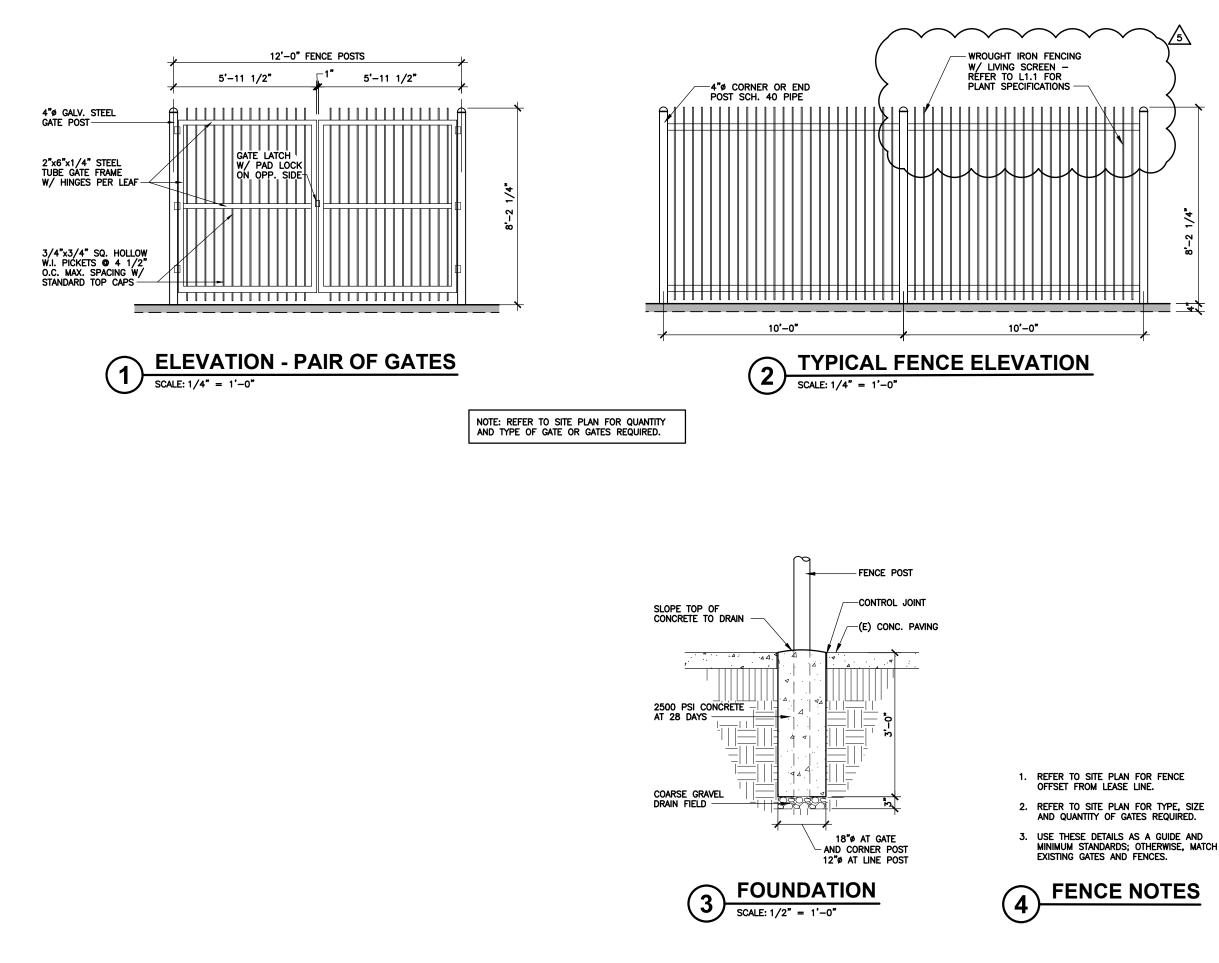


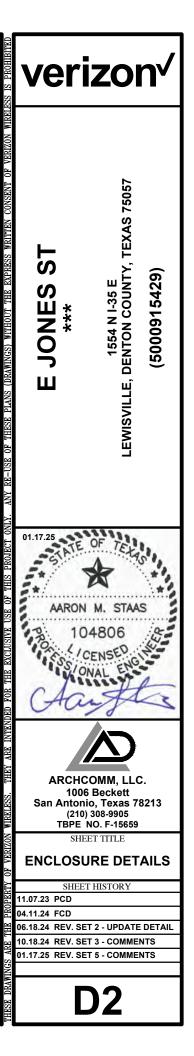


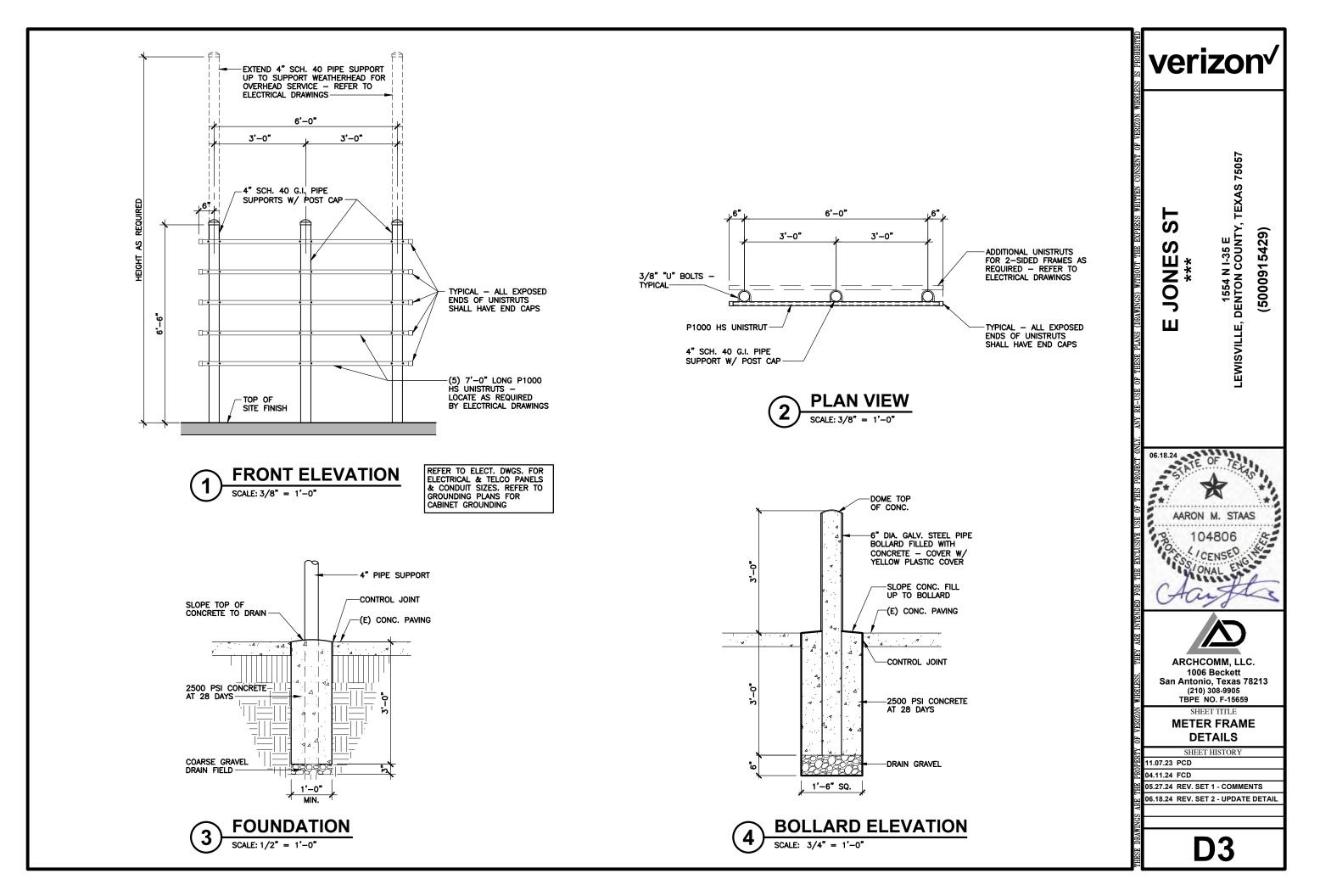


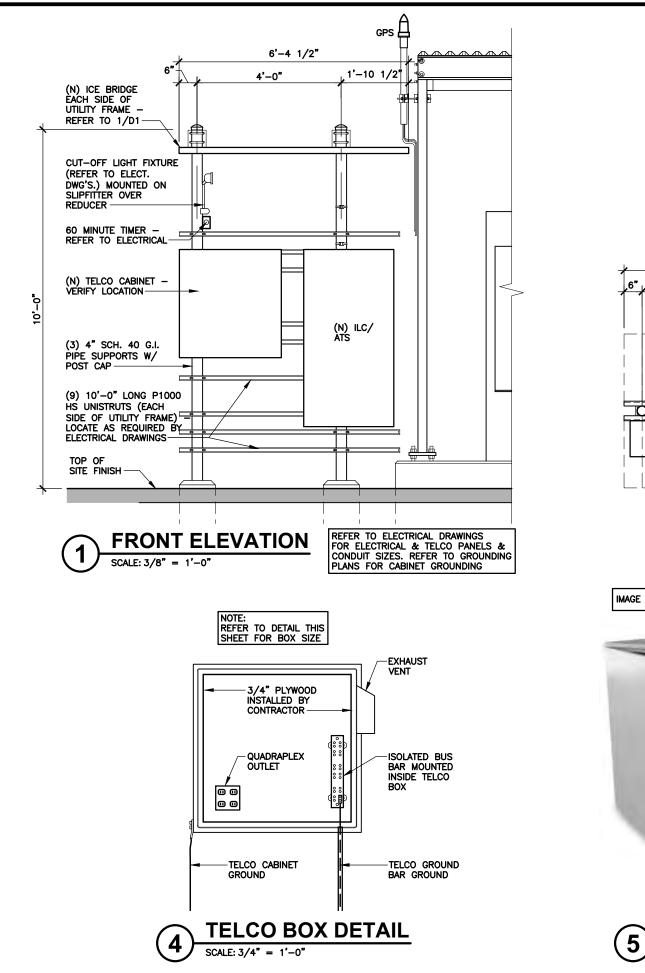


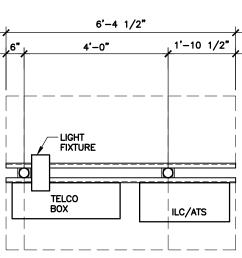


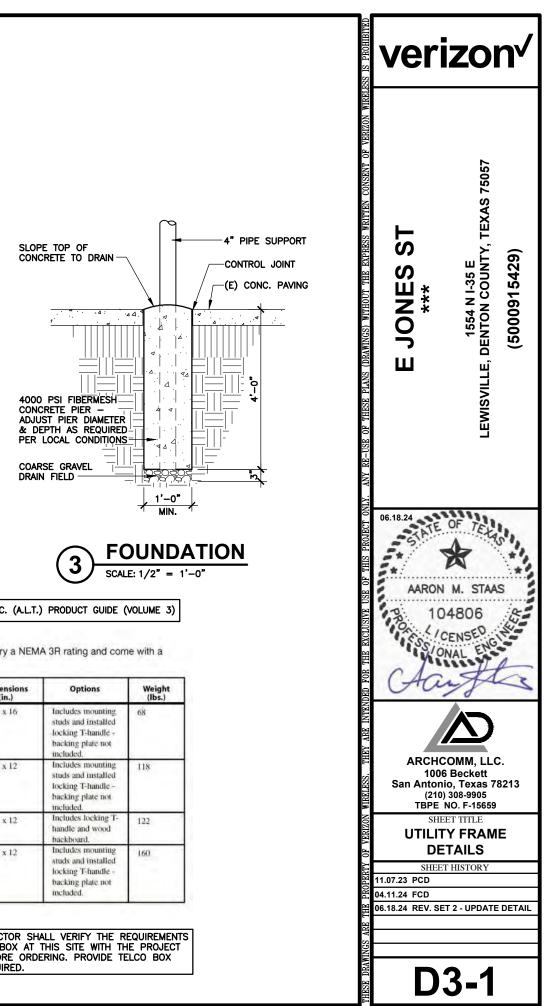












PLAN VIEW SCALE: 3/8" = 1'-0"

e:

NO SCALE

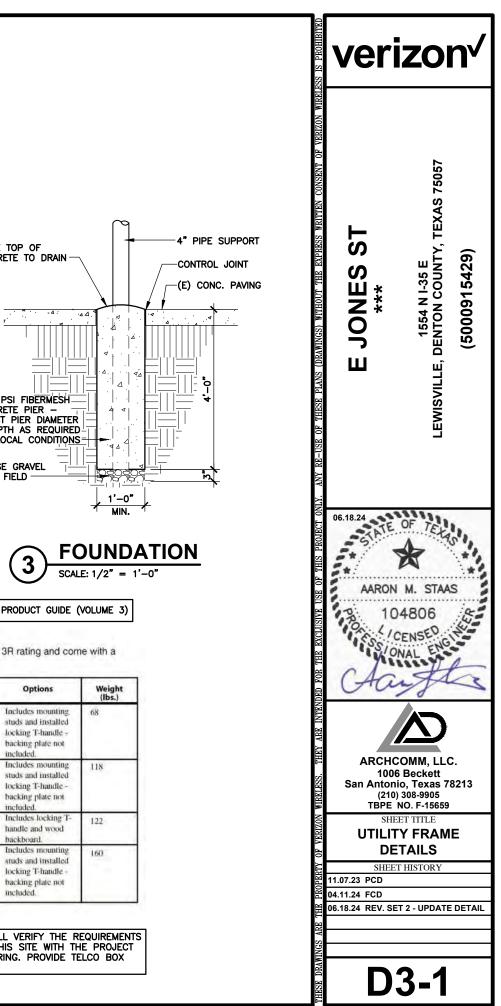
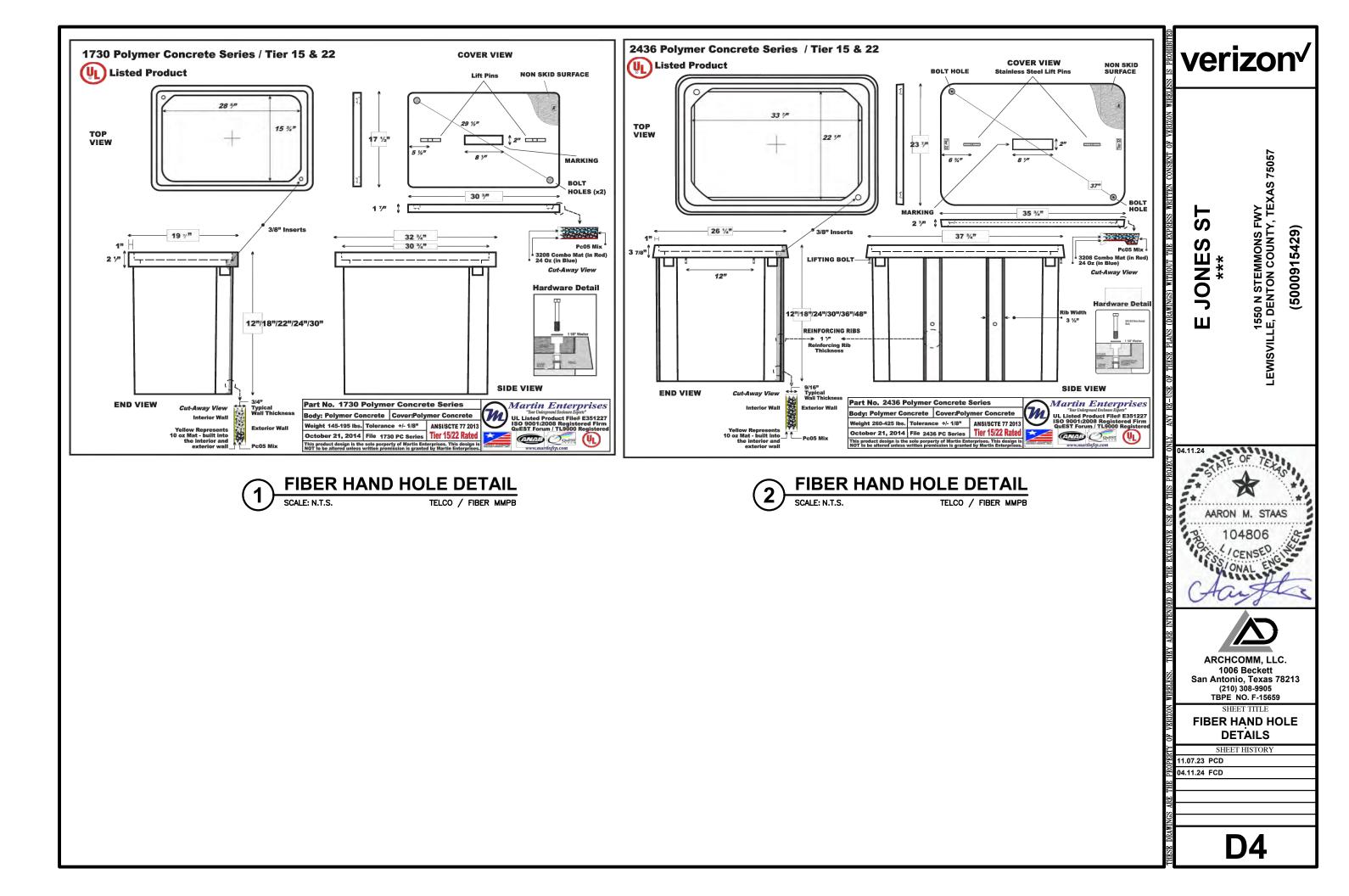
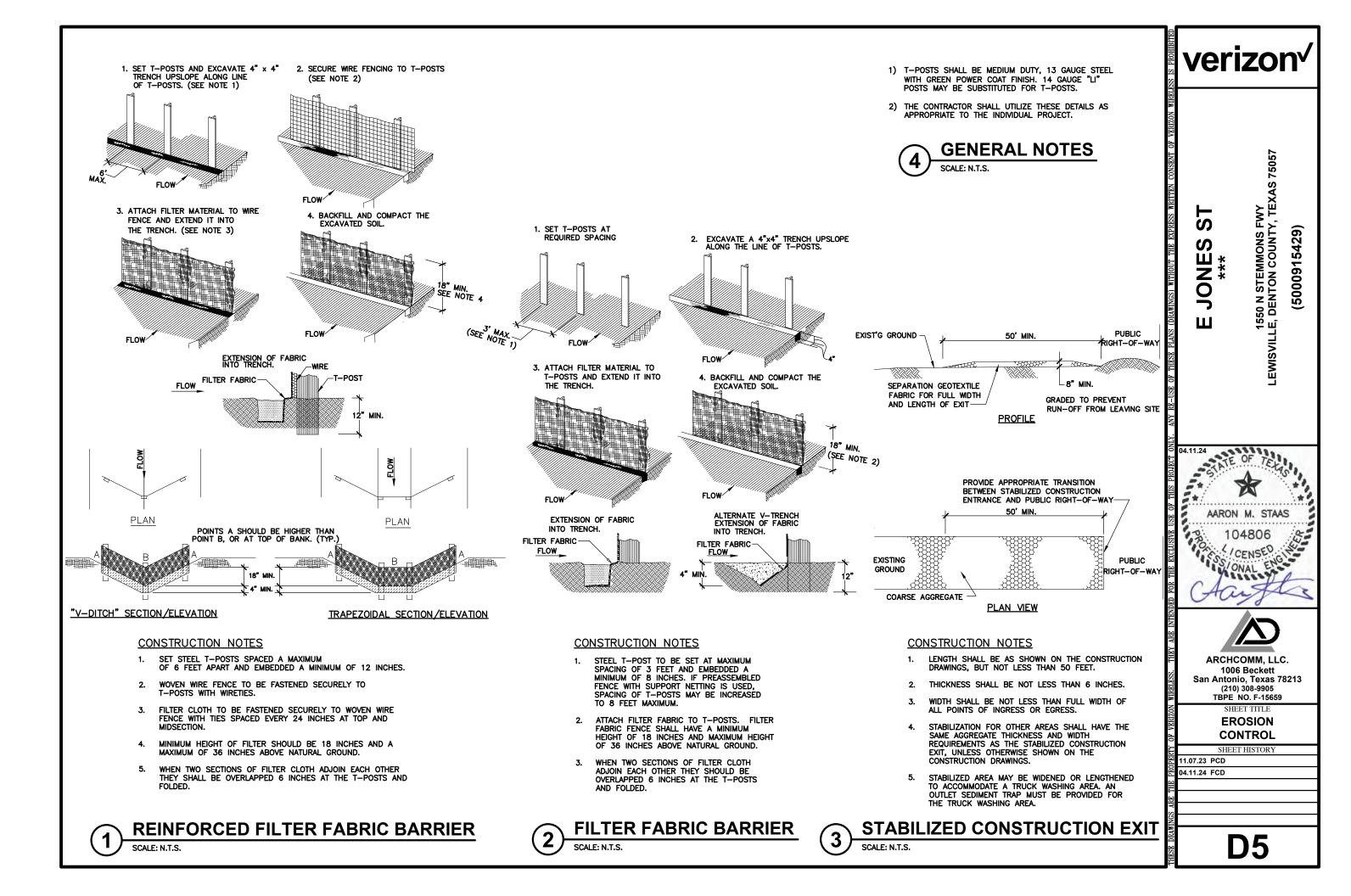


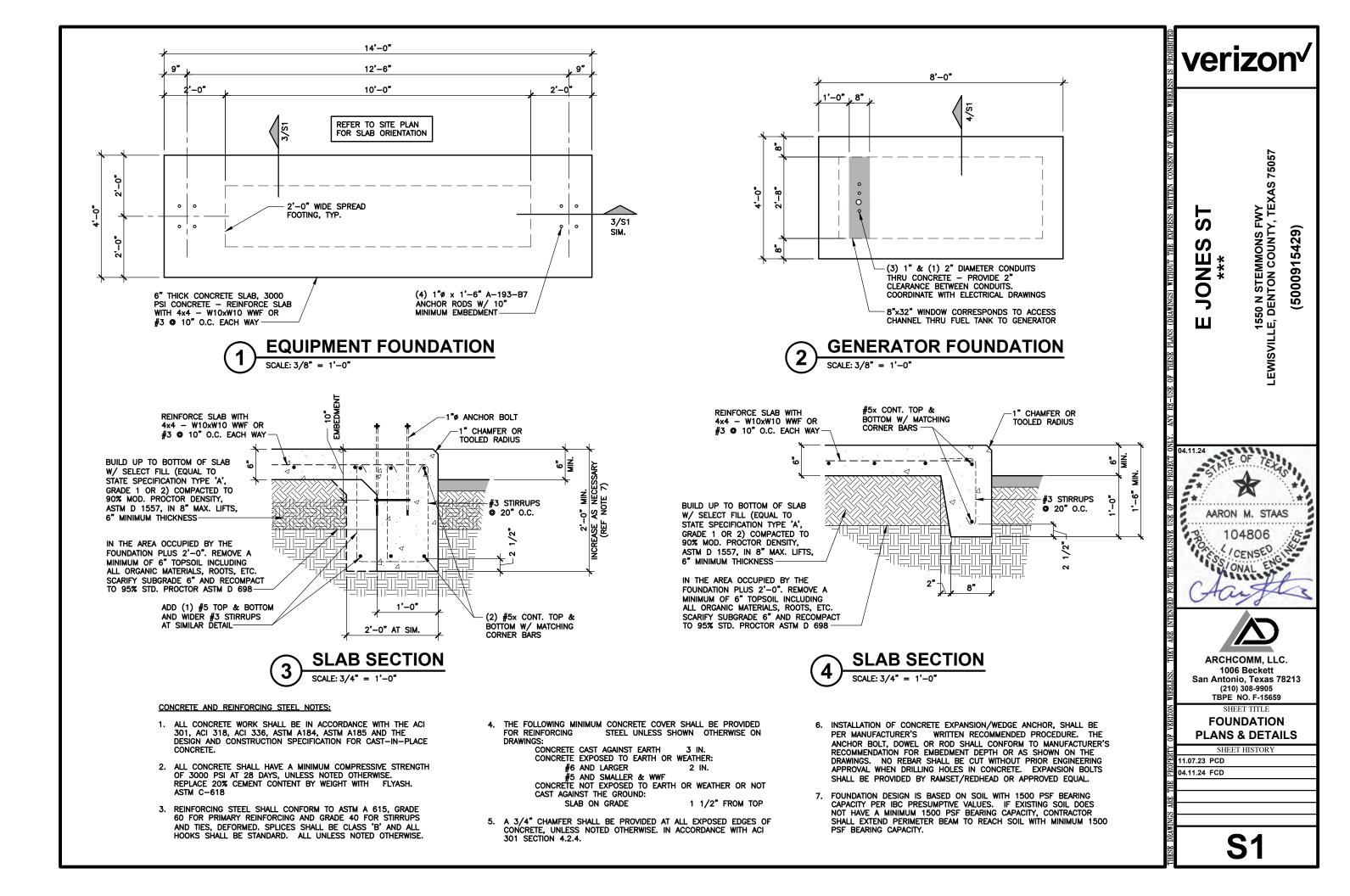
IMAGE BELOW WAS TAKEN FROM ADVANCED LIGHTNING TECHNOLOGY, INC. (A.L.T.) PRODUCT GUIDE (VOLUME 3)

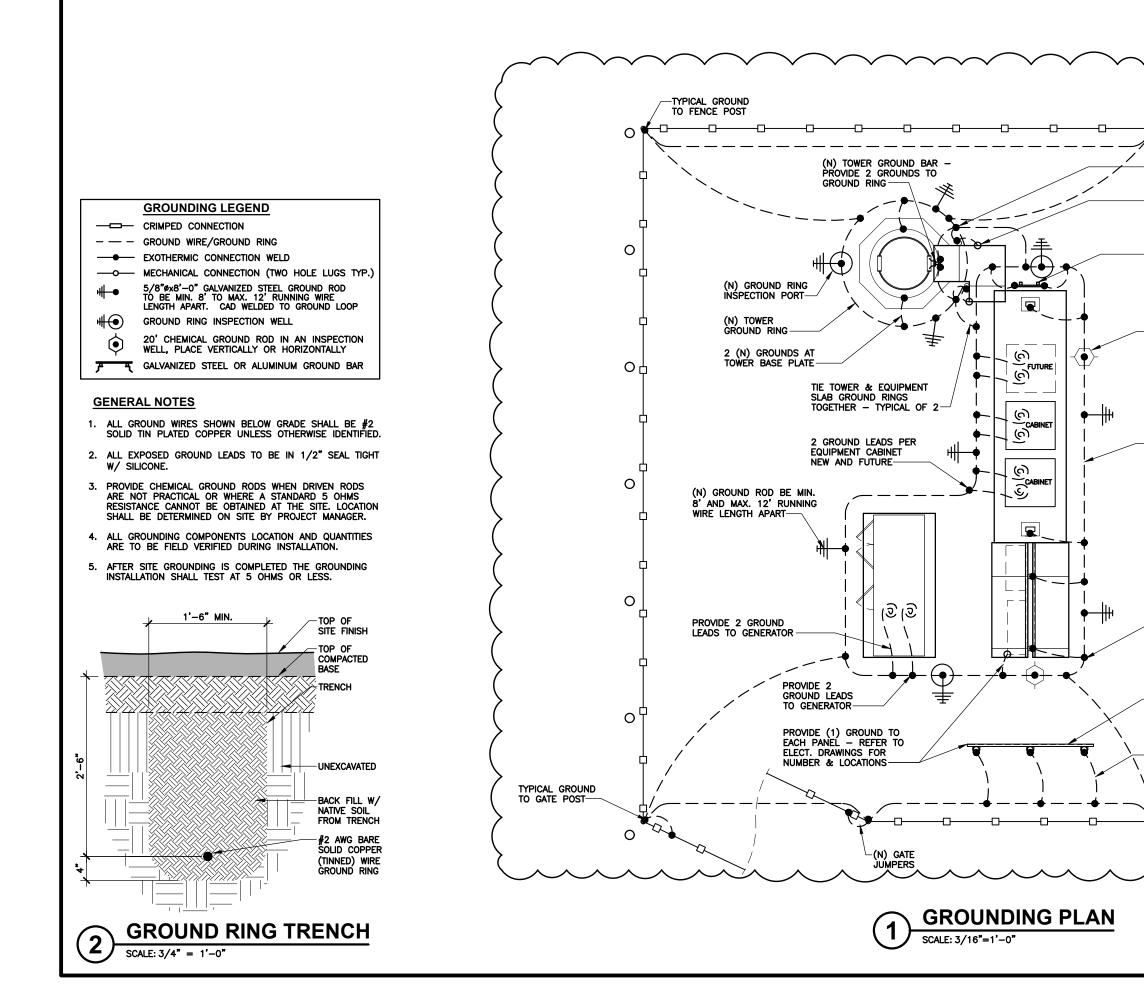
Telco Box All Telco Boxes carry a NEMA 3R rating and come with a hinged cover. Catalog No. Dimensions (in.) 5950-24x24x16 24 x 24 x 16 595()-3()x36x12 30 x 36 x 12 5950-36x36x12 36 x 36 x 12 5950-36x48x12 36 x 48 x 12

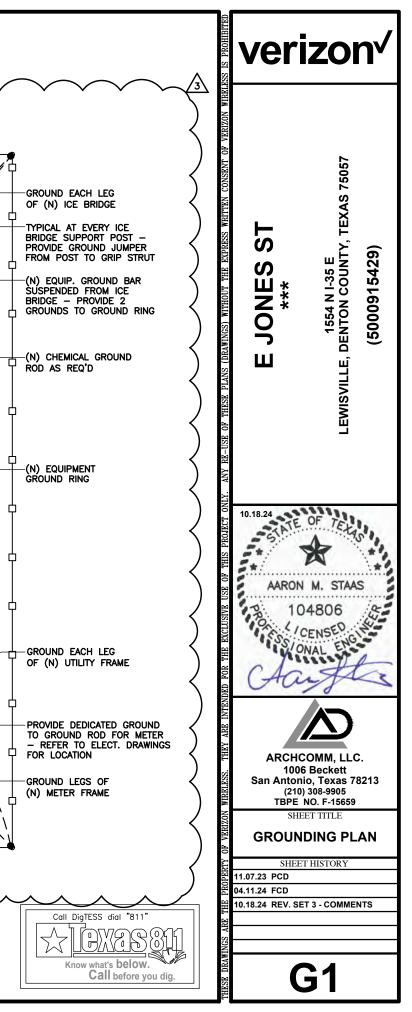
TELCO BOX SCAN ONLY AS REQUIRED.

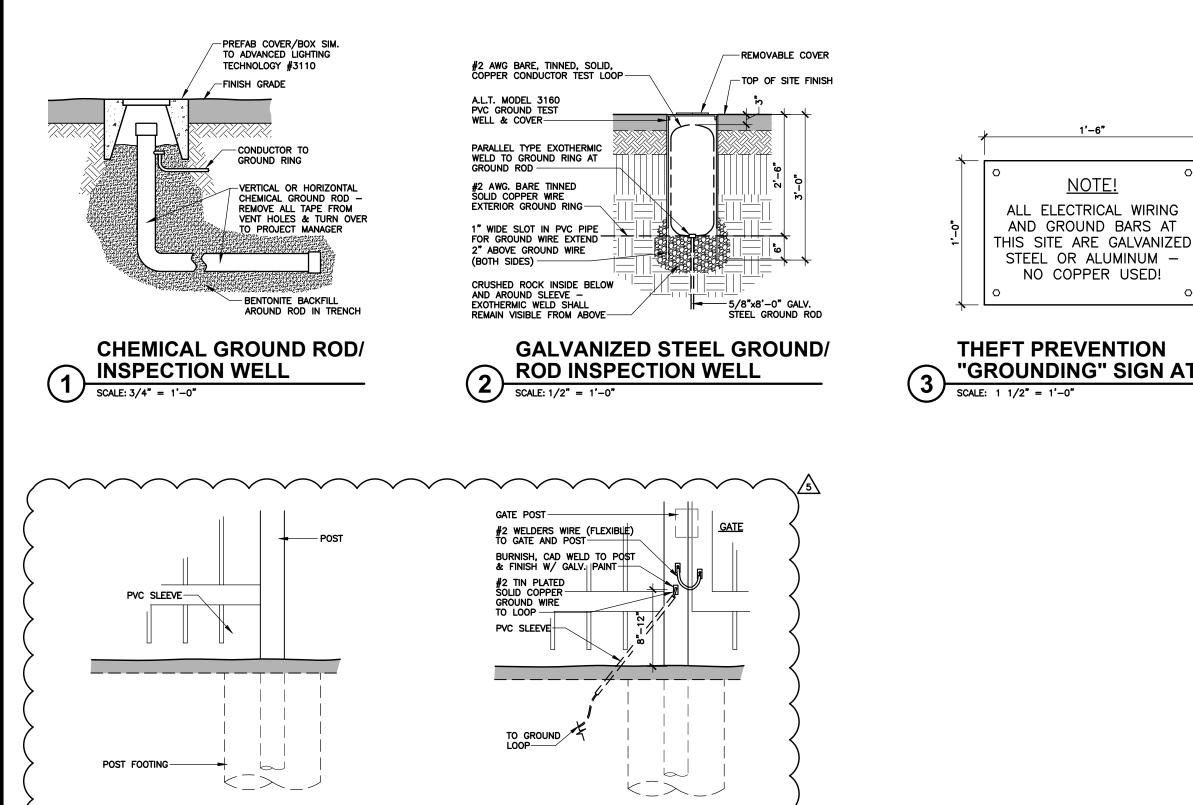












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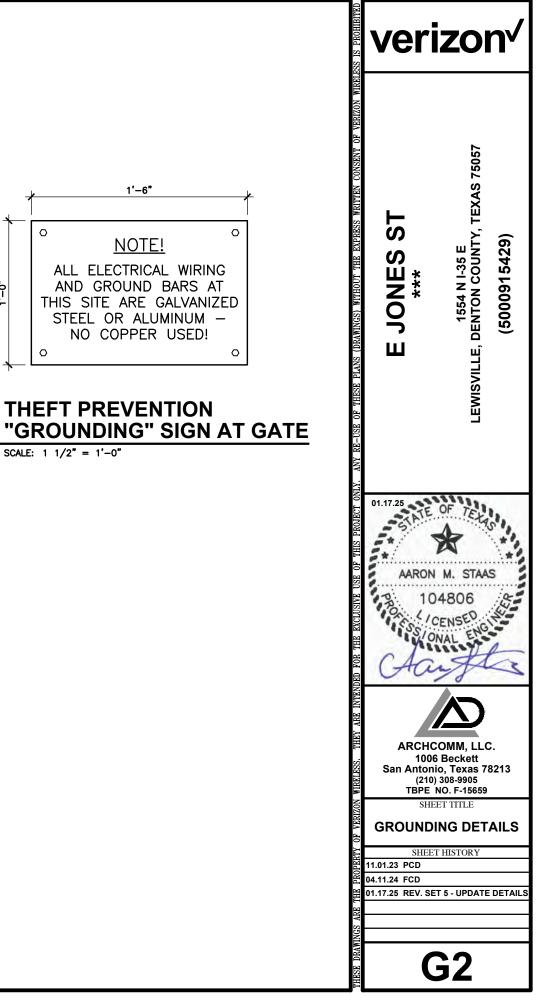
SCALE: 1'' = 1' - 0''

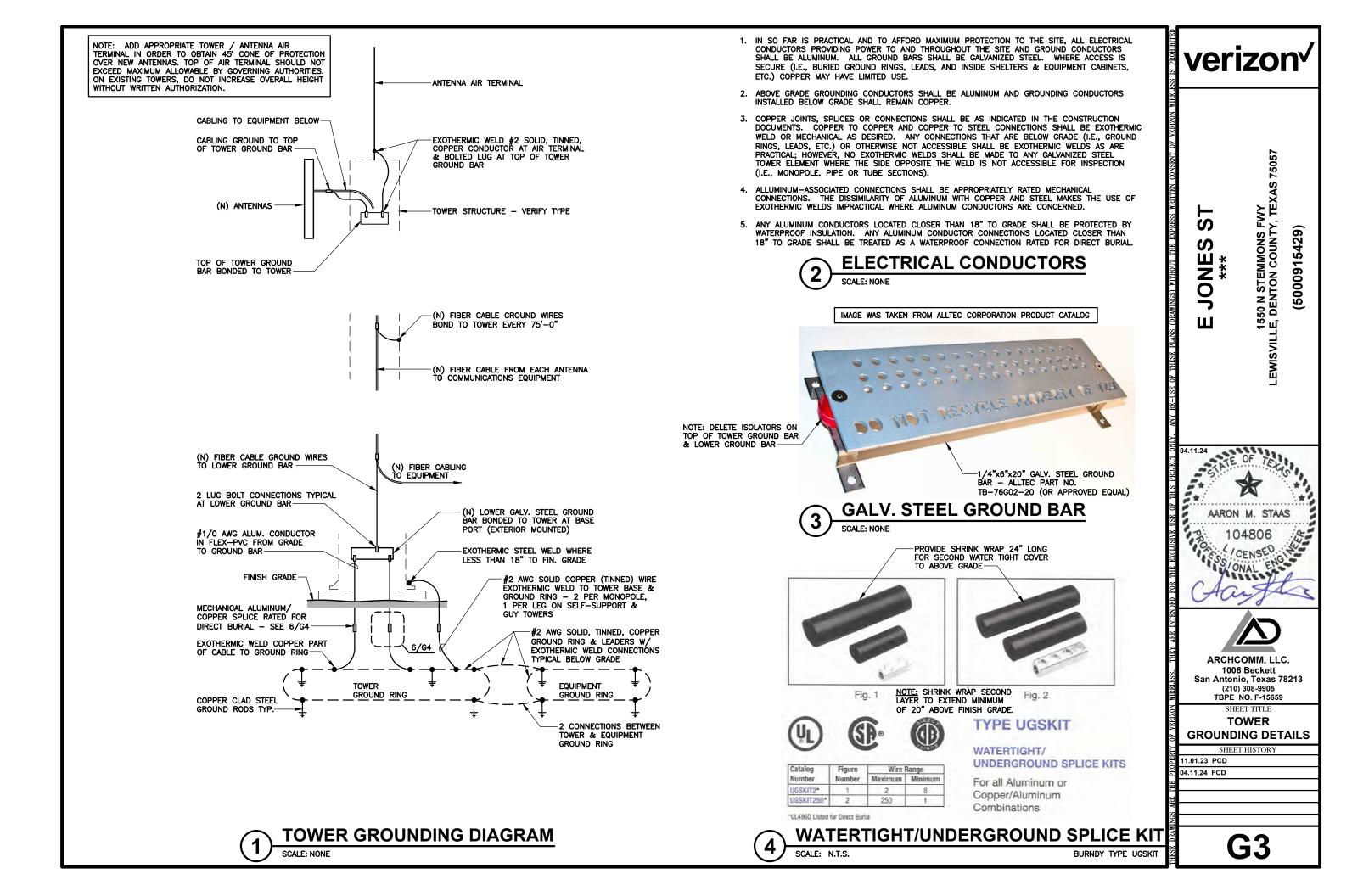
GATE POST GROUNDING

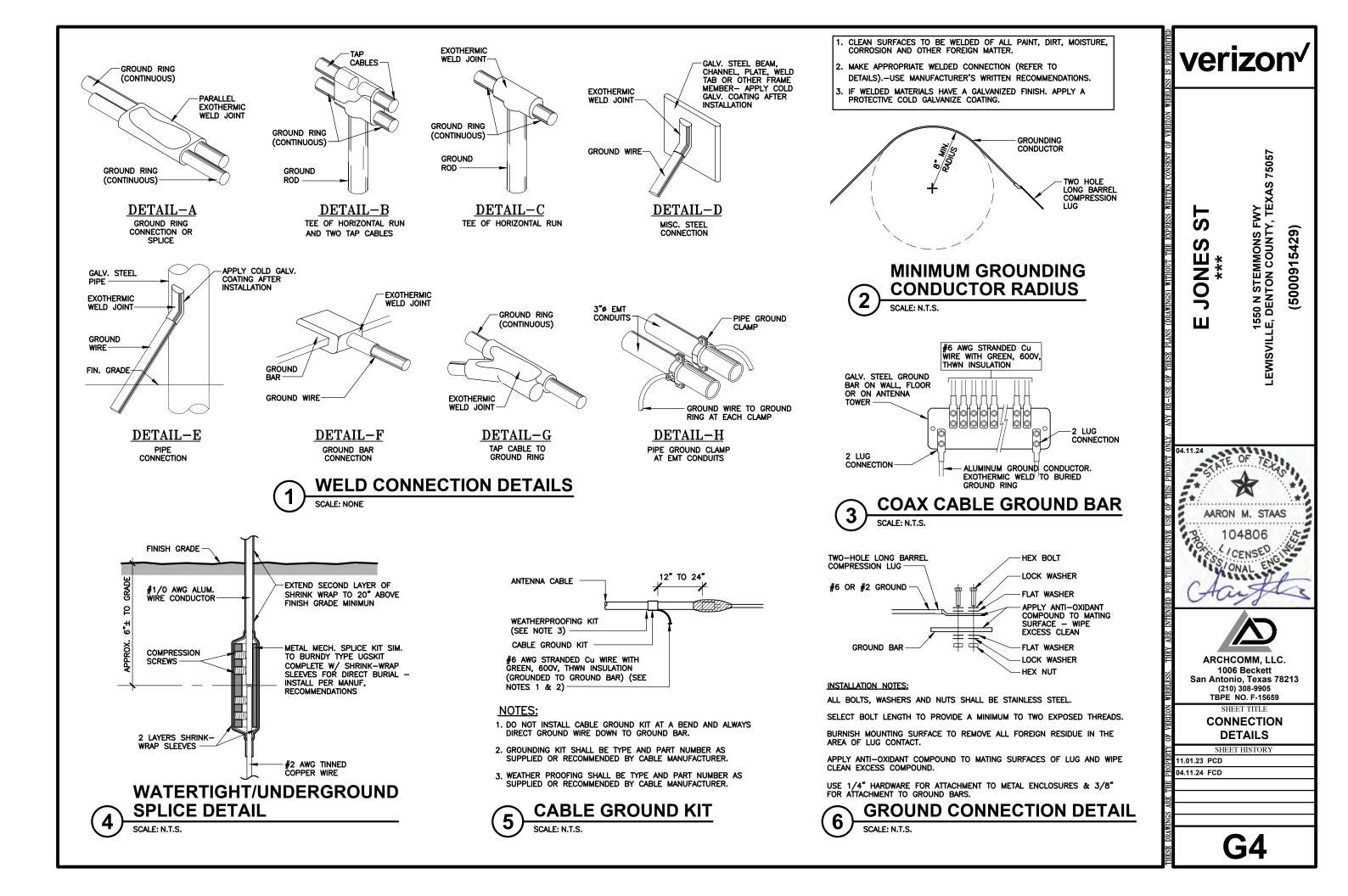
FENCE POST GROUNDING

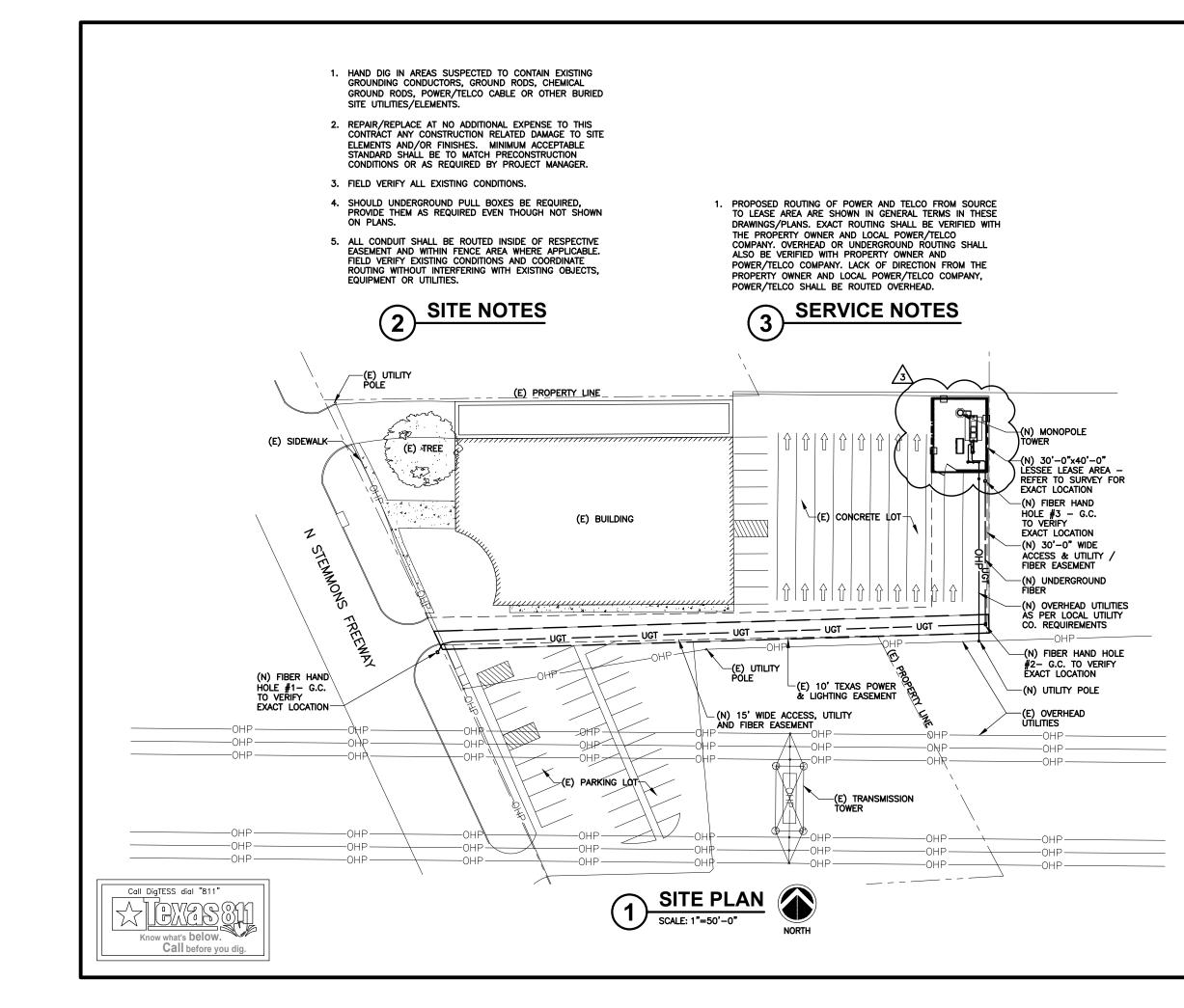
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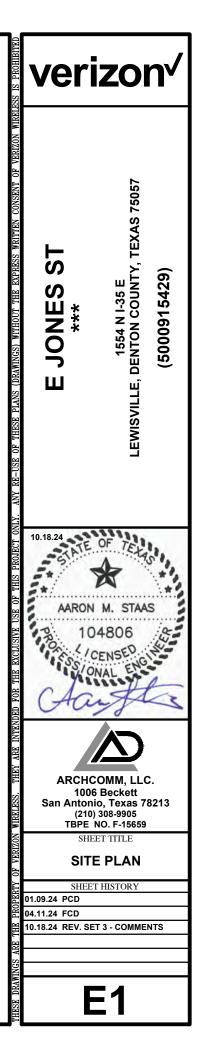
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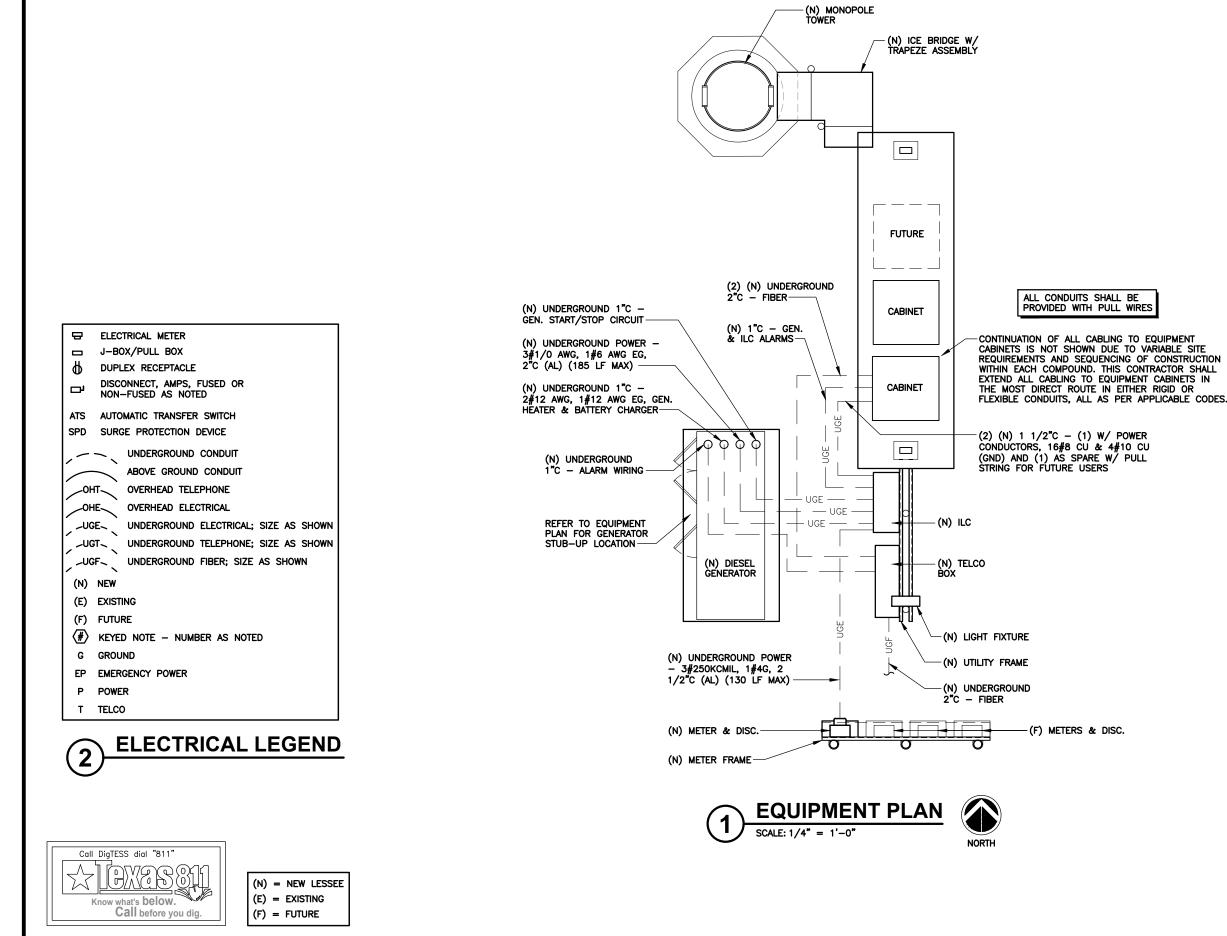


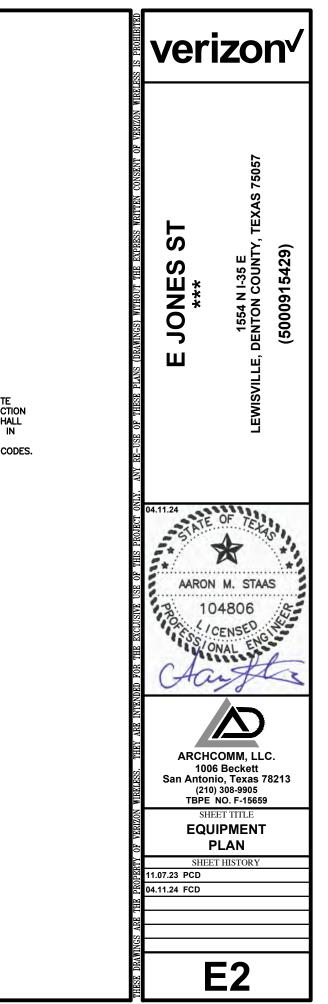






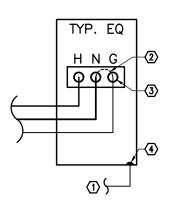






- 1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRICAL AND BUILDING CODES AND ALL OTHER CODES HAVING JURISDICTION. ALL CONDUITS SHALL INCLUDE PULL WIRES.
- 2. ALL COPPER CONDUCTORS SHALL BE TYPE THWN, MINIMUM SIZE #12 AWG. EXCEPT CONTROL WIRING. ALL ALUMINUM CONDUCTORS SHALL BE AA-8000 SERIES TYPE.
- 3. ELECTRICAL CONTRACTOR SHALL CONNECT GROUNDS FROM ELECTRICAL EQUIPMENT ENCLOSURES TO EXTERNAL GROUND LOOP. CIRCUIT GROUNDS SHALL BE ISOLATED FROM EQUIPMENT GROUND AND SHALL BE ROUTED ISOLATED THROUGH TO THE GUTTER.
- 4. ELECTRICAL CONTRACTOR SHALL PAY FOR AND COORDINATE ELECTRICAL SERVICE UPGRADES WITH LOCAL UTILITY COMPANY.
- 5. ELECTRICAL CONTRACTOR SHALL FILL TRENCH EXCAVATIONS AS NOTED IN TRENCHING NOTES OF THESE DOCUMENTS.
- 6. STUB UP LOCATIONS FOR ELECTRICAL AND TELEPHONE SHALL BE COORDINATED WITH LESSEE.
- 7. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL TEMPORARY POWER ON JOB SITE INCLUDING ENTRY CONDUCTORS, METER AND DISCONNECTS AS REQUIRED. IF POWER COMPANY TEMPORARY SERVICE IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE A 10KW MINIMUM SIZE GENERATOR TO SUPPLY DEMAND.
- 8. COORDINATE EXACT ROUTE OF UNDERGROUND CONDUITS WITH LOCAL UTILITY COMPANY PRIOR TO INSTALLATION.
- 9. PROVIDE LONG SLEEVE ELBOWS.
- 10. TELCO CABINET, PANEL, SPD, & EQUIPMENT, ARE TYPICALLY PROVIDED BY OTHERS AND ARE SHOWN FOR REFERENCE ONLY.
- 11. SPOT ALL UNDERGROUND UTILITIES AND SPECIALTY ITEMS SUCH AS GROUND RODS AND GROUND RINGS PRIOR TO DIGGING. ITEMS ARE NOT LIMITED TO THE ABOVE. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. BACKFILL AND PATCH TO MATCH EXISTING CONDITIONS. REFER TO "TRENCHING" IN THIS PROJECT'S DOCUMENTS.
- 12. ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL EQUIPMENT BONDING WITH EXTERNAL GROUND RING WITH CONTRACTOR PERFORMING THE WORK ON THE GROUNDING PLANS.





(#) KEYED NOTES:

- (1) BOND ENCLOSURE TO GROUND RING PER NATIONAL ELECTRICAL CODE. REFER TO GROUNDING PLANS.
- 2 bonding jumper to enclosure shall not be provided, unless enclosure is the main
- SERVICE DISCONNECT.

- 3 ELECTRICAL SYSTEM GROUND SHALL BE ISOLATED
- AND NOT BE BONDED TO ENCLOSURE.
- (4) EQUIPMENT/ENCLOSURE BOND.

NOTE: THIS DETAIL PERTAINS TO ALL METALLIC EQUIPMENT AND IS SYMBOLIC OF ACTUAL INSTALLATION AND TO BE USED FOR GENERAL GROUNDING REFERENCE ONLY.

EQUIPMENT GROUNDING DETAIL 2 SCALE: NOT TO SCALE

LIGHTING FIXTURE SCHEDULE MFGR. LAMPS VOLTS TYPE CATALOG NO. DESCRIPTION MOUNTING MODEL# FULL CUTOFF LMC-30LU-5K-4-1-PC(120) DARK SKY FRIENDLY 120 HUBBELL POLE LED Α (SEE BELOW)

NOTE: TYPE "A" FIXTURE TO BE MOUNTED W/ SPAULDING SLIP FITTER AASF AND TENON REDUCER Z85-B-4-GR. PROVIDE ALL MOUNTING HARDWARE

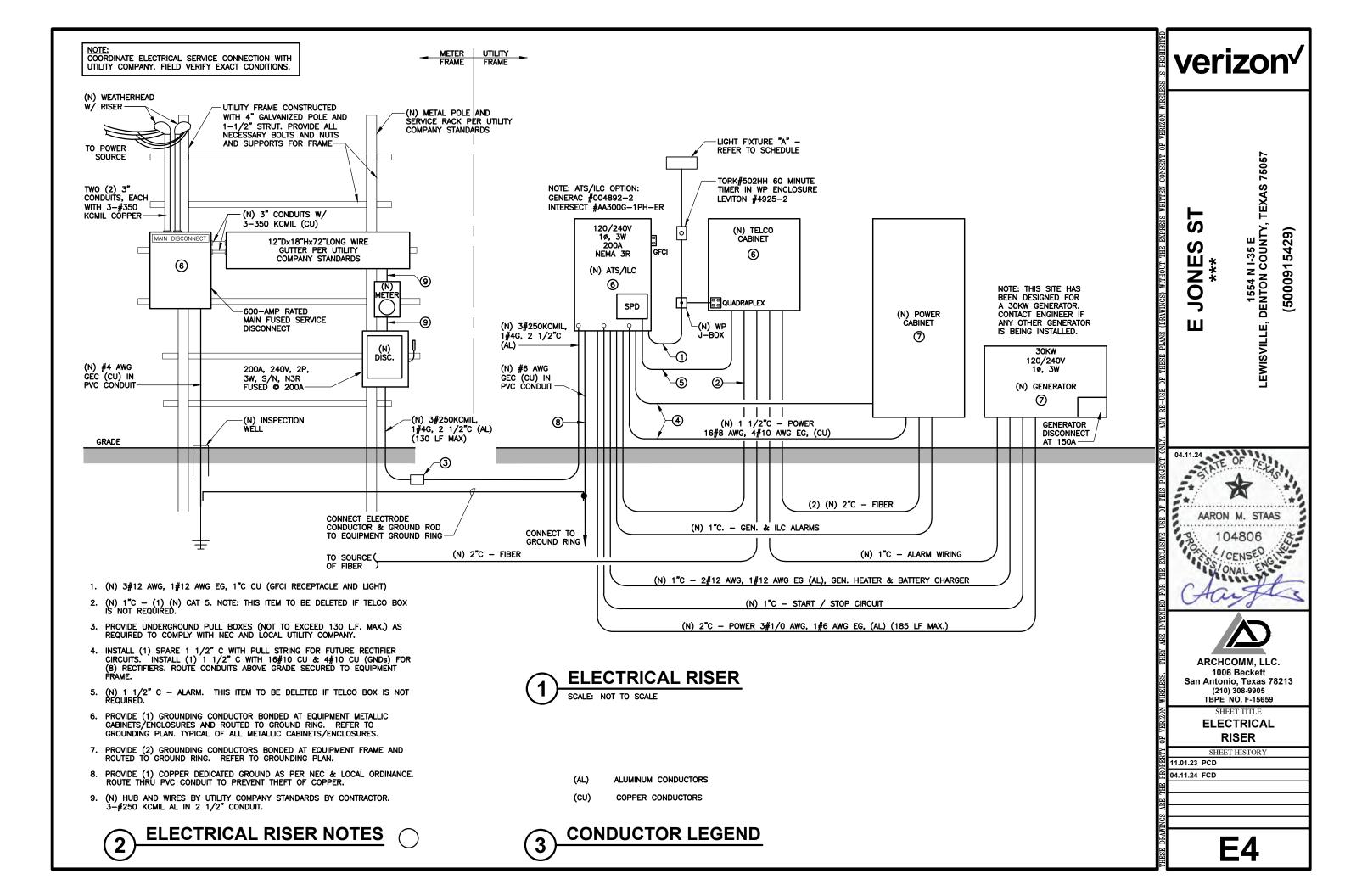
LIGHTING FIXTURE SCHEDULE 3 SCALE: NONE

	VZW ILC	MOD		ASCO D3	00L SERIE	S					PROHIE	<i>ver</i> i	izon
OLTAGE:	120/240V		E/WIRE	1	3						TESS IS		
AIN REAKER:	200A	BUS R	ATING:	200A	KEY DOO	R LATCH:	YES				N WIRE		
	SURFACE	NEUT	RAL BAR:	YES		DOOR:	YES				VERIZ(
NCLOSURE				25K							INT OF		57
YPE:			V		v	A A					CONSE		TEXAS 75057
ct #	Description	Bkr/P	L'		L		Bkr/P	Description		Ckt #	TEN		AS
1	•	30/2	2,160	2,160				RECTIFIER		2	WRIT		X
3		"	_,	_,	2,160	2,160		"		4	SS		
5	RECTIFIER	30/2	2,160	2,160	,	,	30/2	RECTIFIER		6	XPRF	S	1554 N I-35 E LEWISVILLE, DENTON COUNTY, (5000915429)
7	,	"		,	2,160	2,160		"		8	E	S	1554 N I-35 E ENTON COUNT (500091 5429
9	RECTIFIER	30/2	2,160	2,160	,	,		FUTURE RECT	IFIER	10	HL.	Ш ж	
11		"	_,		2,160	2,160		"		12	luoi	NUE ***	
	FUTURE RECTIFIER	30/2	2,160	2,160	_,	_,		FUTURE RECT	IFIFR	14	WITH	Z *	40 00
15		"	2,100	2,100	2,160	2,160		"		16	(S	0	155 00
	GFCI RECEPT/LIGHT	20/1	36	70	_,	_,	-	SPARE		18	MINC	7	(2) EF
	BLOCK HEATER	20/1	72	10	_	-	-	SPARE		20	DRA'	ш	
	BATT CHARGER	20/1	72		_			SPARE		20) SN		Щ
	SPARE	20/1	12	-				SPARE		24	PLAI		الے ا
23	Total Volt-Amps	20/1	8,820	8,710	8,640	8,640	20/1	JFARL		24	SE		IS/
	Total Volt-Amps Per Phase		17,530	0,710	17,280	0,040					THF		N
	Total Volt-Amps Fer Flase		17,550		17,200						OF		Щ
	Total Per Phase		17,530		17,280						USE		
	Plus 25% Per NEC		4,383		4,320						RE		
					· · ·						ΛNΥ		
	Total VA Capacity		21,913		21,600								
CTRICAL PAN			182.61		180.00						TNO 1.13	11.24	OF TEL
LL CONDUC IAXIMUM LEI ISCO INTEGR IND AUTOMA		JITS IS 5 AMP MAI BY GENEI	0 FT. N DISCONNE RATOR. OUS.		SCHE	DULE					CLUSIVE USE OF THIS PROJECT ONL	AARON	OF TELAS M. STAAS 04806
LL CONDUC IAXIMUM LEI SCO INTEGF ND AUTOMA	IEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCU RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND-	JITS IS 5 AMP MAI BY GENEI	0 FT. N DISCONNE RATOR. OUS. 4 sc	ILC"	SCHE D SCALE						THE EXCLUSIVE USE OF THIS PROJECT ONL	STATE	OF TELAS M. M. STAAS 04806 CENSED DNAL ENG
LL CONDUC IAXIMUM LEI SCO INTEGF ND AUTOMA	IEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCU RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND-	JITS IS 5 AMP MAI BY GENEI	0 FT. N DISCONNE RATOR. OUS. US. US. SC	ILC"	SCHE D SCALE						FOR THE EXCLUSIVE USE OF THIS PROJECT ONL	STATE	OF TELTS M. STAAS 04806 CENSED ONAL ENG
LL CONDUC IAXIMUM LEI ISCO INTEGR IND AUTOMA	IEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCU RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND-	JITS IS 5 AMP MAI BY GENEI	0 FT. N DISCONNE RATOR. OUS. US. US. SC	ILC"	SCHE D SCALE						DED FOR THE EXCLUSIVE USE OF THIS PROJECT ON	STATE	OF TELAS M. STAAS 04806 CENSED ONAL ENG
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ALL CONDUC MAXIMUM LEI ASCO INTEGR AND AUTOMA	IEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCU RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND-	JITS IS 5 AMP MAI BY GENEI	0 FT. N DISCONNE RATOR. OUS. LOAD A	ILC" ALE: NOT TO NALYSIS /240V 1-P	SCHE D SCALE - VZW ILC H 3-W	NEC	Tota	-	eres/Phase B		Y ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONL	STATE	OF TELIS
LL CONDUC IAXIMUM LEI ISCO INTEGR IND AUTOMA	IEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCU RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND-	JITS IS 5 AMP MAI BY GENEI -CONTINU	0 FT. N DISCONNE RATOR. OUS. 4 sc LOAD A 120	ILC" ALE: NOT TO NALYSIS /240V 1-P	SCHE D SCALE - VZW ILC H 3-W	NEC					THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONL	AARON TRON 10 TRON 55/10 CAC	DABOG
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LL CONDUC IAXIMUM LEI SCO INTEGF IND AUTOMA RECTIFIER LC	JEL NOTES: TORS ARE TYPE THWN (75°C) COPP NGTH OF RUN FOR RECTIFIER CIRCI RATED LOAD CENTER INCLUDES 200 TIC TRANSFER SWITCH FOR STAND— DADS ARE CONSIDERED TO BE NON- DADS ARE CONSIDERED TO BE NON- CITIFIER	JITS IS 5 AMP MAI BY GENEI -CONTINU (Qty 8	0 FT. N DISCONNE RATOR. OUS. UOAD A 120 VA/UI 4,3:	ILC" ALE: NOT TO NALYSIS /240V 1-P T nit 20 34	SCHE - VZW ILC H 3-W otal VA Dei	NEC mand 125%	Demano 43,20	<u>d A</u> 0 180.00	<u>B</u> 180.00		SLESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT ONL	AARON AARON AARON AARON AARCHO 1000 San Anton	CENSE CENSE COMM, LLC. 6 Beckett bio, Texas 78213
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SURFACE		NEUTE	RAL BAR:	YES	HINGED	DOOR:	YES				JF VERI		
E NEMA 3R		AIC RA	TING	25K							VSENT (75057
			V	A	١	VA				-	COL		378
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Total Ampa EL NOTES: ORS ARE TYPI ATED LOAD CE IC TRANSFER ADS ARE CON: CITIFIER HT/RECEPT TTERY CHAI DCK HEATE	Acity PE THWN (75°C) COPP FOR RECTIFIER CIRCU ENTER INCLUDES 200 SWITCH FOR STAND ISIDERED TO BE NON- ISIDERED TO BE NON- FACLE	JITS IS 5 AMP MAI BY GENEF -CONTINU (Qty 8 8 1 1	182.61 0 FT. N DISCONNE RATOR. OUS. U LOAD A 120 VA/UI 4,3 1	ILC" (ALE: NOT TO NALYSIS /240V 1-P T nit 20 34, 06 72 72	SCALE - VZW ILC H 3-W otal VA De 560 106 72 72	DULE NEC mand 125% 125% 125%	Tota <u>Deman</u> 43,20 13 9 9	d <u>A</u> 0 180.00 3 0.55 0 0.38 0 0.38	<u>B</u> 180.00 0.55 0.38 0.38		RTY OF VERIZON WIRELESS. THEY ARE INTENDED FOR THE EXCLUSIVE USE OF THIS PROJECT	AARON AARON Ballon AARON AARON AARON Ballon San Antoni (210) TBPE SHE DETAIL	4806 ENSE WAL ENSE ENSE WAL ENSE WAL ENSE WAL ENSE WAL ENSE WAL ENSE WAL ENSE WAL EN

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GENERAL:

THE WORK INCLUDED UNDER THIS SPECIFICATION SHALL FURTHER INCLUDE THE FURNISHING OF ALL MATERIALS AND EQUIPMENT IN THE PERFORMING OF LABOR AND SERVICES NECESSARY FOR A COMPLETE INSTALLATION OF AN ELECTRICAL SERVICE AND GROUNDING SYSTEMS FOR AN UNMANNED TELECOMMUNICATION FACILITY, INCLUDING ALL RELATED SYSTEMS AND ACCESSORIES FOR THE CONTEMPLATED SITE, AS SHOWN BY THE DRAWINGS AND HEREINAFTER SPECIFIED.

SCOPE:

ALL WORK COVERED UNDER THIS SPECIFICATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, N.F.P.A. 70, AND STANDARDS OF NATIONAL, STATE, AND LOCAL AGENCIES AND SHALL COMPLY WITH THE APPLICABLE ORDINANCES AND REGULATIONS.

THE CONTRACTOR SHALL SECURE AND OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR THE PROJECT AND SHALL PAY ALL FEES IN CONNECTION WITH PERMITS, LICENSES AND BONDS TO LOCAL AUTHORITIES AS REQUIRED.

SITE VISITATION:

VISIT THE SITE OF THE PROPOSED WORK AND CAREFULLY EXAMINE THE EXISTING CONDITIONS AND LIMITATIONS THEREOF, INCURRED THROUGH LIMITATIONS OF THE EXISTING CONDITIONS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL THE REQUIREMENTS OF THE PROJECT AND SITE, AS SPECIFIED IN THE ENGINEERING DRAWINGS, AND REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER BEFORE INITIATING SITE WORK.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF SPACE AVAILABLE AND THE SPECIFIED EQUIPMENT. RECOMMEND CHANGES TO LOCATION OF THE ELECTRICAL SERVICE. EQUIPMENT AND MATERIALS TO ALLOW THE COMPLETE INSTALLATION OF THE PROJECT. MAINTAIN EXISTING SERVICES AND STRUCTURES IN A SERVICEABLE CONDITION.

UTILITIES AND ELECTRICAL SERVICE: THE DATA IS SHOWN AS ACCURATELY ON THE DRAWINGS AS THE SCALE WILL PERMIT. EACH BIDDER SHALL INCLUDE ADEQUATE FUNDS IN HIS BID PRICE TO COVER THE INSTALLATION AND CONNECTIONS OF ALL UTILITIES AND THE RELOCATION OF ALL EXISTING ELECTRICAL UTILITIES WHETHER SHOWN ON PLANS OR NOT. TEMPORARY ELECTRICAL SERVICE SHALL BE PROVIDED BY CONTRACTOR. EXACT LOCATION SHALL BE COORDINATED WITH THE LOCAL POWER COMPANY SHOULD TEMPORARY POWER FROM POWER COMPANY NOT BE AVAILABLE, CONTRACTOR SHALL PROVIDE A MINIMUM 10KW GENERATOR FOR TEMPORARY DEMAND.

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND WORK, SUCH AS, SERVICE ENTRANCE CONDUCTORS, METER, METER ENCLOSURE, FEEDERS, CONDUITS, DISCONNECTS, PANELBOARD, CIRCUIT BREAKERS, LIGHTING, GUTTER, EMERGENCY GENERATOR RECEPTACLE, CABLE TRAY, TRANSFER SWITCH, TELEPHONE BOX, CONCRETE CORING, WALL PENETRATIONS, TRENCHING AND BACKFILL

SUBMITTALS:

THE CONTRACTOR SHALL MAINTAIN A SET OF HAND MARKED, CURRENT "AS-BUILT" BLUELINE CONTRACT DRAWING PRINTS ON THE JOB. UPON COMPLETION OF THE WORK, FURNISH THE ARCHITECT/ENGINEER ONE SET OF BLUELINE PRINTS LEGIBLY MARKED IN RED INK OR RED PENCIL. THE CONTRACTOR SHALL INDICATE ON THE BLUELINE PRINTS ALL THE CHANGES, ADDITIONS, AND DELETIONS TO UPDATE THE ORIGINAL CONTRACT DRAWINGS.

GUARANTEE:

THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK COVERED BY THIS SPECIFICATION AND TO BE FREE FROM FAULTY, DEFECTIVE, OR IMPROPER MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER THE FINAL ACCEPTANCE OF THE WORK. SHOULD ANY SUCH FAILURE OCCUR DURING SAID GUARANTEE PERIOD, THE ELECTRICAL CONTRACTOR SHALL, AT HIS OWN EXPENSE AMEND AND MAKE GOOD ALL SUCH DEFECTS SETTLEMENTS AND/OR FAULTS.

QUALITY ASSURANCE:

THE CONTRACTOR SHALL PROVIDE ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES THAT ARE LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. AND MARKED FOR INTENDED USE. COMPLY WITH NFPA 70. PROVIDE WIRES AND CABLES SPECIFIED IN THE DRAWINGS THAT ARE LISTED AND LABELED.

DEMOLITION:

THE CONTRACTOR SHALL PROTECT EXISTING ELECTRICAL EQUIPMENT AND INSTALLATIONS INDICATED TO REMAIN. IF DAMAGED OR DISTURBED IN THE COURSE OF THE WORK, REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY, QUALITY, AND FUNCTIONALITY. EXISTING CODE VIOLATIONS SHALL BE IDENTIFIED AND CORRECTED BEFORE INITIATING PROJECT WORK.

ACCESSIBLE WORK:

REMOVE EXPOSED ELECTRICAL EQUIPMENT AND INSTALLATIONS, INDICATED TO BE DEMOLISHED, IN THEIR ENTIRETY.

ABANDONED WORK:

CUT AND REMOVE BURIED RACEWAY

AND WIRING, INDICATED TO BE ABANDONED IN PLACE, 2 INCHES BELOW THE SURFACE OF ADJACENT CONSTRUCTION. CAP RACEWAYS AND PATCH SURFACE TO MATCH EXISTING FINISH. REMOVE DEMOLISHED MATERIAL FROM PROJECT SITE. REMOVE, STORE, CLEAN, REINSTALL, RECONNECT, AND MAKE OPERATIONAL COMPONENTS INDICATED FOR RELOCATION.

ELECTRICAL REQUIREMENTS:

WHERE CONDUIT PASSES THOUGH WALLS, FLOORS, OR OTHER MASONRY SURFACES, STEEL PIPE SLEEVES SHALL BE USED. THE INSIDE DIAMETER OF THESE SLEEVES SHALL BE AT LEAST ONE-HALF INCH GREATER THAT THE OUTSIDE DIAMETER OF THE CONDUIT TO BE INSERTED. AFTER THE PIPES ARE INSTALLED, FILL THE ANNULAR SPACE BETWEEN THE PIPE AND ITS SLEEVES WITH A MASTIC OR WITH SHREDDED LEAD USING PACKING AS REQUIRED

SLEEVES PASSING THROUGH FLOORS SHALL BE SET TO PROJECT ABOVE FINISHED FLOORS AND BE FLUSH WITH THE UNDERSIDE OF THE SLABS. WHERE CONDUIT PASSES THROUGH INTERIOR WALLS OR FLOORS, RIGID CONDUITS MAY BE USED IN LIEU OF THE STEEL PIPE SLEEVES, PROVIDED THEY HAVE APPROXIMATELY THE SAME INSIDE DIAMETER OF THE SLEEVES SPECIFIED ABOVE.

ALL PANELBOARDS, DISCONNECT SWITCHES, CIRCUIT BREAKERS, TERMINAL BOARDS, JUNCTION BOXES AND OTHER SPECIAL EQUIPMENT, ITEMS FURNISHED AND/OR INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE IDENTIFIED WITH PERMANENTLY ATTACHED ENGRAVED PLASTIC NAMEPLATES.

UL-LISTED BUILDING AND UNDERGROUND WIRES AND CABLES WITH CONDUCTOR MATERIAL, INSULATION TYPE, CABLE CONSTRUCTION AND RATING AS SPECIFIED IN THE ELECTRICAL DRAWINGS. CONDUCTORS MATERIAL FOR ALL INSTALLATIONS SHALL BE COPPER AND ALUMINUM AS INDICATED IN PLANS. SOLID CONDUCTOR FOR NO. 10 AWG AND SMALLER; STRANDED CONDUCTOR FOR #8 AWG AND LARGER.

UL-LISTED, FACTORY-FABRICATED WIRING CONNECTORS OF SIZE, AMPACITY RATING, MATERIAL, TYPE, AND CLASS FOR APPLICATION AND SERVICE INDICATED INCLUDING COPPER/ ALUMINUM CONNECTORS. COMPLY WITH PROJECT'S INSTALLATION REQUIREMENTS AND AS SPECIFIED IN THE DRAWINGS AND THIS SPECIFICATION.

FITTINGS AND ACCESSORIES SUCH AS, COUPLINGS, OFFSETS, ELBOWS, EXPANSION JOINTS, ADAPTERS, HOLD-DOWN STRAPS, END CAPS, AND OTHER FITTINGS TO MATCH AND MATE WITH WIREWAYS AS REQUIRED FOR COMPLETE SYSTEM

SURFACE METAL RACEWAYS SHALL BE OF GALVANIZED STEEL WITH SNAP-ON COVERS. FINISH WITH MANUFACTURER'S STANDARD PRIME COATING. SURFACE NONMETALLIC RACEWAYS SHALL BE OF 2-PIECE CONSTRUCTION, MANUFACTURED OF RIGID PVC COMPOUND WITH MATTE TEXTURE AND MANUFACTURER'S STANDARD COLOR. TYPES, SIZES, AND CHANNELS AS INDICATED AND REQUIRED FOR EACH APPLICATION, WITH FITTINGS THAT MATCH AND MATE WITH RACEWAYS.

GROUNDING AND BONDING SYSTEMS:

IF GOVERNING GROUNDING AND BONDING REQUIREMENTS WHERE TYPES, SIZES, RATINGS, AND QUANTITIES SPECIFIED ARE IN EXCESS OF THE STANDARD NATIONAL ELECTRICAL CODE (NEC) REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING AND QUANTITY TYPES GOVERN.

EQUIPMENT GROUNDING AND BONDING CONDUCTORS:

COMPLY WITH CURRENT APPROVED EDITION NEC ARTICLE 250 FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, EXCEPT WHERE SPECIFIC TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NEC ARE SPECIFIED.

GROUNDING ELECTRODE:

MAIN SWITCH GROUNDING ELECTRODE SHALL BE A 10' COPPER-CLAD ROD AND SHALL BE BONDED TO THE EXTERNAL GROUNDING RING PER NEC. REFER TO GROUNDING PLANS.

THE GROUNDING ELECTRODE CONDUCTOR CONNECTION TO THE GROUNDING COPPER-CLAD ROD SHALL BE LUG CONNECTIONS. BONDING CONDUCTOR TO THE GROUND RING SHALL BE THE SAME SIZE AS GROUNDING ELECTRODE CONDUCTOR OR PER NEC. REFER TO GROUNDING PLANS.

THE GROUND RING SHALL BE CONSTRUCTED AS SPECIFIED ON THE ENGINEERING DRAWINGS. FOR A GROUND SITE, THE GROUND RING CONDUCTOR SHALL BE BURIED NO LESS THAN THIRTY (30) INCHES BELOW SITE GRADE.

WIRE AND CABLE GROUNDING CONDUCTORS:

CONDUCTORS SHALL BE TYPE THWN COPPER. MINIMUM SIZE SHALL BE #12AWG, EXCEPT CONTROL WIRING. ALUMINUM CONDÜCTORS SHALL BE AA-8000 SERIES TYPE.

COMPLY WITH NATIONAL ELECTRICAL CODE, TABLE 8, EXCEPT AS OTHERWISE INDICATED, FOR CONDUCTOR PROPERTIES, INCLUDING STRANDING. MATERIAL OF GROUNDING CONDUCTORS TO BE COPPER AND ALUMINUM AS SPECIFIED IN PLANS. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED WITH GREEN COLOR INSULATION AND GROUNDING-ELECTRODE CONDUCTORS SHALL BE STRANDED CABLE. UNDERGROUND CONDUCTORS SHALL BE BARE, TINNED, STRANDED, EXCEPT AS OTHERWISE INDICATED BARE COPPER CONDUCTORS SHALL CONFORM TO THE FOLLOWING:

- SOLID CONDUCTORS: ASTM B 3. 1.
- ASSEMBLY OF STRANDED CONDUCTORS: ASTM B 8.
- TINNED CONDUCTORS: ASTM B 33.

DISTRIBUTION PANELBOARDS:

ENCLOSURES SHALL BE FLUSH OR SURFACE-MOUNTED CABINETS AS INDICATED. NEMA PB 1, TYPE 1, UNLESS OTHERWISE INDICATED TO MEET ENVIRONMENTAL CONDITIONS AT INSTALLED LOCATION.

- OUTDOOR LOCATIONS: NEMA250, TYPE 3R. WET OR DAMP INDOOR LOCATIONS: NEMA250, TYPE4. HAZARDOUS AREAS INDICATED ON DRAWINGS: 3. NEMA250, TYPE 7C.

THE BUS SHALL BE HARD DRAWN COPPER OF 98 PERCENT CONDUCTIVITY, THE MAIN AND NEUTRAL LUGS SHALL BE OF THE COMPRESSION COPPER TYPE, AND THE EQUIPMENT GROUND BUS SHALL BE ADEQUATE FOR FEEDER AND BRANCH-CIRCUIT EQUIPMENT GROUND, COPPER CONDUCTORS AND BONDED TO BOX.

PROVIDE OVERCURRENT PROTECTIVE DEVICES AS INDICATED TYPES, AS INTEGRAL COMPONENTS OF PANELBOARDS, SWITCHBOARDS, AND ALSO AS INDIVIDUALLY ENCLOSED AND MOUNTED SINGLE UNITS.

BRANCH-CIRCUIT BREAKERS:

WHERE OVERCURRENT PROTECTIVE DEVICES ARE INDICATED TO BE CIRCUIT BREAKERS, USE BOLT-ON CIRCUIT BREAKERS, EXCEPT CIRCUIT BREAKERS 225-A FRAME SIZE AND GREATER MAY BE PLUG-IN TYPE WHERE INDIVIDUAL POSITIVE-LOCKING DEVICE REQUIRES MECHANICAL RELEASE FOR REMOVAL. OVERCURRENT PROTECTIVE DEVICES SHALL BE MOLDED-CASE CIRCUIT BREAKER, NEMA AB 1, HANDLE LOCKABLE, AND CHARACTERISTICS SHALL INCLUDE FRAME SIZE, TRIP RATING, NUMBER OF POLES, AND AUXILIARY DEVICES AS INDICATED AND INTERRUPTING CAPACITY RATING TO MEET AVAILABLE FAULT CURRENT.

DISCONNECT SWITCHES:

ENCLOSED, NONFUSIBLE SWITCH: NEMA KS 1, TYPE HD, WITH LOCKABLE HANDLE. ENCLOSED, FUSIBLE SWITCH, 800A AND SMALLER: NEMA KS 1, TYPE HD, CLIPS TO ACCOMMODATE SPECIFIED FUSES, ENCLOSURE CONSISTENT WITH ENVIRONMENT WHERE LOCATED, HANDLE LOCKABLE WITH 2 PADLOCKS, AND INTERLOCKED WITH COVER IN CLOSED POSITION.

OUTDOOR LOCATIONS: TYPE 3R. WET OR DAMP INDOOR LOCATIONS: TYPE 4. HAZARDOUS AREAS INDICATED ON DRAWINGS: TYPE 7C.

ENCLOSURE: NEMA KS 1, TYPE 1, UNLESS OTHERWISE SPECIFIED OR REQUIRED TO MEET ENVIRONMENTAL CONDITIONS OF INSTALLED LOCATION. 1. 2. CONNECT DISCONNECT SWITCHES AND CIRCUIT BREAKERS AND COMPONENTS TO WIRING SYSTEM AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. WHERE MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B. **TESTING:** AFTER INSTALLING DISCONNECT SWITCHES AND CIRCUIT BREAKERS AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, DEMONSTRATE PRODUCT CAPABILITY AND COMPLIANCE WITH REQUIREMENTS METER INSTALLATION: ELECTRICAL CONTRACTOR SHALL MOUNT METER SOCKET AND METER ENCLOSURE IN AN APPROVED MANNER USING GOOD WORKMANSHIP. METER SOCKET AND ENCLOSURE SHALL BE MOUNTED PLUMB, LEVEL AND BE FASTENED DIRECTLY TO THE BUILDING OR STRUCTURE USING REMOVABLE STEEL FASTENERS THAT DO NOT RELY ON PLASTIC OR SIMILAR NON-METALLIC EXPANSION COMPONENTS. WOODEN BACKERS MAY BE USED WHEN THEY ARE A PERMANENT PART OF A BUILDING OR STRUCTURE, AND WHERE THEY ARE NOT EXPOSED TO THE WEATHER. PENETRATIONS TO METER ENCLOSURE SHALL BE NEATLY DRILLED OR PUNCHED AND DRESSED SMOOTHLY METER SOCKET SHALL BE OF A SINGLE POSITION, SINGLE PHASE, AS FURNISHED BY THE LOCAL ELECTRIC UTILITY. THE ELECTRICAL CONTRACTOR SHALL SELECT A METER SOCKET TO COORDINATE WITH AN ESTIMATED DEMAND LOAD OF 200 AMPERES AND A SINGLE PHASE SERVICE ENTRANCE VOLTAGE FOR AN OVERHEAD OR UNDERGROUND SERVICE. TRANSFER SWITCH: TRANSFER SWITCH SHALL BE RATED FOR ELECTRICAL SERVICE. VOLTAGE, AMPERE AND ENCLOSURE AS INDICATED. PROVIDE A TRANSFER SWITCH WITH THREE LUGS. THE TRANSFER SWITCH SHALL HAVE SPACE FOR A FULL NEUTRAL CONDUCTOR AND

SPECIAL SYSTEMS:

BE COORDINATED WITH LESSEE.

TRENCHING:

SETTLEMENT.

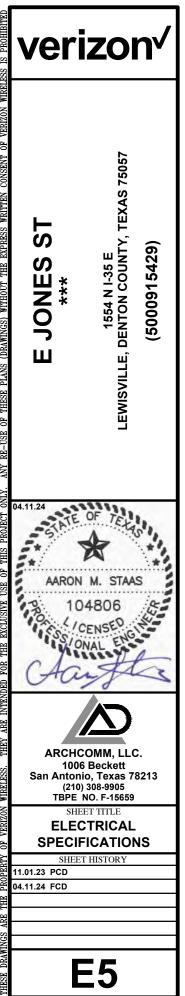
PREVENT ANY FUTURE SETTLEMENT. ANY STREET OR SATISFACTION OF THE LOCAL AUTHORITIES.

SHALL OPEN WHEN THE PHASE CONDUCTORS ARE OPENED.

SPECIAL SYSTEMS CONDUIT CONSISTS OF TELEPHONE, CONTROLS OR ALARMS AND SHALL BE PROVIDED WITH PULLWIRE AND SIZED AS INDICATED ON DRAWINGS AND SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE. ALL ROUTING AND STUB-UPS SHALL

CONTRACTOR SHALL DO ALL EXCAVATING REQUIRED FOR BURIED LINES AND AFTER THE WORK IS IN PLACE SHALL BACKFILL AND THOROUGHLY TAMP THE EARTH AROUND LINES AND SHALL BRING THE EARTH TO THE REQUIRED LEVEL TO PREVENT FUTURE

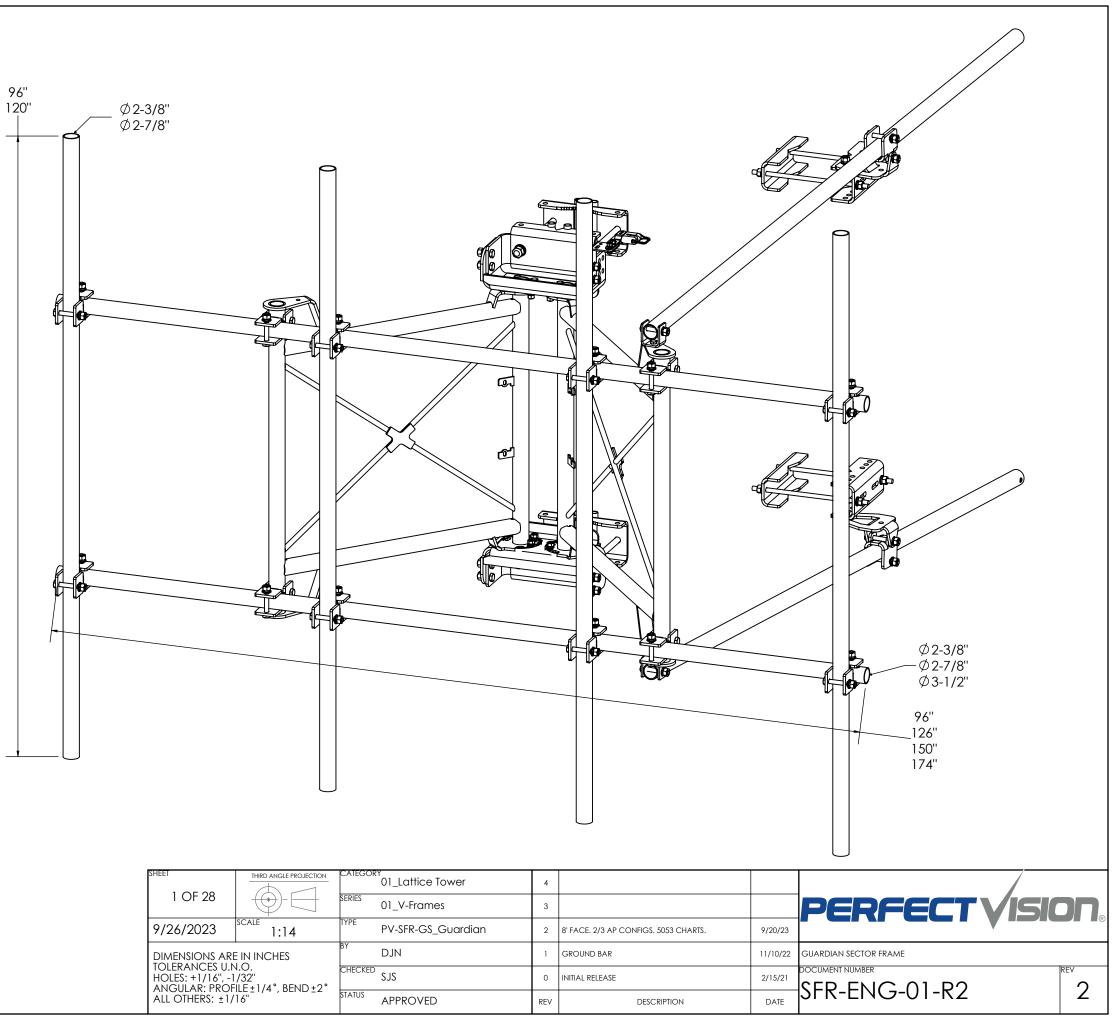
ALL BACKFILLING OF TRENCHES WHERE UNDER CONCRETE FLOORS, DRIVE OR WALKS SHALL BE DONE WITH SAND, CRUSHED ROCK OR GRAVEL AND IN A MANNER THAT WILL SIDEWALK SURFACE DAMAGED MUST BE REPAIRED TO THE



GUARDIAN SECTOR FRAME

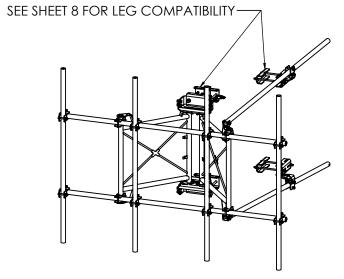
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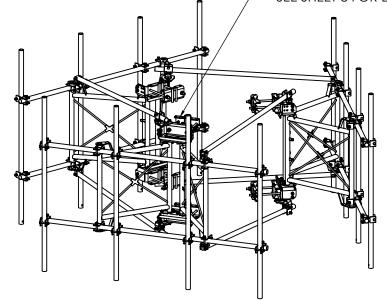


SHEET		CATEGOR	01_Lattice Tower	4	
1 OF 28		SERIES	01_V-Frames	3	
9/26/2023	scale 1:14	TYPE	PV-SFR-GS_Guardian	2	8' FACE. 2/3 AP CONFIGS. 5053 CHARTS.
DIMENSIONS ARE		ВҮ	DJN	1	GROUND BAR
TOLERANCES U.N HOLES: +1/16", -1		CHECKED	SLS	0	INITIAL RELEASE
ALL OTHERS: ±1/		STATUS	APPROVED	REV	DESCRIPTION

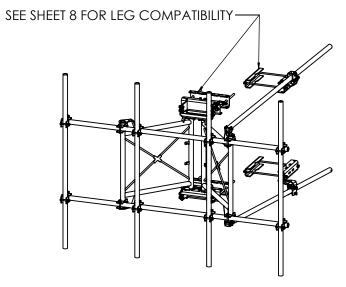
-SEE SHEET 8 FOR LEG COMPATIBILITY



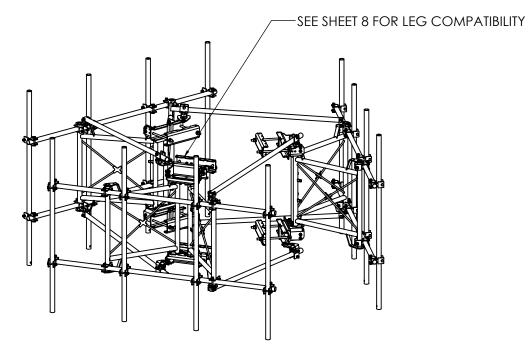
SINGLE SECTOR - STANDARD LEG BRACKET SEE SHEET 21 FOR AVAILABLE CONFIGURATIONS (PV-SFR-GS10-20-AP1 SHOWN)



THREE SECTOR - STANDARD LEG BRACKET SEE SHEET 13 FOR AVAILABLE CONFIGURATIONS (PV-SFR-GS3X10-20-AP1 SHOWN)



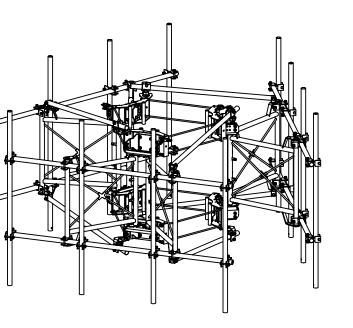
SINGLE SECTOR - LARGE LEG BRACKET SEE SHEET 23 FOR AVAILABLE CONFIGURATIONS (PV-SFR-GSL10-20-AP1 SHOWN)



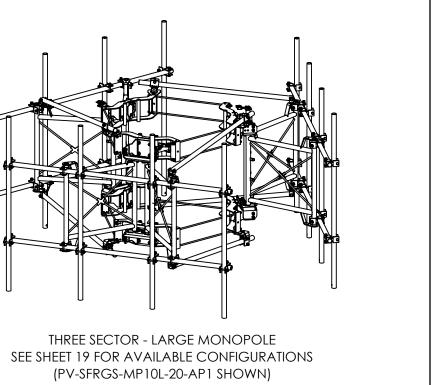
THREE SECTOR - LARGE LEG BRACKET SEE SHEET 15 FOR AVAILABLE CONFIGURATIONS (PV-SFR-GSL3X10-20-AP1 SHOWN)

		CATEGOR	° 01_Lattice Tower	4	
2 OF 28		SERIES	01_V-Frames	3	
9/26/2023	scale 1:50	TYPE	PV-SFR-GS_Guardian	2	8' FACE. 2/3 AP CONFIGS. 5053 CHARTS.
DIMENSIONS ARI		ВҮ	ЛГД	1	GROUND BAR
foleRances U.1 Holes: +1/16", -1 Anglii ar: prof		CHECKED	SLS	0	INITIAL RELEASE
ALL OTHERS: $\pm 1/$		STATUS	APPROVED	REV	DESCRIPTION

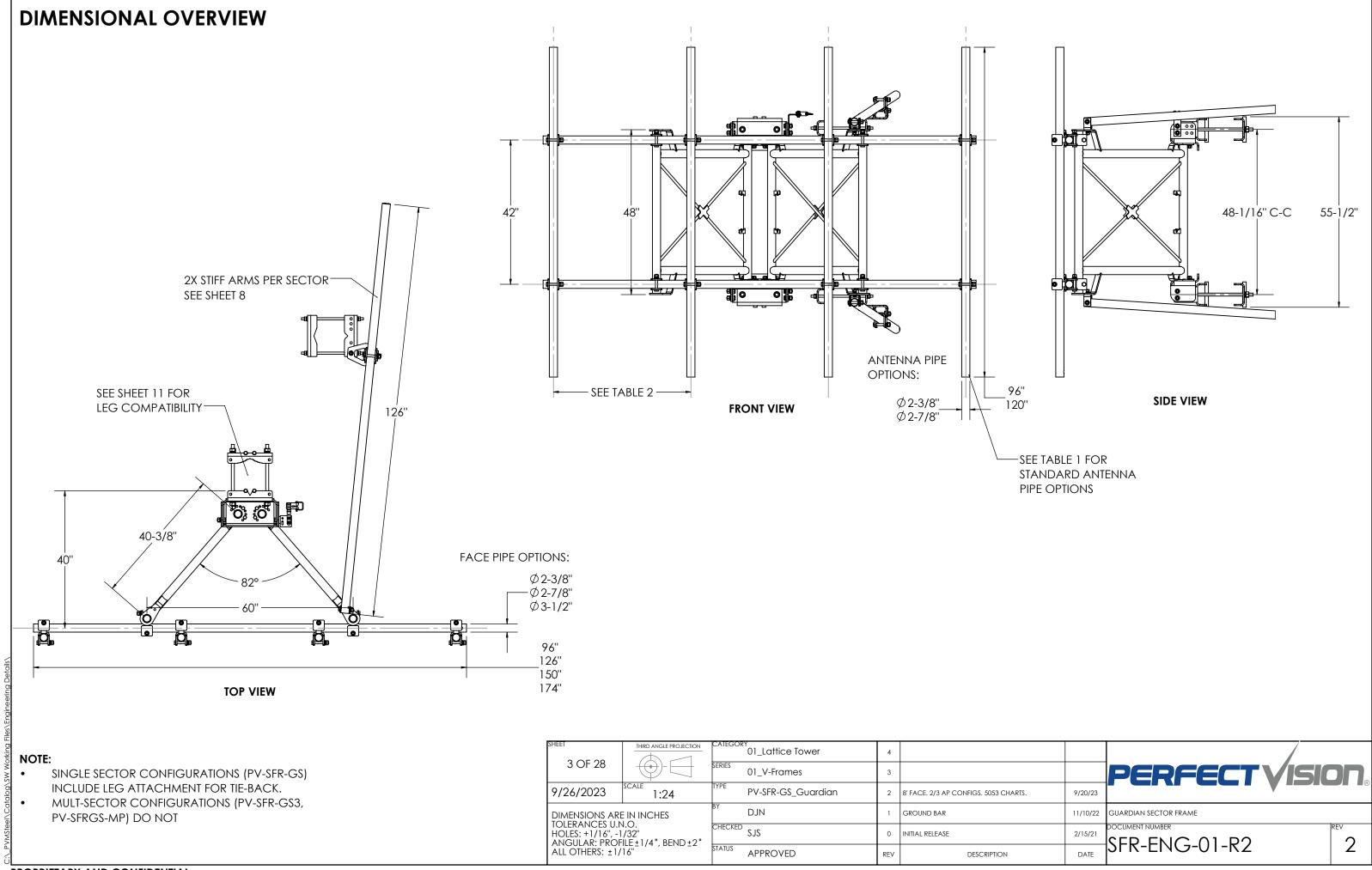
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PERFECTVISION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PERFECTVISION IS PROHIBITED.



THREE SECTOR - MONOPOLE SEE SHEET 17 FOR AVAILABLE CONFIGURATIONS (PV-SFRGS-MP10M-20-AP1 SHOWN)



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	11/10/22	GUARDIAN SECTOR FRAME	
	2/15/21	DOCUMENT NUMBER SFR-ENG-01-R2	REV
	DATE	SFR-EING-UI-RZ	Ζ



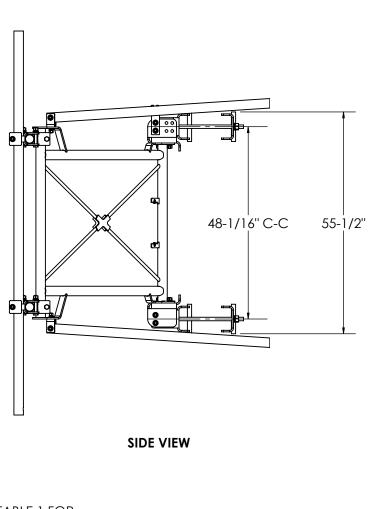


		Table 4: 5053 Classific		-
Part Number			owable Offset	Γ
Suffix*	0" Offset	6" Offset	12" Offset	24" Offset
8-20-AP19	M2000R(3000)-2[0]	M1900R(3000)-2[6]	M1600R(3000)-2[12]	M1150R(3000)-2[24]
8-20-AP20	M1700R(3000)-2[0]	M1400R(3000)-2[6]	M1300R(3000)-2[12]	M900R(3000)-2[24]
8-20-AP21	M2500R(3000)-2[0]	M2200R(3000)-2[6]	M1800R(3000)-2[12]	M1400R(3000)-2[24]
8-20-AP22	M2000R(3000)-2[0]	M1900R(3000)-2[6]	M1600R(3000)-2[12]	M1200R(3000)-2[24]
3-20-AP7	M1900R(3000)-3[0]	M1800R(3000)-3[6]	M1550R(3000)-3[12]	M1150R(3000)-3[24]
3-20-AP8	M1550R(3000)-3[0]	M1400R(3000)-3[6]	M1300R(3000)-3[12]	M900R(3000)-3[24]
3-20-AP9	M2400R(3000)-3[0]	M2200R(3000)-3[6]	M1800R(3000)-3[12]	M1400R(3000)-3[24]
3-20-AP10	M1900R(3000)-3[0]	M1700R(3000)-3[6]	M1500R(3000)-3[12]	M1150R(3000)-3[24]
B-25-AP19	M2800R(3000)-2[0]	M2200R(3000)-2[6]	M1700R(3000)-2[12]	M1100R(3000)-2[24]
3-25-AP20	M1900R(3000)-2[0]	M1400R(3000)-2[6]	M1300R(3000)-2[12]	M900R(3000)-2[24]
	, , , , , , , , , , , , , , , , , , , ,			
3-25-AP21	M3000R(3000)-2[0]	M3000R(3000)-2[6]	M3000R(3000)-2[12]	M2300R(3000)-2[24]
3-25-AP22	M3000R(3000)-2[0]	M2800R(3000)-2[6]	M2600R(3000)-2[12]	M2000R(3000)-2[24]
3-25-AP7	M2800R(3000)-3[0]	M2150R(3000)-3[6]	M1700R(3000)-3[12]	M1150R(3000)-3[24]
3-25-AP8	M1900R(3000)-3[0]	M1400R(3000)-3[6]	M1300R(3000)-3[12]	M900R(3000)-3[24]
-25-AP9	M3000R(3000)-3[0]	M3000R(3000)-3[6]	M2500R(3000)-3[12]	M1600R(3000)-3[24]
-25-AP10	M3000R(3000)-3[0]	M2800R(3000)-3[6]	M2400R(3000)-3[12]	M1500R(3000)-3[24]
0-20-AP7	M1400R(2500)-3[0]	M1300R(2500)-3[6]	M1050R(2500)-3[12]	M800R(2400)-3[24]
0-20-AP8	M1200R(2400)-3[0]	M1050R(2400)-3[6]	M900R(2400)-3[12]	M700R(2100)-3[24]
0-20-AP9	M1450R(2600)-3[0]	M1300R(2600)-3[6]	M1100R(2600)-3[12]	M900R(2600)-3[24]
0-20-AP10	M1350R(2500)-3[0]	M1200R(2500)-3[6]	M1000R(2500)-3[12]	M750R(2500)-3[24]
0-20-AP1	M1400R(2350)-4[0]	M1250R(2400)-4[6]	M1050R(2300)-4[12]	M750R(2200)-4[24]
0-20-AP2	M1150R(2250)-4[0]	M1000R(2250)-4[6]	M850R(2150)-4[12]	M650R(1950)-4[24]
0-20-AP3	M1400R(2500)-4[0]	M1200R(2350)-4[6]	M1100R(2300)-4[12]	M850R(2200)-4[24]
	. ,	. , . ,	,,,,,,	. ,
0-20-AP4	M1250R(2400)-4[0]	M1150R(2200)-4[6]	M1000R(2150)-4[12]	M750R(1950)-4[24]
0-25-AP7	M2600R(3000)-3[0]	M2200R(3000)-3[6]	M1700R(3000)-3[12]	M1150R(3000)-3[24]
0-25-AP8	M1900R(3000)-3[0]	M1450R(3000)-3[6]	M1300R(3000)-3[12]	M900R(3000)-3[24]
0-25-AP9	M3000R(3000)-3[0]	M2700R(3000)-3[6]	M2400R(3000)-3[12]	M1700R(3000)-3[24]
0-25-AP10	M2800R(3000)-3[0]	M2300R(3000)-3[6]	M2000R(3000)-3[12]	M1600R(3000)-3[24]
0-25-AP1	M2400R(3000)-4[0]	M2100R(3000)-4[6]	M1650R(3000)-4[12]	M1150R(2800)-4[24]
0-25-AP2	M1350R(3000)-4[0]	M1450R(3000)-4[6]	M1150R(3000)-4[12]	M850R(2750)-4[24]
0-25-AP3	M2800R(3000)-4[0]	M2550R(3000)-4[6]	M2200R(3000)-4[12]	M1700R(2900)-4[24]
0-25-AP4	M2350R(3000)-4[0]	M2100R(3000)-4[6]	M1850R(3000)-4[12]	M1500R(2800)-4[24]
2-20-AP1	M950R(1750)-4[0]	M850R(1800)-4[6]	M800R(1800)-4[12]	M550R(1750)-4[24]
2-20-AP2	M850R(1650)-4[0]	M800R(1650)-4[6]	M650R(1650)-4[12]	M450R(1650)-4[24]
2-20-AP3	M900R(1850)-4[0]	M850R(1850)-4[6]	M750R(1900)-4[12]	M600R(1850)-4[24]
2-20-AP4	. , . ,	M750R(1750)-4[6]		
-	M800R(1750)-4[0]	, , , , , , , , , , , , , , , , , , , ,	M650R(1750)-4[12]	M500R(1750)-4[24]
2-25-AP1	M2000R(2800)-4[0]	M1850R(2650)-4[6]	M1550R(2500)-4[12]	M1100R(2200)-4[24]
2-25-AP2	M1150R(2500)-4[0]	M1350R(2500)-4[6]	M1150R(2500)-4[12]	M850R(2000)-4[24]
2-25-AP3	M2000R(3000)-4[0]	M1900R(3000)-4[6]	M1750R(3000)-4[12]	M1300R(2800)-4[24]
2-25-AP4	M1900R(3000)-4[0]	M2050R(3000)-4[6]	M1550R(2850)-4[12]	M1300R(2700)-4[24]
2-30-AP1	M2200R(2800)-4[0]	M1850R(2800)-4[6]	M1550R(2800)-4[12]	M1050R(2600)-4[24]
2-30-AP2	M1050R(2500)-4[0]	M1350R(2500)-4[6]	M1150R(2500)-4[12]	M850R(2500)-4[24]
2-30-AP3	M2400R(2800)-4[0]	M2400R(2800)-4[6]	M2000R(2800)-4[12]	M1600R(2600)-4[24]
2-30-AP4	M2400R(2800)-4[0]	M2200R(2500)-4[6]	M1900R(2500)-4[12]	M1400R(2500)-4[24]
4-25-AP1	M1450R(2000)-4[0]	M1450R(1950)-4[6]	M1250R(1850)-4[12]	M1000R(1700)-4[24]
4-25-AP2	M1200R(1900)-4[0]	M1200R(1900)-4[6]	M1050R(1850)-4[12]	M850R(1650)-4[24]
4-25-AP3	M1450R(2050)-4[0]	M1200R(1700)-4[6]	M1300R(2000)-4[12]	M1000R(2000)-4[24]
4-25-AP3				
	M1350R(2050)-4[0]	M1300R(2000)-4[6]	M1150R(2000)-4[12]	M850R(1800)-4[24]
4-25-AP13	M1100R(1800)-5[0]	M1100R(1800)-5[6]	M900R(1800)-5[12]	M700R(1800)-5[24]
4-25-AP14	M1000R(1750)-5[0]	M800R(1750)-5[6]	M700R(1750)-5[12]	M550R(1750)-5[24]
4-25-AP15	M1100R(1800)-5[0]	M1100R(1800)-5[6]	M1000R(1800)-5[12]	M800R(1800)-5[24]
4-25-AP16	M1000R(1800)-5[0]	M950R(1800)-5[6]	M850R(1800)-5[12]	M650R(1800)-5[24]
4-30-AP1	M1800R(2200)-4[0]	M1800R(2200)-4[6]	M1600R(2000)-4[12]	M1100R(1800)-4[24]
4-30-AP2	M1400R(2200)-4[0]	M1400R(2200)-4[6]	M1300R(2000)-4[12]	M850R(1800)-4[24]
4-30-AP3	M1800R(2200)-4[0]	M1800R(2200)-4[6]	M1700R(2000)-4[12]	M1300R(1800)-4[24]
4-30-AP4	M1700R(2200)-4[0]	M1700R(2200)-4[6]	M1500R(2000)-4[12]	M1200R(1800)-4[24]
4-30-AP13	M1400R(2000)-5[0]	M1400R(2000)-5[6]	M1300R(1800)-5[12]	M1000R(1600)-5[24]
4-30-AP14	M1300R(1800)-5[0]	M1300R(1800)-5[6]	M1150R(1600)-5[12]	M800R(1400)-5[24]
4-30-AP15	M1450R(2200)-5[0]	M1450R(2200)-5[6]	M1300R(2000)-5[12]	M1100R(1800)-5[24]
	M1350R(2200)-5[0]	M1350R(2200)-5[6]	M1200R(2000)-5[12]	M950R(1800)-5[24]
4-30-AP16			1 IVII ZUUNNIZUUNNI=011 Z	

MOUNT CLASSIFICATIONS

MOUNT CLASSIFICATION INFORMATION:

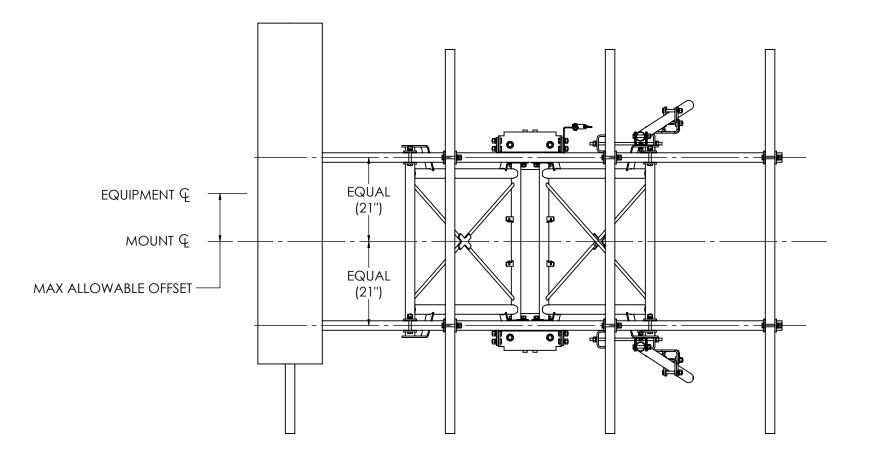
- STANDARDS: TIA-222-G, TIA-222-H, TIA-5053-A •
- MAX STRUCTURE HEIGHT: 400ft

٠

- STRUCTURE CLASS: I OR II ٠
- EXPOSURE CATEGORY: B OR C ٠
- **TOPOGRAPHIC CATEGORY: 1** ٠
- DESIGN WIND PRESSURE: 135psf ٠
- DESIGN WIND PRESSURE (ICED): 15psf ٠
- DESIGN ICE THICKNESS (RADIAL): 2.8" •

*Part Number Prefix May Be

- PV-SFR-GS (Single Sector, Sheet 17) ٠
- PV-SFR-GSL (Single Sector, Large Leg, Sheet 18) •
- PV-SFR-GS3X (Three Sector, Sheet 13) •
- PV-SFR-GSL-3X (Three Sector, Large Leg, Sheet 14) ٠
- PV-SFRGS-MP##M (Monopole, Sheet 15) [Where ## is face size] •
- PV-SFRGS-MP##L (Large Monopole, Sheet 16) [Where ## is face size] •



SHEET		CATEGOR	01_Lattice Tower	4	
5 OF 28		SERIES	01_V-Frames	3	
9/26/2023	SCALE 1:24	TYPE	PV-SFR-GS_Guardian	2	8' FACE. 2/3 AP CONFIGS. 5053 CHARTS.
DIMENSIONS ARE		ВҮ	DJN	1	GROUND BAR
HOLES: +1/16", -1		CHECKED	SLS	0	INITIAL RELEASE
ALL OTHERS: ±1/		STATUS	APPROVED	REV	DESCRIPTION

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PERFECTVISION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PERFECTVISION IS PROHIBITED.

M1750R(1450

M1750R(1450

M1750R(1450

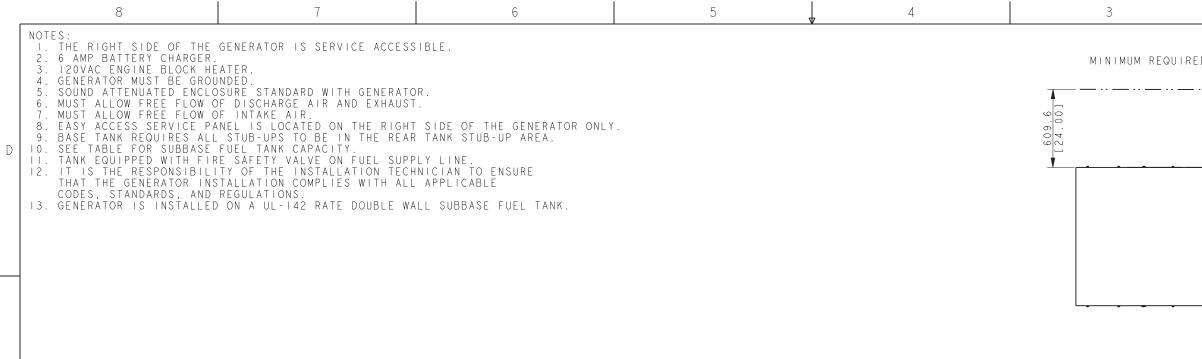
M1750R(1450

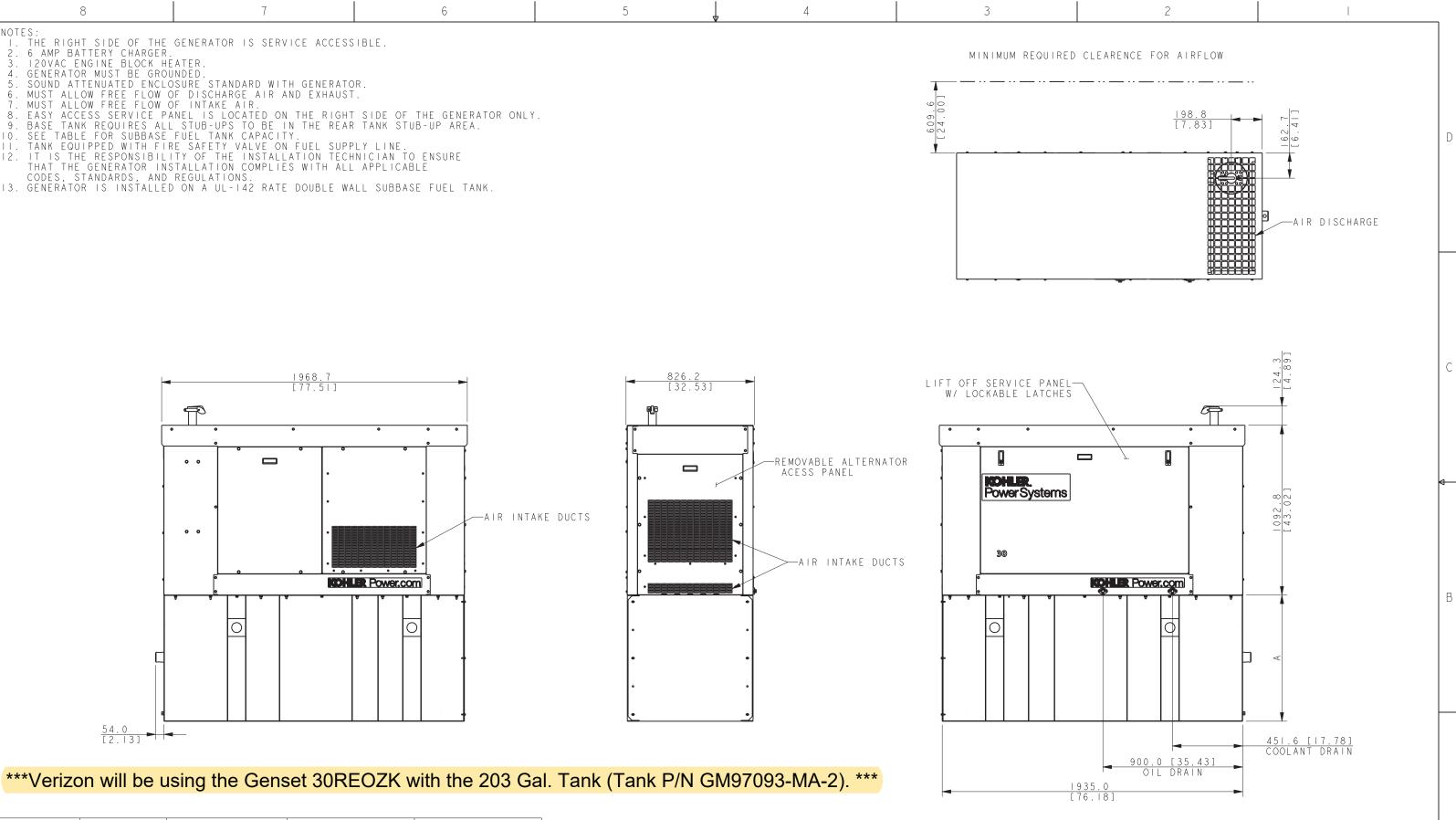
M1750R(1450

M1750R(1450

	Table 5: Mount Classification Identification Example
50)-4[6]	Used at the beginning of each mount identification.
50)-4[6]	The maximum factored horizontal force (1750 lbf), F, considered for design under extreme wind condition at each mounting pipe location.
50)-4[6]	Classification category.
50)-4[6]	Maximum factored vertical force (1450 lbf), Fzi, considered for design under extreme ice condition at each mounting pipe location.
50)- 4 [6]	The mount is designed for (4) mounting pipe locations per sector.
50)-4[6]	The centerline of the maximum horizontal concentrated force, F, may be offset vertically from the mount centerline by up to 6 inches.

		PERFECTVISIO	
RTS.	9/20/23	•	
	11/10/22	GUARDIAN SECTOR FRAME	
	2/15/21	SFR-ENG-01-R2	
	DATE	SFR-EING-UI-RZ	Ζ



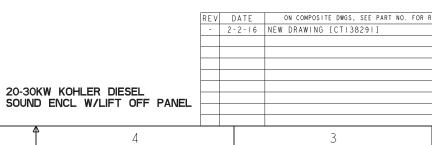


5

Α	GENSET	TANK P/N	TANK HT (A) MM [IN]	DESCRIPTION	ASSY WEIGHT
	20REOZK	GM97093-MAI	812.8 [32.0]	SKID/TANK, 148 GAL	827 KG [1823 LBS]
	20REOZK	GM97093-MA2	04 .2 [4 .0]	SKID/TANK, 203 GAL	893 KG [1968 LBS]
	20REOZK	GM97093-MA3	381.0 [15.0]	SKID/TANK, 53 GAL	706 KG [1557 LBS]
	20REOZK	GM97093-MA4	685.8 [27.0]	SKID/TANK, I20 GAL	792 KG [1745 LBS]
	30REOZK	GM97093-MAI	812.8 [32.0]	SKID/TANK, 148 GAL	893 KG [1969 LBS]
	3 O R E O Z K	GM97093-MA2	041.4 [41.0]	SKID/TANK, 203 GAL	959 KG [2 4 LB\$]
	30 R E O Z K	GM97093-MA3	381.0 [15.0]	SKID/TANK, 53 GAL	772 KG [1703 LBS]
	30 R E O Z K	GM97-03-MA4	685.8 [27.0]	SKID/TANK, I20 GAL	792 KG [1745 LBS]
		8	7		6

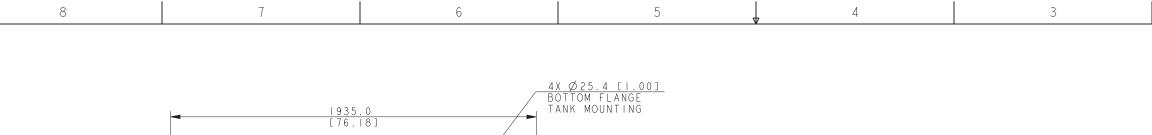
С

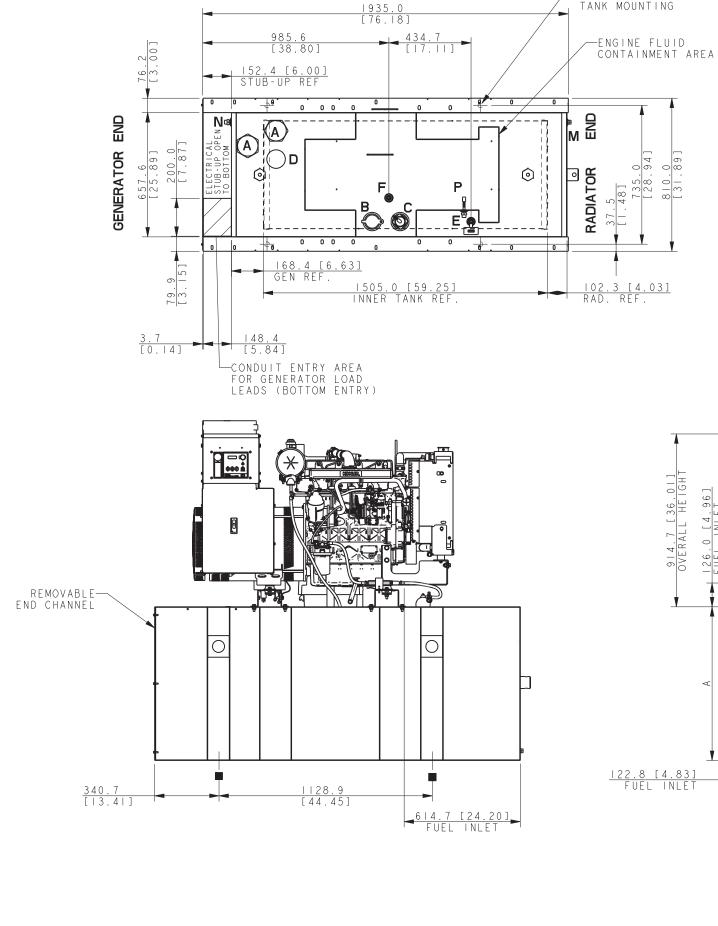
В



4

FOR REVISION LEVEL	B Y JMR	UNLESS OTHERWISE S 1) DIMENSIONS ARE 2) TOLERANCES ARE: X.XX ± 0.25 X.X ± 1.0 X ± 1.5 ANGLES ± 0° 30	IN MILLIMETERS	KOHLER CO METRIC PRO-E POWER SYSTEMS, KOHLER, WI 53044 U.S.A. THIS DRAWING IN DESIGN AND DETAIL IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.
		THIRD ANGLE PROJECTION		DIMENSION PRINT, KDI2504TM
		APPROVALS	DATE	VERIZON W/SOUND ENCLOSURE
		drawn JMR	2-2-16	SCALE 0.09 CAD NO. SHEET of 3
		CHECKED JMR	2-2-16	0.09 1015
		APPROVED KLC	2-2-16	ADV-8855 D
		2		





7

6

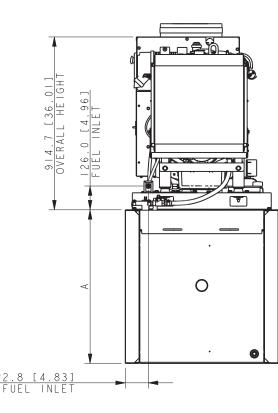
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NOTE:

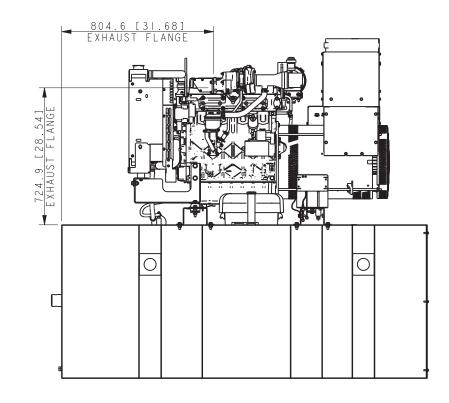
5

FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

20-30KW KOHLER DIESEL

4

■4X Ø25.4 [I.00] STANDARD MOUNTING



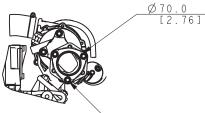
REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISIO	N LEVEL BY	UNLESS OTHERWISE	SPECIFIED -	KOHLER CO.	IETRIC PRO-E
-	2 - 2 - 1 6	NEW DRAWING [CTI38291]	JMR	2) TOLERANCES AR	;		52044 11 6 4
				X.XX ± 0.25		POWER SYSTEMS, KOHLER, WI	
				X.X ± 1.0	SURFACE FINISH	THIS DRAWING IN DESIGN AND	DETAIL IS KOHLER CO.
				X ± 1.5 ANGLES ± 0° 3)''''	PROPERTY AND MUST NOT BE US CONNECTION WITH KOHLER CO.	LD EXCEPT IN
					MAX.	DESIGN OR INVENTION ARE RES	NORN. ALL RIGHIS OF
							LINVED.
				PROJECTION	-€	DIMENSION PRINT	KDI2504TM
				APPROVALS	DATE	VERIZON W/SOUND	
				DRAWN JMR	2-2-16		
						SCALE 0.10 CAD NO.	SHEET 2 of 3
				CHECKED JMR	2-2-16		
				APPROVED KLC	2-2-16	ADV-8855	5 D
		2					
		3		2			

TANK FITTINGS:

- A. 3" NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS (QTY 2).
 B. 4" NPT FUEL FILL FITTING WITH 95% OVERFILL PREVENTION VALUE.
- С.
- 4" NPT FUEL FILL FITTING WITH 95% OVERFILL PREVENTION VALVE. 2" NPT FITTING FOR FUEL LEVEL SENDING UNIT WITH MECHANICAL INDICATOR NEEDLE. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND RISER. 1/2" NPT FITTING REMOVABLE ENGINE SUPPLY DIP TUBE W/ FIRE SAFETY VALVE. 1/2" NPT FITTING REMOVABLE FUEL RETURN DIP TUBF D.

- Ε.
- F .
- DIP TUBE.
 M. 1/2" NPT RUPTURE BASIN DRAIN
 N. 2" NPT FUEL IN BASIN SWITCH.
 P. 1/2" NPT FLOAT SWITCH FOR ENGINE FLUID
- CONTAINMENT BASIN.

2



-3X M8IXI.25 STUDS

<u>B.C.</u>

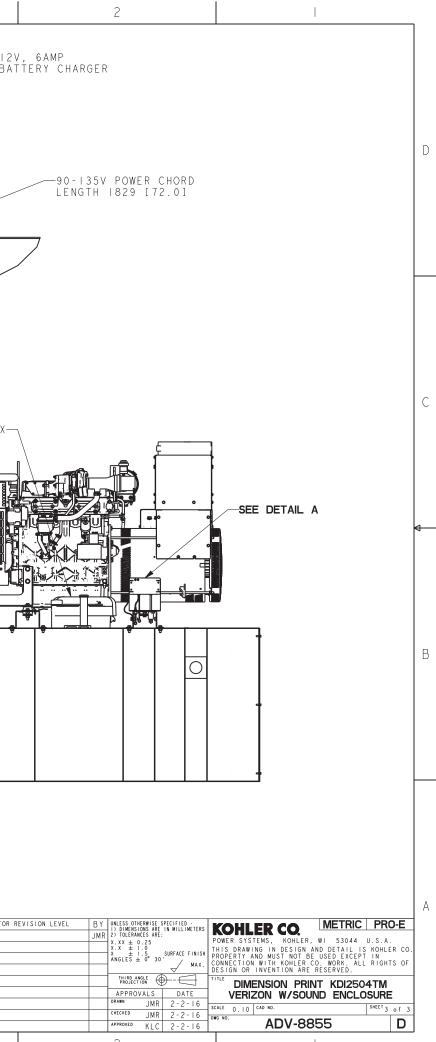
EXHAUST FLANGE DETAIL

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В

C AIR CLEANER HOUSING COVIRCE FARTE BEAKER ISCA BELLENLING COVIRCE FARTE BELLENLING COVIRCE FARTER CONTROL FROM COVIRCE FARTER CONTROL FARTER	3		4	5		6	7		8	_
A LET DEL FILTER ALE CITATION INDICATOR ALE CITATION ADTENTION ALE CITATION	DETAIL A TERY CHARGER	CONNEC BAT	· []				OIL SING	E	THIS GENERATOR SET HAS I ROUTINELY SERVICED COMPO I. AIR FILTER 2. OIL FILTER / FILL 3. FUEL FILTER 4. OIL DRAIN 5. COOLANT DRAIN	D
A REV DATE OF CO	BATTERY BOX-					-OIL FILL		ANER- SING	AIR CLEA HOUS CONTROL PANEL LOAD CIRCUIT BREAKER ISOA	
A						OIL DRAIN VALVE			FUEL	В
8 7 6 5 4 1	N COMPOSITE DWGS, SEE PART NO. FOR R DRAWING [CTI38291]		٨	5	- [7		8	A





Date: January 30, 2024

SCOTT STEKR PERFECT VISION 11611 E 51st Avenue Denver, CO 80239

Structure Information: 2-Post Weather Canopy 10'x13'

Analysis Results: Pass

To whom it may concern,

This PE letter will summarize the results of our engineering determination on the adequacy of the 2-Post Weather Canopy 10'x13' at ground elevation.

Sources of Information

Document Type	Remarks	
2-Post Weather Canopy 10'x13' Specification	By Perfect Vision Document Number. WC-ENG-04 Dated 01/08/2024	

Analysis Criteria

Codes and Standards: ANSI/TIA -222-H, ASCE 7-16 Design Wind Speed (V): 150 mph Exposure Category: C Structure Class: II Gust Factor (Gh): 0.85 Max Wind Pressure (qz): 46.5 psf Max Rood Live Load (L₀): 20 psf Max Snow Loading (pf): 20 psf



Assumptions

- with their original design and manufacturer's specifications.
- 2. Foundation check was not performed as a part of this analyis.

Conclusion

Our engineering determination was based on a 2-Post Weather Canopy 10'x13' Specification provided by Perfect Vision and analysis criteria.

It is our opinion that the 2-Post Weather Canopy 10'x13' referenced in the "Sources of Information" can safely support the loads per analysis criteria.

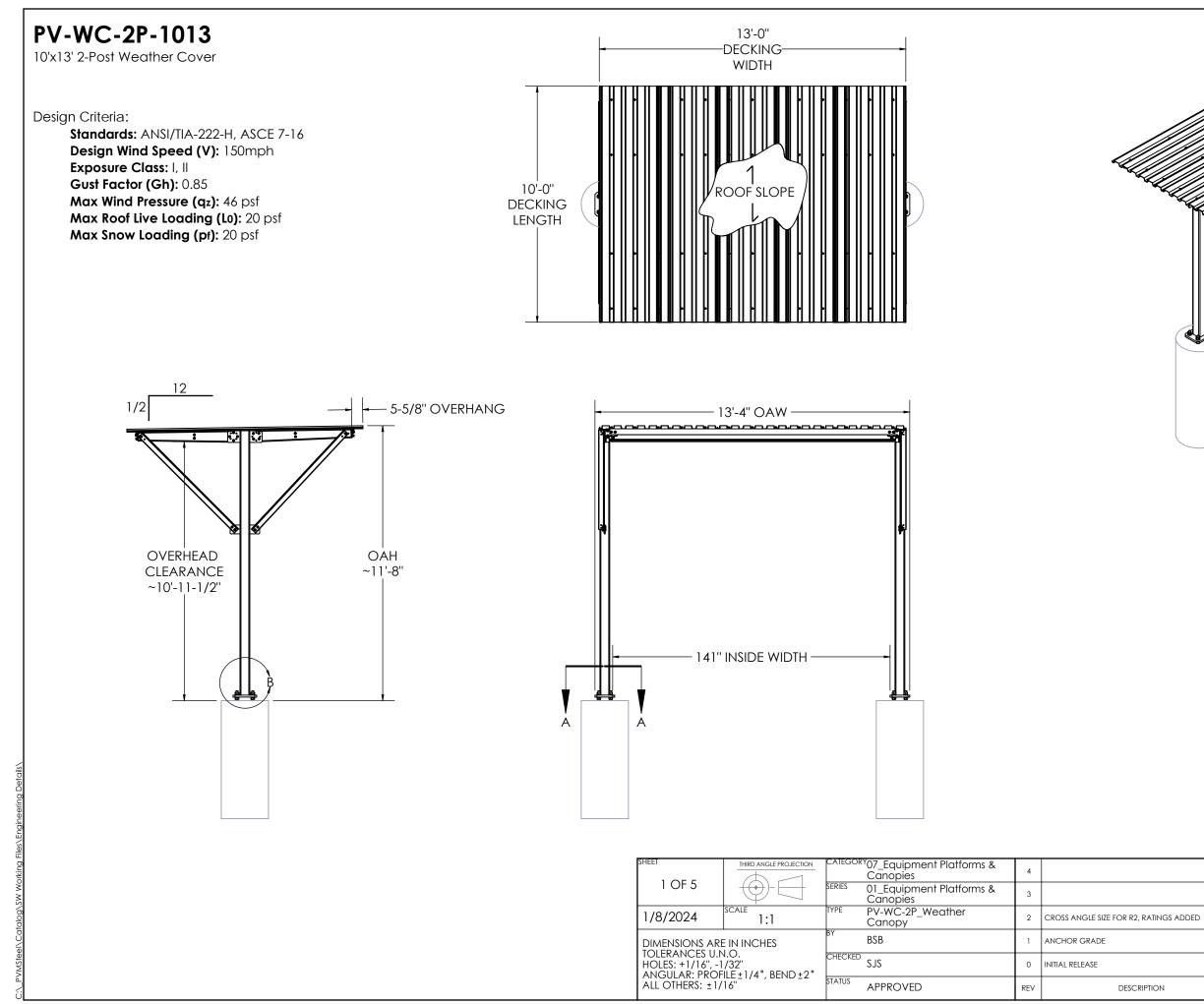
This PE Letter determination is based on the information and assumptions outlined above. Deviation from the information and assumptions will invalidate the determination and require further review.

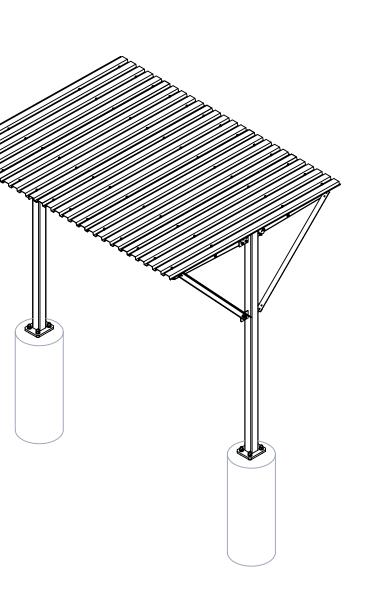
Sincerely,

Bikkey Shah, PE. Structural Engineer IV bshah@congruex.com

1. 2-Post Weather Canopy 10'x13' are assumed to have been properly fabricated, installed, and maintained in good condition, twist free and plumb in accordance

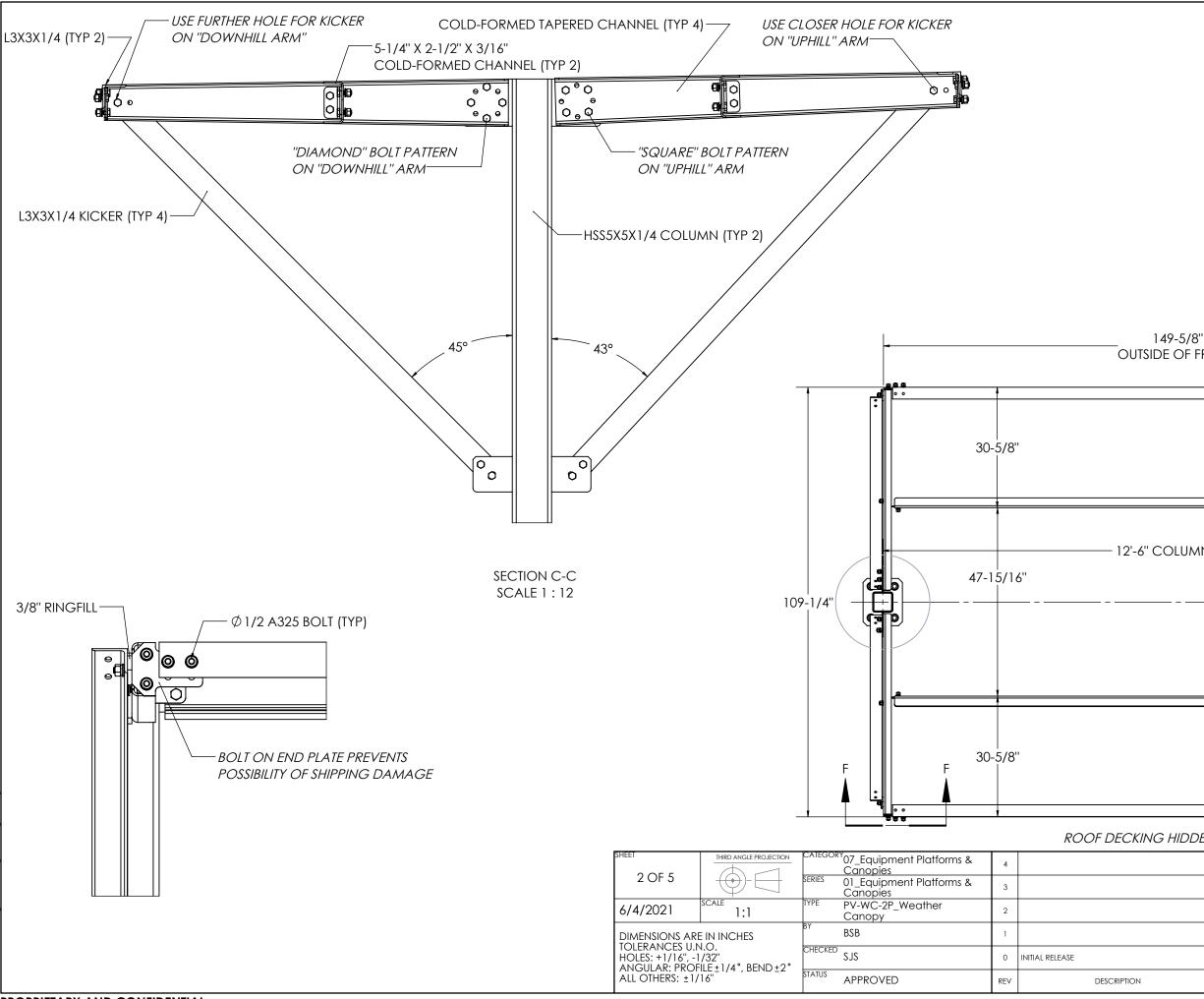




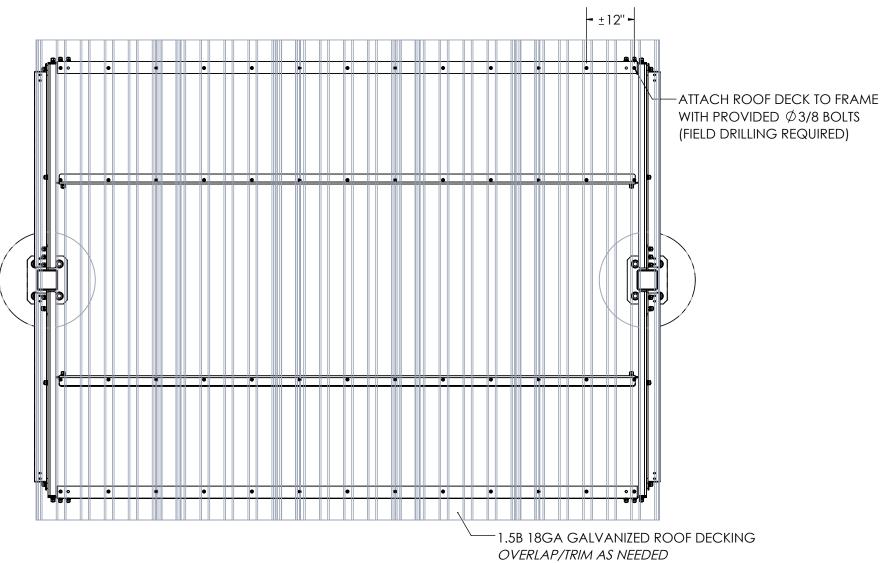


PV-WC-2P-1013 WEIGHT: 1483.054LBS



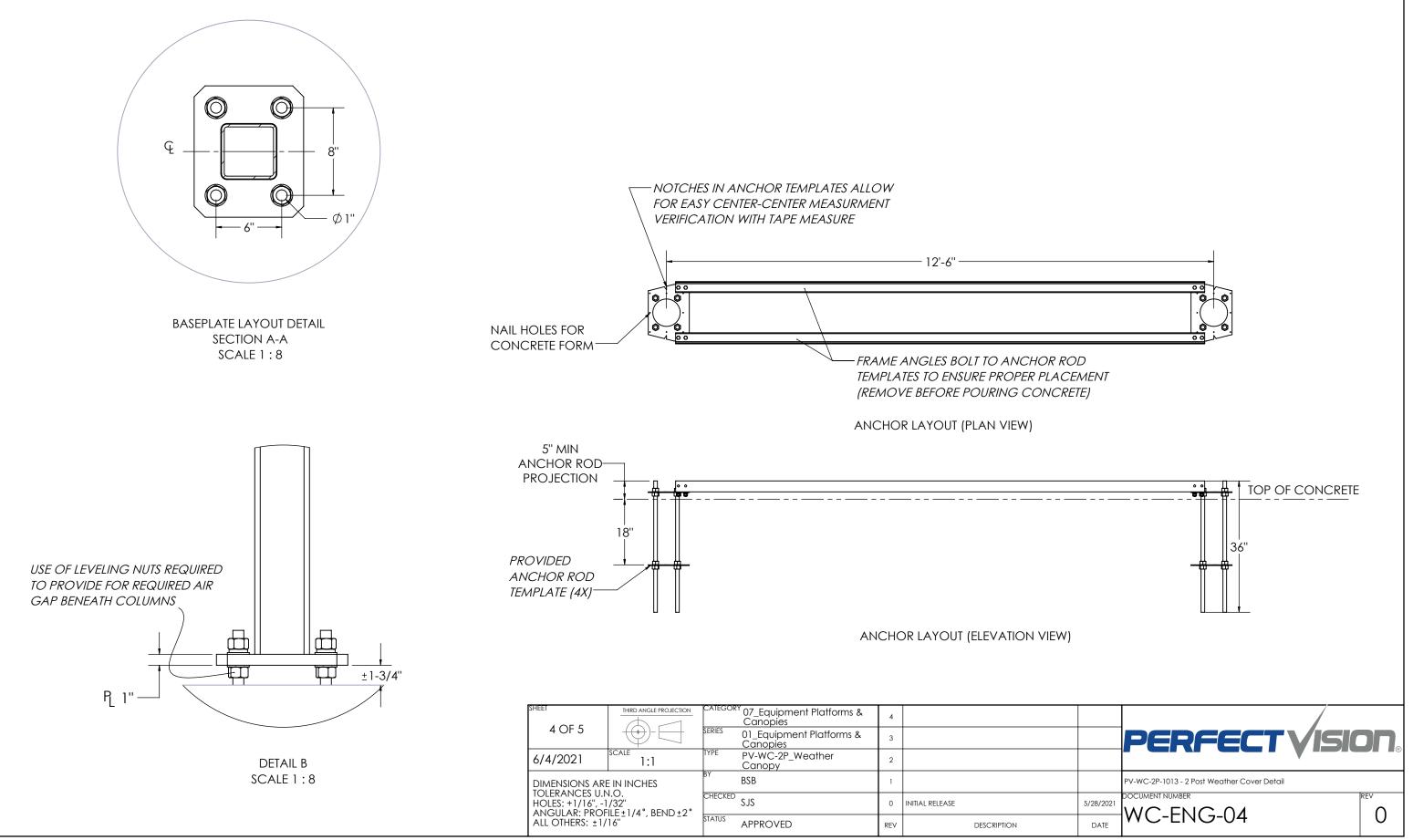


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COLUMN C-C -			
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IG HIDDEN FOR (CLARITY	C C	
	PERFE	CTVI	SION
	PV-WC-2P-1013 - 2 Post Weath	er Cover Detail	
5/28/2021			REV
DATE	WC-ENG-C)4	0
s prohibited.	I		I



SHEET		CATEGOR	^Y 07_Equipment Platforms & Canopies	4	
3 OF 5		SERIES	01_Equipment Platforms & Canopies	3	
6/4/2021	SCALE 1:1	TYPE	PV-WC-2P_Weather Canopy	2	
DIMENSIONS ARE IN INCHES		ВҮ	BSB	1	
HOLES: +1/16", -1		CHECKED	SLS	0	INITIAL RELEASE
ALL OTHERS: ±1/		STATUS	APPROVED	REV	DESCRIPTION





NOTE: FOUNDATION DESIGN BY OTHERS

