



# at&t

# CRAN\_RSFR\_NOVA0\_004

(NEAR) 7123 REDWOOD BLVD  
NOVATO, CA 94947

SITE ID: CRAN\_RSFR\_NOVA0\_004  
FA CODE: 14885690  
PACE CODE: MRSFR056893  
SITE TYPE: STEEL LIGHT POLE  
POLE #: 3809J  
COUNTY: MARIN



AT&T  
5001 EXECUTIVE PARKWAY  
SAN RAMON, CA  
94583



MODUS, LLC  
240 STOCKTON ST., 3RD FLOOR  
SAN FRANCISCO, CA  
94108

### PROJECT TEAM

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**CONSTRUCTION MANAGER:**  
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EMAIL: ATTPROJECTTEAM@MODUS-CORP.COM

### PROJECT DESCRIPTION

AT&T PROPOSES TO INSTALL A NEW WIRELESS COMMUNICATION SITE ON A LIGHT POLE IN THE PUBLIC RIGHT-OF-WAY.

- SCOPE:
- EXISTING POLE TO BE REMOVED AND RELOCATED TO (N) FOUNDATION
  - INSTALL (1) 2' NEW CANISTER ANTENNA INSIDE NEW FRP SHROUD ON TOP OF POLE
  - INSTALL (1) NEW RRUS 8843 INSIDE SOLAR SHIELDS ON POLE
  - INSTALL (1) NEW COAX FROM EQUIPMENT TO NEW CANISTER ANTENNA WITHIN POLE
  - INSTALL (1) NEW DISCONNECT / SMART METER ON POLE
  - EXISTING FOUNDATION TO BE REMOVED. INSTALL NEW FOUNDATION IN ITS PLACE
  - RELOCATE EXISTING LIGHT POLE TO NEW FOUNDATION

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TCP-1	TRAFFIC CONTROL PLAN

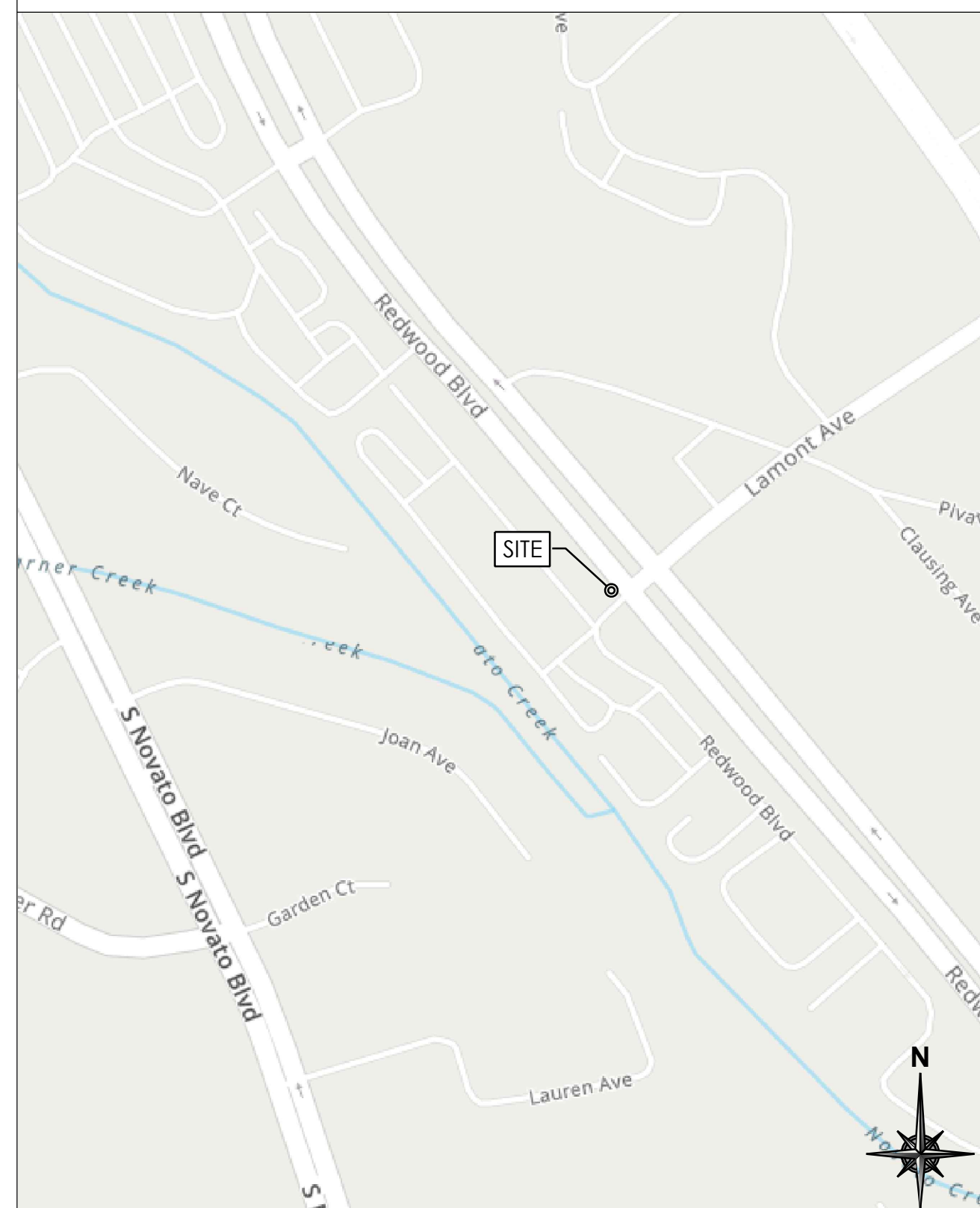
DRAWN BY: JPO  
CHECKED BY: TDL  
APPROVED BY: LJB

REV	DATE	DESCRIPTION
04/02/20		90% CD
0	10/19/21	100% CD

### POLE PHOTO



### VICINITY MAP



### SITE INFORMATION

SITE ADDRESS: (NEAR) 7123 REDWOOD BLVD  
NOVATO, CA 94947

OWNER: TBD  
ADDRESS  
CITY, STATE ZIP

APPLICANT: AT&T MOBILITY  
5001 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

LATITUDE: 38° 06' 01.361" N (38.1003780) NAD83

LONGITUDE: 122° 34' 05.015" W (-122.5680597) NAD83

COUNTY: MARIN

ASSESSORS PARCEL NUMBER: PUBLIC RIGHT OF WAY  
NEAR140-071-48

ZONING: CITY OF NOVATO

ELEVATION: 15.53' AMSL

### CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2019 CALIFORNIA CODE
- 2019 CALIFORNIA BUILDING CODE (CBC), BASED ON THE 2018 IBC
- 2019 CALIFORNIA RESIDENTIAL CODE (CRC), BASED ON THE 2018 IRC
- 2019 CALIFORNIA ELECTRICAL CODE (CEC), BASED ON THE 2017 NEC
- 2019 CALIFORNIA MECHANICAL CODE (CMC), BASED ON THE 2018 UMC
- 2019 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2018 UPC
- 2019 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (CALGREEN)
- 2019 CALIFORNIA FIRE CODES WITH ALL LOCAL AMENDMENTS
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY / COUNTY ORDINANCES

ACCESSIBILITY REQUIREMENTS FOR PERSONS WITH DISABILITIES:  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY IS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 11038.



CALL 811 BEFORE YOU DIG  
IT'S THE LAW

THE UTILITIES SHOWN HEREIN ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO THE (E) UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.



IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

### CRAN\_RSFR\_NOVA0\_004

7123 REDWOOD BLVD  
NOVATO, CA 94945

TITLE SHEET

T-1



## GENERAL NOTES

### GENERAL CONSTRUCTION NOTES

- PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT USA NORTH 811 (UNDERGROUND SERVICE ALERT) AT (800) 642-2444, FOR UTILITY LOCATIONS, 2 WORKING DAYS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
- REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF SURVEY NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT / ENGINEER.
- THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE AREA LINES, UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT / ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT / ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT / ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- ANY EXISTING COMPONENTS DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL HAVE PROTECTIVE SYSTEMS INSTALLED IN ACCORDANCE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

### GENERAL WIRELESS FACILITY NOTES

- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- ANY CONSTRUCTION WORK BY CONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUT DOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

### PROJECT CLOSEOUT

- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO CONSTRUCTION MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAUNAGED CONDITION.
- PROVIDE CONSTRUCTION MANAGER WITH ONE SET OF COMPLETE "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.

### EQUIPMENT LOCATION

- ALL DRAWINGS DIAGRAMMATICALLY INDICATE THE DESIRED LOCATIONS OR ARRANGEMENTS OF CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.
- IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE STRUCTURE CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- COORDINATE THE WORK OF THE SECTION WITH THAT OF ALL OTHER TRADES, WHERE CONFLICTS OCCUR. CONSULT WITH THE RESPECTIVE CONTRACTOR AND COME TO AGREEMENT AS TO CHANGES NECESSARY. OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES BEFORE PROCEEDING.

### TESTS

- BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC., ARE WORKING SATISFACTORILY AND TO THE INTENT OF THE DRAWINGS.

### PERMITS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL THE REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

### DEFINITIONS

- "TYPICAL" OR "TYP" MEANS THAT THIS ITEM IS SUBSTANTIALLY THE SAME ACROSS SIMILAR CONDITIONS. "TYP" SHALL BE UNDERSTOOD TO MEAN "TYPICAL WHERE OCCURS" AND SHALL NOT BE CONSIDERED AS WITHOUT EXCEPTION OR CONSIDERATION OF SPECIFIC CONDITIONS.
- "SIMILAR" MEANS COMPARABLE TO CHARACTERISTICS FOR THE CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
- "AS REQUIRED" MEANS AS REQUIRED BY REGULATORY REQUIREMENTS, BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE, OR BY THE CONTRACT DOCUMENTS.
- "ALIGN" MEANS ACCURATELY LOCATE FINISH FACES OF MATERIALS IN THE SAME PLANE.
- THE TERM "VERIFY" OR "V.I.F." SHALL BE UNDERSTOOD TO MEAN "VERIFY IN FIELD WITH ENGINEER" AND REQUIRES THAT THE CONTRACTOR CONFIRM INTENTION REGARDING NOTED CONDITION AND PROCEED ONLY AFTER RECEIVING DIRECTION.
- WHERE THE WORDS "OR EQUAL" OR WORDS OF SIMILAR INTENT FOLLOW A MATERIAL SPECIFICATION, THEY SHALL BE UNDERSTOOD TO REQUIRE SIGNED APPROVAL OF ANY DEVIATION TO SAID SPECIFICATION PRIOR TO CONTRACTORS ORDERING OR INSTALLATION OF SUCH PROPOSED EQUAL PRODUCT.
- FURNISH: SUPPLY ONLY, OTHERS TO INSTALL. INSTALL: INSTALL ITEMS FURNISHED BY OTHERS. PROVIDE: FURNISH AND INSTALL.

### APPLICABLE CODES, REGULATIONS AND STANDARDS:

- CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.
- THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT AT THE TIME OF PERMITTING SHALL GOVERN THE DESIGN.
- CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
  - AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
  - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
  - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES
  - INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM (IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EQUIPMENT.
  - IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY 'C3' AND 'HIGH SYSTEM EXPOSURE')
- TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
  - TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION
  - TELCORDIA GR-347 GENERAL OFFICE POWER WIRING
  - TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
  - TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS
- ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
- FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

### GENERAL TRENCHING NOTES

- MAINTAIN 2" MINIMUM COVER FOR ALL ELECTRICAL CONDUITS, U.O.N.
- MAINTAIN 30" MINIMUM COVER FOR ALL TELECOMMUNICATIONS CONDUITS.
- MINIMUM 1" SAND SHADING BELOW CONDUITS, AND 6" COVERING ON TOP OF CONDUITS REQUIRED.
- REFER TO SHEET E-1 FOR ADDITIONAL REQUIREMENTS

### GENERAL GROUNDING NOTES

- GROUNDING SHALL BE TESTED AT 5 OHMS OR LESS.
- WOOD MOLDING, STAPLED EVERY 3'-0" AND AT EACH END.

### GENERAL CONDUIT NOTES

- ALL CONDUITS WILL BE MANDRELED AND EQUIPPED WITH 3/8" PULL ROPE.
- SCHEDULE 40 CONDUIT FOR UNDERGROUND USE.
- SCHEDULE 80 CONDUIT FOR RISER USE AND ELSEWHERE AS NOTES. TRANSITION FROM SCHEDULE 40 PVC OR RIGID STEEL CONDUIT TO SCHEDULE 80 USING APPROVED FITTINGS DESIGNED TO PROVIDE A SMOOTH INTERIOR WALL TRANSITION TO THE REDUCED INTERIOR DIAMETER OF SCHEDULE 80. ADJUST CONDUIT SIZE IF NECESSARY TO MAINTAIN THE INTERIOR AREA REQUIRED FOR THE WIRING SPECIFIED.
- GALVANIZED STEEL CONDUIT FOR ANY CONDUIT UNDER 3" STUB UP 10" THEN CONVERT TO SCHEDULE 80.
- CONTRACTOR TO STUB UP POLE 10' w/ POWER CONDUIT.
- ZRC COLD GALVANIZING COMPOUND OR EQUIVALENT IS REQUIRED ON EXPOSED THREADS IN RIGID STEEL CONDUIT AND THE CUT ENDS OF SUPPORT STRUTS, ETC., TO PREVENT RUSTING.

### CONTRACTOR REQUIREMENTS

DO NOT SCALE OFF DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK

## ABBREVIATIONS

A.B.	ANCHOR BOLT	GLB.	GLUE LAMINATED BEAM
ABV.	ABOVE	(GLU-LAM)	
ACCA	ANTENNA CABLE COVER ASSEMBLY	GPS	GLOBAL POSITIONING SYSTEM
ADDL.	ADDITIONAL	GRND.	GROUNDED
A.F.F.	ABOVE FINISHED FLOOR	HDR.	HEADER
A.F.G.	ABOVE FINISHED GRADE	HGR.	HANGER
AGL	ABOVE GROUND LEVEL	HT.	HEIGHT
AHJ	AUTHORITY HAVING JURISDICTION	ICGB.	ISOLATED COPPER GROUND BUS
ALUM	ALUMINUM	IN.(#)	INCH(ES)
ALT.	ALTERATE	INT.	INTERIOR
AMSL	ABOVE SEA LEVEL	LB.(#)	POUND(S)
ANT.	ANTENNA	L.B.	LAG BOLTS
APPRX.	APPROXIMATE(LY)	L.F.	LINEAR FEET(FOOT)
ARCH.	ARCHITECT(URAL)	L.	LONGITUDINAL
AWG.	AMERICAN WIRE GAUGE	MAS.	MAXIMUM
B.D.G.	BUILDING	M.B.	MACHINE BOLT
BLK.	BLOCK	MECH.	MECHANICAL
BLKG	BLOCKING	MFR.	MANUFACTURER
BM.	BEAM	MIN.	MINIMUM
B.N.	BOUNDARY NAILING	MISC.	MISCELLANEOUS
BN	BACK-UP CABINET	MTL	METAL
BC/W.	BARE TRINNED COPPER WIRE	NO.(#)	NUMBER
B.O.	BOTTOM	N.T.S.	NOT TO SCALE
B.O.F.	BOTTOM OF FOOTING	(N)	NEW
CAB.	CABINET	O.C.	ON CENTER
CANT.	CANTILEVER(ED)	OPNG.	OPENING
C.I.P.	CAST IN PLACE	P/C	PRE CAST CONCRETE
CLG.	CEILING	P	PLATE
C	CENTERLINE	PLY.	PLYWOOD
CLR.	CLEAR	P.S.F.	POUNDS PER SQUARE FOOT
COL.	COLUMN	P.S.I.	POUNDS PER SQUARE INCH
CONC.	CONCRETE	P.T.	PRESSURE TREATED
CONN.	CONNECTION(OR)	PWR.	POWER (CABINET)
CONT.	CONTINUOUS	QTY.	QUANTITY
d	PENNY (NAILS)	RAD.(R)	RADIUS
DBL.	DOUBLE	REF.	REFERENCE
DEPT.	DEPARTMENT	REINF.	REINFORCING
D.F.	DOUGLAS FIR	REQD.	REQUIRED
DJA.	DIAMETER	RCS.	RIGID GALVANIZED STEEL
DIAG.	DIAGONAL	R.O.W.	RIGHT OF WAY
DIM.	DIMENSION	SCH.	SCHEDULE
DWG.	DRAWING(S)	SHT.	SHEET
DWL.	DOWEL(S)	SIM.	SIMILAR
EA.	EACH	SPEC.	SPECIFICATION(S)
EL.	ELEVATION	SQ.	SQUARE
ELEC.	ELECTRICAL	S.S.	STAINLESS STEEL
ELEV.	ELEVATOR	STD.	STANDARD
EMT.	ELECTRICAL METALLIC TUBING	STL.	STEEL
E.N.	EDGE NAIL	STRUC.	STRUCTURAL
ENG.	ENGINEER	TEMP.	TEMPORARY
EQ.	EQUAL	THK.	THICKNESS
EXP.	EXPANSION	T.N.	TOE NAIL
EXST.(E)	EXISTING	T.O.A.	TOP OF ANTENNA
EXT.	EXTERIOR	T.O.C.	TOP OF CURB
FAB.	FABRICATION(OR)	T.O.F.	TOP OF FOUNDATION
F.F.	FINISH FLOOR	T.O.P.	TOP OF PLATE(PARAPET)
F.G.	FINISH GRADE	T.O.S.	TOP OF STEEL
FIN.	FINISH(ED)	T.O.W.	TOP OF WALL
FLR.	FLOOR	TYP.	TYPICAL
FDN.	FOUNDATION	U.G.	UNDER GROUND
F.O.C.	FACE OF CONCRETE	U.L.	UNDERWRITES LABORATORY
F.O.M.	FACE OF MASONRY	U.N.O.	UNLESS NOTED OTHERWISE
F.O.S.	FACE OF STUD	V.I.F.	VERIFY IN FIELD
F.O.W.	FACE OF WALL	W	WIDE(WIDTH)
F.S.	FINISH SURFACE	W/	WITH
FT.(#)	FOOT(FEET)	WD.	WOOD
G.	FOOTING	W.P.	WEATHERPROOF
GA.	GROWTH(CABINET)	WT.	WEIGHT
GI.	GALVANIZE(D)		
G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER		

## LEGEND

	SPOT ELEVATION		CENTERLINE
	REVISION		RIGHT-OF-WAY
	DETAIL REFERENCE		GROUND
	SECTION REFERENCE		TELCO
	ELEVATION REFERENCE		ELECTRICAL
			ELECTRICAL/TELCO
			COAX
			FIBER
	STEEL		OVERHEAD
	GROUT		OVERHEAD POWER/TELCO
	CONCRETE		OVERHEAD TELCO
	EARTH		OVERHEAD POWER
	GRAVEL		CHAIN LINK FENCE
	SAND		FENCING



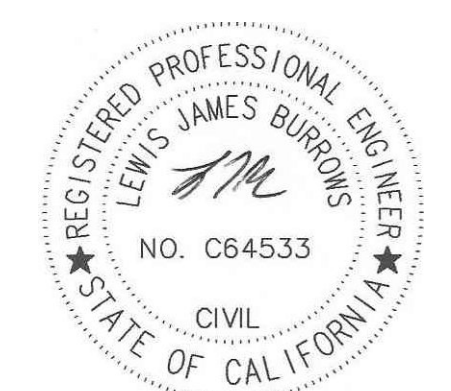
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94583



MODUS, LLC  
240 STOCKTON ST., 3RD FLOOR  
SAN FRANCISCO, CA  
94108

DRAWN BY: JPO  
CHECKED BY: TDL  
APPROVED BY: LJB

REV	DATE	DESCRIPTION
	04/02/20	90% CD
0	10/19/21	100% CD

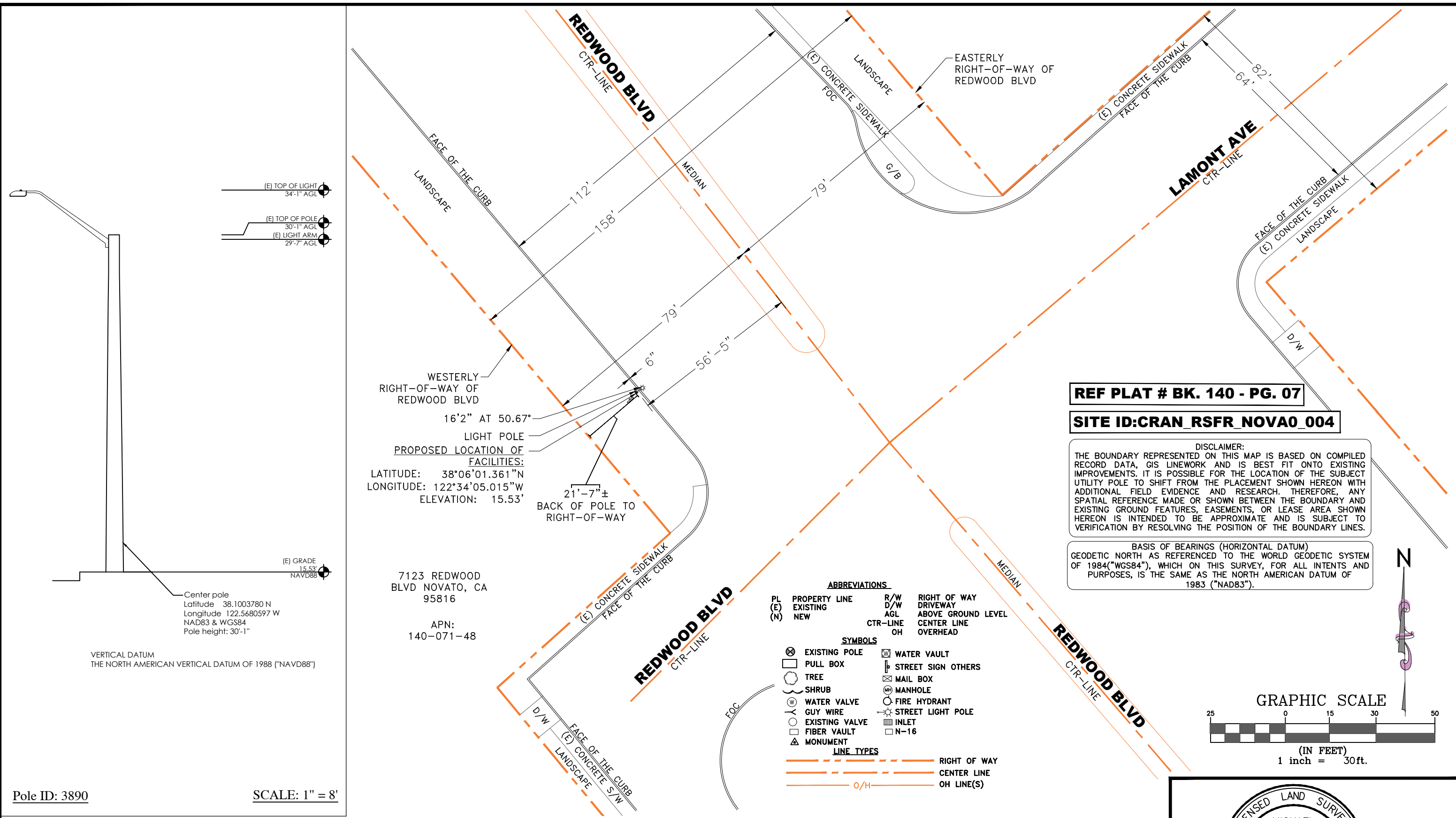


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NOVATO, CA 94945

GENERAL NOTES





**REF PLAT # BK. 140 - PG. 07**

**SITE ID:CRAN\_RSFR\_NOVA0\_004**

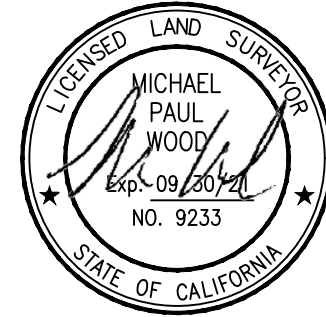
Pole ID: 3890 SCALE: 1" = 8'

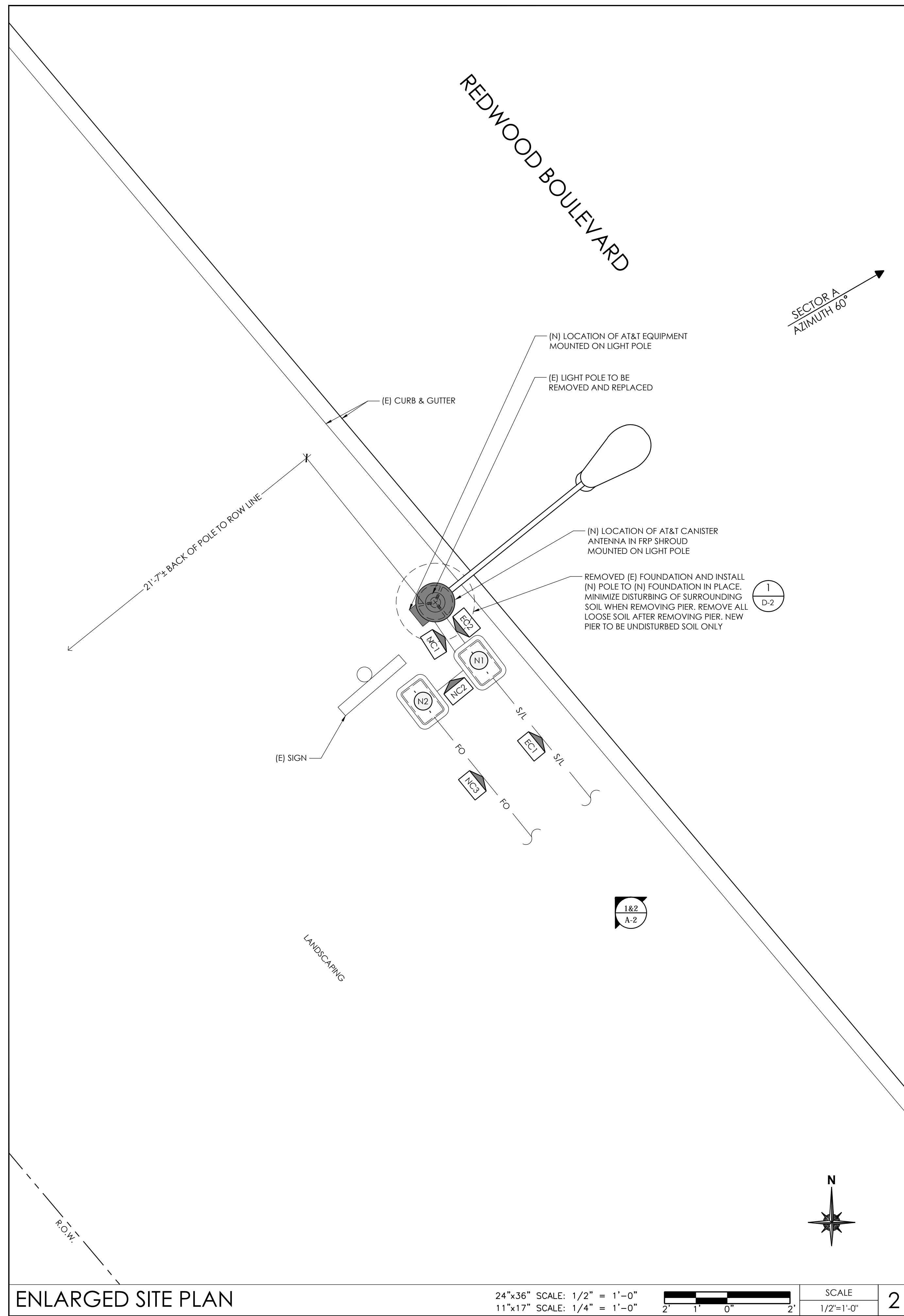
DESIGN BY: PE	REV	DESCRIPTION	DATE
DRAWN BY: PE	1.	ISSUE OF CONSTRUCTION	01/13/2020
APPROVED:			
APPROVED:			
APPROVED:			



4746 Clayton Rd, Concord, CA, 94521.  
 (925) 408-2159  
 e-mail: splanneng@gmail.com  
 www.planneng.com

**CRAN\_RSFR\_NOVA0\_004**  
**7123 REDWOOD BLVD**  
**NOVATO, CA 94945**





CONDUIT TABLE			
DESIGNATION	CONDUIT	EXISTING CONTENTS	NEW CONTENTS
EC1	EXISTING 1 1/2" DIA. PVC	(2) #8 STREET LIGHT CONDUCTORS & (1) #8 BARE EQUIPMENT GROUND	(2) #4 STREET LIGHT CONDUCTORS & (1) #8 BARE EQUIPMENT GROUND
EC2	EXISTING 1 1/2" DIA. PVC	(2) #8 STREET LIGHT CONDUCTORS & (1) #8 BARE EQUIPMENT GROUND	1 1/2" 2 CELL MAXCELL WITH ONE CELL CONTAINING NEW (2) FO JUMPERS, (2) #10 THW POWER & (1) #8 GROUND. OTHER CELL TO REMAIN EMPTY, RESERVED FOR FUTURE USE. OUTSIDE OF THE MAXCELL CONTAINS (2) #10 NEW STREET LIGHT CONDUCTORS & (1) #8 BARE EQUIPMENT GROUND
NC1	NEW 2" DIA. PVC	N/A	(2) #8 STREET LIGHT CONDUCTORS & (1) #8 BARE EQUIPMENT GROUND
NC2	NEW 2" DIA. CONDUIT (UNDER SEPARATE PERMIT)	N/A	FIBER CABLES (TBD)
NC3	NEW CONDUIT (UNDER SEPARATE PERMIT)	N/A	FIBER CABLES (TBD)

PULL BOX TABLE	
DESIGNATION	DESCRIPTION
N1	NEW STREET LIGHT PULL BOX TO INTERCEPT EXISTING UNDERGROUND STREET LIGHT CONDUIT
N2	NEW 11"x17" FIBER BOX (UNDER SEPARATE PERMIT)

LEGEND	
	FIBER LINE(S)
	ELECTRICAL LINE
	STREET LIGHT LINE



AT&T  
5001 EXECUTIVE PARKWAY  
SAN RAMON, CA  
94583



MODUS, LLC  
240 STOCKTON ST., 3RD FLOOR  
SAN FRANCISCO, CA  
94108

DRAWN BY: JPO  
CHECKED BY: TDL  
APPROVED BY: LJB

REV	DATE	DESCRIPTION
0	04/02/20	90% CD
0	10/19/21	100% CD

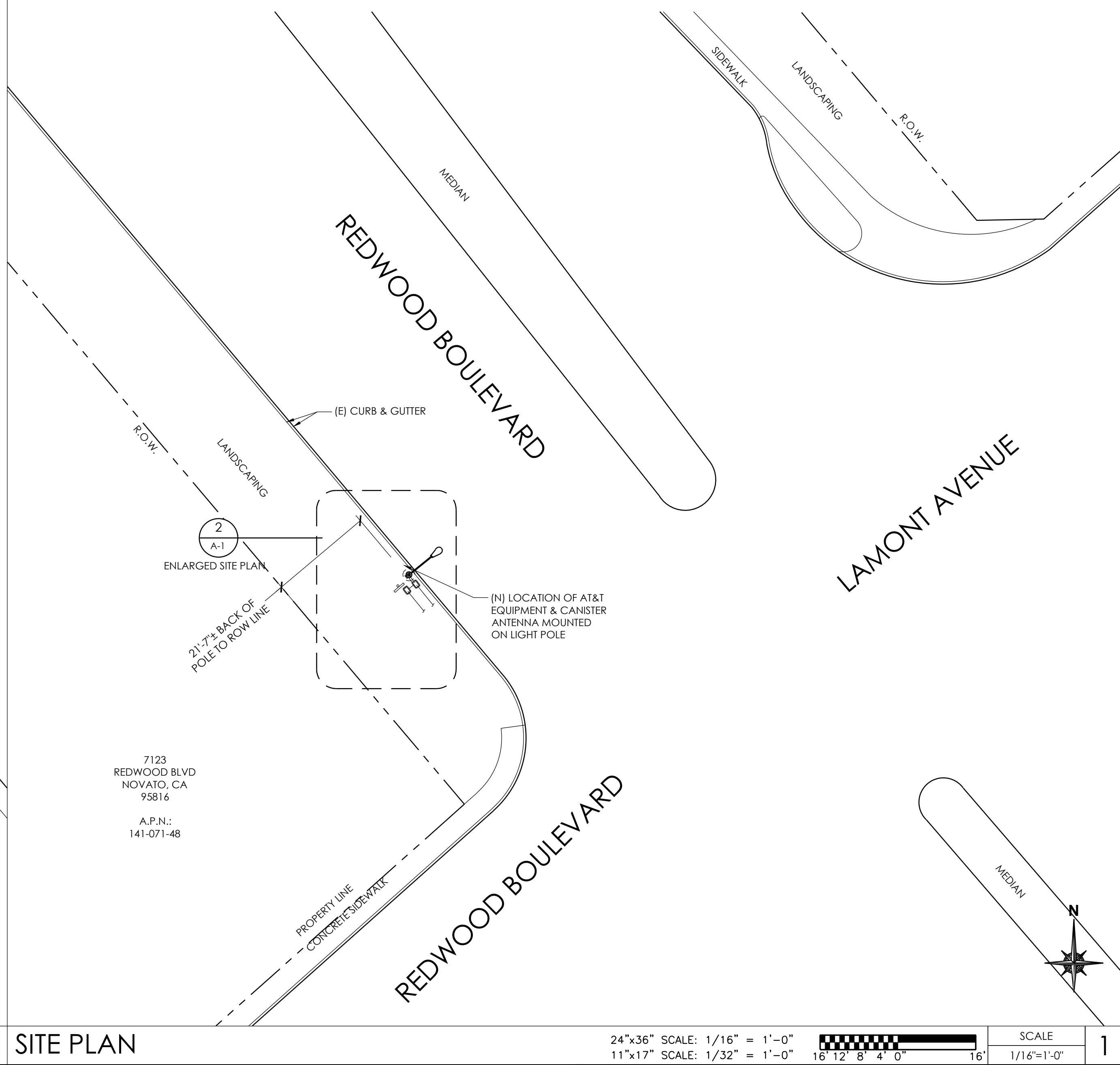


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**CRAN\_RSFR\_NOVA0\_004**  
7123 REDWOOD BLVD  
NOVATO, CA 94945

SITE PLAN

A-1



ENLARGED SITE PLAN  
24"x36" SCALE: 1/2" = 1'-0"  
11"x17" SCALE: 1/4" = 1'-0"  
SCALE 1/2"=1'-0"

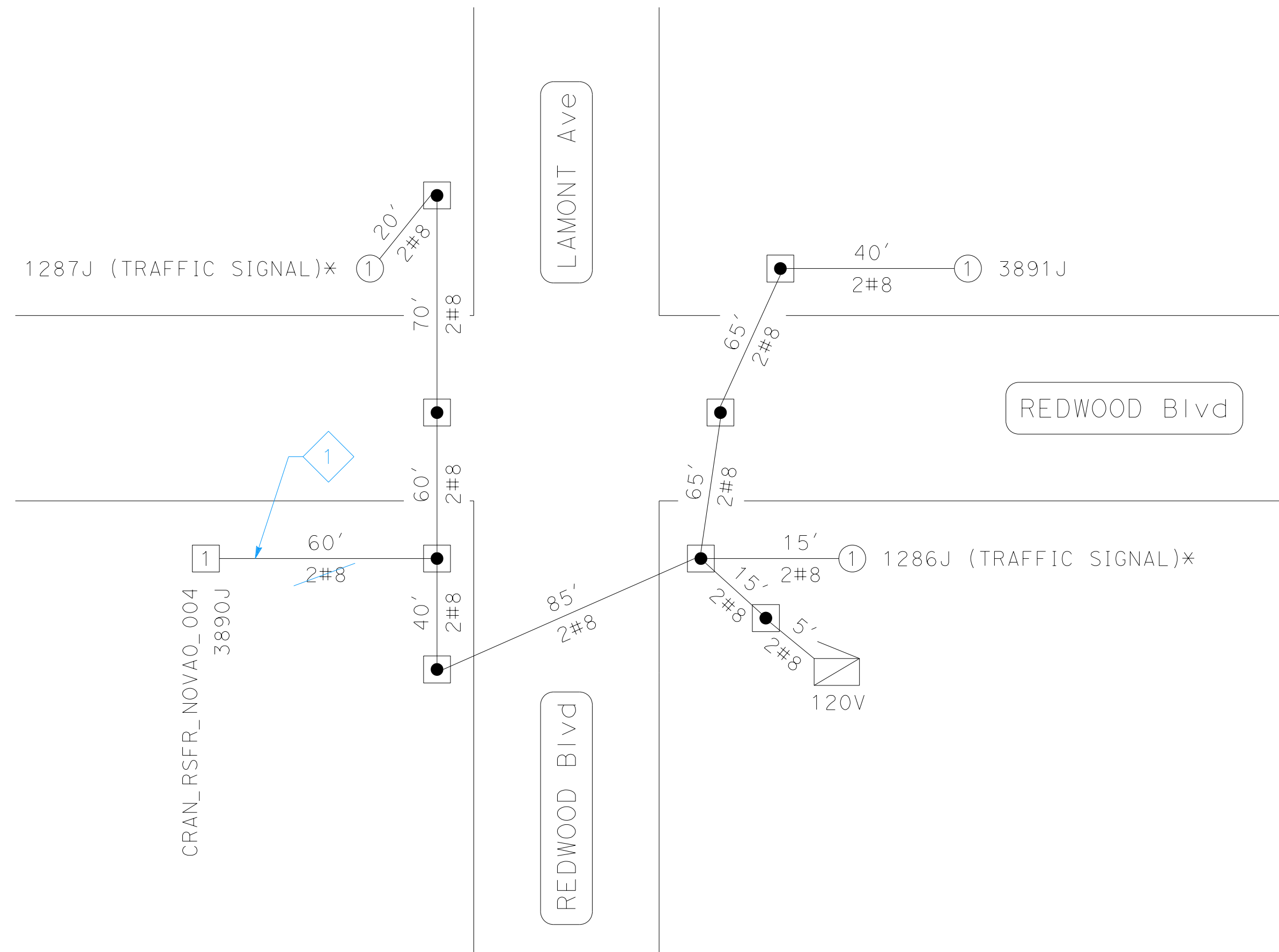
2 SITE PLAN  
24"x36" SCALE: 1/16" = 1'-0"  
11"x17" SCALE: 1/32" = 1'-0"  
SCALE 1/16"=1'-0"





CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT HIS EQUIPMENT SHALL BE OPERATED CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

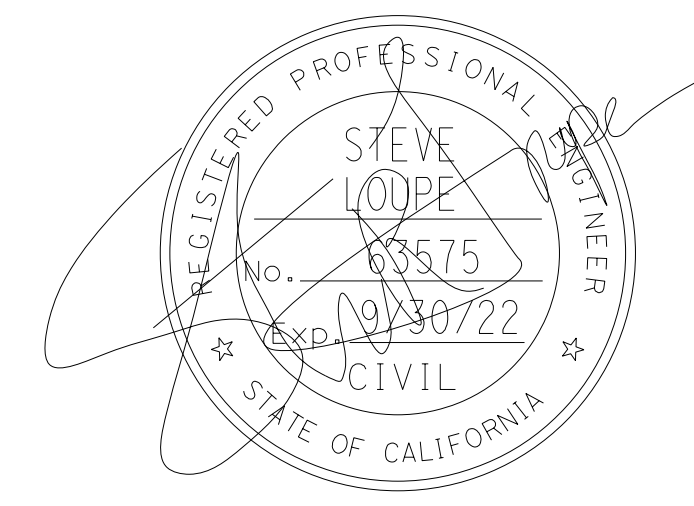
LEGEND:			
⊕	EXISTING LUMINAIRE		ELECTRICAL SERVICE CABINET
#	LUMINAIRE W/ CELLULAR EQUIPMENT		UNDERGROUND ELECTRICAL SERVICE POINT
P	MASTER PEU (MOUNTED TO POLE) OR STREETLIGHT COMMUNICATION EQUIPMENT - GATEWAY (MOUNTED TO POLE)	○	POLE MOUNTED ELECTRICAL SERVICE POINT
#	CIRCUIT NUMBER	⊗	CITY SERVICE BOX
●	SPLICED CONNECTION	(HH)	HAND-HOLE (NO PULL BOX)
		□	PULLBOX (NO SPLICE)



LUMINAIRES CONTROLLED BY INDIVIDUAL PHOTOCELLS.  
 \* ADDITIONAL CAMERA EQUIPMENT IS ATTACHED. AN ENGINEERING ESTIMATE WAS MADE FOR CAMERA EQUIPMENT WATTAGE. CALCULATION UPDATE REQUIRED WHEN WATTAGE IS OBTAINED.  
 + WATTAGE FOR PROPOSED CELLULAR EQUIPMENT IS BASED ON UTILIZING SMALL CELL EQUIPMENT LOADOUT OF 1,600W.

SERVICE POINT LOCATION	CIRCUIT #	BREAKER (FUSE) SIZE	POLE ID	CELLULAR EQUIPMENT WATTAGE	EXISTING LUMINAIRE	PROPOSED LUMINAIRE	AMPERAGE		VOLTAGE DROP	
							EXISTING	PROPOSED	EXISTING	PROPOSED
REDWOOD BLVD & LAMONT AVE	1	40A	1287J	120W*	68W LED	-	4.4	17.7	1.11%	5.69% 4.53%
			3890J	1600+	68W LED	-				
			3891J	-	37W LED	-				
			1286J	120W*	68W LED	-				

REPLACE (E)(2) #8 AWG CONDUCTORS WITH (N)(2) #4 AWG CONDUCTORS, AND RECONNECT TO ORIGINAL CONFIGURATION.



CONSULTANT: WMH Corporation  
 55 S Market St, Ste 1200  
 San Jose, CA 95113

APPLICANT: Modus, Inc.  
 240 Stockton Street, 3rd Floor  
 San Francisco, CA 94108

Date:	JUNE 21, 2021
Scale:	NO SCALE
Designed:	P. BATH
Drawn:	P. BATH
Checked:	S. VOGTMAN
Proj. Engr:	S. VOGTMAN
File:	SREQEST

IMPROVEMENT PLANS FOR  
**MODUS OMT POLES**  
**CRAN\_RSFR\_NOVA0\_004**

POLE 3890J

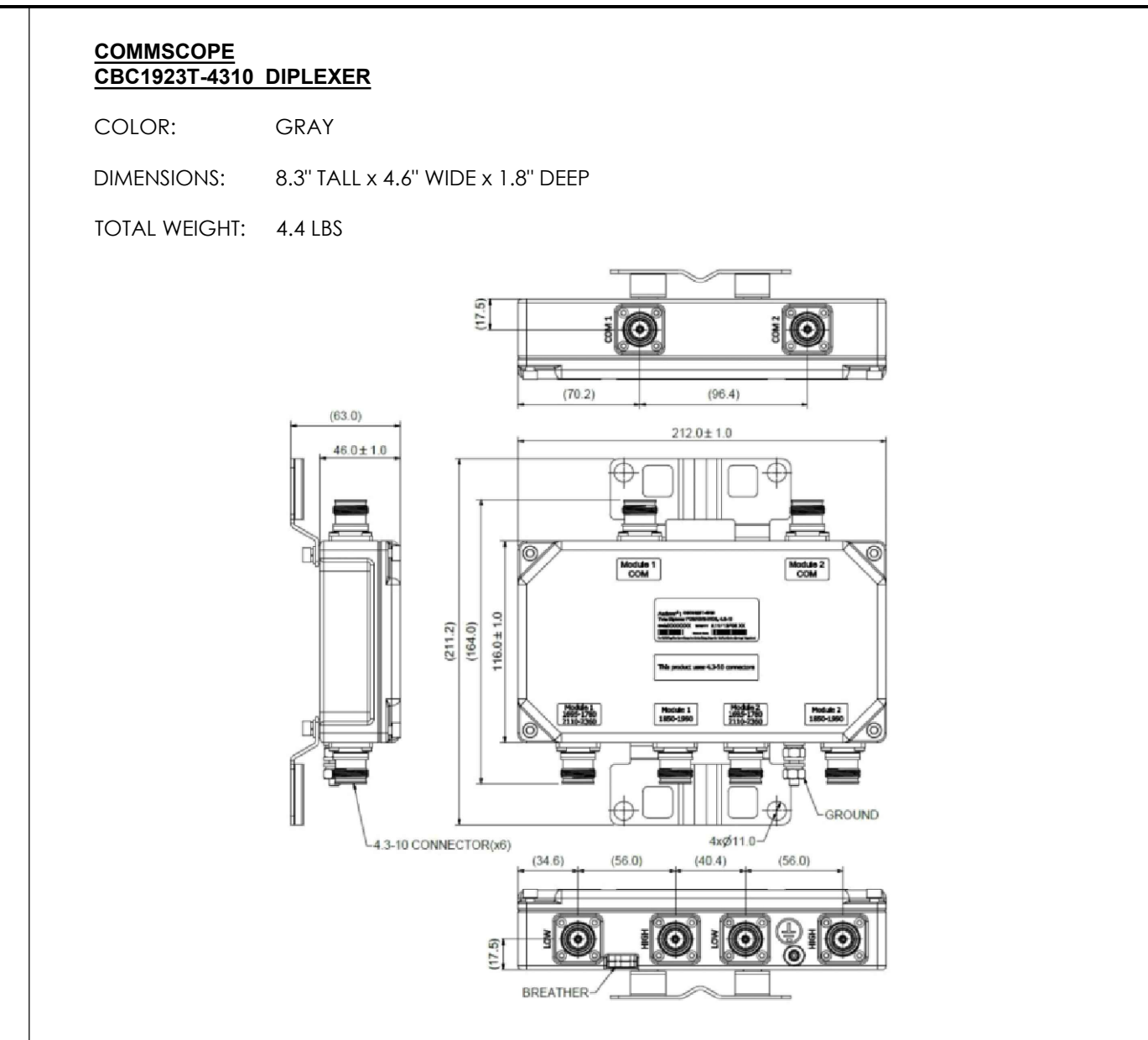
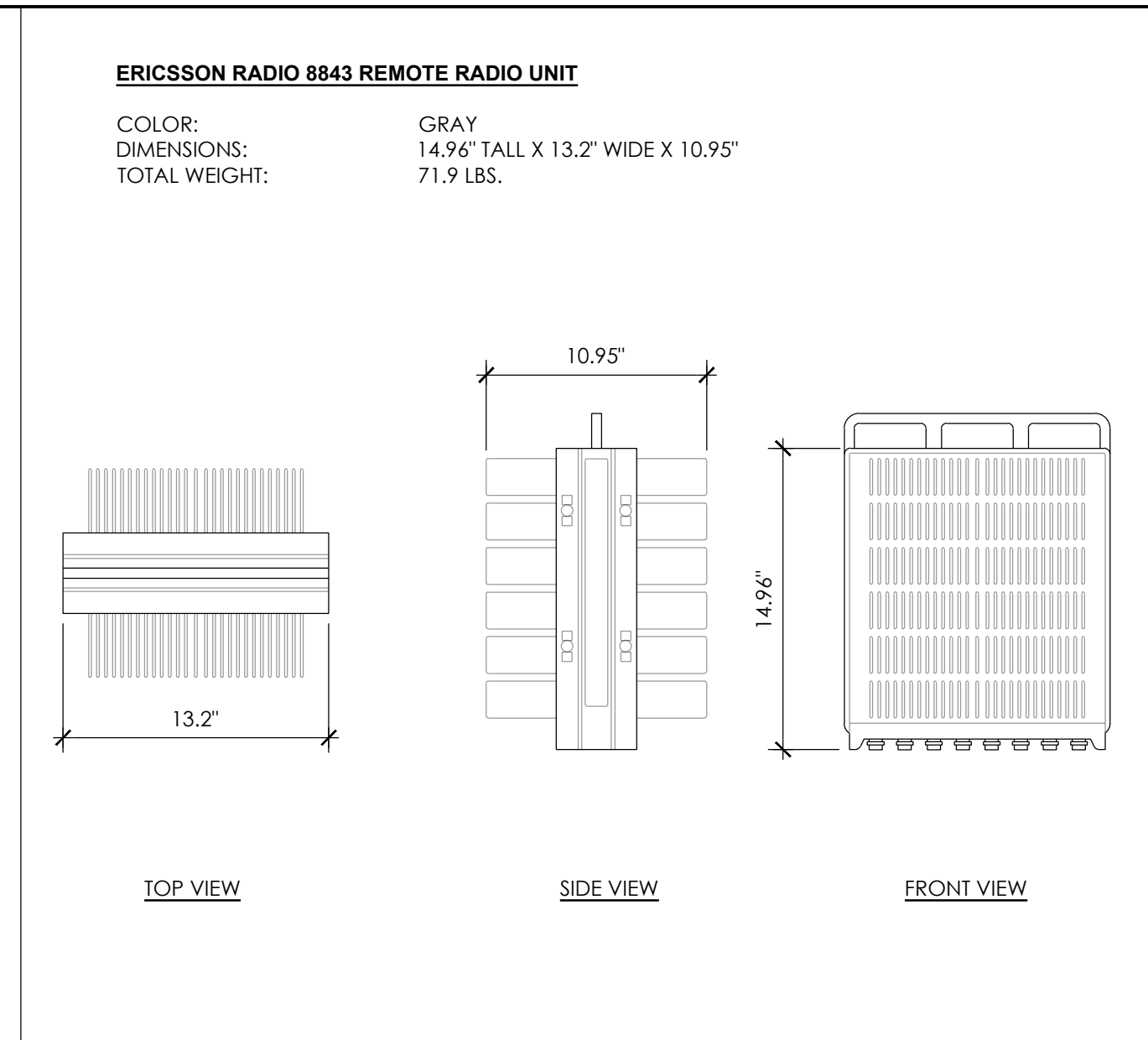
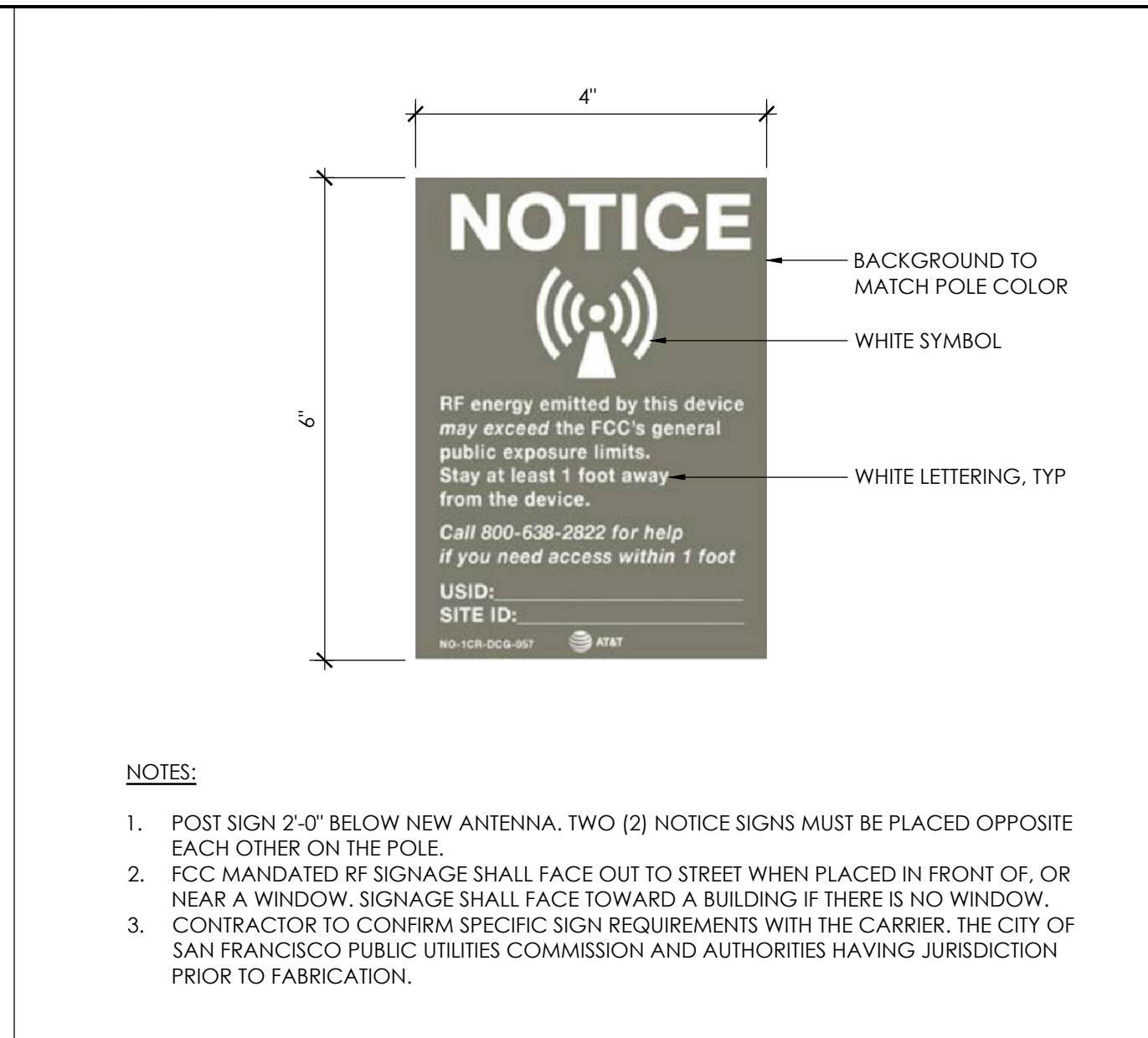
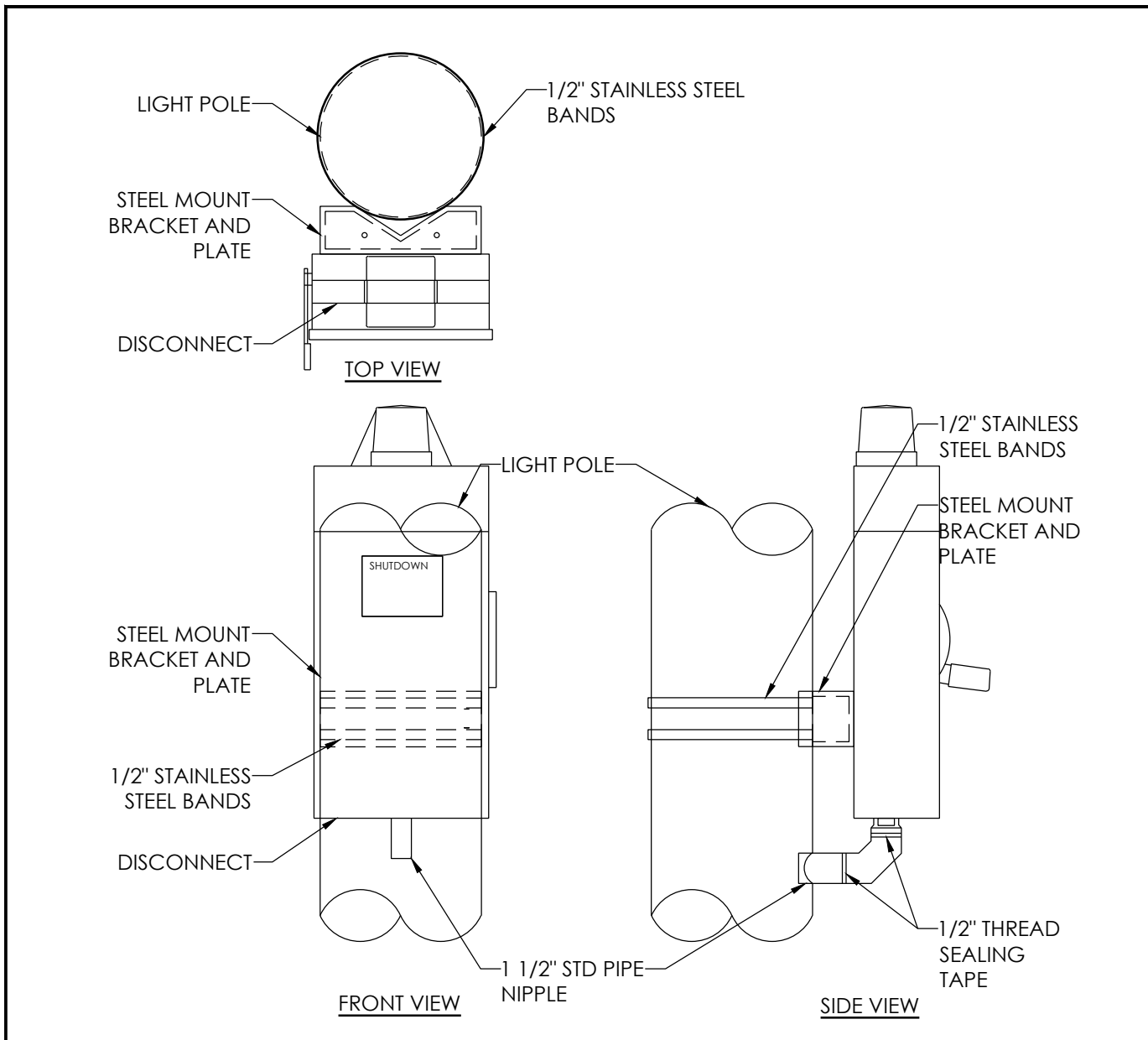
NOVATO CALIFORNIA

FOR CITY OF NOVATO USE  
 PROJECT # \_\_\_\_\_  
 PUBLIC WORKS INSPECTOR: HEATHER BALLENGER  
 VOICE MAIL: (925) 256-3586  
 PROJECT ENGINEER \_\_\_\_\_

**CITY OF NOVATO**

**SHEET A-3**





AT&T  
5001 EXECUTIVE PARKWAY  
SAN RAMON, CA  
94583

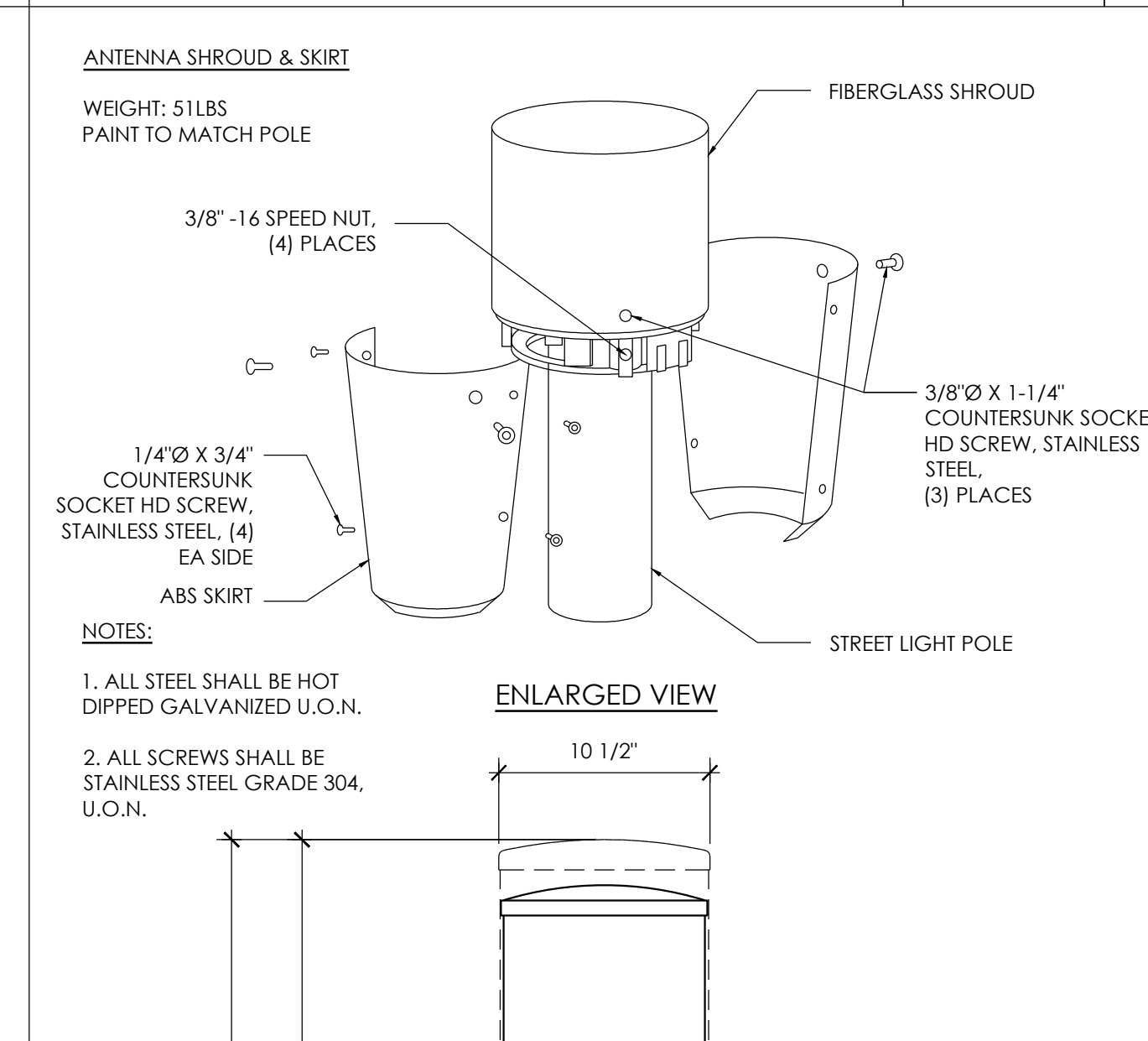
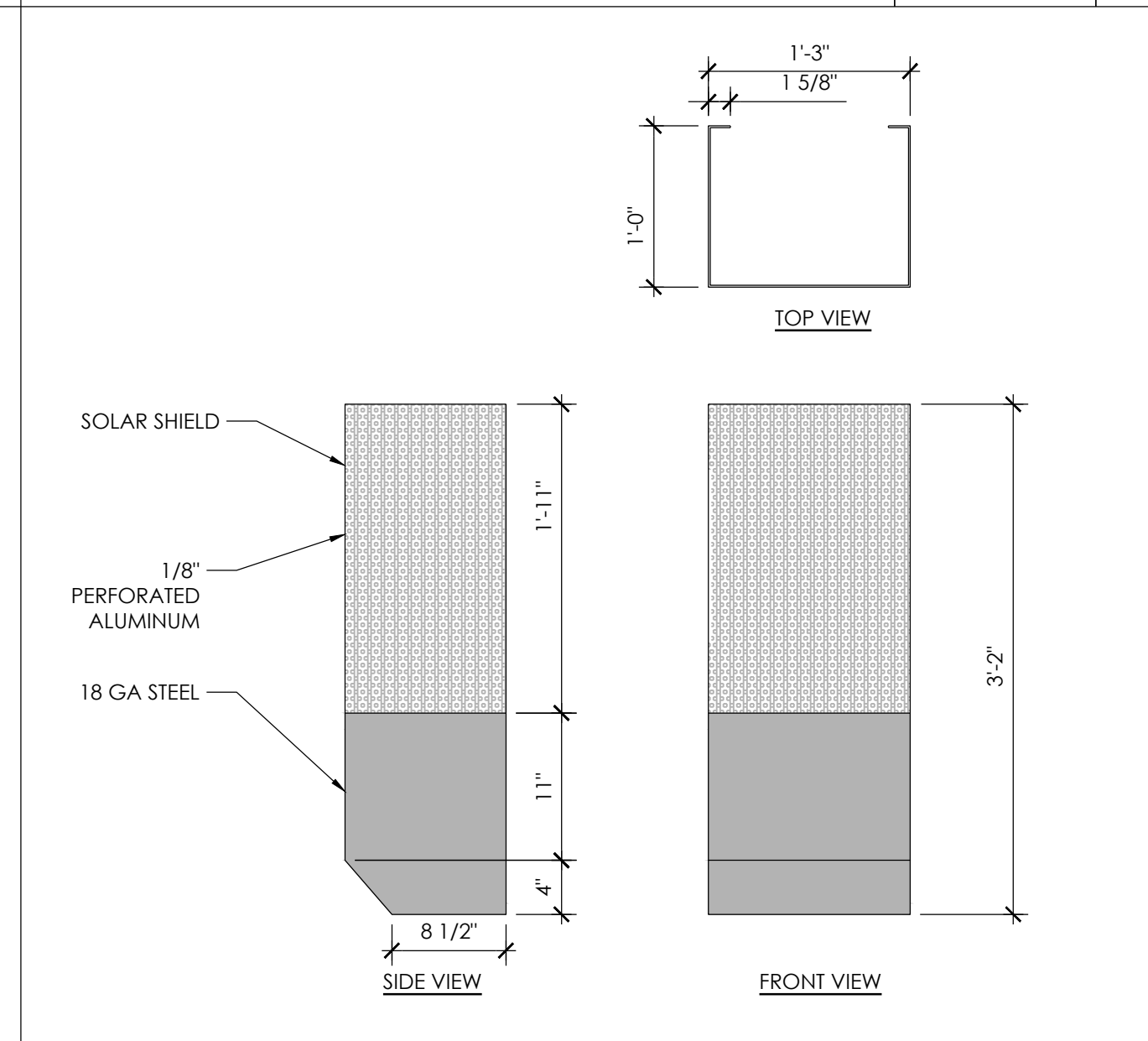
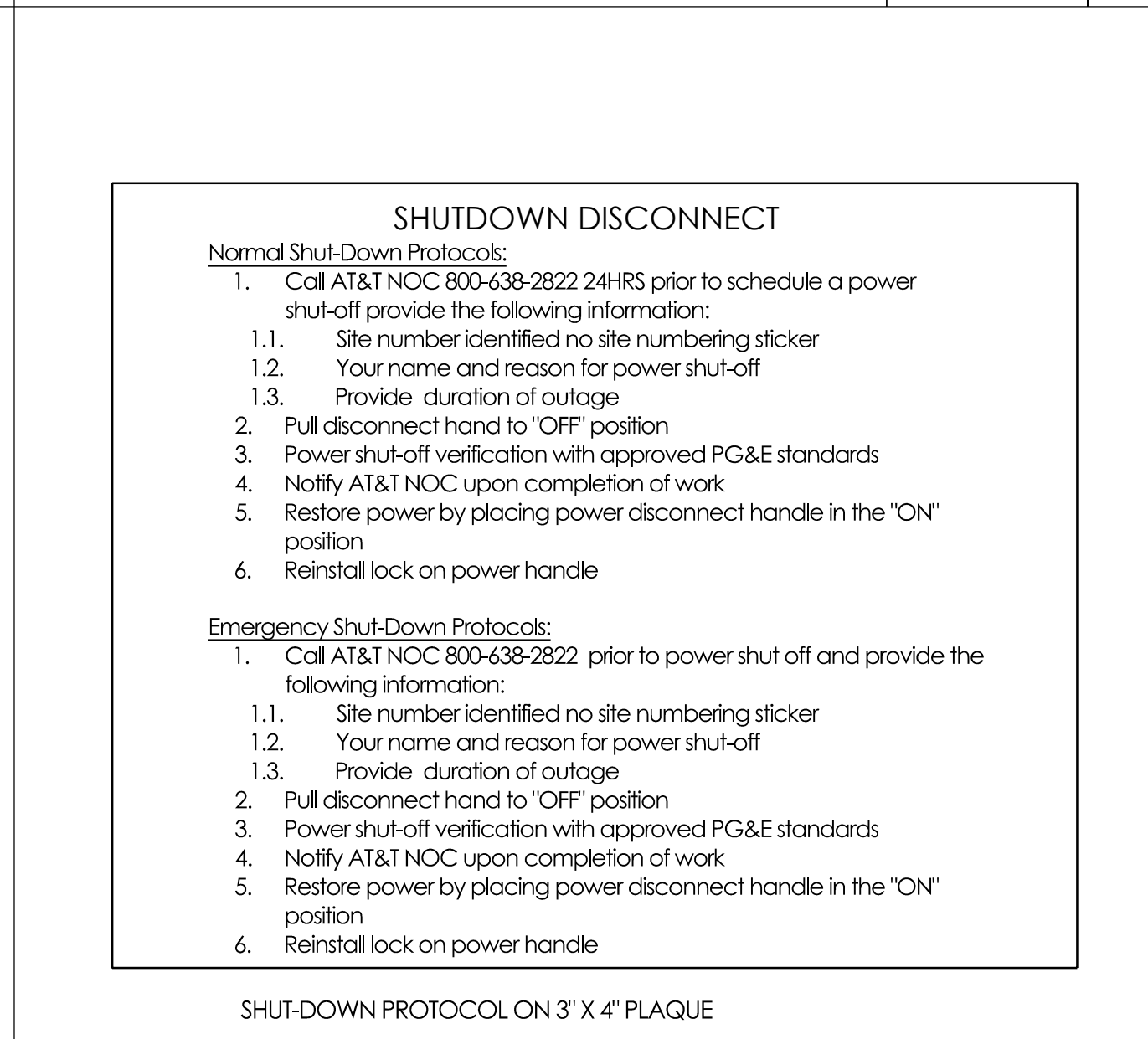
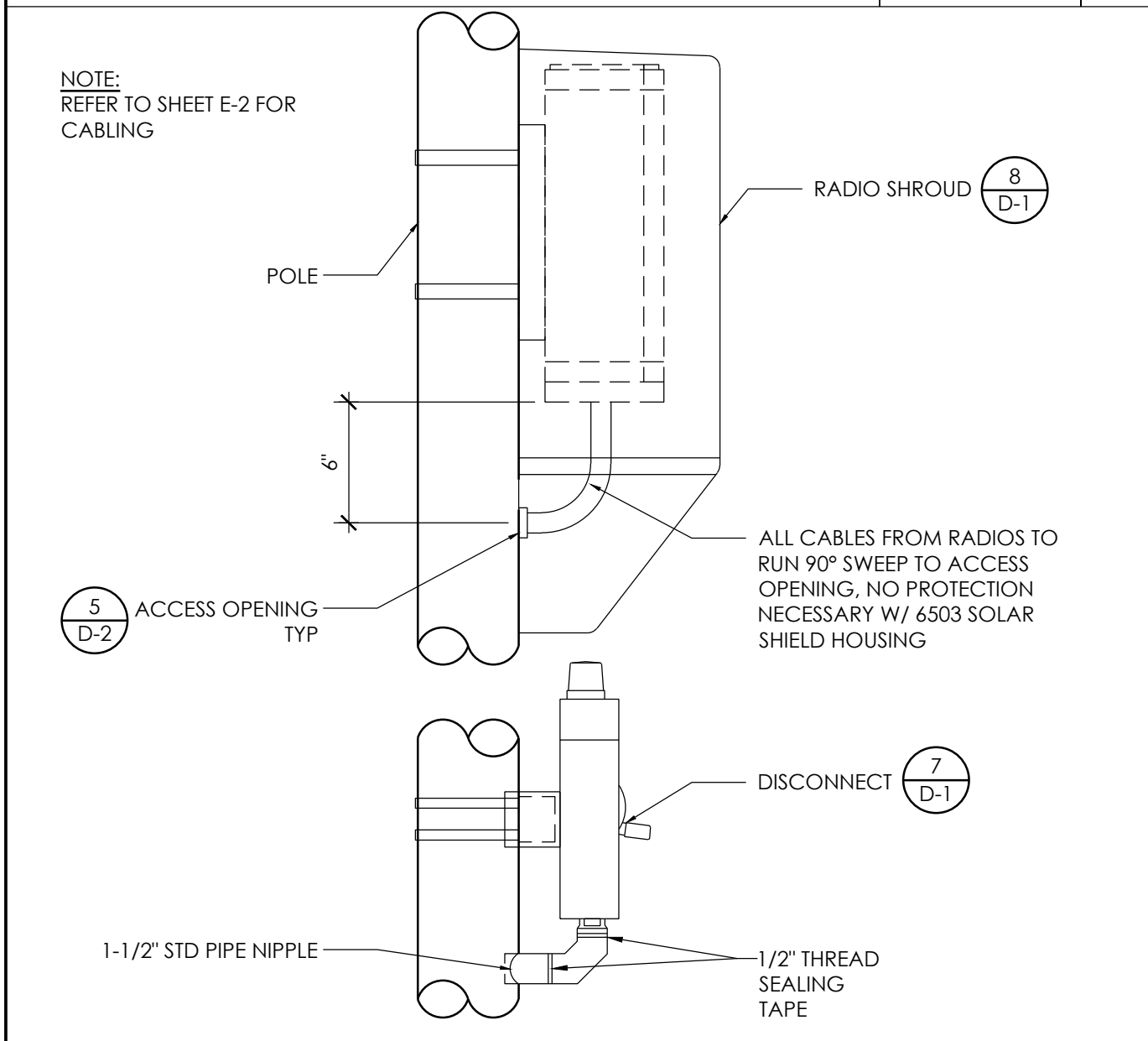
MODUS, LLC  
240 STOCKTON ST., 3RD FLOOR  
SAN FRANCISCO, CA  
94108

DISCONNECT MOUNT SCALE NTS 12

NOTICE SIGNAGE SCALE NTS 9

RRUS 8843 SCALE NTS 6

DIPLEXER SCALE NTS 3



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CHECKED BY: TDL  
APPROVED BY: LJB

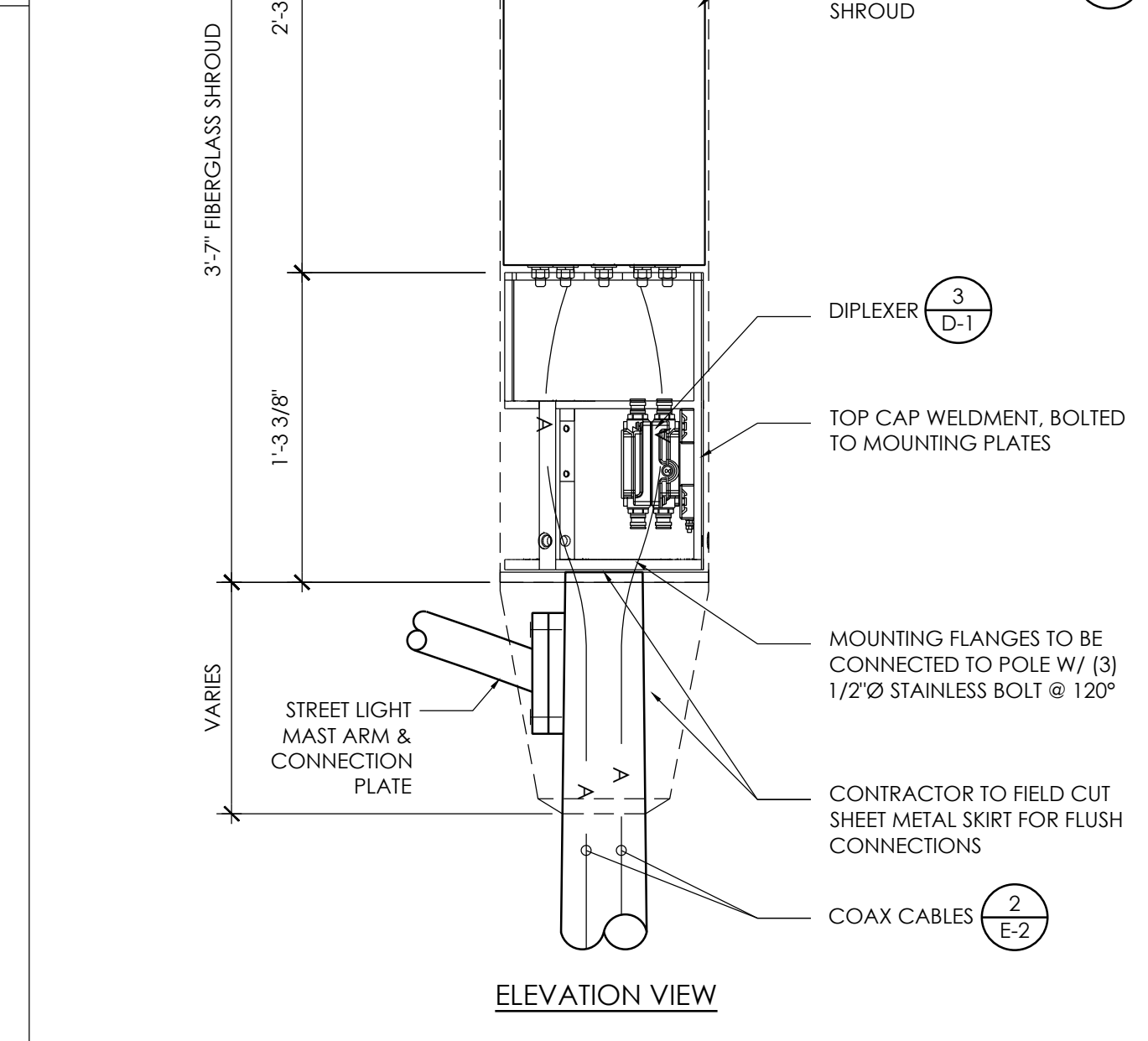
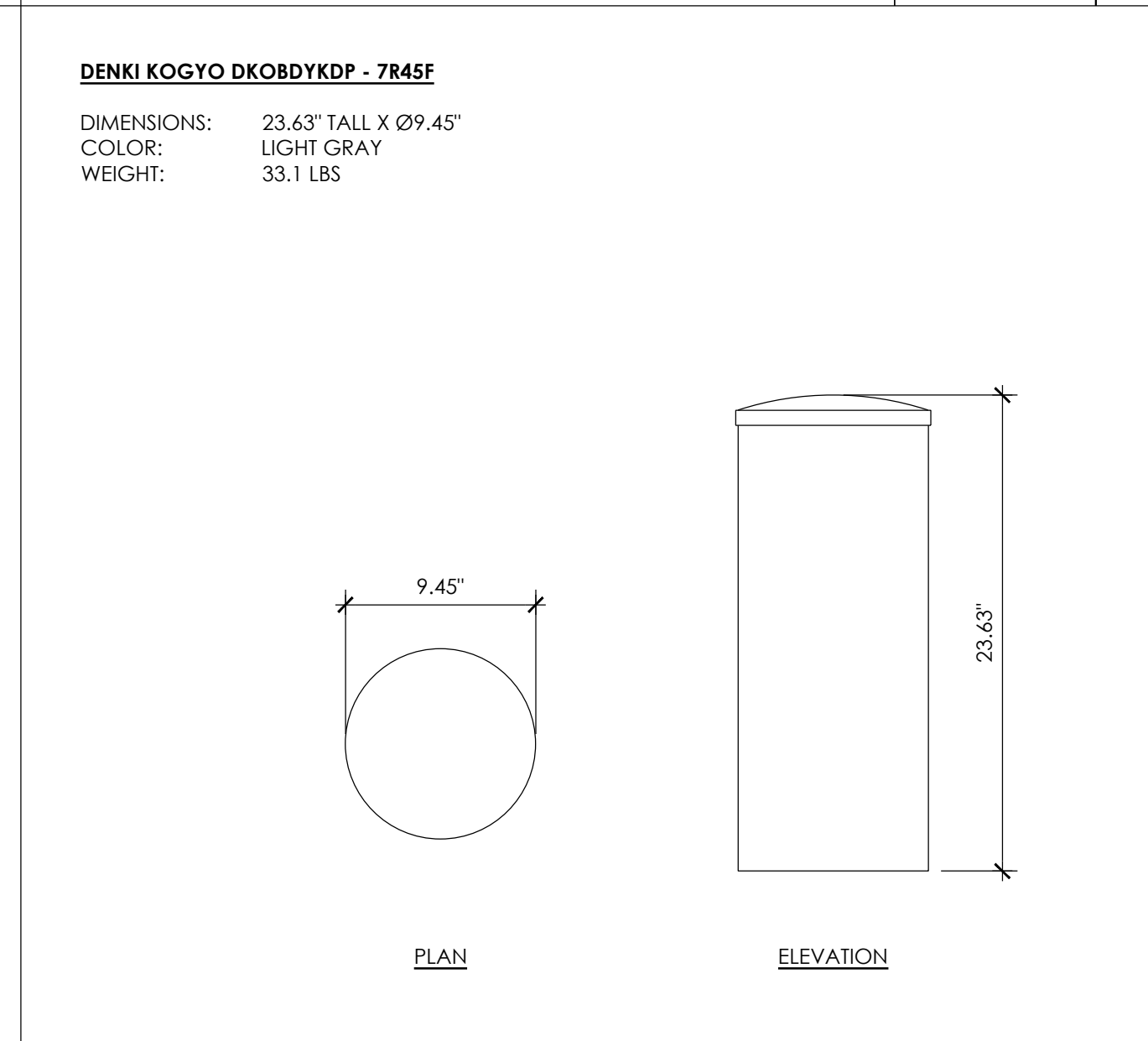
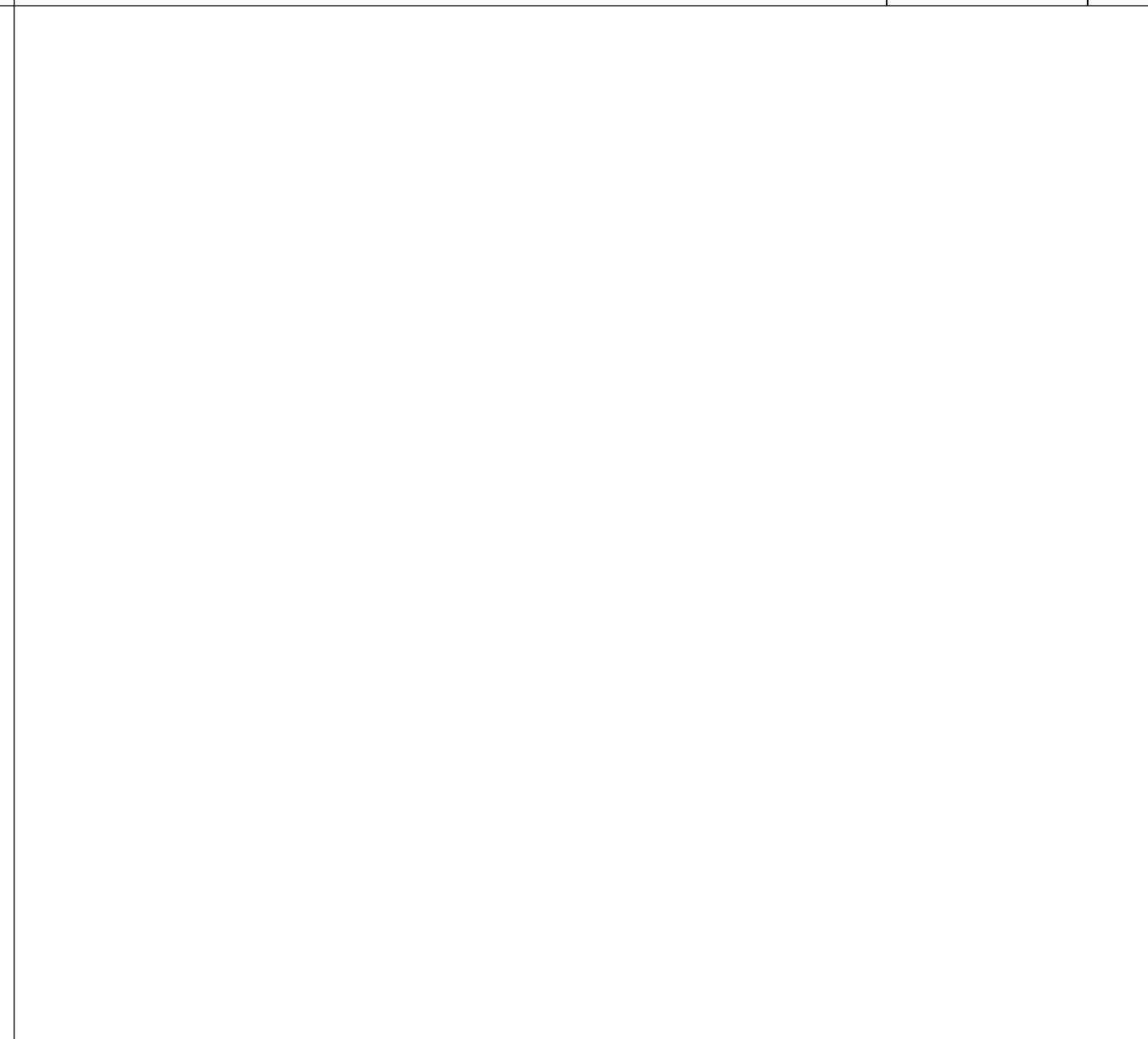
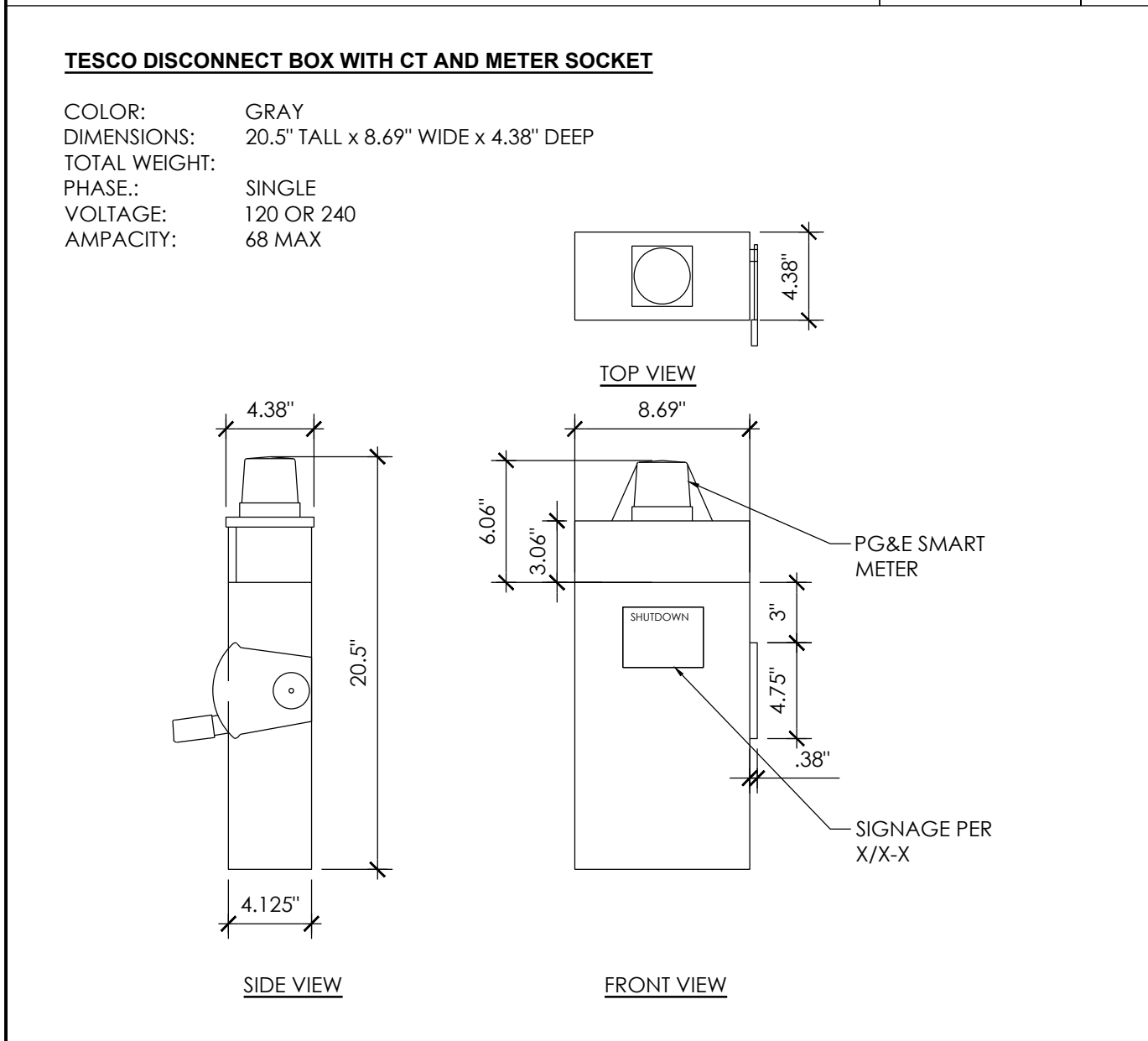
REV	DATE	DESCRIPTION
04/02/20		90% CD
0	10/19/21	100% CD

CABLE CONDUIT SCALE NTS 11

SHUT-DOWN SIGN SCALE NTS 8

SOLAR SHIELD SCALE NTS 5

ANTENNA SHROUD & SKIRT SCALE NTS 4



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**CRAN\_RSFR\_NOVA0\_004**

7123 REDWOOD BLVD  
NOVATO, CA 94945

DISCONNECT SCALE NTS 10

NOT USED SCALE NTS 7

ANTENNA SCALE NTS 4

ANTENNA SHROUD & SKIRT SCALE NTS 1

DETAILS

D-1



**SIDEWALK GENERAL NOTES:**

- 1) ALL WORK TO BE PER CITY OF NOVATO AND MARIN COUNTY UCS STANDARDS. LAMP BLACK REQUIRED IN SIDEWALKS. NEW PANELS TO BE DOWELED INTO EXISTING WALK PER CITY OF NOVATO STANDARDS.
- 2) SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.
- 3) WHERE UNSUITABLE SUBGRADE MATERIAL IS ENCOUNTERED, REMEDIAL WORK SHALL BE DONE UNDER THE DIRECTION OF THE CITY ENGINEER. INCLUDES BUT IS NOT LIMITED TO, REMOVING UNSUITABLE MATERIAL AND PLACING A LAYER OF CLASS 1 AGGREGATE BASE UNDER THE INSTALLATION.
- 4) UNDERCUT SUBGRADE FOR GUTTER OR SIDEWALK SHALL BE FILLED WITH APPROVED GRANULAR MATERIAL.
- 5) EXISTING CONCRETE SHALL BE REMOVED AT EXPANSION OR WEAKENED PLANE JOINTS OR AT SAWCUTS.
- 6) SAWCUTS MUST BE FULL DEPTH.
- 7) NO UTILITY BOXES, POLES, POSTS OR ANY OTHER FACILITIES OR DEVICES WILL BE PERMITTED IN THE SIDEWALK AREA WITHOUT THE WRITTEN APPROVAL OF THE CITY ENGINEER.
- 8) NEW WORK SHALL MATCH EXISTING SCORE AND COLOR.
- 9) SUBGRADE SHALL BE THOROUGHLY WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE.
- 10) CONCRETE SHALL BE CLASS B-5 SACK MIX WITH 3/4 INCH MAXIMUM AGGREGATE.
- 11) CONCRETE SHALL HAVE A SLUMP OF NOT MORE THAN 4 INCHES.
- 12) NO ADMIXTURES SHALL BE USED WITHOUT THE PERMISSION OF THE CITY ENGINEER.
- 13) 1/2" THICK EXPANSION JOINTS SHALL BE PLACED ON BOTH SIDES OF DRIVEWAY APPROACHES, CURB, GUTTER, AND SIDEWALK RETURN POINTS AND AT 20' ON CENTER.
- 14) WEAKENED PLANE JOINTS AT LEAST 1 1/2" DEEP SHALL BE PLACED AT THE CENTER OF DRIVEWAYS AND 20' ON CENTER.
- 15) 1/4" DEEP SCORE MARKS SHALL BE PLACED AS DESCRIBED IN THE STANDARD SPECIFICATIONS OR AS DIRECTED BY CITY ENGINEER.
- 16) NO CONCRETE SHALL BE PLACED UNTIL THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE HAS INSPECTED AND APPROVED FORMS OF SUBGRADE.
- 17) ALL EXPOSED EDGES SHALL BE ROUNDED WITH 1/2" RADIUS TOOL.
- 18) ALL SURFACES SHALL BE BROOM FINISHED UNLESS OTHERWISE NOTED.
- 19) CURBS, SIDEWALKS AND DRIVEWAY APPROACHES SHALL BE BACKFILLED WITHIN 7 DAYS AFTER PLACING CONCRETE. THIS SHALL INCLUDE ANT REQUIRED AC PATCHWORK.
- 20) FORM FACES SHALL NOT VARY FROM THE DIMENSIONS SHOWN BY MORE THAN .02 FEET. FORMS SHALL MEET GRADE.
- 21) UNLESS OTHERWISE SPECIFIED ON THE APPROVED PLANS, CONCRETE SHALL BE CURED BY MEANS OF THE IMPERVIOUS MEMBRANE METHOD.
- 22) ALL SIDEWALK CONSTRUCTION ADJACENT TO CURB SHALL BE POURED MONOLITHIC WITH CURB UNLESS OTHERWISE APPROVED BY ENGINEER.
- 23) ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COMPLETED NO LATER THAN 5 DAYS AFTER INSTALLATION OF UTILITY.
- 24) A MINIMUM OF 2" OF ASPHALT SHALL BE REMOVED ALONG THE GUTTER LIP FOR THE INSTALLATION OF FORMS. FOR CURB AND GUTTER INSTALLATIONS AC SHALL BE BROUGHT TO FINISH GRADE OF FORMS AND TRANSITIONED AS REQUIRED BY THE CITY ENGINEER.
- 25) ALL FACE ANGLE INSTALLATIONS IN RETURNS SHALL MATCH EXISTING RADIUS OF CURB.

**CONCRETE NOTES:**

- 1) ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14.
- 2) CONTRACTOR SHALL VERIFY SITE CONDITIONS & ALL DIMENSIONS PRIOR TO STARTING WORK. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES.
- 3) CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- 4) CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33.
- 5) ALL CONCRETE SHALL BE A 5 SACK MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- 6) ALL REINFORCING STEEL SHALL BE GRADE 40 AND CONFORM TO ASTM A615 UNLESS OTHERWISE NOTED. SEE PLAN FOR SIZE AND PLACEMENT.
- 7) MINIMUM LAP SPICE SHALL BE 40 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- 8) MINIMUM BEND DIAMETER SHALL BE 6 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- 9) MINIMUM REINFORCING COVERAGE IS 3" UNLESS OTHERWISE NOTED.
- 10) CONCRETE SHALL BE PLACED AGAINST FIRM UNDISTURBED SOIL AT DEPTH SHOWN.
- 11) BOTTOM OF ALL FOOTING TRENCHES SHALL BE CLEAN AND LEVEL.
- 12) ALL ANCHOR BOLTS & THREADED ROD SHALL BE ASTM F1554 GRADE 55 MINIMUM, UNLESS OTHERWISE NOTED; NEW & WITHOUT SIGNIFICANT RUST. TOP 2 FEET & HARDWARE TO BE GALVANIZED PER ASTM A123.
- 13) A 1/2" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE NOTED.
- 14) REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE.
- 15) ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY MOTORIZED VIBRATORY MEANS AND THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS AND INTO CORNERS OF FORMS.

**WELDING**

- 1) ALL WELDS SHALL BE SHIELDED METAL ARC TYPE (SMAW), IN ACCORDANCE WITH THE "STANDARD CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION", AWS D1.1, BY THE AMERICAN WELDING SOCIETY.
- 2) WELDING ROD SHALL BE E70XX, MINIMUM (70 KSI).
- 3) PERIODIC INSPECTION IS PERMITTED FOR THE FOLLOWING:
  - SINGLE PASS FIELD WELDS NOT EXCEEDING 5/16"
- 4) REMOVE ALL EXISTING CONDUCTORS AND GROUND WIRES FROM POLE PRIOR TO WELDING AND INSTALL NEW AFTER WELDING IS COMPLETE IN ACCORDANCE WITH STANDARD SPECIFICATION 86-2.04 (B)
- 5) WELDING TO BE PERFORMED BY AN AWS CERTIFIED WELDER FOR THE TYPE OF AND POSITION INDICATED. ALL WORK MUST BE IN CONFORMANCE WITH LATEST EDITION OF AISC & AWS D1.1.
- 6) GRIND SURFACES TO BE WELDED WITH A SILICON CARBIDE WHEEL PRIOR TO WELDING TO REMOVED ALL GALVANIZING WHICH MAY OTHERWISE BE CONSUMED IN THE WELD METAL. APPLY ANTI-SPATTER COMPOUND AFTER GRINDING.
- 7) WELDING TECHNIQUE MUST MINIMIZE TEMPERATURE RISE ON THE INSIDE SURFACE OF THE LIGHT POLE AND ALSO VOLATILE AN REMAINING ZINC WITHIN THE BASE METAL WITH MINIMUM SPATTER. USE AN E70 (LOW HYDROGEN) ELECTRODE. USE LARGEST DIAMETER ELECTRODE COMPATIBLE WITH WELDING POSITION AND MATERIAL THICKNESS. STRICTLY FOLLOW ALL MANUFACTURER'S INSTRUCTIONS FOR STORAGE AND USE OF ELECTRODES. AVOID REMOVING ELECTRODES FROM MANUFACTURER'S PACKAGING UNTIL READY FOR IMMEDIATE USE.
- 8) WELDING MAY PRODUCE TOXIC FUMES. REFER TO ANSI STANDARD Z49.1 "SAFETY IN WELDING AND CUTTING" FOR PROPER PRECAUTIONS.
- 9) UPON COMPLETION OF WELDING, APPLY GALV-A-STICK ZINC COATING TO ALL UNPROTECTED SURFACES. APPLY A SECOND LAYER OF COLD GALVANIZING SPRAY COMPOUND CONTAINING A MINIMUM ZINC CONTENT OF 95%. APPLY A FINAL COAT OF COMPATIBLE PAINT TO MATCH SURROUNDING SURFACES.

EXCEPTION: CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR ALL WELDING (NOT LISTED ABOVE) UNLESS PERFORMED IN AN APPROVED FABRICATOR'S SHOP.

**SITE:**

- 1) FOUNDATION SOIL STRATA IS NATIVE SOIL OR ENGINEERED FILL AS PER THE PROJECT SOILS REPORT WHEN APPLICABLE. IF THERE ARE ANY DISCREPANCIES BETWEEN THE SOILS REPORT & THESE PLANS, THE SOILS REPORT SHALL GOVERN.
- 2) FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED SOIL STRATA, OR ENGINEERED FILL.
- 3) THE BOTTOM OF ALL FOOTINGS SHALL BE LEVEL.
- 4) CENTER FOOTINGS UNDER COLUMNS UNLESS OTHERWISE INDICATED.
- 5) OWNER/DEVELOPER AND APPROPRIATE SUBCONTRACTOR(S) ARE RESPONSIBLE FOR REVIEWING THE SOILS REPORT (IF APPLICABLE) PRIOR TO COMMENCING CONSTRUCTION.
- 6) THE CONTRACTOR AND/OR OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL PROPERTY LINES AND CORNERS AND SHALL ENSURE THAT CONSTRUCTION IS WITHIN ALL APPLICABLE SETBACKS AND EASEMENTS.
- 7) THE ENTIRE AREA TO BE COVERED BY STRUCTURES SHALL BE CLEARED AND GRUBBED TO REMOVE SURFACE VEGETATION AS REQUIRED.

**DESIGN CRITERIA**

- DESIGN STANDARD: 2013 AASHTO-LTS6
- WIND SPEED: 85 MPH
- WIND EXPOSURE: C
- COHESIVE SOIL SHEAR STRENGTH: 1500 PSF

**FOUNDATION NOTES:**

- 1) STOP FOUNDATION POUR 3 1/2" BELOW GRADE. PLACE FINISH CAP AFTER STANDARD IS SET AND FINISHED. BUILD UP GROUT UNDER STANDARD BASE ON LOW SIDE (TYP.).
- 2) SURFACE OF FINISH CAP TO BE AT GRADE AND SLOPED TO MATCH EXISTING OR FUTURE SIDEWALK (TYP.).
- 3) ANCHOR BOLT DIA AND AB BOLT CIRCLE DIA AS INDICATED (TYP.). 1" DIA BOLT LENGTH = 36"; 1-1/4" DIA BOLT LENGTH = 42"
- 4) STANDARDS TO BE SET AT 1'-9" TO CENTER FROM BACK OF CURB UNLESS SHOWN OTHERWISE.

**GROUT:**

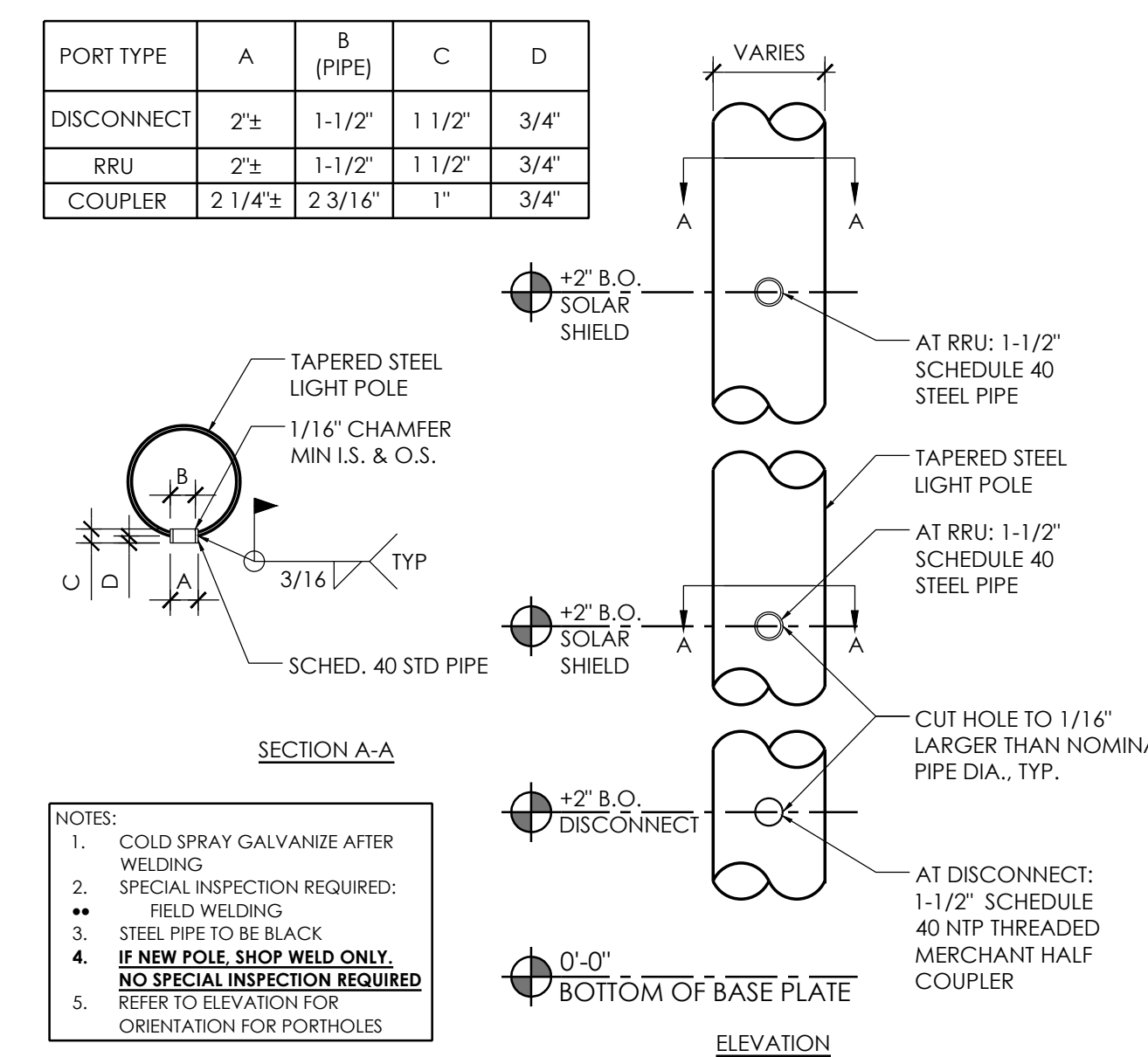
- 1) HIGH-STRENGTH NON-SHRINK GROUT SHALL BE PROVIDED BY SAKRETE.
- 2) GROUT SHALL MEET OR EXCEED ASTM C1107 SPECIFICATIONS.
- 3) GROUT SHALL MEET THE PREPARATION/APPLICATION STANDARDS AS LISTED IN ACI 302.1 AND ACI 304.1
- 4) USE ONLY WHEN THE PRODUCT, AIR, AND SURFACE TEMPERATURE ARE ABOVE 40°F (4°C) FOR A MINIMUM OF 24 HOURS.
- 5) CLEAN AREA AND REMOVE ALL UNSOUND CONCRETE, GREASE, OIL, PAINT, AND ANY OTHER FOREIGN MATERIAL THAT WILL INHIBIT PERFORMANCE.
- 6) PRIOR TO GROUT PLACEMENT, ALL SURFACES MUST BE CLEAN AND SATURATED WITH WATER FOR 24 HOURS. REMOVE EXCESS WATER BRINGING IT TO A SURFACE SATURATED DRY CONDITION (SSD).
- 7) PROVIDE AIR RELIEF HOLES WHERE NECESSARY IF GROUTING IS BENEATH LARGE PLATES.
- 8) WOOD FORM WORK OR OTHER ABSORBENT FORMS SHOULD BE COATED WITH A FORM RELEASE OIL TO PREVENT GROUT ADHERENCE AND WATER ABSORPTION.
- 9) DESIGN FORM WORK TO FACILITATE RAPID, CONTINUOUS AND COMPLETE FILLING OF THE SPACE TO BE GROUTED. RODDING THE GROUT LIGHTLY WILL HELP MOVE MATERIAL.
- 10) USE METHODS THAT WILL ENABLE THE GROUT TO FLOW BY GRAVITY BETWEEN THE SURFACES AND KEEP THE GROUT IN FULL CONTACT WITH THESE SURFACES UNTIL IT HAS HARDENED.
- 11) AVOID VIBRATION WHICH CAN CAUSE BLEEDING AND SEGREGATION. SHUT DOWN NEARBY MACHINES FOR A MINIMUM OF 24 HOURS.
- 12) MINIMUM APPLICATION THICKNESS IS 1" (25mm) AND A MAXIMUM THICKNESS OF 4" (100mm).
- 13) FOR INSTALLATION WHERE ACIDS AND SULFATES ARE PRESENT, A PROTECTIVE COATING IS REQUIRED. PROTECT UNCOATED ALUMINUM FROM DIRECT CONTACT WITH PORTLAND CEMENT-BASED MATERIALS.
- 14) REFER TO:
  - ACI 351.1R-99 REPORT ON GROUTING BETWEEN FOUNDATIONS AND BASES FOR SUPPORT EQUIPMENT AND MACHINERY
  - ACI 351.2R FOUNDATIONS FOR STATIC EQUIPMENT
  - ACI 306R COLD WEATHER CONCRETING
  - ACI 308R HOT WEATHER CONCRETING
- 15) ONLY MIX WITH CLEAN POTABLE WATER. THE WATER QUANTITIES SHOWN ARE APPROXIMATE AND MAY VARY SLIGHTLY WITH THE TYPE OF EQUIPMENT AND APPLICATION CONDITIONS.
- 16) WATER DEMAND AND MIX TEMPERATURE MUST BE DETERMINED USING STANDARD TEST METHODS FOR CONSISTENCY AND TEMPERATURE MEASUREMENT AT THE TIME OF APPLICATION.
- 17) PLACE 3/4 OF DESIRED MIXING WATER, START MIXER THEN SLOWLY ADD THE DRY MATERIAL, AFTER ALL OF THE POWDER HAS BEEN ADDED, SLOWLY ADD THE REMAINING 1/4 WATER UNTIL THE DESIRED CONSISTENCY IS ACHIEVED.
- 18) AVOID ADDING EXCESSIVE AMOUNTS OF WATER THAT PROMOTES SEGREGATION OR BLEEDING OF THE GROUT.
- 19) MIX FOR 3-5 MINUTES TO ENSURE A UNIFORM LUMP FREE CONSISTENCY AND PLACE IMMEDIATELY.
- 20) SAKRETE NON-SHRINK CONSTRUCTION GROUT CAN BE EXPOSED UNDER NORMAL WEATHERING CONDITIONS.
- 21) FORMS MAY BE REMOVED AS SOON AS THE GROUT REACHES ITS FINAL SET.
- 22) PREVENT RAPID WATER LOSS BY COVERING THE EXPOSED GROUT SURFACES WITH WET BURLAP DURING THE FIRST 48 HOURS OR APPLY AN ACCEPTABLE WATER BASED CURE AND SEAL AGENT.
- 23) PROTECT FROM FREEZING FOR A MINIMUM OF 48 HOURS AFTER PLACEMENT. ACI 308 STANDARD PRACTICE FOR CURING CONCRETE.
- 24) AIR, MIX AND SUBSTRATE TEMPERATURES SHOULD BE BETWEEN 40°F (4°C) AND 90°F (32°C).
  - COLDER TEMPERATURES OR HIGHER HUMIDITY CONDITIONS WILL RETARD SET TIMES.
  - DO NOT USE IN APPLICATIONS OF HIGH DYNAMIC LOADING.
  - DO NOT RETEMPER GROUT BY ADDING WATER.
  - DO NOT USE A FLOOR TOPPING OR IN LARGE AREAS WITH AN EXPOSED SHOULDER AROUND BASE PLATES.
- 25) READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. WARNING: WEAR PROTECTIVE CLOTHING AND EQUIPMENT. FOR EMERGENCY INFORMATION, CALL CHEMTREC AT 800-424-9300 OR 703-527-3887 (OUTSIDE USA).

NOT USED

6

NOT USED

5

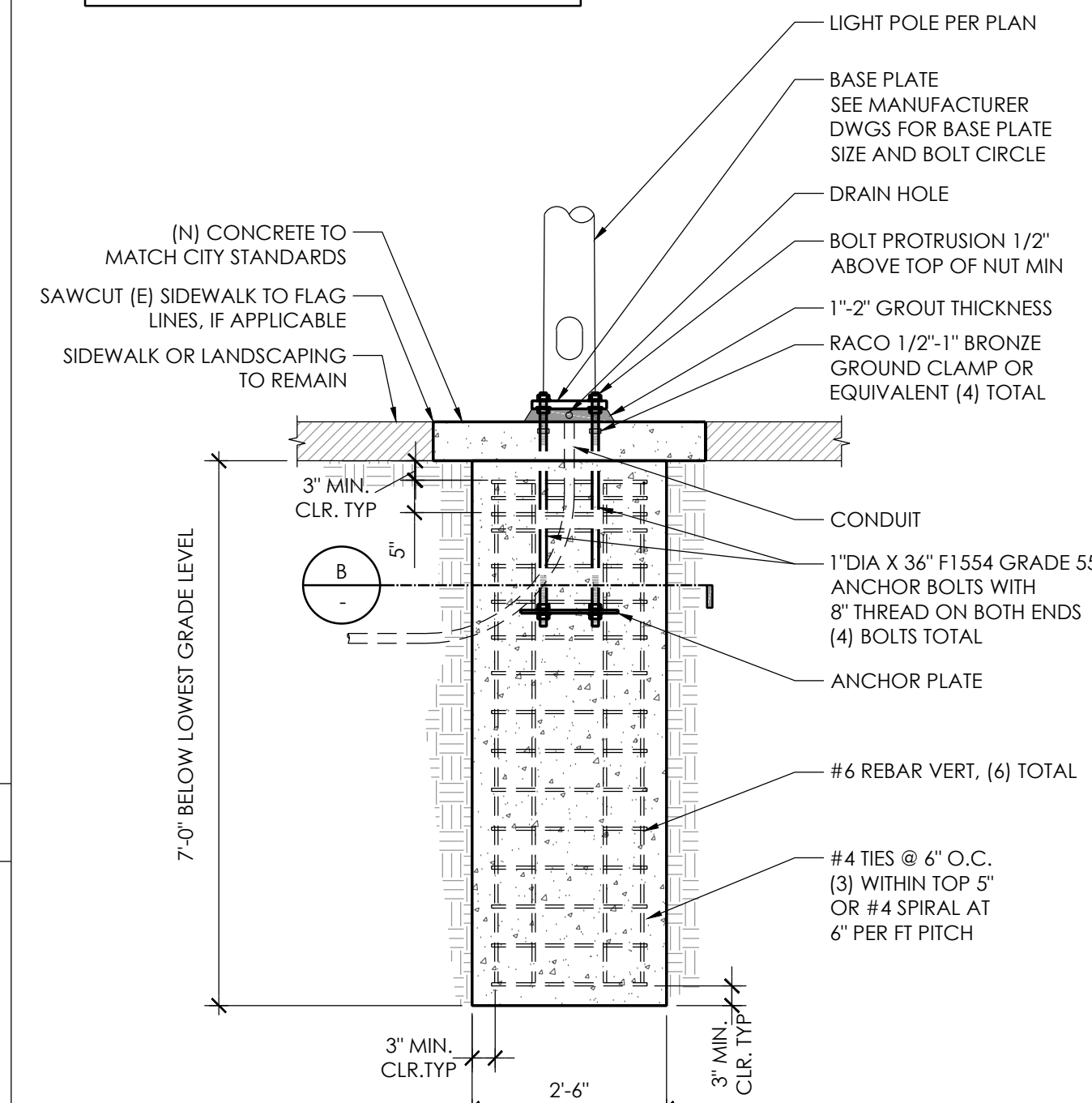


7 ANCHOR PLATE

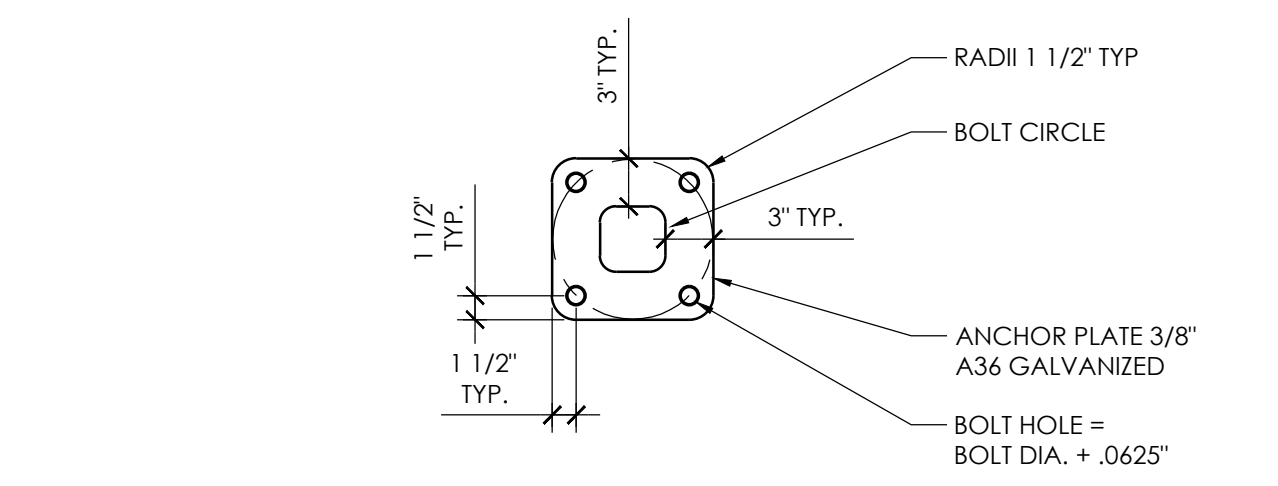
4 PIER

NOTES:

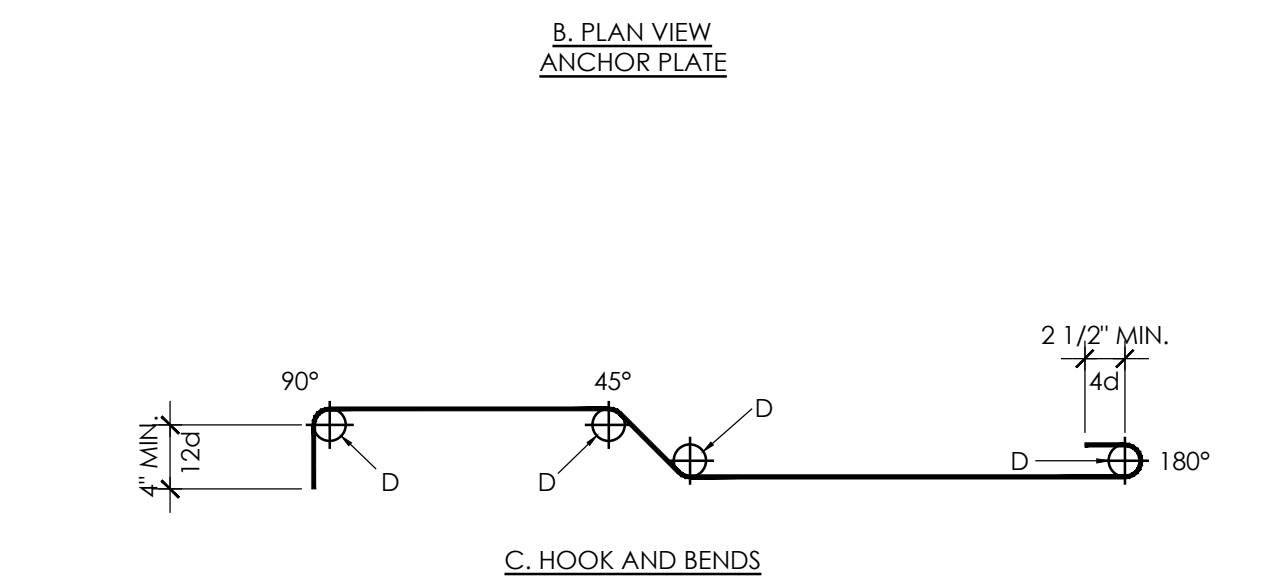
1. WHERE SURROUNDING LANDSCAPING HAS BEEN DAMAGED DUE TO CONSTRUCTION, REPLACE DAMAGE IN LIKE-KIND
2. SPECIAL INSPECTION REQUIRED:
  - CONCRETE PIER COMPRESSION TESTS
  - PIER REINFORCING PLACEMENT



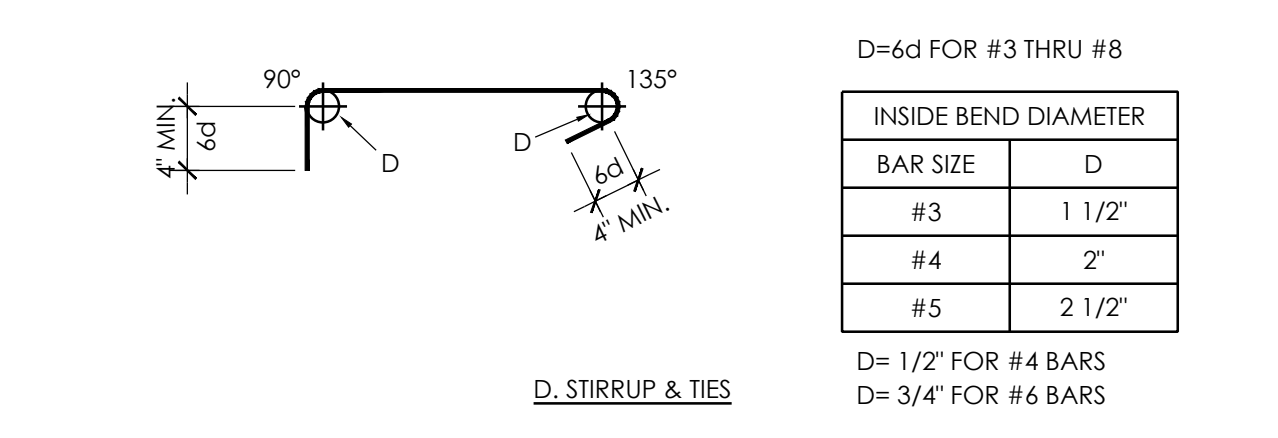
A. NEW DRILLED PIER SECTION



B. PLAN VIEW ANCHOR PLATE



C. HOOK AND BENDS



D. STIRRUP & TIES

D=6d FOR #3 THRU #8

INSIDE BEND DIAMETER	
BAR SIZE	D
#3	1 1/2"
#4	2"
#5	2 1/2"

D=1/2" FOR #4 BARS  
D=3/4" FOR #6 BARS

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REGISTERED PROFESSIONAL ENGINEER  
LEWIS JAMES BURROWS  
NO. C64533  
CIVIL  
STATE OF CALIFORNIA

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NOVATO, CA 94945

DETAILS

D-2

STRUCTURAL NOTES

SCALE  
NTS 1



# ELECTRICAL NOTES

## 1. GENERAL REQUIREMENTS

- A. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE AND ALL STATE AND LOCAL CODES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES. SHOULD CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT.
- B. THE CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING AND CONSTRUCTION TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES. THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THIS PROVISION.
- C. THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ALL ELECTRICAL WORK NOT MENTIONED OR SHOWN WHICH ARE NECESSARY FOR SUCCESSFUL OPERATION OF ALL SYSTEMS.
- D. THE CONTRACTOR SHALL PREPARE A BID FOR A COMPLETE AND OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL AND LABOR.
- E. WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE OPERATION. DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.
- F. COMPLETE THE ENTIRE INSTALLATION AS SOON AS THE PROGRESS OF THE WORK WILL PERMIT.
- G. ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
- H. "PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.
- I. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.

## 2. EQUIPMENT LOCATION

- A. ALL DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.
- B. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- C. COORDINATE THE WORK OF THE SECTION WITH THAT OF ALL OTHER TRADES. WHERE CONFLICTS OCCUR, CONSULT WITH THE PERSPECTIVE CONTRACTOR AND COME TO AGREEMENT AS TO CHANGES NECESSARY. OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES BEFORE PROCEEDING.

## 3. TESTS

- A. BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL INSURE THAT ALL EQUIPMENT, SYSTEMS, FIXTURES, ETC., ARE WORKING SATISFACTORILY AND TO THE INTENT OF THE DRAWINGS.

## 4. PERMITS

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING OUT AND PAYING FOR ALL THE REQUIRED PERMITS, INSPECTION AND EXAMINATION WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

## 5. GROUNDING

- A. THE CONTRACTOR SHALL PROVIDE A COMPLETE, AND APPROVED GROUNDING SYSTEM INCLUDING ELECTRODES, ELECTRODE CONDUCTOR, BONDING CONDUCTORS, AND EQUIPMENT CONDUCTORS AS REQUIRED BY ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
- B. CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY.
- C. FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE GROUND CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTINUITY.
- D. REFER TO GROUND BUS DETAILS, PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.
- E. ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.
- F. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED, THHN (GREEN) INSULATION.

- G. ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE.

- H. PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.

- I. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FUTURE INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO VERIZON ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".

## 6. UTILITY SERVICE

- A. TELEPHONE AND ELECTRICAL METERING FACILITIES SHALL CONFORM TO THE REQUIREMENTS OF THE SERVING UTILITY COMPANIES. CONTRACTOR SHALL VERIFY SERVICE LOCATIONS AND REQUIREMENTS. SERVICE INFORMATION WILL BE FURNISHED BY THE SERVING UTILITIES.
- B. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY COMPANIES.

## 7. PRODUCTS

- A. ALL MATERIALS SHALL BE NEW, CONFORMING WITH THE NEC, ANSL NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.
- B. CONDUIT:
  - B.1. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC 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.2. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
  - B.3. 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.
  - B.4. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
  - B.5. ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
- C. ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT, #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. TYPE THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER, IN WHICH CASE TYPE THWN INSULATION SHALL BE USED.
- D. PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.
- E. TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH. MOUNT SWITCHES AT +48" ABOVE FINISHED FLOOR.
- F. PANELBOARD SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDERLESS COMPRESSION APPROVED FOR COPPER CONDUCTORS, COPPER BUS BARS, FULL SIZED NEUTRAL BUS, GROUND BUS AND EQUIPPED WITH QUICK-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MAGNETIC CIRCUIT BREAKERS, MOUNT TOP OF THE PANELBOARD AT 6'-3" ABOVE FINISHED FLOOR. PROVIDE TYPEWRITTEN CIRCUIT DIRECTORY.
- G. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.
- H. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.
- I. CONDUIT REQUIREMENTS (TYP., U.N.O.): UNDERGROUND: PVC (SCHED 40 OR 80), INDOOR: EMT (RGS IN TRAFFIC AREAS, OUTDOOR (ABOVE GRADE): RGS.
- J. PLACE "TRUE TAPE" AND PULL ROPE IN THE CONDUITS AS REQUIRED.

## 8. INSTALLATION

- A. PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, BOXES, PANEL, ETC., EQUIPMENT SHALL BE BRACED TO WITHSTAND HORIZONTAL FORCES IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS. PROVIDE PRIOR ALIGNMENT AND LEVELING OF ALL DEVICES AND FIXTURES.







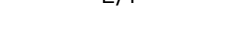
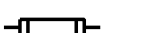




## 9. PROJECT CLOSEOUT

- A. 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.
- B. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.

# GENERAL ABBREVIATIONS

A	AMPERE	MFR	MANUFACTURER
ACCA	ANTENNA CABLE COVER ASSEMBLY	MIN	MINIMUM
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUGS ONLY
APPROX	APPROXIMATELY	MTD	MOUNTED
AT	AMPERE TRIP	MTG	MOUNTING
AWG	AMERICAN WIRE GAGE	MIS	MANUAL TRANSFER SWITCH
BATT	BATTERY	N	NEUTRAL
BD	BOARD	(N)	NEW
BR	BRANCH	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
BRKR	BREAKER	OH	OVERHEAD
BTCW	BARE TINNED COPPER WIRE	P	POLE
BTS	BASE TRANSMISSION SYSTEM	PCS	PERSONAL COMMUNICATION SYSTEM
C	CONDUIT	PH	PHASE
CAB	CABINET	PNLBD	PANELBOARD
CB	CIRCUIT BREAKER	PPC	POWER PROTECTION CABINET
CKT	CIRCUIT	PRC	PRIMARY RADIO CABINET
CONT	CONTINUOUS	PRI	PRIMARY
DEM	DEMAND	PWR	POWER
(E)	EXISTING	RCPT	RECEPTACLE
EGR	EMERGENCY GEN. RECEPTACLE	RGS	RIGID GALVANIZED STEEL
ELEC	ELECTRICAL	SAF	SAFETY
EMT	ELECTRICAL METALLIC TUBING	SDBC	SOFT DRAWN BARE COPPER
ENCL	ENCLOSURE	SEC	SECONDARY
EXIST	EXISTING	S.N.	SOLID NEUTRAL
FAC	FACTOR	SURF	SURFACE
F/A	FIRE ALARM	SW	SWITCH
FLUOR	FLUORESCENT	TEL	TELEPHONE
FT	FOOT/FEET	YP	TYPICAL
FU	FUSE	U/G	UNDERGROUND
G	GROUND	U.L.	UNDERWRITER'S LABORATORY INC.
GEN	GENERATOR	U.N.O.	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	V	VOLT
GND	GROUNDING	VAC	VOLT ALTERNATING CURRENT
GPS	GLOBAL POSITIONING SYSTEM	W	WATT OR WIRE
GR	GROWTH	W/	WITH
HDBC	HARD DRAWN COPPER WIRE	W/O	WITHOUT
HPS	HIGH PRESSURE SODIUM	XFER	TRANSFER
LG	LENGTH	XFMR	TRANSFORMER
LPS	LOW PRESSURE SODIUM	XLPE	CROSS-LINK POLYETHYLENE
MAX	MAXIMUM		
MECH	MECHANICAL		

# ELECTRICAL LEGEND

	OHT/OHP	OVERHEAD TELEPHONE/OVERHEAD POWER
	OHT	OVERHEAD TELEPHONE LINE
	OHP	OVERHEAD POWER LINE
	E	POWER RUN
	T	TELCO RUN
	E/T	POWER/TELCO RUN
	G	GROUND LINE
	FUSE	SIZE AND TYPE AS INDICATED.
	LIGHTING FIXTURE	
	5/8" X 10'-0"	CU. GND ROD 24" MIN. BELOW GRADE.
	MECHANICAL CONNECTION	
	CIRCUIT BREAKER	



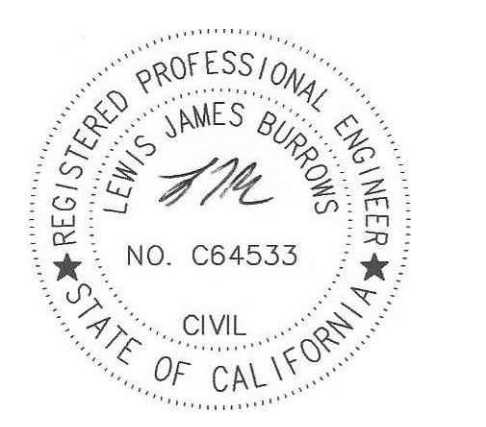
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## ELECTRICAL GENERAL NOTES



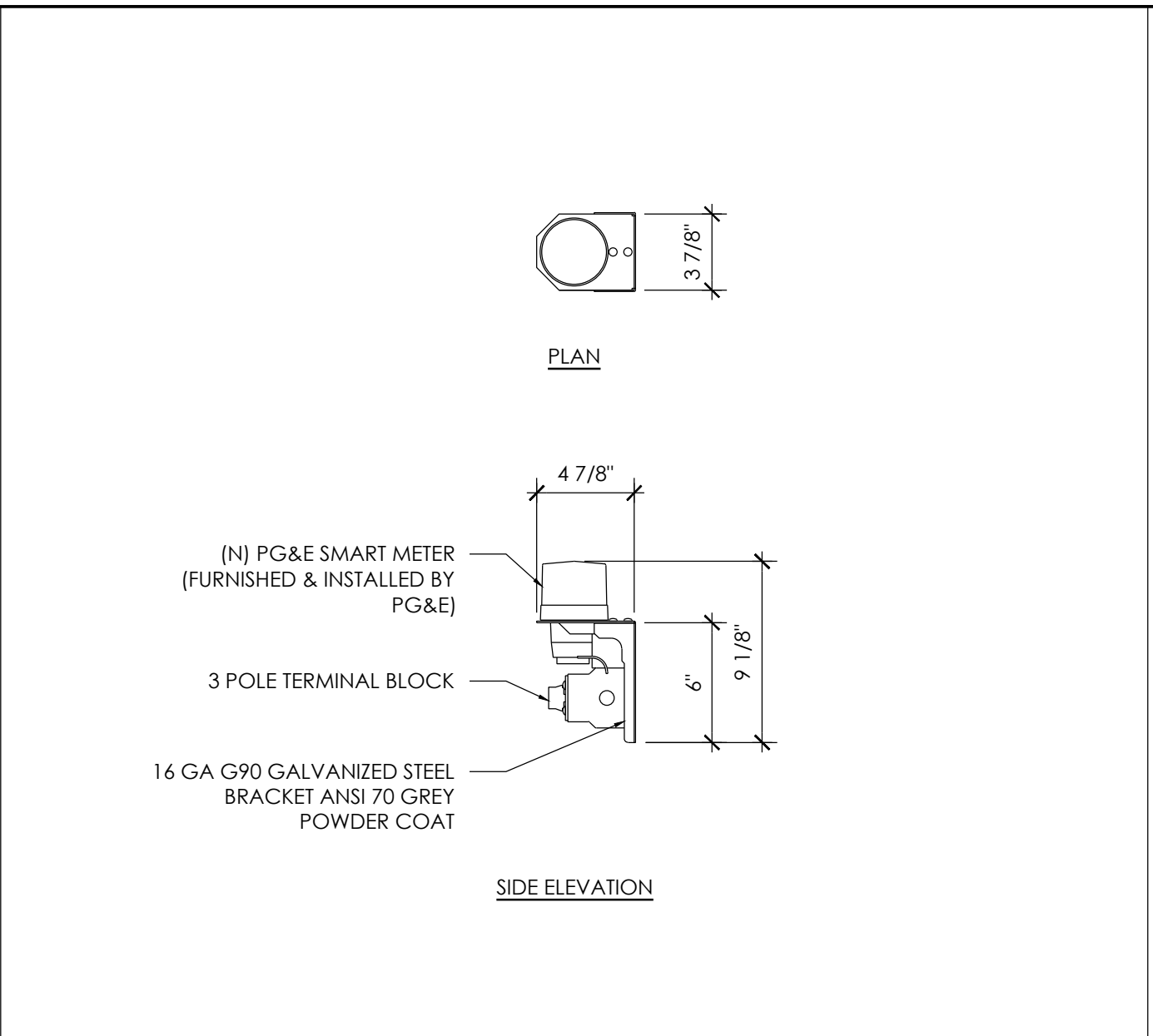




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12 NOT USED

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ELECTRICAL DETAILS

E-3

NOT USED

Conduit Fill Calculation - 2" PVC with MaxCell 2-cell

Conduit Inside Diameter (I.D.): 2 in.

Total Inside Area,  $(\pi/4)D^2 = 3.14 \text{ in.}^2$

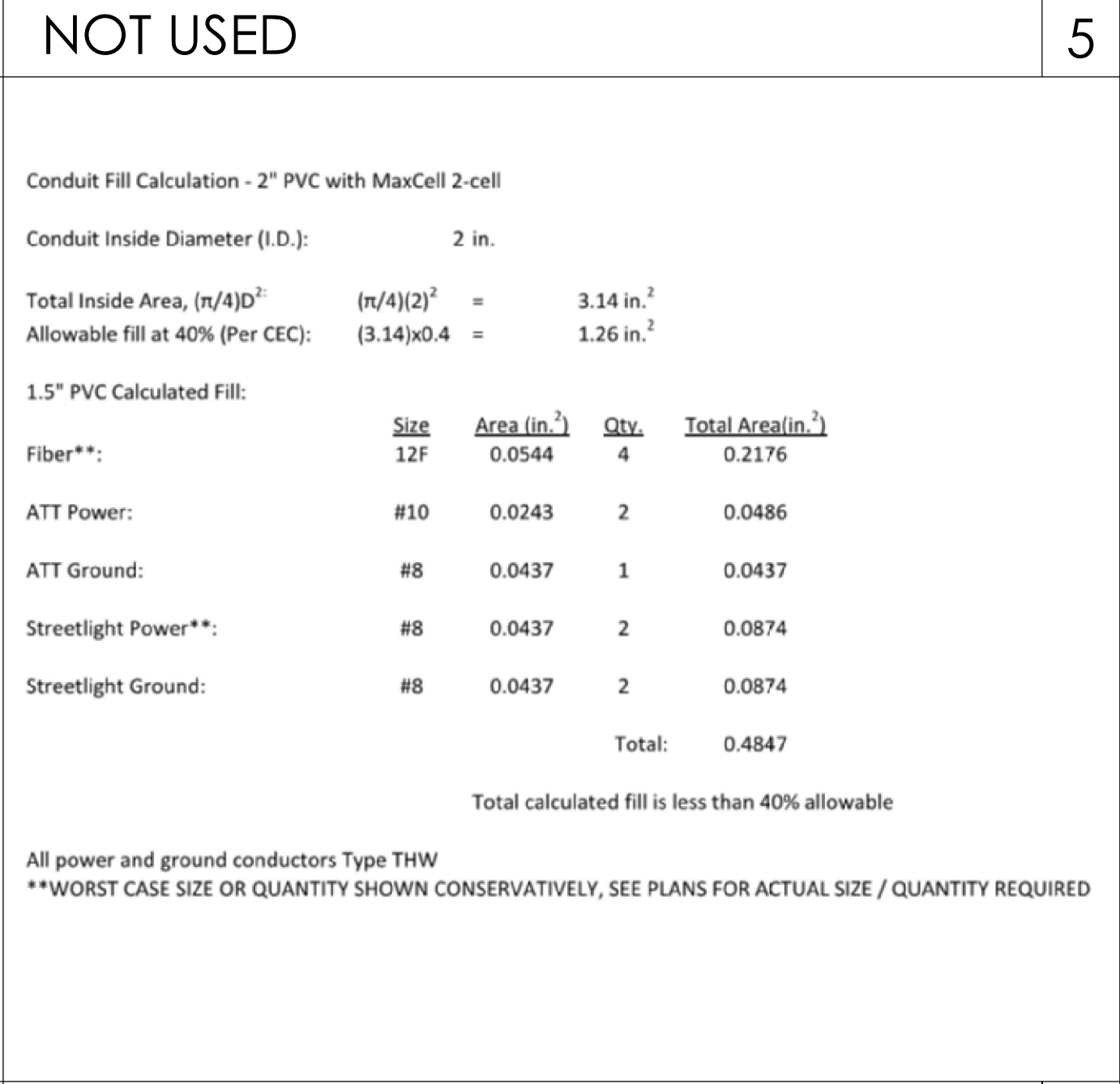
Allowable fill at 40% (Per CEC):  $(3.14) \times 0.4 = 1.26 \text{ in.}^2$

1.5" PVC Calculated Fill:

	Size	Area (in. <sup>2</sup> )	Qty.	Total Area (in. <sup>2</sup> )
Fiber**:	12F	0.0544	4	0.2176
ATT Power:	#10	0.0243	2	0.0486
ATT Ground:	#8	0.0437	1	0.0437
Streetlight Power**:	#8	0.0437	2	0.0874
Streetlight Ground:	#8	0.0437	2	0.0874
			<b>Total:</b>	<b>0.4847</b>

Total calculated fill is less than 40% allowable

All power and ground conductors Type THW  
\*\*WORST CASE SIZE OR QUANTITY SHOWN CONSERVATIVELY, SEE PLANS FOR ACTUAL SIZE / QUANTITY REQUIRED



NOT USED

10 NOT USED

7 CONDUIT FILL

4 MECHANICAL CONNECTION

1





PEDESTRIANS SHALL BE ESCORTED THROUGH OR AROUND THE WORK AREA THROUGHOUT THE COURSE OF WORK.

**TRAFFIC CONTROL PLAN**

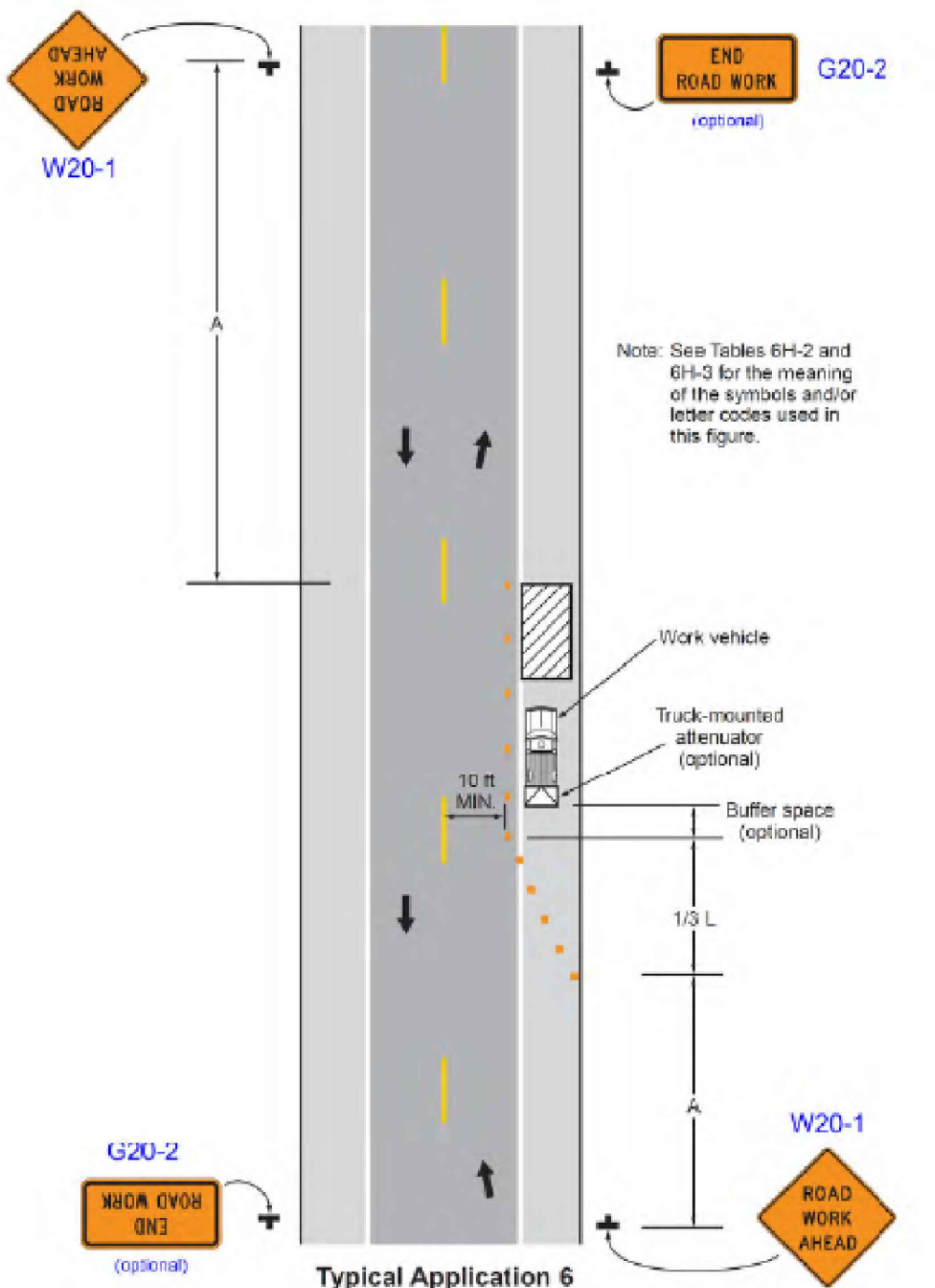
CAMUTCD TABLE					
POSTED SPEED (MPH)	DISTANCE BETWEEN SIGNS			TAPER L (SEE NOTE)	BUFFER
	A	B	C		
15	100'	100'	100'	45'	100'
20	100'	100'	100'	80'	115'
25	100'	100'	100'	125'	155'
30	250'	250'	250'	180'	250'
35	250'	250'	250'	245'	250'
40	350'	350'	350'	320'	305'
45	350'	350'	350'	540'	360'
50	500'	500'	500'	600'	425'
55	500'	500'	500'	660'	495'
60	500'	500'	500'	720'	570'
65	500'	500'	500'	780'	645'

NOTES:  
 A. DISTANCE IN FEET UNLESS OTHERWISE NOTED.  
 B. CONTRACTOR TO VERIFY EXISTING SPEED LIMIT.  
 C. DISTANCE SHOWN ARE NOT VALID FOR LIMITED ACCESS HIGHWAYS. CONSULT STATE DOT MANUAL FOR DISTANCES.  
 D. ADJUST DISTANCES TO COMPLY WITH REQUIREMENT OF THE STATE OR LOCAL HIGHWAY AUTHORITY HAVING JURISDICTION.  
 E. TAPER LENGTHS SHOWN ON 12' LANE WIDTH.

**TRAFFIC CONTROL TABLE**  
**SPEED LIMIT = 45 MPH**

California MUTCD 2014 Edition (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California) Page 1150

Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)



**TA-6 FOR REFERENCE ONLY**

Chapter 6H - Typical Applications Part 6 - Temporary Traffic Control November 7, 2014

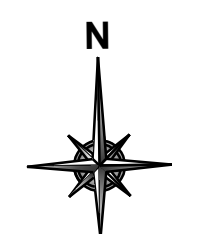
24"x36" SCALE: 1" = 30'-0"  
 11"x17" SCALE: 1" = 60'-0"  
 30' 15' 0' 30'  
 SCALE 1"=30'-0" 1

**TRAFFIC CONTROL NOTES**

- ALL DELINEATORS SHALL BE EQUIPPED WITH REFLECTORS AT NIGHT TIME.
- ALL TRAFFIC CONTROL DEVICES, STRIPES, MARKINGS, LEGENDS AND RAISED PAVEMENT MARKERS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING: A) CA MUTCD, B) STATE OF CALIFORNIA STANDARD SPECIFICATIONS, C) SPECIAL PROVISIONS, AND D) STANDARD PLANS.
- THE CONTRACTOR PERFORMING THE WORK ON A PUBLIC STREET SHALL ASSUME RESPONSIBILITY AS FOLLOWS: A) INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES AS SHOWN HEREIN, B) ANY ADDITIONAL TRAFFIC CONTROL DEVICES THAT MAY BE REQUIRED TO INSURE THE SAFE MOVEMENT OF TRAFFIC AND PEDESTRIANS THROUGH OR AROUND THE WORK AREA, AND C) PROVIDE MAXIMUM PROTECTION AND SAFETY TO CONSTRUCTION WORKERS.
- THE CITY OR COUNTY OF RECORD AS WELL AS CALTRANS RESERVE THE RIGHT TO OBSERVE THESE TRAFFIC CONTROL PLANS IN USE. THEY HAVE THE AUTHORITY TO MAKE ANY NECESSARY CHANGES AS FIELD CONDITIONS WARRANT. ANY CHANGES SHALL SUPERSEDE THESE PLANS. THE EXACT LOCATION OF ALL EQUIPMENT AND TRAFFIC CONTROL DEVICES SHALL BE DETERMINED BY THE ENGINEER.
- ALL SIGNS, DELINEATORS, BARRICADES, ETC. AND THEIR INSTALLATION SHALL CONFORM TO THE LATEST EDITIONS OF THE: A) CA. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, B) THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS, C) SPECIAL PROVISIONS, AND D) STANDARD PLANS.
- IN ORDER TO PRESERVE THEIR APPEARANCE AND CONTINUITY, ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES AND SHALL BE REPAIRED, REPLACED OR CLEANED AS NECESSARY, AND AS DIRECTED BY THE ENGINEER
- ALL TRAFFIC LANES SHALL HAVE A MINIMUM OF 5 FEET CLEARANCE FROM OPEN EXCAVATIONS AND MINIMUM OF 2 FEET FROM VERTICAL OBSTRUCTIONS.
- THE CONTRACTOR SHALL PROVIDE FLAGGERS AS DEEMED NECESSARY BY THE ENGINEER, JURISDICTION INSPECTOR, OR CALTRANS PERMIT INSPECTOR.
- ALL ADVANCED WARNING SIGNS SHALL BE EQUIPPED WITH FLAGS.
- NOT USED.
- PLACE ADDITIONAL SIGNS AS FOLLOWS: A) "LANE CLOSED", (C30) ON THE TYPE II BARRICADES AT 100 FOOT INTERVALS THROUGHOUT EXTENDED WORK AREAS IN EACH LANE THAT IS CLOSED AND B) "OPEN TRENCH" (C27) WHENEVER AN OPEN EXCAVATION AREA EXISTS ADJACENT TO THE TRAVELED WAY.
- ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED FOLLOWING COMPLETION OF EACH CONSTRUCTION STAGE AND THE PERMANENT TRAFFIC CONTROL DEVICES SHALL BE RESTORED BY THE CONTRACTOR UPON COMPLETION OF WORK.
- THE CONTRACTOR SHALL REPLACE AND/OR REPAIR ALL DAMAGED STRIPING AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN DISABILITY ACT AS RELATED TO PEDESTRIAN ACCESS AND SHALL MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES PER ADA REQUIREMENTS. ANY SIDEWALK CLOSURE AND/OR DETOUR SHALL COMPLY WITH THE WATCH STANDARDS AND MUST OBTAIN APPROVAL FROM THE CITY OR COUNTY OF RECORD.
- THE CONTRACTOR SHALL COVER OR REMOVE ALL CONFLICTING SIGNS.
- THE CONTRACTOR SHALL POST "SYMBOLS" UNEVEN LANES, "STEEL PLATES AHEAD" OR "BUMP" SIGNS FOR PAVEMENT SURFACE DISRUPTIONS OF 1/2" OR GREATER. PAVEMENT DISRUPTIONS FOR 1" OR GREATER SHALL HAVE A BEVELED EDGE OF FOUR (4) HORIZONTAL TO ONE (1) VERTICAL.
- BEFORE PLATE BRIDGING, THE CONTRACTOR SHALL INSTALL "CAUTION STEEL PLATES AHEAD" AND/OR "ROUGH ROAD SIGNS.
- THE RESIDENTS AND BUSINESSES SHALL BE NOTIFIED OF THE DATES & TIMES OF CONSTRUCTION TWO (2) WEEKS PRIOR TO THE WORK START DATE.

**TRAFFIC SYMBOL LEGEND**

- TRAFFIC CONE (10' MAX SPACING)
- ⬇️ TRAFFIC SIGN
- ↔️ LANE DIRECTION
- ▨ STAGING AREA
- ⚙️ FLAGGER



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TRAFFIC CONTROL PLAN

TCP-1