

T-Mobile

T-MOBILE SITE NUMBER: BA20403A
T-MOBILE SITE NAME: SKOFF TRUCKING/CINGULAR
SITE TYPE: MONOPOLE
TOWER HEIGHT: 78'-0"

BUSINESS UNIT #: 856199
SITE ADDRESS: 1 CASA GRANDE ROAD
 PETALUMA, CA 94954
COUNTY: SONOMA
JURISDICTION: CITY OF PENTALUMA

T-Mobile
 1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE
 200 SPECTRUM CENTER DRIVE,
 SUITE 1700 & 1800
 IRVINE, CA 92618

TELCYTE
 INFRASTRUCTURE SERVICES
 3450 N HIGLEY RD - SUITE 102,
 MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A
 BU #: 856199
 1 CASA GRANDE ROAD
 PETALUMA, CA 94954
 EXISTING 78'-0" MONOPOLE

ANCHOR

SITE INFORMATION

CROWN CASTLE USA INC.
 SITE NAME: HWY 101 - LAKEVILLE

SITE ADDRESS: 1 CASA GRANDE ROAD
 PETALUMA, CA 94954

COUNTY: SONOMA

MAP/PARCEL #: 005-050-037

AREA OF CONSTRUCTION: EXISTING

LATITUDE: 38°13'54.0"N (38.231667)

LONGITUDE: 122°36'30.9"W (-122.608583)

LAT/LONG TYPE: NAD83

GROUND ELEVATION: 7'-7"

CURRENT ZONING: MU1B

JURISDICTION: CITY OF PENTALUMA

OCCUPANCY CLASSIFICATION: U

TYPE OF CONSTRUCTION: IIB

A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

PROPERTY OWNER: PETALUMA UNITED GROUP LLC
 3809 STONY POINT ROAD
 SANTA ROSA, CA 95407

TOWER OWNER: CCTMI LLC
 ONE PARK PLACE, SUITE 300,
 DUBLIN, CA 94568

CARRIER/APPLICANT: T-MOBILE
 1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE USA INC.
 APPLICATION ID: 578187

ELECTRIC PROVIDER: N/A

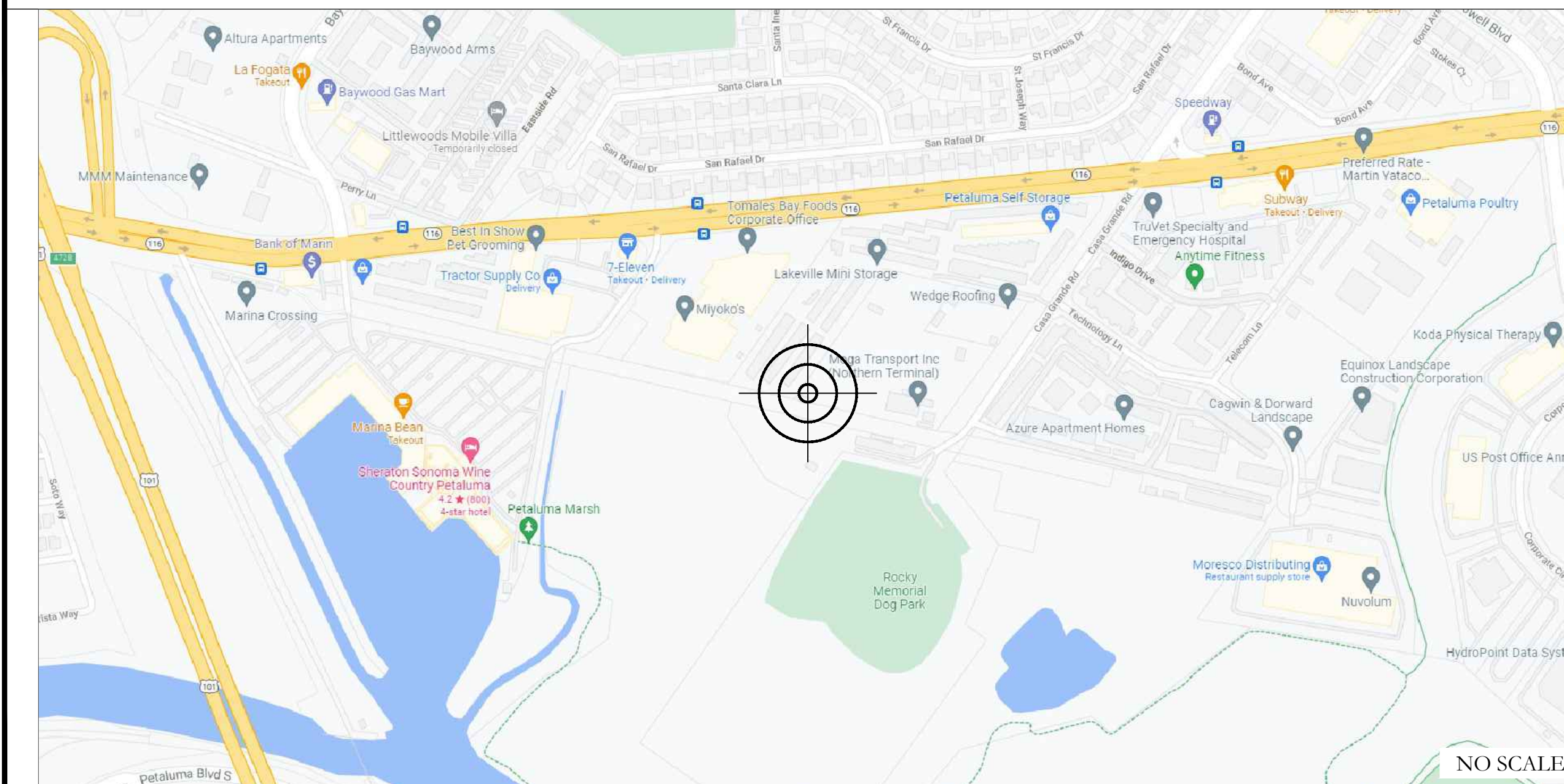
TELCO PROVIDER: N/A

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.0	SITE PLAN
C-2.1	EXISTING EQUIPMENT PLAN
C-2.2	FINAL EQUIPMENT PLAN
C-3	ELEVATIONS
C-4	ELEVATIONS
C-5	ELEVATIONS
C-6	ELEVATIONS
C-7	ANTENNA PLAN, MOUNTING DETAILS, & SCHEDULE
C-8	EQUIPMENT SPECIFICATIONS
C-9	EQUIPMENT SPECIFICATIONS
C-10/12/13	EQUIPMENT TO REMAIN SPECIFICATIONS
C-11	EQUIPMENT TO BE REMOVED SPECIFICATIONS
E-1	AC PANEL SCHEDULE & ONE-LINE DIAGRAM
G-1	ANTENNA/GROUND EQUIPMENT GROUNDING DETAILS
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAP



PROJECT TEAM

A&E FIRM: TELCYTE INFRASTRUCTURE SERVICES
 3450 N HIGLEY RD, SUITE 102
 MESA, AZ 85215
 CWOLFE@TELCYTE.COM

CROWN CASTLE USA INC. DISTRICT CONTACTS:
 3530 TORINGDON WAY, SUITE 300
 CHARLOTTE, NC 28277

PATRICE TIPTON - PROJECT MANAGER
 (949) 930-4350

GARY HORACE - CONSTRUCTION MANAGER
 (661) 330-3745

LAURA MANSFIELD - A&E SPECIALIST
 LAURA.MANSFIELD@CROWNCastle.COM
 (925) 737-1047

T-MOBILE CONTACT: MICHELLE STEFFLER
 MICHELLE.STEFFLER@T-MOBILE.COM

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

	PRINT NAME	SIGNATURE	DATE
PROJECT MANAGER			
CONST. PM			
RF ENGINEER			
SAC REP.			
PLAN CONSULTANT			
PROP. OWNER			
T-MOBILE REP.			

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

APPLICABLE CODES/ REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS 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 CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2019 CALIFORNIA BUILDING CODE (CBC)/2018 IBC
MECHANICAL	2019 CALIFORNIA MECHANICAL CODE (CMC)/2018 UMC
ELECTRICAL	2019 CALIFORNIA ELECTRICAL CODE (CEC)/2017 NEC

REFERENCE DOCUMENTS:
 STRUCTURAL ANALYSIS: T.B.D
 T.B.D
 MOUNT ANALYSIS: B+T GROUP
 10/05/2021

NOTE:
 PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER



CALL CALIFORNIA ONE CALL
 (800) 227-2600
 CALL 3 WORKING DAYS
 BEFORE YOU DIG!



PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

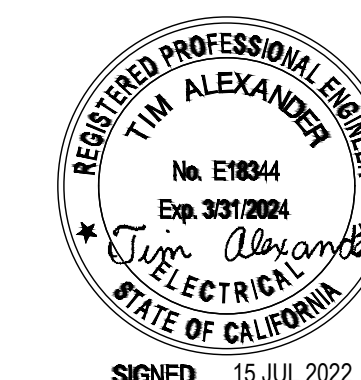
- TOWER SCOPE OF WORK**
- REMOVE (3) RFS - APX16DWV-16DWV-S-E-A20 ANTENNAS
 - REMOVE (3) RFS - ATMAA1412D-1A20 TMAS
 - REMOVE (3) RFS - ATM1900D-1A20 TMAS
 - REMOVE (3) TRX RRHS
 - REMOVE (12) COAX CABLES
 - INSTALL (3) ERICSSON - AIR6449 B41 ANTENNAS
 - INSTALL (6) RRUS
 - INSTALL (2) 6X24 4AWG HCS 30M

- GROUND SCOPE OF WORK**
- REMOVE (6) RUS01 B2
 - REMOVE (6) RUS01 B4
 - REMOVE (3) RRUS11 B12
 - INSTALL (1) ENCLOSURE 6160 CABINET W/ (1) BB 6648 & (1) PSU 4813
 - INSTALL (1) B160 BATTERY CABINET
 - INSTALL (1) PSU 4813 IN (E) RBS 6102 CABINET

CONFIG: 67D5A998E OUTDOOR
 DESIGN PACKAGE BASED ON THE RFDS
 REVISION: 8
 DATE: 09/07/2021
 DESIGN PACKAGE BASED ON THE APPLICATION
 ID: 578187
 REVISION: 0

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



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

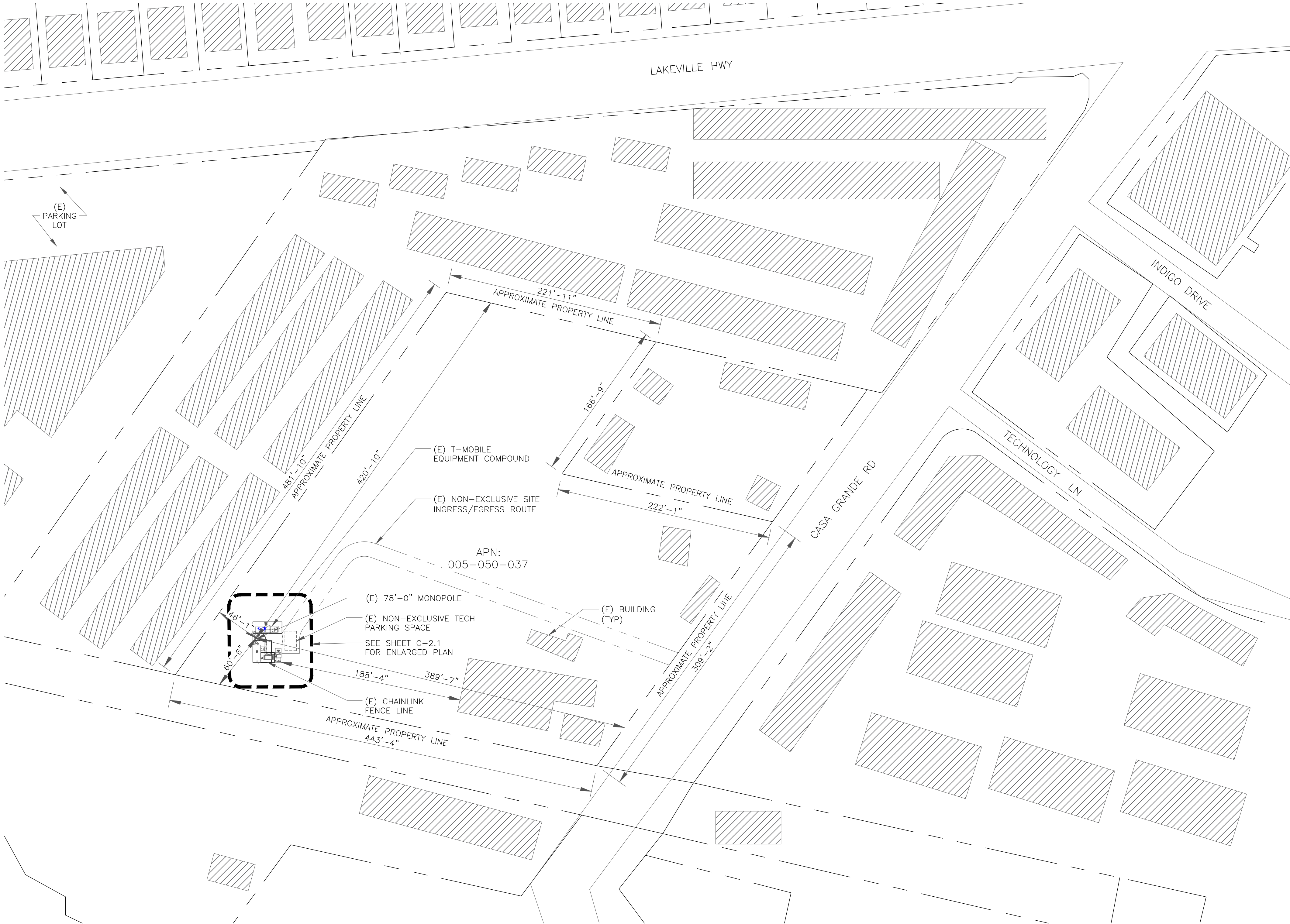
SHEET NUMBER:

T-1

REVISION:

4

NOTE:
 T-MOBILE OR ITS DESIGNERS SHALL REMOVE THE ANTENNAS AND ALL RELATED COMMUNICATION EQUIPMENT FROM THE SUBJECT PROPERTY WITHIN SIX MONTHS OF DETERMINATION BY THE DEPARTMENT DIRECTOR THAT THE PROPOSED FACILITIES ARE NO LONGER NEEDED, OR UTILIZED IN THE MANNER APPROVED BY THIS CONDITIONAL USE PERMIT.



1 SITE PLAN
 SCALE: 1" = 60'-0" (FULL SIZE)
 1" = 120'-0" (11x17)

T-Mobile
 1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE
 200 SPECTRUM CENTER DRIVE,
 SUITE 1700 & 1800
 IRVINE, CA 92618

TELCYTE
 INFRASTRUCTURE SERVICES
 3450 N HIGLEY RD - SUITE 102,
 MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
 PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW

REGISTERED PROFESSIONAL ENGINEER
 TIM ALEXANDER
 No. E18344
 Exp. 3/31/2024
 State of California
 ELECTRICIAN
 SIGNED: 15 JUL 2022

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

SHEET NUMBER: **C-1.0** REVISION: **4**

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



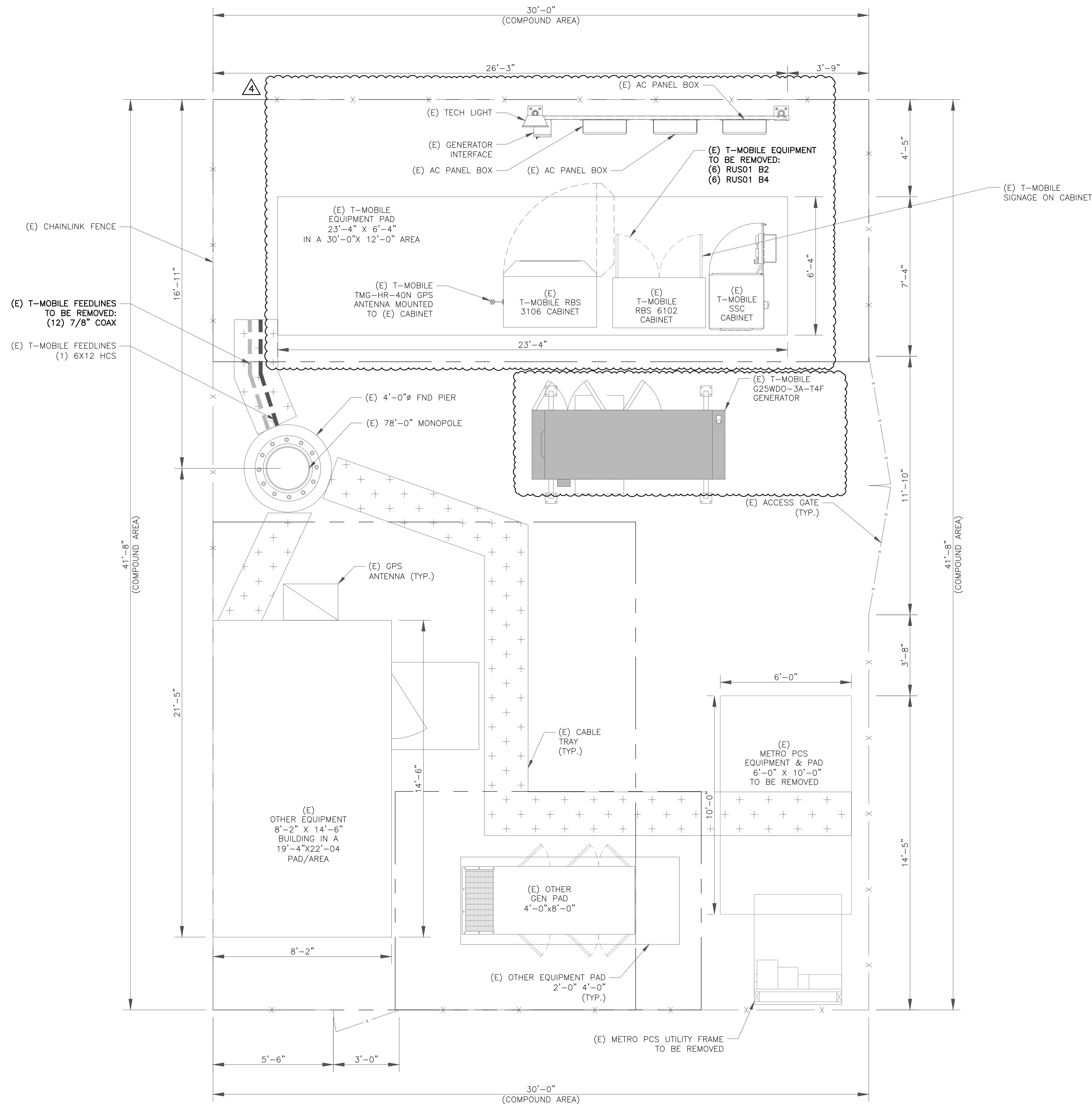
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-2.1

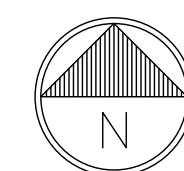
REVISION:

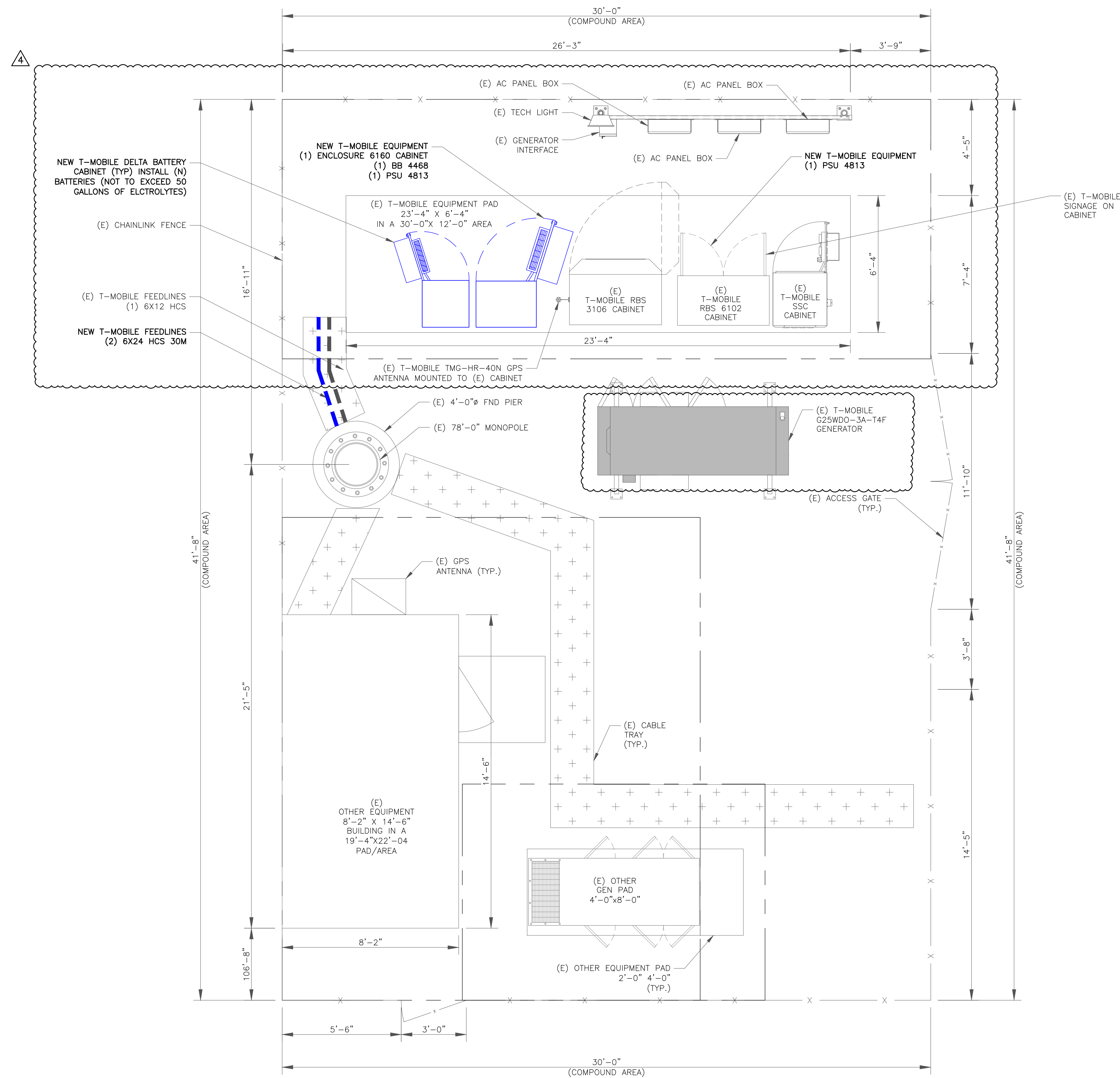
4



1 EXISTING EQUIPMENT PLAN

SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (11x17)





T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

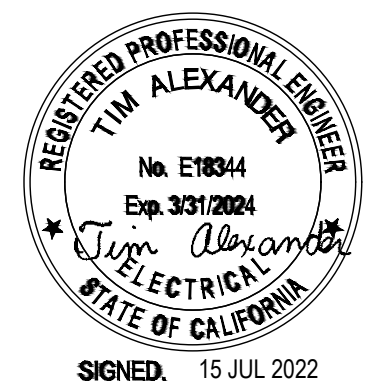
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



SIGNED, 15 JUL 2022

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

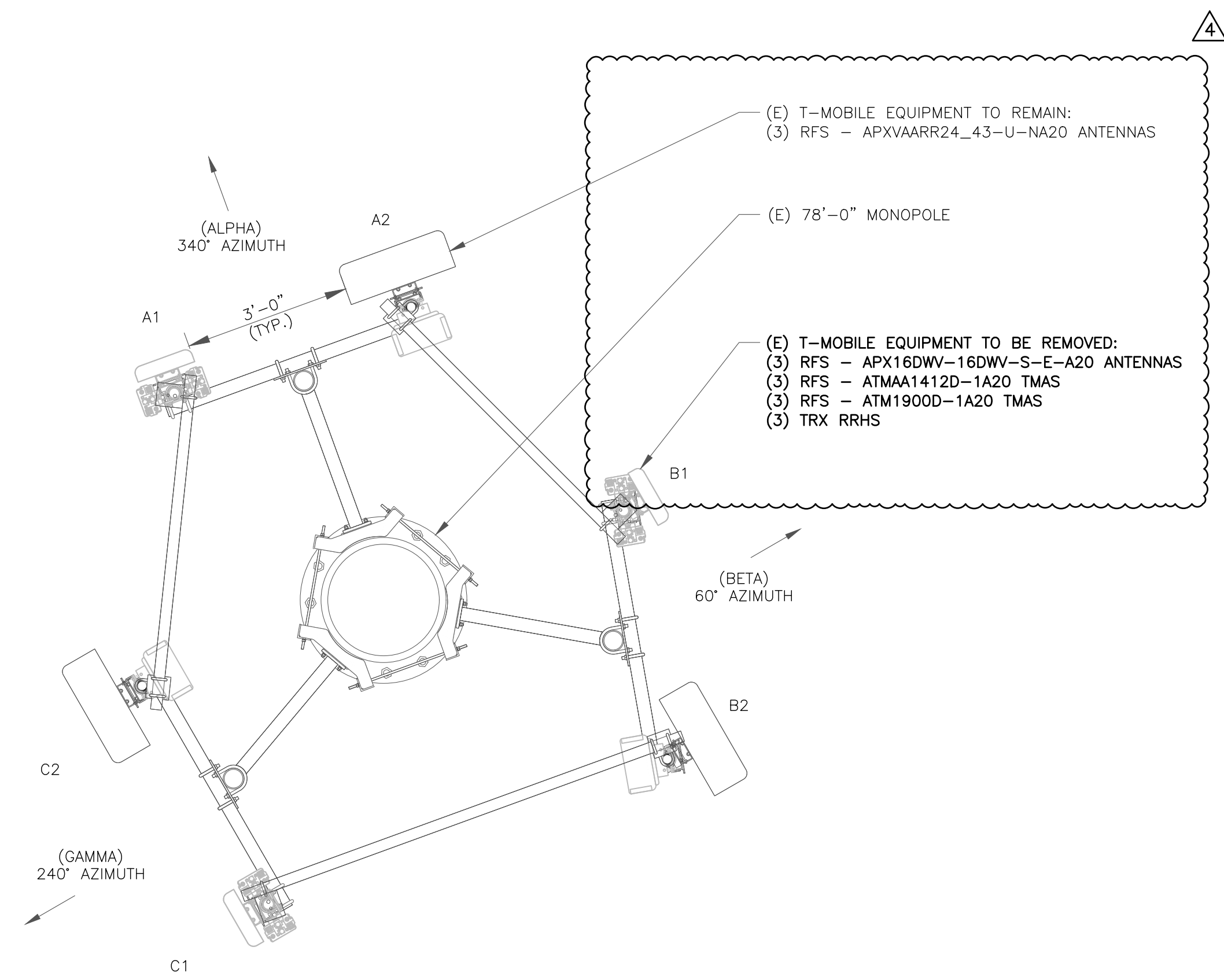
1 FINAL EQUIPMENT PLAN

SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (11x17)

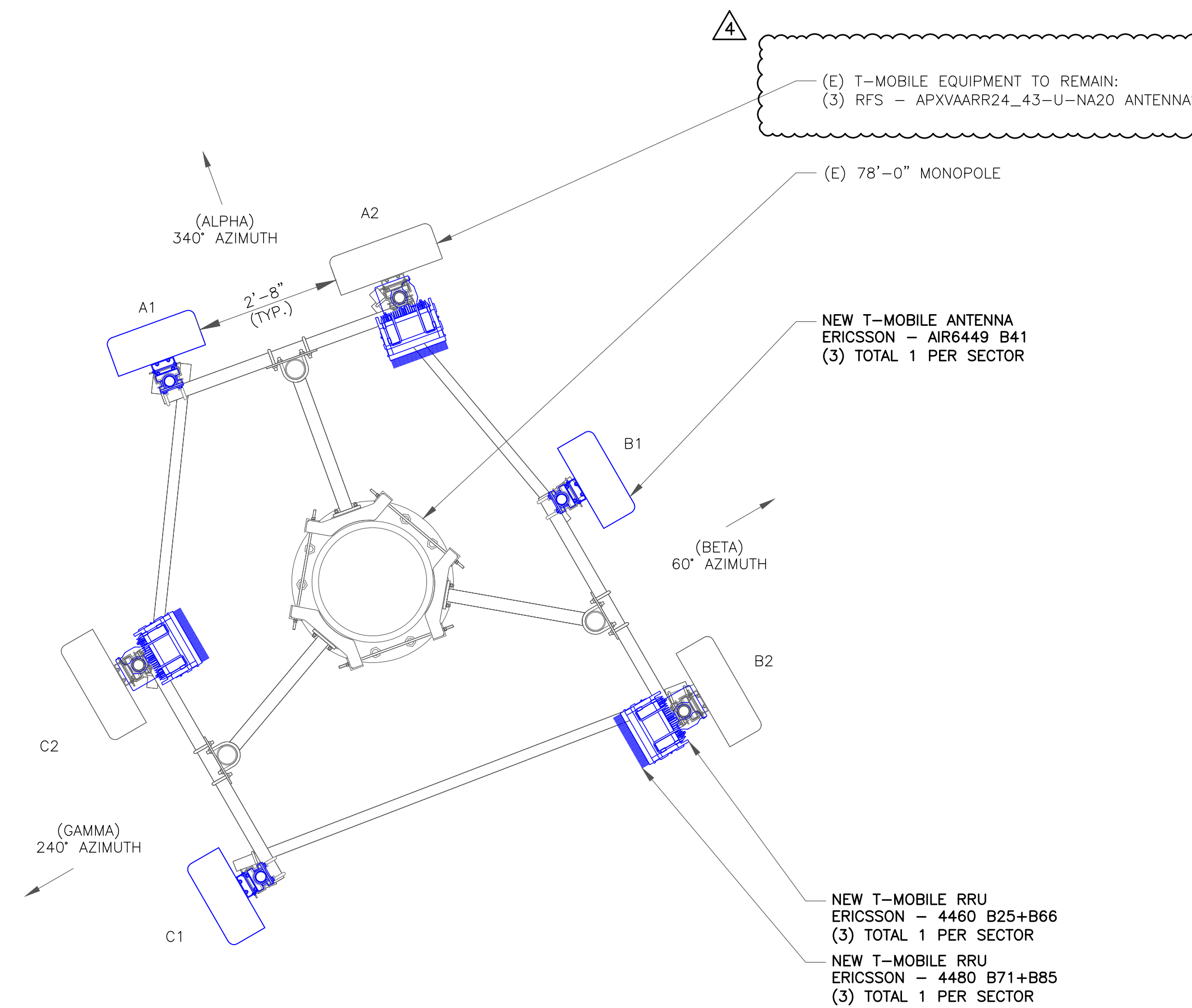


SHEET NUMBER:
C-2.2

REVISION:
4



1 EXISTING ANTENNA LAYOUT
 SCALE: 1/2"=1'-0" (FULL SIZE)
 1/4"=1'-0" (11x17)

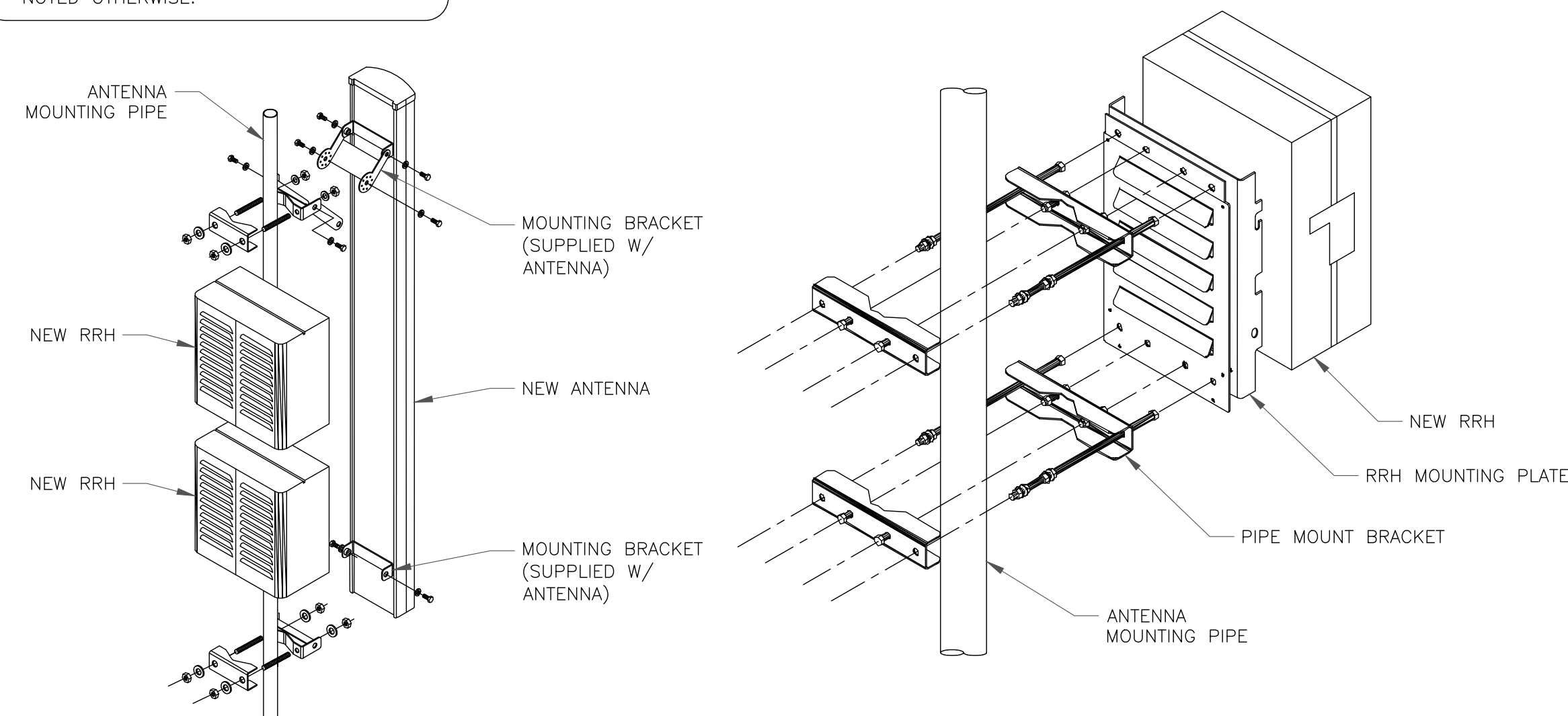


2 NEW ANTENNA LAYOUT
 SCALE: 1/2"=1'-0" (FULL SIZE)
 1/4"=1'-0" (11x17)



INSTALLER NOTE:
 REPLACE EXISTING PIPE MOUNTS WITH
 NEW 2-1/2" STD (2-7/8" O.D.) GALV.
 SCH 40 PIPE AS REQ'D.

INSTALLER NOTES:
 1. COMPLY WITH MANUFACTURERS
 INSTRUCTIONS TO ENSURE THAT ALL RRHS
 RECEIVE ELECTRICAL POWER WITHIN 24
 HOURS OF BEING REMOVED FROM THE
 MANUFACTURER'S PACKAGING.
 2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
 3. ALL PIPES, BRACKETS, AND MISCELLANEOUS
 HARDWARE TO BE GALVANIZED UNLESS
 NOTED OTHERWISE.



3 ANTENNA & RRU MOUNTING
 SCALE: NOT TO SCALE

ANTENNA SCHEDULE (VERIFY WITH CURRENT RFDS)

SECTOR	TECHNOLOGY		ANTENNA	RAD CENTER	HCS/COAX		RRU	ANTENNA AZIMUTH		ANTENNA SIZE	
	EXISTING	PROPOSED			EXISTING	FINAL		EXISTING	PROPOSED	EXISTING	PROPOSED
A1	U1900/L2100/G1900	L2500/N2500	ERICSSON - AIR6449 B41	50'-0"		(1) 6X12 HCS	(1) 4480 B71+B85	340°	340°	55.9"x13"x3.15"	33.1"x20.6"x8.6"
A2	L700/L600/N600	L700/L600/N600	RFS APXVAARR24_43-U-NA20	50'-0"		(1) 6X12 HCS	(1) 4460 B25+B66	340°	340°	95.9"x24.0"x8.7"	95.9"x24.0"x8.7"
B1	U1900/L2100/G1900	L2500/N2500	ERICSSON - AIR6449 B41	50'-0"		(1) 6X12 HCS	(1) 4480 B71+B85	60°	60°	55.9"x13"x3.15"	33.1"x20.6"x8.6"
B2	L700/L600/N600	L700/L600/N600	RFS APXVAARR24_43-U-NA20	50'-0"		(2) 6X24 HCS 4AWG 30M	(1) 4460 B25+B66	60°	60°	95.9"x24.0"x8.7"	95.9"x24.0"x8.7"
C1	U1900/L2100/G1900	L2500/N2500	ERICSSON - AIR6449 B41	50'-0"			(1) 4480 B71+B85	240°	240°	55.9"x13"x3.15"	33.1"x20.6"x8.6"
C2	L700/L600/N600	L700/L600/N600	RFS APXVAARR24_43-U-NA20	50'-0"			(1) 4460 B25+B66	240°	240°	95.9"x24.0"x8.7"	95.9"x24.0"x8.7"

4 ANTENNA SCHEDULE
 SCALE: NOT TO SCALE

T-Mobile
 1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE
 200 SPECTRUM CENTER DRIVE,
 SUITE 1700 & 1800
 IRVINE, CA 92618

TELCYTE
 INFRASTRUCTURE SERVICES
 3450 N HIGLEY RD - SUITE 102,
 MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
 PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

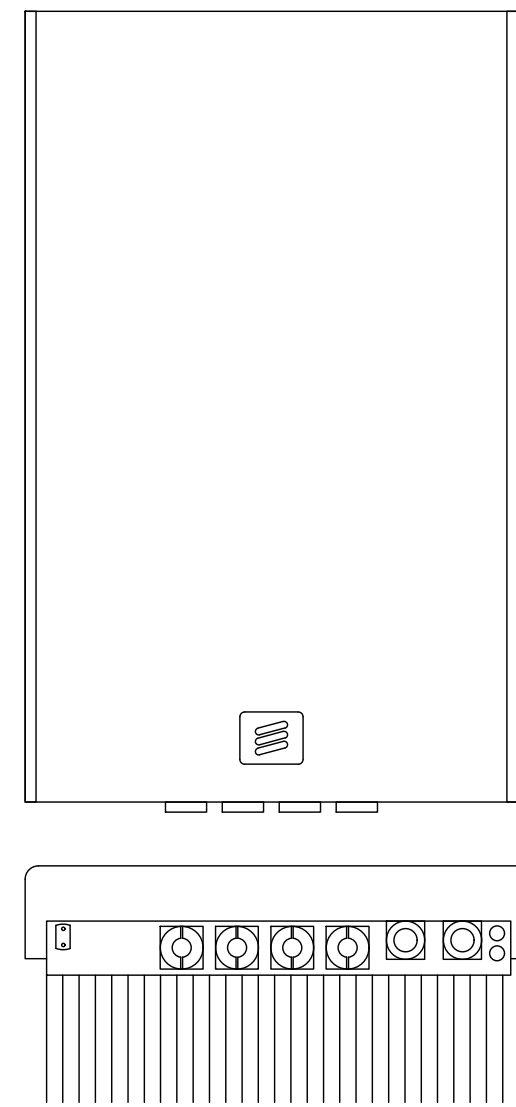
ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW

REGISTERED PROFESSIONAL ENGINEER
 TIM ALEXANDER
 No. E18344
 Exp. 3/31/2024
 State of California
 ELECTRICIAN
 SIGNED, 15 JUL 2022

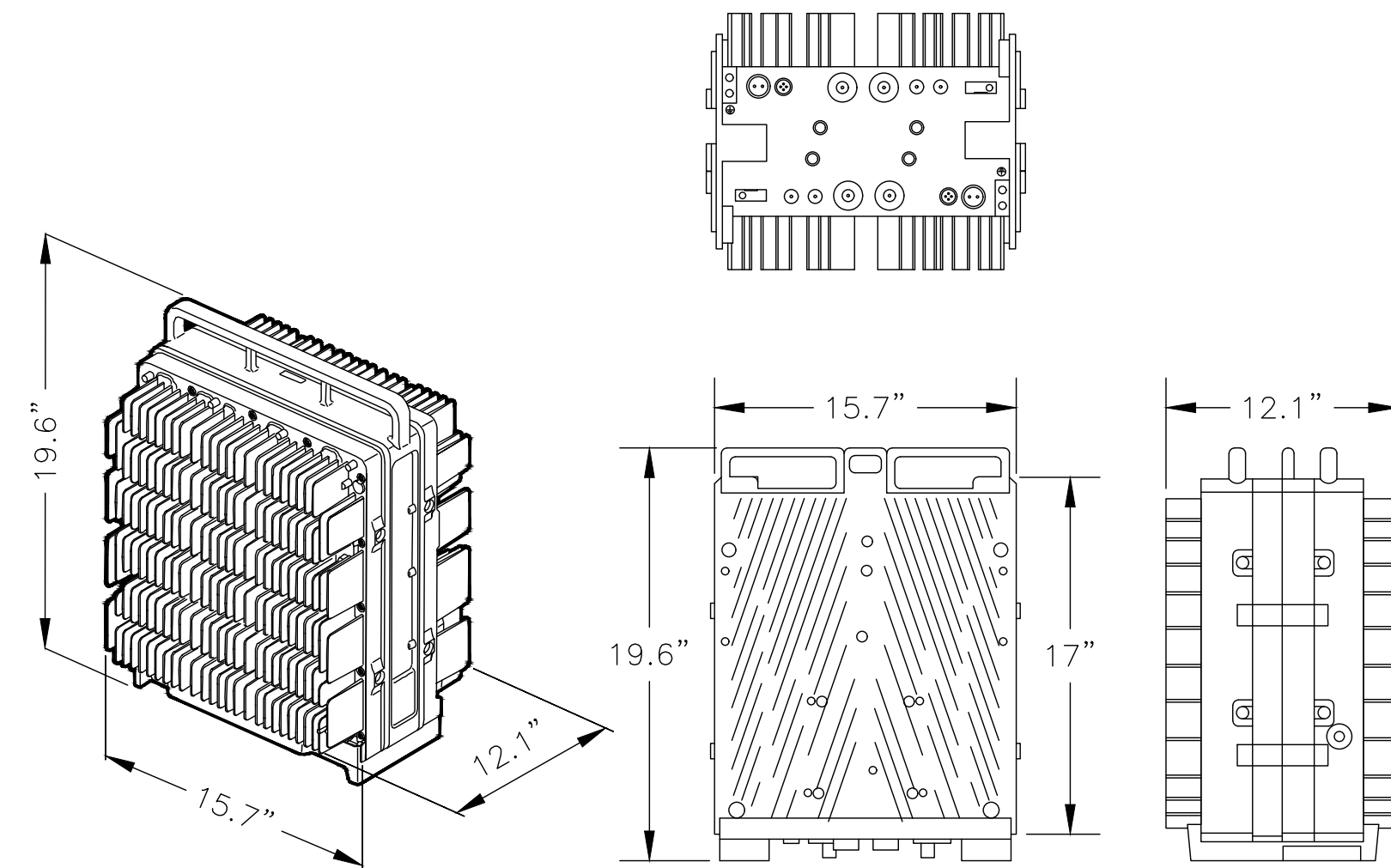
IT IS A VIOLATION OF LAW FOR ANY PERSON,
 UNLESS THEY ARE ACTING UNDER THE DIRECTION
 OF A LICENSED PROFESSIONAL ENGINEER,
 TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-7** REVISION: **4**



ERICSSON - AIR 6449 B41
ANTENNA
WEIGHT: 114.63 LBS
SIZE (HXWXD): 33.11X20.51X8.54 IN.

1 ERICSSON - AIR 6449 B41
SCALE: NOT TO SCALE

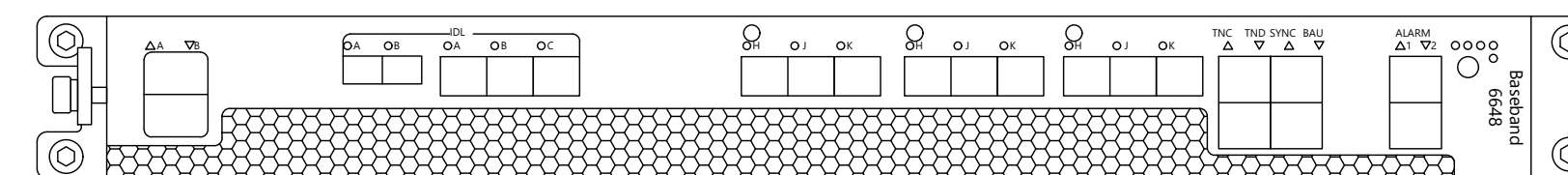


ERICSSON 4460 B25+B66
19.6" X 15.7" X 12.1"
WEIGHT: 109LBS

2 ERICSSON - RADIO 4460
SCALE: NOT TO SCALE

ERICSSON BASEBAND UNIT 6648
DC POWER SUPPLY
NOMINAL VOLTAGE: -48VDC
TEMPERATURE: 0 TO + 55 DEG C
DIMENSION: 19" W X 13.8"D
WEIGHT: 14.3 lbs

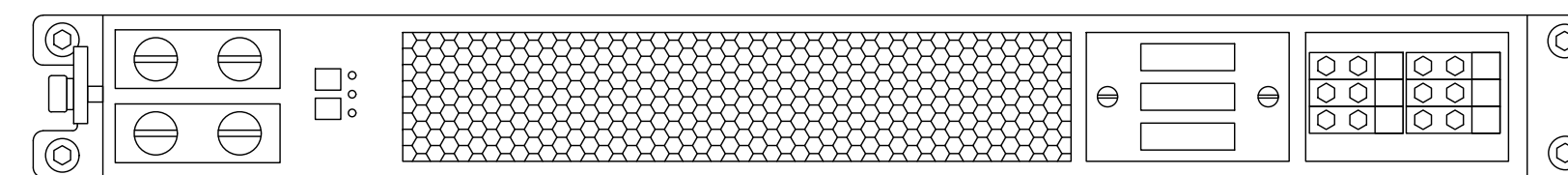
15 CPRI PORTS
MAXIMUM OF 24 CELLS (18 WITH NB-IOT)
2 OPTICAL (1/10Gbps)/2 ELECTRICAL (1Gbps) PORTS



PSU 4813
VOLTAGE BOOSTER

DC POWER SUPPLY
NOMINAL VOLTAGE: -38VDC
TEMPERATURE: -40°C TO + 60° C
DIMENSION: 19" W X 13"D

TOTAL OUTPUT POWER 6000 WATTS (2000 W/PORT)



3 BB 6648 & PSU 4813 DETAIL
SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

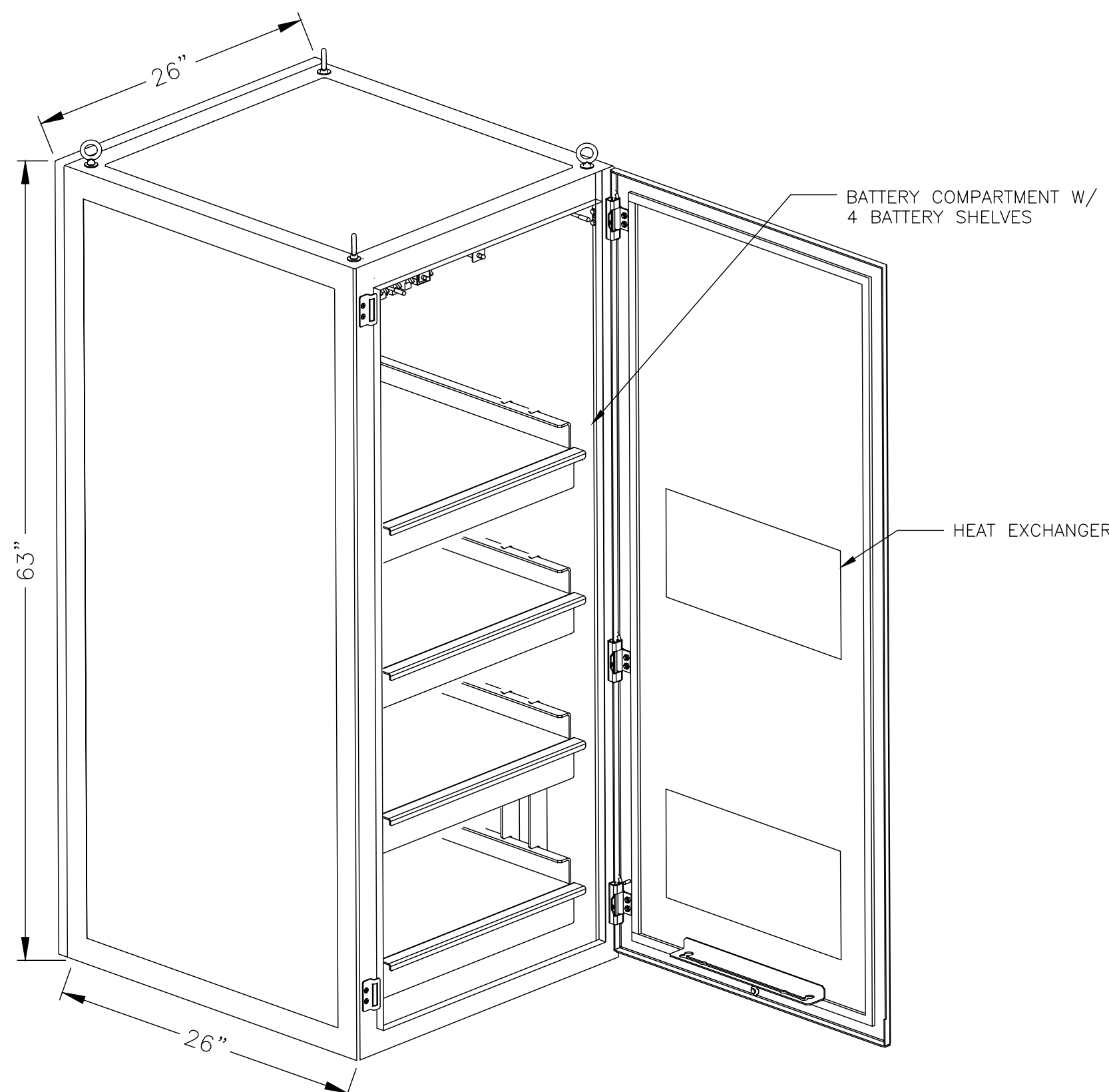
TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

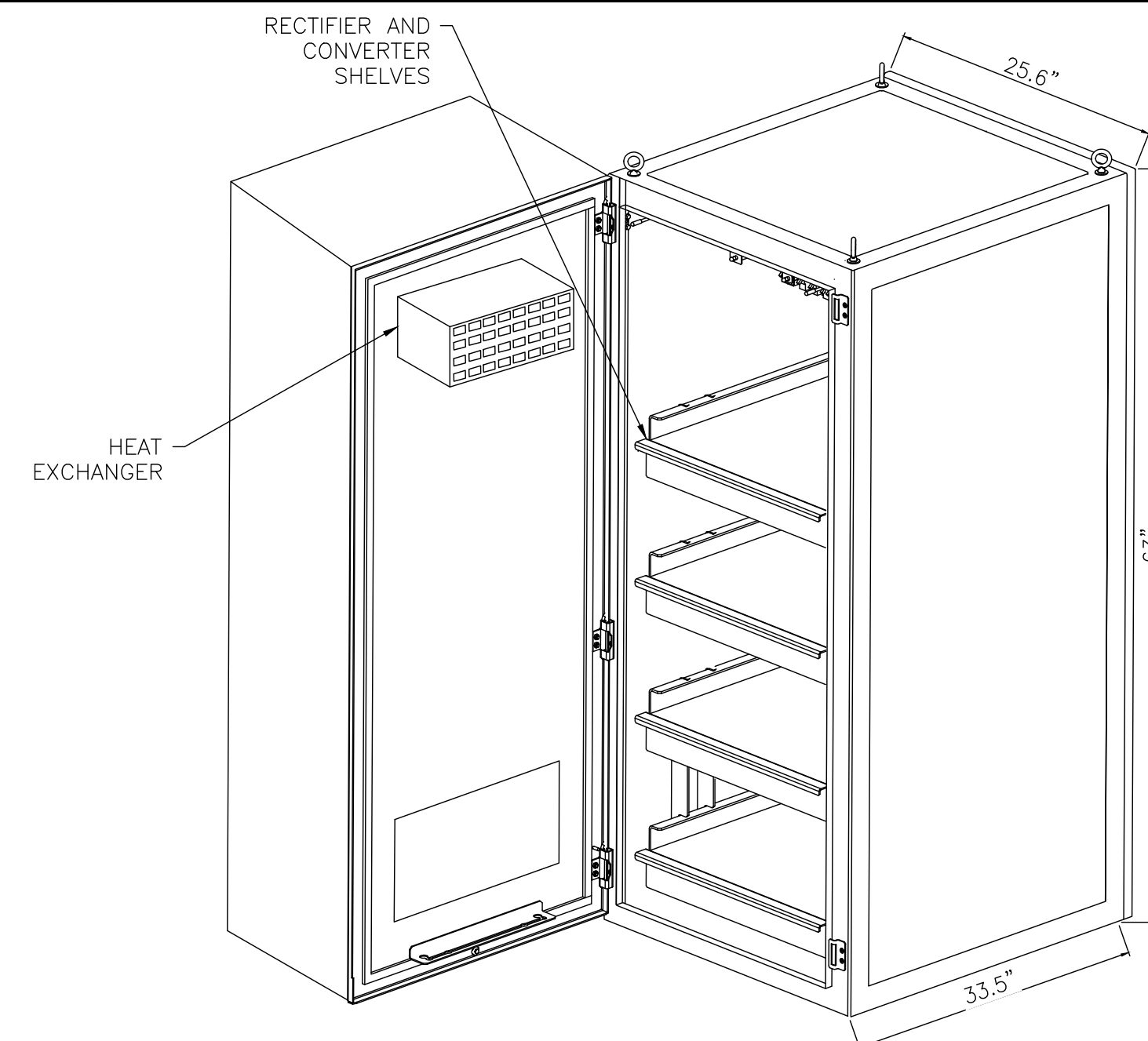
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE



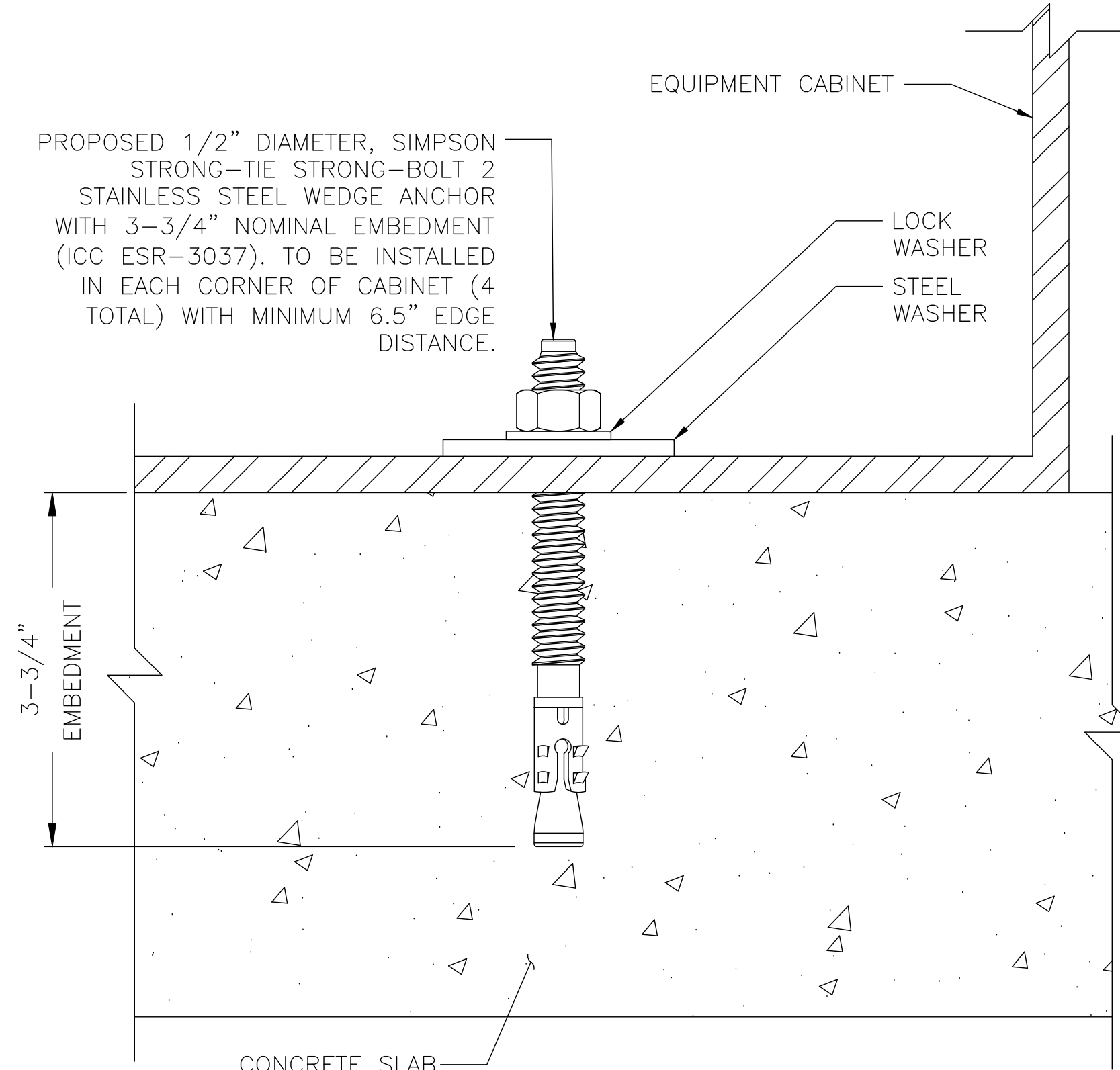
4 B160 BATTERY CABINET
SCALE: NOT TO SCALE



MECHANICAL SPECIFICATIONS:

WEIGHT: 145 KG (EXCLUDING ACTIVE EQUIPMENT)
320 LBS (EXCLUDING ACTIVE EQUIPMENT)
DIMENSIONS: (H X W X D) 1600 X 650 X 850.9 MM (INCL. BASE FRAME)
63 X 25.6 X 33.5 IN. (INCL. BASE FRAME)
BASE FRAME HEIGHT: 150 MM
6 IN.
MOUNTING POSITION: GROUND
ENCLOSURE MATERIAL: ALUMINUM COLOR POWER PAINT NCS 2002-B
DOOR: FRONT ACCESS
RACK TYPE: 19" (IEC 60297-3-100)
LOCKING TYPE: PAD LOCK OR CYLINDER

5 ENCLOSURE 6160 CABINET DETAIL
SCALE: NOT TO SCALE



6 CABINET ANCHOR BOLT DETAIL
SCALE: NOT TO SCALE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



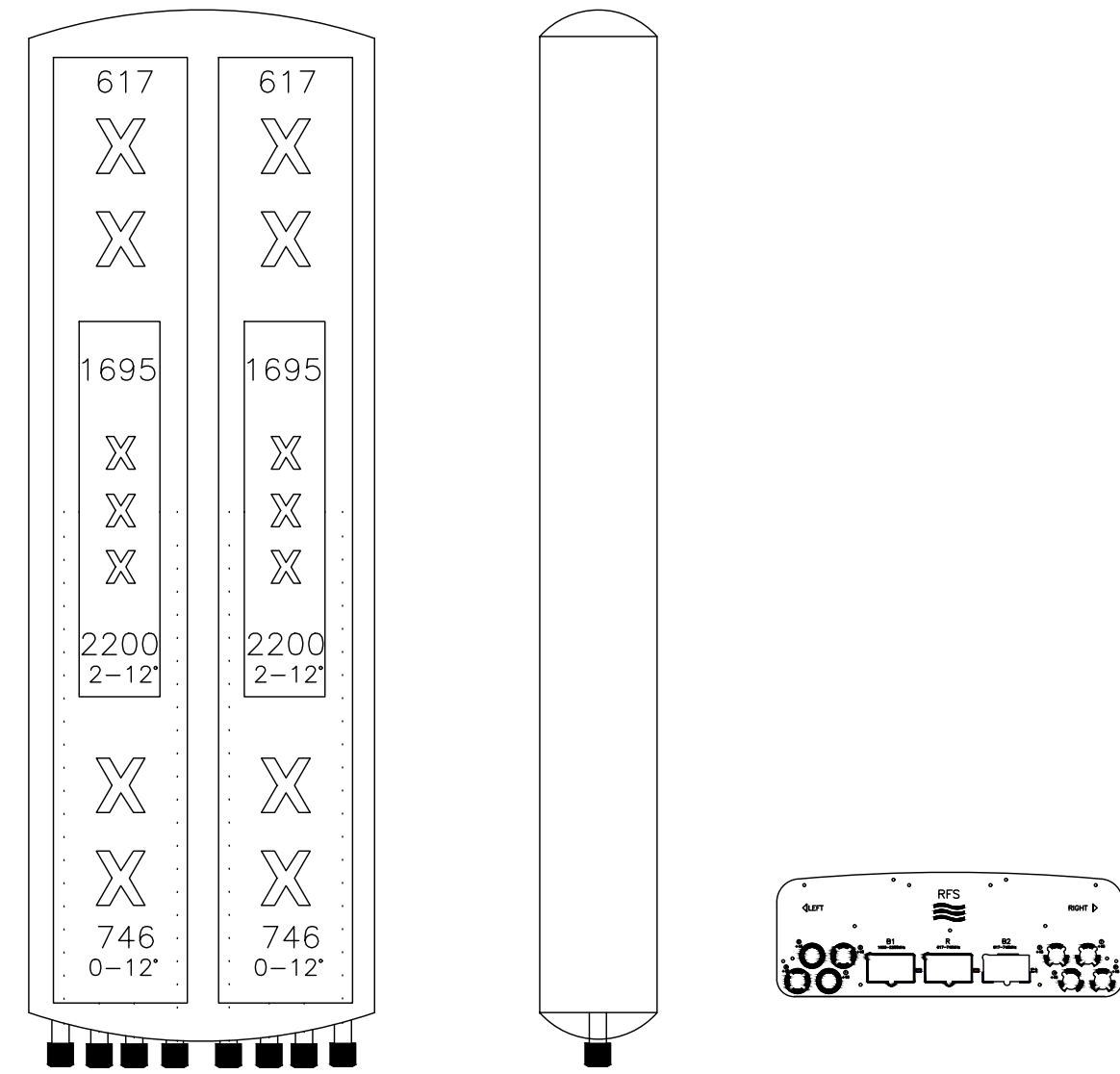
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-8

REVISION:

4



DIMENSIONS - H X W X D
 WEIGHT (ANTENNA ONLY)
 WEIGHT (MOUNTING HARDWARE ONLY)
 SHIPPING WEIGHT
 MOUNTING HARDWARE MATERIAL
 RADOME MATERIAL / COLOR

MM (IN)
 KG (LB)
 KG (LB)
 KG (LB)

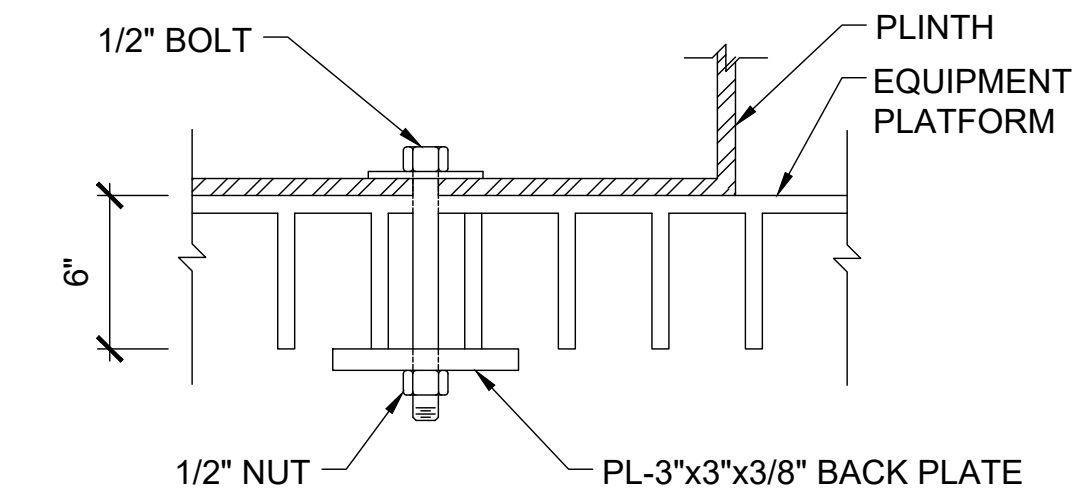
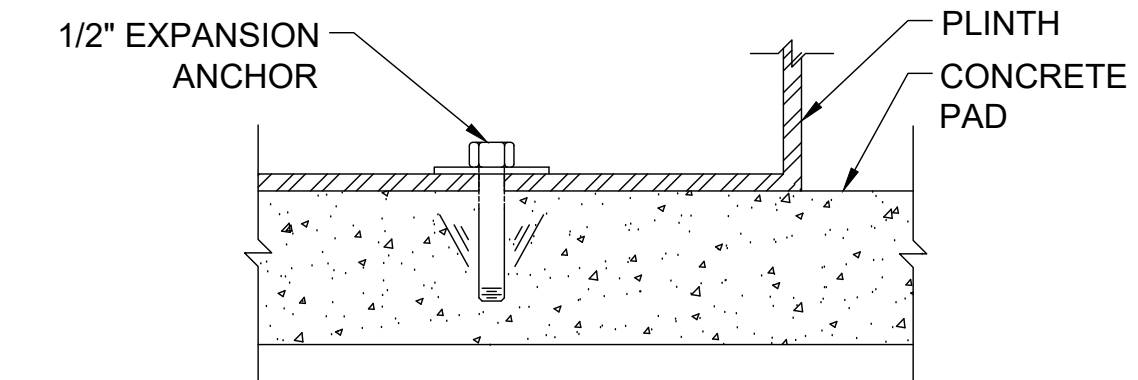
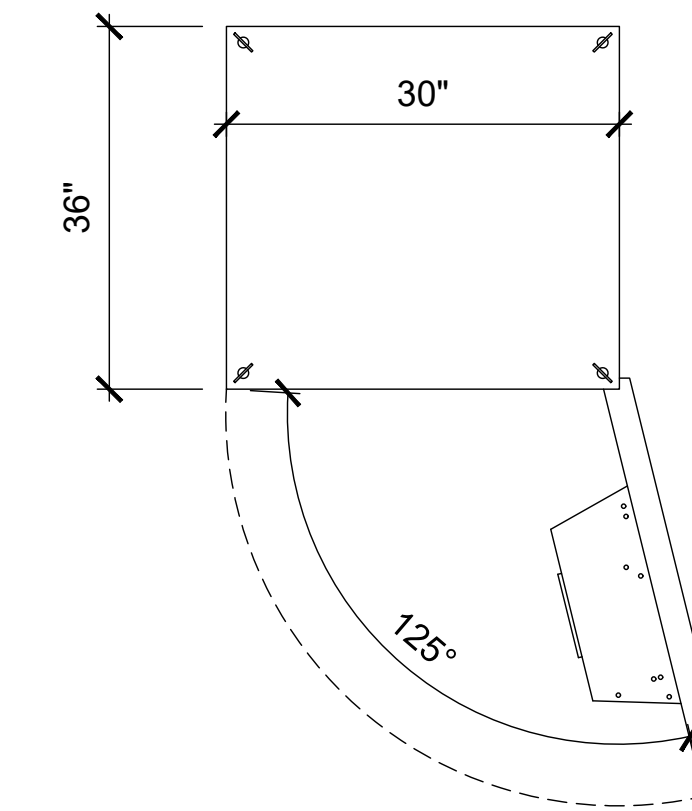
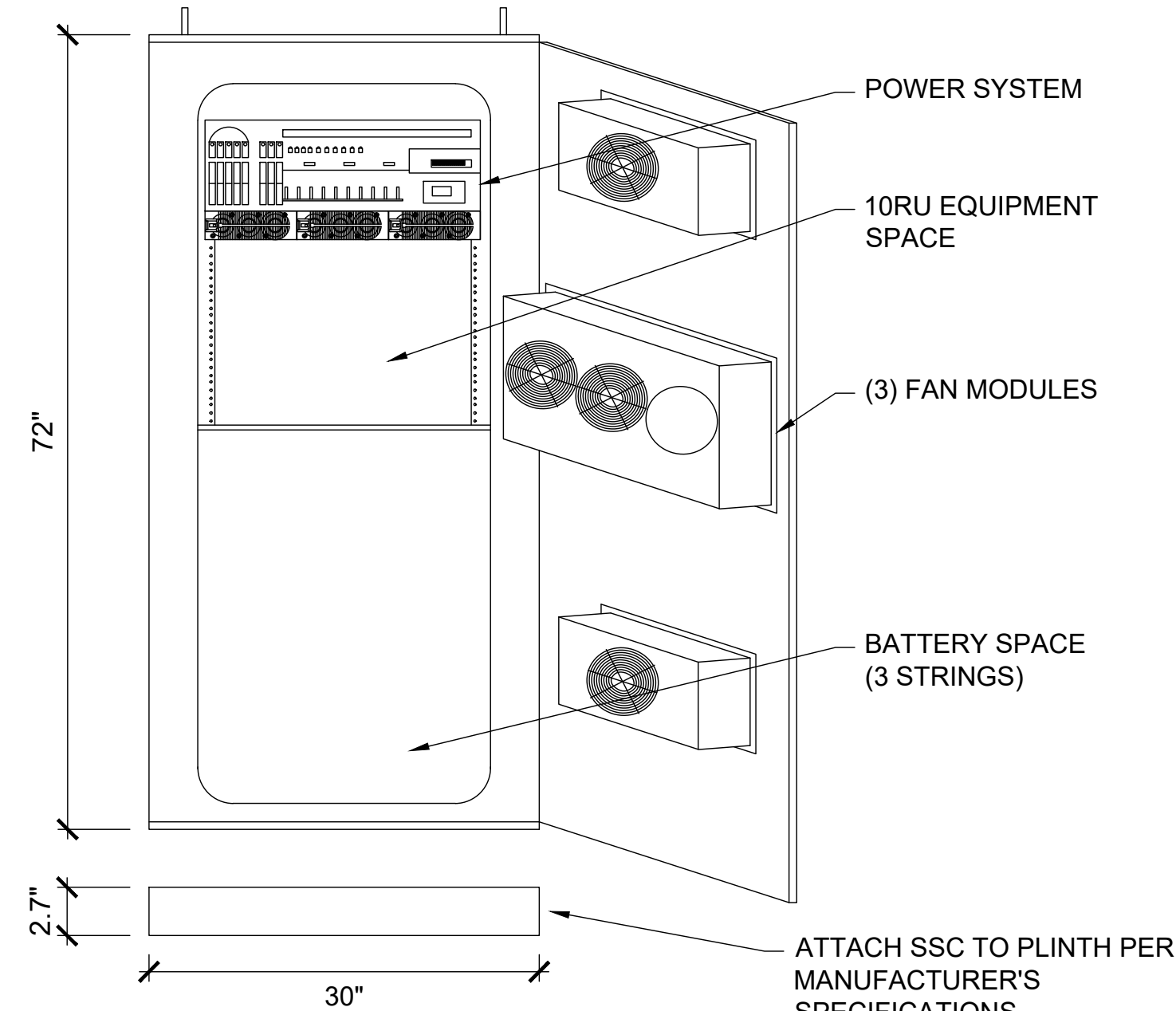
2436 x 609 x 222 (95.9 x 24 x 8.7)
 58 (128)
 11.5 (25.3)
 80 (176)
 GALVANIZED STEEL
 FIBER GLASS / LIGHT GREY RAL7035

1 RFS - APXVAARR24_43-U-NA20
 SCALE: NOT TO SCALE

**DELTA LARGE OUTDOOR ENCLOSURE:
 ESOA-CCU03**

AC INPUT VOLTAGE: 100 - 120V/200 - 240V
 AC INPUT CURRENT: 80A
 DC OUTPUT CURRENT: 200A
 DC OUTPUT VOLTAGE: 42 -56 VDC
 CLEARANCES: 36" ON ALL SIDES
 POWER SYSTEM: 8000W (N+1)
 ADDITIONAL SPECS: 3 RU FOR DC DISTRIBUTION, RECTIFIER = DPR2900,
 2Px3 POSITIONS FOR BATTERY BREAKER., 10 RU
 FOR EQUIPMENT 19" OR 23", (3) STRINGS FOR
 BATTERIES

NOKIA FMFA PLINTH:
 WEIGHT: 2.7" H x 30" W x 36" D - 20.5 lbs
 500 lbs (WITHOUT BATTERIES)



2 SSC CABINET
 SCALE: NOT TO SCALE

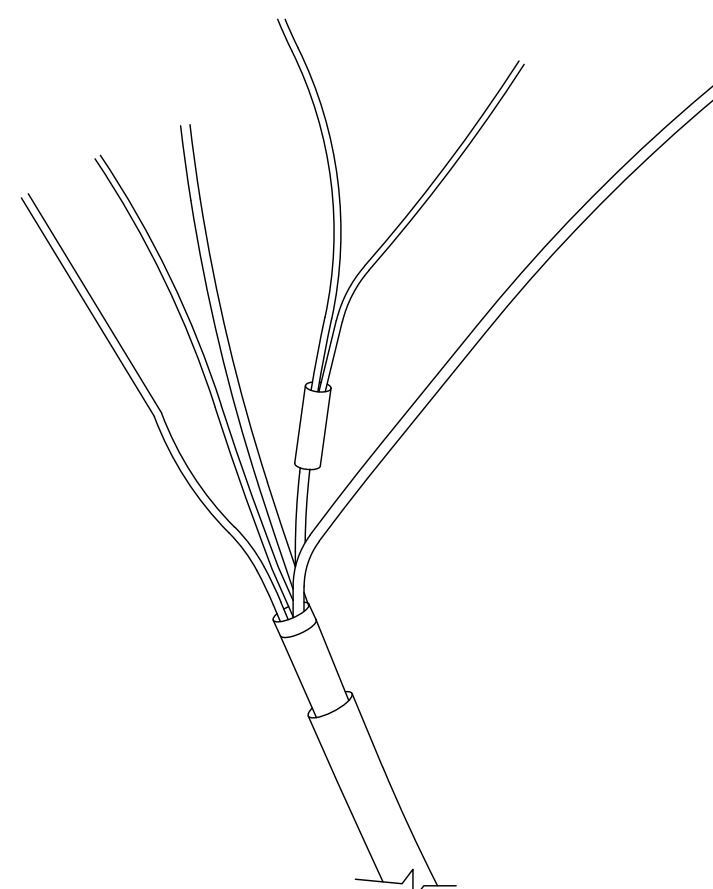
HYBRIFLEX 6X24 HCS

STRUCTURE
 CABLE TYPE
 SIZE

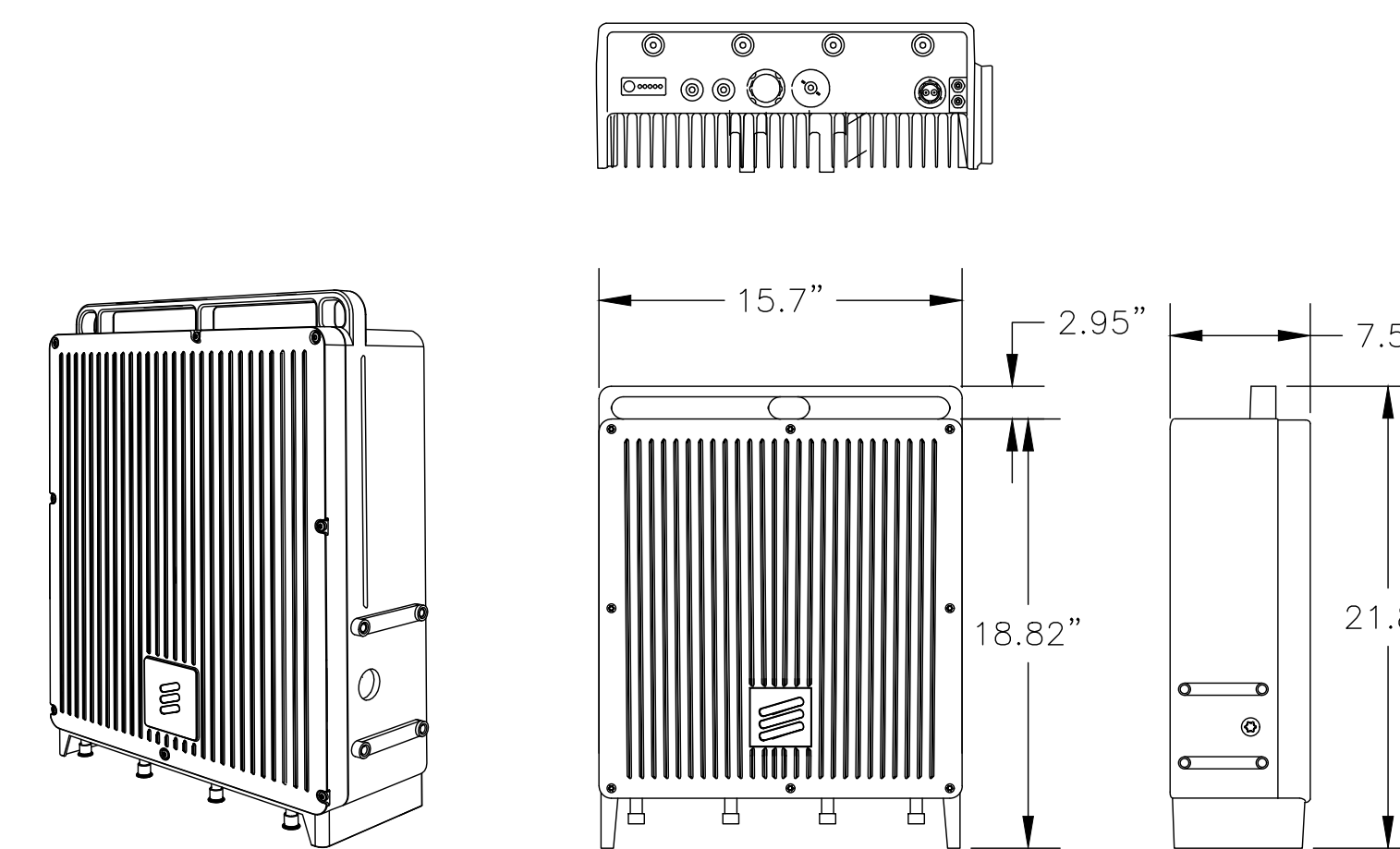
HYBRIFLEX®
 1-5/8"

MECHANICAL SPECIFICATIONS

OUTER DIAMETER NOMINAL [MM (IN)] 50.7 (1.996)
 CABLE WEIGHT [KG/M (LB/FT)] 3.42 (2.3)
 MINIMUM BENDING RADIUS, SINGLE BEND [MM (IN)] 254 (10)
 MINIMUM BENDING RADIUS, MULTI BENDS [MM (IN)] 508 (20)
 RECOMMENDED / MAXIMUM CLAMP SPACING [M (FT)] 1 / 1.2 (3.25 / 4)



3 HCS CABLE DETAIL
 SCALE: NOT TO SCALE



ERRICSSON 4480 B71+B85
 21.8" X 15.7" X 7.5"
 WEIGHT: 77LBS

4 ERICSSON - RADIO 4480 B71+B85
 SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
 SUITE 1700 & 1800
 IRVINE, CA 92618

TELCYTE
 INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
 MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
 PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



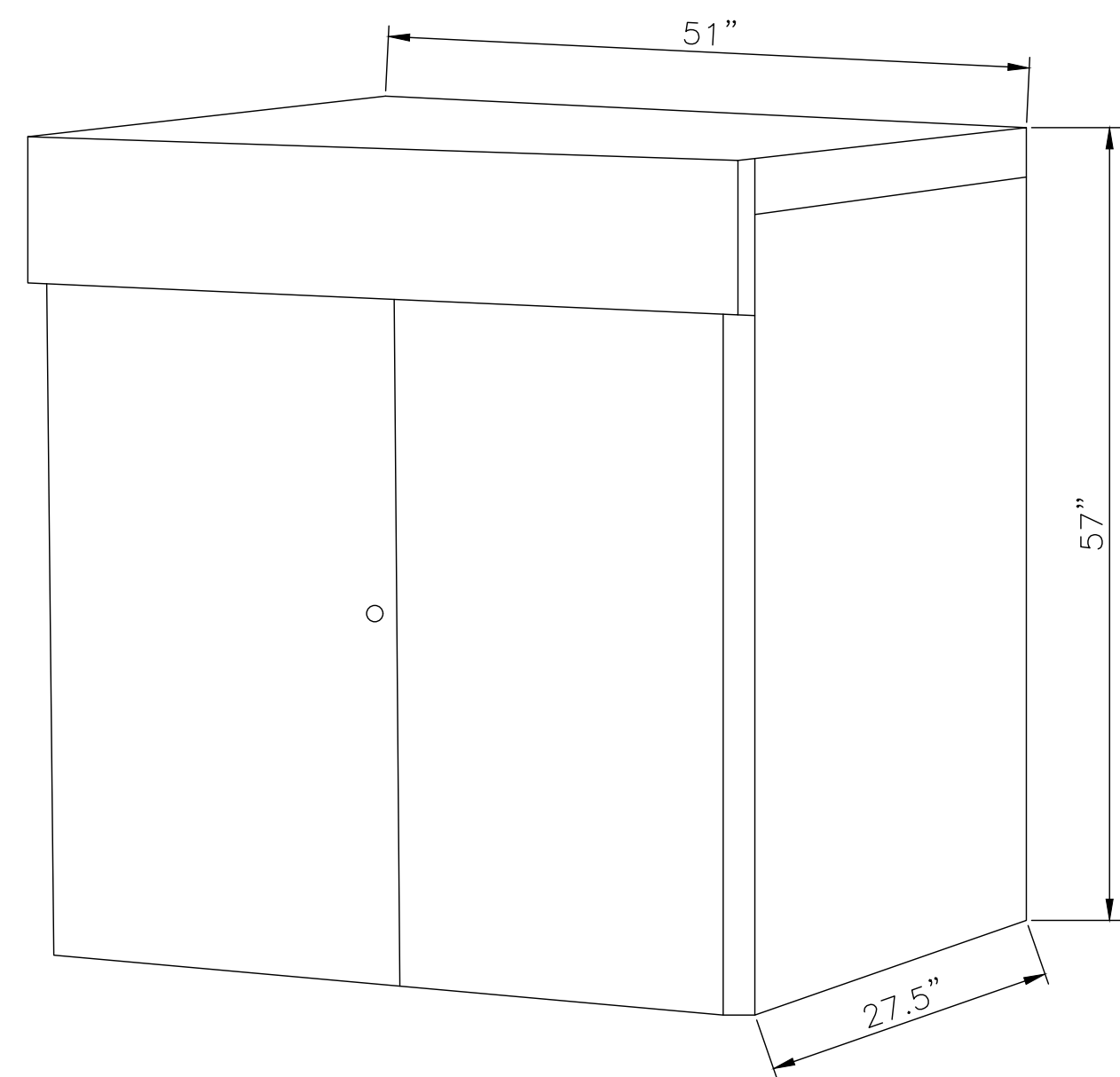
IT IS A VIOLATION OF LAW FOR ANY PERSON,
 UNLESS THEY ARE ACTING UNDER THE DIRECTION
 OF A LICENSED PROFESSIONAL ENGINEER,
 TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-9

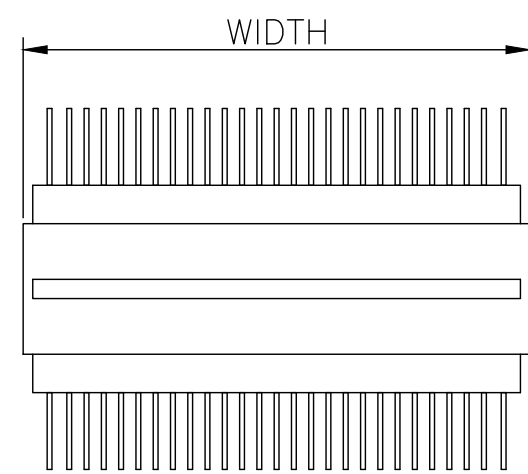
REVISION:

4



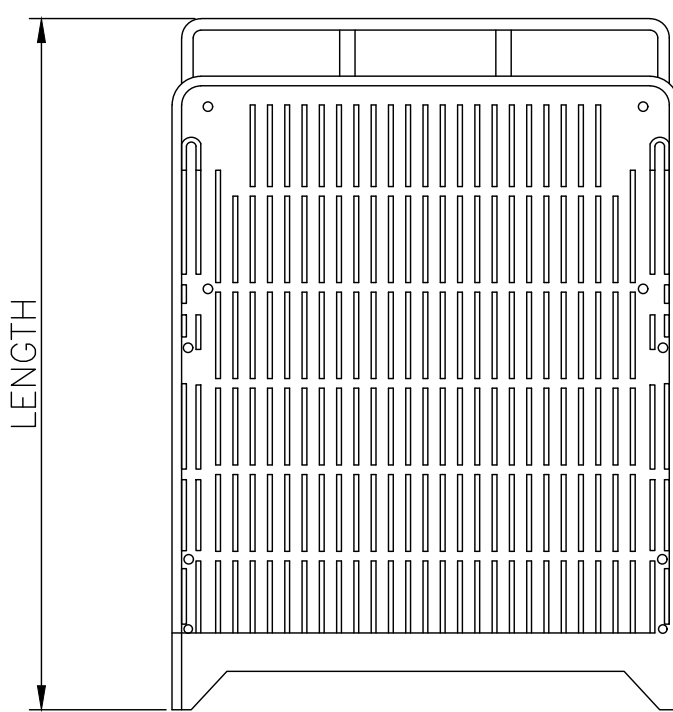
WEIGHT FULLY LOADED: 860.0 LBS (EXCLUDING BATTERIES)
 SIZE (HxWxD): - 57"x51"x27.5"

1 RBS 6102 CABINET DETAIL
 SCALE: NOT TO SCALE

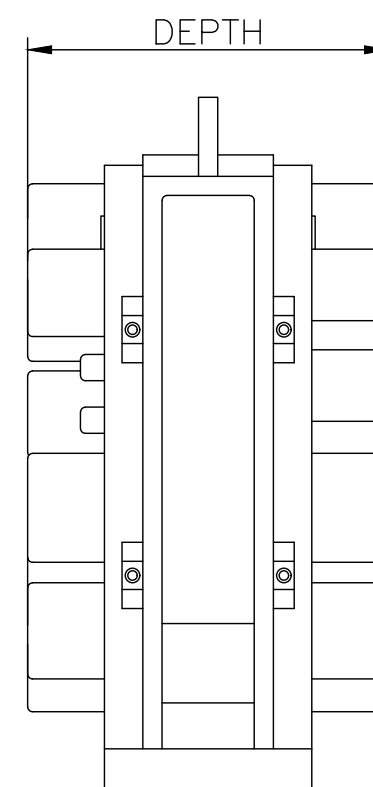


TOP VIEW

RRU 4449 (REMOTE RADIO UNIT)
 MANUFACTURE: ERICSSON
 HEIGHT: 15.0"
 WIDTH: 13.2"
 DEPTH: 9.3"
 WEIGHT: 70.0 LBS
 FREQUENCY: REFER TO RF DATA SHEET



FRONT VIEW



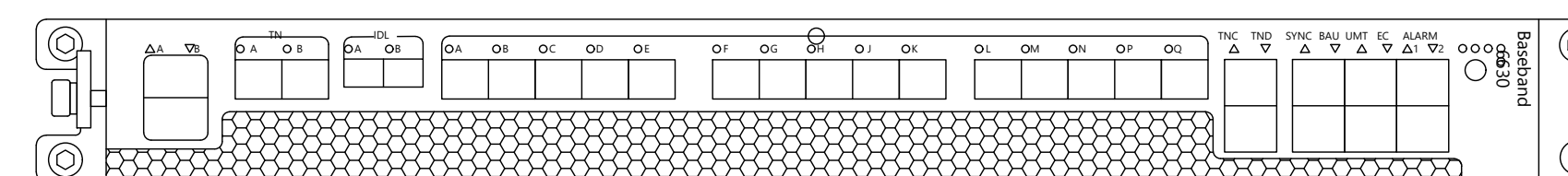
SIDE VIEW

2 ERICSSON - RADIO 4449 B71+B85
 SCALE: NOT TO SCALE

ERICSSON BASEBAND UNIT 6630

DC POWER SUPPLY
 NOMINAL VOLTAGE: -48VDC
 TEMPERATURE: 0 TO + 55 DEG C
 DIMENSION: 19" W X 13.8"D
 WEIGHT: 14.3 lbs

15 CPRI PORTS
 MAXIMUM OF 24 CELLS (18 WITH NB-IOT)
 2 OPTICAL (1/10Gbps)/2 ELECTRICAL (1Gbps) PORTS



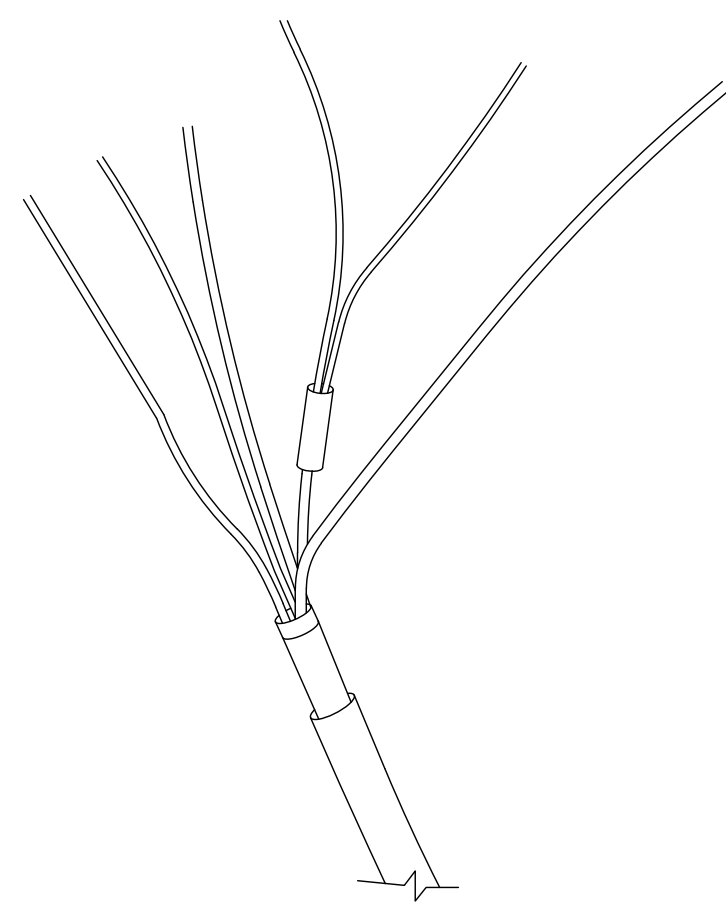
3 BB 6630 DETAIL
 SCALE: NOT TO SCALE

HYBRIFLEX 6X12 HCS

STRUCTURE
 CABLE TYPE HYBRIFLEX® LOW INDUCTANCE
 SIZE 1-1/4"
 FIRE PERFORMANCE FLAME RETARDANT
 LENGTH [M (FT)] 36.57 (120)

MECHANICAL SPECIFICATIONS

OUTER DIAMETER NOMINAL [MM (IN)] 39 (1.54)
 CABLE WEIGHT [KG/M (LB/FT)] 2.52 (1.7)
 MINIMUM BENDING RADIUS, SINGLE BEND [MM (IN)] 152 (6)
 MINIMUM BENDING RADIUS, MULTI BENDS [MM (IN)] 254 (10)
 RECOMMENDED / MAXIMUM CLAMP SPACING [M (FT)] 1 / 1.2 (3.25 / 4)



4 HCS CABLE DETAIL
 SCALE: NOT TO SCALE

- DUG20: DIGITAL UNIT FOR GSM
- ET/TT TRANSMISSION INTERFACE
 - BASEBAND PROCESSING
 - LINK ACCESS PROCEDURES ON D-CHANNEL (LAPD) CONCENTRATION / MULTIPLEXING
 - ABIS OPTIMIZATION
 - MULTI-DROP (CASCADING)
 - SYNCHRONIZED RADIO NETWORK, THROUGH AN EXTERNAL GPS RECEIVER
 - TRANSCEIVER GROUP (TG) SYNCHRONIZATION
 - SITE LAN



5 DUG20 DETAIL
 SCALE: NOT TO SCALE

DUW 30: DIGITAL UNIT FOR GSM

DIMENSION:
 HEIGHT: 66 MM
 WIDTH: 482 MM
 HEIGHT: 350 MM
 UNIT WEIGHT: 10.5 KG



Power distribution unit
 Transmission connectors
 GPS connector
 O&M and control connectors
 RRU connectors

Figure 5 RBS 6601 Main Unit with DUW

6 DUG30 DETAIL
 SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
 SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
 SUITE 1700 & 1800
 IRVINE, CA 92618

TELCYTE
 INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
 MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

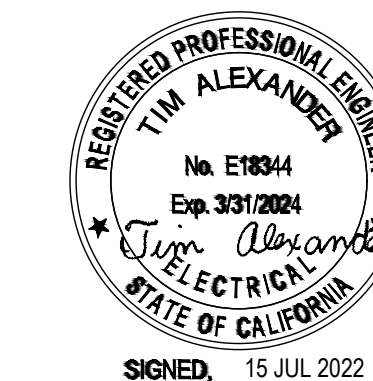
BU #: 856199

1 CASA GRANDE ROAD
 PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



SIGNED, 15 JUL 2022

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

SHEET NUMBER:

C-10

REVISION:

4

DOOSAN

G25WDO-3A-T4F
Diesel Rental Generator
Serial Code: G06



Key Features

- Designed and manufactured in an ISO9001-certified facility in Statesville, North Carolina, USA.
- Heavy duty mobile generator system designed for prime power operation in rental, construction and special events applications.

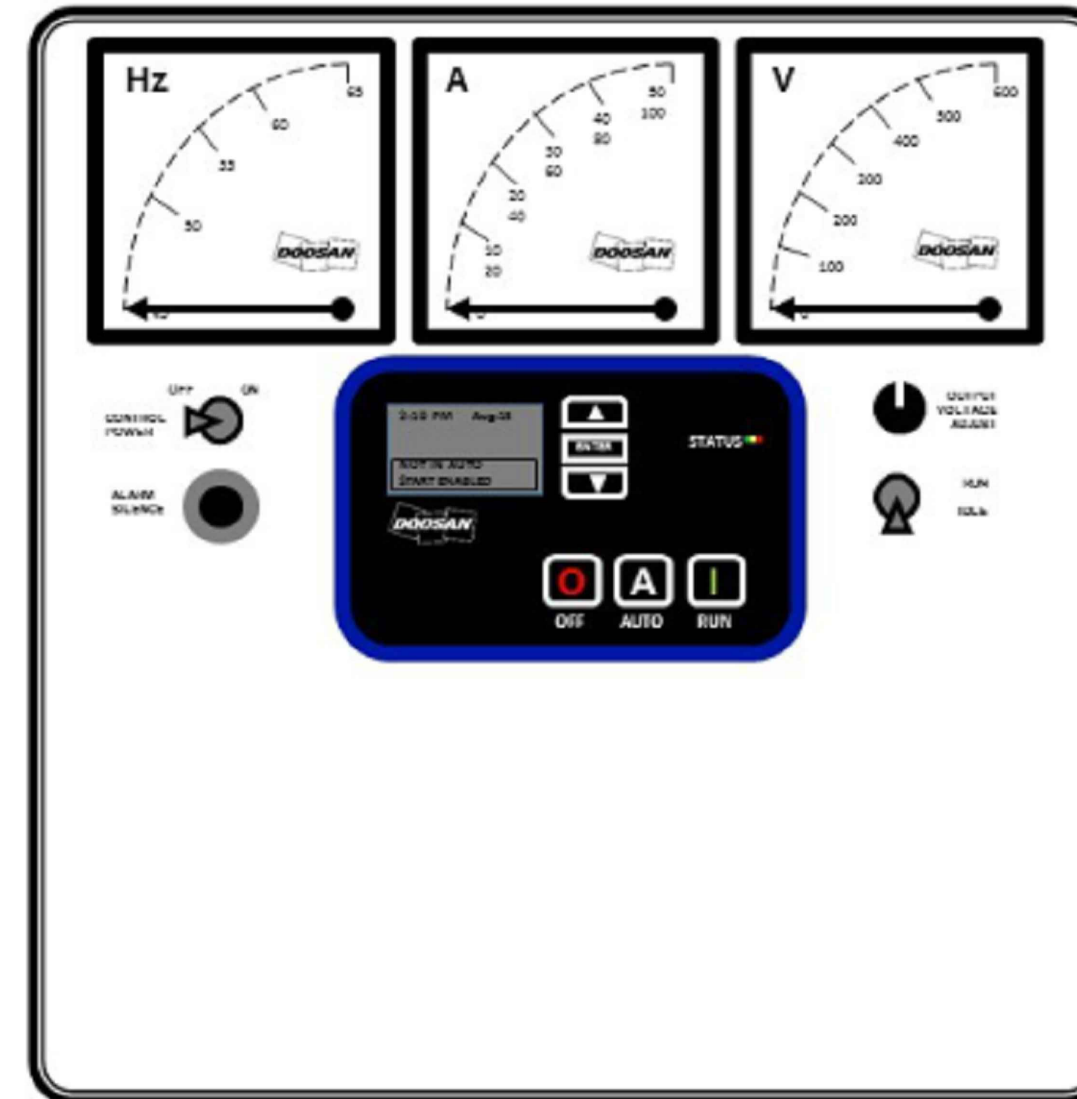
Voltage Configuration	Frequency (Hz)	Power Factor	Prime Power Rating		
			kVA	kW	Current (A)
600/346V - 3Ø WYE	60	0.8	N/A	N/A	N/A
480/277V - 3Ø WYE	60	0.8	25	20	30
240/139V - 3Ø WYE	60	0.8	25	20	60
208/120V - 3Ø WYE	60	0.8	22	17	61
240/120V - 1Ø ZIG ZAG	60	1.0	17	17	69
400/230V - 3Ø WYE	50	0.8	20	16	29

G25WDO-3A-T4F | Diesel Rental Generator

Engine Data			
Engine Manufacturer	Doosan		
Model Number	D16		
Prime Output @ 1800 RPM	33.5 bhp	25 kWm	
Standby Output @ 1800 RPM	40.1 bhp	30 kWm	
Prime Output @ 1500 RPM	30.8 bhp	23 kWm	
Standby Output @ 1500 RPM	34.8 bhp	26 kWm	
Engine Type	Four Cycle, Inline		
Engine Control	ECU		
Emissions Certification	EPA Tier 4 Final		
Number of Cylinders	3		
Aspiration	Turbocharged / Intercooled / eGR		
Aftertreatment Technology	Diesel Oxidation Catalyst (DOC)		
Bore x Stroke	3.54 x 3.7 in	90 x 94 mm	
Displacement	109.5 in ³	1,794 L	
Compression Ratio	17.0:1		
Governor Type	Isynchronous		
Speed Regulation Accuracy	+/- 0.25% Steady State		
Single Step Load Acceptance	100%		
Cooling System	50% Glycol / 50% Water		
Charging Alternator Output	90A		
DC System Voltage	12 V		
Battery Size / Output	Group 31 / 700CCA		
Fluid Capacities			
Engine Crankcase Lubricant Capacity	Gal	L	
Cooling System Capacity	2.7	10.2	
Usable Fuel Cell Capacity	46.7	177	
Usable DEF Tank Capacity	N/A	N/A	
60Hz Fuel Consumption			
	Gal / h	L / h	Runtime
@ 25% Load	0.66	2.5	70.8
@ 50% Load	1.0	3.8	46.7
@ 75% Load	1.4	5.3	33.4
@ 100% Load	1.8	6.8	25.9
DEF Runtime	N/A		
Reference Conditions			
Rated Ambient Temperature	-20°F—104°F	-29°C—40°C	
Minimum Starting Temperature (Standard)	0°F	-18°C	
Minimum Starting Temperature (w Cold Start Opt)	-20°F	-29°C	
Maximum Altitude			

G25WDO-3A-T4F | Diesel Rental Generator

Operator Panel



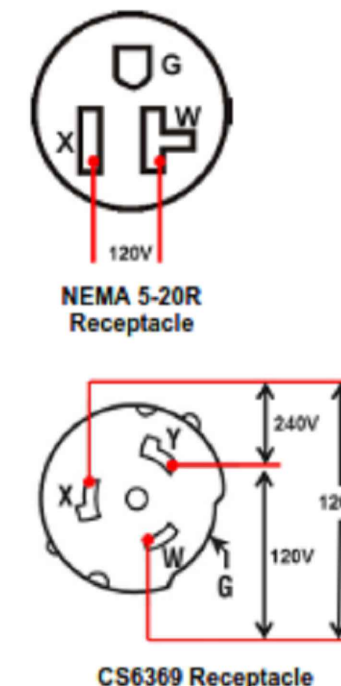
Operator Panel Features

1. Tachometer: LCD Display
2. Oil Pressure: LCD Display
3. Coolant Temperature: LCD Display
4. Fuel Level: LCD Display
5. Control Power On / Off Switch
6. Alarm Silence Button (optional)
7. Voltage Adjustment Control
8. Run / Idle Control Switch
9. TG410 Controller
10. Frequency-meter: 45-65 Hz scale
11. AC Ammeter: Dual scale: 0-50 A @ 480V / 0-100A @ 208V
12. AC Voltmeter: 0-600 V scale

G25WDO-3A-T4F | Diesel Rental Generator

Alternator Data			
Alternator Manufacturer	Marelli Motori		
Alternator Model	MJB 160 SB4		
Alternator Type	Four Pole Revolving Field		
Number of Leads	12		
Insulation Class	H		
Winding Pitch	2/3		
Voltage Connection Method	Three Position Voltage Selector Switch		
Excitation Method	Brushless w/ Auxiliary Windings		
Voltage Regulator Model	Mark V Analog		
Voltage Regulation Accuracy	+/-1%		
Maximum Unbalance Load	20%		
Total Harmonic Distortion (THD)	<2% @ 0% Load		
Telephone Influence Factor (TIF)	<50		
Motor Starting Capability			
	480V	600V	
SKVA @ 20% Voltage Dip	21	N/A	
SKVA @ 25% Voltage Dip	28	N/A	
SKVA @ 30% Voltage Dip	36	N/A	
SKVA @ 35% Voltage Dip	45	N/A	

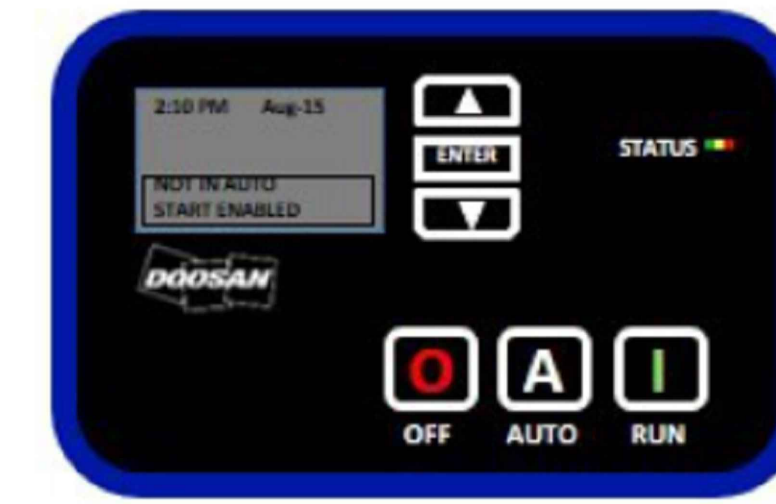
Power Connections	
Main Circuit Breaker Rating	70 A
Overcurrent Trip Setpoint (240V-1Ø)	70 A
Overcurrent Trip Setpoint (208V-3Ø & 240V-3Ø)	65 A
Overcurrent Trip Setpoint (240V-3Ø Delta)	N/A
Overcurrent Trip Setpoint (480V-3Ø)	33 A
Overcurrent Trip Setpoint (600V-3Ø)	N/A
20A—125V GFCI Duplex (NEMA 5-20R) Receptacles	2
50A—125/250V Temp Power (CS6369) Receptacles	2
400A-600V Camlock Connectors (Optional)	1 Set
Terminal Board Maximum Cable Size (Bare Wire)	AWG 6—350MCM
Terminal Board Maximum Cable Lug Size	7/16 in (11 mm)



1 GENERATOR DETAIL
SCALE: NOT TO SCALE

G25WDO-3A-T4F | Diesel Rental Generator

TG410 Automatic Start Stop Controller



TG410 Genset Controller Features

Functionality

- Automatic shutdowns and warnings
- Manual and remote AutoStart
- Engine speed adjustment
- Aftertreatment conditioning controls and status icons Auto / Force / Inhibit
- SAE J1939 electronic engine communication
- Engine Fault Code Annunciation SPN / FMI / OC
- 150 Event Fault Log
- Isolated RS 485 Modbus communication capable
- NFPA 110 Level 1 capable
- Maintenance counter
- AutoStart on low battery capable
- Exerciser clock
- Automatic, inverse time delay overcurrent protection

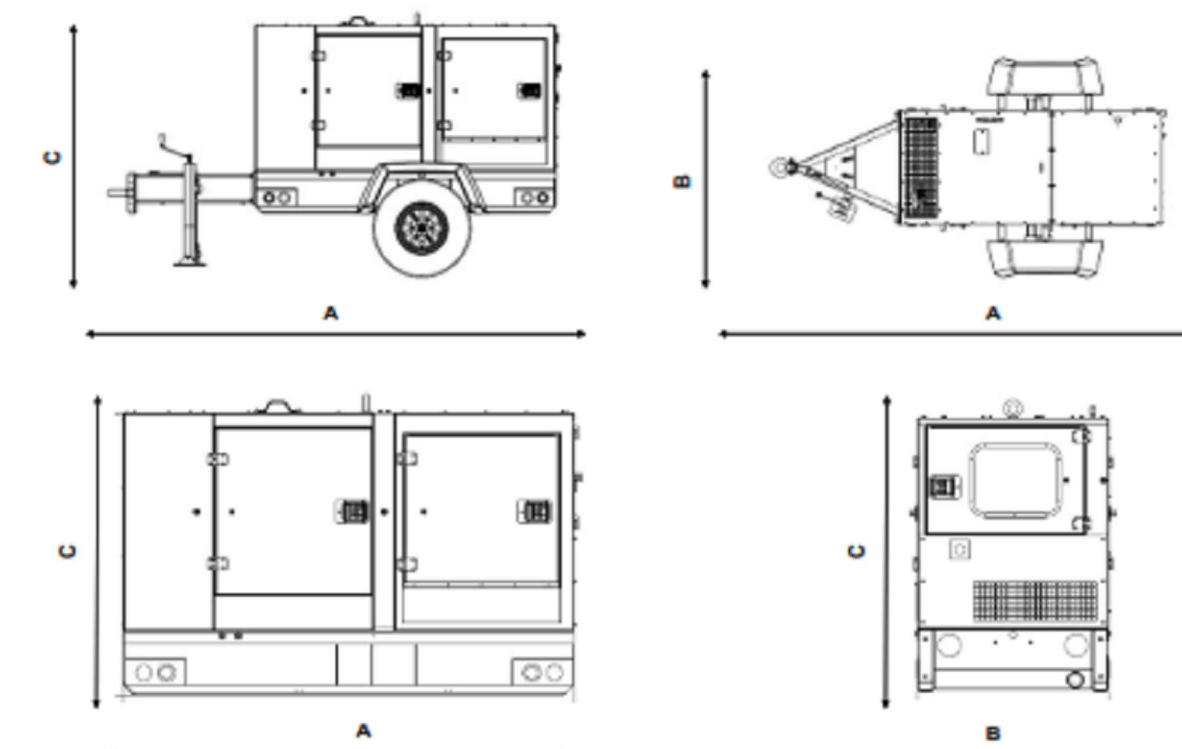
Form Factor

- 6-Button control
- 6-Line LCD Display with user adjustable contrast and temperature compensation from -4°F (-20°C) to 158°F (70°C)
- 1 Multicolor (Red/Yellow/Green) Status LED
- Front Gasket Seal for water ingress prevention to IP65 protection
- Conformal coated circuit board for protection against moisture and contaminants
- Rugged polycarbonate enclosure designed to survive extreme applications and abuse
- Controller functions in ambient conditions ranging from -40°F/C to 158°F (70°C)
- Meets or exceeds SAE J1113-11 with respect to electrical transients
- Meets or exceeds SAE J1455 with respect to vibration, thermal shock and cycling
- Meets or exceeds MIL-STD-461E with respect to electromagnetic compatibility
- Maximum 600V AC, true RMS sensing, +/- 1% full scale accuracy
- Current sensing, +/- 2% full scale accuracy

MANUAL RUN ...	MANUAL RUN ...
Genset Current	Genset Voltage
A: 100A	A-B: 480V
B: 300A	B-C: 480V
C: 300A	C-A: 480V
MANUAL RUN ...	MANUAL RUN ...
Oil Pressure	Engine Temp
75.0 PSI	180.5 F
95.3%	DEF Fill Level
95.5%	95.5%
MANUAL RUN ...	MANUAL RUN ...
Engine Speed	Engine Status
1800.0 RPM	Auto
HOLD AUTO+ / ▲	HOLD ENTER for
to Adjust RPM	to Change
MANUAL RUN ...	MANUAL RUN ...
Battery Voltage	Running Time
13.5V	8.3 Hours
AC Frequency	Idle Hours
60.0 Hz	250.7 Hours

G25WDO-3A-T4F | Diesel Rental Generator

Running Gear	To 49CFR571 requirements	
	3376 lb	1531 kg
Gross Vehicle Weight Rating (GVWR)	5000 lb	2304 kg
Gross Axle Weight Rating (GAWR)	Single Axle	
Configuration	Torsion	
Suspension	Electric	
Standard Brake System Configuration	Hydraulic Surge	
Optional Brake System Configuration	ST225/75D15, Bias Ply	
Tires	15" x 6", 6 lug on 5.9" bolt circle	
Wheels	61.7 in	1565 mm
Track Width	Meets Federal/Canada Motor Vehicle Safety Standard 571.108	
Lighting and Reflectors	7-Pole Round "RV" Blade Connector	
Electrical Connection to Towing Vehicle	3" (76 mm) Pintle Eye	
Standard Trailer Coupling	2-Inch Ball Coupler or 2-5/16-Inch Ball Coupler	
Optional Trailer Coupling	5-Position Adjustment 20 in—26 in	
Hitch Height	2 x 5/16" with slip hooks and safety latches	
Safety Chains	Trunnion Mount, 5000 lb Capacity	
Jack Stand Configuration		
Package Data		
	With Running Gear	Skidmount
Length (A)	130.5 in	3315 mm
	88.7 in	2252 mm
Width (B)	72.5 in	1850 mm
	30 in	965 mm
Height (C)	75.0 in	1940 mm
	50 in	1474 mm
Weight (Shipping)	2610 lb	1275 kg
	2510 lb	1139 kg
Weight (Ready to Run)	3140 lb	1424 kg
	2540 lb	1209 kg
Sound Level @ 23ft (7m), 100% Load	61 dBA(A)	



T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

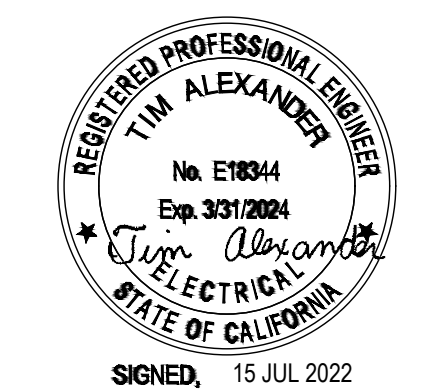
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



SIGNED, 15 JUL 2022

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

SHEET NUMBER: **C-12** REVISION: **4**



GPS-TMG-HR-40N



GPS-TMG-MNT-R GPS-TMG-HR-40NCM



Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/- 1.2 MHz
Amplifier Gain: 40 dB +/- 4 dB
Nominal Impedance: 50 ohms
Output VSWR (3dB bandwidth): < 2.0:1
Noise Figure (including pre-selector): ≤ 3.8 dB @ +25°C (typ.) ≤ 4.5 dB @ +25°C (max.)
Operating DC Voltage: 3.3- 12.0 V (regulated)
Survival DC Voltage: 28V
DC Current: 32 mA @ 5V (typ.) 40 mA @ 5V (max.)
Filtering: 4-stage filtering including pre-selector
Out-of-Band Rejection: ≥ 80 dB @ 1559 MHz ≥ 80 dB @ 1625 MHz

GPS-TMG-HR-40N, High Rejection 40 dB With Enhanced Narrow Band Filtering

The GPS-TMG-HR-40N timing reference antennas feature a 40 dB amplifier and narrow band high rejection filtering specifically designed to support long-lasting, trouble-free deployments in congested cell-site applications with severe interference around the GPS L1 frequency.

The proprietary quadrifilar helix design, coupled with multi-stage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

The unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. Custom models or site kits options are also available. The antenna label and collar mount are color coded red for differentiation purposes.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC.

Antenna Element Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	≤1.5:1	Right hand circular	N, female (one-bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
5.0" H x 3.2" D (126 H x 81 mm)	7.5" L x 4.4" W x 3.8" D (190 L x 112 x 96 mm)	0.6 lbs (0.3 kg)	1.9 lbs (0.9 kg)	White

Environmental Specifications

Temperature Range	Humidity
- 40°C to + 85°C	95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-HR-40N	Antenna Only. Does not include mounting hardware.
GPS-TMG-HR-40NCM	Includes red powder coated collar mount (GPS-TMG-MNT-R)

QUESTIONS? VISIT WWW.TALLEYCOM.COM OR CONTACT TALLEY AT 800.949. 7079 OR SALES@TALLEYCOM.COM TODAY.



1 GPS ANTENNA DETAIL
SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

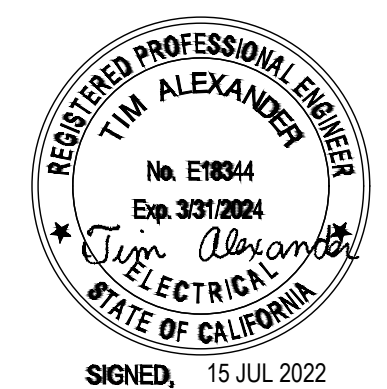
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



SIGNED, 15 JUL 2022

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

SHEET NUMBER:
C-13

REVISION:
4

BA20403A / HWY 101 & LAKEVILLE, EXISTING AC PANEL, EXISTING BREAKER SCHEDULE													
LOAD		LOADS CONTINUOUS	LOADS NONCONTINUOUS	BREAKER	LOAD PER PHASE		BREAKER	LOADS CONTINUOUS	LOADS NONCONTINUOUS	LOAD			
DESCRIPTION	VOLT-AMPS				"A"	"B"				VOLT-AMPS	DESCRIPTION		
1	SURGE SUPPRESSION	1	C	30	801	801	60	NC	800	BATTERY CABINET	2		
3		1	C					NC	800		4		
5	GFCI RECEPTACLE	180	NC	15	360	360	20	C	180	TELCO PLUG	6		
7	TELCO RECEPTACLE	180	C	20	360	360	20	C	180	TELCO PLUG	8		
9	LIGHT	300	C	20	300	300	20			SPARE (OFF)	10		
11	RBS 6102	8000	C	100	8000	8000	50			UMTS (OFF)	12		
13		8000	C		8000						14		
15	BLANK				0	0				BLANK	16		
17	BLANK				0	0				BLANK	18		
19	BLANK				0	0				BLANK	20		
21	BLANK				0	0				BLANK	22		
23	BLANK				0	0				BLANK	24		
25	BLANK				0	0				BLANK	26		
27	BLANK				0	0				BLANK	28		
29	BLANK				0	0				BLANK	30		
CONNECTED PHASE TOTALS, VA:					9461	9161							
CONNECTED LOAD PER PHASE, AMPS:					79	76							
CONNECTED LOAD PER PHASE, KVA:					9.461	9.161							
TOTAL CONNECTED LOAD, KVA:					18.622								
NONCONTINUOUS LOAD PER PHASE, KVA:					0.980	0.800							
TOTAL NONCONTINUOUS LOAD, KVA:					1.780								
CONTINUOUS LOAD PER PHASE, KVA:					10.601	10.451							
TOTAL CONTINUOUS LOAD, KVA:					21.053								
DEMAND LOAD (CONT + NONCONT) PER PHASE, KVA:					11.581	11.251							
TOTAL DEMAND LOAD (CONTINUOUS + NONCONTINUOUS), KVA:					22.833								
TOTAL DEMAND LOAD (CONT + NONCONT), AMPS:					97	94							
PANEL CAPACITY, KVA:					48.000								
SPARE PANEL CAPACITY, KVA:					25.168								

AC PANEL DATA	
SYSTEM VOLTAGE:	240
MAIN BREAKER:	200
BUSS RATING:	200
MAIN LUG ONLY:	N/A
KAIC RATING:	65/10 KAIC SERIES-RATED

1 EXISTING AC PANEL, EXISTING BREAKER SCHEDULE
SCALE: NOT TO SCALE

BA20403A / HWY 101 & LAKEVILLE, EXISTING AC PANEL, PROPOSED BREAKER SCHEDULE													
LOAD		LOADS CONTINUOUS	LOADS NONCONTINUOUS	BREAKER	LOAD PER PHASE		BREAKER	LOADS CONTINUOUS	LOADS NONCONTINUOUS	LOAD			
DESCRIPTION	VOLT-AMPS				"A"	"B"				VOLT-AMPS	DESCRIPTION		
1	SURGE SUPPRESSION	1	C	30	801	801	60	NC	800	BATTERY CABINET	2		
3		1	C					NC	800		4		
5	GFCI RECEPTACLE	180	NC	15	360	360	20	C	180	TELCO PLUG	6		
7	TELCO RECEPTACLE	180	C	20	360	360	20	C	180	TELCO PLUG	8		
9	LIGHT	300	C	20	300	300	20			SPARE (OFF)	10		
11	RBS 6102	8000	C	100	8000	8000	50			UMTS (OFF)	12		
13		8000	C		8000						14		
15	6160 CABINET*	8200	C	100*	8200	8200					16		
17		8200	C		8200						18		
19	BLANK				0	0				BLANK	20		
21	BLANK				0	0				BLANK	22		
23	BLANK				0	0				BLANK	24		
25	BLANK				0	0				BLANK	26		
27	BLANK				0	0				BLANK	28		
29	BLANK				0	0				BLANK	30		
CONNECTED PHASE TOTALS, VA:					17661	17361							
CONNECTED LOAD PER PHASE, AMPS:					147	145							
CONNECTED LOAD PER PHASE, KVA:					17.661	17.361							
TOTAL CONNECTED LOAD, KVA:					35.022								
NONCONTINUOUS LOAD PER PHASE, KVA:					0.980	0.800							
TOTAL NONCONTINUOUS LOAD, KVA:					1.780								
CONTINUOUS LOAD PER PHASE, KVA:					20.851	20.701							
TOTAL CONTINUOUS LOAD, KVA:					41.553								
DEMAND LOAD (CONT + NONCONT) PER PHASE, KVA:					21.831	21.501							
TOTAL DEMAND LOAD (CONTINUOUS + NONCONTINUOUS), KVA:					43.333								
TOTAL DEMAND LOAD (CONT + NONCONT), AMPS:					182	179							
PANEL CAPACITY, KVA:					48.000								
SPARE PANEL CAPACITY, KVA:					4.668								

AC PANEL DATA	
SYSTEM VOLTAGE:	240
MAIN BREAKER:	200
BUSS RATING:	200
MAIN LUG ONLY:	N/A
KAIC RATING:	65/10 KAIC SERIES-RATED

- 1) CHANGES AND NEW CIRCUITS ARE INDICATED IN BOLD FONT WITH AN ASTERISK (*).
- 2) INSTALL (1) NEW 100A/2P BREAKER FOR NEW 6160 CABINET.
- 3) UPDATE PANEL DIRECTORY.

2 EXISTING AC PANEL, PROPOSED BREAKER SCHEDULE
SCALE: NOT TO SCALE

- NOTES:
1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, OR XHHW-2 UNLESS NOTED OTHERWISE.
 2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 3. ALL GROUNDING AND BONDING PER THE NEC.

FAULT CALCULATIONS

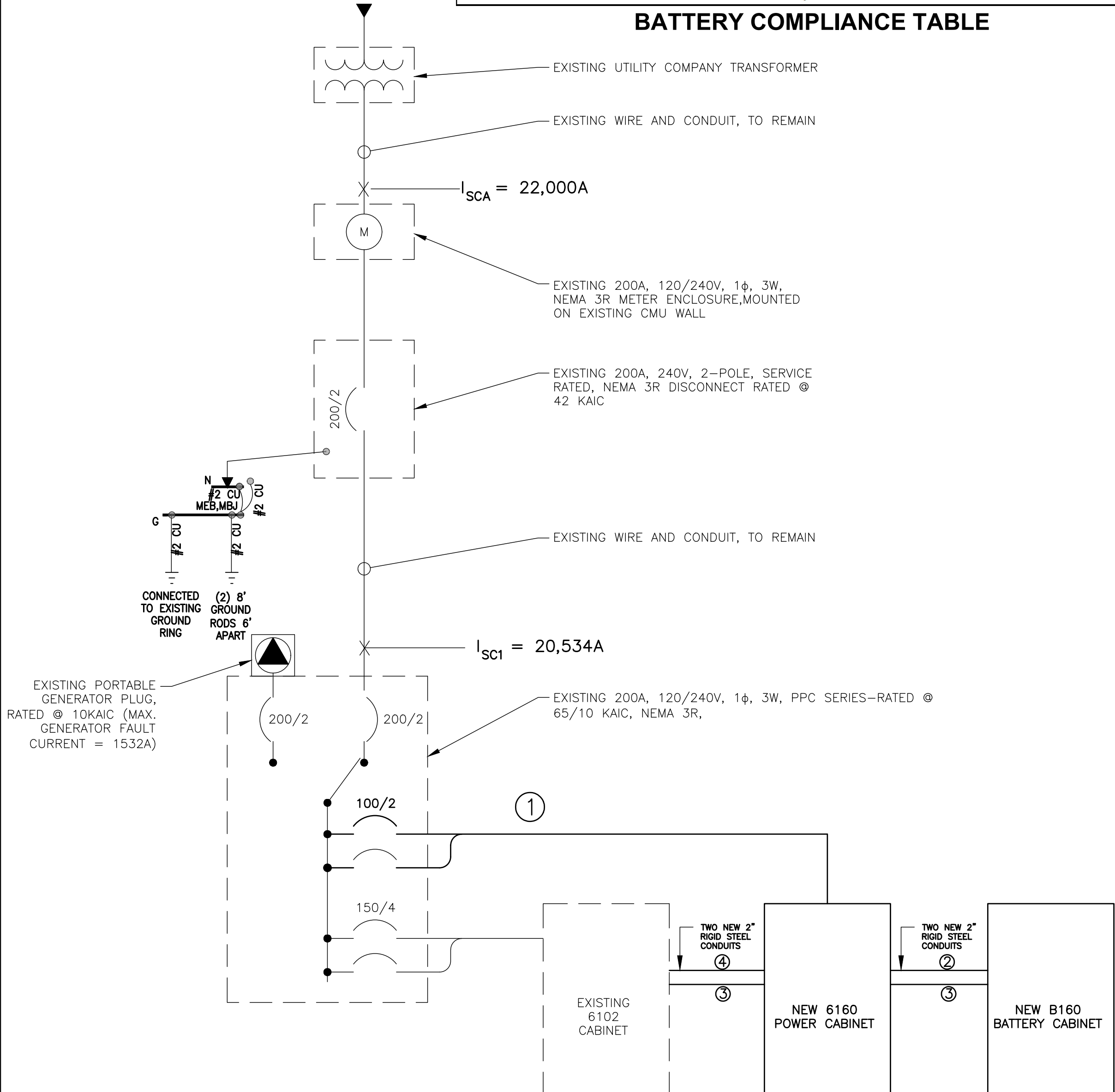
FAULT AVAILABLE AT THE SERVICE: 22,000 AMPS RMS SYMM
SERVICE VOLTAGE: 120/240V, 1φ

METER
Fault Available L-L: 22,000A

PPC
DISTANCE
CONDUIT TYPE
CONDUCTOR
Fault Available L-L: 15 Feet
Conductive
#3/0
20.534A

2019 CFC CHAPTER 1206.2, TABLE 1206.2 COMPLIANCE TABLE (EXISTING + NEW)				
EXISTING BATTERY INFORMATION (12V MONOBLOCKS)				
BATTERY MODEL	TOTAL # OF BATTERIES INSTALLED	AMP-HRS PER BATTERY	KWH PER BATTERY	TOTAL BATTERY KWH (EXISTING)
(NONE)	0	0	0.00	0.00
NEW BATTERY INFORMATION (12V MONOBLOCKS)				
BATTERY MODEL	TOTAL # OF BATTERIES INSTALLED	AMP-HRS PER BATTERY	KWH PER BATTERY	TOTAL BATTERY KWH (NEW)
GS PYL12V185FT, IN NEW B160 BATTERY CABINET	16	185	2.22	35.52
TOTAL KWH CAPACITY (EXISTING + NEW):				35.52
TOTAL KWH CAPACITY (EXISTING + NEW) = 35.52 KWH (SINCE < 70 KWH, 2019 CFC CHAPTER 1206.2 DOES NOT APPLY)				

BATTERY COMPLIANCE TABLE



- 1 PROPOSED CABLE & CONDUIT SCHEDULE
PROPOSED (3) #3, (1) #6 GND, 1" CONDUIT
- 2 PROPOSED CABLE & CONDUIT SCHEDULE, 6160 TO B160
DC POWER, BATTERY BACKUP, (2) #4/0, UPPER 2" STEEL CONDUIT
- 3 PROPOSED CABLE & CONDUIT SCHEDULE, 6160 TO 6102
ALARM, B160 DOOR OPEN, #14 PAIR, LOWER 2" STEEL CONDUIT
ALARM, B160 CLIMATE FAILURE, #14 PAIR, LOWER 2" STEEL CONDUIT
DC POWER, B160 MAIN CIRCUIT BOARD, #14 PAIR, LOWER 2" STEEL CONDUIT
DC POWER, B160 500W COOLING FAN, #14 PAIR, LOWER 2" STEEL CONDUIT
BATTERY TEMPERATURE PROBE, #14 PAIR, LOWER 2" STEEL CONDUIT
- 4 PROPOSED CABLE & CONDUIT SCHEDULE, 6160 TO 6102
UPPER 2" STEEL CONDUIT, EMPTY, FUTURE USED

3 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE
200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW

REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
ELECTRICAL
STATE OF CALIFORNIA
SIGNED, 15 JUL 2022

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

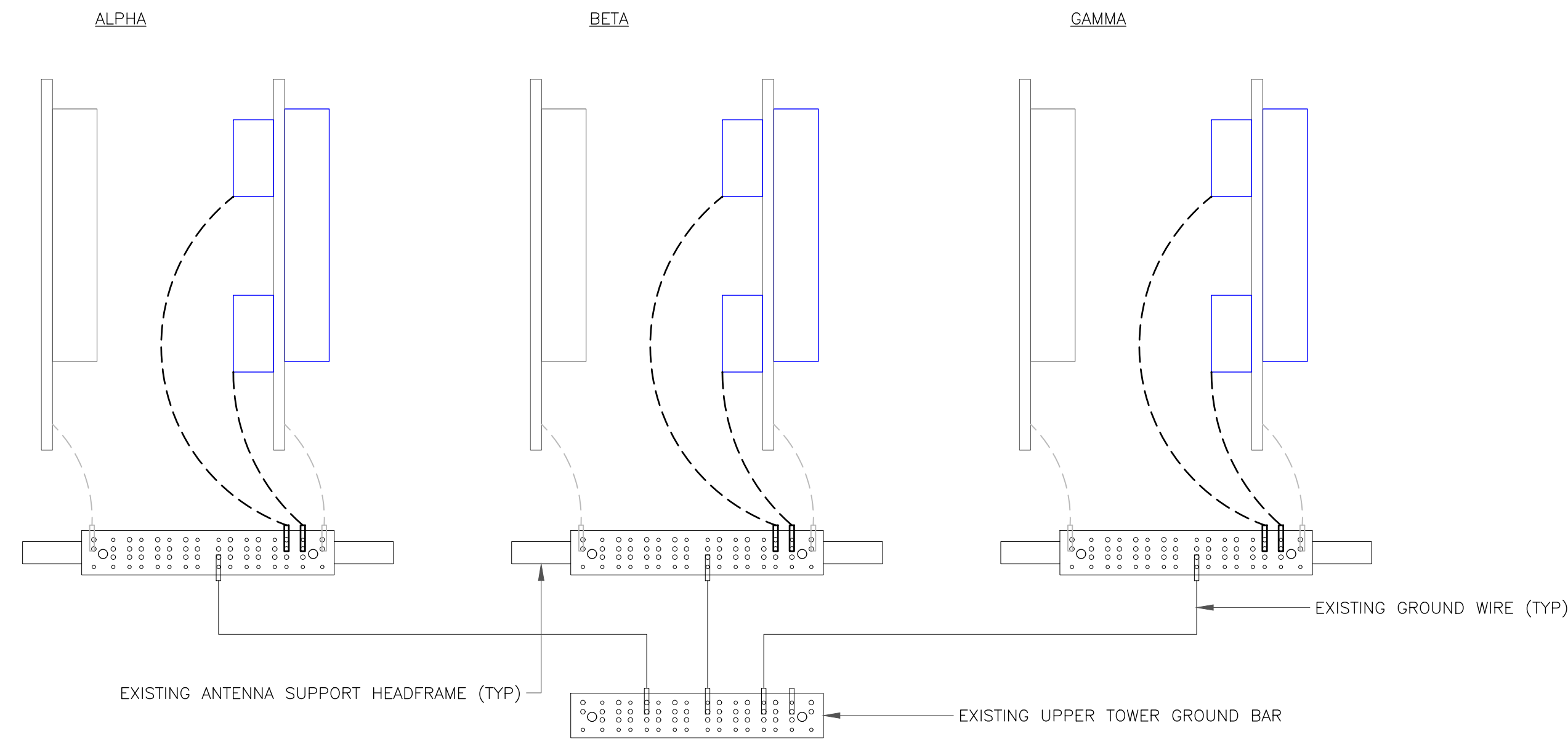
SHEET NUMBER: **E-1** REVISION: **4**

T-MOBILE SITE NUMBER:
BA20403A

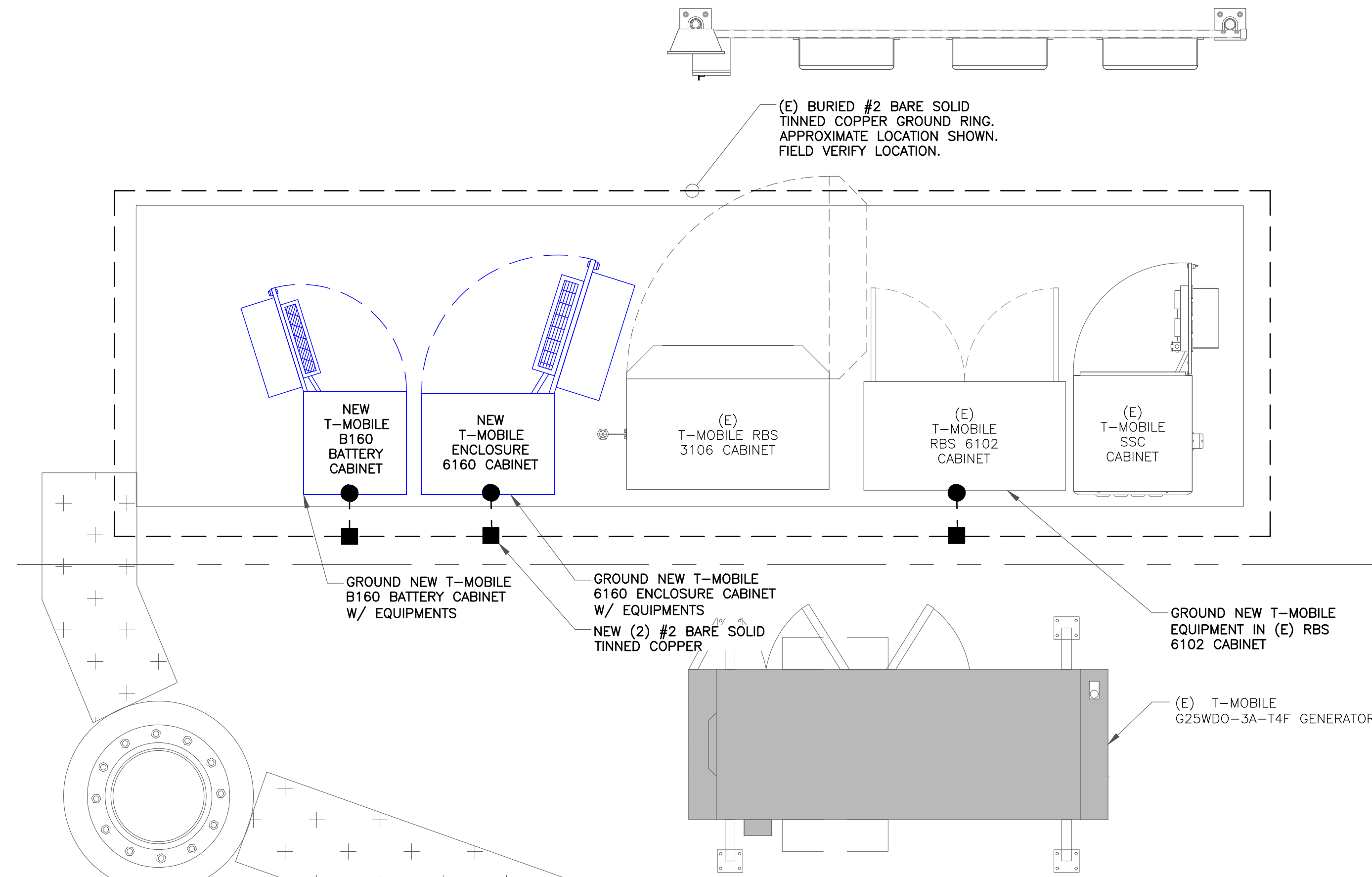
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE



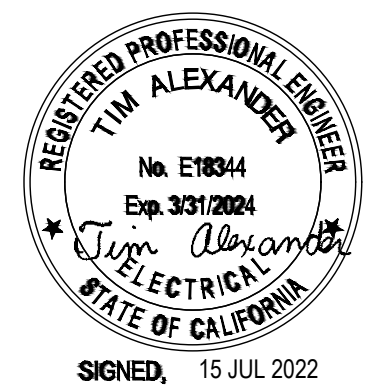
1 ANTENNA GROUND DIAGRAM
SCALE: NOT TO SCALE



2 EQUIPMENT GROUNDING (NO WORK)
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



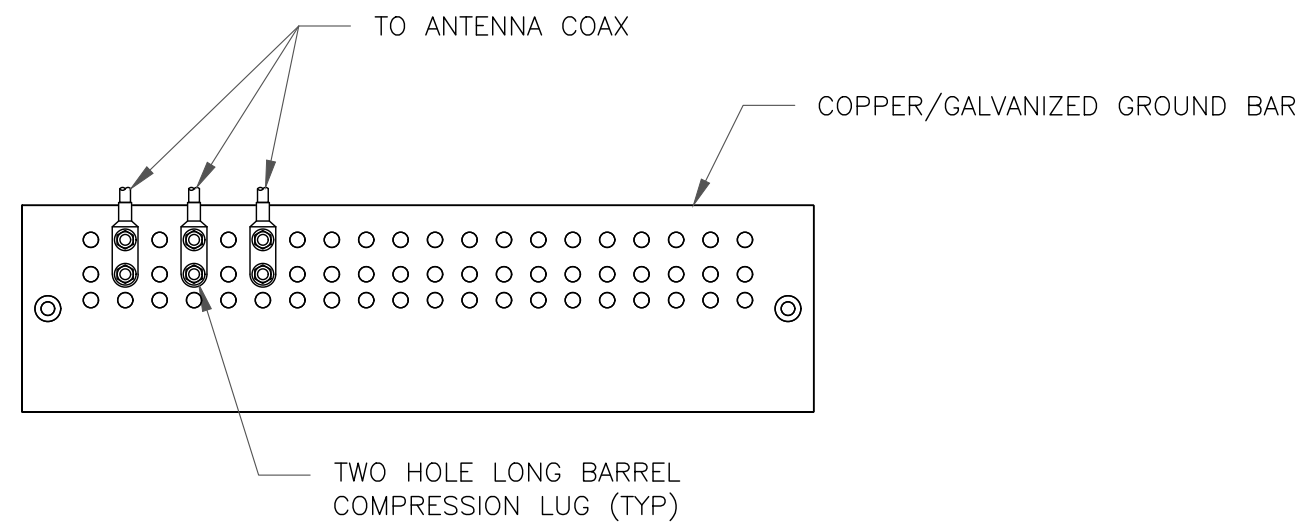
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

G-1

REVISION:

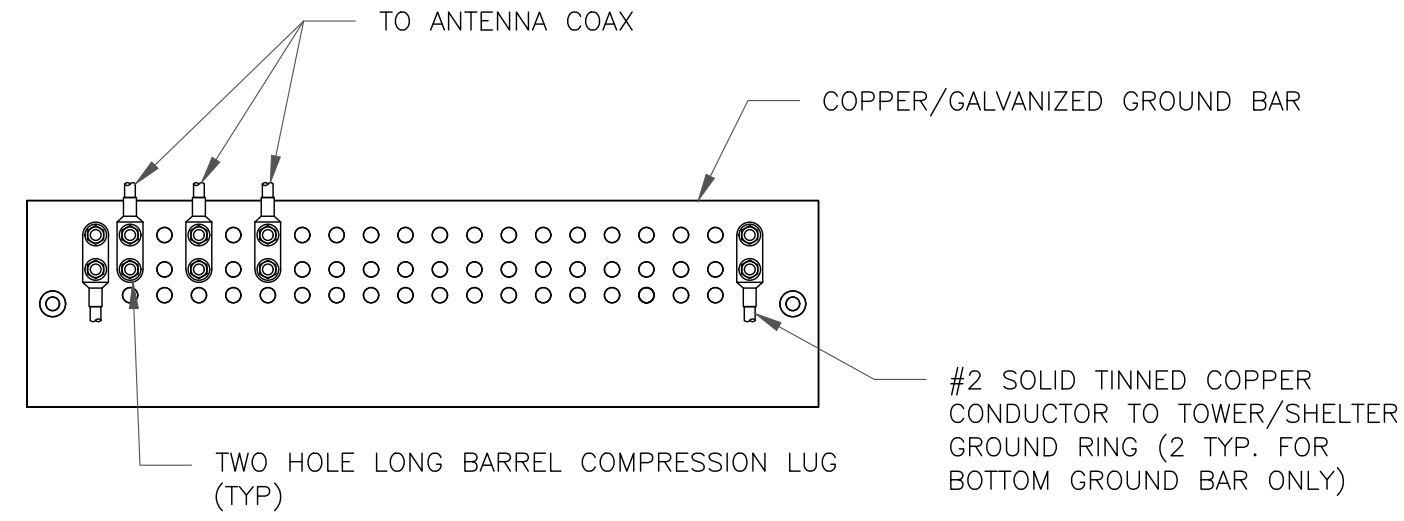
4



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

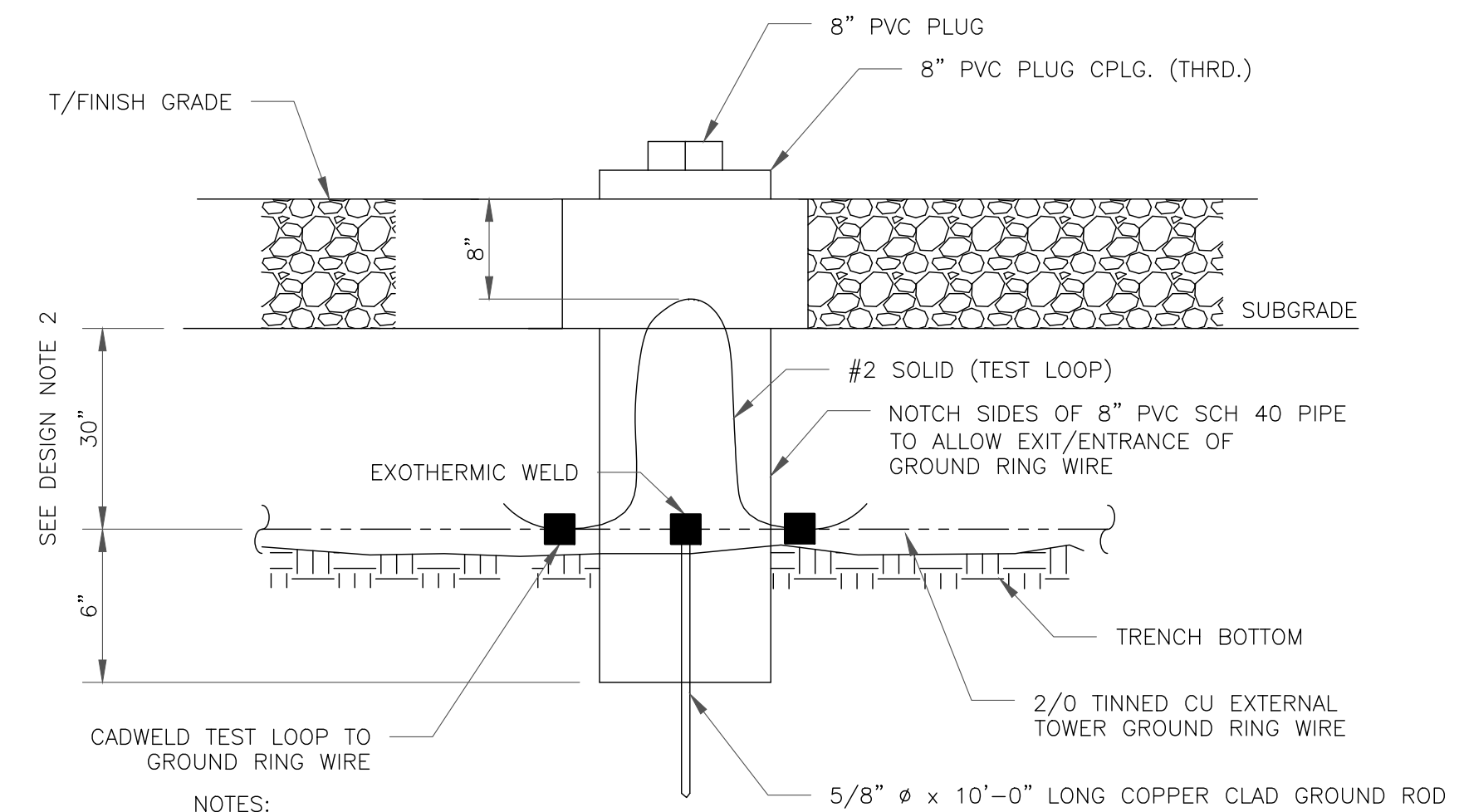
1 ANTENNA GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

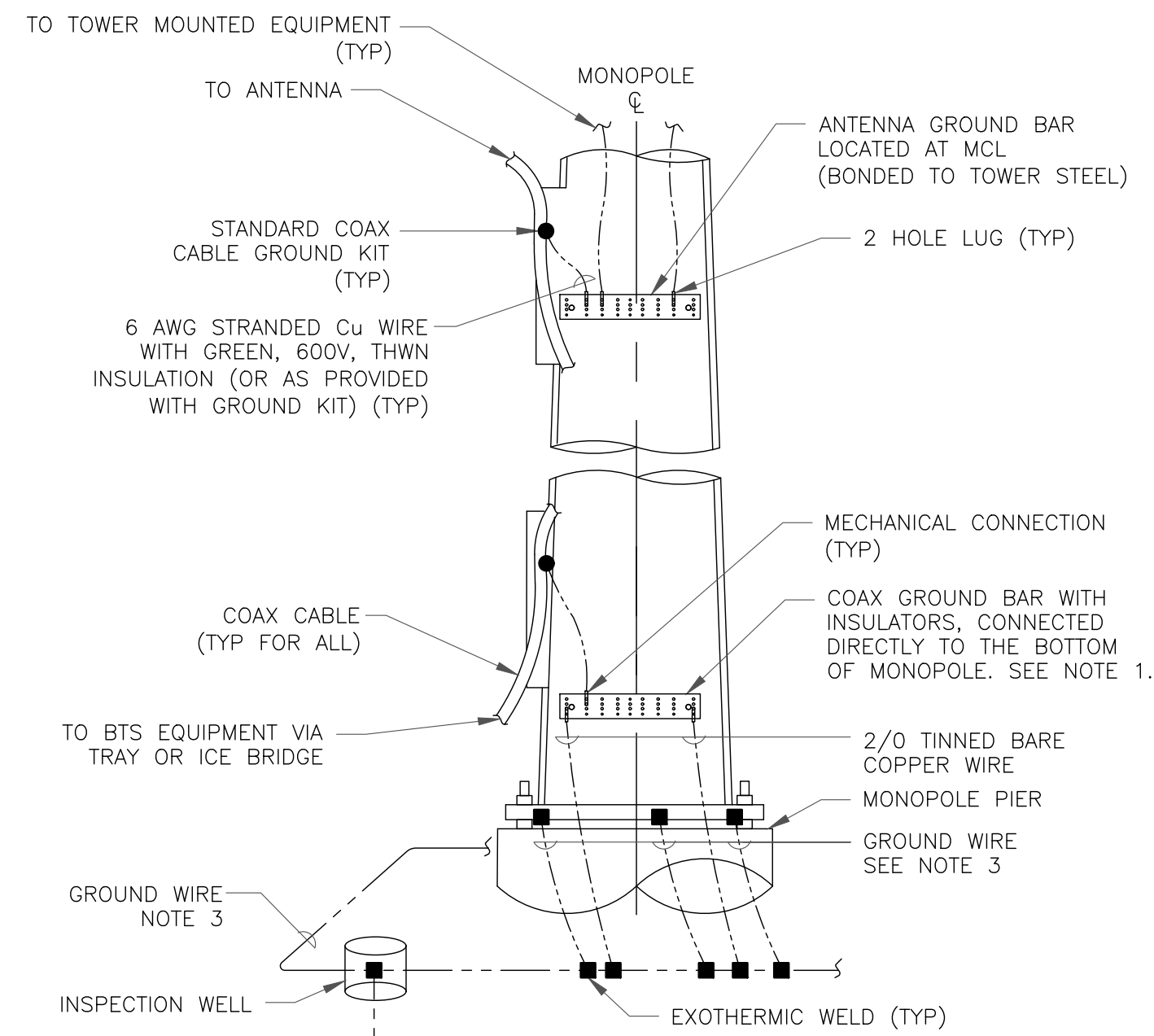
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

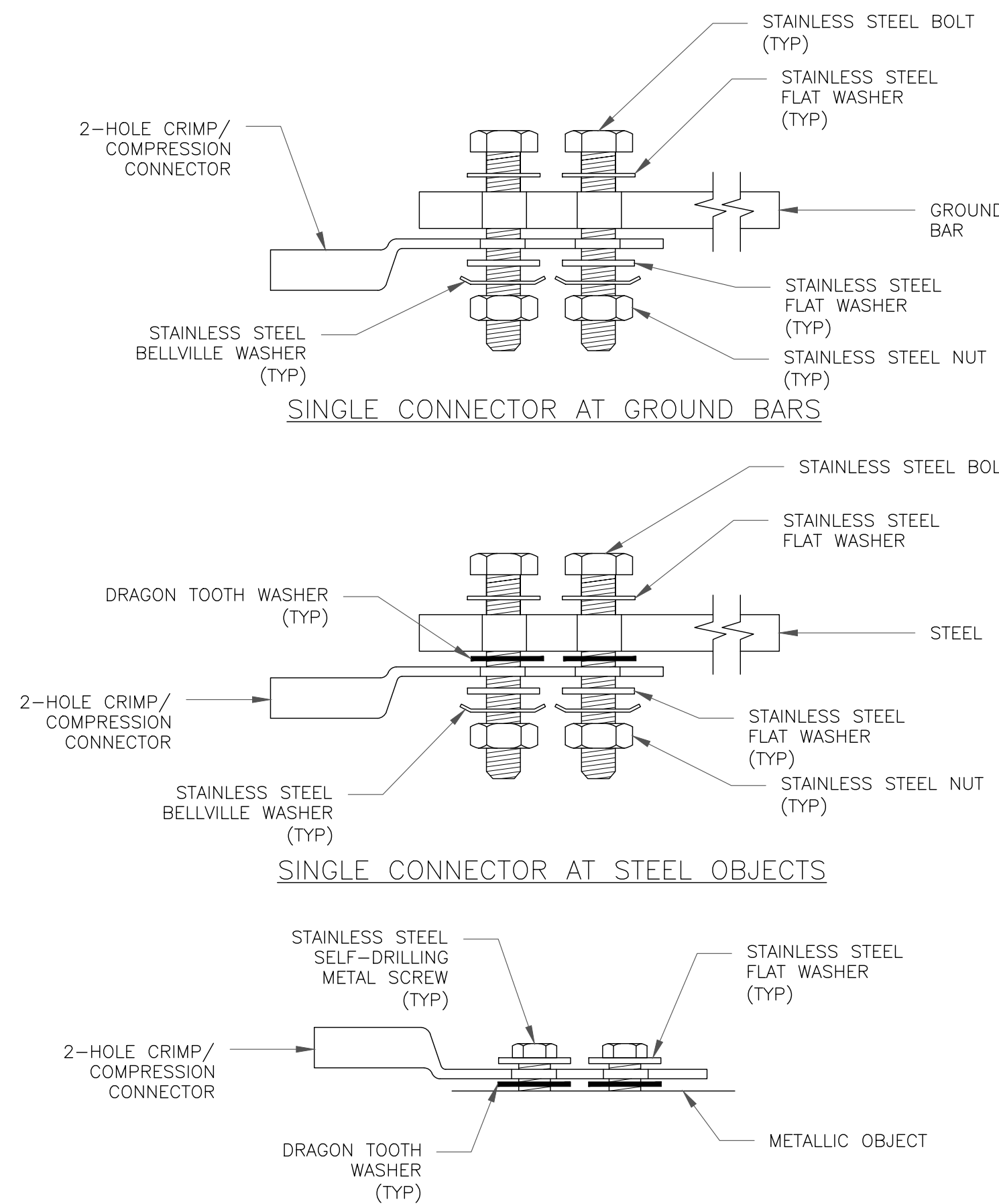
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



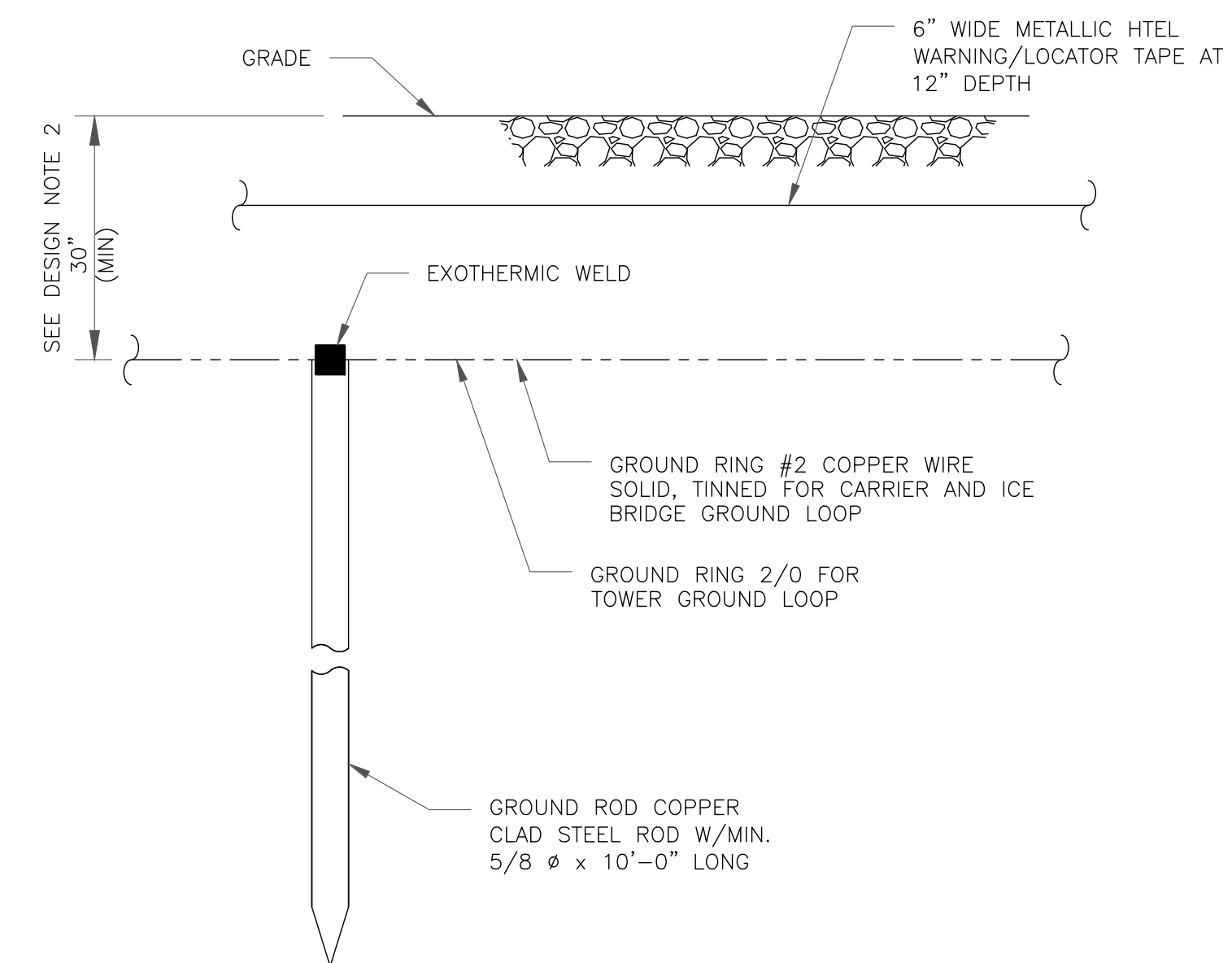
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW

REGISTERED PROFESSIONAL ENGINEER
TIM ALEXANDER
No. E18344
Exp. 3/31/2024
Tim Alexander
ELECTRICAL
STATE OF CALIFORNIA
SIGNED, 15 JUL 2022

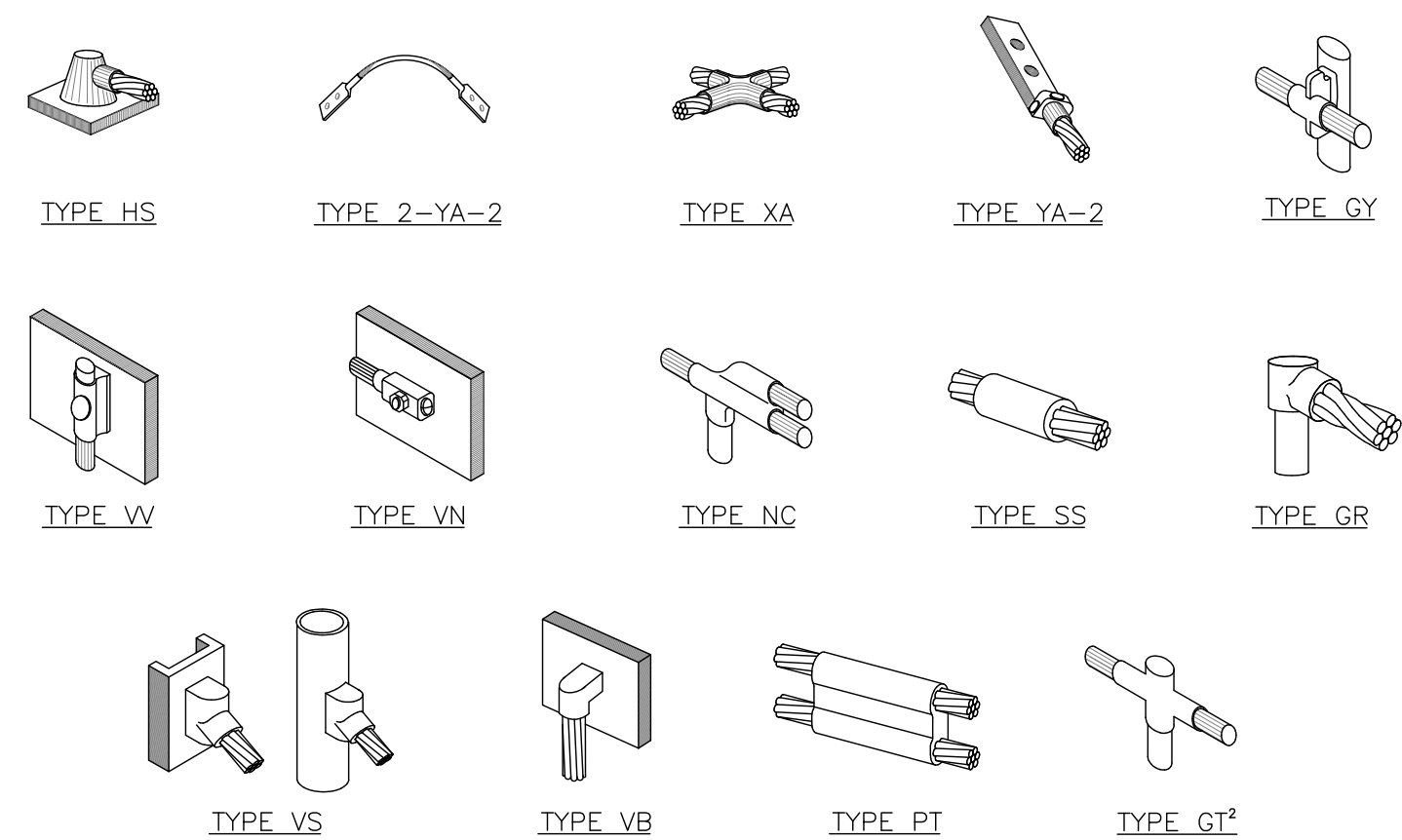
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

G-2

REVISION:

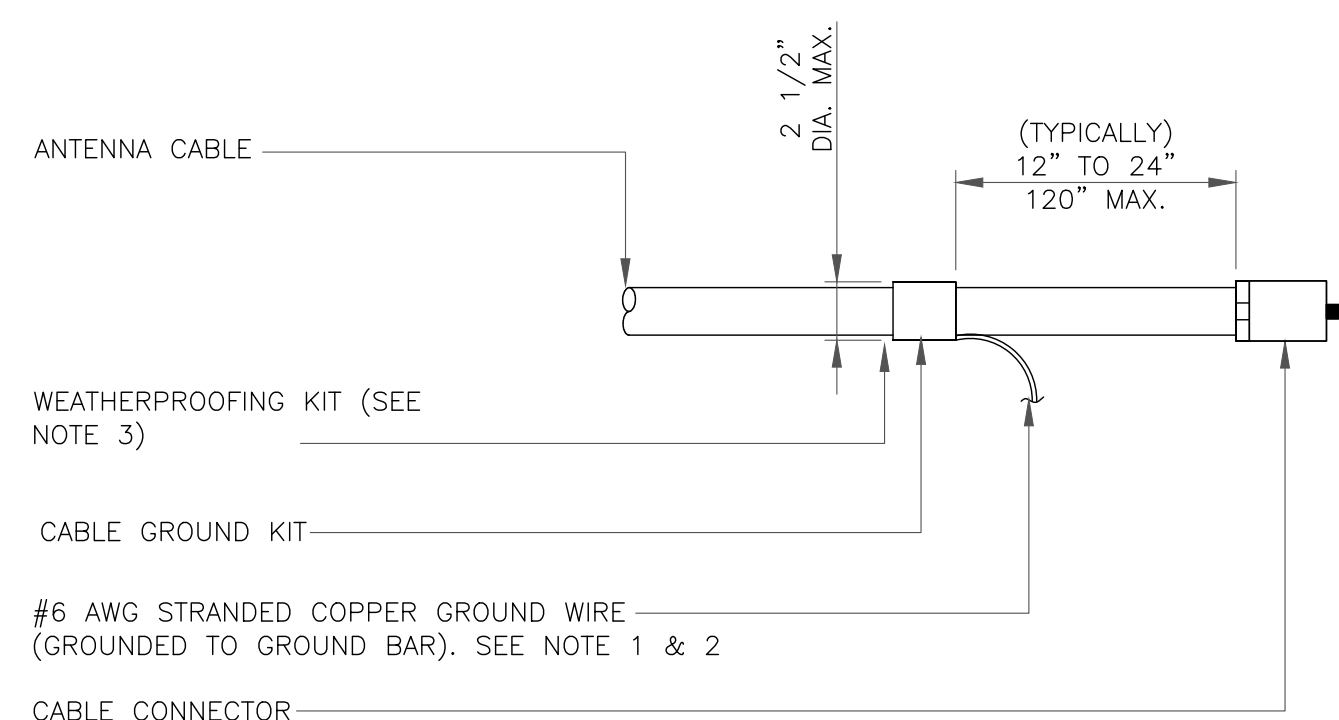
4



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

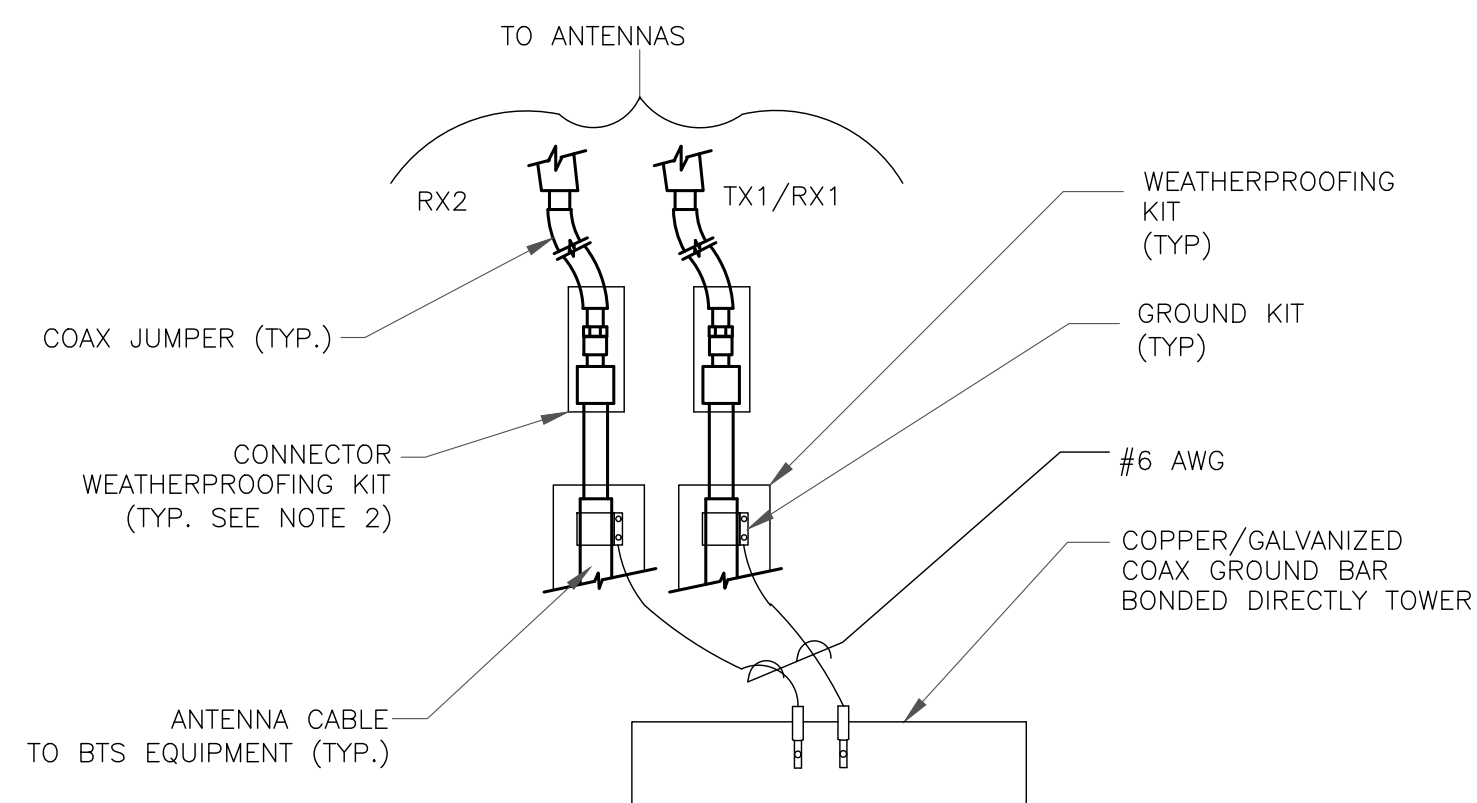
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

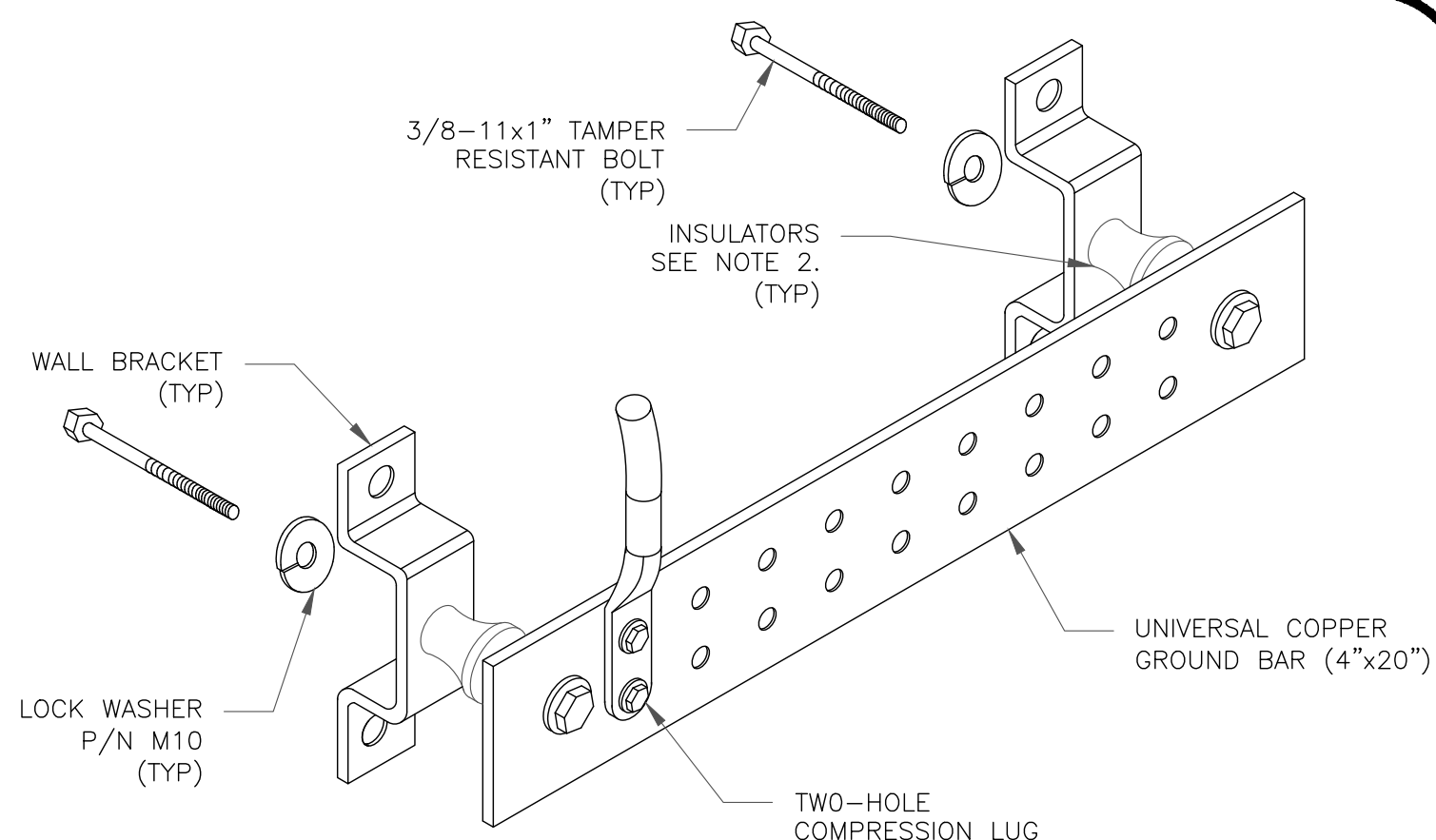
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

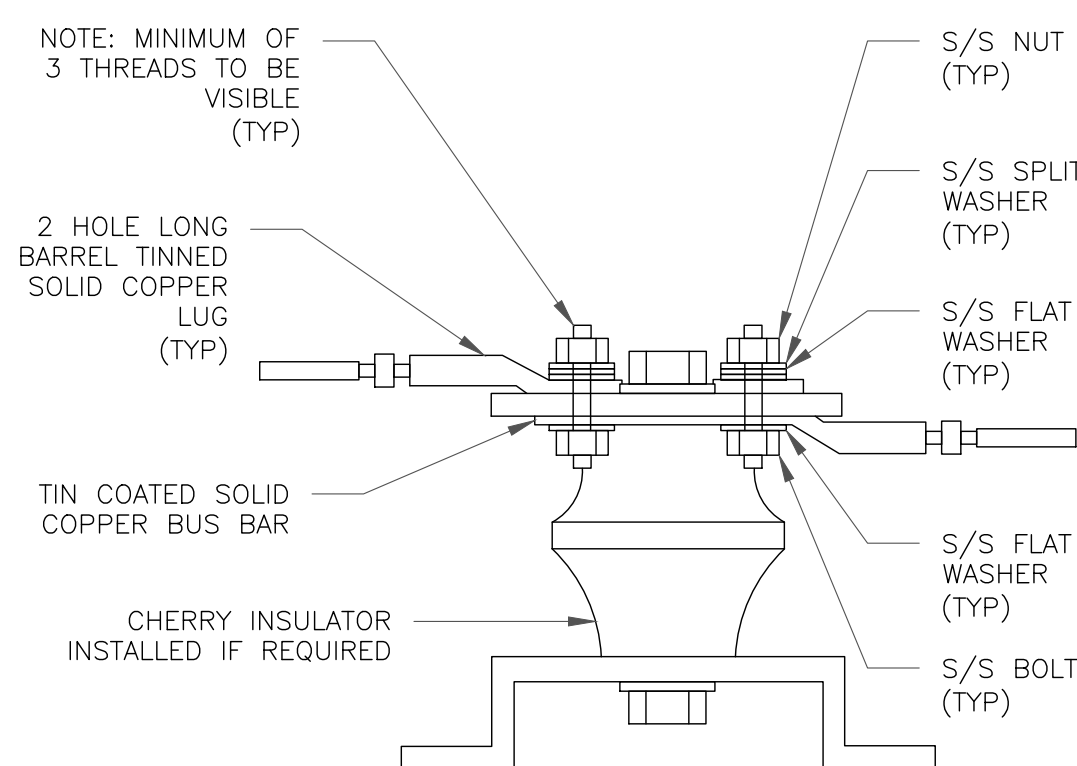
4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



NOTES:

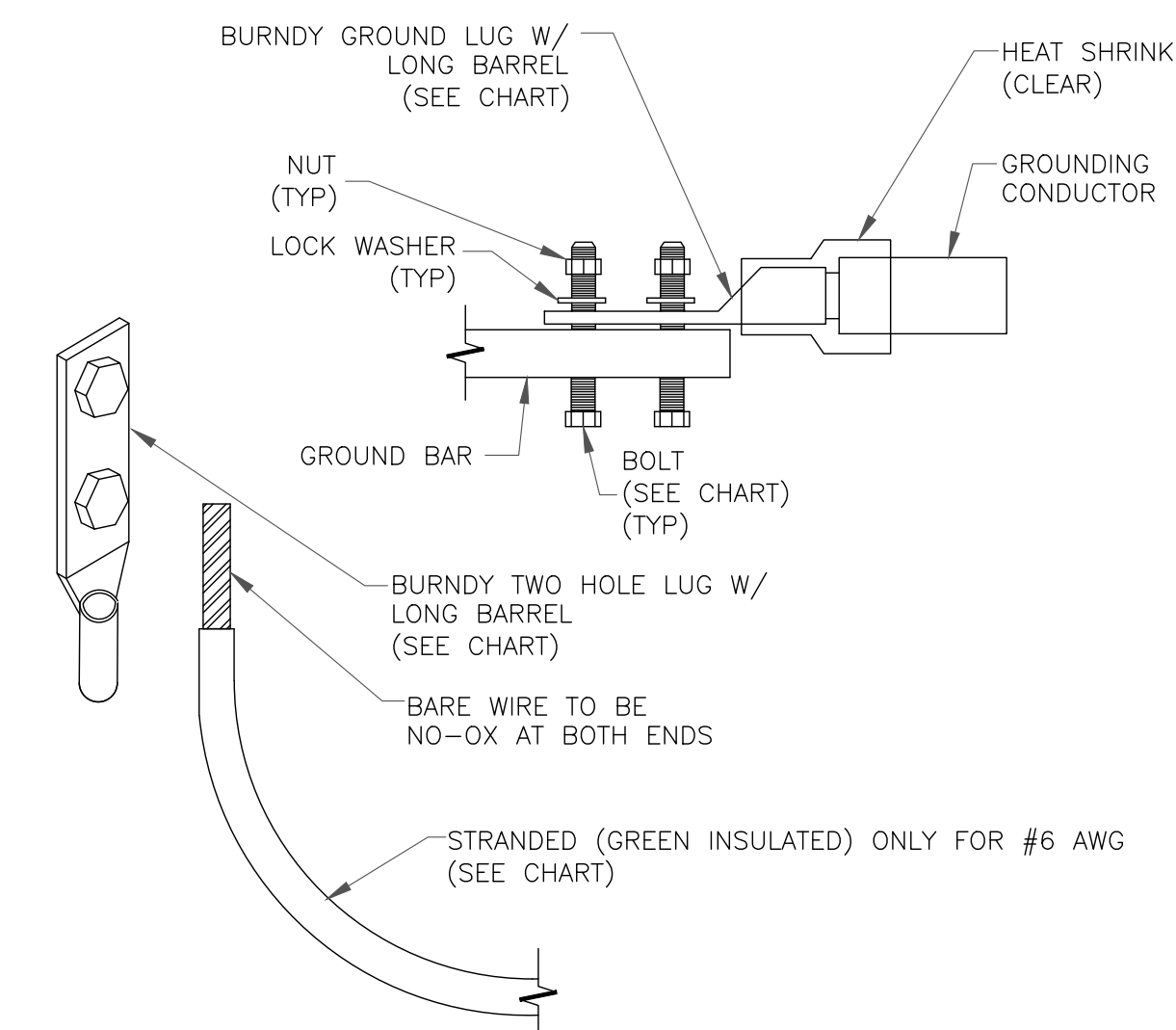
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

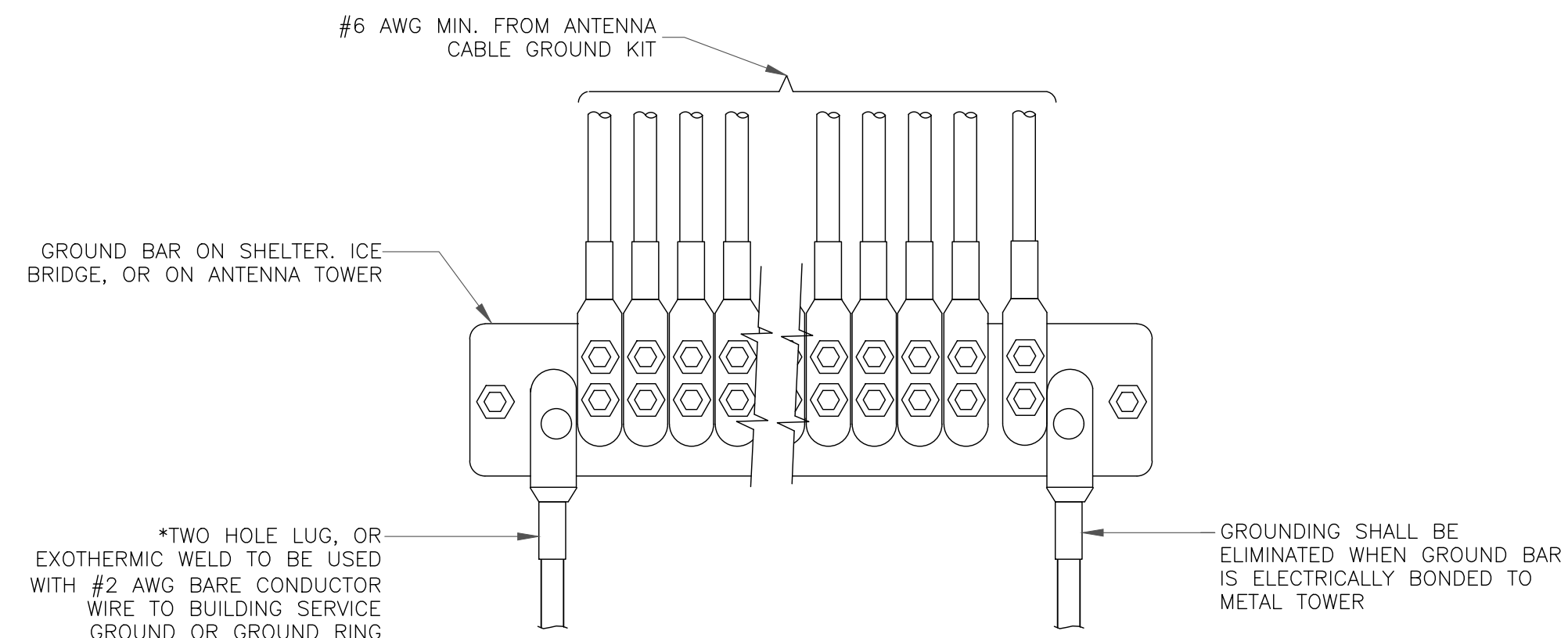
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



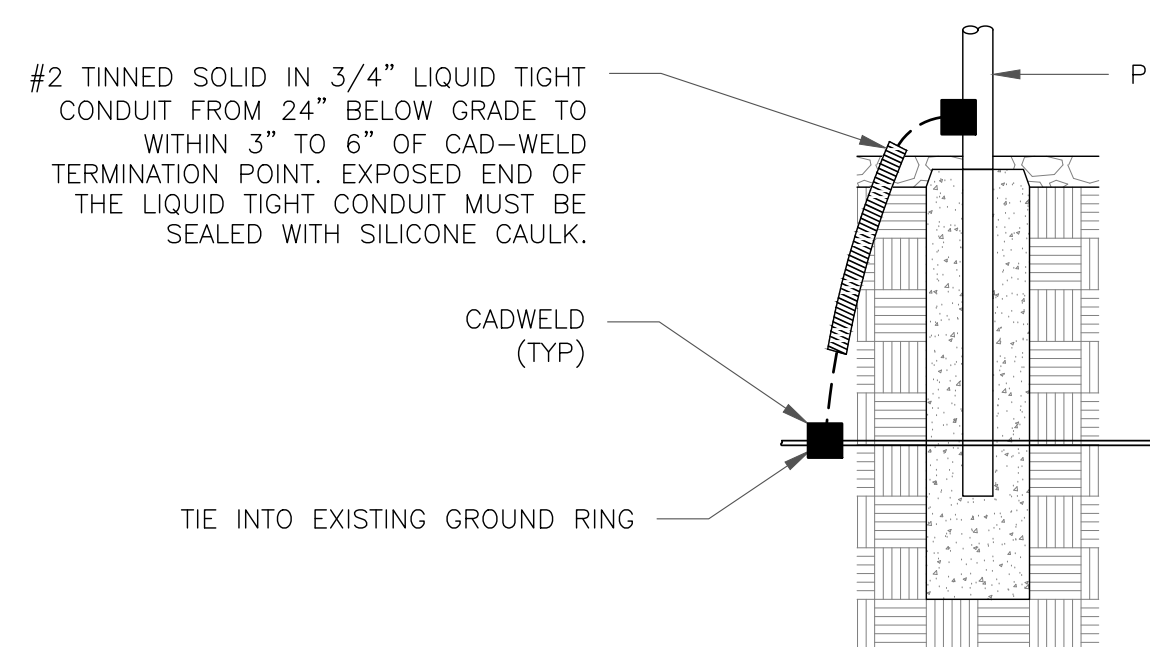
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile

1755 CREEKSIDE OAKS DR. SUITE 190
SACRAMENTO, CA 95833

CROWN CASTLE

200 SPECTRUM CENTER DRIVE,
SUITE 1700 & 1800
IRVINE, CA 92618

TELCYTE
INFRASTRUCTURE SERVICES

3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

T-MOBILE SITE NUMBER:
BA20403A

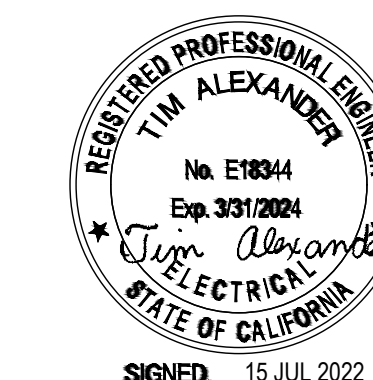
BU #: 856199

1 CASA GRANDE ROAD
PETALUMA, CA 94954

EXISTING 78'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	Q.A.
A	10/14/21	AK	PRELIMINARY	CW
0	11/23/21	NP	SUBMITTAL FOR PERMIT	CW
1	02/09/22	JD	JDX COMMENTS	CW
2	04/13/22	NP	SPAR COMMENTS	CW
3	05/30/22	AK	JDX COMMENTS	CW
4	07/17/22	MM	JDX COMMENTS	CW



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

SHEET NUMBER:

G-3

REVISION:

4