FA NUMBER: 10087362
SITE NAME: VALLEY PARK

527 EAST MAPLE AVE
VIENNA, VA 22180

at&t
9000 MENDENHALL CT
COLUMBIA, MD 21045

entrex communication services, inc.
6100 EXECUTIVE BLVD, SUITE 430
ROCKVILLE, MD 20852
PHONE: (202) 408-0960

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401
PHONE: (410) 582-8043

SITE INFORMATION

SCOPE OF WORK:

1. INSTALL NEW SCREENED EQUIPMENT PLATFORM, NEW SCREEN WALL ABOVE EXISTING ROOF PARAPET FOR NEW ANTENNA SUPPORTS, AND ANTENNA MOUNTS ON BUILDING WALLS.
2. INSTALL (12) NEW AT&T ANTENNAS ON NEW EQUIPMENT PLATFORM SCREEN WALLS, NEW PARAPET SCREEN WALL AND EXTERIOR FACE OF EXISTING ROOF PARAPET
3. INSTALL (12) NEW RRH UNITS AND (4) DC9'S ON UNISTRUT SUPPORTS IN NEW EQUIPMENT PLATFORM AND ON INSIDE FACE OF EXISTING ROOF PARAPET.
4. INSTALL NEW EQUIPMENT CABINETS ON NEW EQUIPMENT PLATFORM
5. PROVIDE TELCO & POWER SERVICE TO AT&T EQUIPMENT FROM DEMARCATION POINTS IN THE BUILDING.
6. INSTALL EMERGENCY GENERATOR RECEPTACLE AT GRADE LEVEL.

PROPERTY INFORMATION:

PARCEL ID # (MAP #):	0382 09 0100
JURISDICTION:	TOWN OF VIENNA
ZONING:	AE (AVENUE EAST)
DEED REFERENCE:	09226-1775
USE:	COMMERCIAL LOW RISE OFFICE
PARCEL AREA:	N/A (26,342 SQ. FT.)
PARCEL OWNER:	DUKAS PROPERTIES
PREMISES ADDRESS:	527 MAPLE AVE. EAST, VIENNA, VA 22180
STRUCTURE TYPE:	EXISTING ROOFTOP
GROUND ELEVATION:	±378.5' AMSL
LATITUDE:	N 38° 54' 31.511" (NAD83)
LONGITUDE:	W 77° 15' 19.383" (NAD83)

VICINITY MAP

SHEET INDEX

FA NUMBER: 10087362
VALLEY PARK
527 E MAPLE AVE
VIENNA, VA 22180

SEAL:

COMMONWEALTH OF VIRGINIA
CAMILLE SHABSHAB
Lic. No. 044026
PROFESSIONAL ENGINEER

SUBMITTALS

DATE	DESCRIPTION	REV.
11-22-2022	CONSTRUCTION REVIEW	A
01-30-2023	CONSTRUCTION	0
12-09-2024	REV. PER 03/12/2024 RFDS	1
12-18-2024	REMOVE FUTURE ANTENNA	2
02-28-2025	ADD GAS DESIGN	3
04-16-2025	REVIEW REDLINES	4
06-09-2025	REMOVE GENERATOR	5
03-04-2026	UPDATE ZONING	6

PROJECT TEAM

APPLICANT:	AT&T MOBILITY 9000 MENDENHALL CT, COLUMBIA, MD 21045
ARCHITECT/ENGINEER:	ENTREX COMMUNICATION SERVICES, INC. 6100 EXECUTIVE BLVD, SUITE 430, ROCKVILLE, MD 20852 CAMILLE SHABSHAB (202) 408-0960
PROJECT MANAGEMENT:	SMARTLINK LLC 10 CHURCH CIRCLE, ANNAPOLIS, MD 21401 PHONE: (410) 582-8043

CODE COMPLIANCE

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

- 2021 VIRGINIA UNIFORM STATEWIDE BUILDING CODE
- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL EXISTING BUILDING CODE
- 2020 NATIONAL ELECTRICAL CODE
- 2021 NFPA 101, LIFE SAFETY CODE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- ANSI/TIA-222-H

DRAWING APPROVALS

	SIGNATURE	DATE
OWNER REPRESENTATIVE		
SITE AQUISITION		
CONSTRUCTION MANAGER		
ZONING		
RF ENGINEER		

CALL
UTILITIES NOTIFICATION
MISS UTILITY
1-800-257-7777
3 WORKING DAYS PRIOR TO DIGGING

811 Know what's below. Call before you dig.

PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34"
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

STRUCTURAL NOTES

1. THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATIONS OF TOP OF CONCRETE AND BEARING PLATES, ALIGNMENT ETC. PRIOR OF STEEL ERECTION.

2. THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS SHALL COVERN:
   A. AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
   B. AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
   C. AWS "D1.1 STRUCTURAL WELDING CODE-STEEL".

3. MATERIAL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

STRUCTURAL WIDE FLANGE & M SHAPES	A992 OR A572, FY = 50 KSI
OTHER STRUCTURAL SHAPES AND PLATES	A36, F = 36 KSI
STRUCTURAL HSS RECT & SQUARE TUBING	A500, GRADE C, FY = 50 KSI
STRUCTURAL HSS ROUND TUBING	A500, GRADE C, FY = 46 KSI
STANDARD PIPES (SCH40)	A53 GRADE B, FY = 35 KSI
HIGH STRENGTH BOLTS	A325
THREADED RODS	A354, GRADE BC
ANCHOR BOLTS	A325 OR A354 BC

4. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED PROVIDE CONTINUOUS MINIMUM SIZED FILLET WELDS PER AISC REQUIREMENTS.

5. HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IN NOT PERMITTED. ALL HOLES IN BEARING PLATES SHALL BE DRILLED.

6. ALL STEEL TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.

7. EPOXY ANCHORS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

8. ALL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD PER AISC SPECIFICATIONS USING STANDARD HOLES.

9. THE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENT. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.

10. THE GENERAL CONTRACTOR AND HIS SUB CONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL BUILDING AND OR TRADE PERMITS AND INSPECTIONS THAT MAY BE REQUIRED FOR THE WORK.

11. STRUCTURAL THREADED FASTENERS FOR STEEL ANTENNA MOUNTING ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. STRUCTURAL FASTENERS SHALL BE 5/8" DIAMETER BEARING TYPE CONNECTIONS WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE FOR ANGLES. STRUCTURAL FASTENERS SHALL BE 3/4" DIAMETER BEARING TYPE CONNECTIONS WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE FOR ALL OTHER STRUCTURAL SHAPES. ALL EXPOSED STRUCTURAL FASTENERS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED UNLESS OTHERWISE NOTED.

12. EXPANSION ANCHORS INSTALLED IN CONCRETE SHALL BE HILTI STAINLESS STEEL ANCHORS AS SPECIFIED ON THE PLANS. THE EXPANSIONS ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.

13. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL SHALL VERIFY NORTH AND INFORM ARCHITECT/ENGINEER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.

14. ROOF PROTECTION PADS UNDER THE CABLE BRIDGE SLEEPERS AND ROOF PAVERS SHALL BE 0.30" THICK RUBBER FIRESTONE PROTECTION PADS. THE ROOF PROTECTION PADS SHALL EXTEND A MINIMUM OF 2" BEYOND THE PERIMETER OF THE OF THE SLEEPERS. PROVIDE A 28 LB FELT SEPARATOR SHEET 2" LARGER THAN THE ROOF PROTECTION PAD DIRECTLY ON THE ROOF. REMOVE ALL LOOSE STONES PRIOR TO PLACING THE SEPARATOR SHEET. ROOF PROTECTION PADS SHALL NOT BE PLACED WITH IN 6" OF AN ADJACENT PAD OR OTHER ROOF OBSTRUCTION TO FACILITATE DRAINAGE.

15. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL COMPLETE ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF MOUNTED EQUIPMENT.

16. ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND ACI 301, AND SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,500 psi (U.O.N). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL UNLESS OTHERWISE NOTED. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

17. CONCRETE SHALL BE 6% AIR ENTRAINED.

18. ALL REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60. DEFORMED BILLET STEEL BARS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

19. FENCED AREA SHALL BE CLEARED AND GRUBBED. REMOVE UNSUITABLE LOOSE OR SOFT SOIL, ORGANIC MATERIAL OR RUBBLE, TO FIRM SUBGRADE. FILL UNDER CUT AND COMPACT UP TO 6" BELOW FINISH GRADE. PLACE A MIRAFI 500X SOIL STABILIZATION FABRIC ON SUBGRADE. FILL WITH 6" OF AASHTO 57 STONE TO FINISH GRADE.

20. WHERE FILL IS REQUIRED, FILL IN LAYERS WHICH DO NOT EXCEED 8" BEFORE COMPACTION. SPREAD LAYER UNIFORMLY AND EVENLY. BLADE MIX EACH LAYER TO ENSURE MATERIAL UNIFORMITY. FILL MATERIAL SHALL NOT CONTAIN MATERIAL MORE THAN 3" IN DIAMETER. COMPACT EACH LAYER NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 MODIFIED PROCTOR TEST OR (ASTM D698 STANDARD PROCTOR TEST). USE FILL MATERIAL WITH MOISTURE CONTENT AS REQUIRED TO ATTAIN THE SPECIFIED DEGREE OF COMPACTION. COMPACT USING MULTIPLE WHEEL PNEUMATIC TIRE ROLLED, VIBRATORY ROLLER, OR SHEEPS FOOT ROLLERS.

21. UNLESS A SOIL BEARING CAPACITY IS INDICATED ON THIS DRAWING SET OR IN THE PROJECT GEOTECHNICAL REPORT, THE PRESUMPTIVE SOIL BEARING CAPACITY = 1,500 PSF.

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.

2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.

4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.

5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.

7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDA OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.

9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.

11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.

12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.

14. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT IS RESOLVED BY THE CONSTRUCTION MANAGER.

15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE PROJECT.

SYMBOLS AND ABBREVIATIONS

ADJ	ADJUSTABLE	OC	ON CENTER
APPROX	APPROXIMATE	OPP	OPPOSITE
CAB	CABINET	SF	SQUARE FOOT
CLG	CEILING	SHT	SHEET
CONC	CONCRETE	SIM	SIMILAR
CONT	CONTINUOUS	SS	STAINLESS STEEL
CJ	CONSTRUCTION JOINT	STL	STEEL
DIA	DIAMETER	TOC	TOP OF CONCRETE
DWG	DRAWING	TOM	TOP OF MASONRY
EQB	EQUIPMENT GROUND BAR	TYP	TYPICAL
EA	EACH	VIF	VERIFY IN FIELD
ELEC	ELECTRICAL	UON	UNLESS OTHERWISE NOTED
EL	ELEVATION	WWF	WELDED WIRE FABRIC
EQ	EQUAL	W/	WITH
EQUIP	EQUIPMENT	&	AND
(E)	EXISTING	@	AT
EXT	EXTERIOR		
FF	FINISHED FLOOR		SPOT ELEVATION
GA	GAGE		
GALV	GALVANIZED		CENTERLINE
GB	GROUND BAR		
GC	GENERAL CONTRACTOR		PLATE
GRND	GROUND		
LG	LONG	No. / SHT	DETAIL NUMBER / SHEET NUMBER
LLH	LONG LEG HORIZONTAL		
MAX	MAXIMUM		
MECH	MECHANICAL		
MFR	MANUFACTURER	—G—	GROUND WIRE
MGB	MAIN GROUND BAR		
MIN	MINIMUM		COAXIAL CABLE
MTL	METAL		
NIC	NOT IN CONTRACT		ANTENNA
NTS	NOT TO SCALE		

GROUNDING NOTES

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.

3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.

4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTES OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACE, SPRAY CADWELD WITH GALVANIZING PAINT.

5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.

6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.

7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.

8. INSTALL 2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND 2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.

9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTION TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.

10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCRUING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x8'-0" COPPER CLAD STEEL INTERCONNECTED WITH 2 BARE TINNED COPPER WIRE BURIED 30" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART TO ACHIEVE CONE OF PROTECTION.

11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45'.

12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.

13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE AT&T CONSTRUCTION MANAGER.

14. GROUND RING & CONNECTIONS TO IT SHALL BE 2 AWG SOLID BARE TINNED COPPER WIRE. EQUIPMENT GROUND CONNECTIONS TO MGB SHALL BE 2 AWG STRANDED TO WIRE.

15. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.

16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A AT&T REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.

17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.

18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTIONS, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.

19. WHERE METALLIC ENCLOSURES AND OBJECTS ARE LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST.

20. TOWER BASE GROUND BAR REQUIRES (2) SOLID LEADS EXOTHERMICALLY WELDED TO THE GROUND BAR.

21. OUTDOOR SITES: MAIN GROUND BAR REQUIRES (2) SOLID LEADS EXOTHERMICALLY WELDED TO IT AND TO THE GROUND RING.

22. INDOOR/ROOFTOP SITES: MAIN GROUND BAR SHALL BE BONDED TO BUILDING PRINCIPAL GROUND AS SHOWN ON PLAN.

23. ALL SOLID LEADS TERMINATED TO GROUND BARS SHALL BE PROTECTED WITH CARFLEX.

24. ALL SOLID GROUND LEADS NOT BEING USED SHALL BE COILED (PIGTAILS) FOR FUTURE USE AS NEEDED.

25. DO NOT ROUTE GROUNDING CONDUCTORS THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR. CLIPS AND FASTENERS USED TO SECURE ANY GROUND WIRE SHALL BE NON-METALLIC TO PREVENT "CHOKE EFFECT."

ELECTRICAL ABBREVIATIONS

A	AMPERE	MCB	MAIN CIRCUIT BREAKER
AIC	ASYMMETRICAL INTERRUPT CURRENT	MLO	MAIN LUGS ONLY
AWG	AMERICAN WIRE GAUGE	NEC	NATIONAL ELECTRICAL CODE
C	CONDUIT	NTS	NOT TO SCALE
CSC	CELL SITE CABINET	NFSS	NON-FUSIBLE SAFETY SWITCH
FSS	FUSIBLE SAFETY SWITCH	PVC	POLYVINYL CHLORIDE
GFI	GROUND FAULT INTERRUPTING	P	POLE
G	GROUND	ø	PHASE
kVA	KILOVOLT-AMPERE	RMC	RIGID METAL CONDUIT
KW	KILOWATT	V	VOLT
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT	W	WIRE
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT		

ELECTRICAL NOTES

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.

2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.

3. VERIFY HEIGHT WITH PROJECT MANAGER PRIOR TO INSTALLATION.

4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.

5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONALLY CIRCUMSTANCES SURROUNDING THE PROJECT.

6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.

7. ALL MATERIAL AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.

8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.

9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.

10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.

11. LOCATE ALL PENETRATIONS SUCH THAT ALL REINFORCEMENT CONTAINED WITHIN THE EXISTING BUILDING CONSTRUCTION REMAINS INTACT AND UNDISTURBED. SUBMIT LOCATING METHOD TO PROJECT MANAGER FOR APPROVAL PRIOR TO EXECUTION.

12. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.

13. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE 12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).

14. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.

15. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.

16. CONDUIT: ALL ABOVE GRADE CONDUITS SHALL BE RIGID & LFMC TO 6' AS STATED BELOW

   A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

   B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

   C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.

   D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.

   E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.

   F. THE TOTAL RADII OF BENDS IN A CONDUIT SHALL NOT EXCEED 360'.

17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PHENOLIC PLASTIC NAMEPLATES. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.

18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO AT&T PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE AT&T PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.

19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.

20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.

21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS AND CIRCUITS NOT SCHEDULED FOR REMOVAL.

22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE AT&T CONSTRUCTION MANAGER.

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smartlink
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FA NUMBER: 10087362
VALLEY PARK
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VIENNA, VA 22180

SEAL:

COMMONWEALTH OF VIRGINIA
CAMILLE SHABSHAB
Lic. No. 044626
PROFESSIONAL ENGINEER

SUBMITTALS

DATE	DESCRIPTION	REV.
11-22-2022	CONSTRUCTION REVIEW	A
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06-09-2025	REMOVE GENERATOR	5

PROJECT NO: 1152.443
DESIGNER: K.M.
ENGINEER: C.S.

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34"
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

N-1

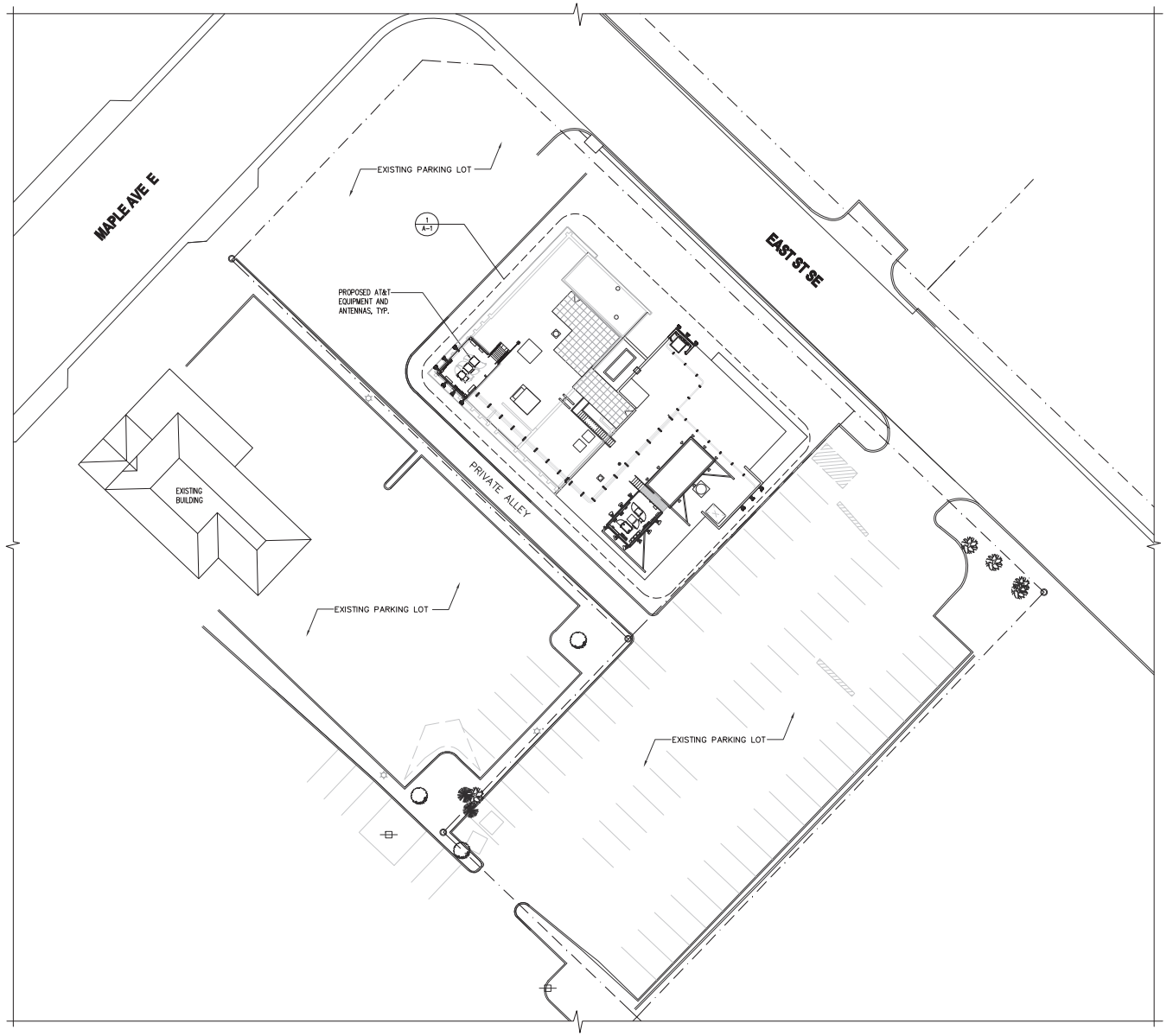
VICINITY MAP
SCALE: 1"=2000'-0"
TRUE NORTH

SITE NOTES:

PARCEL ID # (MAP #):	0382 09 0100
JURISDICTION:	TOWN OF VIENNA
ZONING:	AE (AVENUE EAST)
DEED REFERENCE:	09226-1775
USE:	COMMERCIAL LOW RISE OFFICE
PARCEL AREA:	26,342 SQ. FT.
PARCEL OWNER:	DUKAS PROPERTIES
PREMISES ADDRESS:	527 MAPLE AVE. EAST, VIENNA, VA 22180
STRUCTURE TYPE:	EXISTING ROOFTOP
GROUND ELEVATION:	±378.5' AMSL
LATITUDE:	N 38° 54' 31.511" (NAD83)
LONGITUDE:	W 77° 15' 19.383" (NAD83)

LINE TYPES

- BOUNDARY LINE – PARENT PARCEL
- UNSURVEYED LINE – BOUNDARY OF ADJOINERS
- CENTER LINE
- CONSERVATION EASEMENT
- BUILDING SET BACK
- EDGE OF ASPHALT
- OVERHEAD UTILITY LINE — OHUL — OHUL — OHUL — OHUL —
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- TREE OR VEGETATION LINE
- FENCE LINE–CHAIN -x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-



SITE PLAN
SCALE: 1"= 20'-0"
1
C-1
TRUE NORTH

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06-09-2025	REMOVE GENERATOR	5
03-04-2026	UPDATE ZONING	6

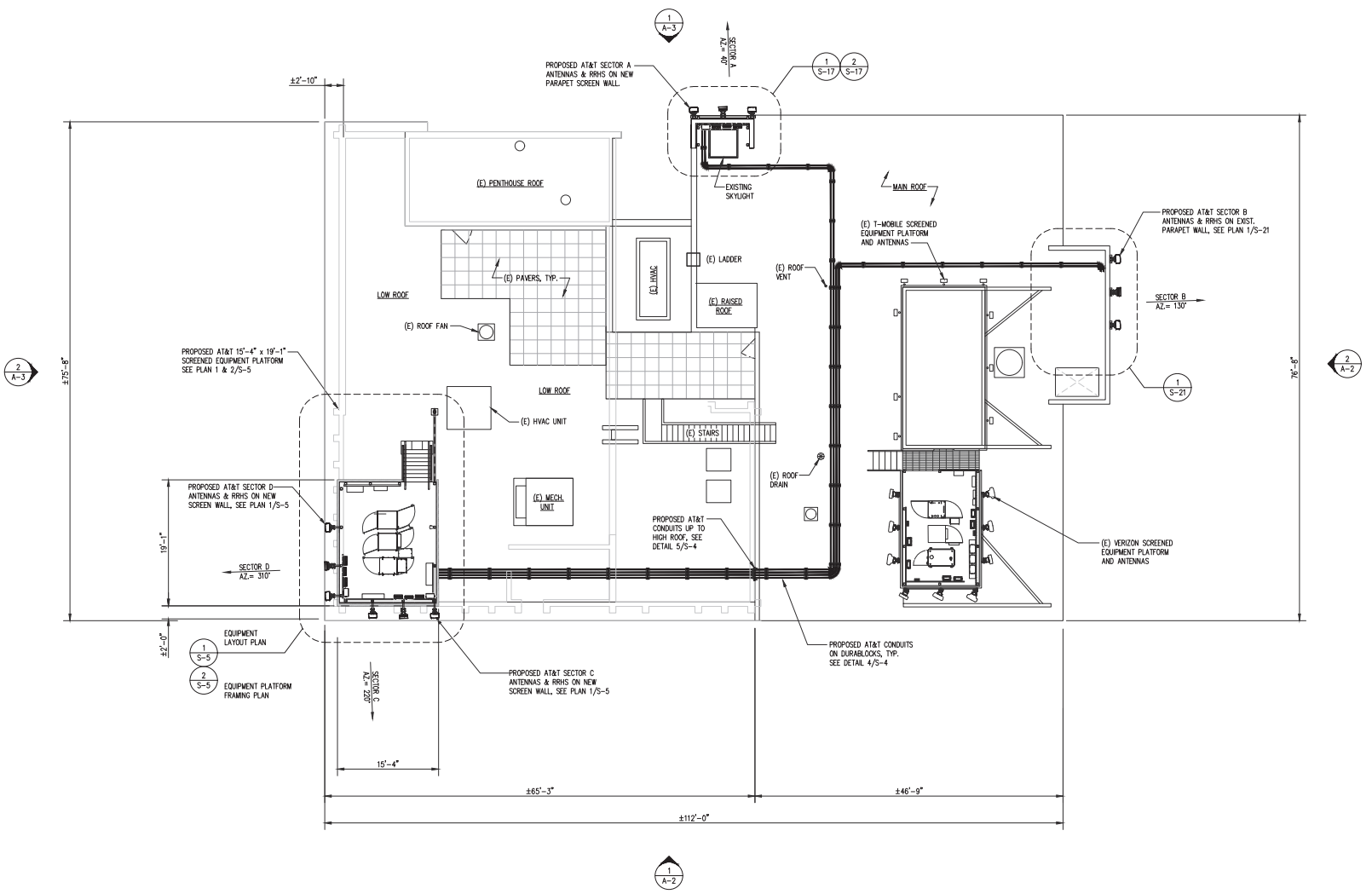
PROJECT NO: 1152.443
DESIGNER: M.A.
ENGINEER: C.S.
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34"
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C-1



ROOF AND EQUIPMENT LOCATION PLAN

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

TRUE NORTH

NOTES:

1. ROOF CONSTRUCTION: BALLASTED ROOFING MEMBRANE ON ROOF DECK, STEEL JOISTS & BEAMS, ON STEEL COLUMNS & MASONRY BEARING WALLS.
2. ELEVATIONS ARE IN REFERENCE TO THE GROUND FLOOR LEVEL WHICH IS TAKEN AS REFERENCE ELEV. 0.0'
3. SEE SHEETS E-1 THRU E-3 FOR UTILITY AND GROUNDING DETAILS
4. SEE NOTES ON SHEET N-1 FOR INFO NOT NOTED.

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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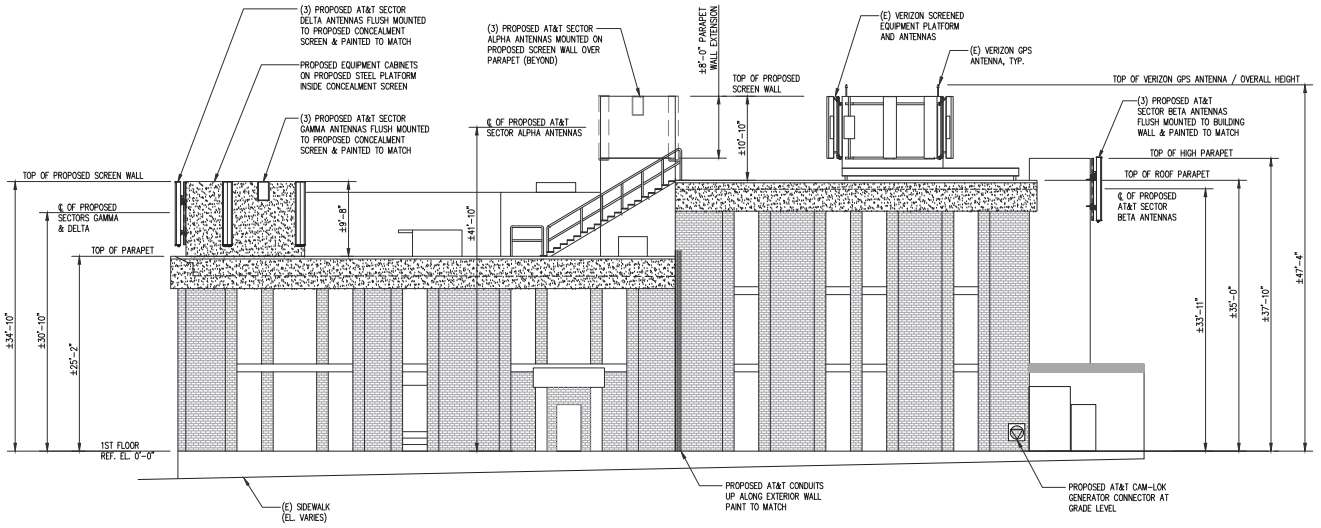
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

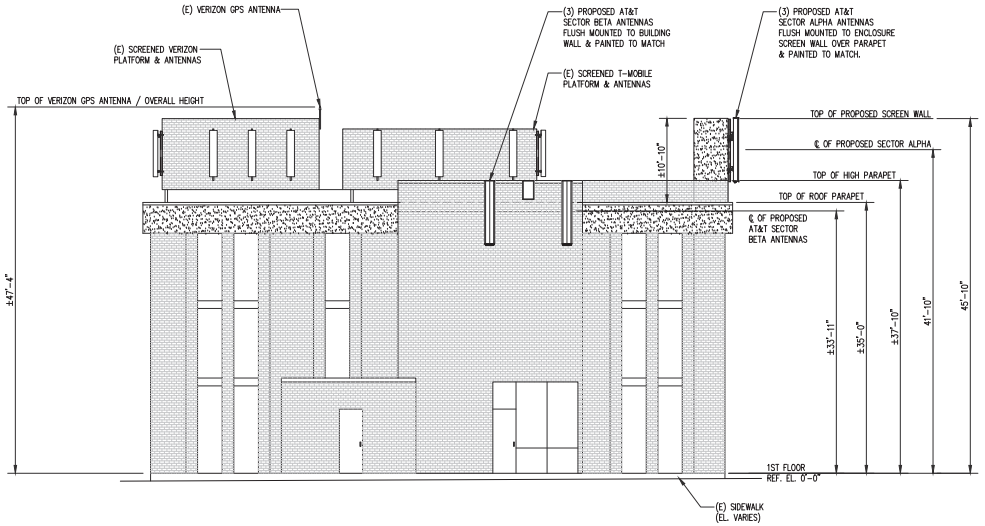
ROOF & EQUIPMENT LOCATION PLAN

SHEET NUMBER:

A-1



SOUTH WEST BUILDING ELEVATION (1 / A-2)
SCALE: 1/16"=1'-0"



SOUTH EAST BUILDING ELEVATION (2 / A-2)
SCALE: 1/16"=1'-0"

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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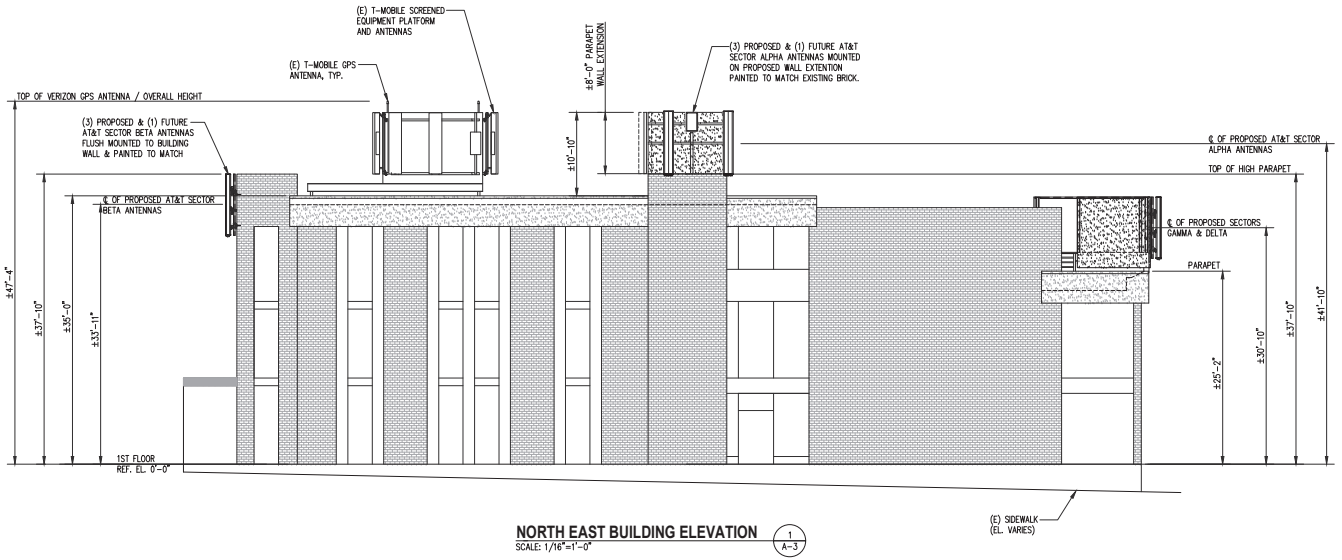
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

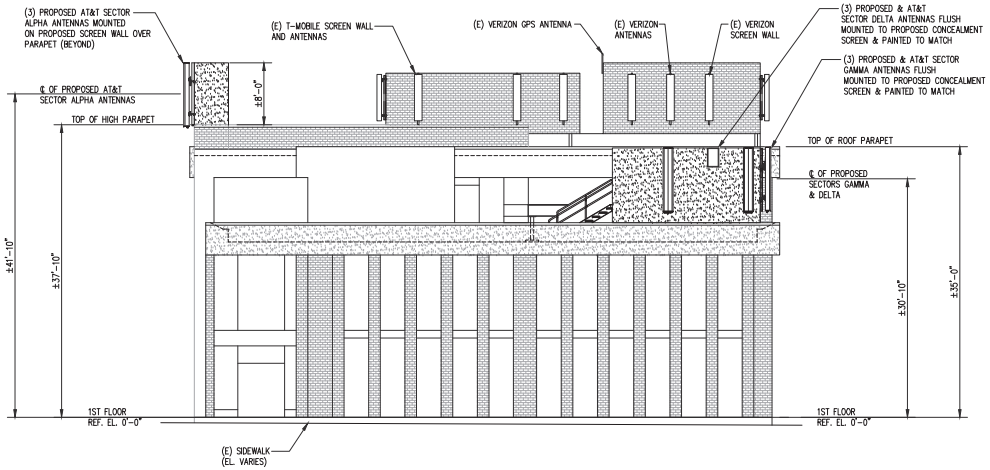
SOUTHWEST & SOUTHEAST BLDG. ELEVATIONS

SHEET NUMBER:

A-2



NORTH EAST BUILDING ELEVATION (1 / A-3)
SCALE: 1/16"=1'-0"



NORTH WEST BUILDING ELEVATION (2 / A-3)
SCALE: 1/16"=1'-0"

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

NORTHWEST & NORTHEAST BLDG. ELEVATIONS

SHEET NUMBER:

A-3

CABLE SCHEDULE AND RF SYSTEM DESIGN PLAN

SECTOR	ANTENNA POSITION	ANTENNA STATUS	TECHNOLOGY/ FREQUENCY	MAKE	MODEL	RAD CTR. FT. AGL	AZIMUTH	RRH/TMA QUANTITY AND MODEL	TRANSMISSION CABLE			
									LENGTH	STATUS	QUANTITY	TYPE
ALPHA	#1	PROPOSED	LTE 700 LTE 850 LTE WCS	CCI	TPA45R-KU8A	41'-10"	40°	(1) PROPOSED 4490 B5/B12A	±160'	PROPOSED PROPOSED	1 3	0.4" FIBER 0.92" DC POWER
	#2	PROPOSED	5G CBAND 5G DOD	ERICSSON	AIR6472 B77G B77M	44'-4"	40°	(1) PROPOSED INTEGRATED WITHIN: AIR6472 B77G B77M				
	#3	PROPOSED	LTE 700 LTE 1900 LTE AWS	CCI	TPA45R-KU8A	41'-10"	40°	(1) PROPOSED 4494 B14/B29 (1) PROPOSED 4890 B25/B66				
BETA	#4	PROPOSED	LTE 700 LTE 850 LTE WCS	CCI	TPA45R-KU8A	33'-11"	130°	(1) PROPOSED 4490 B5/B12A	±180'	PROPOSED PROPOSED	1 3	0.4" FIBER 0.92" DC POWER
	#5	PROPOSED	5G CBAND 5G DOD	ERICSSON	AIR6472 B77G B77M	36'-5"	130°	(1) PROPOSED INTEGRATED WITHIN: AIR6472 B77G B77M				
	#6	PROPOSED	LTE 700 LTE 1900 LTE AWS	CCI	TPA45R-KU8A	33'-11"	130°	(1) PROPOSED 4494 B14/B29 (1) PROPOSED 4890 B25/B66				
GAMMA	#7	PROPOSED	LTE 700 LTE 850 LTE WCS	CCI	TPA45R-KU8A	30'-10"	220°	(1) PROPOSED 4490 B5/B12A	±15'	PROPOSED PROPOSED	1 3	0.4" FIBER 0.92" DC POWER
	#8	PROPOSED	5G CBAND 5G DOD	ERICSSON	AIR6472 B77G B77M	33'-4"	220°	(1) PROPOSED INTEGRATED WITHIN: AIR6472 B77G B77M				
	#9	PROPOSED	LTE 700 LTE 1900 LTE AWS	CCI	TPA45R-KU8A	30'-10"	220°	(1) PROPOSED 4494 B14/B29 (1) PROPOSED 4890 B25/B66				
DELTA	#10	PROPOSED	LTE 700 LTE 850 LTE WCS	CCI	TPA45R-KU8A	30'-10"	310°	(1) PROPOSED 4490 B5/B12A	±15'	PROPOSED PROPOSED	1 3	0.4" FIBER 0.92" DC POWER
	#11	PROPOSED	5G CBAND 5G DOD	ERICSSON	AIR6472 B77G B77M	33'-4"	310°	(1) PROPOSED INTEGRATED WITHIN: AIR6472 B77G B77M				
	#12	PROPOSED	LTE 700 LTE 1900 LTE AWS	CCI	TPA45R-KU8A	30'-10"	310°	(1) PROPOSED 4494 B14/B29 (1) PROPOSED 4890 B25/B66				
GPS										PROPOSED	1	

TOTAL # OF ANTENNAS: 12
(8) PROPOSED TPA45R-KU8A ANTENNAS (2 PER SECTOR)
(4) PROPOSED AIR6472 B77G B77M ANTENNA (1 PER SECTOR)

PROPOSED RRH'S
(4) PROPOSED 4494 B14/B29 (1 PER SECTOR)
(4) PROPOSED 4890 B25/B66 (1 PER SECTOR)
(4) PROPOSED 4490 B5/B12A (1 PER SECTOR)

PROPOSED DC9
(4) PROPOSED RAYCAP DC9-48-60-24-PC16-EV

NEW EQUIPMENT: YES

EQUIPMENT SHELTER SIZE: N/A

NOTES:
1. SUBCONTRACTOR SHALL COORDINATE COLOR CODING WITH THE MASTER COLOR CODE DOCUMENT.
2. INSTALL SURGE ARRESTORS ON NEW MAIN COAXIAL CABLES. GROUND TO NEAREST GROUND BAR.
3. SUB CONTRACTOR SHALL INSTALL A BRASS IDENTIFICATION TAG (1 1/2" IN DIAMETER WITH 1/4" STAMPED LETTERS AND NUMBERS. ONE AT THE ANTENNA PORT CONNECTION NEAR THE END OF THE JUMPER AND ONE ON EACH END OF THE JUMPER SERVING THE RADIO EQUIPMENT. EACH TAG WILL BE STAMPED WITH "ATT" AND THE ANTENNA PORT IDENTIFICATION NUMBER. TAGS SHALL BE ATTACHED WITH CORROSION PROOF UV RESISTANT WIRE OR CABLE-TY.

RF DESIGN NOTE:
This Antenna and Coax Cable schedule has been created using the RFDS ID 14541 PRELIMINARY dated 03/12/2024.
All antenna design, zoning, structural analysis, permits and compliance submissions are coordinated with the fore mentioned document.

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PROJECT NO: 1152.443
DESIGNER: M.A.
ENGINEER: C.S.

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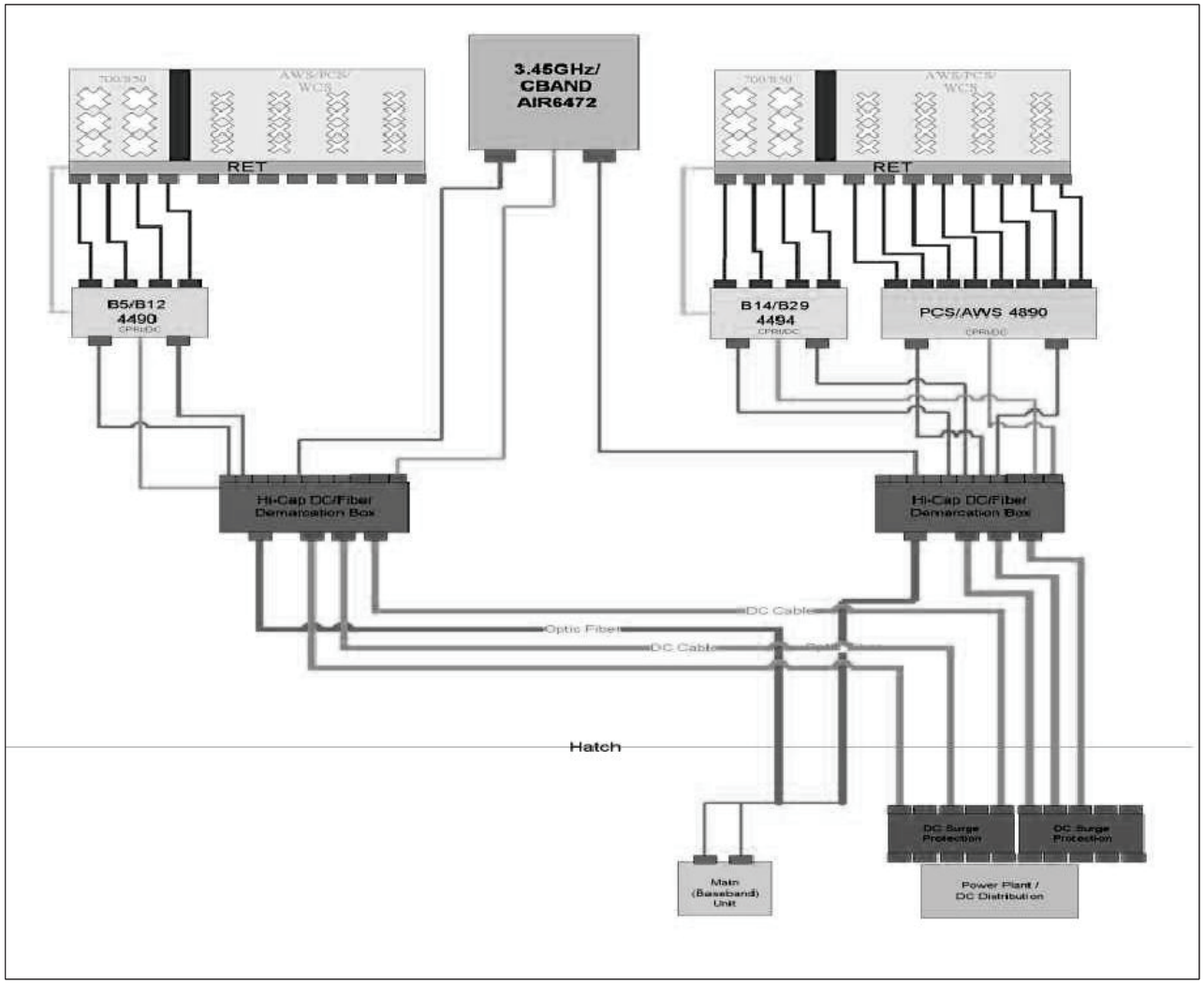
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ANTENNA SCHEDULE

SHEET NUMBER:

S-1



ANTENNA & RF SYSTEM DIAGRAM
SCALE: N.T.S.

1
S-2

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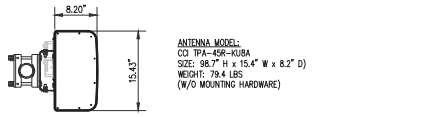
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ANTENNA & RF SYSTEM DIAGRAM

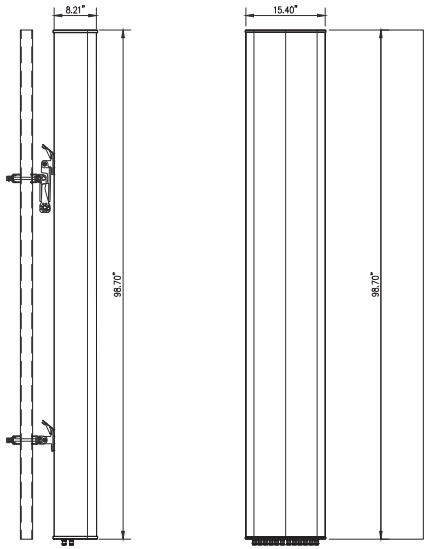
SHEET NUMBER:

S-2



ANTENNA MODEL:
CCI TPA-45R-KU8A
SIZE: 98.7" H x 15.4" W x 8.2" D)
WEIGHT: 79.4 LBS
(W/O MOUNTING HARDWARE)

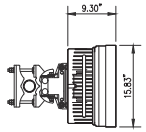
TOP VIEW



SIDE VIEW

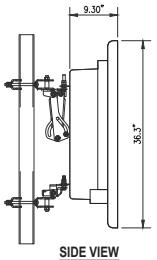
FRONT VIEW

CCI TPA-45R-KU8A ANTENNA DETAIL (1 / S-3)
SCALE: 1"=1'-0"

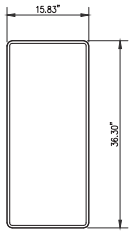


ANTENNA MODEL:
ERICSSON AIR6472 B77G & B77M
SIZE: 36.3" H x 15.83" W x 9.3" D
WEIGHT: 77.16 LBS (MOUNTING KIT 11.46 LBS)
(W/ PROTRUDING)

TOP VIEW

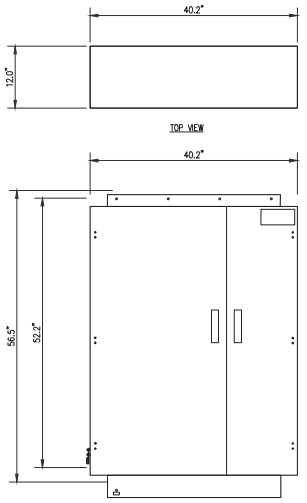


SIDE VIEW



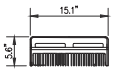
FRONT VIEW

ERICSSON AIR6472 B77G & B77M ANTENNA (2 / S-3)
SCALE: 1"= 1'-0"



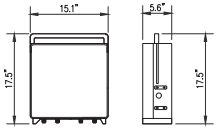
WEIGHT : 165 LBS

OVERVOLTAGE PROTECTION & POWER MANAGEMENT JUNCTION BOX DC50-48-60-96-50F (3 / S-3)
SCALE: 1" = 1'-0"



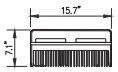
RRH 4494 B14/B29
DIMENSION: 17.48"H x15.12"W x5.63"D
WEIGHT: 57.32 LBS

PLAN VIEW



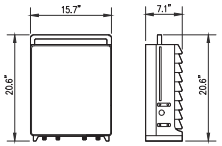
FRONT VIEW SIDE VIEW

RRH 4494 B14/B29 DETAIL (4 / S-3)
SCALE: 1"=1'-0"



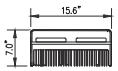
RADIO 4890 B25/B66
DIMENSION: 20.6"H x15.7"W x7.1"D
WEIGHT: 67.2 LBS

PLAN VIEW



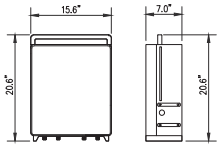
FRONT VIEW SIDE VIEW

RRH 4890 B25/B66 DETAIL (5 / S-3)
SCALE: 1"=1'-0"



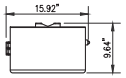
RRH 4490 B5/B12A
DIMENSION: 20.6"H x15.6"W x7.0"D
WEIGHT: 65.0 LBS

PLAN VIEW



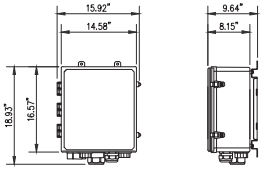
FRONT VIEW SIDE VIEW

RRH 4490 B5/B12A DETAIL (6 / S-3)
SCALE: 1"=1'-0"



WEIGHT : 34.9 LBS

PLAN VIEW



FRONT VIEW SIDE VIEW

RAYCAP DC9-48-60-24-PC16-EV (7 / S-3)
SCALE: 1" = 1'-0"

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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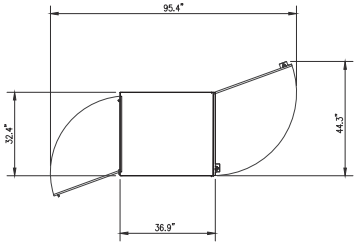
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

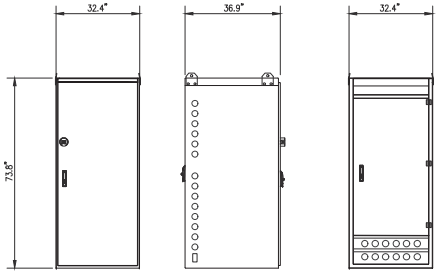
ANTENNA & RRH DETAILS

SHEET NUMBER:

S-3



TOP VIEW

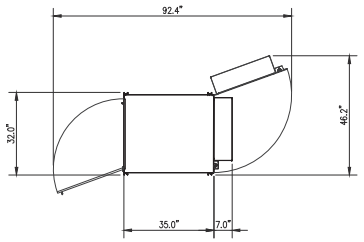


FRONT VIEW SIDE VIEW BACK VIEW

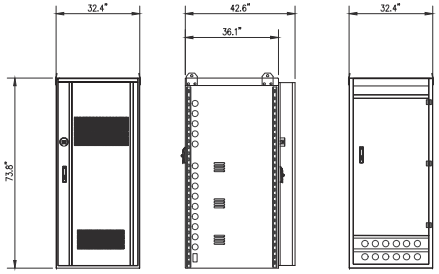
MODEL NUMBER 72B5-P1-A00D10-8H1
EMPTY CABINET WEIGHT: 810 LBS
FULLY LOADED CABINET WEIGHT: 3,630 LBS

OMNION VRLA CMC72-32B BATTERY CABINET DETAIL

SCALE: 1/2"=1'-0" (1 S-4)



TOP VIEW

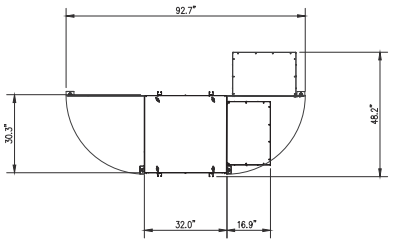


FRONT VIEW SIDE VIEW BACK VIEW

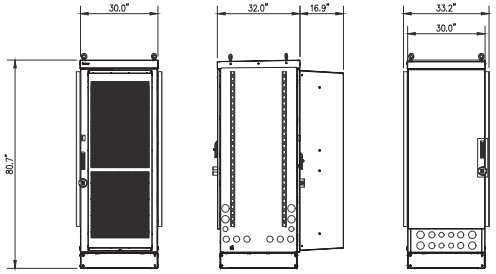
MODEL NUMBER 72B3-T7-A00D28-8H1
EMPTY CABINET WEIGHT: 890 LBS
FULLY LOADED CABINET WEIGHT: 3,018 LBS

OMNION VRLA CMC72-32C COMBO CABINET DETAIL

SCALE: 1/2"=1'-0" (2 S-4)



TOP VIEW



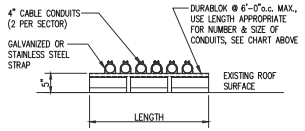
FRONT VIEW SIDE VIEW BACK VIEW

MODEL NUMBER RRYOC-38U23-800HEX
EMPTY CABINET WEIGHT: 728 LBS
FULLY LOADED CABINET WEIGHT: ---- LBS

RAYCAP RAY-38 RADIO CABINET DETAIL

SCALE: 1/2"=1'-0" (3 S-4)

DURABLOCK DB SERIES LENGTH CHART	
PART NUMBER	LENGTH
DB5	4.8"
DB10	9.6"
DB20	20.2"
DB30	30.8"
DB40	41.4"



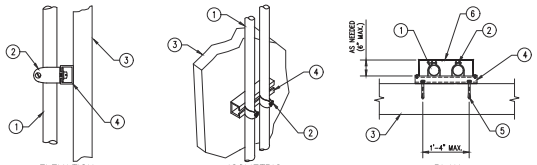
CABLE CONDUIT SUPPORT DETAIL

SCALE: 3/4"= 1'-0" (4 S-4)

NOTES:
1. USE STANDARD STAINLESS STEEL HARDWARE FOR WALL CONNECTIONS.
2. SPACE SUPPORTS @ 4'-0" ON CENTER MAXIMUM.
3. DETAIL APPLIES TO BOTH VERTICAL AND HORIZONTAL CONDUIT RUNS.
4. COVER NOT SHOWN IN ELEVATION & ISOMETRIC VIEWS FOR CLARITY

UNISTRUT MOUNTING CHART	
WALL CONSTRUCTION TYPE	USE
HOLLOW	3/8"ø TOGGLE BOLT
HOLLOW, AT STUD	3/8"ø LAG SCREW
CONCRETE BLOCK (HOLLOW)	3/8"ø HILTI HY-70 (MIN. EMBEDMENT 2-1/2")
CONCRETE (SOLID)	3/8"ø HILTI HY-200 (MIN. EMBEDMENT 2-1/2")

1. CONDUIT OR PIPE
2. BUTTERFLY CLAMP AS REQUIRED
3. EXISTING WALL ASSEMBLY
4. UNISTRUT P1000 "T" SERIES LENGTH BASED ON NUMBER OF CONDUIT TO BE MOUNTED
5. ANCHOR, SEE TABLE ABOVE
6. 20 GA. SHEET METAL COVER PAINTED TO MATCH WALL COLOR & BOLTED TO UNISTRUTS



COVERED CONDUIT OR CONDUIT ON WALL DETAIL

SCALE: 3/4"=1'-0" (5 S-4)

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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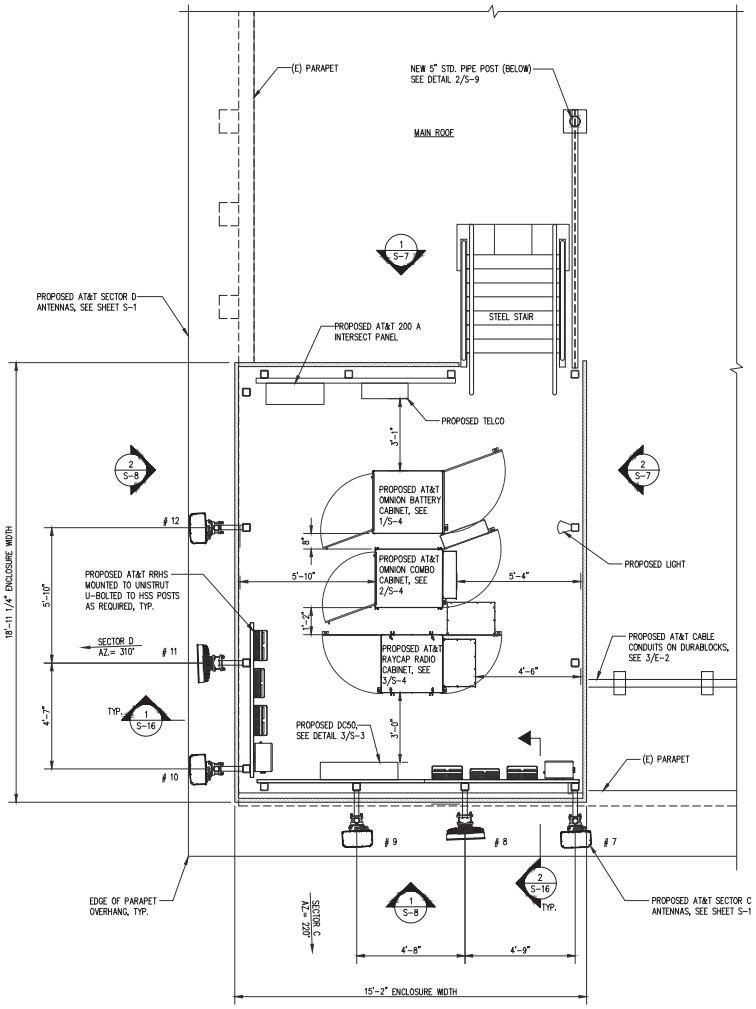
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

EQUIPMENT DETAILS

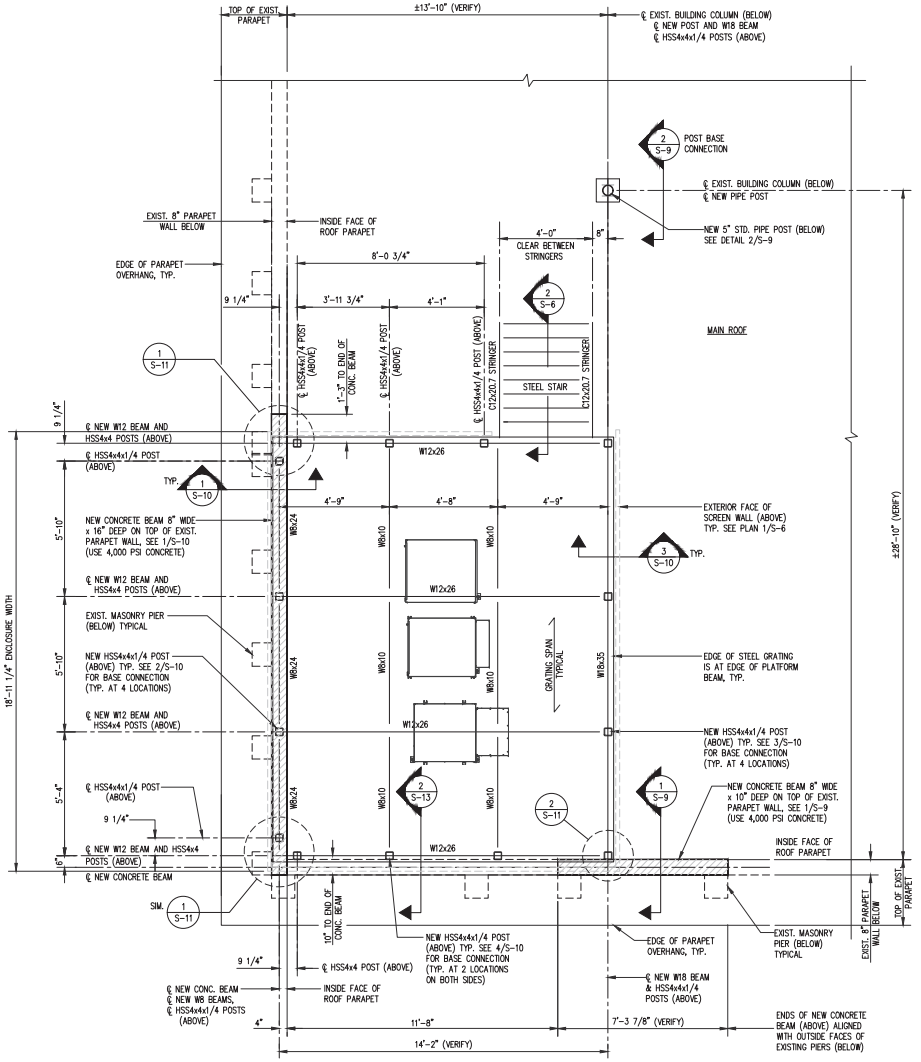
SHEET NUMBER:

S-4



EQUIPMENT LAYOUT PLAN

SCALE: 3/8"=1'-0"



NOTE: SCREEN WALL FRAMING ABOVE POSTS NOT SHOWN, SEE PLAN 1/S-6

EQUIPMENT PLATFORM FRAMING PLAN

SCALE: 3/8"=1'-0"

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ENGINEER:	C.S.

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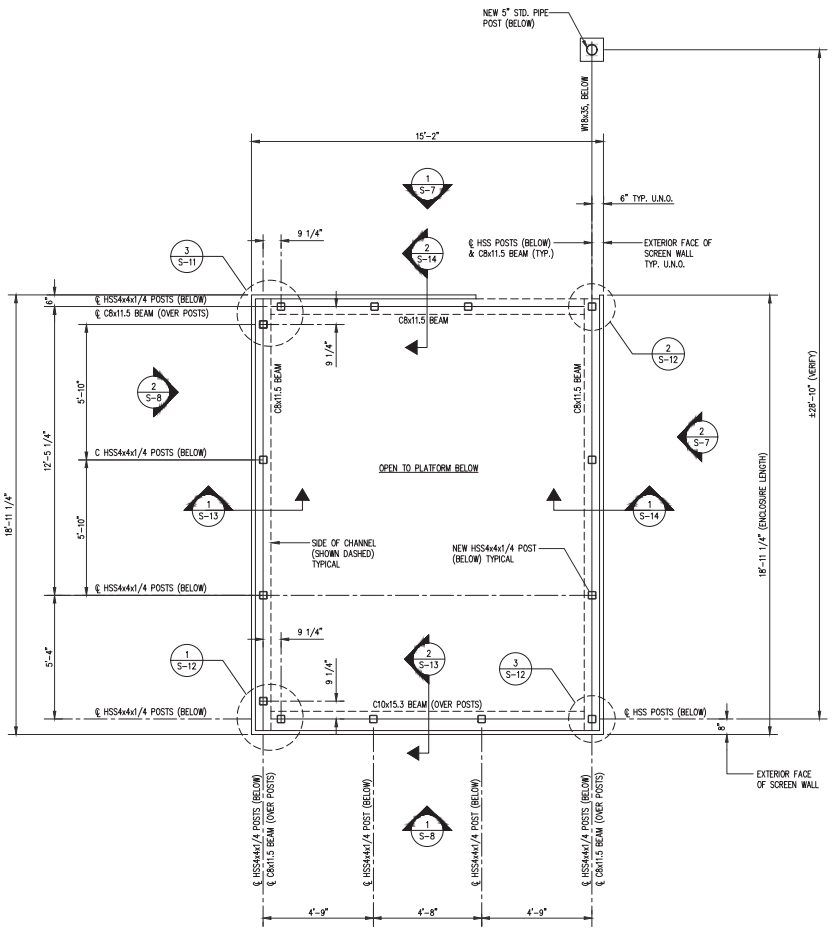
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

EQUIPMENT PLATFORM PLANS

SHEET NUMBER:

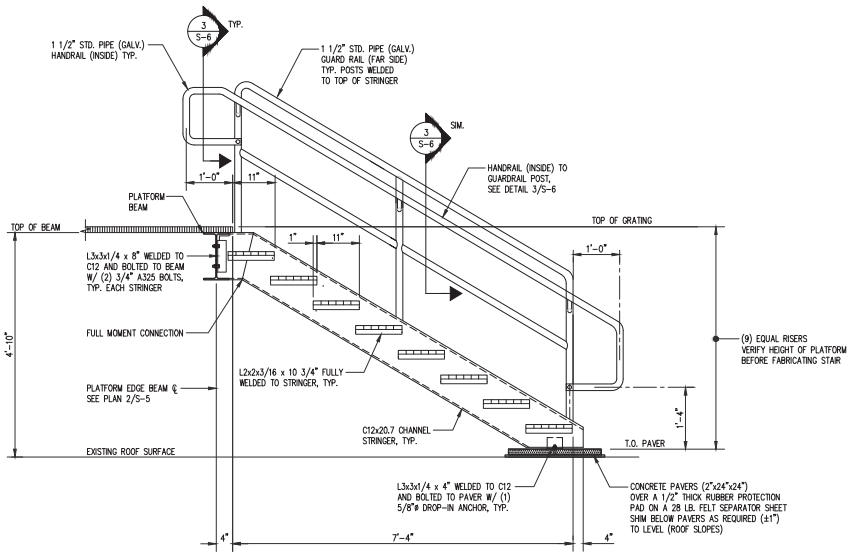
S-5



EQUIPMENT PLATFORM TOP FRAMING PLAN

SCALE: 3/8"=1'-0"

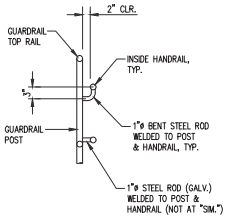
TRUE NORTH



TYPICAL STEEL STAIR NOTES:
1. POSTS TO BE CENTERED ON THE TOP FLANGE OF CHANNEL OR STRINGER, TYP.
2. ALL RAIL TO POST INTERSECTIONS AND POST TO STRINGER TO BE FULLY WELDED 3/16" FILLET WELD ALL AROUND, GROUND SMOOTH. RAIL ENDS WHERE EXPOSED, TO BE CAPPED AND FULLY WELDED.
3. CLEAN WELDED AREAS WITH POWER TOOL AND PAINT WITH 2 LAYERS OF GALVANIC PAINT, TYP.

STEEL STAIR DETAIL

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



STAIR HANDRAIL DETAIL

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

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ENGINEER:	C.S.

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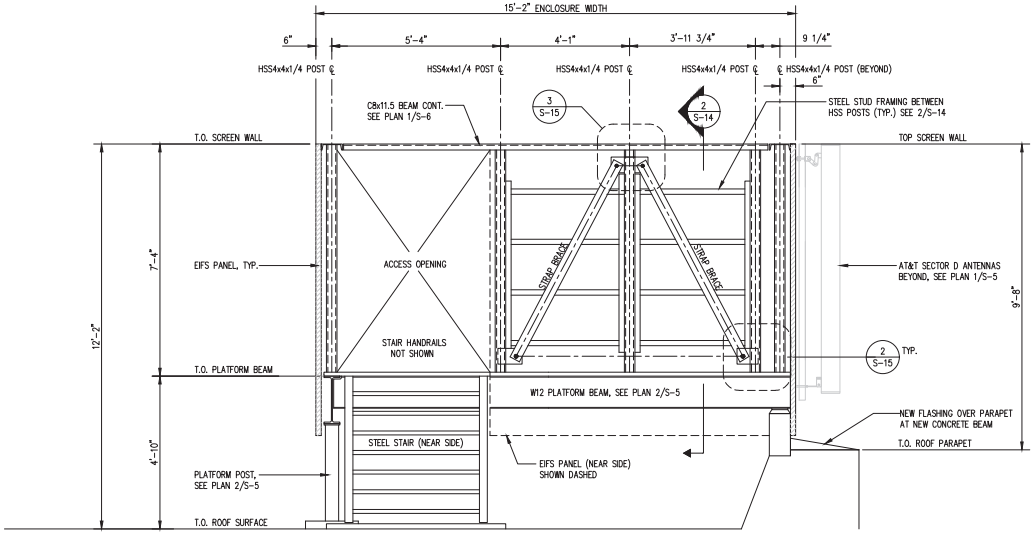
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

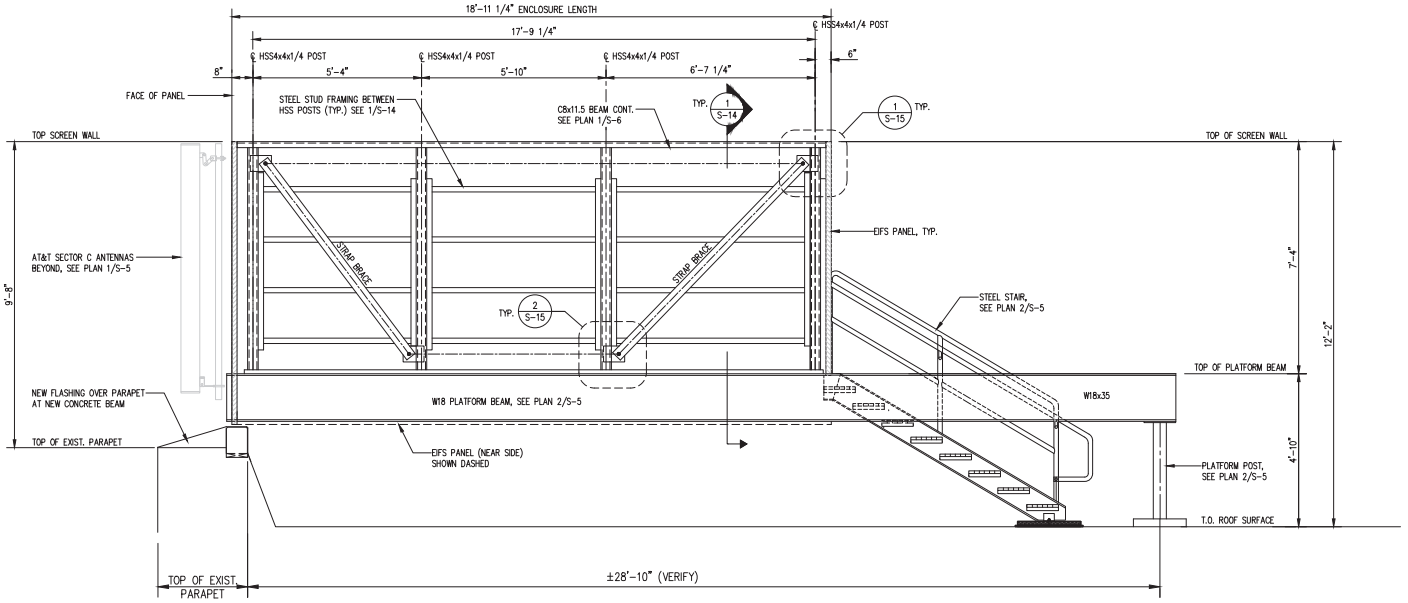
EQUIPMENT PLATFORM TOP FRAMING PLAN & STAIR DETAILS

SHEET NUMBER:

S-6



EQUIPMENT PLATFORM ELEVATION 1 S-7
SCALE: 1/2"=1'-0"



EQUIPMENT PLATFORM ELEVATION 2 S-7
SCALE: 1/2"=1'-0"

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ENGINEER:	C.S.

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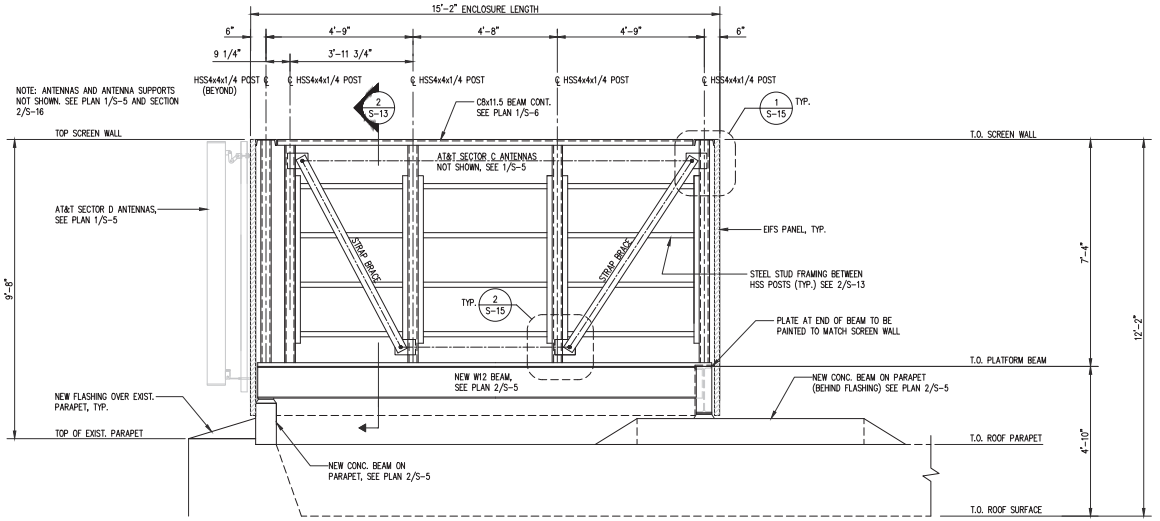
SHEET TITLE:

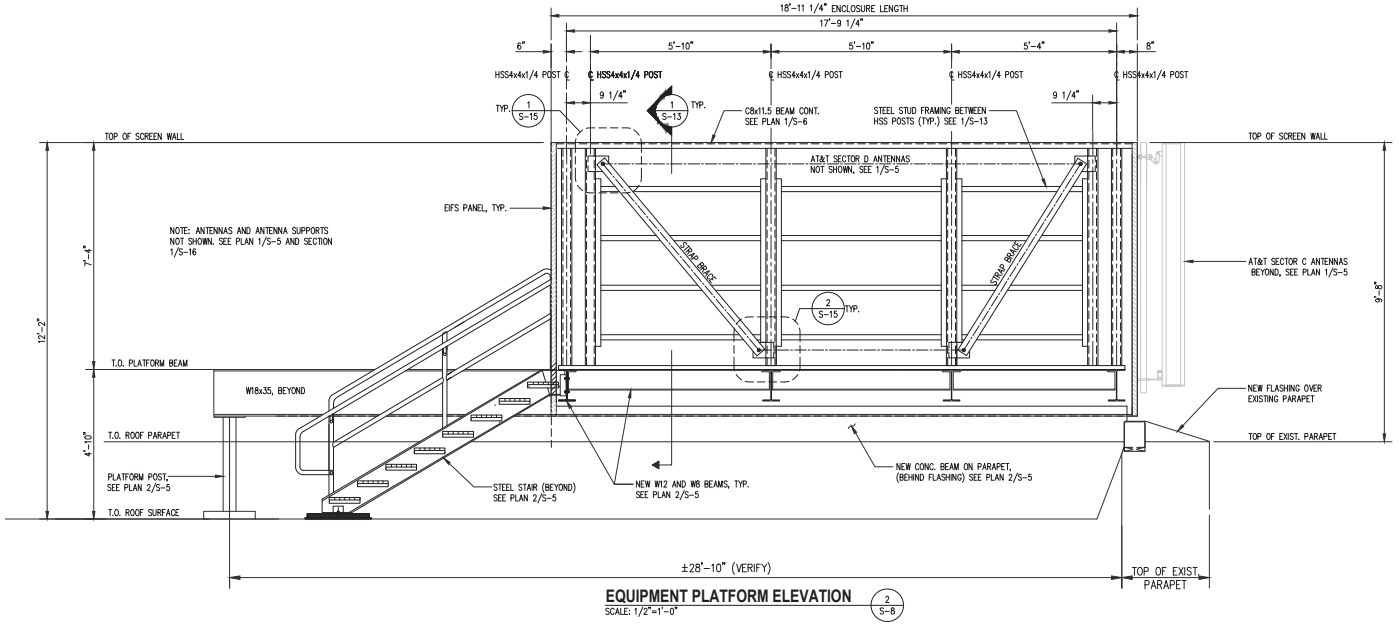
EQUIPMENT PLATFORM ELEVATIONS

SHEET NUMBER:

S-7



EQUIPMENT PLATFORM ELEVATION (1 S-8)
SCALE: 1/2"=1'-0"



EQUIPMENT PLATFORM ELEVATION (2 S-8)
SCALE: 1/2"=1'-0"

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0 1/2 1
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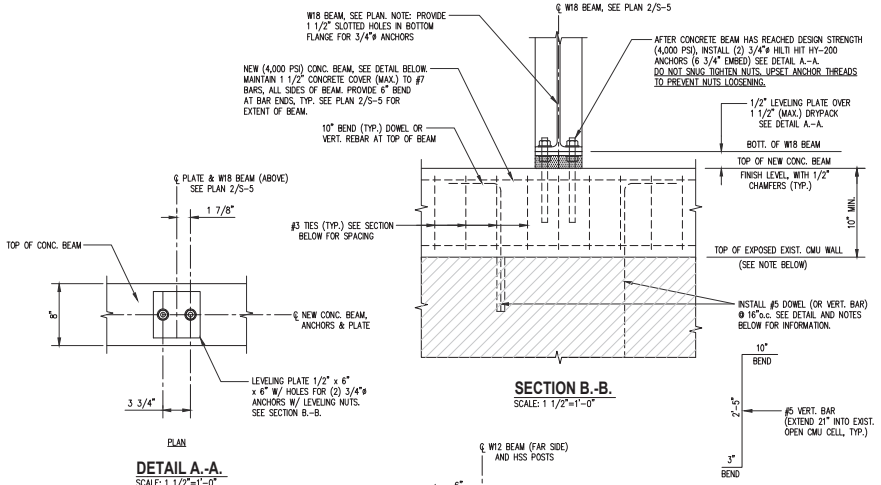
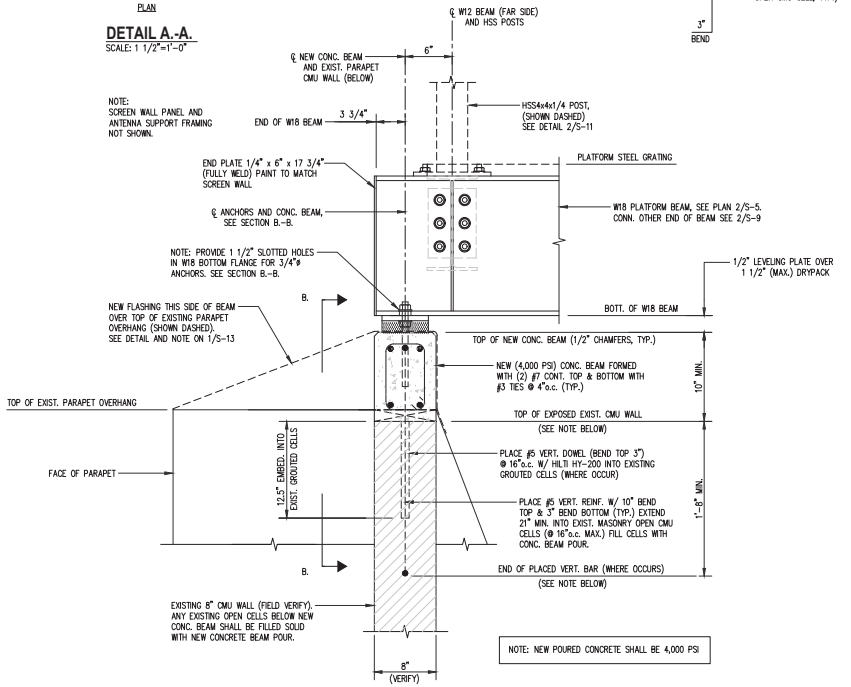
SHEET TITLE:

EQUIPMENT PLATFORM ELEVATIONS

SHEET NUMBER:

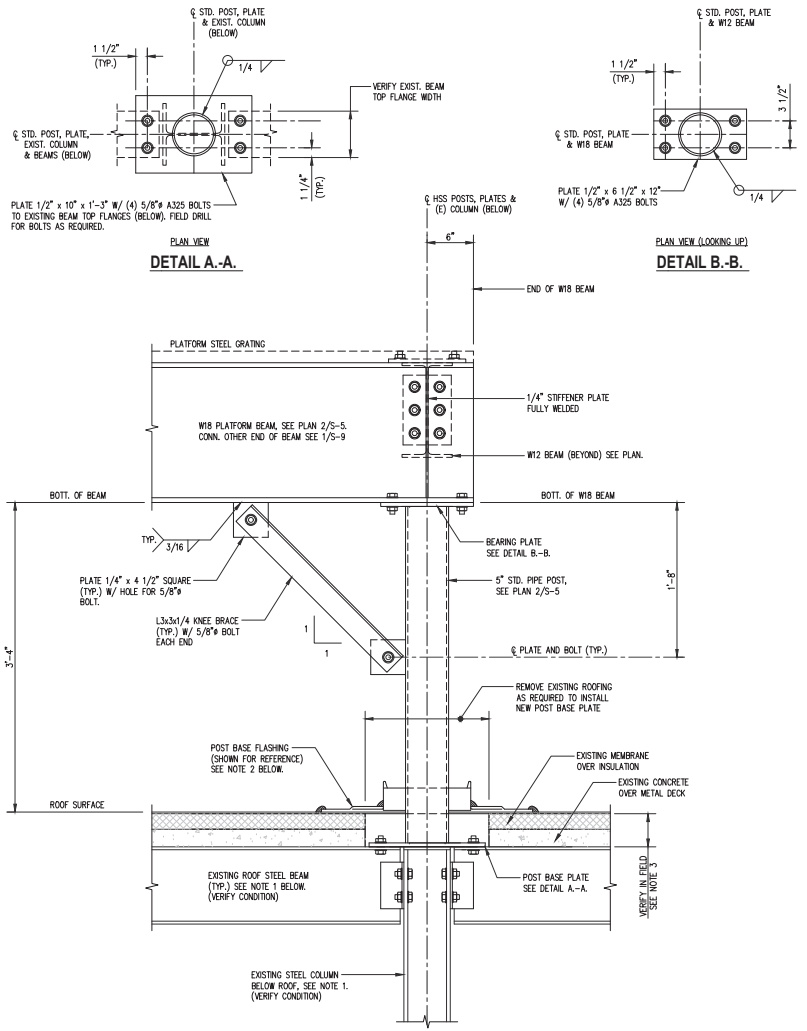
S-8





NOTES:
1. REMOVE EXISTING FLASHING AND WOOD NAILER AT TOP OF EXISTING PARAPET AS REQUIRED TO EXPOSE TOP OF EXISTING PARAPET CMU WALL. INSTALL #5 VERTICAL REINFORCING INTO UNGROUTED CMU CELLS WHERE OCCUR. (SEE DETAIL). INSTALL DRILLED ADHESIVE #5 DOWEL INTO TOP OF EXISTING GROUTED CELLS, TYP. (SEE DETAIL).

W18 PLATFORM BEAM TO PARAPET WALL CONNECTION DETAILS (1 / S-9)
SCALE: 1 1/2"=1'-0"



NOTES:
1. CONDITION AT TOP OF COLUMN IS NOT KNOWN, AND ASSUMED TO HAVE A COLUMN CAP PLATE, OR STEEL BEAM MAY BE CONTINUOUS OVER THE TOP OF COLUMN. VERIFY PRIOR TO CONSTRUCTION START, AND CONTACT ENTREX TO REPORT EXISTING CONDITION.
2. EXISTING AND PROPOSED WATER PROOFING IS NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL COMPLETE ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF.
3. VERIFY DEPTH OF INSULATION AT POST LOCATION, AND FIELD CUT LENGTH OF POST AS NEEDED. POST SHALL BE FIELD WELDED TO BASE PLATE AFTER REQUIRED PIPE LENGTH HAS BEEN DETERMINED. THE FIELD WELDING CAN BE DONE AT GROUND LEVEL TO AVOID WELDING ON ROOF.

PLATFORM POST BASE CONNECTON DETAILS (2 / S-9)
SCALE: 1 1/2"=1'-0"

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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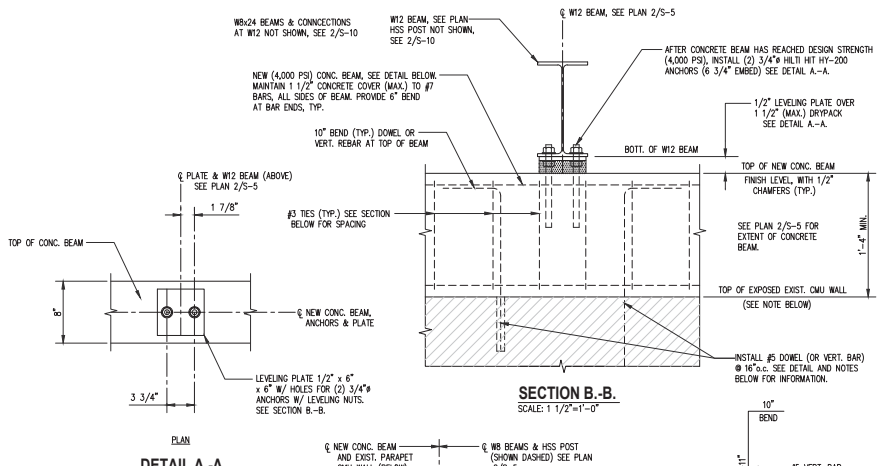
0 1/2 1
GRAPHIC SCALE IN INCHES

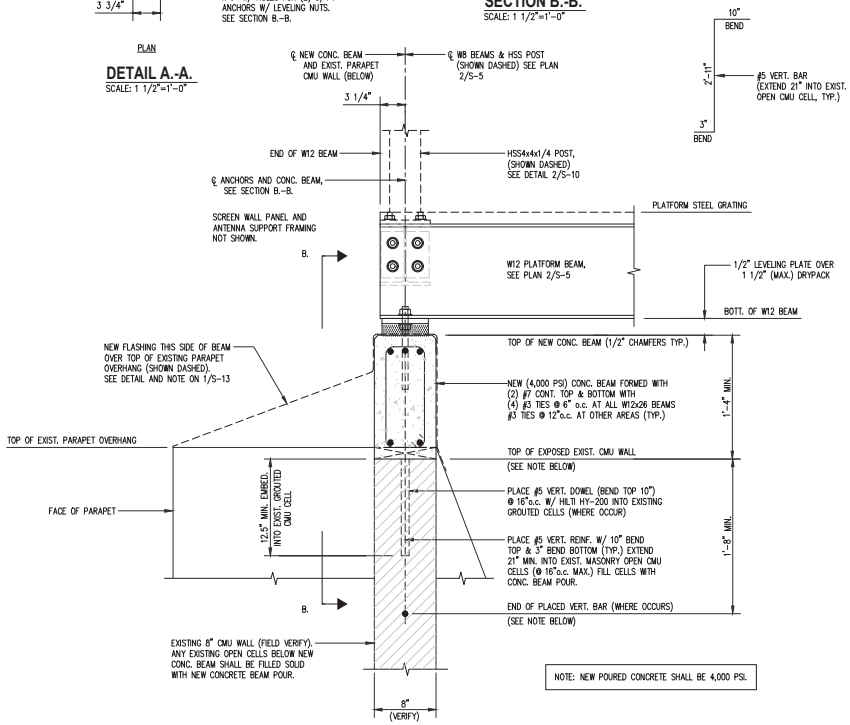
SHEET TITLE:

EQUIPMENT PLATFORM STRUCTURAL DETAILS

SHEET NUMBER:

S-9





NOTES:

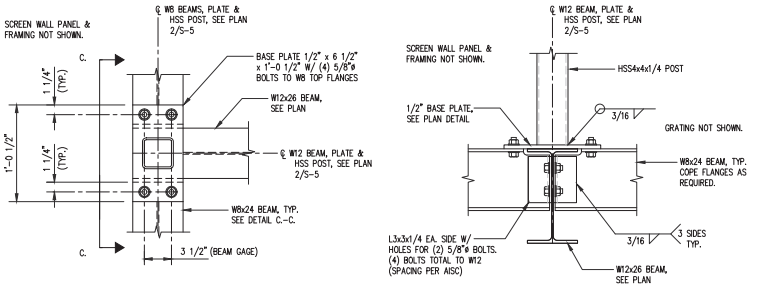
1. REMOVE EXISTING FLASHING AND WOOD NAILER AT TOP OF EXISTING PARAPET AS REQUIRED TO EXPOSE TOP OF EXISTING PARAPET CMU WALL. INSTALL #5 VERTICAL REINFORCING INTO UNGROUTED CMU CELLS WHERE OCCUR. (SEE DETAIL). INSTALL DRILLED ADHESIVE #5 DOWEL INTO TOP OF EXISTING GROUTED CELLS, TYP. (SEE DETAIL).

AT PLATFORM WEST SIDE

W12 PLATFORM BEAM TO PARAPET WALL CONNECTION DETAILS

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

(1 / S-10)

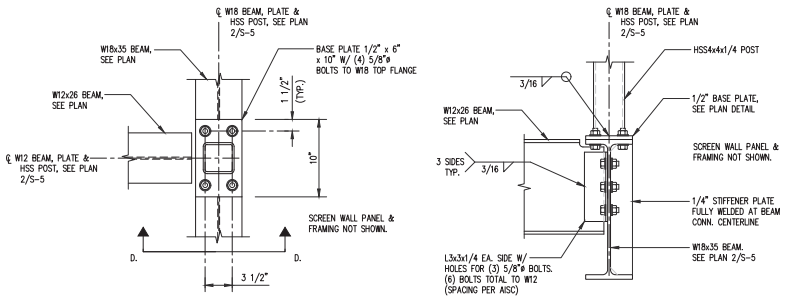


AT PLATFORM WEST SIDE, (4) LOCATIONS

HSS POST BASE AND BEAM CONNECTION DETAILS

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

(2 / S-10)

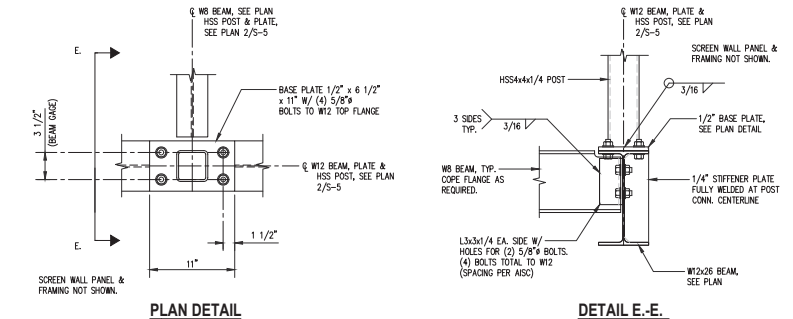


AT PLATFORM EAST SIDE W18x35 BEAM, (4) LOCATIONS

HSS POST BASE AND BEAM CONNECTION DETAILS

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

(3 / S-10)



AT PLATFORM NORTH AND SOUTH ENDS, (4) LOCATIONS

TYPICAL HSS POST BASE AND BEAM CONN. AT W12 BEAM

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

(4 / S-10)

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SEAL:

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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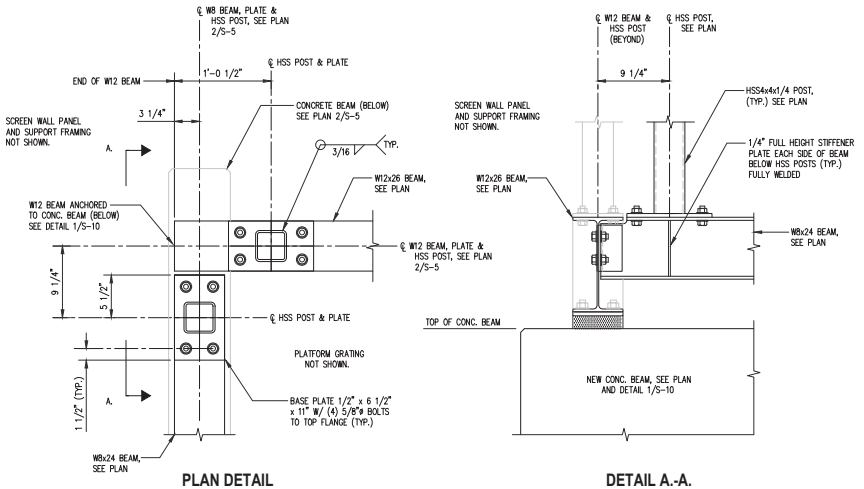
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

EQUIPMENT PLATFORM STRUCTURAL DETAILS

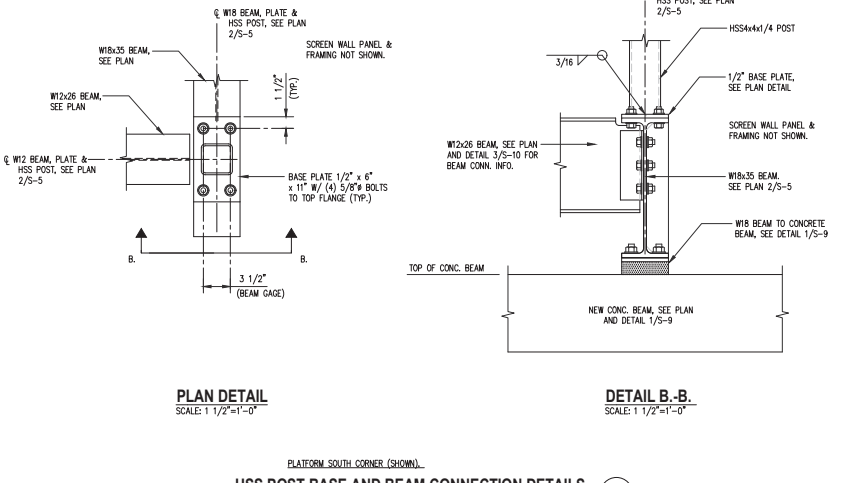
SHEET NUMBER:

S-10



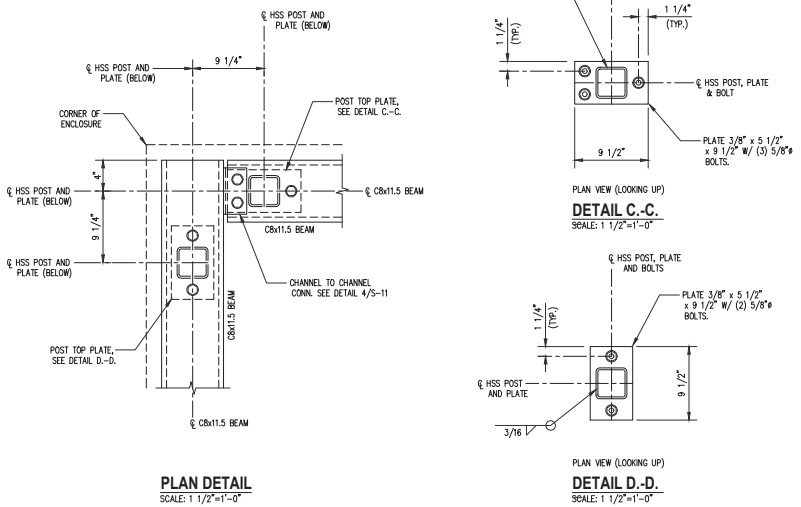
PLATFORM NORTH CORNER (SHOWN). WEST CORNER SIMILAR.

HSS POST BASE AND BEAM CONNECTION DETAILS (1 / S-11)
SCALE: 1 1/2"=1'-0"



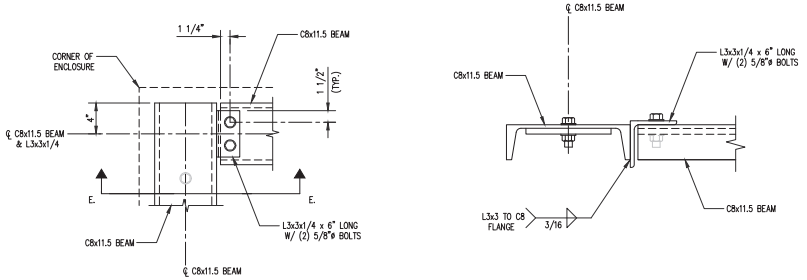
PLATFORM SOUTH CORNER (SHOWN).

HSS POST BASE AND BEAM CONNECTION DETAILS (2 / S-11)
SCALE: 1 1/2"=1'-0"



SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER POST LOCATION.

ENCLOSURE TOP BEAM CORNER AND POST CONNECTION DETAILS (3 / S-11)
SCALE: 1 1/2"=1'-0"



SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER CONN. LOCATIONS.

ENCLOSURE TOP CHANNEL BEAM CONNECTION DETAILS (4 / S-11)
SCALE: 1 1/2"=1'-0"

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PROJECT NO:	1152.443
DESIGNER:	TMF
ENGINEER:	C.S.

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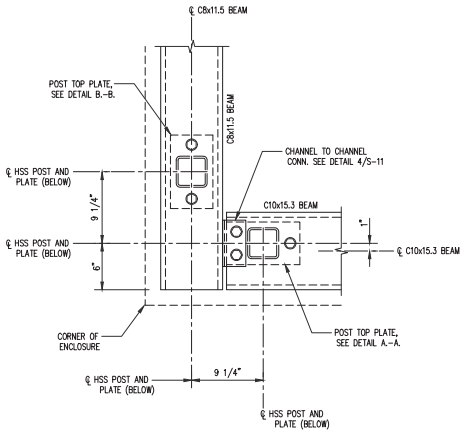
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

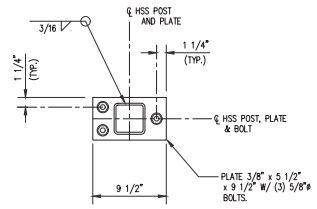
EQUIPMENT PLATFORM STRUCTURAL DETAILS

SHEET NUMBER:

S-11

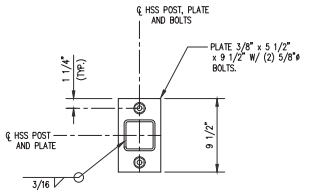


PLAN DETAIL
SCALE: 1 1/2"=1'-0"



PLAN VIEW (LOOKING UP)

DETAIL A.-A.
SCALE: 1 1/2"=1'-0"



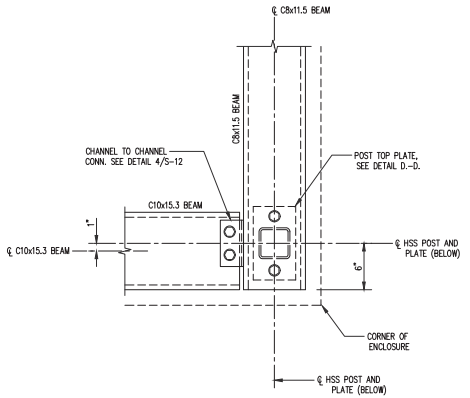
PLAN VIEW (LOOKING UP)

DETAIL B.-B.
SCALE: 1 1/2"=1'-0"

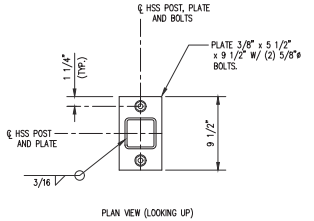
SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER POST LOCATIONS.

ENCLOSURE TOP BEAM CORNER AND POST CONNECTION DETAILS
SCALE: 1 1/2"=1'-0"

1 / S-12



PLAN DETAIL
SCALE: 1 1/2"=1'-0"



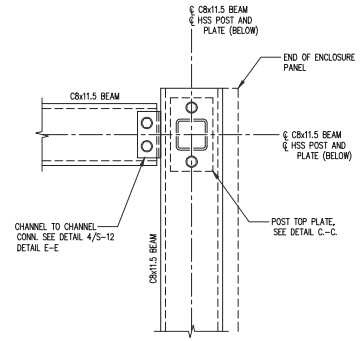
PLAN VIEW (LOOKING UP)

DETAIL D.-D.
SCALE: 1 1/2"=1'-0"

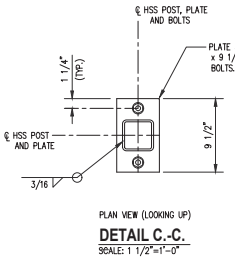
SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER POST LOCATIONS.

ENCLOSURE TOP BEAM CORNER AND POST CONNECTION DETAILS
SCALE: 1 1/2"=1'-0"

3 / S-12



PLAN DETAIL
SCALE: 1 1/2"=1'-0"



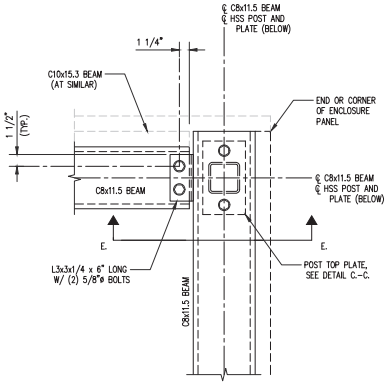
PLAN VIEW (LOOKING UP)

DETAIL C.-C.
SCALE: 1 1/2"=1'-0"

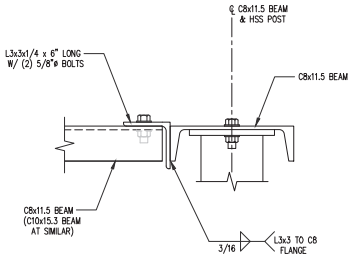
SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER POST LOCATIONS.

ENCLOSURE TOP BEAM CORNER AND POST CONNECTION DETAILS
SCALE: 1 1/2"=1'-0"

2 / S-12



PLAN DETAIL
SCALE: 1 1/2"=1'-0"



DETAIL E.-E.
SCALE: 3"=1'-0"

SEE ENCLOSURE TOP FRAMING PLAN 1/S-6 FOR CORNER CONN. LOCATIONS.

ENCLOSURE TOP CHANNEL BEAM CONNECTION DETAILS
SCALE: 1 1/2"=1'-0"

4 / S-12

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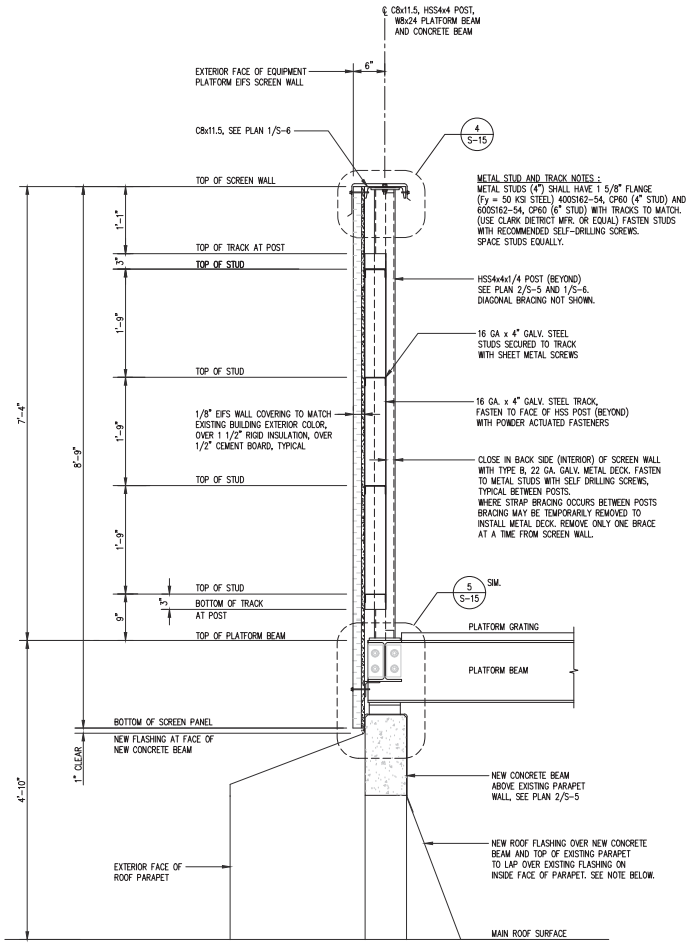
SHEET TITLE:

EQUIPMENT PLATFORM STRUCTURAL DETAILS

SHEET NUMBER:

S-12



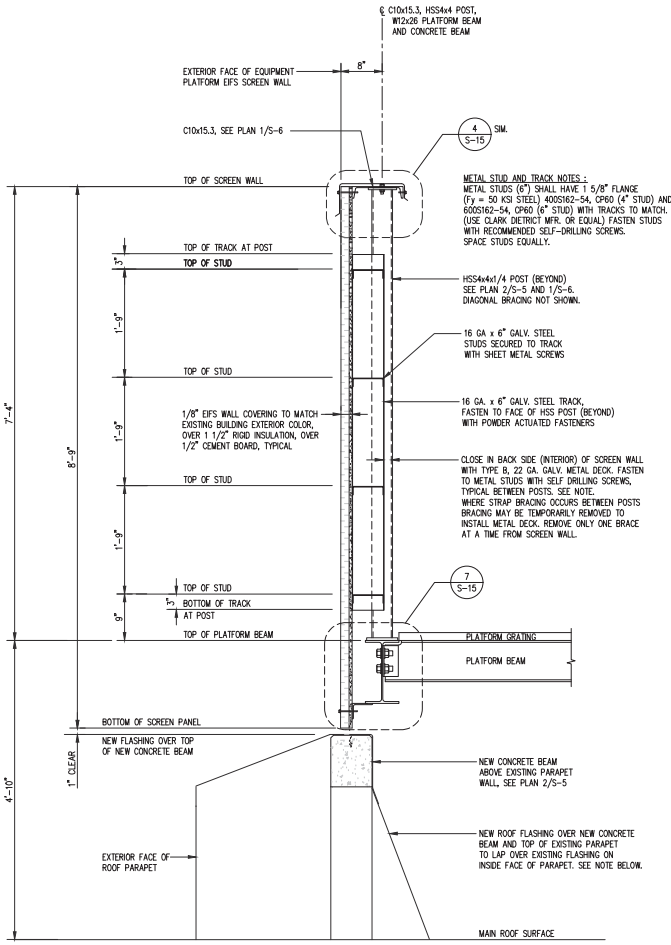
NOTE:
EXISTING AND PROPOSED WATER PROOFING IS NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL COMPLETE ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF.

ANTENNA SUPPORT AND ANTENNA NOT SHOWN. SEE SECTION 1/S-16

EQUIPMENT PLATFORM SCREEN WALL SECTION

SCALE: 1"=1'-0"

1 S-13



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ANTENNA SUPPORT AND ANTENNA NOT SHOWN. SEE SECTION 2/S-16

EQUIPMENT PLATFORM SCREEN WALL SECTION

SCALE: 1"=1'-0"

2 S-13

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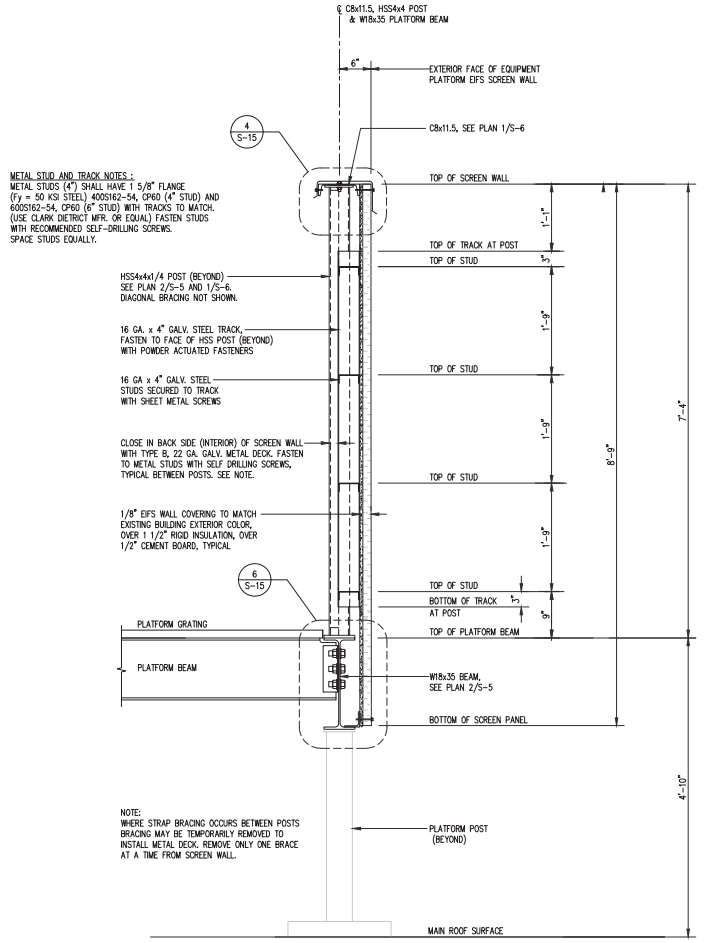
SHEET TITLE:

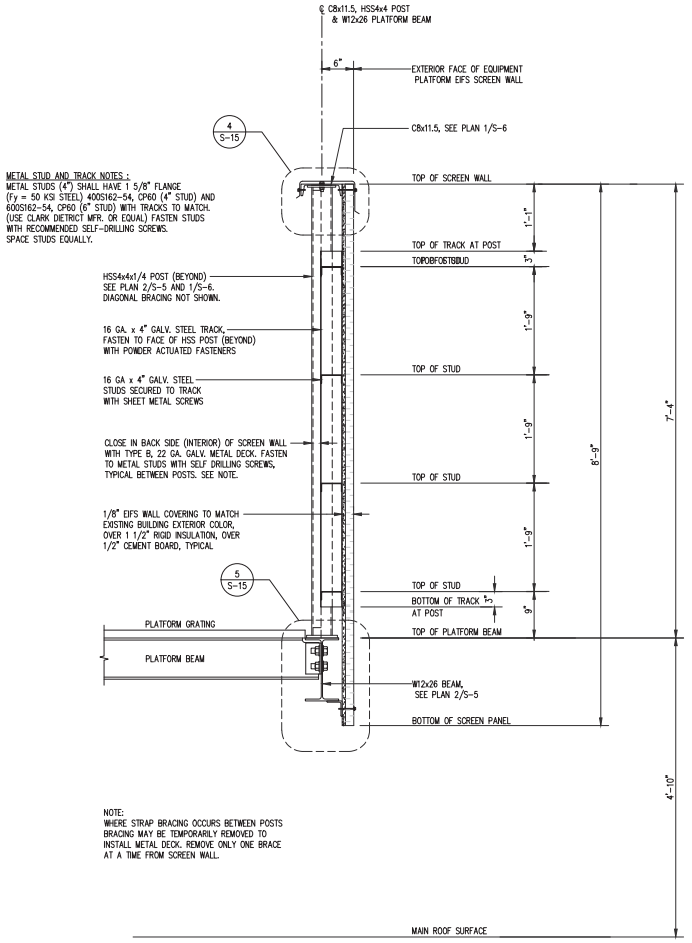
EQUIPMENT PLATFORM SCREEN WALL DETAILS

SHEET NUMBER:

S-13



EQUIPMENT PLATFORM SCREEN WALL SECTION 1 S-14
SCALE: 1"=1'-0"



EQUIPMENT PLATFORM SCREEN WALL SECTION 2 S-14
SCALE: 1"=1'-0"

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SHEET TITLE:

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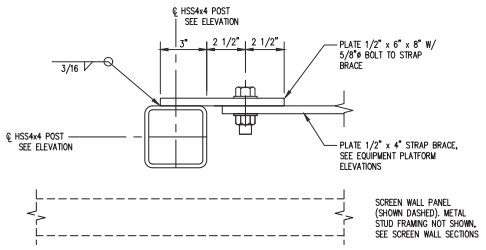
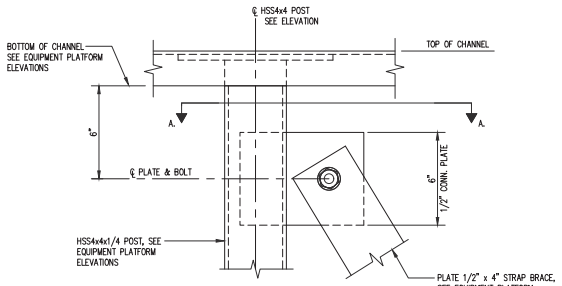
SHEET NUMBER:

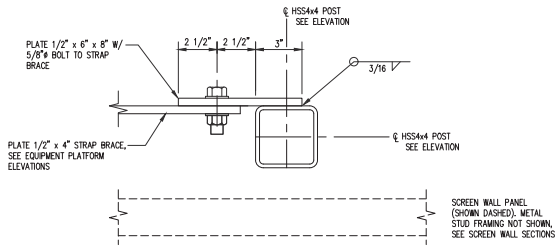
S-14



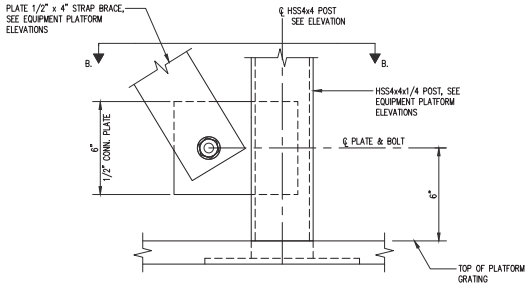
PLAN A.-A.



BRACE CONNECTION DETAIL (1 / S-15)
SCALE: 3"=1'-0"



PLAN B.-B.



BRACE CONNECTION DETAIL (2 / S-15)
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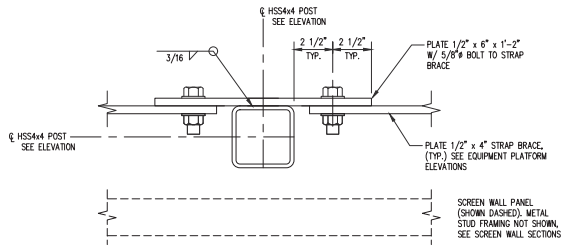
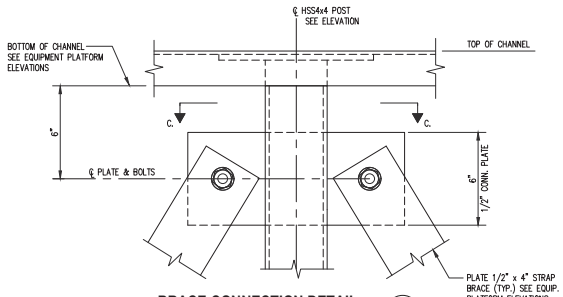
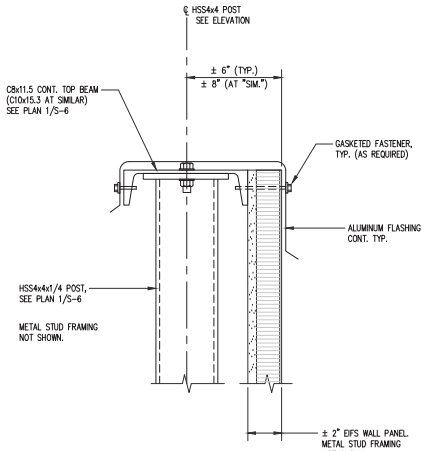


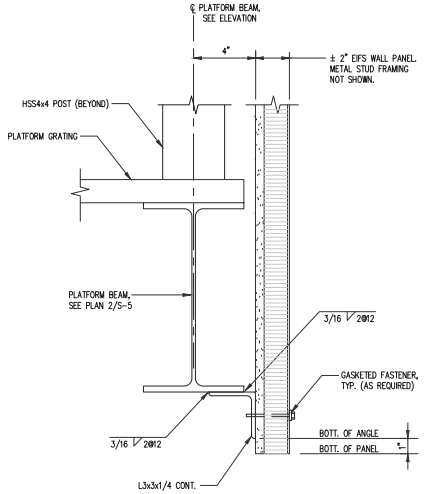
PLAN C.-C.



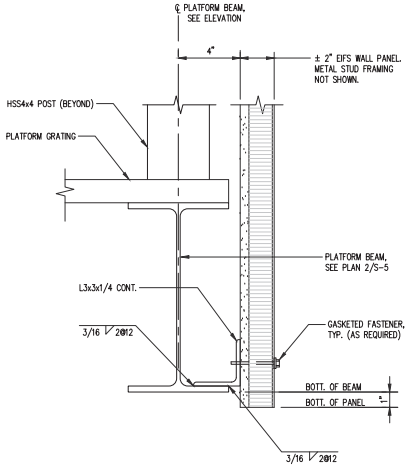
BRACE CONNECTION DETAIL (3 / S-15)
SCALE: 3"=1'-0"



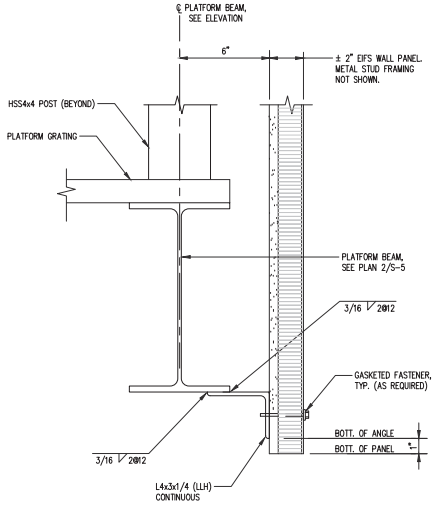
TOP OF SCREEN WALL DETAIL (4 / S-15)
SCALE: 3"=1'-0"



BOTTOM OF SCREEN WALL DETAIL (5 / S-15)
SCALE: 3"=1'-0"



BOTTOM OF SCREEN WALL DETAIL (6 / S-15)
SCALE: 3"=1'-0"



BOTTOM OF SCREEN WALL DETAIL (7 / S-15)
SCALE: 3"=1'-0"

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9000 MENDENHALL CT
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entrex
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PHONE: (202) 408-0960

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10 CHURCH CIRCLE
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PHONE: (410) 582-8043

FA NUMBER: 10087362
VALLEY PARK
527 E MAPLE AVE
VIENNA, VA 22180

SEAL:

COMMONWEALTH OF VIRGINIA
CAMILLE SHABSHAB
Lic. No. 044026
PROFESSIONAL ENGINEER

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06-09-2025	REMOVE GENERATOR	5

PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

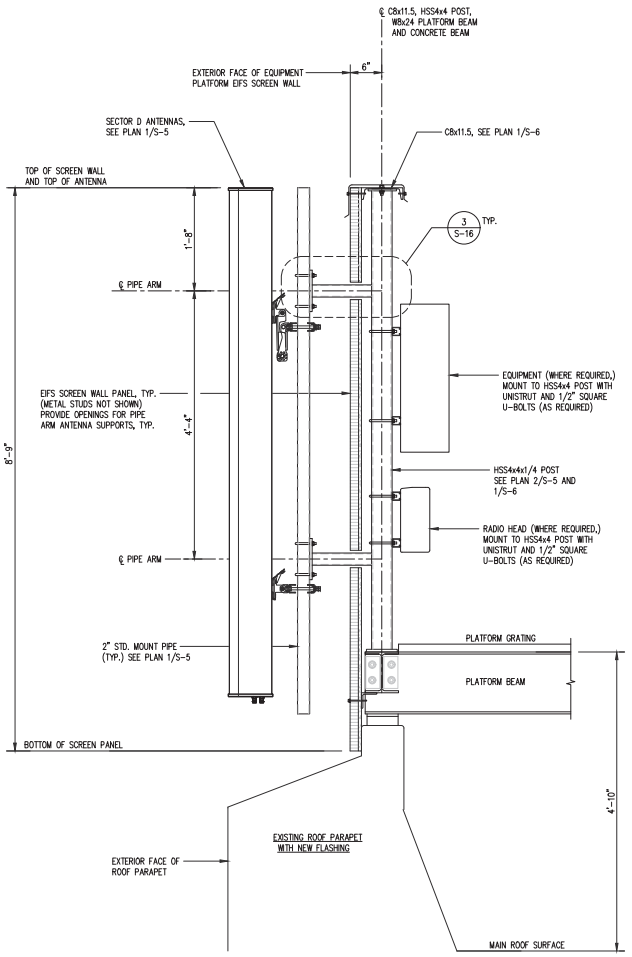
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34"
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

EQUIPMENT PLATFORM SCREEN WALL DETAILS

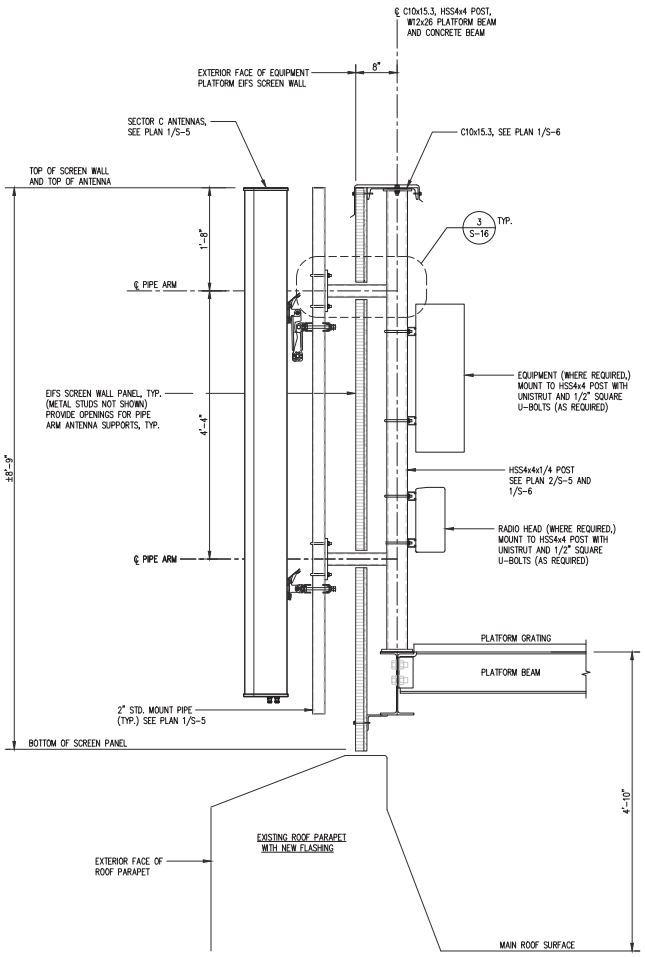
SHEET NUMBER:

S-15



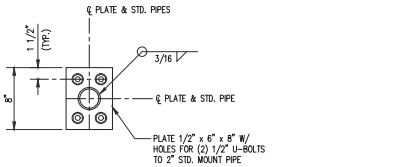
NOTE: SEE SECTION 1/S-13 FOR DETAILS NOT NOTED.

EQUIPMENT PLATFORM SCREEN WALL SECTION (1 S-16)
SCALE: 1"=1'-0"

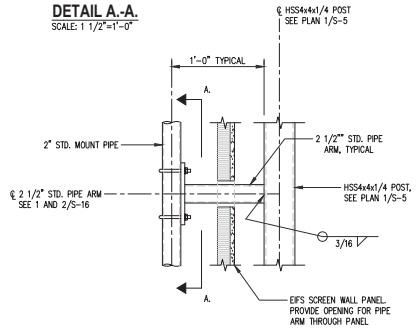


NOTE: SEE SECTION 2/S-13 FOR DETAILS NOT NOTED.

EQUIPMENT PLATFORM SCREEN WALL SECTION (2 S-16)
SCALE: 1"=1'-0"



DETAIL A.-A.
SCALE: 1 1/2"=1'-0"



TYPICAL AT TOP AND BOTTOM OF ANTENNA MOUNT PIPE

ANTENNA MOUNT PIPE TO HSS POST DETAIL (3 S-16)
SCALE: 1-1/2"=1'-0"

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ENGINEER:	C.S.

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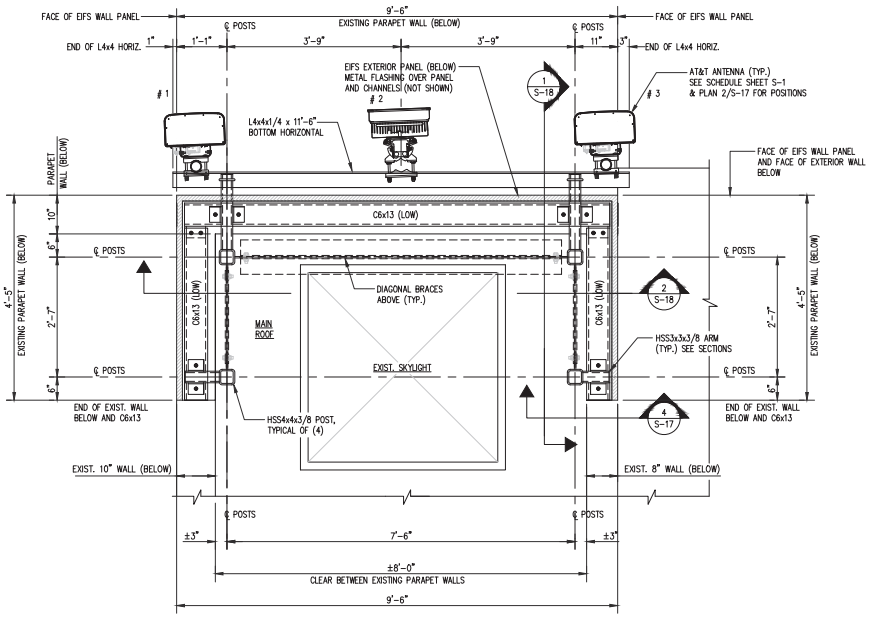
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ANTENNA SECTORS C AND D SUPPORT DETAILS

SHEET NUMBER:

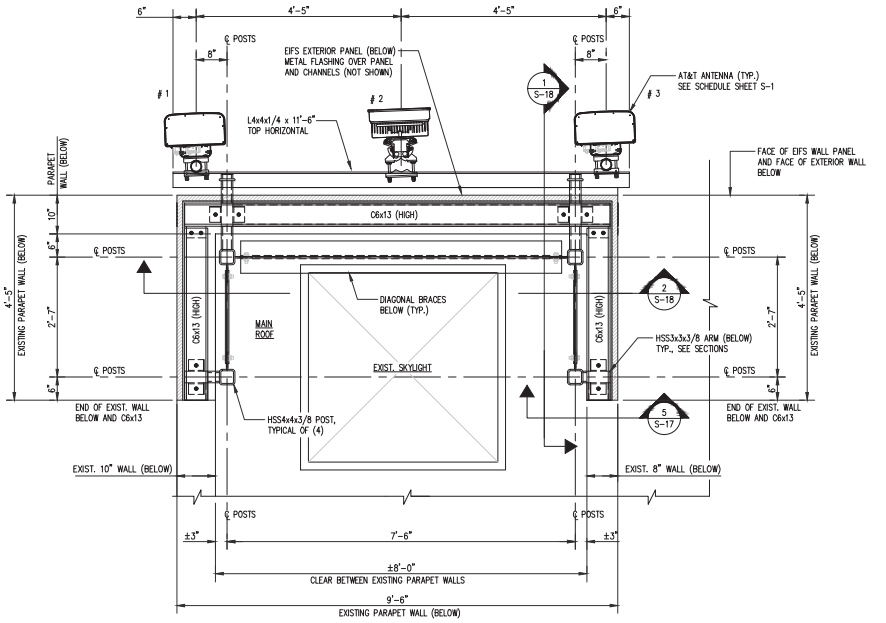
S-16



SECTOR A - SCREEN WALL BOTTOM FRAMING PLAN

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

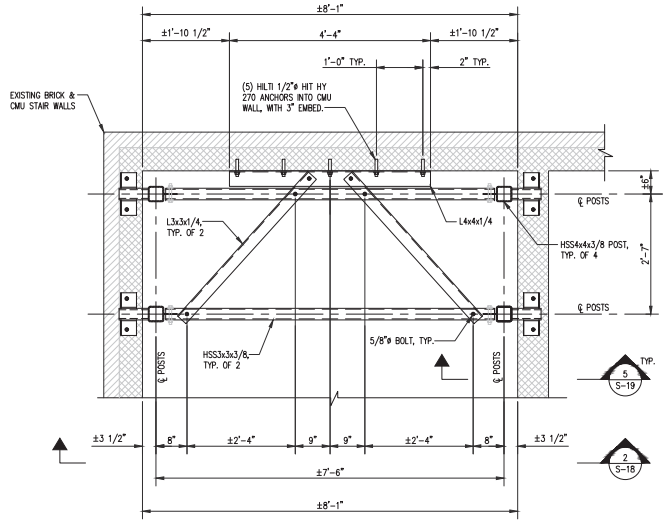
1 S-17 TRUE NORTH



SECTOR A - SCREEN WALL TOP FRAMING PLAN

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

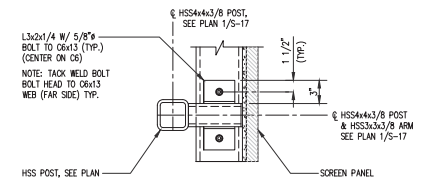
2 S-17 TRUE NORTH



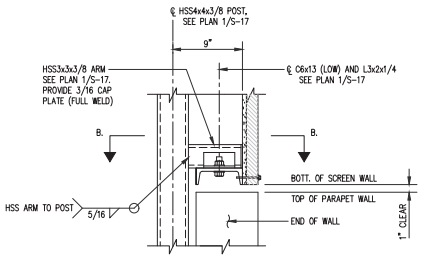
SECTOR A - SCREEN WALL POST PLAN INSIDE STAIRWELL

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

3 S-17 TRUE NORTH



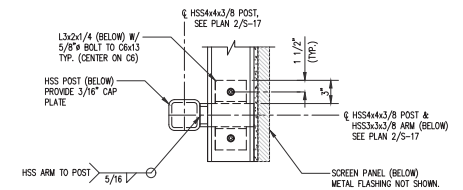
PLAN B.-B.



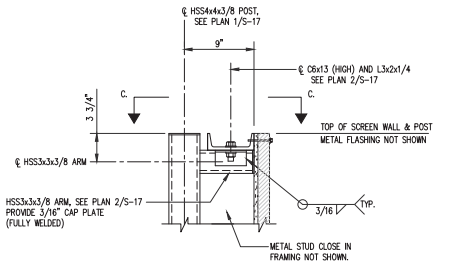
SECTOR A - SCREEN BOTTOM SUPPORT DETAILS

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

4 S-17



PLAN C.-C.



SECTOR A - SCREEN TOP SUPPORT DETAILS

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

5 S-17

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PROJECT NO:	1152.443
DESIGNER:	M.A.
ENGINEER:	C.S.

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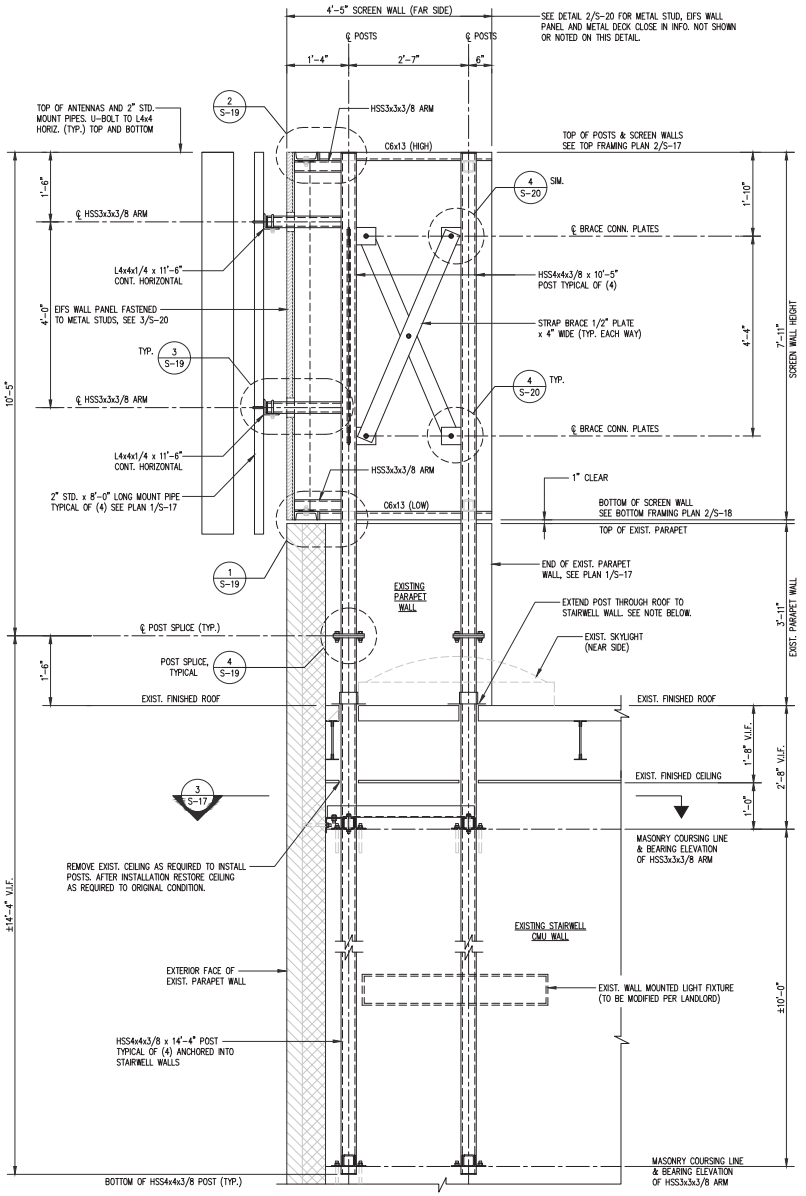
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ANTENNA SECTOR A SUPPORT PLANS AND DETAILS

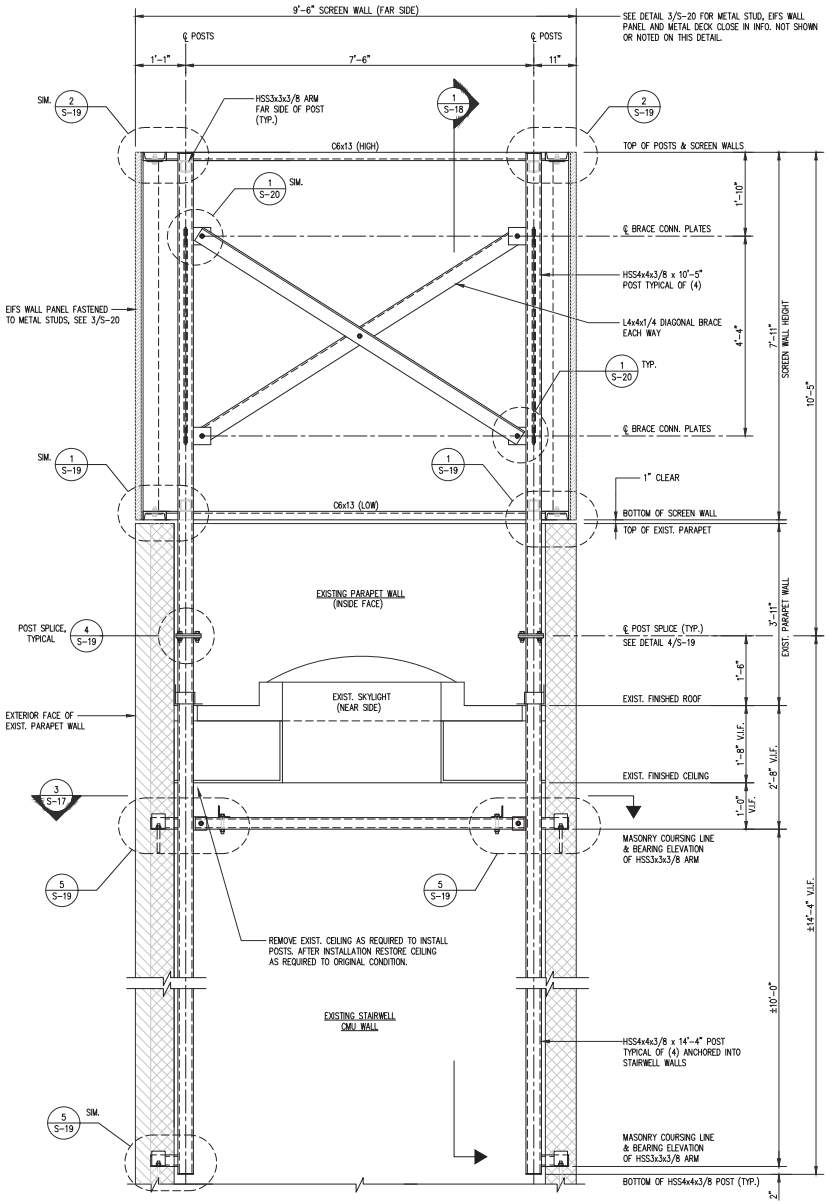
SHEET NUMBER:

S-17



ANTENNA MOUNT SUPPORT SECTION (1/S-18)
SCALE: 3/4" = 1'-0"

NOTE: REMOVE ROOFING TO PROVIDE OPENING FOR EACH NEW POST TO BE EXTENDED TO STAIRWELL WALL BELOW. OPENING THROUGH ROOF FOR EACH POST SHOULD NOT EXCEED A 6" x 6" AREA. POST BASE SHALL BE FLASHED AS REQUIRED TO PROVIDE A WATERPROOF SEAL AROUND POST AND WITH EXISTING ROOF SURFACE.



ANTENNA MOUNT SUPPORT SECTION (2/S-18)
SCALE: 3/4" = 1'-0"

NOTE: REMOVE ROOFING TO PROVIDE OPENING FOR EACH NEW POST TO BE EXTENDED TO STAIRWELL WALL BELOW. OPENING THROUGH ROOF FOR EACH POST SHOULD NOT EXCEED A 6" x 6" AREA. POST BASE SHALL BE FLASHED AS REQUIRED TO PROVIDE A WATERPROOF SEAL AROUND POST AND WITH EXISTING ROOF SURFACE.

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PROJECT NO:	1152.443
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ENGINEER:	C.S.

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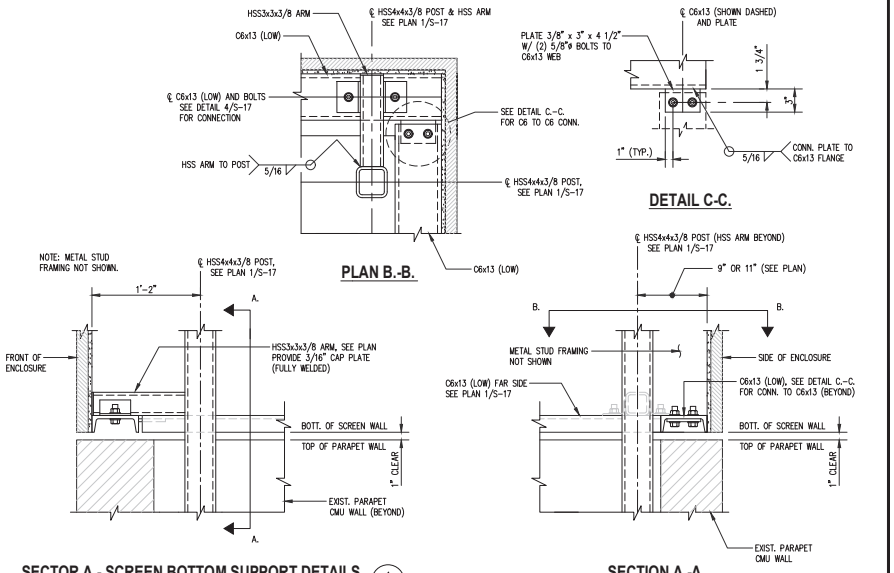
0 1/2 1
GRAPHIC SCALE IN INCHES

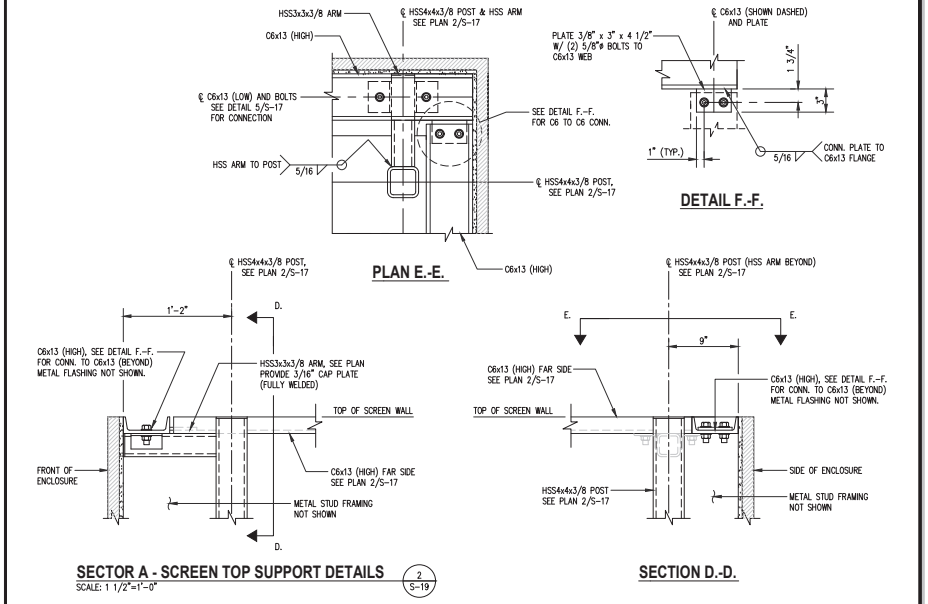
SHEET TITLE:

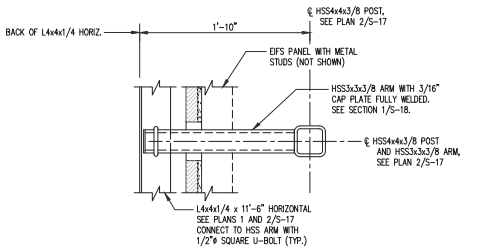
ANTENNA SECTOR A SUPPORT DETAILS

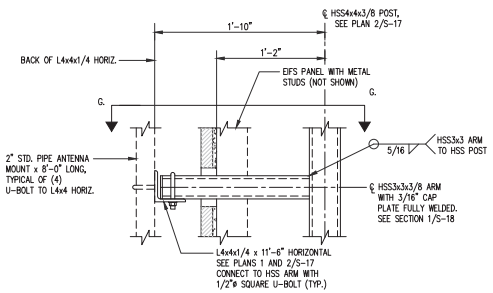
SHEET NUMBER:

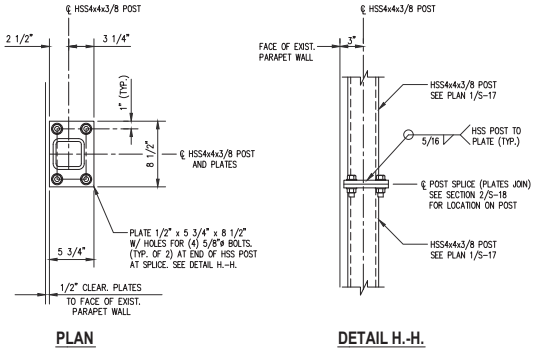
S-18

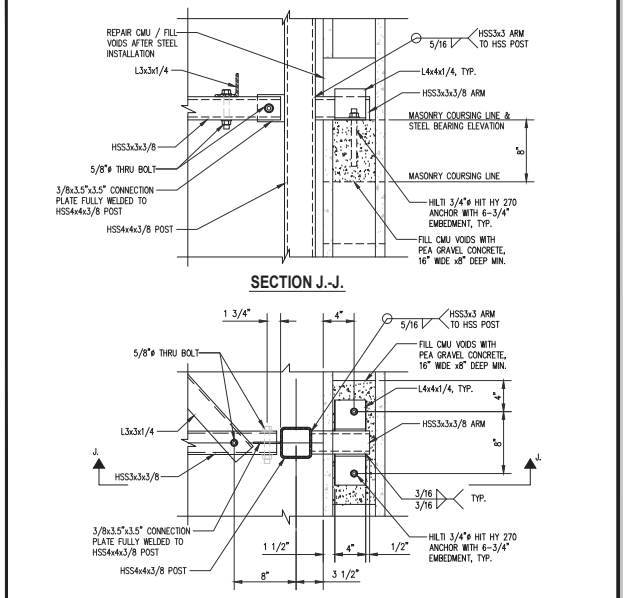












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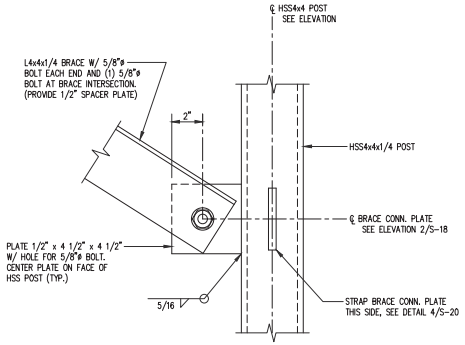
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ANTENNA SECTOR A SUPPORT DETAILS

SHEET NUMBER:

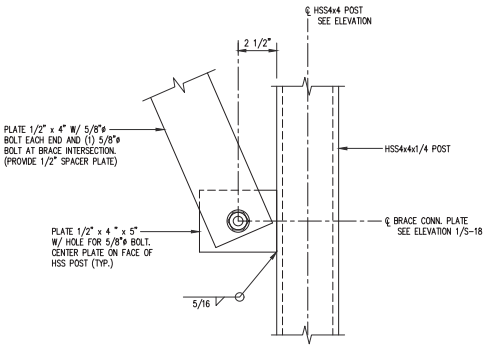
S-19



BRACE BOTTOM CONN. SHOWN. TOP CONNECTION SIMILAR.

BRACE CONNECTION DETAIL

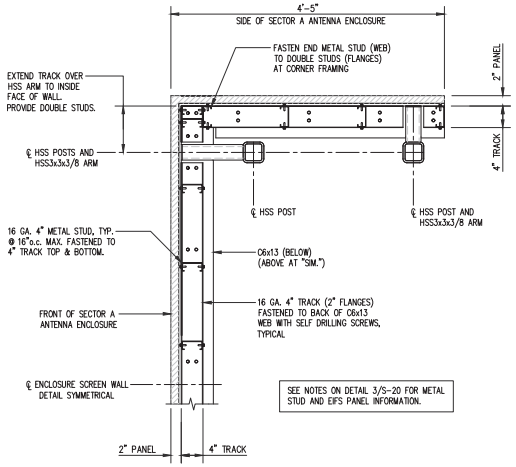
SCALE: 3"=1'-0" (1 / S-20)



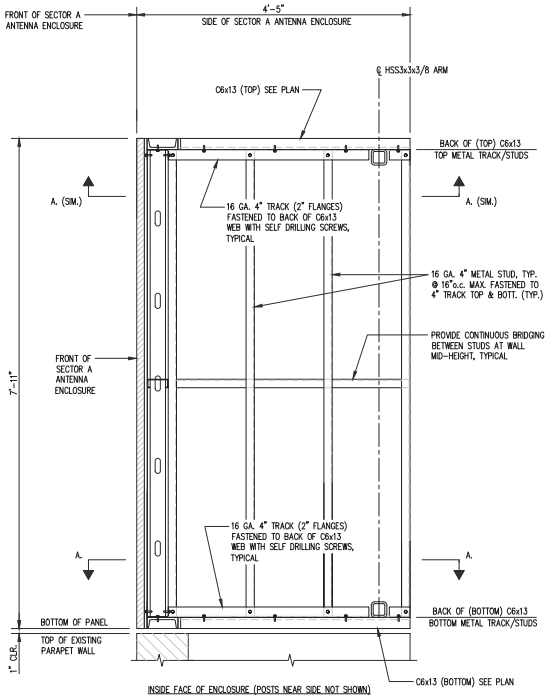
BRACE BOTTOM CONN. SHOWN. TOP CONNECTION SIMILAR.

STRAP BRACE CONNECTION DETAIL

SCALE: 3"=1'-0" (4 / S-20)

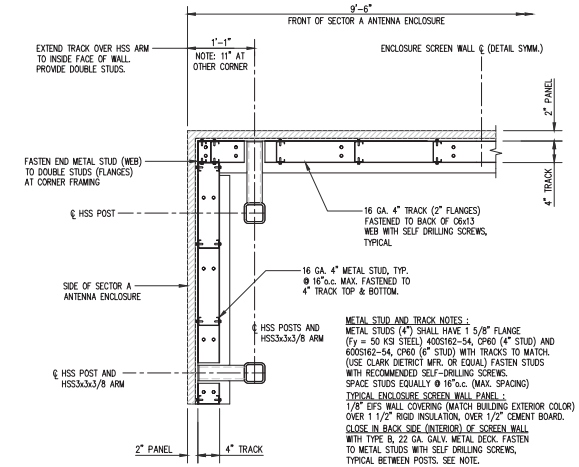


PLAN A.-A.

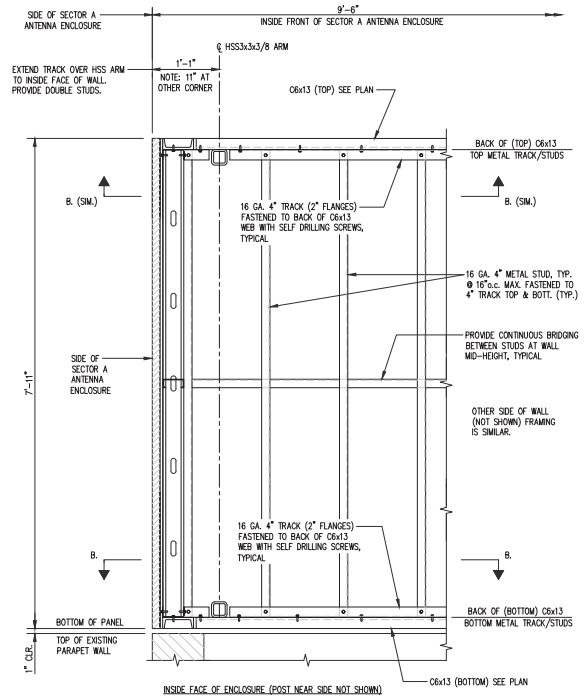


SCREEN WALL FRAMING ELEVATION

SCALE: 1"=1'-0" (2 / S-20)



PLAN B.-B.



SCREEN WALL FRAMING ELEVATION

SCALE: 1"=1'-0" (3 / S-20)

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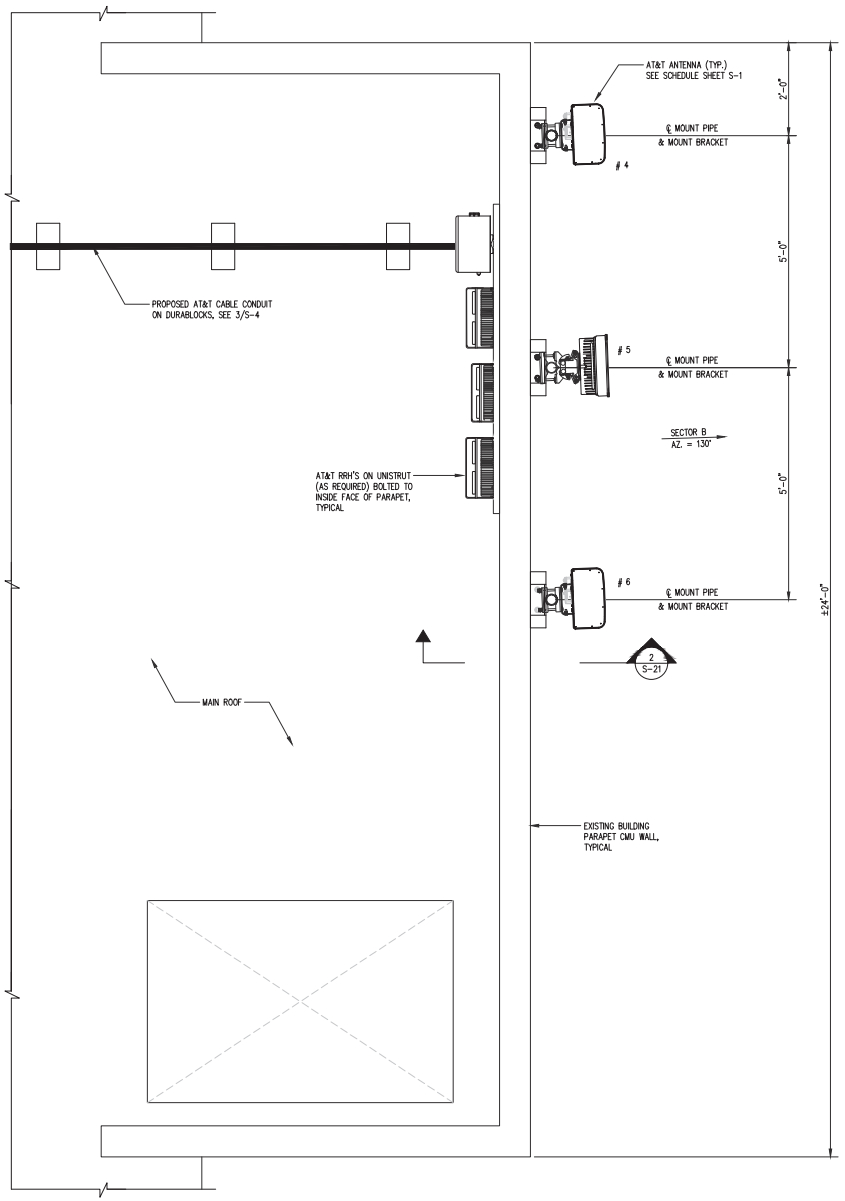
SHEET TITLE:

ANTENNA SECTOR A SUPPORT DETAILS

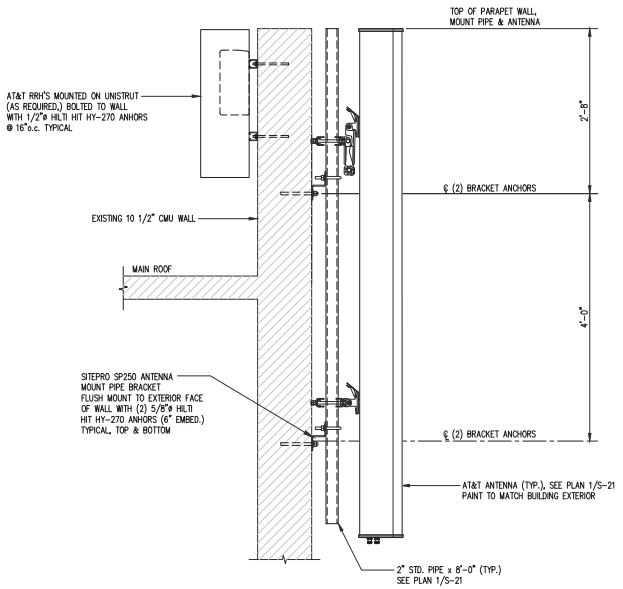
SHEET NUMBER:

S-20



SECTOR B - ANTENNA MOUNT LAYOUT PLAN (1 / S-21)
SCALE: 3/4" = 1'-0"

TRUE NORTH



SECTOR B - TYPICAL ANTENNA MOUNT SECTION (2 / S-21)
SCALE: 1"=1'-0"

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ENGINEER:	C.S.

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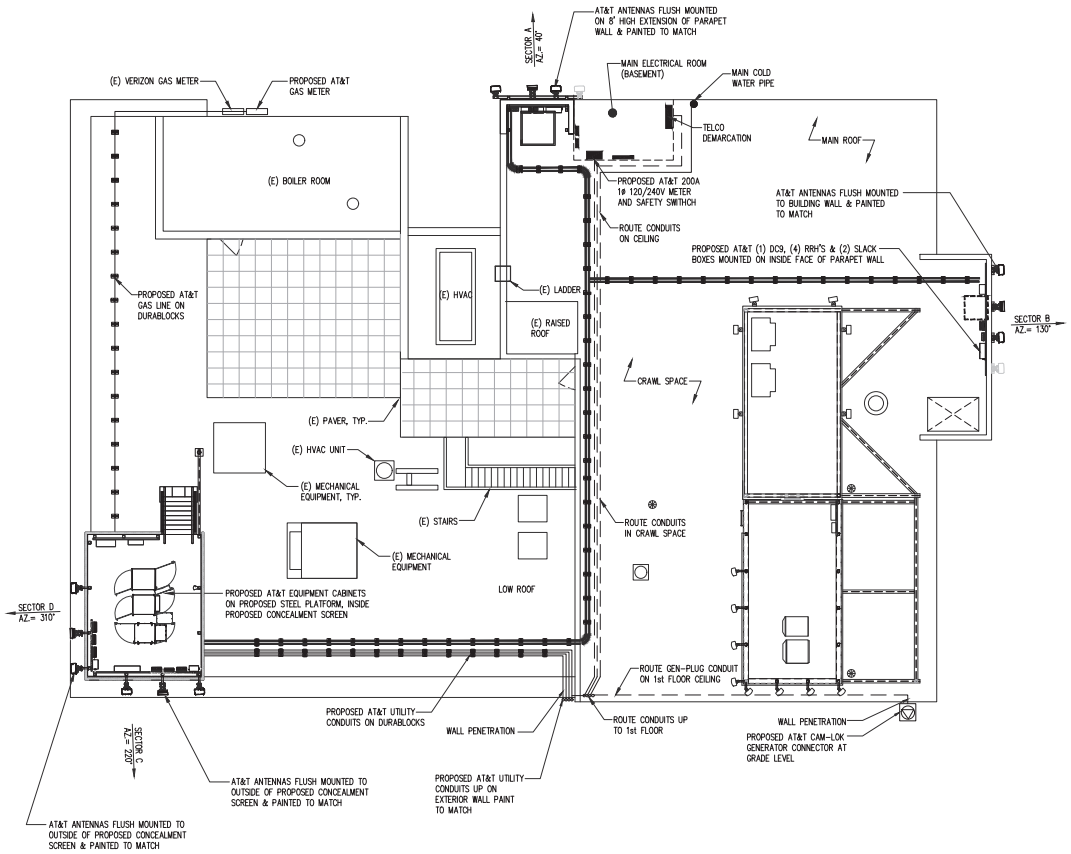
SHEET TITLE:

ANTENNA SECTOR B SUPPORT PLAN AND DETAILS

SHEET NUMBER:

S-21



ELECTRICAL PLAN

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

1 / L-5 — TRUE NORTH

PROPOSED AT&T PANEL									
120/240 VOLTS 1 PHASE 3 WIRE 200 AMP MCB									
DESCRIPTION	VA	BKR	CKT	ø A	ø B	CKT	BKR	VA	DESCRIPTION
RECTIFIER 1&2 (CABINET 1)	1440	30	1	1620		2	15	180	GFCI
	1440		3		1560	4	20	120	LIGHTS
RECTIFIER 3&4 (CABINET 1)	1440	30	5	2440		6	20	1000	GEN BLOCK HEATER
	1440		7		1690	8	20	250	GEN BATT CHARGER
RECTIFIER 5&6 (CABINET 1)	1440	30	9	1440		10		–	SPACE
	1440		11		1440	12		–	SPACE
RECTIFIER 7&8 (CABINET 1)	1440	30	13	1440		14		–	SPACE
	1440		15		1440	16		–	SPACE
RECTIFIER 9&10 (CABINET 1)	1440	30	17	1440		18		–	SPACE
	1440		19		1440	20		–	SPACE
RECTIFIER 1&2 (CABINET 2)	1440	30	21	1440		22		–	SPACE
	1440		23		1440	24		–	SPACE
RECTIFIER 3&4 (CABINET 2)	1440	30	25	1440		26		–	SPACE
	1440		27		1440	28		–	SPACE
RECTIFIER 5&6 (CABINET 2)	1440	30	29	1440		30		–	SPACE
	1440		31		1440	32		–	SPACE
RECTIFIER 7&8 (CABINET 2)	1440	30	33	1440		34		–	SPACE
	1440		35		1440	36		–	SPACE
SPARE		30	37			38		–	SPACE
			39			40		–	SPACE
PHASE TOTALS:				14140	13330	TOTAL VA: 27470			

PANELBOARD CAPACITY: 48 kVA
PANELBOARD CONNECTED LOAD: 27.47 kVA
DEMAND LOAD: 27.47 kVA x 1.25 = 34.34 kVA

THE CONNECTED LOAD DOES NOT EXCEED THE PANELBOARD'S CAPACITY.

AC PANEL SCHEDULE

SCALE: N.T.S.

BREAKER POSITION	BREAKER RATING	CABINET #1 DESCRIPTION	-48V BUS
1	30	ERICSSON 4494 B14/B29	
2	30	ERICSSON 4890 B25/B66	
3	30	ERICSSON 4490 B5/B12A	
4	50	ERICSSON AIR6472 B77G B77M	
5			
6			
7	30	ERICSSON 4494 B14/B29	
8	30	ERICSSON 4890 B25/B66	
9	30	ERICSSON 4490 B5/B12A	
10	50	ERICSSON AIR6472 B77G B77M	
11			
12			
13			
14			
15			
16			
17			
18	100	FLEX21	
19			
20	20	SAID	
21			
22			
23	40	FSM4	
24	40	FSM4	

BREAKER POSITION	BREAKER RATING	CABINET #2 DESCRIPTION	-48V BUS
1	30	ERICSSON 4494 B14/B29	
2	30	ERICSSON 4890 B25/B66	
3	30	ERICSSON 4490 B5/B12A	
4	50	ERICSSON AIR6472 B77G B77M	
5			
6			
7	30	ERICSSON 4494 B14/B29	
8	30	ERICSSON 4890 B25/B66	
9	30	ERICSSON 4490 B5/B12A	
10	50	ERICSSON AIR6472 B77G B77M	
11			
12			
13			
14			
15			
16			
17			
18	100	FLEX21	
19			
20	20	SAID	
21	20	TRANSPORT NID	
22			
23	40	FSM4	
24	40	FSM4	

CABINET #1 & CABINET #2 DC POWER BREAKER SCHEDULES

SCALE: N.T.S.

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SEAL:

COMMONWEALTH OF VIRGINIA
CAMILLE SHABSHAB
Lic. No. 044026
PROFESSIONAL ENGINEER

SUBMITTALS

DATE	DESCRIPTION	REV.
11-22-2022	CONSTRUCTION REVIEW	A
01-30-2023	CONSTRUCTION	0
12-09-2024	REV. PER 03/12/2024 RFDS	1
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PROJECT NO:	1152.443
DESIGNER:	N.B
ENGINEER:	C.S.

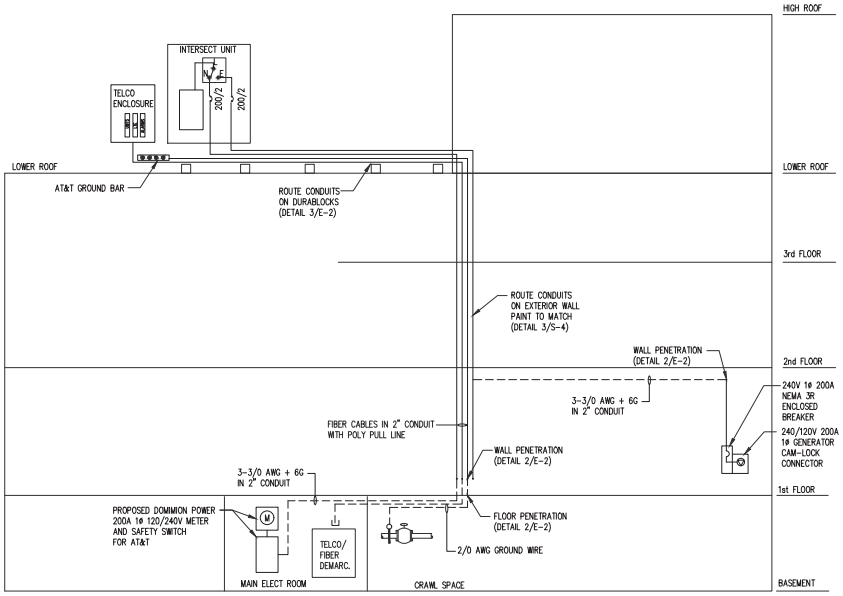
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"X34"
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

ELECTRICAL PLAN AND PANEL SCHEDULES

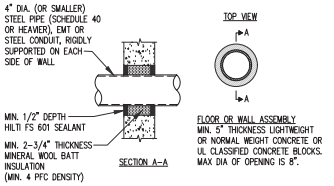
SHEET NUMBER:

E-1

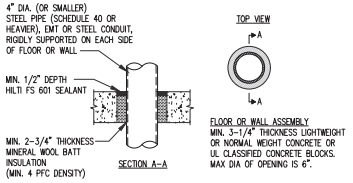


UTILITY RISER DIAGRAM (1 / E-2)
SCALE: N.T.S.

U.L. SYSTEM NO. W-L-1020
METAL PIPE/CONDUIT THROUGH CONCRETE CONC OR CMU WALL
F RATING = 2 HR
T RATING = 0 HR

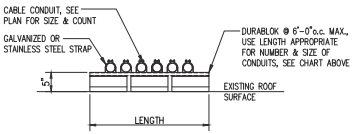


U.L. SYSTEM NO. CAJ1177
METAL PIPE/CONDUIT THROUGH CONCRETE FLOOR OR WALL
F RATING = 2 HR
T RATING = 0 HR



FLOOR/WALL PENETRATION DETAIL (TYPICAL) (2 / E-2)
SCALE: N.T.S.

DURABLOCK DB SERIES LENGTH CHART	
PART NUMBER	LENGTH
DB5	4.8"
DB10	9.6"
DB20	20.2"



CONDUIT SUPPORT DETAIL (3 / E-2)
SCALE: 3/4"= 1'-0"

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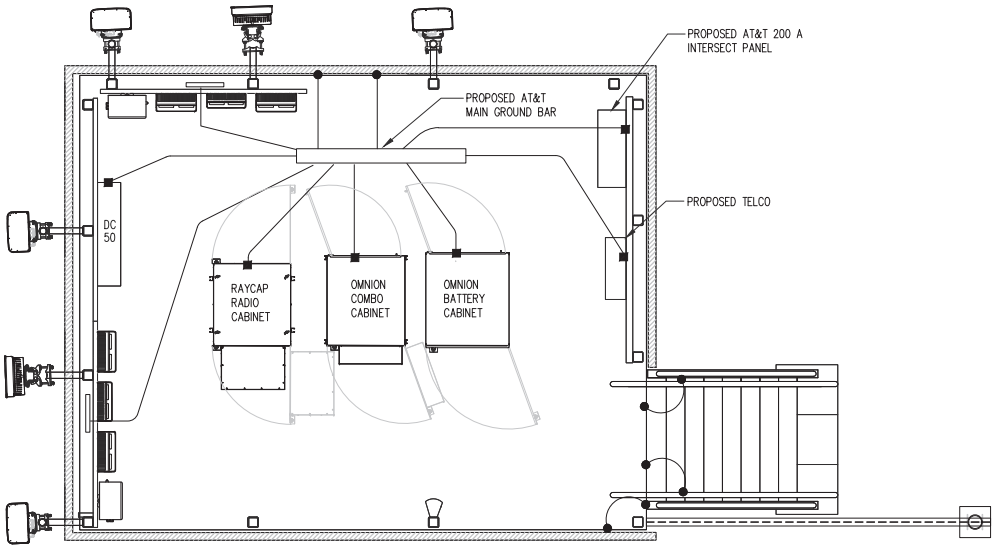
0 1/2 1
GRAPHIC SCALE IN INCHES

SHEET TITLE:

UTILITY RISER DIAGRAM AND DETAILS

SHEET NUMBER:

E-2

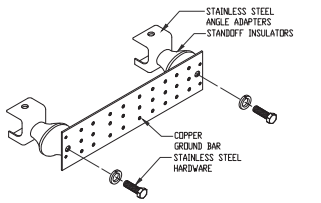


NOTE:
ALL GROUND WIRES SHOWN ARE 2 AWG GREEN-INSULATED UNLESS NOTED OTHERWISE.

GROUNDING PLAN
SCALE: 3/8"=1'-0"

1 E-3

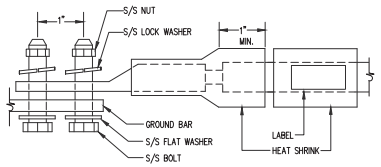
TRUE NORTH



1. CELL REFERENCE COPPER GROUND BAR, 1/4"X 4"X 20" MOUNTED TO PLATFORM STEEL WITH ANGLE ADAPTERS.
2. SECTOR COPPER GROUND BAR, 1/4"X 4"X 12" MOUNTED TO SLED MOUNT ANGLES WITH ANGLE ADAPTERS.

GROUND BAR ISOMETRIC
SCALE: N.T.S.

3 E-3

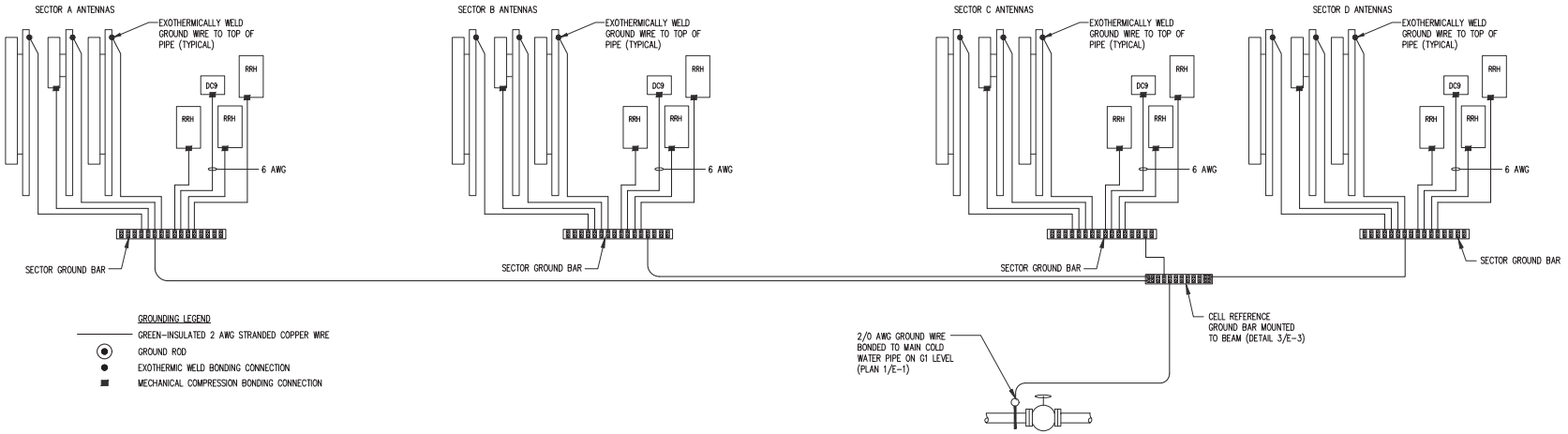


LUG NOTES:

1. ALL HARDWARE IS 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS.
2. ALL HARDWARE SHALL BE S/S 3/8-INCH DIAMETER OR LARGER.
3. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON-TOOTH WASHER BETWEEN LUG AND STEEL AND COAT ALL SURFACES WITH ANTI-OXIDIZATION COMPOUND PRIOR TO MATING.

LUG DETAIL
SCALE: TO SCALE

4 E-3



EQUIPMENT GROUNDING DETAIL
SCALE: 1"=1'-0"

2 E-3

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SHEET TITLE:

GROUNDING PLAN, DIAGRAM AND DETAILS

SHEET NUMBER:

E-3