



RFID#: 4961407

USID #: 315565

FA #: 14226177

5G NR 1SR CBAND

PTN#: 3701A17444

PACE#: MRSFR098445

LTE1C CELL SITE REPLACEMENT

PTN#: 3701A0DNV5

PACE#: MRSFR044517

LTE 5C

PTN#: 3701A0MCSA

PACE#: MRSFR058521

LTE 2C

PTN#: 3701A0MD9G

PACE#: MRSFR058518

LTE 3C

PTN#: 3701A0MCTA

PACE#: MRSFR058519

LTE 4C

PTN#: 3701A0MD9Q

PACE#: MRSFR058485

SITE NUMBER:

CCL04383

SITE NAME:

5707 HIGHLAND ROAD

SITE TYPE:

FAUX WATER TANK / CWIC SHELTER

ADDRESS:

5707 HIGHLAND ROAD

SAN RAMON, CA 94583

NOTE:  
ALL EQUIPMENT SHALL BE PAINTED BEIGE.

NOTE:  
PROPOSED FAUX WATER TANK IS A  
COLLOCATION-ELIGIBLE FACILITY.

PROJECT TEAM		VICINITY MAP		CODE COMPLIANCE	
<div><div>APPLICANT / LESSEE:</div><div>AT&amp;T MOBILITY 5001 EXECUTIVE PARKWAY, 4W550E SAN RAMON, CA 94583 CONTACT: TAYIIKA (TY) LOGAN-BURKS EMAIL: TL784A@ATT.COM PH: 925.549.4671</div><div>CONSTRUCTION MANAGER:</div><div>CONTACT: SEAN WATSON FIELD COORDINATOR EMAIL: SWATSON5@BECHTEL.COM PH: (925) 594-9070</div><div>RF ENGINEER:</div><div>AT&amp;T MOBILITY CONTACT: EDWIN AVILES EMAIL: EA5477@ATT.COM PH: (909) 997-9917</div><div>LEASING:</div><div>CENTERLINE COMMUNICATIONS CONTACT: STEPHANIE VICK EMAIL: SVICK@CLINELLC.COM PHONE: (858) 774-5191</div></div> <div><div>RDFS VERSION: 6.0</div><div>DATE CREATED: 01/19/22</div><div>DATE UPDATED: 07/02/24</div></div> <div><div>PROJECT MANAGER:</div><div>CENTERLINE COMMUNICATIONS CONTACT: ALLYSON POE EMAIL: APOE@CLINELLC.COM CELL: (772) 713-6229</div><div>A&amp;E MANAGER:</div><div>CENTERLINE COMMUNICATIONS contact: STEVEN M. RAMON EMAIL: SRAMON@CLINELLC.COM PH: (562) 846-5556</div></div>				<div>ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</div> <div><div>1.</div><div>CALIFORNIA BUILDING STANDARDS CODE: 2022 TRIENNIAL EDITION OF TITLE 24, WITH AN EFFECTIVE DATE OF JANUARY 1, 2023.</div><div>PART 1 - CALIFORNIA ADMINISTRATIVE CODE</div><div>PART 2 - CALIFORNIA BUILDING CODE, BASED ON THE 2021 INTERNATIONAL BUILDING CODE</div><div>PART 2.5 - CALIFORNIA RESIDENTIAL CODE, BASED ON THE 2021 INTERNATIONAL RESIDENTIAL CODE</div><div>PART 3 - CALIFORNIA ELECTRICAL CODE, BASED ON THE 2020 NATIONAL ELECTRICAL CODE</div><div>PART 4 - CALIFORNIA MECHANICAL CODE, BASED ON THE 2021 UNIFORM MECHANICAL CODE</div><div>PART 5 - CALIFORNIA PLUMBING CODE, BASED ON THE 2021 UNIFORM PLUMBING CODE</div><div>PART 6 - CALIFORNIA ENERGY CODE</div><div>PART 7 - VACANT</div><div>PART 8 - CALIFORNIA HISTORICAL BUILDING CODE</div><div>PART 9 - CALIFORNIA FIRE CODE, BASED ON THE 2021 INTERNATIONAL FIRE CODE</div><div>PART 10 - CALIFORNIA EXISTING BUILDING CODE, BASED ON THE 2021 INTERNATIONAL EXISTING BUILDING CODE</div><div>PART 11 - CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC; ALSO KNOWN AS CALGREEN)</div><div>PART 12 - CALIFORNIA REFERENCED STANDARDS CODE</div><div>2.</div><div>ANSI/TIA-222 (REV H)</div><div>3.</div><div>2021 NFPA 101, LIFE SAFETY CODE</div><div>4.</div><div>2022 NFPA 72, NATIONAL FIRE ALARM AND SIGNALING CODE</div><div>5.</div><div>2022 NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS</div></div>	
SITE INFORMATION		GENERAL CONTRACTOR NOTES		DRIVING DIRECTIONS	
<div><div>PROPERTY OWNER:</div><div>MCELLEY JANET D TRE 5707 HIGHLAND ROAD SAN RAMON, CA 94583 CONTACT: SHANE MCELLEY EMAIL: SHANEMCELLEY@GMAIL.COM</div><div>JURISDICTION:</div><div>A.P.N.: 205-090-006 &amp; 205-090-007</div><div>CURRENT ZONING:</div><div>AGRICULTURAL PRESERVE, A20</div><div>EXISTING USE:</div><div>MULTIUSE</div><div>PROPOSED USE:</div><div>MULTIUSE, COMMUNICATIONS FACILITY</div><div>LATITUDE (NAD 83): 37° 46' 50.79" N</div><div>LONGITUDE (NAD 83): -121° 51' 14.53" W</div><div>ACCESSIBILITY REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY IS NOT REQUIRED PER CFC2022, SECTION 1207 (LIMITED ACCESS SPACE)</div><div>OCCUPANCY GROUPS:</div><div>GROUP S-1</div><div>TYPE OF CONSTRUCTION:</div><div>V-B</div><div>SPRINKLERS:</div><div>N/A</div><div>STORIES:</div><div>N/A</div><div>AREA OF WORK (SQ.FT.): EQUIPMENT AT GRADE: 375 SQ FT.</div></div>		<div>DO NOT SCALE DRAWINGS</div> <div>THESE PLANS ARE FORMATTED TO BE FULL SIZE AT 24" X 36". CONTRACTORS SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.</div> <div>GENERAL NOTES</div> <div>THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.</div> <div>STATEMENTS</div> <div>STRUCTURAL ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWINGS SET. FOR ANALYSIS OF EXISTING AND/OR PROPOSED COMPONENTS, REFER TO STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.</div> <div>ANTENNA MOUNT ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWING SET. FOR ANALYSIS OF MOUNT TO SUPPORT EXISTING AND/OR PROPOSED COMPONENTS, REFER TO ANTENNA MOUNT STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.</div>		<div><div>FROM:</div><div>AT&amp;T CORPORATE OFFICES 5005 EXECUTIVE PKWY SAN RAMON, CA 94583</div><div>TO:</div><div>5707 HIGHLAND ROAD SAN RAMON, CA 94583</div></div> <div></div> <div></div>	

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FAUX WATER PLANS:	
MP-0	170-FT FAUX WATER TANK
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MP-3	170-FT FAUX WATER TANK
MP-4	170-FT FAUX WATER TANK
MP-5	170-FT FAUX WATER TANK

PROJECT DESCRIPTION

INSTALLATION OF A NEW SITE BUILD, UNMANNED TELECOMMUNICATIONS FACILITY, CONSISTING OF THE FOLLOWING:

- ANTENNA SOW:
- INSTALL (1) 170'-0" TALL FAUX WATER TANK WITH 21'X21" TOWER FOOTING
  - INSTALL (6) DMP65R-BU8DA-K PANEL ANTENNAS, TYP. (3) PER SECTOR
  - INSTALL (3) AIR6419 B77G ANTENNA, TYP. (1) PER SECTOR
  - INSTALL (3) AIR6449 B77D ANTENNA, TYP. (1) PER SECTOR
  - INSTALL (3) RRUS 4449 B5/B12, TYP. (1) PER SECTOR
  - INSTALL (3) RRUS 8843 B2/B66, TYP. (1) PER SECTOR
  - INSTALL (3) RRUS 4478 B14, TYP. (1) PER SECTOR
  - INSTALL (3) DC-9 SURGE SUPPRESSORS, TYP. (1) PER SECTOR
  - INSTALL (9) NEW #4AWG DC POWER TRUNKS & (3) FIBER TRUNKS TO NEW DC9, APPROX. LENGTH 220'-0"

- EQUIPMENT SOW:
- INSTALL(1) PREFABRICATED SHELTER
  - INSTALL (1) 4" DIA. WOOD POST 6'-0" HIGH BARBED WIRE FENCE ENCLOSURE AROUND NEW EQUIPMENT AND WATER TANK AND SHALL PROTECT FROM ROAMING CATTLE
  - INSTALL (1) GPS ANTENNA
  - INSTALL (3) CONCRETE PADS
  - INSTALL (1) 200A AC POWER PANEL
  - INSTALL (1) CAMLOCK
  - INSTALL (1) VERTIV DCCP RACK
  - INSTALL (16) RECTIFIERS WITHIN DCCP
  - INSTALL (8) 190AH BATTERIES WITHIN DCCP
  - INSTALL (2) EQUIPMENT RACKS
  - INSTALL (2) 6651 WITHIN RACK
  - INSTALL (1) XMU WITHIN RACK
  - INSTALL (1) DC50 CABINET MOUNTED ON SHELTER
  - INSTALL (1) BACK-UP 30KW GENERATOR WITH UL2085 TANK
  - INSTALL (1) STEP UP TRANSFORMER
  - INSTALL (1) STEP DOWN TRANSFORMER
  - INSTALL (1) CIENA AND HOFFMAN BOX ON H-FRAME
  - INSTALL (1) 200A METER WITH TEST BLOCK BYPASS ON H-FRAME
  - INSTALL (1) 400A HOT GUTTER WITH SPACE FOR (1) FUTURE METER
  - INSTALL (1) VERTIV XTE 201 CABINET ON H-FRAME
  - INSTALL (1) 4"Ø U.G. CONDUIT FOR TELCO
  - INSTALL (1) 5"Ø U.G. CONDUIT FOR POWER
  - INSTALL (4) 4"Ø U.G. CONDUIT FOR DC POWER & FIBER CABLES

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

CCL04383

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

INT.	BH	SMR	SMR						
DESCRIPTION	ISSUED FOR 90%CD'S	ISSUED FOR 95%CD'S	ISSUED FOR 100%CD'S						
DATE	09/24/24	10/30/24	11/11/24						
REV	A	B	0						

SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

It is a violation of law for any persons, unless they are acting under the direction of a licensed professional engineer, to alter this document

T-1

TITLE SHEET







COMPLIANCE WITH CFC 2022 SECTION 1207 - OUTDOOR BATTERY SYSTEMS

1207.4 GENERAL INSTALLATIONS REQUIREMENTS

1207.4.1 ELECTRICAL DISCONNECTS:

IN ACCORDANCE WITH SECTION 1207.4.1, THE ESS IS UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS FACILITY AND WILL HAVE ELECTRICAL DISCONNECT SIGNAGE IN ACCORDANCE WITH NFPA 76. SEE EMERGENCY SHUT DOWN AND BACK UP BATTERY DISCONNECT SIGNAGE ON SITE SIGNAGE SHEET IN THIS DRAWING SET.

1207.4.2 WORKING CLEARANCES:

IN ACCORDANCE WITH SECTION 1207.4.2, THE ESS WILL MAINTAIN PROPER WORKING CLEARANCES AS PRESCRIBED BY THE CALIFORNIA ELECTRICAL CODE AND THE MANUFACTURER'S INSTRUCTIONS.

1207.4.4 SEISMIC AND STRUCTURAL DESIGN:

IN ACCORDANCE WITH SECTION 1207.4.4, THE ESS WILL NOT EXCEED THE FLOOR LOADING LIMITATION OF THE BUILDING, REFERENCE PASSING STRUCTURAL ANALYSIS REPORT UNDER SEPARATE COVER.

1207.4.5 VEHICLE IMPACT PROTECTION:

THE ESS CABINETS ARE LOCATED IN AN UNOCCUPIED AND UNMANNED OUTDOOR TELECOMMUNICATIONS FACILITY AND IS NOT SUBJECT TO IMPACT BY VEHICLES. SHOULD THE ESS BE SUBJECT TO POTENTIAL IMPACT BY VEHICLES, IMPACT PROTECTION SHALL BE IN PLACE IN ACCORDANCE WITH SECTION 312.

1207.4.6 COMBUSTIBLE STORAGE:

IN ACCORDANCE WITH SECTION 1207.4.6, NO COMBUSTIBLE MATERIALS WILL BE STORED WITHIN 3' OF THE BATTERY CABINETS.

1207.4.7 TOXIC AND HIGHLY TOXIC GASES:

THE ESS BATTERY CABINET IS LOCATED OUTDOORS AND IS NATURALLY VENTILATED, NO EXHAUST SYSTEM IS REQUIRED.

1207.4.8 SIGNAGE:

IN ACCORDANCE WITH SECTION 1207.4.8, HAZARD SIGNAGE WILL BE PLACED AT THE BATTERY STORAGE SYSTEM INDICATING "DANGER", "LEAD ACID BATTERIES", "CORROSIVE LIQUIDS", ENERGIZED ELECTRICAL CIRCUITS", "NO SMOKING". SEE SITE SIGNAGE SHEET IN THIS DRAWING SET.

1207.4.9 SECURITY OF INSTALLATIONS:

IN ACCORDANCE WITH SECTION 1207.4.9, THE BATTERY CABINETS AND ENCLOSURES WILL BE LOCKED AND SECURED AGAINST UNAUTHORIZED ENTRY.

1207.4.10 OCCUPIED WORK CENTERS:

THE TELECOMMUNICATIONS FACILITY AND IT'S ESS IS UNMANNED AND NOT OCCUPIED BY ANY PERSONNEL OTHER THAN THOSE DIRECTLY INVOLVED IN ITS MAINTENANCE.

1207.4.11 OPEN RACK INSTALLATIONS:

THE TELECOMMUNICATIONS FACILITY/CABINETS ARE LOCKED AND ONLY AUTHORIZED PERSONNEL HAVE ACCESS TO THE FACILITY AND ESS.

1207.4.12 WALK-IN UNITS:

WALK-IN UNITS SHALL BE ENTERED ONLY FOR INSPECTION, MAINTENANCE AND REPAIR OF ESS UNITS AND ANCILLARY EQUIPMENT, AND ARE NOT OCCUPIED FOR ANY OTHER PURPOSES.

1207.8.3 CLEARANCE TO EXPOSURES:

IN ACCORDANCE WITH SECTION 1207.8.3, THE ESS IS IN A WEATHERPROOF ENCLOSURE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND IS AT LEAST 10' FROM ANY LOT LINES, PUBLIC WAYS, BUILDINGS, STORED COMBUSTIBLE MATERIALS, HAZARDOUS MATERIALS, HIGH-PILED STOCK, OR OTHER EXPOSURE HAZARDS.

1207.5.5 FIRE SUPPRESSION SYSTEMS

THE ESS IS FOR A LEAD-ACID BATTERY SYSTEMS UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY THAT OPERATE AT LESS THAN 50 VAC AND 60 VDC. ADDITIONALLY, THE ESS IS LOCATED OUTDOORS AND DOES NOT REQUIRE AN AUTOMATIC FIRE SUPPRESSION SYSTEM.

1207.5.5.1WATER-REACTIVE SYSTEMS:

THE ESS IS A VALVE REGULATED LEAD ACID (VRLA) BATTERY SYSTEM THAT DOES NOT UTILIZE WATER-REACTIVE MATERIALS.

1207.5.2 MAXIMUM ALLOWABLE QUANTITIES:

THE ESS IS A VALVE REGULATED LEAD ACID (VRLA) BATTERY SYSTEM AND PER TABLE 1207.5 THE MAXIMUM ALLOWABLE QUANTITY IS "UNLIMITED".

1207.5.8 MEANS OF EGRESS SEPARATION:

IN ACCORDANCE WITH SECTION 1207.5.8, THE ESS IS LOCATED A MINIMUM OF 10' AWAY FROM ANY MEANS OF EGRESS AND DOES NOT OBSTRUCT OR IMPEDE SAFE EGRESS UNDER FIRE CONDITIONS.

1207.5.1 SIZE AND SEPARATION:

PER EXCEPTION 1 IN SECTION 1207.5.1, THE ESS IS A LEAD-ACID BATTERY SYSTEM WHICH IS UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY AND IS IN COMPLIANCE WITH NFPA 76.

1207.6.1 EXHAUST VENTILATION:

THE CABINETS CONTAINING BATTERIES ARE OUTDOORS AND MEET VENTILATION REQUIREMENTS. THE ESS IS ALSO UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY AND IS UNDER THE 1,000 GALLON THRESHOLD NOTED IN SECTION 1207.6.2.3.

1207.6.2 SPILL CONTROL AND NEUTRALIZATION:

IN COMPLIANCE WITH SECTION 1207.6.2 OF THE 2022 CALIFORNIA FIRE CODE, A SPILL CONTAINMENT SYSTEM KIT WILL BE STORED AT THE LEASE AREA. THE ESS IS ALSO UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY AND IS UNDER THE 1,000 GALLON THRESHOLD NOTED IN SECTION 1207.6.2.3.

1207.6.2.1 SPILL CONTROL:

THE ESS IS STORED IN CABINETS WHICH COME EQUIPPED WITH SPILL CONTROL TRAYS WHICH ARE CAPABLE OF CONTAINING MORE THAN THE SINGLE LARGEST BATTERY OR VESSEL STORED IN THE CABINET. THE ESS IS ALSO UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY AND IS UNDER THE 1,000 GALLON THRESHOLD NOTED IN SECTION 1207.6.2.3.

1207.6.2.2 NEUTRALIZATION:

SEE RESPONSE FOR SECTION 1207.6.2 ABOVE, A SPILL CONTAINMENT SYSTEM KIT WILL BE STORED AT THE LEASE AREA. THE ESS IS ALSO UNDER THE EXCLUSIVE CONTROL OF A COMMUNICATIONS UTILITY AND IS UNDER THE 1,000 GALLON THRESHOLD NOTED IN SECTION 1207.6.2.3.

1207.6.4 SAFETY CAPS:

IN ACCORDANCE WITH SECTION 1207.6.4, THE PROPOSED BATTERIES SHALL BE EQUIPPED WITH SELF-RESEALING FLAME ARRESTING CAPS.

1207.6.5 THERMAL RUNAWAY:

IN ACCORDANCE WITH SECTION 1207.6.5, THE CABINETS CONTAINING BATTERIES SHALL CONTAIN THERMAL RUNAWAY MANAGEMENT.

1207.5.7 VEGETATION CONTROL:

IN ACCORDANCE WITH SECTION 1207.5.7, THE OUTDOOR ESS SHALL BE CLEARED OF COMBUSTIBLE VEGETATION AREAS WITHIN 10' ON EACH SIDE OF THE OUTDOOR ESS CABINETS. EXCEPTION FOR SINGLE SPECIMENS OF TREES, SHRUBBERY OR CULTIVATED GROUND COVER SUCH AS GREEN GRASS, IVY, SUCCULENTS OR SIMILAR PLANTS USED AS GROUND COVER PROVIDED THAT THEY DO NOT FORM A MEANS OF READILY TRANSMITTING FIRE.

Container	5- Gallon D.O.T.	20- Gallon D.O.T.	Lockable Rolling Cart with Organizers	55- Gallon D.O.T.
Tyvek body coveralls	1	2	2	2
Headgear/face shield	1	2	2	2
Goggles	1	2	2	2
Rubber Gloves	1	2	2	2
pH test Kit	1	1	1	1
Duct Tape	1	1	1	1
Absorbent wipes	10	20	15	20
Hazmat disposal bags	2	2	2	3
Disposable respirator	1	2	2	2
Emergency response guidebook	1	1	1	1
NeutraSorb	5 lbs.	10 lbs.	5 lbs.	(4x) 10 lbs.
Neutralizing & absorbing Pads	3	3	5	6
SOCs		2		7
Scoop		1	1	1
Brush		1 brush	1	1 broom with collapsible handle
pH7			1 qt. bottle	16 oz. bottle.
Squeegee				1 with collapsible handle

Spill Clean-Up KitsNeutralizing ProductsCabinet Kits

5-Gallon Spill Clean-up Kit

Kit Includes

- 5-Gallon D.O.T. container
- 1 pair of Tyvek body coveralls
- 1 headgear/face shield
- 1 pair of goggles
- 1 pair of rubber gloves
- 1 roll of duct tape, 1 pH test kit
- 3 neutralizing & absorbing pads
- 10 absorbent wipes
- 2 hazmat disposal bags
- 1 disposable respirator
- 1 emergency response guidebook
- 5 lbs. NeutraSorb (acid absorbent & neutralizer)

Part Number

- SCK-5 - Also available for NiCd (SCK-5-K) applications

Regulations In Compliance With

- Fire Codes
- Building Codes
- OSHA 1920.178

Specifications

- Height: 14.5"
- Diameter: 11.25"

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GN-2

CFC 2022  
SECTION 1207  
COMPLIANCE



CULTURAL RESOURCES:

31. THE FOLLOWING MITIGATION MEASURES SHALL BE IMPLEMENTED DURING PROJECT RELATED GROUND DISTURBANCE, AND SHALL BE INCLUDED ON ALL CONSTRUCTION PLANS:

1. ALL CONSTRUCTION PERSONNEL, INCLUDING OPERATORS OF EQUIPMENT INVOLVED IN GRADING, OR TRENCHING ACTIVITIES WILL BE ADVISED OF THE NEED TO IMMEDIATELY STOP WORK IF THEY OBSERVE ANY INDICATIONS OF THE PRESENCE OF AN UNANTICIPATED CULTURAL RESOURCE DISCOVERY (E.G. WOOD, STONE, FOUNDATIONS, AND OTHER STRUCTURAL REMAINS; DEBRIS-FILLED WELLS OR PRIVIES; DEPOSITS OF WOOD, GLASS, CERAMICS). IF DEPOSITS OF PREHISTORIC OR HISTORICAL ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED DURING GROUND DISTURBANCE ACTIVITIES, ALL WORK WITHIN 50 FEET OF THE DISCOVERY SHALL BE REDIRECTED AND A QUALIFIED ARCHAEOLOGIST, CERTIFIED BY THE SOCIETY FOR CALIFORNIA ARCHAEOLOGY (SCA) AND/OR THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA), SHALL BE CONTACTED TO EVALUATE THE FINDS AND, IF NECESSARY, DEVELOP APPROPRIATE TREATMENT MEASURES IN CONSULTATION WITH THE COUNTY AND OTHER APPROPRIATE AGENCIES.

IF THE DEPOSITS ARE NOT ELIGIBLE, AVOIDANCE IS NOT NECESSARY. IF ELIGIBLE, DEPOSITS WILL NEED TO BE AVOIDED BY IMPACTS OR SUCH IMPACTS MUST BE MITIGATED. UPON COMPLETION OF THE ARCHAEOLOGICAL ASSESSMENT, A REPORT SHOULD BE PREPARED DOCUMENTING THE METHODS, RESULTS, AND RECOMMENDATIONS. THE REPORT SHOULD BE SUBMITTED TO THE NORTHWEST INFORMATION CENTER AND APPROPRIATE CONTRA COSTA COUNTY AGENCIES.

11. SHOULD HUMAN REMAINS BE UNCOVERED DURING GRADING, TRENCHING, OR OTHER ON-SITE EXCAVATION(S), EARTHWORK WITHIN 30 YARDS OF THESE MATERIALS SHALL BE STOPPED UNTIL THE COUNTY CORONER HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE HUMAN REMAINS AND DETERMINE THE PROPER TREATMENT AND DISPOSITION OF THE REMAINS, PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 7050.5, IF THE CORONER DETERMINES THE REMAINS MAY THOSE OF A NATIVE AMERICAN, THE CORONER IS RESPONSIBLE FOR CONTACTING THE NATIVE AMERICAN HERITAGE COMMISSION (NAHC) BY TELEPHONE WITHIN 24 HOURS, PURSUANT TO CALIFORNIA PUBLIC RESOURCES CODE SECTION 5097.98, THE NAHC WILL THEN DETERMINE A MOST LIKELY DESCENDANT (MLD) TRIBE AND CONTACT THEM, THE MLD TRIBE HAS 48 HOURS FROM THE TIME THEY ARE GIVEN ACCESS TO THE SITE TO MAKE RECOMMENDATIONS TO THE LAND OWNER FOR TREATMENT AND DISPOSITION OF THE ANCESTOR'S REMAINS. THE LAND OWNER SHALL FOLLOW THE REQUIREMENTS OF PUBLIC RESOURCES CODE SECTION 5097.98 FOR THE REMAINS. (MM CULTURAL RESOURCES 1)

## AIR QUALITY

29. AIR QUALITY 1: THE FOLLOWING BAY AREA AIR QUALITY MANAGEMENT DISTRICT, BASIC CONSTRUCTION MITIGATION MEASURES SHALL BE IMPLEMENTED DURING PROJECT CONSTRUCTION AND SHALL BE INCLUDED ON ALL CONSTRUCTION PLANS.

- ALL EXPOSED SURFACES (E.G., PARKING AREAS, STAGING AREAS, SOIL PILES, GRADED AREAS, AND UNPAVED ACCESS ROADS) SHALL BE WATERED TWO TIMES PER DAY.
- ALL HAUL TRUCKS TRANSPORTING SOIL, SAND, OR OTHER LOOSE MATERIAL OFF-SITE SHALL BE COVERED.
- ALL VISIBLE MUD OR DIRT TRACKED-OUT ONTO ADJACENT PUBLIC ROADS SHALL BE REMOVED USING WET POWER VACUUM STREET SWEEPERS AT LEAST ONCE PER DAY. THE USE OF DRY POWER IS PROHIBITED.
- ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MPH.
- ALL ROADWAYS, DRIVEWAYS, AND SIDEWALKS TO BE PAVED SHALL BE COMPLETED AS SOON AS POSSIBLE. WALKING PADS SHALL BE LAID AS SOON AS POSSIBLE AFTER GRADING UNLESS SEEDING OR SOIL BINDERS ARE USED.
- IDLING TIMES SHALL BE MINIMIZED EITHER BY SHUTTING EQUIPMENT OFF WHEN NOT IN USE OR REDUCING THE MAXIMUM IDLING TIME TO FIVE MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXICS CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS [CCR]). CLEAR SIGNAGE SHALL BE PROVIDED FOR CONSTRUCTION WORKERS AT ALL ACCESS POINTS.
- ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT SHALL BE CHECKED BY A CERTIFIED VISIBLE EMISSIONS EVALUATOR.
- POST A PUBLICLY VISIBLE SIGN WITH THE TELEPHONE NUMBER AND PERSON TO CONTACT AT THE LEAD AGENCY REGARDING DUST COMPLAINTS. THIS PERSON SHALL RESPOND AND TAKE CORRECTIVE ACTION WITHIN 48 HOURS. THE AIR DISTRICT'S PHONE NUMBER SHALL ALSO BE VISIBLE TO ENSURE COMPLIANCE WITH APPLICABLE REGULATIONS.

(MM AIR QUALITY 1)

### AESTHETICS:

18. THE FACILITY, ALL FENCES SURROUNDING A FACILITY, AND ALL OTHER FIXTURES AND IMPROVEMENTS ON THE FACILITY SITE SHALL BE CAMOUFLAGED TO BLEND INTO THE SCENIC HILLSIDE. THE PROPOSED FAUX WATER TOWER SHALL CONCEAL ALL ANTENNAS AND ANCILLARY EQUIPMENT SO THEY ARE NOT VISIBLE FROM THE SURROUNDING PROPERTIES. FENCES SHALL BE MADE OF WOOD OR OTHERWISE BLEND INTO THE RURAL AGRICULTURAL LANDSCAPE. ALL EQUIPMENT AND FENCES MUST BE MAINTAINED AS OFTEN AS NECESSARY TO PREVENT FADING, CHIPPING, OR WEATHERING OF PAINT THAT WOULD DEFEAT THE CAMOUFLAGING OF THE FACILITY.

APPLICANT: 

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583



1000 HOLCOMB WOODS PKWY. STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

**CCL04383**

**5707 HIGHLAND ROAD**

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

REV	DATE	DESCRIPTION	INT.
A	09/24/24	ISSUED FOR 9%CD'S	BH
B	10/30/24	ISSUED FOR 9%CD'S	SWR
0	11/11/24	ISSUED FOR 100%CD'S	SWR



SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

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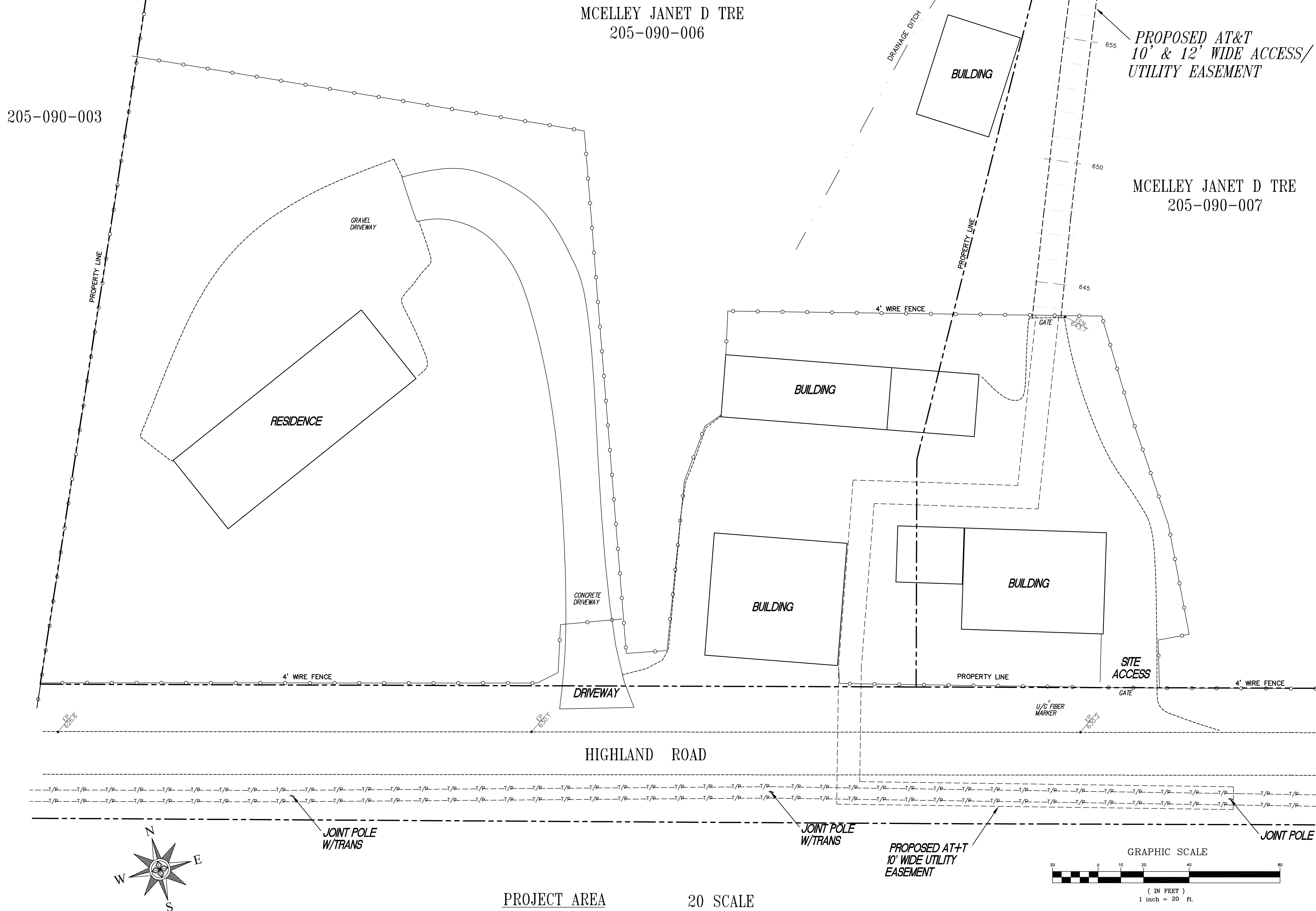
# GN-3

## CONDITIONS OF APPROVAL









**ISSUE STATUS**

REV.	DATE	DESCRIPTION
1	04/2022	SITE PLAN
2	07/2022	REVISED LOCATION
3	07/2023	REVISED LOCATION
4	07/2024	ADD'L ROAD SURVEY
5	08/2024	REVISED ACCESS & UTILITY
6	10/17/2024	REVISED LEASE AREAS
7	10/15/2024	ADDITIONAL TOPO

**HAYES**  
Land Surveying  
And Mapping  
2320 MADISON COLLEGE  
CONCORD, CA 94518

**at&t**  
2600 CAMINO RAMON  
4TH FLOOR, WEST WING  
SAN RAMON, CA 94583

**TOPOGRAPHIC SURVEY  
EXISTING CONDITIONS**

CCL04383  
JANET AND SHANE MCELLEY  
5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

**C-2**  
SHEET 2 of 3

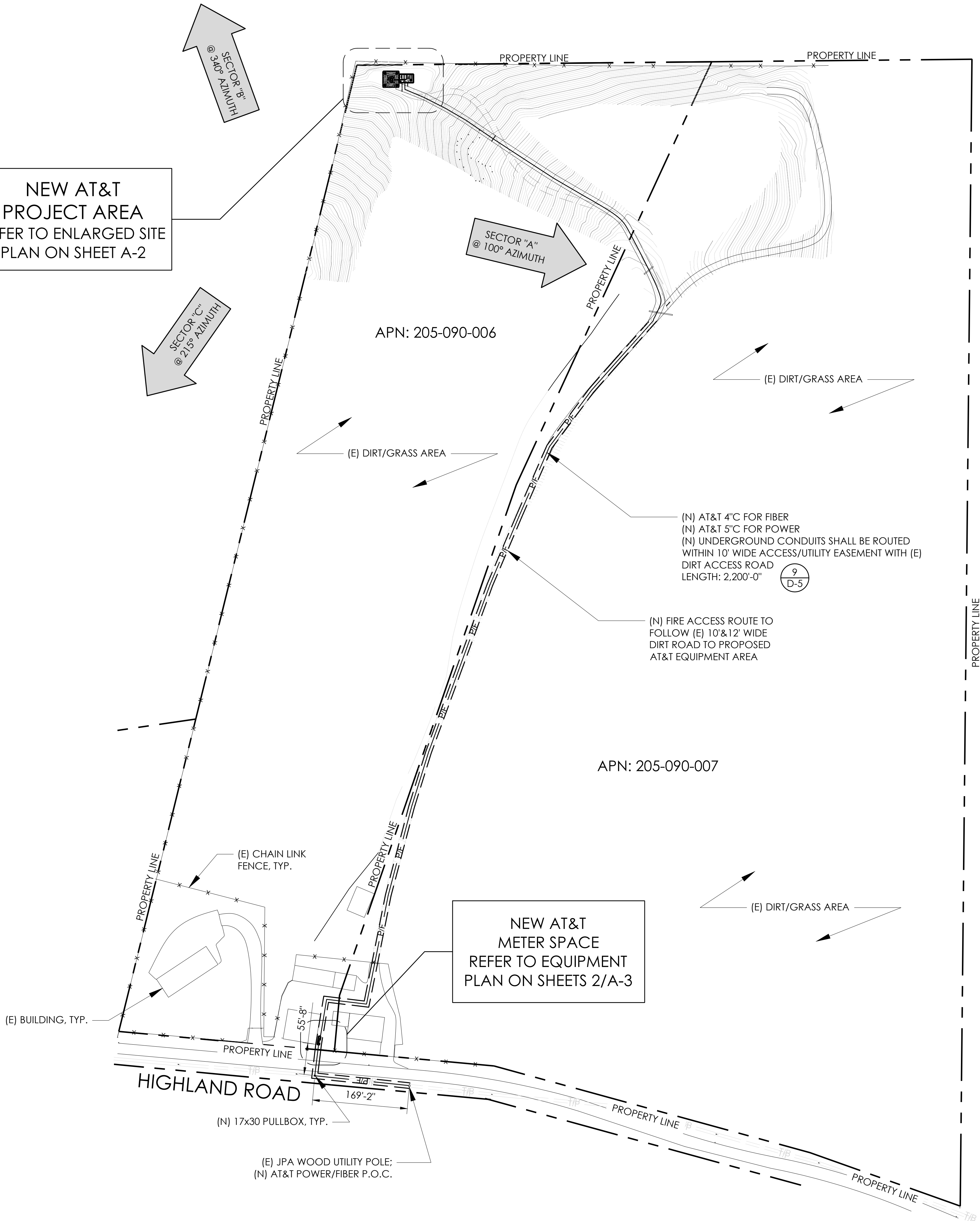




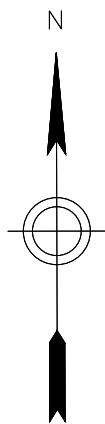


**THIS IS NOT A SITE SURVEY**  
ALL PROPERTY BOUNDARIES, ORIENTATION OF TRUE NORTH AND STREET HALF-WIDTHS HAVE BEEN OBTAINED FROM A TAX PARCEL MAP AND EXISTING DRAWINGS AND ARE APPROXIMATE.

NEW AT&T PROJECT AREA  
REFER TO ENLARGED SITE PLAN ON SHEET A-2



NEW AT&T METER SPACE  
REFER TO EQUIPMENT PLAN ON SHEETS 2/A-3



APPLICANT:



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:



P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

**CCL04383**

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				

PROFESSIONAL STAMP:



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SHEET TITLE:

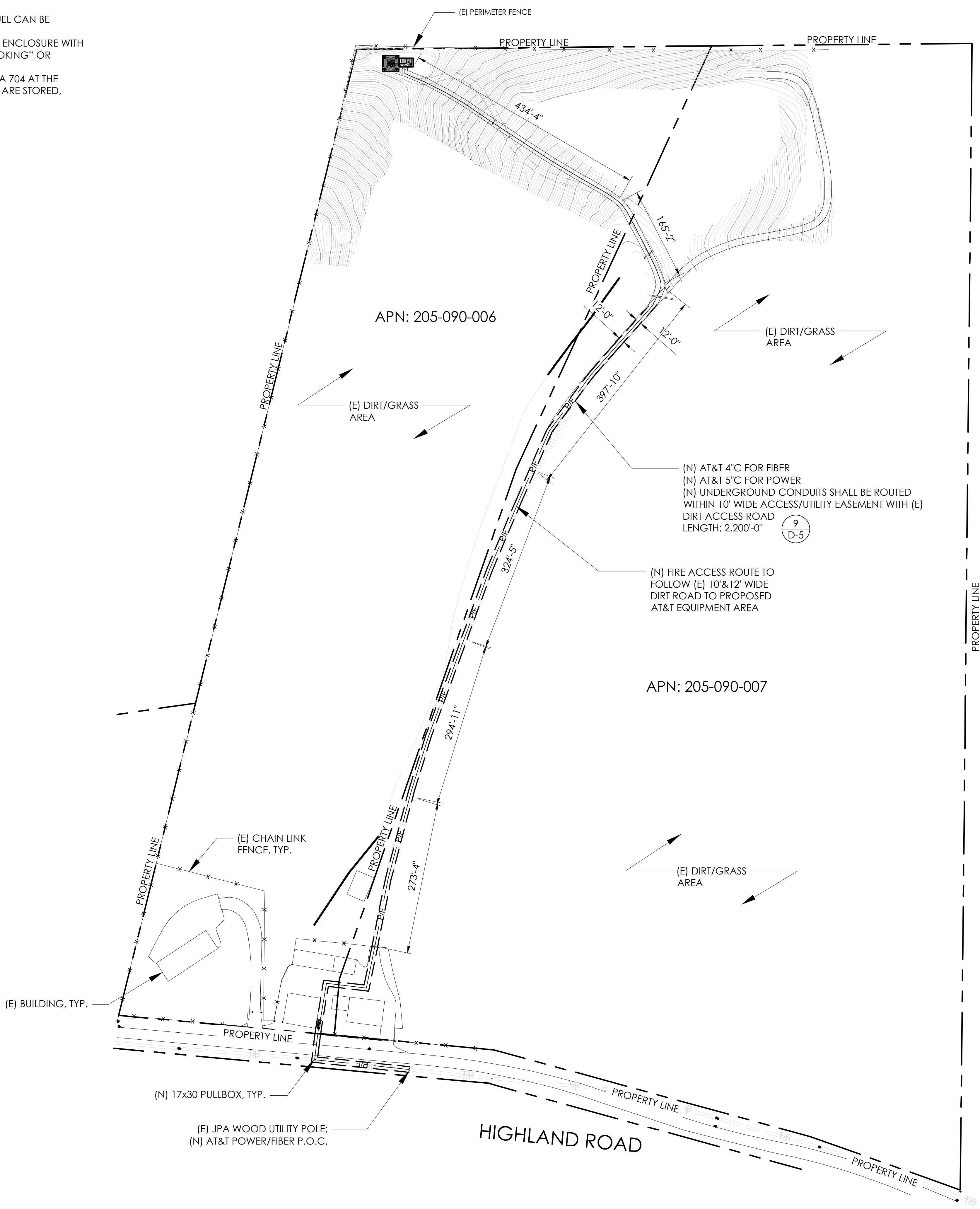
**A-1**

SHEET NAME:


**OVERALL SITE PLAN**



- FIRE DEPARTMENT NOTES:
1. A FIRE DEPARTMENT INSPECTION IS REQUIRED BEFORE THE FUEL CAN BE PLACED INTO THE TANK AND THE GENERATOR IS USED.
  2. LABEL ABOVE GROUND TANK ON BOTH SIDES AND OR TANK ENCLOSURE WITH "190 GALLONS DIESEL FUEL – COMBUSTIBLE LIQUID – NO SMOKING" OR PROVIDE SIGNAGE INDICATING THE SAME.
  3. INSTALL HAZARD IDENTIFICATION SIGNS AS SPECIFIED IN NFPA 704 AT THE ENTRANCES TO LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, AND ON STATIONARY ABOVE-GROUND TANKS.




APPLICANT:



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:



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A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

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**5707 HIGHLAND ROAD**

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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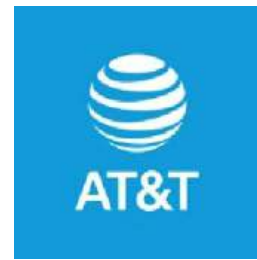
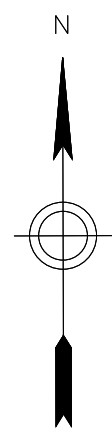
**A-1.1**

SHEET NAME:

**FIRE SITE PLAN**



- NOTE:
- ALL EXTERIOR EQUIPMENT SHALL BE PAINTED BEIGE.
  - A FIRE DEPARTMENT INSPECTION IS REQUIRED BEFORE THE FUEL CAN BE PLACED INTO THE TANK AND THE GENERATOR IS USED.
  - LABEL ABOVE ABOVE GROUND TANK ON BOTH SIDES AND OR TANK ENCLOSURE WITH "XX GALLONS DIESEL FUEL - COMBUSTIBLE LIQUID - NO SMOKING" OR PROVIDE SIGNAGE INDICATING THE SAME.
  - INSTALL HAZARD IDENTIFICATION SIGNS AS SPECIFIED IN NFPA 704 AT THE ENTRANCES TO LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, AND ON STATIONARY ABOVE-GROUND TANKS.



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A CENTERLINE COMMUNICATIONS COMPANY

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5707 HIGHLAND ROAD

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SAN RAMON, CA 94583

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0	11/11/24	ISSUED FOR 100% CDS				



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A-2

ENLARGED  
SITE PLAN

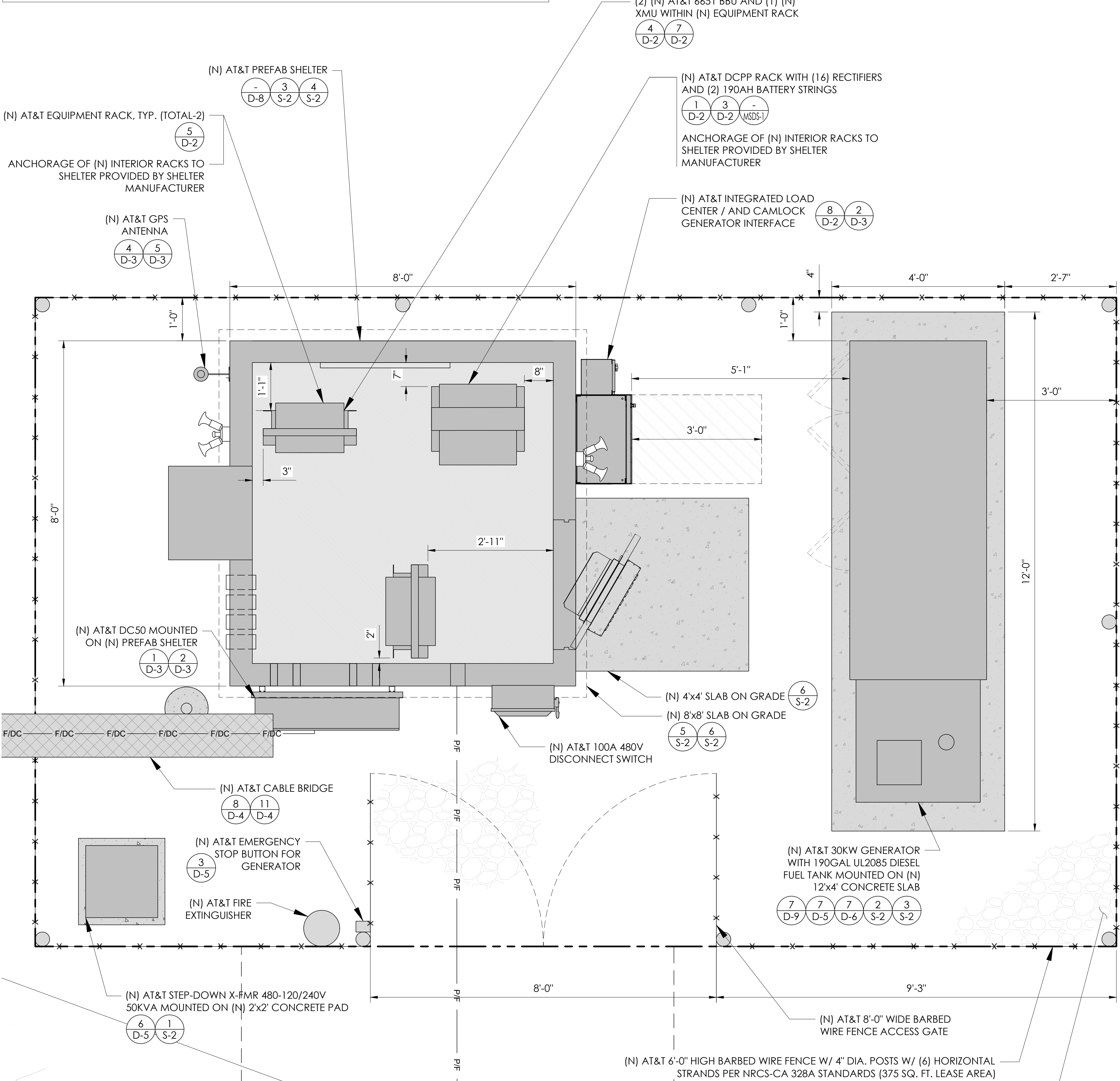
1 ENLARGED SITE PLAN

24"x36" SCALE: 1/8" = 1'-0"  
11"x17" SCALE: 1/16" = 1'-0"





- NOTE:
- ALL EXTERIOR EQUIPMENT SHALL BE PAINTED BEIGE.
  - A FIRE DEPARTMENT INSPECTION IS REQUIRED BEFORE THE FUEL CAN BE PLACED INTO THE TANK AND THE GENERATOR IS USED.
  - LABEL ABOVE ABOVE GROUND TANK ON BOTH SIDES AND OR TANK ENCLOSURE WITH "XX GALLONS DIESEL FUEL - COMBUSTIBLE LIQUID - NO SMOKING" OR PROVIDE SIGNAGE INDICATING THE SAME.
  - INSTALL HAZARD IDENTIFICATION SIGNS AS SPECIFIED IN NFPA 704 AT THE ENTRANCES TO LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, AND ON STATIONARY ABOVE-GROUND TANKS.

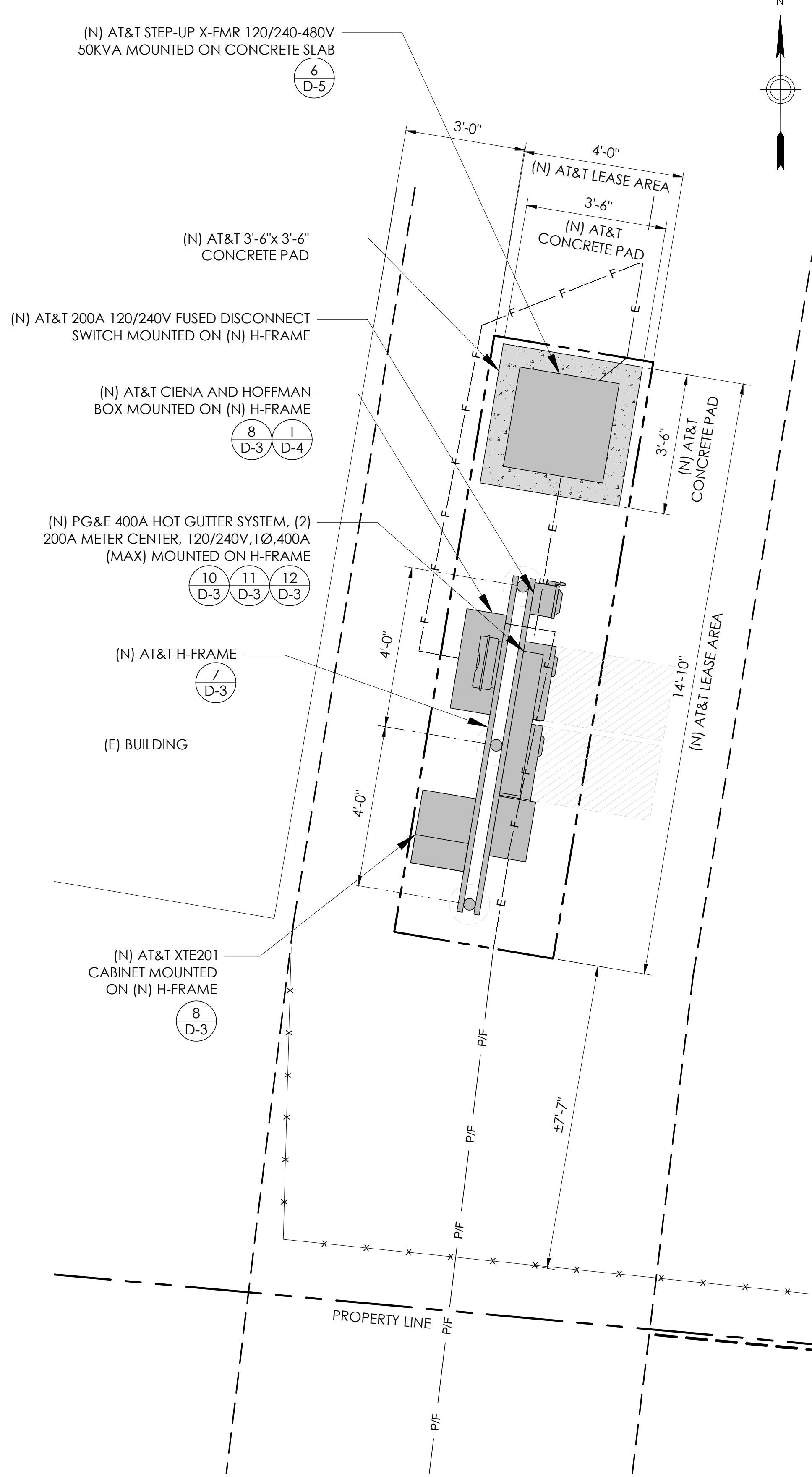


- NOTE:
- CONTRACTOR SHALL INSTALL NFPA 704 SIGN REQUIRED ON EXTERIOR GATE AS WELL AS GENERATOR FUEL TANK

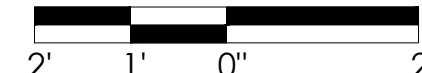
24"x36" SCALE: 3/4" = 1'-0"  
11"x17" SCALE: 3/8" = 1'-0"



1 NEW EQUIPMENT PLAN



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



2 NEW EQUIPMENT PLAN



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SAN RAMON, CA 94583



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5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
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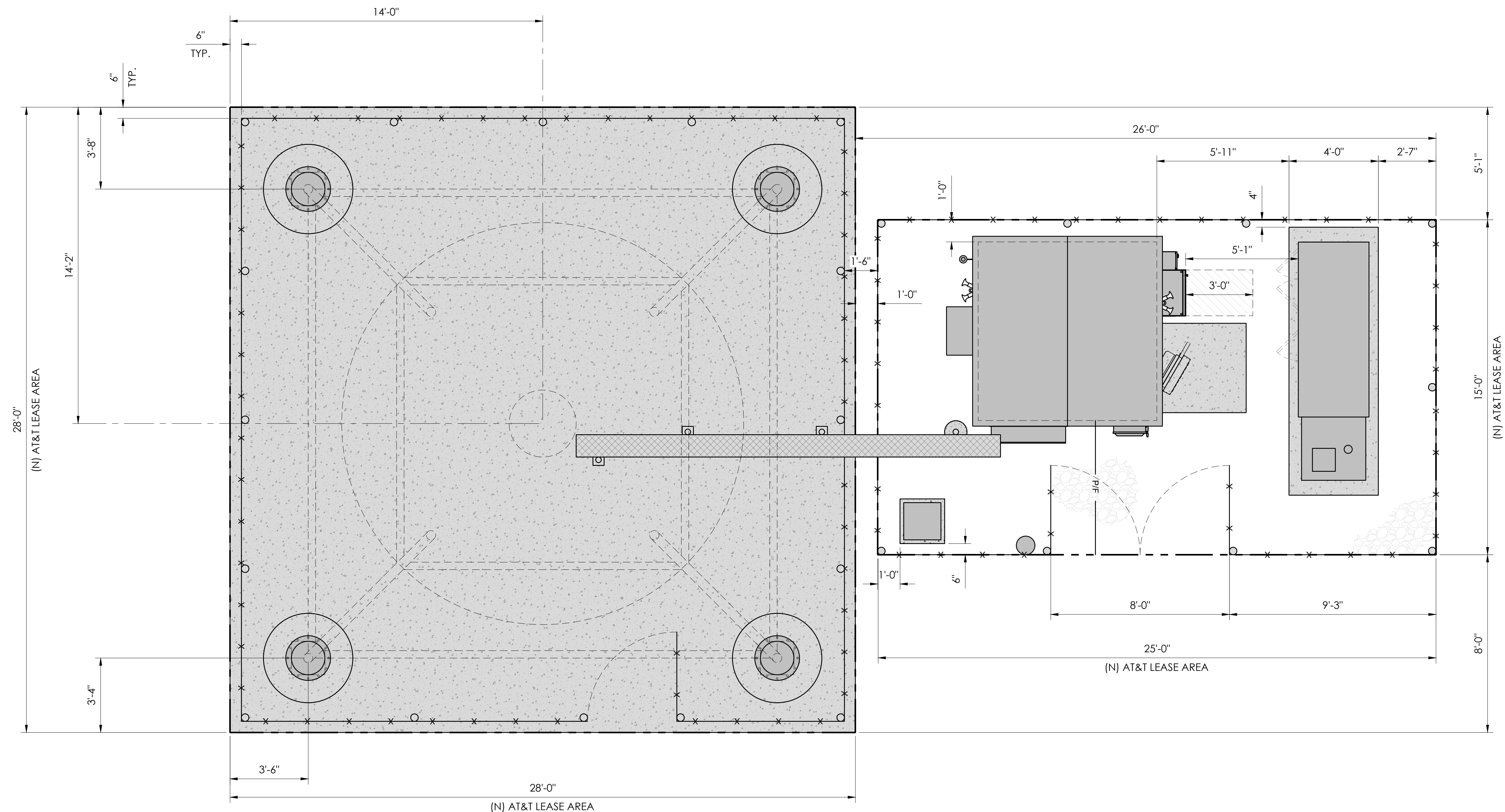
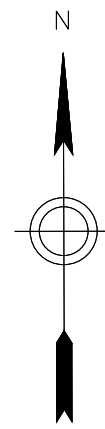
A-3

NEW  
EQUIPMENT  
PLANS



NOTE:

- ALL EXTERIOR EQUIPMENT SHALL BE PAINTED BEIGE.



APPLICANT:



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SAN RAMON, CA 94583

**VENDOR:**



**P. MARSHALL & ASSOCIATES**  
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5707 HIGHLAND ROAD

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**SHEET TITLE:**

## A-3.1

SHEET NAME:

**NEW  
COMPOUND  
DIMENSION  
PLAN**

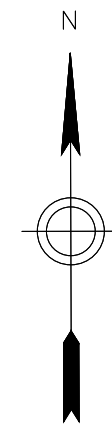
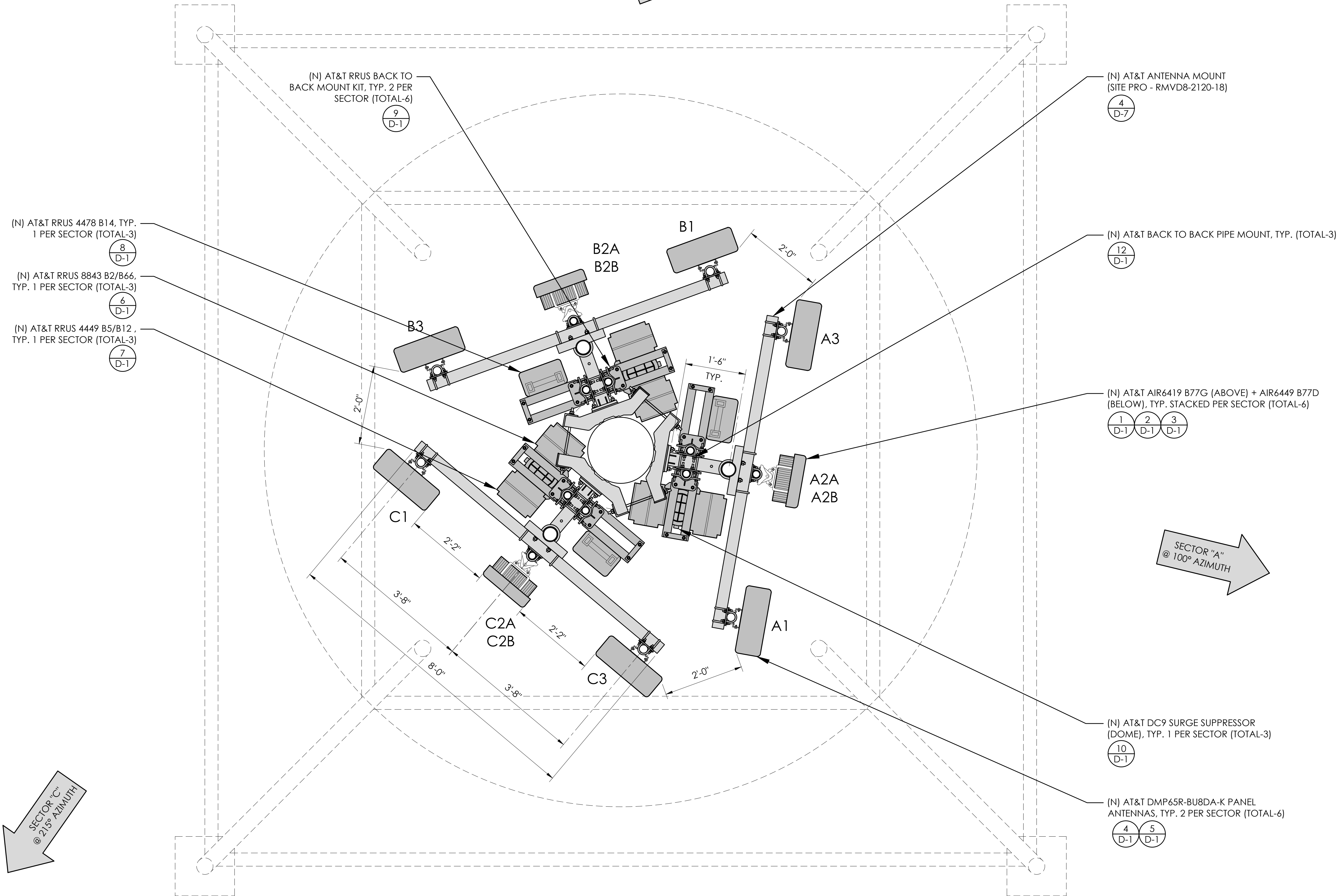
24"x36" SCALE: 3/8" = 1'-0"  
11"x17" SCALE: 3/16" = 1'-0"





## NOTES TO CONTRACTOR:

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
- CABLE LENGTHS WERE DETERMINED BASED ON VISUAL INSPECTION DURING SITE-WALK. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.



APPLICANT:

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SAN RAMON, CA 94583

VENDOR:

P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY1000 HOLCOMB WOODS PKWY. STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

CCL04383

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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PROFESSIONAL STAMP:

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SHEET TITLE:

A-4

SHEET NAME:

NEW  
ANTENNA  
PLAN



Position	Antenna			Additional Antenna Information				Line Information		
	Use Existing/ Swap/New	Final	Final	Final		Azimuths	Rad Center	Coax / Power & Fiber		
				Type	Location	Final	Final	Final	Final	
ALPHA										
1	NEW	CCI DMP65R-BU8DA-K	LTE 700 5G 850 LTE 1900 5G 1900	RRUS 4449 B5/B12 RRUS 8843 B2/B66A	TOP TOP	100	165'	NONE	(9) #4AWG POWER TRUNKS + (3) 0.4 FIBER TRUNKS	
2	NEW	(STACKED) ERICSSON AIR6419 B77G ERICSSON AIR6449 B77D	5G DoD 5G CBAND	NONE	NONE	100	165'			
3	NEW	CCI DMP65R-BU8DA-K	LTE FNET LTE 700 LTE AWS 5G AWS	RRUS 4478 B14	TOP	100	165'			
BETA										
1	NEW	CCI DMP65R-BU8DA-K	LTE 700 5G 850 LTE 1900 5G 1900	RRUS 4449 B5/B12 RRUS 8843 B2/B66A	TOP TOP	340	165'	NONE		
2	NEW	(STACKED) ERICSSON AIR6419 B77G ERICSSON AIR6449 B77D	5G DoD 5G CBAND	NONE	NONE	340	165'			
3	NEW	CCI DMP65R-BU8DA-K	LTE FNET LTE 700 LTE AWS 5G AWS	RRUS 4478 B14	TOP	340	165'			
GAMMA										
1	NEW	CCI DMP65R-BU8DA-K	LTE 700 5G 850 LTE 1900 5G 1900	RRUS 4449 B5/B12 RRUS 8843 B2/B66A	TOP TOP	215	165'	NONE		
2	NEW	(STACKED) ERICSSON AIR6419 B77G ERICSSON AIR6449 B77D	5G DoD 5G CBAND	NONE	NONE	215	165'			
3	NEW	CCI DMP65R-BU8DA-K	LTE FNET LTE 700 LTE AWS 5G AWS	RRUS 4478 B14	TOP	215	165'			



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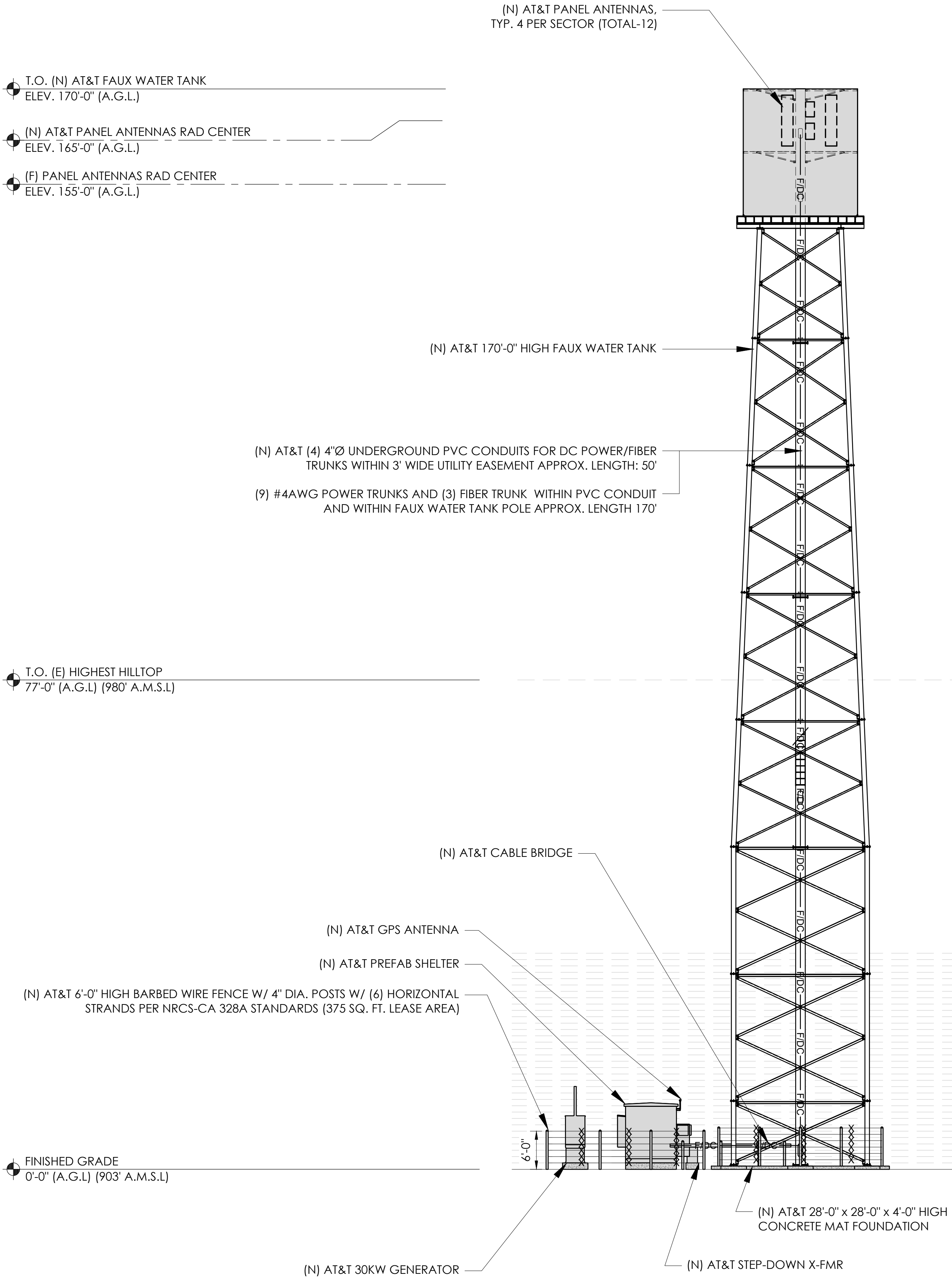
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A-4.1

RF SCHEDULE

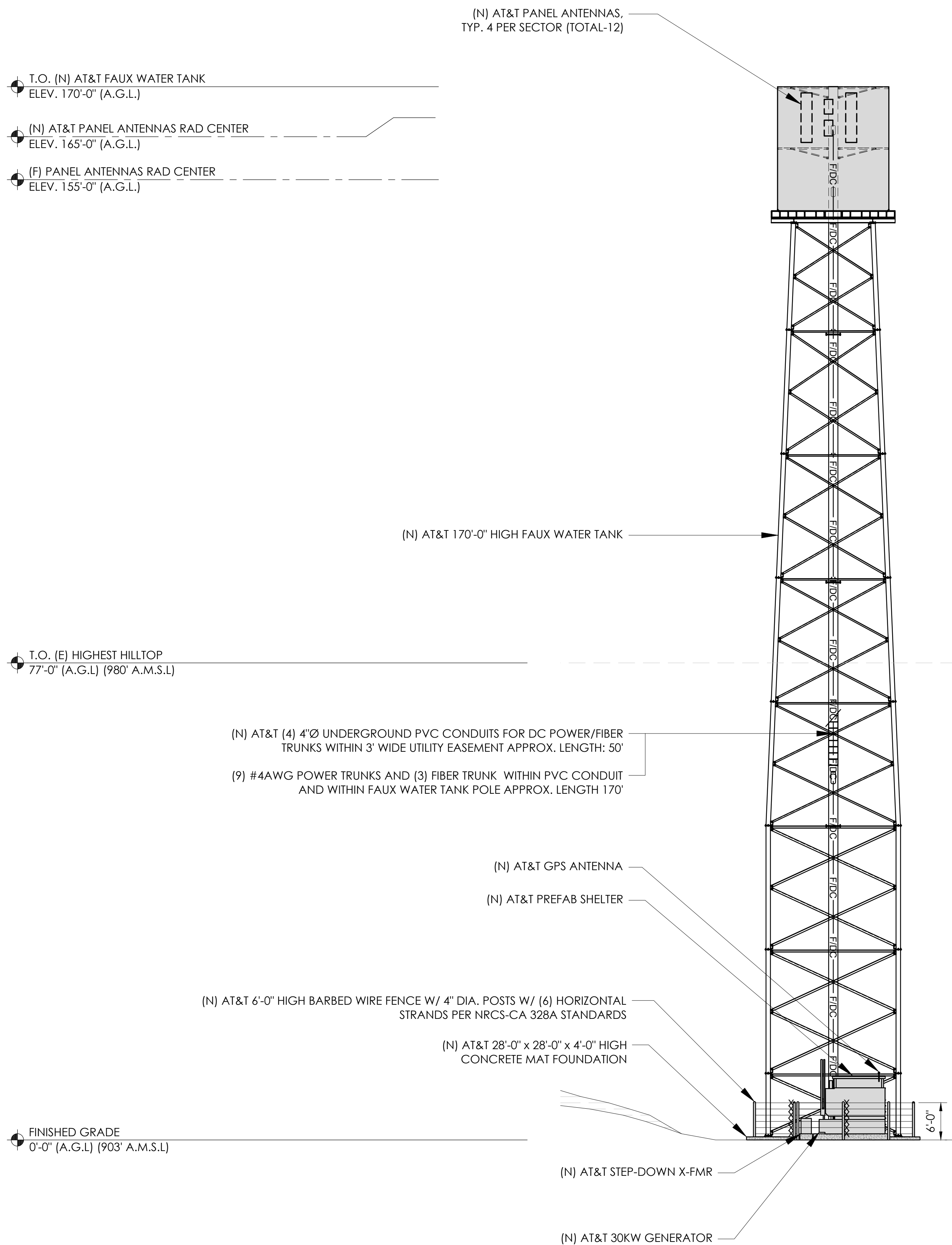


NOTE:  
1. ALL (N) RRUS AND DC SURGE  
SUPPRESSORS NOT SHOWN FOR CLARITY.



NEW NORTH ELEVATION (FAUX WATER TANK LOCATION)

NOTE:  
1. ALL (N) RRUS AND DC SURGE  
SUPPRESSORS NOT SHOWN FOR CLARITY.



NEW EAST ELEVATION (FAUX WATER TANK LOCATION)



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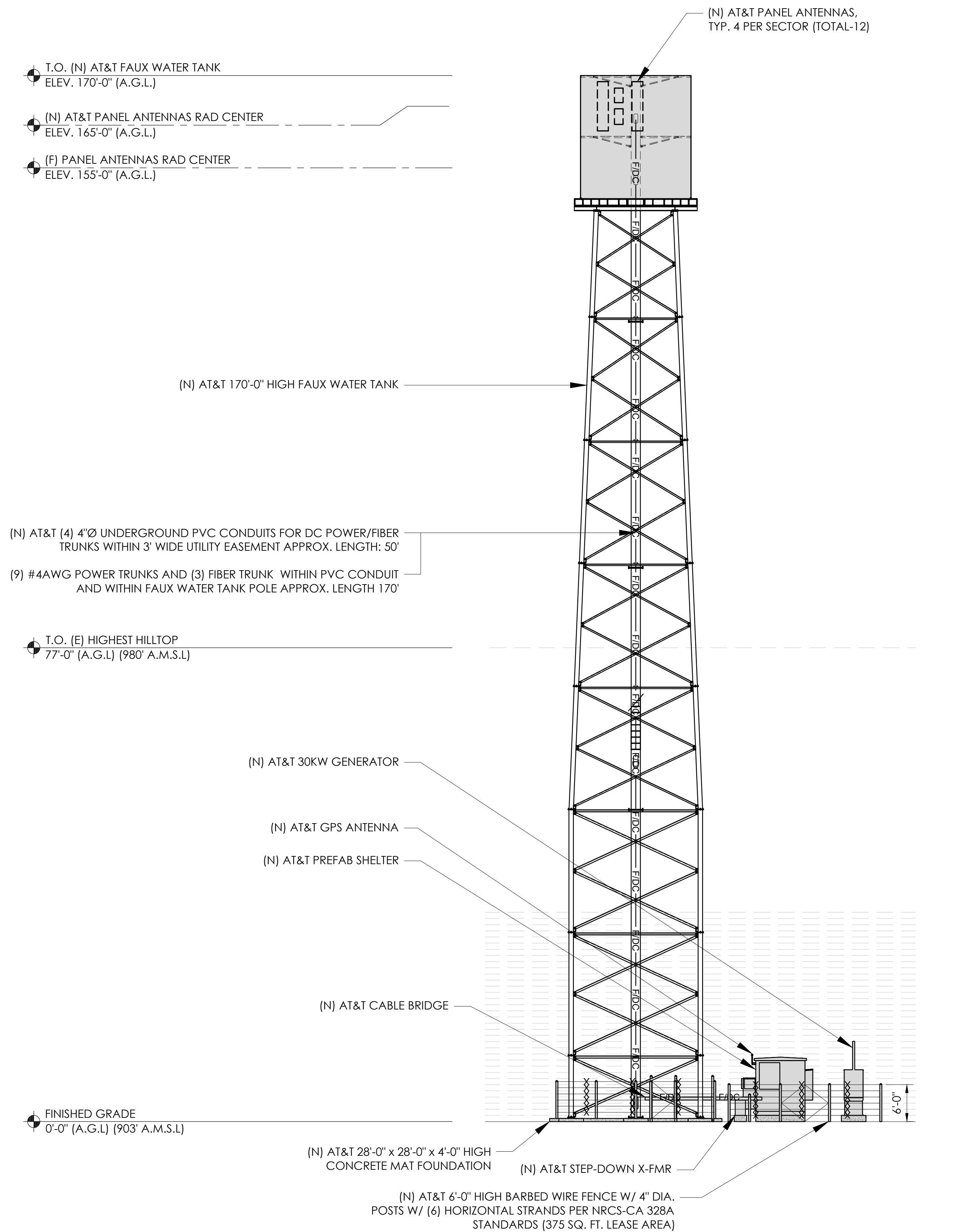
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A-5

NEW FAUX WATER  
TANK ELEVATIONS

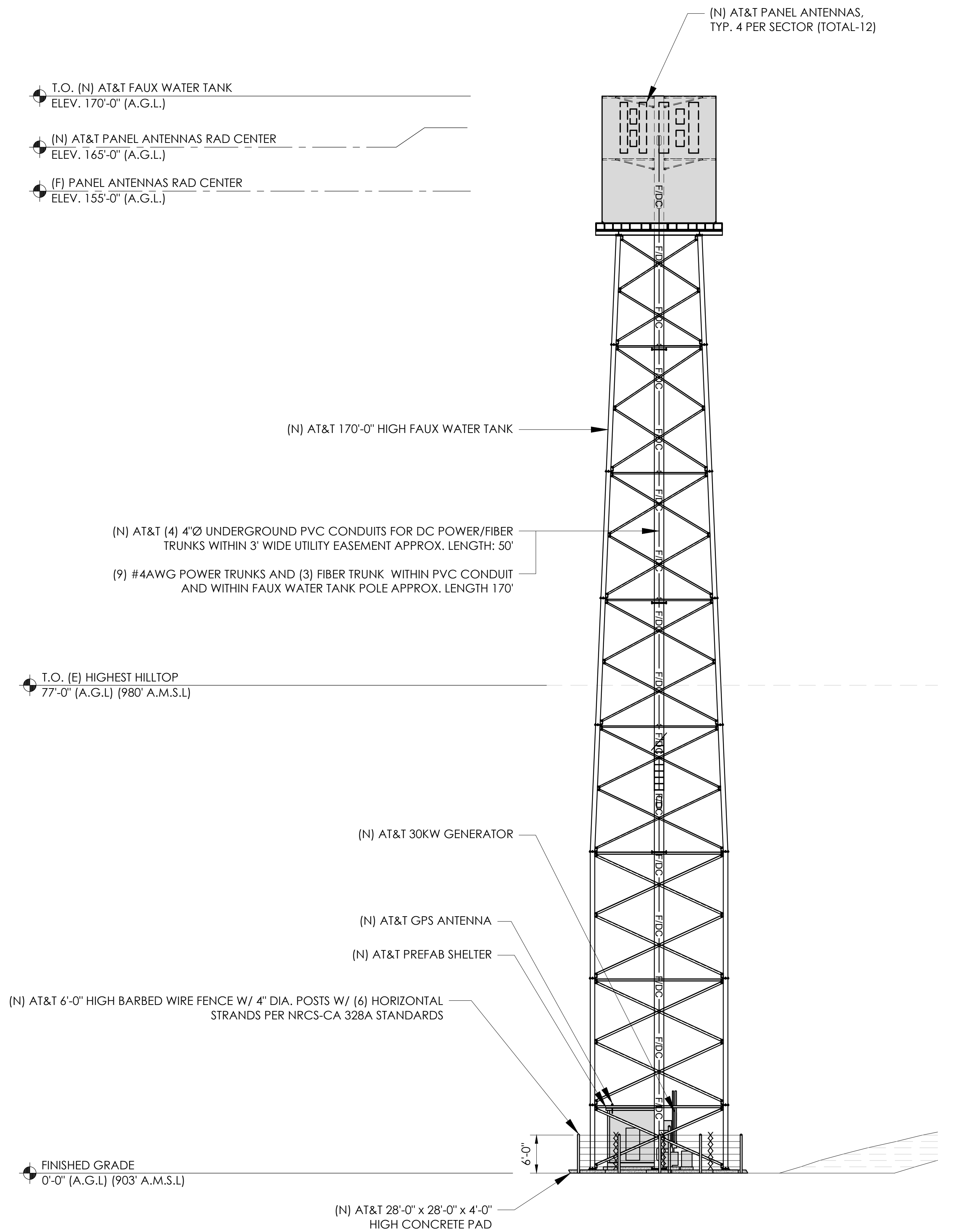


NOTE:  
1. ALL (N) RRUS AND DC SURGE  
SUPPRESSORS NOT SHOWN FOR CLARITY.



1 NEW SOUTH ELEVATION (FAUX WATER TANK LOCATION)

NOTE:  
1. ALL (N) RRUS AND DC SURGE  
SUPPRESSORS NOT SHOWN FOR CLARITY.



2 NEW WEST ELEVATION (FAUX WATER TANK LOCATION)



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A-6

NEW FAUX WATER  
TANK ELEVATIONS







11

NOT USED  
N.T.S.

10

NOT USED  
N.T.S.

ASCO D300L SERIS POWER TRANSFER LOAD CENTER  
RATED 200 AMPERES, 240V  
MAX., SINGLE PHASE / 3 WIRE,  
TYPE 3R ENCLOSURE

SPECIFICATIONS

MFG: INTERSECT, INC.  
MODEL: AA-G-3R-CL PTLC

OVERALL DIMENSIONS:  
53"H x 32"W x 12.3"D  
(EXCLUDING SIDE MOUNT RECEPTACLE)

53"H x 41.8"W x 12.3"D  
(INCLUDING SIDE MOUNT RECEPTACLE)

WEIGHT: 200 LBS

1.50" TRADE SIZE KNOCKOUT

4.79"

8.34"

3.50"

3.39"

5.50"

3.50"

0.43" HOLES (4 PLACES)  
USED FOR SHIPPING,  
PLUGS PROVIDED FOR  
FIELD INSTALLATION.

EXTERNAL, MASKED  
GROUNDING POINT  
(2) .25"-20 FASTENERS

1.50" TRADE SIZE KNOCKOUT

(2) 2.00" TRADE SIZE KNOCKOUTS

DRAIN PLUG  
(2 PLACES)

BOTTOM

12.25"

18.36" REF.

11.64" REF.

9.88"

32.00"

41.88"

53.00"

LEFT SIDE

FRONT WITH EXTERIOR DOOR

PADLOCKABLE 3 POINT LATCH

8

AC PANEL SPECIFICATIONS  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

EQUIPMENT SPECIFICATIONS

MFG: ERICSSON  
MODEL: R503 XMU  
HEIGHT: 1.22 IN  
LENGTH: 13.80 IN  
WIDTH: 11.00 IN

WEIGHT: 6.90 LBS

7

XMU  
N.T.S.

TOP

9.63"

25.88"

BOTTOM

25.88"

84.00"

FRONT

SIDE

EQUIPMENT SPECIFICATIONS

MFG: TELECT (or equal to)  
MODEL: 12623-21  
HEIGHT: 84.0 IN  
WIDTH: 25.88 IN  
DEPTH: 9.63 IN

WEIGHT OF RACK: 105 LBS  
MAX WEIGHT: 555 LBS

5

23" FIF RACK SPECIFICATIONS  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE

EQUIPMENT SPECIFICATIONS

MANUFACTURER: ERICSSON  
MODEL: BASEBAND 6651  
HEIGHT: 1.7 IN  
WIDTH: 19 IN  
DEPTH: 15.1 IN  
WEIGHT: 17.60 LBS

4

BASEBAND 6651  
N.T.S.

VERTIV 7100 DC POWER SYSTEM FOR -48 VDC/-58 VDC

ITEM	WEIGHT/UNIT (LBS)	QTY	TOTAL WEIGHT (LBS)
EMPTY RACK	500	1	500
Rack + Rectifiers & Converters only	605.6	1	605.6
SBS190F	132.3	8	1058.4
TOTAL =			1664 LBS

EQUIPMENT SPECIFICATIONS

MANUFACTURER: VERTIV  
AT&T NUMBER: NEQ.53545  
VERTIV NUMBER: 582127000503  
H / W / D: 84" / 25" / 23"  
SAFETY COMPLIANCE: UL LISTED AND SEISMIC ZONE 4 COMPLIANT

NOTE:  
1. OCCUPY ANCHOR HOLES 'X'

25.800"

1.63"

2.94"

22.310"

19.685"

2.85"

1.50"

Ø0.812 (8)

Ø0.375 (4)

18"

9"

12.340"

15"

BOTTOM

2

VERTIV 7100 DC POWER PLANT  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

EQUIPMENT SPECIFICATIONS

MFG: EMERSON  
MODEL: R48-2000E3  
HEIGHT: 1.70 IN  
WIDTH: 3.30 IN  
DEPTH: 9.90 IN

WEIGHT: 2.49 LBS

1

RECTIFIER MODULE  
N.T.S.

APPLICANT:

AT&T

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:

PM&A  
P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY

1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

CCL04383

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

DESIGN RECORD:

REV	DATE	DESCRIPTION	INT.	BH	SMR
A	09/24/24	ISSUED FOR 90%CD'S			
B	10/30/24	ISSUED FOR 95%CD'S			
0	11/11/24	ISSUED FOR 100%CD'S			

PROFESSIONAL STAMP:

REGISTERED PROFESSIONAL ENGINEER  
JOSEPH A. WITZELSON  
81603  
CIVIL  
STATE OF CALIFORNIA

SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

It is a violation of law for any persons, unless they are acting under the direction of a licensed professional engineer, to alter this document

SHEET TITLE:

D-2

SHEET NAME:

DETAILS



NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

CERTIFICATION: UL LISTED  
INTERRUPT RATING: 10 KAIC  
BUS RATING: 400 A  
NUMBER OF WIRES: 3  
LINE LUG SIZE: #4 - 600 MCM  
DEGREE OF PROTECTION: 3R

EQUIPMENT SPECIFICATIONS

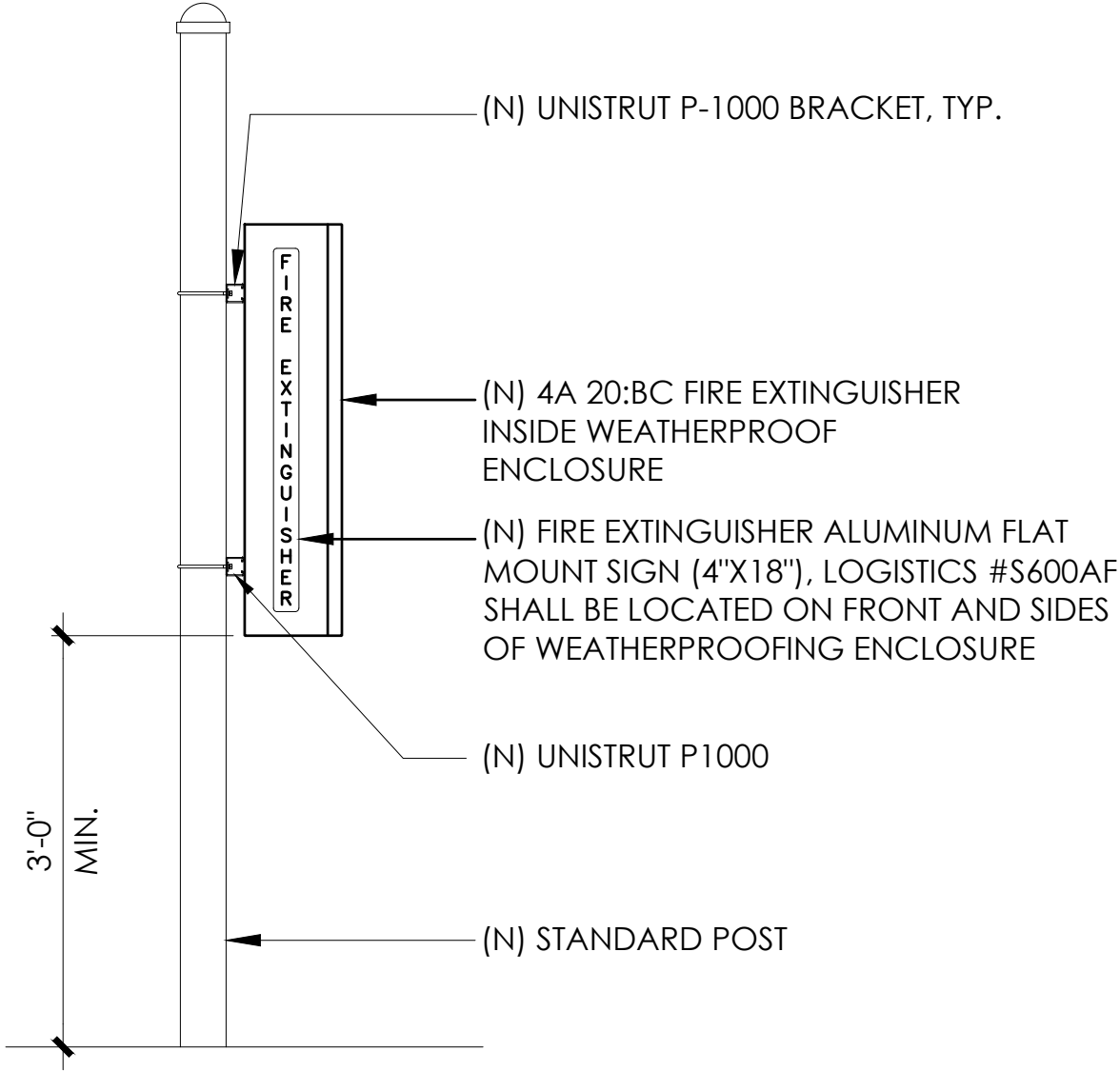
MFG: EATON  
MODEL: R11048 HC  
HEIGHT: 22 IN  
LENGTH: 48 IN  
WIDTH: 6 IN

WEIGHT: 120 LBS

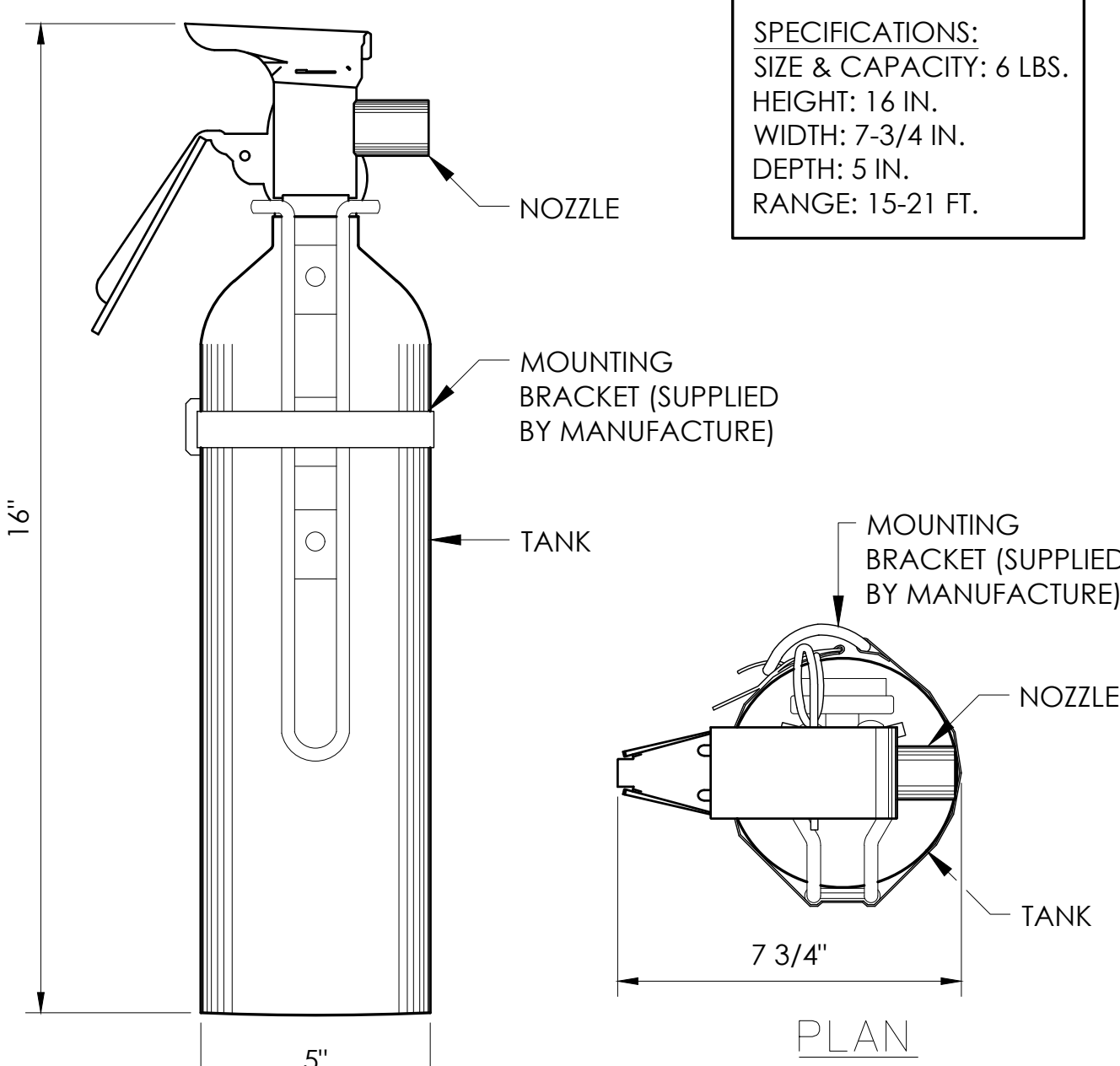
400 - 800 Amp



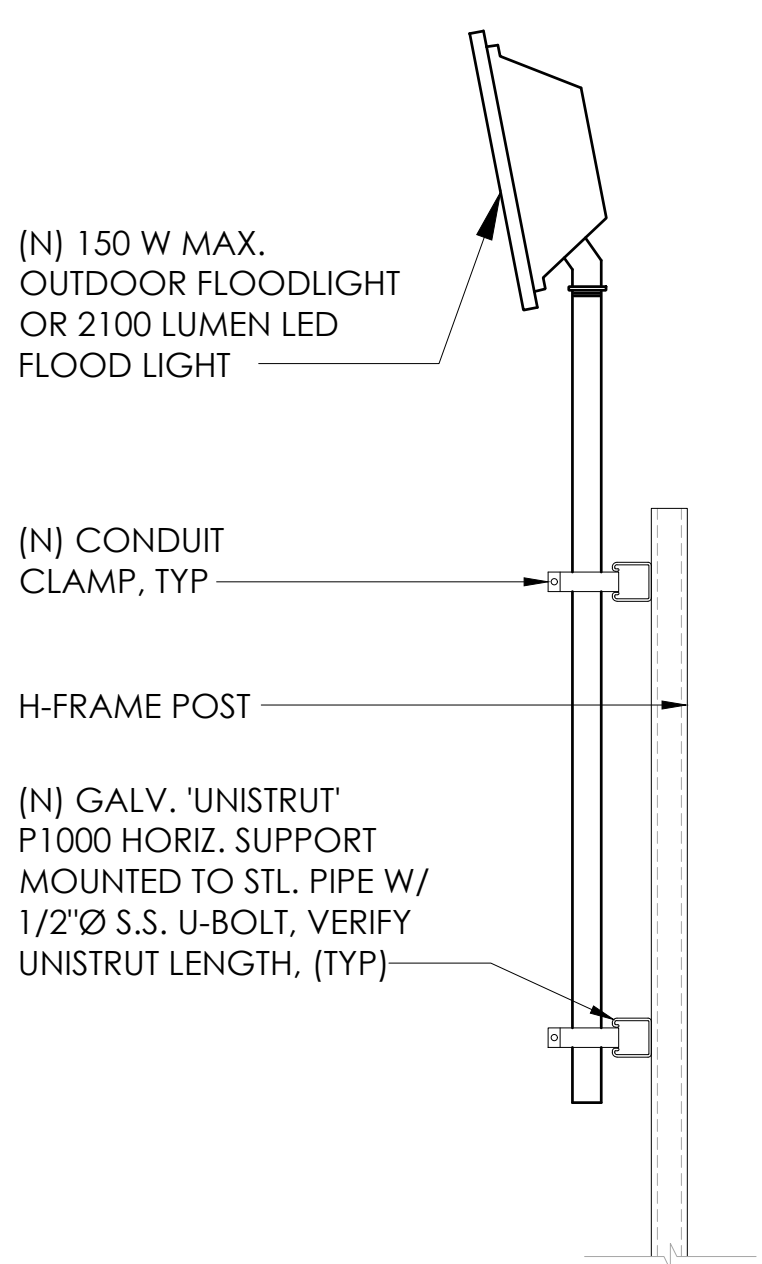
12 BUSS GUTTER DETAIL  
N.T.S.



9 FIRE EXTINGUISHER MOUNTING  
N.T.S.



6 FIRE EXTINGUISHER DETAIL  
N.T.S.



3 SERVICE LIGHT DETAIL  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

COMPLIANCES: EUSERC APPROVED  
AMPERAGE RATING: 400 A  
INTERRUPT RATING: 42 KAIC  
NUMBER OF WIRES: 3  
LINE LUG SIZE: 2 STUDS  
LOAD LUG SIZE: #6 - 600 MCM  
DEGREE OF PROTECTION: 3R

EQUIPMENT SPECIFICATIONS

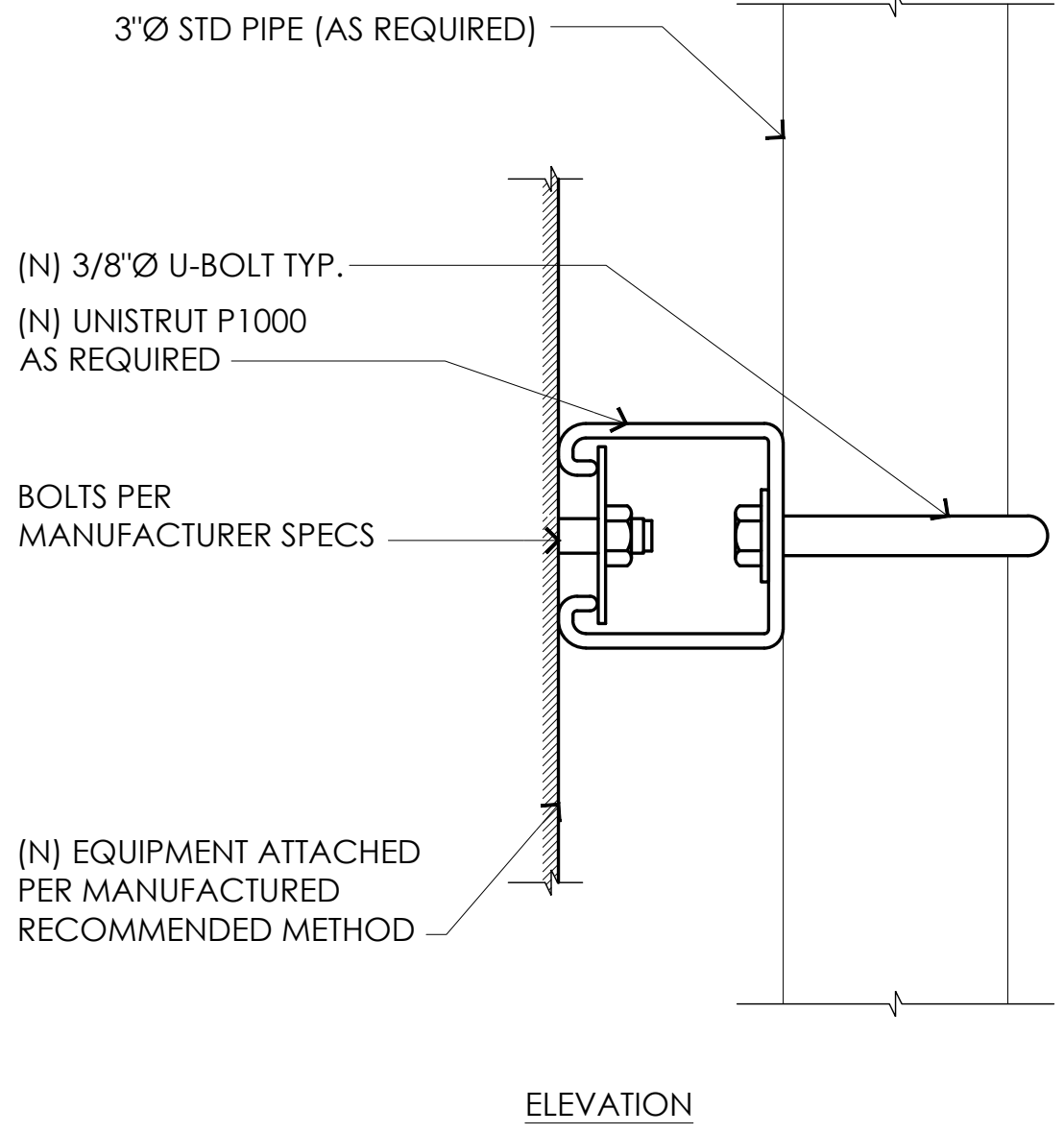
MFG: EATON  
MODEL: R9000 C  
HEIGHT: 44 IN  
LENGTH: 12 IN  
WIDTH: 7 IN

WEIGHT: 52 LBS

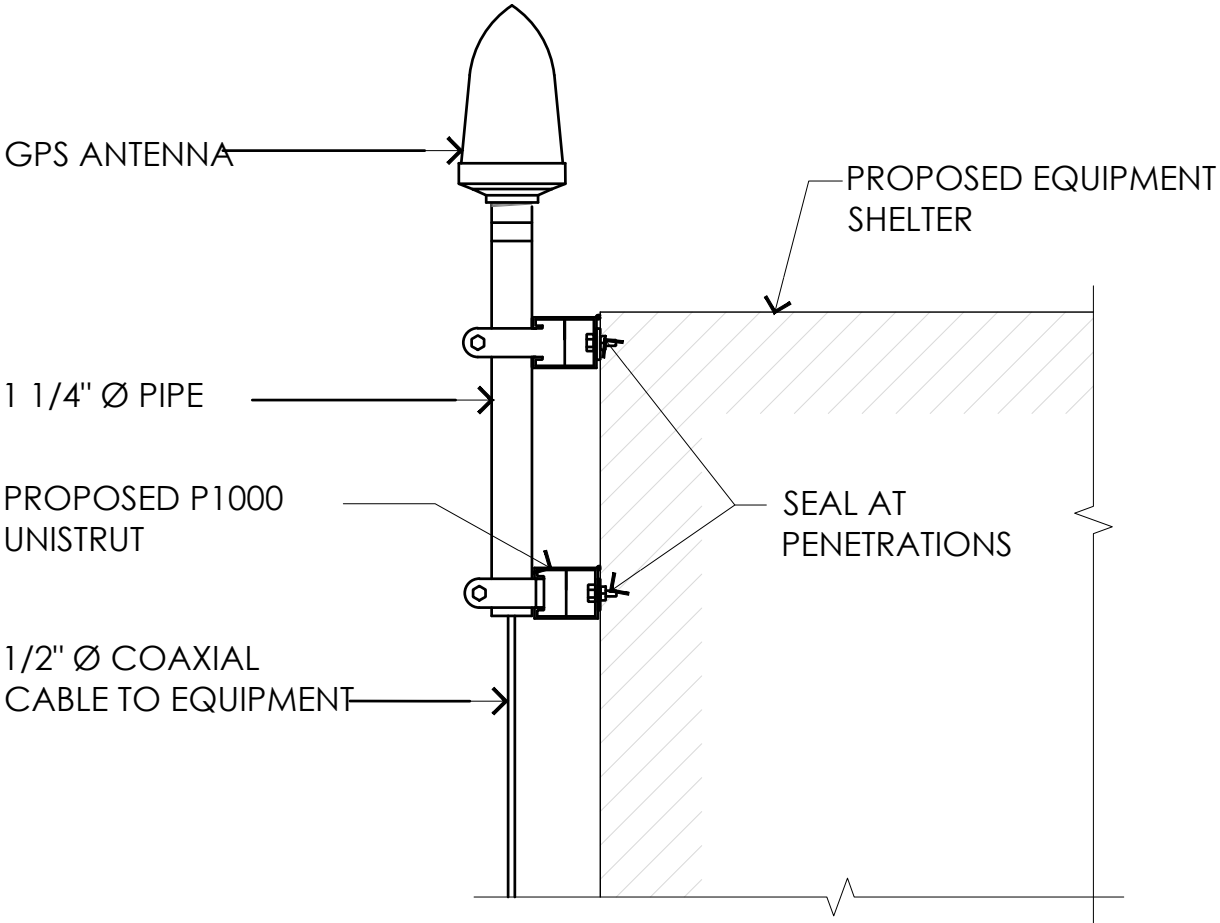
100 - 1200 Amp



11 TERMINATION CAN DETAIL  
N.T.S.

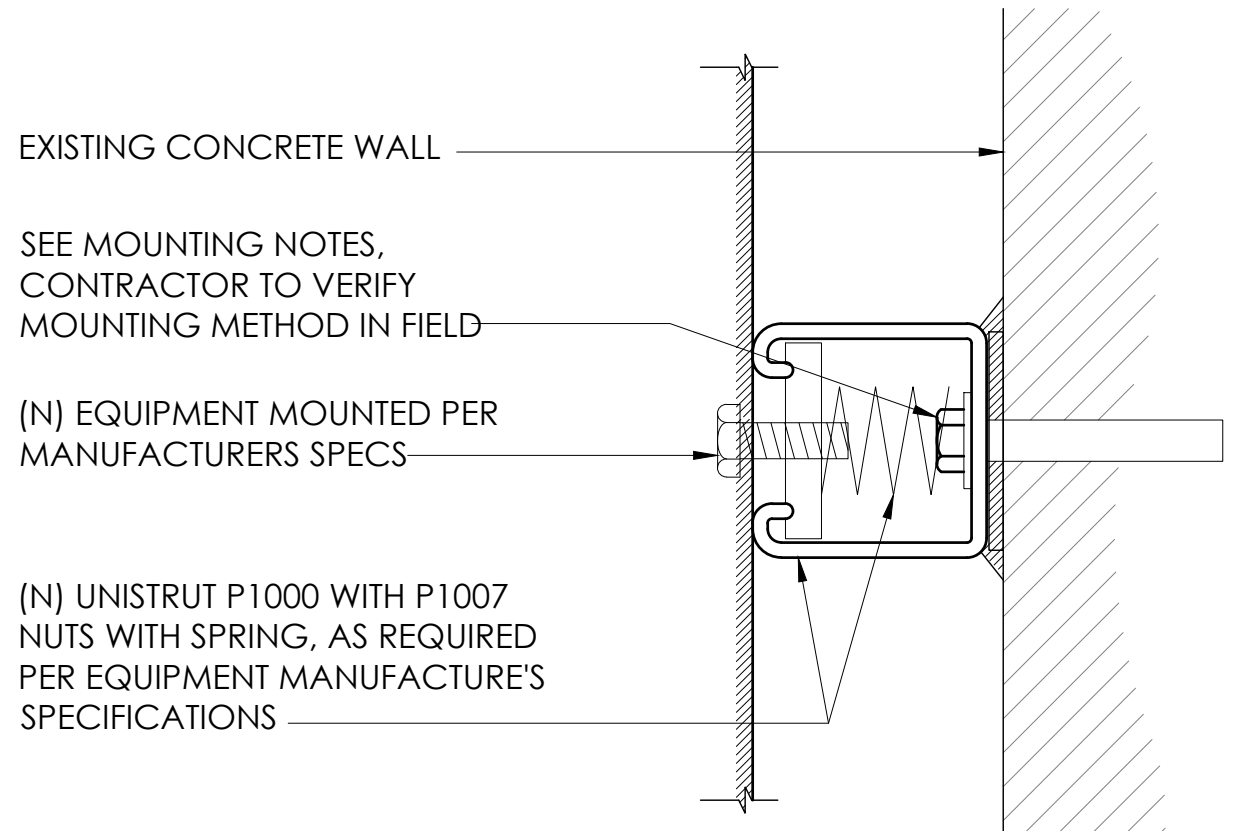


8 EQUIPMENT MOUNTING DETAIL  
N.T.S.



5 GPS MOUNTING DETAIL  
N.T.S.

MOUNTING NOTES:  
1. FOR SOLID GROUTED CONCRETE WALL USE: 3/8\"/>



2 EQUIPMENT MOUNTING DETAIL  
N.T.S.

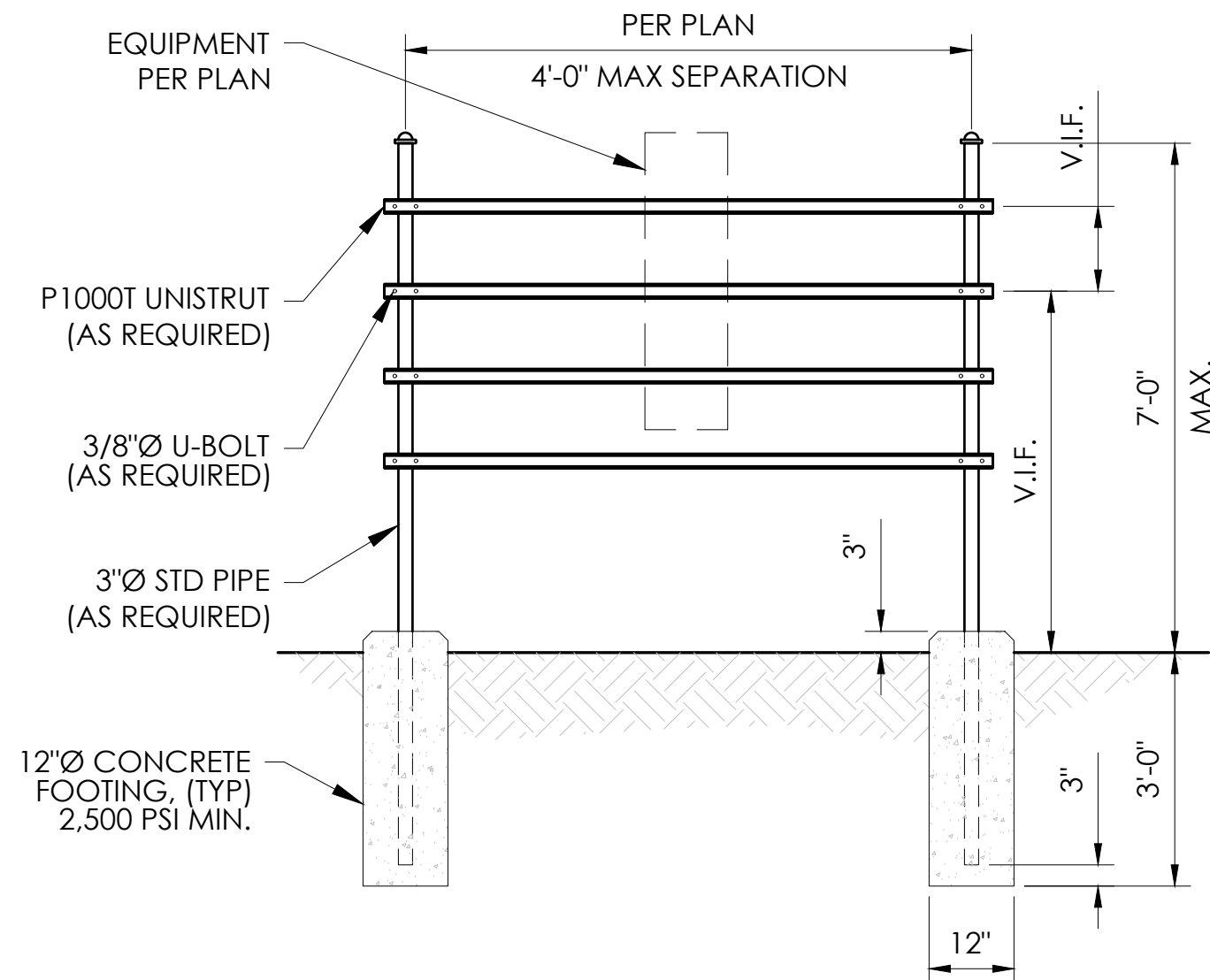
**SQUARE D** Meter socket, ringed, 1 phase, 3 wire, 225A, 5 jaws, 120/240VAC, Series A, test block bypass, EUSERC



Meter socket rated current	225 A
Number of jaws	5
Bypass type	Test block bypass
Phase	1 phase
[Ue] rated operational voltage	120/240 V AC
Enclosure Material	Steel
Electrical connection	Lugs
Service feed location	OH UG
Wiring configuration	3-wire
Device mounting	Flush
AWG gauge	AWG 6...300 kcmil aluminium/copper
Height	30.00 in (762.000000000 mm)
Width	22.44 in (569.98 mm)
Depth	7.50 in (190.50 mm)

10 200AMP METER DETAIL  
N.T.S.

NOTE:  
1. ALL NEW EQUIPMENT TO BE MOUNTED PER MANUFACTURER SPECIFICATIONS



7 H-FRAME DETAIL  
N.T.S.

PCTEL GPS ANTENNA GPS-TMG-HR-26N

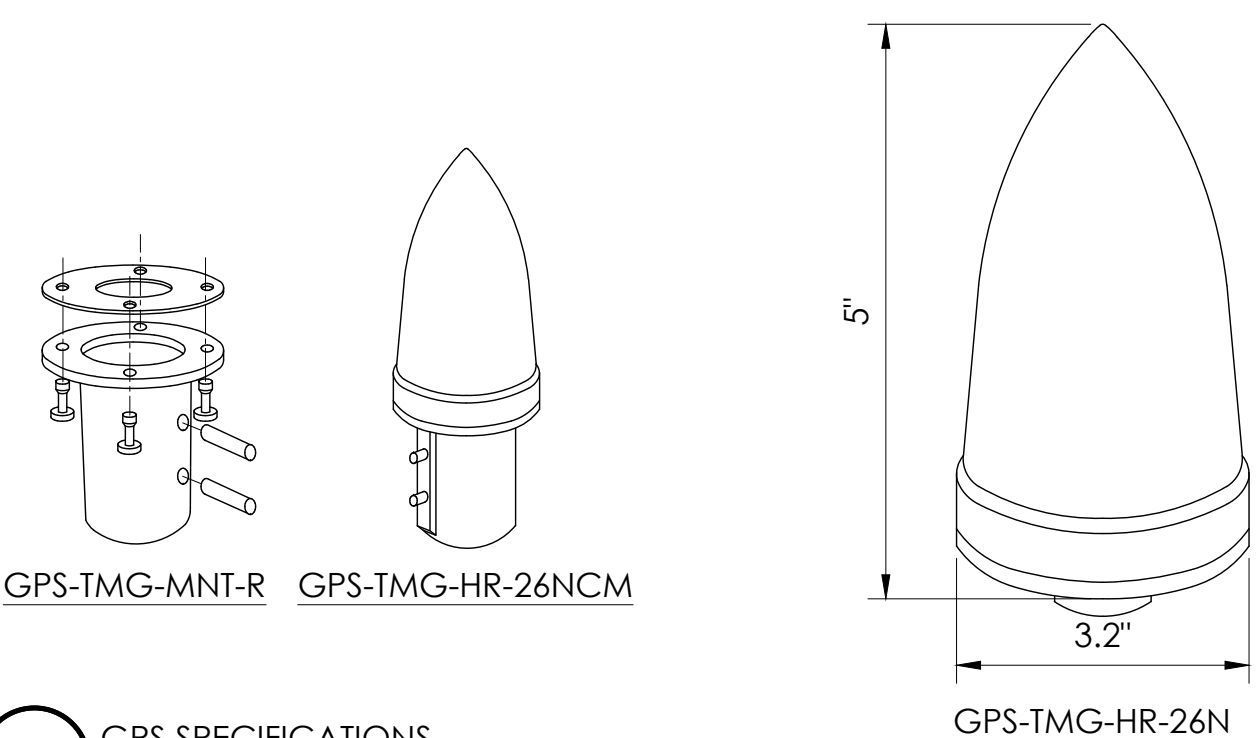
DIMENSIONS, HxD: 126x81mm (5.0"x3.2")

WEIGHT, WITH PRE-MOUNTED BRACKETS: 0.6 lbs

CONNECTOR: N, FEMALE (ONE - BOTTOM FED)

MOUNTING: FIT PIPES 1" - 1.45" (25 - 37mm)

FREQUENCY BAND 1575.42 +/- 1.2MHz



4 GPS SPECIFICATIONS  
N.T.S.

NOTE:  
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.



1 DC50 CABINET SPECIFICATIONS  
N.T.S.

EQUIPMENT SPECIFICATIONS

MFG: VERTIV  
MODEL: DC50 CABINET  
HEIGHT: 60 IN  
WIDTH: 40 IN  
DEPTH: 9 IN

WEIGHT: 100 LBS



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**CCL04383**

**5707 HIGHLAND ROAD**

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				



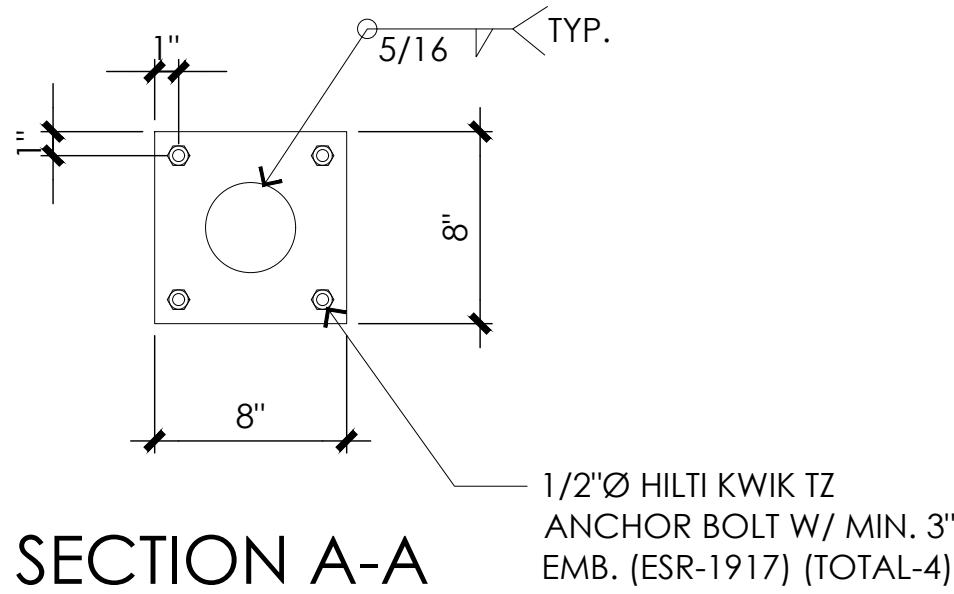
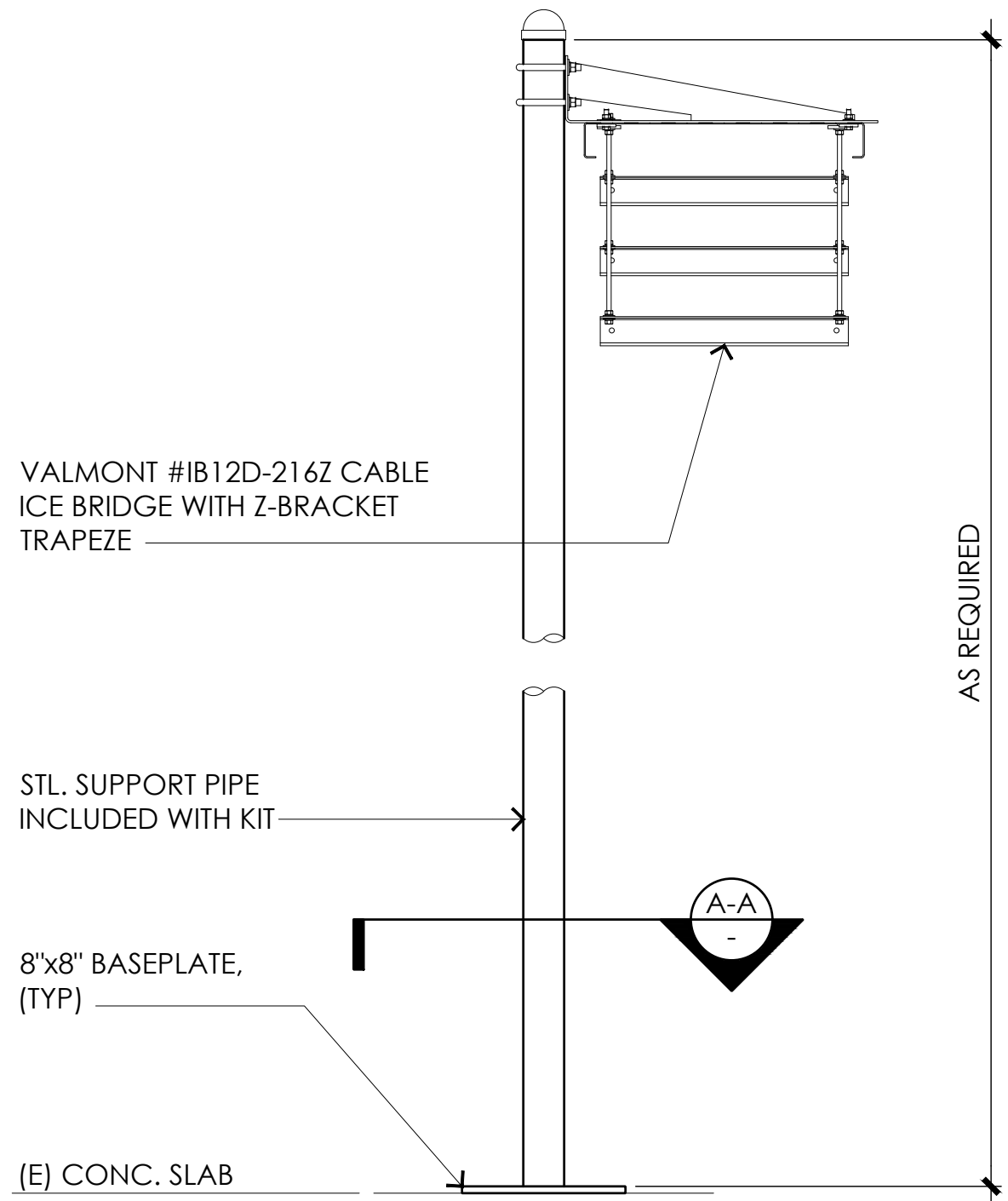
SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

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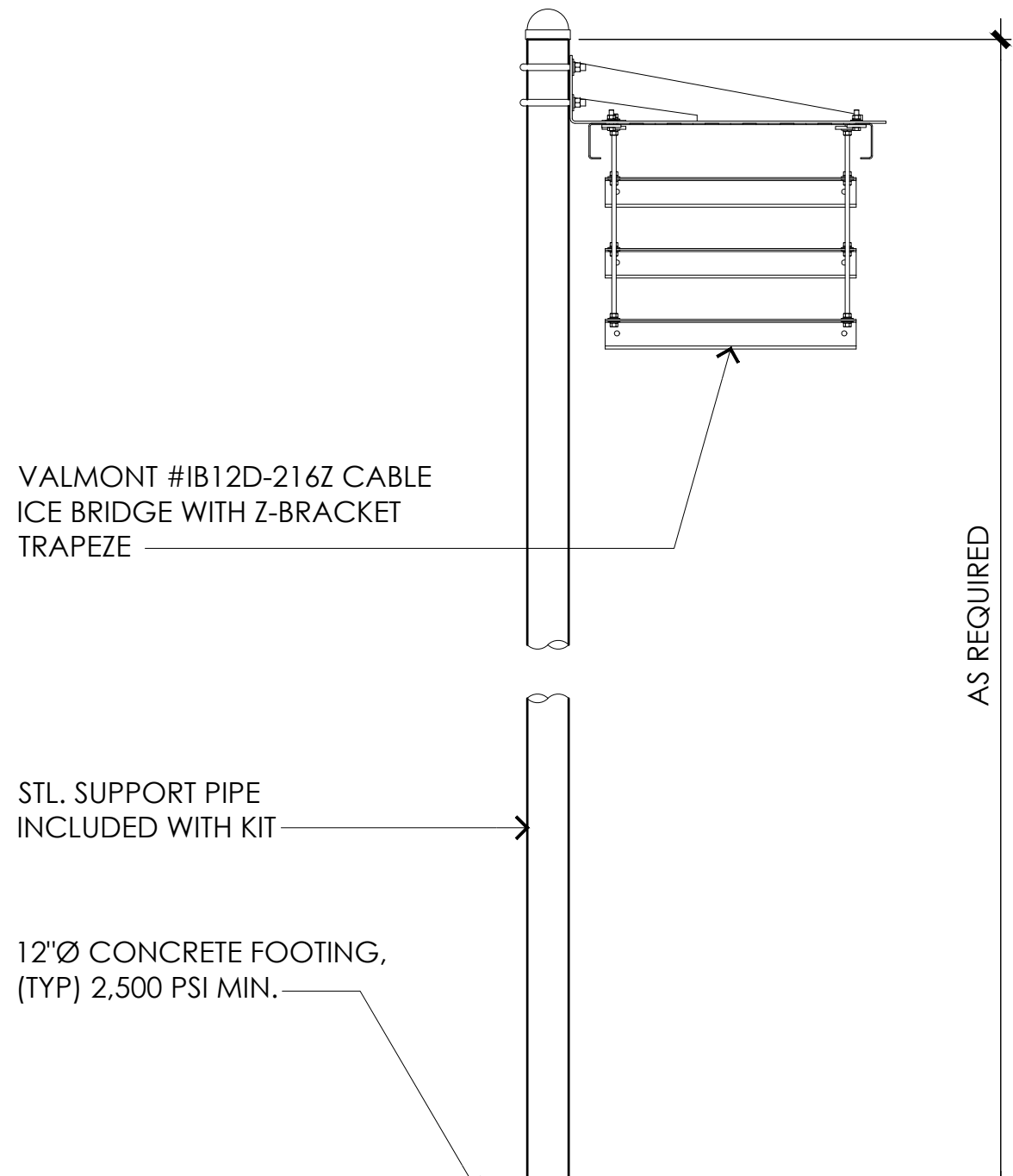
**D-3**

**DETAILS**





11 CABLE BRIDGE DETAIL  
N.T.S.



8 CABLE BRIDGE DETAIL  
N.T.S.

### FCA243624-00006

FIBERGLASS / POLYMER CONCRETE ASSEMBLY  
24" X 36" X 24"  
(FOR ACTUAL DIMENSIONS SEE DRAWINGS)

FIBERGLASS / POLYMER CONCRETE ASSEMBLY,  
STRAIGHT SIDES, NO FLOOR, WUC 3.6-20K,  
3/8" HEX BOLTS, STANDARD NAMEPLATE  
(SPECIFY AT TIME OF ORDER) INSTALLED

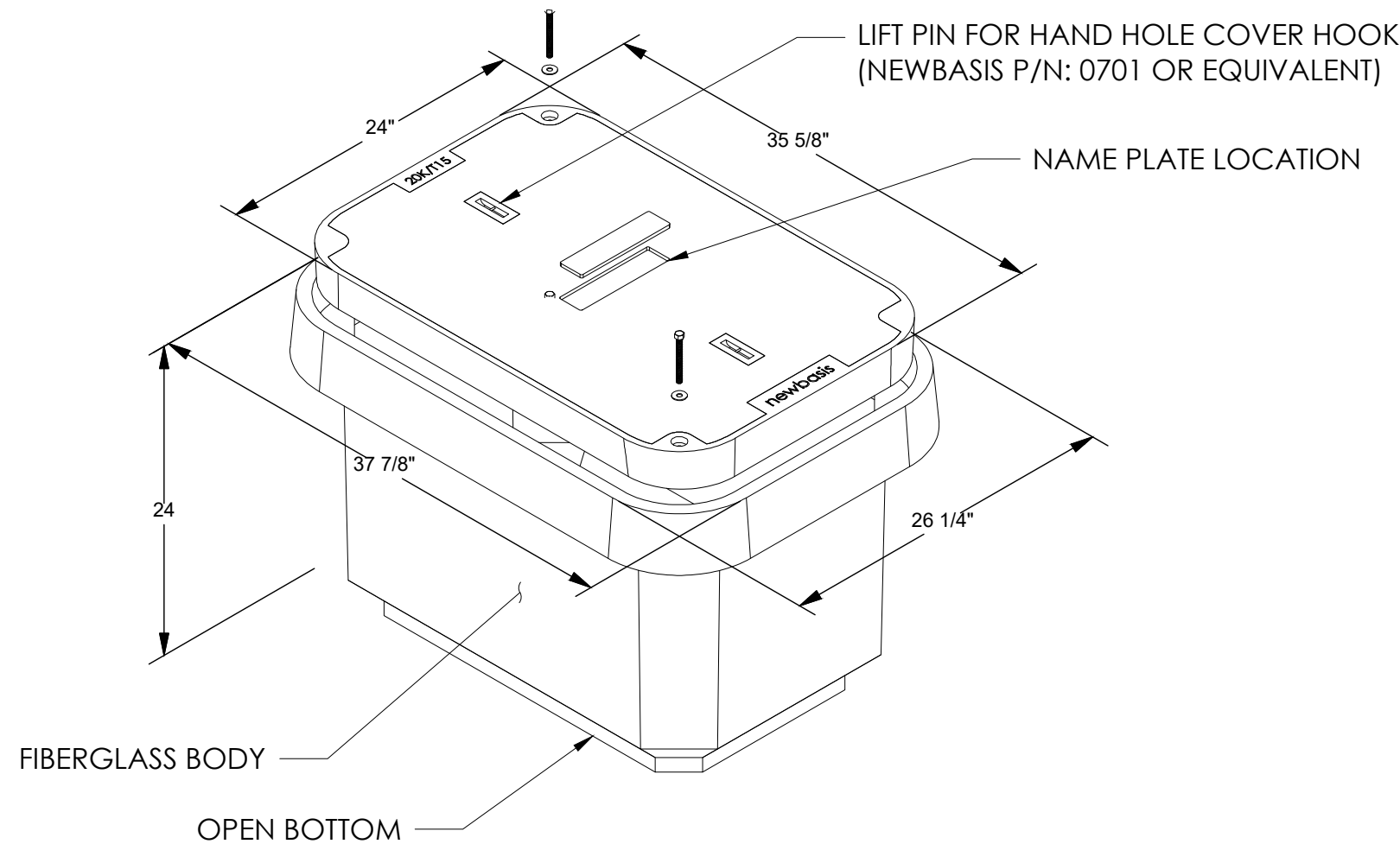
LOAD RATINGS  
INCIDENTAL TRAFFIC - PARKING LOT,  
SIDEWALK CONFORMS TO:  
• WUC 3.6  
• ASTM C 857  
• ANSI/SCTE 77

Features:  
• USDA/RUS APPROVED  
• DROP-IN NAMEPLATE  
• SHIPPED ASSEMBLED  
• SKID RESISTANT COVER  
• STAINLESS STEEL BOLTS  
• CAST-IN FLOATING NUT BOX  
• INTEGRAL DRAIN HOLES

ADDITIONAL PRODUCT INFORMATION

Inside Dimensions		
Length	Width	Depth
33 1/8"	22 1/2"	21"
28 1/16"	16 1/2"	

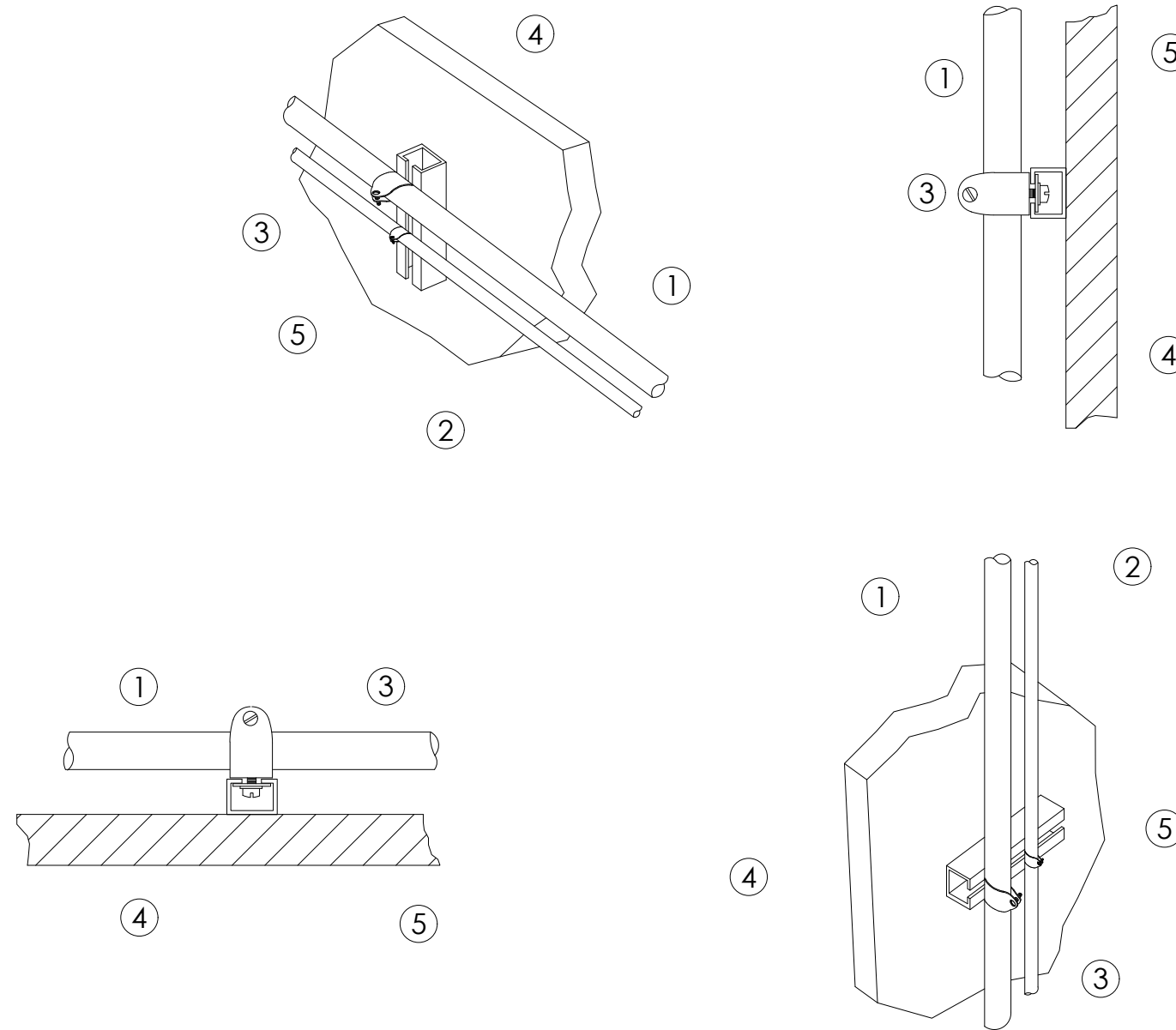
**newbasis**



10 HAND HOLE DETAIL  
N.T.S.

- 1 CONDUIT FOR ELECTRIC/TELEPHONE OR FIBER
- 2 #2 AWG STRANDED INSULATED GROUNDING CONDUCTOR TO RUN ALONG HYBRID CABLE
- 3
- 4 EXISTING FLOOR/CEILING/WALL
- 5 P1000 UNISTRUT (LENGTH BASED ON NUMBER OF CONDUITS TO BE MOUNTED - FIELD TO DECIDE) (SEE MOUNTING NOTES)

MOUNTING NOTES:  
1. FOR SOLID GROUTED CONCRETE WALL USE: 3/8"Ø 'HILTI' KB-TZ STAINLESS STEEL W/ 3-1/8" MIN. EMB (ESR-1917, LARR#25701)  
2. FOR SOLID CMU MASONRY BLOCK WALL USE: 1/2"Ø HILTI HIT HY-70 WITH 4 1/2" EMB @ 16" O.C. (ESR-2682)  
3. FOR TIMBER FRAME WALL USE: 1/4"Ø LAG BOLT WITH 2" MIN THREAD PENETRATION @ EVERY STUD.  
4. FOR METAL STUD WALL USE: #10 TEK SCREW @ EACH METAL STUD



1. CONDUIT:
- A) ELECTRICAL METALLIC TUBING SHALL U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS AND ROOFTOPS.
- B) 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.
- C) 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.
- D) ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE
- E) ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.
- F) CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON DURA-BLOK ROOFTOP SUPPORTS BY COOPER B-LINE.
- G) \*RIGID SHALL BE USED IN LOCATIONS OF POTENTIAL DAMAGE AND/OR CRUSH. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

4 CONDUIT MOUNTING DETAIL  
N.T.S.



## 3931 SERVICE DELIVERY SWITCH

**MAC Address Table Capacity**  
32,000 MAC addresses

### Power Requirements

DC Input: -48, -24, +24 VDC (nominal)  
AC Input: 100V, 240V AC (nominal)  
AC Frequency: 50/60 Hz  
Maximum Power Input: 60 W

### Agency Approvals

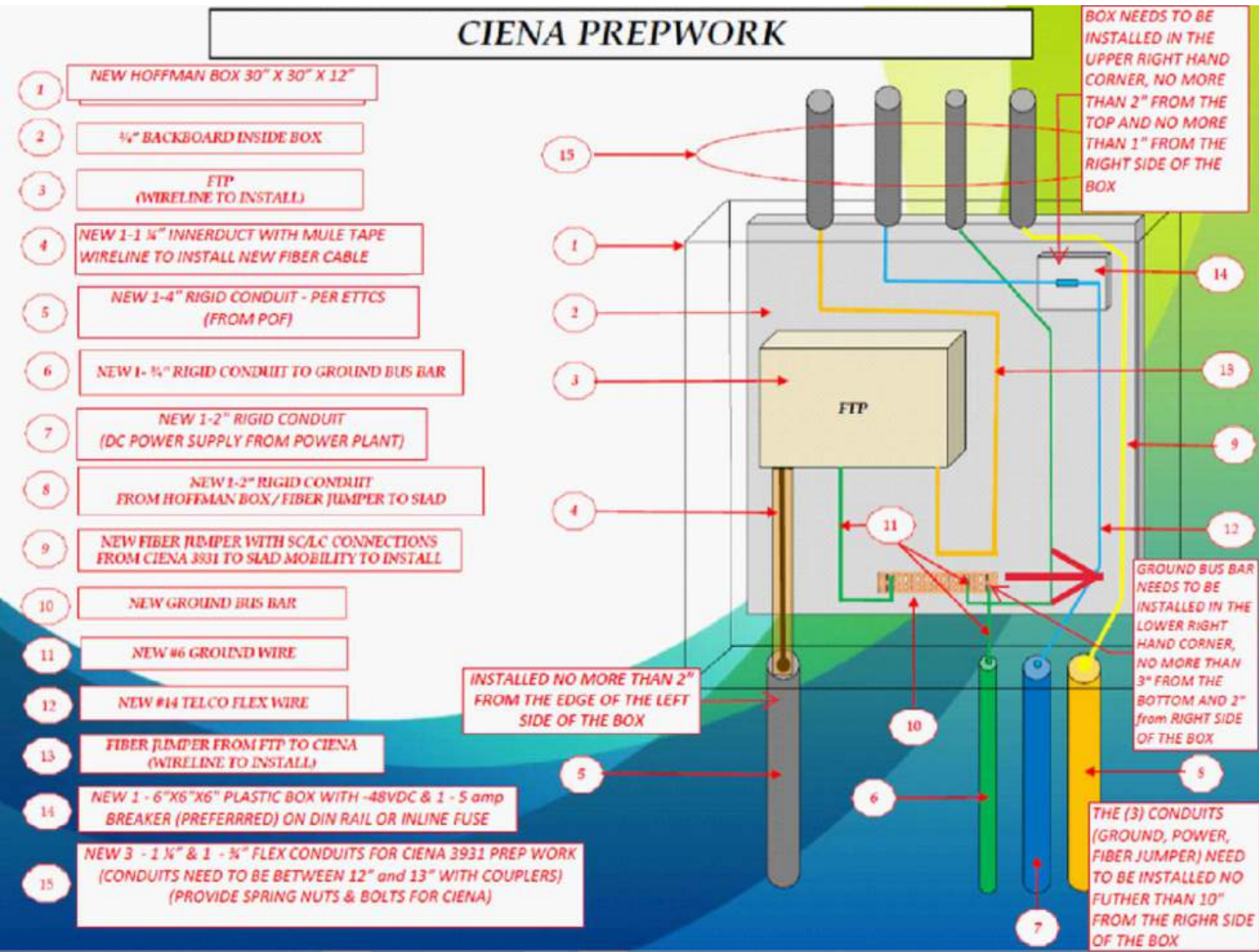
Safety: UL/CSA 60950-1-07; IEC 60950-1:2005 (2nd edition); EN 60950-1:2006  
Emissions: FCC Part 15 (2009); EN55022 (2006 +A1 2006); AS/NZS CISPR 22 (2006); CISPR 22 (2005 + A1 2005); ICES-003 Issue 4 (2004); EN 61000-3-2 (2006); EN 300 386 (v1.4.1, 2008); EN 300 132-2 (2007-10); EN 300 132-3 (2003-08)  
Environmental: WEEE 2002/96/EC RoHS 2002/95/EC  
Immunity: CISPR 24 (1997, +A1 2001 + A2 2002); EN 55024 (1998 + A1 2001 + A2 2003); EN 300 386 (v1.4.1, 2008); EN 61000-4-11 (2005); EN 61000-3-3 (2008); EN 300 132-2 (2007-10) ; EN 300 132-3 (2003-08)  
Laser Safety: CDRH Letter of Approval (US FDA Approval); FCC 21 CFR subpart (J) (Safety of Laser Products); IEC 60825-1:2007

### Environmental Characteristics

GR-63-CORE, Issue 3 – NEBS Level 3  
GR-1089 Issue 5 – NEBS Level 3  
GR-950 Issue 2 Optical Network Unit  
GR-3108 Issue 2 Network Equipment in the Outside Plant (OSP) Class 4  
ETSI 300 019 Class 1.2, 2.2, 4.1  
Operating Temperature:  
-40°F to +158°F (-40°C to +70°C)  
-40°F to +115°F + Solar Load  
(-40°C to +46°C + Solar Load)  
Storage Temperature:  
-40°F to +158°F (-40°C to +70°C)  
Relative Humidity: 5% to 100% (condensing)

### Physical Characteristics

Enclosure Dimensions:  
16.8" (W) x 17.0" (H) x 7.0" (D)  
427mm (W) x 431mm (H) x 178mm (D)  
Product weight: 13.0 kg; 28.6 lbs



- NOTES:
1. 30"X30"X12" HOFFMAN BOX MOUNTED NEXT TO OR BELOW EQUIPMENT LOCATION.
  2. 3/4" BACKBOARD IN BOX
  3. POWER LEADS MUST BE IN FLEX CONDUIT
  4. 6"X6"X4" PLASTIC BOX MOUNTED ON RIGHT SIDE OF BACKBOARD
  5. TERMINATION BLOCK TO BE PLACED IN 6X6 WITH FUSE
  6. RUN GROUND WIRE ALONG OUTSIDE EDGE ON RIGHT SIDE OF BOX. MOVE GROUNDING BUSS TO RIGHT SIDE IF NECESSARY.
  7. STUB OUT FLEX CONDUIT FROM TOP OF BOX TO MATCH 3931 CONDUIT POORTS.STUBS SHOULD BE 10 TO 12 INCHES IN LENGTH.
  8. CARRIER WILL TERMINATE P[OWER ON ONE SIDE OF TERMINATION BLOCK. AT&T WILL TERMINATE ON THEIR SIDE, AND POP IN FUSE
  9. FUSE SHOULD BE LEFT IN BOX PRIOR TO TURN UP

1 CIENA CABINET AND HOFFMAN BOX SPECIFICATION  
N.T.S.

5005 EXECUTIVE PARKWAY  
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A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE. 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

APPLICANT:

VENDOR:

SITE INFORMATION:

DESIGN RECORD:

REV	DATE	DESCRIPTION	INT.	BH	SMR	SWR
A	09/24/24	ISSUED FOR 90% CDS				
B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				

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SHEET TITLE: **D-4**

SHEET NAME: **DETAILS**



12 NOT USED  
N.T.S.

9 JOINT UTILITY TRENCH  
N.T.S.

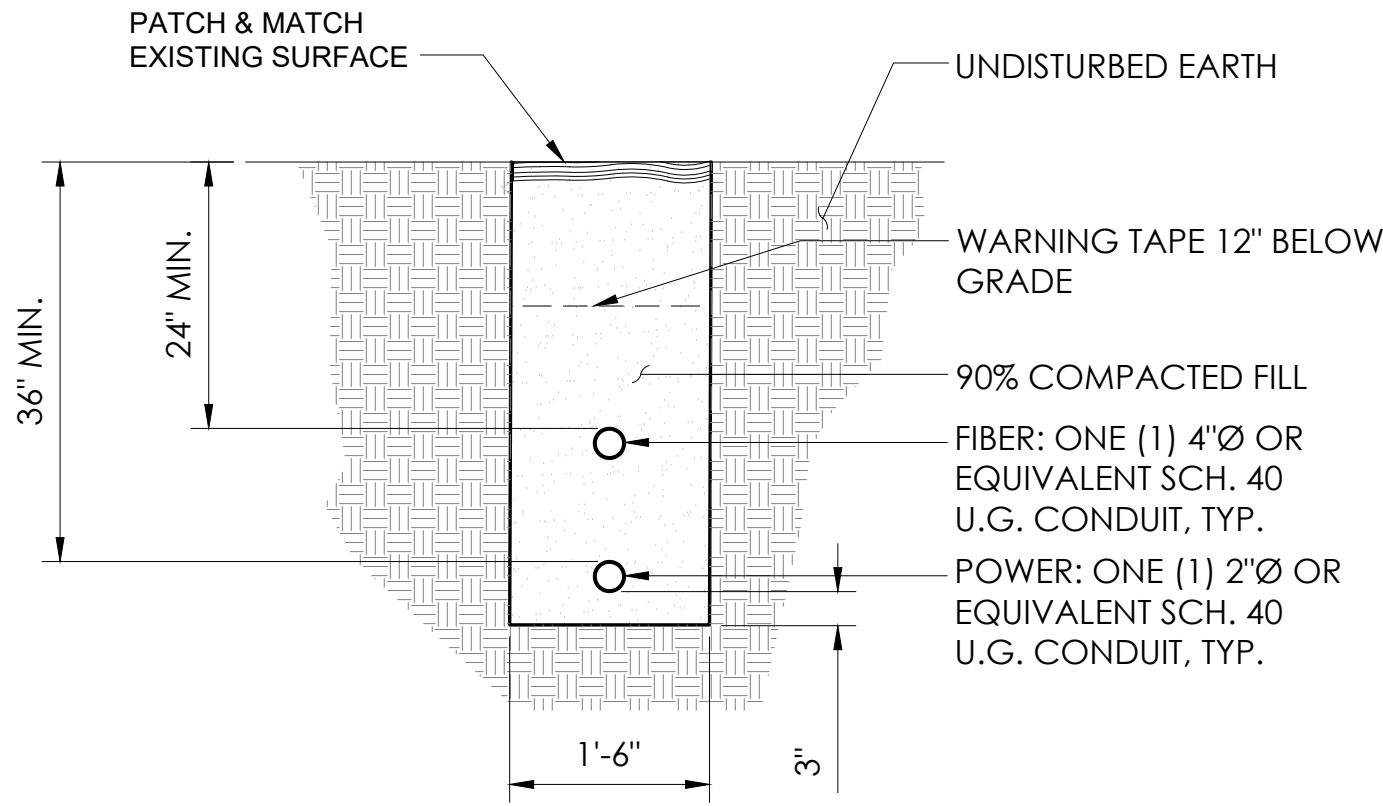
6 TRANSFORMER DETAIL  
N.T.S.

3 REMOTE EMERGENCY STOP SWITCH DETAIL  
N.T.S.

11 NOT USED  
N.T.S.

7 GENERATOR SPECIFICATIONS  
N.T.S.

NOTE:  
1. VERIFY (E) CONDUIT LOCATION AND CONDITION. DO NOT  
DAMAGE (E) CONDUIT

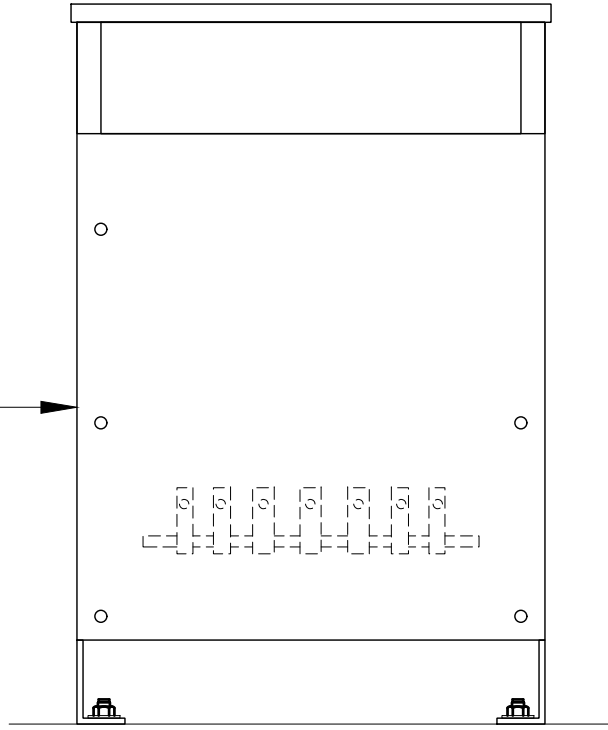


#### SPECIFICATIONS

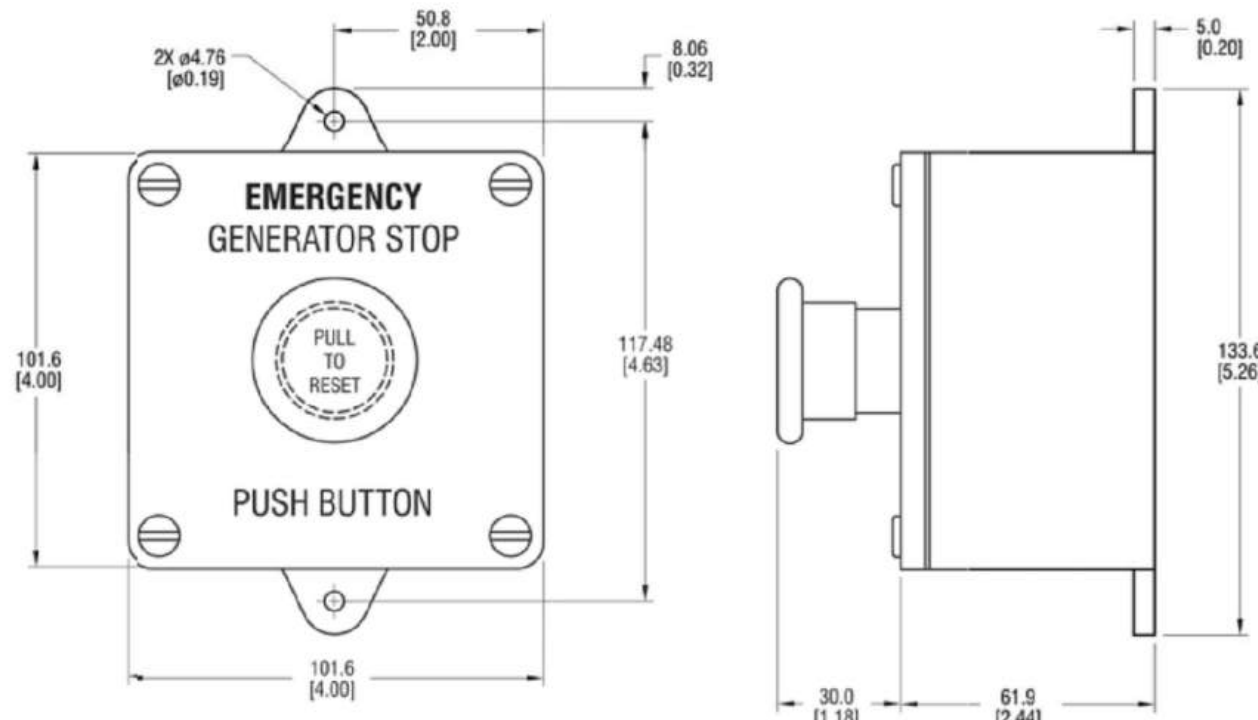
MANUFACTURER: SQUARED  
CATNO: 50534 (OR EQUAL)  
HEIGHT: 30"  
WIDTH: 20"  
DEPTH: 20"

WEIGHT: 350 LBS.

(P) TRANSFORMER,  
(SEE ELECTRICAL SHEETS)



#### REMOTE EMERGENCY STOP SWITCH SURFACE MOUNT, H-PANEL



- MANUFACTURER: PILLA ELECTRICAL PRODUCTS, INC.
- MODEL: SG120
- GENERAC PART NUMBER: 061120E
- SURFACE MOUNT, NEMA 4X
- NONMETALLIC BACKBOX

DIMENSIONS: mm(INCHES)

#### SD030 | 2.2L | 30 kW INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

**Standby Power Rating**  
30 kW, 38 kVA, 60 Hz

**Prime Power Rating\***  
27 kW, 34 kVA, 60 Hz



\*EPA Certified Prime ratings are not available in the US or its Territories

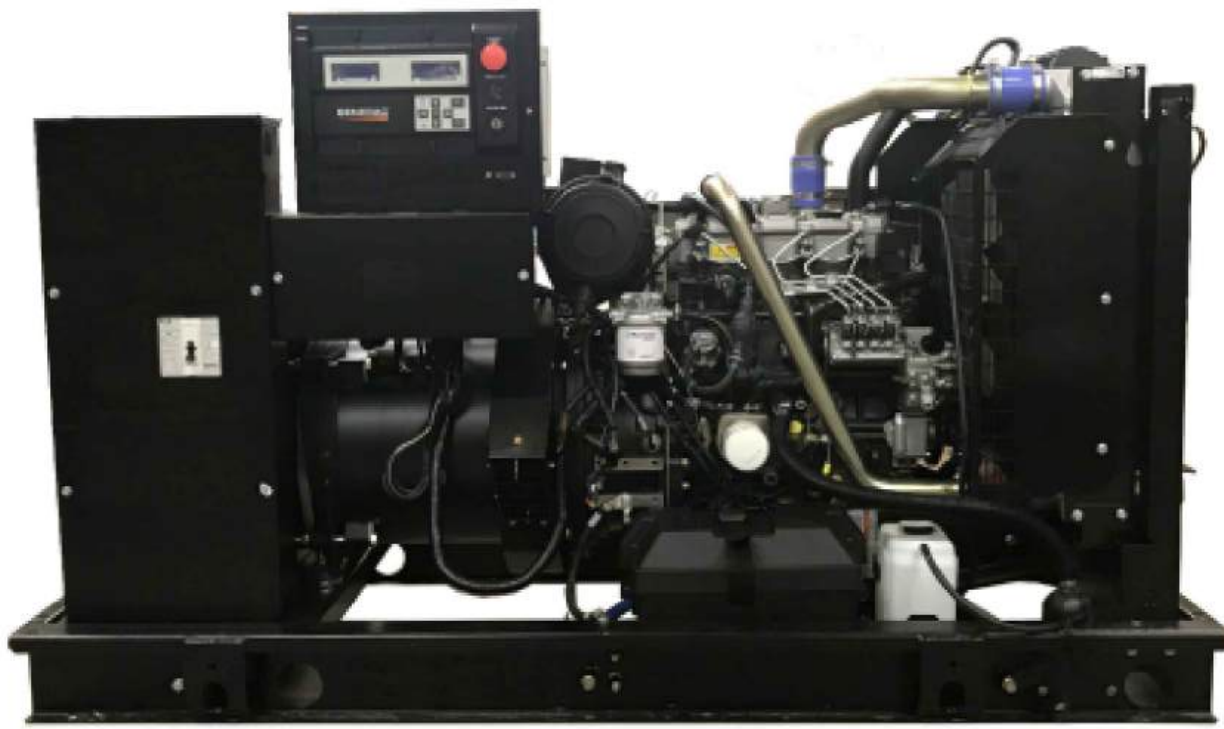


Image used for illustration purposes only

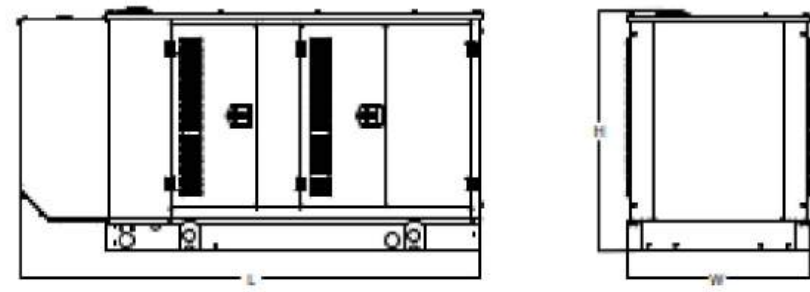
#### GENERAC | INDUSTRIAL POWER

#### SD030 | 2.2L | 30 kW INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

#### GENERAC | INDUSTRIAL POWER

#### DIMENSIONS AND WEIGHTS\*



#### OPEN SET

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)
No Tank	-	76.0 (1,930) x 37.4 (950) x 44.8 (1,138)	1,456 - 1,641 (661 - 745)
19	54 (204)	76.0 (1,930) x 37.4 (950) x 57.8 (1,468)	1,936 - 2,121 (879 - 963)
47	132 (500)	76.0 (1,930) x 37.4 (950) x 69.8 (1,773)	2,166 - 2,351 (983 - 1,067)
67	190 (719)	76.0 (1,930) x 37.4 (950) x 79.3 (2,014)	2,380 - 2,565 (1,081 - 1,165)
75	211 (799)	76.0 (1,930) x 37.4 (950) x 81.8 (2,078)	2,375 - 2,560 (1,078 - 1,162)
107	300 (1,136)	92.9 (2,360) x 37.4 (950) x 85.3 (2,167)	2,438 - 2,623 (1,106 - 1,190)

#### WEATHER PROTECTED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)
No Tank	-	94.8 (2,409) x 38.0 (965) x 49.5 (1,258)	Enclosure Only
19	54 (204)	94.8 (2,409) x 38.0 (965) x 62.5 (1,588)	Steel Aluminum
47	132 (500)	106.0 (2,692) x 38.0 (965) x 84.0 (2,134)	372 (169)
67	190 (719)	94.8 (2,409) x 38.0 (965) x 84.0 (2,134)	241 (109)
75	211 (799)	76.0 (1,930) x 38.0 (965) x 86.5 (2,198)	
107	300 (1,136)	92.9 (2,360) x 38.0 (965) x 90.0 (2,287)	

#### LEVEL 1 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)
No Tank	-	112.5 (2,857) x 38.0 (965) x 49.5 (1,258)	Enclosure Only
19	54 (204)	112.5 (2,857) x 38.0 (965) x 62.5 (1,588)	Steel Aluminum
47	132 (500)	112.5 (2,857) x 38.0 (965) x 74.5 (1,893)	505 (229)
67	190 (719)	112.5 (2,857) x 38.0 (965) x 84.0 (2,134)	338 (153)
75	211 (799)	112.5 (2,857) x 38.0 (965) x 86.5 (2,198)	
107	300 (1,136)	112.5 (2,857) x 38.0 (965) x 90.0 (2,287)	

#### LEVEL 2 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)
No Tank	-	94.8 (2,409) x 38.0 (965) x 49.5 (1,258)	Enclosure Only
19	54 (204)	94.8 (2,409) x 38.0 (965) x 62.5 (1,588)	Steel Aluminum
47	132 (500)	94.8 (2,409) x 38.0 (965) x 74.5 (1,893)	510 (231)
67	190 (719)	106.0 (2,692) x 38.0 (965) x 84.0 (2,134)	341 (155)
75	211 (799)	94.8 (2,409) x 38.0 (965) x 86.5 (2,198)	
107	300 (1,136)	94.8 (2,409) x 38.0 (965) x 90.0 (2,287)	

#### Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

- UL2200, UL6200, UL1236, UL489, UL142
- CSA C22.2, ULC S601
- BS5514 and DIN 6271
- SAE J1349
- NFPA 37, 70, 99, 110
- NEC700, 701, 702, 708
- ISO 3046, 7637, 8528, 9001
- NEMA ICS10, MG1, 250, ICS6, AB1
- ANSI C62.41

#### Powering Ahead

For over 60 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

APPLICANT:



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SITE INFORMATION:

CCL04383

5707 HIGHLAND ROAD

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DESIGN RECORD:

INT.	DESCRIPTION	DATE	REV	BY	SMR	SWR	SMR	SWR	SMR	SWR
A	ISSUED FOR 90% CDS	09/24/24	1							
B	ISSUED FOR 95% CDS	10/30/24	2							
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SHEET TITLE:

D-5

SHEET NAME:

DETAILS



12 NOT USED  
N.T.S.

9 NOT USED  
N.T.S.

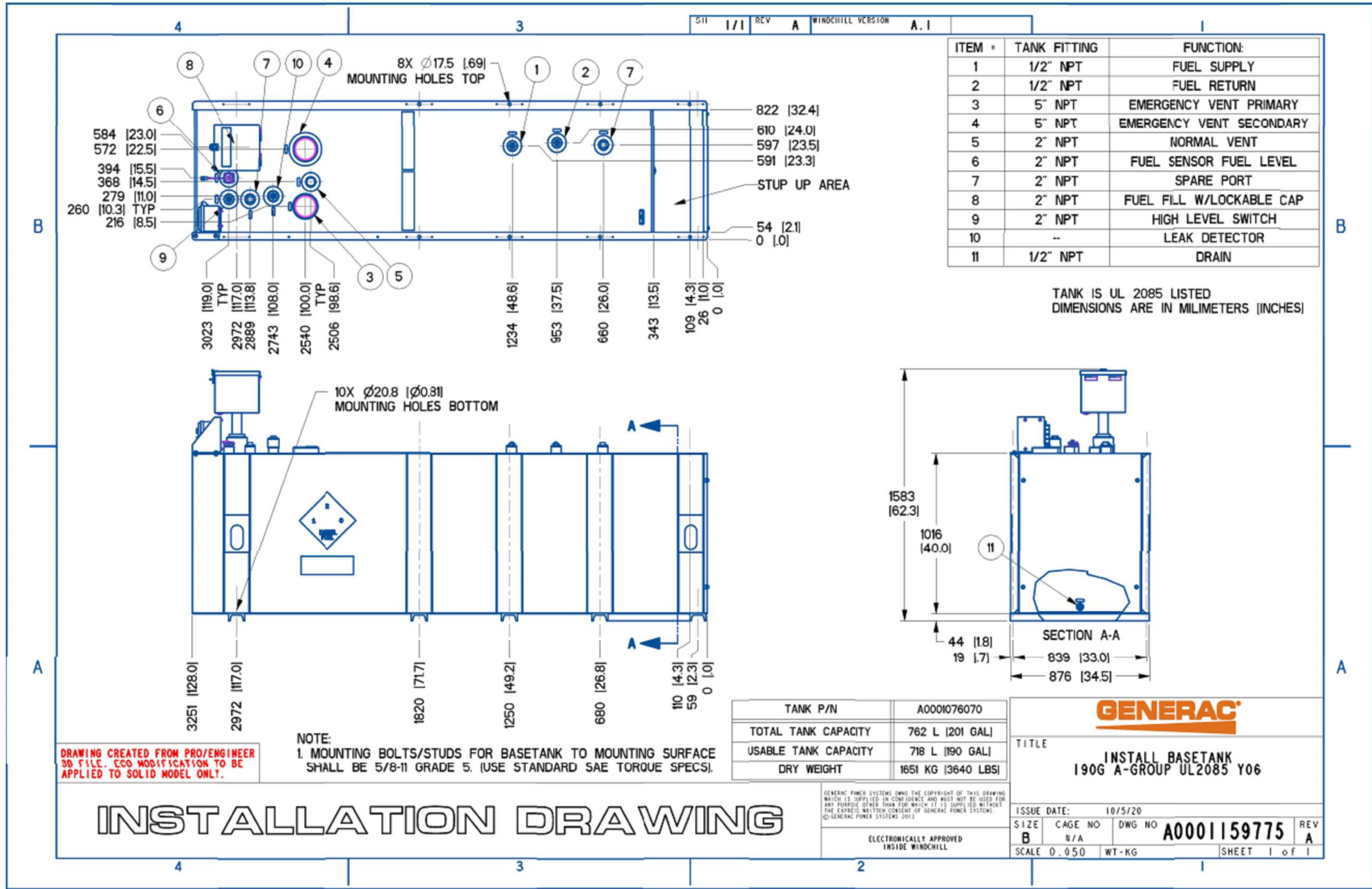
6 NOT USED  
N.T.S.

3 NOT USED  
N.T.S.

11 NOT USED  
N.T.S.

10 NOT USED  
N.T.S.

7 GENERATOR TANK SPECIFICATIONS  
N.T.S.



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583



P. MARSHALL & ASSOCIATES

A CENTERLINE COMMUNICATIONS COMPANY

1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

CCL04383

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

REV	DATE	DESCRIPTION	INT.	BH	SMR	SWR
A	09/24/24	ISSUED FOR 90% CDS				
B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				



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D-6

DETAILS



12 NOT USED  
N.T.S.

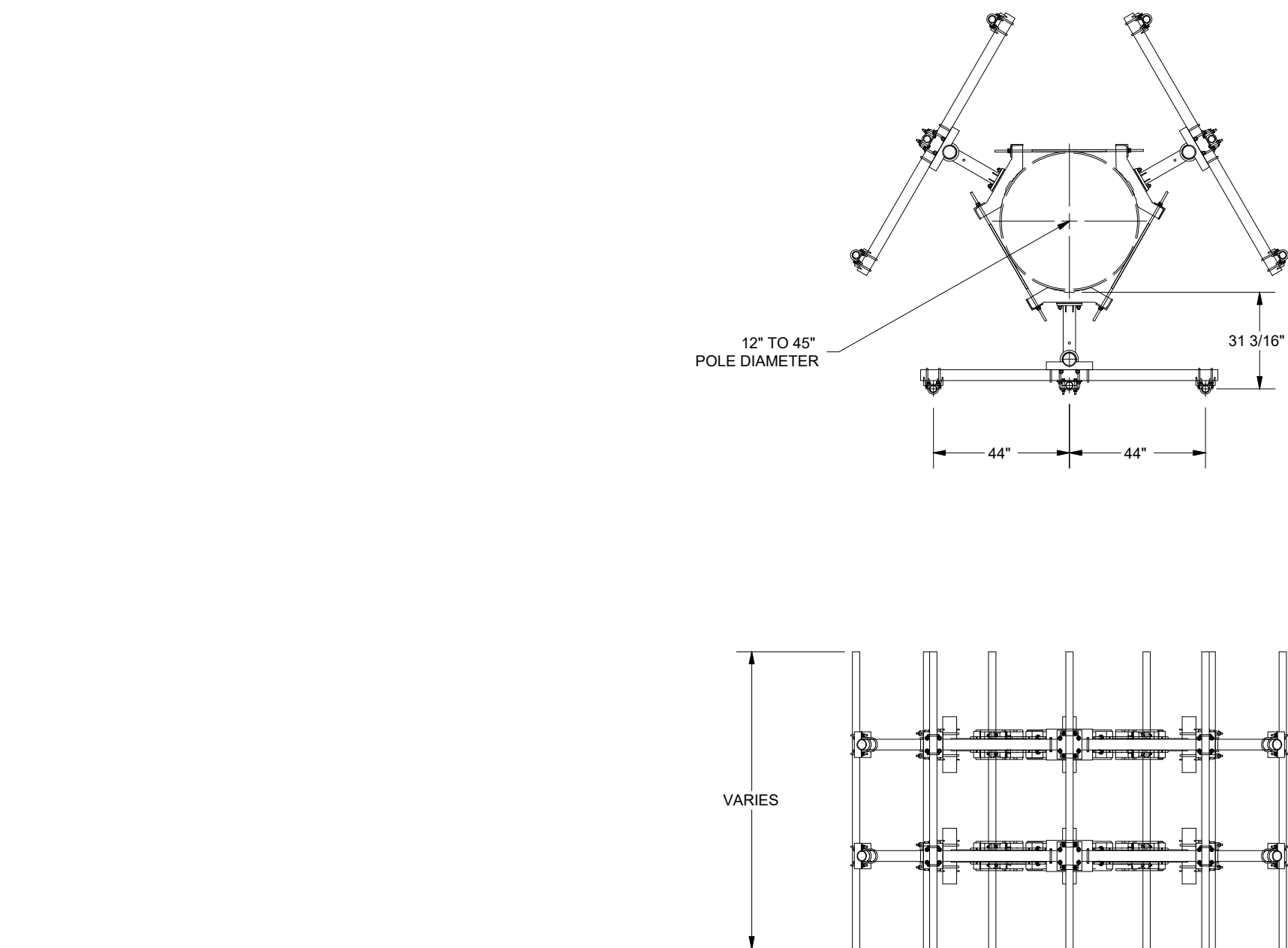
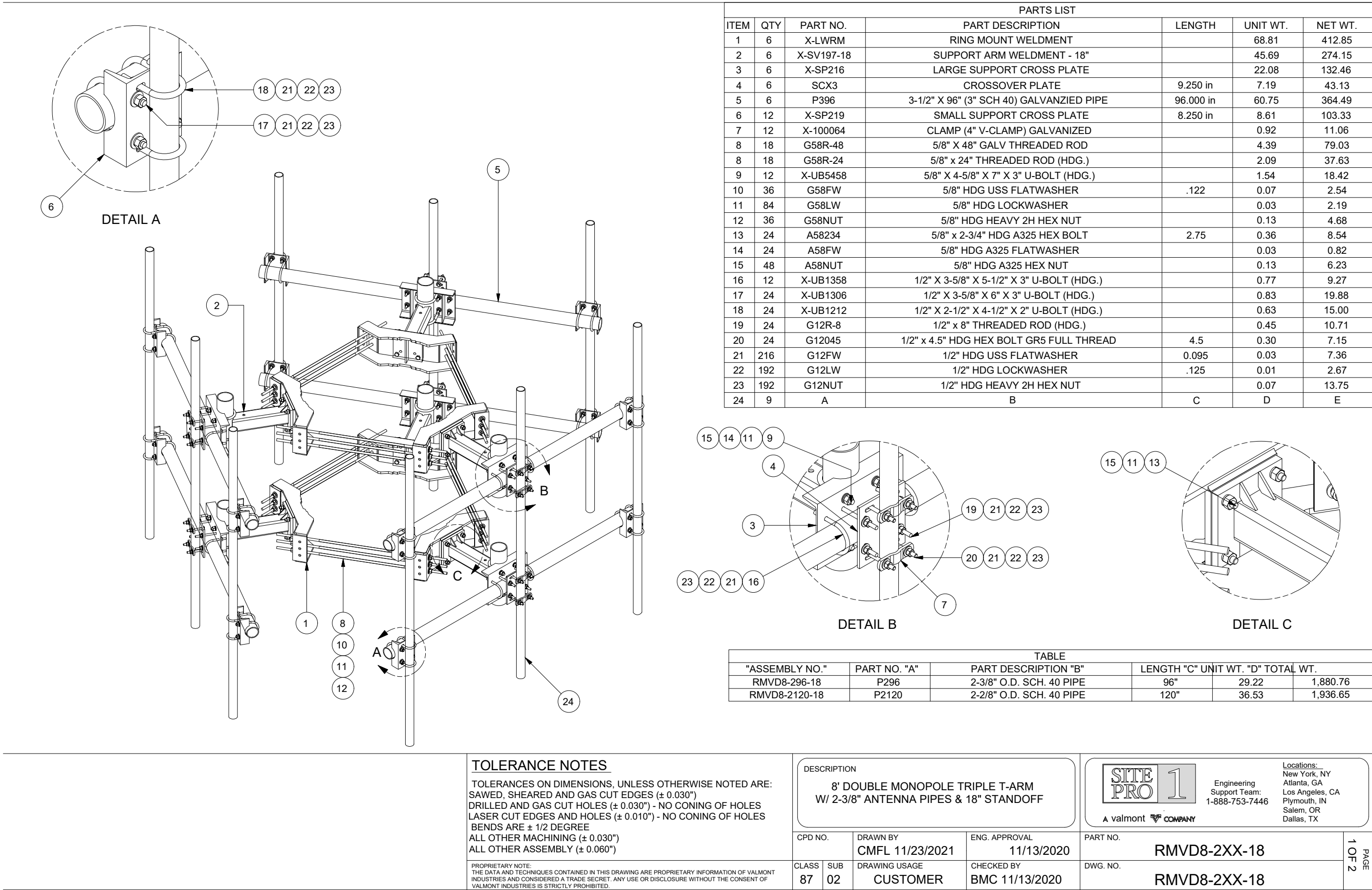
9 NOT USED  
N.T.S.

11 NOT USED  
N.T.S.

8 NOT USED  
N.T.S.

10 NOT USED  
N.T.S.

7 NOT USED  
N.T.S.



4 8' DOUBLE MONOPOLE TRIPLE ARM MOUNT, SITEPRO1 RMVD8-2120-18  
N.T.S.

AT&T  
5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

PM&A  
P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
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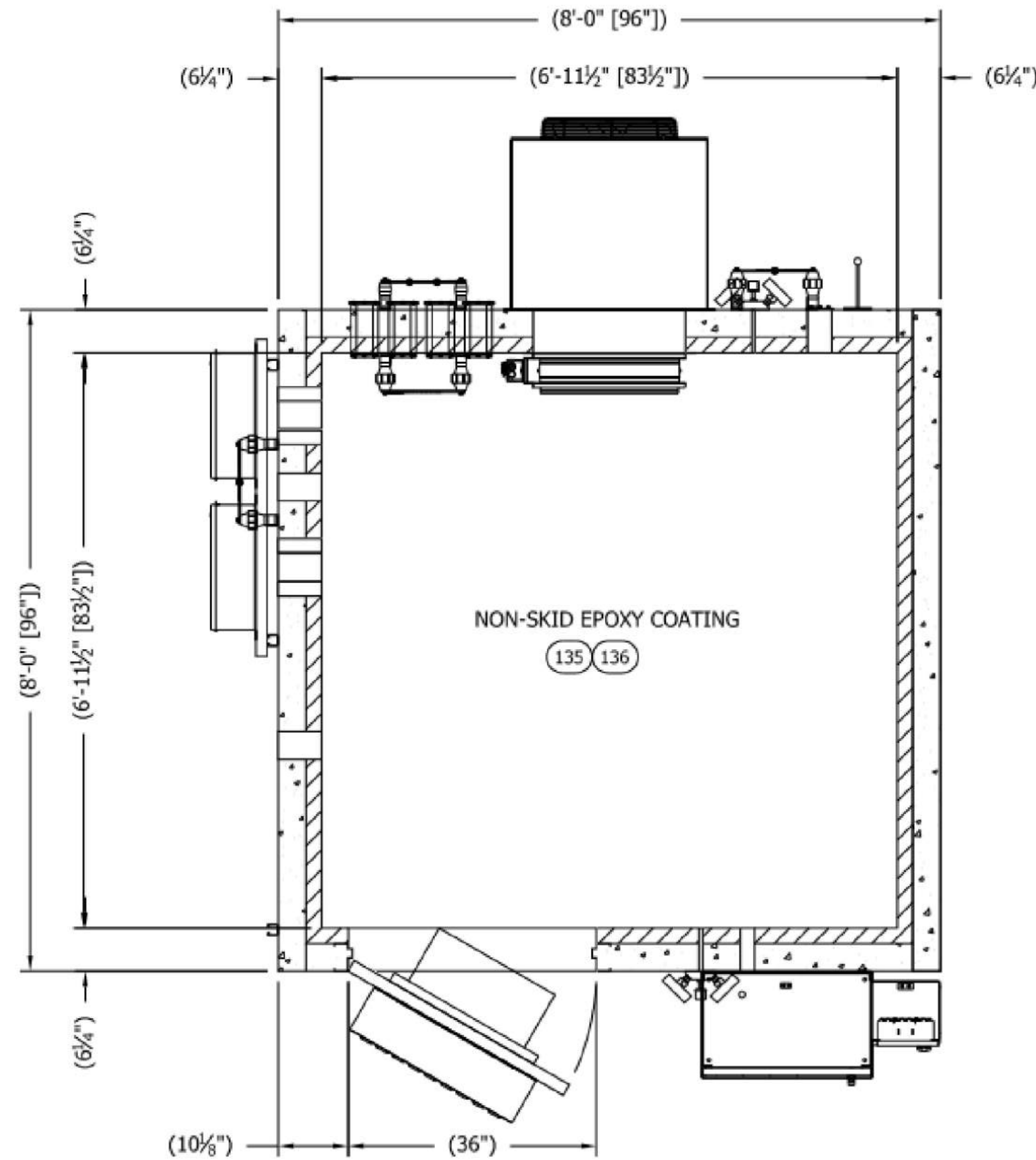
DETAILS



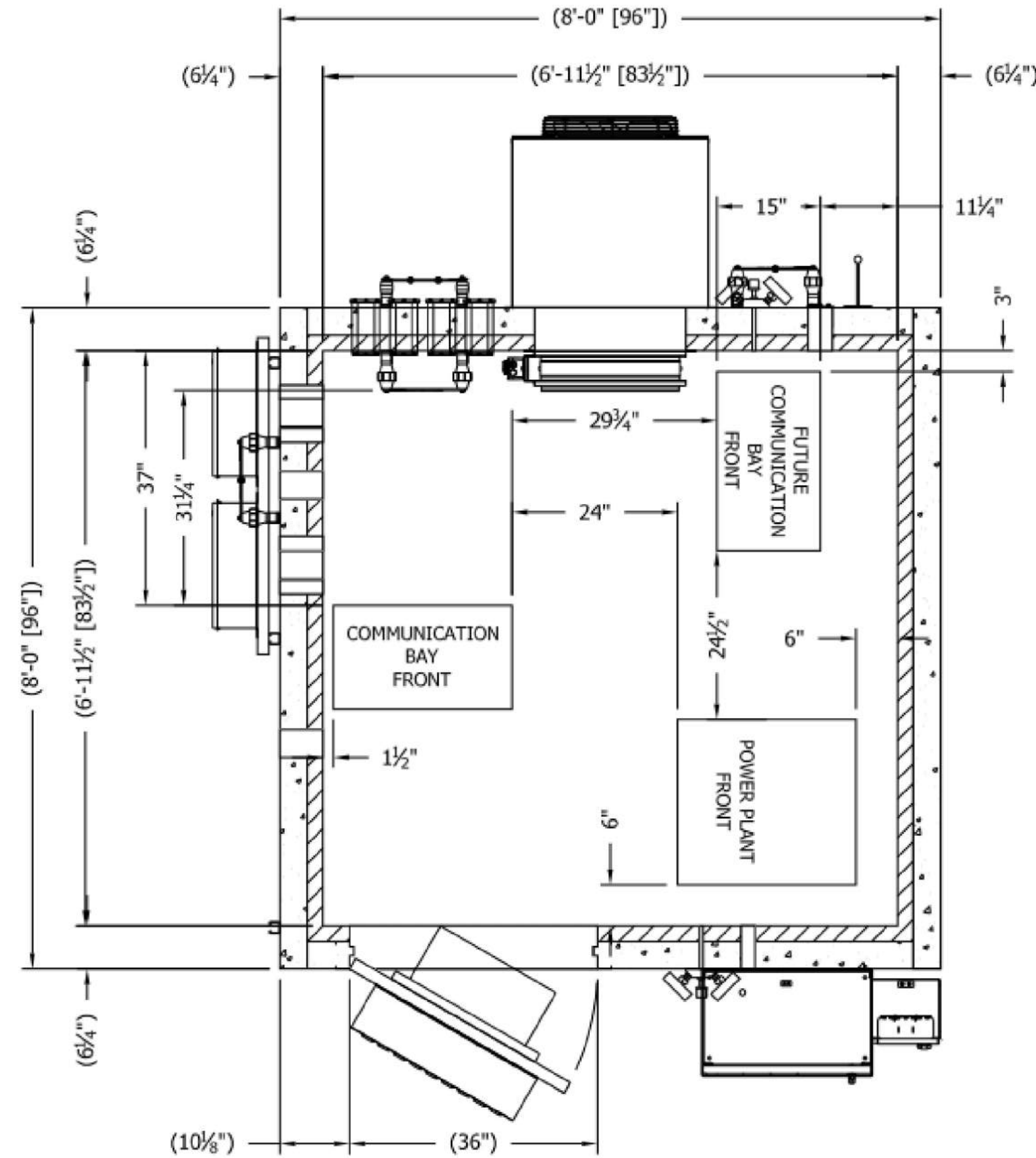


SHELTER BY CELLXION (SABRE)  
MODEL #: SATN70

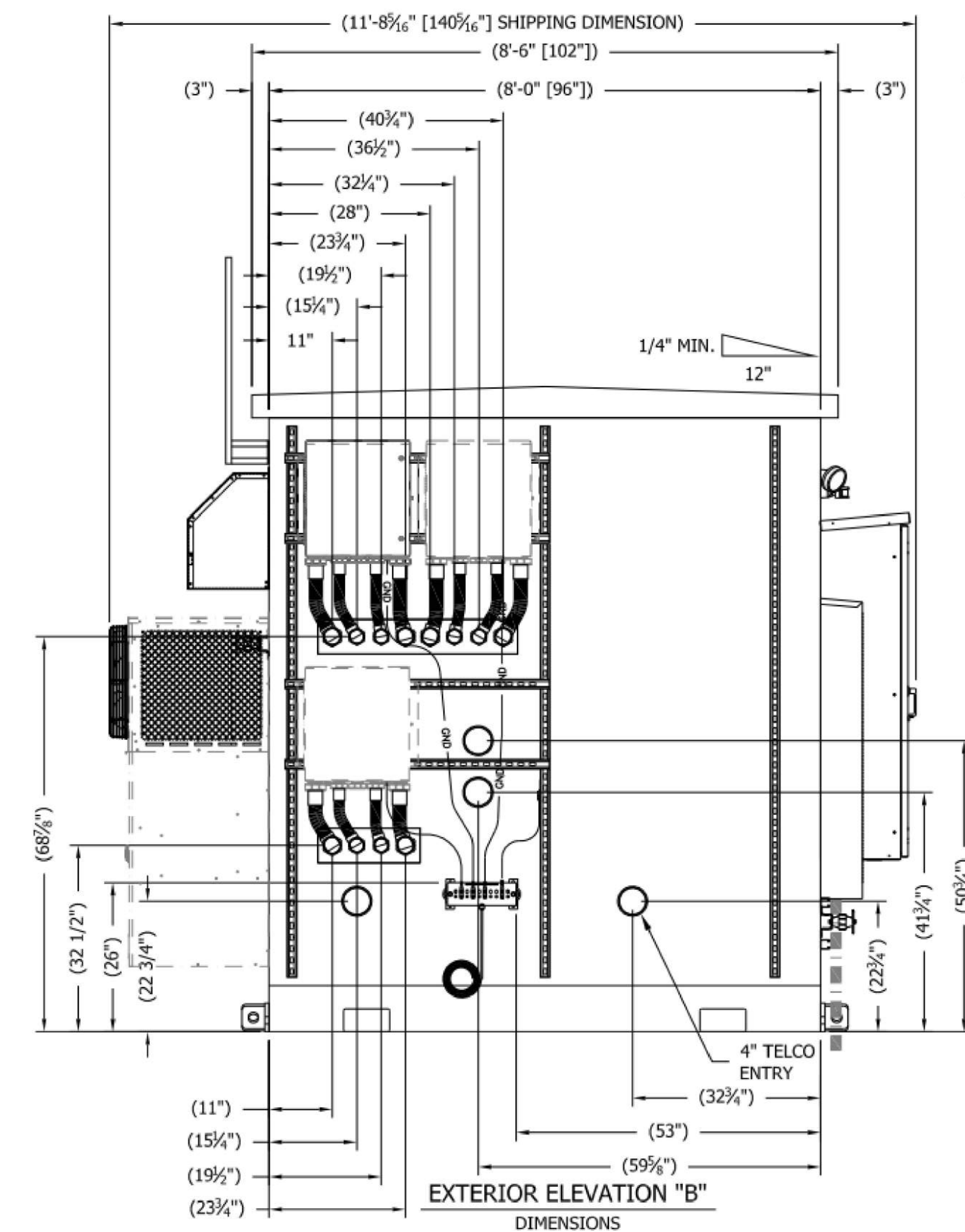
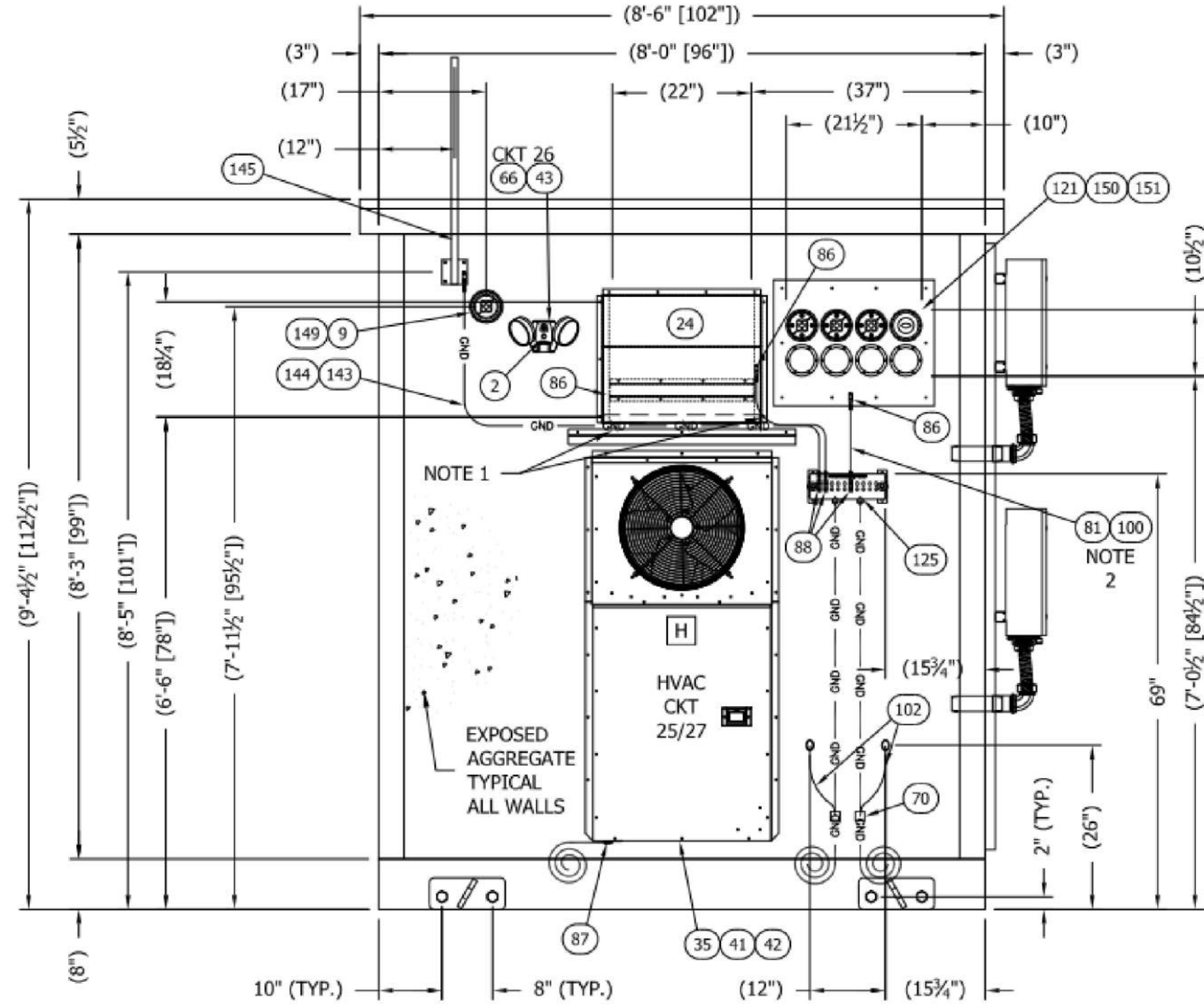
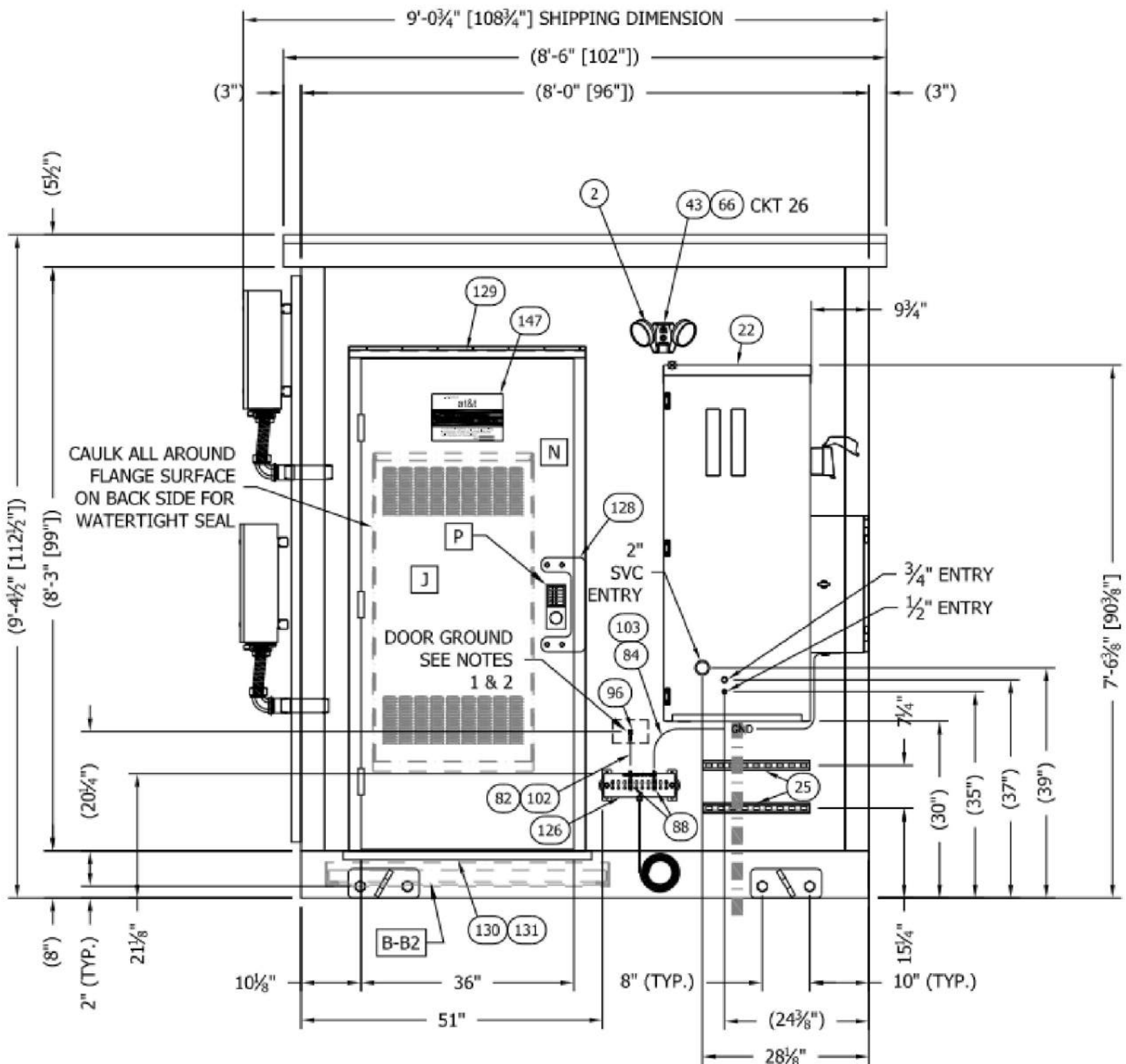
SHELTER DIMENSIONS: 8'-0"W X 8'-0"L  
SHIPPING DIMENSIONS: 10'-11 5/8"W X 9'-3/4"L X 9'-4 1/2"H - (Old Style HVAC)  
SHIPPING DIMENSIONS: 11'-8 5/16"W X 9'-3/4"L X 9'-4 1/2"H - (New Style HVAC)  
SHELTER WEIGHT (SHELTER ONLY): 21,500  
SHELTER WEIGHT (WITH EQUIPMENT): 25,500



FLOOR PLAN  
64.00 SQ. FT. EXTERIOR BUILDING AREA  
48.42 SQ. FT. INTERIOR BUILDING AREA



EQUIPMENT LAYOUT PLAN



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583



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DETAILS



12 NOT USED  
N.T.S.

9 NOT USED  
N.T.S.

6 FIRE DEPARTMENT NOTES  
N.T.S.

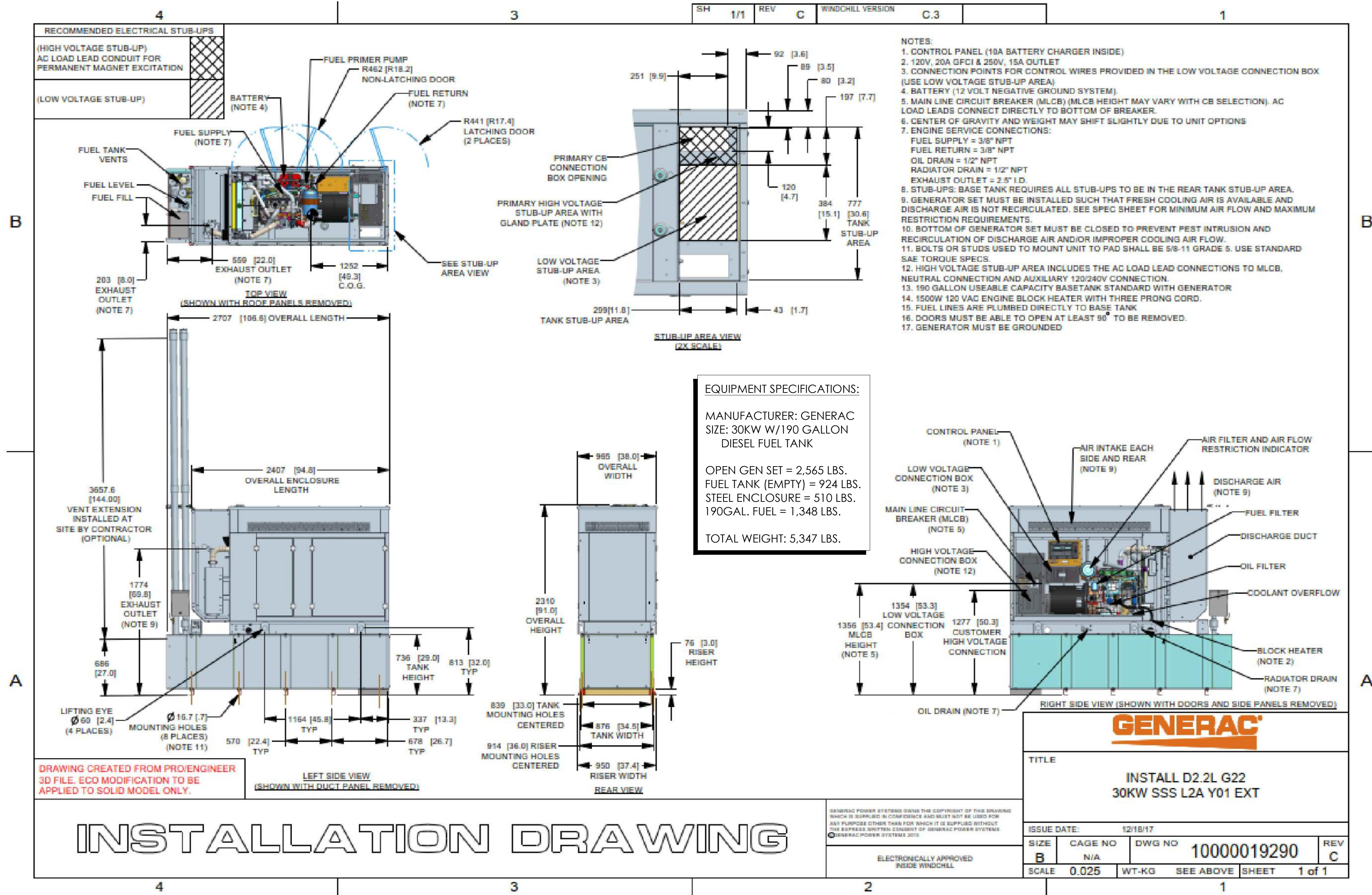
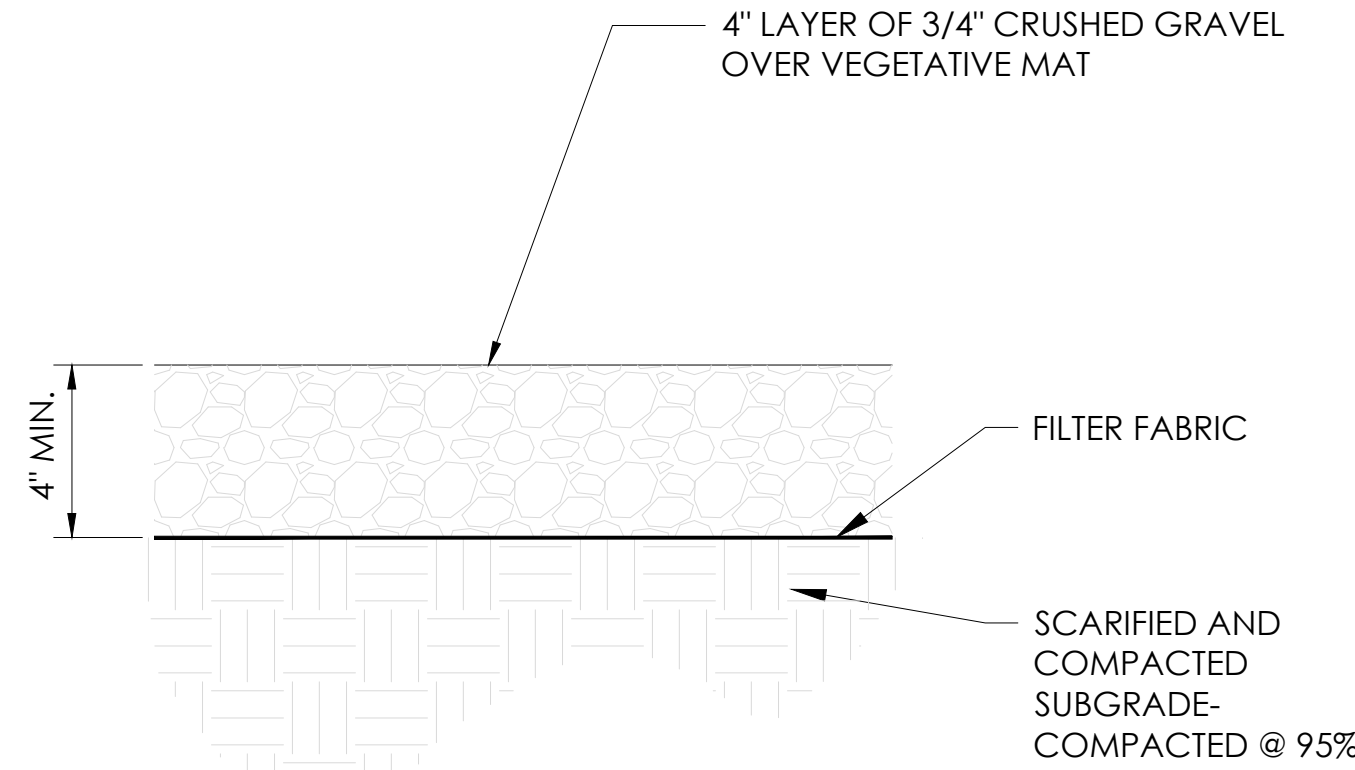
3 GRAVEL DETAIL  
N.T.S.

11 NOT USED  
N.T.S.

10 NOT USED  
N.T.S.

7 GENERATOR SPECIFICATIONS  
N.T.S.

- FIRE DEPARTMENT NOTES:
- ALL EXTERIOR EQUIPMENT SHALL BE PAINTED BEIGE.
  - A FIRE DEPARTMENT INSPECTION IS REQUIRED BEFORE THE FUEL CAN BE PLACED INTO THE TANK AND THE GENERATOR IS USED.
  - LABEL ABOVE ABOVE GROUND TANK ON BOTH SIDES AND OR TANK ENCLOSURE WITH "XX GALLONS DIESEL FUEL - COMBUSTIBLE LIQUID - NO SMOKING" OR PROVIDE SIGNAGE INDICATING THE SAME.
  - INSTALL HAZARD IDENTIFICATION SIGNS AS SPECIFIED IN NFPA 704 AT THE ENTRANCES TO LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED, AND ON STATIONARY ABOVE-GROUND TANKS.
  - ADDITIONAL PERMIT AND FEES REQUIRED FOR ABOVE GROUND STORAGE TANK



APPLICANT:



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:



P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY

1000 HOLCOMB WOODS PKWY. STE 210  
ROSSELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

CCL04383

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

DESIGN RECORD:

REV	DATE	DESCRIPTION	INT.	BH	SMR	SMR
A	09/24/24	ISSUED FOR 90% CDS				
B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				

PROFESSIONAL STAMP:



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EXPIRES: 2025/09/30

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SHEET TITLE:

D-9

SHEET NAME:

DETAILS



STRUCTURAL NOTES

A. STRUCTURAL DESIGN CRITERIA

1.

THE STRUCTURAL DESIGN HAS BEEN PERFORMED IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE (BUILDING CODE).
2.

WIND DESIGN DATA

ULTIMATE WIND SPEED

RISK CATEGORY

EXPOSURE CATEGORY

V = 93 mph

II

C
3.

SEISMIC DESIGN DATA

RISK CATEGORY

SEISMIC IMPORTANCE FACTOR

MAPPED SPECTRAL ACCELERATION

MAPPED SPECTRAL ACCELERATION

SITE CLASS

DESIGN SPECTRAL ACCELERATION

DESIGN SPECTRAL ACCELERATION

SEISMIC DESIGN CATEGORY

II

I<sub>E</sub> = 1.0

S<sub>S</sub> = 2.06

S<sub>1</sub> = 0.676

D

S<sub>DS</sub> = 1.648

S<sub>01</sub> = 0.766

D1

B. GENERAL

1.

SPECIFIC NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
2.

STRUCTURAL DRAWINGS SHALL NOT BE SCALED. COORDINATE DIMENSION, ELEVATION, SLOPE, AND DRAINAGE REQUIREMENTS WITH THE ARCHITECTURAL DRAWINGS.
3.

STANDARDS REFERENCED ON THE STRUCTURAL DRAWINGS REFER TO THE EDITION APPLICABLE UNDER THE APPLICABLE BUILDING CODE.
4.

THE RESPONSIBILITY FOR THE REVIEW AND COORDINATION OF DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF RELATED CONSTRUCTION SHALL BEAR ON THE CONTRACTOR. DISCREPANCIES THAT EXIST SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER, PRIOR TO START OF RELATED CONSTRUCTION.
5.

WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
6.

EXISTING CONDITIONS SHALL BE VERIFIED BEFORE STARTING RELATED WORK. EXISTING CONDITIONS THAT ARE NOT REFLECTED ON THE STRUCTURAL DRAWINGS OR THAT DEVIATE FROM THE MAXIMUM OR MINIMUM DIMENSIONS INDICATED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN A TIMELY MANNER. SUCH CONDITIONS MAY INCLUDE CONFLICT IN GRADES, ADVERSE SOIL CONDITIONS, PRESENCE OF GROUND WATER, UNCOVERED OR UNEXPECTED EXISTING CONSTRUCTION CONFIGURATIONS, ETC.
7.

MATERIALS AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF APPLICABLE REGULATIONS AND THE BUILDING CODE AS AMENDED AND ADOPTED BY THE BUILDING OFFICIAL.
8.

LOADS TO THE BUILDING AND/OR EXISTING STRUCTURES EXCEEDING THE LOADS INDICATED ON THE PLANS, OR ANY LOADS EXCEEDING 400 POUNDS THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO THE ENGINEER.

C. TEMPORARY WORK AND SITE SAFETY

1.

THE STRUCTURAL DRAWINGS SHOW THE REQUIREMENTS FOR THE COMPLETED STRUCTURE ONLY. TEMPORARY WORKS REQUIRED TO COMPLETE THE CONSTRUCTION PROCESS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE DESIGN OR FIELD VERIFICATION OF TEMPORARY AND ANCILLARY WORK.
2.

THE RESPONSIBILITY FOR SAFETY IN AND AROUND THE JOBSITE SHALL BEAR ON THE CONTRACTOR. PROPER AND SAFE METHODS OF CONSTRUCTION SHALL BE EMPLOYED AT ALL TIMES INCLUDING THE STABILIZING OF INCOMPLETE STRUCTURES, FORMWORK, SHORING, RESHORING, FALSEWORK, PLATFORMS, SCAFFOLDING, BARRIERS, WALKWAYS, ETC. AND INCLUDING CONTROL OF THE INTENSITY, DURATION AND LOCATION OF CONSTRUCTION LOADS.
3.

THE RESPONSIBILITY FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, UNDERPINNING, AND SHORING REQUIRED TO SAFELY RETAIN ALL GRADES AND STRUCTURES SHALL BEAR ON THE CONTRACTOR.
4.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON A STRUCTURE. LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD INDICATED. WHERE THE STRUCTURE HAS NOT ATTAINED FINAL DESIGN STRENGTH, ADEQUATE SHORING AND OR BRACING SHALL BE INSTALLED.

D. FOUNDATIONS

1.

A SOILS REPORT WAS NOT MADE AVAILABLE FOR THIS PROJECT.
2.

THE ENGINEER OF RECORD HAS CLASSIFIED THE UNDISTURBED NATIVE SOILS TO BE CLASS 5 MATERIAL. IN ACCORDANCE WITH TABLE 1806.2 OF THE BUILDING CODE, AN ALLOWABLE FOUNDATION BEARING PRESSURE OF 1,500 psf HAS BEEN ASSIGNED FOR THE DESIGN OF FOUNDATIONS RELATED TO THIS PROJECT.
3.

IF THE BUILDING OFFICIAL OR CONTRACTOR SUSPECTS FILL MATERIAL, EXPANSIVE SOIL OR GEOLOGIC INSTABILITY UPON OBSERVATION OF THE FOUNDATION EXCAVATIONS, A GEOLOGICAL INVESTIGATION REPORT AND CONSTRUCTION DRAWINGS THAT ARE COMPLIANT WITH THE RECOMMENDATIONS OF THAT GEOLOGICAL INVESTIGATION REPORT MAY BE REQUIRED TO BE SUBMITTED FOR REVIEW BY THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION OF THE FOUNDATIONS.

E. REINFORCING STEEL

1.

DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS SHALL BE PERFORMED IN ACCORDANCE WITH ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."
2.

REINFORCING BARS SHALL CONFORM TO ASTM A 615, GRADE 60, U.O.N.
3.

U.N.O., REINFORCING BAR LAP SPLICES SHALL BE:

NW & LW CONCRETE

CLASS B (18" MIN)

MASONRY (CMU)

64 BAR DIA. (24" MIN)
4.

DETAILS OF REINFORCEMENT SHALL COMPLY WITH THE PROVISIONS OF ACI 318.
5.

WHERE HOOKS ARE ILLUSTRATED AS 90-DEGREE HOOKS, 180-DEGREE HOOKS MAY BE USED IN LIEU OF 90-DEGREE HOOKS.
6.

REINFORCING BARS FOR CONCRETE SHALL BE PROVIDED WITH THE FOLLOWING MINIMUM COVER:

CONCRETE CAST AGAINST EARTH

FORMED CONCRETE EXPOSED TO EARTH / WEATHER

#5 OR SMALLER

#6 OR LARGER

SLABS (#11 AND SMALLER)

3"

1 1/2"

2"

3/4"
7.

VERTICAL WALL BARS SHALL BE ACCURATELY POSITIONED AND SECURED AT THE CENTER OF THE WALL, U.N.O.

F. REINFORCED CONCRETE

1.

CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE BUILDING CODE AND TO THE PROVISIONS OF ACI 318.
2.

THE STRUCTURAL DESIGN OF FOOTINGS SHOWN ON THESE DRAWINGS IS BASED ON A SPECIFIED COMPRESSIVE STRENGTH, f'<sub>c</sub>, NOT MORE THAN 2,500 psi.
3.

WATER MAY BE ADDED TO CONCRETE ON-SITE TO OBTAIN SPECIFIED SLUMPS PROVIDED THAT IT IS ADDED WITHIN ONE HOUR OF BATCHING AND SITE-ADDED WATER IS SPECIFIED ON THE BATCH REPORT. SITE-ADDED WATER SHALL NOT COMPROMISE THE STRENGTH OR SLUMP OF THE CONCRETE.
4.

CONCRETE SHALL NOT BE PLACED BEYOND 1-1/2 HOURS FOLLOWING BATCHING.
5.

PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER U.O.N.
6.

WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACES SHALL BE THOROUGHLY CLEANED AND ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4-INCH. A CONCRETE BONDING AGENT SHALL BE APPLIED TO THE EXISTING CONCRETE SURFACE.
7.

READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C 94.
8.

CEMENT SHALL CONFORM TO ASTM C 150 TYPE I OR II, LOW ALKALI.
9.

FLYASH SHALL CONFORM TO ASTM C 618, CLASS F. FLYASH SHALL BE LIMITED TO NO MORE THAN 20% OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS IN THE CONCRETE, U.O.N.
10.

AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33.
11.

NORMAL WEIGHT CONCRETE SHALL HAVE A MAXIMUM DRY DENSITY OF 150 pcf.
12.

MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS, MAXIMUM SLUMPS, AND MAXIMUM WATER/CEMENT RATIOS SHALL BE AS FOLLOWS:

DESCRIPTION	MIN 28 DAY f' <sub>c</sub>	SLUMP	MAX W/C RATIO
SHALLOW FOUNDATIONS	3,500 psi	4" +/- 1"	0.52
SLABS ON GRADE	3,000 psi	4" +/- 1"	0.45
13.

SLUMPS INDICATED ARE PRIOR TO PLASTICIZER ADDITIVES.
14.

CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.

G. POST-INSTALLED EXPANSION ANCHORS

1.

SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704 AND 1705 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.
2.

POST-INSTALLED EXPANSION ANCHORS SHALL BE AS FOLLOWS, U.N.O.

MATERIAL	ANCHOR
NW & LW CONCRETE	HILTI KB-TZ2 (ESR-4266)
SOLID GROUTED CMU	HILTI KB-TZ2 (ESR-4561)
3.

ANCHORS SHALL BE OF THE TYPE, DIAMETER, AND MINIMUM DIMENSIONAL REQUIREMENTS (EMBEDMENT, SPACING, AND EDGE DISTANCE) AS INDICATED ON THE DRAWINGS.
4.

ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH DRILLING EQUIPMENT OF THE TYPE REQUIRED IN THE MANUFACTURER'S PUBLISHED EVALUATION REPORT. HOLES SHALL BE CLEANED IN CONFORMANCE WITH THE ANCHOR MANUFACTURER'S INSTRUCTIONS.
5.

WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE OR MASONRY, AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.
6.

WHEN INSTALLING ANCHORS INTO PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. AVOID CUTTING OR DAMAGING THE TENDONS.

H. POST-INSTALLED ADHESIVE ANCHORS

1.

SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704 AND 1705 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.
2.

ADHESIVE ANCHOR INSTALLERS SHALL BE TRAINED BY A QUALIFIED REPRESENTATIVE OF THE ADHESIVE MANUFACTURER ON THE PROPER PROCEDURES AND TECHNIQUES FOR INSTALLATION.
3.

ADHESIVE SHALL BE STORED ON THE JOBSITE IN A COOL, DRY LOCATION IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.
4.

ADHESIVE ANCHORS SHALL NOT BE USED FOR OVERHEAD INSTALLATION.
5.

POST-INSTALLED ADHESIVE ANCHORS SHALL BE AS FOLLOWS, U.N.O.

MATERIAL	ANCHOR
NW & LW CONCRETE	HILTI HIT-HY 200 V3 (ESR-4868)
SOLID GROUTED CMU	HILTI HIT-HY 270 (ESR-4143)
6.

THREADED RODS FOR ADHESIVE ANCHORS SHALL CONFORM TO ASTM F1554 GR 36, UNO. NUTS FOR ANCHOR RODS SHALL CONFORM TO ASTM A563, GR A HEX.
7.

ANCHORS SHALL BE OF THE TYPE, DIAMETER, AND MINIMUM DIMENSIONAL REQUIREMENTS (EMBEDMENT, SPACING, AND EDGE DISTANCE) AS INDICATED ON THE DRAWINGS.
8.

ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH DRILLING EQUIPMENT OF THE TYPE REQUIRED IN THE MANUFACTURER'S PUBLISHED EVALUATION REPORT. HOLES SHALL BE CLEANED IN CONFORMANCE WITH THE ANCHOR MANUFACTURER'S INSTRUCTIONS.
9.

WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE OR MASONRY, AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.
10.

WHEN INSTALLING ANCHORS INTO PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. AVOID CUTTING OR DAMAGING THE TENDONS.

STRUCTURAL ABBREVIATIONS

THE STRUCTURAL DRAWINGS MAY INCLUDE THE FOLLOWING STANDARD ABBREVIATIONS:

(E)	EXISTING
(N)	NEW
(P)	PROPOSED
BLDG	BUILDING
BM	BEAM
BOTT	BOTTOM
BRG	BEARING
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CTR	CENTER
DBL	DOUBLE
EA	EACH
EQUIP	EQUIPMENT
F.N.	FIELD NAILING
FRP	FIBER-REINFORCED POLYMER
FTG	FOOTING
GALV	GALVANIZED
GLB	GLULAM BEAM / MEMBER
HGR	HANGER
HORIZ	HORIZONTAL
HSS	HOLLOW STEEL SECTION
INT	INTERIOR
k	KIP(S) = 1,000 lb
lb	POUND(S)
MFR	MANUFACTURER
MTL	METAL
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND / MIRROR
OC	ON CENTER
PL	PLATE
psf	POUNDS PER SQUARE FOOT
P-T	POST-TENSIONED
REINF	REINFORCEMENT
PSL	PARALLEL STRAND LUMBER
REQ'D	REQUIRED
SHTG	SHEATHING
SMS	SHEET METAL SCREW
SQ	SQUARE
STIFF	STIFFENER
STL	STEEL
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
THK	THICK
TPL	TRIPLE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH

SPECIAL INSPECTION AND TESTING PROGRAM

A. GENERAL

1.

NOTICE TO THE APPLICANT, OWNER, OWNER'S AGENT, ARCHITECT OR ENGINEER OF RECORD: BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION OR INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY CONSTRUCTION CODES.
2.

NOTICE TO THE CONTRACTOR, BUILDER, INSTALLER, SUBCONTRACTOR OR OWNER-BUILDER: BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION OR INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE THAT YOU ARE AWARE OF THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS. YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY CONSTRUCTION CODES.
3.

THE OWNER OR OWNER'S AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY SPECIAL INSPECTION AND TESTING AGENCIES TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS.
4.

SPECIAL INSPECTION SHALL BE PERFORMED IN ADDITION TO INSPECTION BY THE BUILDING OFFICIAL AS REQUIRED IN SECTION 110 OF THE BUILDING CODE. SPECIAL INSPECTION SHALL NOT BE A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL.
5.

WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION OR TESTING IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE OBSERVED IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS AND SECTION 1704 OF THE BUILDING CODE, IT SHALL BE THE SPECIAL INSPECTION AGENCY'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT THE REQUIRED WORK IS INSPECTED.
6.

THE SPECIAL INSPECTION AGENCY SHALL BE APPROVED BY THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. EXCEPTIONS:

A.

WHEN THIS REQUIREMENT FOR AGENCY APPROVAL IS WAIVED BY THE BUILDING OFFICIAL.
7.

THE CONSTRUCTION MATERIALS TESTING AGENCY SHALL BE APPROVED BY THE BUILDING OFFICIAL FOR THE TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENT.
8.

PRIOR TO THE START OF CONSTRUCTION, THE SPECIAL INSPECTION AND TESTING AGENCIES SHALL SUBMIT DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION.
9.

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A STATEMENT OF RESPONSIBILITY TO THE OWNER (OR OWNER'S DESIGNATED AGENT) AND BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND TESTING.
10.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTION OR TESTING AGENCIES AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
11.

WORK REQUIRING SPECIAL INSPECTION OR TESTING THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL OR EXPOSURE AT THE CONTRACTOR'S EXPENSE.

B. REQUIRED REPORTS:

1.

THE SPECIAL INSPECTION AGENCY SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
2.

SPECIAL INSPECTION REPORTS SHALL INDICATE WHETHER THE WORK INSPECTED WAS, OR WAS NOT PERFORMED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
3.

THE CONSTRUCTION MATERIALS TESTING AGENCY SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
4.

MATERIAL TESTING REPORTS SHALL INDICATE WHETHER THE TESTED MATERIALS CONFORM, OR DO NOT CONFORM, TO THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS.
5.

DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
6.

IF DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK.
7.

A FINAL REPORT DOCUMENTING THE REQUIRED SPECIAL INSPECTIONS, MATERIAL TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON, PRIOR TO THE START OF WORK, BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL.

C. CONTINUOUS AND PERIODIC SPECIAL INSPECTIONS:

1.

WHERE CONTINUOUS SPECIAL INSPECTION IS REQUIRED, THE SPECIAL INSPECTOR SHALL CONTINUOUSLY PROVIDE FULL-TIME INSPECTION OF THE WORK.
2.

WHERE PERIODIC SPECIAL INSPECTION IS REQUIRED, THE SPECIAL INSPECTOR NEED NOT BE CONTINUOUSLY PRESENT DURING THE WORK WHERE PERIODIC INSPECTION IS INDICATED. AS A MINIMUM, PERIODIC SPECIAL INSPECTION SHALL OCCUR DAILY.
- D. OFF-SITE FABRICATION:
1.

SPECIAL INSPECTION AND TESTING IS REQUIRED FOR THE OFF-SITE FABRICATION OF STRUCTURAL LOAD-BEARING OR LATERAL LOAD RESISTING MEMBERS AND REINFORCING ASSEMBLIES, UNLESS THE FABRICATION IS PERFORMED BY AN APPROVED FABRICATOR.
2.

AN APPLICATION FOR OFF-SITE FABRICATION MUST BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO COMMENCING ANY FABRICATION WORK REQUIRING SPECIAL INSPECTION OR TESTING.
3.

A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE SUBMITTED BY THE FABRICATOR TO THE SPECIAL INSPECTION OR TESTING AGENCY PRIOR TO FABRICATION, AND SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.
4.

SPECIAL INSPECTION SHALL INCLUDE VERIFICATION THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.
5.

SPECIAL INSPECTION SHALL INCLUDE REVIEW OF THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE REQUIREMENTS OF THE BUILDING CODE.

STATEMENT OF SPECIAL INSPECTIONS AND TESTING




DESCRIPTION OF TYPE OF INSPECTION REQUIRED	CONTINUOUS	PERIODIC	FOOTNOTE
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POST-INSTALLED ANCHORS			
INSTALLATION OF EXPANSION ANCHORS		X	1
JOBSITE STORAGE OF ADHESIVE PRIOR TO INSTALLATION FOR CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS		X	1
INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTALLY OR UPWARDLY-INCLINED ORIENTATIONS	X		1
INSTALLATION OF ADHESIVE ANCHORS IN DOWNWARD VERTICAL ORIENTATIONS		X	1

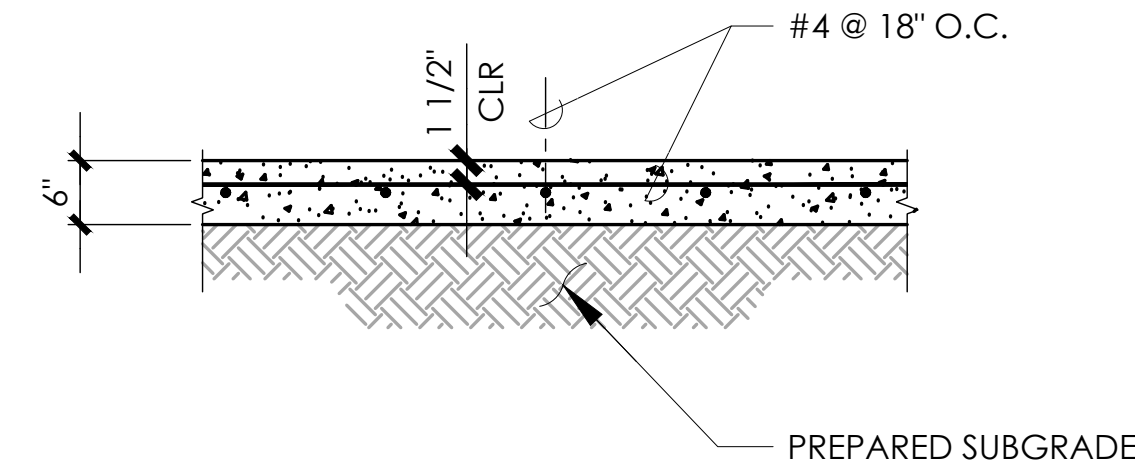
FOOTNOTES FOR STATEMENT OF SPECIAL INSPECTIONS

1.

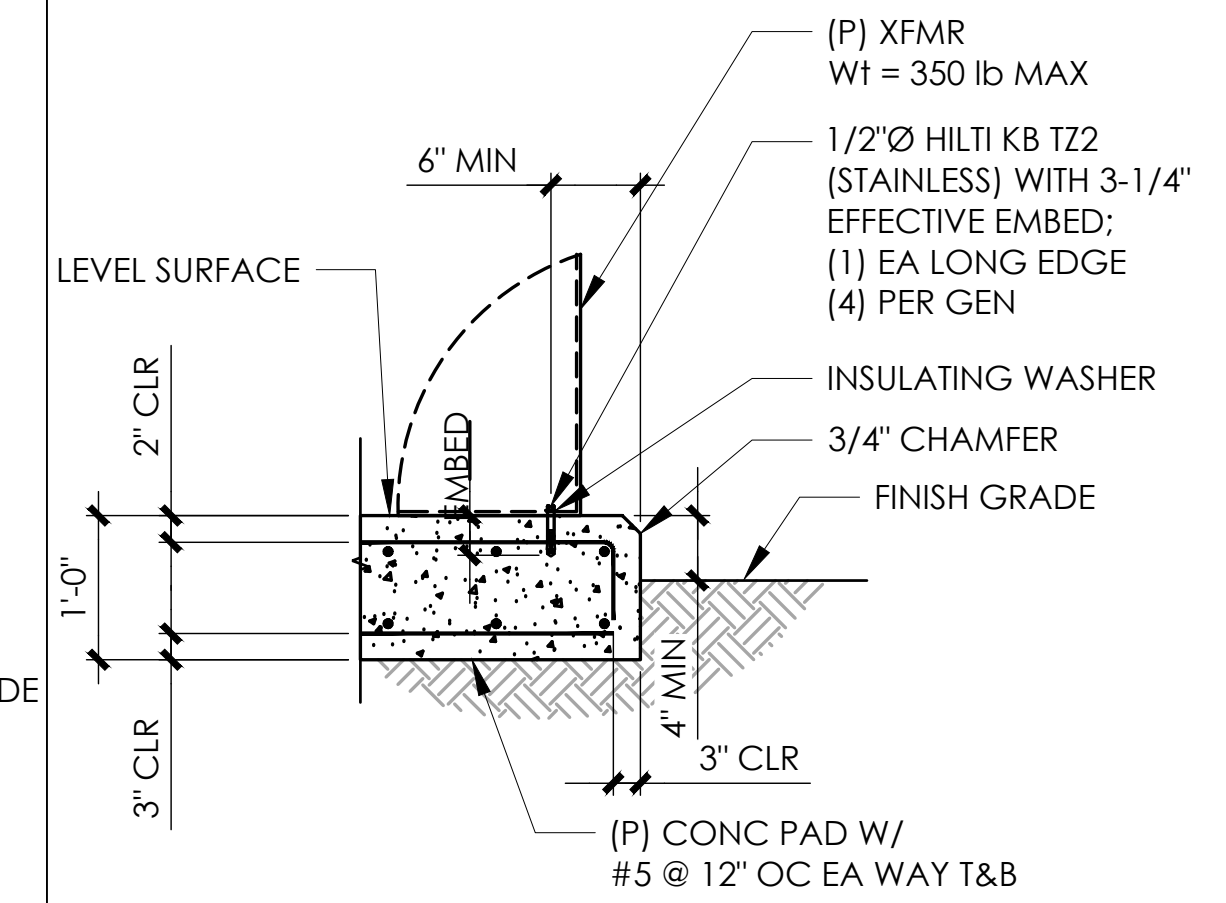
SPECIAL INSPECTION FOR POST-INSTALLED ANCHORS SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED IN THE EVALUATION APPROVAL FOR THE SPECIFIC PRODUCT.

APPLICANT:	<div><div>5005 EXECUTIVE PARKWAY SAN RAMON, CA 94583</div></div>																																																																												
VENDOR:	<div><div><b>P. MARSHALL &amp; ASSOCIATES</b> A CENTERLINE COMMUNICATIONS COMPANY 1000 HOLCOMB WOODS PKWY., STE. 210 ROSOWELL, GA. 30076 OFFICE (678) 280-2325</div></div>																																																																												
SITE INFORMATION:	<div><b>CCL04383</b><div>5707 HIGHLAND ROAD</div><div>5707 HIGHLAND ROAD SAN RAMON, CA 94583</div></div>																																																																												
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PROFESSIONAL STAMP:	<div><div>SIGNED: 2024/11/11 EXPIRES: 2025/09/30</div><div>It is a violation of law for any persons, unless they are acting under the direction of a licensed professional engineer, to alter this document</div></div>																																																																												
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SHEET NAME:	<div>STRUCTURAL NOTES</div>																																																																												





TYPICAL SLAB ON GRADE  
N.T.S.



EQUIPMENT ANCHORAGE TO NEW CONCRETE PAD  
N.T.S.

APPLICANT:



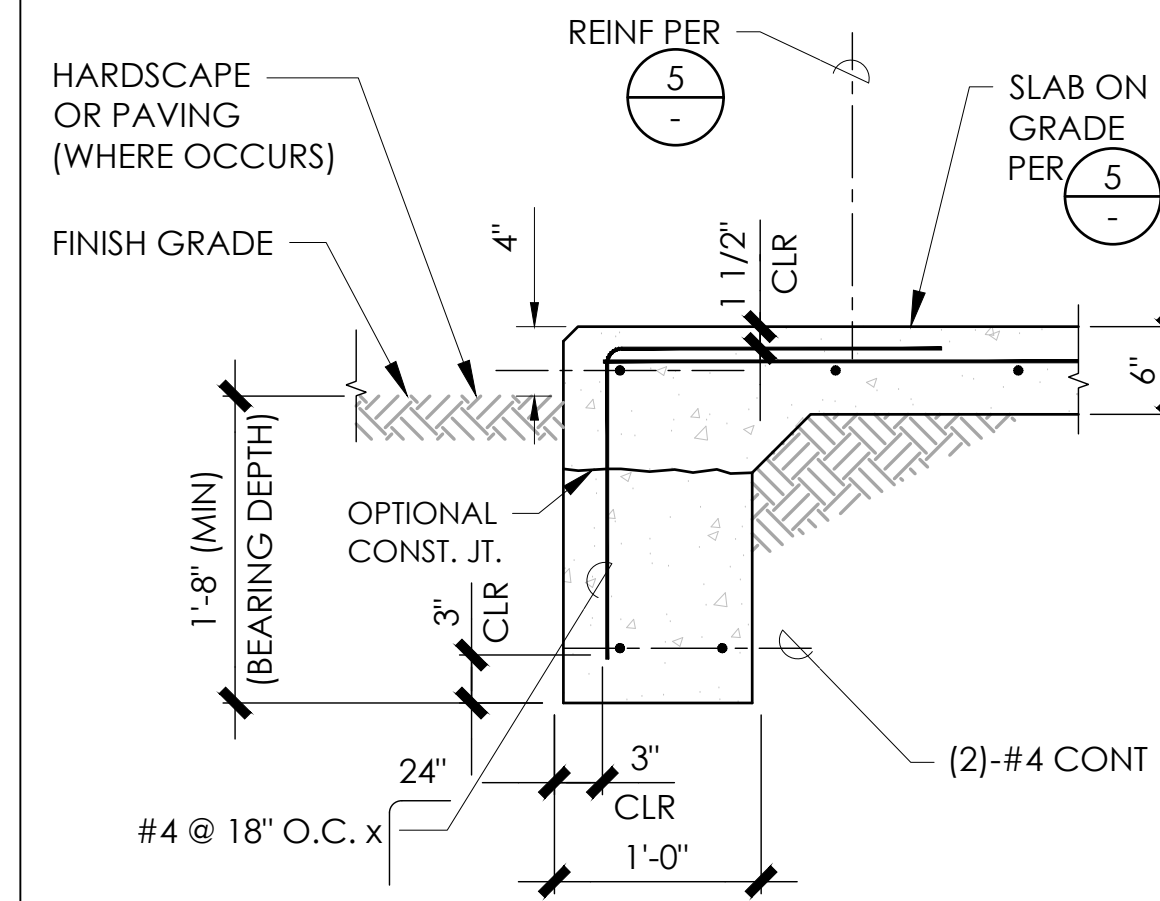
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SAN RAMON, CA 94583

**PMA**  
**P. MARSHALL & ASSOCIATES**  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY. STE 210  
ROSWELL, GA 30076  
OFFICE: (678) 280-2325

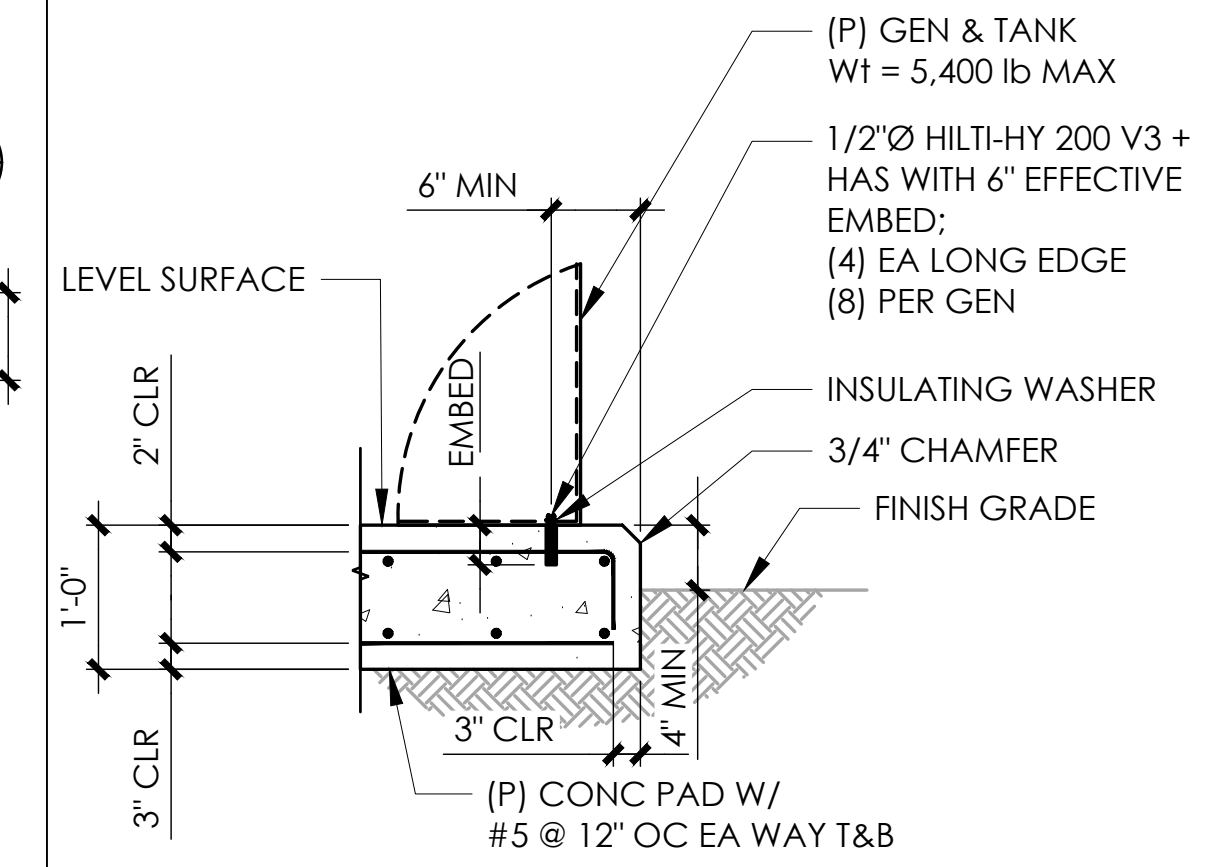
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5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

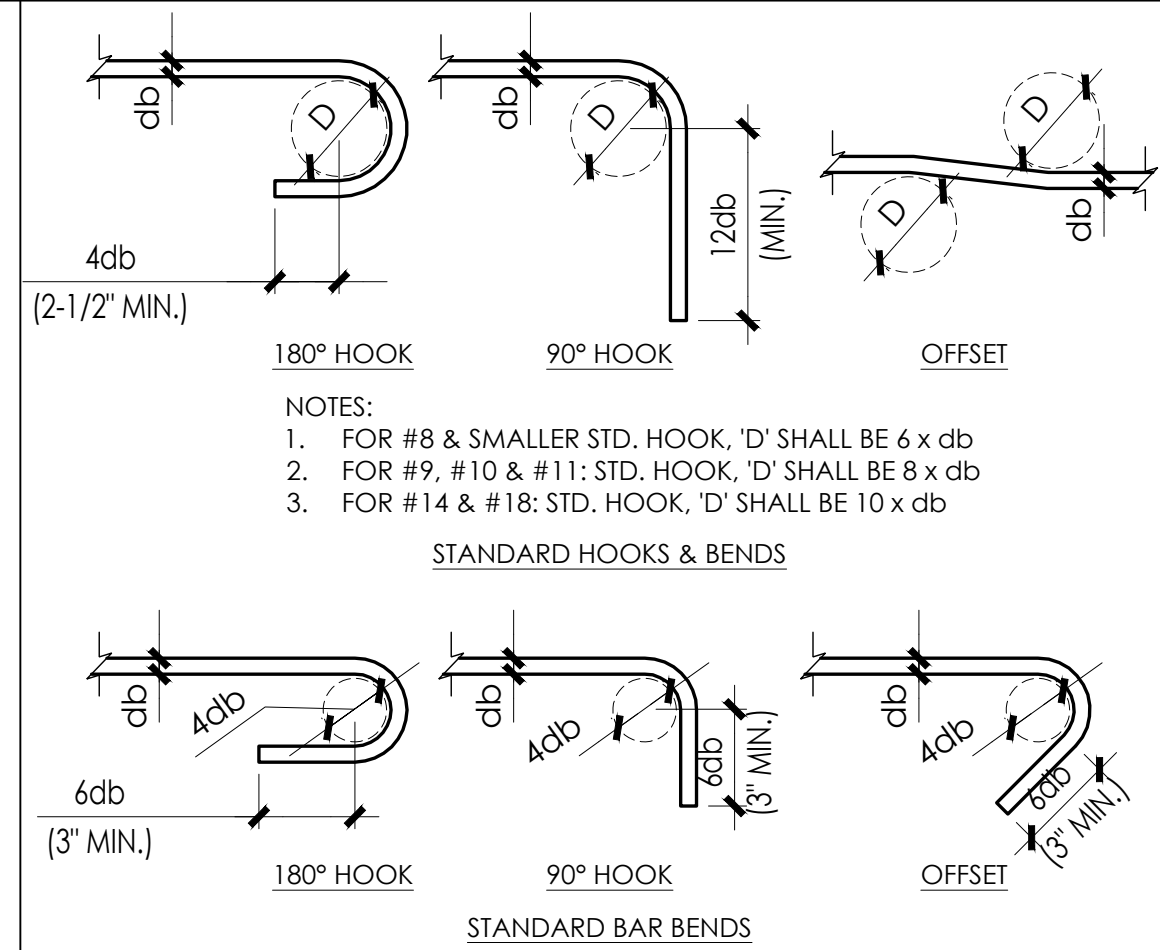


TYPICAL SLAB-ON-GRADE EDGE  
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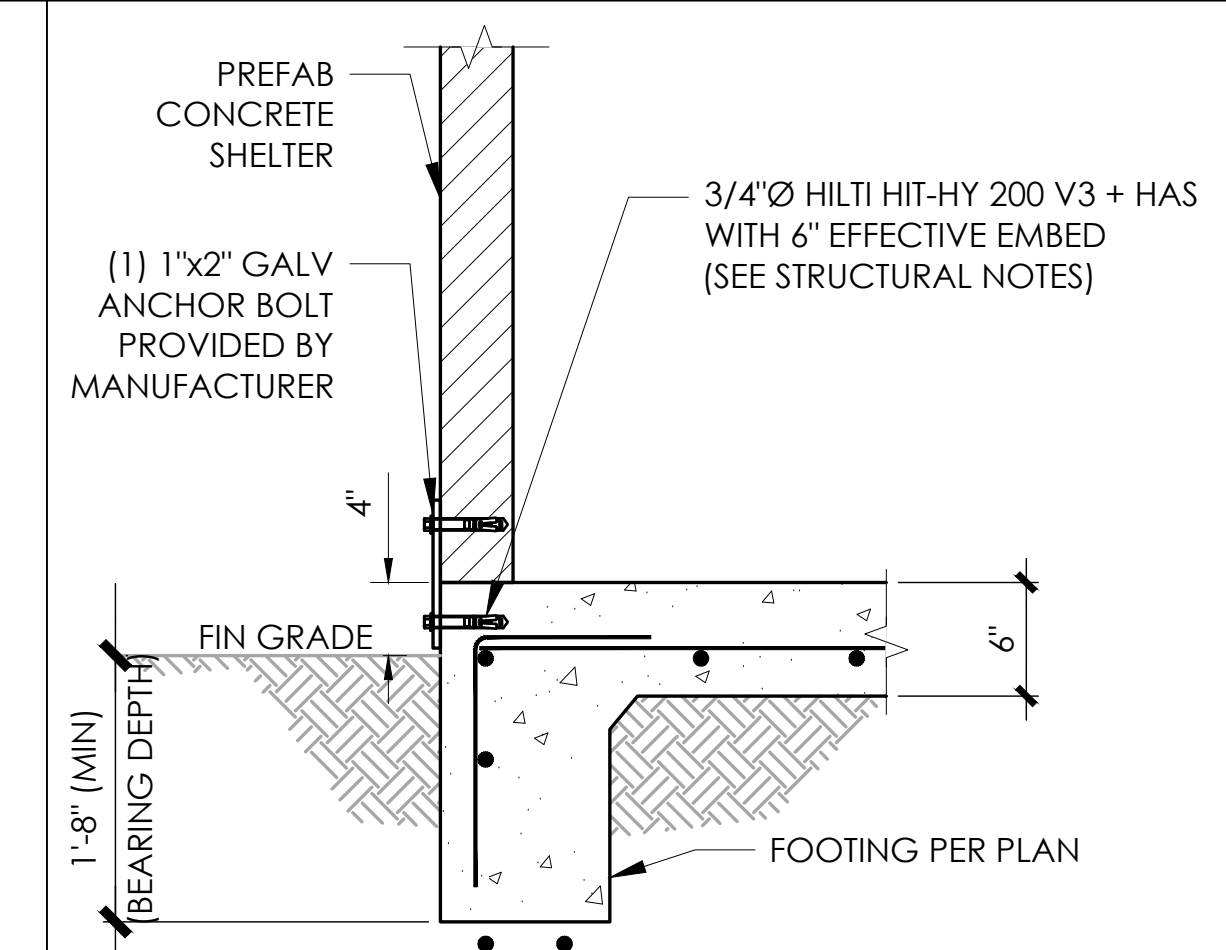


GENERATOR ANCHORAGE TO NEW CONCRETE PAD  
N.T.S.

REV	DATE	DESCRIPTION	INTL.
A	09/24/24	ISSUED FOR 95%CD'S	BH
B	10/30/24	ISSUED FOR 95%CD'S	SWR
O	11/11/24	ISSUED FOR 100%CD'S	SWR



TYPICAL BAR ENDS  
N.T.S.



SHELTER ANCHORAGE TO NEW CONCRETE PAD  
N.T.S.

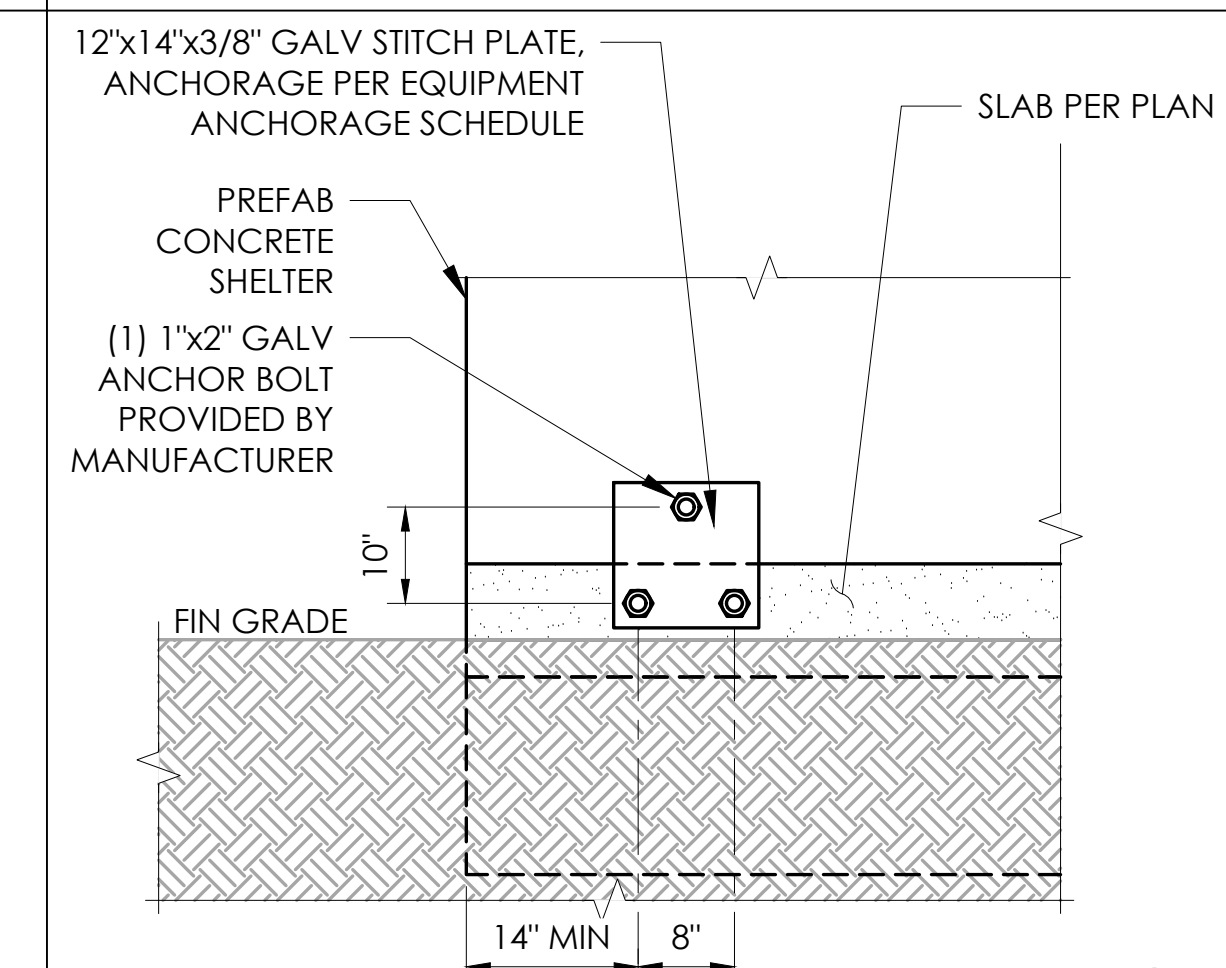


SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

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## STRUCTURAL DETAILS

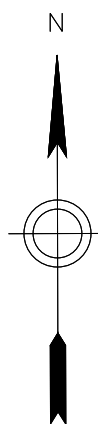
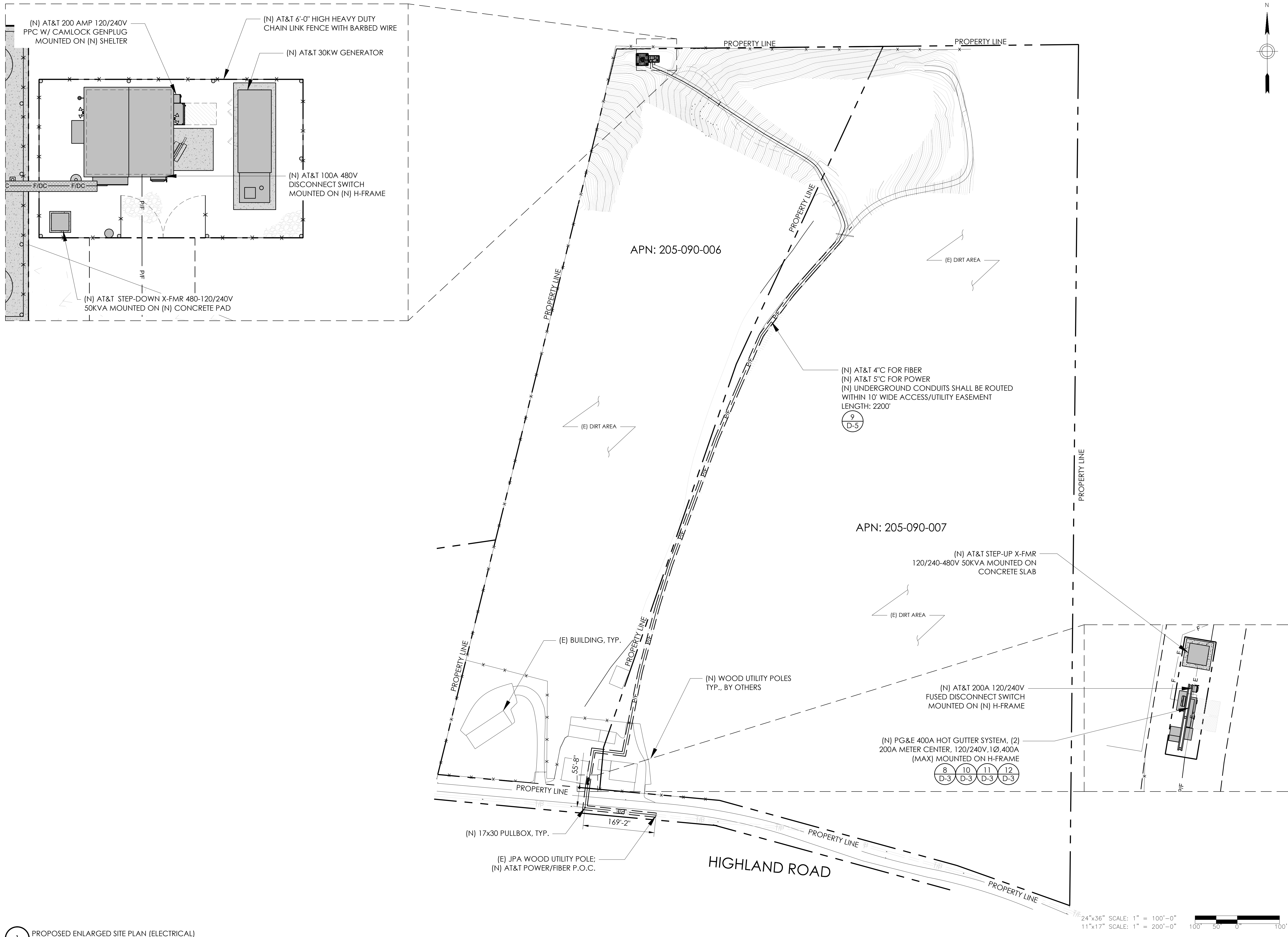


SHELTER ANCHORAGE TO NEW CONCRETE PAD  
N.T.S.



<div>ELECTRICAL INSTALLATION METHODS:</div> <div><div><div>1. THIS INSTALLATION SHALL COMPLY WITH THE CURRENTLY ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND WITH UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.</div><div>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.</div><div>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.</div><div>4. CUT, COIL AND TAPE A 3 FOOT PIGTAIL FROM END OF LFMC FOR TERMINATING BY BTS EQUIPMENT MANUFACTURER.</div><div>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.</div><div>6. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS OR BELOW GRADE SHALL BE SINGLE CONDUCTOR #2 AWG SOLID, TINNED, COPPER CABLE.</div><div>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.</div><div>8. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.</div><div>9. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.</div><div>10. NEW RACEWAY OR CABLE TRAY SHALL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.</div><div>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.</div><div>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 &amp; OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS.</div><div>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).</div><div>14. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.</div><div>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.</div><div>16. ALL CONDUIT RUN ABOVE GROUND OR EXPOSED SHALL BE EMT, LFMC, IMC OR RIGID STEEL.</div><div>17. ELECTRICAL METALLIC TUBING (EMT) SHALL BE USED FOR INDOOR AND ROOFTOP LOCATIONS.</div><div>18. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED INDOORS AND OUTDOORS WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.</div></div><div><div>19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.</div><div>20. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.</div><div>21. CABINETS, BOXES AND WIREWAYS SHALL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.</div><div>22. PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.</div><div>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.</div><div>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.</div><div>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.</div><div>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.</div><div>27. EACH INDOOR BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH SUPPLEMENTAL EQUIPMENT GROUND WIRES #6 OR LARGER.</div><div>28. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.</div><div>29. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.</div><div>30. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.</div><div>31. SURFACES TO BE CONNECTED TO GROUND CONDUCTORS SHALL BE CLEANED TO A BRIGHT SURFACE AT ALL CONNECTIONS.</div><div>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.</div><div>33. DC POWER CABLES SHALL BE COBRA COP-FLEX 2000, FLEXIBLE CLASS B OR APPROVED EQUAL.</div></div></div> <div><div>PRODUCTS:</div><div><div>1. ALL MATERIALS SHALL BE NEW, CONFORMING WITH NEC, ANSI, NEMA, AND THEY SHALL BE U.L. LISTED AND LABELED.</div><div>2. CONDUIT:<div><div>A) ELECTRICAL METALLIC TUBING SHALL U.L. LABEL, FITTINGS SHALL BE COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS AND ROOFTOPS.</div><div>B) 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.</div><div>C) 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.</div><div>D) ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE</div><div>E) ALL CONDUIT ONLY (C.O.) SHALL HAVE PULL ROPE.</div><div>F) CONDUITS RUN ON ROOFS SHALL BE INSTALLED ON DURA-BLOK ROOFTOP SUPPORTS BY COOPER B-LINE.</div><div>G) *RIGID SHALL BE USED IN LOCATIONS OF POTENTIAL DAMAGE AND/OR CRUSH. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.</div></div></div><div>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.</div><div>4. PROVIDE GALVANIZED COATED STEEL BOXES AND ACCESSORIES SIZED PER CODE TO ACCOMMODATE ALL DEVICES AND WIRING.</div><div>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 IN DETAILS. WEATHERPROOF RECEPTACLES SHALL BE GROUND FAULT INTERRUPTER TYPE WITH SIERRA #WPD-8 LIFT COVERPLATES.</div><div>6. TOGGLE SWITCHES SHALL BE 20 AMP, 120 VOLT AC, SPECIFICATION GRADE WHITE (UNLESS NOTED OTHERWISE) FINISH, MOUNT SWITCHES AT +48" ABOVE FINISHED FLOOR.</div><div>7. PANELBOARDS 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 PANELBOARDS AT 6'-3" ABOVE FINISHED FLOOR. PROVIDE TYPE WRITTEN CIRCUIT DIRECTORY.</div><div>8. ALL CIRCUIT BREAKERS, MAGNETIC STARTERS AND OTHER ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.</div><div>9. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.</div></div></div> <div><div>GROUNDING NOTES:</div><div><div>1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.</div><div>2. ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.</div><div>3. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.</div><div>4. ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE.</div><div>5. GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE.</div><div>6. INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.</div><div>7. EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.</div><div>8. GROUND BARS:<div><div>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.</div></div></div><div>9. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.</div><div>10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.</div><div>11. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).</div><div>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.</div><div>13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.</div><div>14. ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.</div><div>15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.</div><div>16. USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR. NO "DOUBLE-UP" OF LUGS.</div><div>17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.</div><div>18. NO LB'S ALLOWED ON GROUNDING.</div><div>19. PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.</div><div>20. ALL ELECTRICAL AND GROUNDING AT THE CELL SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER SPECIFICATION.</div><div>21. IF THE AC PANEL IN THE POWER CABINET IS WIRED AS SERVICE ENTRANCE, THE AC SERVICE GROUND CONDUCTOR SHALL BE CONNECTED TO GROUND ELECTRODE SYSTEM. WHEN THE AC PANEL IN THE POWER CABINET IS CONSIDERED A SUB-PANEL, THE GROUND WIRE SHALL BE INSTALLED IN THE AC POWER CONDUIT. THE INSTALLATION SHALL BE PER LOCAL AND NATIONAL ELECTRIC CODE (NFPA-70).</div><div>22. EXOTHERMIC WELDING IS RECOMMENDED FOR GROUNDING CONNECTION WHERE PRACTICAL. OTHERWISE, THE CONNECTION SHALL BE MADE USING COMPRESSION TYPE-2 HOLES. LONG BARREL LUGS OR DOUBLE CRIMP CLAMP "C" CLAMP. THE COPPER CABLES SHALL BE COATED WITH ANTIOXIDANT (COPPER SHIELD) BEFORE MAKING THE CONNECTIONS. THE MANUFACTURER'S TORQUING RECOMMENDATIONS ON THE BOLT ASSEMBLY TO SECURE CONNECTIONS SHALL BE FOLLOWED.</div><div>23. THE ANTENNA CABLES SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN FOR LIGHTNING PROTECTION. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUSS AT THE LOWER MOST POINT OF A VERTICAL RUN JUST BEFORE IT BEGINS TO BEND TOWARD THE HORIZONTAL PLANE. WIRE RUNS TO GROUND SHALL BE KEPT AS STRAIGHT AND SHORT AS POSSIBLE. ANTENNA CABLE SHIELD SHALL BE GROUNDED JUST BEFORE ENTERING THE CELL CABINET. ANY ANTENNA CABLES OVER 200 FEET IN LENGTH SHALL ALSO BE EQUIPPED WITH ADDITIONAL GROUNDING AT MID-POINT.</div><div>24. ALL GROUNDING CONDUCTORS INSIDE THE BUILDING SHALL BE RUN IN CONDUIT RACEWAY SYSTEM, AND SHALL BE INSTALLED</div></div></div> <div><div>AS STRAIGHT AS PRACTICAL WITH MINOR BENDS TO AVOID OBSTRUCTIONS. THE BENDING RADIUS OF ANY #2 GROUNDING CONDUCTOR IS 8". PVC RACEWAY MAY BE FLEXIBLE OR RIGID PER THE FIELD CONDITIONS. GROUNDING CONDUCTORS SHALL NOT MAKE CONTACT WITH ANY METALLIC CONDUITS, SURFACES OR EQUIPMENT.</div><div>25. PROVIDE PVC SLEEVES WHERE GROUNDING CONDUCTORS PASS THROUGH THE BUILDING WALLS AND /OR CEILINGS.</div><div>26. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUSS IN THE PANEL BOARD.</div><div>27. GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.</div><div>28. ALL PROPOSED GROUNDING CONDUCTORS SHALL BE ROUTED AND CONNECTED TO THE MAIN GROUND BAR OR EXISTING GROUND RING.</div><div>29. 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 CODE.</div><div>30. CONDUITS CONNECTED TO EQUIPMENT AND DEVICES SHALL BE METALLICALLY JOINED TOGETHER TO PROVIDE EFFECTIVE ELECTRICAL CONTINUITY.</div><div>31. 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.</div><div>32. REFER TO GROUND BUS DETAILS. PROVIDE NEW GROUND SYSTEM COMPLETE WITH CONDUCTORS, GROUND ROD AND DESCRIBED TERMINATIONS.</div><div>33. ALL GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2 UNLESS NOTED OTHERWISE.</div><div>34. ALL NON-DIRECT BURIED TELEPHONE EQUIPMENT GROUND CONDUCTORS SHALL BE #2 STRANDED THHN (GREEN) INSULATION.</div><div>35. ALL GROUND CONNECTIONS SHALL BE MADE WITH "HYGROUND" COMPRESSION SYSTEM BURNDY CONNECTORS EXCEPT WHERE NOTED OTHERWISE.</div><div>36. PAINT AT ALL GROUND CONNECTIONS SHALL BE REMOVED.</div><div>37. 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".</div><div>38. #2 STRANDED THHN WITH WATER CLAMPS AT EVERY 25' MOUNTED ON CONDUITS AT ROOFTOP LOCATIONS</div></div>
---





APPLICANT:



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:



P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY. STE 210  
ROSSELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

**CCL04383**

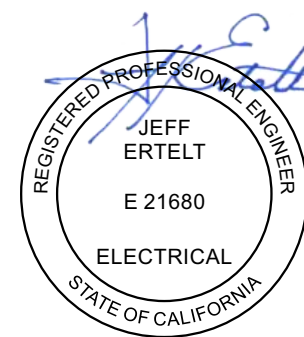
5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

DESIGN RECORD:

REV	DATE	DESCRIPTION	INT.
A	09/24/24	ISSUED FOR 90% CDS	BH
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0	11/11/24	ISSUED FOR 100% CDS	SMR

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SHEET TITLE:

**E-2**

SHEET NAME:

**PROPOSED ENLARGED  
SITE PLAN  
(ELECTRICAL)**

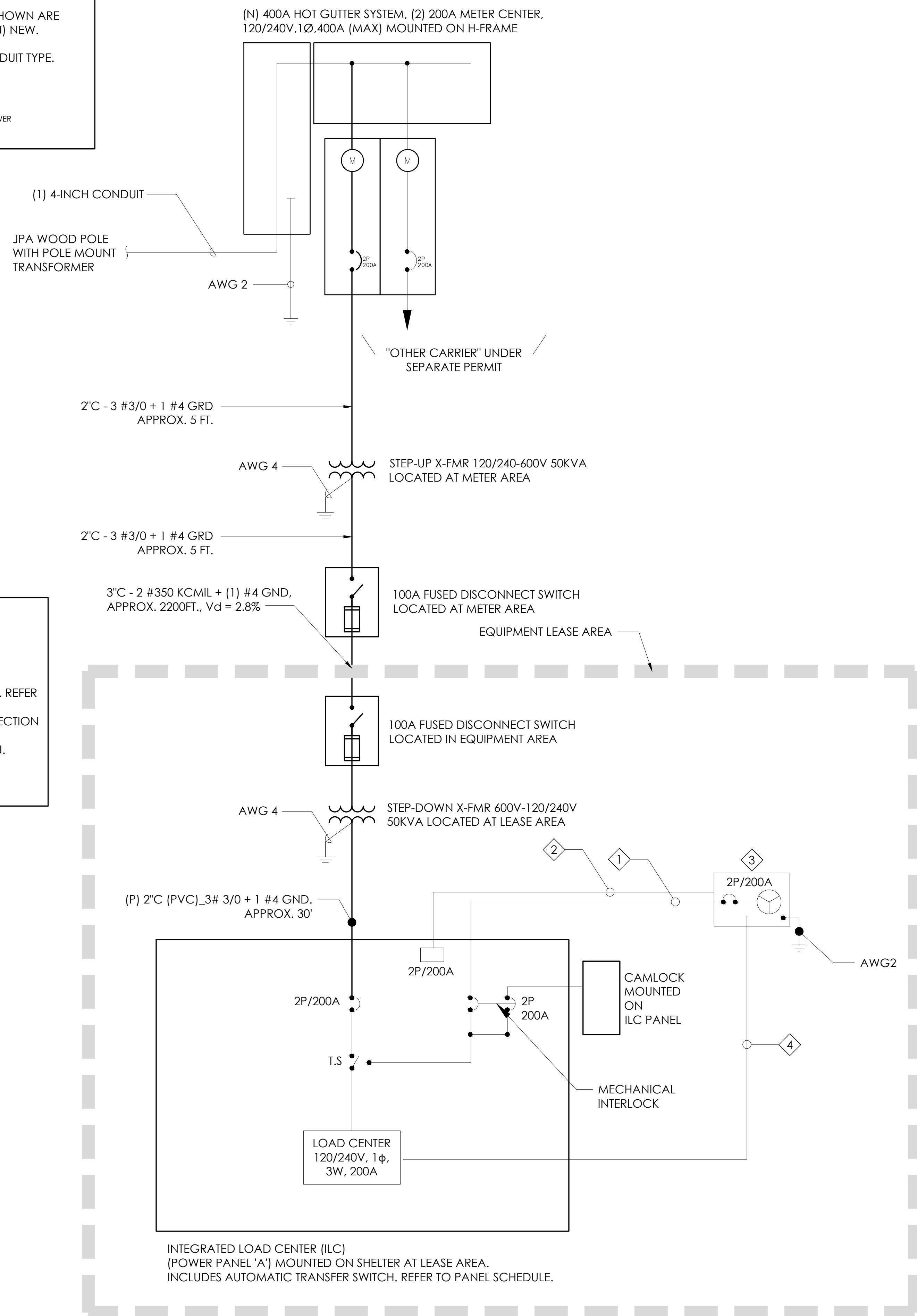


- NOTES:**
1. ALL WORK TO CONFORM TO N.E.C. LATEST STATE ADOPTED EDITION.
  2. LABEL SERVICE DISCONNECT WITH A RED TAG.
  3. SWITCH LEG CONDUCTORS SHALL BE THE SAME COLOR AS CIRCUIT CONDUCTORS.
  4. PULL ONE GROUND CONDUCTOR PER FLEXIBLE NONMETALLIC CONDUIT. FOR ALL OTHER CIRCUITS PULL A SEPARATE CONDUCTOR.
  5. ALL GFCI RECEPTACLES TO HAVE A DEDICATED GROUND WIRE.
  6. EQUIPMENT TERMINATION LUGS AND CONDUCTORS ARE RATED AT A MINIMUM OF 75°C.
  7. THE MAIN SWITCHBOARD SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT-CURRENT CALCULATION WAS PERFORMED. CEC 110.24(A).
  8. ARC FLASH HAZARD DISCONNECT SHALL BE PROVIDED IN ACCORDANCE WITH CEC 110.16.
  9. THE MAIN SERVICE DISCONNECT SHALL BE MARKED PERMANENTLY CEC 230.70(B).
  10. SWITCHBOARDS, SWITCHGEAR, AND PANELBOARDS SHALL HAVE THE AVAILABLE FAULT CURRENT AND THE DATE THE CALCULATION WAS PERFORMED SHALL BE FIELD MARKED ON THE ENCLOSURE AT THE POINT OF SUPPLY. THE MARKING SHALL COMPLY WITH 110.21(B)(3). CEC 408.6.
  11. PROVIDE A PLAQUE OR DIRECTORY PER CEC 700.7(A) OR 702.7(A).

**NOTE:**  
ALL BREAKERS AND PANELS SHOWN ARE  
EXISTING UNLESS NOTED AS (N) NEW.

SEE SPECIFICATION FOR CONDUIT TYPE.

**LEGEND:**  
MI = MECHANICAL INTERLOCK  
RU = RELAY TO MONITOR UTILITY POWER  
RG = RELAY TO MONITOR GENERATOR POWER



NOTES:

1. THIS PANEL IS PROVIDED AND INSTALLED BY VAULT MANUFACTURER
2. LIGHTING, DUPLEX RECEPTACLE, G.F.I ARE DESIGNED AND INSTALLED BY VAULT MANUFACTURER.

VOLTAGE: 120/240V, 1-PHASE, 3W, 200A, 42 KAIC

MOUNTING: SURFACE

MAIN CB: 2P/200A

NEMA: 3R

ILC Panel

LOCATION: @ LEASE AREA

VOLT AMPS	DESCRIPTION	POLE	BKR	CKT	A	B	CKT	BKR	POLE	DESCRIPTION	VOLT AMPS		
PHASE A	PHASE B										PHASE A	PHASE B	
2150		RECTIFIERS 01&02	2	30	1	●	2	30	2	RECTIFIERS 03&04	2150		
	2150	VERTIV 7100			3	●	4			VERTIV 7100		2150	
2150		RECTIFIERS 05&06	2	30	5	●	6	30	2	RECTIFIERS 07&08	2150		
	2150	VERTIV 7100			7	●	8			VERTIV 7100		2150	
2150		RECTIFIERS 09&10	2	30	9	●	10	30	2	RECTIFIERS 11&12	2150		
	2150	VERTIV 7100			11	●	12			VERTIV 7100		2150	
2150		RECTIFIERS 13&14	2	30	13	●	14	30	2	RECTIFIERS 15&16	2150		
	2150	VERTIV 7100			15	●	16			VERTIV 7100		2150	
360		BATTERY CHARGER	1	20	17	●	18	20	1	LIGHT & RECEPTACLE	560		
	480	BATTERY HEATER	1	20	19	●	20	20	1	GFCI		180	
1400		HVAC	2	25	21	●	22	30	2	SURGE SUPPRESSOR			
	1400	-			23	●	24			SPACE			
		SPACE			25	●	26			SPACE			
		SPACE			27	●	28			SPACE			
		SPACE			29	●	30			SPACE			
10360	10480	VA/LINE									9160	8780	
PHASE A =				19520 VA				PHASE B =				19260 VA	
CONNECTED LOAD:				38780 VA									
CONNECTED AMPS:				162 A									

2 AC PANEL SCHEDULE  
N.T.S.

1	SINGLE-LINE DIAGRAM (SLD)
	N.T.S.

VENDOR:		APPLICANT:	
---------	--	------------	--

VENDOR:

**CCL04383**

.. 5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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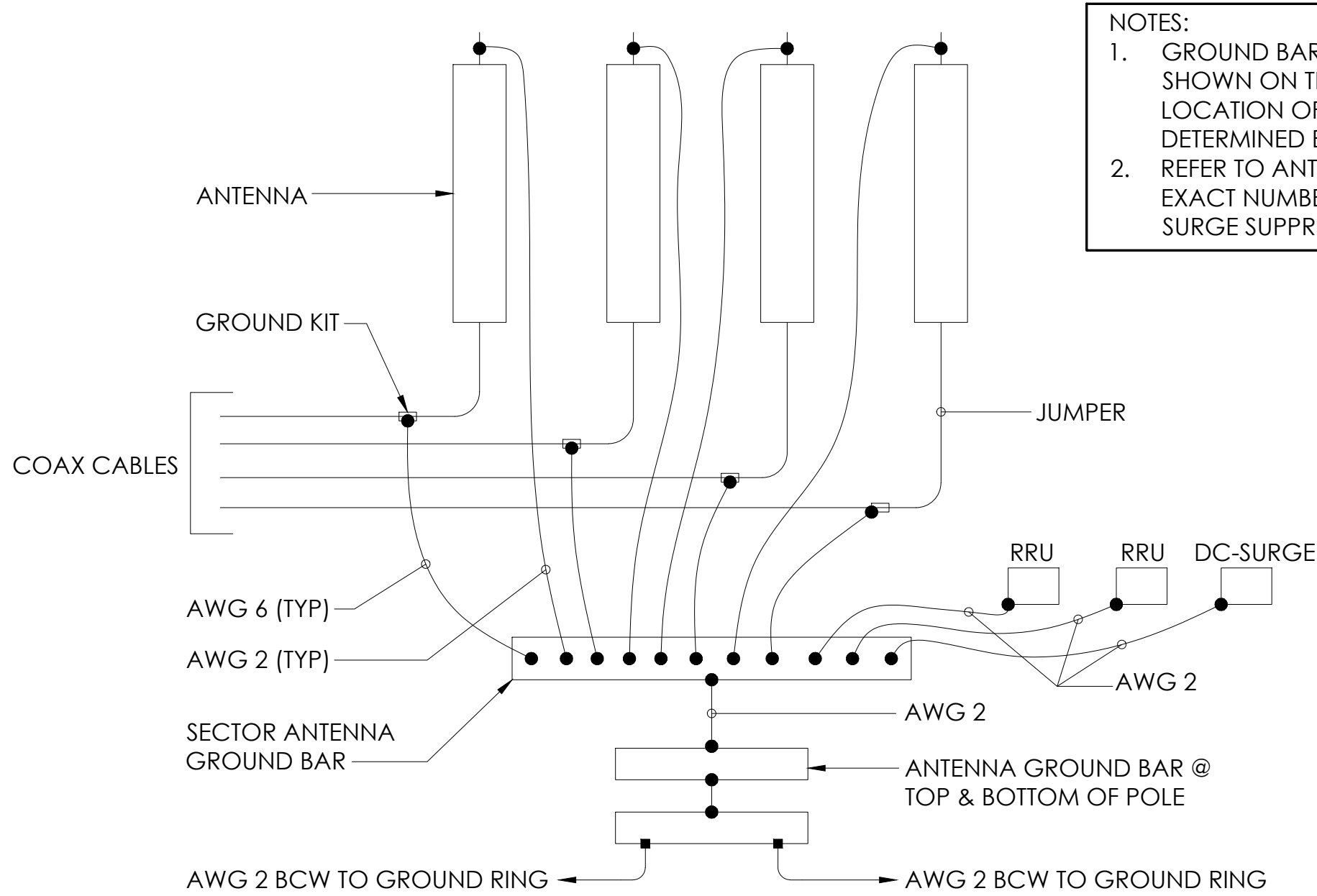
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TEST TITLE: **E-3**

**SHEET NAME:** **SINGLE LINE  
DIAGRAM &  
PANEL SCHEDULE**



4

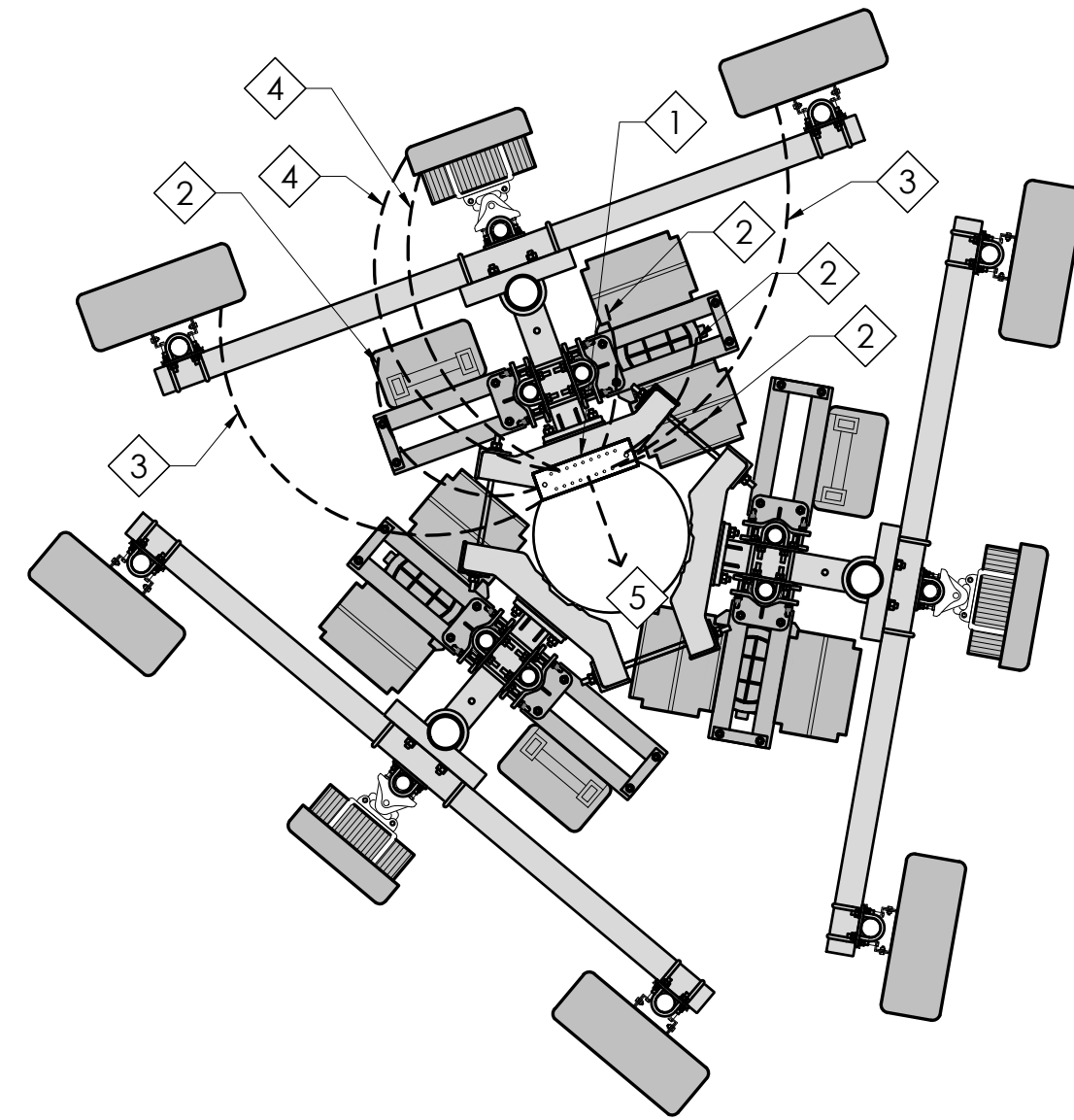


NOTE:  
1. REFER TO TYP. ANTENNA GROUNDING DIAGRAM.

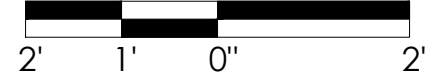
KEY NOTES:

- 1 ANTENNA GROUND BAR
- 2 AWG 2 INSULATED COPPER GROUND WIRE FROM (N) RRU AND DC9 TO (N) ANTENNA GROUND BAR
- 3 AWG 6 INSULATED COPPER WIRE FROM (N) ANTENNA GROUND KIT TO (N) ANTENNA GROUND BAR
- 4 (N) AWG 2 INSULATED COPPER GROUND WIRE FROM (N) AIR ANTENNA GROUND KIT TO (N) ANTENNA GROUND BAR
- 5 AWG 2 INSULATED COPPER WIRE CONNECT TO (N) ANTENNA GROUND BAR @ BOTTOM OF TOWER

NOTE:  
1. GROUNDING FOR ANOTHER TWO SECTORS ARE NOT SHOWN FOR CLARITY.  
2. GROUNDING PLAN FOR THREE SECTORS ARE IDENTICAL.



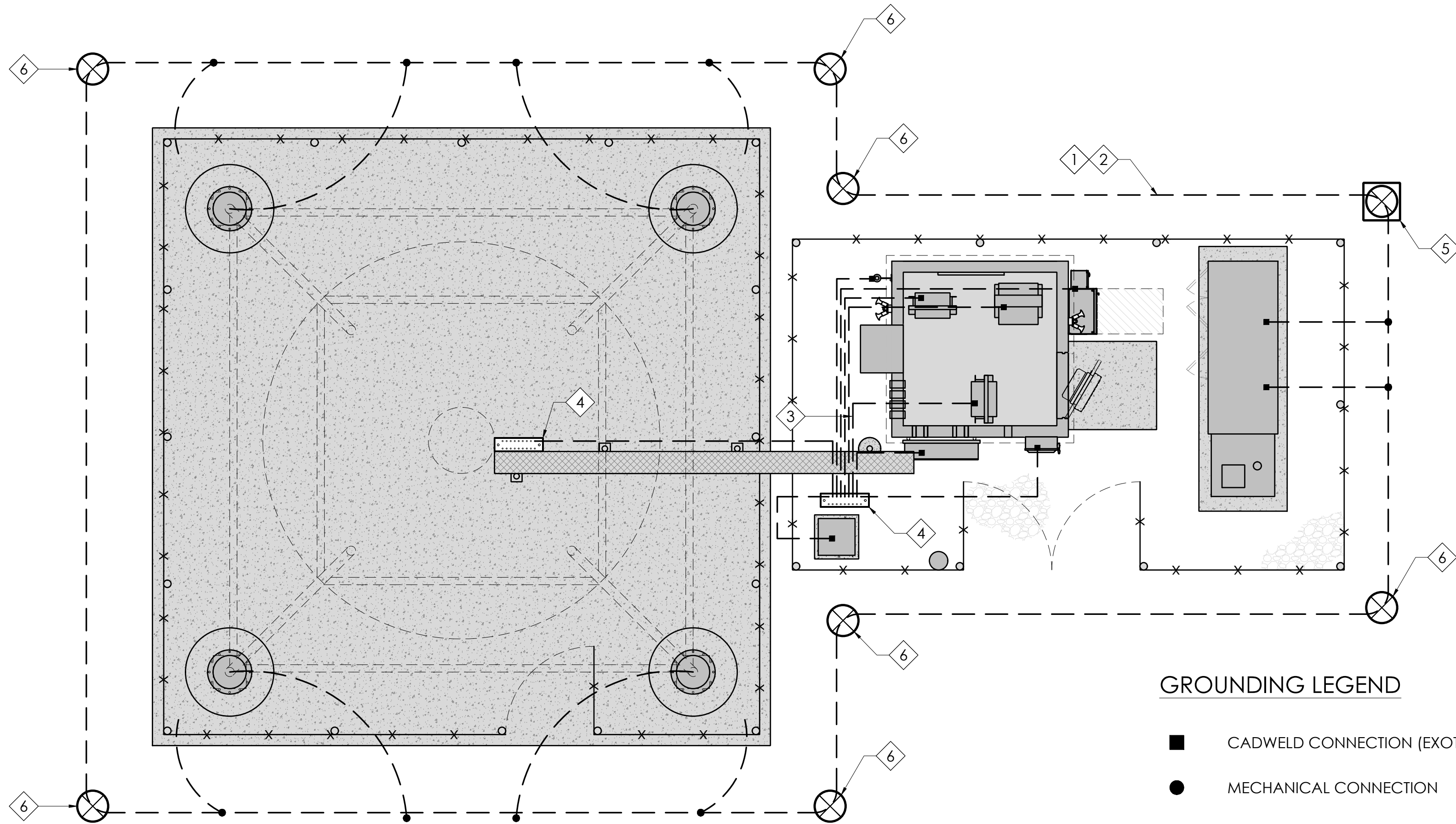
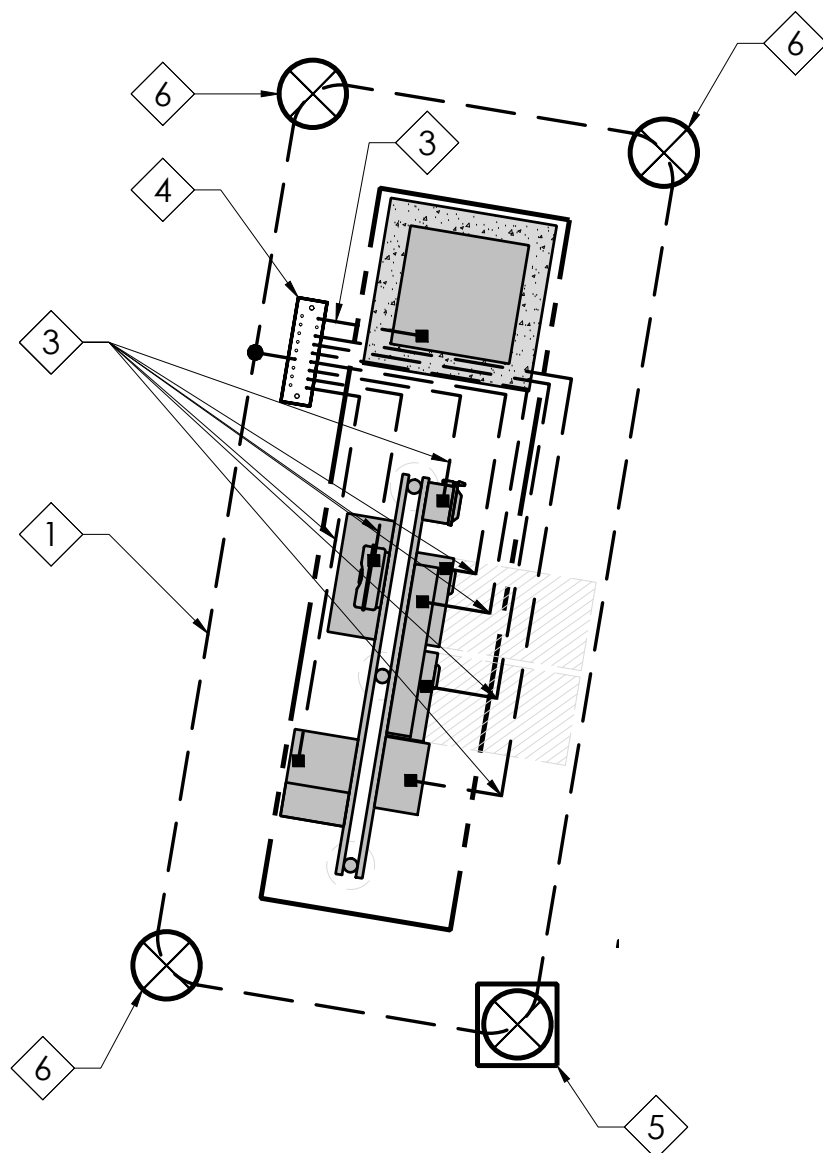
24"x36" SCALE: 1/2" = 1'-0"  
11"x17" SCALE: 1/4" = 1'-0"



2 ANTENNA GROUNDING PLAN (TYP. PER SECTOR)

KEY NOTES:

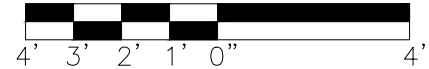
- 1 AWG 2 BCW GROUND RING BURIED 30" BELOW GRADE
- 2 AWG 2 INSULATED COPPER GROUND WIRE (HALO GROUND)
- 3 AWG 2 INSULATED COPPER GROUND WIRE TO EQUIPMENT
- 4 MASTER GROUND BUS BAR INTERIOR & EXTERIOR OF EQUIPMENT SHELTER
- 5 GROUND TEST WELD
- 6 GROUND ROD



GROUNDING LEGEND

- CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- ⊗ GROUND ROD

24"x36" SCALE: 1/4" = 1'-0"  
11"x17" SCALE: 1/8" = 1'-0"



3 EQUIPMENT GROUNDING PLAN

APPLICANT:



5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:



SITE INFORMATION:

CCL04383

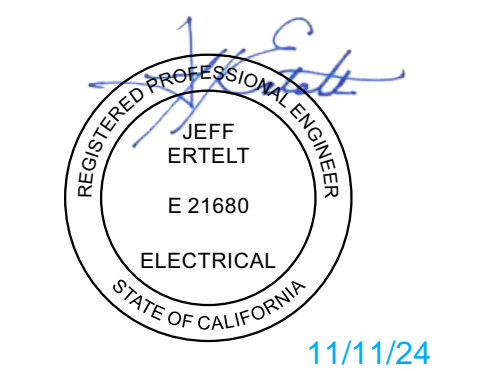
5707 HIGHLAND ROAD

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SAN RAMON, CA 94583

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0	11/11/24	ISSUED FOR 100% CDS				

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SHEET TITLE:

G-1

SHEET NAME:

GROUNDING  
PLANS & NOTES



12 NOT USED  
N.T.S.

9 GROUND TEST WELL  
N.T.S.

6 GROUND BAR CONNECTION  
N.T.S.

3 GPS ANTENNA GROUNDING  
N.T.S.

11 NOT USED  
N.T.S.

8 CONNECTION OF GROUND KIT TO ANTENNA CABLE  
N.T.S.

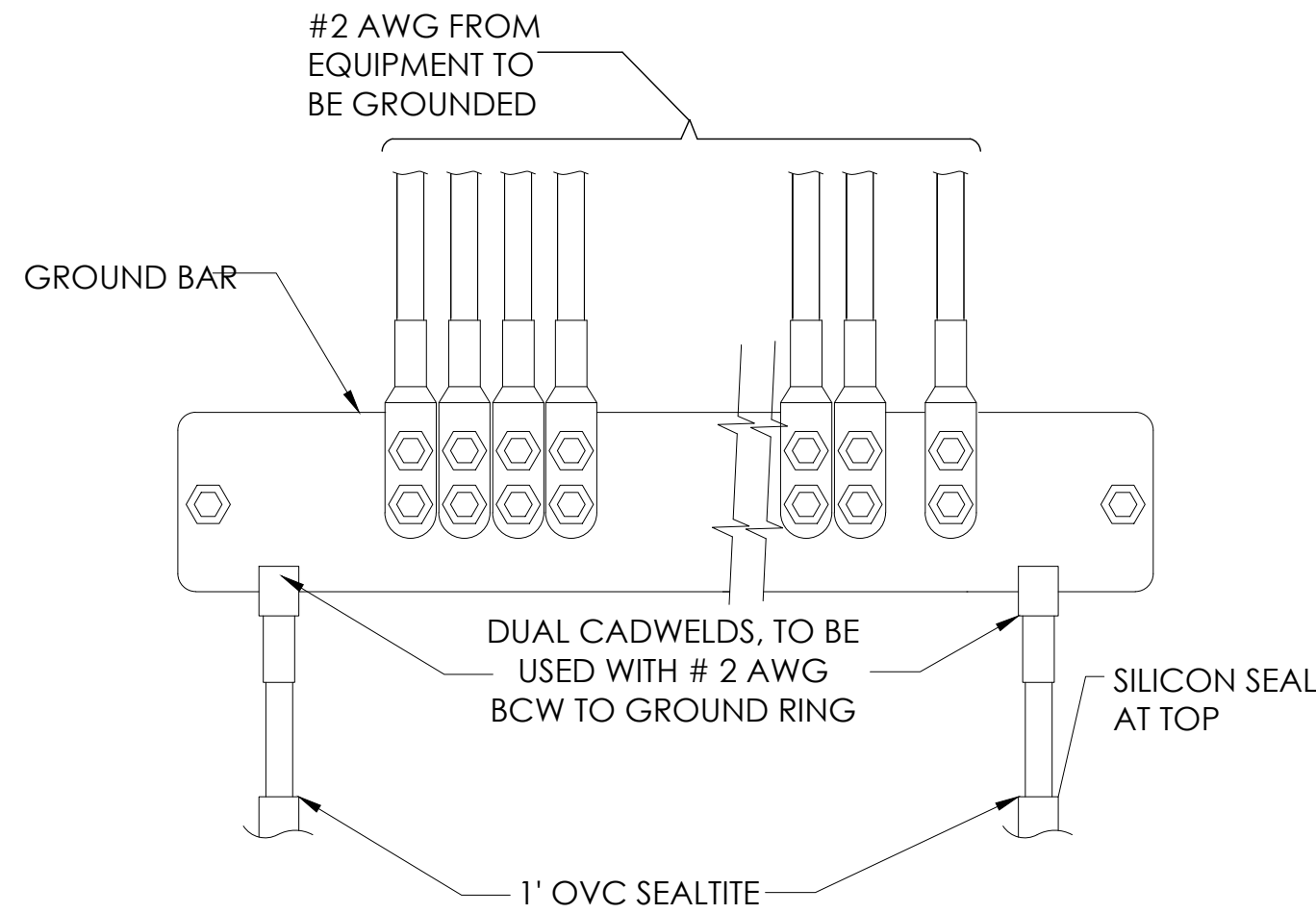
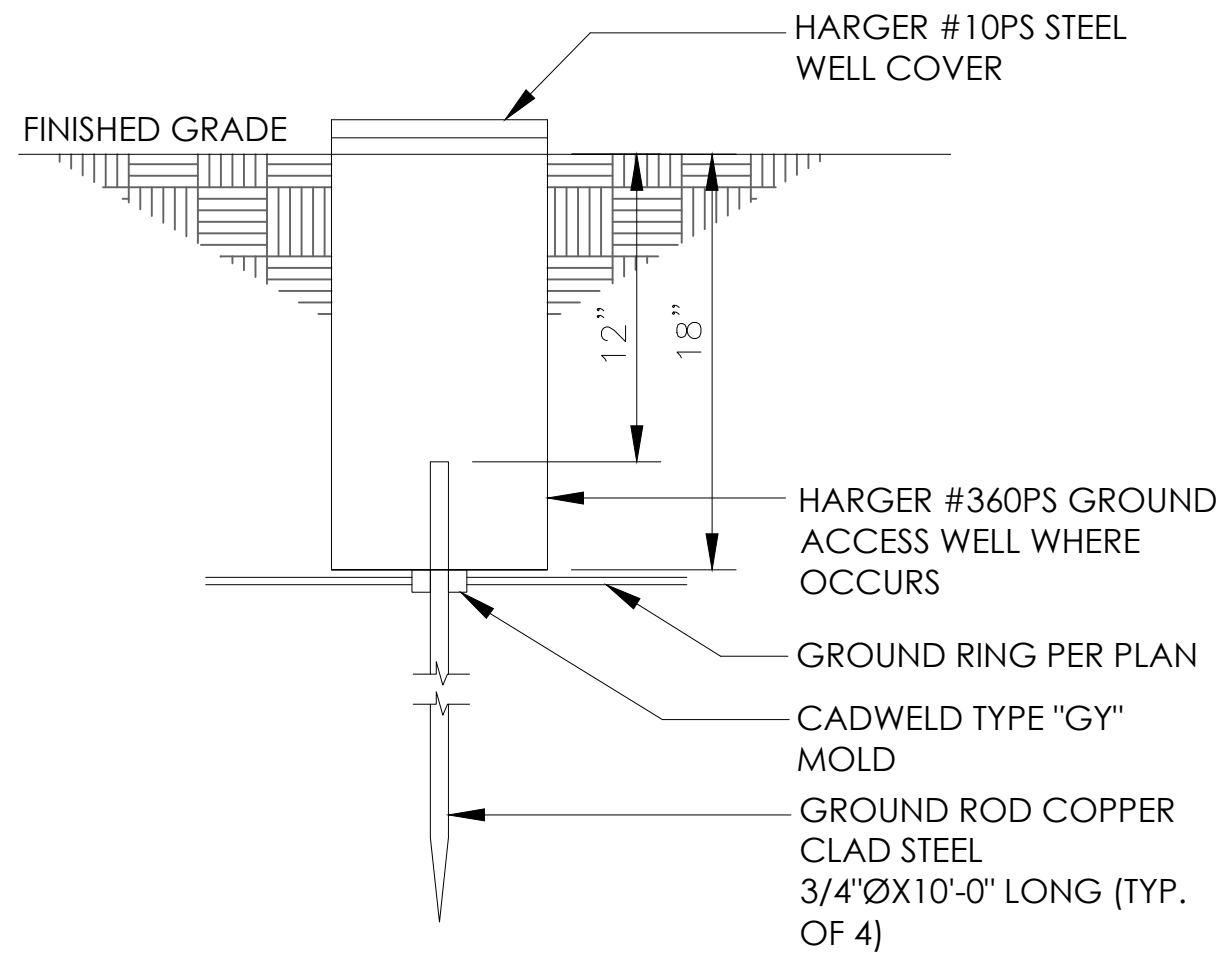
5 GROUND BAR DETAIL  
N.T.S.

2 GROUND ROD DETAIL  
N.T.S.

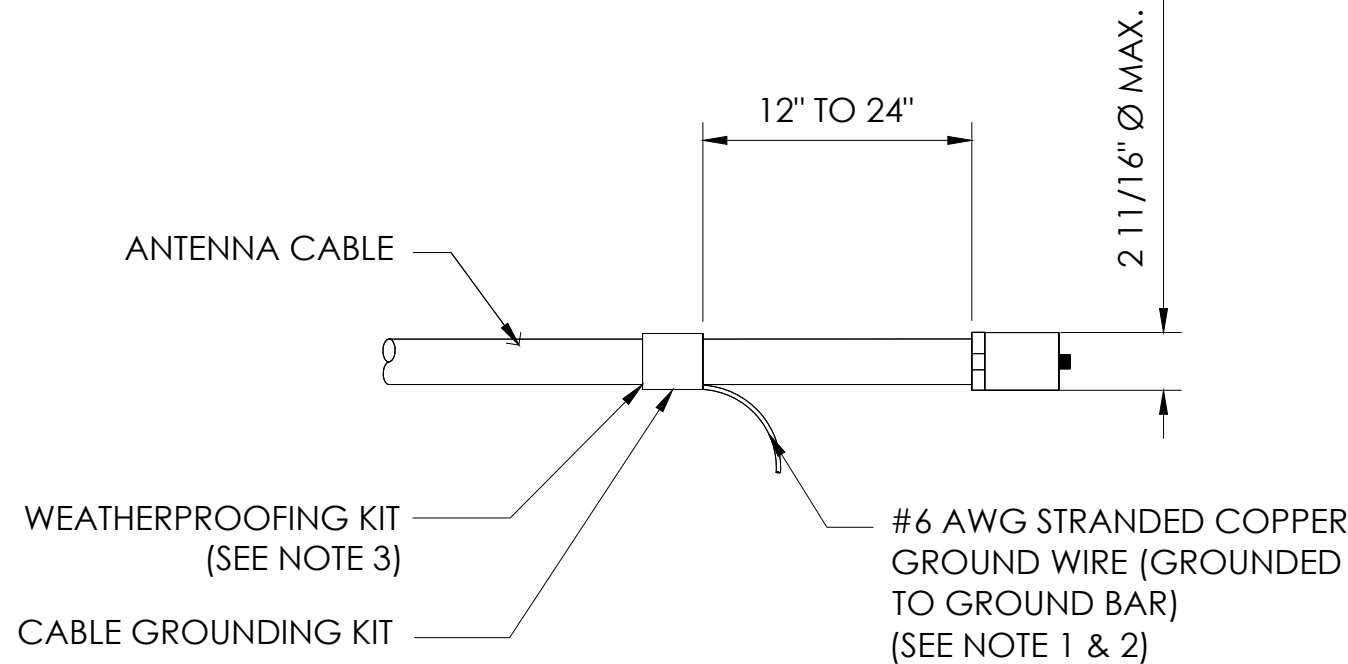
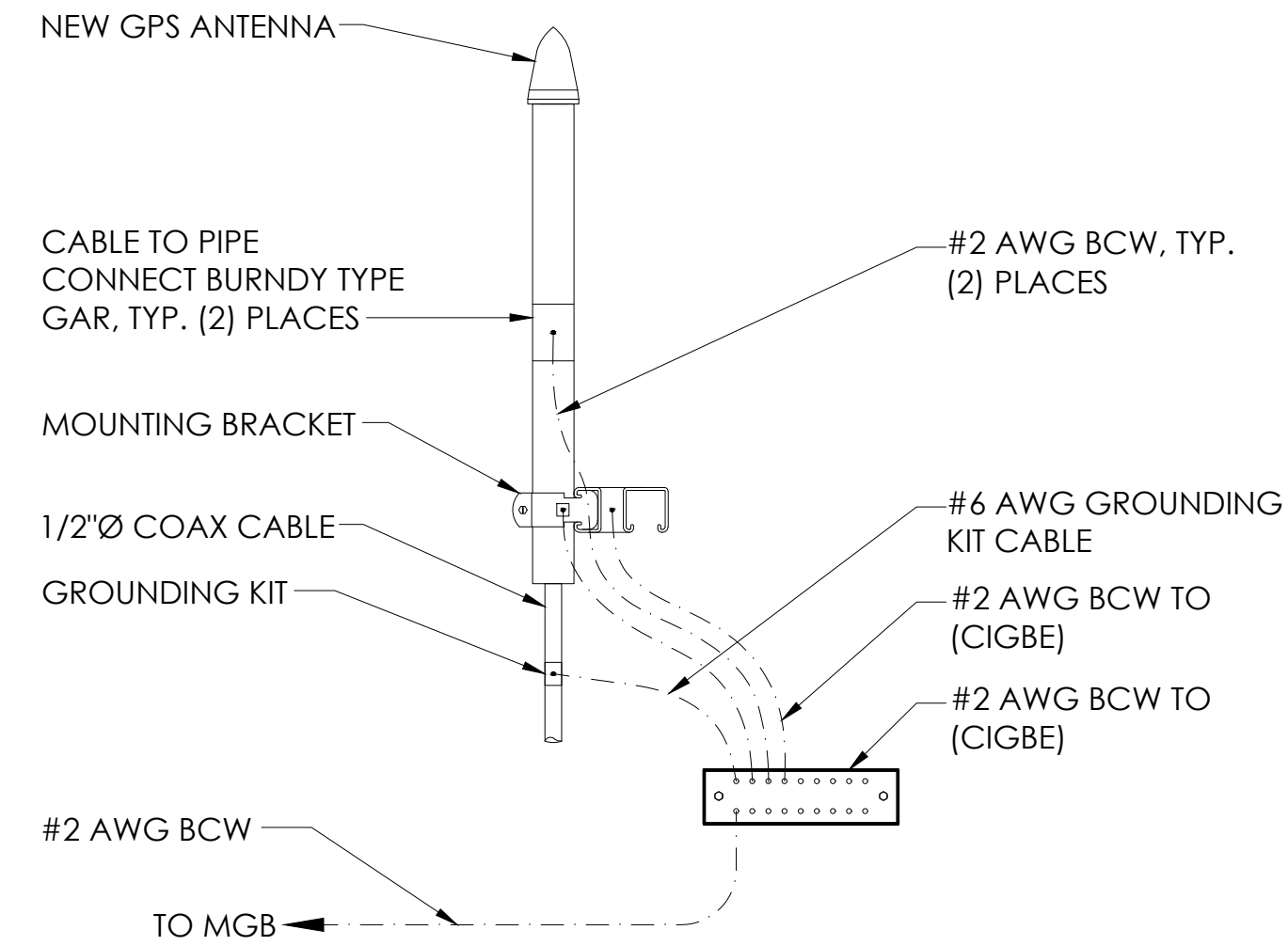
10 NOT USED  
N.T.S.

7 GROUND CONNECTION TO GROUND BAR  
N.T.S.

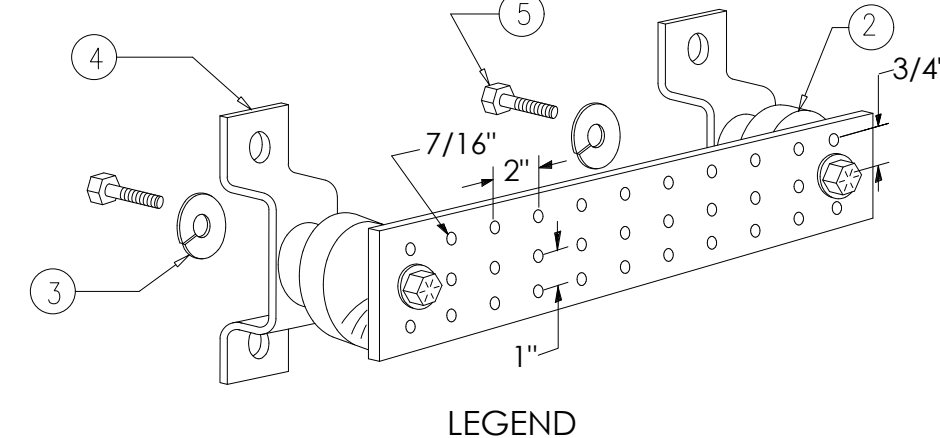
4 TYPICAL MECHANICAL CONNECTIONS  
N.T.S.



- NOTE:
1. CONTRACTOR TO UTILIZE KOPR-SHIELD (THANS & BETTS) ON ALL LUG CONNECTIONS OR APPROVED EQUAL
  2. ALL LUGS TO BE DUAL HOLE LONG BARREL AND CRIMPED TWICE WITH MFR'S RECOMMENDED TOOL

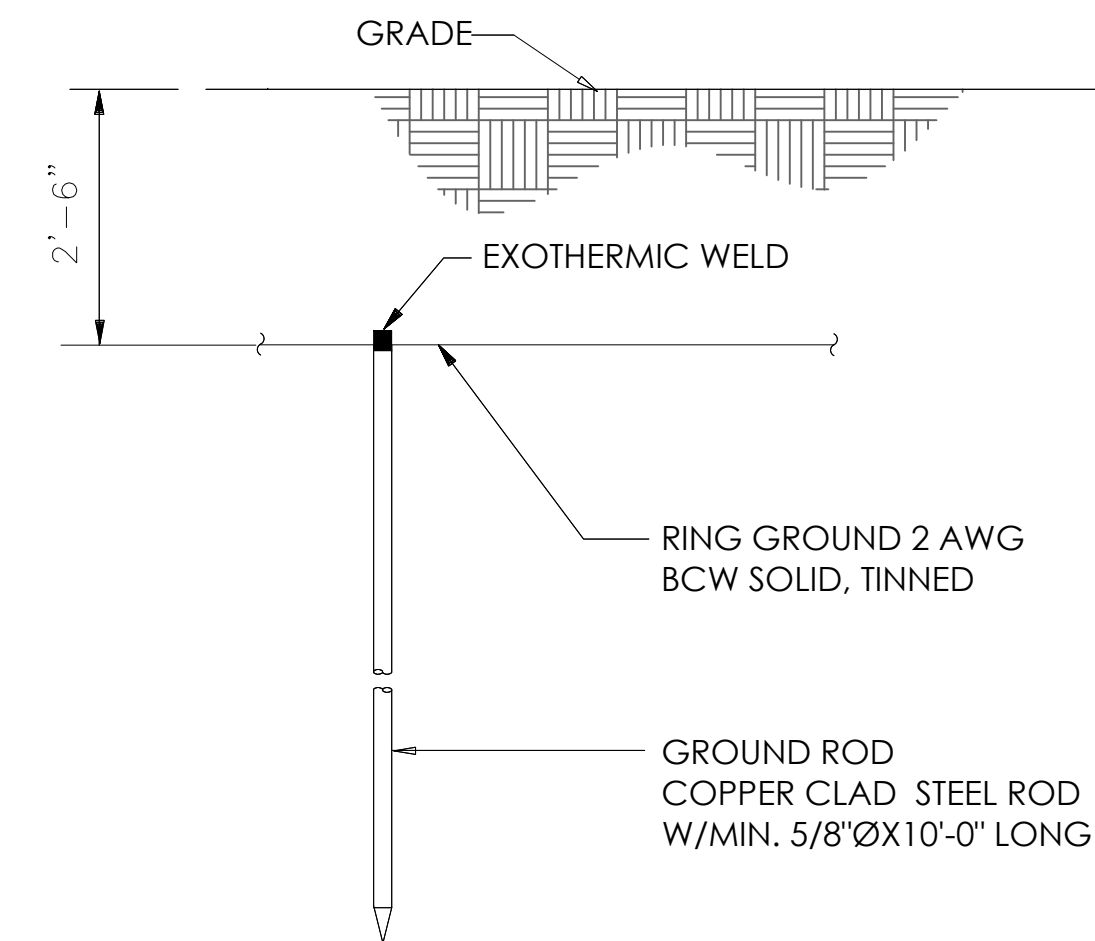


- NOTE:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT WIRE DOWN TO GROUND BAR.
  2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
  3. WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)

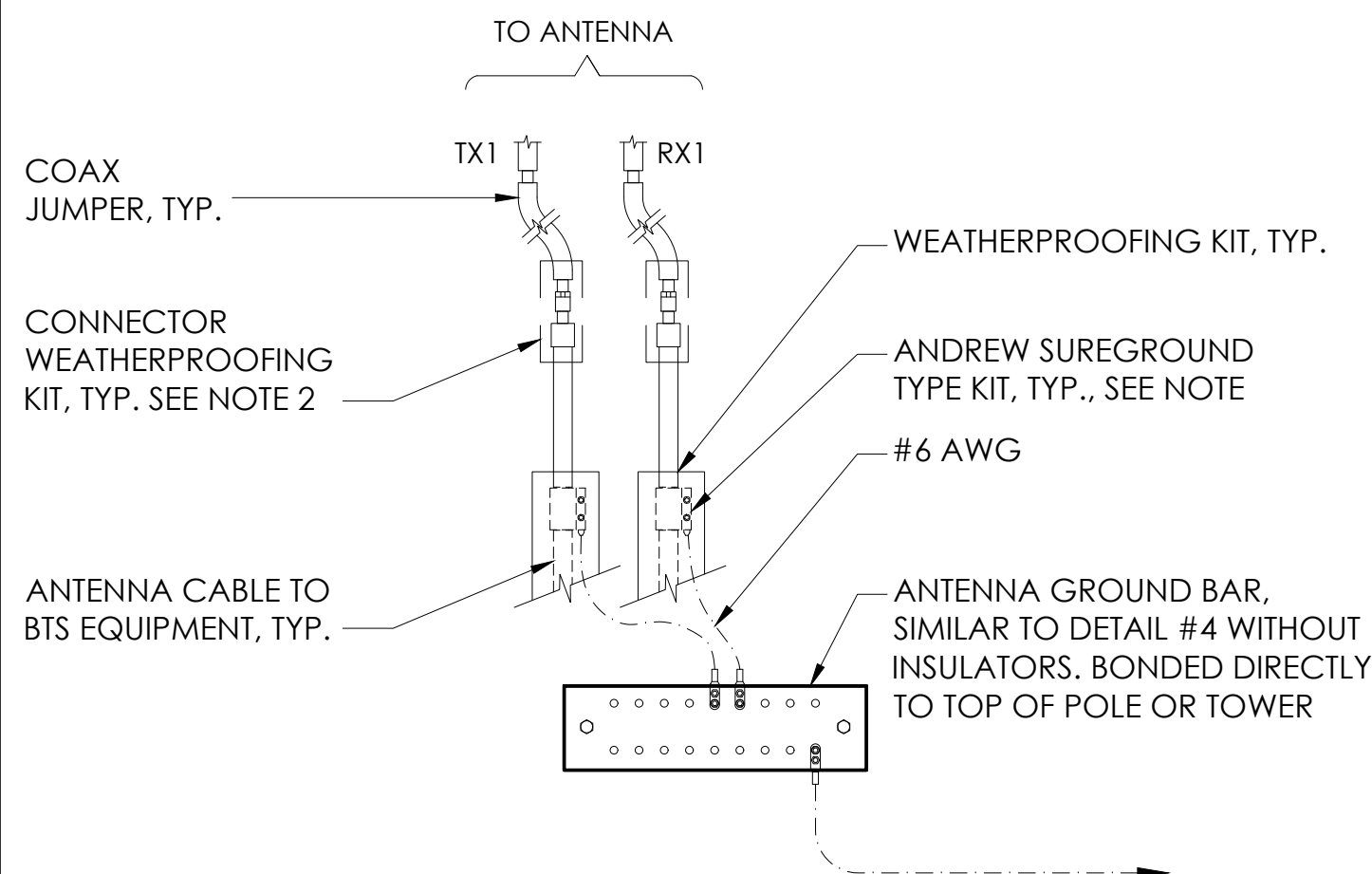


- 1- COPPER GROUND BAR, "X 1/4"X 20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
- 2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
- 3- 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL
- 4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056 OR EQUAL
- 5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1 OR EQUAL
- 6- INSULATORS SHALL BE ELIMINATED WHEN BONDING DIRECTLY TO TOWER/MONOPOLE STRUCTURE. CONNECTION TO TOWER/MONOPOLE STRUCTURE SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

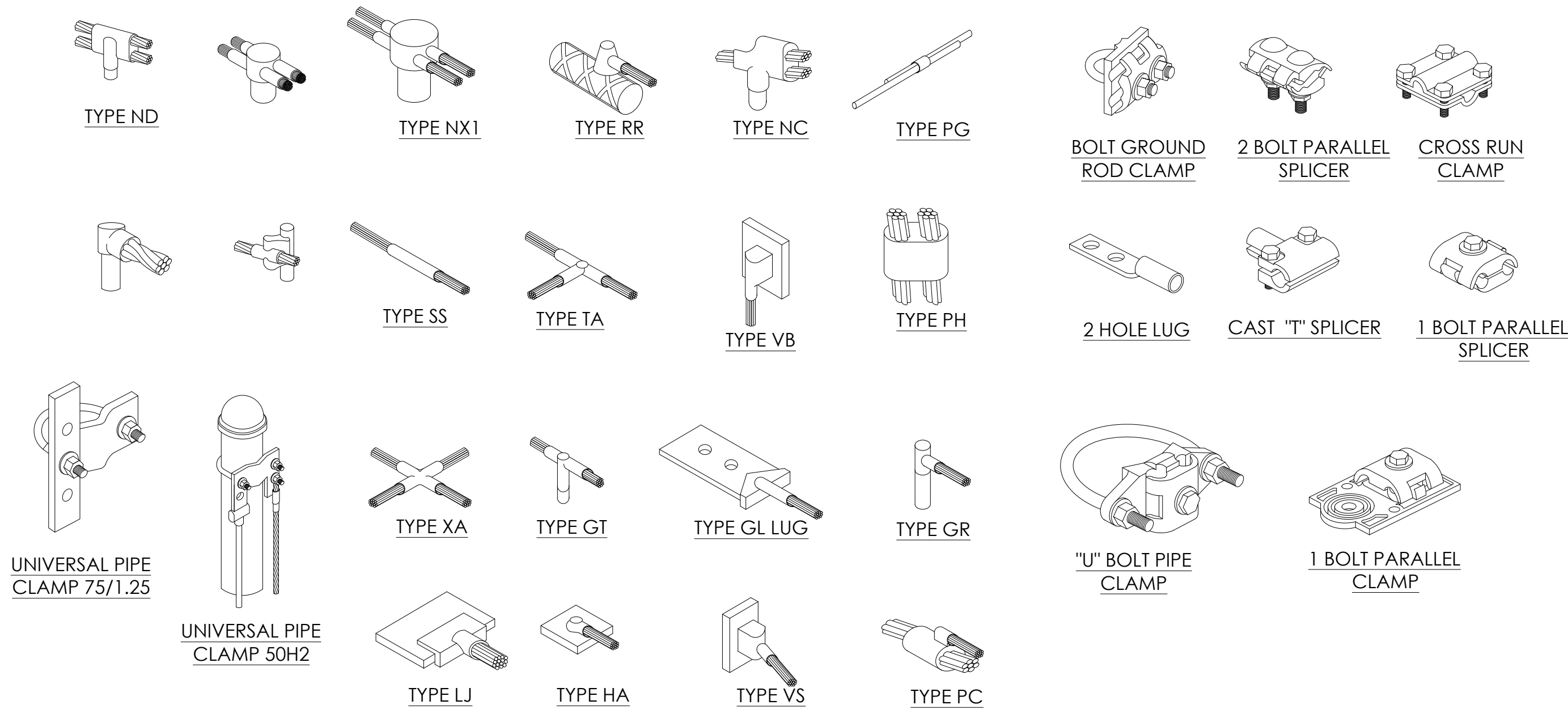
NOTE: ALL HARDWARE SHALL BE STAINLESS STEEL



GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.



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



APPLICANT:

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:

P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY. STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

**CCL04383**

**5707 HIGHLAND ROAD**

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

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0	11/11/24	ISSUED FOR 100% CDS				

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11/11/24

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SHEET TITLE:

**G-2**

SHEET NAME:

**GROUNDING DETAILS**



NOTES TO CONTRACTOR:  
1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO  
FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.

Diagram - Sector A Diagram File Name - CCL04383\_Final\_RFDS.vsd  
Atoll Site Name - CCL04383 Location Name - CCL04383 Market - SAN FRANCISCO Market Cluster - SAN FRANCISCO/SACRAM ENTO  
Comments:

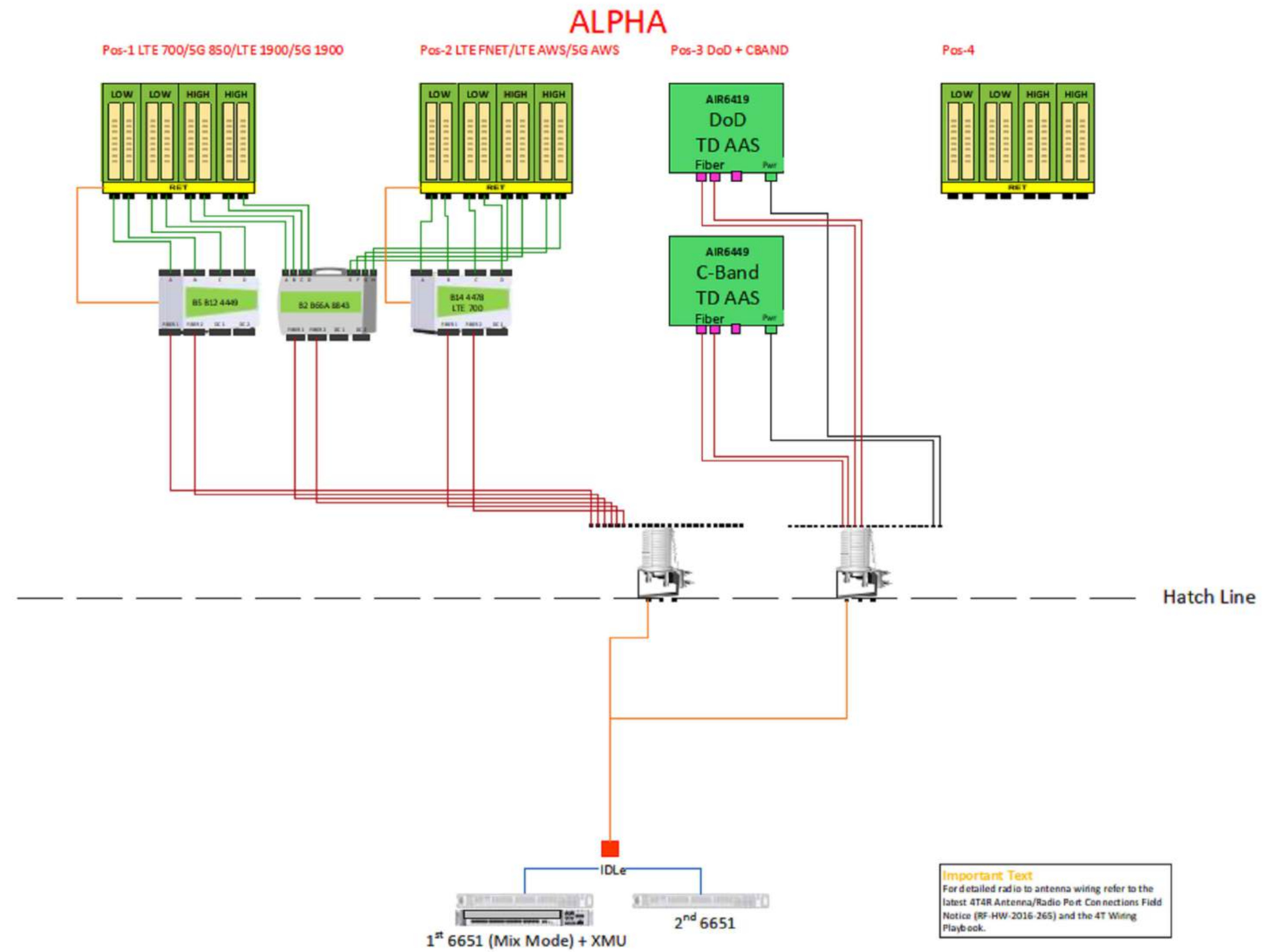


Diagram - Sector A Diagram File Name - CCL04383\_Final\_RFDS.vsd  
Atoll Site Name - CCL04383 Location Name - CCL04383 Market - SAN FRANCISCO Market Cluster - SAN FRANCISCO/SACRAM ENTO  
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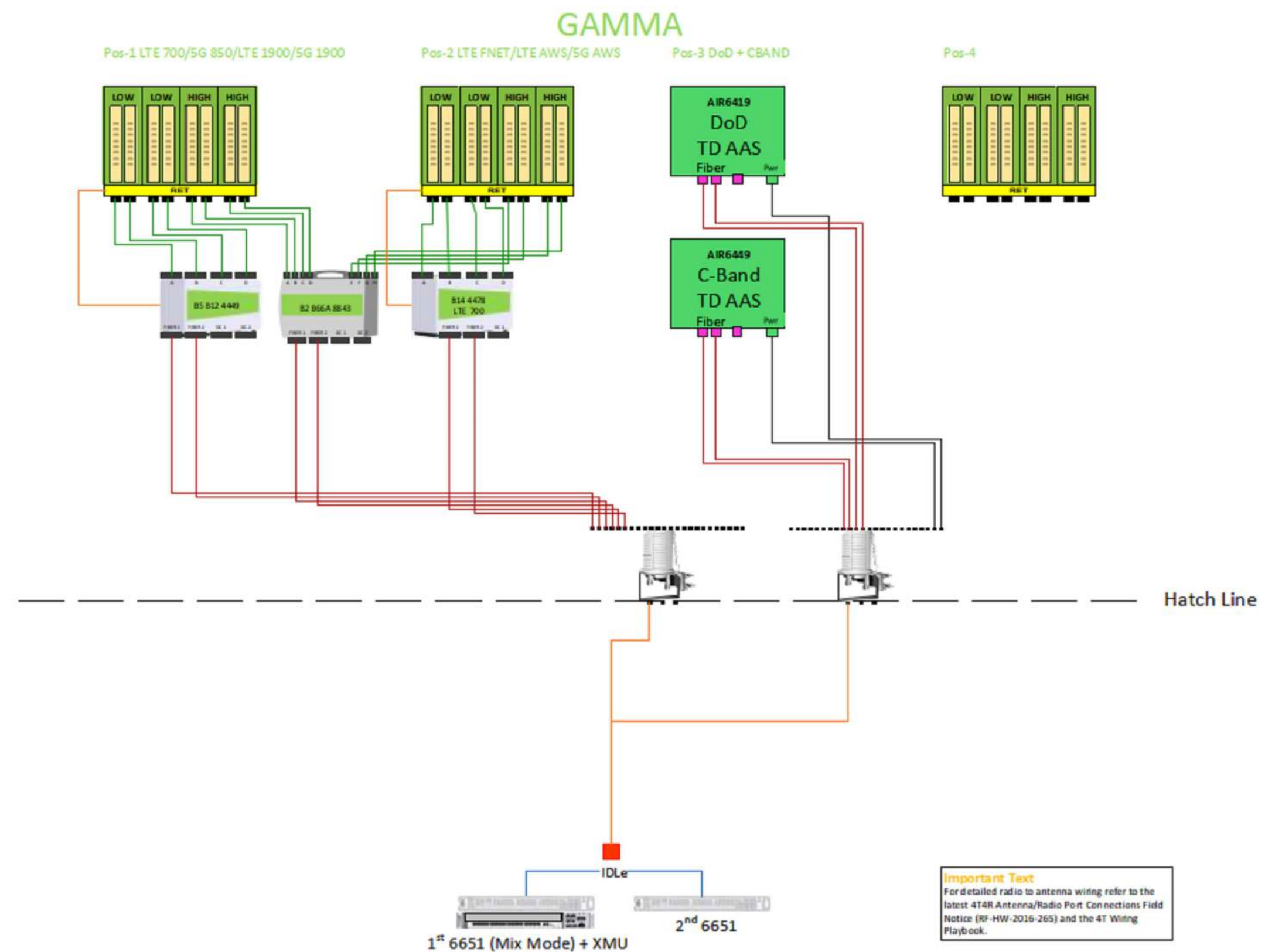


Diagram - Sector A Diagram File Name - CCL04383\_Final\_RFDS.vsd  
Atoll Site Name - CCL04383 Location Name - CCL04383 Market - SAN FRANCISCO Market Cluster - SAN FRANCISCO/SACRAM ENTO  
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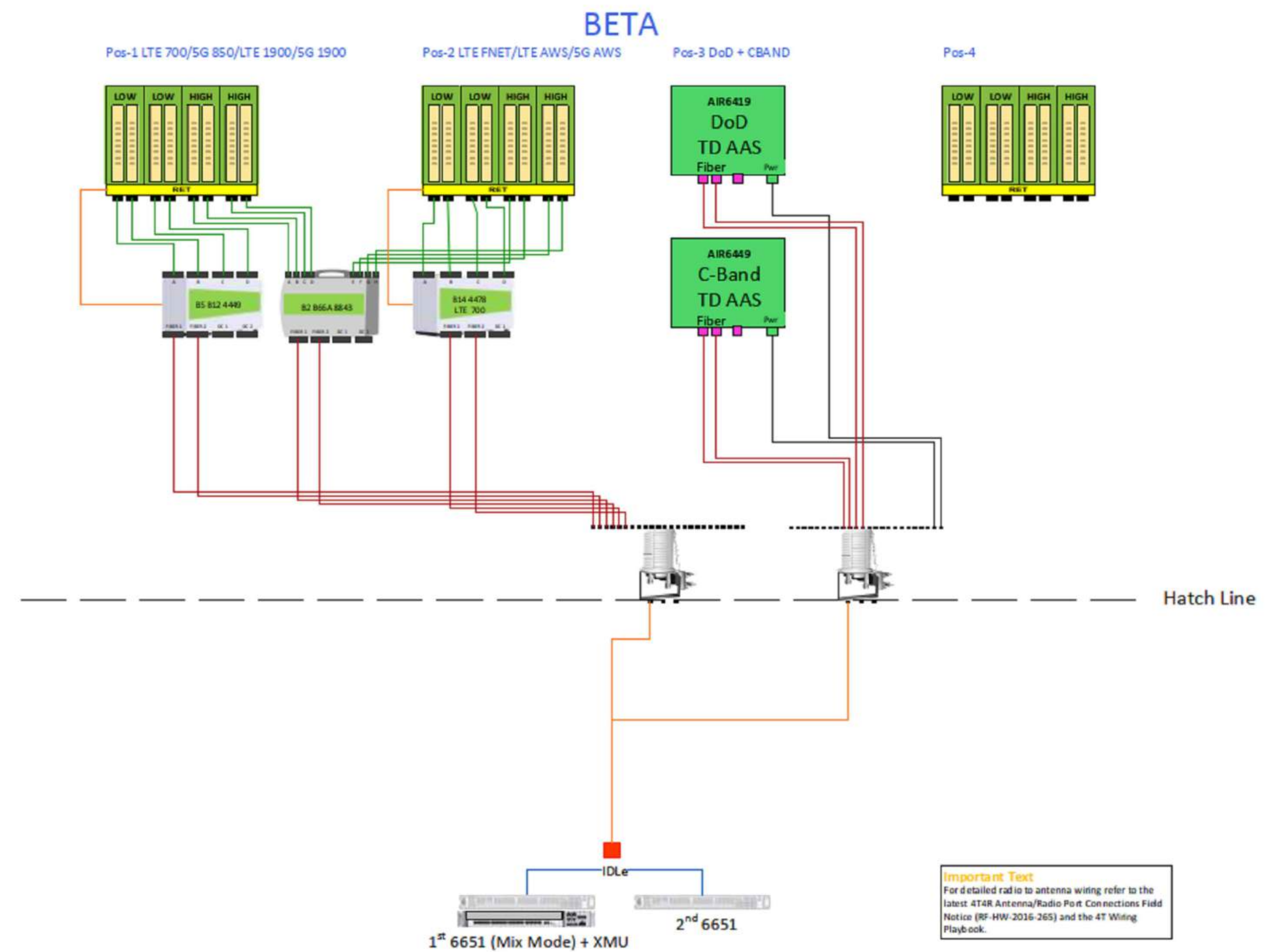
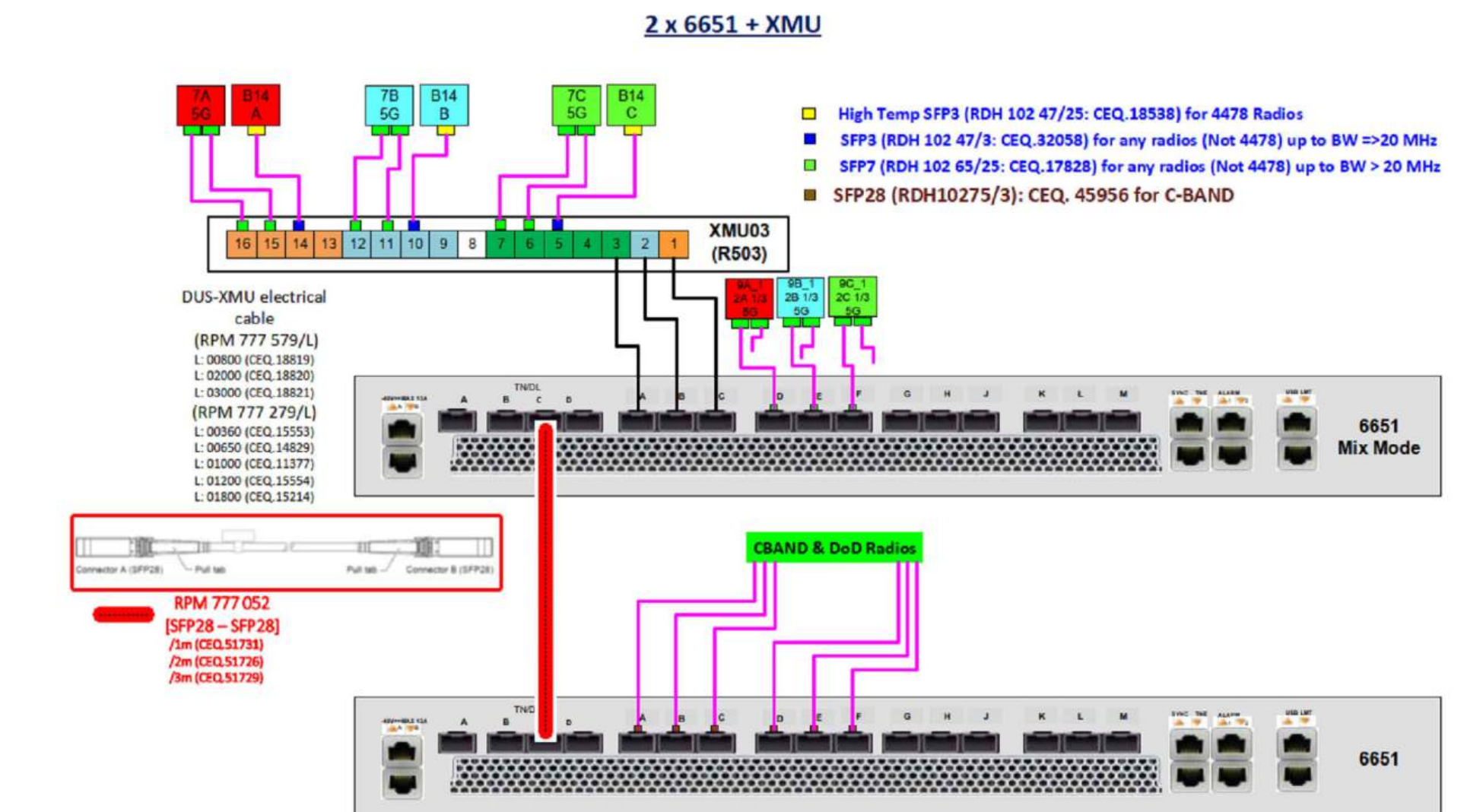


Diagram - Sector A Diagram File Name - CCL04383\_Final\_RFDS.vsd  
Atoll Site Name - CCL04383 Location Name - CCL04383 Market - SAN FRANCISCO Market Cluster - SAN FRANCISCO/SACRAM ENTO  
Comments:



APPLICANT:

AT&T

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:

PM&A  
P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

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5707 HIGHLAND ROAD

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SAN RAMON, CA 94583

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0	11/11/24	ISSUED FOR 100% CDS				

PROFESSIONAL STAMP:

81603  
REGISTERED PROFESSIONAL ENGINEER  
J. LORENZO WITZELSON  
CIVIL  
STATE OF CALIFORNIA

SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

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SHEET TITLE:

**RF-1**

SHEET NAME:

**PLUMBING DIAGRAM**





Features and Benefits

- Capacity range 26 to 170Ah
- Multiple string configurations available
- Two year shelf life
- SR-4228 compliant
- Long service life
- High energy density and cycling capability

Battery Range Summary and Performance Specifications

The Original High Temperature battery - with a wide operating temperature: The PowerSafe® SBS battery range utilizes unique and proven technology to provide a superior range of valve regulated batteries with an extended service life in compact and energy dense configurations. PowerSafe SBS batteries are manufactured to the highest international standards and are ideal for reliable use in all wireless and fixed-line communication applications. PowerSafe SBS batteries are also widely used in cable TV Head-Ends, hybrid systems, power generation, offshore applications and various oil rig applications.

PowerSafe SBS top terminal batteries are available in capacities of 26 Ah to 170 Ah. SBS batteries are suitable for a wide range of telecom and reserve power applications especially where space is limited.

PowerSafe SBS batteries are designed to cope with elevated temperatures and harsh environments. The advanced Thin Plate Pure Lead (TPPL) technology and unique manufacturing methods, used by EnerSys®, make PowerSafe SBS batteries the choice for long and trouble-free service.

PowerSafe SBS batteries have been developed to provide not only long float service life but also designed to provide controlled high cycling and fast recharge performance in unreliable grid applications.

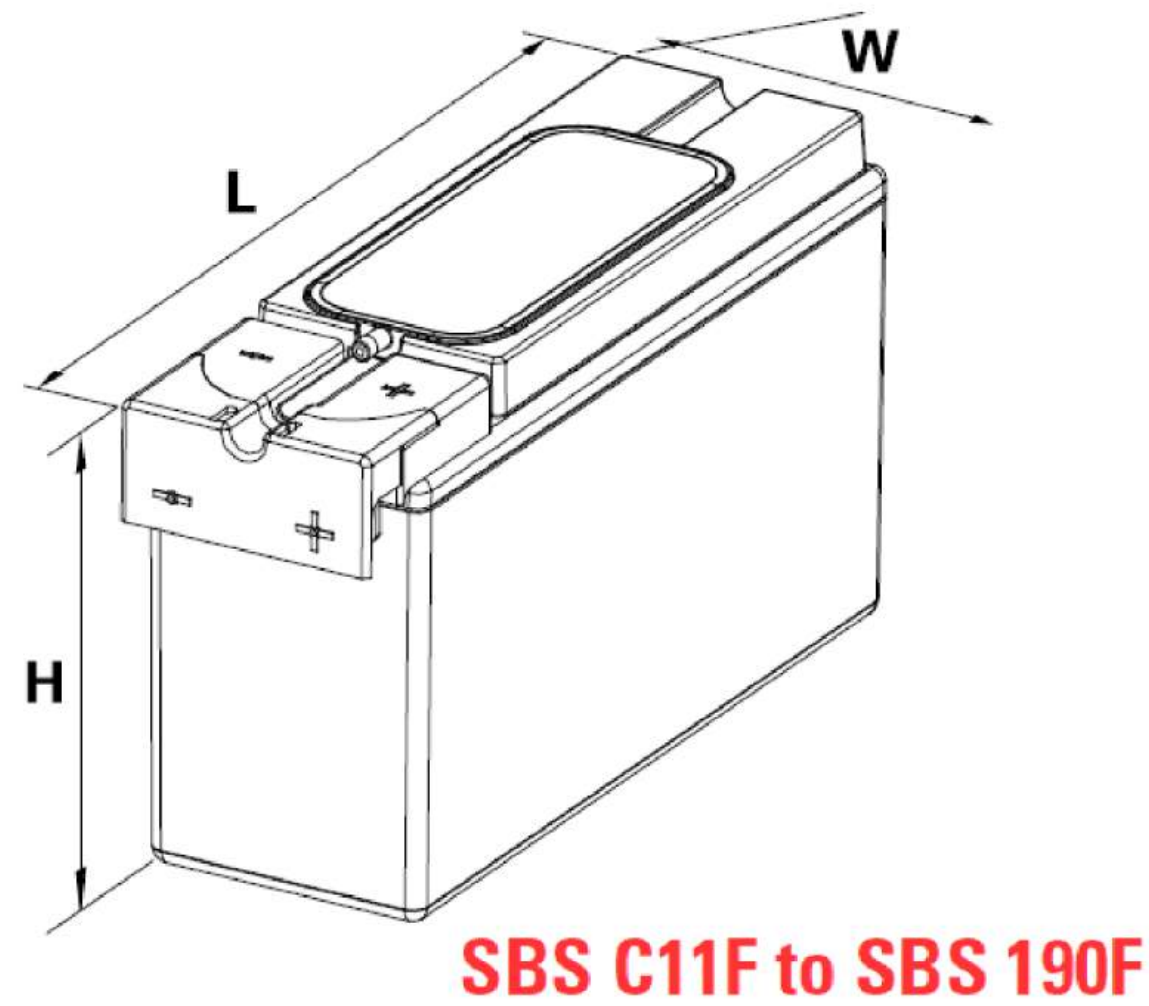
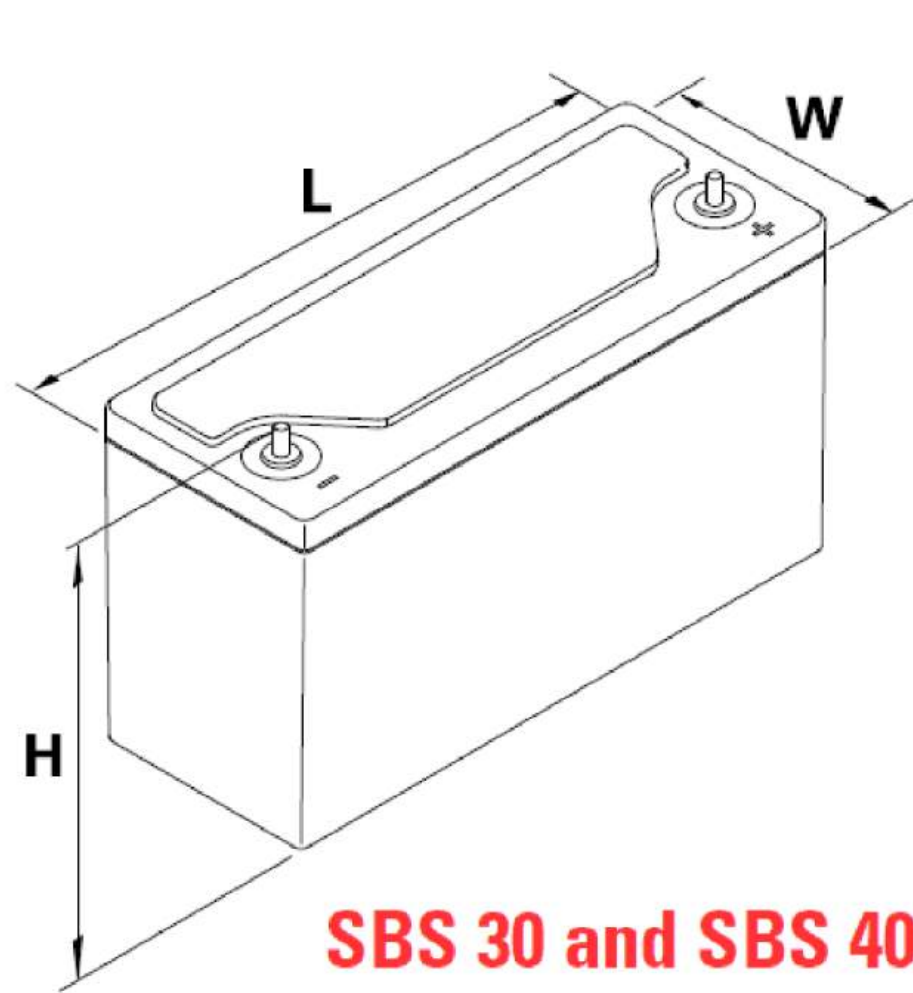


General Specifications

Battery Type	Number of Cells	Nominal Voltage (V)	Nominal Capacity		Nominal Dimensions						Typical Weight		Short Circuit Current (Amps)	Internal** Resistance Milli-Ohms	Terminals	Electrolyte (1.300 S.G.)				Pure Acid (H <sub>2</sub> SO <sub>4</sub> ) Acid				Lead Weight (per bloc)	
			8hr. Rate 1.75Vpc @ 77°F	10hr. Rate 1.80Vpc @ 68°F	Length		Width		Height							Volume (per bloc)		Weight (per bloc)		Volume (per bloc)		Weight (per bloc)			
			in	mm	in	mm	in	mm	lbs	kg	gal	L				lbs	kg	gal	L	lbs	kg	lbs	kg		
SBS® 30	6	12	26	26	9.84	250	3.82	97.0	6.14	156	20.9	9.50	1556	7.90	M6 M	0.40	1.51	4.33	1.96	0.11	0.43	1.72	0.78	15.5	7.04
SBS 40	6	12	38	38	9.84	250	3.82	97.0	8.11	206	29.1	13.2	2184	5.60	M6 M	0.59	2.23	6.69	2.90	0.17	0.63	2.53	1.15	21.2	9.61
SBS C11F	6	12	91	92	16.4	417	4.13	105	10.1	256	61.6	27.9	2300	5.50	M6 M	1.28	4.85	13.9	6.29	0.36	1.36	5.50	2.49	43.3	19.7
SBS 100F	6	12	100	100	15.6	395	4.25	108	11.3	287	71.9	32.6	2210	5.60	M6 M	1.34	5.09	14.6	6.60	0.38	1.43	5.77	2.62	49.7	22.5
SBS 150	6	12	156	151	22.1	561	4.92	125	11.1	283	108	49.0	3330	3.80	M6 M	2.10	7.97	23.5	10.6	0.66	2.49	10.2	4.61	69.2	31.4
SBS 170F	6	12	170	170	22.1	561	4.92	125	11.1	283	116	52.5	3400	4.00	M6 M	2.09	7.92	22.7	10.3	0.59	2.23	8.99	4.08	82.0	37.2
SBS 190F	6	12	190	190	22.1	561	4.92	125	12.4	316	132	60.0	3800	3.30	M6 M	2.34	8.86	25.3	11.5	0.66	2.49	10.1	4.56	95.8	43.4

\*\*Resistance values are for reference only and not intended to represent an Ohmic value or base line measurement

Item Number	Item Description	OEM	Manufacturer Part Number
NEQ. 19853	EnerSys®, SBS® 30, PowerSafe SBS 26AH 12V, Battery Module	EnerSys	SBS 30
NEQ. 12942	EnerSys, SBS 40, PowerSafe SBS 38AH 12V, Battery Module	EnerSys	SBS 40
NEQ. 19854	EnerSys, SBS C11F, PowerSafe SBS 91AH 12V, Battery Module	EnerSys	SBS C11F
NEQ. 19855	EnerSys, SBS 100F, PowerSafe SBS 100AH 12V, Battery Module	EnerSys	SBS 100F
NEQ. 19857	EnerSys, SBS 150, PowerSafe SBS 150AH 12V, Battery Module	EnerSys	SBS 150
NEQ.16622	EnerSys, SBS 170F, PowerSafe SBS 170AH 12V, Battery Module	EnerSys	SBS 170F
NEQ. 19858	EnerSys, SBS 190F, PowerSafe SBS 190AH 12V, Battery Module	EnerSys	SBS 190F



BATTERY INFORMATION (VRLA TYPE BATTERIES)

INSTALL STATUS	BATTERY MODEL	TOTAL # OF BATTERY UNITS INSTALLED (EA)	VOLTAGE (V)	AMP-HOURS (AH)	KWh, Kilowatt-hours = (V*AH)/1000	TOTAL BATTERY CAPACITY, KWh	STATIONARY BATTERY STORAGE SYSTEM THRESHOLD QUANTITY, PER CFC 2022 SECTION 1207	STATIONARY BATTERY STORAGE SYSTEM CODE CHECK	TOTAL ELECTROLYTE VOLUME (GALLONS) PER UNIT	TOTAL ELECTROLYTE BY VOLUME (GALLONS) =
PROPOSED	ENERSYS POWERSAFE SBS 190F	8	12	190	2.28	18.24			2.34	18.72
TOTAL		8				18.24	70	CFC 2022 SECTION 1207 DOES NOT APPLY		18.72

APPLICANT:

5005 EXECUTIVE PARKWAY  
SAN RAMON, CA 94583

VENDOR:

P. MARSHALL & ASSOCIATES  
A CENTERLINE COMMUNICATIONS COMPANY  
1000 HOLCOMB WOODS PKWY, STE 210  
ROSWELL, GA 30076  
OFFICE (678) 280-2325

SITE INFORMATION:

**CCL04383**

5707 HIGHLAND ROAD

5707 HIGHLAND ROAD  
SAN RAMON, CA 94583

REV	DATE	DESCRIPTION	INT.	BH	SMR	SVR
A	09/24/24	ISSUED FOR 90% CDS				
B	10/30/24	ISSUED FOR 95% CDS				
0	11/11/24	ISSUED FOR 100% CDS				

PROFESSIONAL STAMP:

SIGNED: 2024/11/11  
EXPIRES: 2025/09/30

It is a violation of law for any persons, unless they are acting under the direction of a licensed professional engineer, to alter this document

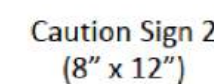
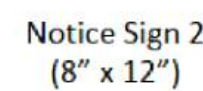
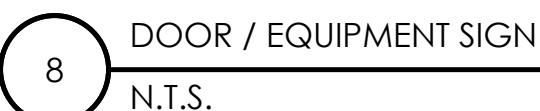
SHEET TITLE:

**MSDS-1**

SHEET NAME:

**MATERIAL SAFETY DATA SHEET & LEAD ACID BATTERY -2**





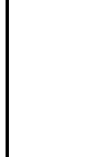
1. CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE w/ AT&T WIRELESS DOCUMENT, RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM, LATEST EDITION
2. ALL SIGNS HAVE THE SAME 8" X 12" DIMENSIONS (AVAILABLE IN DECAL AND ALUMINUM)

EXCEL SIGN & DECAL, INC.  
41353 ALBRAE STREET  
FREMONT CA 94538  
PHONE: 510.651.0445  
FAX: 510.651.0444  
EMAIL: SUPPORT@WENEEDSIGNS.COM  
[HTTP://WWW.WENEEDSIGNS.COM/HOME.PHP?CAT=337](http://www.weneedsigns.com/home.php?cat=337)

1. THE FOLLOWING INFORMATION IS A GUIDELINE w/ RESPECT TO PREVENTING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE 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.
2. CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE w/ [AT&T WIRELESS DOCUMENT #03-0074](#), RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM, LATEST EDITION.
3. 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. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.
4. STRIPING SHALL BE DONE w/ FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS-HATCH PATTERN AS DETAILED BY THE CONSTRUCTION DRAWINGS.
5. ALL 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 RESTRANT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED.

2 GENERAL NOTES  
N.T.S.

PROFESSIONAL STAMP:



**SIGNED: 2024/11/11**  
**EXPIRES: 2025/09/30**

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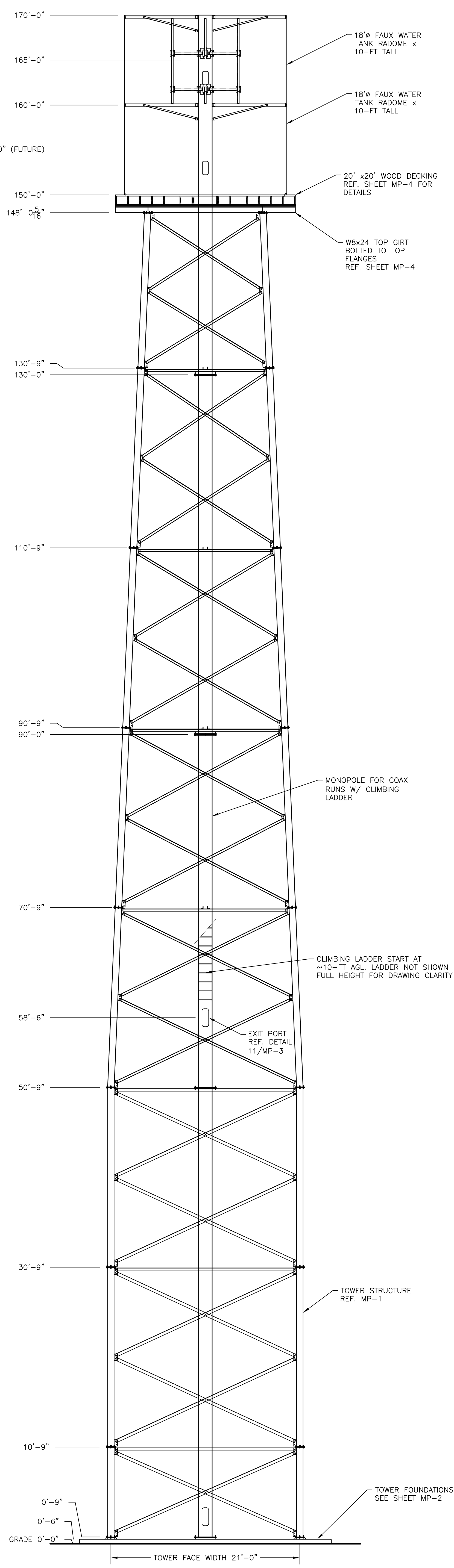
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## SITE SIGNAGE

1. CELL SITE EQUIPMENT ROOM DOOR
2. BATTERY LOCATION WITHIN PROXIMITY OF BATTERY DISCONNECT
3. FCC ROOM WITHIN PROXIMITY OF THE FIRE ALARM PANEL
4. BUILDING'S MAIN ELECTRICAL ROOM WITHIN PROXIMITY OF THE MAIN SHUTOFF AND/OR THE CELL SITE MAIN ELECTRICAL DISCONNECT

1 EMERGENCY SHUT DOWN SIGN  
N.T.S.





## DESIGNED ACCORDING TO: ANSI/TIA-222-H MEETS THE REQUIREMENTS OF: 2022 CBC

THIS ANALYSIS HAS BEEN PERFORMED IN ACCORDANCE WITH THE 2022 CBC BASED UPON A WIND SPEED OF 93 MPH PER 2022 CBC SECTION 1609.3 AS REQUIRED FOR USE IN THE ANSI/TIA-222-H-2017 DESIGN STANDARD. RISK CATEGORY II HAS BEEN USED IN THIS ANALYSIS.

### GENERAL NOTES:

- ALL STEEL SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL" ASTM A36, UNLESS OTHERWISE NOTED ON THE STRUCTURAL PLANS OR BELOW.
- ALL ROUND STEEL PIPE SHALL MEET THE REQUIREMENTS OF ASTM A53 TYPE E OR S GRADE B (35 KSI YIELD POINT MATERIAL) OR ASTM A501 (36 KSI YIELD POINT MATERIAL).
- ALL TUBE STEEL (SQUARE OR RECTANGULAR) SHALL MEET THE REQUIREMENTS OF ASTM A500 GRADE B (46 KSI YIELD POINT MATERIAL).
- ALL WELDED CONNECTIONS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY AWS D1.1 CODE. ALL WELD ELECTRODES OR WIRE SHALL AT A MINIMUM CONFORM TO AWS E81T1-Ni1CJ H8 ELECTRODES (80 KSI YIELD).
- ALL EXPOSED STEEL SHAPES AND PLATES SHALL BE HOT-DIPPED GALVANIZED ACCORDING TO ASTM A123. ALL EXPOSED STEEL NUTS AND BOLTS AND ASSOCIATED HARDWARE SHALL BE HOT-DIPPED ACCORDING TO ASTM A153.
- THE TOWER & MONOPOLE STRUCTURE SHALL BE FABRICATED BY CHAMELEON ENGINEERING. FABRICATION DRAWINGS SHALL BE SUBMITTED TO DAVINCI ENGINEERING FOR REVIEW AND APPROVAL.
- SPECIAL INSPECTION SHALL BE PERFORMED ACCORDING TO SECTION 1705 OF THE 2022 CBC. REFER TO TABLE 'SUMMARY OF SPECIAL INSPECTION' ON SHEET MP-1.
- IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY (OR THE INSPECTING GEOTECHNICAL ENGINEER) AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. PER THE 2022 CBC, ANY WORK THAT REQUIRES SPECIAL INSPECTION THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
- THE LIST OF SPECIAL INSPECTIONS IS IN ADDITION TO INSPECTIONS REQUIRED BY SECTION 104.4 & 110 OF THE 2022 CBC. SPECIAL INSPECTION IS NOT A SUBSTITUTION FOR INSPECTION BY A CITY INSPECTOR.
- THE SPECIAL INSPECTOR SHALL BE APPROVED BY THE LOCAL JURISDICTION TO PERFORM THE TYPES OF INSPECTION REQUIRED.
- CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.
- ANY SUPPORT SERVICE PERFORMED BY THE ENGINEER OF RECORD DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES, WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER OF RECORD ARE ONLY FOR THE PURPOSE OF ASSISTING IN THE QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH THE CONTRACT DOCUMENTS. THIS SUPPORT DOES NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.

### WORK PLATFORM DESIGN CRITERIA:

WORK PLATFORM DESIGNED PER TIA SECTION 12.0 AS DEFINED AS A "CLIMBER WORKING PLATFORM". STRENGTH REQUIREMENT AS PER SECTION 12.4. ADDITIONALLY LOAD COMBINATIONS PER: 2022 CBC SECTION 1605.2 HAVE BEEN CONSIDERED. MINIMUM UNIFORM LIVE LOAD OF 37 LBS. PER SQ. FT. OVER THE ENTIRE PLATFORM AND MINIMUM CONCENTRATED 375 LB. POINT LOAD AT ANY LOCATION (WORST CASE) ON THE PLATFORM AND A MINIMUM 600 LB. CONCENTRATED LOAD ON ANY POINT ON THE CLIMBING FACILITIES.

DESIGN SPECIFICATIONS					
DESIGNED ACCORDING TO: ANSI/TIA-222-H					
COMPLIES WITH: 2022 CALIFORNIA BUILDING CODE					
EARTHQUAKE DESIGN DATA					
(PER THE EQUIVALENT LATERAL FORCE PROCEDURE; SECTION 1613)					
IMPORTANCE FACTOR (I):	1	OCCUPANCY CATEGORY: Group I			
Se: 1.648	Se:0.631	Se: 2.060	Se: 0.676		
SEISMIC DESIGN CATEGORY: D; SITE CLASS C					
DESIGN BASE SHEAR = 50K (WIND)					
SEISMIC RESPONSE COEFFICIENT (C <sub>s</sub> ): 0.55					
RESPONSE MODIFICATION FACTOR (R): 3.0					
Wind Speed Load Cases: (According to the ANSI/TIA-222-H)					
STRUCTURE CLASS	EXPOSURE CATEGORY	TOPOGRAPHIC CATEGORY	CREST HEIGHT		
II	C	3	315-FT		
LOAD CASE 1: 93 MPH DESIGN WIND SPEED					
LOAD CASE 2: 60 MPH OPERATIONAL WIND SPEED					
POLE STEEL SPECIFICATIONS					
POLE SHAFT SHAPE: ROUND					
POLE SHAFT TAPER: 0.00000 inches/ft.					
POLE SHAFT STEEL: ASTM A53 GR. B (35 ksi)					
BASE PLATE STEEL: ASTM A572 GR. 50 (F <sub>y</sub> = 50 ksi)					
ANCHOR RODS: F1554 GR 105 x 72" LONG					
MONOPOLE MAX. REACTIONS: (Maximum Factored Reactions)					
MOMENT:	150	ft-kips			
SHEAR:	3.5	kips			
AXIAL:	9.5	kips			
POLE SHAFT SECTION DIMENSIONS					
Bottom ↑ Top	SECTION LENGTH (ft)	WALL THK. (inches)	SPLICE LENGTH (ft)	TOP DIA (inches)	BOT. DIA (inches)
	40.00	0.375	0.00	18.00	18.00
	40.00	0.25	0.00	18.00	18.00
	39.25	0.25	0.00	18.00	18.00
APPURTENANCE LIST					
Elev.(ft)	Equipment Description:				
TOP	LIGHTNING ROD (OPTIONAL)				
115.0	(6) DMP65R-BUBEA-K PANEL ANTENNA				
115.0	(9) RRU (28"x18.5"x10"x85#)				
115.0	4'-5" T-ARM ANTENNA MOUNT				
105.0	(6) DMP65R-BUBEA-K PANEL ANTENNA				
105.0	(9) RRU (28"x18.5"x10"x85#)				
105.0	(3) AIR6419 B77G ANTENNA				
105.0	(3) AIR 6449 B77D ANTENNA				
105.0	(3) DC9-48-60-24-8C-EV SURGE SUPPRESSOR				
105.0	4'-5" T-ARM ANTENNA MOUNT				

NOTES: CLIMBING LADDER & SAFETY CABLE STARTING AT 10'-FT AGL  
ANTENNA COAX CABLES ROUTED INSIDE POLE SHAFT

### ERECTION NOTES:

- ALL ANTENNA COAXIAL CABLES SHALL BE RUN INSIDE THE MONOPOLE SHAFT.
- THE CONTRACTOR SHALL INSTALL THE ANTENNA AND MOUNT AS REQUIRED BY THE OWNER.
- ALL ANCHOR BOLT NUTS SHALL BE TIGHTENED TO AISC SNUG TIGHT REQUIREMENTS. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXIST WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT, THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.
- ALL GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED UP WITH TWO COATS OF A COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.
- THE ANCHOR BOLT TEMPLATES AND BASE PLATE WILL TYPICALLY HAVE AN AZIMUTH WELDED OR A NOTCH INDICATING THE CORRECT ORIENTATION OF THE ANCHOR BOLTS. THIS IS NECESSARY TO PROPERLY ORIENT THE MONOPOLE EXIT PORTS.

### BOLT INSTALLATION NOTES:

- INSTALLATION OF BOLTS:** BOLTS FOR TOWER AND ANTENNA SHALL BE INSTALLED WITH THE NUTS FACING TO THE OUTSIDE AND/ OR TO THE TOP OF THE TOWER, UNLESS PROHIBITED BY LACK OF CLEARANCE.
- TIGHTENING OF BOLTS:** BASED ON SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

- A. **SHEAR/ BEARING CONNECTIONS:**  
BOLTS IN CONNECTION NOT SUBJECT TO TENSION LOADS (SUCH AS BRACING BOLTS AND MOST ANTENNA MOUNT BOLTS) SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES, BUT NEED ONLY BE TIGHTENED TO THE SNUG TIGHT CONDITION. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXIST WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT, THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.

- B. **DIRECT TENSION CONNECTIONS:**  
CONNECTIONS SUBJECT TO DIRECT TENSION (SUCH AS FLANGES AND LEG SPLICES) SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY THE TURN OF THE NUT METHOD.

THE TURN OF THE NUT METHOD: BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION, BROUGHT TO A SNUG TIGHT CONDITION (AS DEFINED ABOVE). FOLLOWING THIS INITIAL OPERATION, ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE FOLLOWING AMOUNT OF ROTATION.

FOR BOLT LENGTH UP TO AND INCLUDING 4 DIAMETERS: 1/3 TURN  
FOR BOLT LENGTH OVER 4 DIAMETERS BUT LESS THAN 8 DIAMETERS: 1/2 TURN  
FOR BOLT LENGTH OVER 8 DIAMETERS BUT LESS THAN 12 DIAMETERS: 2/3 TURN

- NUT LOCKING DEVICE:** ALL NON PRETENSION NUTS SHALL BE EQUIPPED WITH SOME TYPE OF NUT LOCKING DEVISE TO PREVENT THE LOOSENING OF THE CONNECTION WITH TIME OR VIBRATION AND TO MITIGATE THE POTENTIAL FOR VANDALISM.
- ALL A307 LAG SCREWS SHALL HAVE LEAD HOLES DRILLED ACCORDING TO THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION.

SUMMARY OF SPECIAL INSPECTION		
NO.	DESCRIPTION OF TYPE OF INSPECTION REQ'D, LOCATION, REMARKS, ECT.	DESIGN STRENGTH
1.	FOUNDATION CONSTRUCTION:	
A.	GEOTECHNICAL ENGINEER OF RECORD MAY SERVE AS THE SPECIAL INSPECTOR FOR THE FOUNDATION CONSTRUCTION.	PER 2022 CBC
B.	SHALL VERIFY THE DIAMETER, DEPTH, AND QUALITY OF THE EXCAVATION PRIOR TO THE CONCRETE PLACEMENT	INSPECT AND REPORT
C.	SHALL VERIFY THAT THE ON SITE SOILS ARE AS DETERMINED IN THE SOIL REPORT.	INSPECT AND REPORT
2.	CAST IN PLACE CONCRETE (FOUNDATION):	
A.	REINFORCING CAGE SHALL BE INSPECTED TO ENSURE THAT THE PROPER GEOMETRY, SIZE, LENGTH, QUANTITY AND GRADE MATERIAL ARE USED.	60 KSI (40 KSI TIES)
B.	ALL CONCRETE SHALL BE AS SPECIFIED BY ACI-318, LATEST EDITION, TO ENSURE THE COMPRESSIVE STRENGTH IS ATTAINED AS DESCRIBED IN THE FOUNDATION NOTES.	4000 PSI @ 28 DAYS
C.	CONTINUOUS INSPECTION IS REQ'D DURING THE CONCRETE PLACEMENT	INSPECT AND REPORT
3.	ANCHOR BOLTS INSTALLED IN CONCRETE:	
A.	PLACEMENT SHALL BE ORIENTED ON PROPER BOLT CIRCLE AS SHOWN ON THE STRUCTURAL PLANS, WITH TOP AND BOT. TEMPLATES INSTALLED.	INSPECT AND REPORT
B.	SHALL BE PLUMB FOR MONOPOLE AND CANTED FOR TOWER	INSPECT AND REPORT
C.	SHALL HAVE A MINIMUM EMBEDMENT OF 62 INCHES INTO FOUNDATION (9 INCH MAXIMUM PROJECTION)	INSPECT AND REPORT
D.	SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION PER AISC STEEL MANUAL OF STEEL CONSTRUCTION.	INSPECT AND REPORT
4.	HIGH STRENGTH BOLTING:	
A.	ALL A325 BOLTS SHALL BE TIGHTENED ACCORDING TO THE BOLT INSTALLATION NOTES ON SHEET MP-1.	INSPECT FOR LOCKING DEVISE OR CONT. INSP. FOR PRE TENSIONED BOLTS
5.	FIELD WELDING:	
A.	NO FIELD WELDING SHALL BE PERMITTED.	NOT PERMITTED
6.	SHOP WELDING:	
A.	ALL SHOP WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY AN APPROVED FABRICATOR'S SHOP PER 2022 CBC SECTION 1704	PROVIDE CERTS.
B.	ALL WELDED CONNECTIONS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY A.W.S. D1.1	INSPECT AND REPORT
C.	WELD ELECTRODES SHALL CONFORM TO E80 ELECTRODES OR WIRE.	E-80XX
D.	CONTINUOUS INSPECTION OF SHOP WELDING IS NOT REQUIRED. VISUAL INSPECTION SHALL BE PERFORMED BEFORE AND AFTER GALVANIZING.	VISUAL INSPECTION PER EOR
E.	IF A WELD IS IN QUESTION PER THE VISUAL INSPECTION THEN IT SHALL BE TESTED USING AN APPROPRIATE TEST, EX. DIE PENETRATION, OR MAGNETIC PARTICLE, U.T. ECT.	INSPECT AND REPORT

## TOWER ELEVATION



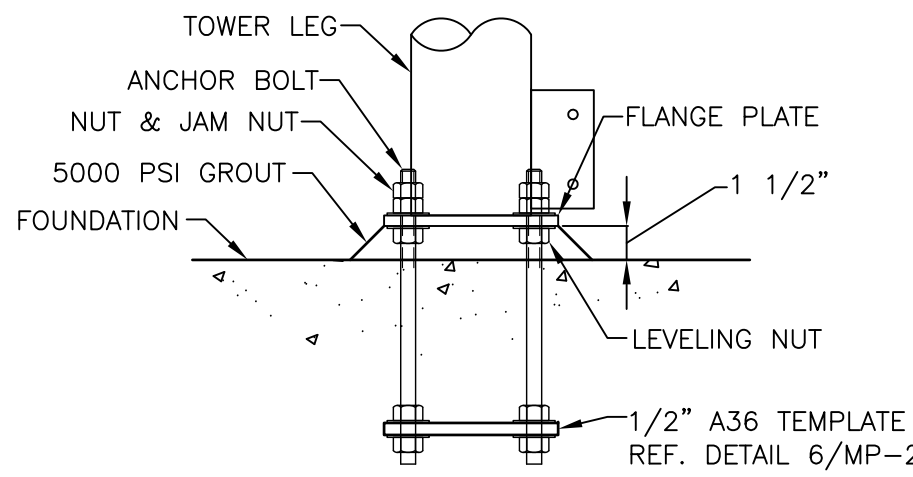
MP-0 Sheet No.		Project Description: 170-FT FAUX WATER TANK [SITE#2]	Site Name: HIGHLAND RD. CCL04383	Revision: REV. # 1; 10/29/2024	Description: REVISED FND STYLE		<b>DaVinci</b> Engineering, Inc. 191 S. HOUSE ROCK DR. CEDAR CITY, UT 84720 (805) 922-5221
		Project Number: 1324201-024	Site Location: SAN RAMON, CA 5707 HIGHLAND RD.				
		CHAMELEON ENGINEERING 24-578	Designed By: SWL Drawn By: SWL				
		Owner: AT&T WIRELESS	Date: 8/16/2024				
			Scale: NTS/_AS_NOTED	By: _____	Date: _____	237 Town Center West PMB 140 Santa Maria, CA 93457 (775) 434-7833	



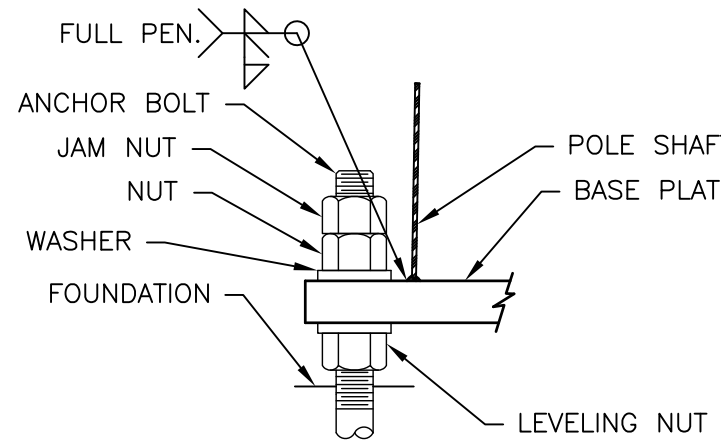




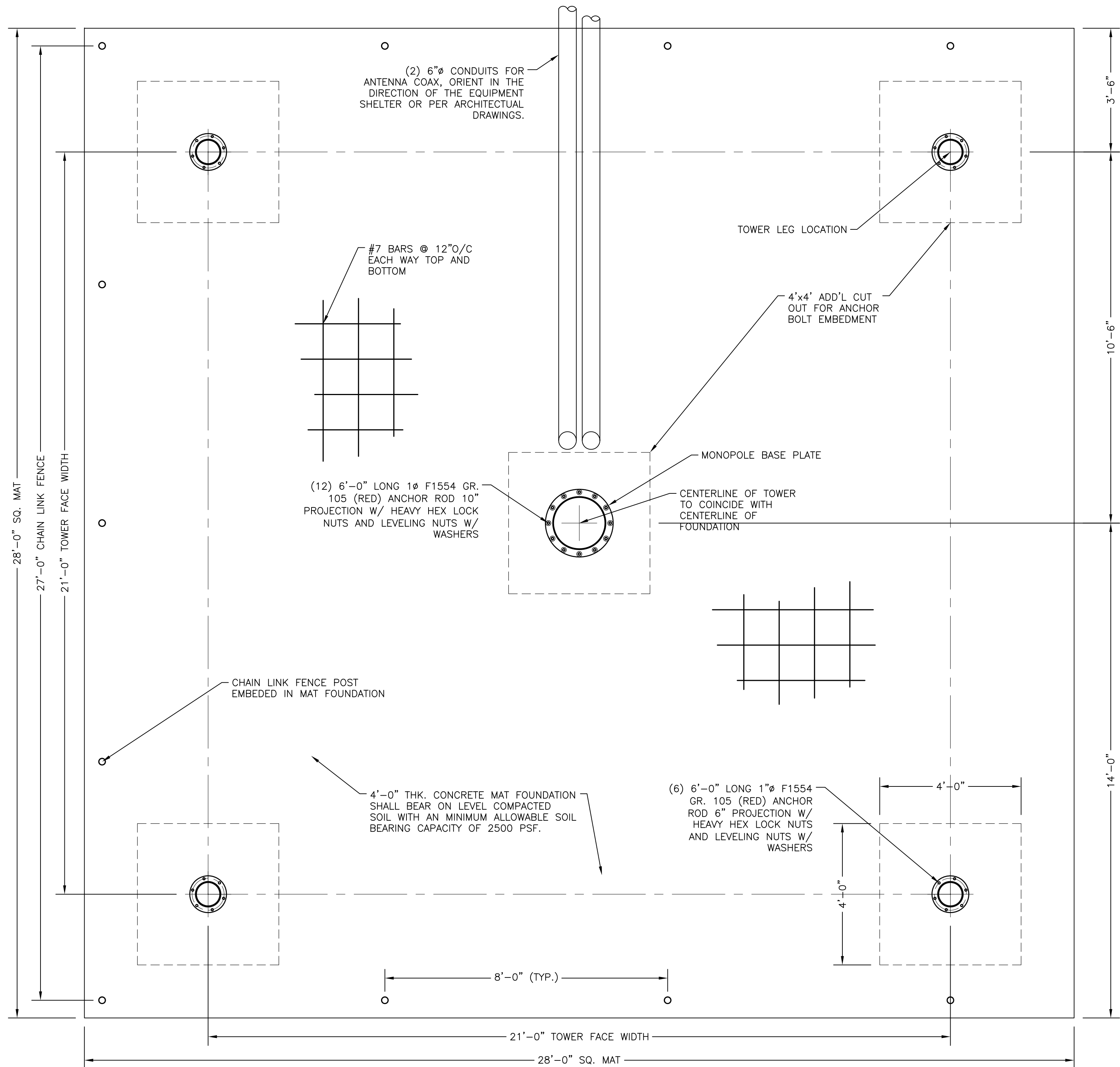
## FOUNDATION DESIGN



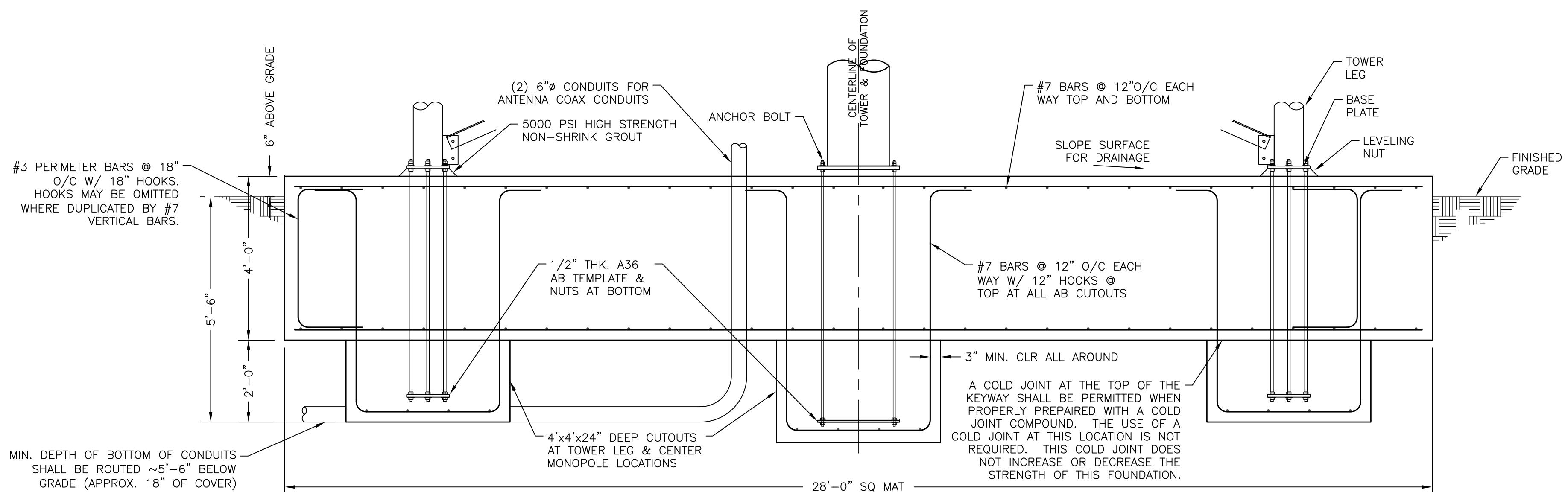
TOWER BASE



## POLE BOLTS



# FOUNDATION PLAN<sup>1</sup>



## FOUNDATION ELEVATION

## FOUNDATION NOTES

1. THE GEOTECHNICAL ENGINEER (OR THE APPROPRIATE INSPECTOR) SHALL INSPECT THE EXCAVATION PRIOR TO PLACING REINFORCING STEEL OR FORMS. THE GEOTECHNICAL ENGINEER (OR INSPECTOR) SHALL FURNISH A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORDS PURPOSE.
2. THE CONTRACTOR SHALL DETERMINE THE MEANS AND METHODS TO SUPPORT THE EXCAVATION DURING CONSTRUCTION. REFER TO THE GEOTECHNICAL REPORT FOR RECOMMENDATIONS.
3. THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND SHALL CONSULT THE GEOTECHNICAL ENGINEER AS NECESSARY PRIOR TO CONSTRUCTION.
4. FOUNDATION DESIGN IS BASED ON SITE SPECIFIC GEOTECHNICAL REPORT BY: MID PACIFIC ENGINEERING, INC. REFERENCE #06912-02 DATED OCTOBER 18, 2024 AND SUPPLEMENTAL RECOMMENDATIONS LETTER DATED OCTOBER 24, 2024.
5. ALL FOUNDATION CONCRETE SHALL USE TYPE II CEMENT AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI WITHIN 28 DAYS OF PLACEMENT. PROPORTIONING OF THE CONCRETE MIX SHALL BE DESIGNED BY AN APPROVED LABORATORY. COPIES OF EACH MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND COMMENTS PRIOR TO PLACING ANY CONCRETE. CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.46 AND SHALL BE AIR ENTRAINED 4.5% (+/-1.5%). ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318, "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION. CEMENT SHALL BE LOW ALKALI, CONFORMING TO ASTM C-150. ALL AGGREGATE USED IN THE CONCRETE SHALL CONFORM TO ASTM C-33. USE ONLY AGGREGATES KNOWN NOT TO CAUSE EXCESSIVE SHRINKAGE. MAXIMUM AGGREGATE SIZE TO BE 1 1/2 INCH."
6. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 318, LATEST EDITION. CONCRETE CYLINDERS SHALL BE MADE AND TESTED. A MINIMUM OF ONE (1) SET SHALL BE TAKEN FROM CONCRETE IN FOUNDATION. EACH SET SHALL CONSIST OF THREE (3) CYLINDERS. ONE SHALL BE TESTED AT SEVEN (7) DAYS, THE SECOND SHALL BE TESTED AT TWENTY EIGHT (28) DAYS AND THE LAST CYLINDER SHALL BE A HOLD. ALL CYLINDERS SHALL BE TAKEN, PREPARED AND TESTED BY A TESTING LAB IN ACCORDANCE WITH ASTM STANDARDS C172, C318 AND C39.
7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615. PRIMARY REINFORCING BARS SHALL BE GRADE 60, AND TIES OR STIRRUPS SHALL BE A MINIMUM OF GRADE 40. THE PLACEMENT OF ALL REINFORCEMENT SHALL CONFORM TO ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION, UNLESS OTHERWISE DETAILED ON THIS SHEET.
8. ESTIMATED CONCRETE VOLUME = 122 CUBIC YARDS.
9. THE TOWER LEG FOUNDATION HAS BEEN DESIGNED TO RESIST THE FOLLOWING FACTORED LOADS: UPLIFT: 165 KIPS; COMPRESSION: 190 KIPS; SHEAR: 25 KIPS;
10. THE MONOPOLE FOUNDATION HAS BEEN DESIGNED TO RESIST THE FOLLOWING FACTORED LOADS: MOMENT: 150 FTKIPS; SHEAR: 3.5 KIPS; AXIAL: 25 KIPS

Additional Notes

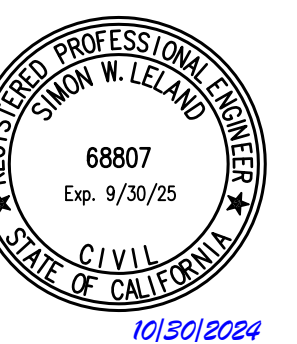
**DaVinci**  
**Engineering, Inc.**  
191 S. HOUSE ROCK DR.  
CEDAR CITY, UT 84720  
(805) 922-5221



Revision:	REV. # 1; 10/29/2024	Description:	REVISED FND STYLE
APPROVED FOR FABRICATION			
By: _____		Date: _____	

Site Name: HIGHLAND RD. CCL04383	Site Location: SAN RAMON, CA 5707 HIGHLAND RD.	Designed By: SWL	Drawn By: SWL
Date: 8/16/2024		Scale: NTS/_AS_NOTED	

Project Description:	170-FT FAUX WATER TANK [SITE #2]
Project Number:	1324201-014
	CHAMELEON ENGINEERING 24-578
Owner:	AT&T WIRELESS

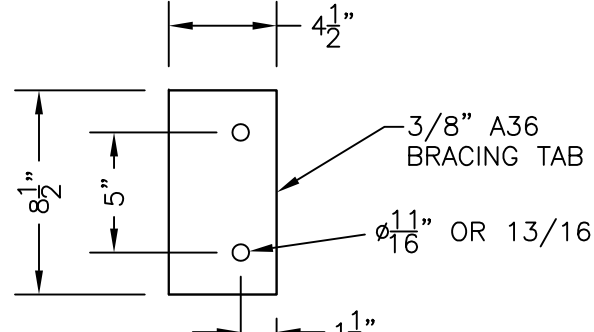


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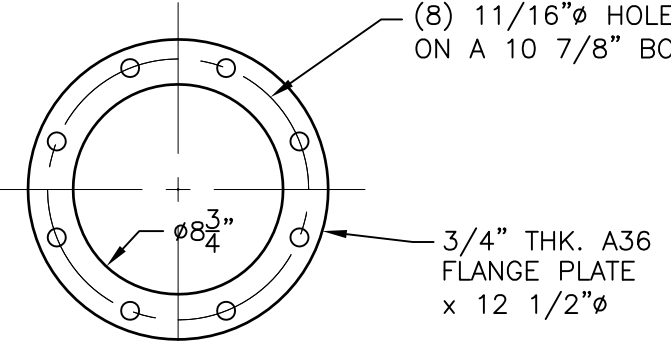
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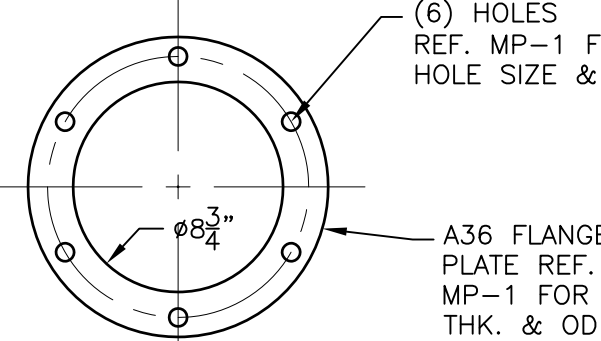
## TOWER LEG DETAILS



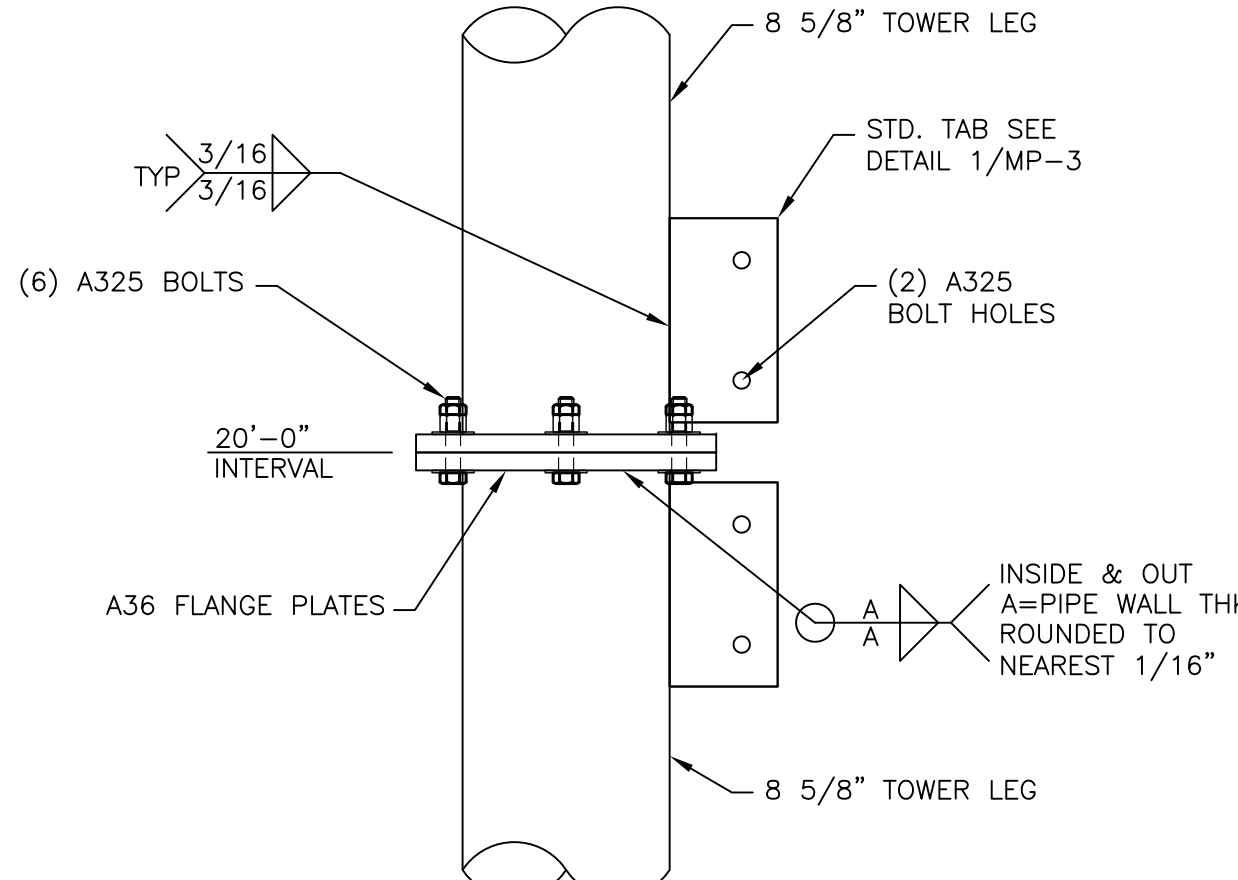
STD TABS 1  
SCALE: 1/8"=1"  
ASTM A36 MP-3



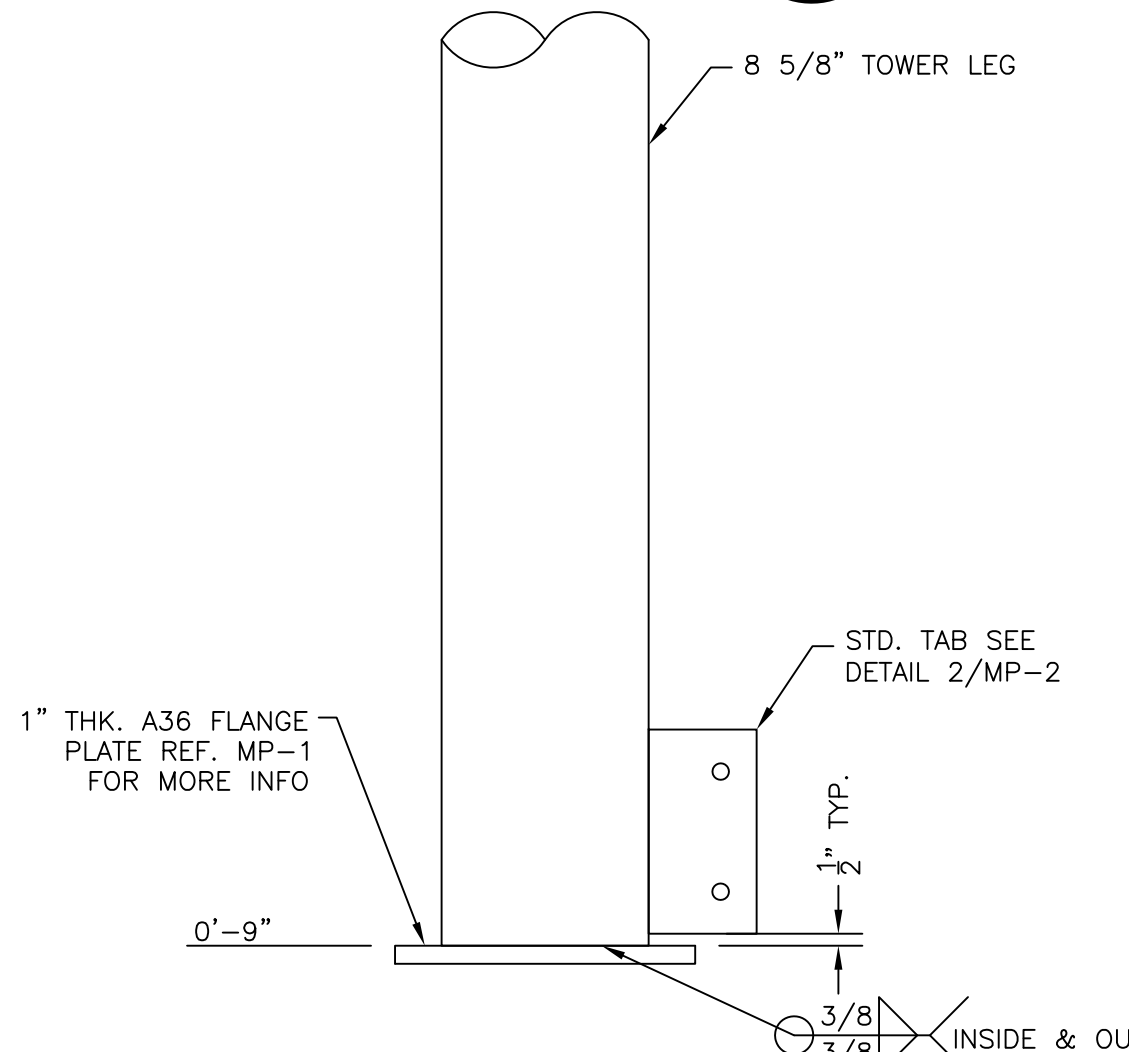
TOP FLANGE PLATE (2)  
MP-3



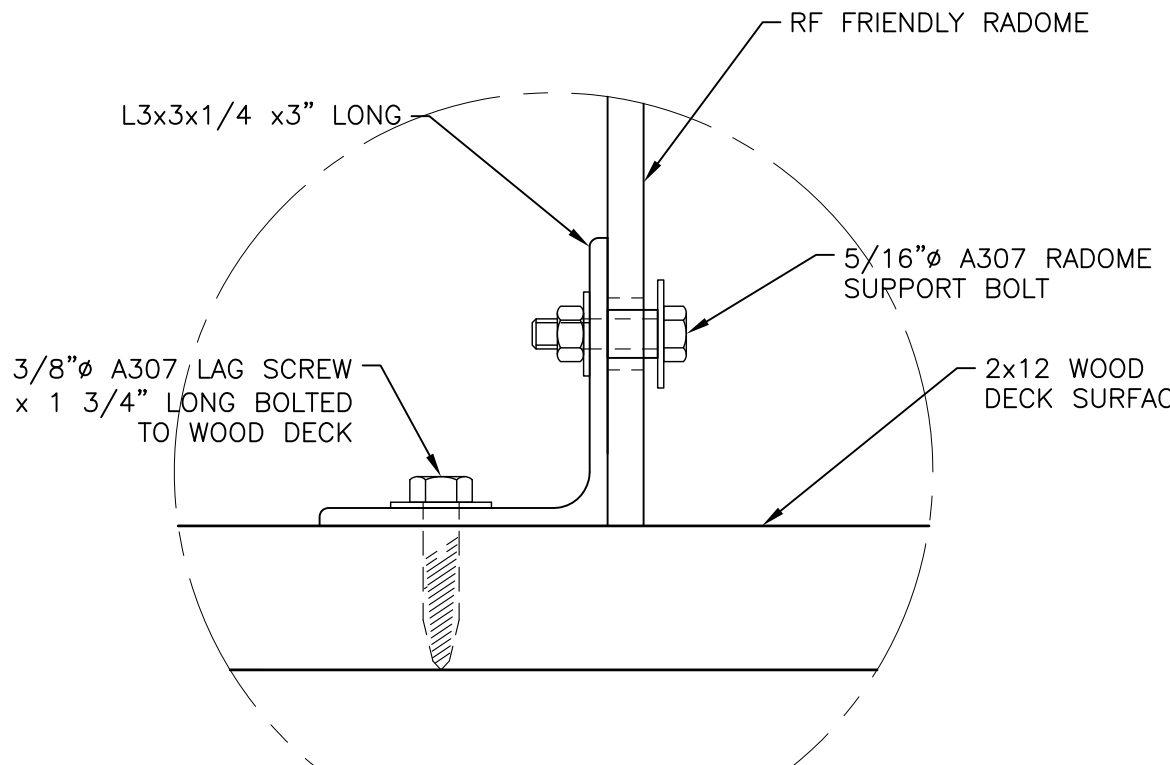
TYP. FLANGE PLAN (3)  
MP-3



FLANGE PLATE 4  
MP-5



BASE FLANGE PLATE (5)

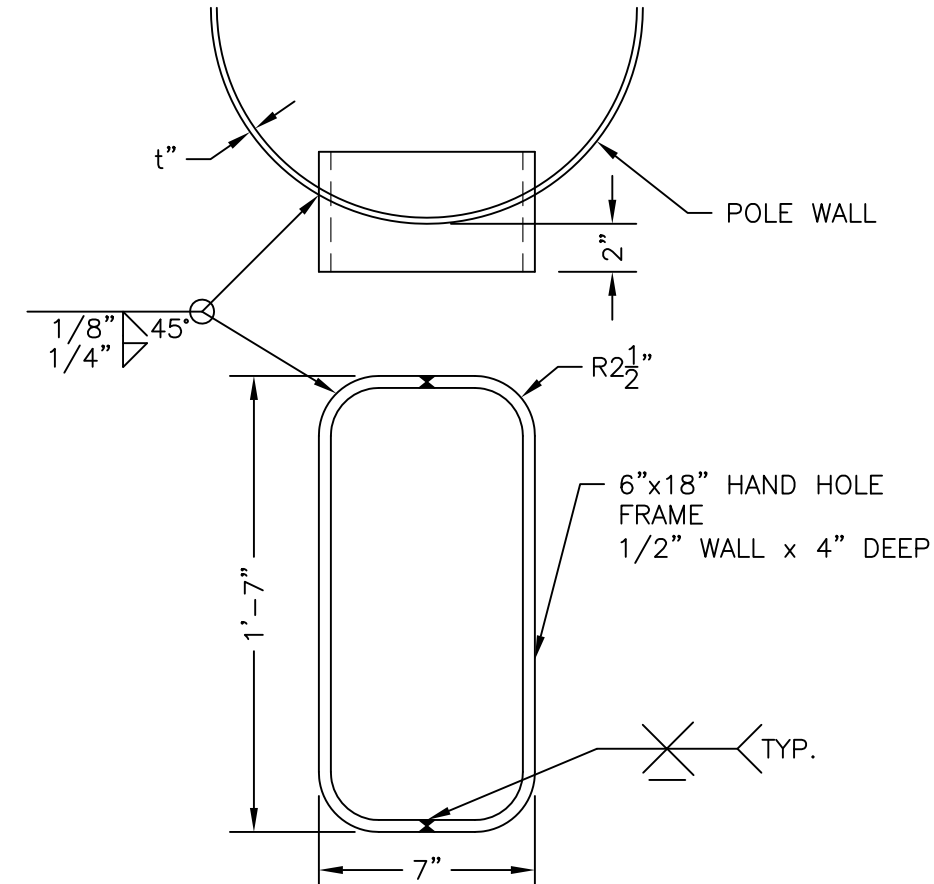


RADOME CONNECTION (6)  
MP-3

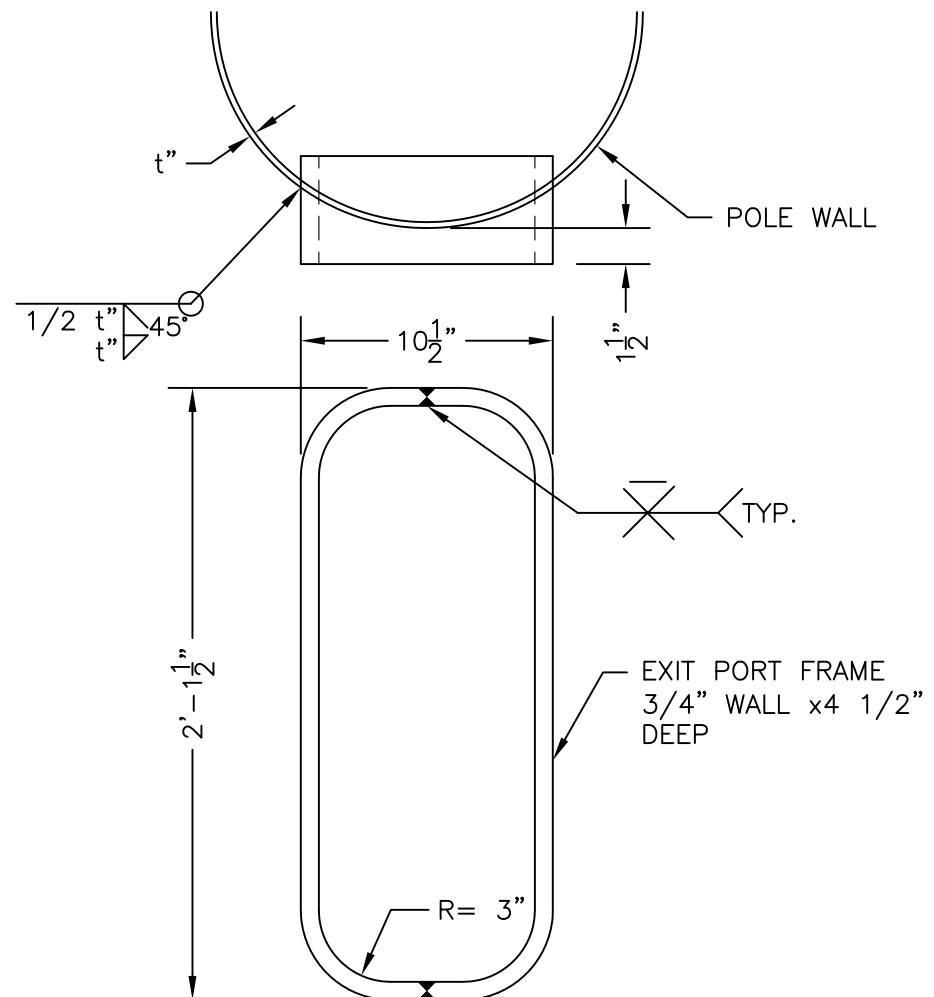
Additional Notes

## MONOPOLE DETAILS

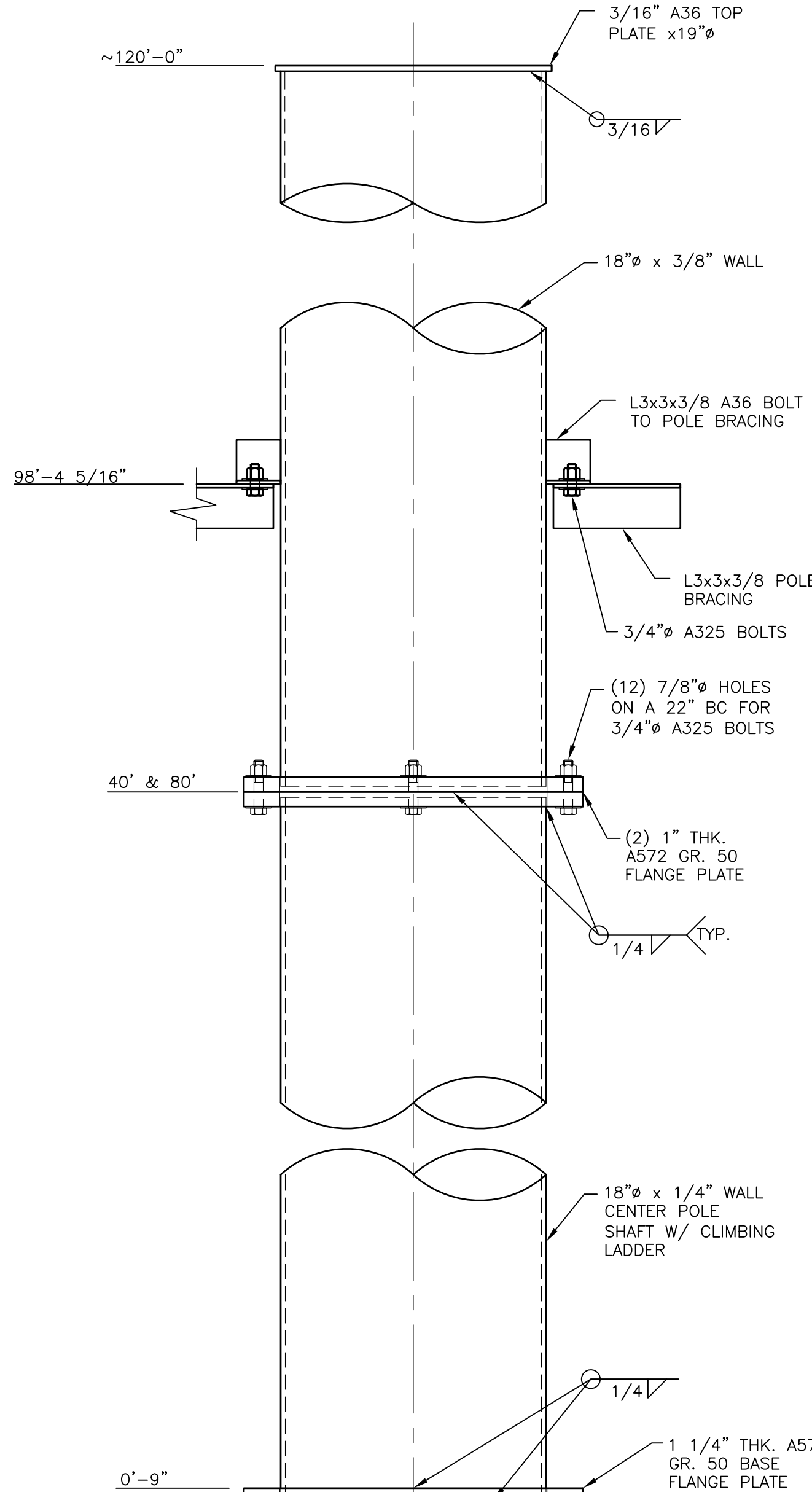
COAX PORT HOLE SCHEDULE				
ELEVATION (AGL)	PORT SIZE	QTY	AZIMUTH (DEG.)	REFERENCE DETAIL
163'-0"	6"x18"	3	80,200,320	10' MP-3
153'-0"	6"x18"	3	80,200,320	10' MP-3
48'-6"	9"x24"	2	45,225	11' MP-3
3'-0"	9"x24"	2	90,270	11' MP-3



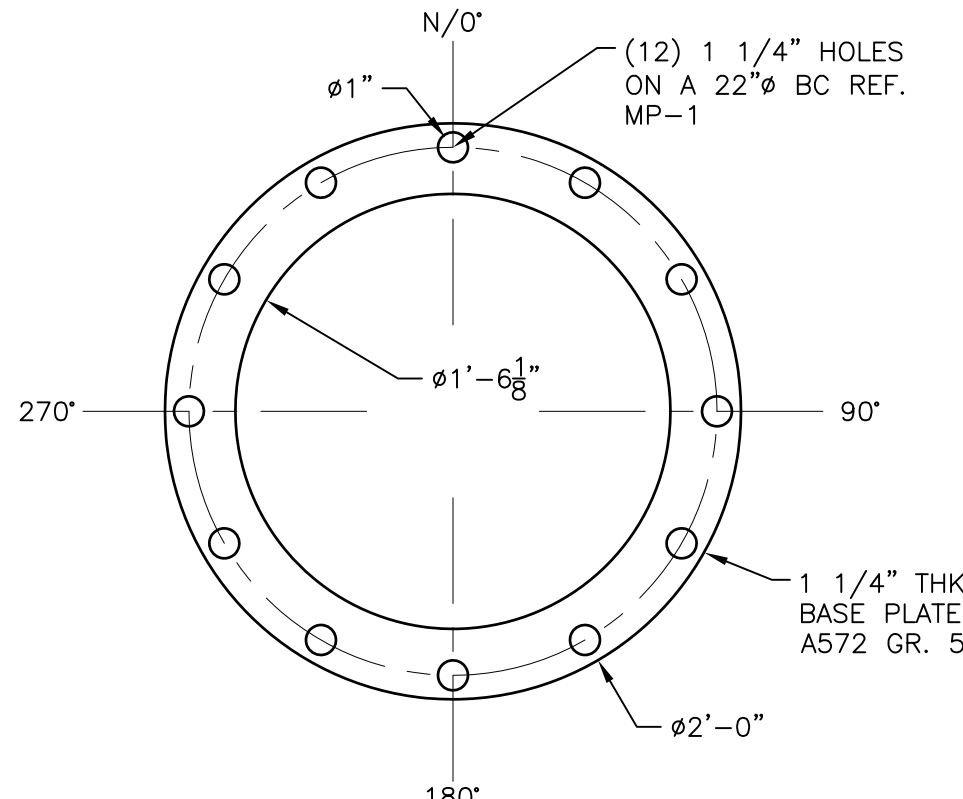
**HAND HOLE** 10  
MP-3



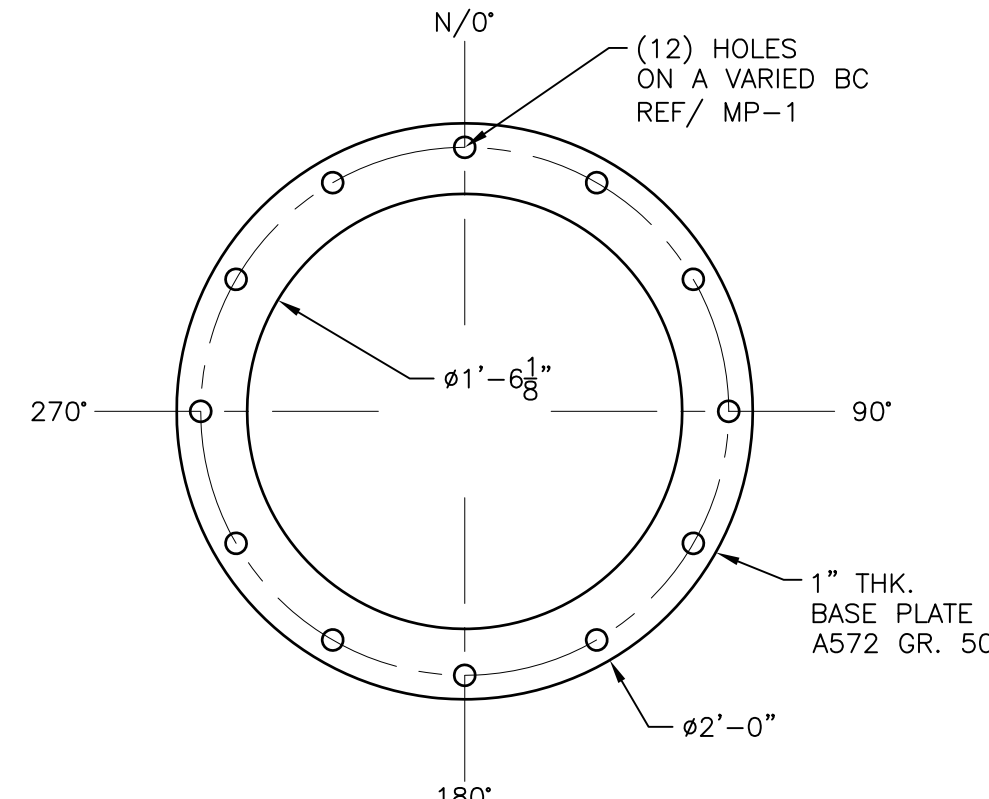
EXIT PORT 11  
ASTM A572 GR. 65 (65 KSI) MP-3



POLE SHAFT (8 MP-3)



BASE PLATE 9  
MP-3



FLANGE PLATE 12  
MP-3

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*Engineering, Inc.*  
191 S. HOUSE ROCK DR.  
CEDAR CITY, UT 84720  
(805) 922-5221



CCLO4-383	Site Location: SAN RAMON, CA 5707 HIGHLAND RD.		REV. # 1: 10/29/2024	NO CHANGES THIS SHEET
	Designed By:	SWL		
	Drawn By:	SWL		
APPROVED FOR FABRICATION				
Date: 8/16/2024			By: _____ Date: _____	
Scale: NTS / AS NOTED				

70-FT FAUX WATER TANK [SITE #2]

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Project Number: 1324201-014

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CHAMELEON ENGINEERING 24-578

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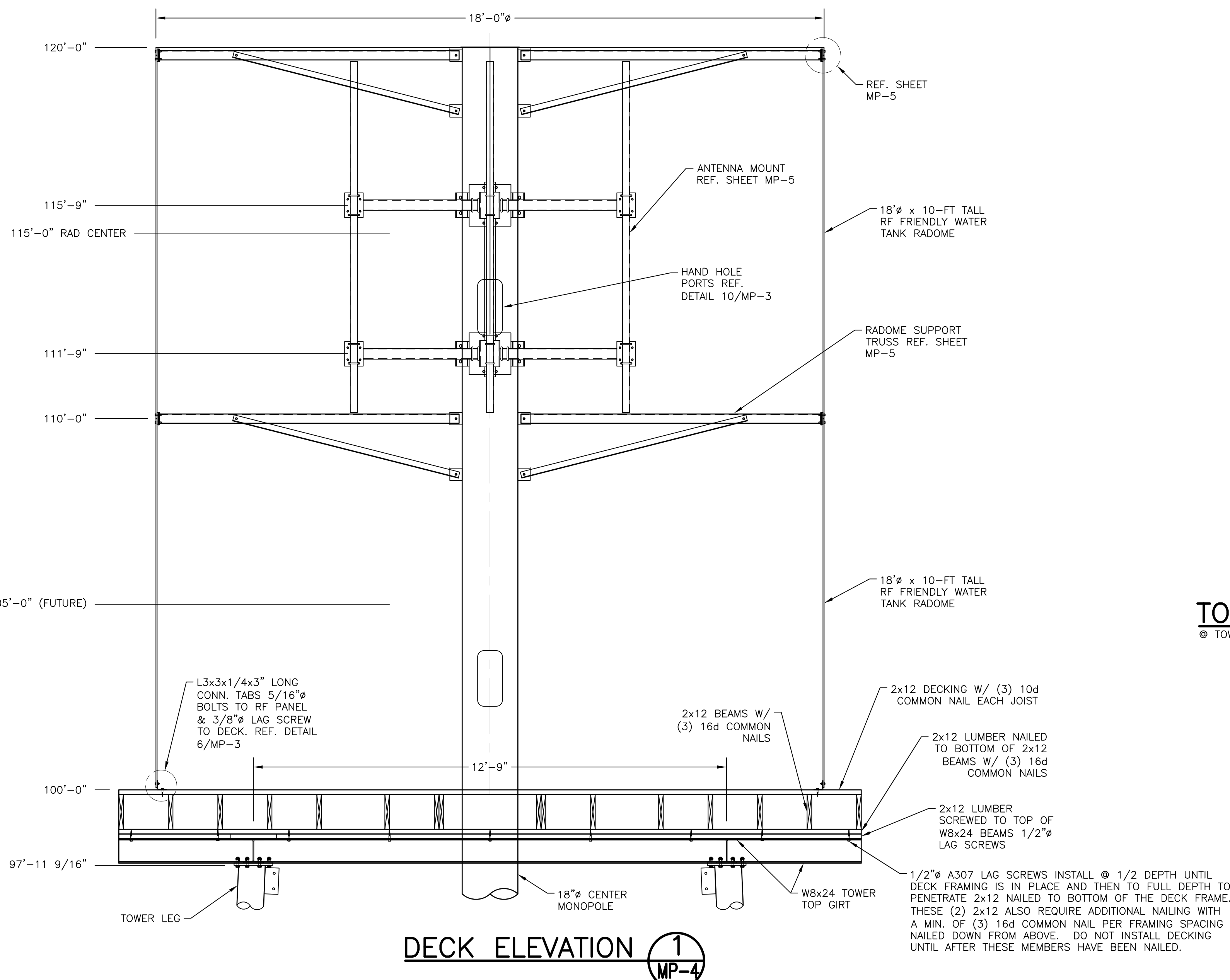
Owner: AT&T WIRELESS



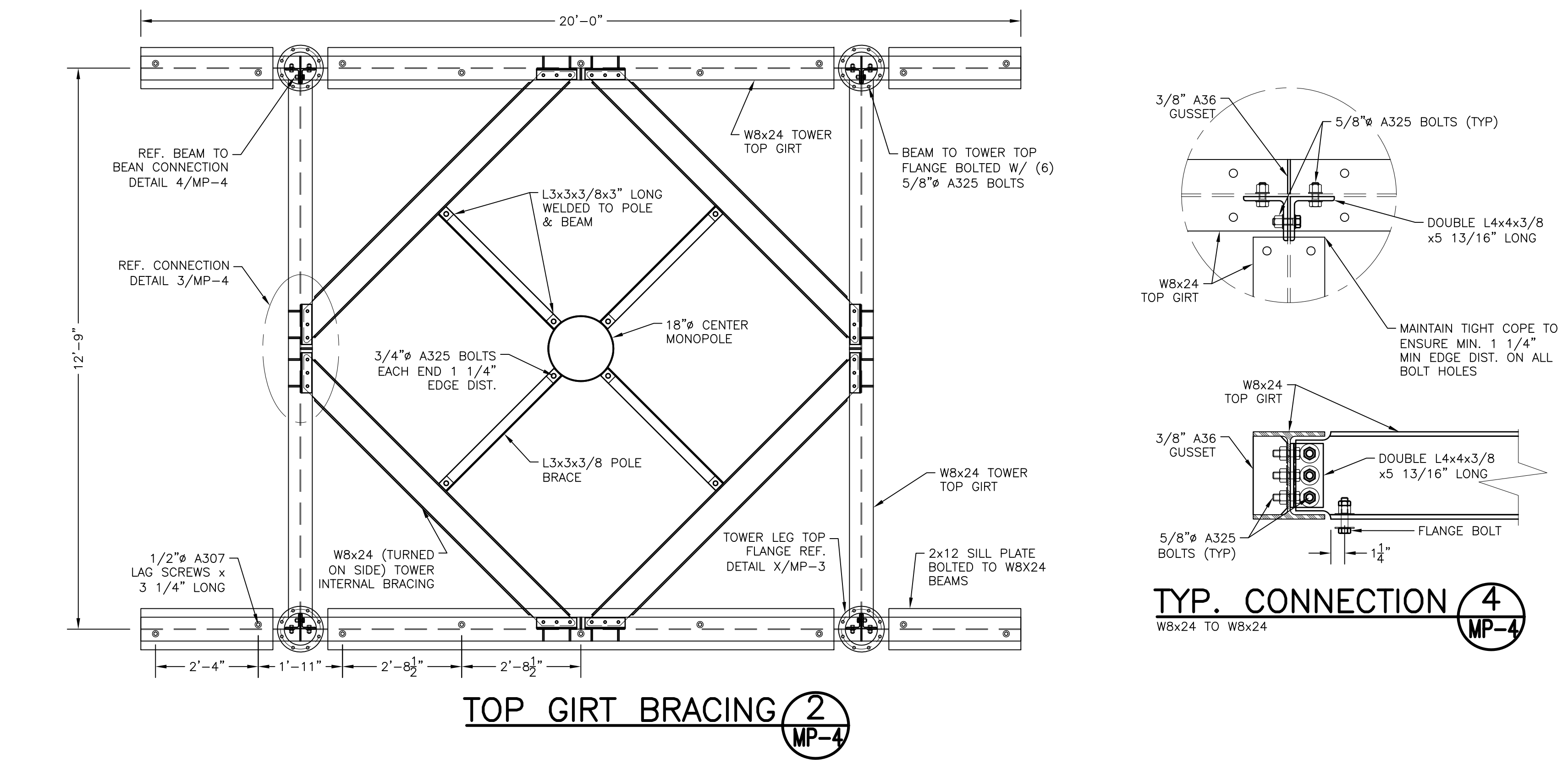
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# MP-3

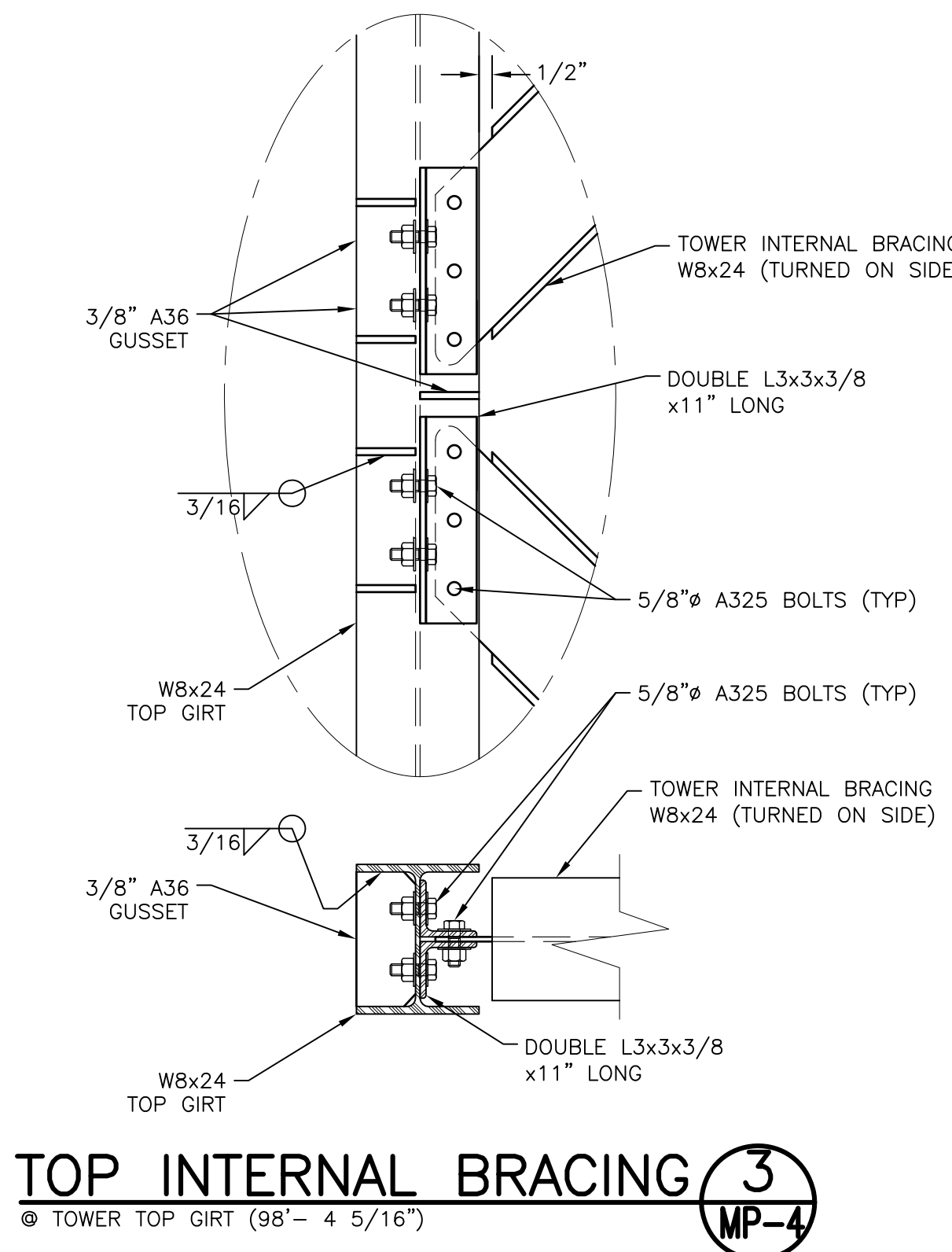




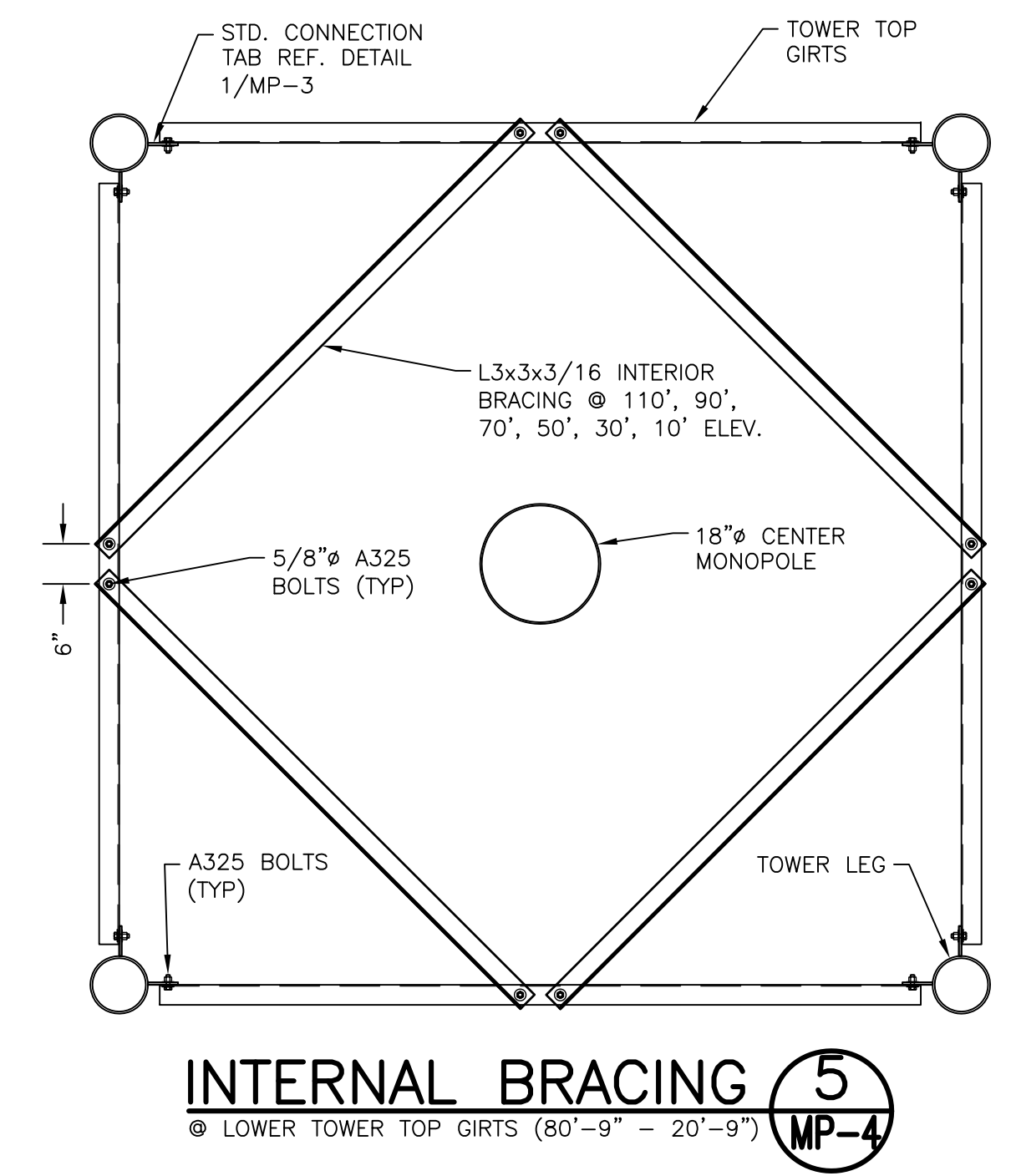
DECK ELEVATION 1  
MP-4



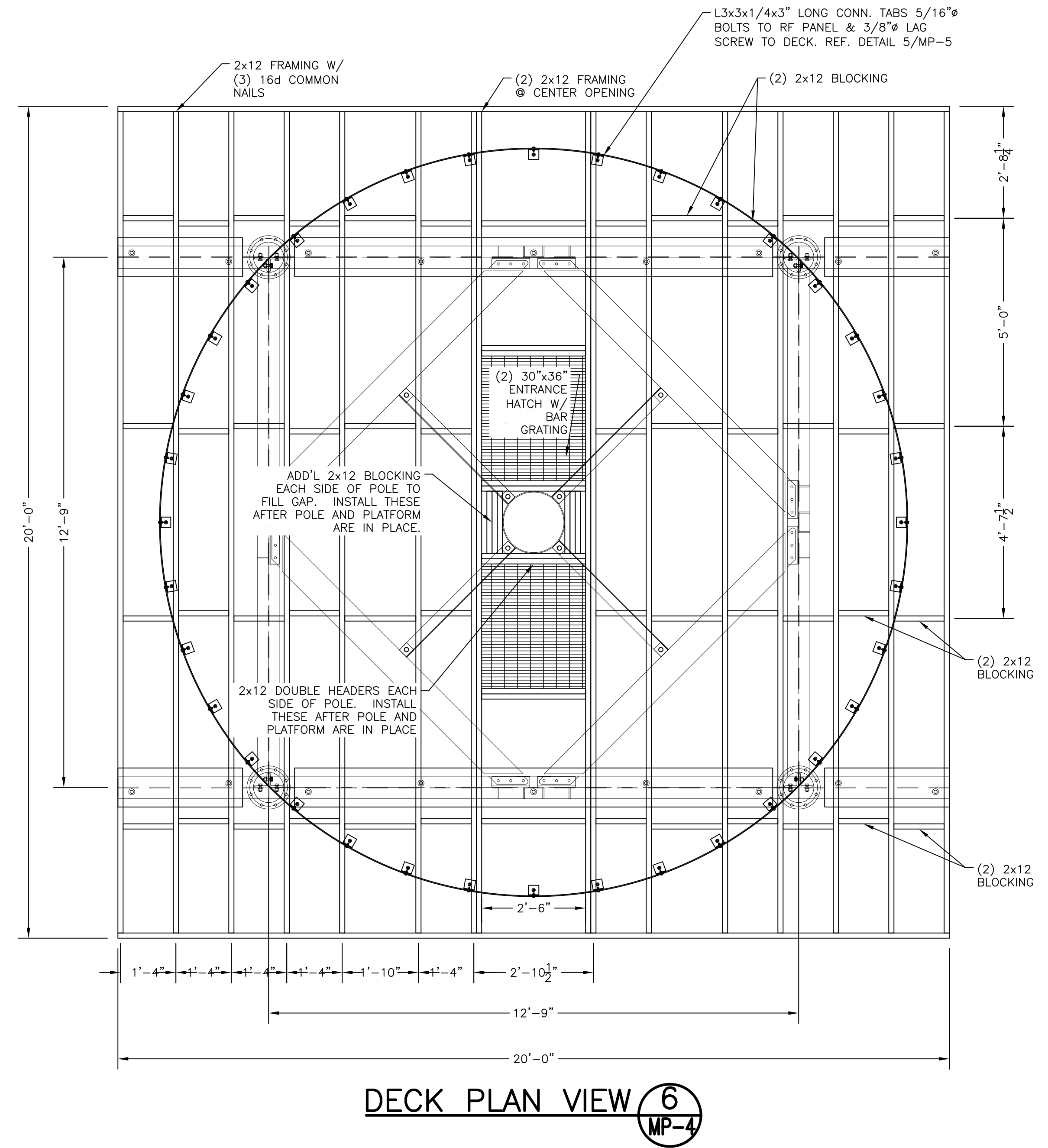
TOP GIRT BRACING 2  
MP-4



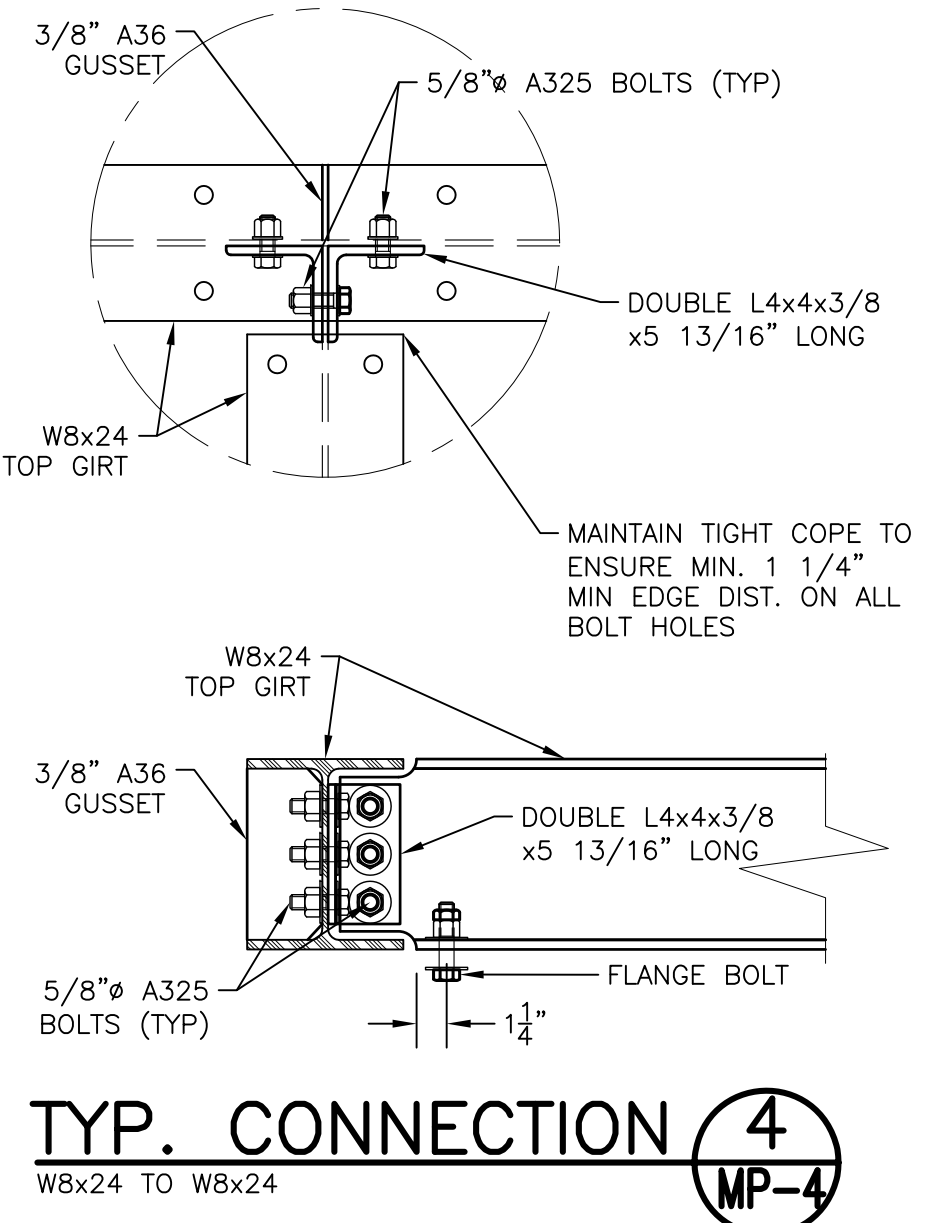
TOP INTERNAL BRACING 3  
MP-4



INTERNAL BRACING 5  
MP-4



DECK PLAN VIEW 6  
MP-4



TYP. CONNECTION 4  
MP-4

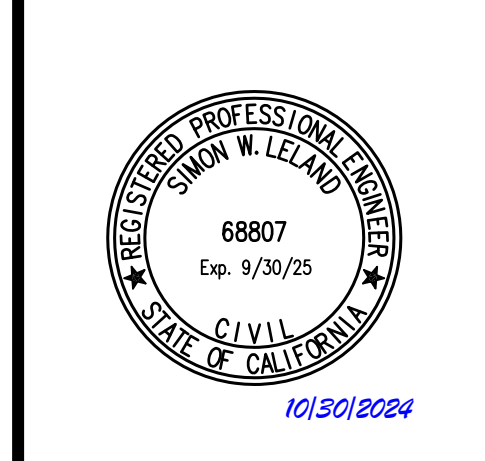
**DaVinci**  
Engineering, Inc.  
191 S. HOUSE ROCK DR.  
CEDAR CITY, UT 84720  
(805) 922-5221

**CHAMELEON**  
ENGINEERING  
237 Town Center West PMB 140  
Santa Maria, CA 93457  
(775) 434-8733

Revision:	Description:
REV. # 1: 10/29/2024	NO CHANGES THIS SHEET
APPROVED FOR FABRICATION	
By:	Date:

Site Name:	HIGHLAND RD.
Site Location:	SAN RAMON, CA
5707 HIGHLAND RD.	
Designed By:	SWL
Drawn By:	SWL
Date:	8/16/2024
Scale:	NTS/_AS_NOTED

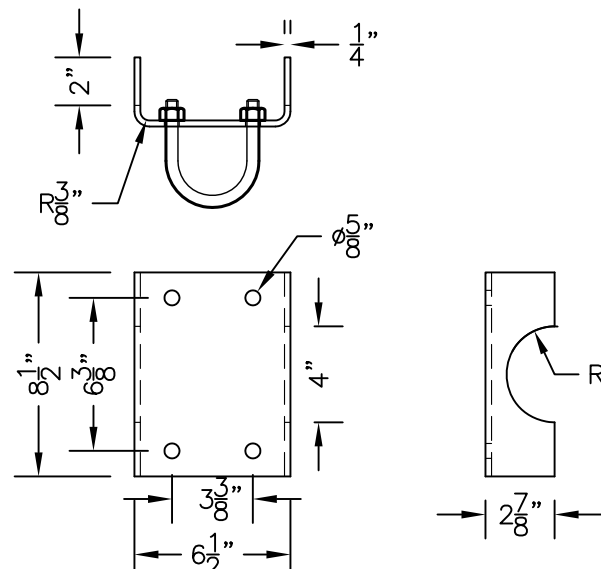
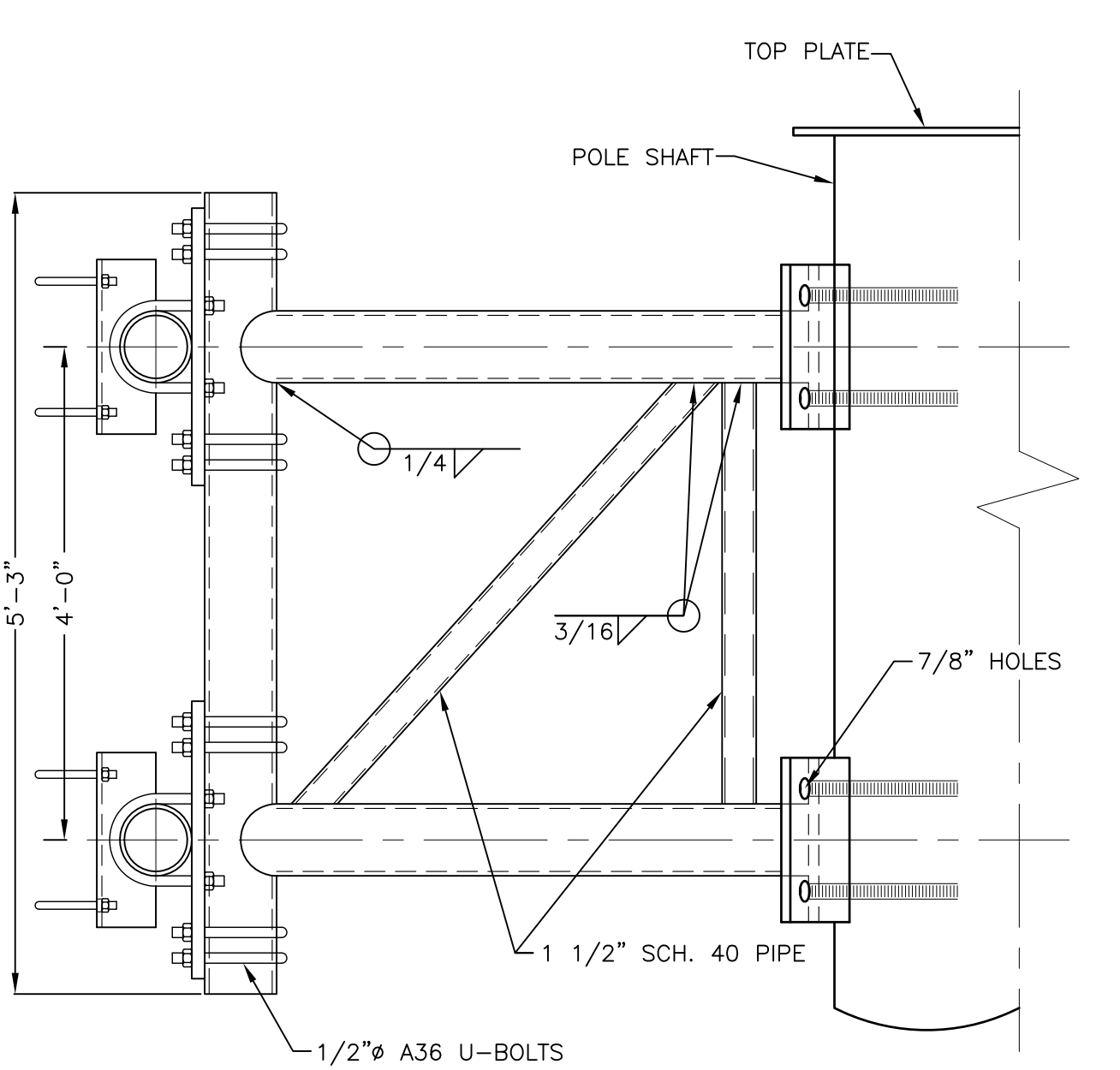
Project Description:	170-FT FAUX WATER TANK [SITE #2]
Project Number:	1324201-014
Owner:	CHAMELEON ENGINEERING 24-578
AT&T WIRELESS	



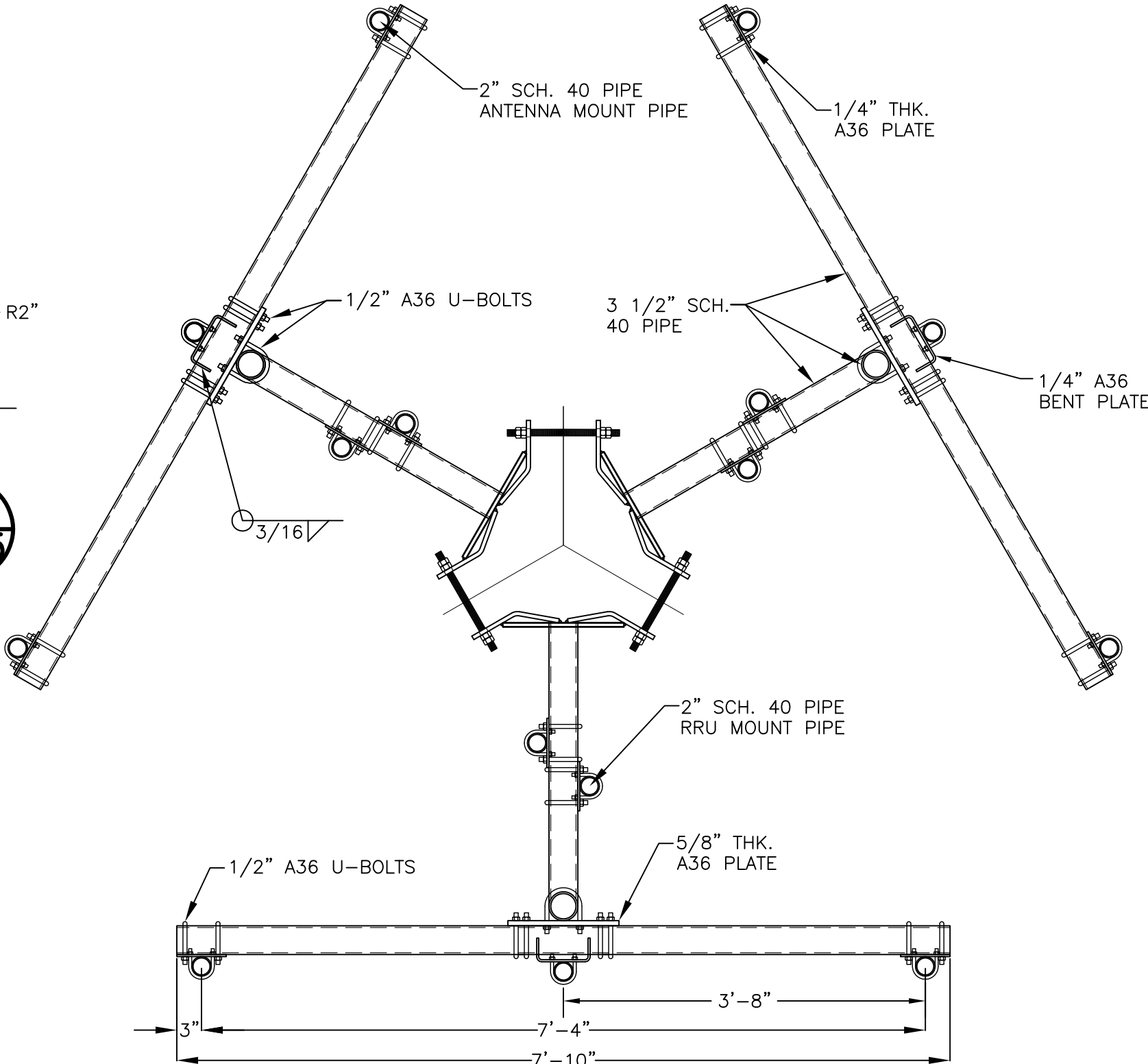
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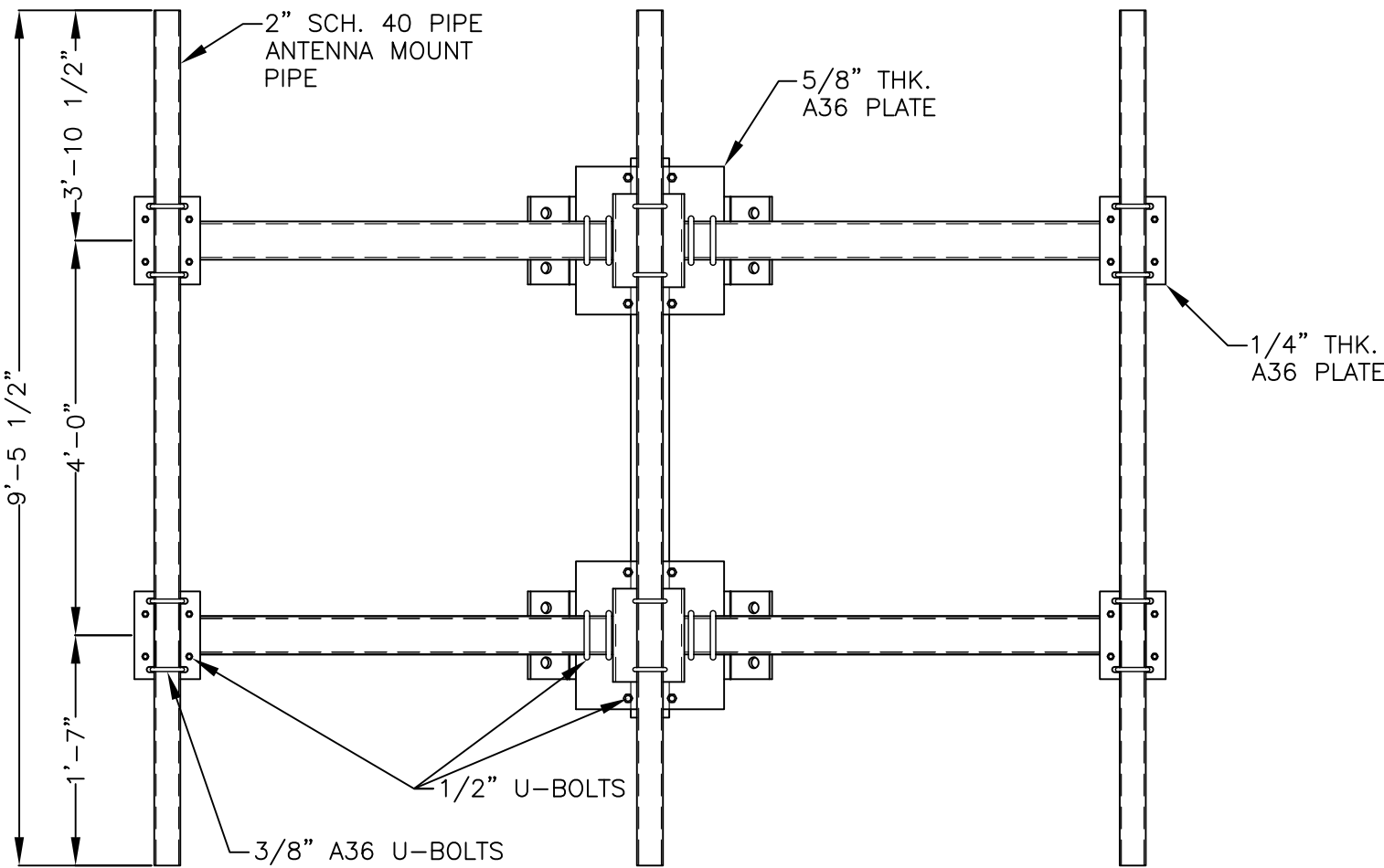
ANTENNA MOUNT DETAILS



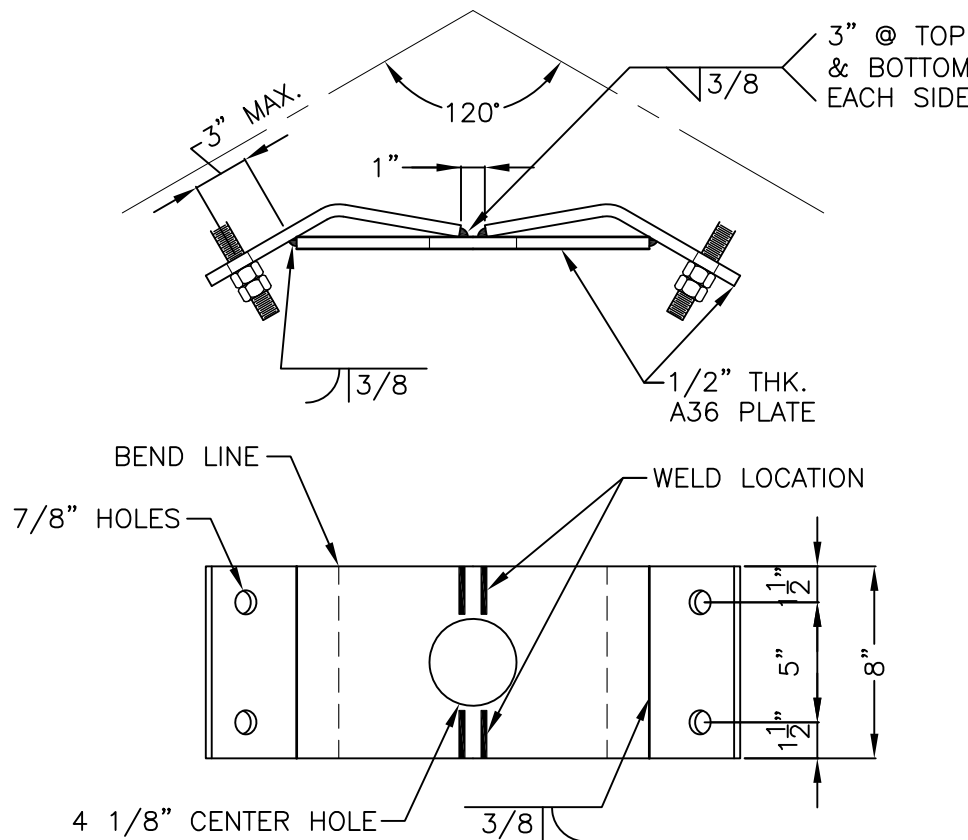
BENT PLATE 5 MP-5



PLAN VIEW A MP-5 8'-0" CLAMP-ON DUAL T-ARMS

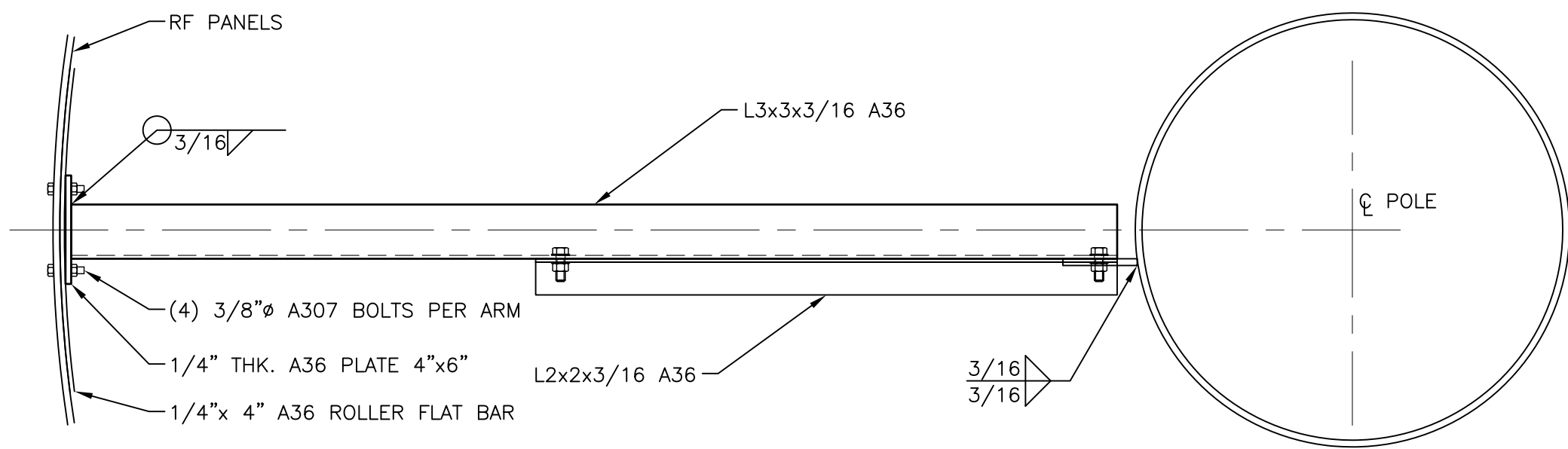


ELEVATION VIEW B MP-5 8'-0" CLAMP-ON DUAL T-ARMS



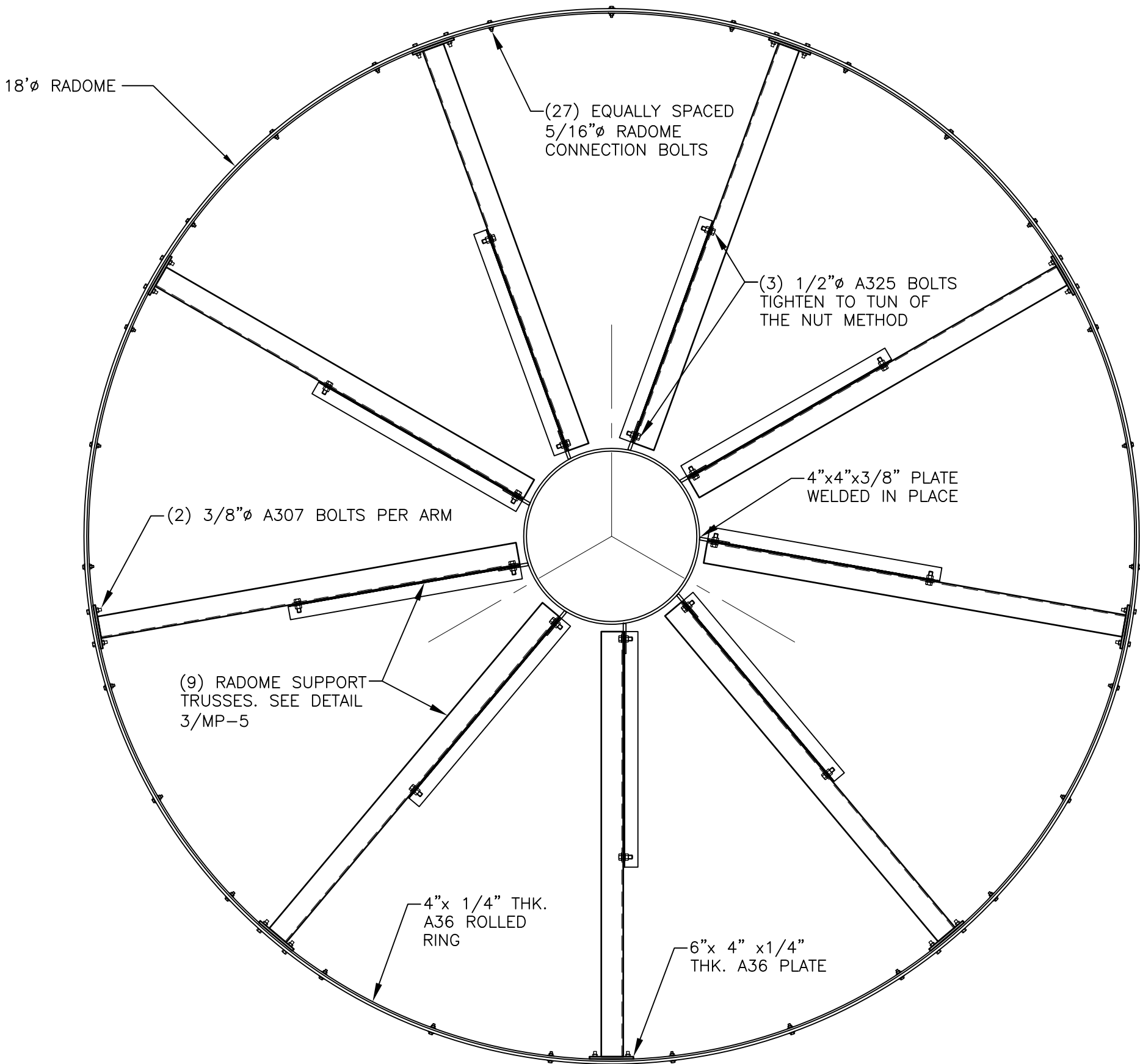
CLAMP PLATE DETAIL 2 MP-5

RADOME MOUNT DETAILS



THE RF SUPPORT TRUSSES SHALL BE INSTALLED AND LEVELED WITH THE A325 BOLTS TIGHTENED IN ACCORDANCE WITH THE TURN OF THE NUT METHOD BEFORE THE RADOMES ARE MOUNTED OR INSTALLED.

RF PANEL SUPPORT TRUSS 3 MP-5 SCALE: NTS



PLAN VIEW 4 MP-5 RF PANEL SUPPORT

- MOUNT NOTES:
- ALL STEEL SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL" ASTM A36, UNLESS OTHERWISE NOTED ON THE STRUCTURAL PLANS OR BELOW.
  - ALL ROUND STEEL PIPE SHALL MEET THE REQUIREMENTS OF ASTM A53 TYPE E OR S GRADE B (35 KSI YIELD POINT MATERIAL) OR ASTM A501 (36 KSI YIELD POINT MATERIAL).
  - ALL TUBE STEEL (SQUARE OR RECTANGULAR) SHALL MEET THE REQUIREMENTS OF ASTM A500 GRADE B (46 KSI YIELD POINT MATERIAL).
  - ALL WELDED CONNECTIONS SHALL CONFORM TO THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY AWS D1.1 CODE. ALL WELD ELECTRODES OR WIRE SHALL AT A MINIMUM CONFORM TO AWS E60 ELECTRODES (60 KSI YIELD).
  - ALL STEEL SHAPES AND PLATES SHALL BE HOT-DIPPED GALVANIZED ACCORDING TO ASTM A123. ALL STEEL NUTS AND BOLTS AND ASSOCIATED HARDWARE SHALL BE HOT-DIPPED ACCORDING TO ASTM A153.
  - THE ANTENNA MOUNT SHALL BE FABRICATED BY CHAMELEON ENGINEERING OR AN APPROVED FABRICATOR OF CONVENTIONAL STEEL STRUCTURES.
  - THIS ANTENNA MOUNT HAS BEEN DESIGNED TO SUPPORT ANTENNA & EQUIPMENT AS SPECIFIED ON SHEET MP-1 OF THESE DRAWINGS.
  - EST. WEIGHT OF STD. 4'-5" MOUNT (3 SECTORS) WITH STANDARD 8'-6" MOUNT PIPES IS APPROXIMATELY 1240 LBS.
- ERECTION NOTES:
- THE CONTRACTOR SHALL INSTALL THE ANTENNA AND MOUNT AS REQUIRED BY THE OWNER.
  - ALL A36 THREADED ROD AND U-BOLTS SHALL BE TIGHTENED TO AISC SNUG TIGHT REQUIREMENTS. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PILES IN A JOINT ARE IN FIRM CONTACT, THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. A36 NUTS AND BOLTS TIGHTENING DO NOT REQUIRE SPECIAL INSPECTION.
  - ANY GALVANIZED SURFACES THAT ARE DAMAGED BY ABRASIONS, CUTS, DRILLING, OR FIELD WELDING DURING SHIPPING OR ERECTION SHALL BE TOUCHED UP WITH TWO COATS OF A COLD GALVANIZING COMPOUND MEETING THE REQUIREMENTS OF ASTM A780.
  - ANTENNA MOUNT SHALL NOT BE USED AS A CLIMBING DEVICE. WORKERS SHALL ALWAYS TIE OFF TO A SPECIFIED CLIMBING POINT. THE ANTENNA MOUNT DESIGN HAS NOT BEEN CHECKED FOR THE MAINTENANCE LOADING CONDITIONS AND LOAD COMBINATIONS 2& 3 FROM ANSI/TIA-222-H SECTION 16.4.1. DUE TO THE CONCEALMENT REQUIREMENTS ON THIS SITE THE ANTENNA MOUNT SHALL NOT BE USED AS A CLIMBING DEVICE.

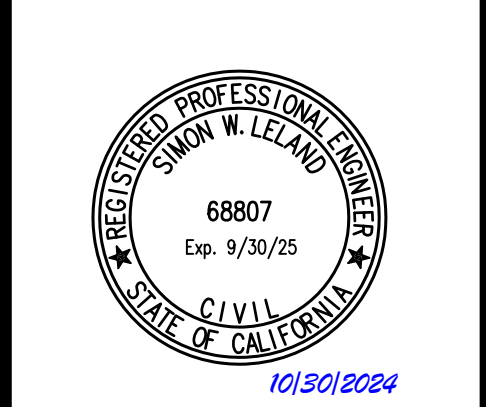
Additional Notes:


DaVinci Engineering, Inc.  
191 S. HOUSE ROCK DR.  
CEDAR CITY, UT 84720  
(805) 922-5221

CHAMELEON ENGINEERING  
237 Town Center West PMB 140  
Santa Maria, CA 93457  
(775) 434-8733

Revision:	Description:
REV. # 1: 10/29/2024	NO CHANGES THIS SHEET
Site Name:	Site Location:
HIGHLAND RD.	SAN RAMON, CA
CCLO4383	5707 HIGHLAND RD.
Designed By:	Drawn By:
SWL	SWL
Date:	Date:
8/16/2024	
Scale:	Scale:
NTS/_AS_NOTED	

Project Description:	Project Number:	Owner:
170-FT FAUX WATER TANK [SITE #2]	1324201-014	AT&T WIRELESS
	CHAMELEON ENGINEERING 24-578	

Sheet No.  
MP-5