

T-Mobile®

SITE NUMBER: SF04650A - ANCHOR
SITE NAME: SF650 GRANT ROAD
SITE TYPE: ROOFTOP

CITY: LOS ALTOS
COUNTY: SANTA CLARA
JURISDICTION: TOWN OF LOS ALTOS

T-Mobile®

PLANS PREPARED BY:

CDG
 22431 ANTONIO PKWY
 SUITE B160-131
 RANCHO SANTA MARGARITA CA 92688
 dconnell@connelldesigngroup.com
 949-306-4644

CONSULTING GROUP:

BUTLER
 America Telecom
 LLC
 1511 E. ORANGETHORPE, SUITE D
 FULLERTON, CA 92831

PROJECT SUMMARY:

SITE ADDRESS: 2055 GRANT ROAD, LOS ALTOS, CA 94024
PROPERTY OWNER: WEST COAST INVESTMENT PROPERTIES LLC, 2055 GRANT ROAD #200, LOS ALTOS, CA 94024
APPLICANT: T-MOBILE WEST LLC, 1200 CONCORD AVE., SUITE 500, CONCORD, CA 94520
CONTACT: ANN JI, EMAIL: ann.ji129@t-mobile.com

GEODETIC COORDINATES (NAD 83):
 LATITUDE: 37° 20' 32.57" NORTH
 LONGITUDE: 122° 04' 22.49" WEST
 GROUND ELEVATION (NAVD 88): 242.0 FEET A.M.S.L.

PROJECT DESCRIPTION
 THIS PROJECT INCLUDES THE MODIFICATIONS TO AN EXISTING T-MOBILE WIRELESS FACILITY, INCLUDING:

- ANTENNA SCOPE OF WORK:**
- INSTALL (3) AIR6419 ANTENNAS, (1) PER SECTOR
 - INSTALL (3) RADIO 4460, (1) PER SECTOR
 - REMOVE (3) EXISTING AIR21 ANTENNAS, (1) PER SECTOR
 - REMOVE (3) EXISTING RADIO 4415 B25 (1 PER SECTOR)
 - INSTALL NEW ANTENNA MOUNTS FOR SECTOR 'A'
 - RETROFIT (E) ROOF TRUSSES
 - INSTALL (1) OSHA PROTECTIVE CAGE OVER (E) SKYLIGHTS, APPROX 20 SKYLIGHTS TOTAL

- EQUIPMENT SCOPE OF WORK:**
- ADD (1) 6160 RADIO CABINET
 - ADD (1) B160 BATTERY CABINET
 - ADD (1) RP6651 IN (N) 6160
 - ADD (1) CSR IXRE V2 ROUTER IN (N) 6160
 - ADD (1) 6/24 HYBRID TRUNK CABLE - 4AWG 30M
 - REMOVE ALL UNUSED CABLES
 - REMOVE UNUSED EQUIPMENT CABINET
 - EXTEND (E) GRATING PLATFORM FOR NEW CABINET INSTALLATION AS REQ.
 - INSTALL NEW LED TECH LIGHTING AT T-MOBILE EQUIPMENT AREA

NOTE: THE EXISTING ROOF AND/OR ROOFING IS NOT A PART OF THIS SCOPE OF WORK. CDG ASSUMES NO LIABILITY FOR ANY ROOF LEAKS OR ROOF DAMAGE EXISTING OR FUTURE

BUILDING SUMMARY:
 OCCUPANCY CLASSIFICATION: B (TELEPHONE EXCHANGE)
 TYPE OF CONSTRUCTION: V-B
 ZONING: XX
 TOTAL LEASE AREA: NO CHANGE
 ASSESSORS PARCEL NUMBER: 318-14-041

CONSULTING TEAM:

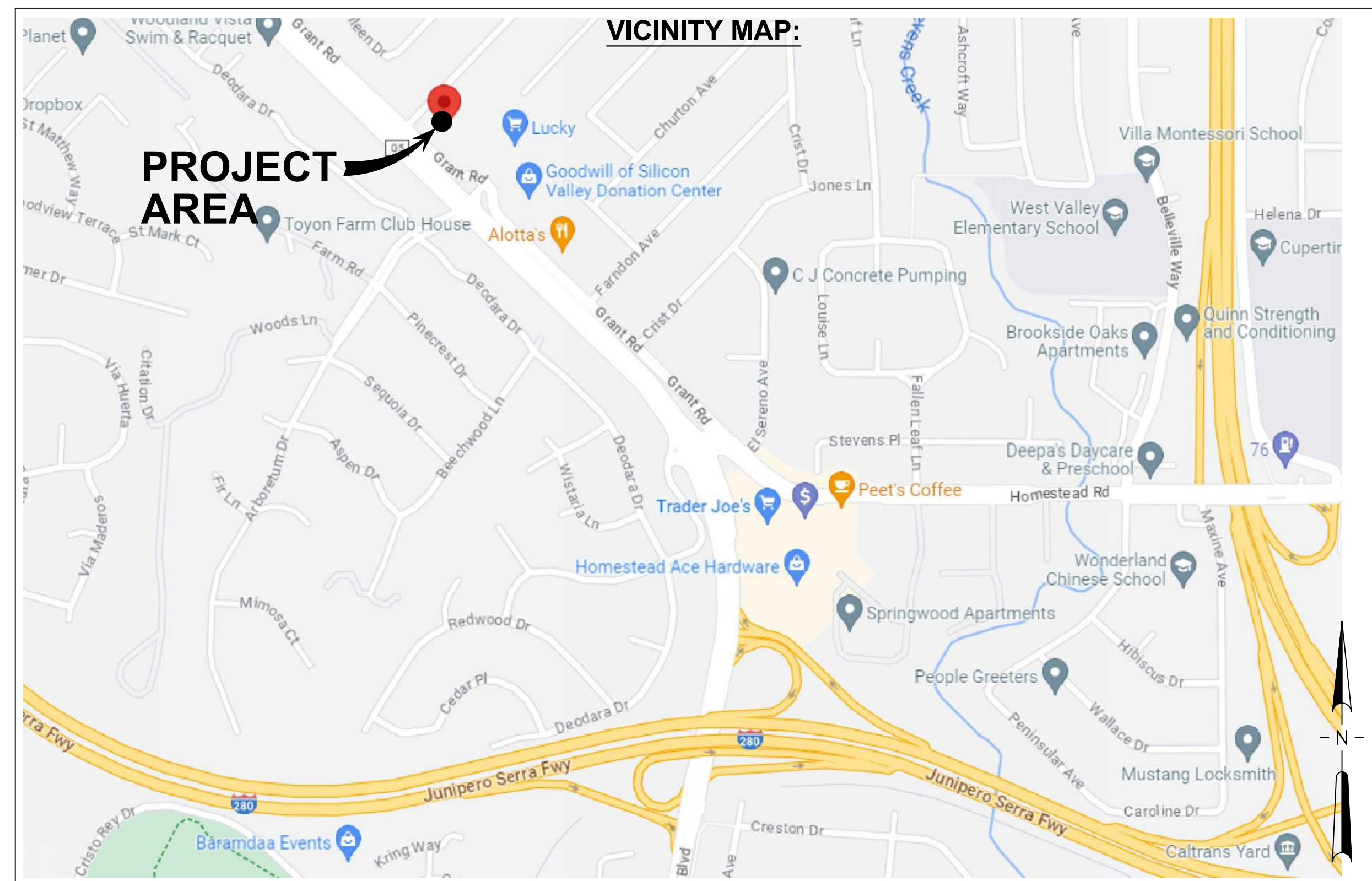
SAC/ZONING/PERMITTING: BUTLER AMERICA TELECOM LLC, 1511 E. ORANGETHORPE AVE., SUITE D, FULLERTON, CA 92831
DESIGN ENGINEERING: CONNELL DESIGN GROUP INC, 22431 ANTONIO PKWY, SUITE B160-131, RANCHO SANTA MARGARITA, CA 92688

STRUCTURAL ENGINEERING
 LUIS A. MENDOZA, P.E., PRINCIPAL ENGINEER, LADERA ENGINEERING GROUP, 1511 E. ORANGETHORPE AVE., SUITE D, FULLERTON, CA 92831

SHEET INDEX:

SHEET NUMBER:	DESCRIPTION:
T-1	TITLE SHEET
T-2	ABBREVIATIONS, SYMBOLS, GENERAL NOTES & SPECIFICATIONS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN, EQUIPMENT LAYOUTS
A-3	ANTENNA SCHEDULE & ANTENNA LAYOUTS
A-4	ELEVATIONS
A-5	ELEVATIONS
D-1	DETAILS
D-2	DETAILS
E-1	SINGLE LINE DIAGRAM AND PANEL SCHEDULE
E-2	GROUNDING DETAILS

S-1	GENERAL NOTES
S-2	ISOMETRIC SAND PLAN VIEWS
S-3	ELEVATION VIEW AND DETAILS
S-4	PLAN VIEW SECTION AND DETAIL



2022 CBC DESIGN PARAMETERS:

WIND LOAD:
 BASIC WIND SPEED = 92 MPH (FROM ATC HAZARDS BY LOCATION)
 EXPOSURE CATEGORY = B
 RISK CATEGORY = II

SEISMIC LOAD:
 RISK CATEGORY = II
 SEISMIC DESIGN CATEGORY = D
 SOIL SITE CLASS = D
 SEISMIC FACTORS: Ss=2.166g Sms=2.599g Sds=1.733g
 Si=0.777g Smi=1.166g Sdi=0.777g

DRIVING DIRECTIONS:

- DIRECTIONS FROM THE LOCAL T-MOBILE OFFICE:
- MERGE ONTO CA-242 S
 - MERGE ONTO I-680 S
 - CONTINUE ONTO I-280 N
 - USE THE RIGHT 2 LANES TO TAKE EXIT 13 TOWARD GRANT RD
 - MERGE ONTO FOOTHILL EXPY
 - SLIGHT RIGHT TOWARD ARBORETUM DR
 - TURN RIGHT ONTO ARBORETUM DR
 - TURN LEFT ONTO GRANT RD
 - TURN RIGHT
 - DESTINATION WILL BE ON THE RIGHT

APPLICABLE CODES

BUILDING CODE REFERENCE:
 2022 CBC
 2022 CPC
 2022 CMC
 2022 CEC
 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
 2022 CALIFORNIA ENERGY CODE
 CITY OF LOS ALTOS ORDINANCES.

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024

SEAL:



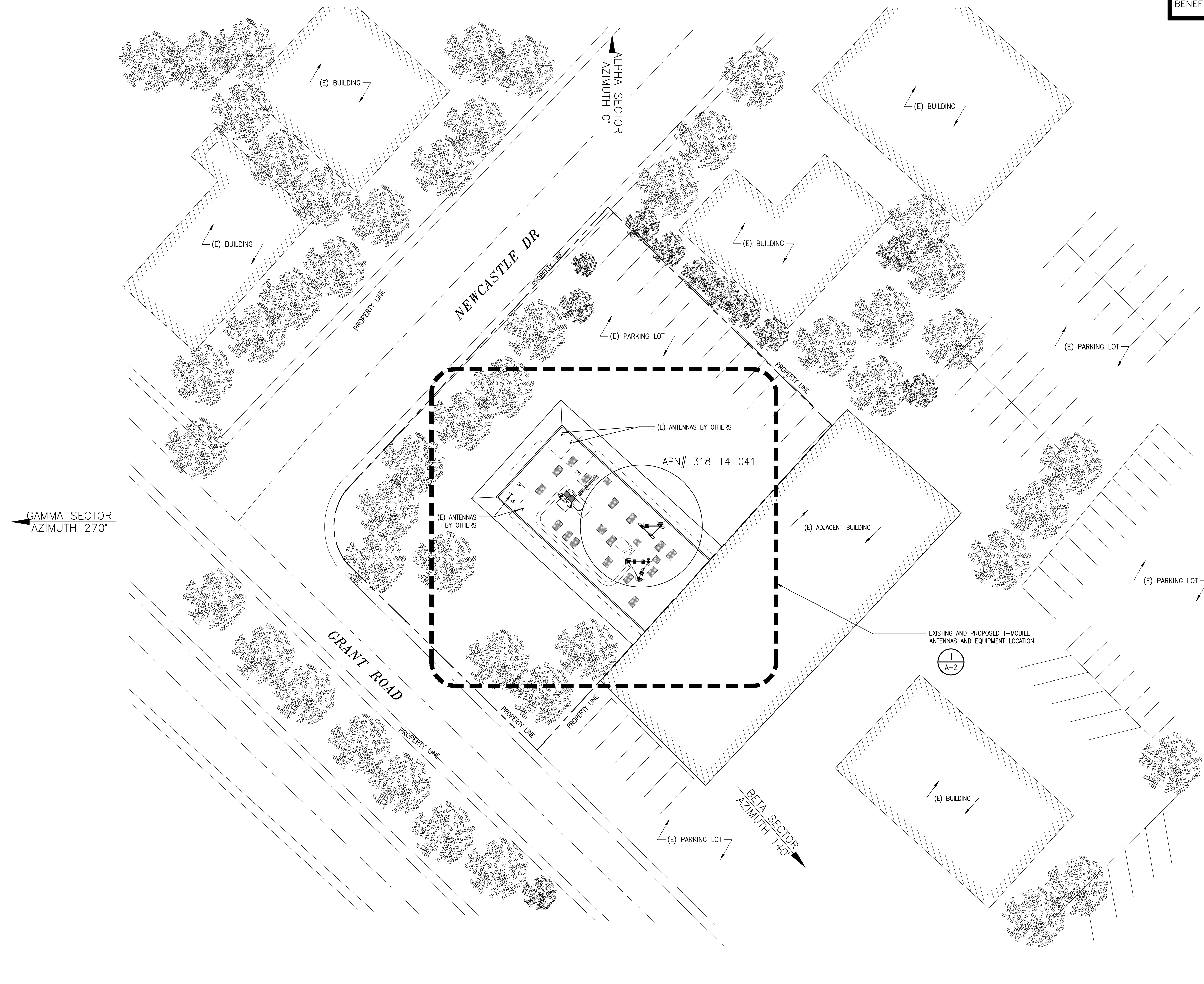
SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

NOTE:
SITE PLAN IS PRELIMINARY
AND DONE WITHOUT THE
BENEFIT OF A LAND SURVEY.



T-Mobile

PLANS PREPARED BY:

CDG
22431 ANTONIO PKWY
SUITE B160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644

CONSULTING GROUP:

BUTLER
America Telecom
LLC
1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:

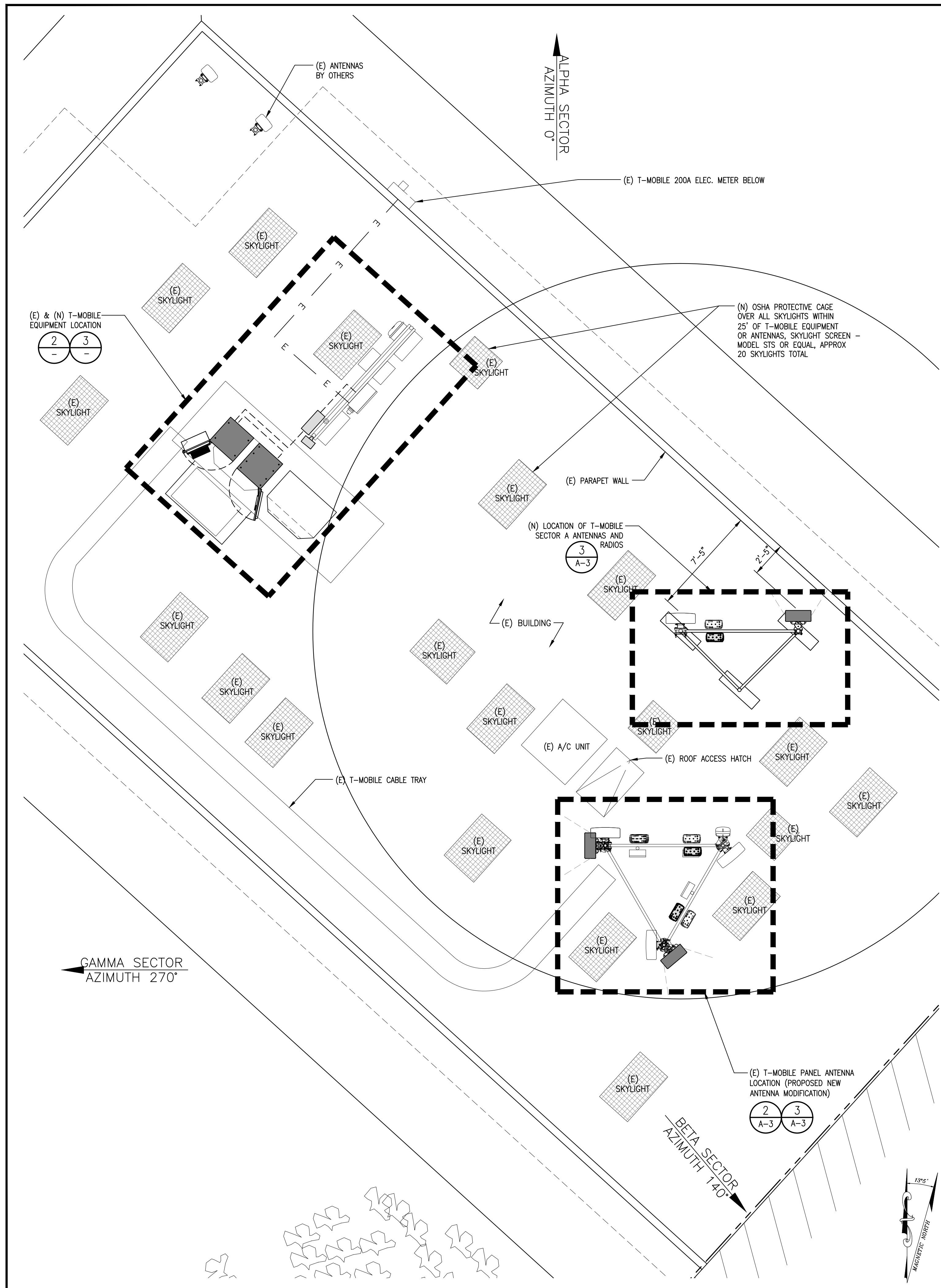


SHEET TITLE:

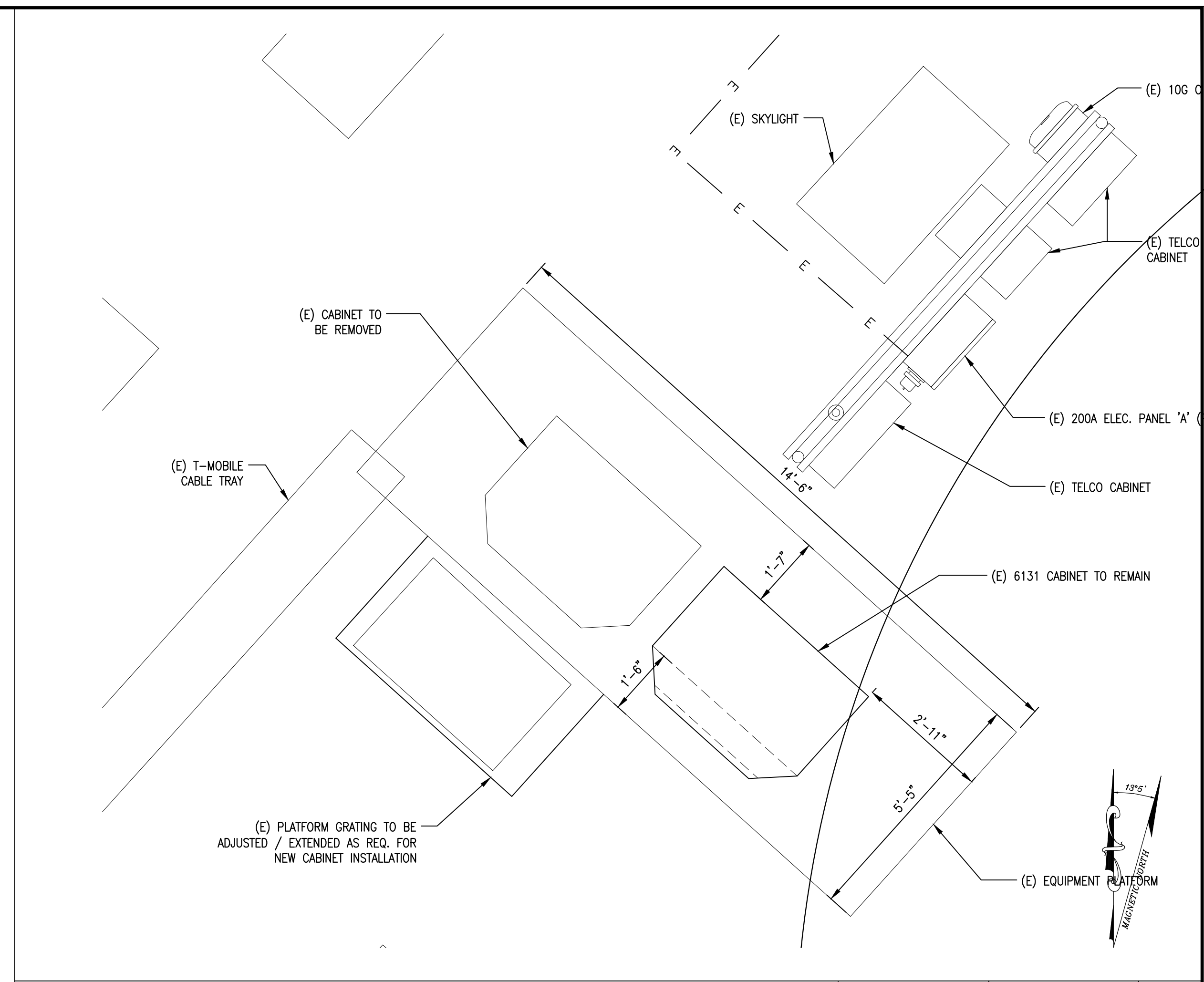
SITE PLAN

SHEET NUMBER:

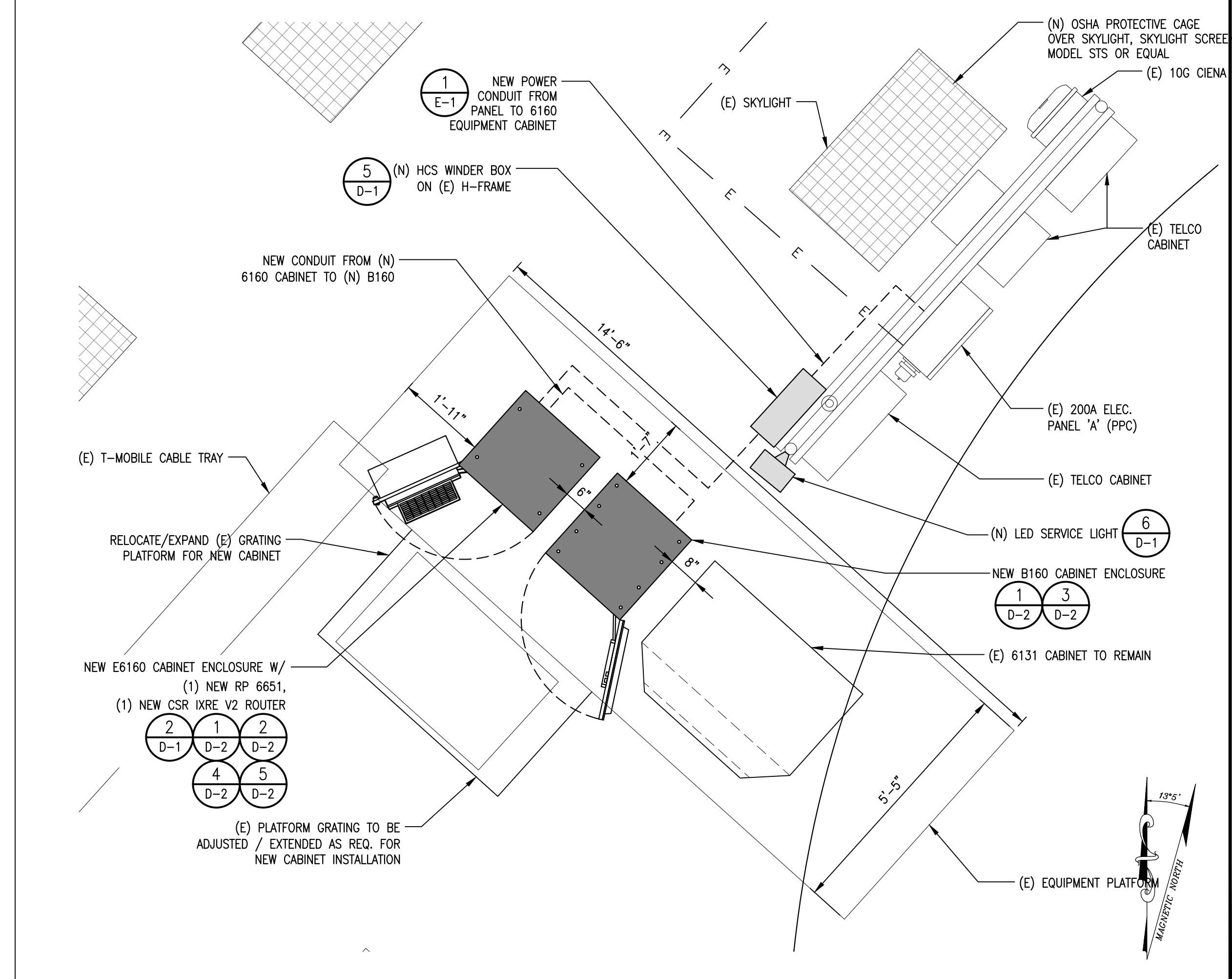
A-1



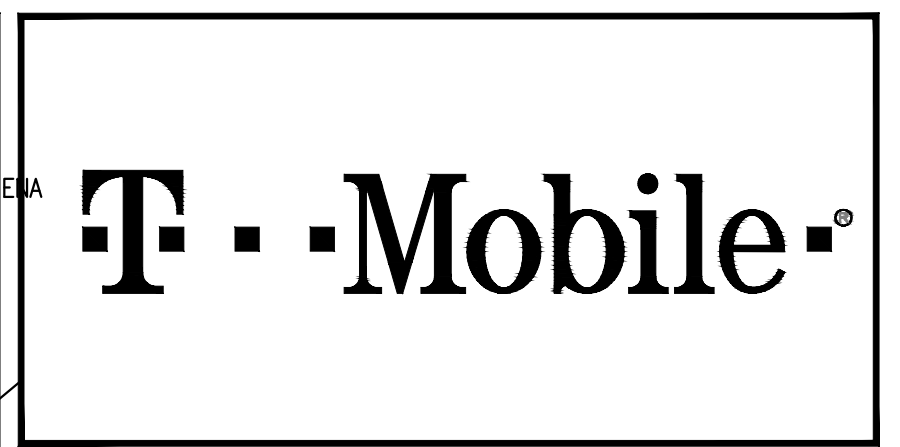
ENLARGED SITE PLAN SCALE: 1/4"=1'-0" 0 2' 4' **1**



(E) EQUIPMENT LAYOUT SCALE: 1/2"=1'-0" 0 1' 2' **2**



NEW EQUIPMENT LAYOUT SCALE: 1/2"=1'-0" 0 1' 2' **3**



PLANS PREPARED BY:
CDG
 22431 ANTONIO PKWY
 SUITE B160-131
 RANCHO SANTA MARGARITA CA 92688
 dconnell@connelldesigngroup.com
 949-306-4644

CONSULTING GROUP:

 1511 E. ORANGETHORPE, SUITE D
 FULLERTON, CA 92831

NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:
SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024

SEAL:

 DATE STAMPED: 04/17/2024

SHEET TITLE:
**ENLARGED SITE PLAN,
 EQUIPMENT LAYOUTS**

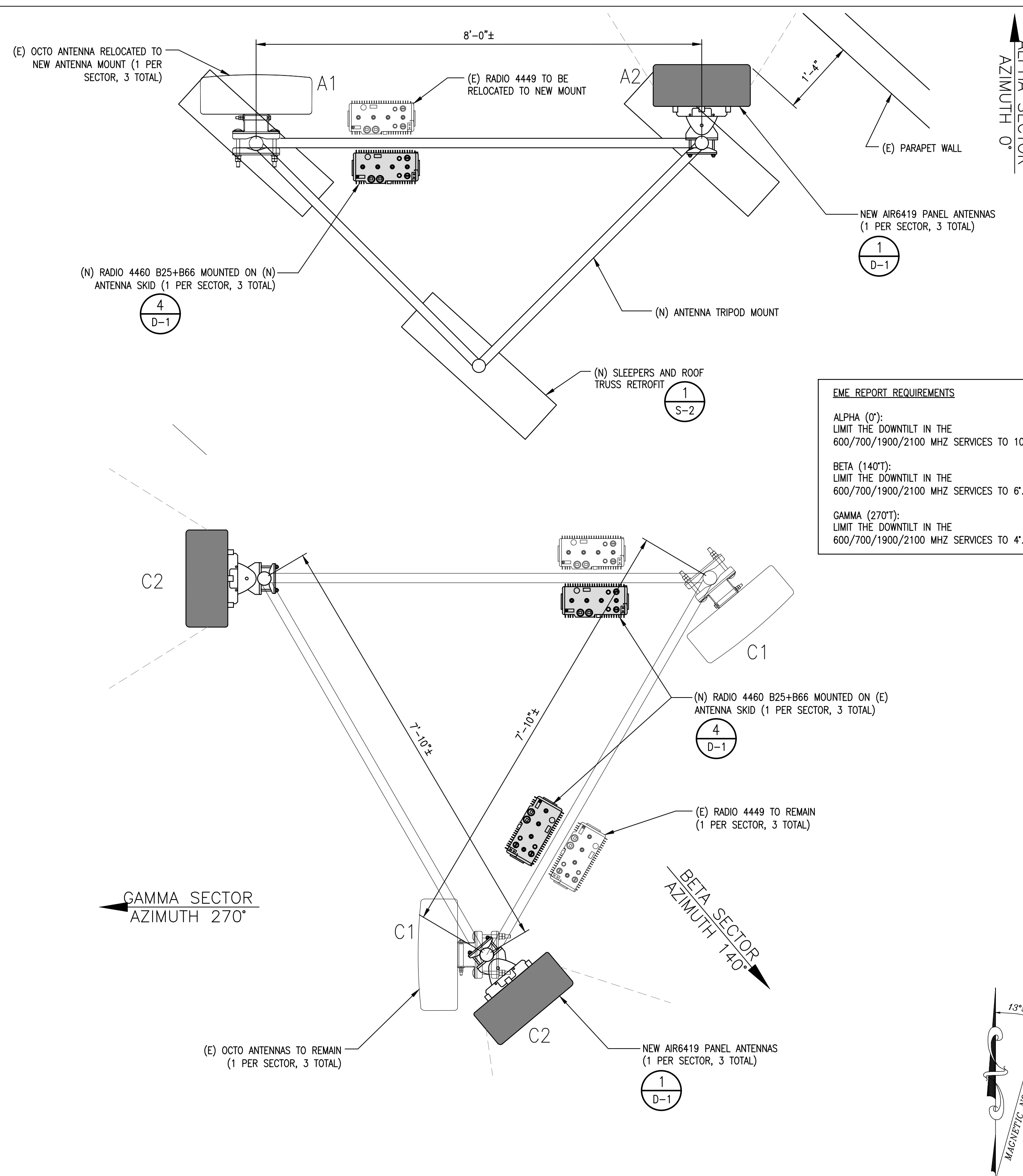
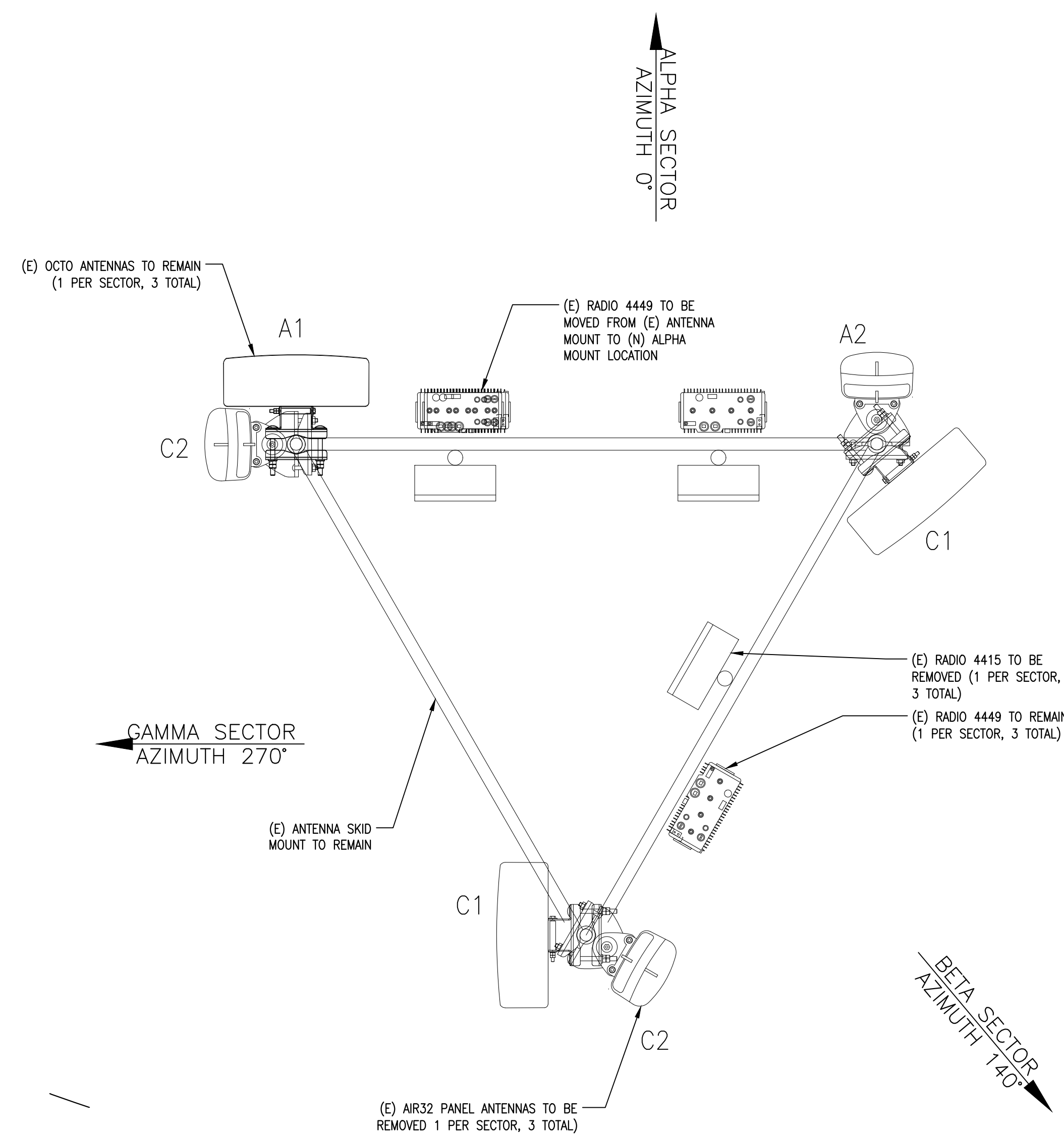
SHEET NUMBER:
A-2

EXISTING ANTENNA SCHEDULE							
SECTOR	ANTENNA			ANTENNA AZIMUTH	RAD CENTER OF ANTENNA	TMA / RRU	CABLE TYPE / LENGTH
	MODEL	SIZE	WEIGHT LBS				
SECTOR "A"	A1	APXVAARR18_43-U-NA20	72"	132	270°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4415 B25
	A2	AIR32 B66A/B2A	56.6	105.8	0°	35'-6"	-
SECTOR "B"	B1	APXVAARR18_43-U-NA20	72"	132	0°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4415 B25
	B2	AIR32 B66A/B2A	56.6	105.8	140°	35'-6"	-
SECTOR "C"	C1	APXVAARR18_43-U-NA20	72"	132	140°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4415 B25
	C2	AIR32 B66A/B2A	56.6	105.8	270°	35'-6"	-

NEW ANTENNA SCHEDULE							
SECTOR	ANTENNA			ANTENNA AZIMUTH	RAD CENTER OF ANTENNA	TMA / RRU	CABLE TYPE / LENGTH
	MODEL	SIZE	WEIGHT LBS				
SECTOR "A"	A1	APXVAARR18_43-U-NA20	72"	132	0°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4460 B25+B66
	A2	AIR6419 B41	36.3"	77	0°	37'-1"	-
SECTOR "B"	B1	APXVAARR18_43-U-NA20	72"	132	140°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4460 B25+B66
	B2	AIR6419 B41	36.3"	77	140°	37'-1"	-
SECTOR "C"	C1	APXVAARR18_43-U-NA20	72"	132	270°	35'-6"	(1) RADIO 4449 B71+B85 (1) RADIO 4460 B25+B66
	C2	AIR6419 B41	36.3"	77	270°	37'-1"	-

ANTENNA SCHEDULE

1



EME REPORT REQUIREMENTS

ALPHA (0°):
LIMIT THE DOWNTILT IN THE 600/700/1900/2100 MHZ SERVICES TO 10°.

BETA (140°):
LIMIT THE DOWNTILT IN THE 600/700/1900/2100 MHZ SERVICES TO 6°.

GAMMA (270°):
LIMIT THE DOWNTILT IN THE 600/700/1900/2100 MHZ SERVICES TO 4°.

(E) ANTENNA LAYOUT

SCALE: 1/16"=1'-0"
0 8' 16'

2

(P) ANTENNA LAYOUT

SCALE: 3/4"=1'-0"
0 6" 1'

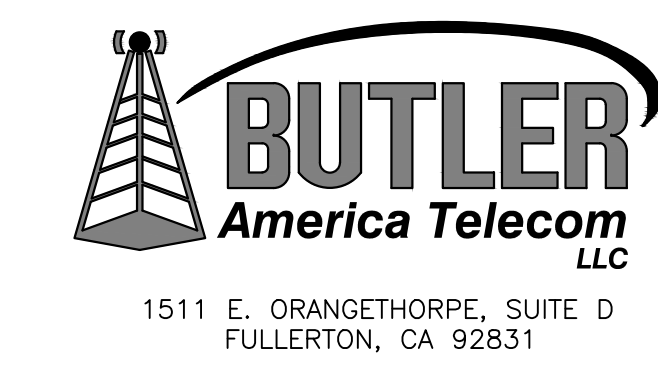
3



PLANS PREPARED BY:



CONSULTING GROUP:



NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:

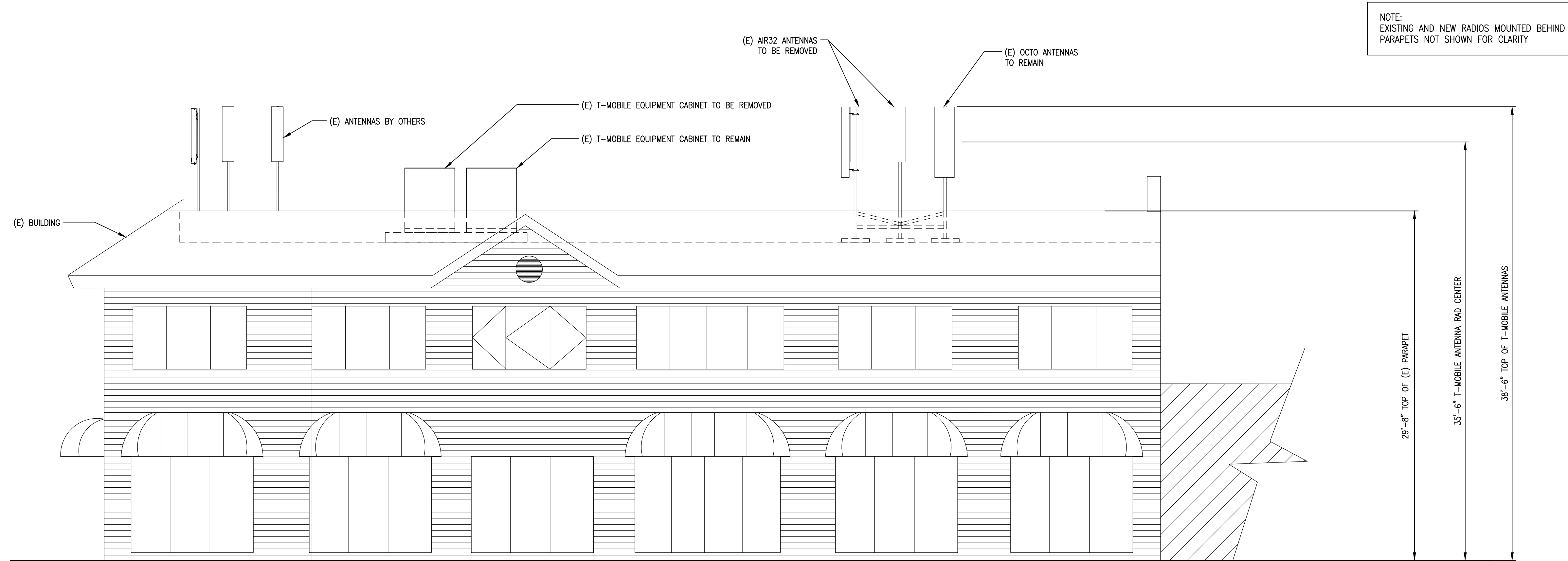


SHEET TITLE:

ANTENNA SCHEDULE & ANTENNA LAYOUTS

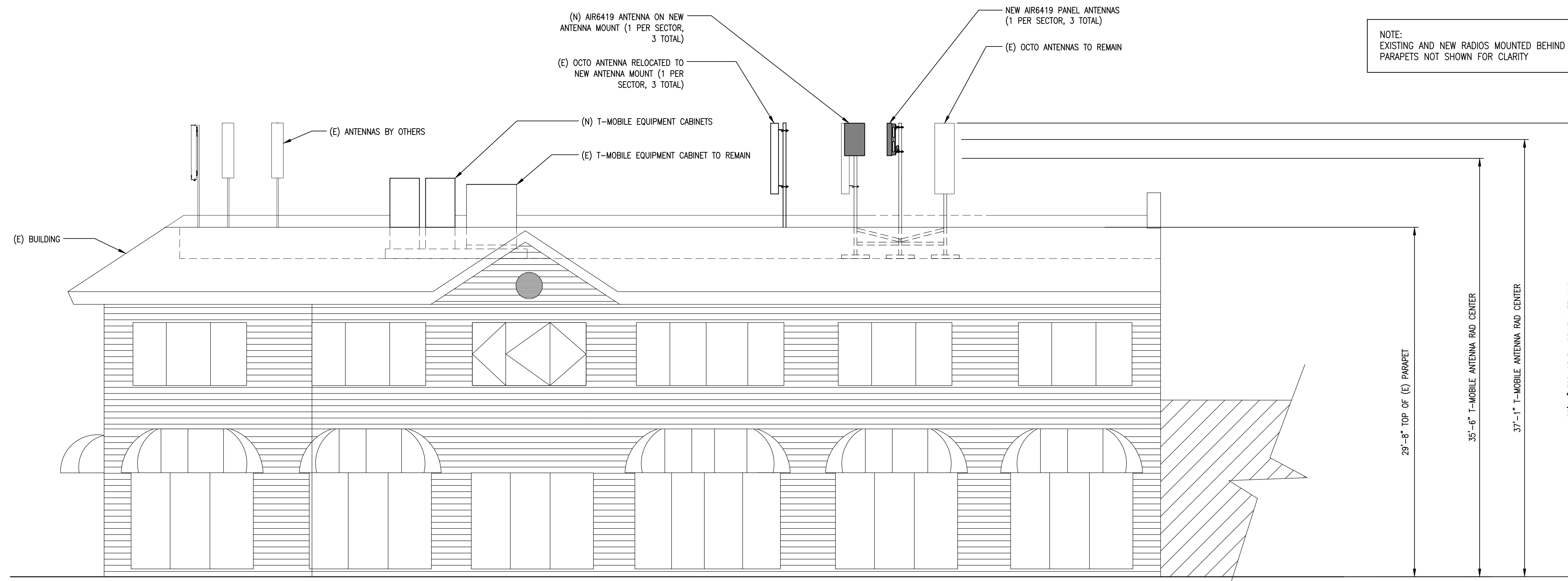
SHEET NUMBER:

A-3



EXISTING SOUTHWEST ELEVATION

SCALE: 3/16" = 1'-0" 0 2' 4' 6' 1



NEW SOUTHWEST ELEVATION

SCALE: 3/16" = 1'-0" 0 2' 4' 6' 2



PLANS PREPARED BY:



22431 ANTONIO PKWY
SUITE B160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644

CONSULTING GROUP:



1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:



DATE STAMPED: 04/17/2024

SHEET TITLE:

ARCHITECTURAL ELEVATIONS

SHEET NUMBER:

A-4

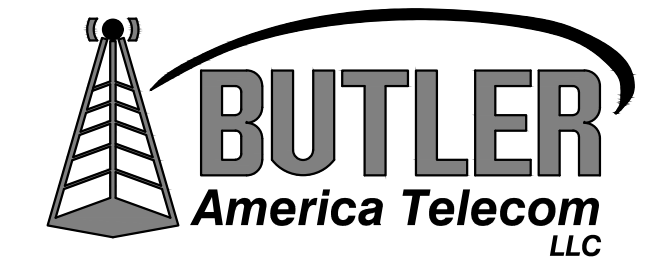


PLANS PREPARED BY:



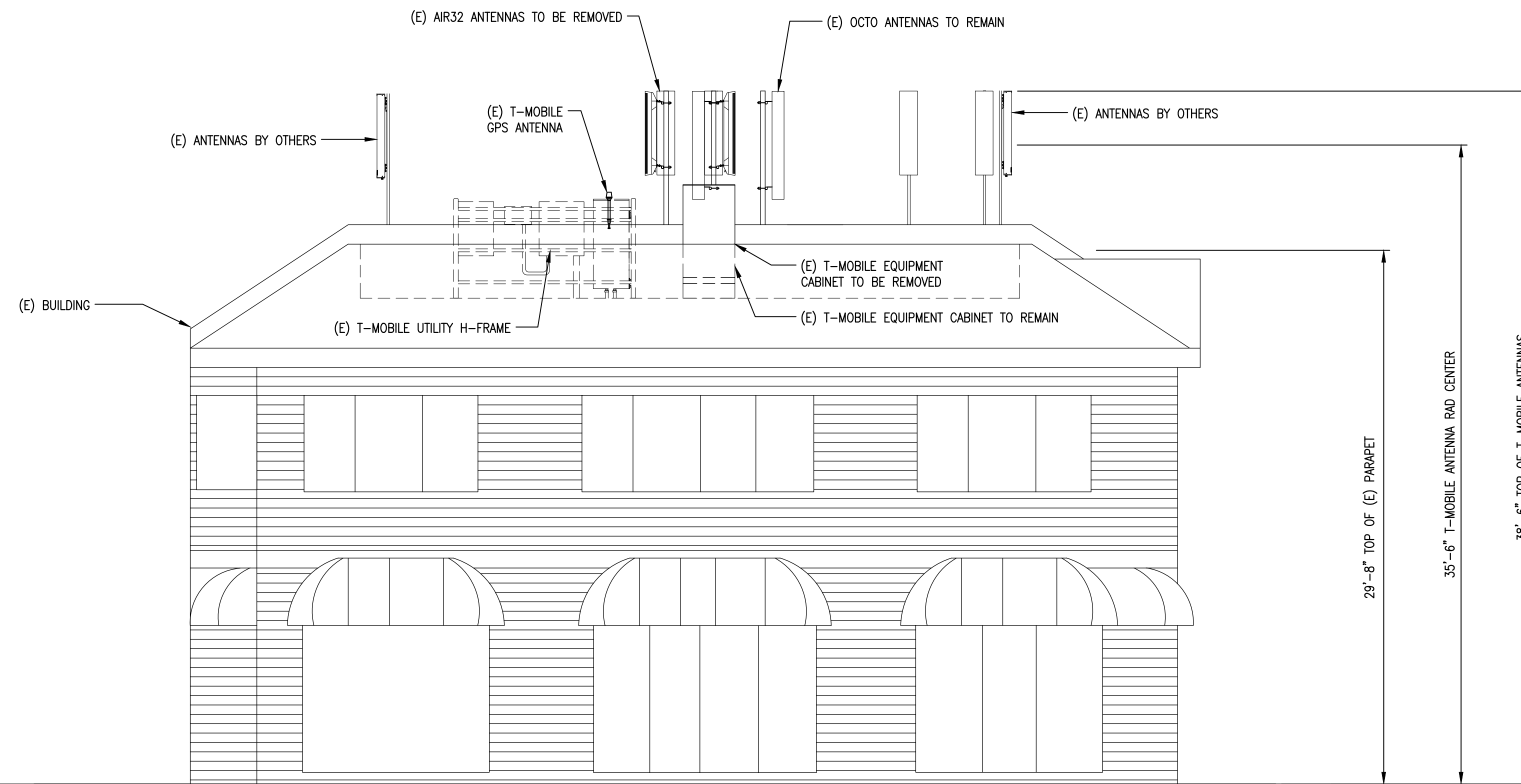
22431 ANTONIO PKWY
SUITE B160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644

CONSULTING GROUP:



1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

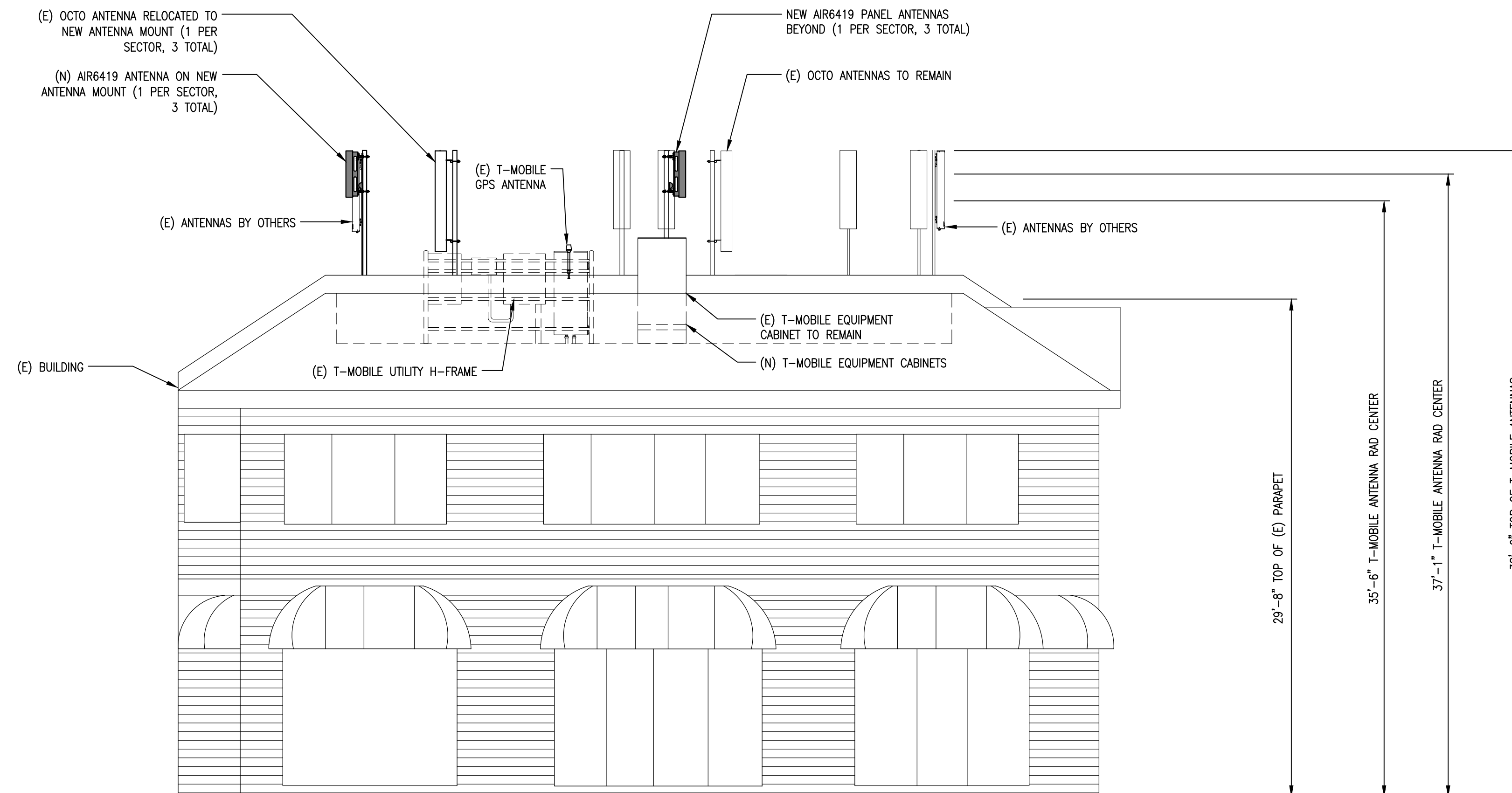
NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC



NOTE:
EXISTING AND NEW RADIOS MOUNTED BEHIND
PARAPETS NOT SHOWN FOR CLARITY

EXISTING NORTHWEST ELEVATION

SCALE:
1/8"=1'-0" 0 4' 8' 1



NOTE:
EXISTING AND NEW RADIOS MOUNTED BEHIND
PARAPETS NOT SHOWN FOR CLARITY

NEW NORTHWEST ELEVATION

SCALE:
1/8"=1'-0" 0 4' 8' 2

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:

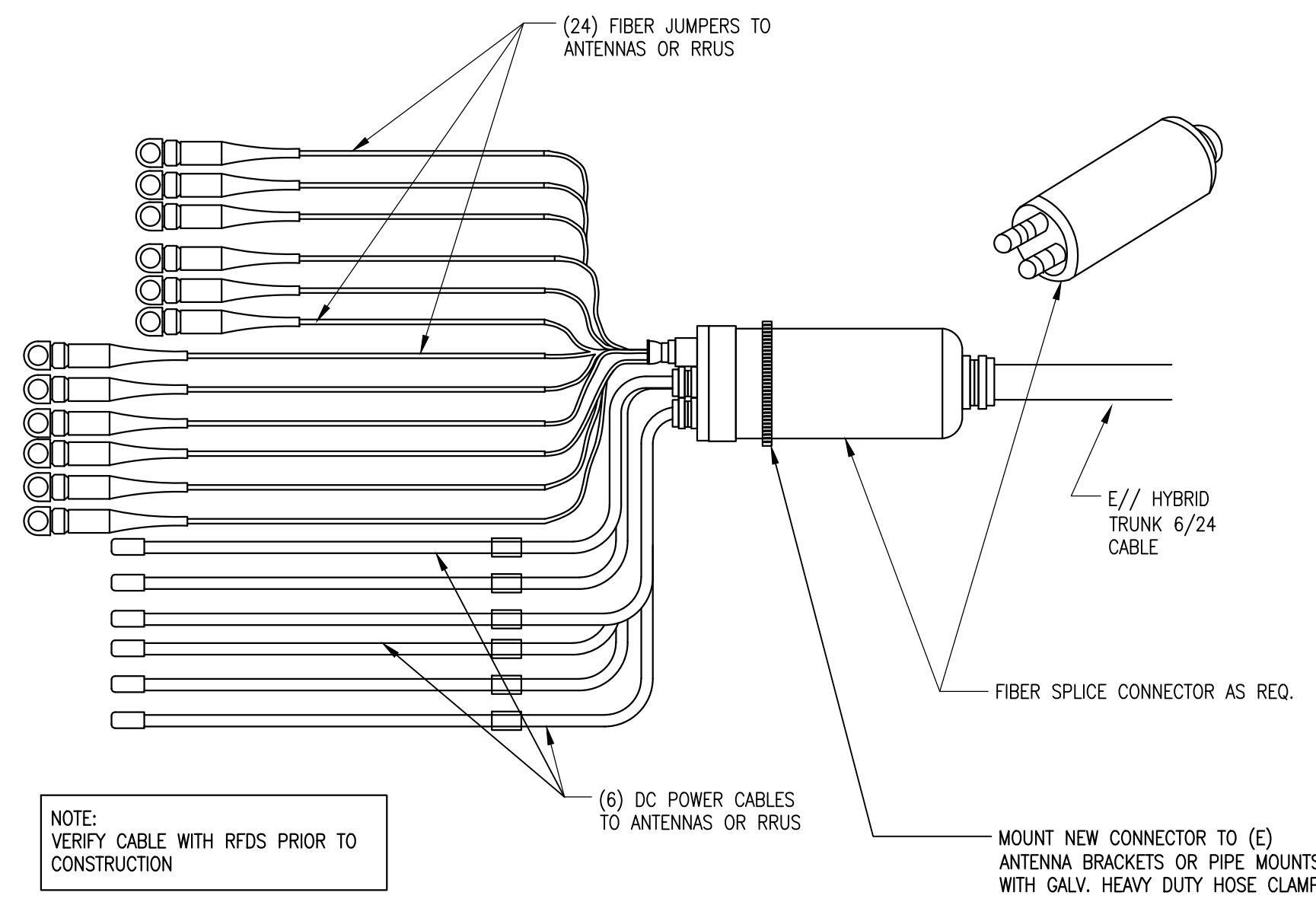


SHEET TITLE:

ARCHITECTURAL ELEVATIONS

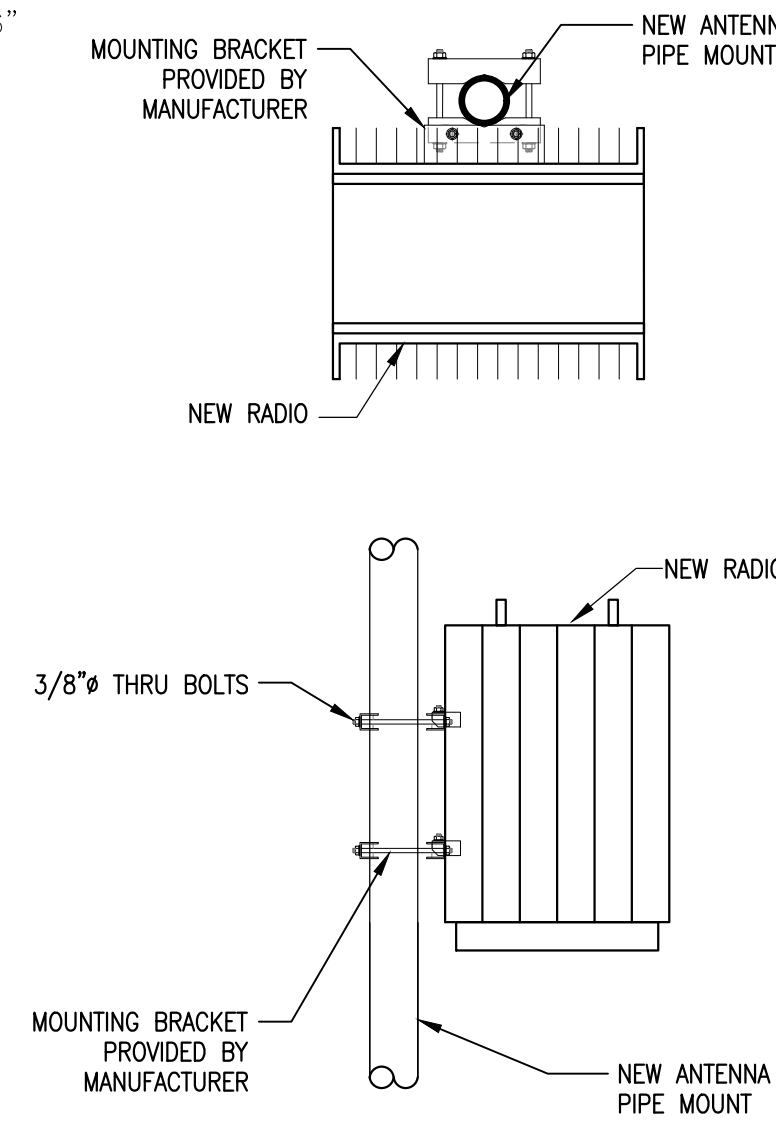
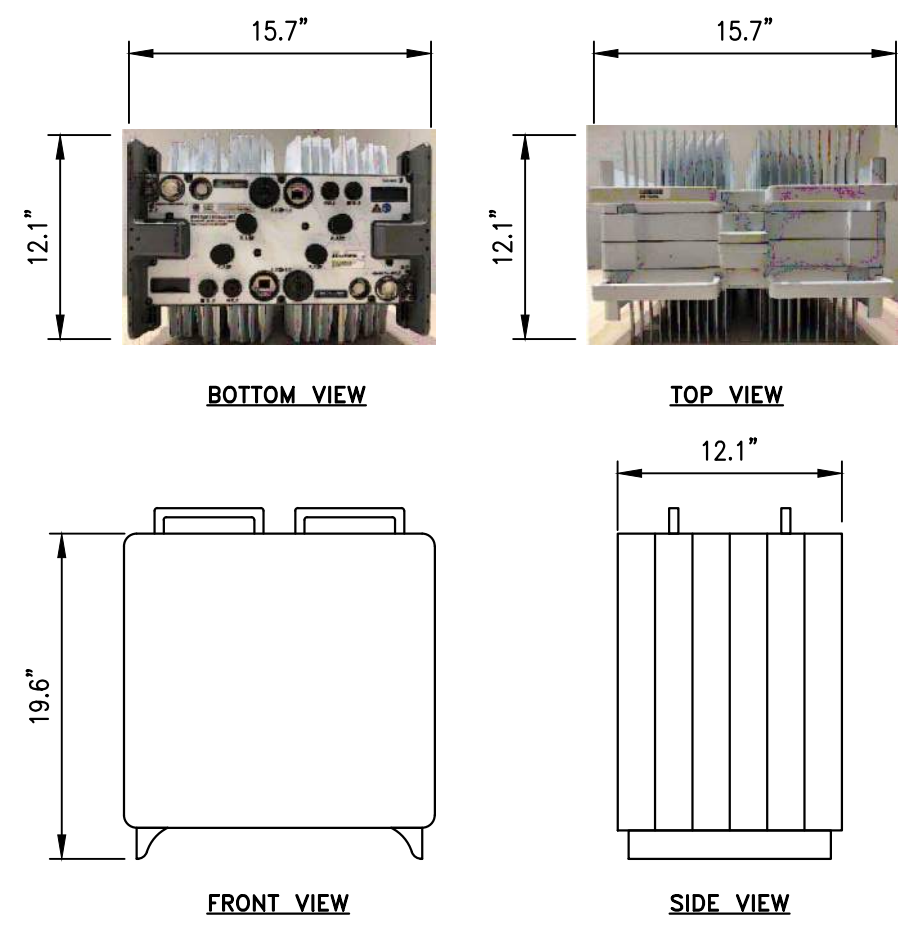
SHEET NUMBER:

A-5

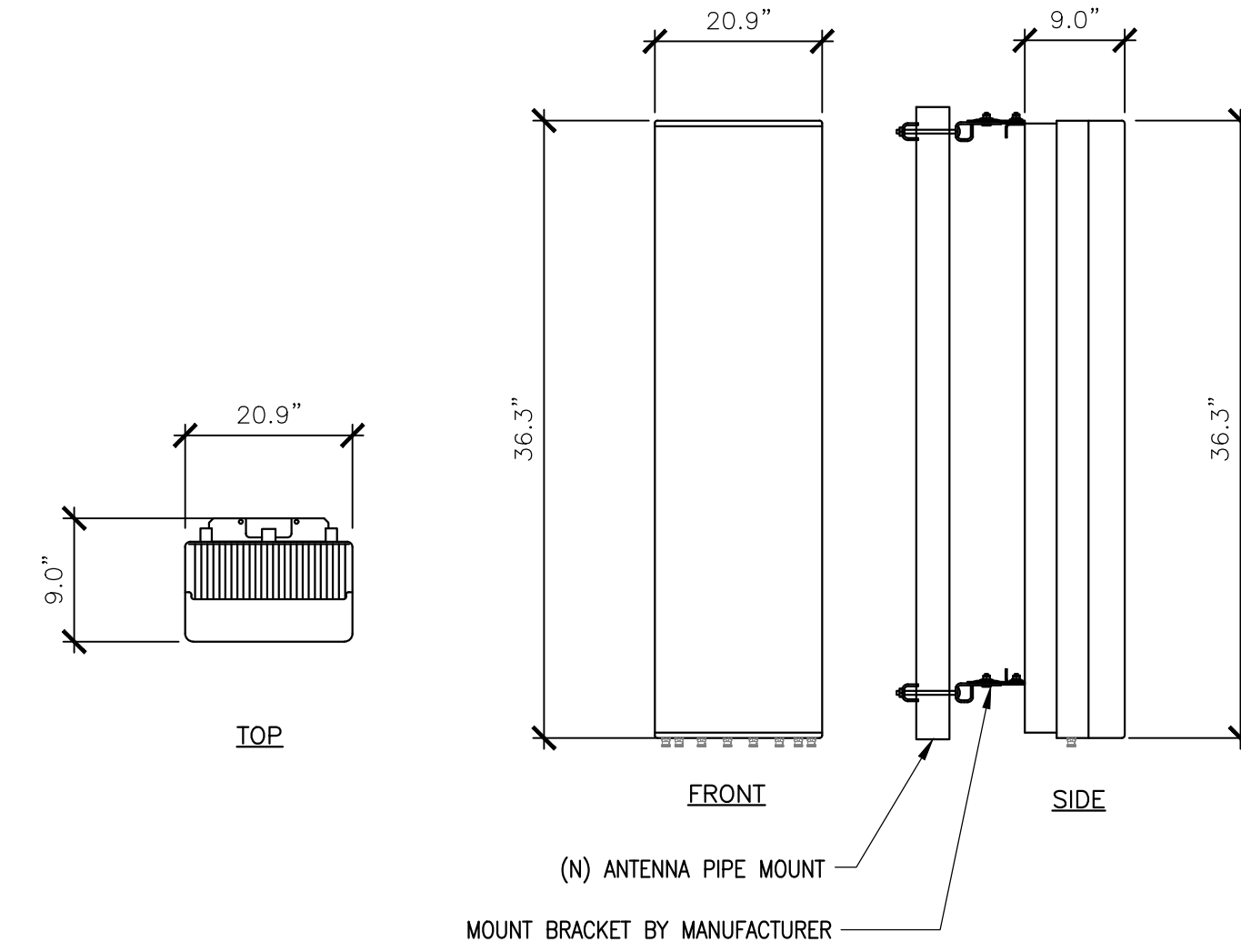


ERICSSON RADIO 4460

DIMENSIONS, WxDxH: 15.7"x12.1"x19.6"
 TOTAL WEIGHT: 109 lbs
 TEMPERATURE: -40° TO 55° C



MANUFACTURER: ERICSSON
 MODEL: AIR6419 B41
 WEIGHT: 83.3 LBS
 DIMENSIONS: 36.3"H. X 20.9"W. X 9.0"D.



HYBRID CABLE DETAIL

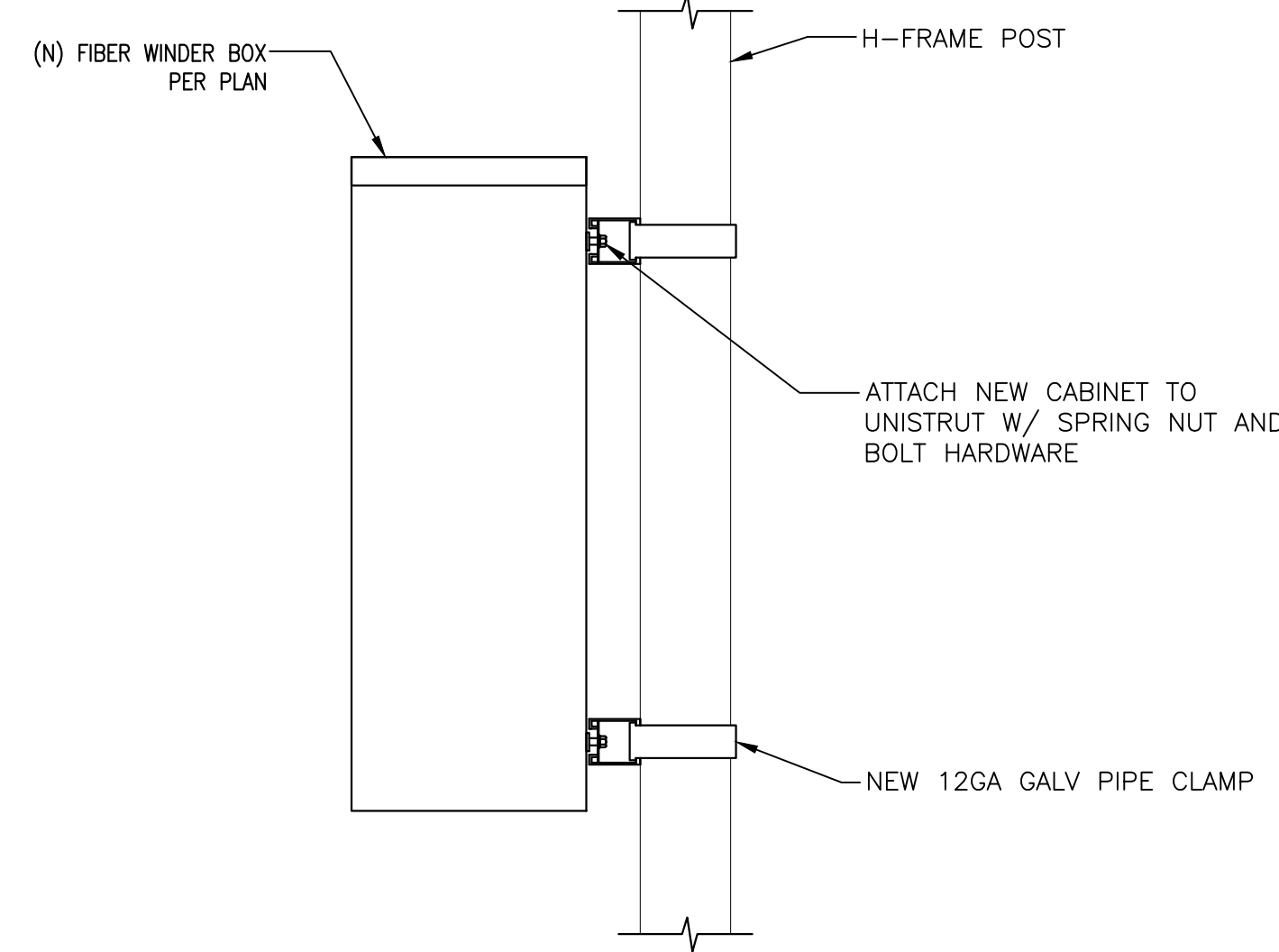
SCALE: 4
 N.T.S.

RADIO 4460 DETAIL

SCALE: 3
 N.T.S.

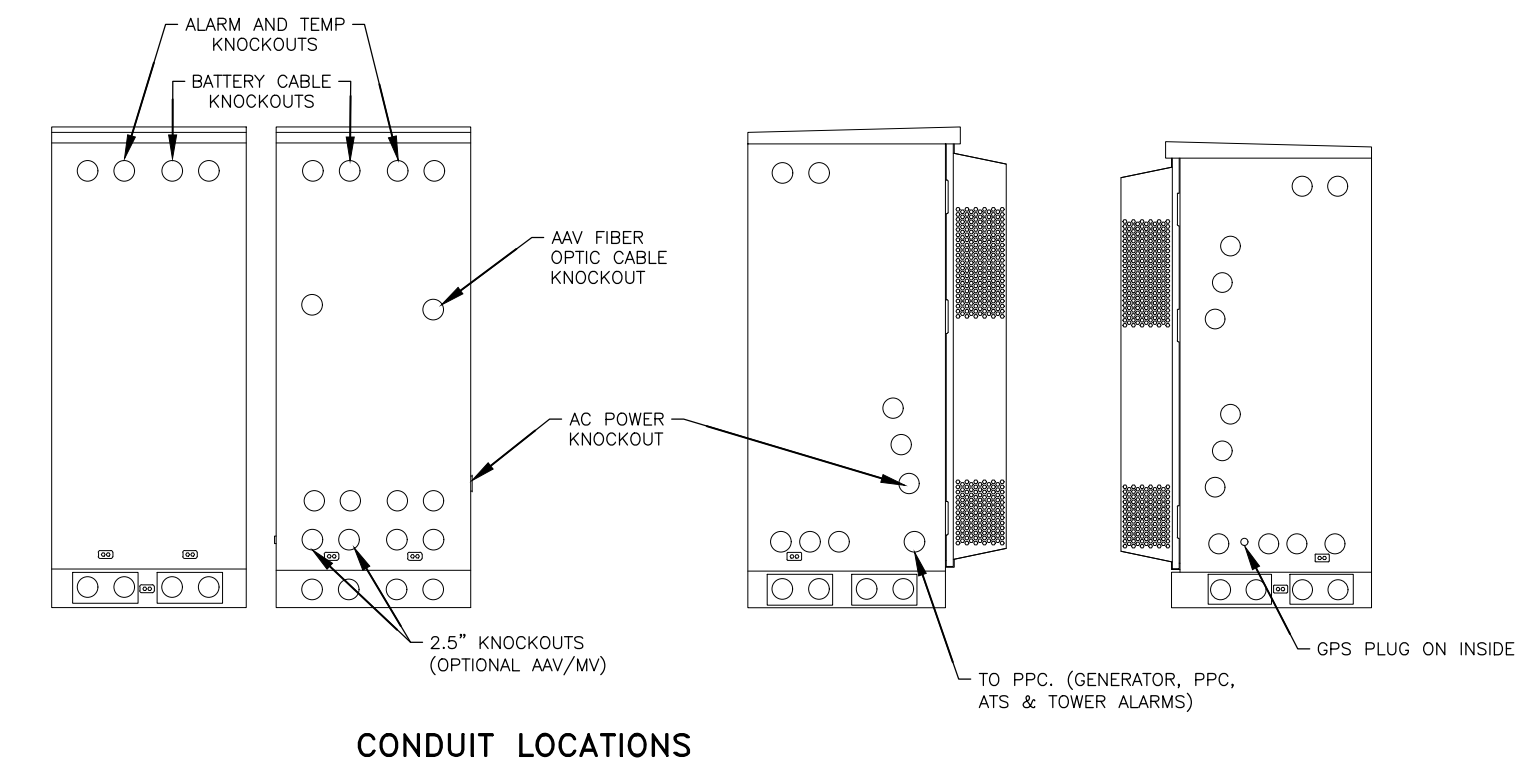
AIR6419 B41 ANTENNA DETAIL

SCALE: 1
 N.T.S.



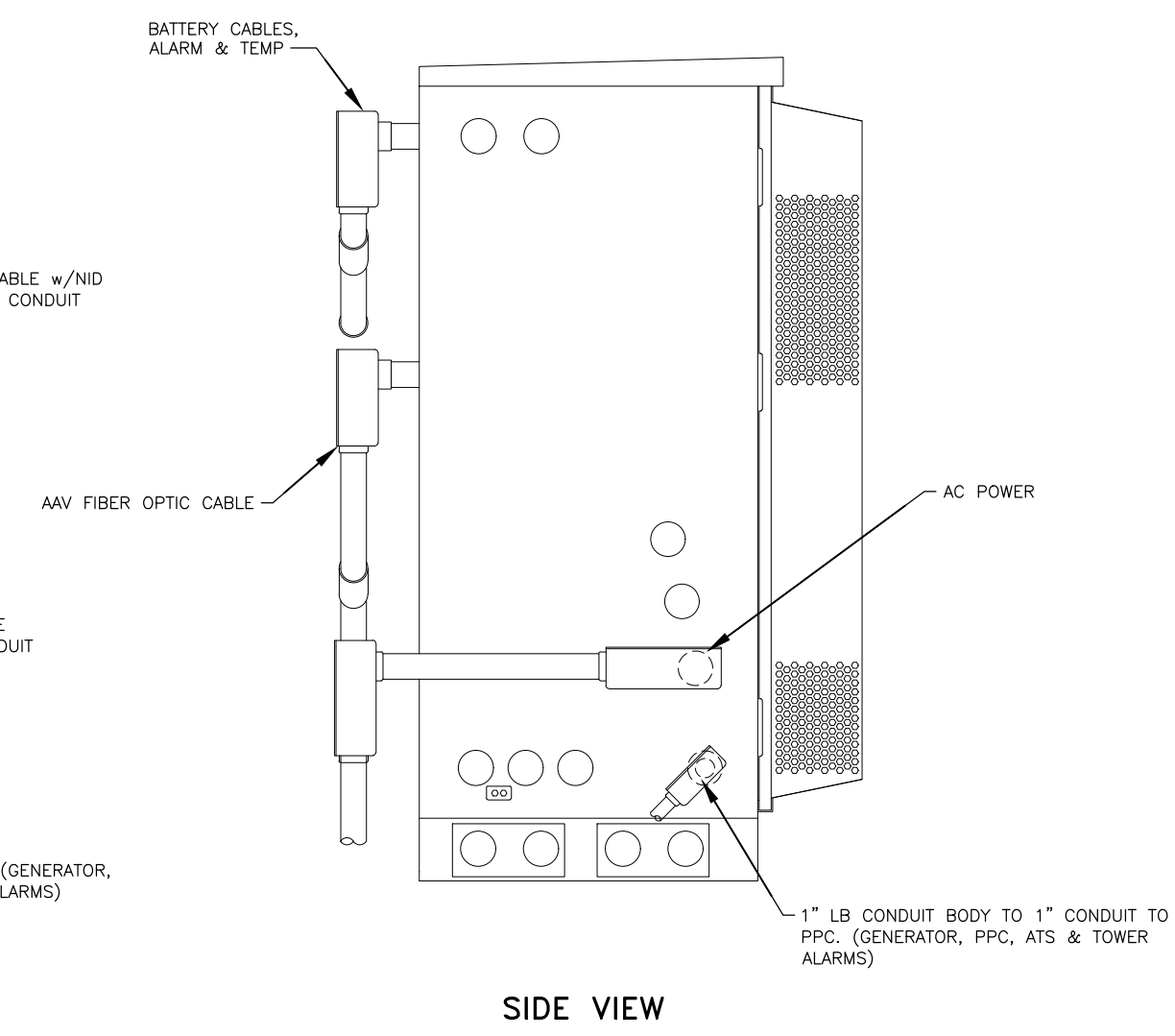
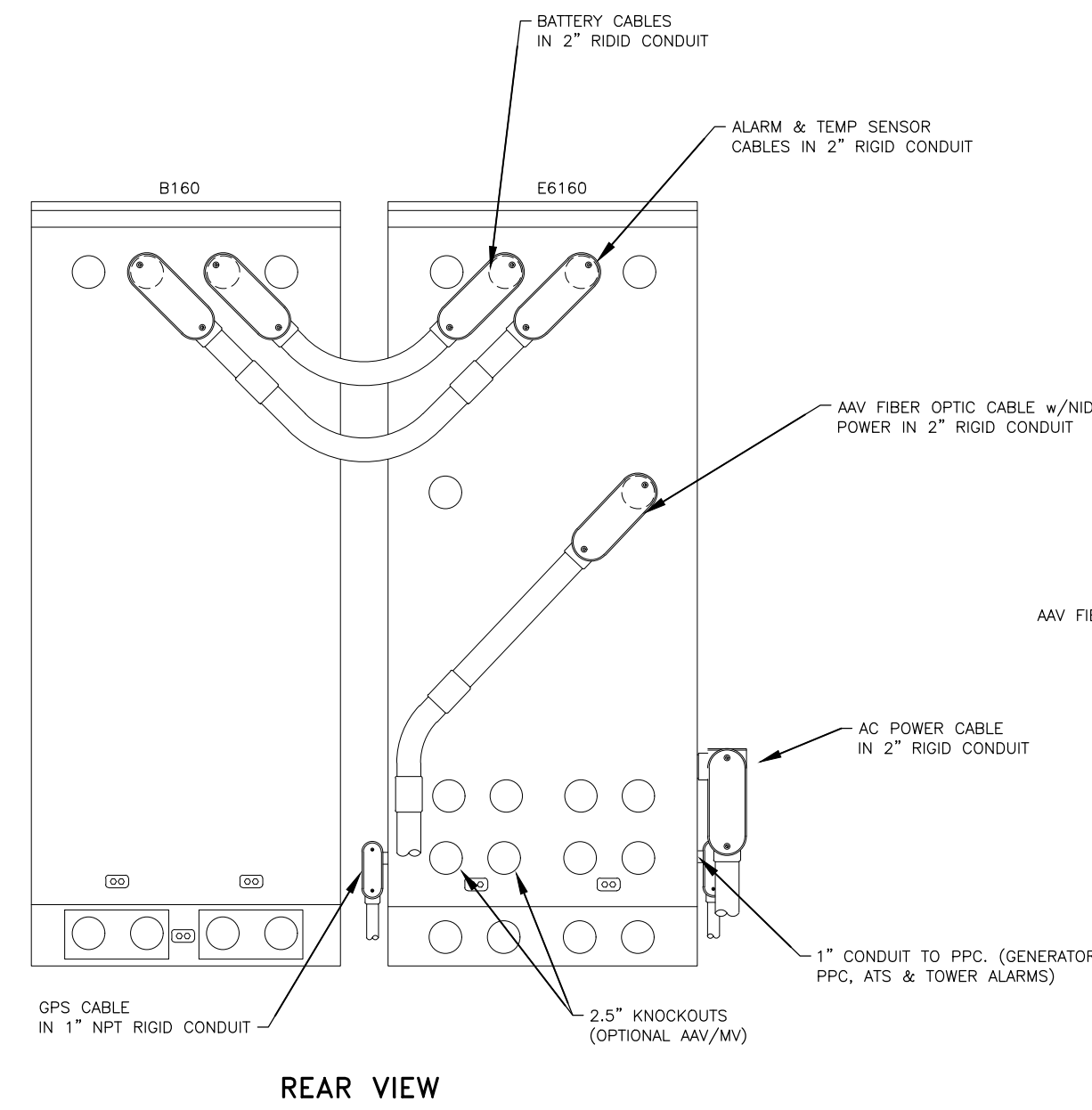
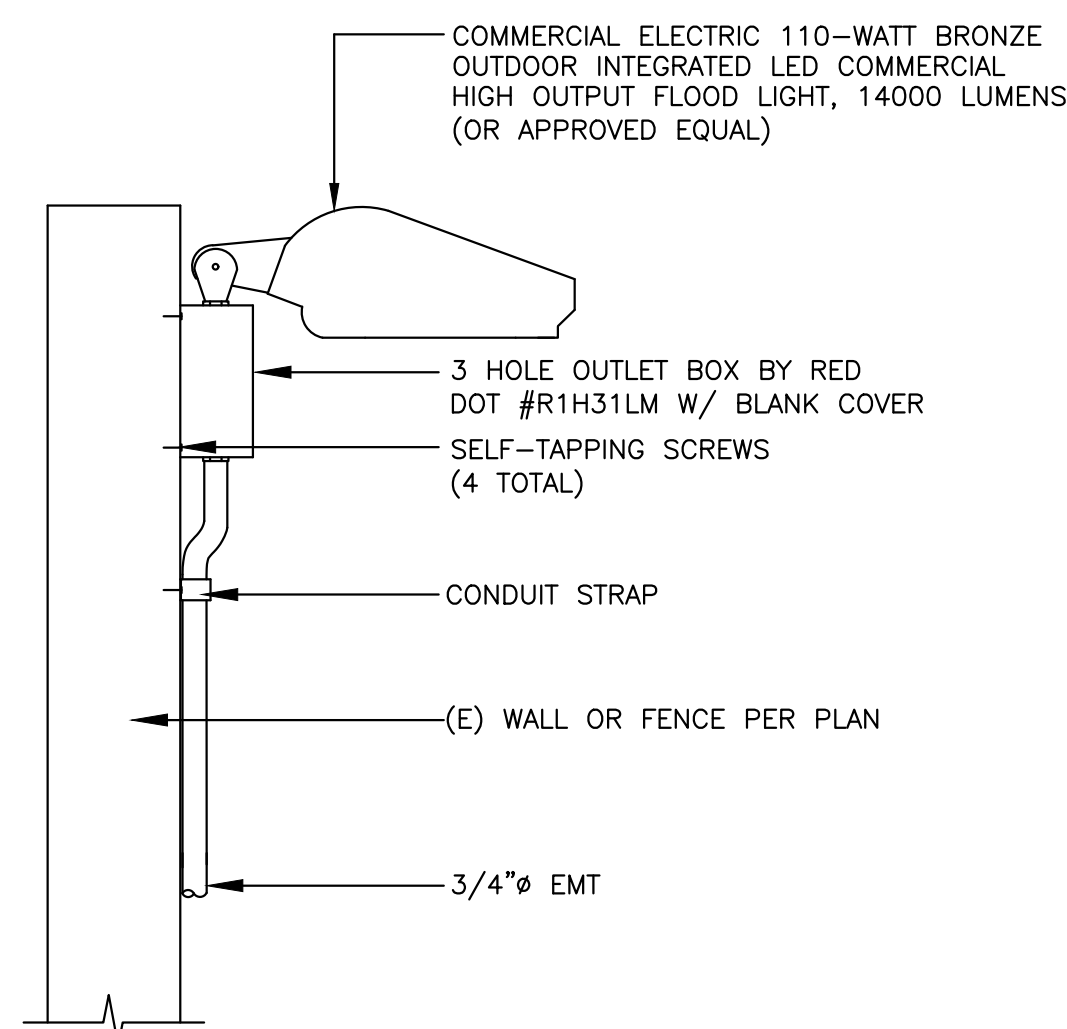
NOTE:

1. ALL CONDUIT AND FITTING ENTRANCES INTO CABINETS AND ENCLOSURES MUST UTILIZE MYERS OR EQUIVALENT HUBS OR SEALING WASHERS TO PREVENT WATER ENTRY/SEEPAGE INTO CABINETS AND ENCLOSURES.
2. (LIQUIDFLEX) FLEXIBLE METALLIC CONDUIT (LFMC) & ASSOCIATED FITTINGS CAN BE USED AS NEEDED BUT ONLY FOR TIGHT CONDUIT BENDS AND RUNS SUBJECT TO UL AND NEC LIMITATIONS. 6' MAX PER CONDUIT RUN.
3. POWER CONDUIT BODY ATTACHED WITH SHORT NIPPLE AND SEALING WASHER INSIDE & OUT. (FOR DOOR HOOD CLEARANCE)
4. PULLING ELBOWS MAY BE USED IN LIEU OF A CONDUIT BODIES WHEN CLEARANCE IS LIMITED.
5. ALL EXTERNAL ALARM CONDUITS ARE TO TERMINATE AT THE PPC WITH A SINGLE 1" ALARM CONDUIT TO THE 6160.



FIBER WINDER BOX AT H-FRAME

SCALE: 5
 N.T.S.



SERVICE LIGHTING

SCALE: 6
 N.T.S.

CABINET CONDUIT CONNECTIONS

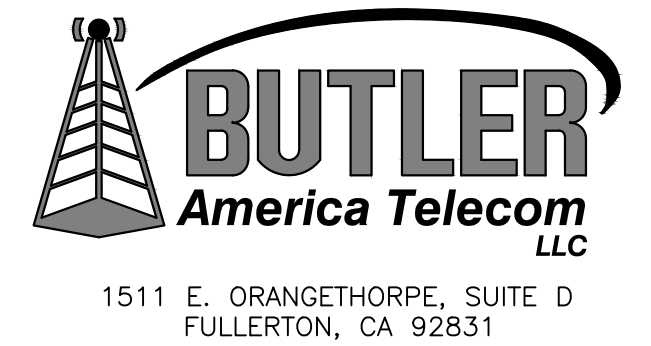
SCALE: 2
 N.T.S.



PLANS PREPARED BY:



CONSULTING GROUP:



NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024

SEAL:



SHEET TITLE:

DETAILS

SHEET NUMBER:

D-1



PLANS PREPARED BY:



22431 ANTONIO PKWY
SUITE B160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644

CONSULTING GROUP:



1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

NO. DATE DESCRIPTION BY

0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:



DATE STAMPED: 04/17/2024

SHEET TITLE:

ANTENNA MOUNT DETAILS

SHEET NUMBER:

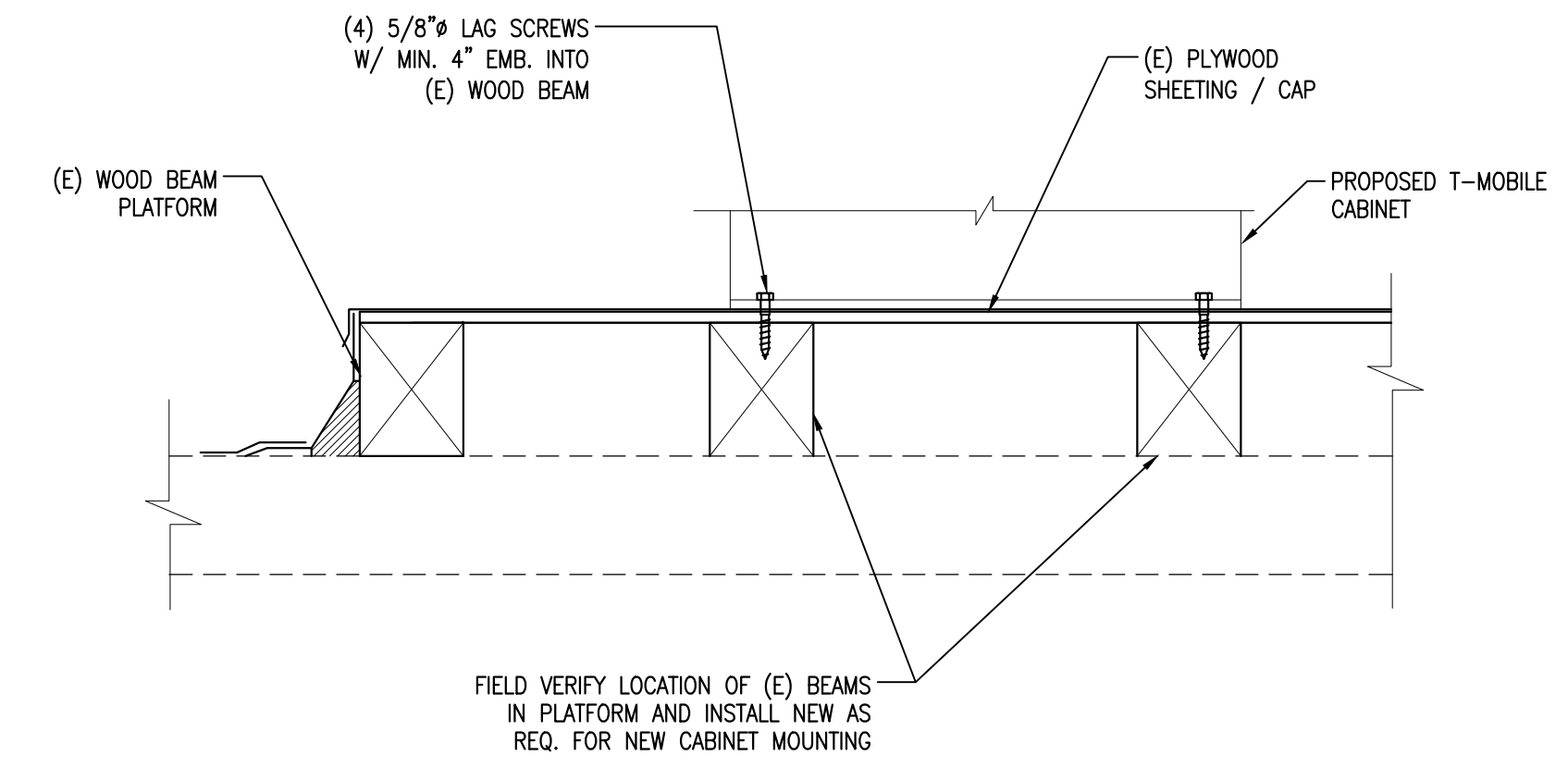
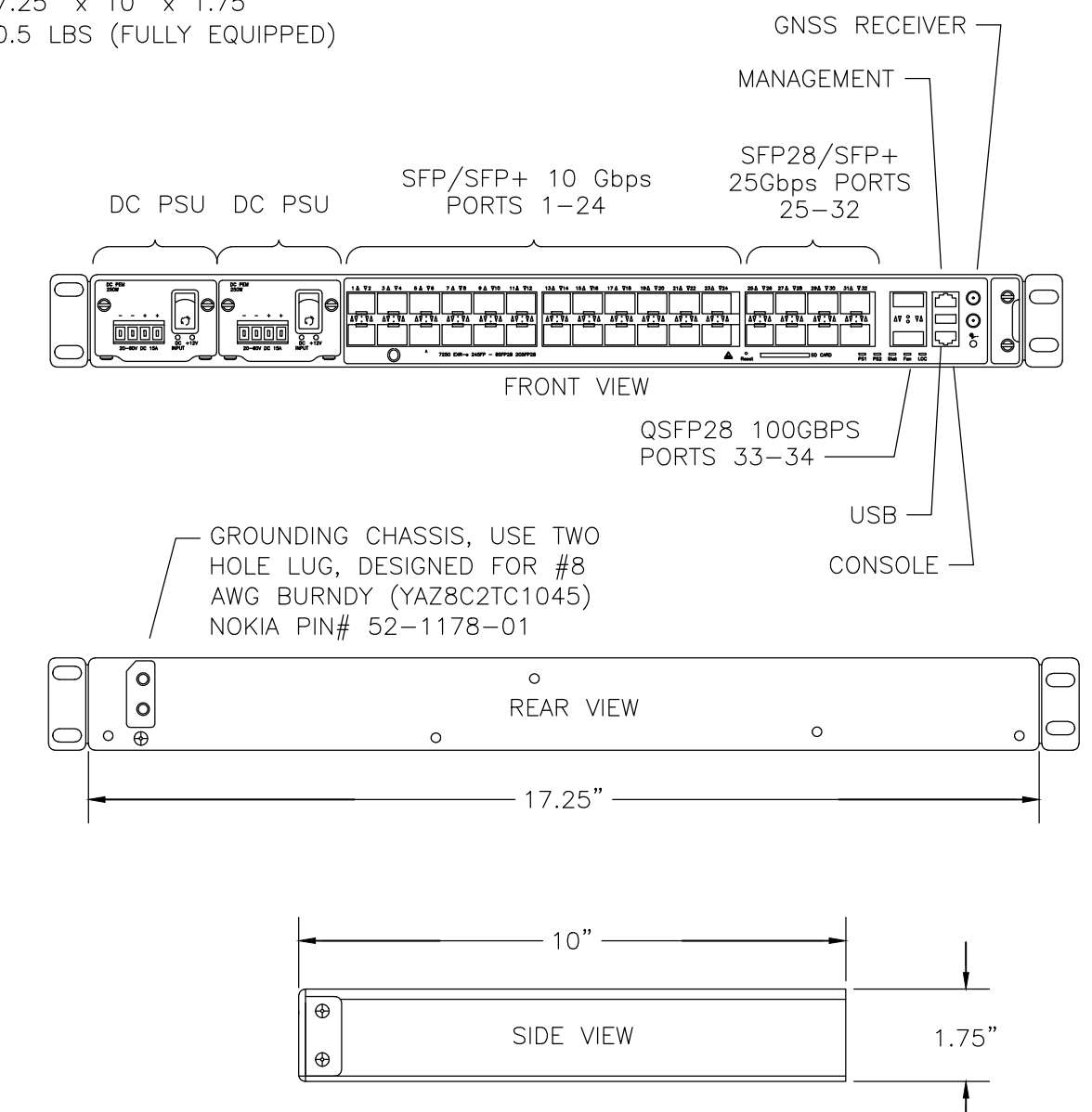
D-2

FIRE DEPARTMENT NOTES:

- A. FIRE DEPARTMENT FINAL INSPECTION REQUIRED. SCHEDULE INSPECTION 2 DAYS IN ADVANCE.
- B. A CFC PERMIT TO OPERATE BATTERY SYSTEMS WITH STATIONARY LEAD-ACID BATTERIES IS NOT REQUIRED FOR THE QUANTITIES ON SITE.
- C. A CFC PERMIT MAY BE REQUIRED FOR THE HAZARDOUS MATERIALS ON SITE.
- D. A HAZARDOUS MATERIALS IDENTIFICATION SIGN IS REQUIRED FOR ALL ENTRANCES INTO BATTERY STORAGE AREAS. LETTERS MUST BE AT LEAST 1" IN HEIGHT AND IN A COLOR WHICH CONTRASTS TO THE BACKGROUND OF THE SIGN AND LIST THE FOLLOWING:

CLASS 1 WATER REACTIVE LIQUID
TOXIC LIQUID
CORROSIVE LIQUID
OTHER HEALTH HAZARD LIQUID
- E. BATTERIES SHALL BE PROVIDED WITH SAFETY VENTING CAPS.
- F. LOCATIONS AND CLASSIFICATIONS OF EXTINGUISHERS SHALL BE IN ACCORDANCE WITH THE UNIFORM FIRE CODE STANDARD 10-1 AND PLACEMENT IS SUBJECT TO APPROVAL OF THE FIRE INSPECTOR.
- G. STORAGE, DISPENSING OR USE OF ANY FLAMMABLE AND COMBUSTIBLE LIQUIDS, FLAMMABLE AND COMPRESSED GASES, AND OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH UNIFORM FIRE CODE REGULATIONS.
- H. EXIST DOORS SHALL BE ABLE TO OPEN FROM THE INSIDE WITHOUT THE USE OF KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- I. ADDRESS NUMBERS SHALL BE A MINIMUM 6 INCHES HIGH AND PLAINLY VISIBLE FROM ROADWAY BUILDING IS ADDRESSED ON.

MANUFACTURER: NOKIA
MODEL: 3HE15548AA
DIMENSIONS: 17.25" x 10" x 1.75"
WEIGHT: 10.5 LBS (FULLY EQUIPPED)



FIRE DEPT. NOTES / BATTERIES
SCALE: N.T.S. **7**

CSR IXRE V2 DETAIL
SCALE: N.T.S. **4**

CABINET MOUNT DETAIL
SCALE: N.T.S. **1**

BATTERY INFORMATION / NOTES:

BATTERY MFG.: NORTHSTAR
MODEL No.: NSB 100FT RED
BATTERY TYPE: LEAD ACID
ELECTROLYTE CONTENT PER BATTERY: 0.833 GALLONS
ELECTROLYTE HAZARD CLASSIFICATION PER 2022 CBC SECTION 1207.1.1 (17% SULFURIC ACID): CORROSIVE
No. OF BATTERIES TO BE INSTALLED: 12
TOTAL ELECTROLYTE CONTAINED ON SITE (0.833 x 12): 9.996 GALLONS MAX.
BATTERY POWER OUTPUT AMPERAGE x VOLTAGE / 1000
295 x 12/1000 = 3.54kWh x 12 = 42.48
TOTAL 42.48KWH ON SITE

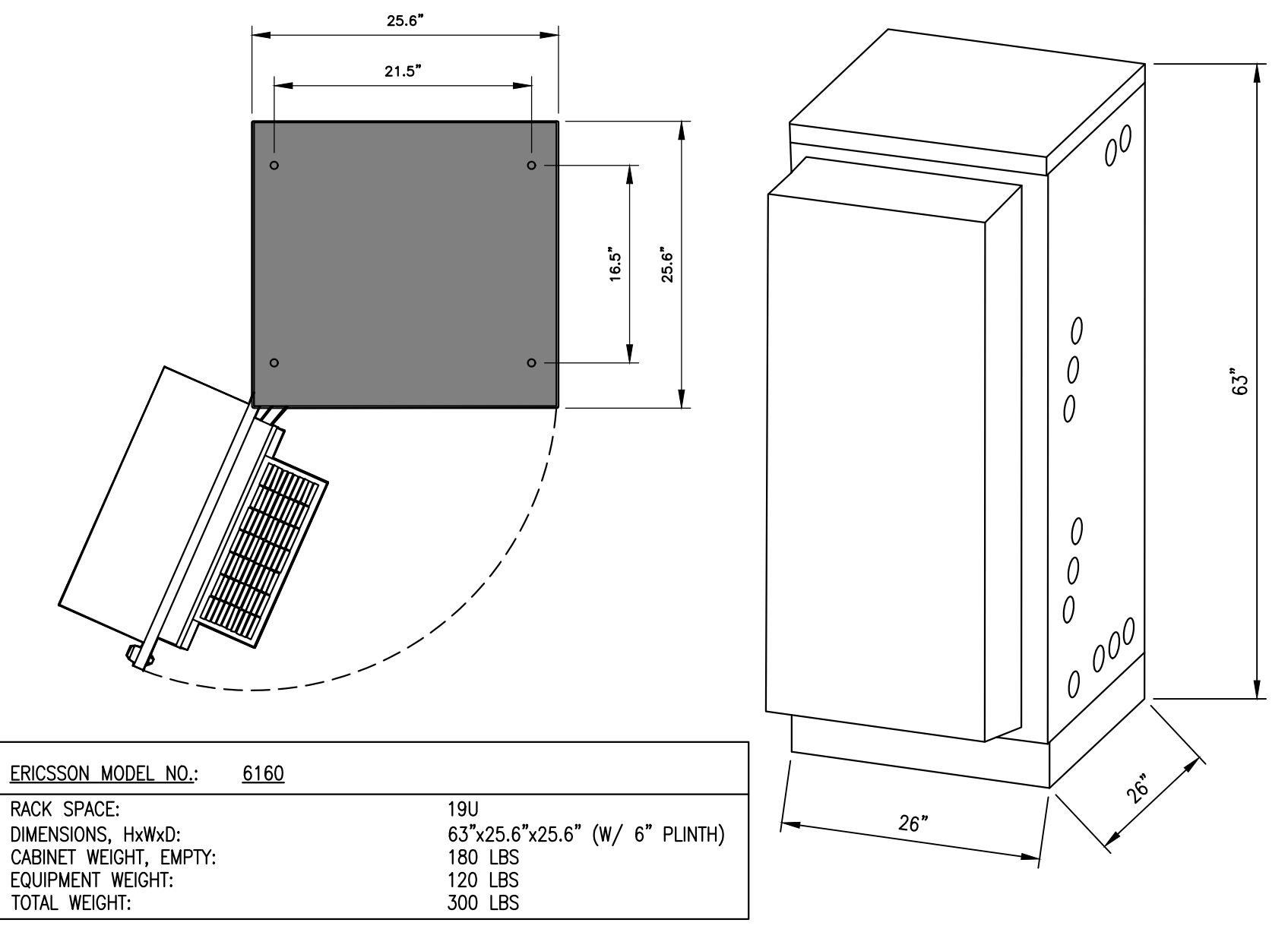
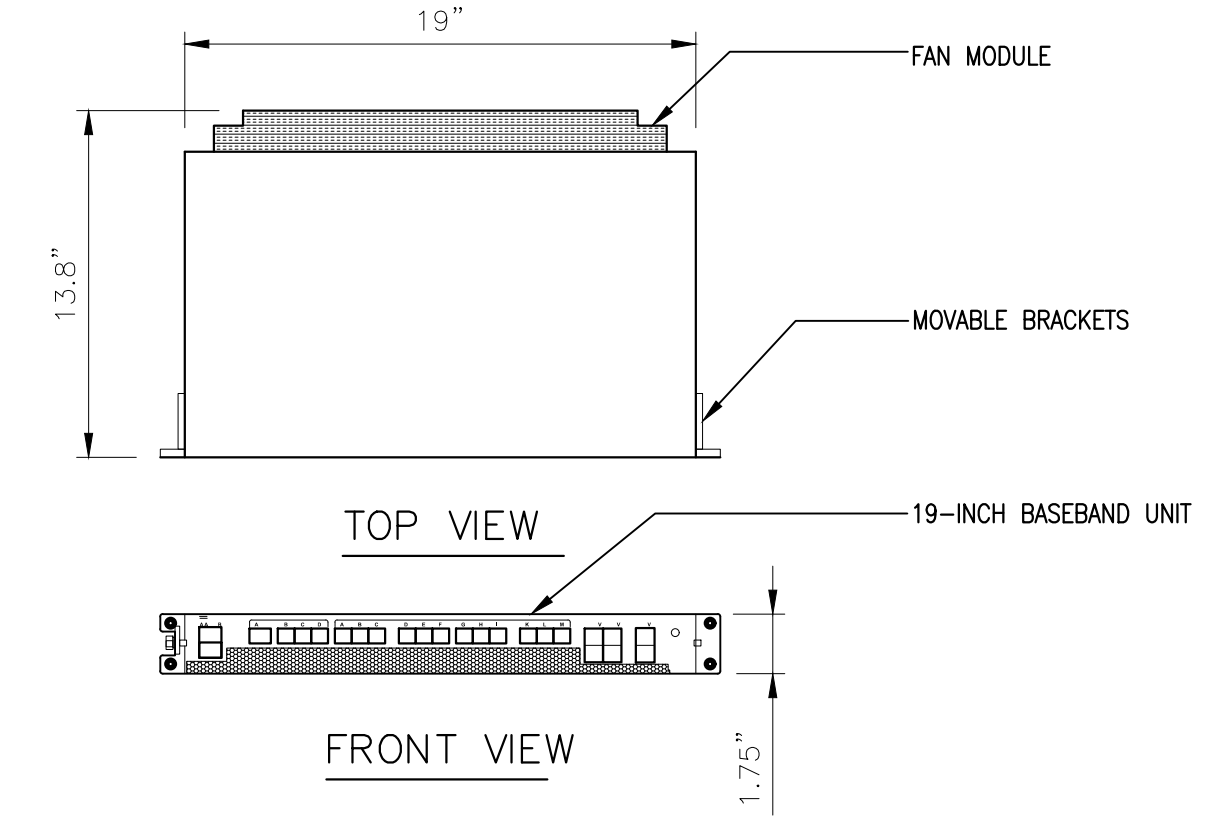
NOTE: ALL FIRE DEPT BATTERIES AND INSTALLATION SHALL COMPLY WITH 2022 CFC CHAPTER 1207

- A. QUANTITIES LESS THAN 50 GAL. ARE EXEMPT FROM 2022 C.F.C. SECTION 1207.1.1 AND SHALL NOT REQUIRE PERMIT.
- B. ANY CHANGES OR ADDITIONS TO BACK-UP BATTERIES MUST COMPLY WITH 2022 C.F.C SECTION 1207.1.1
- C. POWER OUTPUT OF THE BATTERY SYSTEM LESS THAN 600KWH (2160 MEGAJOULES) ARE EXEMPT FROM 2022 CFC SECTION 1207.1.1 AND SHALL NOT REQUIRE PERMIT

TABLE 1207.1.1 BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES.	
BATTERY TECHNOLOGY	CAPACITY
Flow batteries	20 kWh
Lead acid, all types	70 kWh
Lithium, all types	20 kWh
Nickel cadmium (Ni-Cd)	70 kWh
Sodium, all types	20 kWh
Other battery technologies	10 kWh

ERICSSON RAN PROCESSOR 6651

DIMENSIONS, WxDxH: 482.6x350x44.45mm (19"x13.8"x1.75")
TOTAL WEIGHT: 7.5 kg (16.5 lbs)
CPRI SUPPORT: SUPPORT UP TO 12 CPRI
3X25 Gbps OPTICAL PORTS, 1 QSFP 4X25 Gbps AND 1 ELECTRICAL Gbps



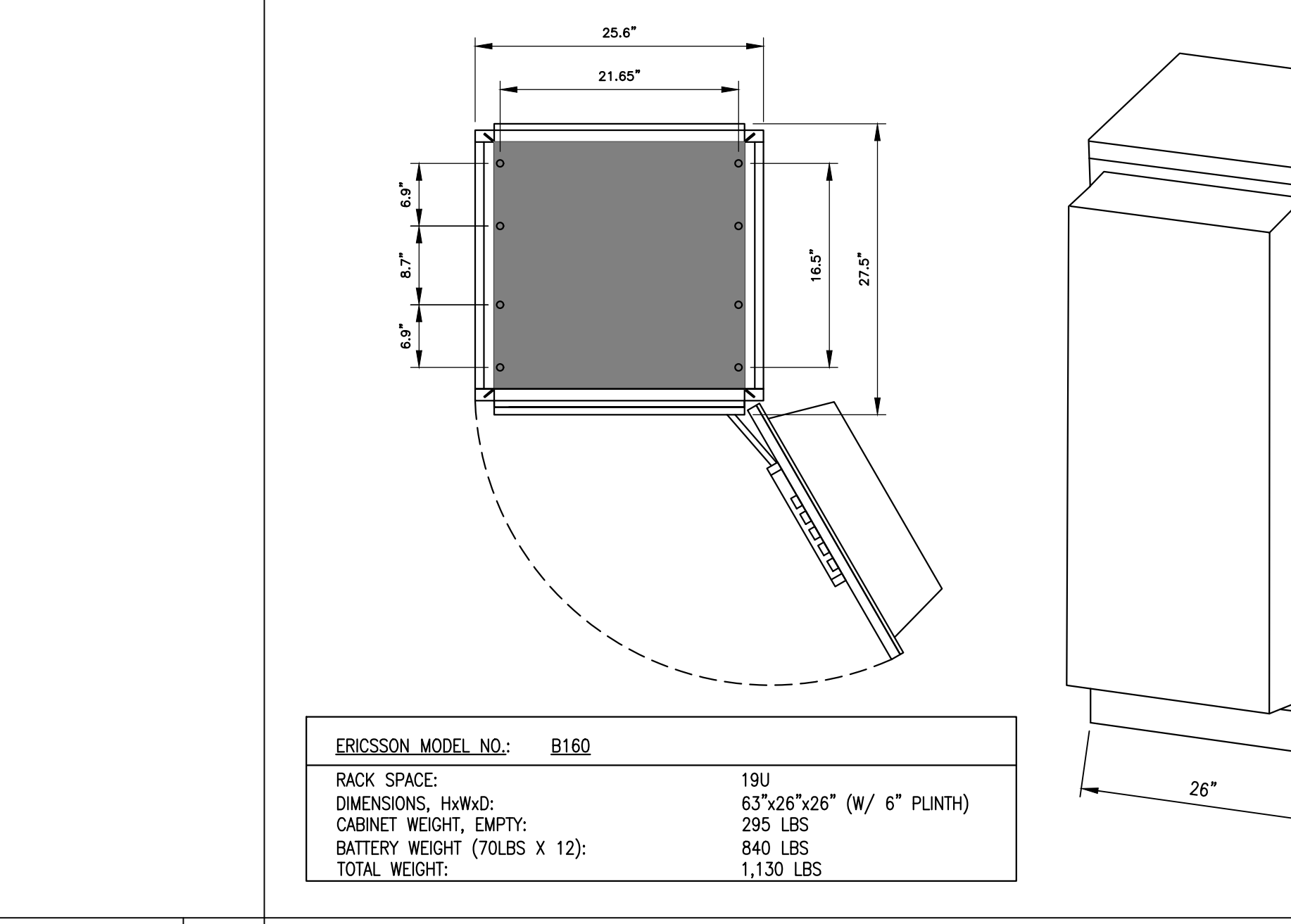
BATTERY NOTES
SCALE: N.T.S. **8**

RP 6651 DETAIL
SCALE: N.T.S. **5**

6160 CABINET ENCLOSURE
SCALE: N.T.S. **2**

NOT USED
SCALE: N.T.S. **9**

NOT USED
SCALE: N.T.S. **6**



NOT USED
SCALE: N.T.S. **9**

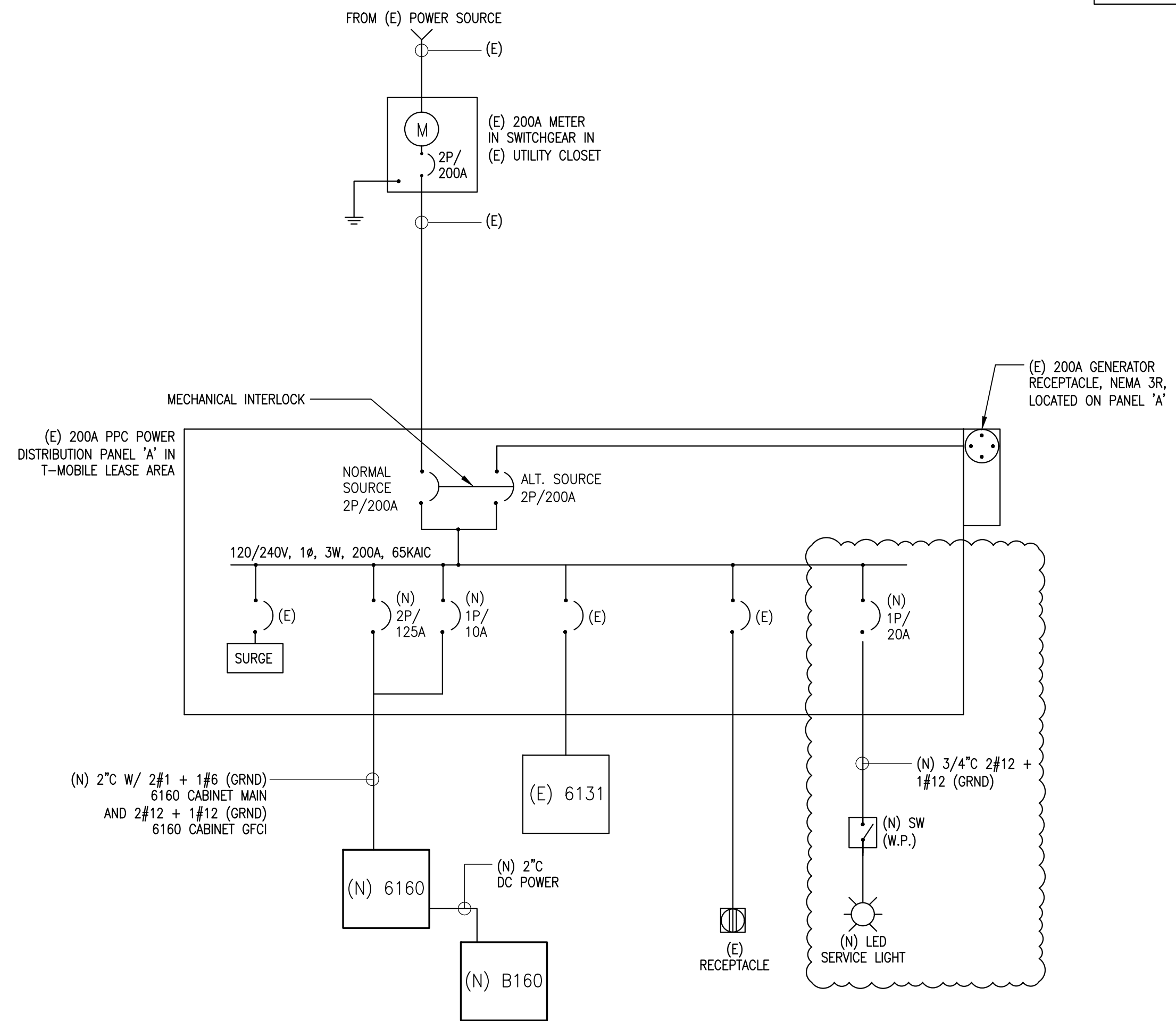
NOT USED
SCALE: N.T.S. **6**

B160 BATTERY CABINET
SCALE: N.T.S. **3**

ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL LOCAL AND STATE CODE, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
- IF APPLICABLE, CONTRACTOR SHALL COORDINATE WITH LOCAL POWER COMPANY FOR REQUIREMENTS OF POWER SERVICE LINE TO THE METER BASE. POWER SERVICE REQUIREMENT IS COMMERCIAL AC NOMINAL 120/208 VOLT OR 120/240 VOLT, SINGLE PHASE WITH 200 AMP RATING.
- IF APPLICABLE, CONTRACTOR SHALL FURNISH AND INSTALL ELECTRIC METER BASE AND 200A DISCONNECT SWITCH PER SITE PLAN AND DETAIL DRAWINGS. THE METER BASE SHOULD BE LOCATED IN A MANNER WHERE ACCESSIBLE BY THE LOCAL POWER COMPANY.
- IF APPLICABLE, LOCAL POWER COMPANY SHALL PROVIDE 200 AMP ELECTRIC METER. CONTRACTOR SHALL COORDINATE INSTALLATION OF METER WITH LOCAL POWER COMPANY.
- UNDERGROUND POWER AND TELCO SERVICE LINES SHALL BE ROUTED IN A COMMON TRENCH. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 AND CONDUIT EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE INDICATED.
- CONDUITS INSTALLED AT PCS EQUIPMENT ENDS PRIOR TO THE EQUIPMENT INSTALLATION SHALL BE STUBBED AND CAPPED AT 6" ABOVE GRADE OR PLATFORM. IF SERVICE LINES CAN'T BE INSTALLED INITIALLY, PROVIDE NYLON PULL CORD IN CONDUITS.
- CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.
- THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.
- PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
- ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
- ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUNDING BUSHINGS.
- ALL WIRE SHALL BE TYPE THWN, SOLID, ANNEALED COPPER UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75 DEGREE C, (167 DEGREES F), 98% CONDUCTIVITY, MINIMUM #12.
- ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, J-BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.
- ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
- CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION TO CONFLICTS. VERIFY WITH MECHANICAL CONTRACTOR AND COMPLY AS REQUIRED.
- ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN.
- INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
- THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS, DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT AT SUBSTANTIAL COMPLETION.
- ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM (NO EXCEPTIONS.)
- ALL ELECTRICAL DEVICES AND INSTALLATIONS OF THE DEVICES SHALL COMPLY WITH (ADA) AMERICANS WITH DISABILITIES ACT AS ADOPTED BY THE APPLICABLE STATE.
- ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN OF CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY VARY FROM DESIGN AS SHOWN ON THESE DRAWINGS).
- LOCATION OF ALL OUTLET, BOXES, ETC., AND THE TYPE OF CONNECTION (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
- LABEL ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHOWING T-MOBILE, NAME OF CABINET OR PANEL, NAME AND LOCATION OF SOURCE POC, AND WHAT IT SERVES. PROVIDE SPECIFICATIONS FOR LABEL MATERIAL AND FONT SIZE.
- LABEL ALL EXISTING AND NEW CONDUITS/CABLES WITH SOURCE AND DESTINATION
- INSTALL NFPA 704 PLACARD ON BATTERY CABINET AS REQUIRED.

NOTES:
 • GENERAL CONTRACTOR TO NOTIFY CDG IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL SITE CONDITIONS AND THE DRAWINGS
 • ALL WORK TO BE COMPLIED WITH NFPA 70E AND OSHA TITLE 29.



SINGLE LINE DIAGRAM

SCALE: 1
 N.T.S.

EXISTING 200A PANEL SCHEDULE																
VOLTAGE:		120/240V		PHASE:		1		WIRE:		3		65 KAIC				
MAIN BREAKER:		200 AMP		BUS RATING:		200 AMPS		NEMA:		3R						
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	SURGE	30	2	ON	0	1.00	7800	x	1.00	7800	OFF	2	100	6131	2	
3	-	-	-	-	0	1.00	x	7800	1.00	7800	-	-	-	-	4	
5	REC.	15	1	ON	180	1.00	180	x	1.00					SPACE	6	
7	SPACE					1.00	x	0	1.00					SPACE	8	
9	SPACE					1.00	0	x	1.00					SPACE	10	
11	SPACE					1.00	x	0	1.00					SPACE	12	
13	SPACE					1.00	0	x	1.00					SPACE	14	
15	SPACE					1.00	x	0	1.00					SPACE	16	
17	SPACE					1.00	0	x	1.00					SPACE	18	
19	SPACE					1.00	x	0	1.00					SPACE	20	
21	SPACE					1.00	0	x	1.00					SPACE	22	
23	SPACE					1.00	x	0	1.00					SPACE	24	
						VA	7980	7800	VA			TOTAL KVA	15.78			
												AMPS	65.75			

REVISED 200A PANEL SCHEDULE																
VOLTAGE:		120/240V		PHASE:		1		WIRE:		3		65 KAIC				
MAIN BREAKER:		200 AMP		BUS RATING:		200 AMPS		NEMA:		3R						
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	SURGE	30	2	ON	0	1.00	7800	x	1.00	7800	ON	2	100	6131	2	
3	-	-	-	-	0	1.00	x	7800	1.00	7800	-	-	-	-	4	
5	REC.	15	1	ON	180	1.00	360	x	1.00	180	ON	1	10	(N) 6160 GFI*	6	
7	NEW 6160*	125	2	ON	10800	1.00	x	11000	1.00	200	ON	1	20	(N) SERVICE LIGHT*	8	
9	-	-	-	ON	10800	1.00	10800	x	1.00					SPACE	10	
11	SPACE					1.00	x	0	1.00					SPACE	12	
13	SPACE					1.00	0	x	1.00					SPACE	14	
15	SPACE					1.00	x	0	1.00					SPACE	16	
17	SPACE					1.00	0	x	1.00					SPACE	18	
19	SPACE					1.00	x	0	1.00					SPACE	20	
21	SPACE					1.00	0	x	1.00					SPACE	22	
23	SPACE					1.00	x	0	1.00					SPACE	24	
						VA	18960	18800	VA			TOTAL KVA	37.76			
												AMPS	157.33			

* NEW ADDED LOADS



PLANS PREPARED BY:
CDG
 22431 ANTONIO PKWY
 SUITE B160-131
 RANCHO SANTA MARGARITA CA 92688
 dconnell@connelldesigngroup.com
 949-306-4644

CONSULTING GROUP:

 1511 E. ORANGETHORPE, SUITE D
 FULLERTON, CA 92831

NO.	DATE:	DESCRIPTION:	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:
SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024



SHEET TITLE:
SINGLE LINE DIAGRAM AND PANEL SCHEDULE

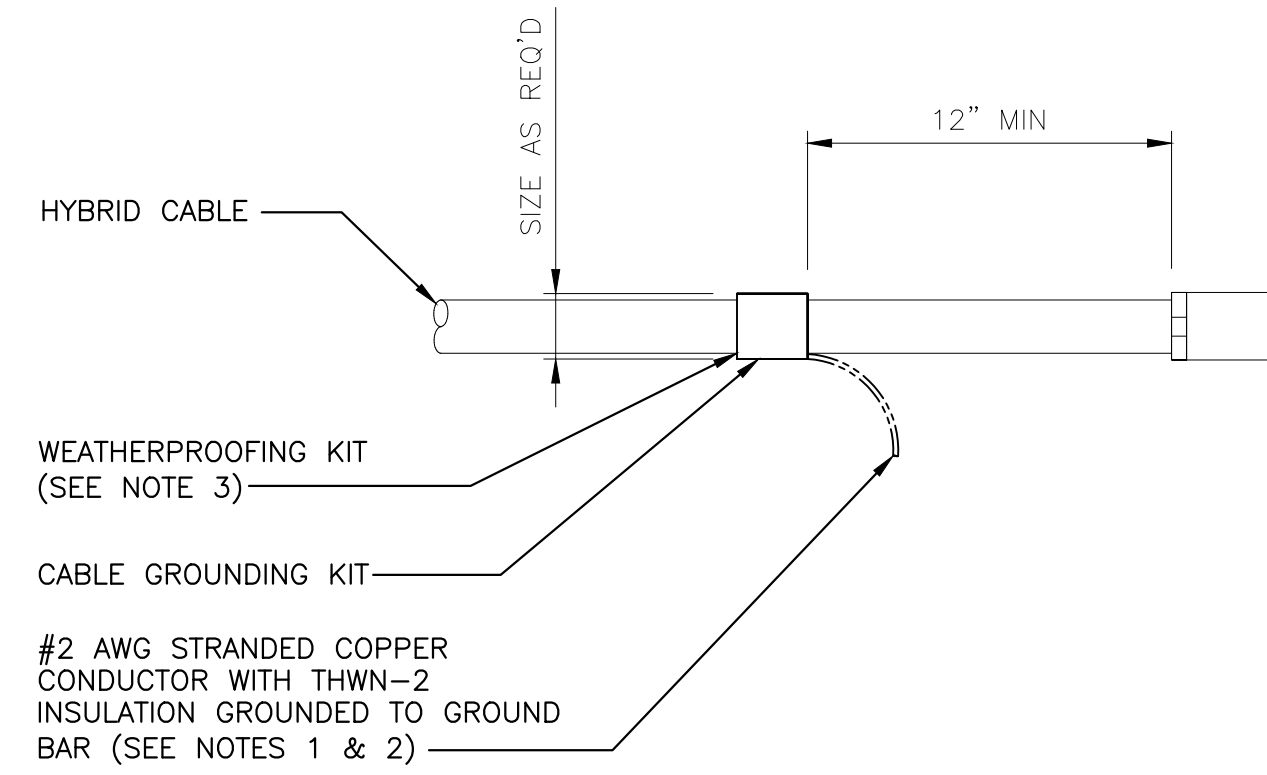
SHEET NUMBER:
E-1

ELECTRICAL NOTES

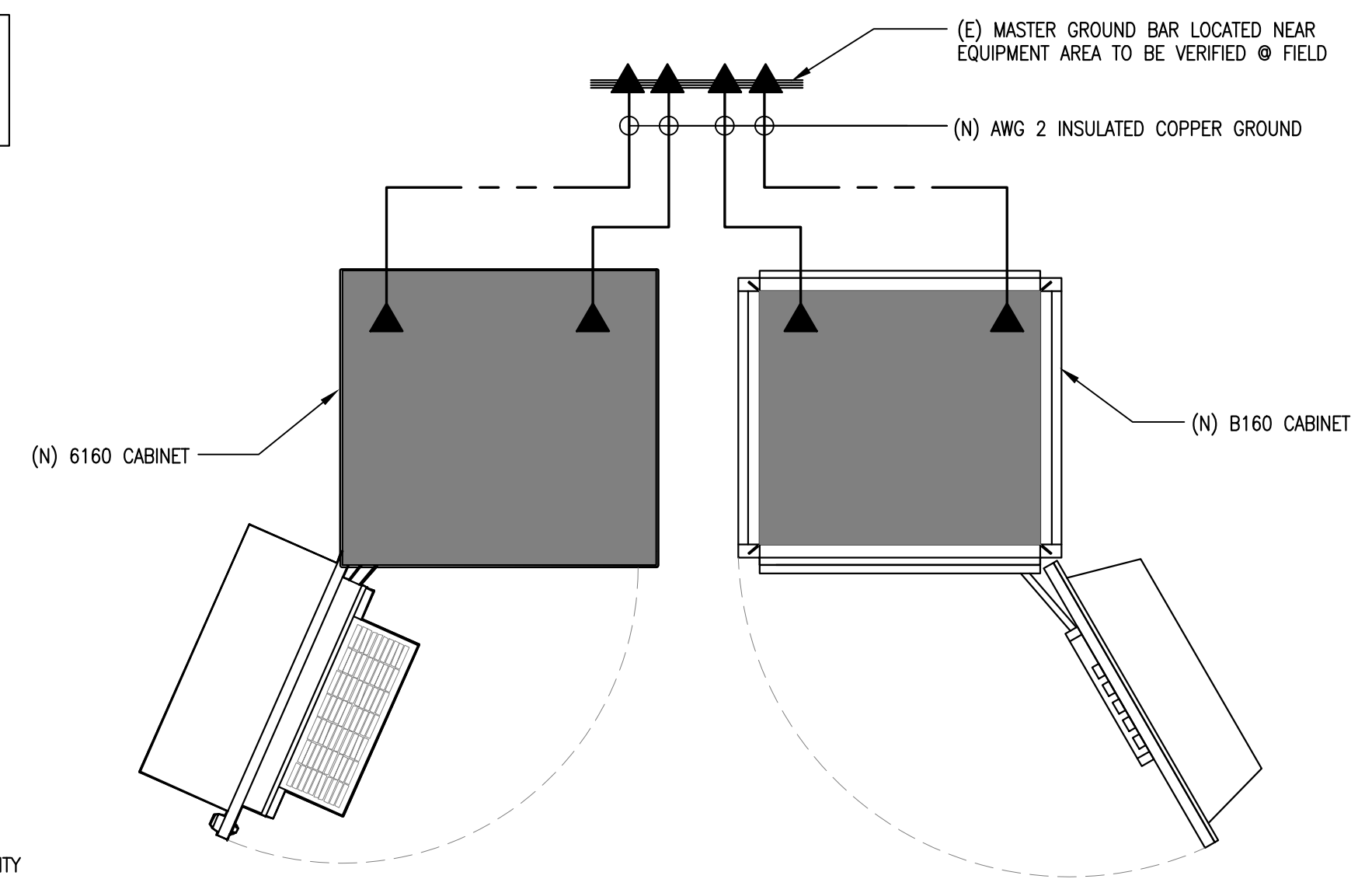
PANEL SCHEDULES

SCALE: 3
 N.T.S.

SCALE: 2
 N.T.S.



SYMBOL LEGEND
 ■ EXOTHERMIC CONNECTION
 ▲ MECHANICAL CONNECTION



- GENERAL NOTES:**
1. PLAN DRAWINGS SHOWN HEREIN ARE DIAGRAMMATIC AND DOES NOT NECESSARILY DEPICT THE EXACT EQUIPMENT QUANTITIES, LOCATION, LAYOUT AND CONFIGURATION. REFER TO ARCHITECTURAL PLANS FOR EXACT EQUIPMENT LOCATION, LAYOUT AND CONFIGURATION.
 2. PLAN DRAWINGS SHOWN HEREIN DO SHOW THE NECESSARILY DEPICT ELECTRICAL REQUIREMENTS OF INDIVIDUAL EQUIPMENT AND DEVICES SUCH AS THE EQUIPMENT GROUNDING REQUIREMENTS, POWER REQUIREMENTS AND TELCO RACEWAY REQUIREMENTS.
 3. REFER TO ARCHITECTURAL PLANS FOR THE LOCATION OF POWER AND TELCO POINT OF CONNECTIONS, THE DISTANCE OF THE RUN AND THE SUGGESTED CONDUIT ROUTING. FIELD VERIFY EXISTING CONDITIONS SPECIFICALLY FOR CONDUIT ROUTING PRIOR TO BID.
 4. CONTRACTOR TO HAVE INSPECTION AND TESTING OF EXISTING GROUNDING SYSTEM (INCLUDING ROOF GROUNDS TO EARTH) TO ENSURE IT MEETS CURRENT STANDARDS.

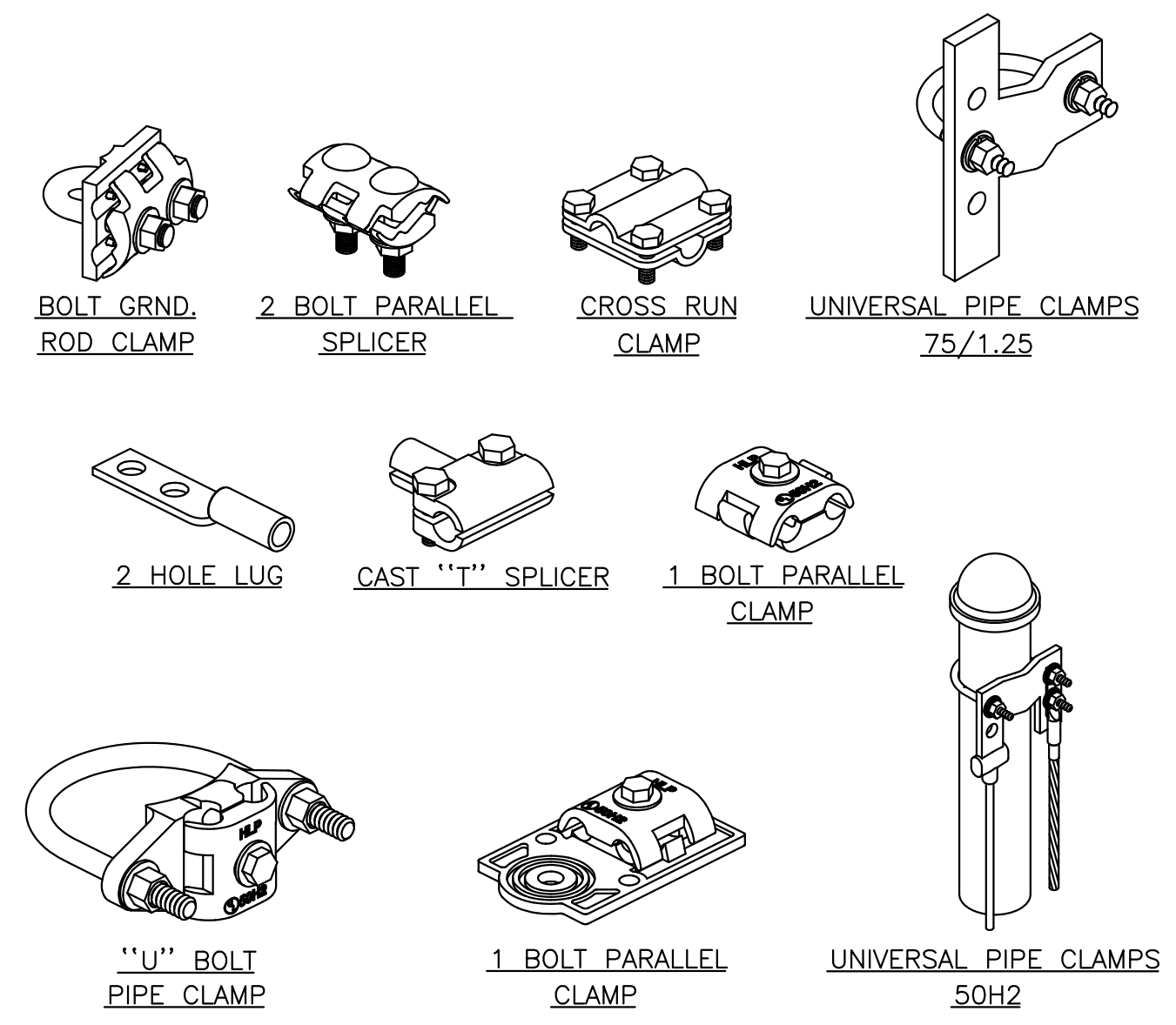
NOTE: (E) GROUND WIRES ARE NOT SHOWN FOR CLARITY

HYBRID CABLE GROUNDING

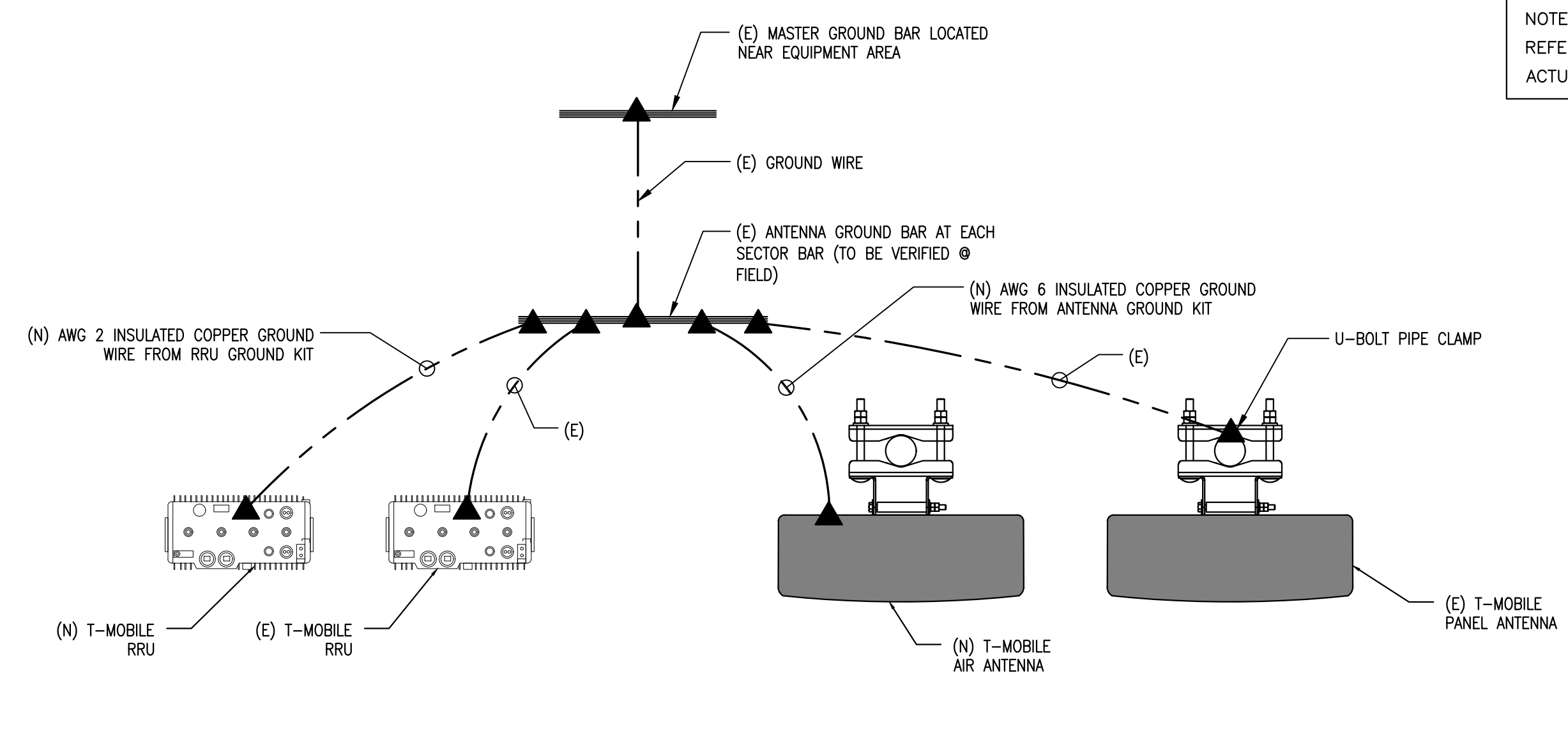
SCALE: N.T.S. **1**

CABINET GROUNDING

SCALE: N.T.S. **3**



SYMBOL LEGEND
 ■ EXOTHERMIC CONNECTION
 ▲ MECHANICAL CONNECTION



NOTE: REFER TO PROPOSED ANTENNA PLAN FOR ACTUAL NUMBER OF ANTENNAS AND RRUS

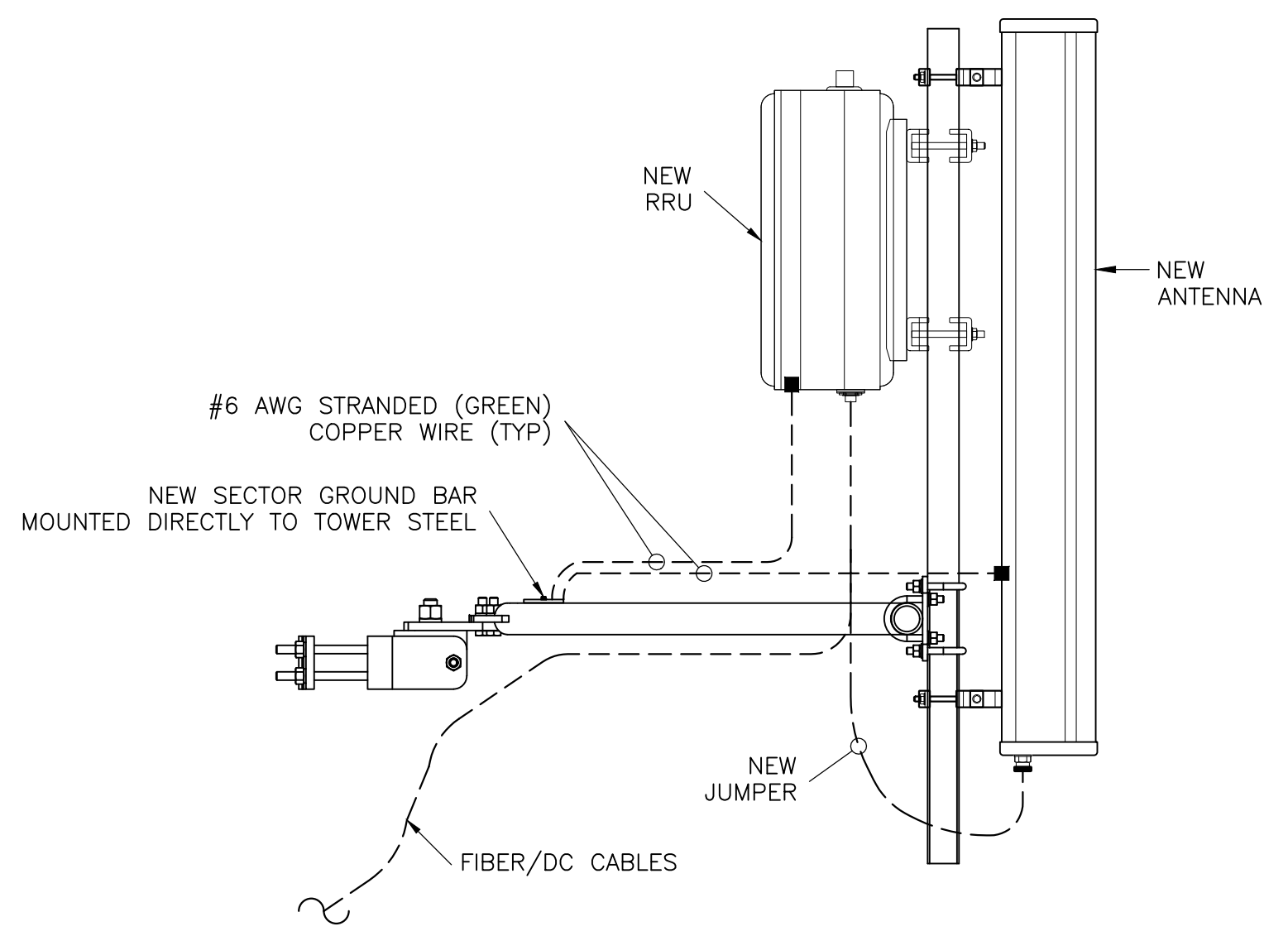
NOTE: (E) GROUND WIRES ARE NOT SHOWN FOR CLARITY

MECHANICAL CONNECTIONS

SCALE: N.T.S. **4**

ANTENNA / RRU GROUNDING

SCALE: N.T.S. **5**



1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #2 GROUND WIRES AND CONNECT TO SURFACE MOUNTED GROUND BUS BARS AS SHOWN. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS USING MANUFACTURER'S PRACTICES. ALL UNDERGROUND WATER PIPES, METAL CONDUITS AND GROUNDS THAT ARE A PART OF THIS SYSTEM SHALL BE BONDED TOGETHER.
3. ALL GROUND CONNECTIONS SHALL BE #2 AWG U.N.O. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 5 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE T-MOBILE REPRESENTATIVE.
5. NOTIFY ARCHITECT/ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
6. BARE GROUNDING CONDUCTOR SHALL BE HARD DRAWN TINNED COPPER SIZES AS NOTED ON PLAN.
7. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 12" BELOW GRADE/FROST-LINE IN TRENCH, U.N.O., AND BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT.
8. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.
9. ALL SUPPORT STRUCTURES, CABLE CHANNEL WAYS OR WIRE GUIDES SHALL BE BONDED TO GROUND SYSTEM AT A POINT NEAREST THE MAIN GROUNDING BUS "MGB" (OR DIRECTLY TO GROUND-RING).
10. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:
 - a. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR INDOOR USE OR AS APPROVED BY T-MOBILE PROJECT MANAGER.
 - b. CADIWELD, EXOTHERMIC WELDS (WELDED CONNECTIONS).
 - c. TWO (2) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS (BUS BAR CONNECTIONS).
11. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIEMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICES).
12. PRIOR TO ANY LUG-BUSSBAR CONNECTIONS, THE BUSSBAR SHALL BE CLEANED BY USE OF "SCOTCH-BRITE" OR PLAIN STEEL WOOL AS TO REMOVE ALL SURFACE OXIDATION AND CONTAMINANTS. A COATING OF "NO-OX-ID" SHALL BE APPLIED TO THE CONNECTION SURFACES.
13. ALL CONNECTION HARDWARE SHALL BE TYPE 316 SS (NOT ATTRACTED TO MAGNETS).
14. THE GROUND RING SHALL BE INSTALLED 24" MINIMUM BEYOND ANY BUILDING DRIP LINE.
15. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250-82 AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT-OFF VALVE.

ANTENNA/RRU GROUNDING FOR REFERENCE

SCALE: N.T.S. **6**

GROUNDING NOTES

SCALE: N.T.S. **8**



PLANS PREPARED BY:

CDG
 22431 ANTONIO PKWY
 SUITE B160-131
 RANCHO SANTA MARGARITA CA 92688
 dconnell@connelldesigngroup.com
 949-306-4644

CONSULTING GROUP:

BUTLER
 America Telecom
 LLC
 1511 E. ORANGETHORPE, SUITE D
 FULLERTON, CA 92831

NO.	DATE	DESCRIPTION	BY:
0	06/12/23	90% CD'S	JPC
1	07/06/23	95% CD'S	DC
2	01/26/24	100% CD'S	DC
3	02/07/24	100% CD'S	DC
4	02/23/24	100% CD'S	DC
5	02/23/24	100% CD'S	DC

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024

SEAL:

SHEET TITLE:

GROUNDING DETAILS

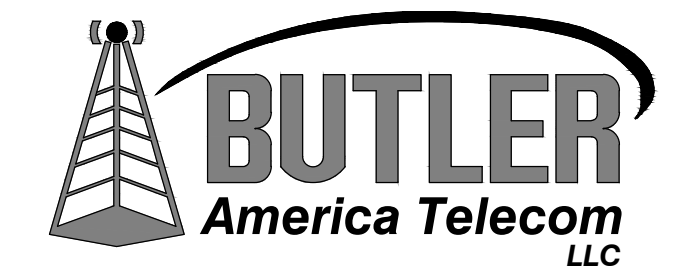
SHEET NUMBER:

E-2

PLANS PREPARED BY:



CONSULTING GROUP:



1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

NO.	DATE:	DESCRIPTION:	BY:
0	12/12/23	FOR REVIEW	MK
1	01/25/24	ADDED MODS	MK

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:



SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

S-1

GENERAL NOTES:

- THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
- ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
- ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
- ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
- ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
- INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT LADERA ENGINEERING GROUP IF ANY DISCREPANCIES EXIST.

STEEL CONSTRUCTION NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 15TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
- ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
- ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
- ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
- ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
- ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT T22, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY 270, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HIT-HY 200 V3, U.N.O.
 - CONCRETE REBAR: ADHESIVE - HIT-RE 500 V3, U.N.O.
- ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
- BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
- MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
- REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

WOOD CONSTRUCTION NOTES:

- ALL EXISTING WOOD SHAPES ARE ASSUMED TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN.
- ALL PROPOSED WOOD SHAPES ARE TO BE DOUGLAS FIR-LARCH WITH A REFERENCE DESIGN BENDING VALUE OF 1000 PSI MIN. U.N.O.
- ALL EXISTING AND PROPOSED GLUED LAMINATED TIMBERS ARE TO BE 24F-1.8C DOUGLAS FIR BALANCED WITH A REFERENCE DESIGN BENDING VALUE OF 2400 PSI MIN. U.N.O.

FIBER REINFORCED POLYMER (FRP) NOTES:

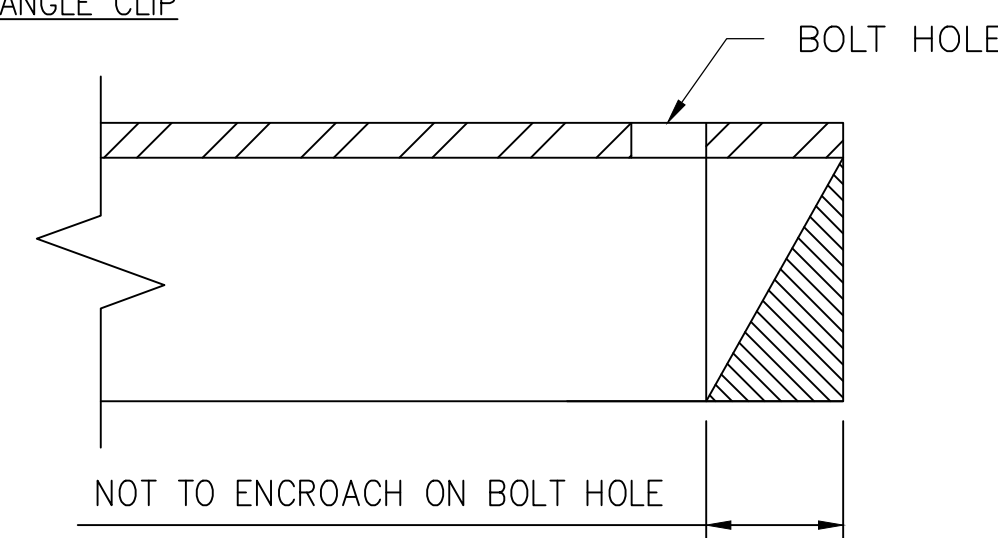
- FRP PLATES, SHAPES, BOLTS AND NUTS (STUD/NUT ASSEMBLIES) SHALL CONFORM TO ASTM D638, 695, 790. PLATES AND SHAPES TO BE Fy = 5.35 KSI LW (SAFETY FACTOR OF 8), .945 KSI CW (SAFETY FACTOR OF 8) MIN.
- IF FIELD FABRICATION IS REQUIRED, ALL CUT EDGES AND DRILLED HOLES TO BE SEALED USING VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
- ALL FASTENERS TO BE 1/2" DIA FRP THREADED ROD WITH FIBER REINFORCED THERMOPLASTIC NUT, SPACED AT 12 INCHES ON CENTER MAXIMUM, U.N.O., FOR PANELS AND AS DESIGNED FOR STRUCTURAL MEMBERS.
- THE COLOR AND SURFACE PATTERN OF EXPOSED FRP PANELS SHALL MATCH THE EXTERIOR OF THE EXISTING BUILDING, U.N.O.
- STUD/NUT ASSEMBLIES SHOULD BE LUBRICATED FOR INSTALLATION
- ENSURE BEARING SURFACES OF THE NUTS ARE PARALLEL TO THE SURFACES BEING FASTENED.
- TORQUE BOLTS ACCORDING TO THE FOLLOWING TABLE:

SIZE	ULTIMATE TORQUE STRENGTH	RECOMMENDED MAXIMUM INSTALLATION TORQUE
3/8-16 UNC	8 FT-LBS	4 FT-LBS
1/2-13 UNC	18 FT-LBS	8 FT-LBS
5/8-11 UNC	35 FT-LBS	16 FT-LBS
3/4-10 UNC	50 FT-LBS	24 FT-LBS
1-8 UNC	110 FT-LBS	50 FT-LBS

- WHEN TIGHTENING FRP STUD/NUT ASSEMBLIES, WRENCHES MUST MAKE FULL CONTACT WITH ALL NUT EDGES. A STANDARD SIX POINT SOCKET IS RECOMMENDED.
- STUD/NUT ASSEMBLIES SHOULD BE BONDED BY APPLYING BONDING AGENT TO ENTIRE NUT AND EXPOSED STUD.
- ALL FRP MATERIALS TO BE PROVIDED BY FIBERGRATE COMPOSITE STRUCTURES, DALLAS TX, OR APPROVED EQUAL.
- ALL FRP SHAPES TO BE DYNAFORM PULTRUDED STRUCTURAL SHAPES.
- ALL FRP PLATES TO BE FIBERPLATE MOLDED FRP PLATE.
- ALL FRP PANELS TO BE FIBERPLATE CLADDING PANEL.
- EACH FRP PANEL TO BE IDENTIFIED WITH LARR#25536 AND FIBERGRATE COMPOSITE STRUCTURAL LABEL.
- FRP MATERIAL TO BE CLASSIFIED AS CC1 OR BETTER, AND HAVE MAXIMUM FLAME SPREAD OF 50.
- ALL DESIGN AND CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH LOS ANGELES RESEARCH REPORT RR25536, DATED FEBRUARY 1, 2024.
- SPECIAL INSPECTIONS MUST BE PROVIDED FOR ALL FRP INSTALLMENTS. SEE SPECIAL INSPECTION SECTION, THIS SHEET.

	RANGE	RECOMMENDED
EDGE DISTANCE - CL* BOLT TO END	2.0-4.0	3.0
EDGE DISTANCE - CL* BOLT TO SIDE	1.5-3.5	2.5
BOLT PITCH - CL* TO CL*	4.0-5.0	5.0

MAXIMUM ALLOWABLE ANGLE CLIP



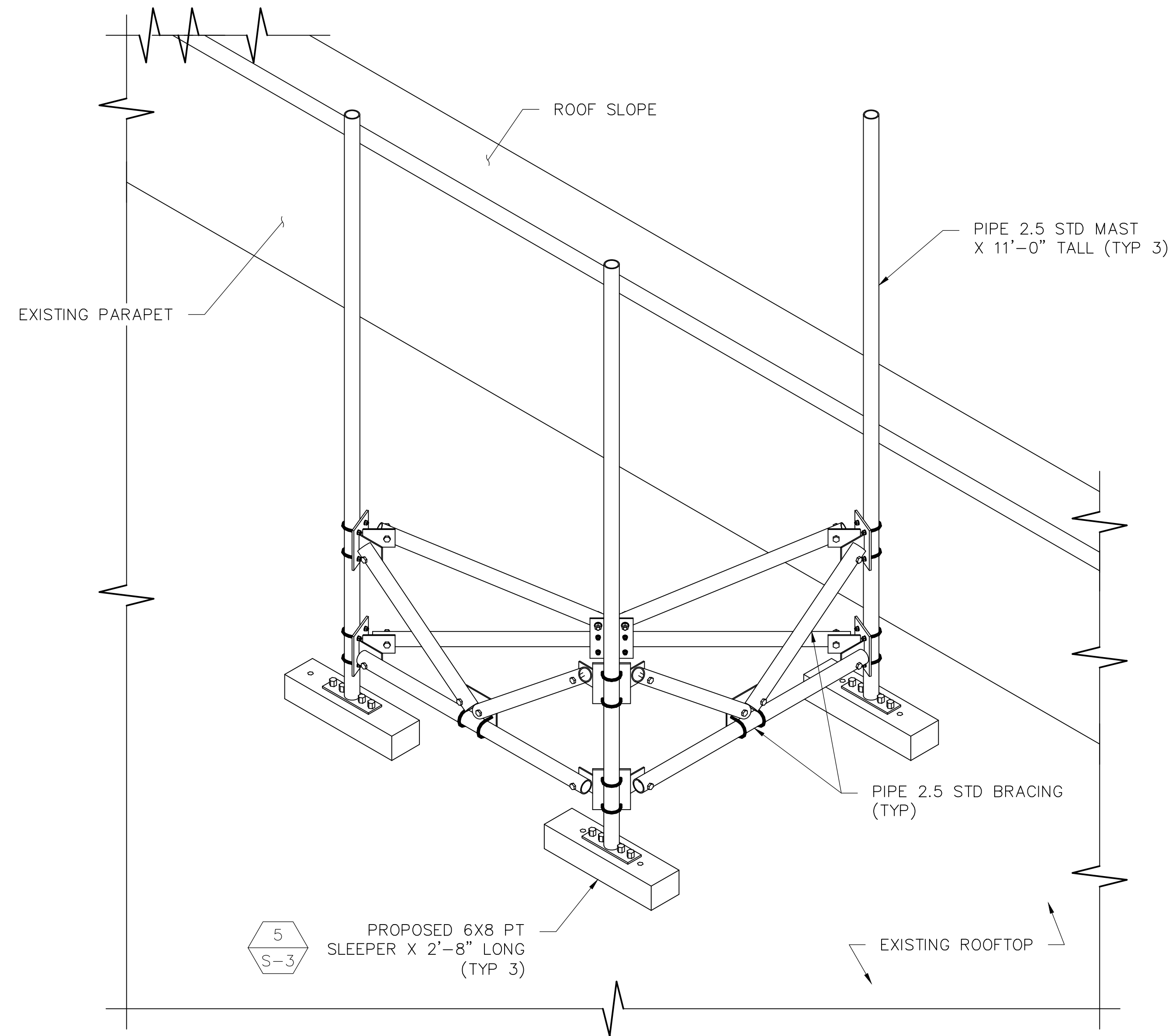
SPECIAL INSPECTIONS NOTES:

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

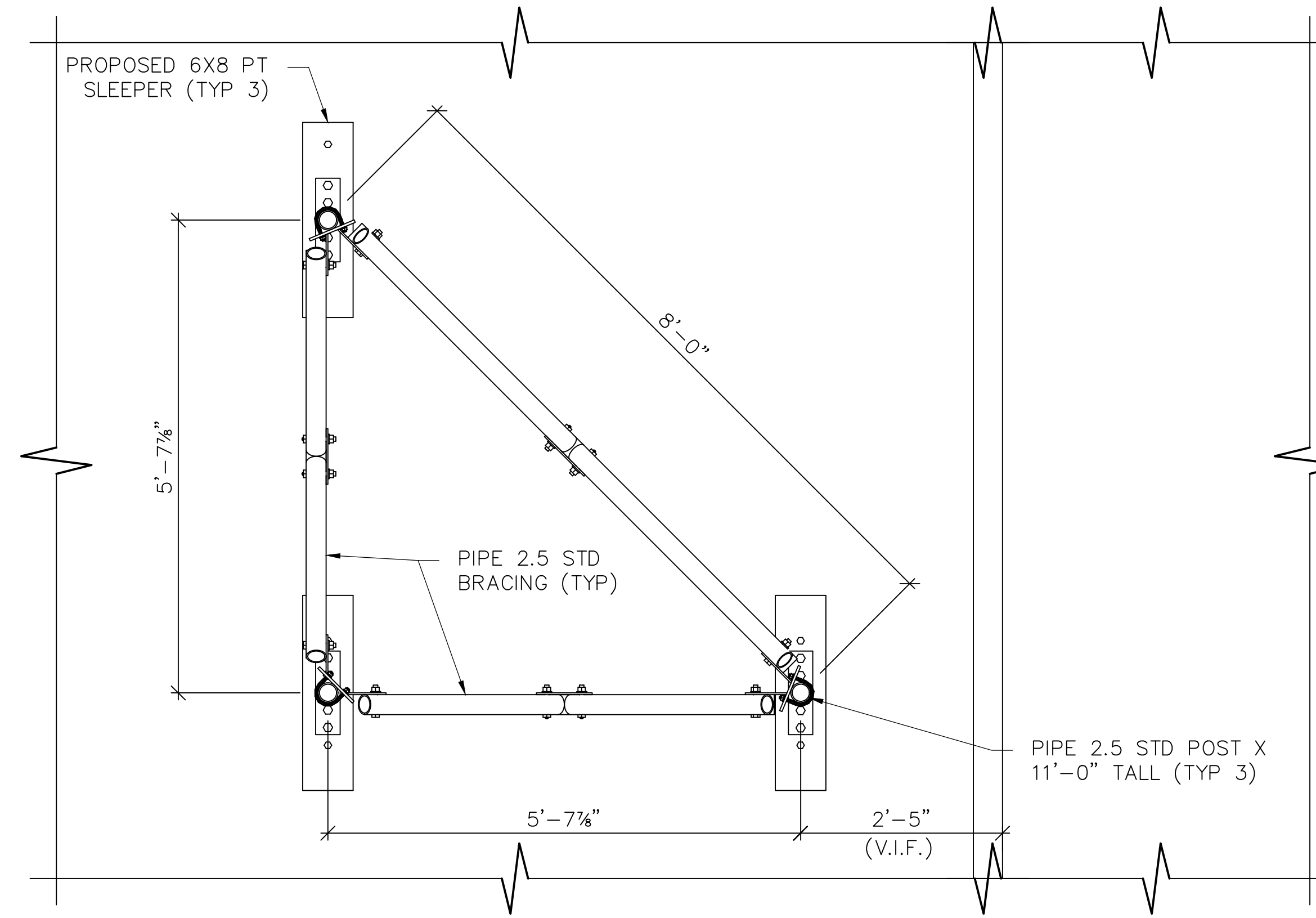
ROOFTOP NOTES:

- GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SHORING, BRACING, PROVIDING LATERAL SUPPORT, AND FOR MAINTAINING THE INTEGRITY OF THE EXISTING STRUCTURE AND ROOFING MEMBRANE DURING ALL PHASES OF THE CONSTRUCTION.
- ROOF PITCH POCKET, IF USED, ARE TO BE FILLED, SEALED AND MAINTAINED WITH FLEXIBLE MATERIAL TO BE COMPATIBLE WITH EXISTING ROOFING MATERIAL AND ABLE TO ACCOMMODATE LATERAL DISPLACEMENT OF 1/4 INCH MAXIMUM IN EACH DIRECTION.
- IF REQUIRED, THE GENERAL CONTRACTOR SHALL USE THE BUILDING OWNER'S APPROVED ROOFING CONTRACTOR TO PREVENT VOIDING ANY EXISTING ROOFING WARRANTIES. ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPAIRED IMMEDIATELY TO AVOID MOISTURE INTRUSION IN THE BUILDING SHELL.
- AVOID ANY PENETRATION OF EXISTING ROOF SLAB, UNO.
- NO STAGING OF MATERIALS AND EQUIPMENT IS PERMITTED ON THE ROOF.
- THE LOCATION OF EXISTING BUILDING ROOF, PENTHOUSE WALLS, PENTHOUSE SLABS AND NEW EQUIPMENT SHOWN IN THESE DRAWINGS ARE NOT EXACT AND ARE NOT BASED ON SURVEYED INFORMATION. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY FIELD MEASUREMENT PRIOR TO ORDERING ANY MATERIAL FOR THIS PROJECT.
- ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES, DONE TO ANY EXISTING ROOFING SURFACE SHALL BE REPAIRED TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL VERIFY THE LOAD GENERATED FROM THE EQUIPMENT IS DIRECTLY TRANSFERRED THROUGH BEARING WALLS OR COLUMNS TO THE FOUNDATION OF THE BUILDING. THE ENGINEER SHALL BE NOTIFIED IF THIS CRITERIA IS NOT MET.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY FALL PROTECTION MEASURES IN THE VICINITY OF THE WORK.
- THE SHELTER AND/OR EQUIPMENT SHALL BE PAINTED TO THE MATCH EXISTING BUILDING COLOR IF THIS IS REQUIRED BY THE BUILDING OWNER.
- SUBMIT FOR APPROVAL A LIST OF THE PROCEDURES PROPOSED TO PROTECT EXISTING ELEVATOR FROM HARM DURING USE. PROTECT CAB, ENTRANCES AND ADJACENT SURFACES FROM DAMAGE. DO NOT OVERLOAD ELEVATOR. MAINTAIN ELEVATOR DURING USE AND RETURN OT ORIGINAL CONDITION AT COMPLETION.
- CONSTRUCTION PERSONNEL MAY USE EXISTING STAIRS AND CORRIDORS FOR CONSTRUCTION PURPOSES. PROTECT STAIR AND ACCESS WAYS AND RETURN TO ORIGINAL CONDITION AT COMPLETION. COORDINATE WITH BUILDING MANAGEMENT FOR USE OF WASHROOM FACILITY.
- PROVIDE PROPER TEMPORARY PROTECTION OF HIGH TRAFFIC AREAS.

PANEL ANTENNAS AND
RADIO UNITS ARE NOT
SHOWN FOR CLARITY



1 ISOMETRIC VIEW
SCALE: NOT TO SCALE



2 PLAN VIEW
SCALE: NOT TO SCALE NORTH

T-Mobile

PLANS PREPARED BY:



CONSULTING GROUP:



NO.	DATE:	DESCRIPTION:	BY:
0	12/12/23	FOR REVIEW	MK
1	01/25/24	ADDED MODS	MK

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:



SHEET TITLE:

**ISOMETRIC
& PLAN VIEWS**

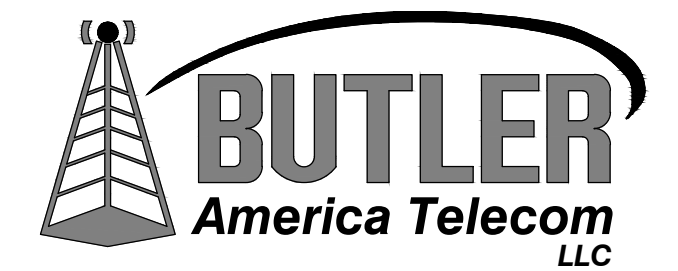
SHEET NUMBER:

S-2

PLANS PREPARED BY:

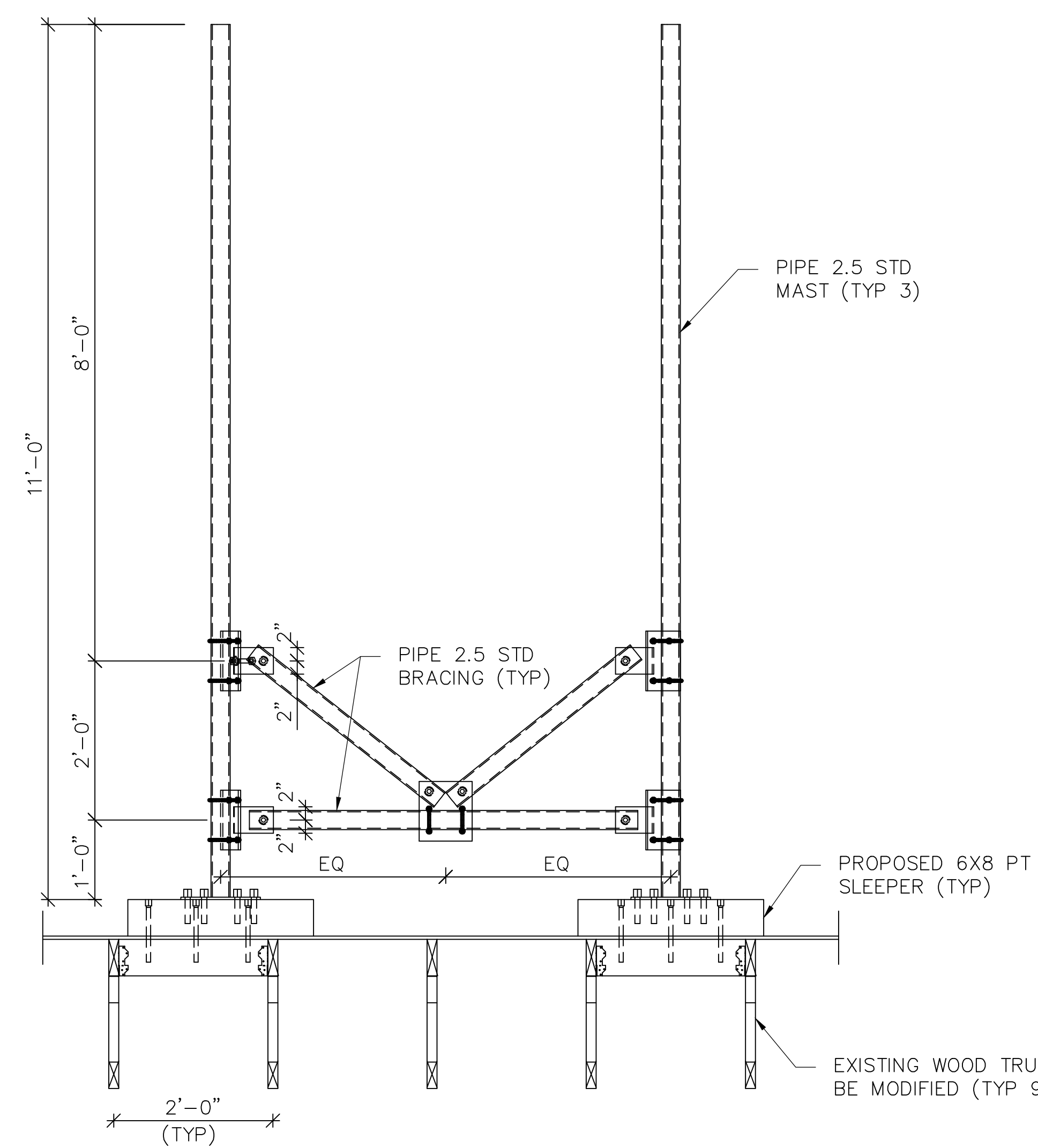


CONSULTING GROUP:

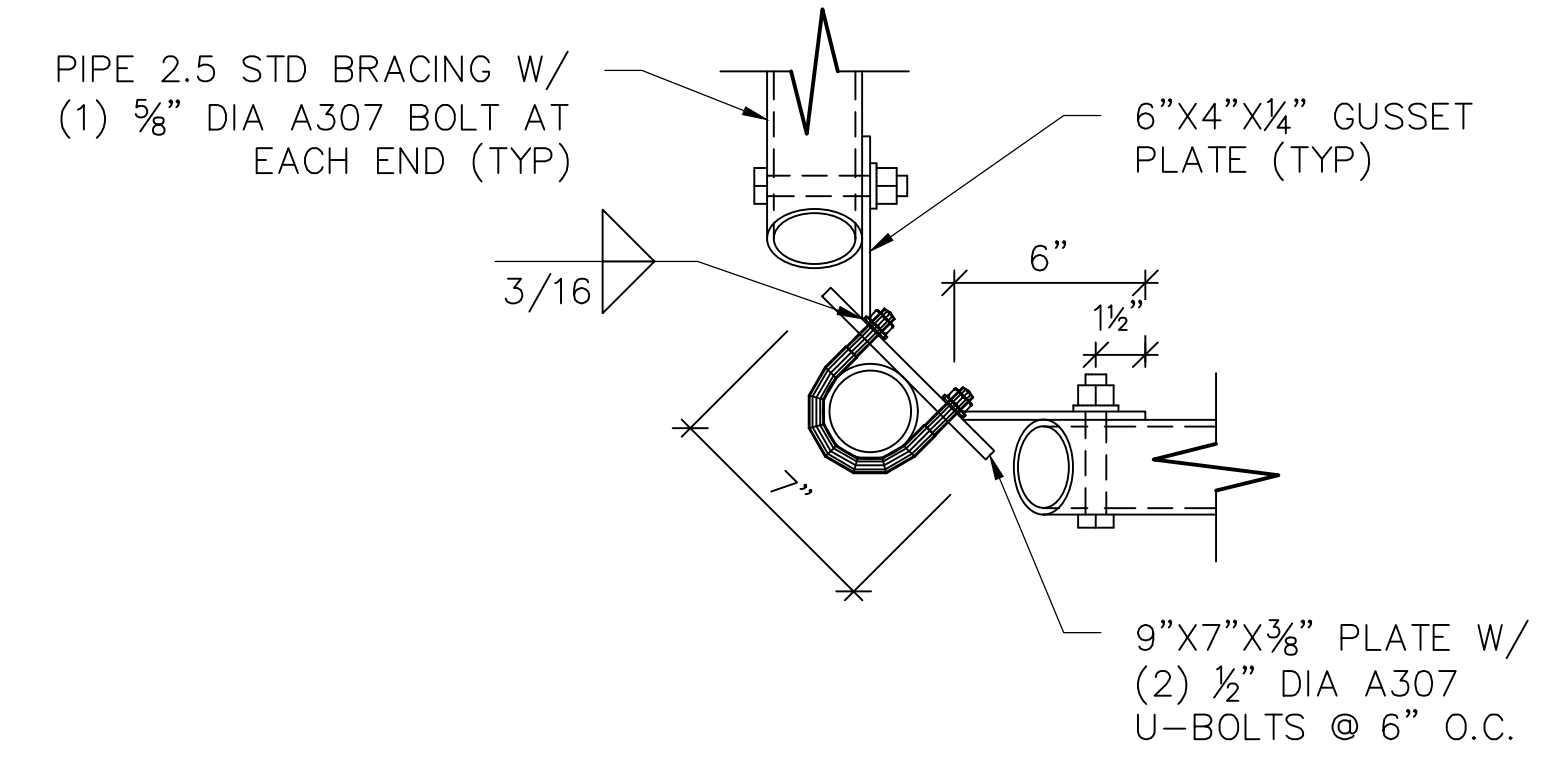


1511 E. ORANGETHORPE, SUITE D
FULLERTON, CA 92831

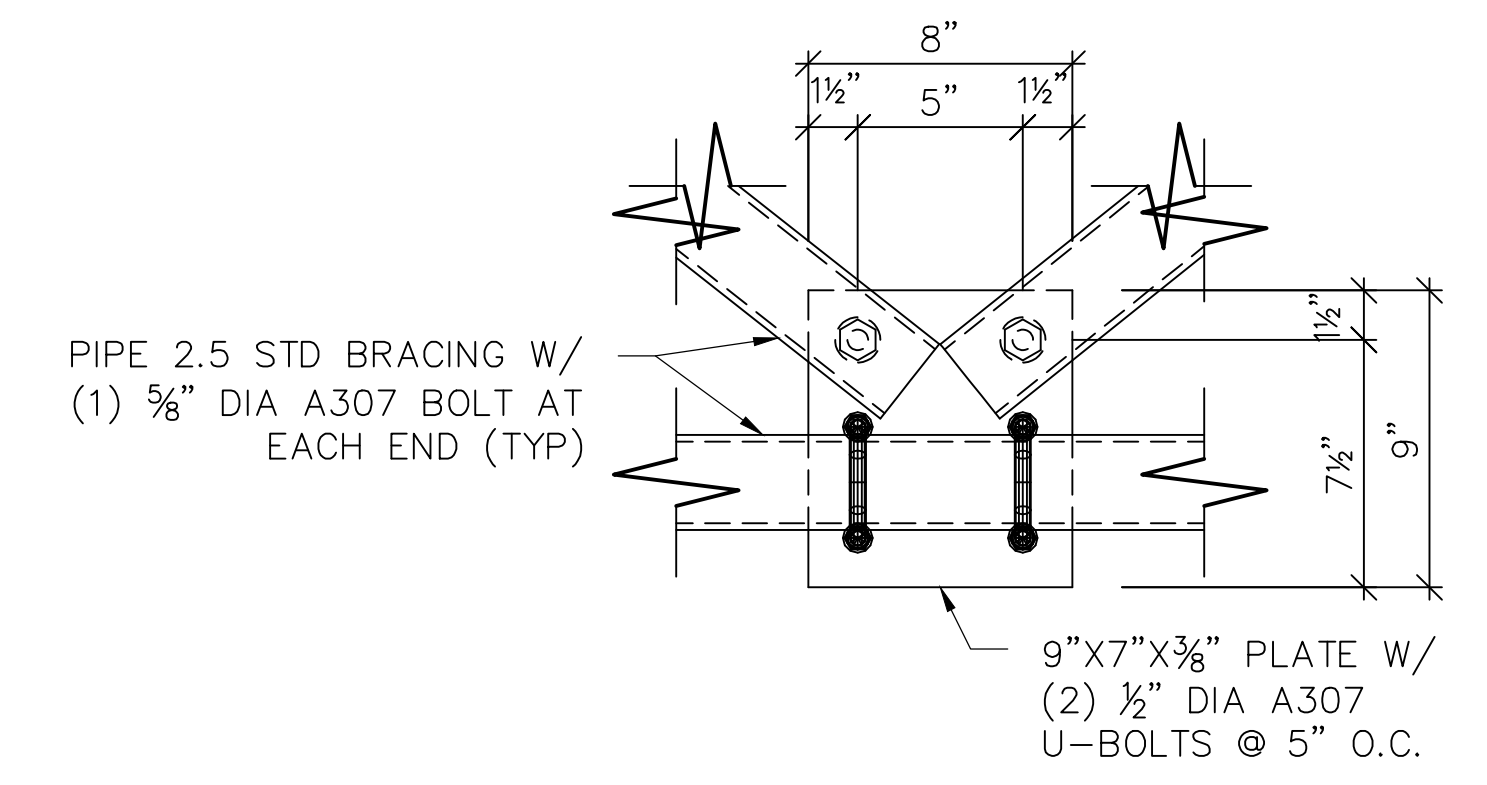
NO.	DATE:	DESCRIPTION:	BY:
0	12/12/23	FOR REVIEW	MK
1	01/25/24	ADDED MODS	MK



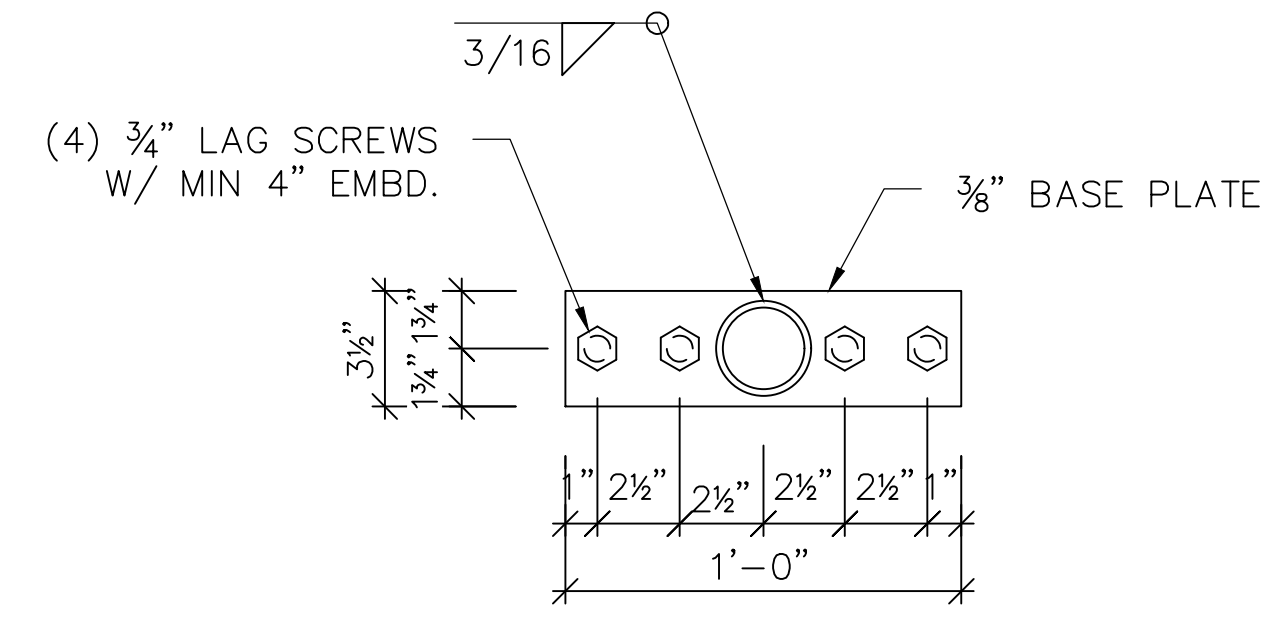
1 ELEVATION VIEW
SCALE: NOT TO SCALE



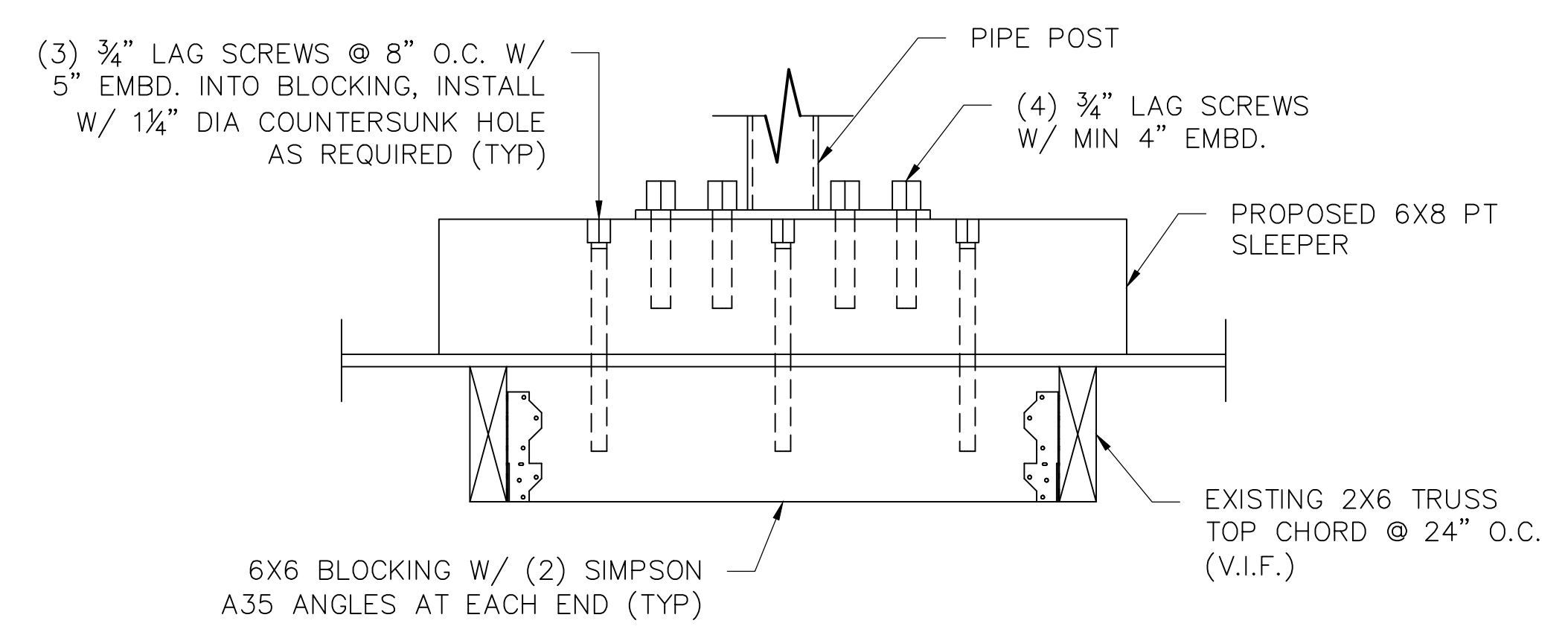
2 PIPE BRACING TO POST CONNECTION
SCALE: NOT TO SCALE



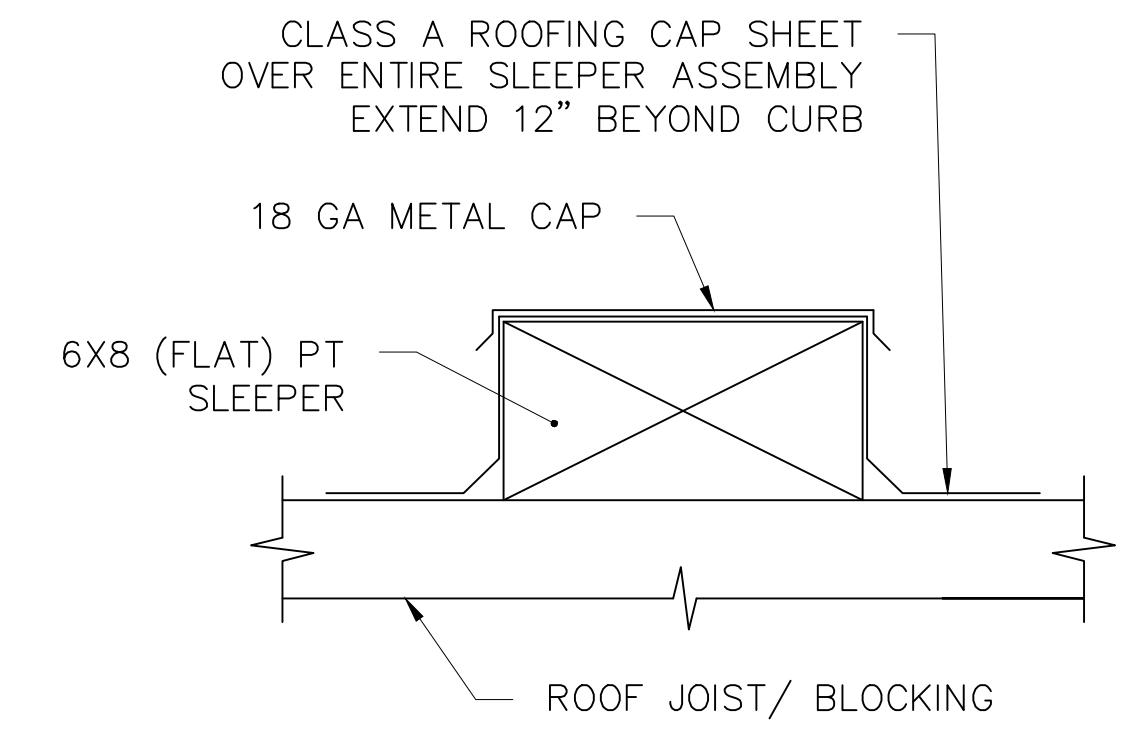
3 PIPE BRACING CONNECTION
SCALE: NOT TO SCALE



4 PIPE POST BASE PLATE
SCALE: NOT TO SCALE



5 SLEEPER DETAIL
SCALE: NOT TO SCALE



6 TYPICAL WATERPROOFING DETAIL
SCALE: NOT TO SCALE

GC TO PROVIDE PROPER FLASHING WITH SEALER AROUND THE NEW SLEEPER TO ROOF CONNECTIONS TO ENSURE WATERPROOFING CONNECTIONS

SITE INFORMATION:

SF04650A
SF650 GRANT ROAD
2055 GRANT ROAD
LOS ALTOS, CA 94024

SEAL:



SHEET TITLE:


ELEVATION VIEW & DETAILS

SHEET NUMBER:

S-3

NO.	DATE:	DESCRIPTION:	BY:
0	12/12/23	FOR REVIEW	MK
1	01/25/24	ADDED MODS	MK

SITE INFORMATION:
SF04650A
SF650 GRANT ROAD
 2055 GRANT ROAD
 LOS ALTOS, CA 94024

SEAL:

 KEVIN CHRISTIAN
 C 87584
 CIVIL
 STATE OF CALIFORNIA
 01/20/2024
 Exp. 01/21/2025

SHEET TITLE:
PLAN VIEW, SECTION VIEW & DETAIL

SHEET NUMBER:
S-4

