

Referral Early Consultation

Date: April 8, 2022

То:	Distribution List (See Attachment A)
From:	Emily Basnight, Assistant Planner Planning and Community Development
Subject:	STAFF APPROVAL APPLICATION NO. PLN2022-0039 – AT&T MOBILITY – 3140 N GRATTON RD
Respond By:	April 25, 2022

****PLEASE REVIEW REFERRAL PROCESS POLICY****

The Stanislaus County Department of Planning and Community Development is soliciting comments from responsible agencies under the Early Consultation process to determine: a) whether or not the project is subject to CEQA and b) if specific conditions should be placed upon project approval.

Therefore, please contact this office by the response date if you have any comments pertaining to the proposal. Comments made identifying potential impacts should be as specific as possible and should be based on supporting data (e.g., traffic counts, expected pollutant levels, etc.). Your comments should emphasize potential impacts in areas which your agency has expertise and/or jurisdictional responsibilities.

These comments will assist our Department in preparing the conditions for a Staff Approval. Therefore, please list any conditions that you wish to have included as well as any other comments you may have. Please return all comments and/or conditions as soon as possible or no later than the response date referenced above.

Thank you for your cooperation. Please call (209) 525-6330 if you have any questions.

Applicant:	Epic Wireless Group, LLC on behalf of AT&T Mobility
Project Location:	3140 North Gratton Road, at the southwest corner of East Monte Vista and North Santa Fe Avenues, in the Community of Denair.
APN:	024-039-009
Williamson Act Contract:	N/A
General Plan:	Urban Transition
Current Zoning:	General Agriculture (A-2-10)

Project Description: Request to establish a wireless communications facility on a 4.84 \pm acre parcel in the General Agricultural (A-2-10) zoning district. This proposal includes the installation of a 125-foot-tall monopole and 702 \pm square-foot leasing area to be enclosed by a chain-link fence; the proposed leasing area and monopole will be located within a .4 \pm acre area of the parcel that is currently enclosed with a 6-foot-tall chain-link fence with privacy slats. The monopole will include 15 antennas and 18 RRUS at the 121-foot centerline. Proposed ground equipment includes a 64 \pm square-foot walk-in equipment cabinet, a 30kw diesel generator, and 190-gallon backup fuel tank. A 20-foot-wide all-weather access and utility easement is proposed for maintenance and fire access. The project also proposes a 6-foot-wide non-exclusive utility easement to extend from the facility to North Gratton Road. The facility will be unstaffed, however, up to two technicians are anticipated to access the site on an "as needed" basis for routine maintenance. The proposed wireless

communications facility meets the County's siting standards as specified in Chapter 21.91 of the County Zoning Ordinance for communication facilities. The site is currently improved with a single-family dwelling, detached garage, and .4 \pm acre area enclosed by a 6-foot-tall chain-link fence with privacy slats adjacent to the dwelling.

Full document with attachments available for viewing at: http://www.stancounty.com/planning/pl/act-projects.shtm



STAFF APPROVAL APPLICATION NO. PLN2022-0039 – AT&T MOBILITY – 3140 N GRATTON RD Attachment A

Distribution List

Х	CROP DUSTERS	Х	STAN CO ERC
Х	IRRIGATION DIST: TURLOCK	Х	STAN CO HAZARDOUS MATERIALS
Х	MOSQUITO DIST: TURLOCK	Х	STAN CO PUBLIC WORKS
Х	MUNICIPAL ADVISORY COUNCIL: DENAIR	Х	STAN CO SUPERVISOR DIST 2: CHIESA
х	RAILROAD: BURLINGTON NORTHERN SANTA FE	Х	STANISLAUS LAFCO
Х	STAN CO BUILDING PERMITS DIVISION	Х	SURROUNDING LAND OWNERS
Х	STAN CO DER		



STANISLAUS COUNTY CEQA REFERRAL RESPONSE FORM

TO:Stanislaus County Planning & Community Development1010 10th Street, Suite 3400Modesto, CA95354

FROM:

SUBJECT: STAFF APPROVAL APPLICATION NO. PLN2022-0039 – AT&T MOBILITY – 3140 N GRATTON RD

Based on this agency's particular field(s) of expertise, it is our position the above described project:

_____ Will not have a significant effect on the environment.

May have a significant effect on the environment.

No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

- 1.
- 2.
- 3. 4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED* (*PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.*):

- 1. 2.
- 3. 4.

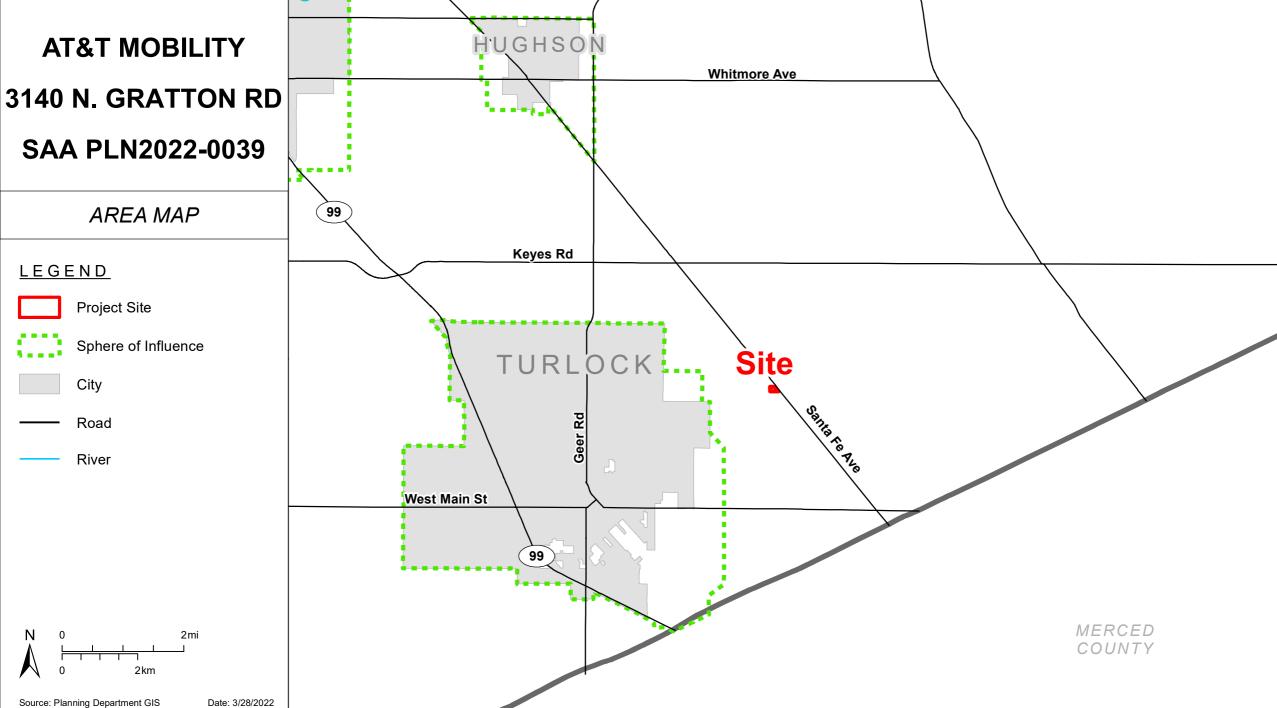
In addition, our agency has the following comments (attach additional sheets if necessary).

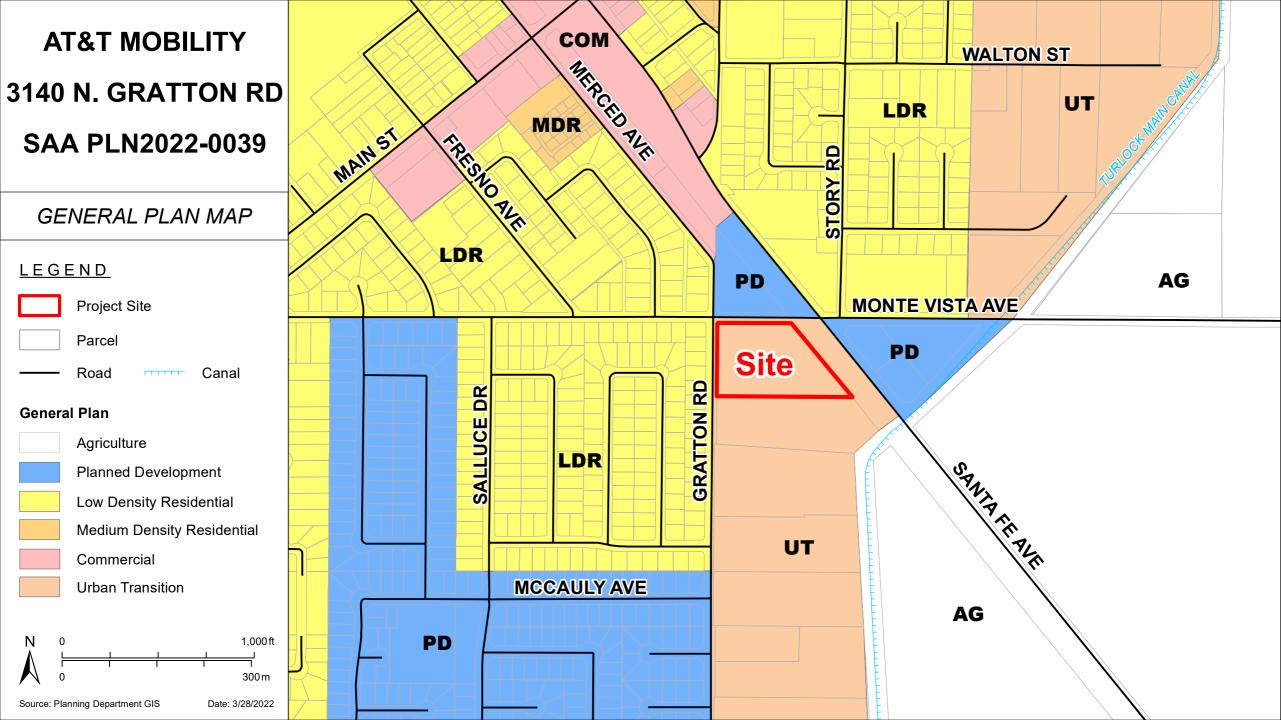
Response prepared by:

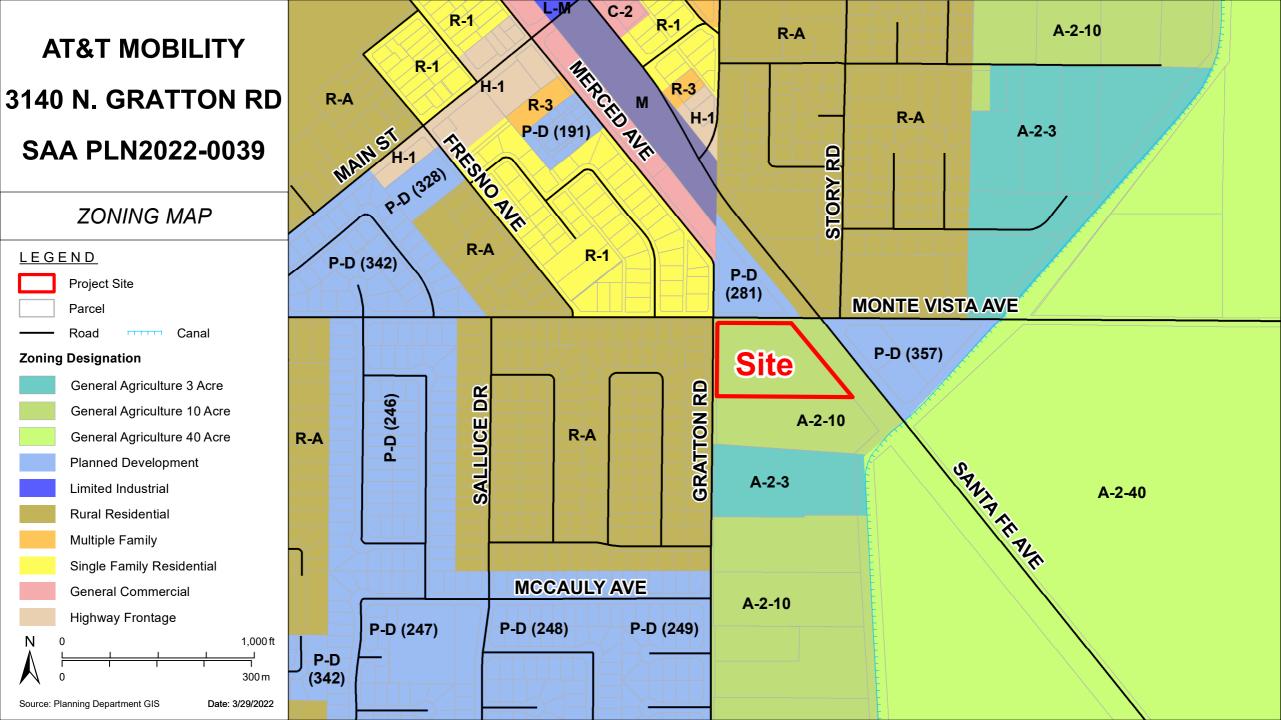
Name

Title

Date









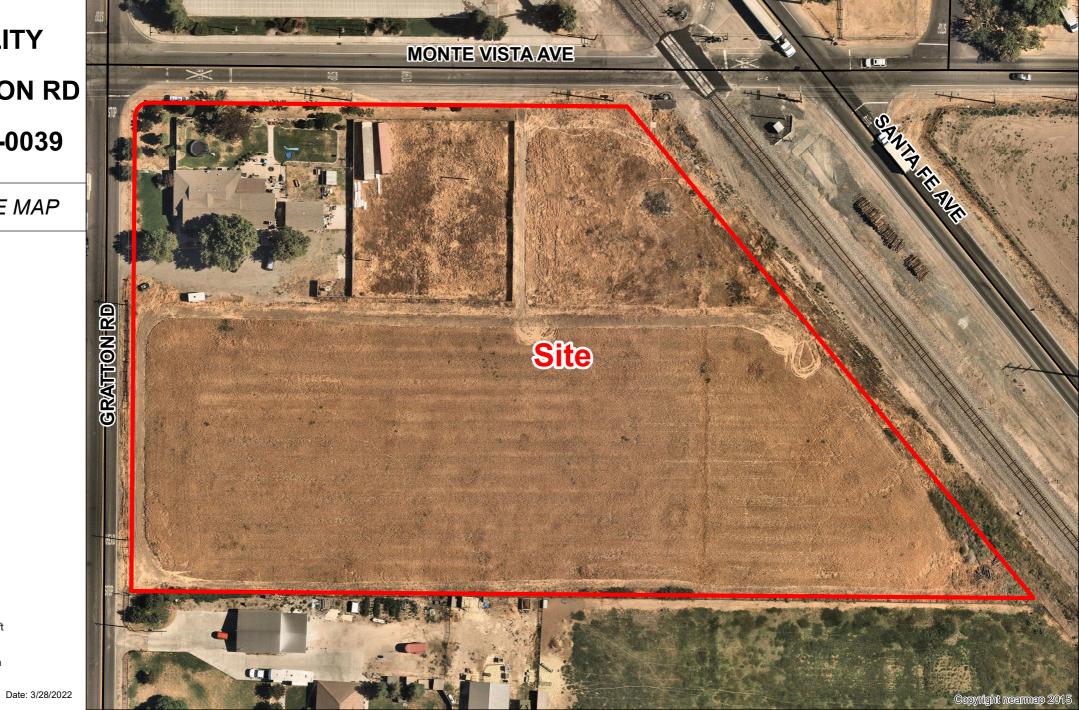
3140	F&T MOBILITY N. GRATTON RD A PLN2022-0039
2021	1 AERIAL SITE MAP
LEGE	<u>END</u>
	Project Site
	Road
· · · · · · · · · ·	Canal

100 ft

30 m

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Source: Planning Department GIS







at&t

FA# 15541189 USID# 315889 PACE I.D.: MRSFR

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PROJECT DESCRIPTION	PROJECT INFORM	ATION	PROJEC	T TEAM	SHEET INDEX		REV	
 NEW SITE BUILD UNMANNED TELECOMMUNICATIONS FACILITY. 1. INSTALL (N) 125'-0" ALL MONOPOLE TOWER. 2. INSTALL (15) ANTENNAS ON (N) MONOPOLE TOWER 3. INSTALL (18) RRUS ON TOWER 4. INSTALL (18) RRUS ON TOWER 4. INSTALL (4) DC9 SURGE SUPPRESSORS ON TOWER. 5. INSTALL (N) 50kVA STEPDOWN TRANDFORMER ON CONCRETE PAD. 6. INSTALL WALK IN CABINET (WIC) ON CONCRETE SLAB 7. INSTALL INTERIOR EQUIPMENT IN WIC, (2) 6630 eBBUS IN rf RACK 1, 912) RECTIFIERS w/ DCPP IN (N) POWER RACK 	PROPERTY INFORMATION:SITE NAME:DENAIRSITE NUMBER:CVL01180SITE ADDRESS:3140 NORTH GRATTON ROAD DENAIR, CA 95316A.P.N.:024-039-009-000CURRENT ZONING:A-2-10 (GEN AG)	PROPERTY OWNER: BEVERLY TICKENOFF EMAIL: btickenoff@gmail.com PH: (209) 485-4025 POWER AGENCY: PG&E PG&E CORPORATION 1 MARKET STREET, SPEAR TOWER SAN FRANCISCO, CA 94105	APPLICANT / LESSEE: AT&T 5001 EXECUTIVE PARKWAY SAN RAMON, CA 94583 CONSTRUCTION MANAGER: EPIC WIRELESS 605 COOLIDGE DRIVE, SUITE 100 FOLSOM, CA 95630 CONTACT: ANDREW MEDINA EMAIL: Andrew.Medina@epicwireless.net PH: (530) 574-4773	ARCHITECT / ENGINEER: N.S.S.E. 5022 SUNRISE BOULEVARD FAIR OAKS, CA 95628 CONTACT: BRIAN K. WINSLOW EMAIL: brian@nsse.com PH: (916) 536-9585 SITE AQUISITION: EPIC WIRELESS CONTACT: CARL JONES EMAIL: carl.jones@epicwireless.net	1. T-1 2. GN-1 3. GN-2 4. GN-3 5. C-1 6. A-1 7. A-1.1	TITLE SHEET GENERAL NOTES, ABBREVIATIONS, & LEGEND SITE SIGNAGE BATTERY SPECIFICATIONS PLOT PLAN AND SITE TOPOGRAPHY OVERALL SITE PLAN ENLARGED SITE PLAN	A A A A A A A	
 INSTALL NEW 200A METER, 200A DISCONNECT w. BYPASS TEST FACILITY, UAM & HOFFMAN BOX ON (N) STEEL H-FRAME. INSTALL 30kw DIESEL GENERATOR w/190 GAL. BELLY TANK ON RAISED CONCRETE SLAB INSTALL AT&T GPS ANTENNA INSTALL (12) DC POWER TRUNKS, (4) FIBER TRUNKS INSTALL SPD BOX ON WIC CABINET 	JURISDICTION: STANISLAUS COUNTY LATITUDE: N37° 31' 16.46" NAD 83 LONGITUDE: W120° 47' 34.50" NAD 83 GROUND ELEVATION: 124.0 FT. AMSL	PH: 1-(800) 743-5000 TELEPHONE AGENCY: AT&T 525 MARKET STREET, SPEAR TOWER SAN FRANCISCO, CA 94105 PH: 1-(800) 310-2355	RF ENGINEER: AT&T 5001 EXECUTIVE PKWY SAN RAMON, CA 94583 CONTACT: JAKE BALUYUT EMAIL: jb7714@att.com SURVEYOR: GEIL ENGINEERING 1226 HIGH STREET	PH: (916) 798-2275 ZONING MANAGER: EPIC WIRELESS CONTACT: CARL JONES EMAIL: carl.jones@epicwireless.net PH: (916) 798-2275 CIVIL VENDOR: QUALTEK CONTACT: BOB SIMONOVICH EMAIL: rsimonvich@qualtekwireless.com PH: (916) 202-1413	 7. A-1.1 8. A-2 9. A-3 10. A-3.1 11. A-3.2 12. A-4.1 13. A-4.2 	AREA EQUIPMENT PLAN ANTENNA PLAN, SCHEDULE, & DETAILS RRH DETAILS SECTOR FRAME DETAILS PROPOSED ELEVATIONS PROPOSED ELEVATIONS	A A A A A A A	
 ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS ARE TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. 2019 CALIFORNIA ADMINISTRATIVE CODE, CHAPTER 10, PART 1, TITLE 24 CODE OF REGULATIONS 2. 2019 CALIFORNIA BUILDING CODE (CBC) WITH CALIFORNIA AMENDMENTS, BASED ON THE 2018 IBC (PART 2, VOL. 1-2) 	VICINITY MAP	PROJECT LOCATION	AUBURN, CA 95603 CONTACT: KENNETH GEIL PH: (530) 885-0426		 A-5 A-5.1 E-1 E-3 	CONSTRUCTION DETAILS - EQUIPMENT CONSTRUCTION DETAILS - EQUIPMENT GENERAL ELECTRICAL NOTES POWER SINGLE LINE DIAGRAM	A A A	
 2019 CALIFORNIA RESIDENTIAL CODE (CRC) WITH APPENDIX H, PATIO COVERS, BASED ON THE 2018 IBC (PART 2.5) 2019 CALIFORNIA GREEN BUILDINGS STANDARDS CODE (CALGREEN) (PART 11) (AFFECTED ENERGY PROVISIONS ONLY) 2019 CALIFORNIA FIRE CODE (CFC), BASED ON THE 2018 IFC, WITH CALIFORNIA AMENDMENTS (PART 9) 2019 CALIFORNIA MECHANICAL CODE (CMC), BASED ON THE 2018 UMC (PART 4) 2019 CALIFORNIA PLUMBING CODE (CPC), BASED ON THE 2018 UPC (PART 5) 2019 CALIFORNIA ELECTRICAL CODE (CEC) WITH CALIFORNIA AMENDMENTS, NASED ON THE 2017 NEC (PART 3) 	SPECIAL INSPECT	ONS	 HEAD SOUTH ON BOLLINGER CAN TURN RIGHT ONTO BOLLINGER C MERGE ONTO I-680 SOUTH TO SA TAKE EXIT 30A TO MERGE ONTO KEEP LEFT TO CONTINUE ON I-20 STOCKTON MERGE ONTO I-5 N TAKE EXIT 461 FOR CA-120 TOWA CONTINUE ONTO CA-120 TAKE EXIT 6 TO MERGE ONTO CA TAKE EXIT 217 FOR TAYLOR ROA 	01 EXECUTIVE PARKWAY, SAN RAMON, CA IYON RD. ANYON DRIVE N JOSE -580E TO STOCKTON 5E, FOLLOW SIGNS FOR I-205 / TRACY / RD MANTECA / SONORA -99 S TOWARDS MODESTO / FRESNO D				
 9. 2019 CALIFORNIA ENERGY CODE (CEC) 10. ANSI / EIA-TIA-222-H 11. 2018 NFPA 101, LIFE SAFETY CODE 12. 2018 NFPA 72, NATIONAL FIRE ALARM CODE 13. 2018 NFPA 13, FIRE SPRINKLER CODE 	<th and="" column="" secon<="" second="" td="" the=""><td></td><td>11. TAKE LEFT ONTO W TAYLOR ROA 12. TURN RIGHT ONTO N QUINCY RO 13. TURN LEFT ONTO E MONTE VISTA 14. TURN RIGHT ONTO N GRATTON F DESTINATION WILL BE ON LEFT APPROVED BY:</td><td>AD A AVE</td><td></td><td></td><td></td></th>	<td></td> <td>11. TAKE LEFT ONTO W TAYLOR ROA 12. TURN RIGHT ONTO N QUINCY RO 13. TURN LEFT ONTO E MONTE VISTA 14. TURN RIGHT ONTO N GRATTON F DESTINATION WILL BE ON LEFT APPROVED BY:</td> <td>AD A AVE</td> <td></td> <td></td> <td></td>		11. TAKE LEFT ONTO W TAYLOR ROA 12. TURN RIGHT ONTO N QUINCY RO 13. TURN LEFT ONTO E MONTE VISTA 14. TURN RIGHT ONTO N GRATTON F DESTINATION WILL BE ON LEFT APPROVED BY:	AD A AVE			
OCCUPANCY: S-2 (UNMANNED TELECOMMUNICATIONS FACILITY), U (TOWER) CONSTRUCTION TYPE: V-B ACCESSIBILITY REQUIREMENTS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, ACCESSIBILITY ACCESS AND REQUIREMENTS RE NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA STATE ADMINISTRATIVE CODE, PART 2, TITLE 24, SECTION 1103B.1, EXCEPTION1 & SECTION 1134B.2.1, EXCEPTION 4.	1. SOIL CLASSIFICATION:D2. SOIL BEARING CAPACITY:1,003. MINIMUM CONCRETE STRENGTH2,504. SEISMIC IMPORTANCE FACTOR1.05. SITE COORDINATESN 36. SPECTRAL RESPONSE ACCELERATIONS:Ss7. SPECTRAL RESPONSE COEFFICIENTS:SD	00 PSF 00 PSI 8.5956389 W-122.5474917 NAD 83 = 1.647g S1 = 0.544g s = 1.098g SD1 = 0.544g = 1.000 Fv = 1.500	AT&T: VENDOR: RF ENGINEER: LEASING / LANDLORD: ZONING: CONSTRUCTION: POWER / TELCO: PG&E:		DO NOT S THESE DRAWINGS ARE FORMATTE PLANS AND EXISTING DIMENSIONS	CONTRACTOR NOTES CALE DRAWINGS ED TO BE FULL SIZE AT 24" x 36". CONTRACTOR SHALL VERIFY ALL S AND CONDITIONS ON THE JOBSITE, AND SHALL IMMEDIATELY NOTIFY ITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK SPONSIBLE FOR THE SAME.	BO-227-2600 Call 2 Full Working Days In Advance	

SITE NUMBER: CVL01180 SITE NAME: DENAIR

3140 NORTH GRATTON ROAD DENAIR, CA 95316

JURISDICTION: STANISLAUS COUNTY APN: 024-039-009-000

SITE TYPE: WALK IN CABINET / MONOPOLE



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	A# 15541189 SID# 315889	
P	repared For:	
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		at&t
	5001 Exec	utive Parkway
		California 94583
V	endor:	
		-
	12:	
wi		GROUP LLC
6	05 Coolidge	Wireless World Drive, Suite 100
	Folsom, Calife	
AT&	T SITE NO:	CVL01180
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	-air ∪aks, Ca	alifornia 95628
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GENERAL CONSTRUCTION NOTES:

- PLANS ARE INTENDED TO BE DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUD EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DF
- 2. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITE OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800) 227-2600, FOR UTILITY LOCATIONS, 48 PROCEEDING WITH ANY EXCAVATION. SITE WORK OR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECO 4 SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE F NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
- REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT ESTABLISH BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVE SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITEC PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY THE ARCHITECT / ENGINEER.
- 7. THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO TH WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
- DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTT RECORDS. THE ARCHITECT / ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SU ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. C RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF 10 DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE A RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHEC THE ARCHITECT / ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT EXPENSE.
- 11. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- 12. ANY DRAIN AND/OR FIELD TILE ENCOUNTERED / DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO IT'S C PRIOR TO COMPLETION OF WORK. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR. AND ISSUED TO THE ARCHITECT / ENGIN OF PROJECT
- 13. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAI ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
- 14. INCLUDE MISC. ITEMS PER AT&T SPECIFICATIONS

APPLICABLE CODES, REGULATIONS AND STANDARDS:

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.

THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVI

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

- AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOW SUPPORTING STRUCTURES

- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GR EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND G ELECTRICAL EQUIPMENT.

-IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION AND "HIGH SYSTEM EXPOSURE")

TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION

TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS

TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS

ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CON OTHER REQUIREMENTS. THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REC SPECIFIC REQUIREMENT. THE SPECIFIC REQUIREMENT SHALL GOVERN.

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ROUND IMPEDANCE, AND
GROUNDING OF I CATEGORY "C3"
R-63 NETWORK
NSTRUCTION, OR EQUIREMENT AND A

ABBREVIATIONS

A.B. ABV. ACCA ADD'L

A.F.F.

A.F.G.

ALUM.

ALT

ANT

APPRX

ARCH. AWG.

BLDG

BLK.

B.N.

B/U CAB.

CANT

C.I.P. CLG.

CLR.

COL.

CONC.

CONN.

CONST CONT.

DBL.

DEPT D.F.

DIA. DIAG

DIM. DWG DWI

EA

ELEC

ELEV.

FMT

E.N.

ENG. EQ.

EXP.

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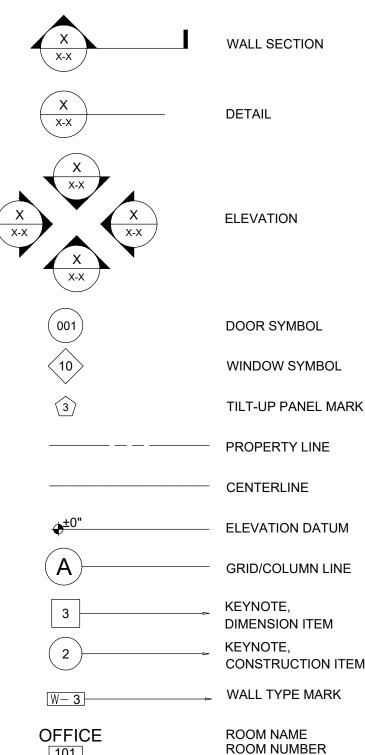
GRND. HDR. HGR. HT.

101

BTCW B.O.F

BLKG BM

A.B.	ANCHOR BOLT
ABV.	ABOVE
ACCA	ANTENNA CABLE COVER ASSEMBL
ADD'L	ADDITIONAL
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
ALUM.	ALUMINUM
ALT.	ALTERNATE
ANT.	ANTENNA
APPRX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
AWG.	AMERICAN WIRE GAUGE
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.N.	BOUNDARY NAILING
BTCW.	BARE TINNED COPPER WIRE
B.O.F.	BOTTOM OF FOOTING
B/U	BACK-UP CABINET
CAB.	
CANT.	
C.I.P.	
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE CONNECTION(OR)
CONN.	
CONST.	CONSTRUCTION
CONT. d	CONTINUOUS PENNY (NAILS)
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DWG.	DRAWING(S)
DWL.	DOWEL(S)
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
	ELEVATION
EMT.	ELECTRIAL METALLIC TUBING
E.N.	EDGE NAILING
ENG.	ENGINEER
EQ.	EQUAL
EXP.	EXPANSION
EXST. (E)	EXISTING
EXT.	EXTERIOR
FAB.	FABRICATION (OR)
F.F.	FINISH FLOOR
F.G.	FINISH GRADE
FIN.	FINISH (ED)
FLR.	FLOOR
FDN.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W. F.S.	FACE OF WALL FINISH SURFACE
FT. (')	FOOT (FEET)
FTG.	FOOTING
G.	GROWTH (CABINET)
GA.	GAUGE
GI.	GALVANIZE (D)
G.F.I.	GROUND FAULT INTERUPTER
GLB. (GLU-LAM)	GLUE LAMINATED BEAM
GPS	GLOBAL POSITIONING SYSTEM
GRND.	GROUND
HDR.	HEADER
HGR.	HANGER
HT.	HEIGHT
SYMBOLS	
	BLDG. SECTION
X	WALL SECTION
\sim $/$	



ICGB.	ISOLATED COPPER GROUND BUS
IN. (")	INCH(ES)
INT.	INTERIOR
LB.(#)	POUND(S)
L.B.	LAG BOLTS
L.F.	
L. MAS.	LONG(ITUDINAL) MASONRY
MAS.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC. MTL.	MISCELLANEOUS METAL
() ()	NEW
	NUMBER
	NOT TO SCALE
0.C.	ON CENTER
OPNG. P/C	OPENING DECAST CONCRETE
	PRECAST CONCRETE PERSONAL COMMUNICATION SERVICES
-	PLYWOOD
	POWER PROTECTION CABINET
PRC	PRIMARY RADIO CABINET
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I. P.T.	POUNDS PER SQUARE INCH PRESSURE TREATED
PWR.	POWER (CABINET)
QTY.	QUANTITY
RAD.(R)	RADIUS
REF.	REFERENCE
REINF. REQ'D/	
RGS.	REQUIRED RIGID GALVANIZED STEEL
SCH.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATIONS
SQ. S.S.	SQUARE STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
TEMP.	TEMPORARY
THK. T.N.	THICK(NESS)
T.O.A.	TOE NAIL TOP OF ANTENNA
T.O.C.	TOP OF CURB
T.O.F.	TOP OF FOUNDATION
T.O.P.	TOP OF PLATE (PARAPET)
T.O.S.	TOP OF STEEL
T.O.W. TYP.	TOP OF WALL TYPICAL
	UNDER GROUND
U.L.	UNDERWRITERS LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	
W	WIDE (WIDTH) WITH
w/ WD.	WOOD
W.P.	WEATHERPROOF
WT.	WEIGHT
ፍ	CENTERLINE
£	PLATE, PROPERTY LINE

—— ОН

10f

GRAVEL PLYWOOD SAND PLYWOOD SAND (E) STEEL MATCH LINE GROUND CONDUCTOR OVERHEAD SERVICE CONDUCTORS **TELEPHONE CONDUIT** POWER CONDUIT COAXIAL CABLE CHAIN LINK FENCE WOOD FENCE (P) ANTENNA (P) RRU (P) DC SURGE SUPRESSION (F) ANTENNA (F) RRU (E) EQUIPMENT

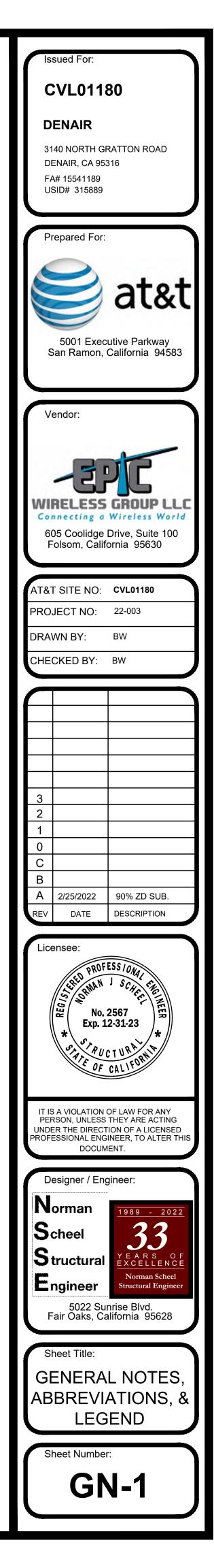
GROUT OR PLASTER

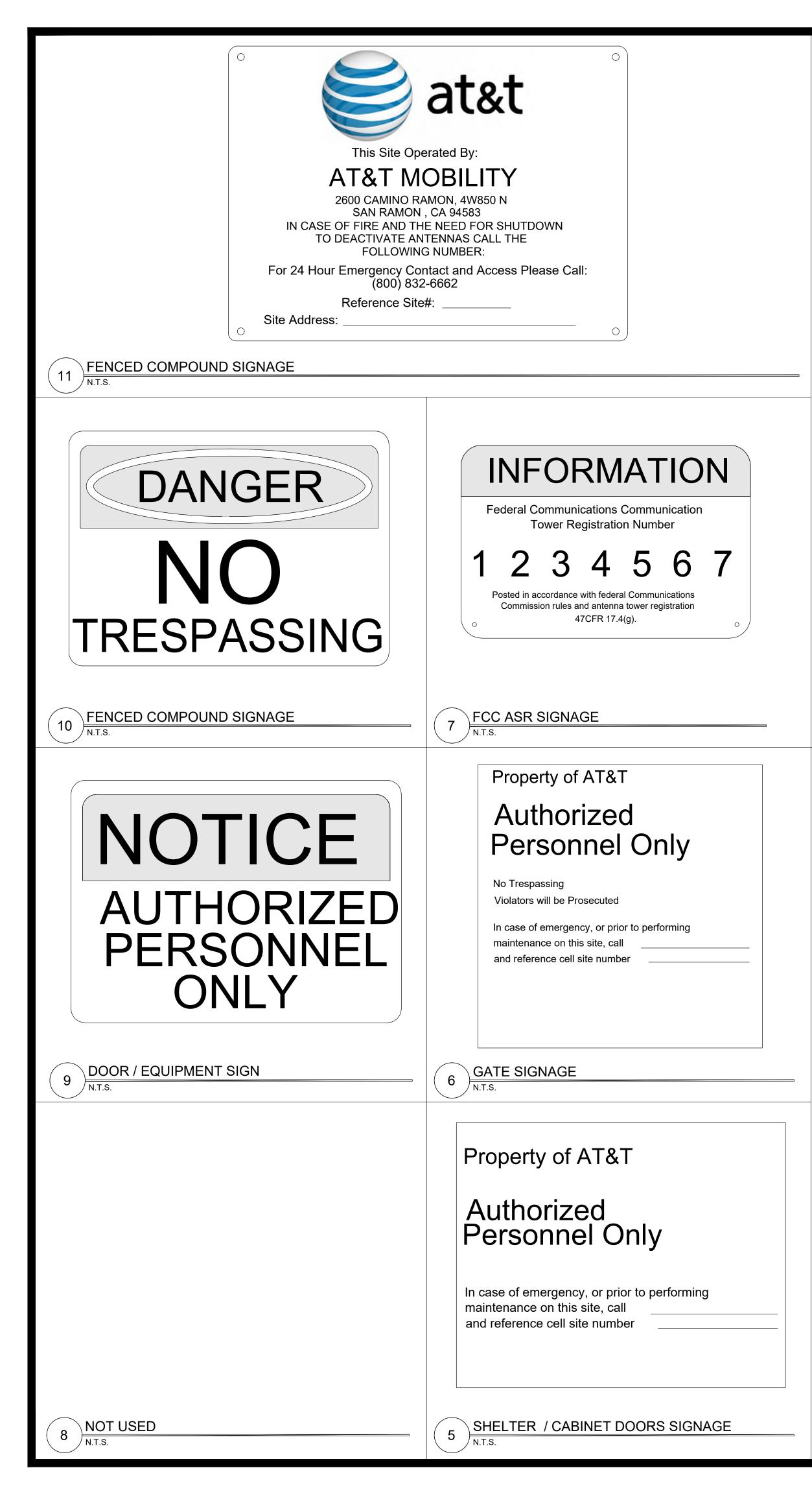
(E) BRICK

(E) MASONRY

CONCRETE

EARTH







Entering this area can expose you to lead from lead acid batteries.

Lead is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to

www.P65Warnings.ca.gov

4 PROP 65 WARNING SIGNAGE





1 N.T.S.

	SIGNAGE AND STRIPING INFORMATION	Issued For:
	THE FOLLOWING INFORMATION IS A GUIDELINE w/ RESPECT TO PREVAILING	
	STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE	CVL01180
	OR FEDERAL GUIDELINES OR REGULATIONS SHOULD BE IN CONFLICT w/ ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDELINE OR REGULATION SHALL BE FOLLOWED AND OVERRIDE THE LESSER.	DENAIR
		3140 NORTH GRATTON ROAD
	THE PUBLIC LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 1mWcm*2 AND THE OCCUPATIONAL LIMIT OF RF EXPOSURE ALLOWED BY AT&T IS 5mWcm*2	DENAIR, CA 95316
3.	IF THE BOTTOM OF THE ANTENNA IS MOUNTED (8) EIGHT FEET ABOVE THE	FA# 15541189 USID# 315889
	GROUND OR WORKING PLATFORM LINE OF THE PERSONAL COMMUNICATION SYSTEM (PCS) AND DOES NOT EXCEED THE PUBLIC LIMIT OF RF EXPOSURE	
	LIMIT THEN NO STRIPING OR BARRICADES SHOULD BE NEEDED.	Prepared For:
	IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE	
	LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES	
	AND STRIPING SHALL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER COMPLETION OF SITE CONSTRUCTION. USE	at&t
	THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.	
	IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE	5001 Executive Parkway
	AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE	San Ramon, California 94583
	PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT	
	OF THE BARRICADES & STRIPING SHALL BE DETERMINED BY THE EMF REPORT FOR THE SITE DONE BEFORE OR SHORTLY AFTER COMPLETION OF SITE	
	CONSTRUCTION. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.	Vendor:
6.	ALL TRANSMIT ANTENNAS REQUIRE A THREE LANGUAGE WARNING SIGN	
	WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN SHALL BE PROVIDED TO THE CONTRACTOR Y THE AT&T CONSTRUCTION PROJECT	
	MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED IN PLAIN SIGHT AT ALL ROOF ACCESS LOCATIONS AND ON ALL	
	BARRICADES. THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE	Connecting a Wireless World
	ROOF. WARNING SIGNS SHALL COMPLY W/ ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS, ALL SIGNS SHALL HAVE AT&T'S NAME AND THE	605 Coolidge Drive, Suite 100
	COMPANY CONTACT INFORMATION (e.g. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER SHALL BE	Folsom, California 95630
	PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION.	
		AT&T SITE NO: CVL01180
	PHOTOS OF ALL STRIPING, BARRICADES & SIGNAGE SHALL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE & SHALL BE TURNED INTO THE AT&T	PROJECT NO: 22-003
	CONSTRUCTION PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION.	DRAWN BY: BW
	STRIPING SHALL BE DONE w/ FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS-HATCH PATTERN AS DETAILED BY THE CONSTRUCTION DRAWINGS. ALL	CHECKED BY: BW
	BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO AS NOT TO BLOCK OR INTERFERE w/ THE OPERATION OF THE ANTENNAS. BARRICADES	
	SHALL BE PAINTED W/ FADE RESTRAINT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED, &	
	SHALL PROVIDE THE AT&T CONSTRUCTION PROJECT MANAGER w/ A DETAILED SHOP DRAWING OF EACH BARRICADE. UPON CONSTRUCTION COMPLETION.	
$\left \begin{array}{c} \\ \end{array} \right $	GENERAL NOTES	
2	N.T.S.	
		3
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		C
		В
		A 2/25/2022 90% ZD SUB. REV DATE DESCRIPTION
		KEV DATE DESCRIPTION
		Licensee:
		SED PROFESS / ONAL
		No. 2567
	NOTICE	「日本 「日本」 「日本」 「日本」 「日本」 「日本」 「日本」 「日本」 「
		* *
		OF CALIFORNIA
		IT IS A VIOLATION OF LAW FOR ANY
		PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS
	$\left \left(\left(\left(\bigcirc \right) \right) \right) \right\rangle \right $	DOCUMENT.
		Designer / Engineer:
		Norman 1989 - 2022
	On This Tower	Scheel 33
	You are entering an area where RF	Structural Structural
	Emissions may exceed the FCC General	Engineer Norman Scheel Structural Engineer
	Population Exposure Limits Follow all posted	5022 Sunrise Blvd.
	signs and site guidelines for working in an RF environment	Fair Oaks, California 95628
		Sheet Title:
	Ref: FCC 47CFR 1.1307(b) at&t	SITE SIGNAGE
		Sheet Number:
	NOTICE SIGN	GN-2



		I. PRODUC	IDENTIFICATIO	N		
MANUFACTURER			CHEMICAL/TRAI	DENAME	MARATHON V-0 a	md
Exide Technologie 3950 Sussex Aven	es Industrial Energy	y	(as used on label)		SPRINTER V-0 Valve Regulated Lea	ad Acid Battery
Aurora, IL 60504-						
	C Engineering and Cothran (770) 421		CHEMICAL FAMI CLASSIFICATION		Electrical Storage Ba Monoblock type	attery
	nmental, Safety & urray (800) 532-46		DATE ISSUED: (610) 921-4052		January 2010	
	y Response Contac	rt	CHEMTREC INTE	RNATIONAL	. (703) 527-3887 – Co	ollect
Ask for Environm		BOUE INCRED	IENTS/IDENTITY	NEODMAT		
	II. HAZAI	RDOUS INGRED	IENTS/IDENTITY		mate Air Exposure Lir	nits (µg/m ³)
Components		CAS Number	% by Wt.	OSHA	ACGIH	NIOSH
norganic components of: Lead		7439-92-1	71-76	50	50	50
Antimony Oxide		7440-36-0	< 0.6	500	500	500
Calcinated Clay		N/A	< 1.2	N/A	N/A	N/A
Tin		7440-31-5	0.4-0.6	2000	2000	2000
Copper		7440-50-8	< 0.1	1000	1000	1000
Electrolyte (sulfuric acid) Case Material:)	7664-93-9	16-18	1000	200	1000
Polypropylene		9003-07-0	6-7	N/A	N/A	N/A
Pate separator material:				1911		1.971
Glass		N/A	2-3	N/A	N/A	N/A
NOTE: Inorganic lead and Exide Technologies or its st naterial of automotive and	ubsidiaries. Other	ingredients may be				
		III. PH	YSICAL DATA			
Boiling Point (Electrolyte)	203° F (at 760 r		Specific Gravity	(H ₂ 0=1)	1.230 to 1.350	
Melting Point	Not Applicable		Vapor Pressure		10	
Solubility in Water	100%		(mm Hg at 20 *)	C)	10	
Jointy in Hater						
Evaporation Rate	Less Than 1		Vapor Density (A	AIR=1)	Greater than 1	
Evaporation Rate (Butyl acetate=1)	Less Than 1 A clear liquid w	vith a sharp,	Vapor Density (. % Volatiles by V		Greater than 1 Not Applicable	
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev	A clear liquid w penetrating, pur battery is a man article; no appa	ngent odor. A nufactured rent odor.	% Volatiles by V	Weight	Not Applicable	
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev Waste Disposal Methods: Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling:	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT eutralize as describ f as a hazardous wa 'FLUSH LEAD CO Send to secondary lo ES SEVERE BUR!	ngent odor. A hufactured rent odor. HOTOCOPY MUS FIONS FOR SAFE ed above for a spill aste. If uncertain al DNTAMINATED A ead smelter for recy	% Volatiles by V % Volatiles by V Page 1 of 5 T BE OF THIS ENT HANDLING AND collect residue and p yout labeling procedu ACID TO SEWER	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l	Not Applicable	r or listed
Evaporation Rate Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev Waste Disposal Methods: Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling: POISON - CAUS DANGER - EXPI	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT cutralize as describ f as a hazardous wa 'FLUSH LEAD CO Send to secondary la ES SEVERE BURI LOSIVE GASES ONTAINS SULFU	ngent odor. A utfactured rent odor. HOTOCOPY MUS FIONS FOR SAFE ed above for a spill iste. If uncertain at DNTAMINATED A ead smelter for recy NS	% Volatiles by V % Volatiles by V Page 1 of 5 T BE OF THIS ENT HANDLING AND collect residue and p yout labeling procedu ACID TO SEWER	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l	ENT INUED) ainer labeled as contai local battery distributo	r or listed
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling: POISON - CAUS DANGER - EXPI CORROSIVE - C	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT cutralize as describ f as a hazardous wa 'FLUSH LEAD CO Send to secondary la ES SEVERE BURI LOSIVE GASES ONTAINS SULFU	ngent odor. A nufactured rent odor. HOTOCOPY MUS TIONS FOR SAFE ed above for a spill aste. If uncertain al DNTAMINATED # ead smelter for recy NS /RIC ACID	% Volatiles by V % Volatiles by V Page 1 of 5 T BE OF THIS ENT HANDLING AND collect residue and p yout labeling procedu ACID TO SEWER	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l icable federal,	ENT INUED) ainer labeled as contai local battery distributo	r or listed
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev 99-MSDS-MARSPRV0 Rev 90-MSDS-MARSPRV0	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT cutralize as describe f as a hazardous wa 'FLUSH LEAD CO Send to secondary le ES SEVERE BURI LOSIVE GASES 'ONTAINS SULFU COM CHILDREN I Work Practices: in well-ventilated a ;autiously. Make on nts. Wear protective commendations wh egative terminals o	ngent odor. A utfactured rent odor. HOTOCOPY MUS TIONS FOR SAFE ed above for a spill aste. If uncertain at DNTAMINATED A cad smelter for recy NS IRIC ACID VIII. CON rea. If mechanical ertain vent caps are ve clothing, eye and ten stacking or pall f the batteries. Use	% Volatiles by V Page 1 of 5 T BE OF THIS ENT HANDLING AND collect residue and p out labeling procedu CID TO SEWER eting following appli FROL MEASURES ventilation is used, c on securely. If batte face protection, whe etizing. Do not allow	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l icable federal, icable federal, icable federal, icable federal, icable federal,	ENT ENT inued) ainer labeled as contai local battery distributo state, and local regula est be acid-resistant. aged, avoid bodily cor handling batteries. Fo erials to simultaneousl place hands at opposit	tions.
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev Waste Disposal Methods: Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling: POISON - CAUS DANGER - EXPI CORROSIVE - C KEEP AWAY FR Engineering Controls and Store and handle i Handle batteries c internal component manufacturers' re the positive and n avoid spilling acid	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT eutralize as describe f as a hazardous wa 'FLUSH LEAD CO Send to secondary le ES SEVERE BURI LOSIVE GASES ONTAINS SULFU COM CHILDREN I Work Practices: in well-ventilated a :autiously. Make co nts. Wear protectiv commendations wh egative terminals o d through the vents.	ngent odor. A utfactured rent odor. HOTOCOPY MUS TIONS FOR SAFE ed above for a spill ste. If uncertain at DNTAMINATED A ead smelter for recy NS JRIC ACID VIII. CON rea. If mechanical ertain vent caps are ve clothing, eye and nen stacking or pall f the batteries. Use . Avoid contact wi	% Volatiles by V % Volatiles by V Page 1 of 5 T BE OF THIS ENT CHANDLING AND collect residue and p out labeling procedu CID TO SEWER wentilation is used, consecurely. If batter face protection, whe etizing. Do not allow a battery carrier to li	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l icable federal, icable federal, icable federal, icable federal icable federal icable federal	ENT ENT ENT ENT state, and local regula est be acid-resistant. aged, avoid bodily cor handling batteries. Fo erials to simultaneousl place hands at opposit	tions.
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Evaporation Rate Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev Waste Disposal Methods: Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling: POISON - CAUS DANGER - EXPI CORROSIVE - C KEEP AWAY FR Engineering Controls and Store and handle i Handle batteries c internal component manufacturers' re the positive and n avoid spilling acid Hygiene Practices: Wash hands thore Respiratory Protection: None required uns mist are known of Protective Clothing: None required uns	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT eutralize as describ f as a hazardous wa 'FLUSH LEAD CO Send to secondary le ES SEVERE BUR LOSIVE GASES ONTAINS SULFU COSIVE GASES ONTAINS SULFU ROM CHILDREN I Work Practices: in well-ventilated a cautiously. Make co nts. Wear protective commendations wh egative terminals o d through the vents.	ngent odor. A utfactured rent odor. HOTOCOPY MUS TIONS FOR SAFE ed above for a spill aste. If uncertain at DNTAMINATED A ead smelter for recy NS IRIC ACID VIII. CON rea. If mechanical ertain vent caps are re clothing, eye and ten stacking or pall of the batteries. Use . Avoid contact wi g, drinking or smok ons. If an overchar, ed PEL, use NIOSF	Yolatiles by V Yolatiles by V Yolatiles by V Page 1 of 5 T BE OF THIS ENT THANDLING AND collect residue and p coul labeling procedu CID TO SEWER eting following appli face protection, whe etizing. Do not allow a battery carrier to li face protection, whe etizing. Do not allow a battery carrier to li th internal componen ing after handling ba ging or overheating of l or MSHA-approved	Weight IRE DOCUMI USE (CONT) place in a cont res, call your l icable federal, icable federal, icable federal, in charging or in the state of the batter of the battery or its of the batter tteries.	ENT ENT ENT ainer labeled as contai local battery distributo state, and local regula ast be acid-resistant. aged, avoid bodily cor handling batteries. Fo rials to simultaneousl place hands at opposit ries. and concentrations of	tions. tions. tact with llow all y contact both e corners to
Evaporation Rate (Butyl acetate=1) Appearance and Odor 99-MSDS-MARSPRV0 Rev. 99-MSDS-MARSPRV0 Rev. Waste Disposal Methods: Sulfuric Acid: Ne waste. Dispose of contact. DO NOT Spent batteries: S Precautionary Labeling: POISON - CAUS DANGER - EXPI CORROSIVE - C KEEP AWAY FR Engineering Controls and Store and handle i Handle batteries c internal component manufacturers' re the positive and n avoid spilling acid Hygiene Practices: Wash hands thore Respiratory Protection: None required uns mist are known of Protective Clothing: None required uns gauntlet, acid-resi Eye Protection:	A clear liquid w penetrating, pur battery is a man article; no appar . AG 2010-01 ANY PI VII. PRECAUT eutralize as describ f as a hazardous wa 'FLUSH LEAD CO Send to secondary le ES SEVERE BURI LOSIVE GASES 'ONTAINS SULFU COM CHILDREN I Work Practices: in well-ventilated a sautiously. Make co ints. Wear protectiv commendations wh egative terminals o d through the vents. pughly before eating der normal condition r suspected to exceed der normal condition	ngent odor. A urfactured rent odor. HOTOCOPY MUS TIONS FOR SAFE ed above for a spill ste. If uncertain at DNTAMINATED / ead smelter for recy NS //RIC ACID VIII. CON rea. If mechanical ertain vent caps are re clothing, eye and ten stacking or pall of the batteries. Use . Avoid contact wi g, drinking or smok ms. If an overchary ed PEL, use NIOSF ons. If battery case ag, and boots.	Yolatiles by V Yolatiles by V Yolatiles by V Page 1 of 5 T BE OF THIS ENT THANDLING AND collect residue and p coul labeling procedu CID TO SEWER eting following appli face protection, whe etizing. Do not allow a battery carrier to li face protection, whe etizing. Do not allow a battery carrier to li th internal componen ing after handling ba ging or overheating of l or MSHA-approved	Weight IRE DOCUMI USE (CONT) place in a cont ires, call your l icable federal, icable federal,	ENT ENT ainer labeled as contai local battery distributo state, and local regula est be acid-resistant. aged, avoid bodily cor handling batteries. Fo erials to simultaneousl place hands at opposit ries. and concentrations of rotection. cid-resistant gloves wi	tions. tions. tact with llow all y contact both e corners to

NFPA Hazard Rating for sulfuric acid: Flammability (Red) = 0 Health (Blue) = 3 Reactivity (Yellow) = 2 TRANSPORTATION:

Not regulated pursuant to §173.159(d) of the DOT Hazardous Materials Regulations (49 CFR Parts 171-180) provided each package is marked 'NONSPILLABLE' or 'NONSPILLABLE BATTERY'. For air shipments, reference IATA Dangerous Goods Regulations Special Provision A-67. For ocean shipments, reference IMDG Special Provision #238. Note: Exide Techologies batteries which have met the test requirements for "nonspillable batteries" in shipment must be protected

against short circuit and securely packaged. Label: NONSPILLABLE

RCRA: Spent lead-acid batteries are not regulated as hazardous waste when recycled. Spilled sulfuric acid is a characteristic hazardous waste; EPA hazardous waste number D002 (corrosivity).

Z99-MSDS-MARSPRV0 Rev. AG 2010-01 Page 4 of 5 ANY PHOTOCOPY MUST BE OF THIS ENTIRE DOCUMENT

IV. FIRE AND EXPLOSION HA Flash Point: Not Applicable Flammable Limits: LEL = 4.1% (Hydrogen Gas in air); UEL = 74.2% Extinguishing media: CO2; foam; dry chemical Special Fire Fighting Procedures: Use positive pressure, self-contained breathing apparatus. Beware of a resistant clothing, gloves, face and eye protection. If batteries are on cl that strings of series connected batteries may still pose risk of electric s Unusual Fire and Explosion Hazards: In operation or when on charge, batteries generate hydrogen and oxyge supports combustion). They must always be assumed to contain these or spark, may cause battery explosion with dispersion of casing fragme manufacturer's instructions for installation and service. Keep away all provided, and do not allow metallic articles to simultaneously contact t V. REACTIVITY DA stability: Stable X Unstable ____ Conditions to Avoid: Prolonged overcharging and overheating current; sparks and other sources of ignition. ncompatibility: (materials to avoid) Electrolyte: Contact of sulfurie acid with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, most metals, carbides, chlorates, nitrates, and picrate, sulfur trioxide gas, strong oxidizers, and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Lead compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen, potassium, carbides, sulfides, phosphorus, sulfur and reducing agents. azardous Decomposition Products: Electrolyte: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, hydrogen sulfide, hydrogen. Lead compounds: Temperatures above the melting point are likely to produce toxic metal fume, vapor, or dust; contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas. Hazardous Polymerization: May Occur ____ Will Not Occur _X_ VI. HEALTH HAZARD DATA Routes of Entry: Electrolyte: Harmful by all routes of entry. Under normal conditions of use, sulfuric acid vapors and mist are not generated. Sulfuric acid vapors and mist may be generated when product is overheated, oxidized, or otherwise processed or damaged. Lead compounds: Under normal conditions lead dust, vapors, and fumes are not generated. Hazardous exposure can occur only when product is heated above the melting point, oxidized or otherwise processed or damaged to create dust, vapor, or fume. Electrolyte: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation. Lead compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs. Electrolyte: May cause severe irritation of mouth, throat, esophagus, and stomach. Lead compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea, and severe cramping. This may lead rapidly to systemic toxicity. Acute ingestion should be treated by physician. Skin Contact/Skin Absorption Electrolyte: Severe irritation, burns, and ulceration. Sulfuric acid is not readily absorbed through the skin. Lead compounds: Not readily absorbed through the skin. Eye Contact: Electrolyte: Severe irritation, burns, cornea damage, blindness. Lead compounds: May cause eye irritation. Z99-MSDS-MARSPRV0 Rev. AG 2010-01 Page 2 of 5 ANY PHOTOCOPY MUST BE OF THIS ENTIRE DOCUMENT IX. OTHER REGULATORY INFORMATION (CONTINUED) CERCLA (Superfund) and EPCRA: Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (Superfund) and EPCRA (Emergency Planning and Community Right to Know Act) is 1,000 lbs. State and local reportable quantities for spilled sulfuric acid may vary. Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 EPCRA Section 302 notification is required if 1,000 lbs or more of sulfuric acid is present at one site. An average automotive/commercial battery contains approximately 5 lbs of sulfuric acid. Contact your Exide representative for additional information. EPCRA Section 312 Tier Two reporting is required for non-automotive batteries if sulfuric acid is present in quantities of 500 Ibs or more and/or if lead is present in quantities of 10,000 lbs or more. Supplier Notification: This product contains a toxic chemical or chemicals subject to the reporting requirements of section 313 of (Title) III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Chemical Percent by Weight Lead (Pb) 7439-92-1 71-76 Electrolyte: Sulfuric Acid 7664-93-9 16-18 If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year. Note: The Section 313 supplier notification requirement does not apply to batteries that are "consumer products". CAA: Exide Technologies supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC's and other ozone depleting chemicals (ODC's), defined by the USEPA as Class I substances. Pursuant to Section 611 of the Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, Exide established a policy to eliminate the use of Class I ODC's prior to the May 15, 1993 deadline. TSCA: Each ingredient chemical listed in Section II of this MSDS is also listed on the TSCA Registry.

requirements. CALIFORNIA PROPOSITION 65:

"WARNING: This product contains lead, a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm."

PREPARED BY:

3950 SUSSEX AVENUE AURORA, IL 60504-7932

(800) 872-0471

VENDEE AND THIRD PERSONS ASSUME THE RISK OF INJURY PROXIMATELY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT FOLLOWED AS PROVIDED FOR IN THE DATA SHEET, AND VENDOR SHALL NOT BE LIABLE FOR INJURY TO VENDEE OR THIRD PERSONS PROXIMATELY CAUSED BY ABNORMAL USE OF THE MATERIAL EVEN IF REASONABLE PROCEDURES ARE FOLLOWED.

ALL PERSONS USING THIS PRODUCT, ALL PERSONS WORKING IN AN AREA WHERE THIS PRODUCT IS USED, AND ALL PERSONS HANDLING THIS PRODUCT SHOULD BE FAMILIAR WITH THE CONTENTS OF THIS DATA SHEET. THIS INFORMATION SHOULD BE EFFECTIVELY COMMUNICATED TO EMPLOYEES AND OTHERS WHO MIGHT COME IN CONTACT WITH THE PRODUCT.

WHILE THE INFORMATION ACCUMULATED AND SET FORTH HEREIN IS BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, EXIDE TECHNOLOGIES MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE FOR THEIR PARTICULAR CIRCUMSTANCES.

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BATTERY ELECTRROLYTE DATA - 12V MONOBLOCS TOTAL ELECTROLYTE TOTAL ELECTROLYTE TOTAL # OF BATTERY BATTERY MODEL VOLUME WEIGHT UNITS INSTALLED GAL/UNIT LBS/UNIT GNB INDUSTRIAL POWER 8 UNITS 2.47 GAL 27.3 LBS MARATHON M12V180FT

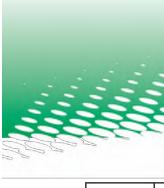
AZARD DATA
á
acid splatter during water application and wear acid- charge, shut off power to the charging equipment, but, note shock even when charging equipment is shut down.
en gases (hydrogen is highly flammable and oxygen gases which, if ignited by burning cigarette, naked flame ents and corrosive liquid electrolyte. Carefully follow I sources of gas ignition, ensure that adequate ventilation is the negative and positive terminals of a battery.
ATA

- CANADIAN REGULATIONS: All chemical substances in this product are listed on the CEPA DSL/NDSL or are exempt from list

 - EXIDE TECHNOLOGIES INDUSTRIAL ENERGY
 - ANY PHOTOCOPY MUST BE OF THIS ENTIRE DOCUMENT

Effects	of Overexposure - Acute:
	Electrolyte: Severe skin irritation, burns, damage to cornea may cause blindness, upper respiratory irritation. Lead compounds: Headache, fatigue, abdominal pain, loss of appetite, nausea, vomiting, diarrhea, muscular aches and weakne sleep disturbances, and irritability.
Effects	of Overexposure - Chronic: <u>Electrolyte</u> : Possible erosion of tooth enamel; inflammation of nose, throat, and bronchial tubes, and scarring of the cornea. <u>Lead compounds</u> : Anemia; neuropathy, particularly of the motor nerves, with wrist drop; kidney damage; reproductive changes in both males and females.
Carein	ogenicity: Electrolyte: The National Toxicology Program (NTP) and the International Agency for Research on Cancer (IARC) have classified "strong inorganic acid mist containing sulfuric acid" as a substance that is carcinogenic to humans. This classification does not apply to sulfuric acid solutions in static liquid state or to electrolyte in batteries. Batteries subjected to abusive chargin at excessively high currents for prolonged periods of time without vent caps in place may create a surrounding atmosphere of the offensive strong inorganic acid mist containing sulfuric acid. Lead compounds: Listed as a 2B carcinogen, likely in animals at extreme doses. Proof of carcinogenicity in humans is lackin at present.
Medica	I Conditions Generally Aggravated by Exposure: Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of electrolyte (water and sulfuric acid solution) with skin may aggravate skin diseases such as eczema and contact dermatitis. Contact of electrolyte (water and sulfuric acid solution) with eyes may damage comea and/or cause blindness. Lead and its compounds can aggravate some forms of kidney, liver, and neurologic diseases.
Emerg	ency and First Aid Procedures:
Inhalat	ion: <u>Electrolyte</u> : Remove to fresh air immediately. If breathing is difficult, give oxygen. <u>Lead compounds</u> : Remove from exposure, gargle, wash nose, eyes, and lips; consult physician.
Ingesti	on: <u>Electrolyte</u> : Give large quantities of water; do not induce vomiting; consult physician. <u>Lead compounds</u> : Consult physician immediately.
Skin:	Electrolyte: Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes and do not wear clothes again until cleaned. If acid is splashed on shoes, remove and discard it they contain leather. Lead compounds: Wash immediately with soap and water. Lead compounds are not readily absorbed through the skin.
Eyes:	Electrolyte and Lead compounds: Flush immediately with large amounts of water for at least 15 minutes; consult physician immediately.
	VII. PRECAUTIONS FOR SAFE HANDLING AND USE
Handli	ng and Storage: Store batteries under roof in cool, dry, well-ventilated areas that are separated from incompatible materials and from activities which may create flames, sparks, or heat. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous short-circuit. Single batteries pose no risk of electric shock but there may be increasing risk of electric shoc from strings of connected batteries exceeding three 12-volt units.
Chargi	ne:
Cuargi	There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or no being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batterie being charged.
Spill or	Leak Procedures: Remove combustible materials and all sources of ignition. Stop flow of material and contain spill by diking with soda ash, etc. Carefully neutralize spill with soda ash, etc. Make certain mixture is neutral then collect residue and place in a drum or other suitable container with a label specifying "contains hazardous waste" (or if uncertain call distributor regarding proper labeling procedures). Dispose of as hazardous waste. If battery is leaking, place battery in a heavy duty plastic bag. Wear acid resistant boots, face shield, chemical splash goggles and acid resistant gloves. DO NOT RELEASE UNNEUTRALIZED ACID.









BATTERY INFORMATION

% SULPHURIC ACID = ACID VOLUME /UNIT BY VOLUME = ELECTROLYTE VOLUME PER UNIT	% SULPHURIC ACID BY WEIGHT = TOTAL ACID WEIGHT TOTAL ELECTROLYTE WEIGHT	TOTAL SULPHURIC VOLUME (GAL) = TOTAL UNITS X ELECTROLYTE VOLUME/UNITS	TOTAL SULPHURIC TOTAL WEIGHT (LBS) = WEI
29.95% = 0.74 GAL/2.47 GAL	41.7% = 11.4 LBS/27.3 LBS	19.76 GAL = 8 UNITS x 2.47 GAL/UNIT	91.2 LBS = 8 UNITS X 11

MARATHON

From the World Leader in

VRLA Battery Technology Designed for durability in Telecommunications and Electric Utility applications, the GNB Industrial Power MARATHON[®] M12V180FT Battery provides high performance and reliability in long duration discharge applications. The location of the terminals on the front (vs. the top) of the battery greatly facilitates the installation and maintenance of the product when placed in a cabinet enclosure or on a standard relay rack tray. The MARATHON® M12V180FT Battery highlights another example of GNB Industrial Power's extensive experience and world wide leadership in VRLA technology.

"Designed in" Quality Manufacturing

Quality manufacturing processes for the **MARATHON**[®] M12V180FT Battery incorporates the industry's most advanced technologies including: an automated helium leak detection system, a computer controlled "fill by weight" acid filler, and a temperature controlled water bath formation process. Each and every unit is capacity tested.

High Performance MARATHON[®]

M12V180FT Features

- Patented "Diamond Side-Wall" Design
- maintains structural integrity in higher operating temperatures incorporates GNB Industrial Power's • Durable Flame Retardant Polypropylene Container and Cover advanced VRLA technology designed for complies with UL94 V-0; 28% L.O.I.
- Carry Handles
- facilitates ease of installation
- High-Compression Absorbent Glass Mat (AGM) Technology ensures greater than 99% recombination efficiency • Integrated Flash Arrestor
- ultrasonically welded into cover for secure and safe protection • 10 Year Design Life
- in float applications @ 25°C (77°F); 12 year @ 20°C (68°F)
- Superior Lead-Tin-Calcium Positive Alloy
- helps to resist corrosion
- Higher Vent Opening Pressure minimizes unnecessary gassing; one-way self resealing device
- Front Accessible Copper Alloy, 6 mm, Female Terminals ensures low resistance, high integrity connections
- "Easy On\Easy Off" Terminal Post Protector
- provides added safety
- Wider Bushing
- allows access for larger probes
- Footprint Ready
- fits in all standard 23" Relay Rack Applications
- **Compliance:** Designed in accordance with IEC 60896-21/-22 • No Transport Restrictions: Complies with IATA/ICAO Special Provision A67; DOT-CFR Title 49; IMDG Amendment 34-08



long life and high performance in: **Telecommunications** Distributed Power PCS

Internal

Resistance

(mOhms)

3.0

Short Circuit Current

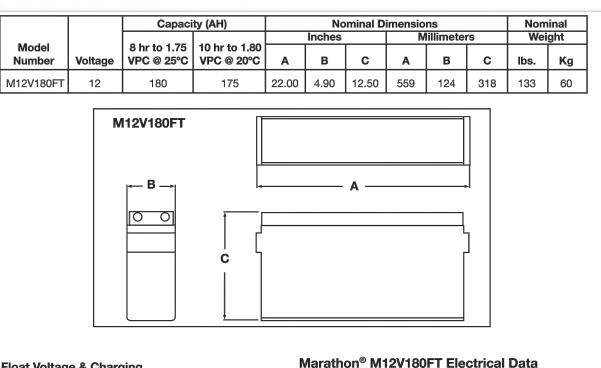
Amps

4147

The **MARATHON**[®] M12V180FT Battery

- Cellular Broadband
- Electric Utility Switchgear Control Power Communications

ARATHON .



Model Number

M12V180FT

Float Voltage & Charging

at voltage a onarging	
nstant Voltage charging is recommended	
commended float voltage: 2.27 VPC @ 25°C (77°F)	

Float Voltage Range: 2.25 to 2.30 VPC @ 25°C (77°F)

Equalize Voltage: 2.35 VPC for 24 Hours or 2.40 VPC for 12 Hours

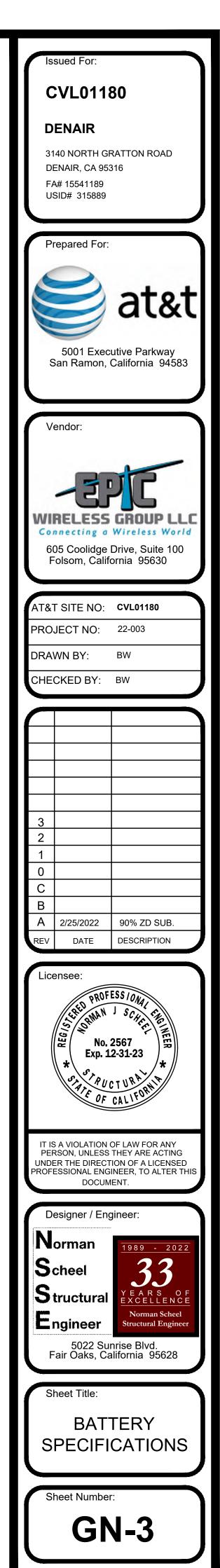
NOTE: Design and/or specifications subject to change without notice. If questions arise, contact your local GNB Industrial Power sales representative for clarification

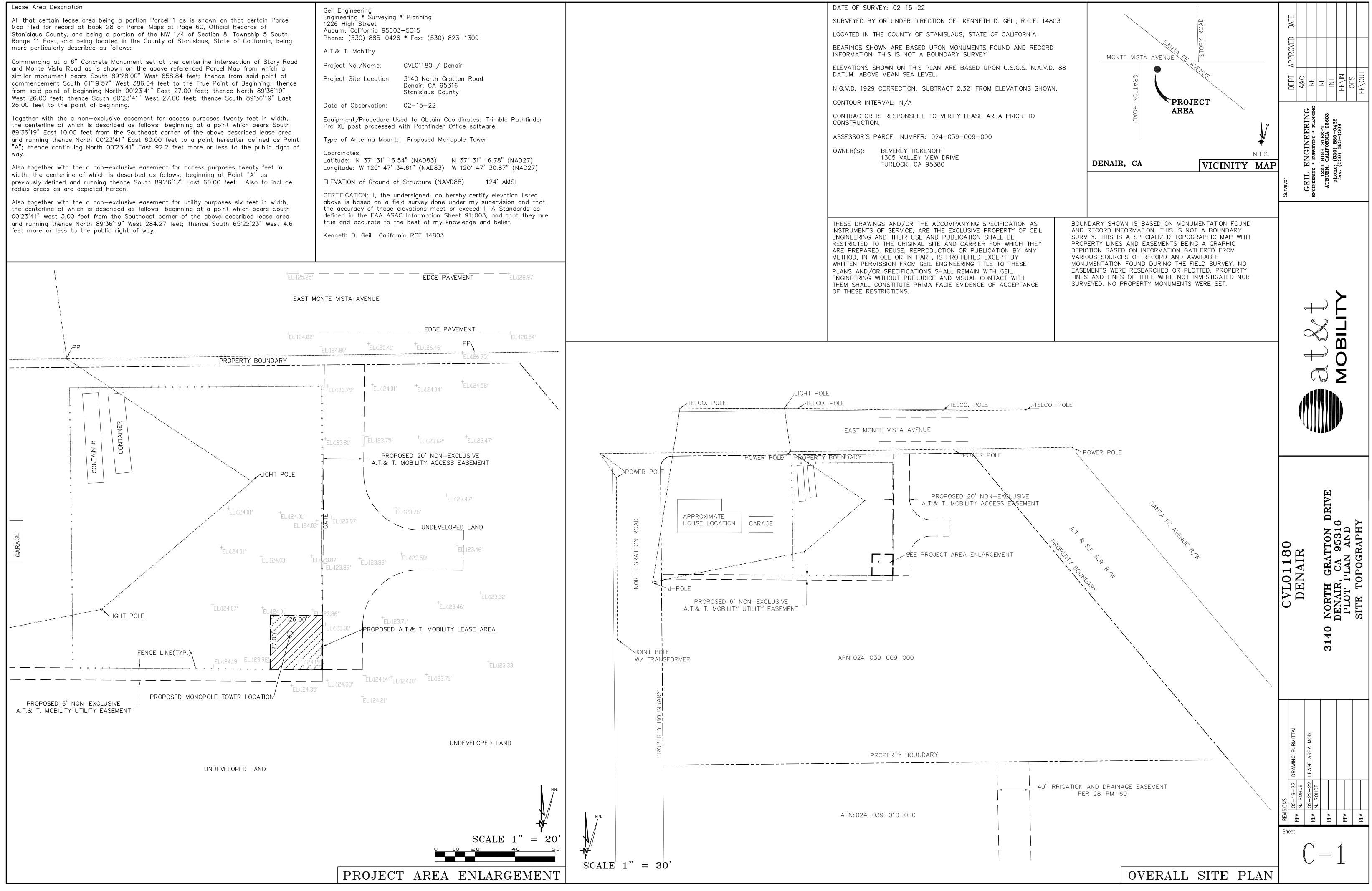
Marathon M12V180FT Performance Specifications Amperes @ 25° (77°F)

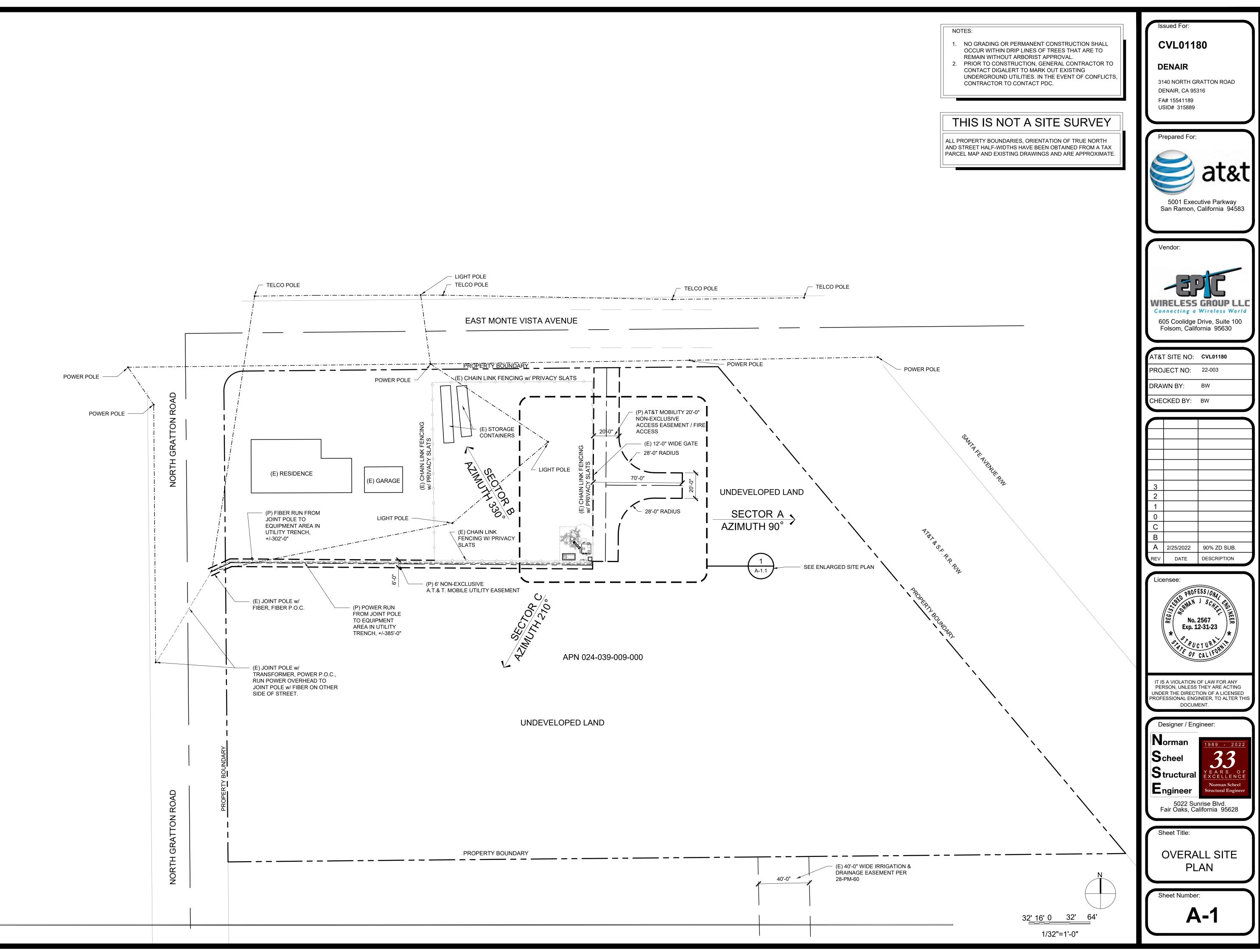
1 ()																
End Voltage									Time							
Per Cell	24 hr	20 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 rh	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
.94 Final Volts Per Cell	6.4	7.6	12.2	14.4	15.9	17.7	20.0	22.5	26.1	31.2	39.4	45.6	54.6	69.1	89.8	134.0
.92 Final Volts Per Cell	6.8	8.0	12.9	15.3	16.9	18.9	21.1	23.8	27.6	33.1	41.9	48.6	58.3	73.1	96.1	144.5
.90 Final Volts Per Cell	7.1	8.4	13.6	16.1	17.8	19.9	22.0	24.9	28.9	34.8	44.0	51.2	61.5	76.6	101.7	154.6
.87 Final Volts Per Cell	7.5	8.9	14.3	16.9	18.6	20.8	23.5	26.5	30.6	36.5	45.8	52.8	63.0	79.0	108.7	167.9
.85 Final Volts Per Cell	7.7	9.1	14.6	17.3	19.1	21.3	24.1	27.1	31.3	37.4	47.1	54.4	65.0	81.7	112.7	175.2
.83 Final Volts Per Cell	7.9	9.3	14.9	17.6	19.5	21.7	24.5	27.6	31.9	38.2	48.0	55.6	66.5	83.8	115.9	181.5
.81 Final Volts Per Cell	7.9	9.4	15.1	17.9	19.7	22.0	24.9	27.9	32.3	38.7	48.8	56.5	67.6	85.3	118.2	186.4
.80 Final Volts Per Cell	8.0	9.4	15.2	18.0	19.8	22.1	25.0	28.0	32.5	38.9	49.1	56.8	68.0	85.8	119.1	188.5
.78 Final Volts Per Cell	8.0	9.5	15.3	18.1	20.0	22.3	25.2	28.2	32.7	39.2	49.5	57.4	68.7	86.7	120.3	191.9
.75 Final Volts Per Cell	8.1	9.6	15.4	18.3	20.2	22.5	25.5	28.4	33.0	39.5	49.9	57.9	69.4	87.6	121.7	194.5

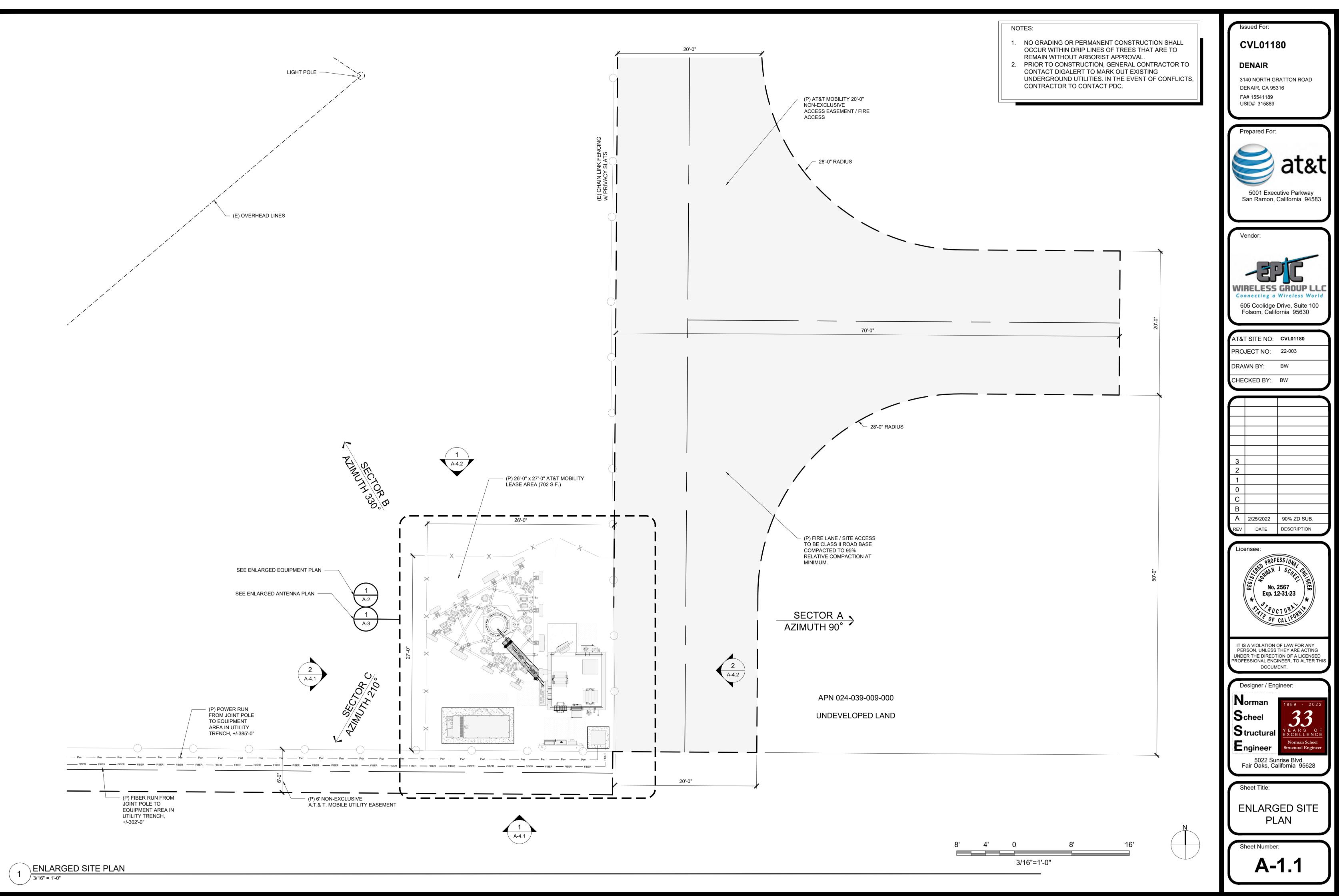
L UNITS X ACID EIGHT/UNIT

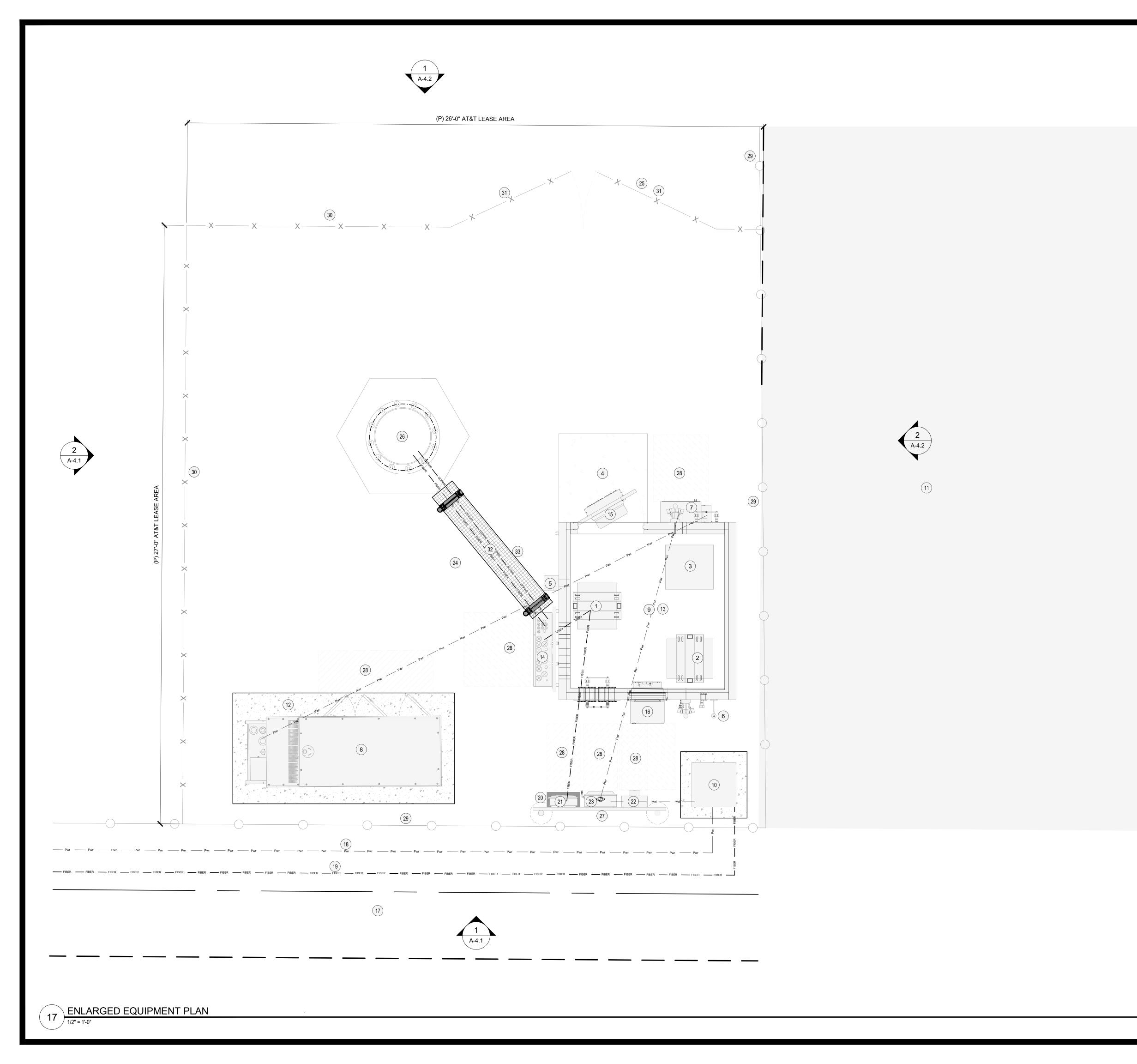
(11.4 LBS

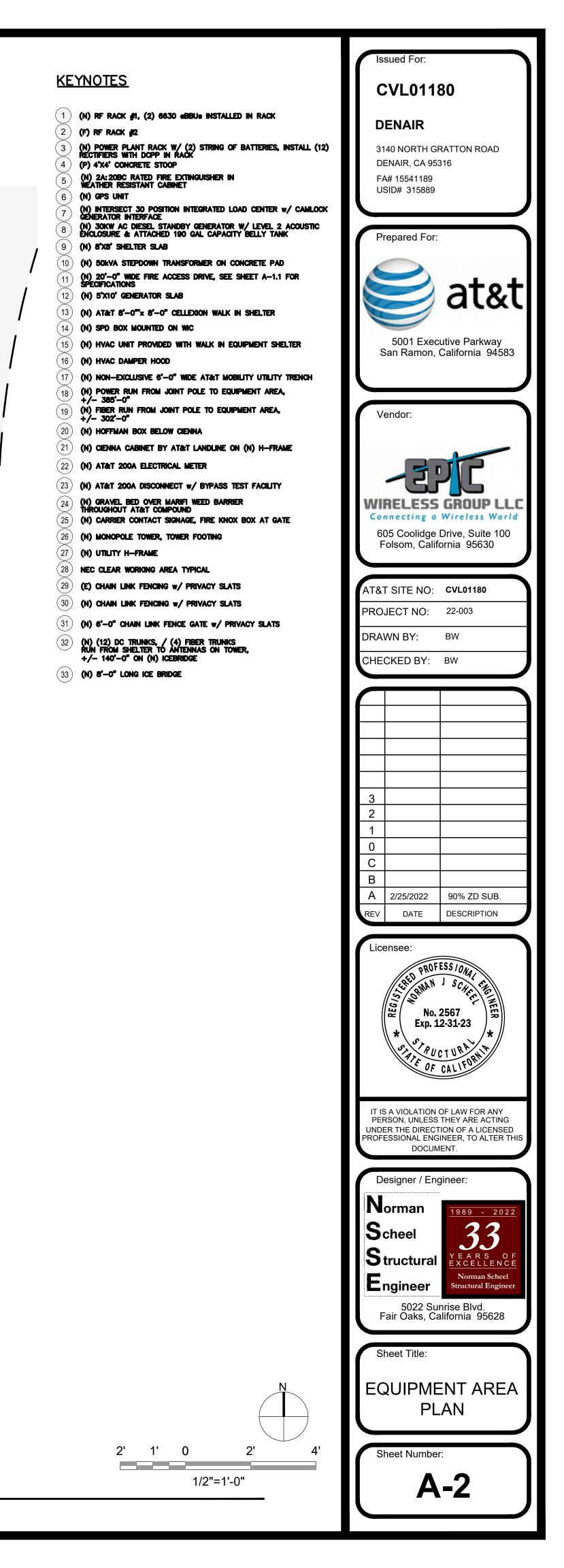


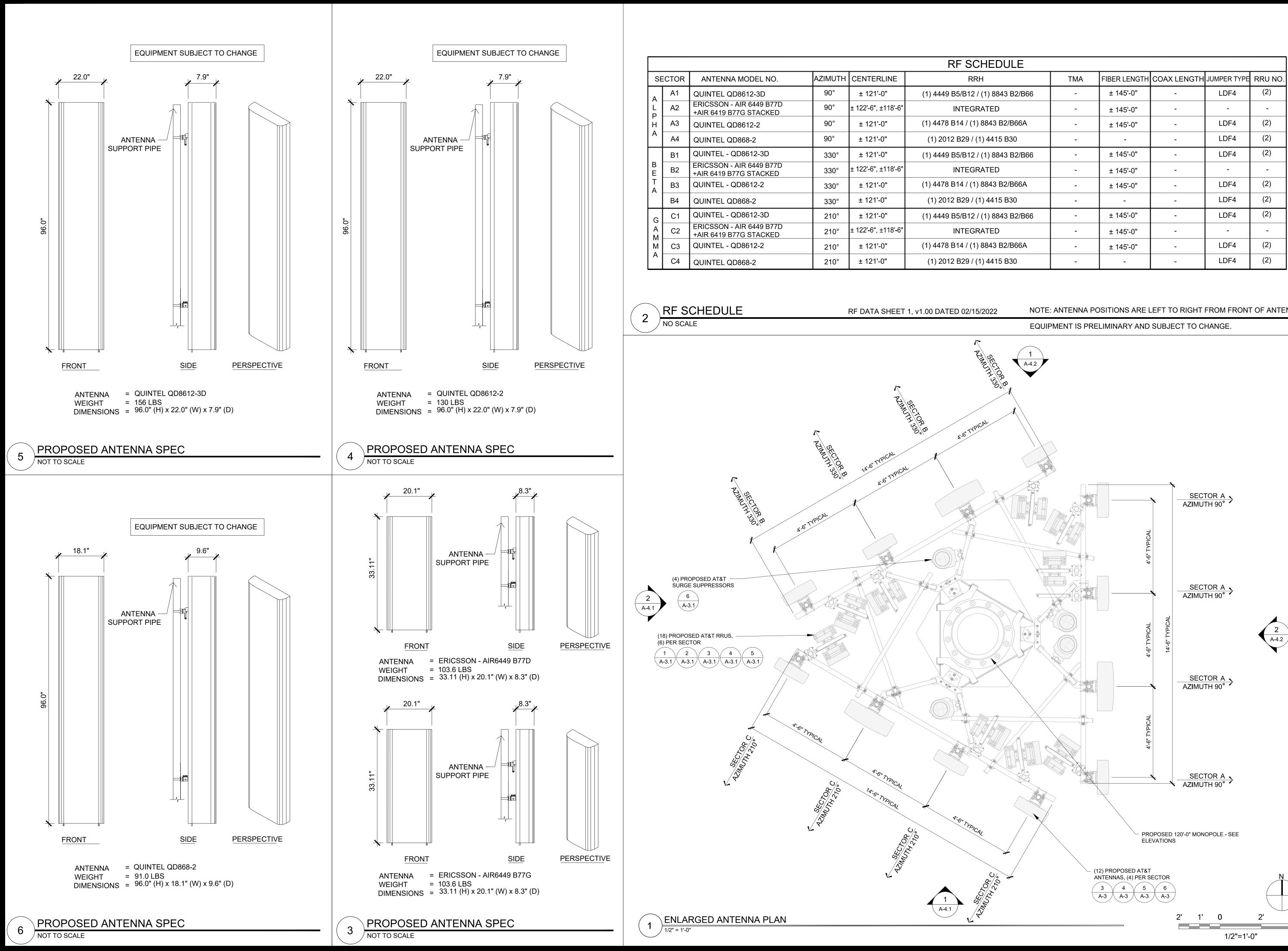


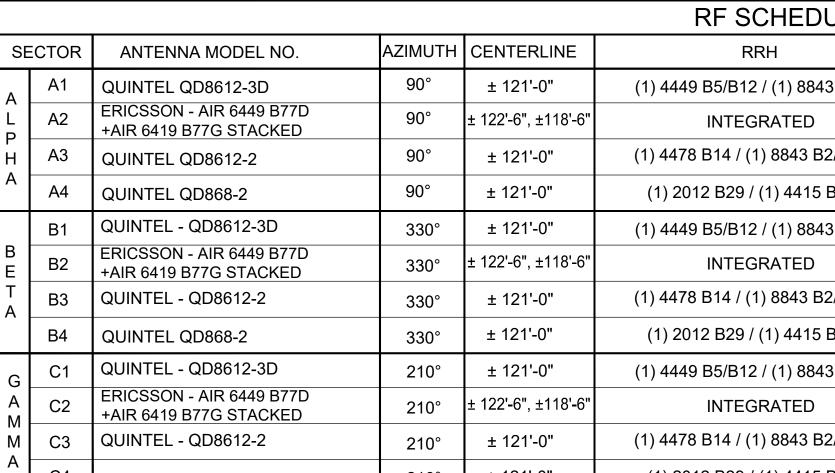






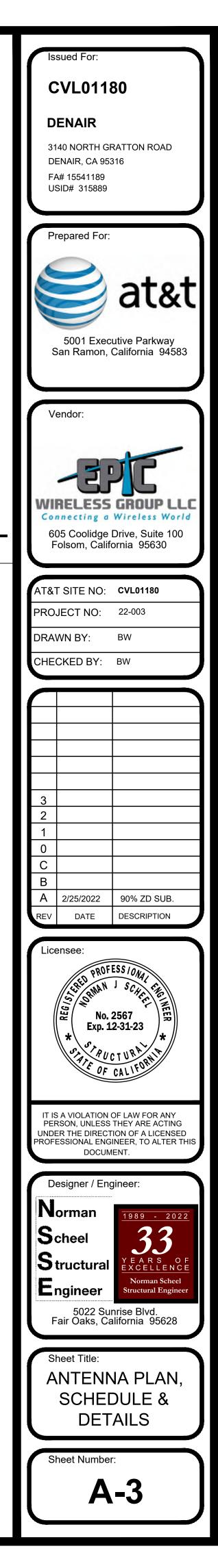


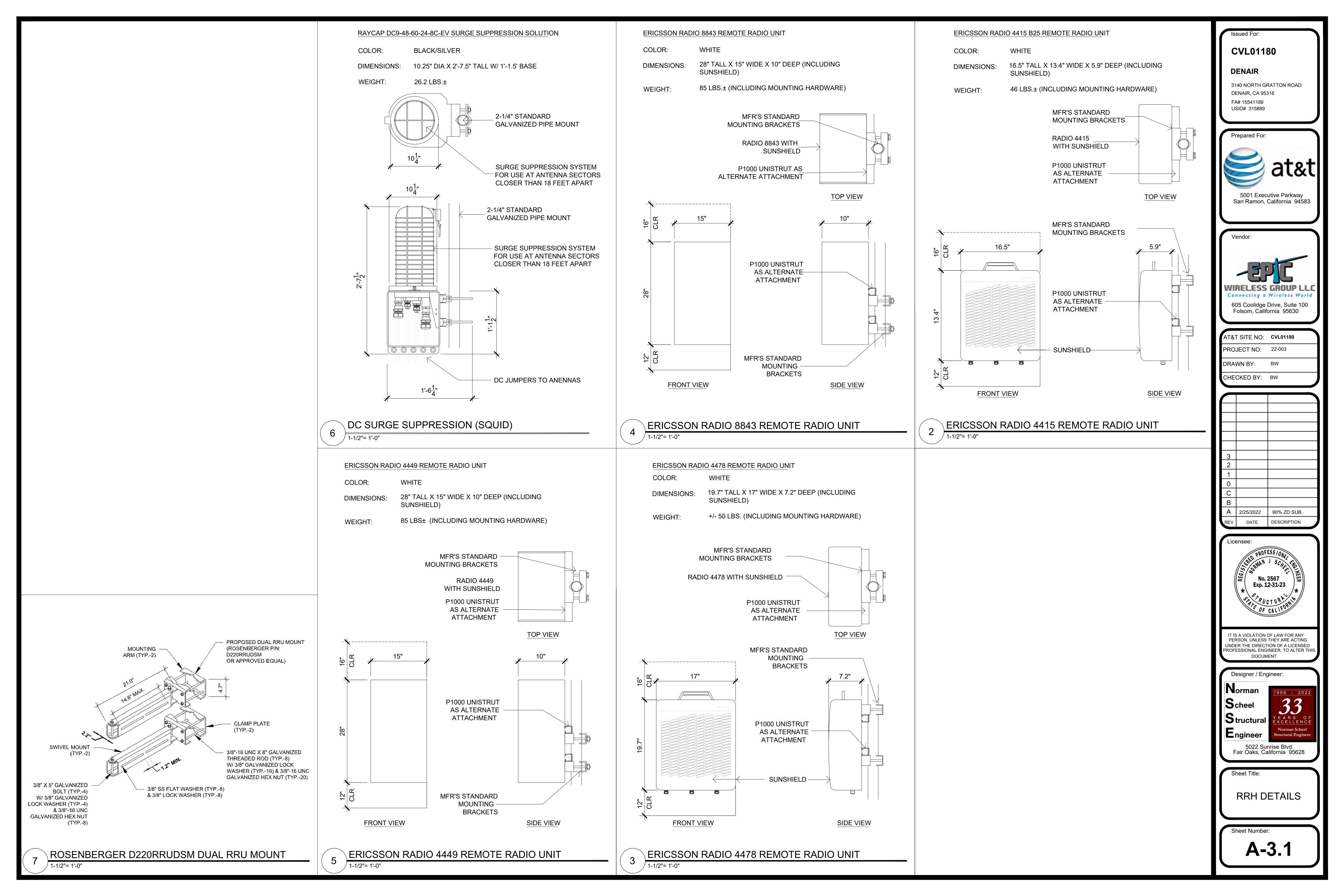


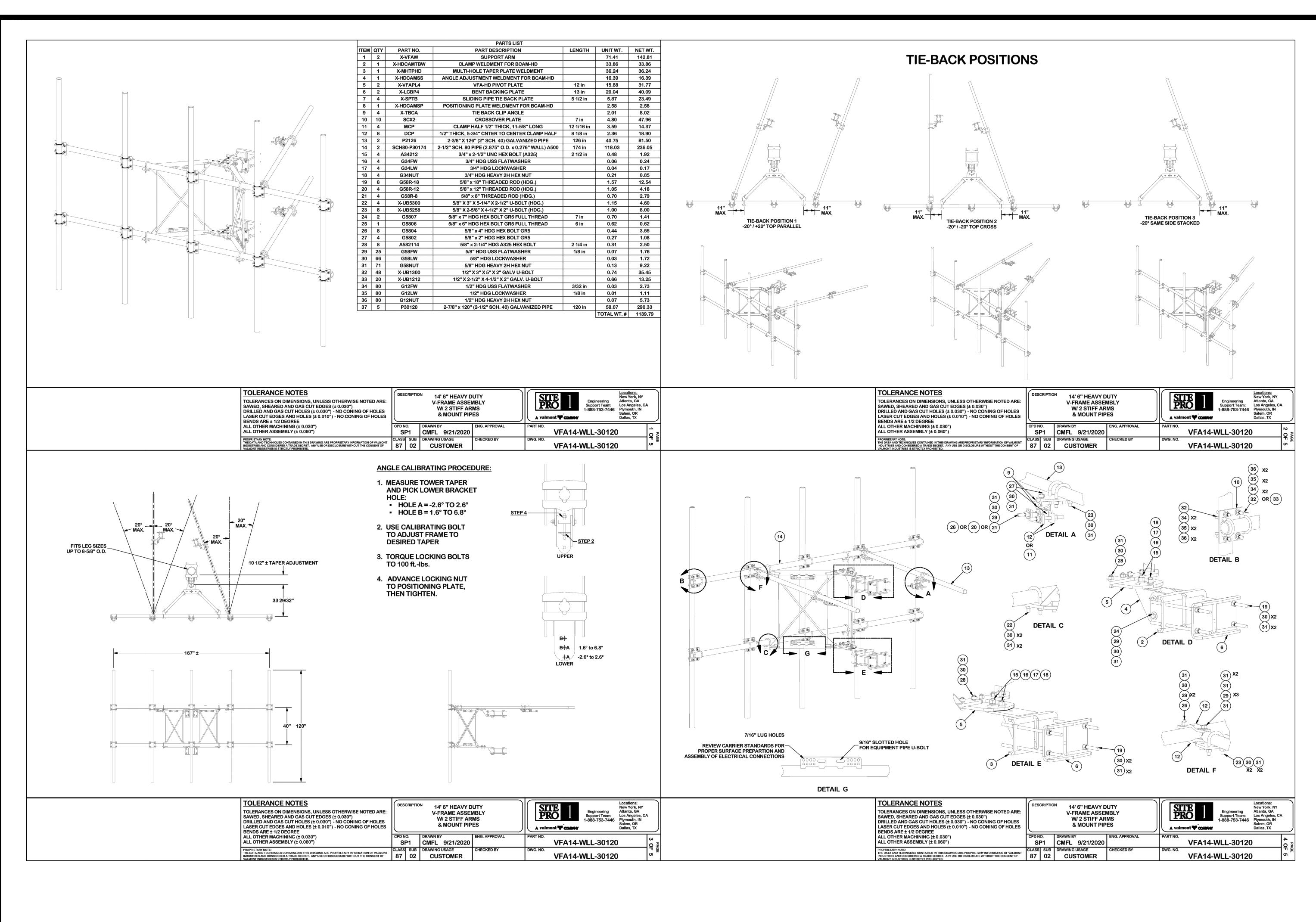


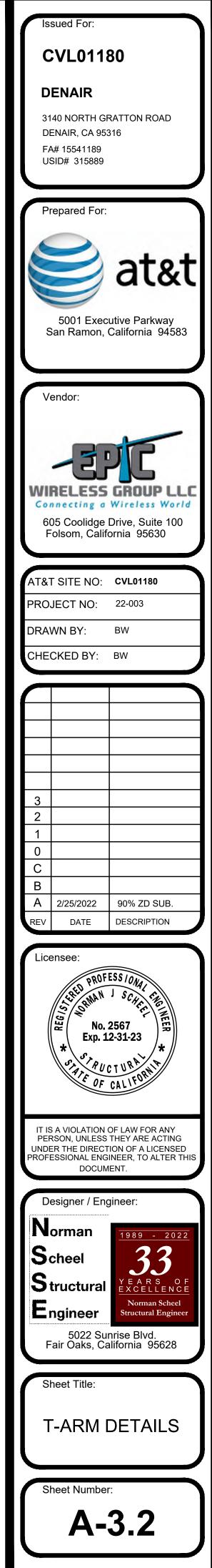
LE					
	TMA	FIBER LENGTH	COAX LENGTH	JUMPER TYPE	RRU NO.
B2/B66	-	± 145'-0"	-	LDF4	(2)
	-	± 145'-0"	-	-	-
B66A	-	± 145'-0"	-	LDF4	(2)
30	-	-	-	LDF4	(2)
B2/B66	-	± 145'-0"	-	LDF4	(2)
	-	± 145'-0"	-	-	-
B66A	-	± 145'-0"	-	LDF4	(2)
30	-	-	-	LDF4	(2)
B2/B66	-	± 145'-0"	-	LDF4	(2)
	-	± 145'-0"	-	-	-
B66A	-	± 145'-0"	-	LDF4	(2)
30	-	-	-	LDF4	(2)

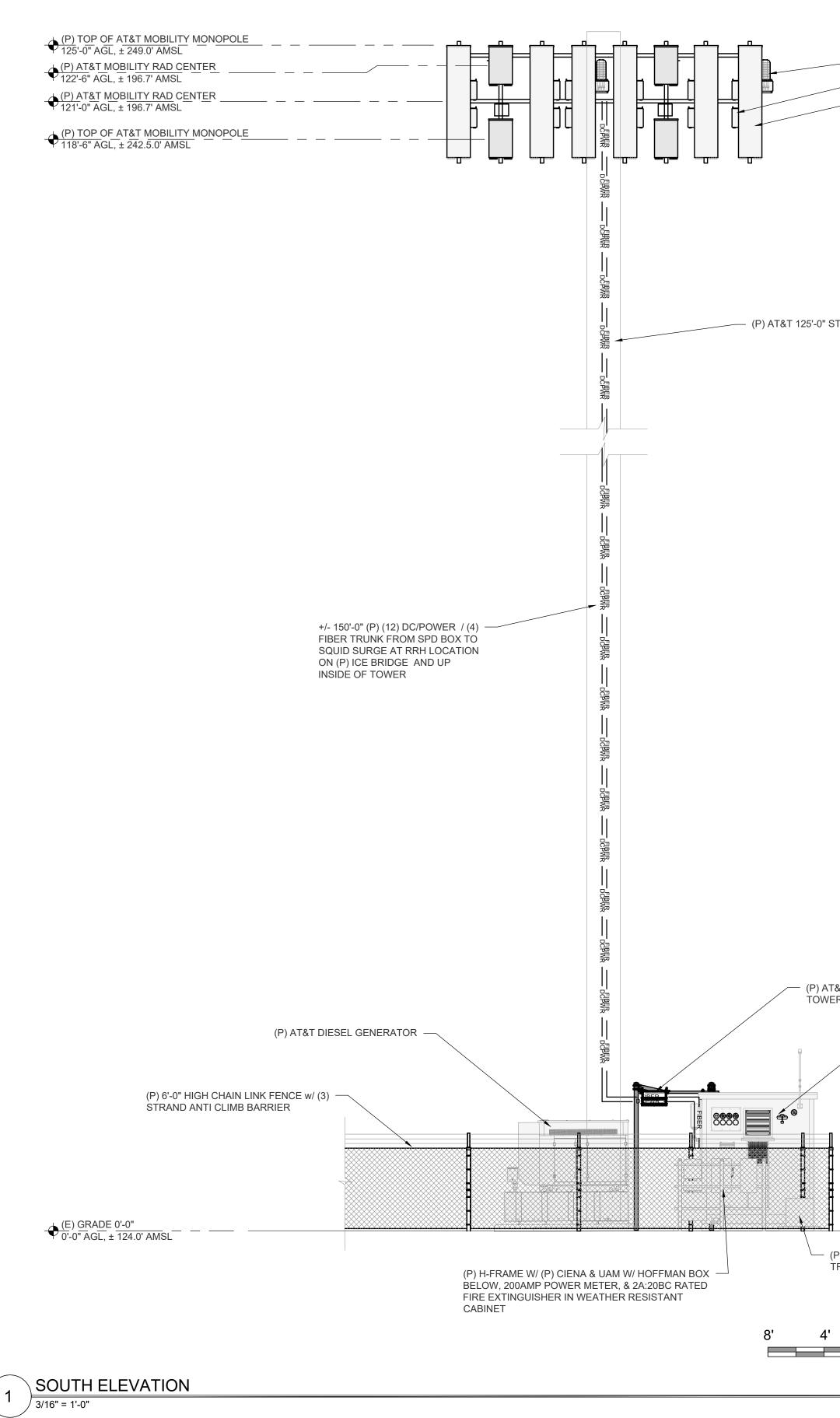
NOTE: ANTENNA POSITIONS ARE LEFT TO RIGHT FROM FRONT OF ANTENNA



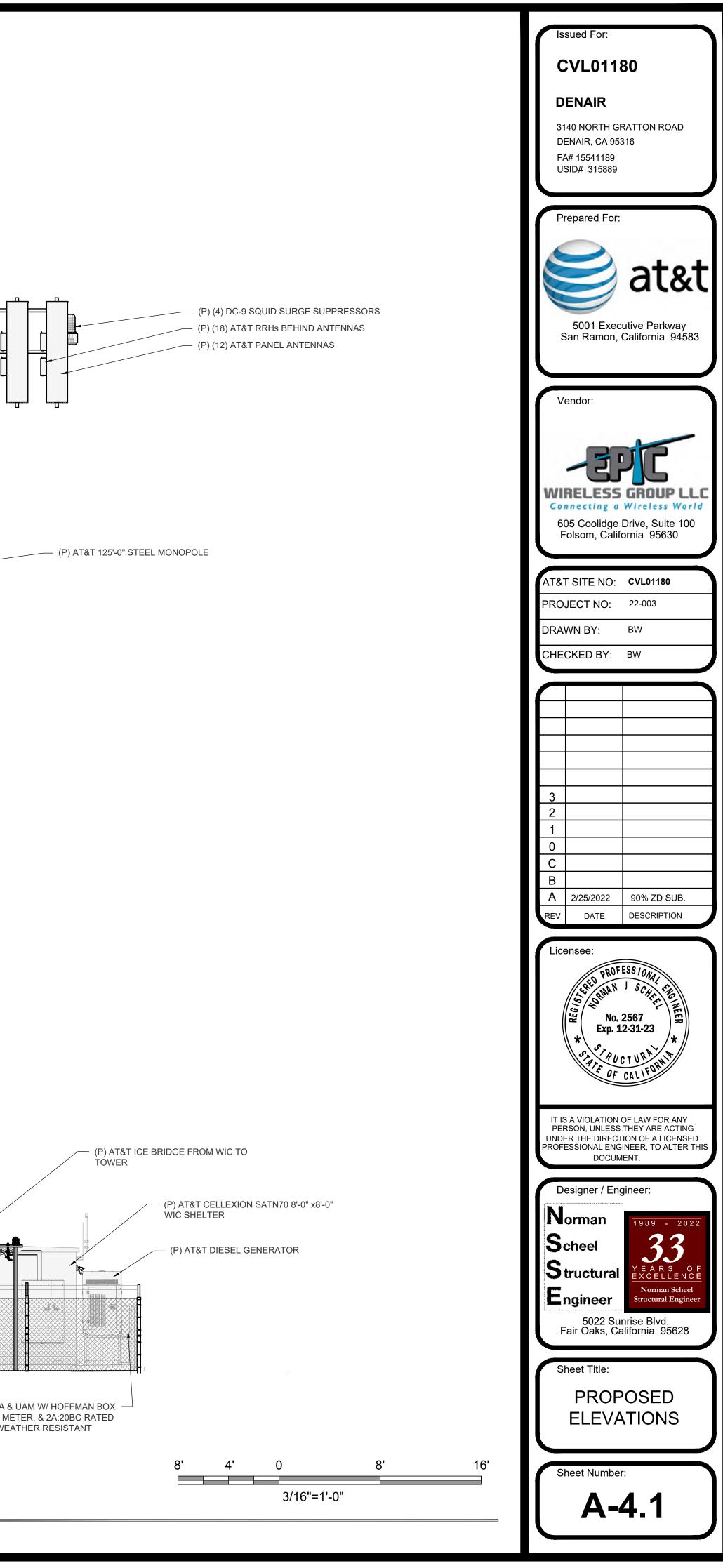


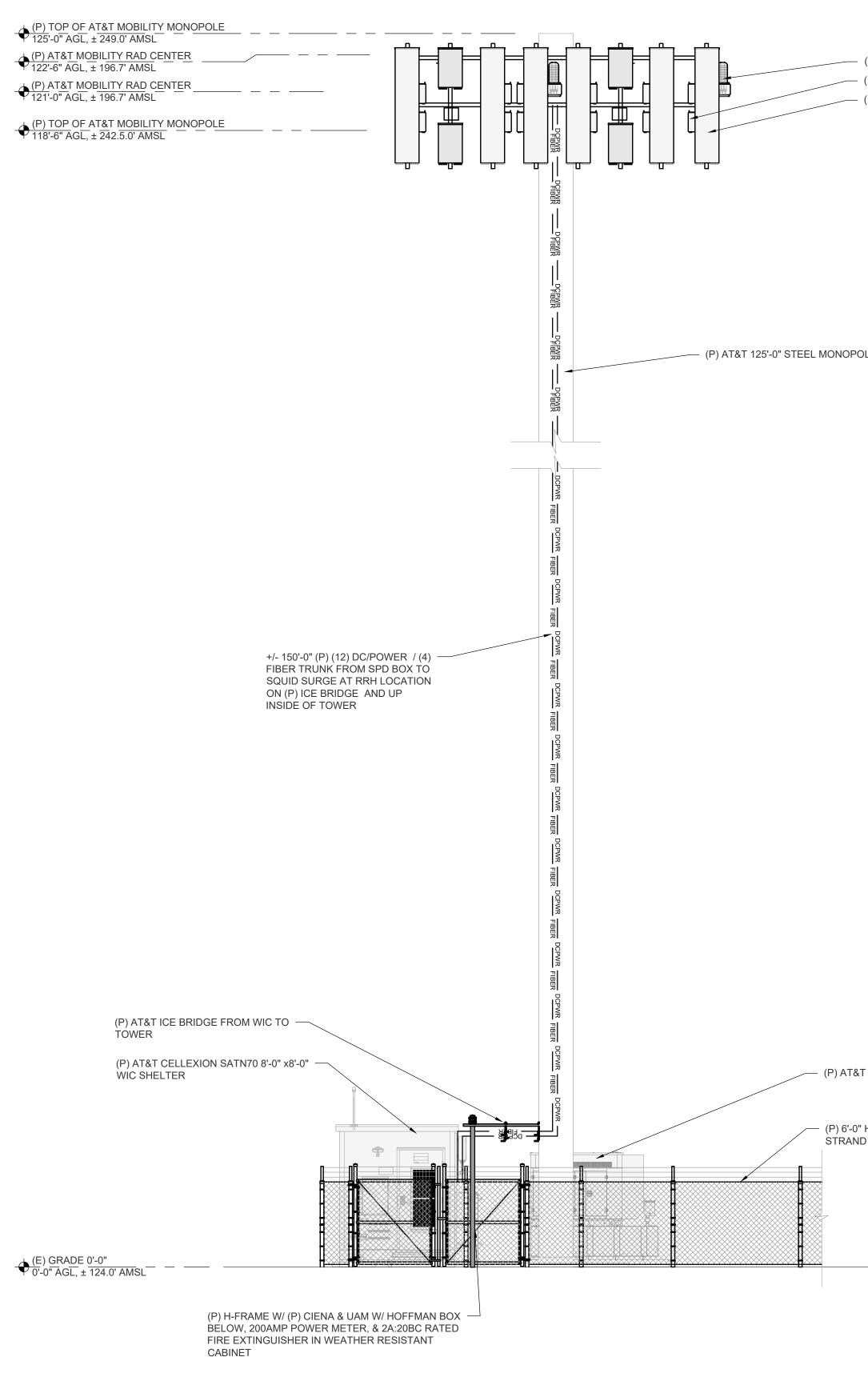






 (P) (4) DC-9 SQUID SURGE SUPPRESSORS (P) (18) AT&T RRHs BEHIND ANTENNAS (P) (12) AT&T PANEL ANTENNAS 	
STEEL MONOPOLE	
	+/- 150'-0" (P) (12) DC/POWER / (4) FIBER TRUNK FROM SPD BOX TO SQUID SURGE AT RRH LOCATION ON (P) ICE BRIDGE AND UP INSIDE OF TOWER
&T ICE BRIDGE FROM WIC TO ER	
(P) AT&T CELLEXION SATN70 8'-0" x8'-0" WIC SHELTER	
	(P) 6'-0" HIGH CHAIN LINK FENCE w/ (3)
P) AT&T 50kVA STEP DOWN TRANSFORMER	(P) H-FRAME W/ (P) CIENA & BELOW, 200AMP POWER ME FIRE EXTINGUISHER IN WE/ CABINET
0 8' 16'	
3/16"=1'-0"	2 WEST ELEVATION 3/16" = 1'-0"







OLE	
	+/- 150'-0" (P) (12) DC/POWER / (4) FIBER TRUNK FROM SPD BOX TO SQUID SURGE AT RRH LOCATION ON (P) ICE BRIDGE AND UP INSIDE OF TOWER
&T DIESEL GENERATOR " HIGH CHAIN LINK FENCE w/ (3) ID ANTI CLIMB BARRIER	(P) AT&T ICE BRIDGE FROM WIC TO TOWER (P) AT&T CELLEXION SATN70 8'-0" x8'-0" WIC SHELTER (P) AT&T DIESEL GENERATOR
8' 4' 0 8' 16'	(E) GRADE 0'-0" 0'-0" AGL, ± 124.0' AMSL (P) H-FRAME W/ (P) CIENA & UAM W/ HOFFMAN BOX BELOW, 200AMP POWER METER, & 2A:20BC RATED FIRE EXTINGUISHER IN WEATHER RESISTANT CABINET
3/16"=1'-0"	2 EAST ELEVATION 3/16" = 1'-0"

(P) TOP OF AT&T MOBILITY MONOPOLE 118'-6" AGL, ± 242.5.0' AMSL

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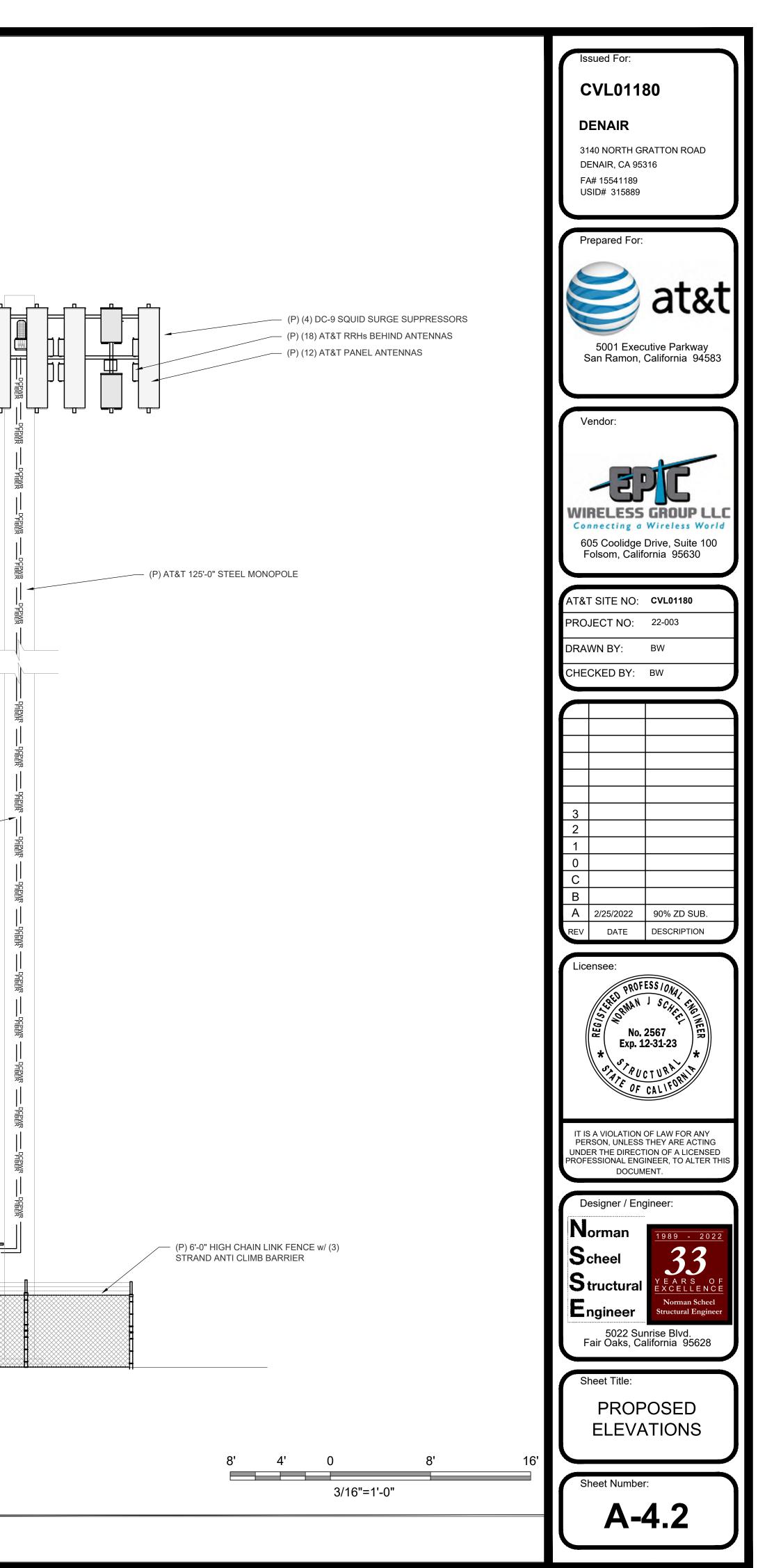
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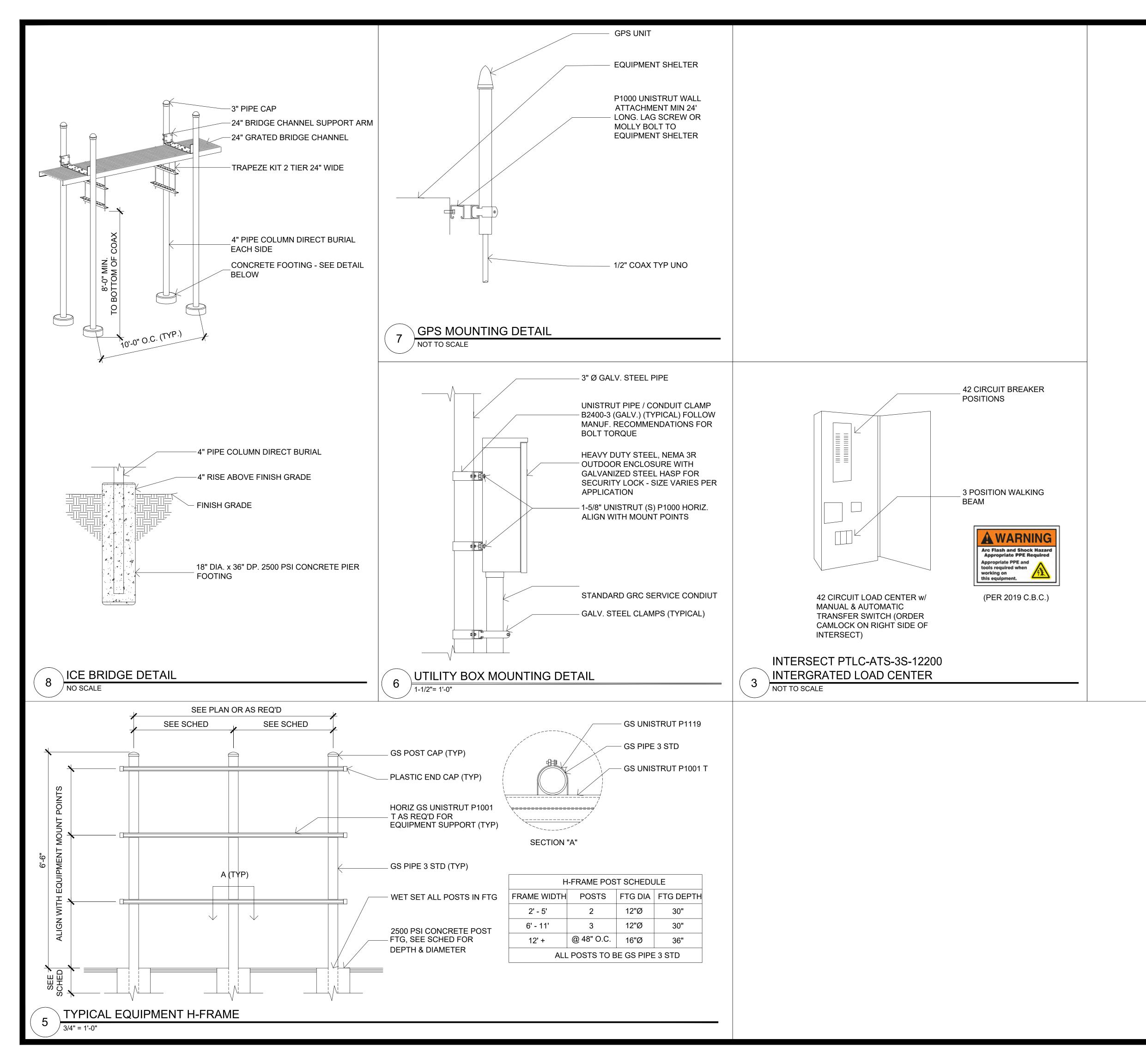
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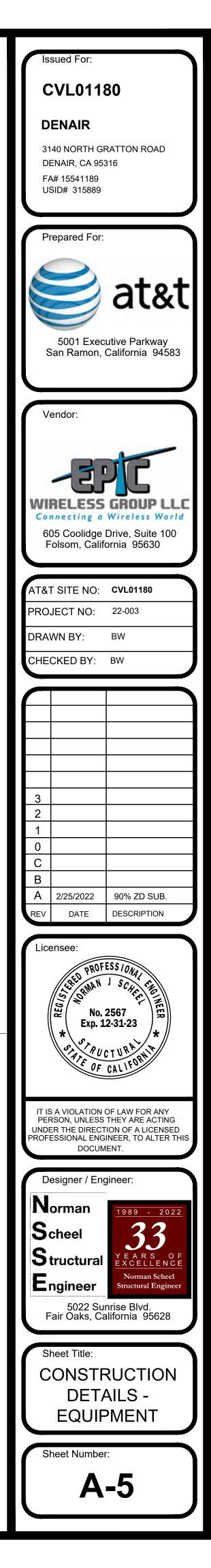
← (P) AT&T MOBILITY RAD CENTER 122'-6" AGL, ± 196.7' AMSL

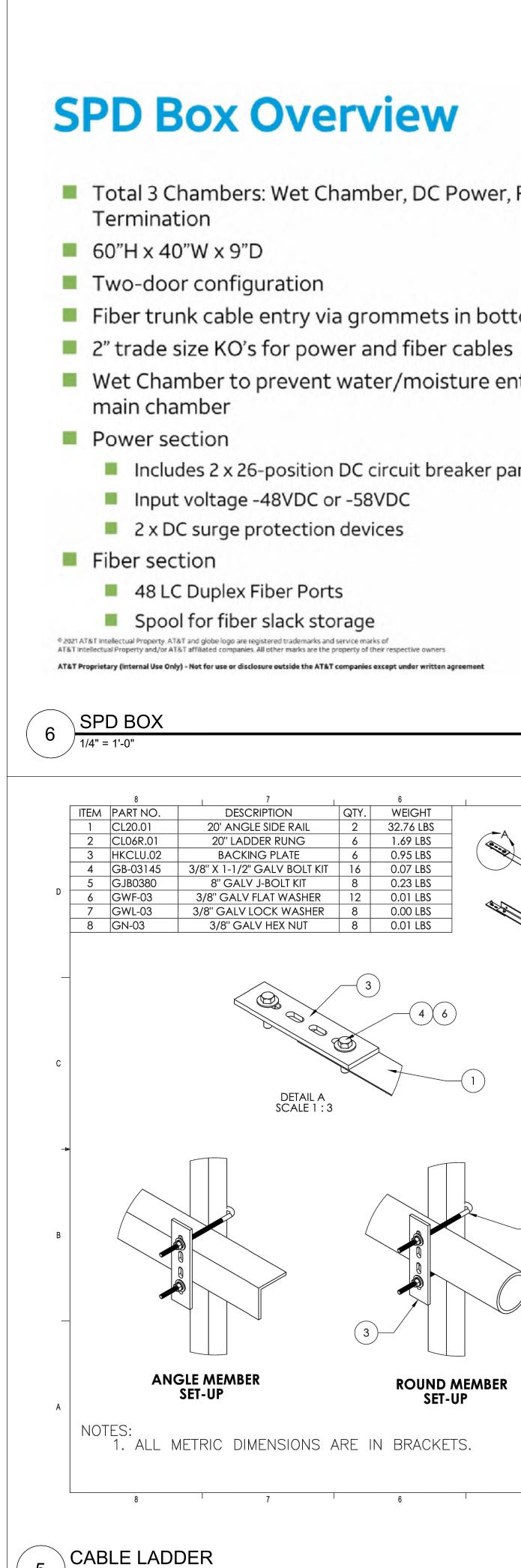
- (P) (4) DC-9 SQUID SURGE SUPPRESSORS

— (P) (18) AT&T RRHs BEHIND ANTENNAS — (P) (12) AT&T PANEL ANTENNAS



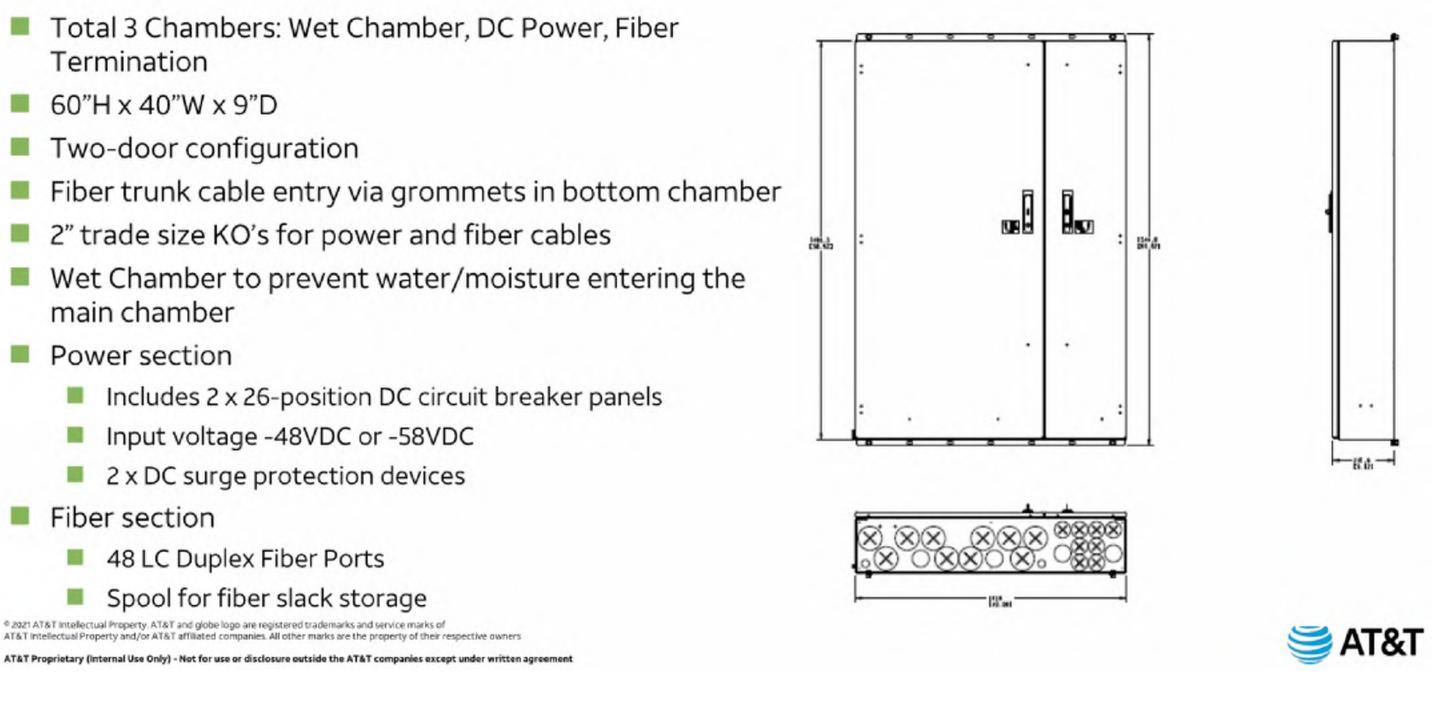


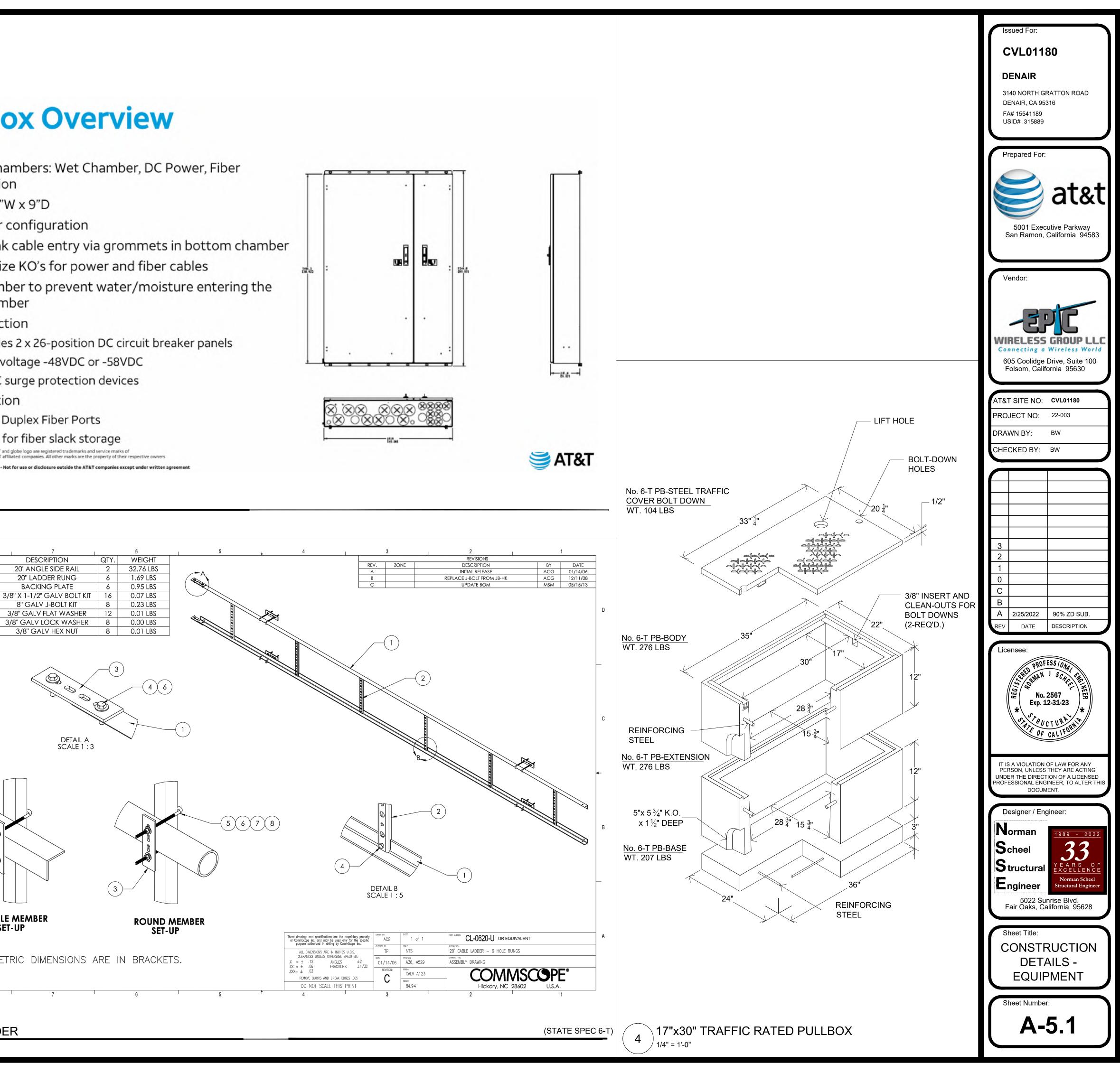




5

1/4" = 1'-0"





- AFFECTED.

- SYSTEMS.

- - TESTS:
 - PERMITS
 - GROUNDING
 - CODE.

ELECTRICAL NOTES **GENERAL REQUIREMENTS:**

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF THESE CODES. SHOULD CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING AND CEASE WORK ON PARTS OF THE CONTRACT WHICH ARE

2. THE CONTRACTOR SHALL MAKE A SITE VISIT PRIOR TO BIDDING AND CONSTRUCTION TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES. THE CONTRACTOR ASSUMES ALL LIABILITY FOR FAILURE TO COMPLY WITH THIS PROVISION.

3. THE EXTENT OF THE WORK IS INDICATED BY THE DRAWINGS, SCHEDULES, AND SPECIFICATIONS AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS, AND SUPPLIES NECESSARY FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. THE WORK SHALL ALSO INCLUDE THE COMPLETION OF ALL ELECTRICAL WORK NOT MENTIONED OR SHOWN WHICH IS NECESSARY FOR SUCCESSFUL OPERATION OF ALL

4. THE CONTRACTOR SHALL PREPARE A BID FOR A COMPLETE AND OPERATIONAL SYSTEM, WHICH INCLUDES THE COST FOR MATERIAL AND LABOR.

5. WORKMANSHIP AND NEAT APPEARANCE SHALL BE AS IMPORTANT AS THE OPERATION. DEFECTIVE OR DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE IN A MANNER ACCEPTABLE TO OWNER AND ENGINEER.

6. COMPLETE THE ENTIRE INSTALLATION AS SOON AS THE PROGRESS OF THE WORK WILL PERMIT. ARRANGE ANY OUTAGE OF SERVICE WITH THE OWNER AND BUILDING MANAGER IN ADVANCE. MINIMIZE DOWNTIME ON THE BUILDING ELECTRICAL SYSTEM.

7. THE ENTIRE ELECTRICAL SYSTEM INSTALLED UNDER THIS CONTRACT SHALL BE DELIVERED IN PROPER WORKING ORDER. REPLACE, WITHOUT ADDITIONAL COST TO THE OWNER, ANY DEFECTIVE MATERIAL AND EQUIPMENT WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.

8. ANY ERROR, OMISSION OR DESIGN DISCREPANCY ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.

9. "PROVIDE" INDICATES THAT ALL ITEMS ARE TO BE FURNISHED, INSTALLED AND CONNECTED IN PLACE.

10. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES.

EQUIPMENT LOCATIONS:

1. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATIONS OR ARRANGEMENTS OF THE CONDUIT RUNS, OUTLETS, EQUIPMENT, ETC., AND ARE TO BE FOLLOWED AS CLOSELY AS PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURE CONDITIONS ENCOUNTERED.

2. IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO FIELD CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF FURNISHINGS OR EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST, PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO THE SAME IS INSTALLED AND NO EXTRA MATERIAL IS REQUIRED.

3. LIGHTING FIXTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. COORDINATE THE FIXTURE LOCATION WITH MECHANICAL EQUIPMENT TO AVOID INTERFERENCE.

4. COORDINATE THE WORK OF THIS SECTION WITH THAT OF ALL OTHER TRADES, WHERE CONFLICTS OCCUR, CONSULT WITH THE RESPECTIVE CONTRACTOR AND COME TO AGREEMENT AS TO CHANGES NECESSARY, OBTAIN WRITTEN ACCEPTANCE FROM ENGINEER FOR THE PROPOSED CHANGES BEFORE PROCEEDING.

SHOP DRAWINGS:

1. N/A UNLESS NOTED OTHERWISE

SUBSTITUTIONS:

1. NO SUBSTITUTIONS ARE ALLOWED.

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

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

1. THE CONTRACTOR SHALL PROVIDE A COMPLETE, AND APPROVED GROUNDING SYSTEM INCLUDING ELECTRODES, ELECTRODE CONDUCTOR, BONDING CONDUCTORS, AND EQUIPMENT CONDUCTORS AS REQUIRED BY ARTICLE 250 OF THE NATIONAL ELECTRICAL

2. CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY.

3. FEEDERS AND BRANCH CIRCUIT WIRING INSTALLED IN A NONMETALLIC CONDUIT SHALL INCLUDE A CODE SIZED GROUNDING CONDUCTOR HAVING GREEN INSULATION. THE GROUND CONDUCTOR SHALL BE PROPERLY CONNECTED AT BOTH ENDS TO MAINTAIN ELECTRICAL CONTINUITY.

4. REFER TO GROUND BUS DETAILS. PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.

5. ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.

6. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED THHN (GREEN) INSULATION.

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

8. PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.

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

UTILITY SERVICE:

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

2. CONFORM TO ALL REQUIREMENTS OF THE SERVING UTILITY COMPANIES.

PRODUCTS:

- 1. ALL MATERIALS SHALL BE NEW, CONFORMING WITH NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.
- 2. CONDUIT: A) RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - B) ELECTRICAL METALLIC TUBING SHALL U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - C) FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
 - D) CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILING OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.
 - E) ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE
 - F) ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
 - G) CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON 4x4 REDWOOD SLEEPERS, 6'-0" ON CENTER, SET IN NON-HARDENING MASTIC.
- 3. ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT, #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. TYPE THHN INSULATION USED UNLESS CONDUCTORS INSTALLED IN CONDUIT EXPOSED TO WEATHER, IN WHICH CASE TYPE THWN INSULATION SHALL BE USED.
- 4. PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.
- 5. DUPLEX RECEPTACLES SHALL BE SPECIFICATION GRADE WITH WHITE FINISH (UNLESS NOTED BY ENGINEER), 20 AMP, 125 VOLT, THREE WIRE GROUNDING TYPE, NEMA 5-20R. MOUNT RECEPTACLE AT +12" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED ON DRAWINGS OR DETAILS. WEATHERPROOF RECEPTACLES SHALL BE GROUND FAULT INTERRUPTER TYPE WITH SIERRA #WPD-8 LIFT COVER PLATES.
- 6. TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH. MOUNT SWITCHES AT+48" ABOVE FINISHED FLOOR.
- 7. PANEL BOARDS SHALL BE DEAD FRONT SAFETY TYPE WITH ANTI-BURN SOLDERLESS COMPRESSION APPROVED FOR COPPER CONDUCTORS, COPPER BUS BARS, FULL SIZED NEUTRAL BUS, GROUND BUS AND EQUIPPED WITH QUICK-MAKE QUICK-BREAK BOLT-IN TYPE THERMAL MAGNETIC CIRCUIT BREAKERS. MOUNT TOP OF THE PANEL BOARD AT 6'-3" ABOVE FINISH FLOOR. PROVIDE TYPE WRITTEN CIRCUIT DIRECTORY.
- 8. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS, AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY BE SUBJECTED.
- 9. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" DIA. ROUND AND 10'-0" LONG. COPPERWELD OR APPROVED EQUAL.

INSTALLATION:

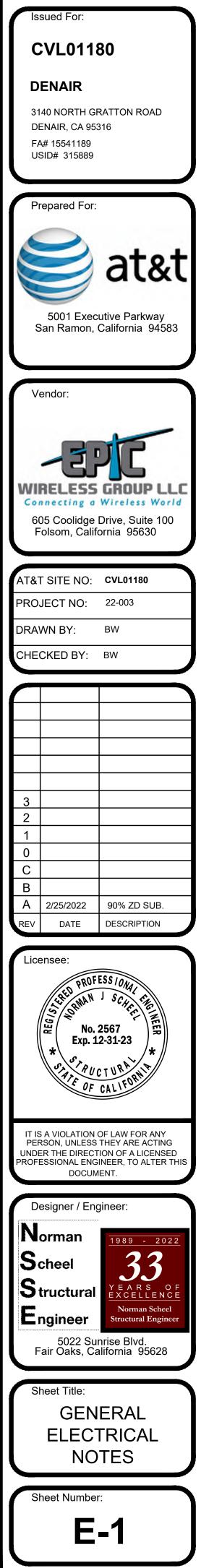
- 1. PROVIDE SUPPORTING DEVICES FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, BOXES, PANEL, ETC.. SUPPORT LUMINARIES FROM THE UNDERSIDE OF STRUCTURAL CEILING. EQUIPMENT SHALL BE BRACED TO WITHSTAND HORIZONTAL FORCES I ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS. PROVIDE PRIOR ALIGNMENT AND LEVELING OF ALL DEVICES AND FIXTURES.
- 2. CUTTING, PATCHING, CHASES, OPENINGS: PROVIDE LAYOUT IN ADVANCE TO ELIMINATE UNNECESSARY CUTTING OR DRILLING OF WALLS, FLOORS, CEILINGS, AND ROOFS. ANY DAMAGE TO BUILDING STRUCTURE OR EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR. OBTAIN PERMISSION FROM THE ENGINEER BEFORE CORING.
- 3. IN DRILLING HOLES INTO THE CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- 4. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- 5. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT C.B.C.

PROJECT CLOSEOUT:

- 1. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALLS DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- 2. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.
- 3. ALL BROCHURES, OPERATING MANUALS, CATALOG, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

GROUNDING NOTES:	
1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS. AT&T'S GROUNDING SPECIFICATIONS NUMBER ATT-TP-76416 (CHAPTER 7), AND MANUFACTURER SPECIFICATION.	I
2. ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.	
3. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.	
 ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE. 	ľ
5. GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE.	[
 INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE. 	
 EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY. 	
 GROUND BARS: A) EQUIPMENT GROUND BUS BAR (EGB) LOCATED AT THE BOTTOM OF ANTENNA POLE/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR. 	I
9. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.	1
10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.	
11. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).	
12. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE. IF CHAIN LINK LID IS USED, THEN GROUND LID ALSO.	
13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.	
14. ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.	\

- 15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
- 16. USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR. NO "DOUBLE-UP" OF LUGS. 17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.
- 18. NO LB'S ALLOWED ON GROUNDING.
- 19. PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.



ELECTRICAL INSTALLATION METHODS:

This installation shall comply with the currently adopted edition of

1. the National Electrical Code and with utility company and local code requirements.

2. Install sufficient lengths of LFMC including all conduit fittings (nuts, reducing bushings, elbows, couplings, etc) necessary for connection from IMC or PVC conduit to the interior of the BTS cabinet.

3. Power, control and equipment ground wiring in tubing or conduit shall be single conductor (#14 AWG and larger), 600V, oil resistant THHN or THWN-2, Class B stranded copper cable rated for 90°C (wet and dry) operation; listed or labeled for the location and raceway system used. 4. Cut, coil and tape a 3 foot pigtail from end of LFMC for terminating by BTS equipment manufacturer.

5. Supplemental equipment ground wiring located indoors shall be single conductor (#6 AWG and larger), 600V, oil resistant THHN or THWN-2 green insulation, Class B stranded copper cable rated for 90°C (wet and dry) operation, listed or labeled for the location and raceway system used. 6. Supplemental equipment ground wiring located outdoors or below

grade shall be single conductor #2 AWG solid, tinned, copper cable. 7. Power and control wiring, not in tubing or conduit, shall be multi-conductor, Type TC. Cable (#14 AWG and larger), 600V, oil resistant THHN or THWN-2, Class B, Stranded copper cable rated for

90°C (Wet or Dry) operation, with outer jacket listed or labeled for the location used. 8. Cables shall not be routed through ladder-style cable tray rungs.

9. Raceway and cable tray shall be listed or labeled for electrical use in accordance with NEMA, UL, ANSI/IEEE and NEC.

10. New raceway or cable tray shall match the existing installation where possible.

11. All power and grounding connections shall be crimp style, compression, wire lugs and wirenuts by Thomas and Betts (or equal). Lugs and wirenuts shall be rated for operation at no less than 75°C. 12. Each end of every power, grounding and T1 conductor and cable shall be labeled with color coded insulation or electrical tape. The identification method shall conform with NEC & OSHA and match existing installation requirements.

13. All electrical components shall be clearly labeled with engraved laminated plastic labels. All equipment shall be labeled with their voltage rating, phase configuration, wire configuration, power or ampacity rating and branch circuit ID numbers (panelboard and circuit identification). 14. All tie wraps shall be cut flush with approved cutting tool to remove sharp edges.

15. Rigid nonmetallic conduit (PVC Schedule 40 or PVC Schedule 80) shall be used underground, direct buried in areas of occasional light vehicle traffic or encased in reinforced concrete in areas of heavy vehicle traffic.

16. All conduit run above ground or exposed shall be LFMC, IMC or Rigid

17. Electrical metallic tubing (EMT) shall be used for concealed indoor locations

18. Liquid tight flexible metallic conduit shall be used indoors and outdoors where vibration occurs or flexibility is needed.

19. Conduit and tubing fittings shall be threaded or compression type and approved for the location used. Setscrew fittings are not acceptable. 20. Cabinets, boxes and wireways shall be listed or labeled for electrical

use in accordance with NEMA, UL, ANSI/IEEE and NEC. 21. Cabinets, boxes and wireways shall match the existing installation where possible.

22. Provide necessary tagging on the breakers, cables and distribution panels in accordance with applicable codes and standards to safeguard life and property.

23. The subcontractor shall review and inspect the existing facility grounding system and lightning protection system (as designed and installed) for strict compliance with the NEC. The site specific lightning protection code and general compliance with Telcordia and TIA grounding standards. The subcontractor shall report any violations or adverse findings to the contractor for resolution.

24. All electrode systems (including telecommunication, radio, lightning protection and AC power GES's) shall be bonded together at or below grade by two or more copper bonding conductors in accordance with the NEC.

25. Perform IEEE fall-of-potential resistance to earth testing (per IEEE 1100 and 81) for new ground electrode systems. The subcontractor shall furnish and install supplemental ground electrodes as needed to achieve a test result of 5 ohms or less.

26. Metal raceway shall not be used as the NEC required equipment ground conductor. Stranded copper conductors with green insulation sized in accordance with the NEC shall be furnished and installed with the power circuits to BTS equipment.

27. Each indoor BTS cabinet frame shall be directly connected to the master ground bar with supplemental equipment ground wires #6 or larger.

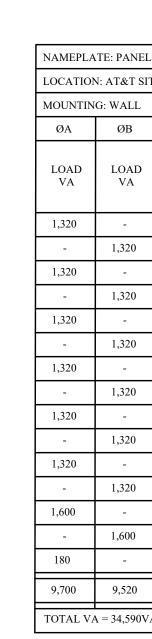
28. Exothermic welds shall be used for all grounding connections below grade

29. Approved antioxidant coatings (i.e. conductive gel or paste) shall be used on all compression and bolted ground connections.

30. ICE bridge bonding conductors shall be exothermically bonded or bolted to the bridge and the tower ground bar.

31. Surfaces to be connected to ground conductors shall be cleaned to a bright surface at all connections.

32. Exposed ground connections shall be made with compression connectors which are then bolted to equipment using stainless steel hardware. Installation torque shall be per manufacturer's requirements. 33. DC power cables shall be Cobra COP-FLEX 2000, Flexible Class B or approved equal.



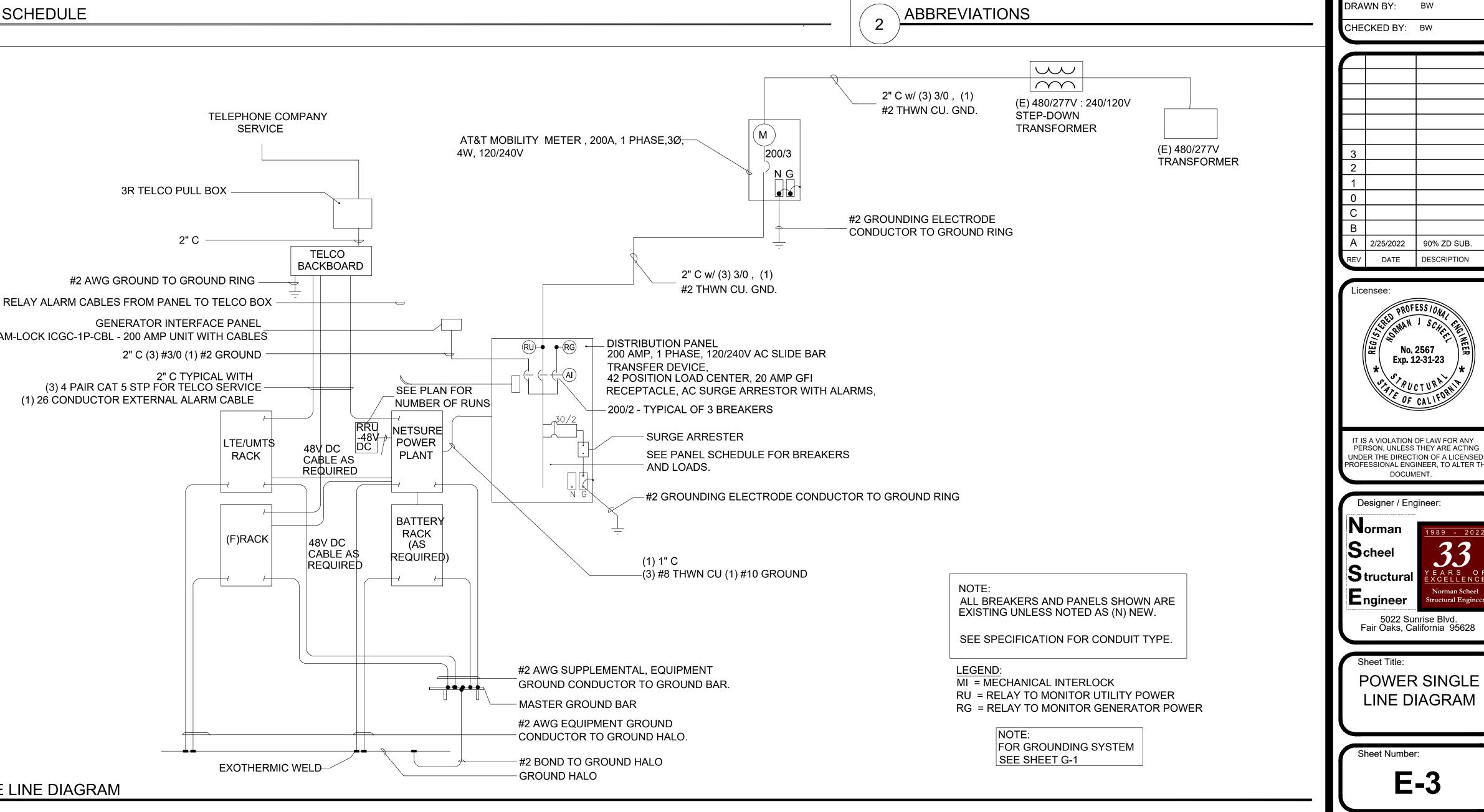
PANEL SCHEDULE 3

CAM-LOCK ICGC-1P-CBL - 200 AMP UNIT WITH CABLES

ELECTRICAL NOTES 1/4" = 1'-0"

PANEL SCHEDULE

A				SC LE	EVEL: 2	2,000		VOLTS: 120/240V, 1Ø, 3W	VOLTS: 120/240V, 1Ø, 3W			
ITE								BUS AMPS: 200A				
								MAIN CB: 200A				
CONT.	LOAD DI	ESCRIPTION	BKR AMP/ POLE	CIRC NO.	CUIT	BKR AMP/ POLE	CONT.	LOAD DESCRIPTION	ØA LOAD VA	ØB LOAD VA		
Y	REC	TIFIER #1	30/2	01	02	30/2	Y	RECTIFIER #4	1,320	-		
Y	REC	TIFIER #1	-	03	04	-	Y	RECTIFIER #4	-	1,320		
Y	REC	TIFIER #2	30/2	05	06	30/2	Y	RECTIFIER #5	1,320	-		
Y	REC	TIFIER #2	-	07	08	-	Y	RECTIFIER #5	-	1,320		
Y	REC	TIFIER #3	30/2	09	10	30/2	Y	RECTIFIER #6	1,320	-		
Y	REC	TIFIER #3	-	11	12	-	Y	RECTIFIER #6	-	1,320		
Y	REC	TIFIER #7	30/2	13	14	30/2	Y	RECTIFIER #10	1,320	-		
Y	REC	TIFIER #7	-	15	16	-	Y	RECTIFIER #10	-	1,320		
Y	REC	TIFIER #8	30/2	17	18	30/2	Y	RECTIFIER #11	1,320	-		
Y	REC	TIFIER #8	-	19	20	-	Y	RECTIFIER #11	-	1,320		
Y	REC	TIFIER #9	30/2	21	22	-	Ν	SPACE	1,320	-		
Y	REC	TIFIER #9	-	23	24	20/1	Y	GFCI RECEPTACLE	-	300		
Y	HVA	AC 1	20/2	25	26	20/1	Y	EXTERIOR LIGHT	300	-		
Y	HVA	AC 1	-	27	28	20/1	Y	BATTERY HEATER BLOCK	-	1,000		
N	GFC	I RECEPTACLE		29	30	20/1	Y	BATTERY CHARGER BLOCK	250	-		
PHASE TOTALS								PHASE TOTAL	S 8,470	6,900		
A		TOTAL AMPS =	= 144A							i		



ABBREVIATIONS:

BCW BTS C (E) EG (F) FACP GEN IG IMC LFMC MCM MI MP&S (N) NEMA NL PFB PVC (R) RG RU TYP UON WP GFCI	GENERATOR ISOLATED GROUND INTERMEDIATE METAL CONDUIT
NOTE:	SYMBOLS INDICATED ABOVE MAY NOT NECESSARILY APPEAR AS PART OF THESE DRAWINGS IF NOT REQUIRED.

Issued For:

DENAIR

CVL01180

DENAIR, CA 95316

FA# 15541189

USID# 315889

Prepared For

Vendor

3140 NORTH GRATTON ROAD

5001 Executive Parkway San Ramon, California 94583

IRELESS GROUP LL

onnecting a Wireless Wor

605 Coolidge Drive, Suite 100

Folsom, California 95630

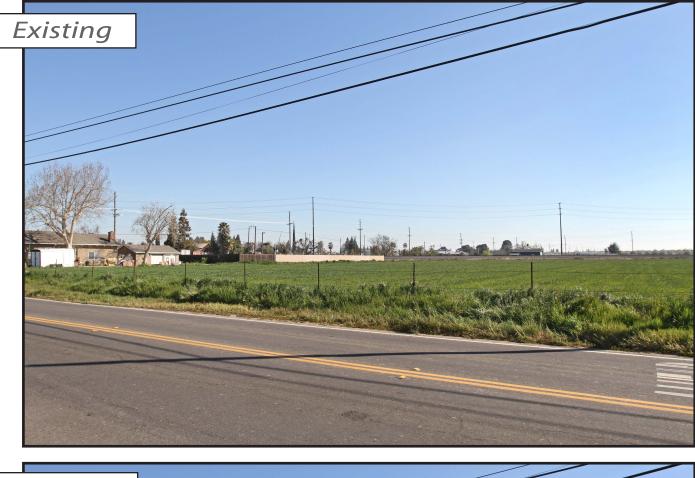
AT&T SITE NO: CVL01180

PROJECT NO: 22-003



















🥰 at&t

on behalf of

DATE: 03/14/2022

Stanislaus County | Planning & Community Development 1010 10th Street, Suite 3400, Modesto, CA 95354 **Operation And project Justification Statement**

Re: Proposed "New" AT&T Telcom Facility (cell site) Site Ref# CVL01180/Denair Located at: 3140 N Gratton Rd, Denair, CA 95316 APN: 024-039-009

Introduction

New AT&T proposed Monopole Tower. AT&T proposes to install a new wireless communications facility ("WCF") located at 3140 N Gratton Rd, Denair in the county of Stanislaus. The proposal includes the construction of (1) New 125ft. co-locatable Monopole tower with (15) panel antennas, (18) remote radio units, and associated equipment installed on the tower. Install (1) new 8.0' x 8.0' (WIC) walk in closet equipment shelter & 30kw back up Diesel generator inside a 702 sq. ft. AT&T ground space lease area located inside an existing fenced in area portion of the property.

Colocation

AT&T seeks to fill a significant gap in service coverage using the least intrusive means under the values expressed in the Stanislaus County siting standards for Wireless Communication Facilities. Thus, AT&T is guided by the County Code Siting Standards for WCFs found in section 21.91.030 of the code.

"The tower shall be a monopole design unless the planning director determines that it would not be visible to the general public, in which case a lattice tower design may be approved".

AT&T seeks to meet the Code requirements and provide the best available design by placing this Monopole structure WCF in a A-2-10 (General Agg) Use zone at the minimum height needed to address the significant service coverage gap.

Visual Considerations

AT&T's engineering (Tower Manufacturer) has reviewed the proposed location to determine the appropriate type of Monopole tower structure, and in research suggest the proposed grey non-metallic tower would have the least visual impact on the local light industrial area, and blend best with the surroundings for the proposed AT&T antennas and equipment. The proposed site location will have minimal of an environmental impact with ease of access and utilities/trenching provided via an existing dirt access rd. directly to the site. Additionally, the site location will have little to no negative effect on the aesthetic quality of its surroundings due to the existing fencing with privacy slats installed on the property. Effectively the existing fencing will screen much of the facility and ground equipment from the public right of way.

605 Coolidge Drive Suite 100 Folsom, CA. 95630 Fax (916) 781-5927





on behalf of

Project Justification.

AT&T Wireless is currently improving the existing wireless network in Stanislaus County. The new proposed telecom facility and installation of AT&T's telecommunication equipment will improve wireless and broadband internet coverage for the local area and provide First Net capability. The First Net program also known as First Responders Network <u>https://www.firstnet.gov/</u> is the country's first nationwide public safety communications platform dedicated to first responders. Being built with AT&T, in public-private partnership with the <u>First Responder Network Authority</u> AT&T seeks to engage and work with federal, state and local governmental agencies as part of FirstNet buildout to enhance coverage for first responders. Additionally, the improved network will provide an extremely valuable service to those who live, travel, and do business in the local area. It will give people the ability to call for emergency services in the event of an accident, the ability to communicate with employees or clients outside of the office, and the ability to communicate with family members when needed. The project engineer has indicated that the proposed location will provide the necessary coverage and capacity with the ability to hand off the wireless signal to the next telecommunications site. This will enable travelers and community members to have reliable and continuous wireless coverage.

- Operation of the project will occur 12 months a year, 7 days a week, 24 hours a day consistent with the continuous schedule of normal telephone company operations.
- The facility is "unmanned" and will be visited on an "as needed" basis only. No more than two technicians will attend the facility. Their schedule will be on a 24 hour basis. No more than two service vehicles, being either a van or a small pickup truck will visit the facility.
- The equipment located within AT&T's lease area will be used for telephone operations.
- There will be no supplies or materials stored on the site.
- There will be no noise, glare, dust or odors associated with the facility.
- The proposed-on site 190-gallon diesel backup generator will <u>ONLY</u> run in the event of an emergency and for maintenance purposes approx. (1) time per month for approx. (20) to (30) mins. In the event of power outage, the generator has the capacity to power the site for up to (3) days before refueling is required.

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🨂 at&t

on behalf of

Conclusion

AT&T would like to apply for a Use Permit for the project. The Proposed Facility is the least intrusive means by which AT&T can close its significant service coverage gap in this portion of Stanislaus County. Denial of AT&T's application would materially inhibit AT&T's ability to provide and improve service in this portion of the city.

Should you have questions regarding this project, please do not hesitate to contact my office directly at the undersigned

Sincerely, Carl Jones Project Manager Epic Wireless Group LLC (916) 798-2275 <u>carl.jones@epicwireless.net</u>

> 605 Coolidge Drive Suite 100 Folsom, CA. 95630 Fax (916) 781-5927



Radio	Frequency Emissions (Compliance Report	For AT&T Mobility
Site Name:	Denair	Site Structure Type:	Monopole
Address:	3140 North Gratton Road	Latitude:	37.521204
	Denair, CA 95316	Longitude:	-120.792968
Report Date:	March 9, 2022	Project:	New Build

Compliance Statement

Based on information provided by AT&T Mobility and predictive modeling, the DENAIR installation proposed by AT&T Mobility will be compliant with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310. RF alerting signage at the base of the Monopole and restricting access to authorized climbers that have completed RF safety training is required for Occupational environment compliance. The proposed operation will not expose members of the General Public to hazardous levels of RF energy at ground level or in adjacent buildings.

Certification

I, David H. Kiser, am the reviewer and approver of this report and am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.



Date: 2022-March-10

General Summary

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure ("MPE") limits. At any location at this site, the power density resulting from each transmitter may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment-related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, the FCC General Population limit is considered to be a level that is safe for continuous exposure time. The FCC General Population limit is 5 times more restrictive than the Occupational limits.

In situations where the predicted MPE exceeds the General Population threshold in an accessible area as a result of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

	Limits for General Populat	ion/ Uncontrolled Exposure	Limits for Occupational/	Controlled Exposure
Frequency (MHz)	Power Density (mW/cm²)	Averaging Time (minutes)	Power Density (mW/cm²)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1.0	30	5.0	6

Table 1: FCC Limits

f=Frequency (MHz)

Based on the computational guidelines set forth in FCC OET Bulletin 65, Waterford Consultants, LLC has developed software to predict the overall Maximum Permissible Exposure possible at any location given the spatial orientation and operating parameters of multiple RF sources. The power density in the Far Field of an RF source is specified by OET-65 Equation 5 as follows:

$$S = \frac{EIRP}{4 \cdot \pi \cdot R^2} \text{ (mW/cm}^2\text{)}$$

where EIRP is the Effective Radiated Power relative to an isotropic antenna and R is the distance between the antenna and point of study. Additionally, consideration is given to the manufacturers' horizontal and vertical antenna patterns as well as radiation reflection. At any location, the predicted power density in the Far Field is the spatial average of points within a 0 to 6-foot vertical profile that a person would occupy. Near field power density is based on OET-65 Equation 20 stated as

$$S = \left(\frac{180}{\theta_{BW}}\right) \cdot \frac{100 \cdot P_{in}}{\pi \cdot R \cdot h} \text{ (mW/cm}^2)$$

where P_{in} is the power input to the antenna, θ_{BW} is the horizontal pattern beamwidth and h is the aperture length.

Some antennas employ beamforming technology where RF energy allocated to each customer device is dynamically directed toward their location. This analysis includes a statistical factor reducing the actual power of the antenna system to 32% of maximum theoretical power to account for spatial distribution of users, network utilization, time division duplexing, and scheduling time. AT&T recommends the use of this factor based on a combination of guidance from its antenna system manufacturers, supporting international industry standards, industry publications, and its extensive experience.

Analysis

AT&T Mobility proposes the following installation at this location:

- INSTALL (15) ANTENNAS ON (N) MONOPOLE TOWER
- INSTALL (18) RRUS ON TOWER

The antennas will be mounted on a 125-foot Monopole with centerlines 121, 119.62, 122 & 122.18 feet above ground level. Proposed antenna operating parameters are listed in Appendix A. Other appurtenances such as GPS antennas, RRUs and hybrid cable below the antennas are not sources of RF emissions. No other antennas are known to be operating in the vicinity of this site.

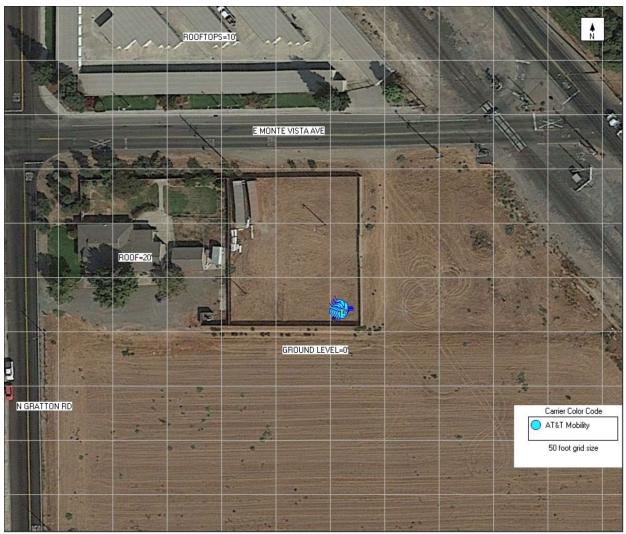


Figure 1: Antenna Locations

Power density decreases significantly with distance from any antenna. The panel-type antennas to be employed at this site are highly directional by design and the orientation in azimuth and mounting elevation, as documented, serves to reduce the potential to exceed MPE limits at any location other than directly in front of the antennas. For accessible areas at ground level, the maximum predicted power density level resulting from all AT&T Mobility operations is 10.21% of the FCC General Population limits. Incident at adjacent buildings depicted in Figure 1, the maximum predicted power density level resulting from all AT&T Mobility operations is 9.6551% of the FCC General Population limits. The proposed operation will not expose members of the General Public to hazardous levels of RF energy at ground level or in adjacent buildings.

Waterford Consultants, LLC recommends posting RF alerting signage with contact information (Caution 2B) at the base of the Monopole to inform authorized climbers of potential conditions near the antennas. These recommendations are depicted in Figure 2.

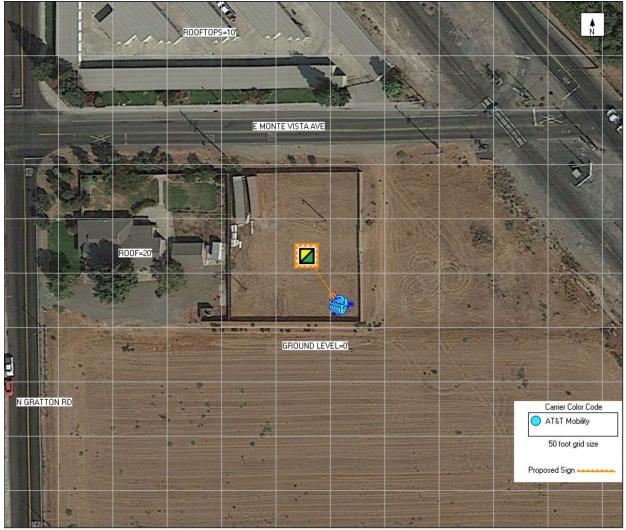


Figure 2: Mitigation Recommendations

Caution 2B

Appendix A: Operating Parameters Considered in this Analysis

					Mech	Mech									Rad
Antenna #:	Carrier:	Manufacturer	Pattern:	Band (MHz):	Az (deg):	DT (deg):	H BW (deg):	Length (ft):	TPO (W):	Channels:	Loss (dB):	Gain (dBd):	ERP (W):	EIRP (W):	Center (ft):
1	AT&T	QUINTEL	QD8612-3D V1 02DT	700	90	0	70	8	40	4	0	12.7109	2987	4900	121
1	AT&T	QUINTEL	QD8612-3D V1 02DT	850	90	0	61	8	40	4	0	13.2158	3355	5504	121
1	AT&T	QUINTEL	QD8612-3D V1 02DT	1900	90	0	60	8	40	4	0	15.249	5358	8791	121
1	AT&T	QUINTEL	QD8612-3D V1 02DT	2100	90	0	60	8	40	4	0	15.6024	5812	9536	121
2	AT&T	ERICSSON	SON_AIR6449 NR TB 3700 AT&T	3700	90	0	11	2.8	108.4	1	0	23.55	24549	40274	119.62
3	AT&T	ERICSSON	SON_AIR6419 B42FB NR TB 3400 AT&T	3400	90	0	13	2.4	108.4	1	0	22.85	20894	34279	122.18
4	AT&T	QUINTEL	QD8612-2 V1 02DT	700	90	0	69	8	40	4	0	13.0532	3232	5302	121
4	AT&T	QUINTEL	QD8612-2 V1 00DT	1900	90	0	60	8	40	4	0	15.3015	5423	8898	121
4	AT&T	QUINTEL	QD8612-2 V1 00DT	2100	90	0	61	8	40	4	0	15.3581	5495	9014	121
5	AT&T	QUINTEL	QD868-2 V1 02DT	700	90	0	74	8	40	2	0	12.1945	1326	2175	121
5	AT&T	QUINTEL	QD868-2 V1 02DT	2300	90	0	62	8	25	4	0	15.4039	3470	5694	121
6	AT&T	QUINTEL	QD8612-3D V1 02DT	700	330	0	70	8	40	4	0	12.7109	2987	4900	121
6	AT&T	QUINTEL	QD8612-3D V1 02DT	850	330	0	61	8	40	4	0	13.2158	3355	5504	121
6	AT&T	QUINTEL	QD8612-3D V1 02DT	1900	330	0	60	8	40	4	0	15.249	5358	8791	121
6	AT&T	QUINTEL	QD8612-3D V1 02DT	2100	330	0	60	8	40	4	0	15.6024	5812	9536	121
7	AT&T	ERICSSON	SON_AIR6449 NR TB 3700 AT&T	3700	330	0	11	2.8	108.4	1	0	23.55	24549	40274	119.62
8	AT&T	ERICSSON	SON_AIR6419 B42FB NR TB 3400 AT&T	3400	330	0	13	2.4	108.4	1	0	22.85	20894	34279	122.18
9	AT&T	QUINTEL	QD8612-2 V1 02DT	700	330	0	69	8	40	4	0	13.0532	3232	5302	121
9	AT&T	QUINTEL	QD8612-2 V1 00DT	1900	330	0	60	8	40	4	0	15.3015	5423	8898	121
9	AT&T	QUINTEL	QD8612-2 V1 00DT	2100	330	0	61	8	40	4	0	15.3581	5495	9014	121
10	AT&T	QUINTEL	QD868-2 V1 02DT	700	330	0	74	8	40	2	0	12.1945	1326	2175	121
10	AT&T	QUINTEL	QD868-2 V1 02DT	2300	330	0	62	8	25	4	0	15.4039	3470	5694	121
11	AT&T	QUINTEL	QD8612-3D V1 02DT	700	210	0	70	8	40	4	0	12.7109	2987	4900	121
11	AT&T	QUINTEL	QD8612-3D V1 02DT	850	210	0	61	8	40	4	0	13.2158	3355	5504	121
11	AT&T	QUINTEL	QD8612-3D V1 02DT	1900	210	0	60	8	40	4	0	15.249	5358	8791	121

Antenna				Band	Mech Az	Mech DT	H BW	Length	ТРО		Loss	Gain	ERP	EIRP	Rad Center
#:	Carrier:	Manufacturer	Pattern:	(MHz):	(deg):	(deg):	(deg):	(ft):	(W):	Channels:	(dB):	(dBd):	(W):	(W):	(ft):
11	AT&T	QUINTEL	QD8612-3D V1 02DT	2100	210	0	60	8	40	4	0	15.6024	5812	9536	121
12	AT&T	ERICSSON	SON_AIR6449 NR TB 3700 AT&T	3700	210	0	11	2.8	108.4	1	0	23.55	24549	40274	119.62
13	AT&T	ERICSSON	SON_AIR6419 B42FB NR TB 3400 AT&T	3400	210	0	13	2.4	108.4	1	0	22.85	20894	34279	122.18
14	AT&T	QUINTEL	QD8612-2 V1 02DT	700	210	0	69	8	40	4	0	13.0532	3232	5302	121
14	AT&T	QUINTEL	QD8612-2 V1 00DT	1900	210	0	60	8	40	4	0	15.3015	5423	8898	121
14	AT&T	QUINTEL	QD8612-2 V1 00DT	2100	210	0	61	8	40	4	0	15.3581	5495	9014	121
15	AT&T	QUINTEL	QD868-2 V1 02DT	700	210	0	74	8	40	2	0	12.1945	1326	2175	121
15	AT&T	QUINTEL	QD868-2 V1 02DT	2300	210	0	62	8	25	4	0	15.4039	3470	5694	121

Notes: Table depicts recommended operating parameters for AT&T Mobility proposed operations.