

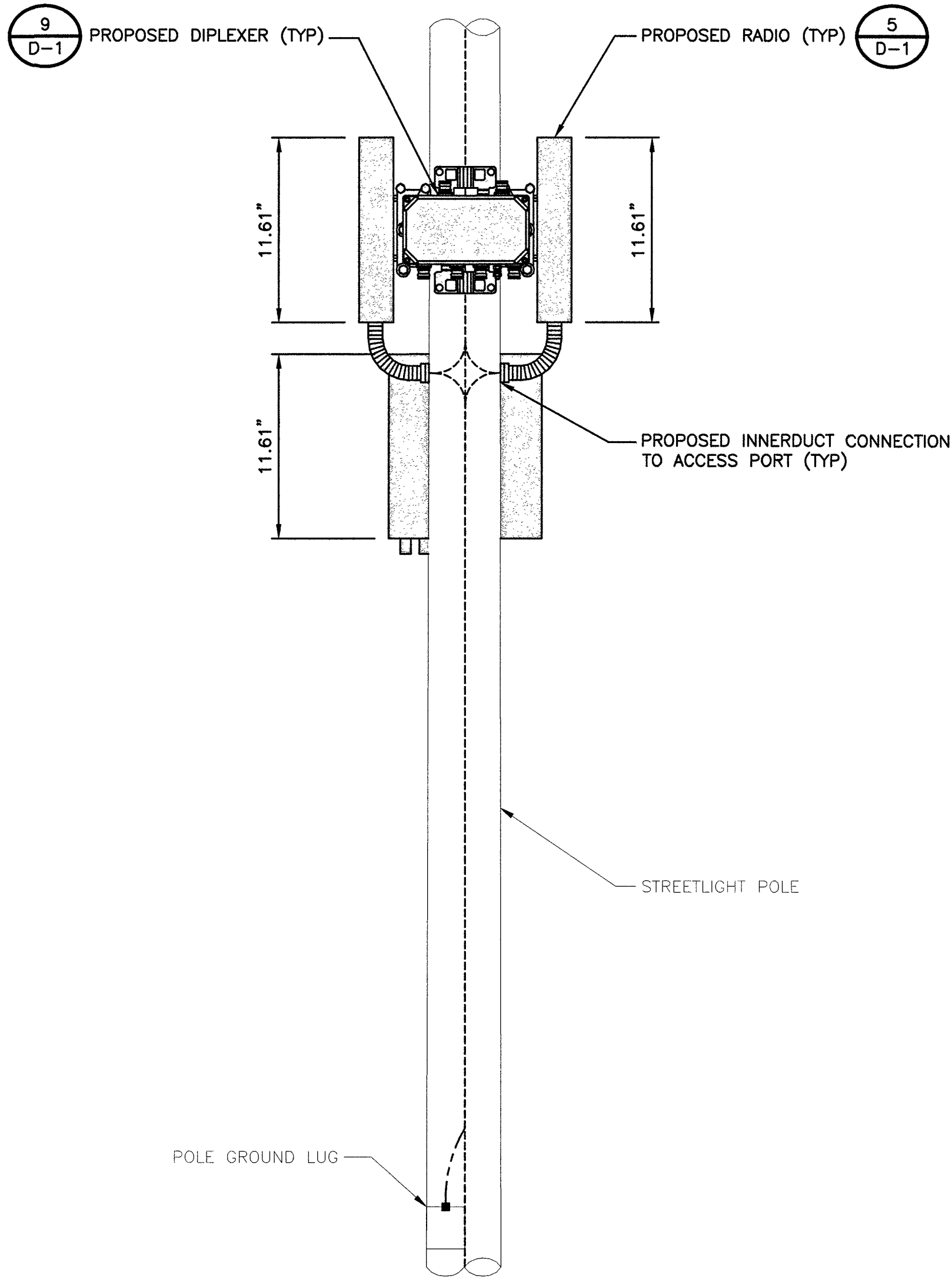
GENERAL CONSTRUCTION NOTES

- SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- HEIGHTS SHALL BE VERIFIED WITH OWNER TO INSTALLATION.
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSFORMATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA & NBFU.
- CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PRIOR OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- USE T-TAP CONNECTIONS ON ALL MULTI -CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, NO BX OR ROMEX CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
- GROUNTING CONDUCTORS SHALL BE SOLD TINED COPPER AND ANNEALED #2.
- GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL. ALL MATERIALS SHALL BE U.L. LISTED.
- CONDUIT:
 - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR RIGIDCONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
 - ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNTING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
- THE ELECTRICAL INSTALLATION WORK SHALL COMPLY WITH ALL LOCAL, STATE AND NATIONAL CODES, LAWS AND ORDINANCES APPLICABLE TO ELECTRICAL WORK.
- ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND VERIFY EXISTING CONDITIONS BEFORE BIDDING AND SHALL INCLUDE IN HIS BID THE NECESSARY COSTS TO CONSTRUCT THIS PROJECT IN ACCORDANCE WITH INTENT OF THE ELECTRICAL DRAWINGS, SPECIFICATIONS, AND ALL APPLICABLE CODES.

- ALL MATERIAL AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW, FREE FORM DEFECTS AND SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER OR HIS REPRESENTATIVE. SHOULD ANY TROUBLE DEVELOP DURING THIS PERIOD DUE TO FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT, THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIAL AND LABOR TO CORRECT THE TROUBLE WITHOUT COST TO THE OWNER.
- ALL WORK TO BE EXECUTED IN WORKMANLIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
- ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK, UNLESS NOTED OTHERWISE AND CO-ORDIANTED WITH THE GENERAL CONTRACTOR.
- ELECTRICAL CONTRACTOR SHALL CO-ORINATE ALL WORK WITH CIVIL AND ARCHITECTURAL PLANS. THE REQUIREMENTS OF ALL EQUIPMENT ACTUALLY BEING INSTALLED SHALL BE VERIFIED PRIOR TO INSTALLING THE ELECTRICAL WORK.
- ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER TYPE THWN-2, THW-2, RHW-2, XHHW-2 #14, #12, & #10 SOLID, #8 AND LARGER STRANDED, UNLESS NOTED OTHERWISE.
- ON COMPLETION OF THE WORK, THE INSTALLATION SHALL BE FREE FORM GROUNDS AND SHORT CIRCUITS.
- ELECTRICAL CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS TO THE ARCHITECT AND CUSTOMER UPON COMPLETION OF THE JOB.
- ELECTRICAL WORK SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED, INCLUDING BUT NOT LIMITED, TO COMPLETE ELECTRICAL SYSTEMS POWER AND LIGHTING, TELEPHONE CONDUIT SYSTEM, SIGNAL SYSTEMS, PANEL BOARDS(S), CONTROL WIRING, GROUNTING, CONDUIT ONLY SYSTEMS, ETC., AS INDICATED ON ELECTRICAL DRAWINGS AND/OR REQUIRED BY GOVERNING CODES.
- RACEWAYS SHALL BE: RIGID STEEL CONDUIT: HOT-DIP GALVANIZED HEAVY WALL AS MANUFACTURED BY REPUBLIC, TRIANGLE OR EQUAL, RIGID POLYVINYL CHLORIDE CONDUIT (PVC): HEAVY WALLS SCHEDULE 40 AS MANUFACTURED BY CARLON ELECTRICAL, VISQUEEN OR EQUAL, ELECTRICAL METALLIC TUBING (EMT):ZINC-COATED THIN WALL AS MANUFACTURED BY TRIANGLE, REPUBLIC OR EQUAL
- FUSE TYPE SHALL BE BUSSMANN RK-1 OR CLASS "J" FUSE.
- PROVIDE ENGRAVED PLASTIC LABELS TO IDENTIFY ALL PANEL BOARDS, XFMRs., DISTRIBUTION PANELS, DISCONNECT SWITCHES, AND TRANSFER SWITCHES, LABELS SHALL READ IN THIS FASHION "A" 208Y/120V 3PH, 4W, 225A, CKT. BKR OR FUSES TYPE AND SIZES.
- E.C. SHALL VERIFY AND TEST GROUND TO SOURCE TO A MAXIMUM OF 5 OHMS. IF THE GROUND TEST DOES NOT ACHIEVE THE 5 OHMS LESS, E.C. SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY CONDUCTORS AND GROUND RODS TO ACHIEVE 5 OHMS MAXIMUM.
- BEFORE SUBMITTING BID, VERIFY EXISTING SITE CONDITIONS, ELECTRICAL SERVICE REQUIREMENTS AND THE EXACT SERVING UTILITY POINTS OF CONNECTION.
- THE ELECTRICAL CONTRACTOR (E.C) SHALL FURNISH AND PAY FOR ALL PERMITS AND RELATED FEES.
- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL ELECTRICAL MATERIALS, EQUIPMENT AND WORK, SHOWN ON THESE PLANS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- E.C. SHALL FURNISH AND INSTALL ALL SWITCHES, CONDUITS, WIRES, BOXES, LIGHT FIXTURES (INCLUDING LAMPS), SERVICE DEVICES, RECEPTACLES, SWITCHBOARDS AND PANEL BOARDS, ETC. REQUIRED FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL/LOCATION INFORMATION RELATING TO THE ELECTRICAL DRAWINGS.
- ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGES AND HORSEPOWER RATINGS OF ALL MECHANICAL EQUIPMENT.
- PRIOR TO INSTALLING ANY ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND REQUIREMENTS ON THE JOB AND BY REFERENCE TO ARCHITECTURE, MECHANICAL AND EQUIPMENT SUPPLIERS DRAWINGS. SHOULD THERE BE ANY QUESTION OR PROBLEM CONCERNING THE NECESSARY PROVISIONS TO BE MADE, PROPER DIRECTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH ANY WORK.
- OUTLET AND JUNCTION BOXES SHALL BE SIZED PER CODE FOR THE QUANTITY OF WIRES THEY CONTAIN. SEE ARTICLE 370 OF N.E.C. PROVIDE ADDITIONAL BOXES AND EXTENSION RINGS AS REQUIRED.
- ELECTRICAL CONTRACTOR SHALL COMPLY WITH CABLE BENDING RADIUS REQUIREMENTS PER CABLE MANUFACTURES SPECIFICATION.
- CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE ROUTING REQUIRED, THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF INSTALLATION.
- ALL EQUIPMENT PROVIDED BY THE ELECTRICAL CONTRACTOR SHALL BE LISTED AND LABELED BY A NATIONALLY- RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF THE INSTALLATION.
- PLANS INDICATE THE NUMBER OF PHASE NATURAL, AND GROUND CONDUCTORS WHERE MORE THAN THREE CONDUCTORS ARE TO BE INSTALLED IN A CONDUIT (THREE OR LESS CONDUCTORS ARE NOT SHOWN). ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.
- WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, CIRCUITS SHALL CONSIST OF #12 PHASE AND GROUNDED (NEUTRAL CONDUCTORS) AND A #12 CU GROUND IN A 3/4" CONDUIT.
- UNLESS SPECIFICALLY NOTED OTHERWISE, THE ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD.
- PRIOR TO TRENCHING IN ANY AREA THE CONTRACTOR SHALL CONTACT ELECTRICAL, COMMUNICATIONS/DATA, CABLE T.V., GAS, AND WATER UTILITY PROVIDES (BLUE STRIKE) AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED, IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING (PRIOR TO COMMENCING WORK). DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- ANY AND ALL WIRE THAT CARRIES A CURRENT MUST BE IN A CONDUIT. (GROUNDING WIRE FOR LOOPS, HALOS, ECT. IS CONSIDERED NON-CURRENT CARRYING.)

TYPICAL HANDHOLE NOTES

- CONCRETE COLLARS MAY BE DESIRED FOR INSTALLATIONS IN DRIVEWAYS, PARKING LOTS AND OFF-ROADWAY APPLICATIONS WHERE SUBJECT TO OCCASIONAL NON-DELIBERATE TRAFFIC. THIS APPLIES TO BOXES MADE FROM ANY MATERIAL TO PROVIDE ADDED PROTECTION FOR THE TOP LID. THIS IS NOT NECESSARY IN GRASSY AREAS OR AREAS SUBJECT TO PEDESTRIAN TRAFFIC.
- CONCRETE ENCASEMENT TO BE 3,000 PSI MIN.
- CONCRETE ENCASEMENT COLLAR DIMENSION "D" TO BE EQUAL TO DESIGN PAVEMENT DEPTH.
- PAVEMENT AND SUBGRADE TO BE SHOWN ON THE ENGINEERING PLANS.
- EXCAVATE THE HOLE APPROXIMATELY 6 TO 8" DEEPER THAN SUGGESTED HANDHOLE BURIAL DEPTH.
- COMPACT THE SUBSOIL WITH A BACK-HOE OR A HYDRAULIC TAMPER. ADD APPROXIMATELY 6 TO 8" OF GRAVEL TO THE BOTTOM OF HOLE.
- PLACE THE HANDHOLE ON THE LEVELED GRAVEL BED. LEVEL THE HANDHOLE.
- BACK-FILL WITH LOOSE EARTH MATERIAL UP TO THE TOP SURFACE OF THE HANDHOLE. DO NOT BACK-FILL WITH CHUNKS OF FROZEN MATERIAL OR LARGE ROCKS NEXT TO THE GROUND SLEEVE. PACK THE BACK-FILL MATERIAL BY FOOT TAMPING, NO MACHINE TAMPING.
- PROVIDE BARRIER HUBBELL QUAZITE # PG 2436BC30.
- ALL UNDERGROUND CONDUITS SHALL BE SCH 40 PVC. EXCEPT THAT ELBOWS AND RISERS SHALL BE RMC ALL UNDERGROUND ELBOWS SHALL BE SWEEPING BENDS. 2'-0" MINIMUM SHALL BE REQUIRED.
- THREE CONDUITS ARE SHOWN BELOW, ALTHOUGH MULTIPLE CONDUITS CAN BE PLACED IN THE SAME TRENCH. A MINIMUM SEPARATION IS REQUIRED PER THE LOCAL JURISDICTIONS AND UTILITY COMPANIES. IN ALL OTHER CASES, USE THE CONDUIT SPACING SCHEDULE TO MAINTAIN MINIMUM SPACING BETWEEN THE EXTERIOR WALL TO EXTERIOR WALL SEPARATION OF CONDUITS.
- CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.
- TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
- ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION.



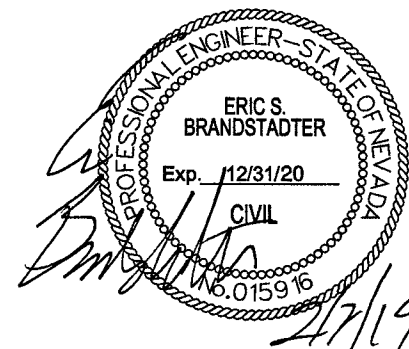
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REV	DATE	DESCRIPTION
2	01/16/19	CITY COMMENTS
1	11/16/18	ISSUED FOR CONSTRUCTION
0	09/13/18	ISSUED FOR CONSTRUCTION



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SMALL CELL

SHEET TITLE

GENERAL CONSTRUCTION
NOTES

SHEET NUMBER

GN-1

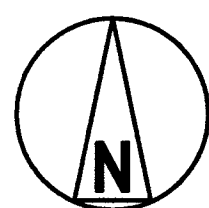
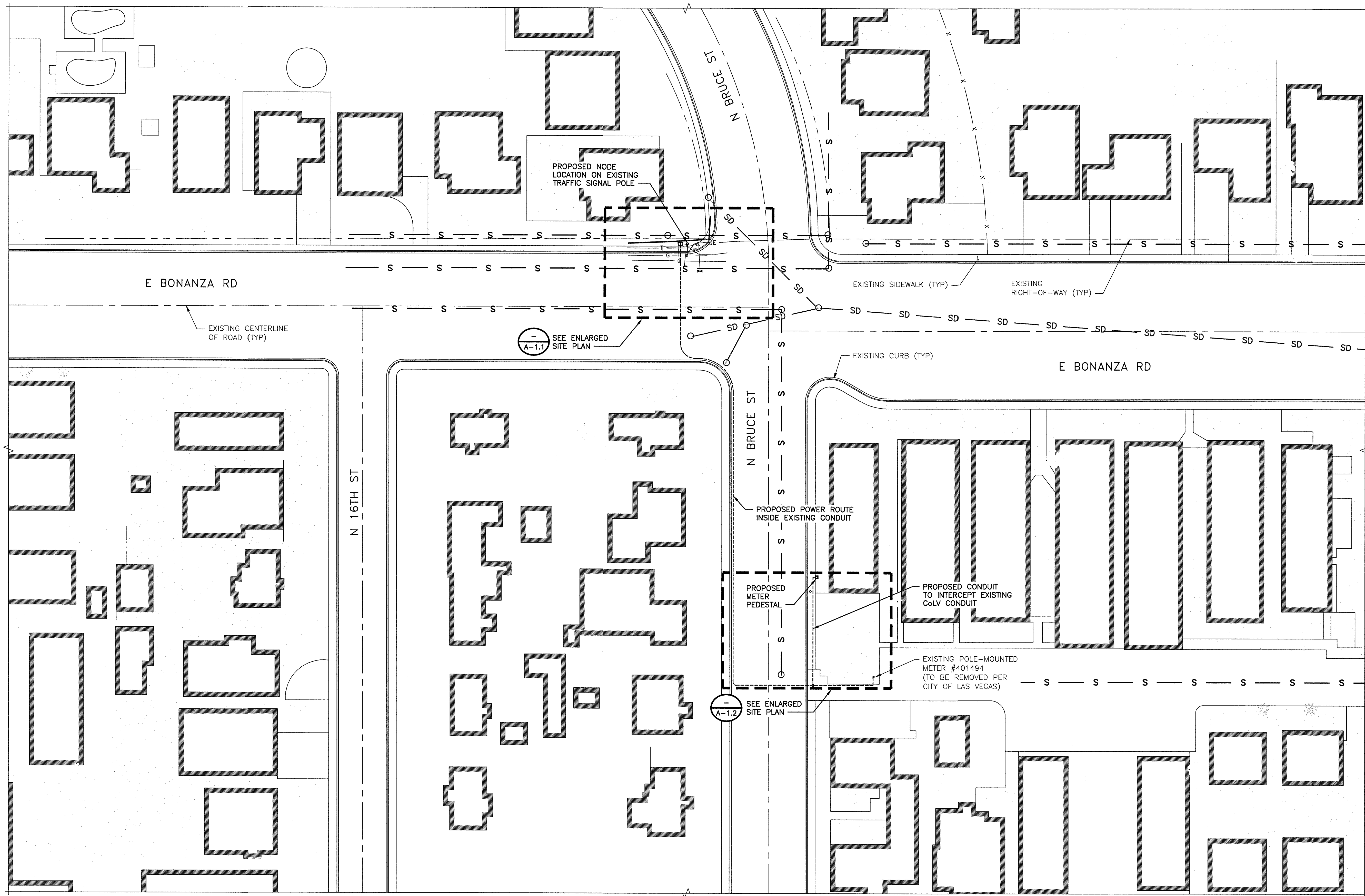
GENERAL NOTES

1

TYPICAL EQUIPMENT PLACEMENT DETAIL

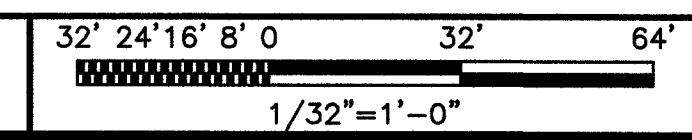
NO SCALE

2



OVERALL SITE PLAN

- NOTES
1. REFERENCE USDCCA DETAIL #506 FOR POTHOLING AT ALL SEWER/STORM DRAIN CROSSINGS (SEE SHEET D-4)
 2. POTHOLING TO BE CONDUCTED AT ALL INTERSECTIONS OF PROPOSED CONDUIT ROUTE WITH EXISTING STORM OR SANITARY SEWERS. POTHOLE LOCATIONS TO BE RESTORED PER USDCCA DETAIL #506 AS SHOWN ON D-4.



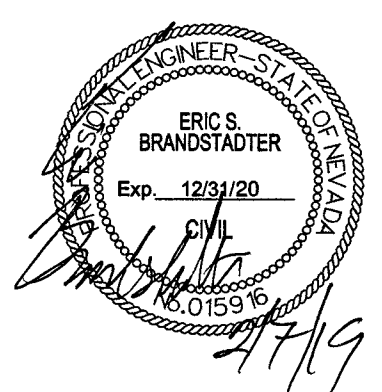
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OVERALL SITE PLAN

SHEET NUMBER

A-1

THIS DRAWING IS
NOT A SITE SURVEY

THE PURPOSE OF THIS DRAWING IS
TO SHOW HOW THE DEVELOPED SITE
RELATES TO THE PARENT PARCEL
AND ADJACENT PROPERTIES.

A.P.N. 139-26-415-064

PROPOSED EQUIPMENT MOUNTED TO
EXISTING TRAFFIC SIGNAL POLE

8
D-1
PROPOSED HANDHOLE

PROPOSED POWER ROUTE
INSIDE EXISTING CONDUIT

EXISTING CENTERLINE
OF ROAD (TYP)

EXISTING SIDEWALK (TYP)

EXISTING CURB (TYP)

EXISTING GUTTER (TYP)

EXISTING GAS
LINE (TYP)

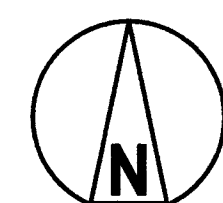
EXISTING WATER
LINE (TYP)

EXISTING WATER
VALVE (TYP)

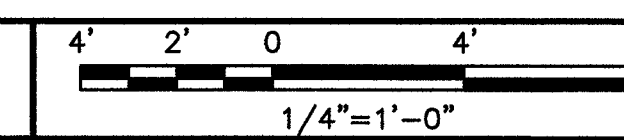
A-2

E BONANZA RD

N BRUCE ST



ENLARGED SITE PLAN



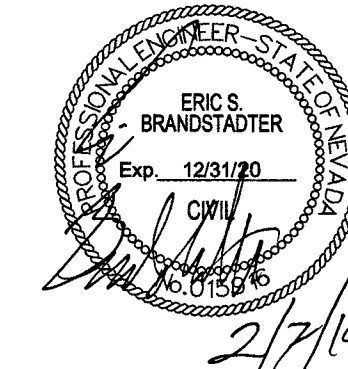
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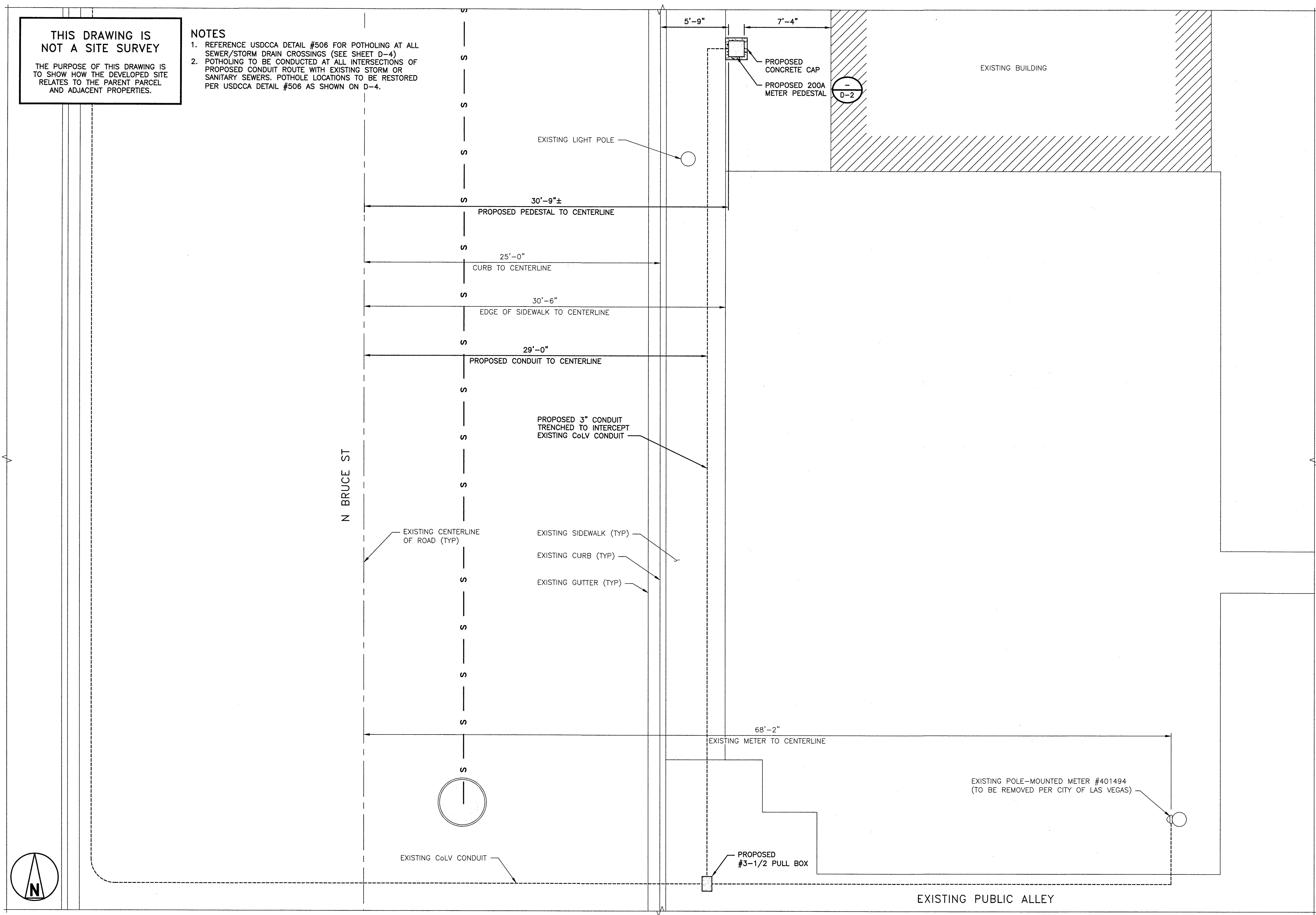
SHEET NUMBER

A-1.1

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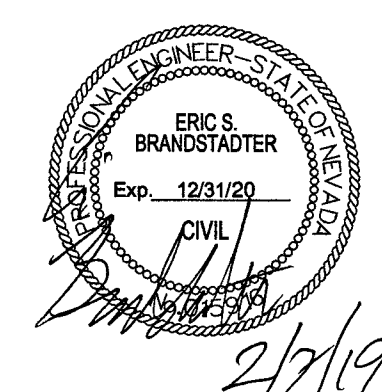
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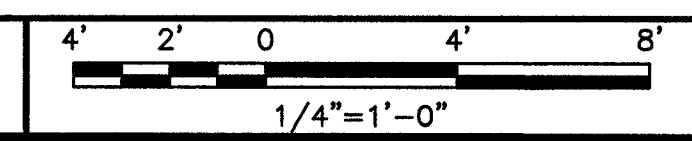
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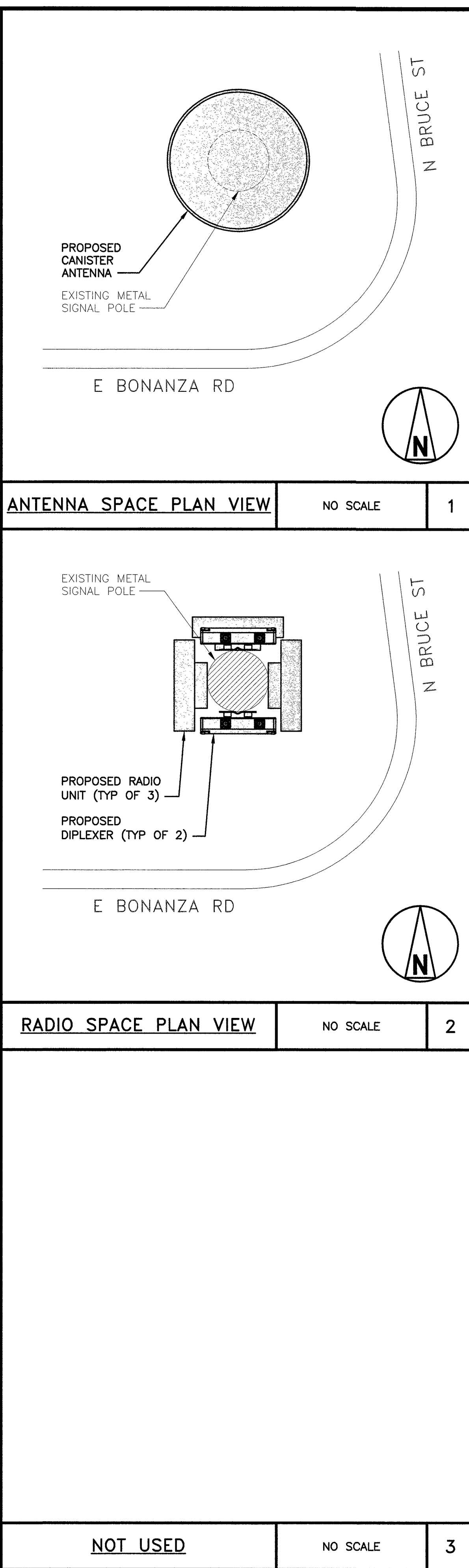
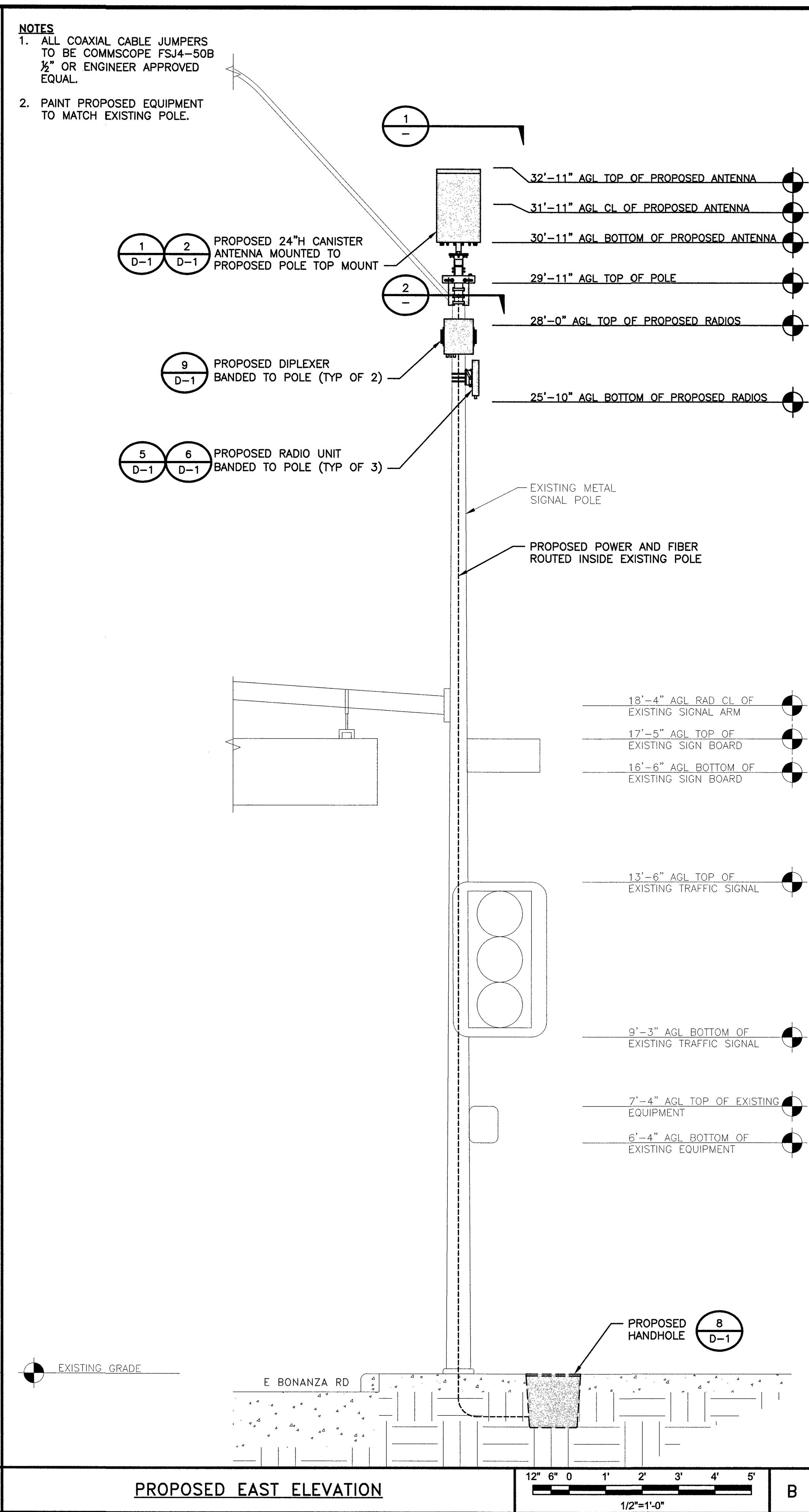
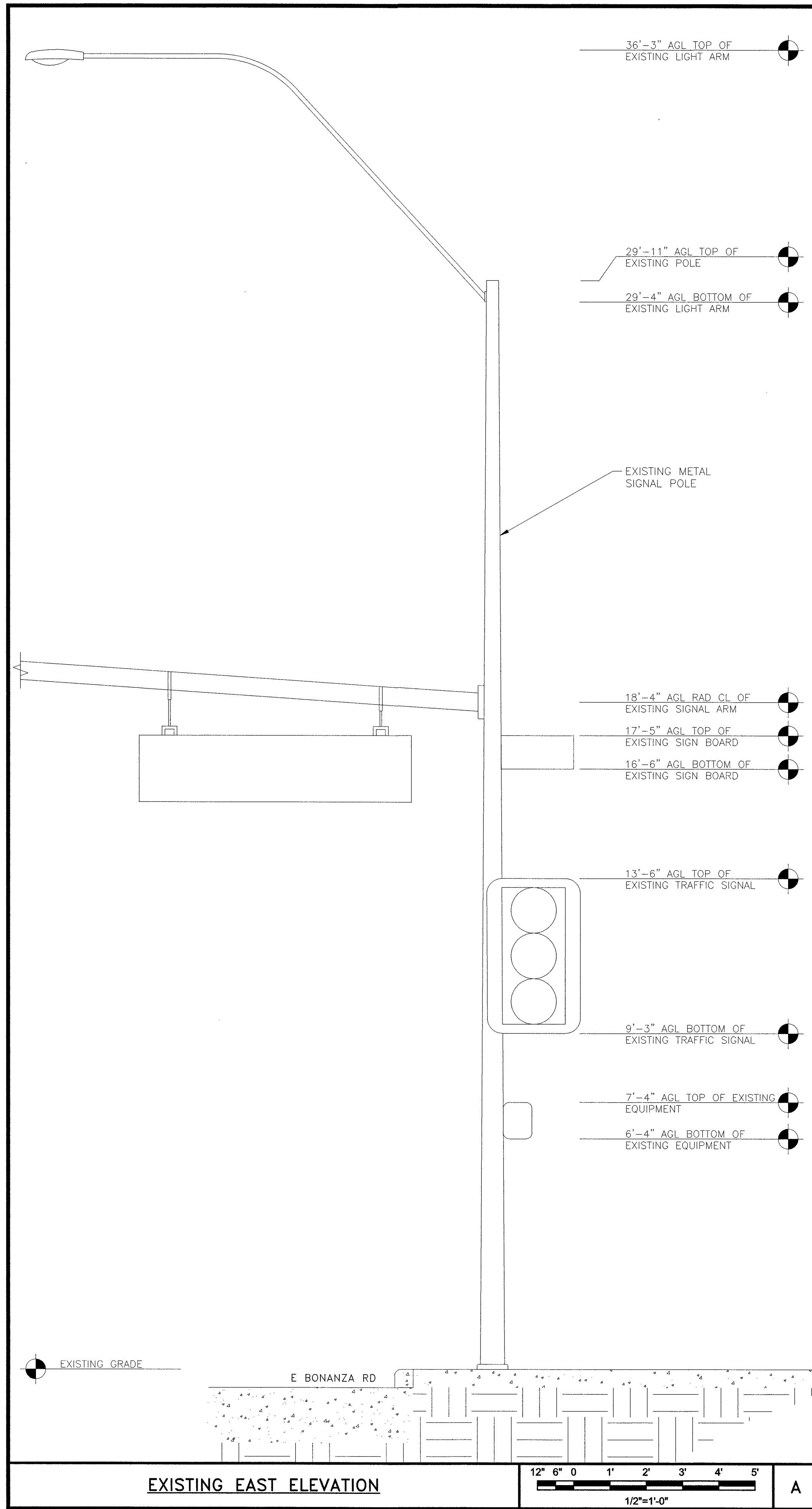
ENLARGED METER
SITE PLAN

SHEET NUMBER

A-1.2

ENLARGED SITE PLAN





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PROJECT NO.	DRAWN BY	CHECKED BY
199064.2036	AAP	LEW

REV	DATE	DESCRIPTION
2	01/16/19	CITY COMMENTS
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0	09/13/18	ISSUED FOR CONSTRUCTION

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SITE ADDRESS

33AT0089SMC
CRAN_NVLO8122F_R02
1669.25 E BONANZA RD
LAS VEGAS, NV 889101
SMALL CELL

SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-2

NOT USED	NO SCALE	3
----------	----------	---

ROSENBERGER CA-AE010ITJTVEX360F-JS06

DIMENSIONS

Diameter: 14.5"

Height: 24"

Total Weight (without mount): 22 lbs

Connector Interface: (12) 4.3-10 Female

RF Connector Location: Bottom

ANTENNA SPECIFICATIONS

NO SCALE

1

CONCEALFAB 900109

DIMENSIONS HxW: 6.38"x7.00" (162.05x178mm)

Weight: 4.66 lbs (2.11 kg)

DETAIL IS FOR GRAPHIC REPRESENTATION, CONTRACTOR MUST REFERENCE MANUFACTURERS DRAWINGS PRIOR TO CONSTRUCTION.

ANTENNA SLEEVE MOUNT

NO SCALE

2

CONCEALFAB 007948M0

DIMENSIONS HxWxL: 12.75"x6.65"x10.75" (324x169x273 mm)

Weight: 22 lbs (10 kg)

DETAIL IS FOR GRAPHIC REPRESENTATION, CONTRACTOR MUST REFERENCE MANUFACTURERS DRAWINGS PRIOR TO CONSTRUCTION.

STANDARD POLE TOP MOUNT

NO SCALE

3

NOKIA AIRSCALE MICRO B25/B66A RRH

DIMENSIONS, HxWxD: 11.61"x9.65"x2.17" (295x245x55mm)

Weight: 12.79 lbs (5.8 kg)

INTERFACES: (2) CPRI FRONTHAUL PORTS, (1) EXTERNAL ALARM PORT

POWER CONSUMPTION: TYP. 110W, MAX. 150W

TEMP. RANGE: -40°C TO +55°C

NOKIA AIRSCALE B46 (LAA) RRH

DIMENSIONS: 11.6"x9.6"x1.6"

Weight: 11.0 lbs

INTERFACES: (2) CPRI FOR FRONTHAUL

ANTENNA CONFIGURATION: 2T MIMO

RF CONNECTIONS: NEX10 PLUS FEMALE

RADIO SPECIFICATIONS

NO SCALE

5

COMMSCOPE CBC1923T-4310 E11F13P06

DIPLEXER SPECIFICATIONS

NO SCALE

9

DESIGN CRITERIA

- 2012 IBC
- Vult = 105 MPH (ASCE 7-10 TBL 26.5-1C), Vasd = 81 MPH, RISK CATEGORY 1, WIND EXPOSURE C
- ALLOWABLE LATERAL BEARING PRESSURE = 100 PSF/FT
- INCREASE FOR SHORT TERM LOADS, DEPTH, AND 1/2" MOVEMENT TAKEN.
- ASSUMED 5 SQUARE FOOT RECTANGLE AT TOP OF POLE.

POLE HEIGHT	FOOTING DEPTH
8'-0"	2'-9"
12'-0"	3'-3"
20'-0"	4'-0"
30'-0"	5'-0"
40'-0"	6'-0"

EXISTING BOLTED LIGHT POLE BASE DETAIL

NO SCALE

7

CONCRETE PULL BOX SPECIFICATIONS

NOTES

- COVERS INSTALLED IN TRAFFIC AND OPEN AREAS ACCESSIBLE TO TRAFFIC SHALL BE PER STANDARD DRAWING NO. 327.
- SEE STANDARD DRAWING NO. 323 FOR COVER GROUNDING.
- REFER TO SHEET GN-1 FOR ADDITIONAL HANDHOLE NOTES.

PULL BOX			
SIZE (COMMERCIAL DESIGNATION)			
	3-1/2	5	7
A	15	21-3/4	30-5/8
B	10	11-3/4	17-5/8
C	3/4	2	2
D	19-3/8	25	34-3/4
E	14-3/8	15	21-3/4
F	12	12	12
G	N/A	10-1/4	11-1/2

CONCRETE PULL BOX SPECIFICATIONS

NO SCALE

8

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SUITE 1200
BLOOMINGTON, MN 55435

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CRAN_NVL08122F_R02
1669.25 E BONANZA RD
LAS VEGAS, NV 899101
SMALL CELL

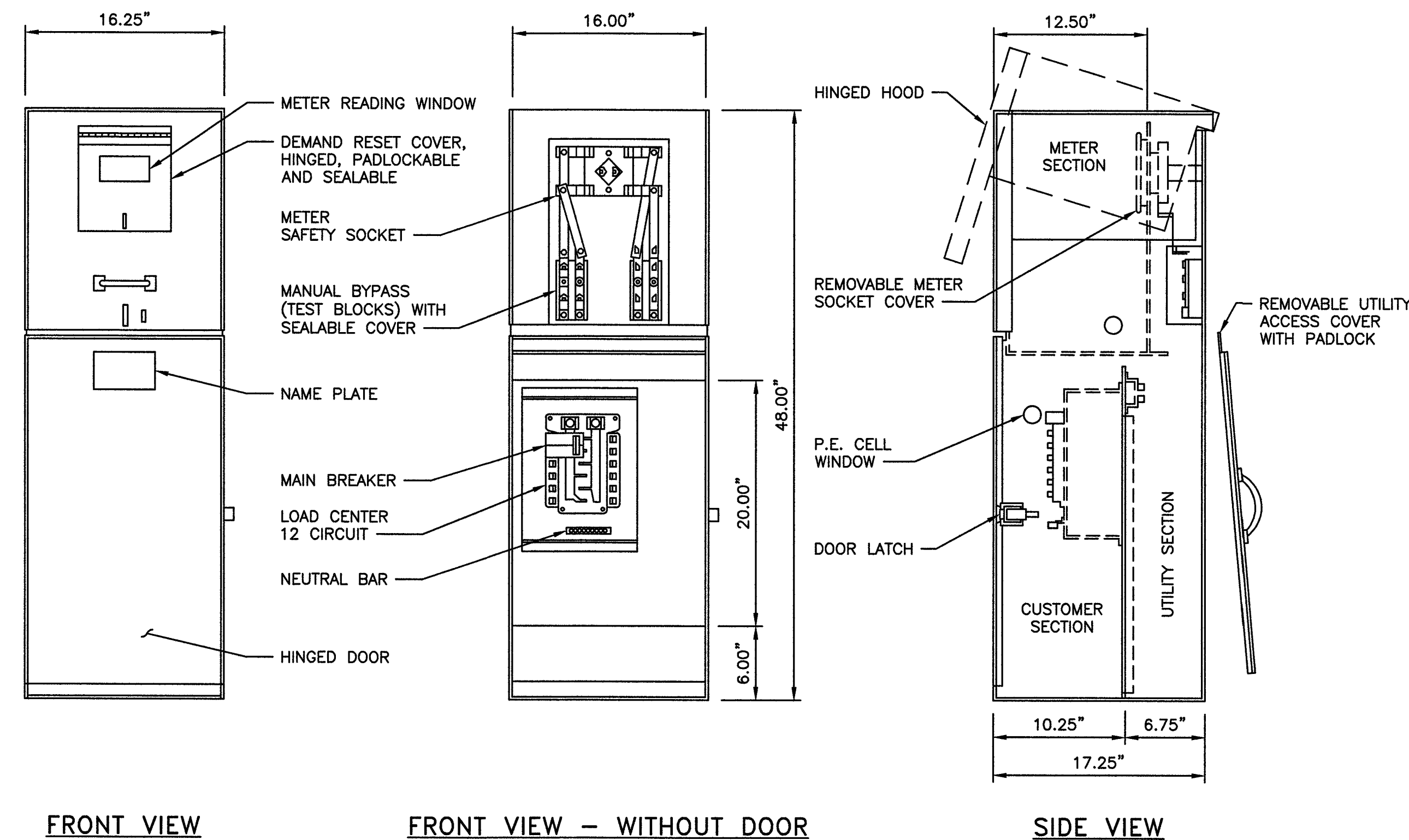
SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

D-1

MYERS MEUG16-M200 CALTRANS TYPE III-BF



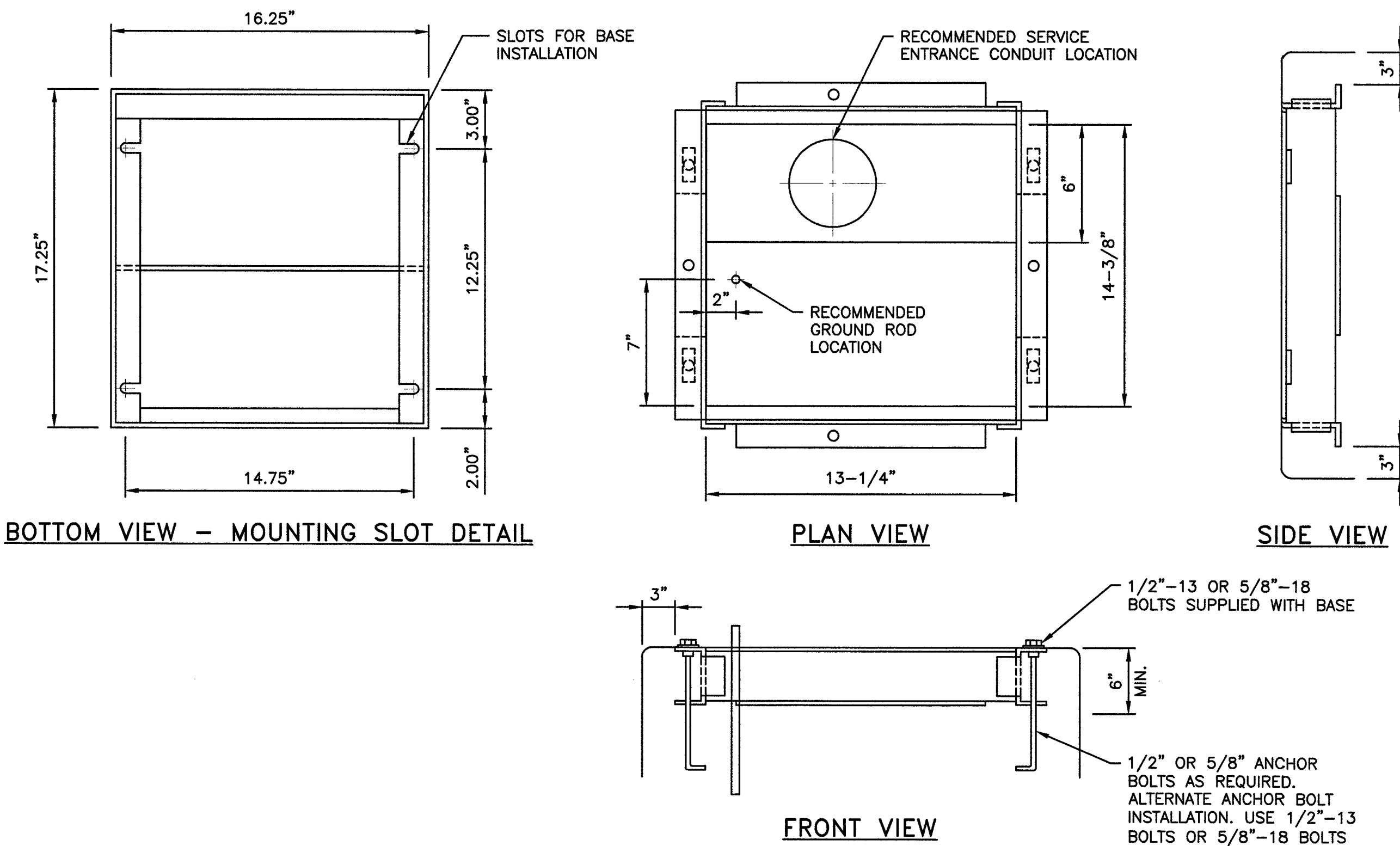
METER PEDESTAL DETAIL

NO SCALE

1

NOTES

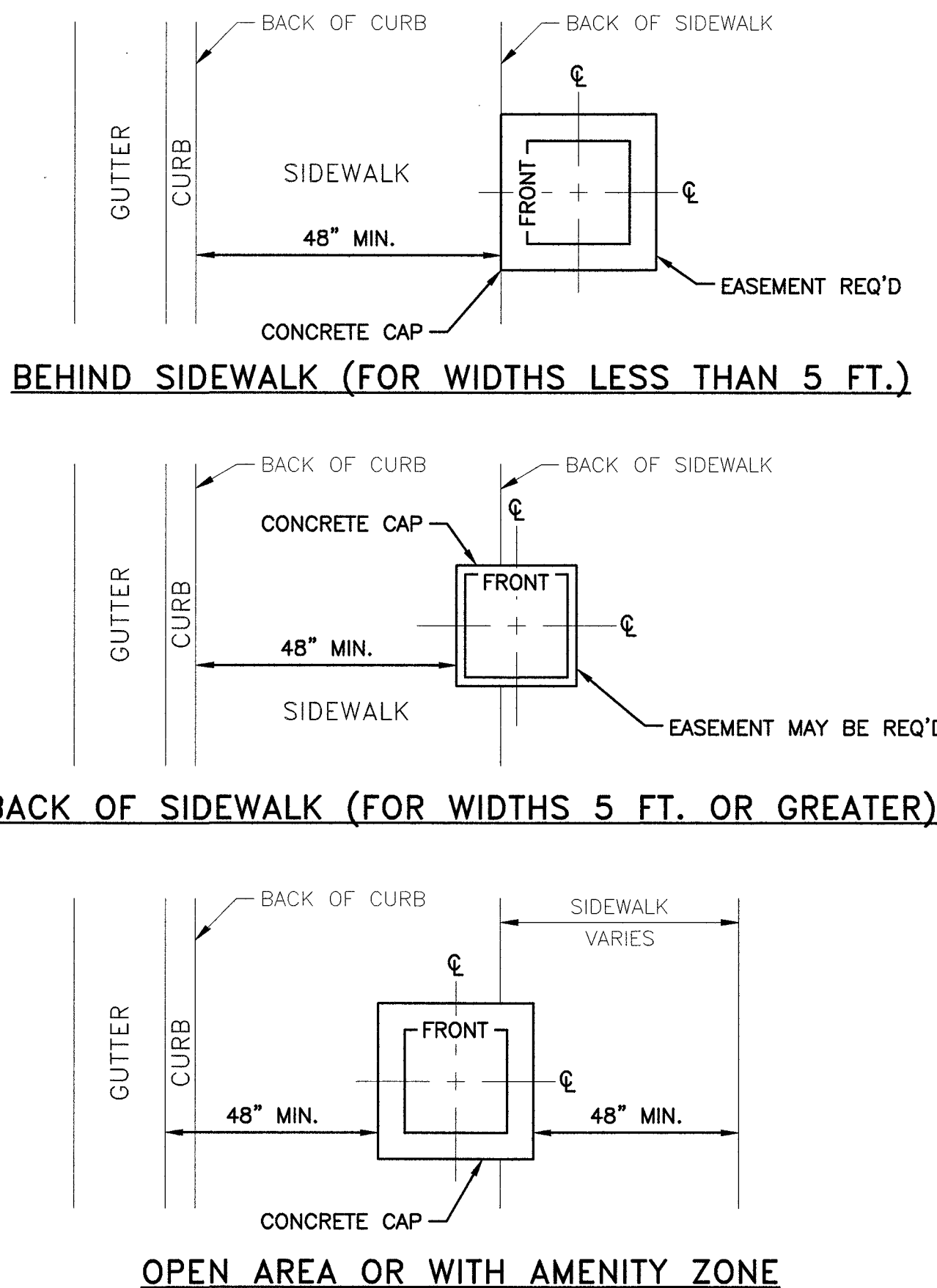
1. MINIMUM CLEARANCE REQUIRED 36" PER NEC 110-16, TYPICAL FRONT AND BACK.
2. FOUNDATION DIMENSIONS AND DEPTH PER JOB SPECIFICATIONS.



BASEPLATE DETAIL

NO SCALE

3



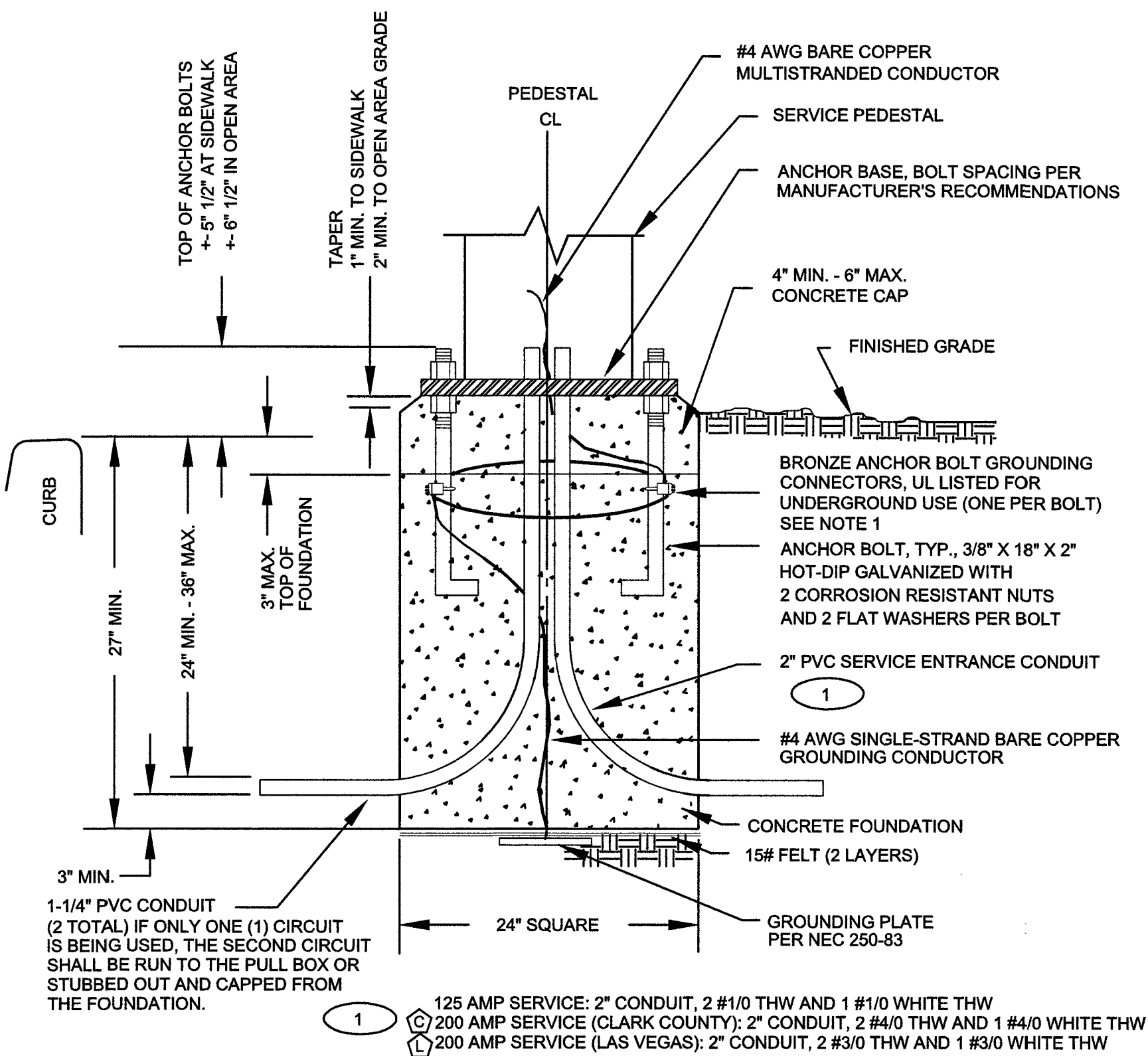
SERVICE PEDESTAL SETBACK DETAILS (USDCCA DRAWING #331)

NO SCALE

2

NOTES

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
2. CABINET COVERS SHALL BE PARALLEL WITH CURB.
3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT THE BACK EDGE OF THE SIDEWALK.
4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.
5. WIRE SIZES ARE BASED ON UNDERGROUND FEED.
6. WIRE SIZES SHALL BE INCREASED FOR VOLTAGE DROP LIMITATION WHEN RUN IS LONG.



SERVICE PEDESTAL FOUNDATION DETAIL

NO SCALE

4



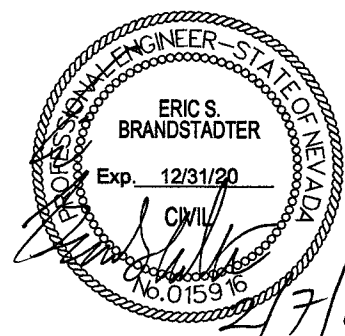
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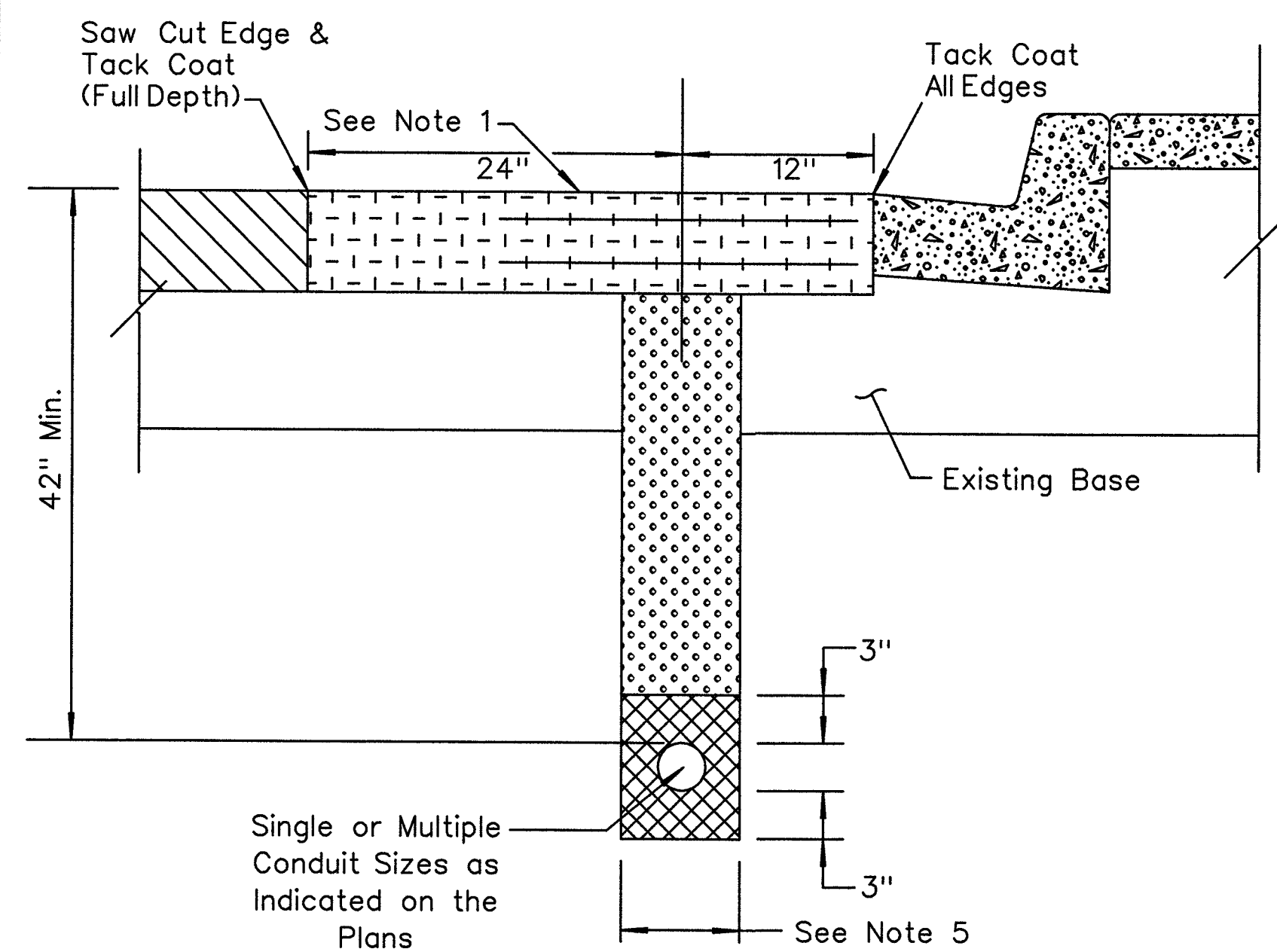
33AT0089SMC
CRAN_NVL08122F_R02
1669.25 E BONANZA RD
LAS VEGAS, NV 889101
SMALL CELL

SHEET TITLE

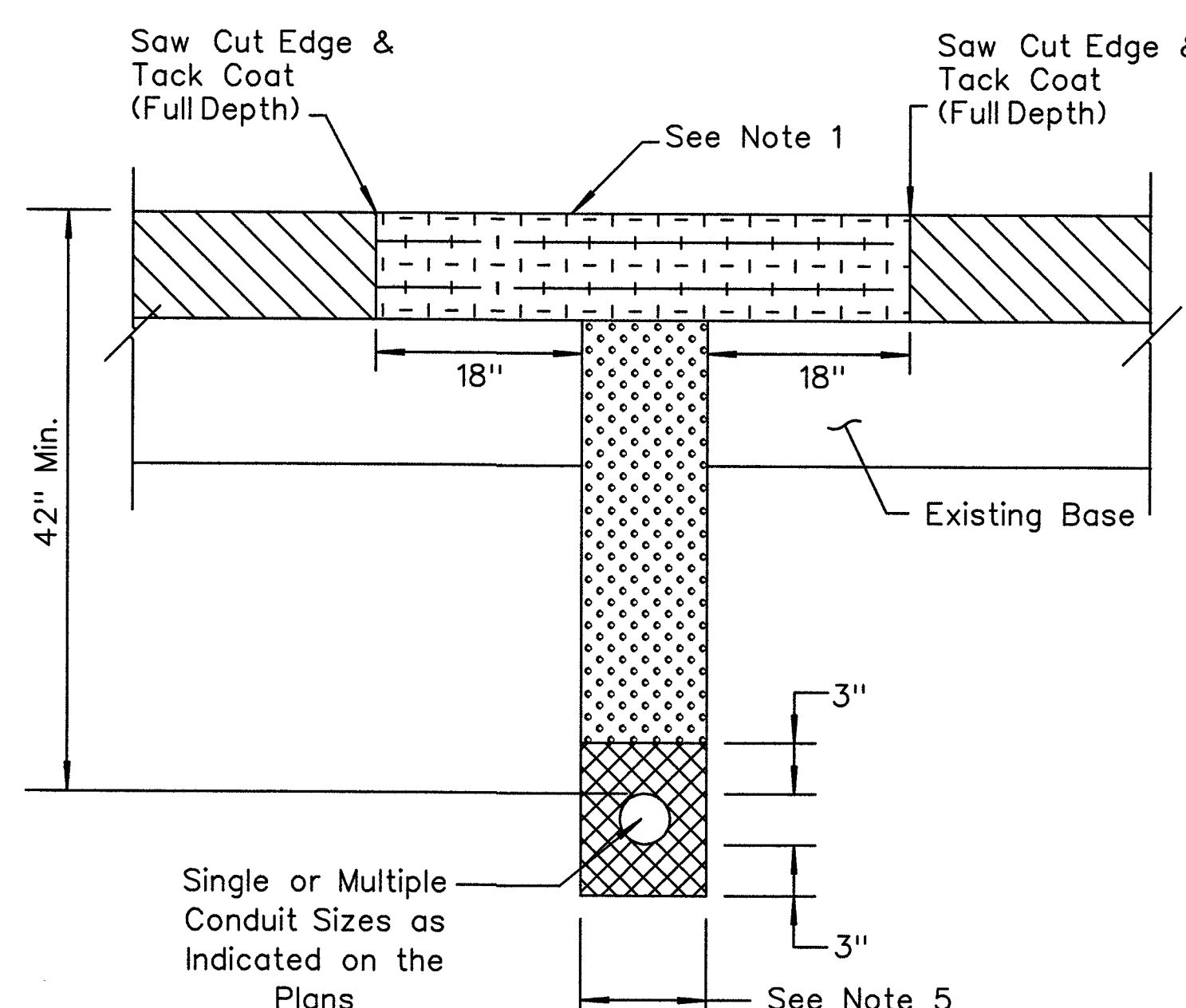
METER PEDESTAL
DETAILS

SHEET NUMBER

D-2

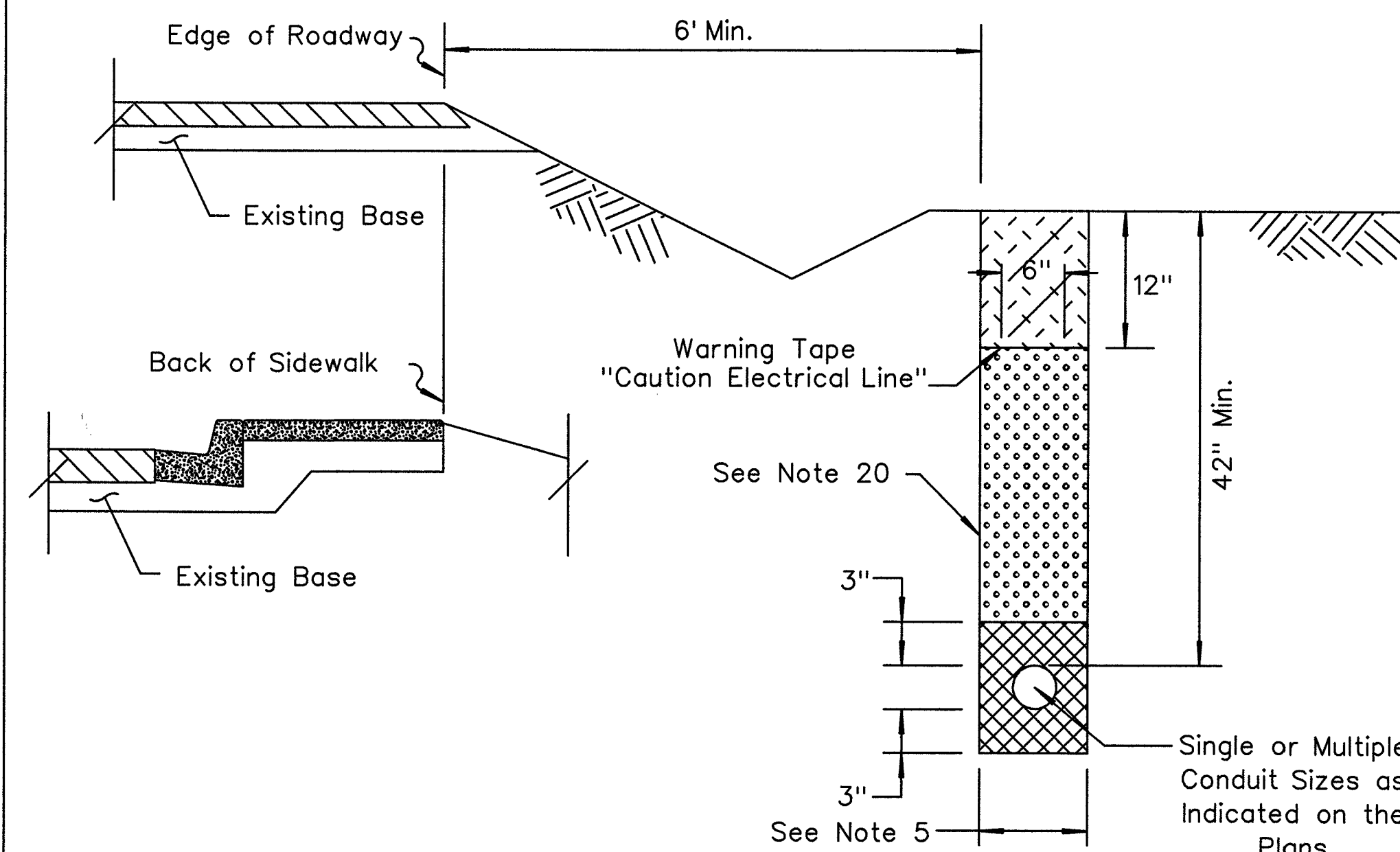


LONGITUDINAL



TRANSVERSE

TRENCHING IN PAVEMENT



TRENCHING IN NATIVE SOIL (CLASS A SLURRY)

NOTES:

1. Remove existing pavement and replace with new approved material of same type. Match existing structural section (including open grade) and existing pavement depth but not less than 6 inches, and seal new surface as directed by the Engineer.
2. Recompact existing base material around trench to meet compaction requirements for that material type and location.
3. New asphalt and concrete pavement material shall be approved by the Engineer and obtained from an approved source.
4. Unless otherwise provided for in the base and surface summaries new pavement material and trenching shall not be paid for directly but included in the price for the conduit.
5. Total trench width shall be 6 inches wider than the outside edges of conduit(s) installed Use conduit spacers to separate multiple conduits in trench by at least 1 inch. Place spacers at intervals of 5 feet maximum Conduits shall be centered in trench.
6. For trenching in a non NDOT-owned facility, use the owner s standards for trenching, compaction, and patching.
7. Longitudinal trenching in shoulder: If shoulder is 4 foot wide or Less, remove all surface material from edge of oil to shoulder stripe and replace.
8. Engineer may for good cause, require wider patch sections or otherwise alter the requirements
9. If saw cut is within 2 feet of an existing pavement edge or existing patch, remove existing pavement to that edge and replace entire section
10. If sawcut edges for trench fall within a wheel path, sawcut shall be extended to, and removal made to edge of the travel lane. Optionally the entire travel lane can be rotomilled to a depth of 2 inches and overlayed with 2 inches of bituminous plantmix as directed by the Engineer.
11. Contractor shall be responsible for replacement of loop detectors, adjustments of utilities and survey monuments to grade and installation of temporary pavement markings.
12. Permanent resurfacing shall not be placed on trenches backfilled with concrete slurry for a minimum of 7 days after placement of the concrete slurry or similar material. Provide temporary cover or backfill as directed by the Engineer.

LEGEND:

- EXISTING PAVEMENT
- LIMITS OF REMOVAL & REPAIR OF PAVEMENT
- SAND BEDDING (SEE NOTE 14)
- CLASS A SLURRY CEMENT BACKFILL
- BACKFILL

13. Use of rock wheel trenching machines or similar equipment may be permitted within paved areas or within 1 foot of the edge of paving, as directed by the Engineer.
14. Sand bedding shall conform to gradation requirements in Subsection 706.03.03
15. If installing underground electrical facilities or supplies, refer to NAC 408.447 and 408.453
16. Slurry backfill in accordance with Section 207 if within the roadside slope or ditches
17. Conduit couplings shall be staggered
18. Detectable pull tape shall be installed inside all conduits
19. Return disturbed area to match existing grade
20. Native backfill acceptable when specified on plans or approved in writing by the Engineer. Native backfill shall not contain rocks larger than 3 inches

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION		
TRAFFIC CONDUIT TRENCHING DETAIL		
T-30.2.4	(623)	Signed Original On File
ADOPTED 2/71	REVISED 10/15	CHIEF TRAFFIC OPS ENGR.



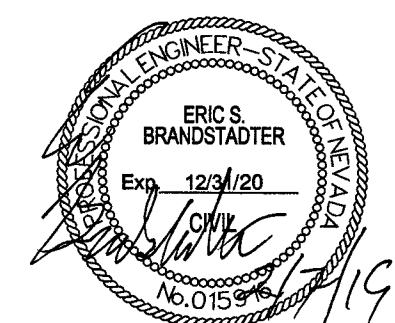
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33AT0089SMC
CRAN_NVLO8122F_R02
1669.25 E BONANZA RD
LAS VEGAS, NV 889101
SMALL CELL

SHEET TITLE

TRENCHING DETAILS

SHEET NUMBER

D-3



CAUTION
STAY BACK 3 ft.
TO PREVENT
RADIO FREQUENCY
EXPOSURES ABOVE FCC
LIMITS. CALL NOC
1-877-897-2476
TO POWER DOWN.
SITE ID: 33AT0089SMC



NOTICE
SMALL CELL SHUT OFF SWITCH
Push switch button turn off radio
while working within 3 ft. of the
device

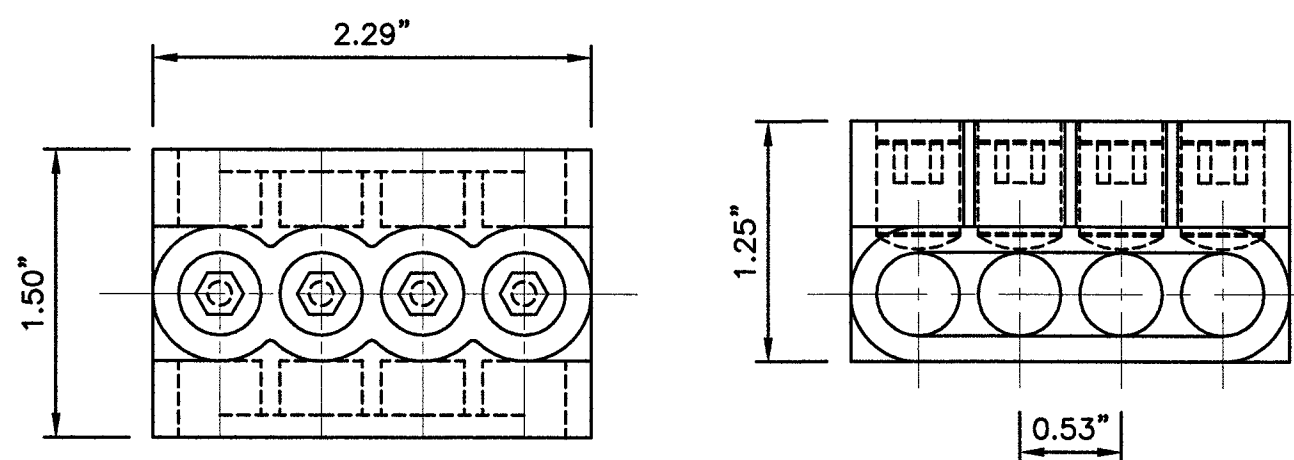
Note: Once work is completed
turn switch back on

RF WARNING PLACARDS

NO SCALE

1

MULTI-TAP CONNECTOR WITH CLEAR INSULATION,
DOUBLE-SIDED (PCSB4-4-6Y)



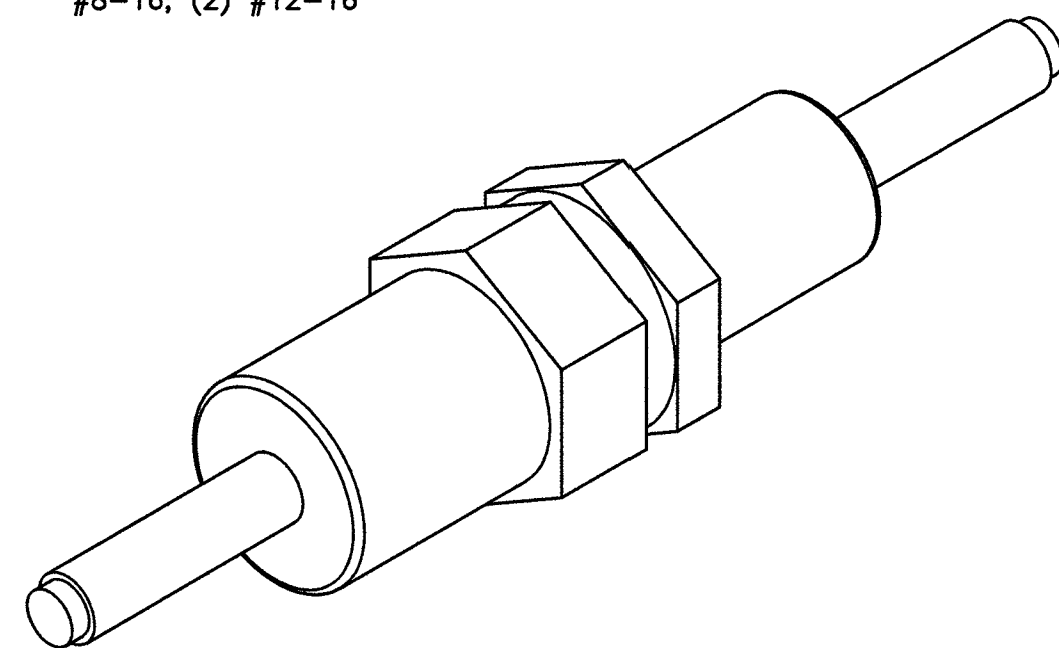
CONNECTOR DETAIL

NO SCALE

2

BUSSMAN HEB-AW-RLC-A

DIMENSIONS, LENGTH: 4.4"
WIRE RANGE: #8-16; (2) #12-16



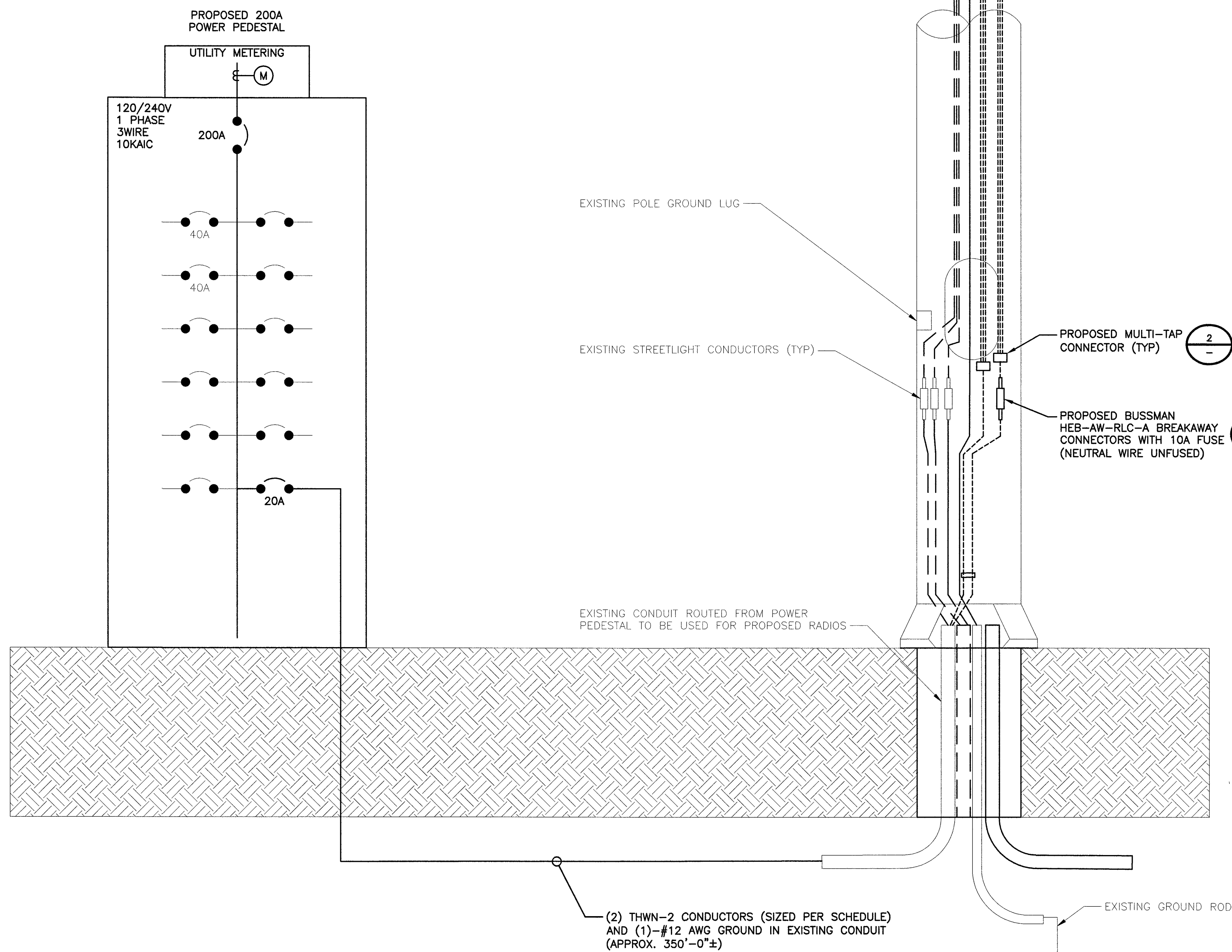
BREAKAWAY FUSE DETAIL

NO SCALE

3

NOTES

1. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER THWN-2, THW-2, RHW-2, XHHW-2 WIRE UNLESS NOTED OTHERWISE.
3. ALL GROUNDING AND BONDING TO BE PER THE RECOGNIZED EDITION OF THE NATIONAL ELECTRIC CODE (NEC).
4. ALL INSTALLED CONDUCTORS AND SIGNAL CABLES TO BE CLEARLY MARKED "COX COMMUNICATIONS" WITH BRASS OR FIBERGLASS TAGS.



TYPICAL POLE SITE TEMPLATE

NO SCALE

4



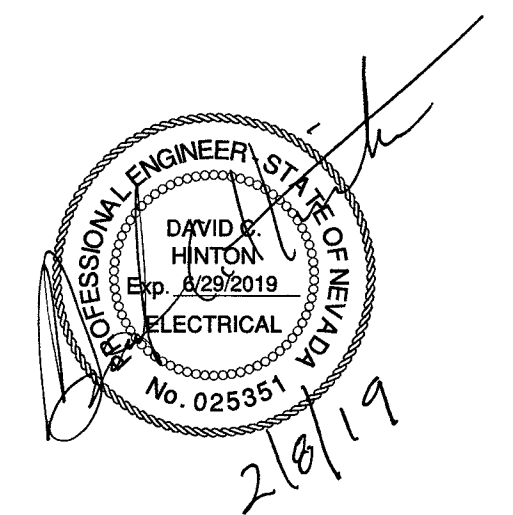
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SHEET TITLE

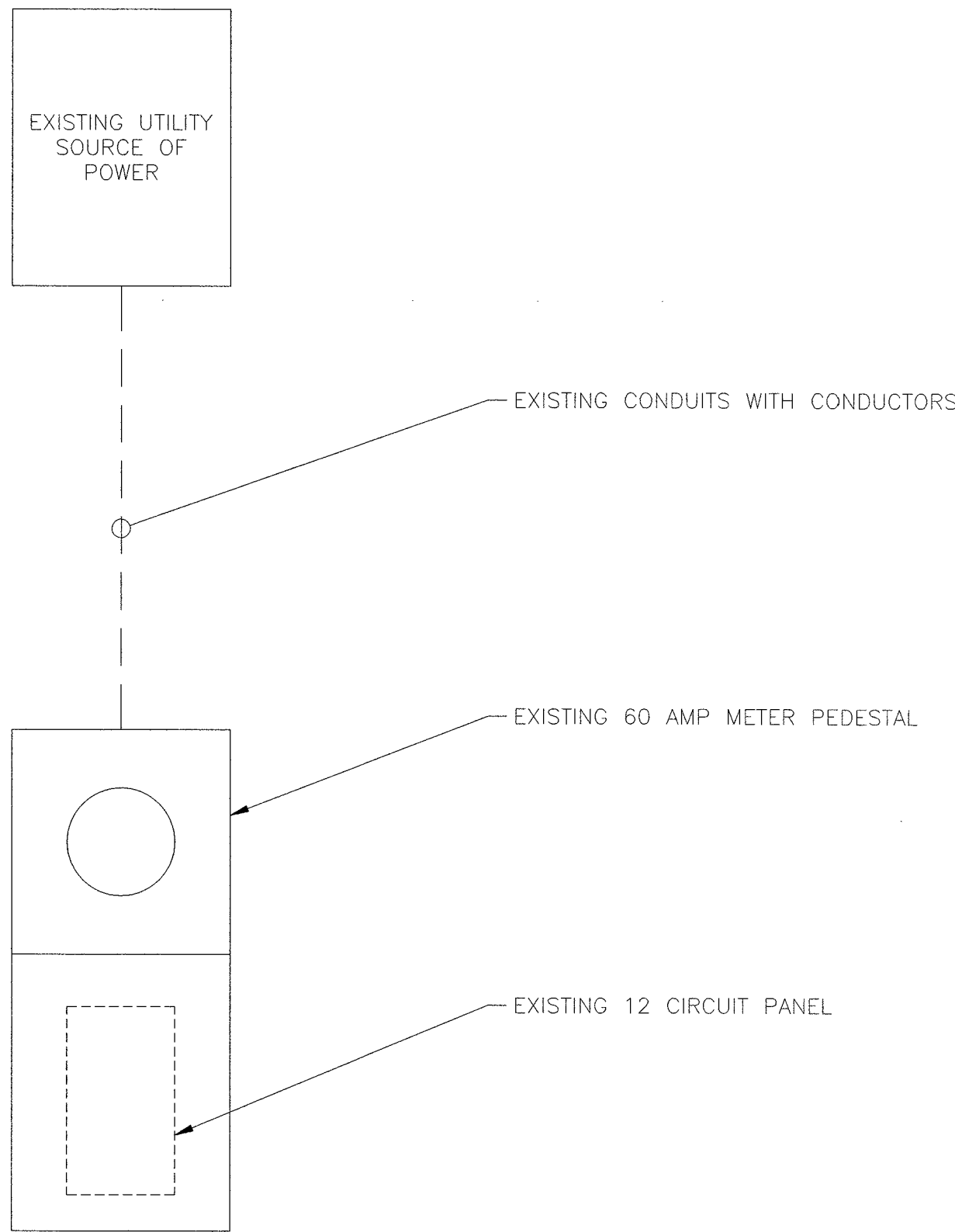
ELECTRICAL DETAILS
AND DIAGRAMS

SHEET NUMBER

E-1

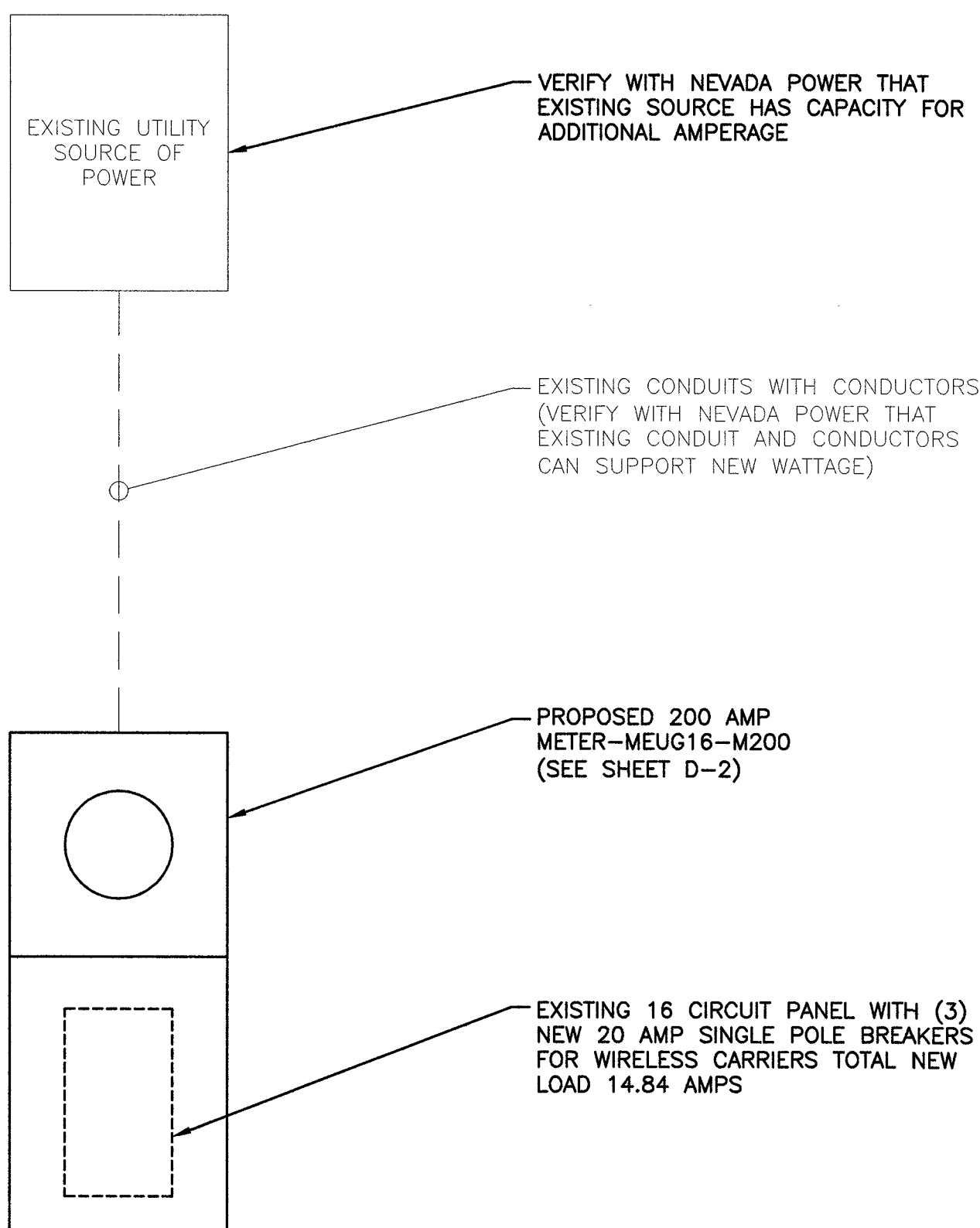
EXISTING ELECTRICAL LOAD STUDY

EXISTING LOAD.....10 AMPS
ALLOWED LOAD 80%.....48 AMPS



PROPOSED ELECTRICAL LOAD STUDY

EXISTING LOAD.....10.0 AMPS
SAFETY FACTOR 125%.....12.50 AMPS
PROPOSED LOAD.....2.34 AMPS
TOTAL LOAD.....14.84 AMPS
ALLOWED LOAD 80% OF 125 AMPS.....160 AMPS



EXISTING SINGLE LINE DIAGRAM

NO SCALE

1

PROPOSED SINGLE LINE DIAGRAM

NO SCALE

2

Site Name:		1669 E.BONANZA RD						MODEL NUMBER:		MEUG16-M200									
SITE NUMBER:		33AT0089SMC						PHASE:		1				WIRE:		3			
VOLTAGE:		240 /120		Volts AC				BUSS RATING:		200		AMPS							
MAIN BREAKER:		200 AMPS																	
MOUNT:		SURFACE																	
ENCLOSURE TYPE:		NEMA 3R																	
PANEL STATUS:		PROPOSED																	
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	Demand Factor	USAGE FACTOR	PHASE A VA	PHASE B VA	USAGE FACTOR	Demand Factor	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT		
1	MAINS	200	2	NEW	0	1.00	1.00	563		1.25	1.00	450	NEW	1	20	PROPOSED COX SMALL CELL	2		
3					0	1.00	1.00		0	1.00	1.00	0	OFF	1	20	TELECOM (FUTURE)	4		
5	STREET LIGHT	40	1	ON	1200	1.00	1.25	1500		1.00	1.00	0	OFF	1	20	TELECOM (FUTURE)	6		
7	STREET LIGHT	40	1	ON	1200	1.00	1.25		1500								8		
9								0									10		
11									0								12		
13								0									14		
15									0								16		
								PHASE A	PHASE B										
								2063	1500	VA									
									TOTAL	KVA	3.56								
										AMPS	14.84	≤ 80% OF MAIN BREAKER							

PROPOSED PANEL SCHEDULE AND CALCULATIONS

NO SCALE

3



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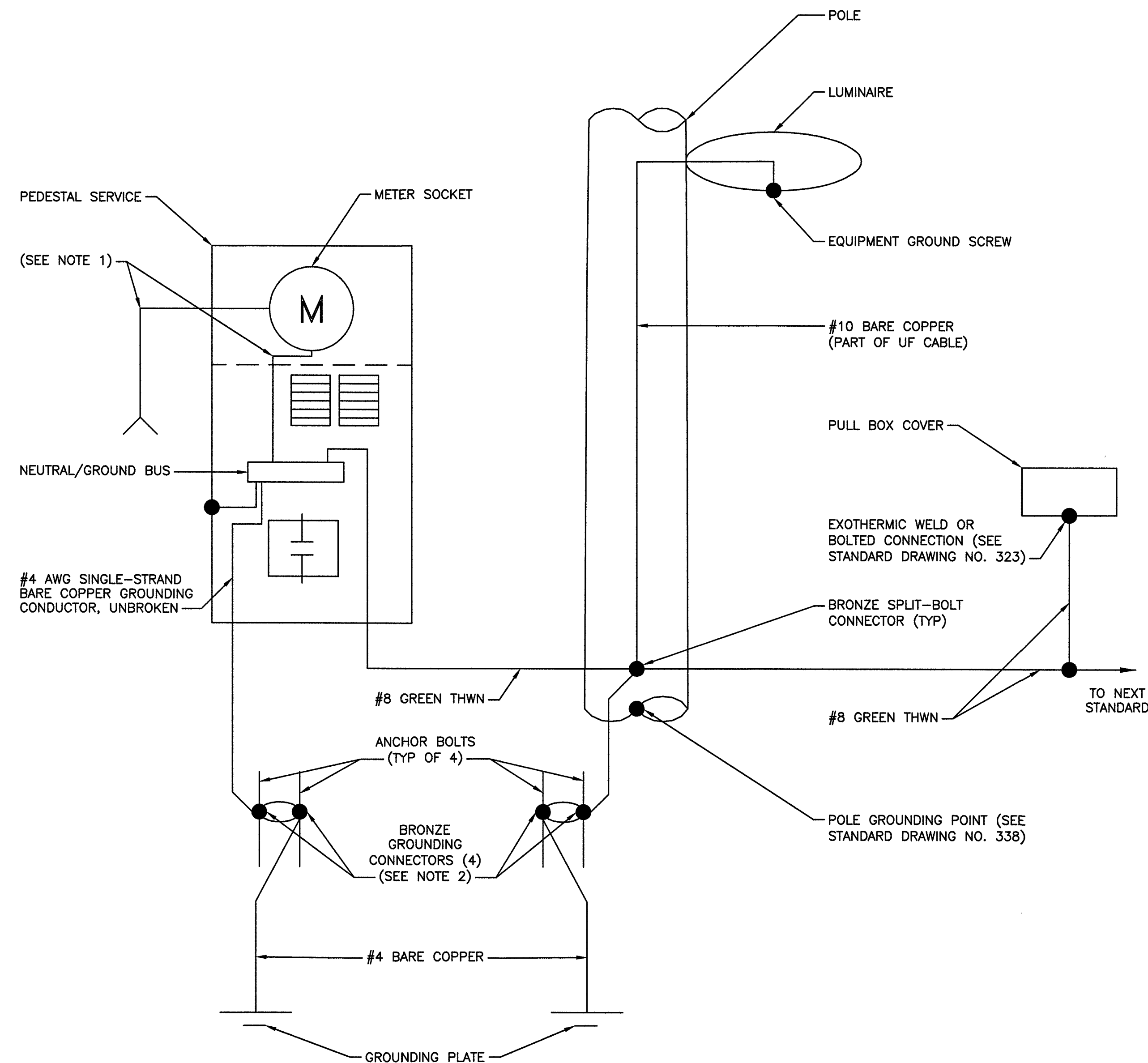
SHEET TITLE
ELECTRICAL SINGLE
LINE DIAGRAMS

SHEET NUMBER

E-2

1. FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREETLIGHT SERVICE, SEE STANDARD DRAWING NO. 332.S2 FOR LAS VEGAS AND CLARK COUNTY ONLY AND 332.S1 FOR ALL OTHER ENTITIES.

2. SEE STANDARD DRAWING NO. 321, 332.S1, OR 332.S2.



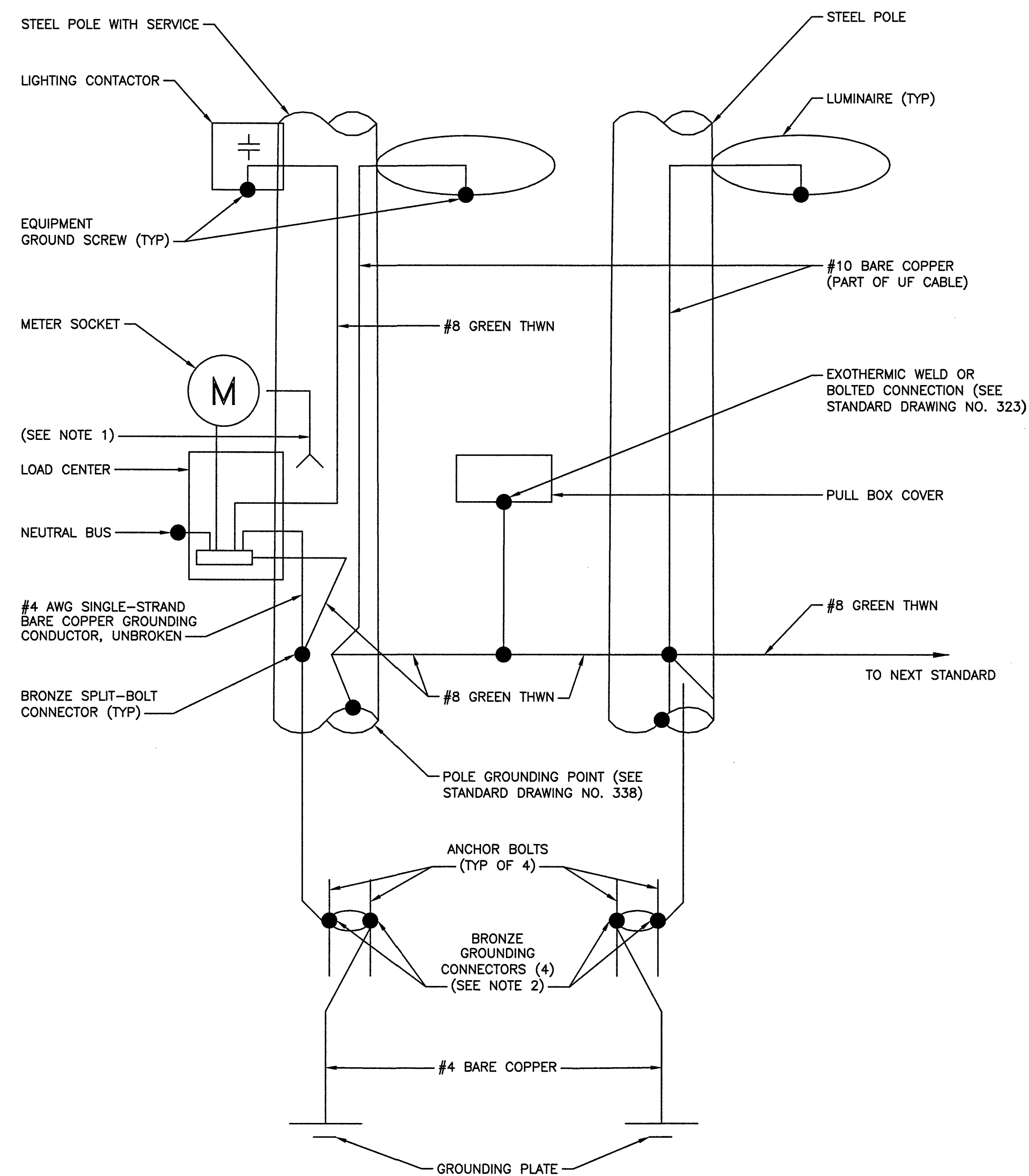
METER PEDESTAL GROUNDING DIAGRAM

NO SCALE

1

1. 125 AMP SERVICE: 1 #4 WHITE THW
200 AMP SERVICE: 1 #1/0 WHITE THW

1. 125 AMP SERVICE: 1 #4 WHITE THW
200 AMP SERVICE: 1 #1/0 WHITE THW



POLE EQUIPMENT GROUNDING DIAGRAM

NO SCALE

2



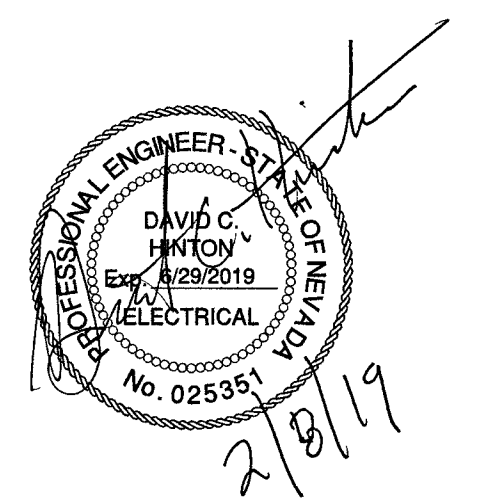
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LAS VEGAS, NV 889101
SMALL CELL

SHEET TITLE

GROUNDING DIAGRAMS

SHEET NUMBER

G-1

139-26-415-064
MIRANDA-SILVA CARMEN
601 N BRUCE ST

PROPOSED CELL TOWER
33AT0089SMC

CROSSING LIGHT
FIRE HYDRANT

40.0' ROW

BRUCE STREET

40.0' ROW

WALL
BACK OF CURB
BACK OF WALK
ROW

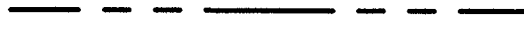
40.0' ROW

BONANZA ROAD

A



A LATITUDE: 36°10'26.86"N
LONGITUDE: 115°07'31.23"W
GROUND ELEVATION: 1881.29'
NAVD '88

Legend	
	MONUMENT
	POLE
	DOWN GUY
	GAS VALVE
	PEDASTAL
	LAMP POST
	WATER VALVE
	FIRE HYDRANT
	WATER MANHOLE
	WATER METER
	SEWER MANHOLE
	UNKNOWN OR LABELED MANHOLE
	SANITARY SEWER MANHOLE
	STORM WATER MANHOLE
	ELECTRIC MANHOLE
	TELECOM MANHOLE
	TREE
FENCE LINE	
ROW LINE	
CENTER LINE	
SEWER	
TELEPHONE	
WATER	
ELECTRIC	
GAS LINE	
OVERHEAD ELEC	
FENCE BARB	
PROPERTY LINE	

6205-B Peachtree Dunwoody Road NE
Atlanta, GA 30328

ENGINEERS:



BLACK & VEATCH

6 SUNSET WAY
SUITE B108
HENDERSON, NV 89014

SITE NO: 33AT0089SMC

DRAWN BY: KJC

CHECKED BY: CIS

[illegible]

SURVEYOR:



CIS JOB NO:
CIS 315-2-1-30

SHEET TITLE
SMALL CELL
SITE SURVEY

SHEET NUMBER

1 OF 1



CITY OF LAS VEGAS

TRAFFIC ENGINEERING
FIELD OPERATIONS
3001 RONEMUS DRIVE
LAS VEGAS, NV 89128
PHONE: (702) 229-6331

SMALL CELL SITE SURVEY

- THIS FORM IDENTIFIES THE POTENTIAL POWER SUPPLY SOURCE FOR A PROPOSED SMALL CELL SITE
- THIS ONLY REPRESENTS THE CONDITIONS AT TIME OF SITE SURVEY
- FIELD CONDITIONS MAY CHANGE FROM THE TIME OF THE SITE SURVEY UNTIL THE START OF CONSTRUCTION

CONTRACTOR'S NAME: Black & Veatch WIRELESS USE AGREEMENT: _____
WIRELESS SERVICE PROVIDER: AT&T CONTACT NAME: _____
OFFICE: _____ MOBILE: _____ FAX: _____
POLE LOCATION & ID: 1669 E. Bonanza Rd. TS: northwest corner of Bonanza & Bruce
CIRCLE ONE: NEW POLE / EXISTING POLE

PROPOSED SERVICE INFORMATION

Service Location	1600 Bonanza Rd.		ID# 401494	
Existing Meter #	BB139323690			
Existing Service Size	<u>60 Amp</u>	100 Amp	125 Amp	200 Amp
Street Light Circuit				
Service Type	Pedestal		<u>Pole Mount</u>	
Current Application	Traffic Signal	St. Lighting	<u>Both</u>	
Existing Load			Amps	
Field Tested By:			Date:	05/16/2018
Additional Notes: Not suitable for use to serve small cell site without upgrade.				

CLV REPRESENTATIVE

- TO BE COMPLETED BY TEFO STAFF

CLV FIELD REVIEWER'S NAME: _____ FIELD REVIEW DATE: _____
SENIOR/SUPERVISOR REVIEW SIGNATURE: [Signature] DATE REVIEWED BY SENIOR TECH: _____

BACKUP DOCUMENTATION

- DRAWINGS, PHOTOS, ETC

FILE NAME: _____ CREATION DATE: _____
FILE NAME: _____ CREATION DATE: _____
FILE NAME: _____ CREATION DATE: _____
Service Size: _____ CREATION DATE: _____

NV POWER SERVICE ADDRESS
LOAD BAY DOCUMENTATION FOR SPACE UTILIZATION