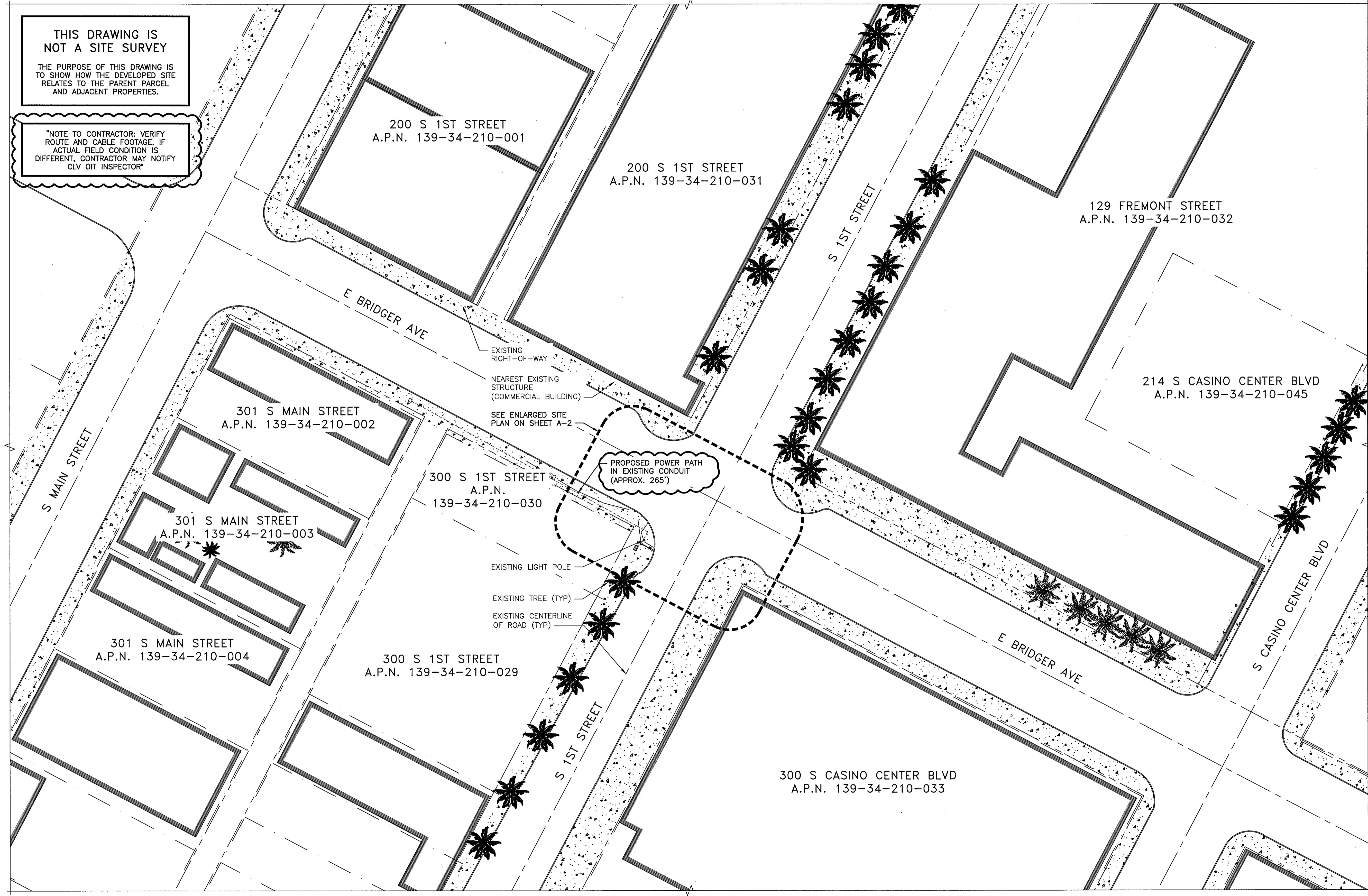


THIS DRAWING IS NOT A SITE SURVEY

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

"NOTE TO CONTRACTOR: VERIFY ROUTE AND CABLE FOOTAGE. IF ACTUAL FIELD CONDITION IS DIFFERENT, CONTRACTOR MAY NOTIFY CLV OIT INSPECTOR"



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 BLOOMINGTON, MN 55435

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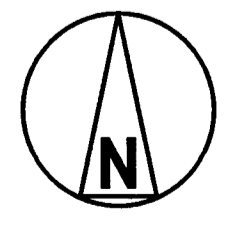
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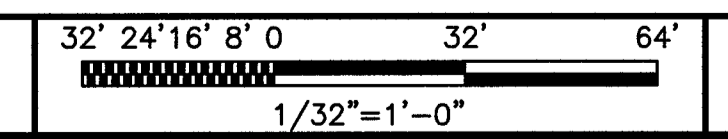
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SHEET TITLE
SITE PLAN

SHEET NUMBER
A-1



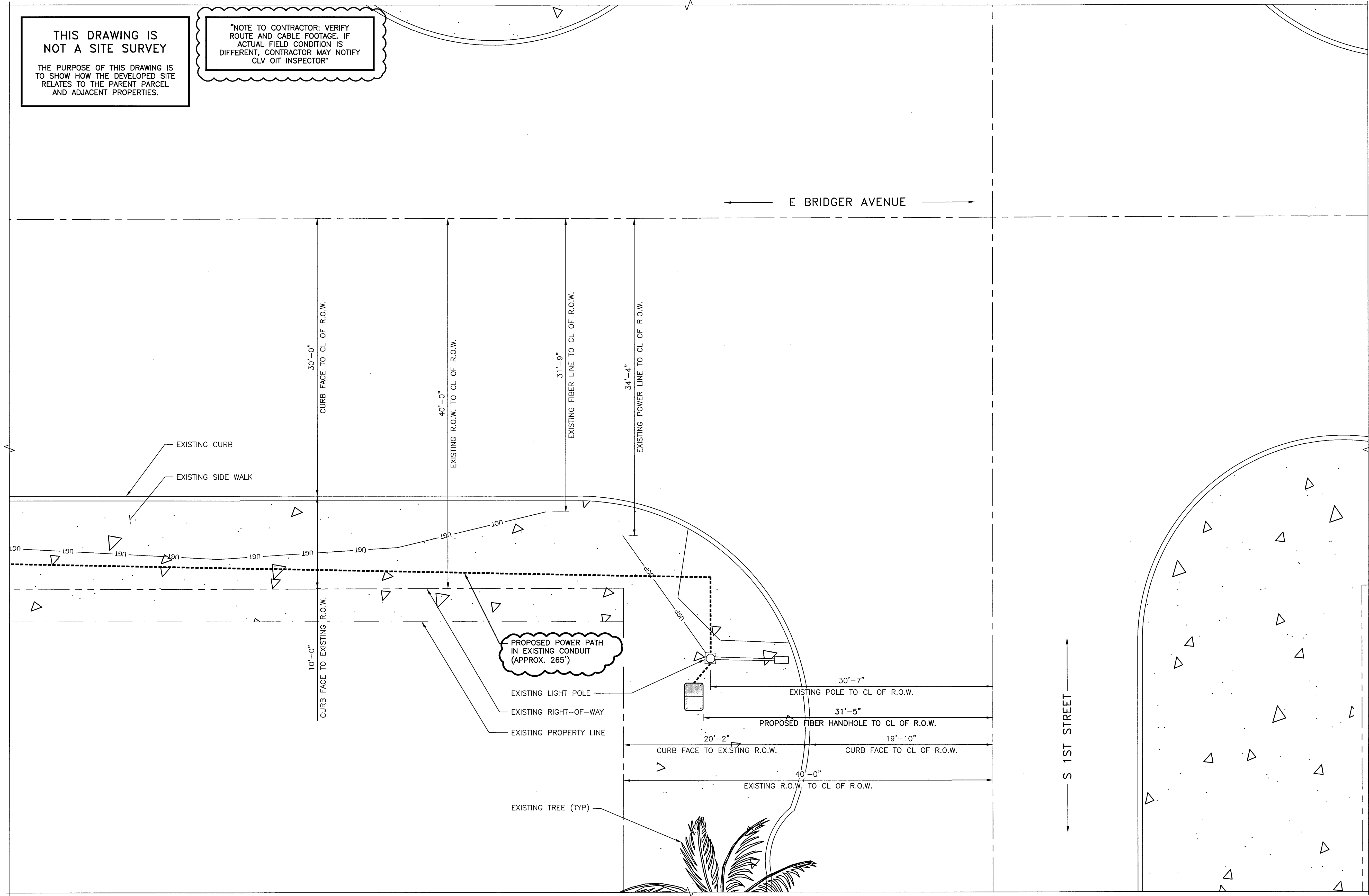
OVERALL SITE PLAN



THIS DRAWING IS NOT A SITE SURVEY

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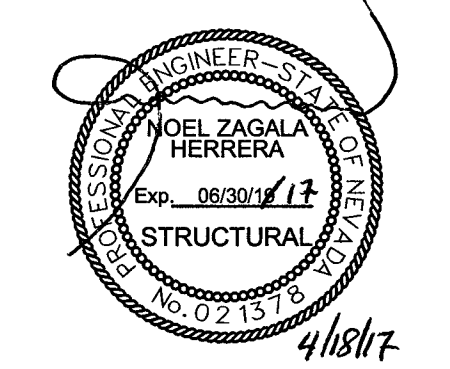
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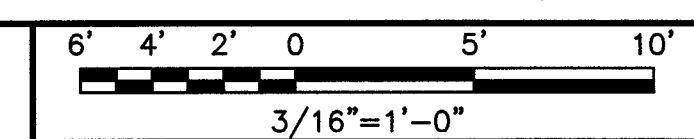


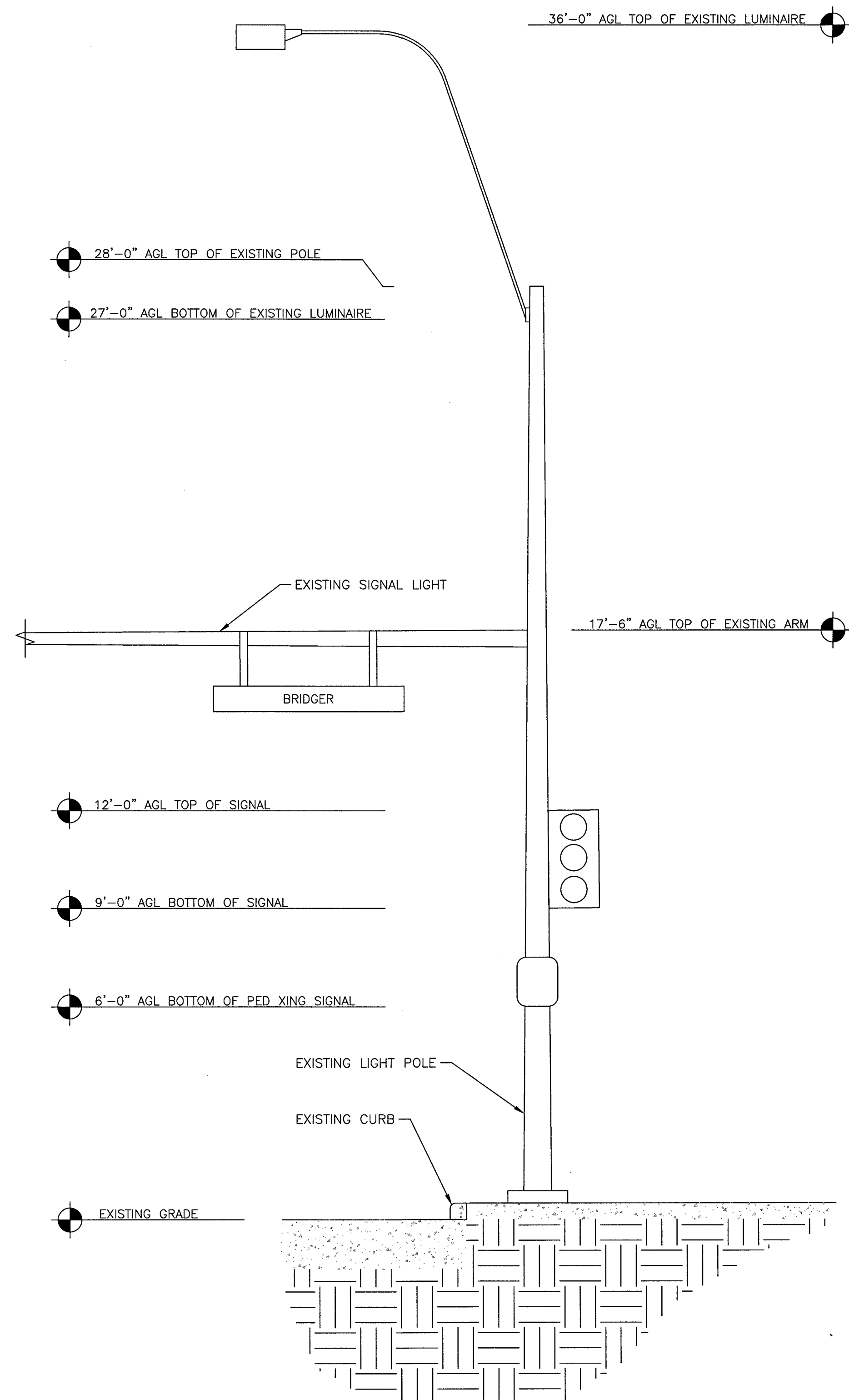
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SHEET TITLE
ENLARGED SITE PLAN

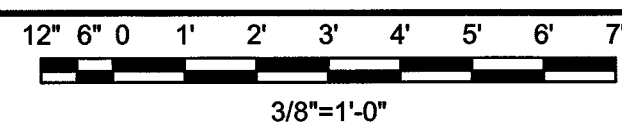
SHEET NUMBER
A-2

ENLARGED SITE PLAN

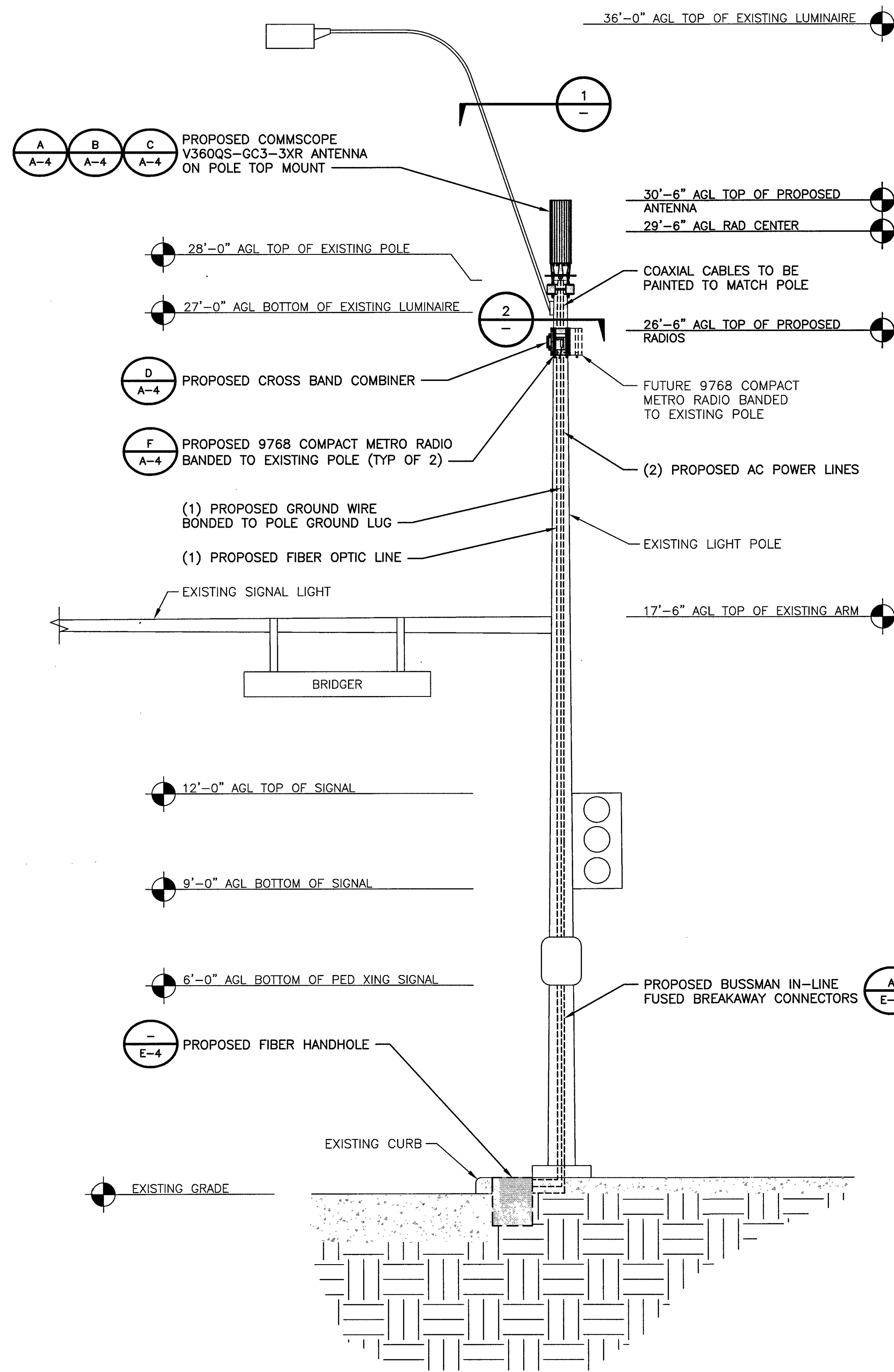




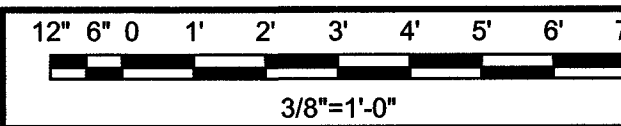
EXISTING NORTHEAST ELEVATION



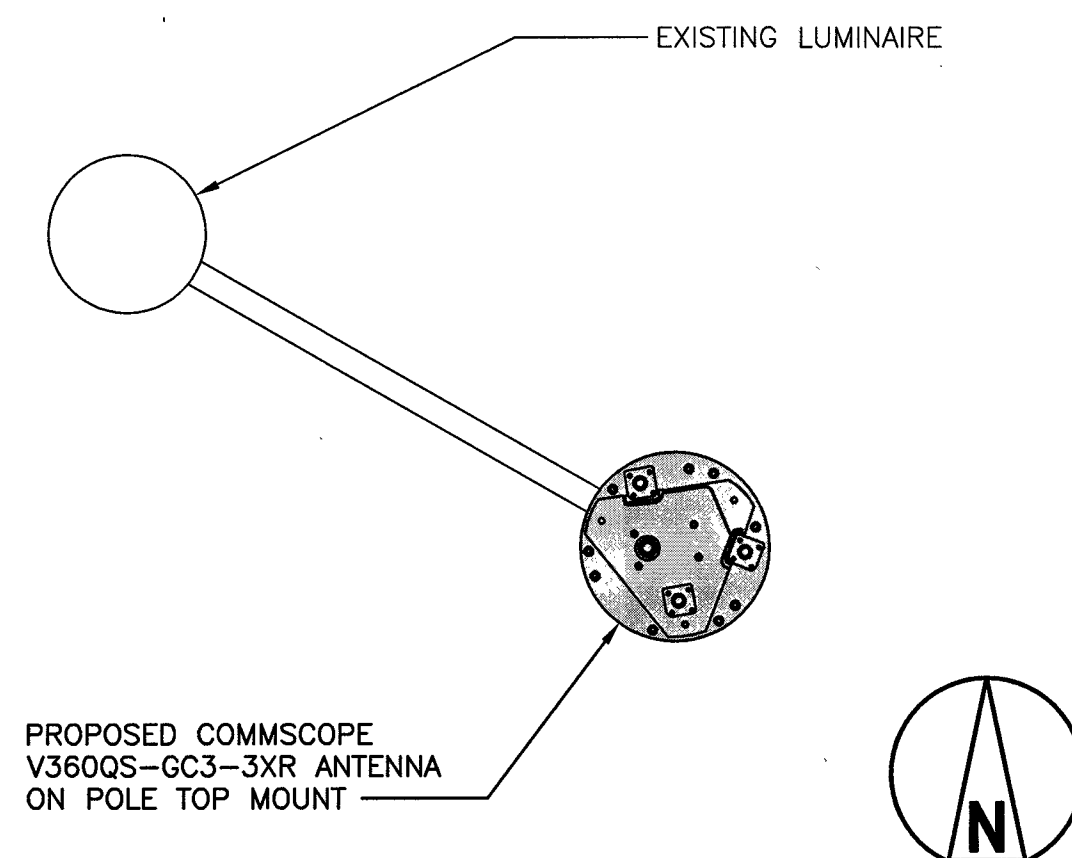
A



PROPOSED NORTHEAST ELEVATION



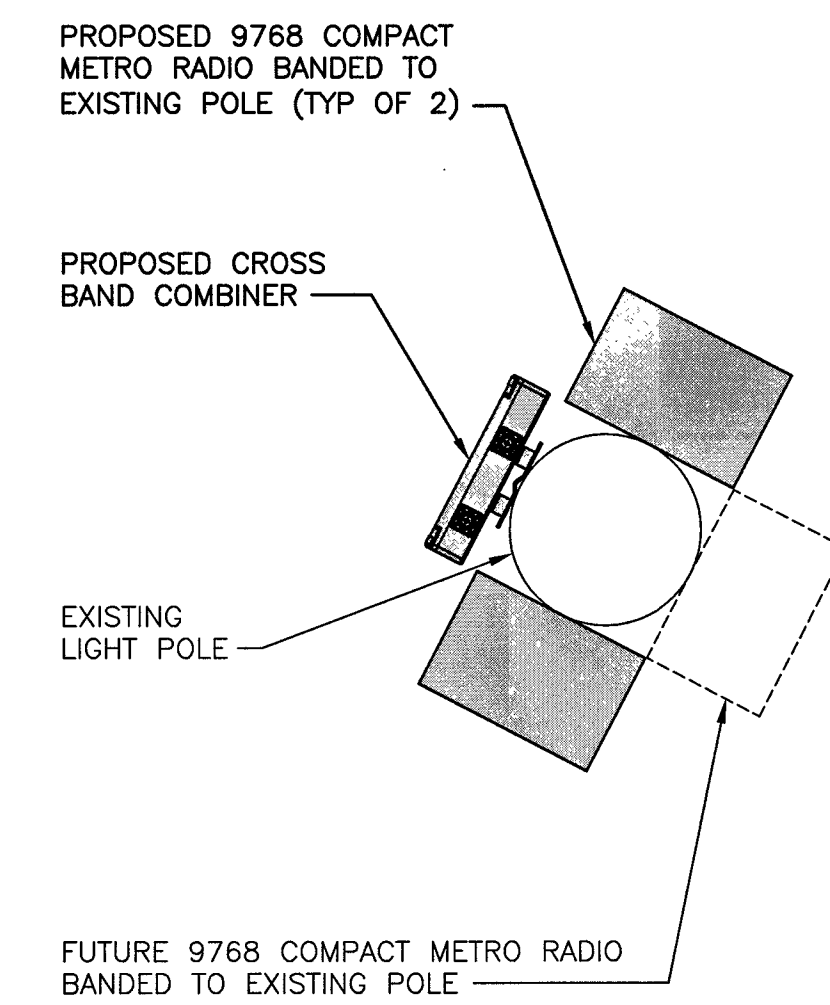
B



ANTENNA SPACE PLAN VIEW

NO SCALE

1



RADIO SPACE PLAN VIEW

NO SCALE

2

NOT USED

NO SCALE

3



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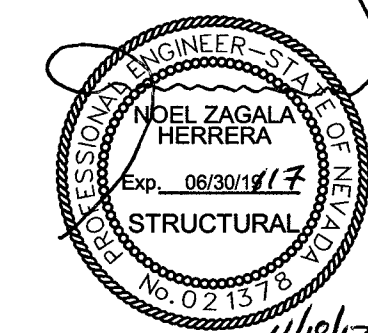
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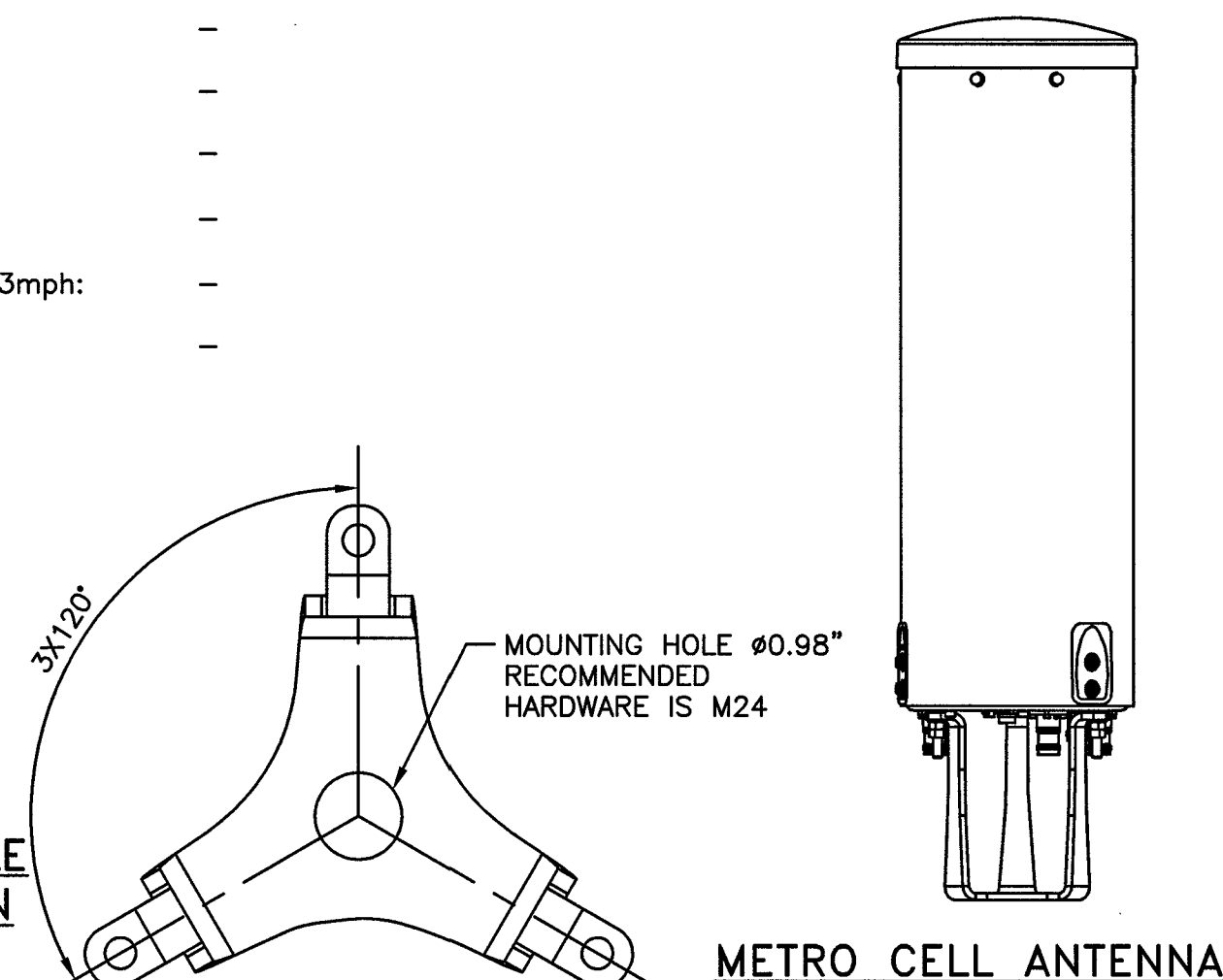
SHEET TITLE
ELEVATIONS

SHEET NUMBER

A-3

METRO CELL ANTENNA & MOUNTING SPECIFICATIONS

RADOME MATERIAL: -
 RADOME COLOR: -
 DIMENSIONS, HxWxD: -
 WEIGHT (W/O MOUNTING): -
 WIND LOADING (@150km/h or 93mph): -
 CONNECTOR: -

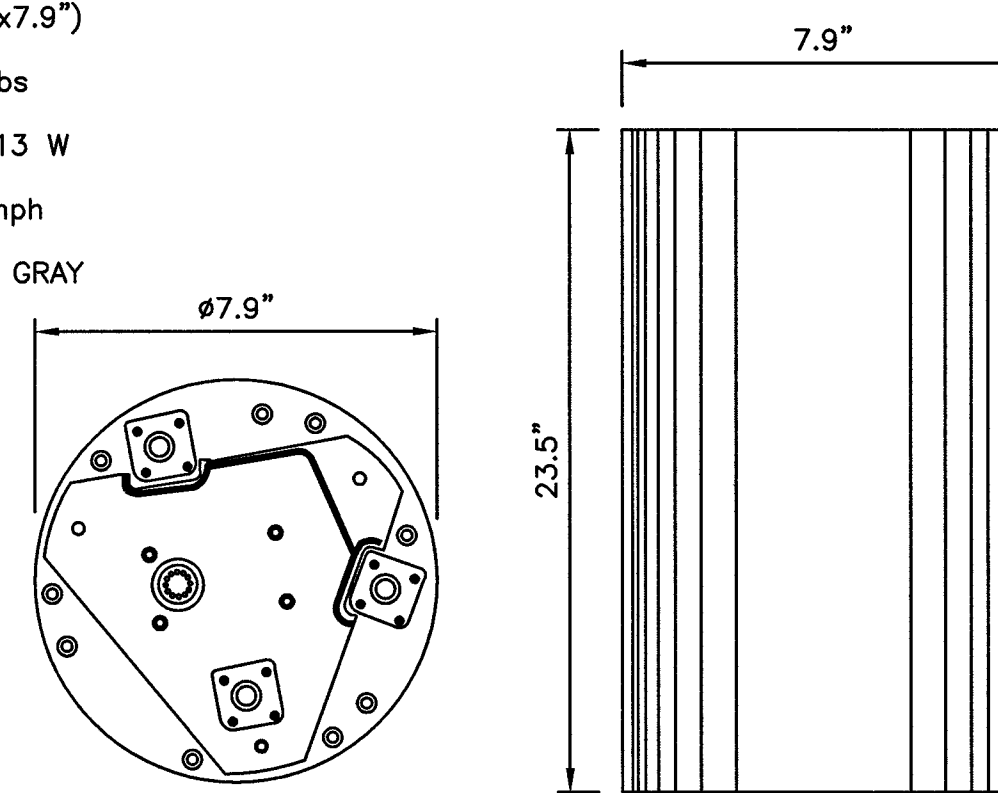


MOUNTING AND CABLE ROUTINGS HOLES ON BASE

METRO CELL ANTENNA

**COMMSCOPE/ANDREW METROCELL QUASI OMNI ANTENNA
 1695-2690 MHz**

DIMENSIONS, HxDIA: (23.5"x7.9")
 WEIGHT: 16.1 lbs
 POWER CONSUMPTION : MAX. 13 W
 WIND SPEED, MAXIMUM: 150 mph
 COLOUR : LIGHT GRAY

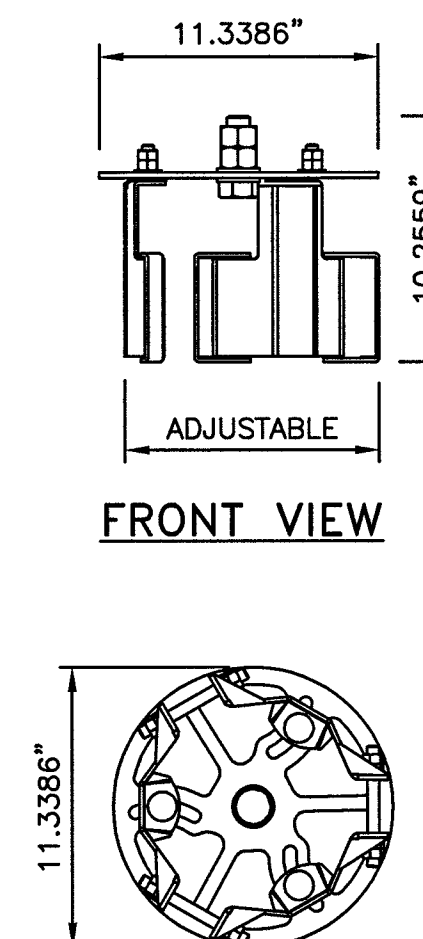


PLAN VIEW

SIDE VIEW

COMMSCOPE MC-MNT-TOP-2

DIMENSIONS, HxWxD: (11.3386"x10.2559")



FRONT VIEW

SIDE VIEW

ANTENNA AND MOUNTING SPECIFICATIONS

NO SCALE

A

ANTENNA SPECIFICATIONS

NO SCALE

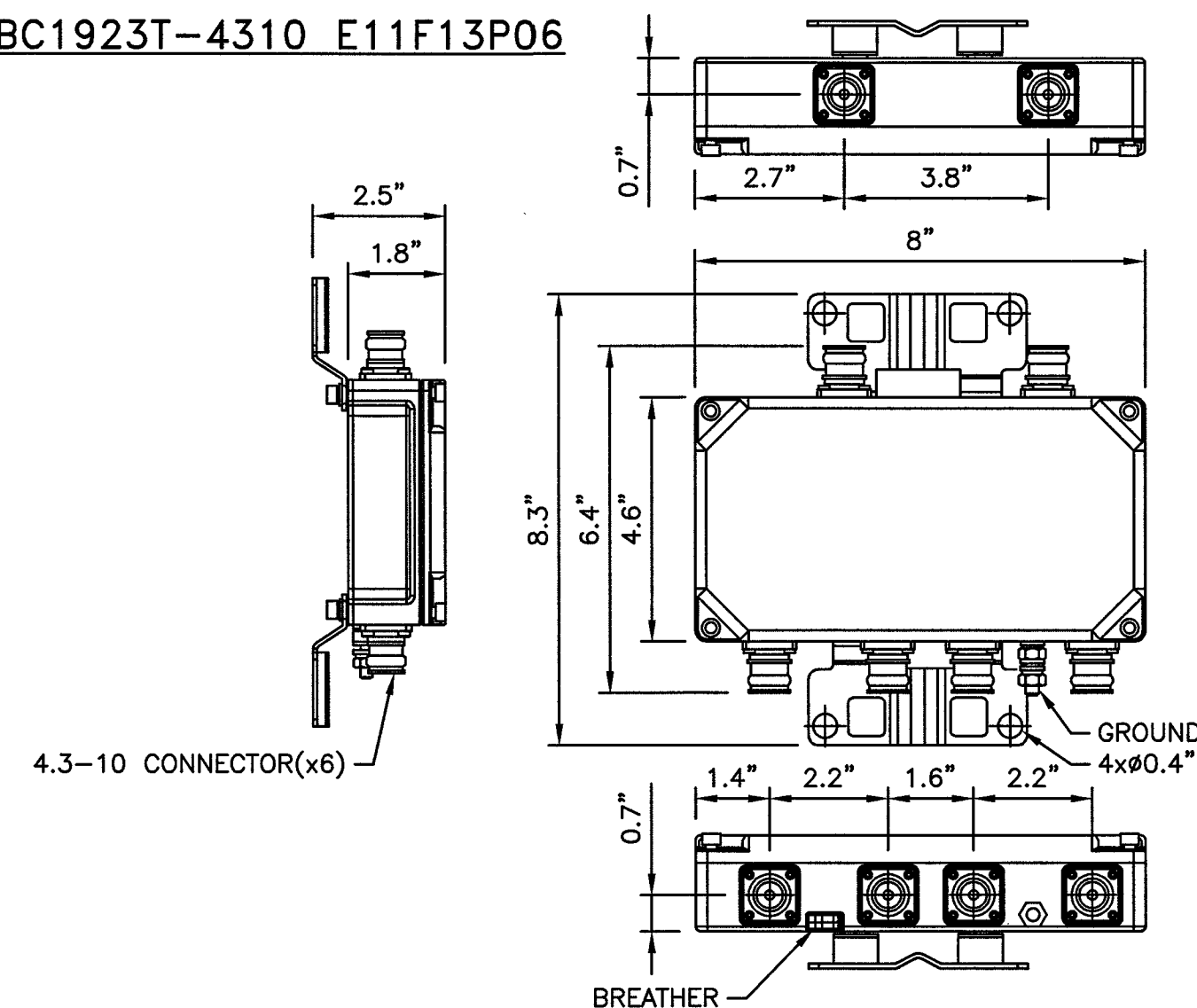
B

ANTENNA MOUNT DETAIL

NO SCALE

C

COMMSCOPE CBC1923T-4310 E11F13P06



4.3-10 CONNECTOR(x6)

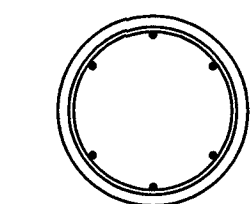
GROUND

BREATHER

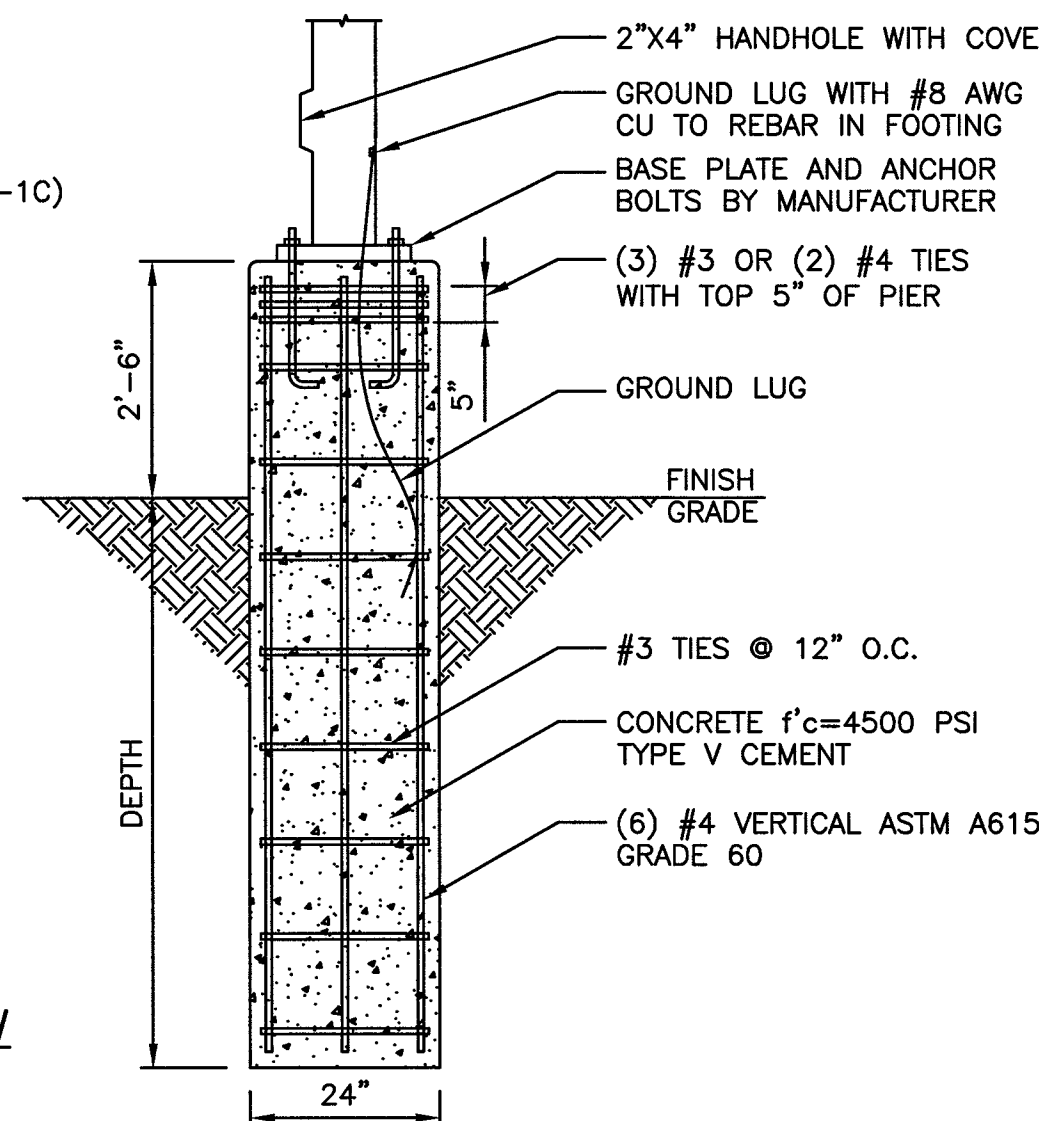
DESIGN CRITERIA

- * 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"



PLAN VIEW

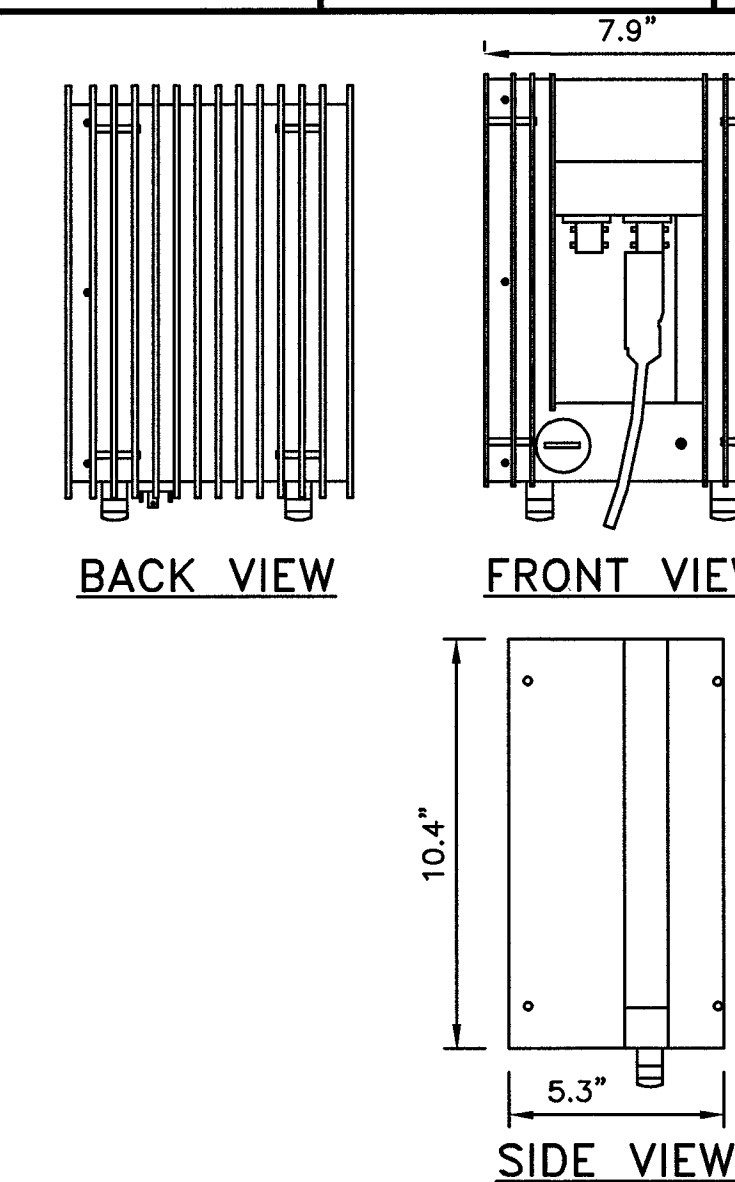


DEPTH

24"

NOKIA 9768 COMPACT METRO RADIO OUTDOOR, B66 2X5W

DIMENSIONS, HxWxD: (10.4"x7.09"x5.3")
 WEIGHT: 15 lbs
 POWER CONSUMPTION : TYP. 85W, MAX. 100W
 TEMP. RANGE: -40°C TO +50°C



BACK VIEW

FRONT VIEW

SIDE VIEW

COMBINER DETAIL

NO SCALE

D

EXISTING BOLTED LIGHT POLE BASE DETAIL

NO SCALE

E

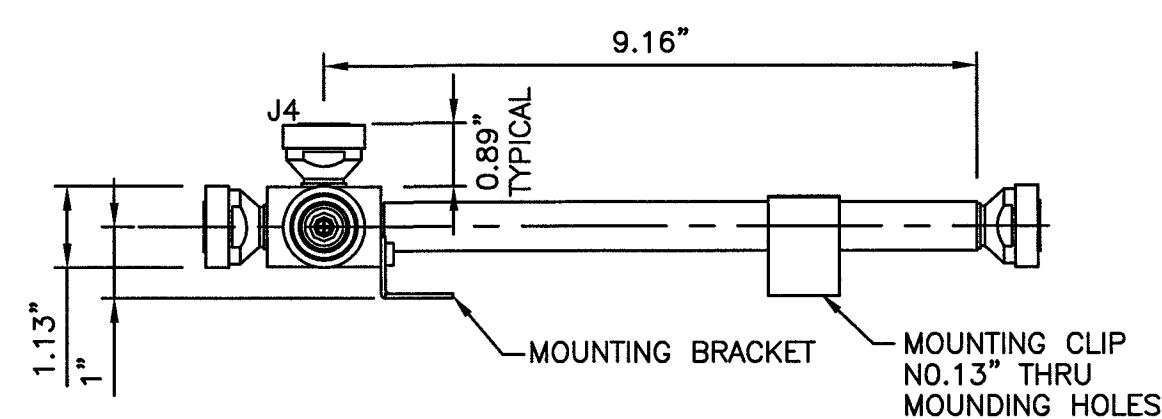
RADIO SPECIFICATIONS

NO SCALE

F

MICROLAB-2 WAY POWER SPLITTER

DIMENSIONS, WxDxH: (9.96"x1.13") & (9.16"x1.13")
 WEIGHT, WITHOUT MOUNTING KIT: 0.85 lbs
 POWER RATING: 500W avg, 3kWpk.
 TEMP. RANGE W/OUT SOLAR LOAD: -35°C TO +75°C

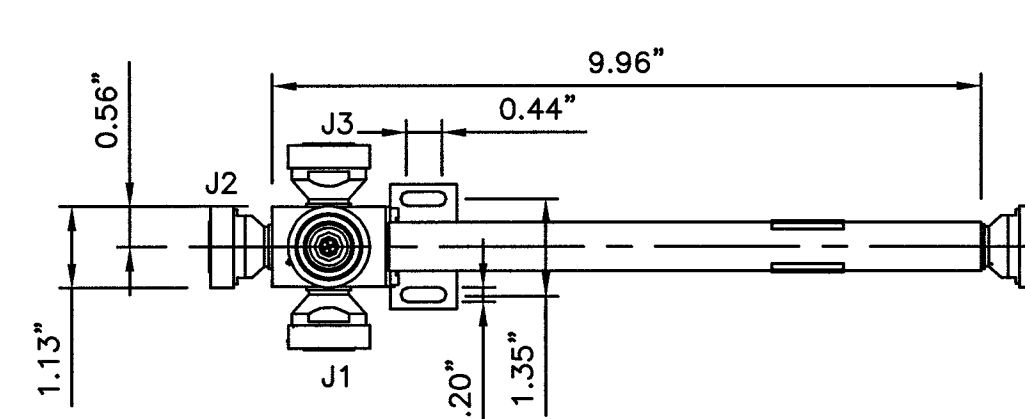


MOUNTING BRACKET

MOUNTING CLIP NO.13" THRU MOUNTING HOLES

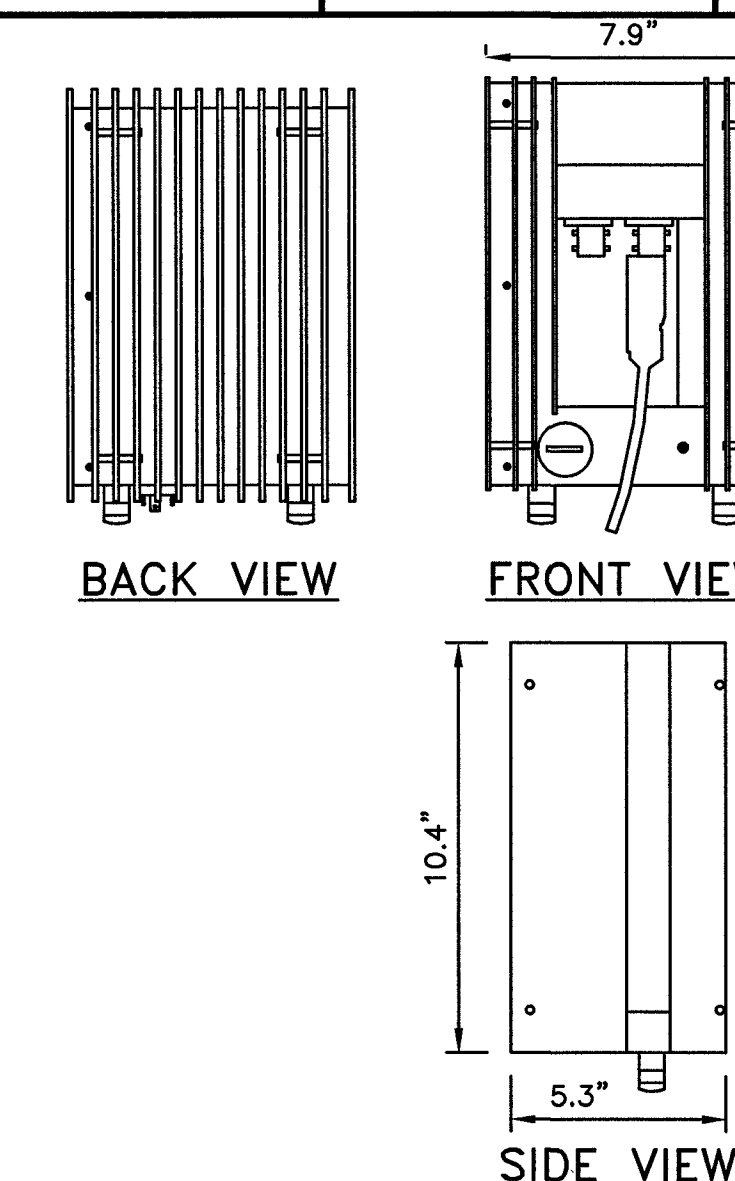
MICROLAB-3 WAY POWER SPLITTER

DIMENSIONS, WxDxH: (9.96"x1.13") & (9.16"x1.13")
 WEIGHT, WITHOUT MOUNTING KIT: 0.85 lbs
 POWER RATING: 500W avg, 3kWpk.
 TEMP. RANGE W/OUT SOLAR LOAD: -35°C TO +75°C



NOKIA 9768 COMPACT METRO RADIO OUTDOOR, BXX 2X5W

DIMENSIONS, HxWxD: (10.4"x7.09"x5.3")
 WEIGHT: 15 lbs
 POWER CONSUMPTION : TYP. 85W, MAX. 100W
 TEMP. RANGE: -40°C TO +50°C



BACK VIEW

FRONT VIEW

SIDE VIEW

POWER SPLITTER SPECIFICATIONS

NO SCALE

G

POWER SPLITTER SPECIFICATIONS

NO SCALE

H

RADIO SPECIFICATIONS

NO SCALE

J



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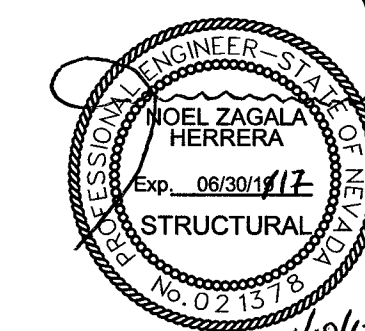
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SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-4

NOTES

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. 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.
3. HEIGHTS SHALL BE VERIFIED WITH OWNER TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. 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.).
6. 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.
7. 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.
8. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
9. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS.
10. 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.
11. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
12. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
13. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
14. USE T-TAP CONNECTIONS ON ALL MULTI -CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
15. ALL CONDUCTORS SHALL BE COPPER.
16. 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.
17. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
18. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
19. 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.
20. 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.
21. WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, NO BX OR ROMEX CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
22. GROUNDING CONDUCTORS SHALL BE SOLD TINED COPPER AND ANNEALED #2.
23. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.
24. 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.
25. CONDUIT:
 - a. 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 RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - c. 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.
 - d. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
26. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
27. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING 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.
28. 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.
1. THE ELECTRICAL INSTALLATION WORK SHALL COMPLY WITH ALL LOCAL, STATE AND NATIONAL CODES, LAWS AND ORDINANCES APPLICABLE TO ELECTRICAL WORK.
2. 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.
3. 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.
4. ALL WORK TO BE EXECUTED IN WORKMANLIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED.
5. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES.
6. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING RELATED TO ELECTRICAL WORK, UNLESS NOTED OTHERWISE AND CO-ORDIANATED WITH THE GENERAL CONTRACTOR.
7. 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.
8. 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.
9. ON COMPLETION OF THE WORK, THE INSTALLATION SHALL BE FREE FORM GROUNDS AND SHORT CIRCUITS.
10. ELECTRICAL CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS TO THE ARCHITECT AND CUSTOMER UPON COMPLETION OF THE JOB.
11. 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, GROUNDING, CONDUIT ONLY SYSTEMS, ETC., AS INDICATED ON ELECTRICAL DRAWINGS AND/OR REQUIRED BY GOVERNING CODES.
12. 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
13. FUSE TYPE SHALL BE BUSSMANN RK-1 OR CLASS "J" FUSE.
14. 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.
15. 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.
16. BEFORE SUBMITTING BID, VERIFY EXISTING SITE CONDITIONS, ELECTRICAL SERVICE REQUIREMENTS AND THE EXACT SERVING UTILITY POINTS OF CONNECTION.
17. THE ELECTRICAL CONTRACTOR (E.C) SHALL FURNISH AND PAY FOR ALL PERMITS AND RELATED FEES.
18. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL ELECTRICAL MATERIALS, EQUIPMENT AND WORK, SHOWN ON THESE PLANS ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
19. 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.
20. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL/LOCATION INFORMATION RELATING TO THE ELECTRICAL DRAWINGS.
21. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGES AND HORSEPOWER RATINGS OF ALL MECHANICAL EQUIPMENT.
22. 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.
23. 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.
24. ELECTRICAL CONTRACTOR SHALL COMPLY WITH CABLE BENDING RADIUS REQUIREMENTS PER CABLE MANUFACTURERS SPECIFICATION.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. ANY AND ALL WIRE THAT CARRIES A CURRENT MUST BE IN A CONDUIT. (GROUNDING WIRE FOR LOOPS, HALOS, ECT. IS CONSIDERED NON-CURRENT CARRYING.)



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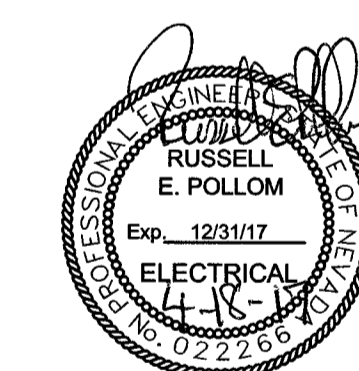
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139-34-210-030
81.25 E. BRIDGER AVE
LAG VEGAS, NV 89101

PROJECT NO.	DRAWN BY	CHECKED BY
193250.1004	SRB	GAC

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0	03/17/17	ISSUED FOR CONSTRUCTION

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SHEET TITLE
ELECTRICAL NOTES

SHEET NUMBER

E-1

PROPOSED ELECTRICAL LOADING

SITE NAME: _____ SUPPLY VOLTAGE: 120 V
 PHASE: 1
 WIRE: 3

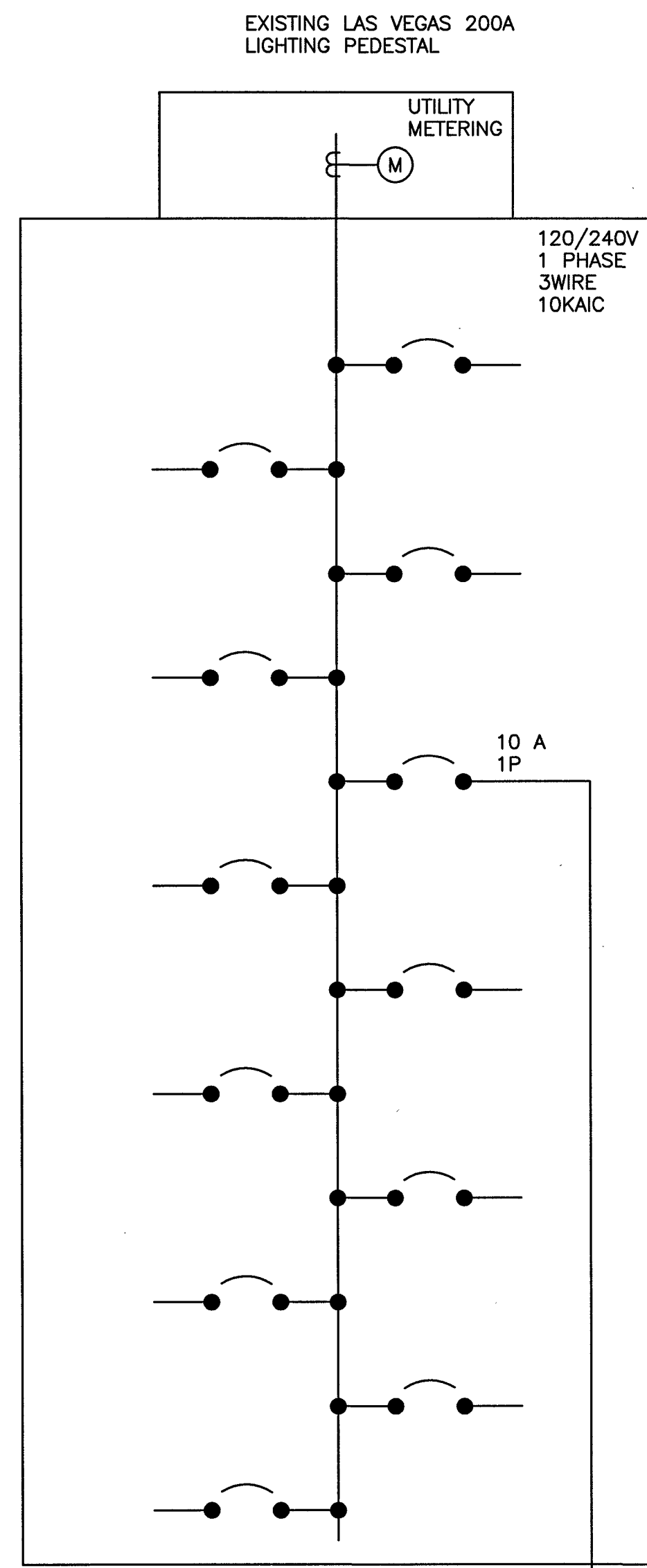
PANEL DESIGNATION: CITY OF LAS VEGAS LIGHTING PEDESTAL

LOCATION: _____

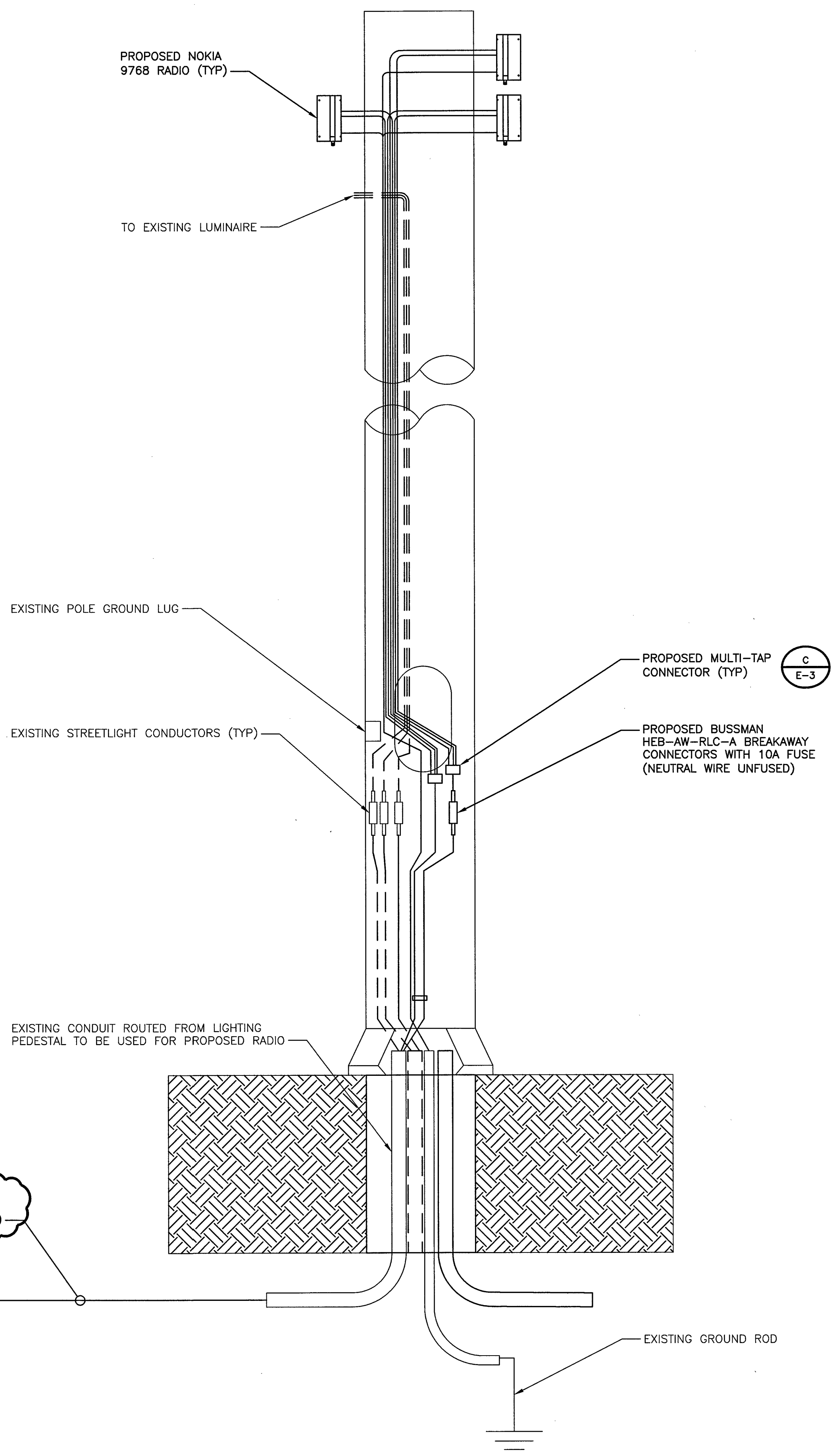
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA	USAGE FACTOR	PHASE A VA	PHASE B VA	USAGE FACTOR	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	NOKIA METRO RADIOS	10	1	ON	300	1.00	300								2
NOTES:							PHASE A TOTAL VA	300							
							PHASE B TOTAL VA	0							
							TOTAL KVA	0.30							
							TOTAL AMPS	2.50							

**120VAC FEEDER CONDUCTOR
MAXIMUM DISTANCE**

AWG	MAXIMUM DISTANCE	VOLT DROP @ 2.5A
#14 AWG	260'-0"	3% VOLT DROP @ 2.5A
#12 AWG	400'-0"	3% VOLT DROP @ 2.5A
#10 AWG	675'-0"	3% VOLT DROP @ 2.5A



(2) THWN-2 CONDUCTORS (SIZED PER SCHEDULE) AND (1) #12 AWG GROUND IN EXISTING CONDUIT (APPROX. 265'-0"±)



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

ELECTRICAL ONE-LINE DIAGRAM

NO SCALE A



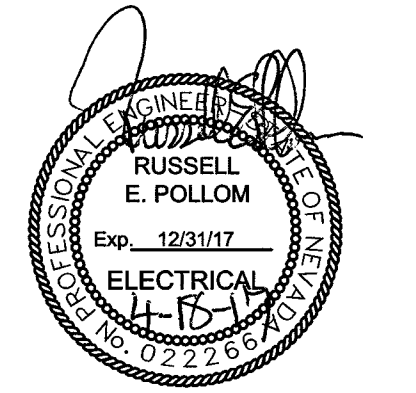
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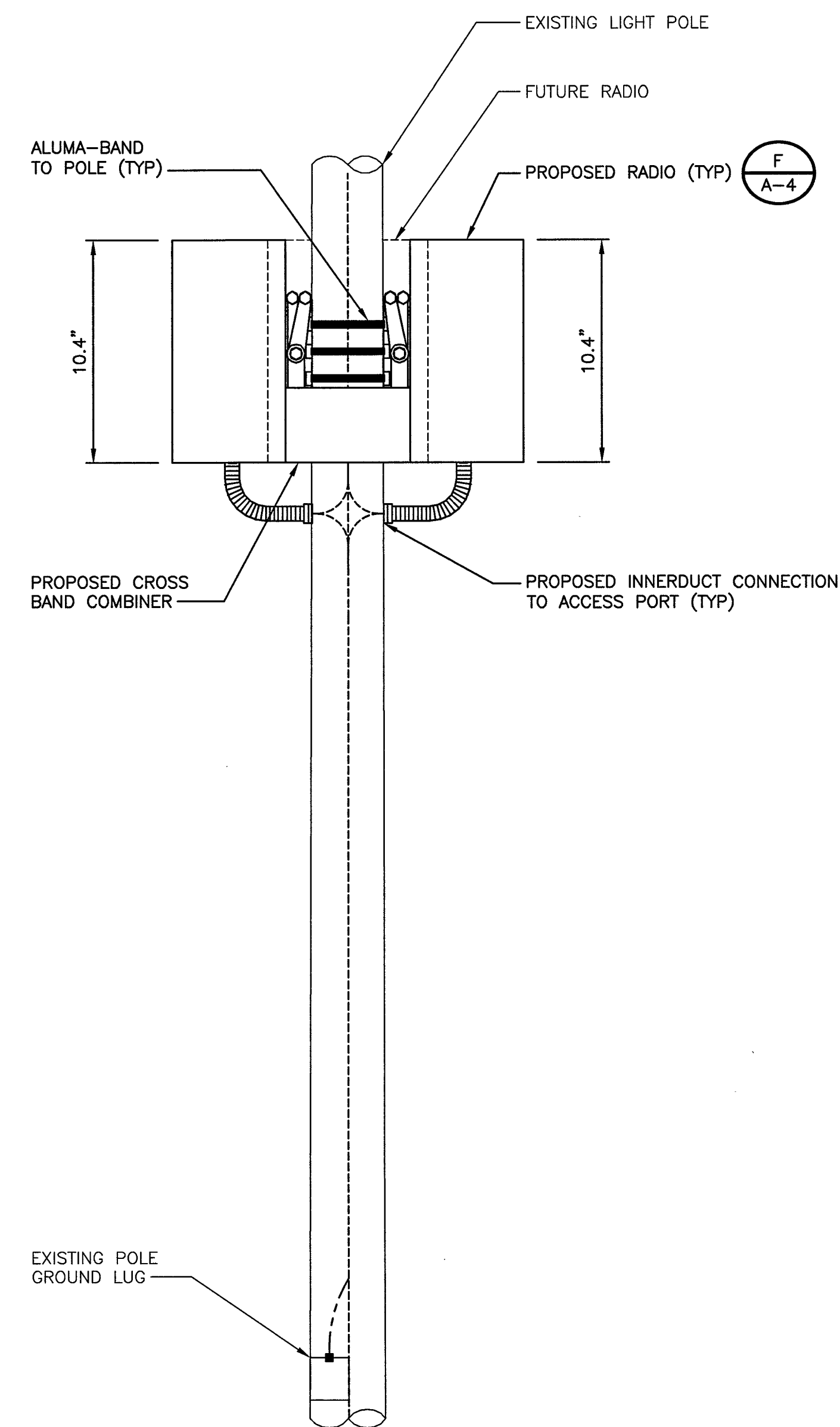
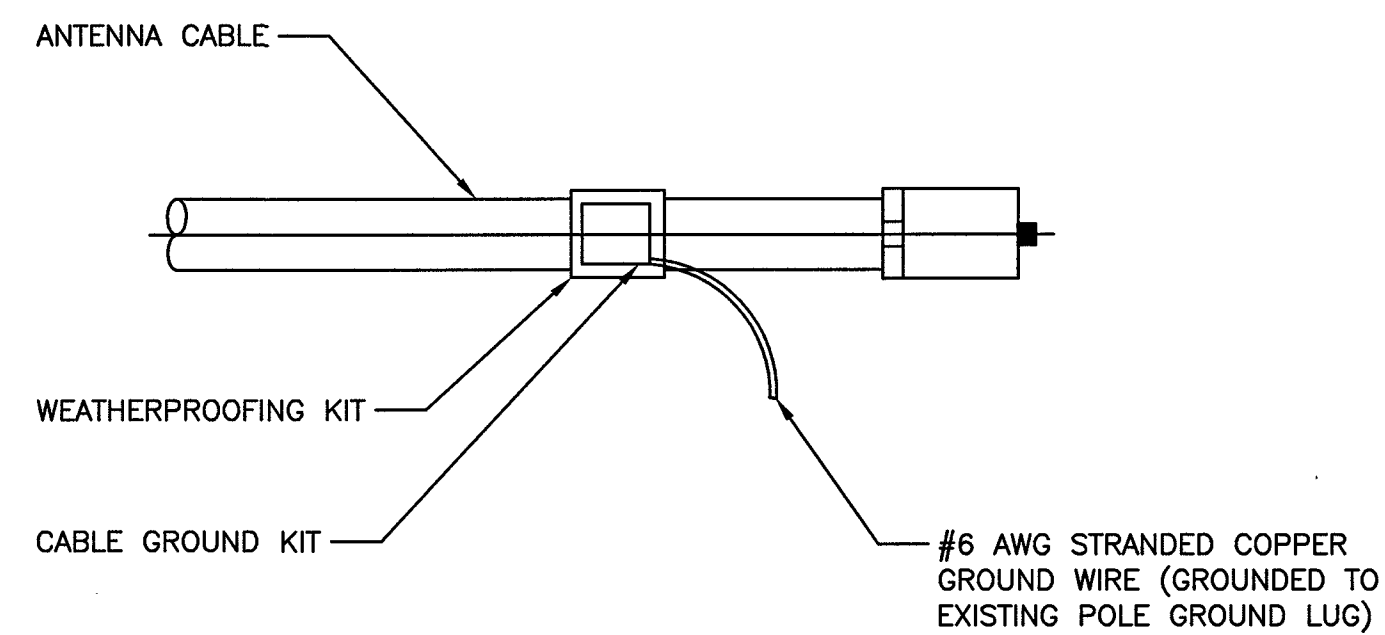
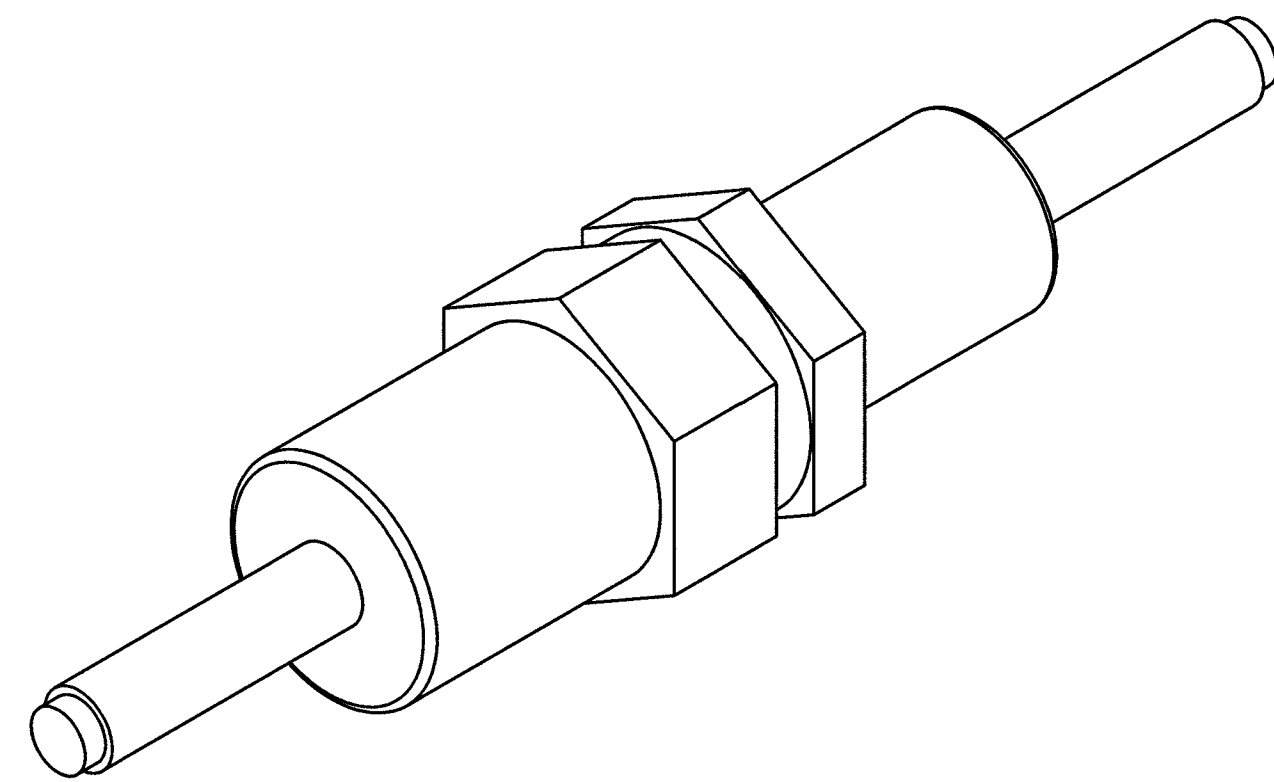
SHEET TITLE
**ELECTRICAL
 ONE-LINE DIAGRAM**

SHEET NUMBER
E-2

BUSSMAN HEB-AW-RLC-A

DIMENSIONS, LENGTH: 4.4"

WIRE RANGE: #8-16; (2) #12-16



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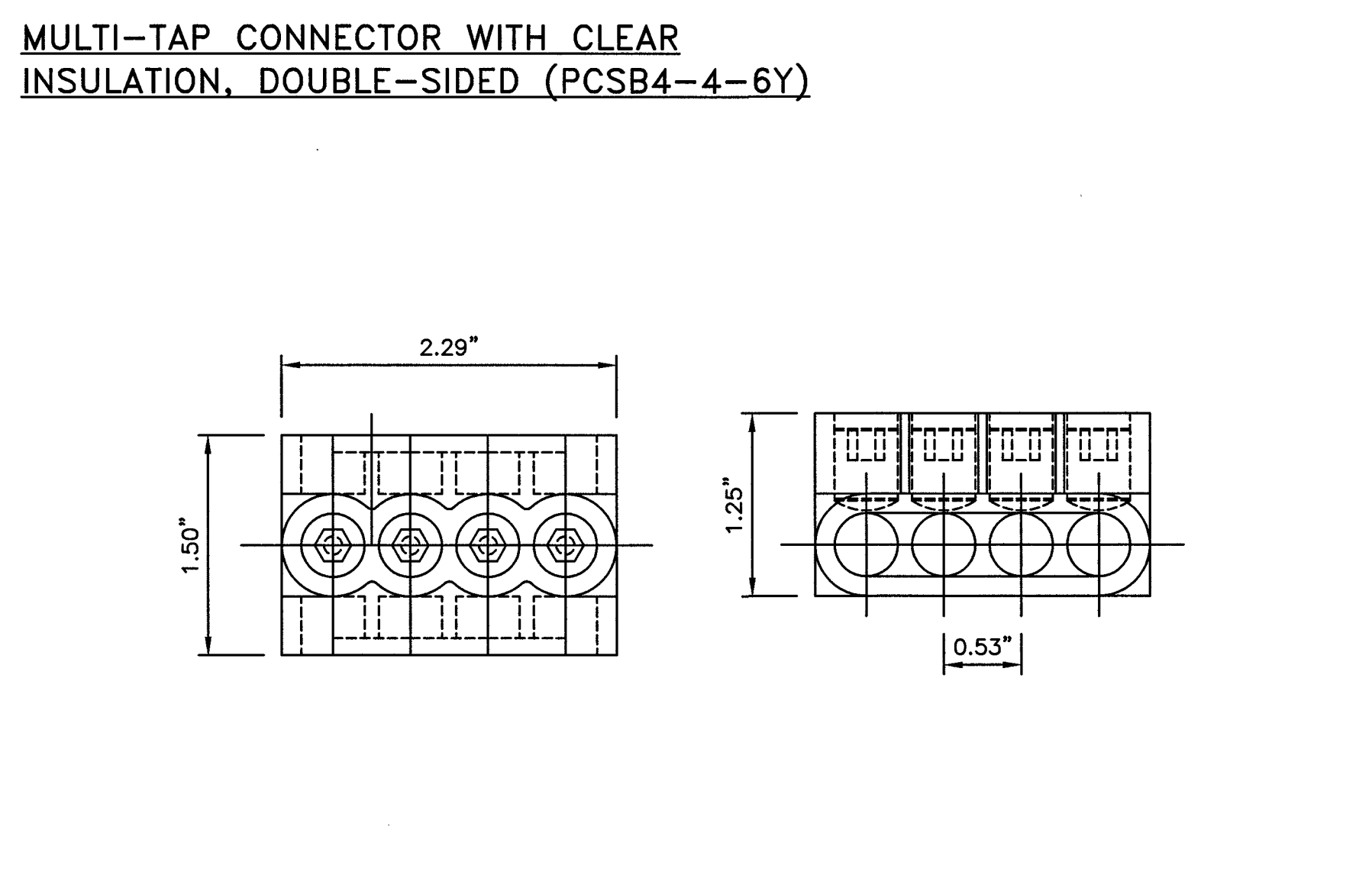
SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER

E-3

BREAKAWAY FUSE DETAIL NO SCALE A

ANTENNA CABLE GROUND KIT NO SCALE B



NOT USED NO SCALE D

EQUIPMENT PLACEMENT DETAIL NO SCALE E

CONNECTOR DETAIL NO SCALE C

NOT USED NO SCALE F

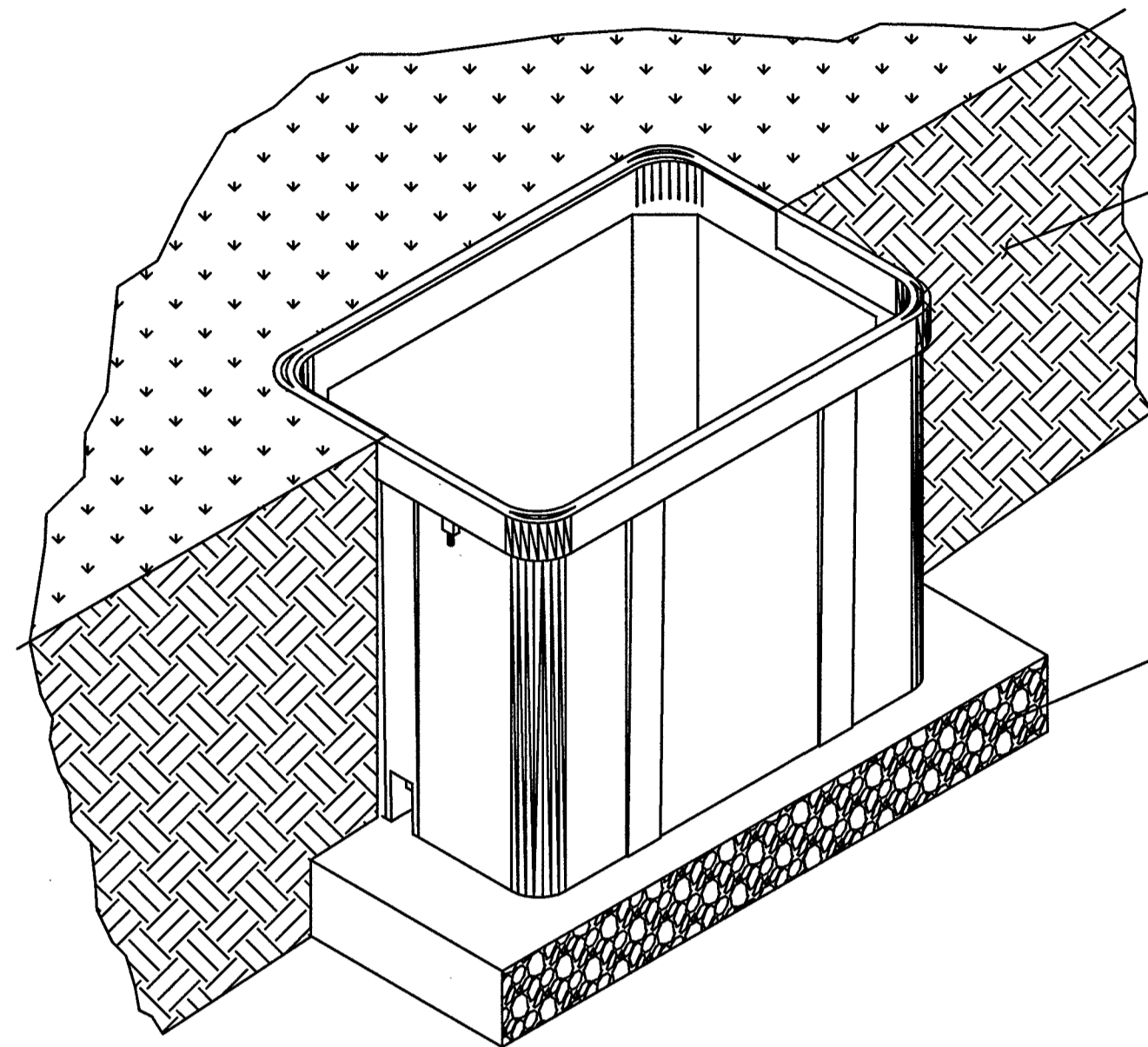
NOT USED NO SCALE G

NOT USED NO SCALE H

NOT USED NO SCALE F

NOT USED NO SCALE G

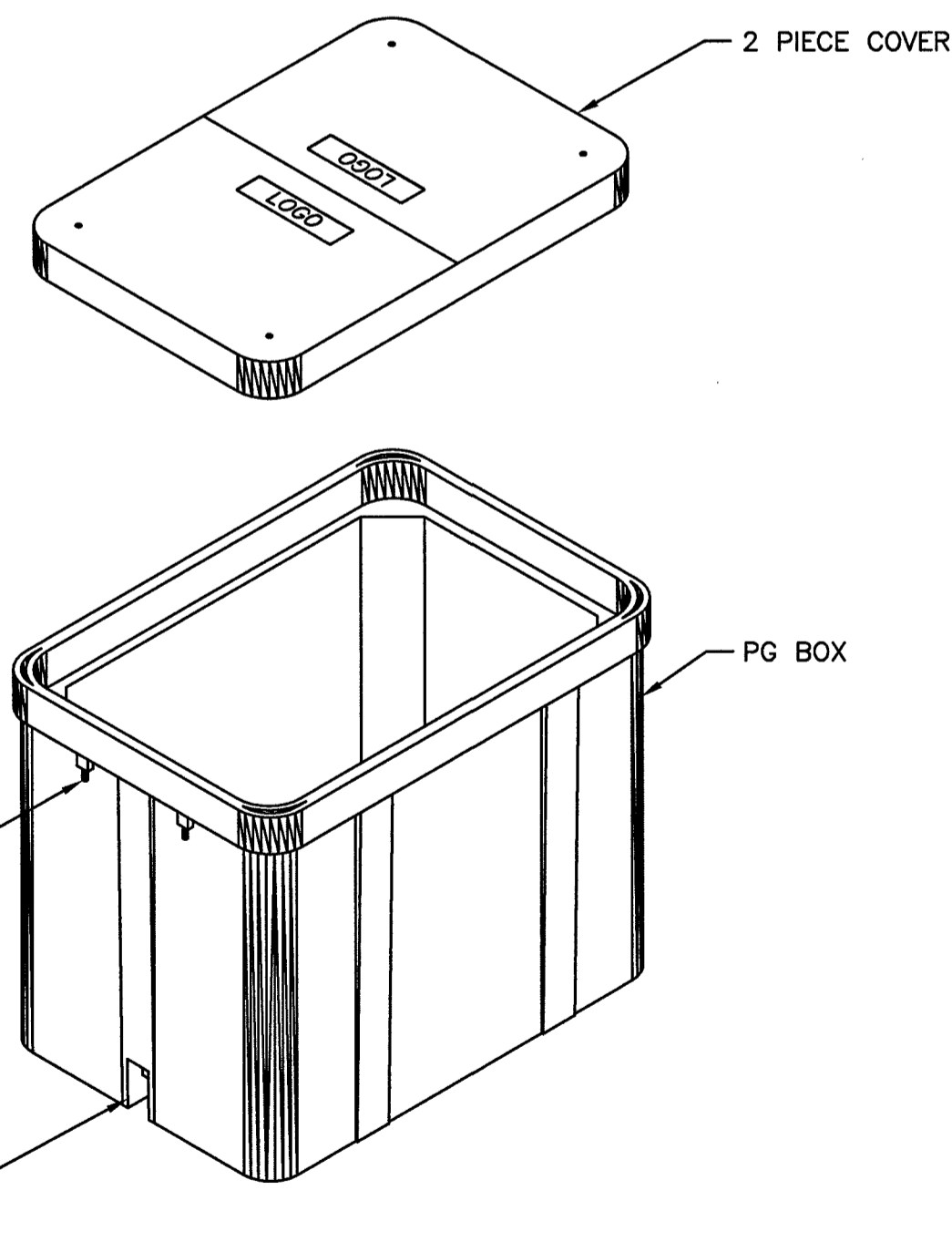
NOT USED NO SCALE H



ISOMETRIC VIEW MOUNTED IN COMPACTED SOIL

NO SCALE

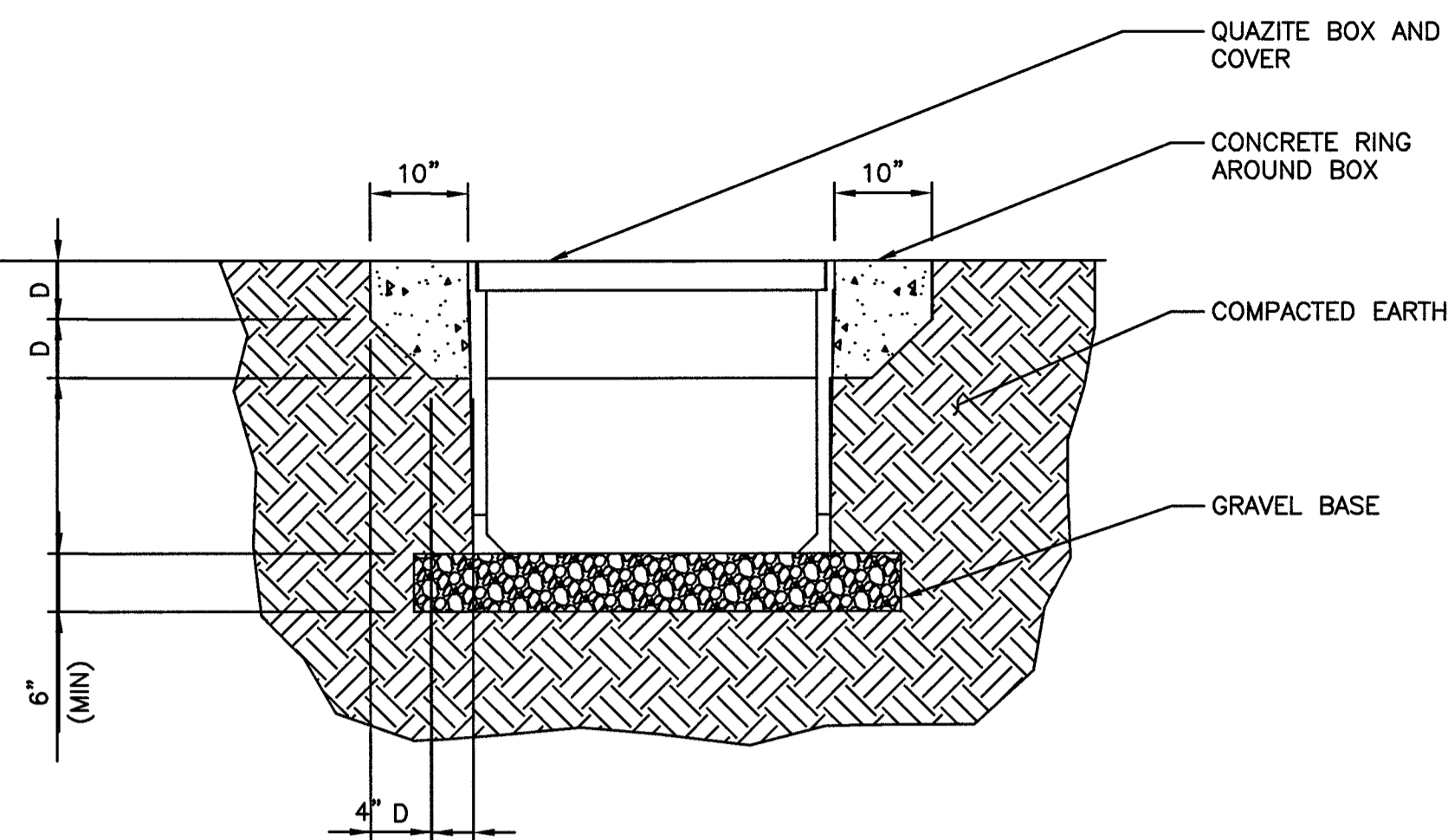
A



QUAZITE PG BOX WITH 2 PIECE COVER

NO SCALE

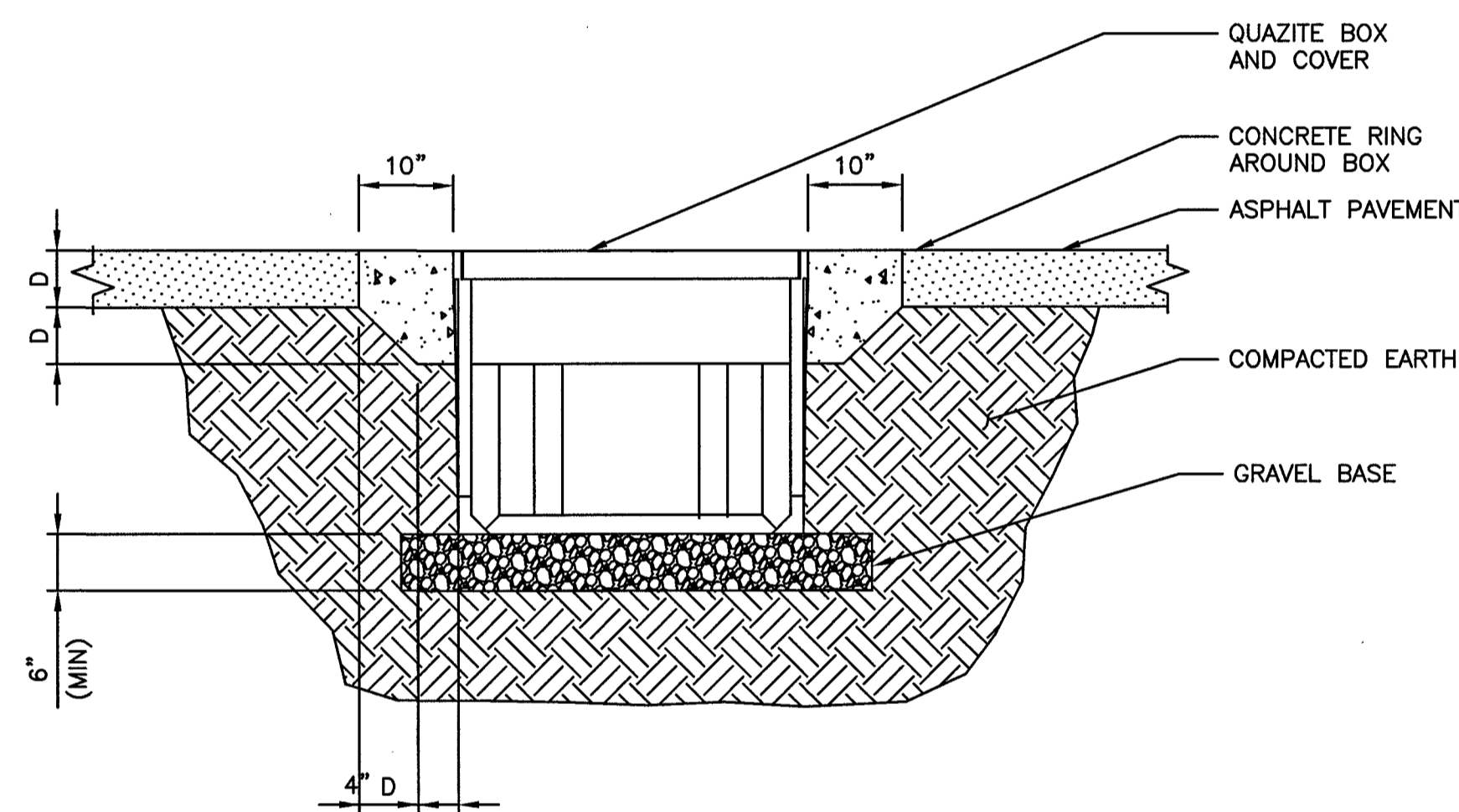
E



CONCRETE COLLAR APPLICATION MOUNTED IN COMPACTED EARTH

NO SCALE

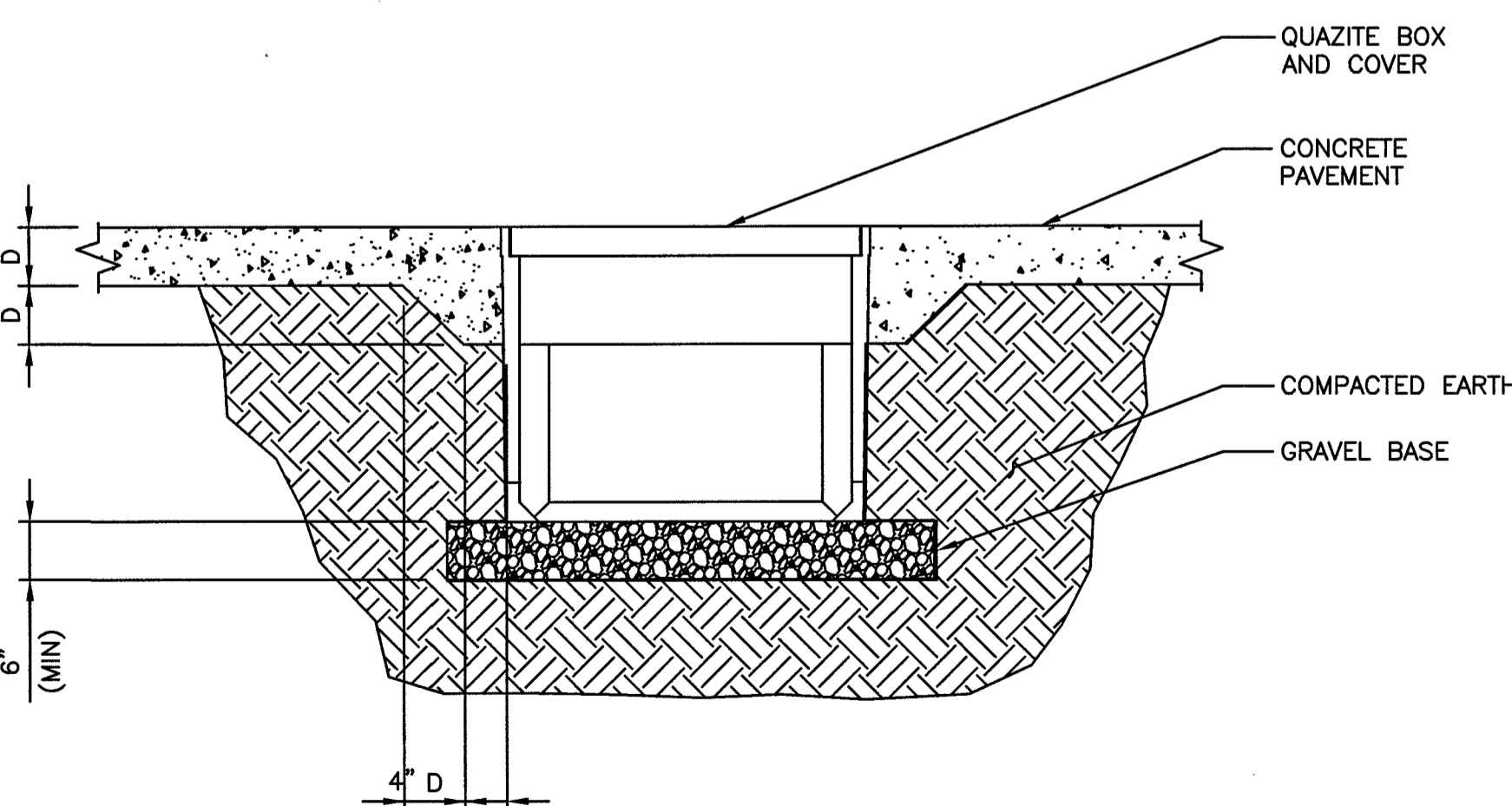
B



CONCRETE COLLAR APPLICATION MOUNTED IN ASPHALT PAVEMENT

NO SCALE

D



PG BOX WITH NO CONCRETE COLLAR MOUNTED IN CONCRETE PAVEMENTS

NO SCALE

F

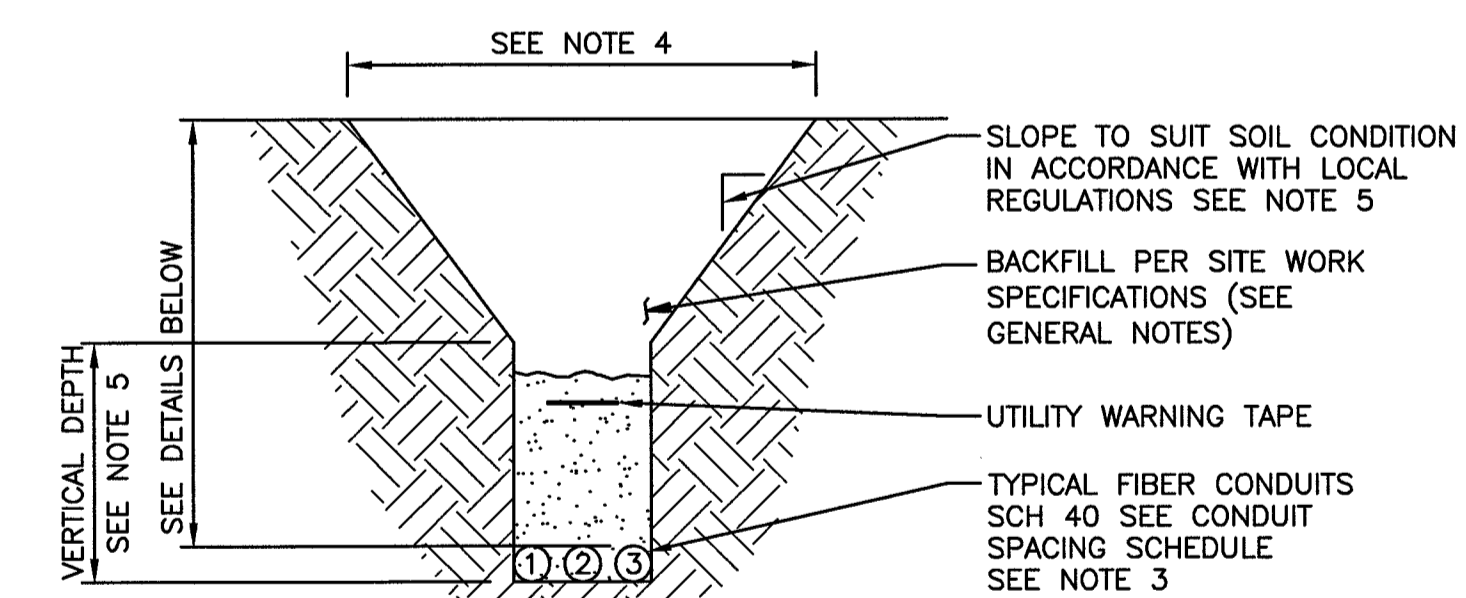
1. CONCRETE COLLARS MAY BE DESIRED FOR INSTALLATIONS IN DRIVEWAYS, PARKING LOTS AND OFF-ROADWAY APPLICATIONS WHERE SUBJECT TO OCCASIONAL NON-DELIBERATE TRAFFIC. THIS APPLIES TO BOXES MADE FROM ANY MATERIAL TO PROVIDE ADDED PROTECTION FOR THE TOP LID. THIS IS NOT NECESSARY IN GRASSY AREAS OR AREAS SUBJECT TO PEDESTRIAN TRAFFIC.
2. CONCRETE ENCASEMENT TO BE 3,000 PSI MIN.
3. CONCRETE ENCASEMENT COLLAR DIMENSION "D" TO BE EQUAL TO DESIGN PAVEMENT DEPTH.
4. PAVEMENT AND SUBGRADE TO BE SHOWN ON THE ENGINEERING PLANS.
5. EXCAVATE THE HOLE APPROXIMATELY 6 TO 8" DEEPER THAN SUGGESTED HAND HOLE BURIAL DEPTH.
6. COMPACT THE SUBSOIL WITH A BACK-HOE OR A HYDRAULIC TAMPER. ADD APPROXIMATELY 6 TO 8" OF GRAVEL TO THE BOTTOM OF HOLE.
7. PLACE THE HAND HOLE ON THE LEVELED GRAVEL BED. LEVEL THE HAND HOLE.
8. BACK-FILL WITH LOOSE EARTH MATERIAL UP TO THE TOP SURFACE OF THE HAND HOLE. 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.
9. PROVIDE BARRIER HUBBELL QUAZITE # PG 2436BC30.

HANDHOLE NOTES

NO SCALE

C

1. 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.
2. 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.
3. 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.
4. TRENCHING SAFETY: INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.
5. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION.



DETAILS:

1. OUTSIDE OF COMPOUND -DEPTH 36" MIN. FROM TOP OF CONDUIT.
2. INSIDE COMPOUND -DEPTH 18" MIN. FROM TOP OF CONDUIT AS SPECIFIED.

TYPICAL UNDERGROUND TRENCH DETAIL AND NOTES

NO SCALE

G



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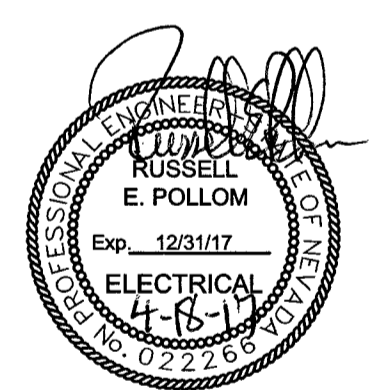
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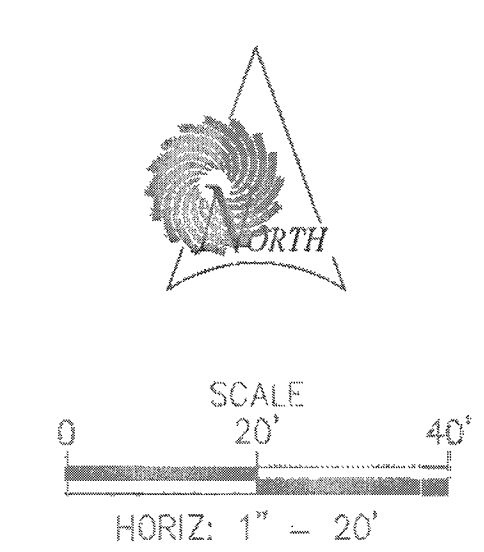
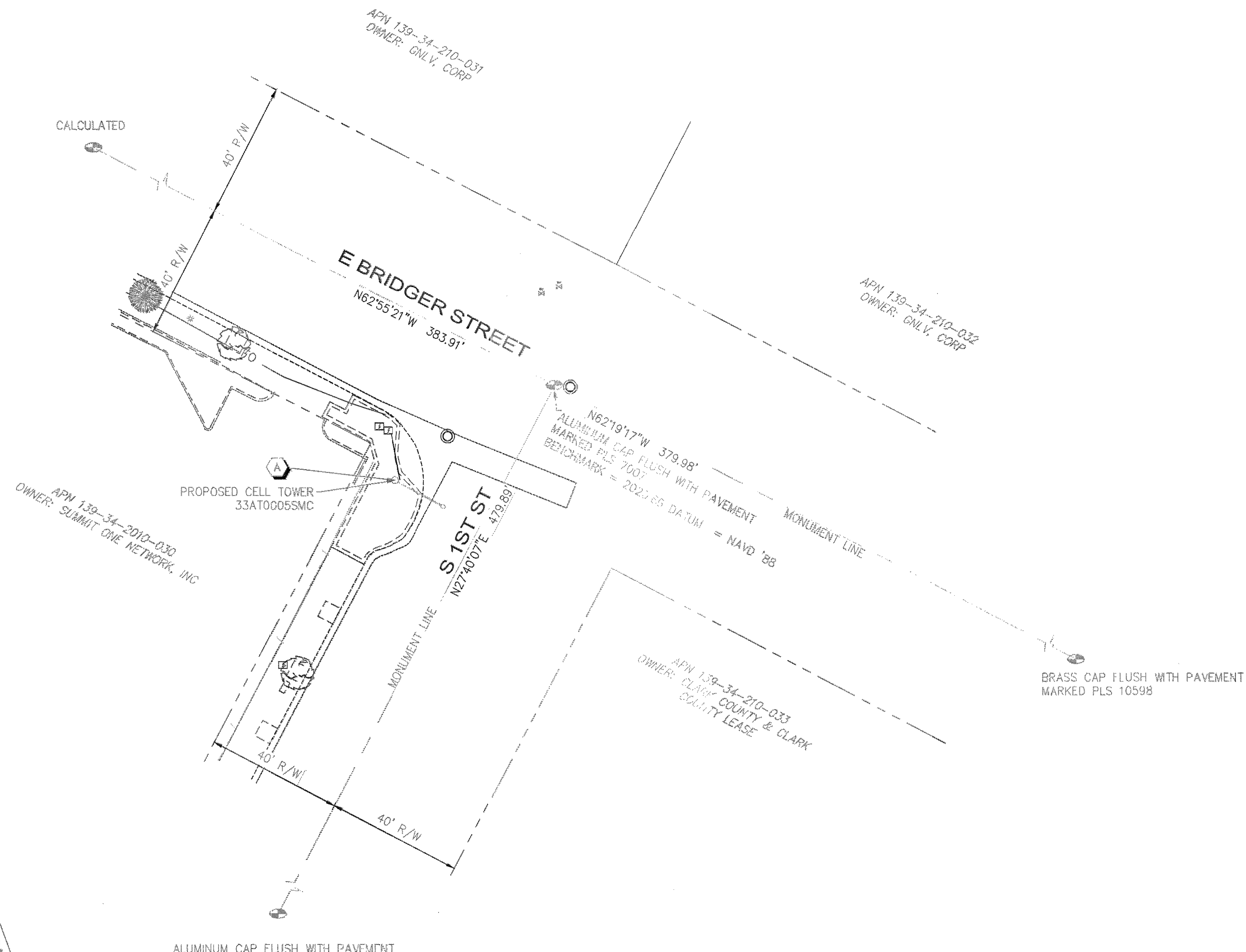
SHEET TITLE
HANDHOLE DETAILS

SHEET NUMBER

E-4

SMALL CELL SITE SURVEY

IN SECTION 34, TOWNSHIP 20 SOUTH, RANGE 61 EAST, MOUNT DIABLO MERIDIAN, CLARK COUNTY, NEVADA



- LEGEND**
- SECTION MONUMENT
 - PROPERTY CORNER
 - RIGHT OF WAY MONUMENT
 - INTERSECTION MONUMENT
 - WITNESS MONUMENT
 - MANHOLE
 - POWER POLE
 - LIGHT POLE
 - TRAFFIC SIGNAL POLE
 - GUY WIRE
 - FIRE HYDRANT
 - WATER METER
 - WATER VALVE
 - WATER VALVE
 - SIGN
 - TELEPHONE JUNCTION BOX
 - CABLE RISER
 - TRANSFORMER/ELECTRICAL JUNCTION BOX
 - CATCH BASIN
 - EMERGENCY SHUT OFF SWITCH
 - BALLARD
-
- LINE LEGEND**
- SUBJECT BOUNDARY LINE
 - OTHER PROPERTY LINE
 - EASEMENT LINE
 - SECTION LINE
 - SUB-SECTION LINE
 - RIGHT OF WAY LINE
 - SURVEY TIE LINE
 - FENCE LINE

A LATITUDE: NORTH 36°10'07.81504"
 LONGITUDE: WEST 115°08'42.62313
 GROUND ELEVATION: 2017.3' NAVD '88
 TOP OF PROPOSED TOWER HEIGHT: 27.6'
 TOP OF PROPOSED TOWER ELEVATION: 2044.9'
 NAVD '88

FOR REFERENCE
ONLY

REV NO.	COMMENT	DATE
0	final draft	...
05835	BDT	TE

SUNRISE ENGINEERING
 12227 S. BUSINESS PARK DR, SUITE 220
 DRAPER, UTAH 84020
 TEL 801.523.0100 • FAX 801.523.0990
 www.sunrise-eng.com

SMALL CELL SITE EXHIBIT

COX COMMUNICATIONS
C/O BLACK & VEATCH
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SET NO.	SURVEYED	DRAWN	CHECKED	SHEET NO.	
05835	BDT	TE	NWJ	1 of 01	2017-05

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SHEET TITLE
SITE SURVEY

SHEET NUMBER
S-1