



VERIZON PROJECT NUMBER:16968208

VERIZON SITE NAME:

SITE TYPE:

TOWER HEIGHT:

KCYC LEES SUMMIT DT

MONOPOLE

180'-0"

BUSINESS UNIT #: 877803

SITE ADDRESS:

COUNTY:

JURISDICTION:

207 SE DOUGLAS
LEE'S SUMMIT, MO 64063

JACKSON

MO - CITY OF LEE'S SUMMIT 2015

VERIZON INITIAL BUILD

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	KCYC LEES SUMMIT DT
SITE ADDRESS:	207 SE DOUGLAS LEE'S SUMMIT, MO 64063
COUNTY:	JACKSON
MAP/PARCEL #:	61-340-20-06-00-0-00-000
AREA OF CONSTRUCTION:	EXISTING
LATTITUDE:	38.913842 / 38° 54' 49.83" N
LONGITUDE:	-94.376328 / -94° 22' 34.78" W
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	1006.96'
CURRENT ZONING:	R-7
JURISDICTION:	MO - CITY OF LEE'S SUMMIT 2015
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CITY OF LEES SUMMIT
	PO BOX 1600 LEES SUMMIT, MO 64063-7600
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	VERIZON WIRELESS 180 WASHINGTON VALLEY ROAD BEDMINSTER, NJ 07921
ELECTRIC PROVIDER:	EVERGY
TELCO PROVIDER:	AT&T

PROJECT TEAM

A&E FIRM:	TRYLON 1825 W. WALNUT HILL LANE, SUITE 120 IRVING, TEXAS 75038
CROWN CASTLE USA INC. DISTRICT CONTACTS:	1200 MACARTHUR BLVD, SUITE 200 MAHWAH, NJ 07430 EVE ZWEIG - PROJECT MANAGER eve.zweig@crowncastle.com JONATHAN MACCONKEY - CONSTRUCTION MANAGER jonathan.macconkey@crowncastle.com"V

DRAWING INDEX

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T-2	GENERAL NOTES
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C-1	GEOLINE SURVEYING REPORT
C-1.1	REPORT - SITE PHOTOGRAPHS
C-2	OVERALL SITE PLAN
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C-4	ANTENNA PLANS & CABLE SCHEDULE
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C-11	EQUIPMENT LAYOUT & DETAILS
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E-2	EQUIPMENT CONDUIT LAYOUT
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G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
ATTACHED	TOWER SURVEY & AS-BUILT SURVEY

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND
CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE
ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH
THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:
• INSTALL (9) ANTENNAS
• INSTALL (6) RRUS
• INSTALL (2) 6x12 HYBRID CABLES
• INSTALL (1) SITE PRO 1 - RMQP-4126-HK PLATFORM MOUNT
• (36) 10'-0" RF JUMPERS
• (6) HYBRID JUMPERS FOR 4G RADIOS
• (5) HYBRID JUMPERS FOR AIR6419
• INSTALL (5) SIDE BY SIDE MOUNTS
• INSTALL (1) OVP

GROUND SCOPE OF WORK:
• INSTALL (1) 11'-0"x4'-0" EQUIPMENT PAD
• INSTALL (1) EQUIPMENT PLINTH
• INSTALL (1) RF CABINET
• INSTALL (1) BATTERY CABINET
• INSTALL (1) ERICSSON 6651 BBU
• INSTALL (1) RACK MOUNTED OVP
• INSTALL (1) GPS ANTENNA
• INSTALL (1) EQUIPMENT H-FRAME
• INSTALL (1) ILC CABINET
• INSTALL (1) APPLETON PLUG ON NEW ILC CABINET
• INSTALL (1) 200A METER SOCKET W/ DISCONNECT
• INSTALL (2) SERVICE LIGHTS

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

APPROVALS

VERIZON SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

LOCATION MAP



DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (180 WASHINGTON VALLEY ROAD,
BEDMINSTER, NJ 07921): DEPART AND HEAD TOWARD WASHINGTON VALLEY RD / COUNTY
HWY-620, TURN LEFT ONTO WASHINGTON VALLEY RD / COUNTY HWY-620, BEAR RIGHT
TOWARD US-202 S / US-206 S / US HIGHWAY 202 206, TURN LEFT ONTO US-202 S / US-206 S / US
HIGHWAY 202 206, KEEP LEFT TO STAY ON I-78 W, KEEP STRAIGHT TO GET ONTO I-81 S, KEEP
LEFT, HEADING TOWARD PITTSBURGH, KEEP LEFT, HEADING TOWARD WHEELING, AT EXIT
5A, HEAD LEFT ON THE RAMP FOR I-470 WEST TOWARD COLUMBUS / OH, KEEP STRAIGHT TO
GET ONTO I-70 W, KEEP RIGHT, HEADING TOWARD SAINT LOUIS, KEEP STRAIGHT, HEADING
TOWARD KANSAS CITY, KEEP RIGHT, HEADING TOWARD KANSAS CITY, TURN RIGHT ONTO E
LANGSFORD RD, TURN LEFT,ARRIVE AT **207 SE DOUGLAS, LEE'S SUMMIT, MO 64063**

APPLICABLE CODES/REFERENCE
DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2018 IBC
MECHANICAL	2018 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	TEP
DATED:	10/27/2024
RFDS REVISION:	2
DATED:	10/17/2024
ORDER ID:	640178
REVISION:	7

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzwsmart.com
SMART TOOL VENDOR	
PROJECT NUMBER	-
VzW LOCATION CODE (PSLC)	716127

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT
ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED

N

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR
VzW SMART KIT APPROVED VENDORS



CALL MISSOURI ONE CALL
(800) DIG-RITE
CALL 3 WORKING DAYS
BEFORE YOU DIG!



JURISDICTIONAL APPROVAL



180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921



1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803

KCYC LEES SUMMIT DT

207 SE DOUGLAS

LEE'S SUMMIT, MO 64063

EXISTING 180'-0" MONOPOLE

ISSUED FOR:

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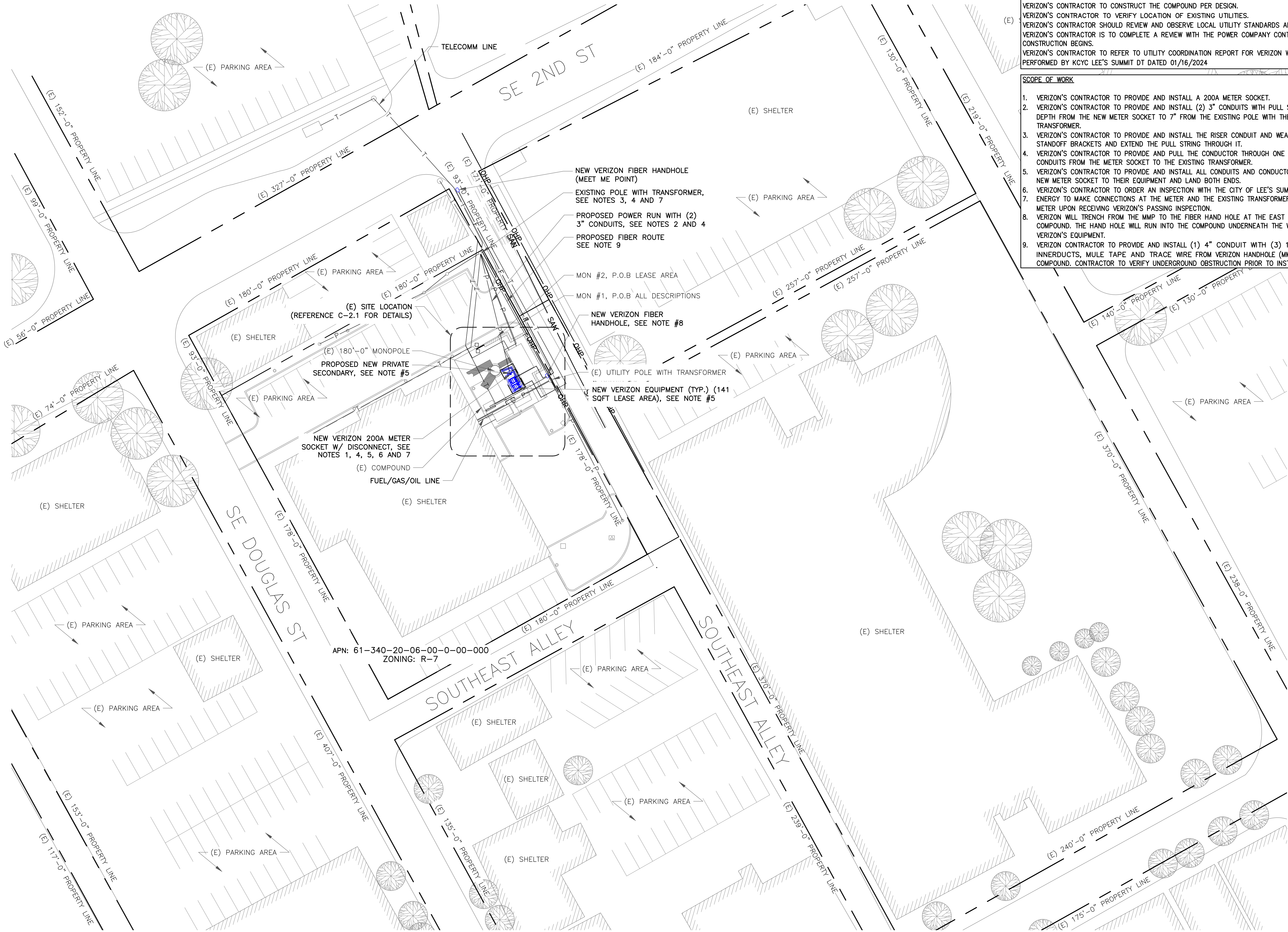
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T-1

REVISION:

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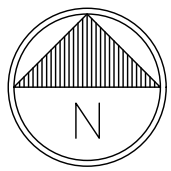


GENERAL NOTES:

VERIZON'S CONTRACTOR TO CONSTRUCT THE COMPOUND PER DESIGN.
VERIZON'S CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES.
VERIZON'S CONTRACTOR SHOULD REVIEW AND OBSERVE LOCAL UTILITY STANDARDS AND GUIDELINES.
VERIZON'S CONTRACTOR IS TO COMPLETE A REVIEW WITH THE POWER COMPANY CONTACT BEFORE CONSTRUCTION BEGINS.
VERIZON'S CONTRACTOR TO REFER TO UTILITY COORDINATION REPORT FOR VERIZON WIRELESS PERFORMED BY KCYC LEE'S SUMMIT DT DATED 01/16/2024

- SCOPE OF WORK**
1. VERIZON'S CONTRACTOR TO PROVIDE AND INSTALL A 200A METER SOCKET.
 2. VERIZON'S CONTRACTOR TO PROVIDE AND INSTALL (2) 3" CONDUITS WITH PULL STRING AT 30" DEPTH FROM THE NEW METER SOCKET TO 7" FROM THE EXISTING POLE WITH THE TRANSFORMER.
 3. VERIZON'S CONTRACTOR TO PROVIDE AND INSTALL THE RISER CONDUIT AND WEATHER-HEAD ON STANDOFF BRACKETS AND EXTEND THE PULL STRING THROUGH IT.
 4. VERIZON'S CONTRACTOR TO PROVIDE AND PULL THE CONDUCTOR THROUGH ONE OF THE NEW 3" CONDUITS FROM THE METER SOCKET TO THE EXISTING TRANSFORMER.
 5. VERIZON'S CONTRACTOR TO PROVIDE AND INSTALL ALL CONDUITS AND CONDUCTORS FROM THE NEW METER SOCKET TO THEIR EQUIPMENT AND LAND BOTH ENDS.
 6. VERIZON'S CONTRACTOR TO ORDER AN INSPECTION WITH THE CITY OF LEE'S SUMMIT.
 7. ENERGY TO MAKE CONNECTIONS AT THE METER AND THE EXISTING TRANSFORMER AND SET THE METER UPON RECEIVING VERIZON'S PASSING INSPECTION.
 8. VERIZON WILL TRENCH FROM THE MMP TO THE FIBER HAND HOLE AT THE EAST OF THE COMPOUND. THE HAND HOLE WILL RUN INTO THE COMPOUND UNDERNEATH THE WALL TO VERIZON'S EQUIPMENT.
 9. VERIZON CONTRACTOR TO PROVIDE AND INSTALL (1) 4" CONDUIT WITH (3) 1" INNERDUCTS, MULE TAPE AND TRACE WIRE FROM VERIZON HANDHOLE (MMP) TO COMPOUND. CONTRACTOR TO VERIFY UNDERGROUND OBSTRUCTION PRIOR TO INSTALLATION.

1 OVERALL SITE PLAN
SCALE: 1"=30'-0" (FULL SIZE)
1"=60'-0" (11x17)



LEGEND	
— P —	ELECTRICAL
— G —	FUEL/GAS/OIL
— T —	TELECOMM
- - -	SCAN LIMIT

UTILITY GUIDANCE

BU: 877803
ORDER: 547366
RES: ROBERT ROSS

UTILITY GUIDANCE (NON DOCUMENTED): GROUND LEASE DOES NOT SPECIFY OUR UTILITY RIGHTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY CORE AS FURTHER COORDINATION MAY BE NEEDED.

JURISDICTIONAL APPROVAL

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

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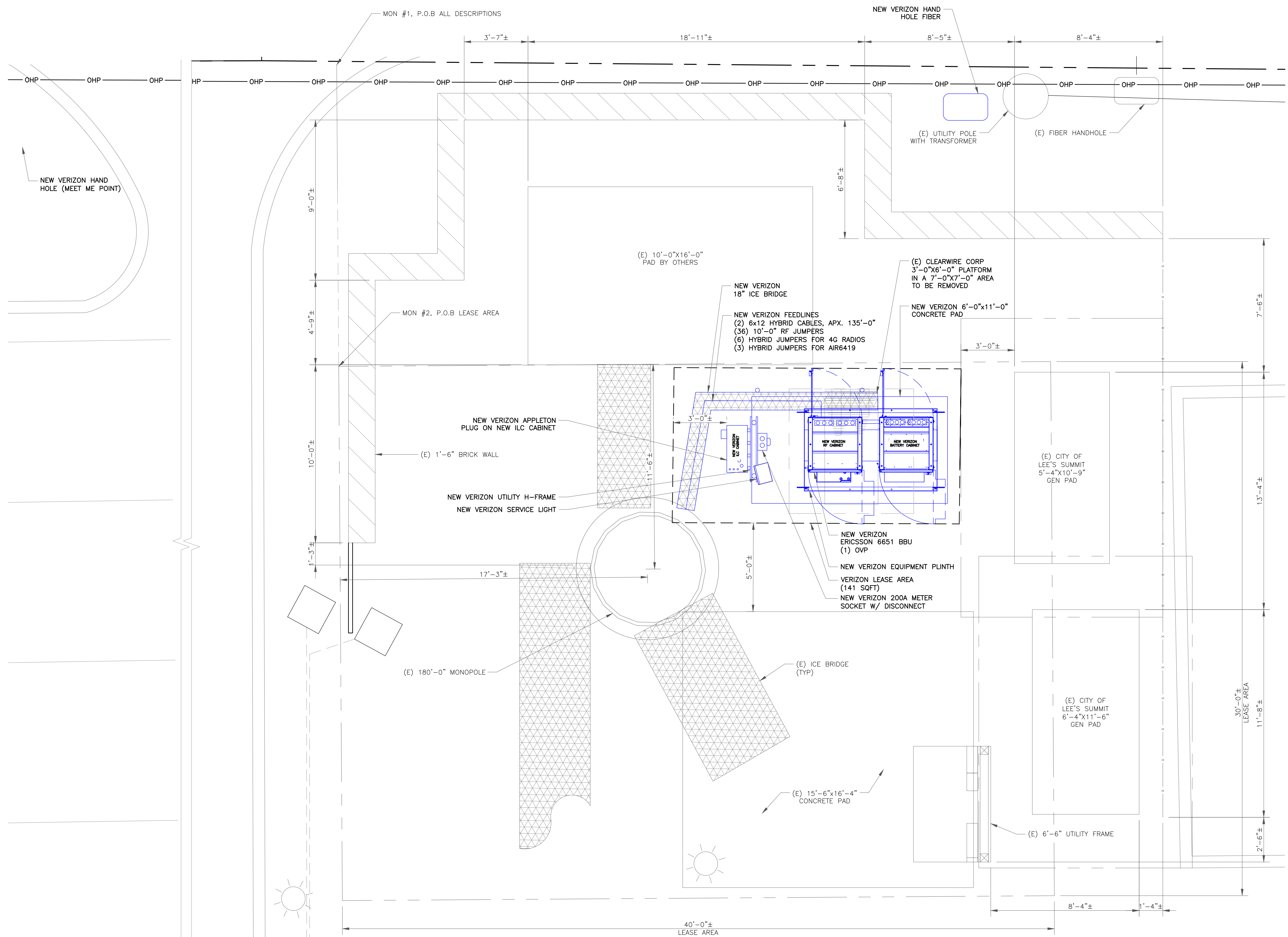
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JURISDICTIONAL APPROVAL

verizon[✓]
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

**CC CROWN
CASTLE**
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

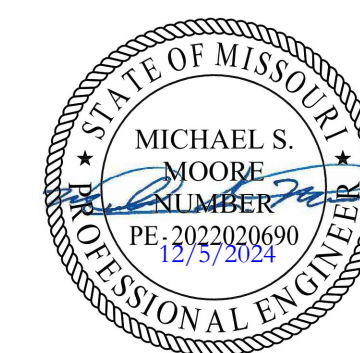
 **Trylon**
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

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1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430



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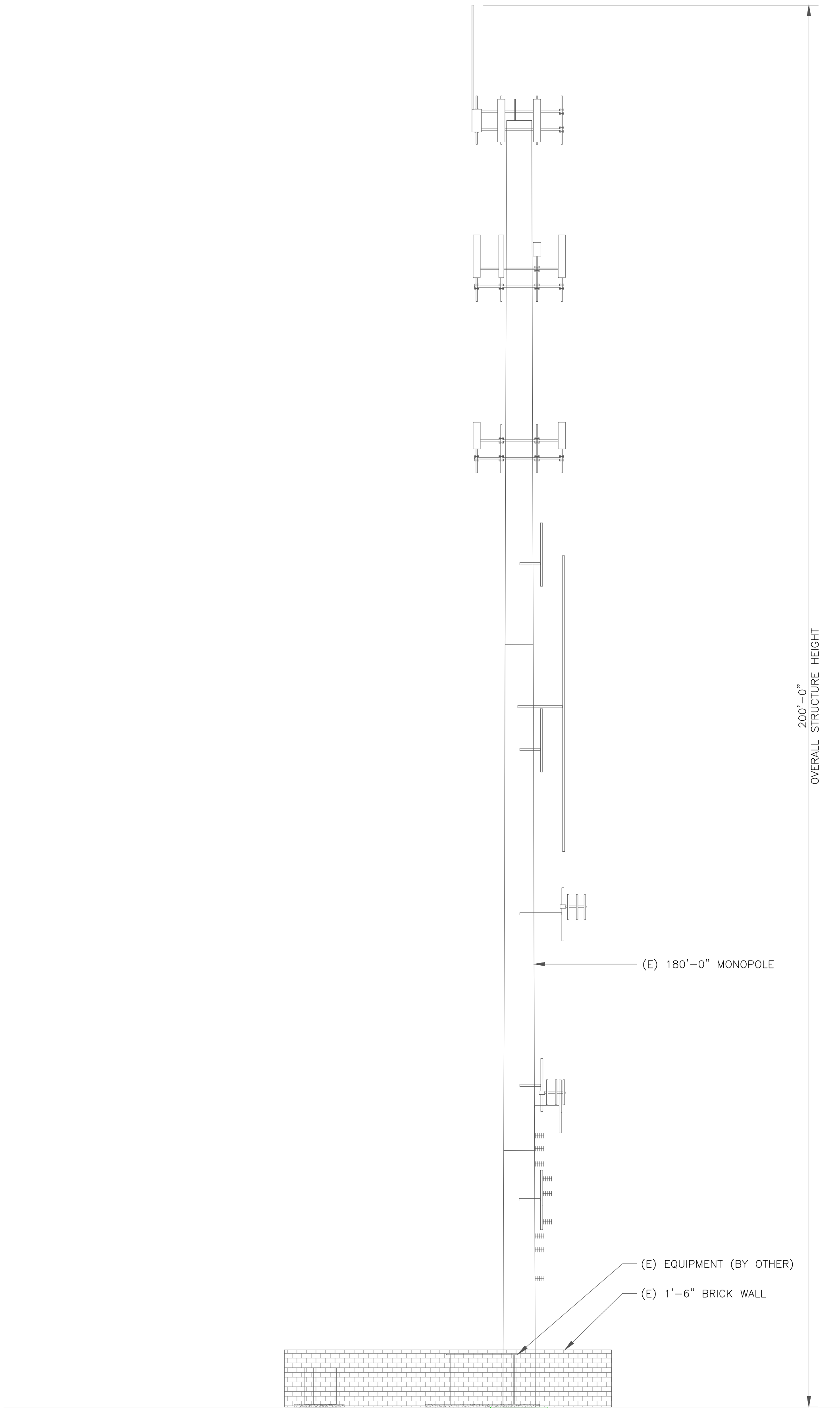
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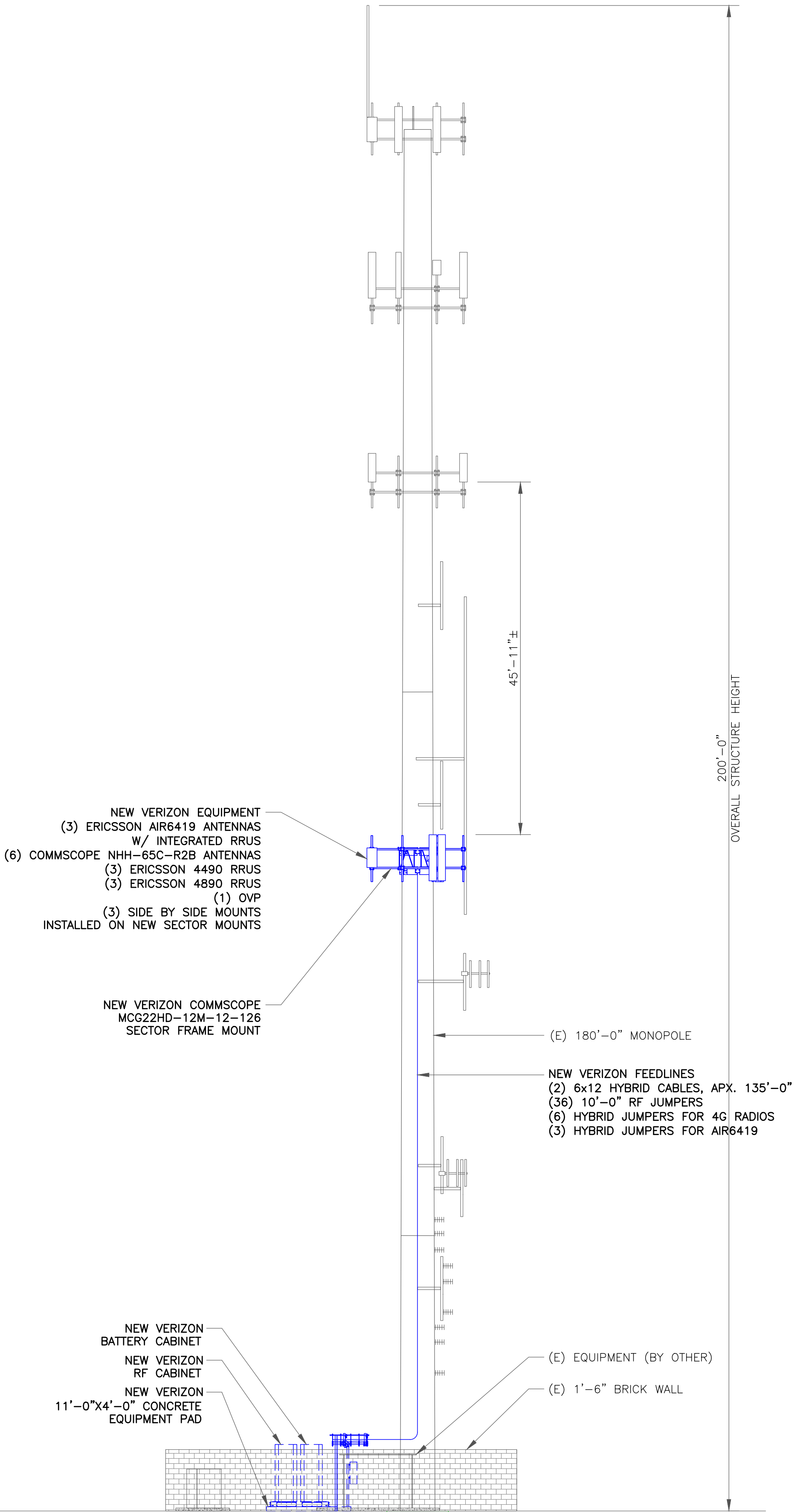
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1 EXISTING SOUTHEAST ELEVATION
SCALE: NOT TO SCALE

VERIZON EQUIPMENT

ANTENNA CL: 85'-0"
MOUNT CL: 85'-0"

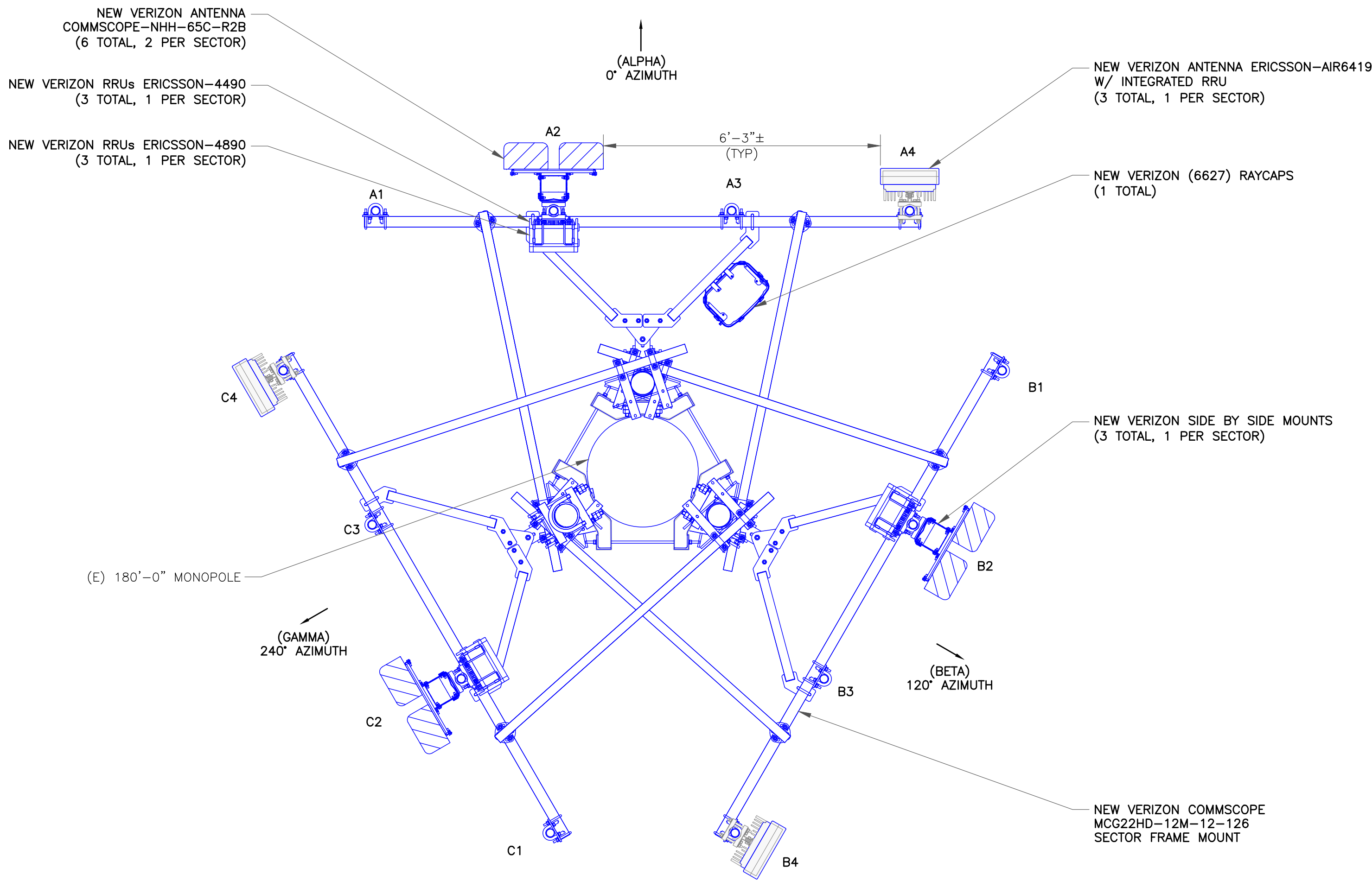


2 FINAL SOUTHEAST ELEVATION
SCALE: NOT TO SCALE

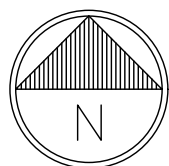
ANTENNA SCHEDULE										
SECTOR	POS.	TECHNOLOGY	RAD. CENTER	AZIMUTH	ANTENNA MANUFACTURER	ANTENNA MODEL	MECH. TILT	ELECT. TILT	TOWER MOUNTED EQUIPMENT	FEEDLINE TYPE
ALPHA	A1	—	—	—	—	—	—	—	—	—
ALPHA	A2	—	85'—0"	0°	COMMSCOPE	NHH—65C—R2B	0	4/4/4	(1) ERICSSON — RADIO 4490 (1) ERICSSON — RADIO 4890	HYBRID
ALPHA	A3	—	—	—	—	—	—	—	—	—
ALPHA	A4	—	85'—0"	0°	ERICSSON	AIR6419	0	3/3/3	(1) INTEGRATED RRU	—
BETA	B1	—	—	—	—	—	—	—	—	—
BETA	B2	—	85'—0"	120°	COMMSCOPE	NHH—65C—R2B	0	4/4/4	(1) ERICSSON — RADIO 4490 (1) ERICSSON — RADIO 4890 (1) OVP	HYBRID
BETA	B3	—	—	—	—	—	—	—	—	—
BETA	B4	—	85'—0"	120°	ERICSSON	AIR6419	0	3/3/3	(1) INTEGRATED RRU	—
GAMMA	C1	—	—	—	—	—	—	—	—	—
GAMMA	C2	—	85'—0"	240°	COMMSCOPE	NHH—65C—R2B	0	4/4/4	(1) ERICSSON — RADIO 4490 (1) ERICSSON — RADIO 4890	HYBRID (SHARED)
GAMMA	C3	—	—	—	—	—	—	—	—	—
GAMMA	C4	—	85'—0"	240°	ERICSSON	AIR6419	0	3/3/3	(1) INTEGRATED RRU	—

CABLE SCHEDULE			
STATUS	CABLE TYPE	SIZE	QUANTITY
NEW	HYBRID	6x12	2
FINAL CABLE QUANTITY			2

1 ANTENNA AND CABLE SCHEDULE
SCALE: NOT TO SCALE



2 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE



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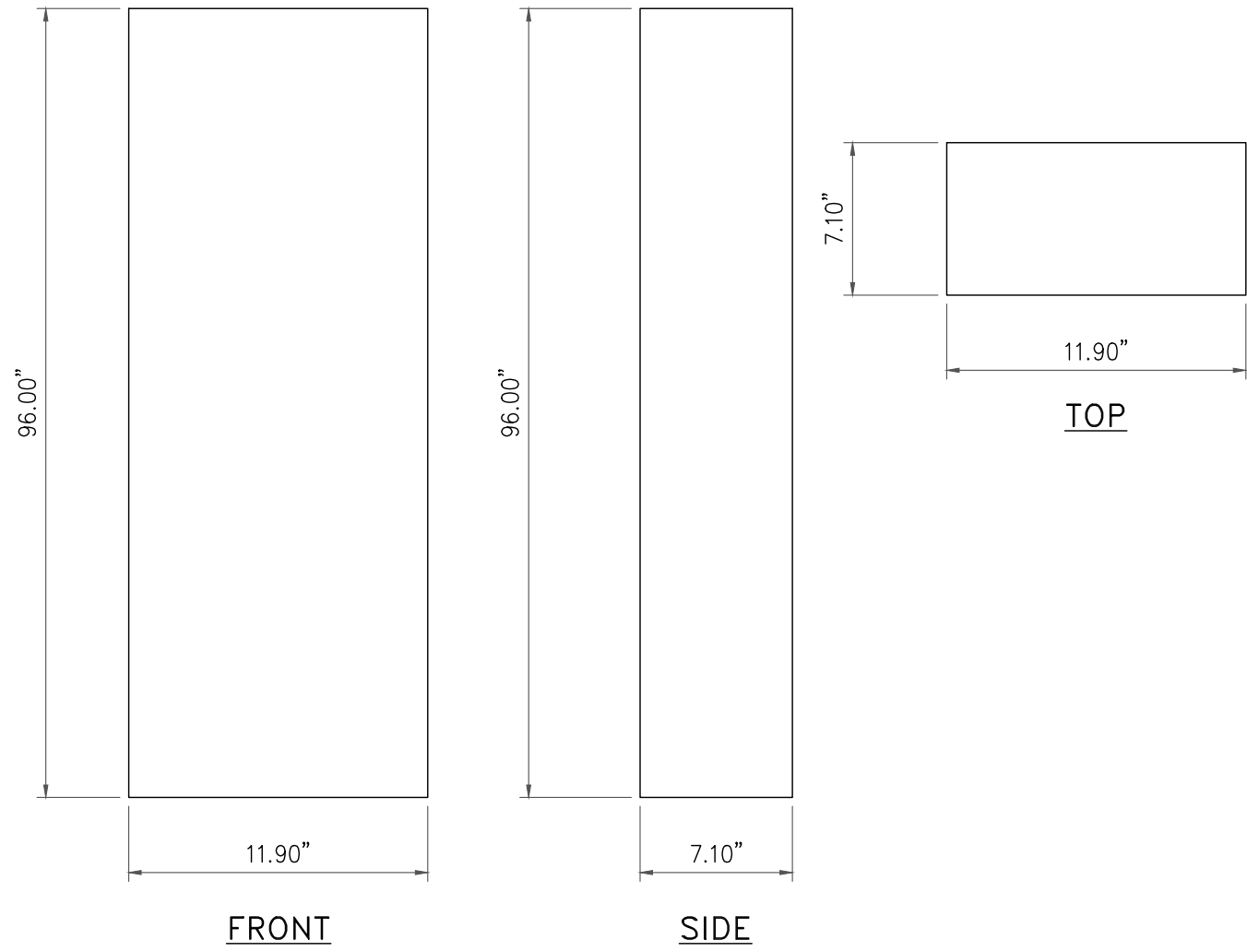


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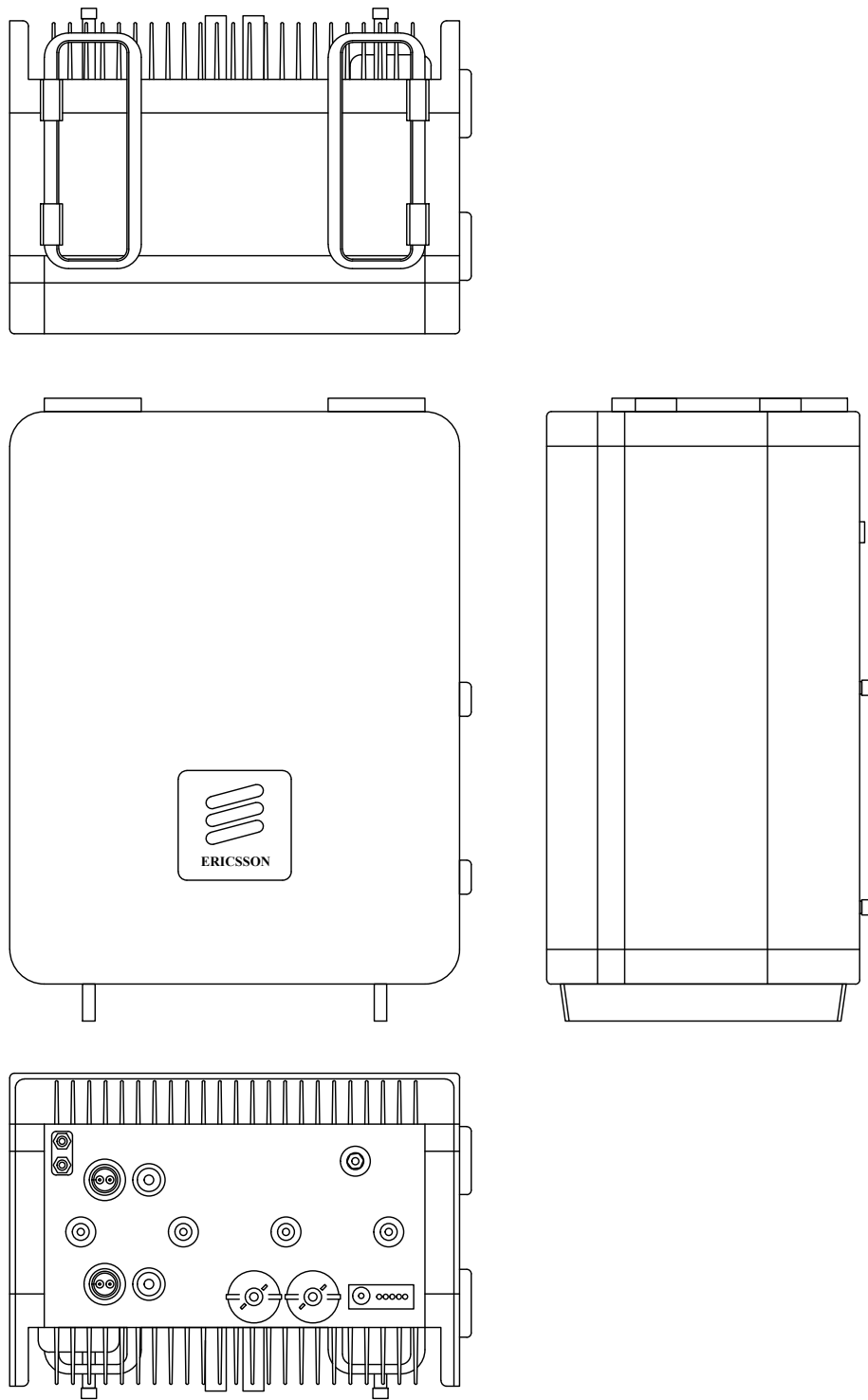
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REVISION: **14**

PANEL ANTENNA (NHH-65C-R2B)

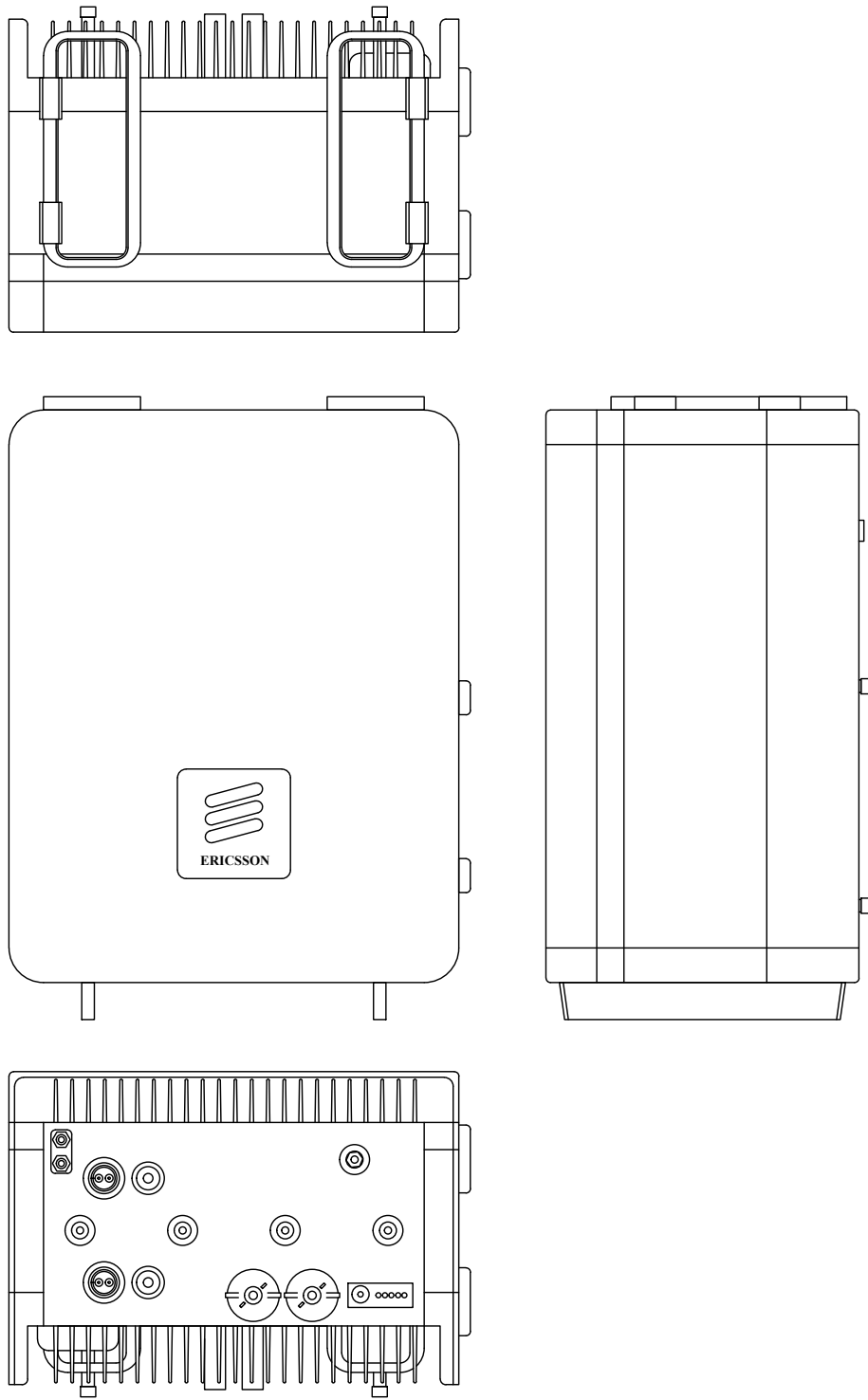
DIMENSIONS, HxWxD: 96.00"x11.90"x7.10"
WEIGHT, W/O BRACKETS: 51.60 lbs



1 NHH-65C-R2B ANTENNA DETAIL
SCALE: NOT TO SCALE



2 ERICSSON - RADIO 4490 DETAIL
SCALE: NOT TO SCALE

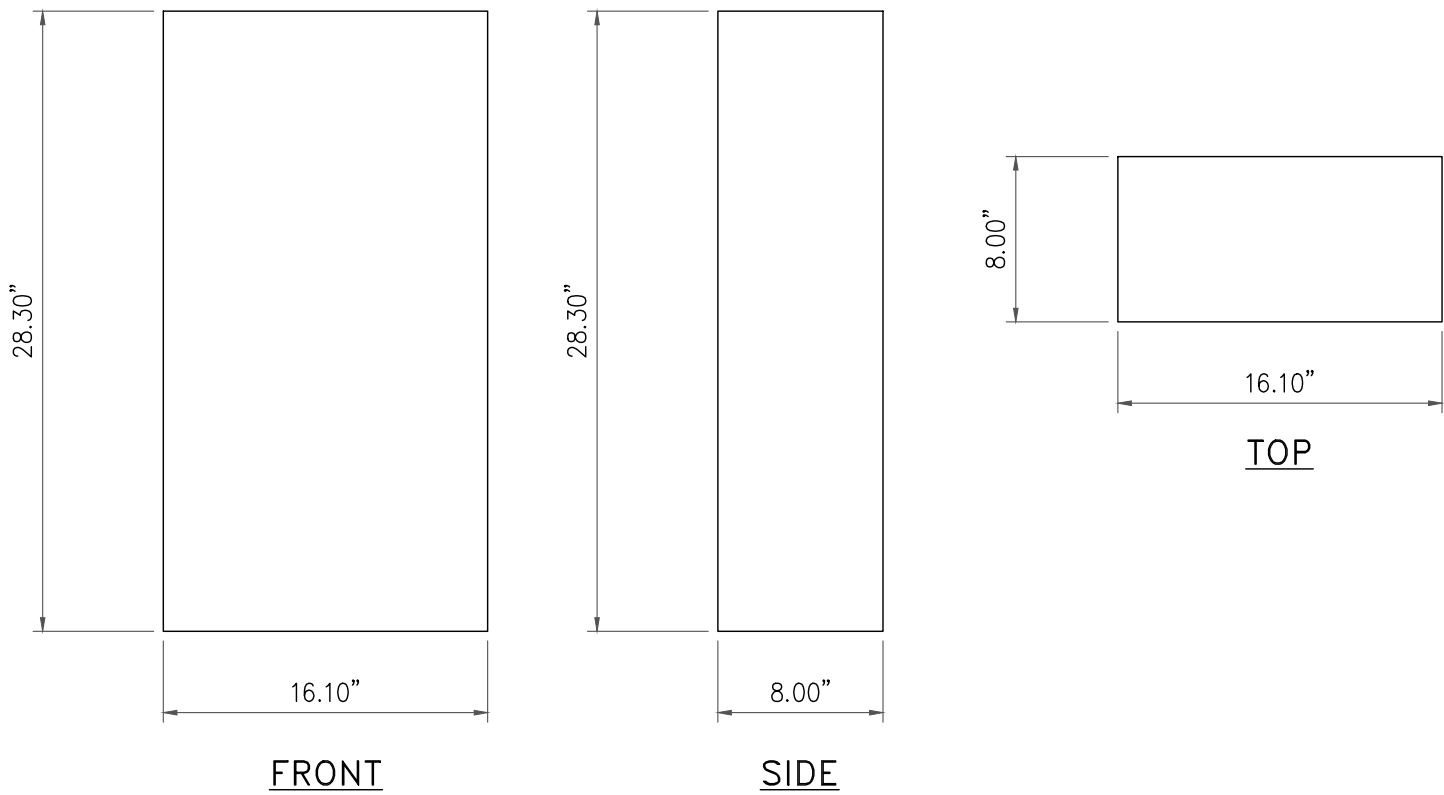


3 ERICSSON - RADIO 4890 DETAIL
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

PANEL ANTENNA (AIR 6419)

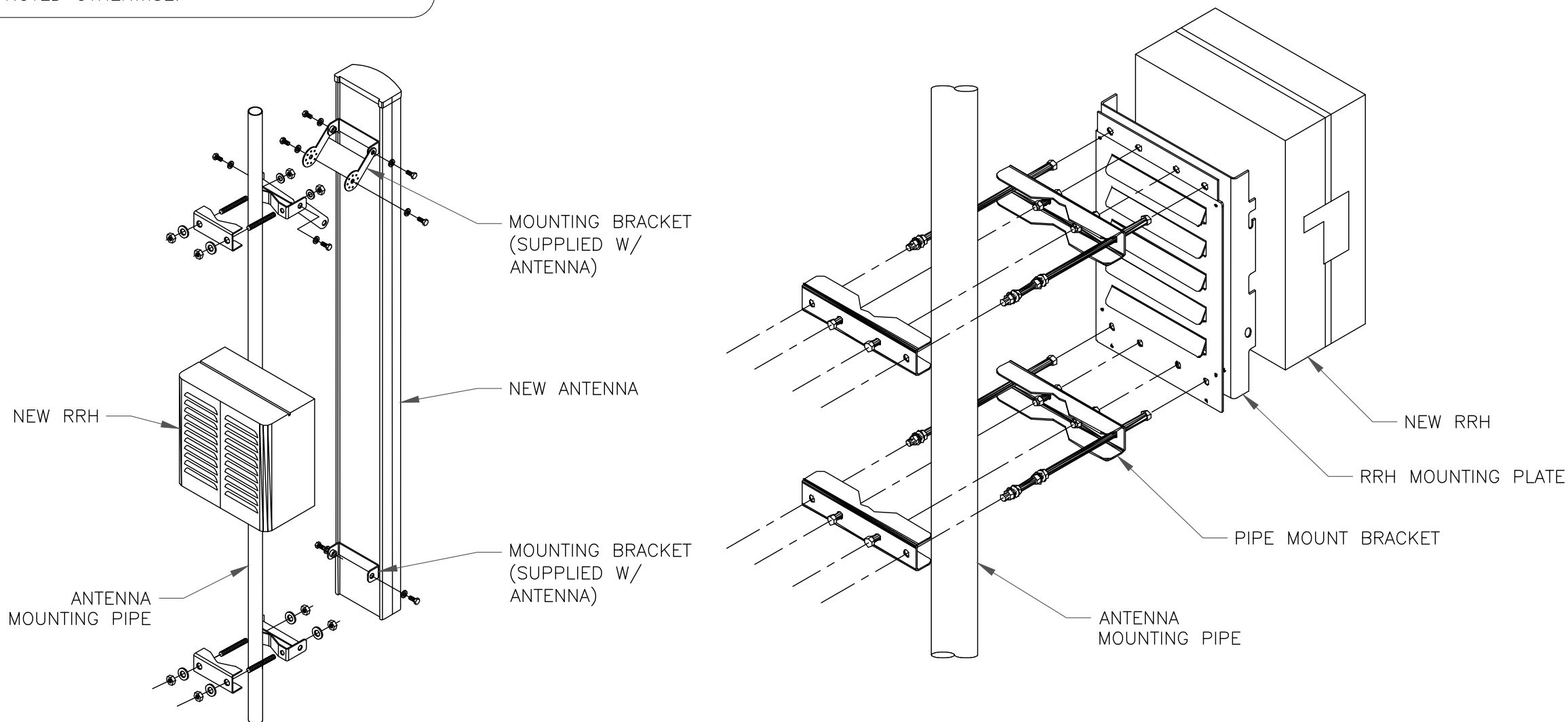
DIMENSIONS, HxWxD: 28.30"x16.10"x8.00"
WEIGHT, W/O BRACKETS: 71.0 lbs



6 AIR 6419 ANTENNA DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

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



7 ANTENNA WITH RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

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9	04/19/2024	RC	FINAL	AMT
10	07/25/2024	RC	FINAL	AMT
11	08/14/2024	RC	FINAL	AMT
12	09/19/2024	RC	FINAL	AMT
13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



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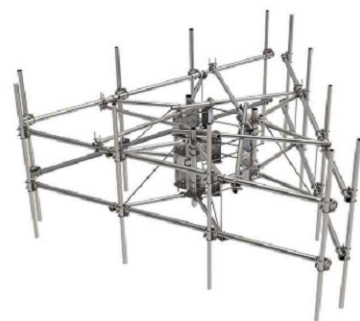
SHEET NUMBER:

C-5

REVISION:

14

MCG22HD-12M-12-126



G22HD High Capacity 3-Sector Monopole Frame with 2 7/8in OD x 12.5ft face. Includes twelve 2 3/8in OD x 126in antenna pipes

Product Classification

Product Type	High capacity monopole sector frame
Product Series	G2

General Specifications

Mounting	Monopole, 381–1270 mm (15–50 in) OD
Pipe, quantity	12
Sectors, quantity	3

Dimensions

Height	3,200.4 mm 126 in
Face Width	3.81 m 12.5 ft
Width	3,810 mm 150 in
Pipe Length	3,200.4 mm 126 in
Face Support Pipe Diameter	73.025 mm 2.875 in
Mounting Diameter, maximum	1270 mm 50 in
Mounting Diameter, minimum	381 mm 15 in
Pipe Outer Diameter	60.325 mm 2.375 in
Stand-off Distance	1,041.4 mm 41 in

Material Specifications

Material Type	Hot dip galvanized steel
---------------	--------------------------

Mechanical Specifications

Wind Rating	For Specifications, please contact steelproducts@commscope.com or call 800-255-1479
Wind Rating Test Method	TIA/EIA-222

MCG22HD-12M-12-126

Environmental Specifications

Man Rating	500 lb vertical man load at 15 mph (BWS)
------------	--

Packaging and Weights

Included	Pipe mounts Plain end pipes (12) Ring mounts (2) Sector frames (3) Stiff arm
Packaging quantity	1

* Footnotes

Wind Rating	BWS—Base Wind Speed; FBC—Florida Building Code
Man Rating	BWS—Base Wind Speed

Page 1 of 2

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Page 2 of 2

1 ANTENNA MOUNT DETAIL
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon

1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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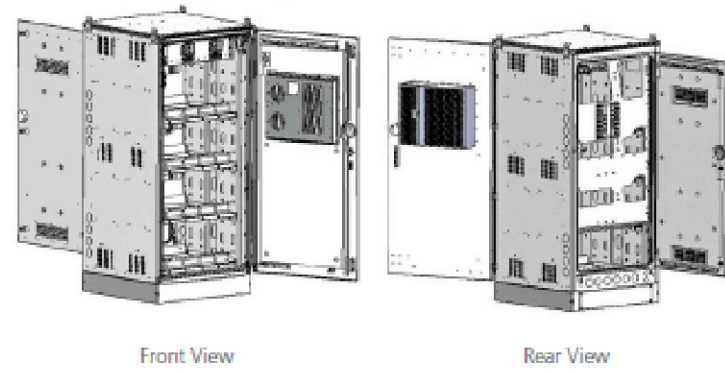
SHEET NUMBER:

C-6

REVISION:

14

Model 760250540



Cabinet Features

- Dimensions**
- Overall 74" H x 43.7" D x 36" W (standard height, depth with air conditioner)
- With Optional 6" Plinth – 80" H x 43.7" D x 36" W (depth with air conditioner)
 - Footprint – 37" D x 36" W (depth without air conditioner)

Weight: 1060 lbs. (481 kg) –for 6-String Cabinet
Weight: as Shipped: 1237 lbs. (561 kg)

- Note: Cabinet Weights are without Plinth (112.4 lbs. [51 kg])

- Battery Compartment**
- 1 kW HVAC with 500 W Heater, DC*
 - 4 Battery Shelves, 6-String Capacity of 24 HT200 Ah VRLA Batteries
 - Master Circuit Breaker String Panel with 6 each 250-amp String Circuit Breaker Switches
 - Battery Cabling and the 250A Circuit Breakers Included
 - CommScope Battery Bus Bar Assembly
 - Connection Point for Battery Cabling to the Power Cabinet
 - Maximum Cable Size of 4.0 AWG from Battery to Power Cabinet
 - Cabinet Light
 - Hinged Rear Access Door with Upper and Lower Vents
 - Knockouts on Left and Right Sides, Rear
 - Top and Side Solar Shields
 - Side Shield Fits Left and Right Sides, Pending Cabinet Site Orientation (one cabinet side shield only)
 - Integrated Puck Lock System Intrusion Prevention, Front and Rear Doors
 - Cabinet can use both Electronic and Standard Keyed Puck Locks

**Telcordia GR-487 Compliant
Safety Agency Listed**

* Hardened Equipment to -40° C to +65° C

CMC Cabinet Ordering Information

PeopleSoft Part #	Description
760250540	CMC74-36B, VRLA Battery Cabinet, 6-String, 1 kW HVAC with 500 W Heater, DC

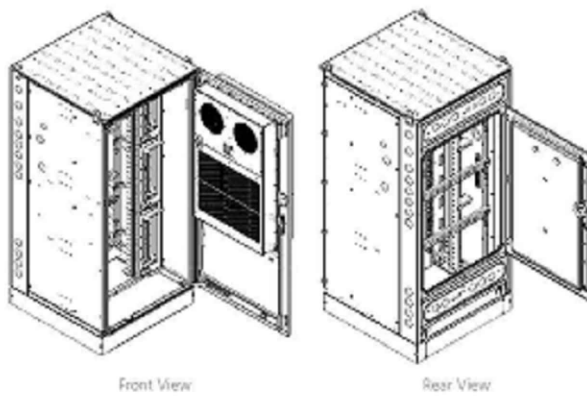
Field Replacement Units and
Aftermarket Kits

PeopleSoft Part #	Description
Field Replacement Units (FRUs)	
760250922	Handle, Front Door
760250925	1 kW HVAC with 500 W Heater, DC
760250928	Circuit Breaker, Battery String, 250 A
760250958	Front Door Assembly, with 1 kW HVAC with 500 W Heater, DC
760253587	Rear Door Assembly, CMC74-36B
760250961	Solar Shield, Side
760250927	Solar Shield, Top
Aftermarket Kits (AMKs)	
760246443	Interconnect, 3PR, 4/0, 2", CMC74-36B
760250933	6" High Plinth, Cabinet Mounting
Additional AMKs can be found on pages 13-14.	

NOTE: The CommScope Part # and Verizon Wireless PeopleSoft #’s are the same.

1 BATTERY CABINET DETAIL
SCALE: NOT TO SCALE

Model 760250058



Cabinet Features

- Dimensions**
- Overall 74" H x 43.7" D x 36" W (standard height, depth with air conditioner)
- With Optional 6" Plinth – 80" H x 43.7" D x 36" W (depth with air conditioner)
 - Footprint – 37" D x 36" W (depth without air conditioner)
- Weight:** 525 lbs. (238 kg)
Weight: as Shipped: 701 lbs. (318 kg)
- Note: Cabinet Weights are without Plinth (112.4 lbs. [51 kg])

- Equipment Compartment**
- 4 kW Air Conditioner, DC*
 - Adjustable Equipment Rack System, Up to 48 RU
 - Up to 40 RU of 23" EIA Horizontal Rack Space
 - Up to 9 RU of 19" EIA Vertical Rack Space
 - OVP Vertical Side Mounting Options
 - Allows more Horizontal Rack Space for Equipment
 - Cabinet Light
 - 4-Position GFCI Outlet
 - Hinged Rear Access Door
 - Two Interchangeable Rear Port Panels
 - Cabinet Ships with One Conduit Knockout Panel and One Blank Panel
 - Knockouts on Left and Right Sides, Rear
 - Solar Shield, Top
 - Integrated Puck Lock System Intrusion Prevention, Front and Rear Doors
 - Cabinet can use both Electronic and Standard Keyed Puck Locks

**Telcordia GR-487 Compliant
Safety Agency Listed**

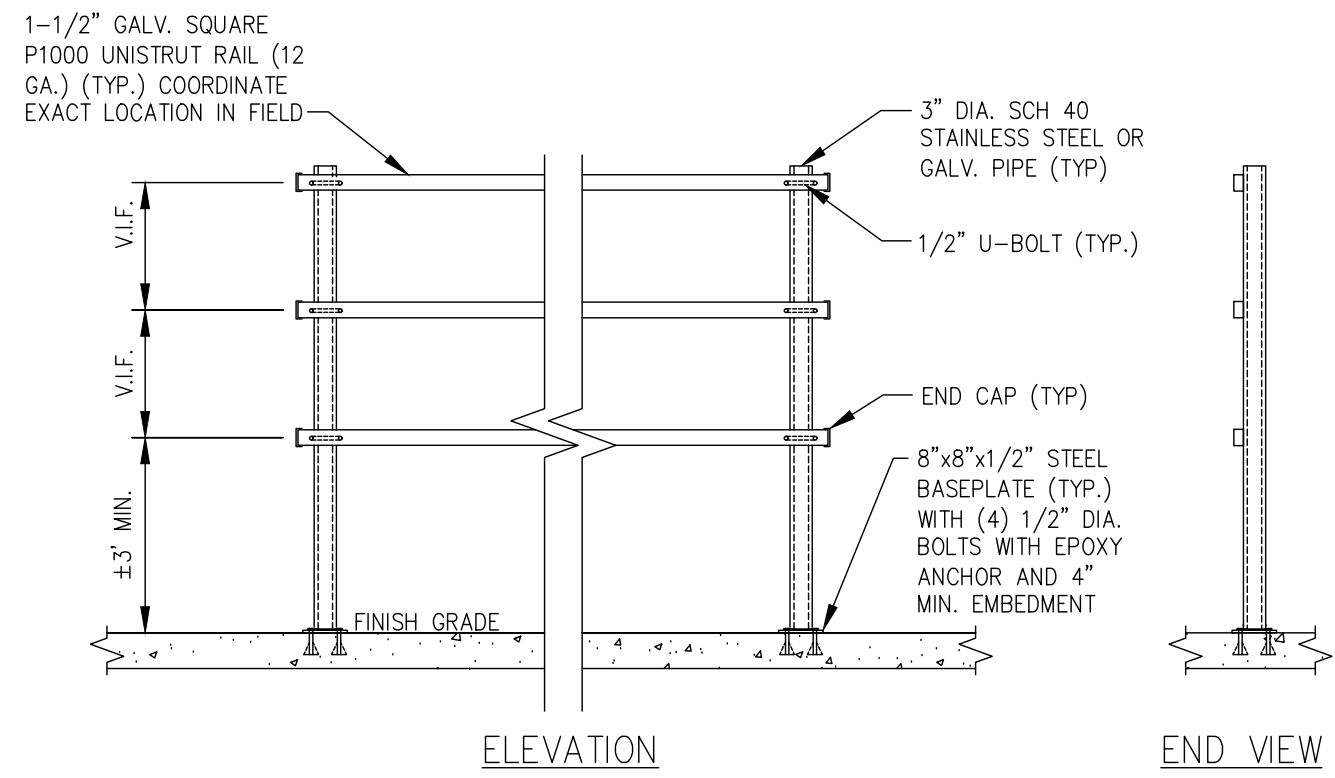
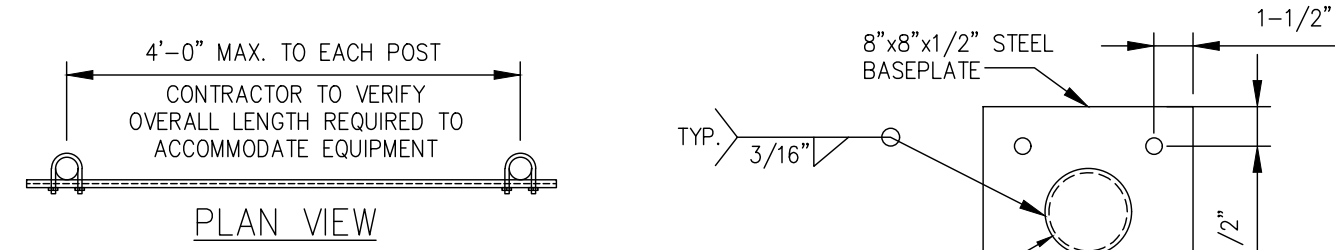
* Hardened Equipment to -40° C to +65° C

Field Replacement Units and
Aftermarket Kits

PeopleSoft Part #	Description
Field Replacement Units (FRUs)	
760250972	Front Door Assembly, 4kW Air Conditioner, CMC74-36E
760250922	Handle, Front Door
760250980	Rear Door Assembly
760250935	4 kW Air Conditioner, DC
760250926	Interchangeable Conduit Panel, Rear
760250927	Solar Shield, Top
Aftermarket Kits (AMKs)	
760246443	Interconnect, 3PR, 4/0, 2", CMC74-E
760250933	6" High Plinth, Cabinet Mounting
Additional AMKs can be found on pages 13-14.	

NOTE: The CommScope Part # and Verizon Wireless PeopleSoft #’s are the same.

2 RF CABINET DETAIL
SCALE: NOT TO SCALE



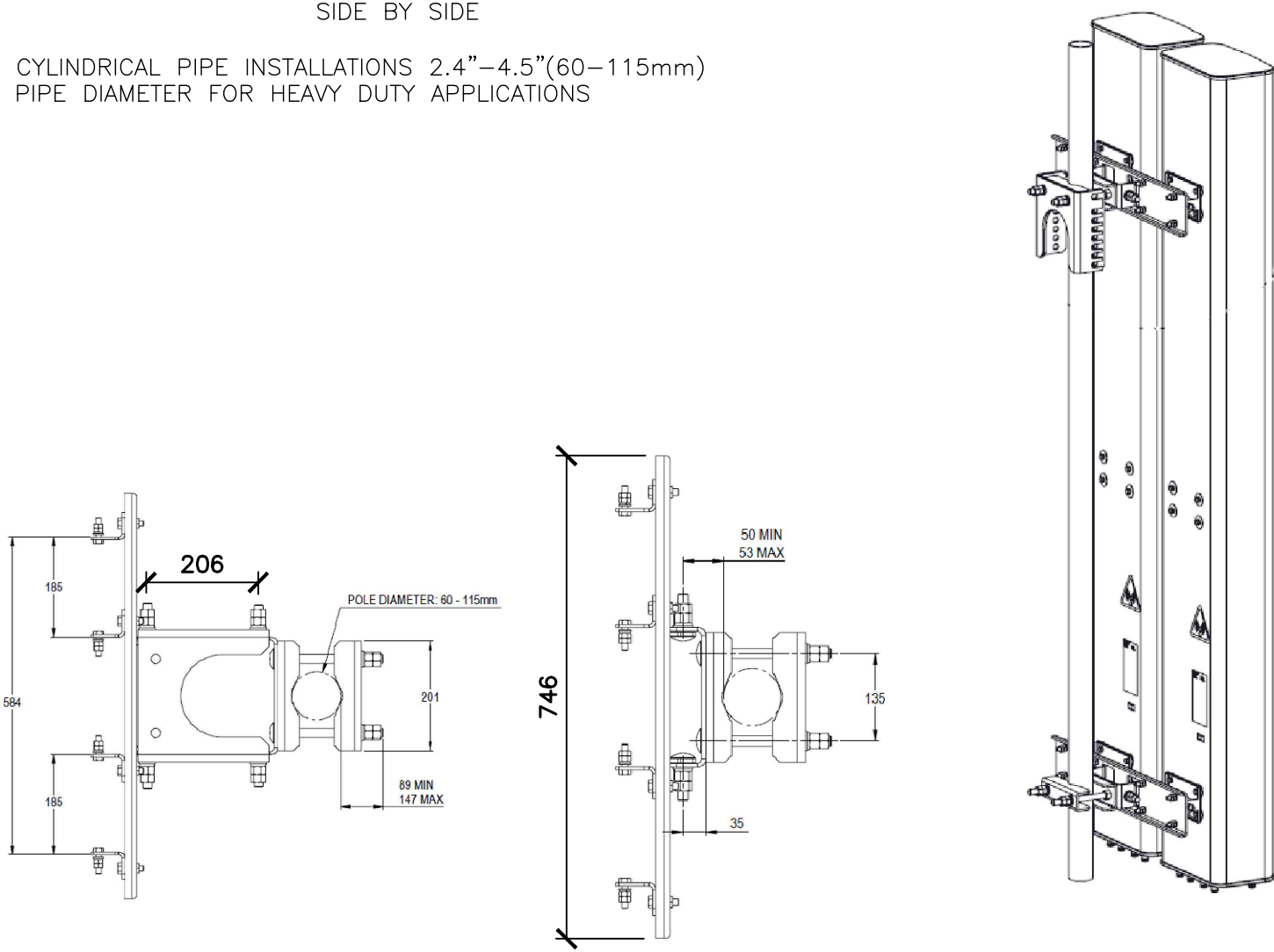
3 VERIZON H-FRAME DETAIL
SCALE: NOT TO SCALE

COMMSCOPE SIDE BY SIDE MOUNTING KIT
(OR APPROVED, EQUAL):
639845-1 BSAMNT-SBS-2-2

DIMENSIONS HxW (mm): 5.20"(132) x 29.37"(746)

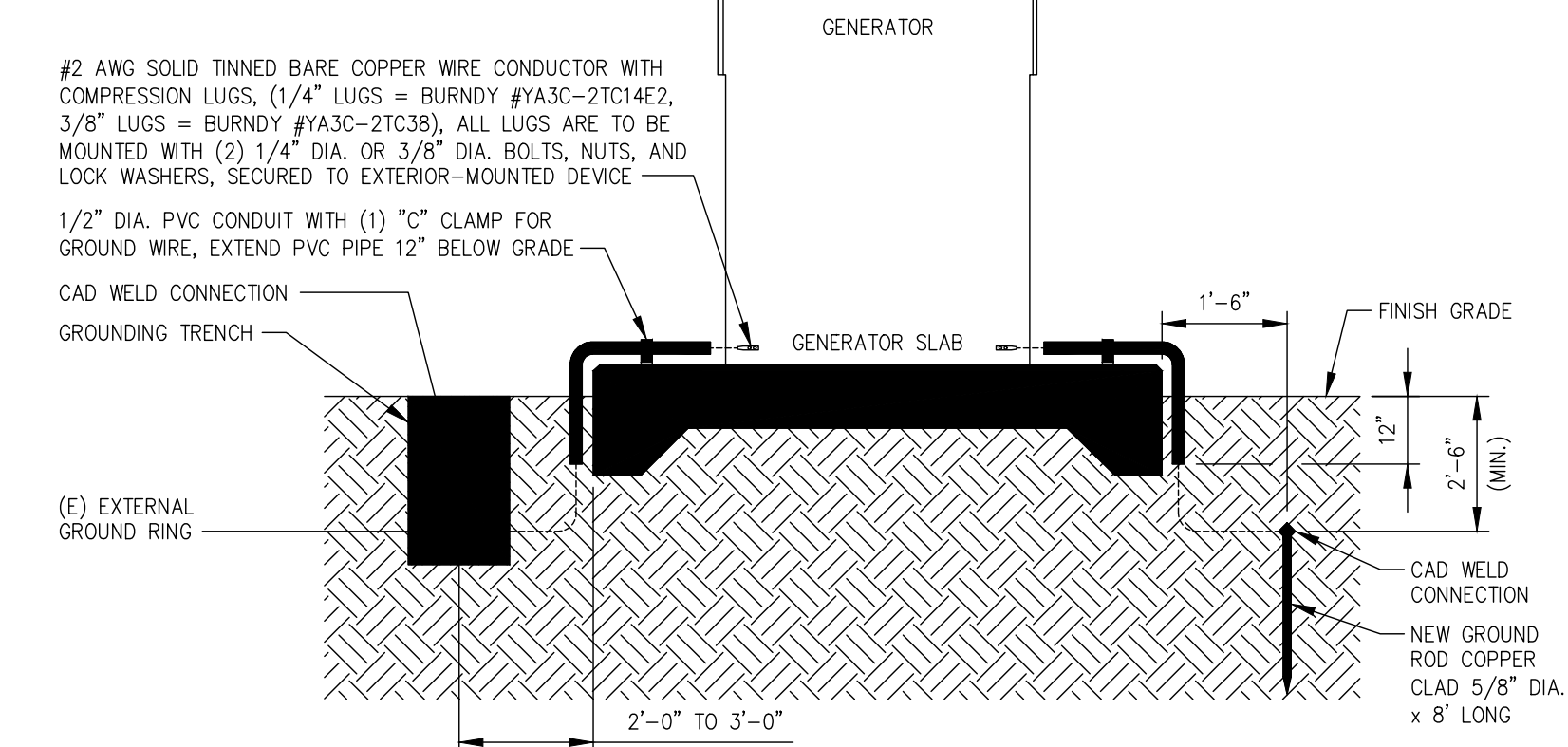
MOUNTING: ALLOWS MOUNTING EITHER (2) 350mm OR (2) 457mm WIDE ANTENNAS WITH 2 MOUNT POINTS SIDE BY SIDE

CYLINDRICAL PIPE INSTALLATIONS 2.4"-4.5"(60-115mm)
PIPE DIAMETER FOR HEAVY DUTY APPLICATIONS

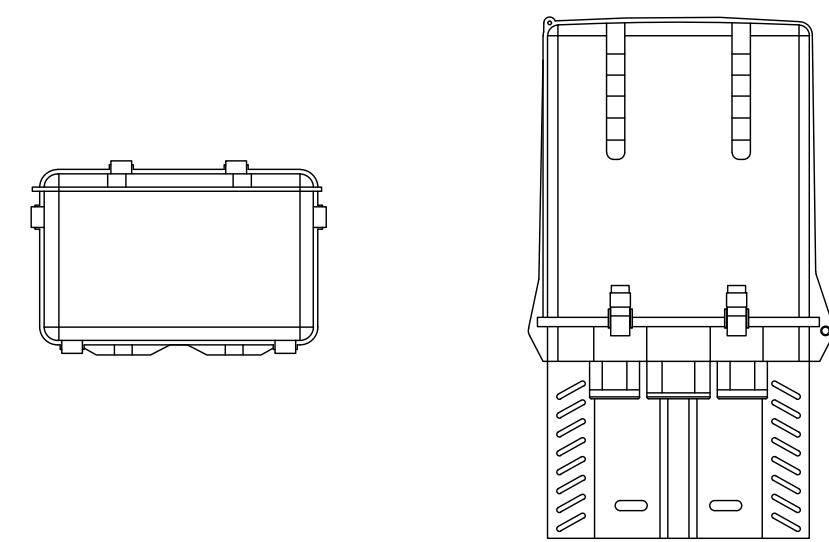


4 NOT USED
SCALE: NOT TO SCALE

NOTE:
BEFORE MOUNTING LUGS TO ANY
EXTERIOR EQUIPMENT, SURFACE
PAINT IS TO BE STRIPPED AND DEOX
IS TO BE APPLIED TO THE SURFACE



5 GENERATOR GROUNDING DETAIL (TYPICAL)
SCALE: NOT TO SCALE



RAYCAP – RCMDC-3315-PF-48
WEIGHT (WITHOUT MOUNTING HARDWARE): 32.0 LBS
SIZE (HxWxD): 25.66x15.73x10.26 IN.

RATED WIND VELOCITY: 150 MPH (SUSTAINED)
OPERATING TEMPERATURE: -40° C TO +80° C
NOMINAL OPERATING DC VOLTAGE: 48 VDC

6 RAYCAP – RCMDC-3315-PF-48
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL



VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



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REVISION:

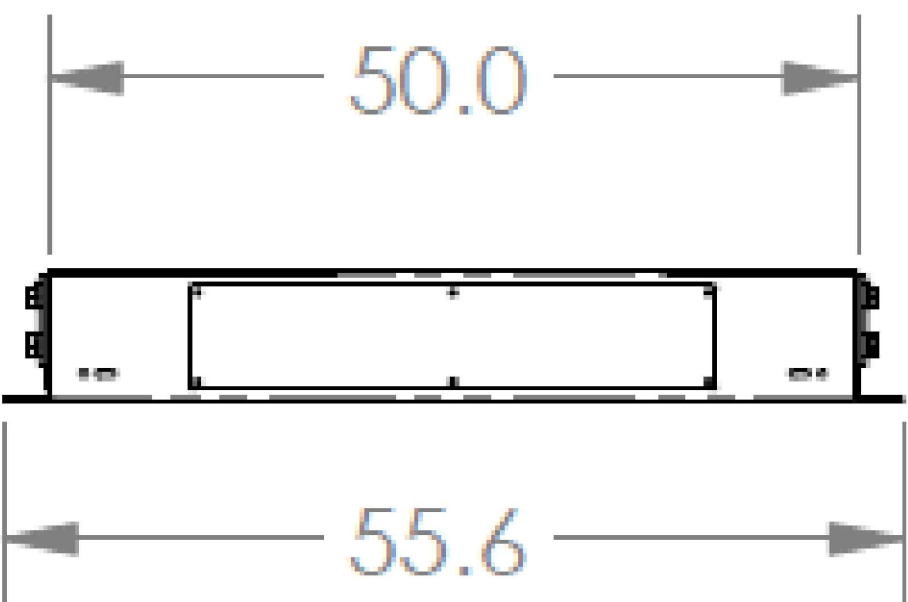
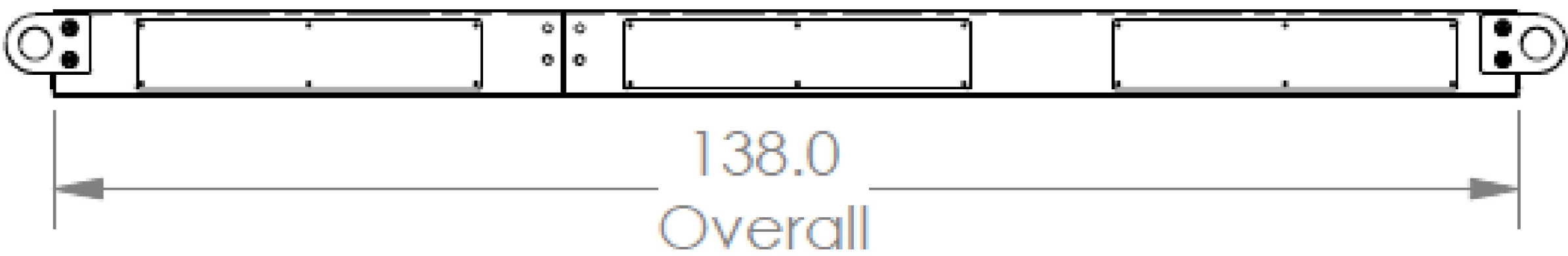
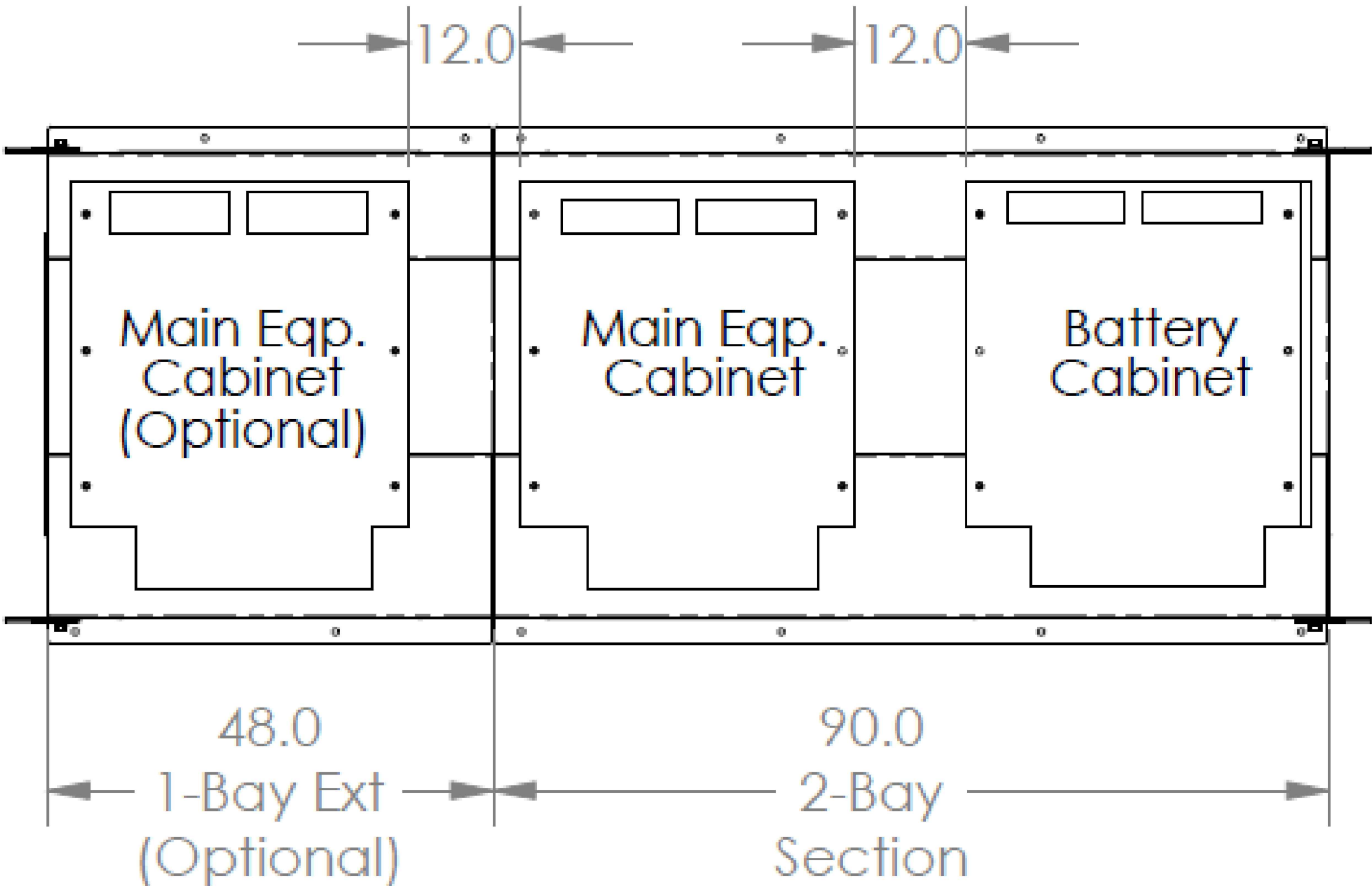
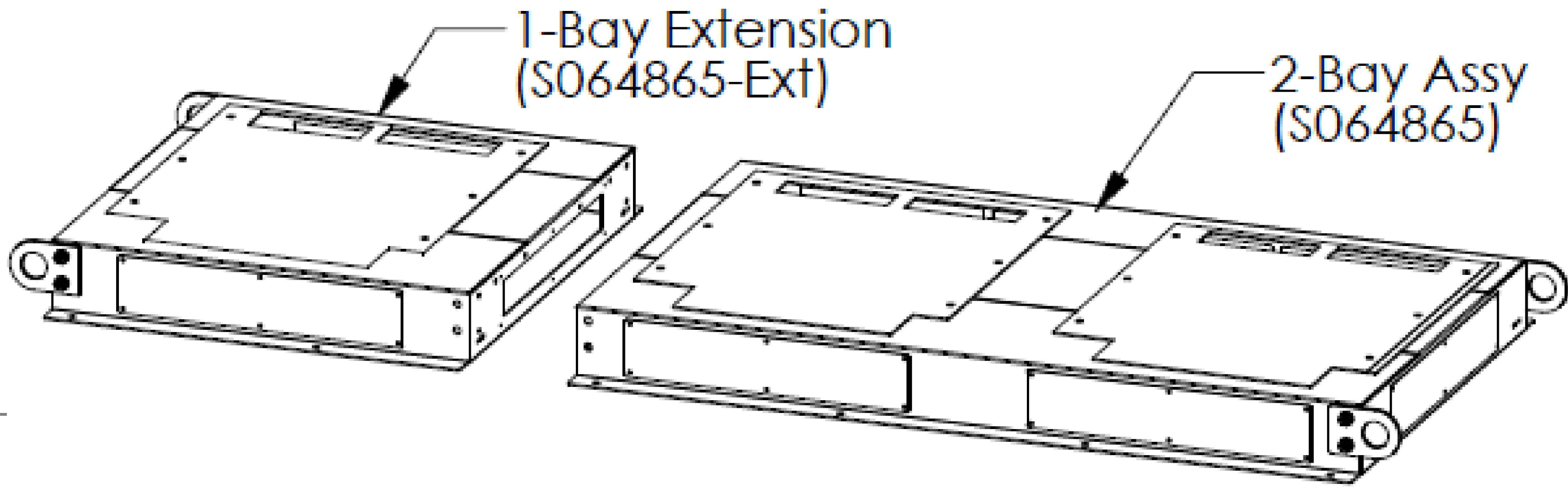
14

NOTE:

-Part Number **S064865** contains the 2 Bay Assy

-Part Number **S064865-EXT** contains the 2 Bay Assy
PLUS the 1-Bay Extension

NAME: Commscope Plinth w/ Extension Assy
DWG: S064865-Ext
MDT 2/23/2021



1 PLINTH
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon

1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
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12	09/19/2024	RC	FINAL	AMT
13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



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SHEET NUMBER:

C-8

REVISION:

14

JURISDICTIONAL APPROVAL

verizon
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BEDMINSTER, NJ 07921

**CROWN
CASTLE**
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

ISSUED FOR:

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13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



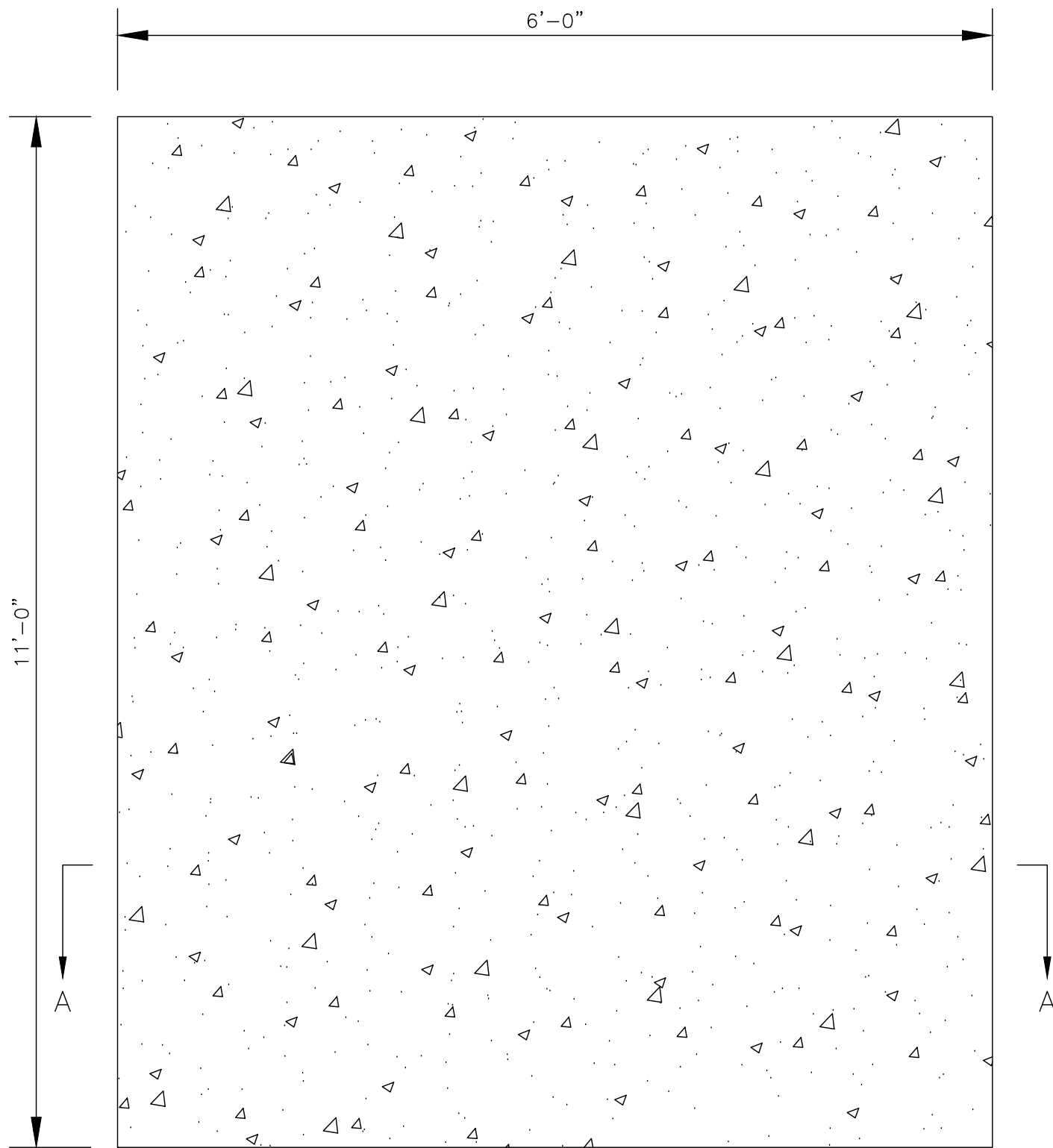
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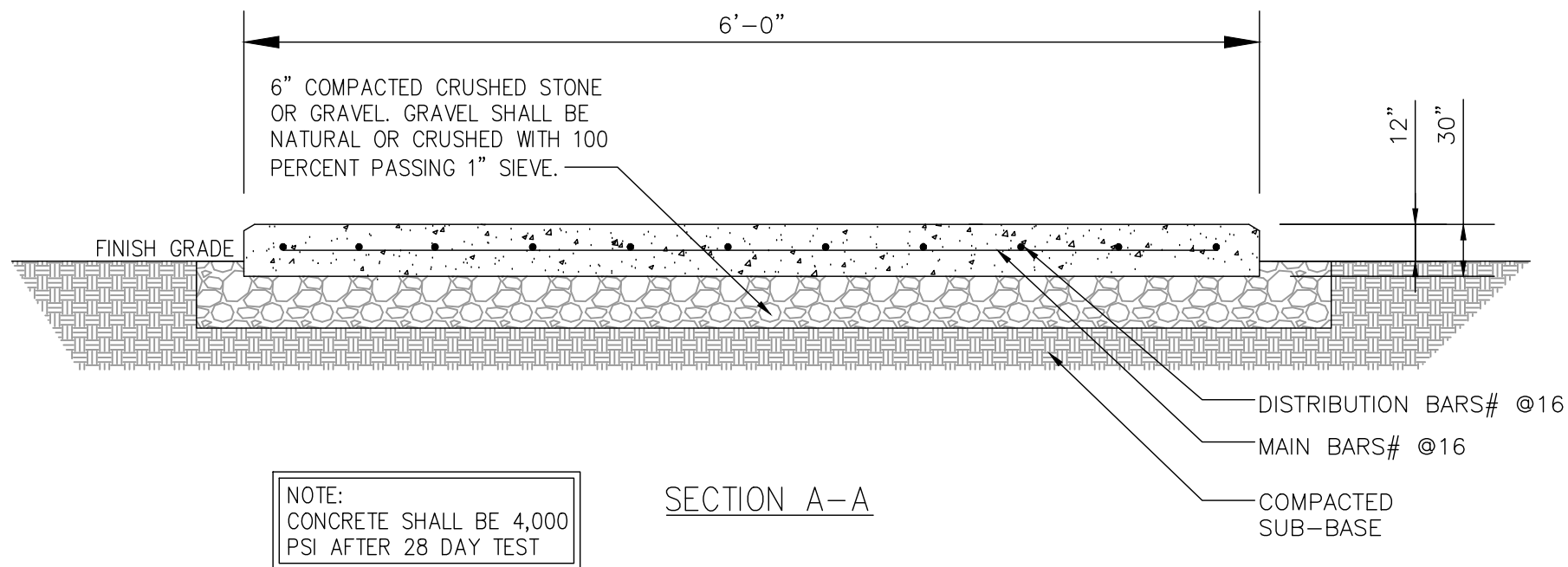
C-9

REVISION:

14



PLAN VIEW

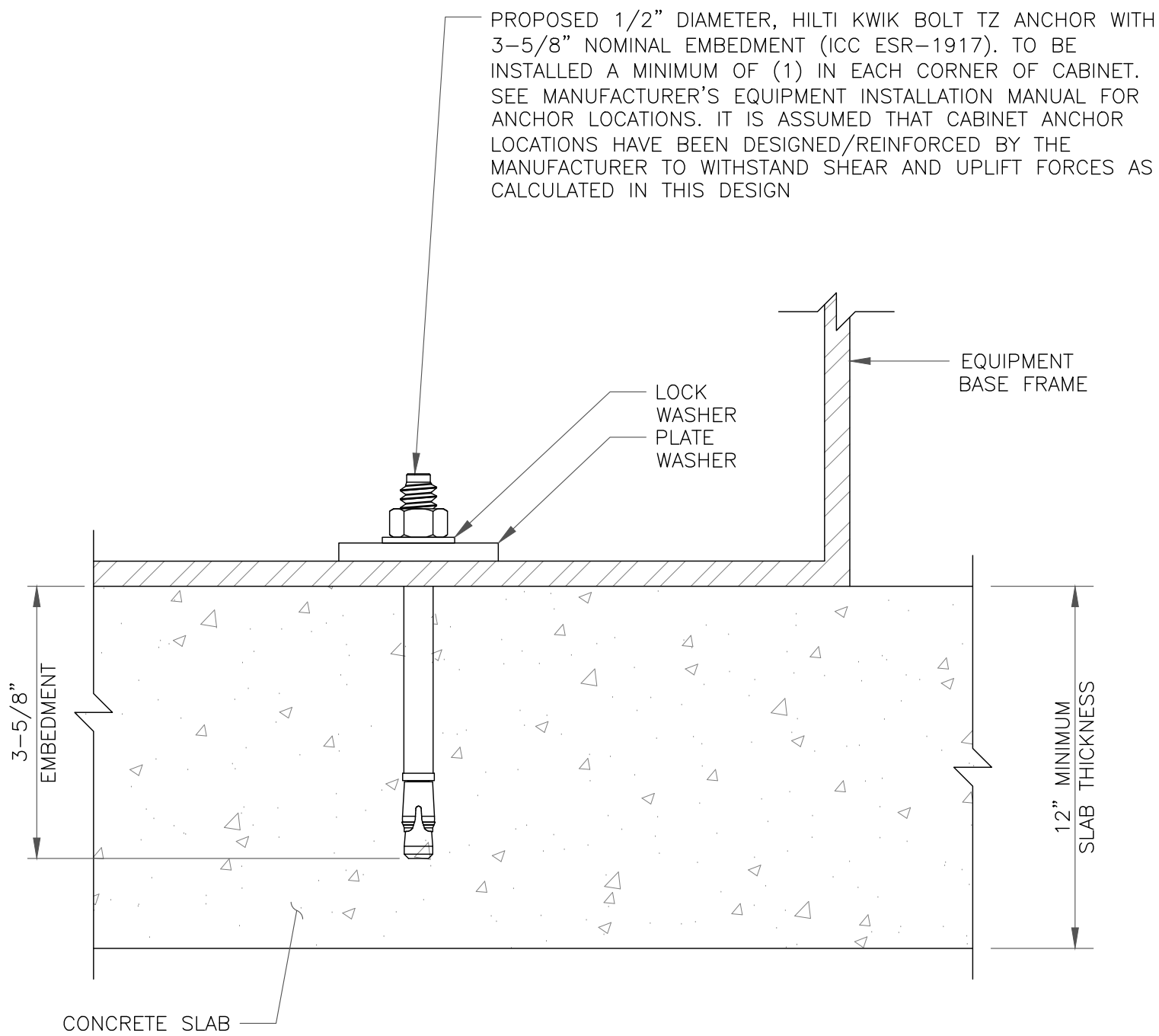


NOTE:
CONCRETE SHALL BE 4,000
PSI AFTER 28 DAY TEST

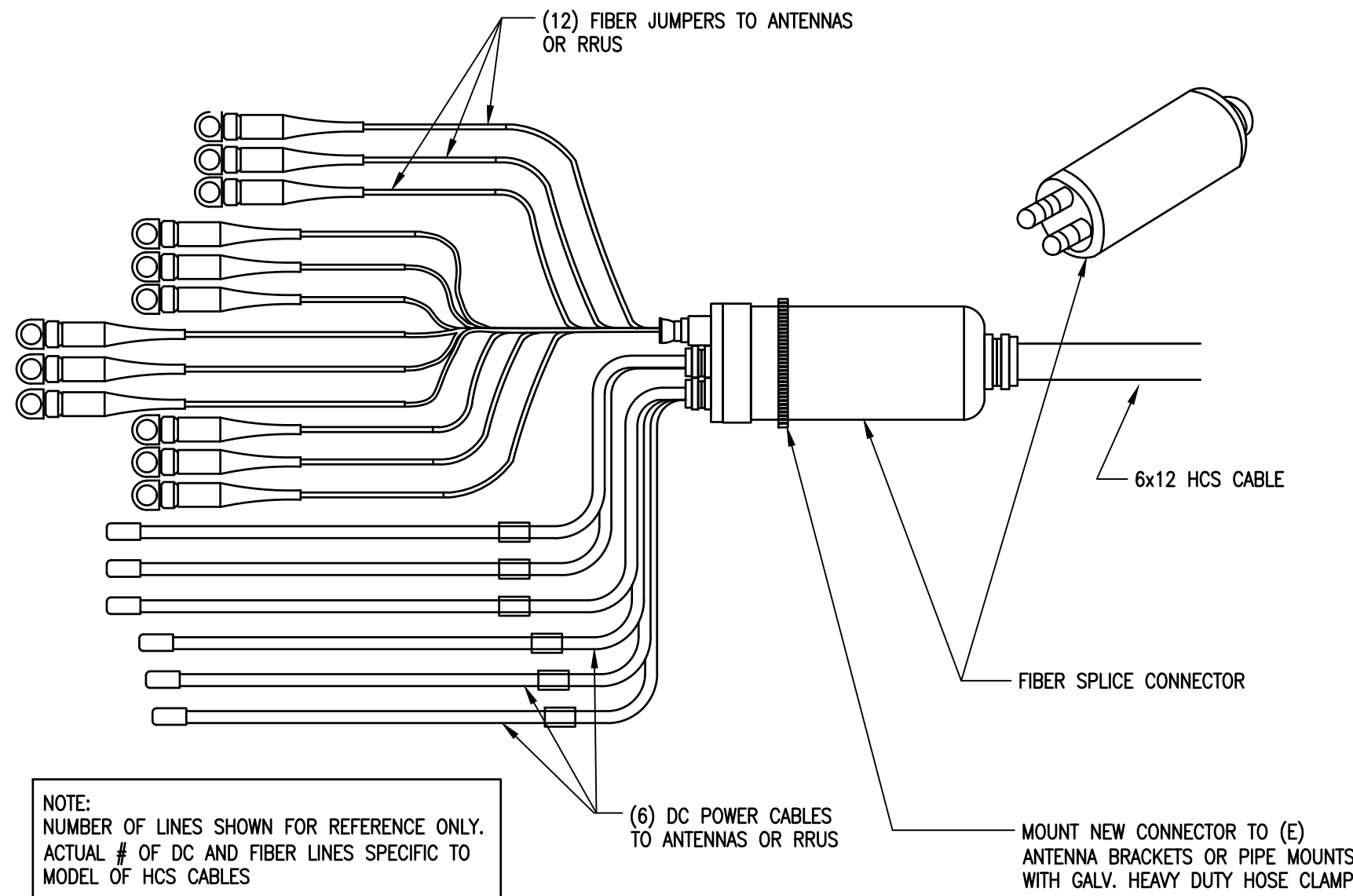
SECTION A-A

1 CONCRETE PAD DETAIL
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE



3 CABINET ANCHOR DETAIL
SCALE: NOT TO SCALE



NOTE:
NUMBER OF LINES SHOWN FOR REFERENCE ONLY.
ACTUAL # OF DC AND FIBER LINES SPECIFIC TO
MODEL OF HCS CABLES

4 HYBRID CABLE
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

**CROWN
CASTLE**
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
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IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

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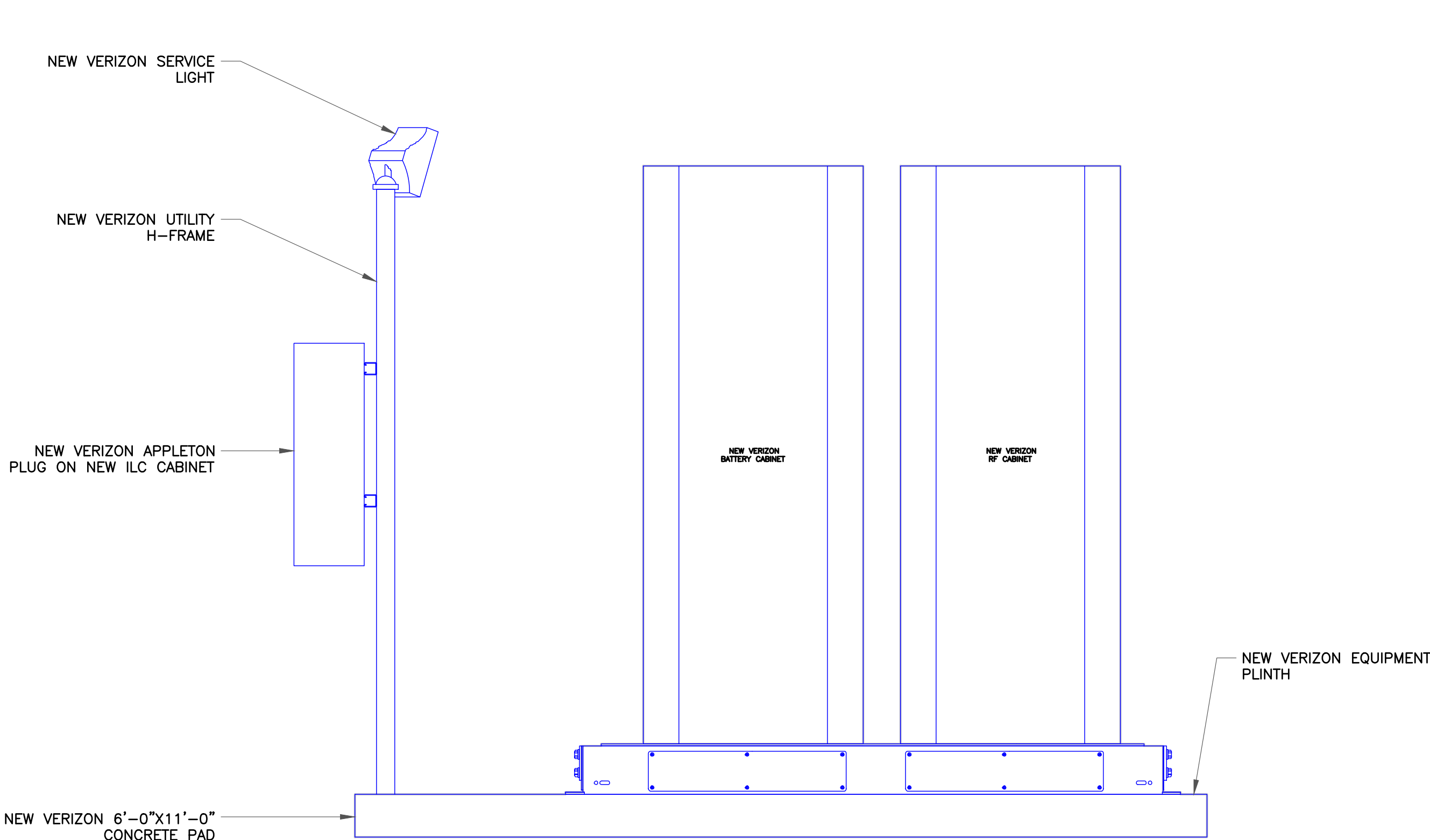
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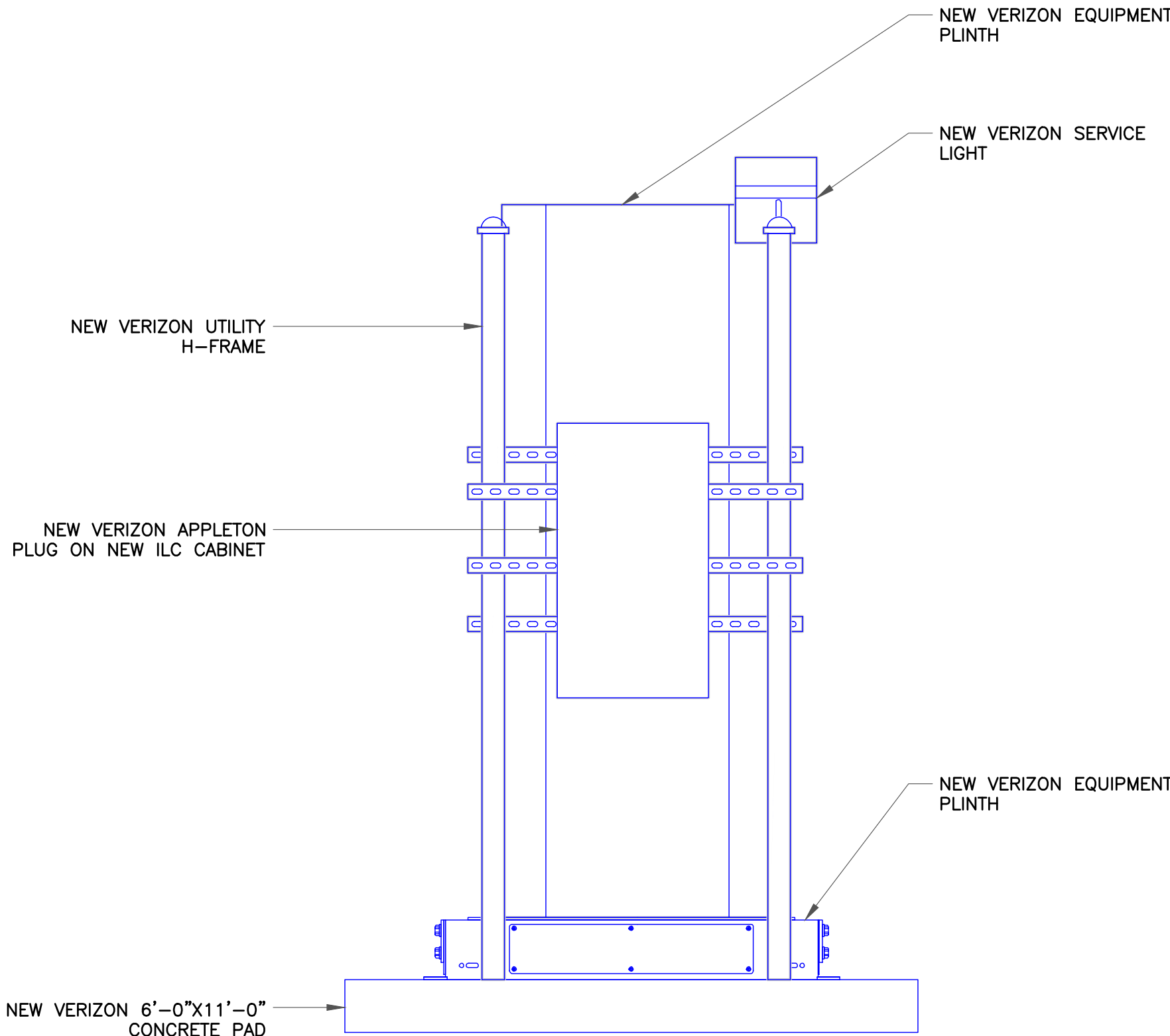
REVISION:

14



1

FRONT EQUIPMENT ELEVATION
SCALE: NOT TO SCALE



2

SIDE EQUIPMENT ELEVATION
SCALE: NOT TO SCALE

CODED DRAWING NOTES

- 1

NEW VERIZON 11'–0"x6'–0" EQUIPMENT PAD
- 2

NEW VERIZON EQUIPMENT PLINTH
- 3

NEW VERIZON RF CABINET
- 4

NEW VERIZON BATTERY CABINET
- 5

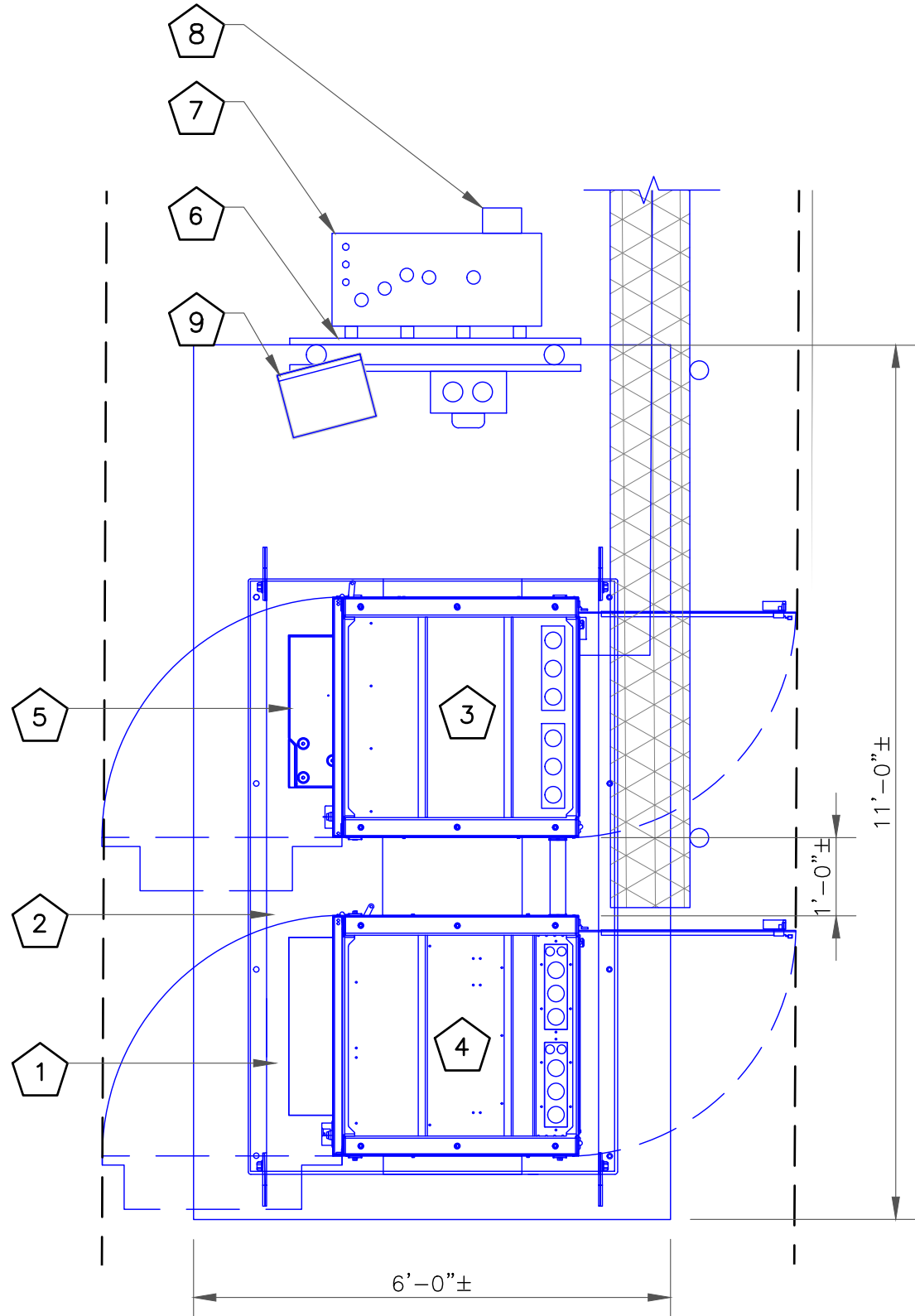
NEW VERIZON RACK MOUNTED OVP
- 6

NEW VERIZON EQUIPMENT H–FRAME
- 7

NEW VERIZON ILC CABINET
- 8

NEW VERIZON APPLETON PLUG ON NEW ILC CABINET
- 9

NEW VERIZON SERVICE LIGHTS



1 EQUIPMENT LAYOUT
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL



180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921



1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

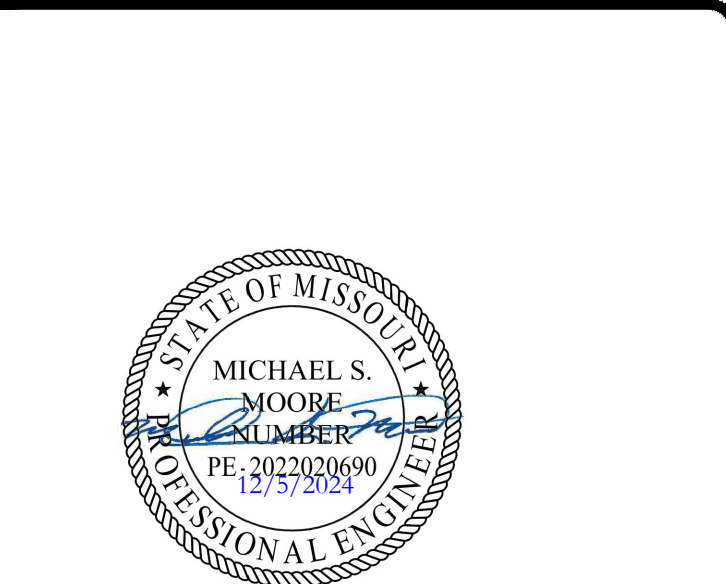


1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
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13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



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TO ALTER THIS DOCUMENT.

SHEET NUMBER:
C-11

REVISION:
14

Antenna Summary											
Added Antenna											
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	Install Type	Quantity
				5G	Ericsson	AIR6419	85	86.2	0(1),120(2),240(3)	PHYSICAL	3
LTE	LTE	LTE	LTE		COMMSCOPE	NHH-65C-R2B	85	89	0(1),120(2),240(3)	PHYSICAL	6

Removed Antenna											
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	Install Type	Quantity

Retained Antenna											
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	Install Type	Quantity

Added: 9	Removed: 0	Retained: 0
----------	------------	-------------

Non Antenna Summary										
Added Non Antenna										
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Install Type	Quantity
OVP	Tower							12 OVP	PHYSICAL	1
OVP	Shelter							12 OVP	PHYSICAL	1
RRU	Tower	LTE	LTE				Ericsson	4490	PHYSICAL	3
RRU	Tower			LTE	LTE		Ericsson	4890	PHYSICAL	3
BBU	Shelter						Ericsson	6651	PHYSICAL	1
Hybrid Cable	Tower						6X12 Hybrid Cable	6X12 hybrid Cable	PHYSICAL	2
RRU	Tower					5G	Ericsson	AIR6419_B77D	PHYSICAL	0

Removed Non Antenna										
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Install Type	Quantity

Retained Non Antenna										
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Install Type	Quantity

Added: 11	Removed: 0	Retained: 0
-----------	------------	-------------

JURISDICTIONAL APPROVAL

RELEASED FOR CONSTRUCTION
As Noted on Plans Review

Development Services Department
Lee's Summit, Missouri
01/22/2025

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon

1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803

KCYC LEES SUMMIT DT

207 SE DOUGLAS

LEE'S SUMMIT, MO 64063

EXISTING 180'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
3	09/18/2023	TFL	FINAL	AMT
4	10/17/2023	RC	FINAL	AMT
5	01/09/2024	TFL	FINAL	AMT
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12	09/19/2024	RC	FINAL	AMT
13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP

STATE OF MISSOURI

MICHAEL S. MOORE

PE 202400690

12/5/2024

PROFESSIONAL ENGINEER

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

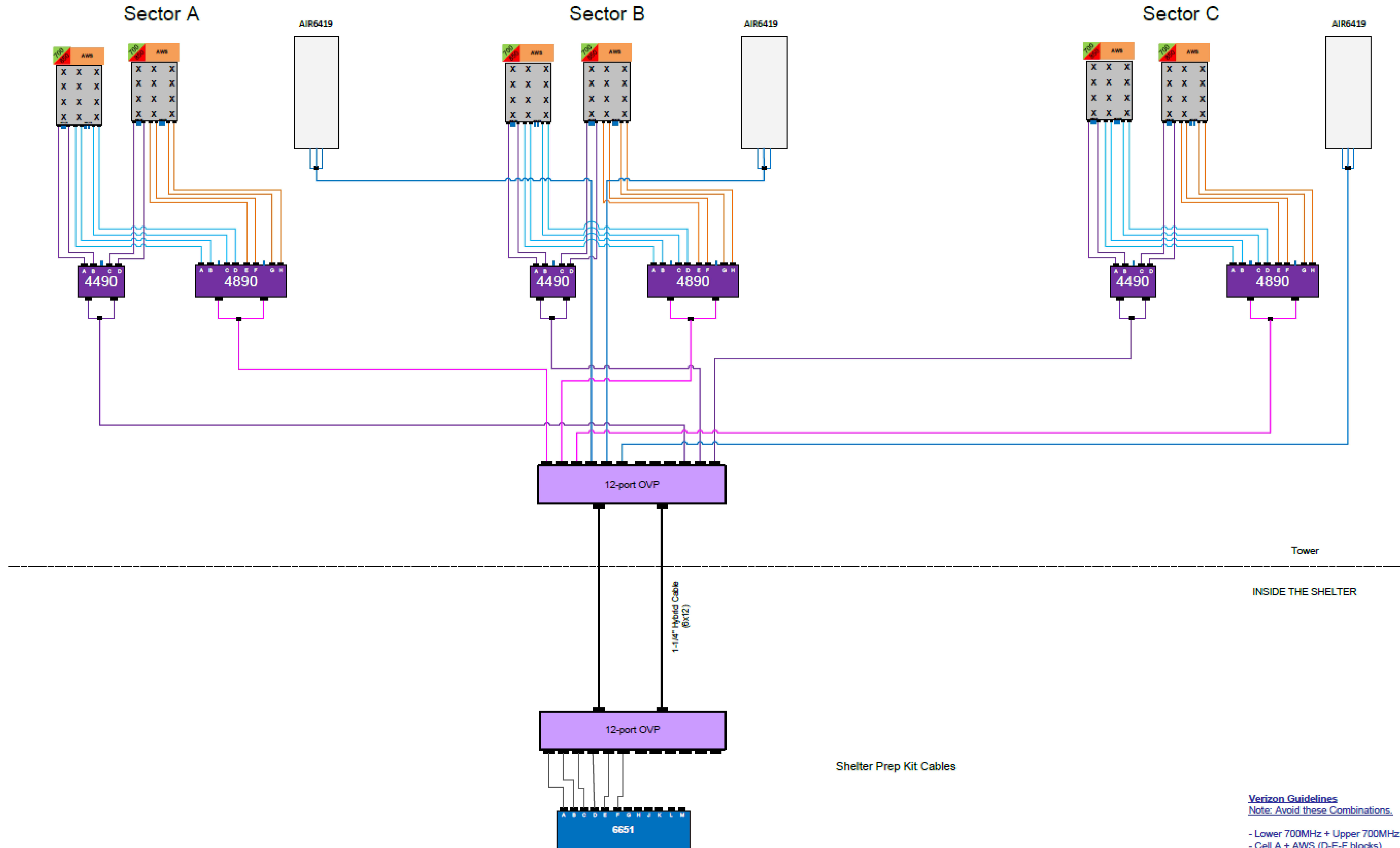
SHEET NUMBER:

C-12

REVISION:

14

700 | AWS | 850 | PCS | C-Band



JURISDICTIONAL APPROVAL

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
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SHEET NUMBER:
C-13

REVISION:
14

Verizon Guidelines
Note: Avoid these Combinations.

- Lower 700MHz + Upper 700MHz
- Cell A + AWS (D-E-F blocks)
- AWS + PCS1
- Cell A' + Lower 700 MHz

GENERAL ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
- ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
- ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
- ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
- LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER IMMEDIATELY.
- ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS, NOT DUCT TAPE.
- PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT.
- PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.

CODED DRAWING NOTES:

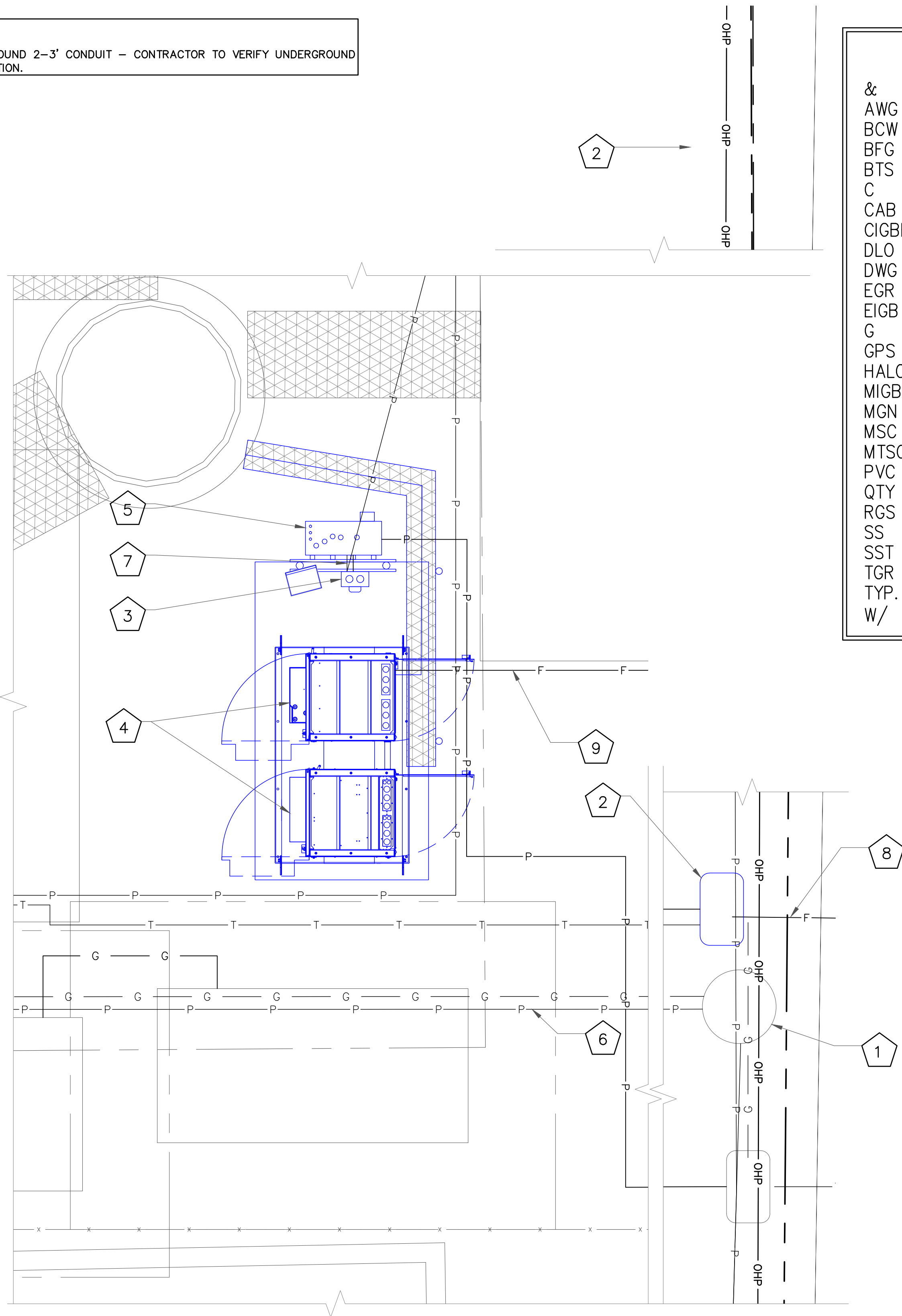
- 1 EXISTING UTILITY POLE
- 2 NEW VERIZON FIBER HANDHOLE COVER SHALL BE STAMPED VERIZON
- 3 NEW VERIZON 200A METER SOCKET W/ DISCONNECT
- 4 NEW VERIZON CABINETS ON A NEW 11'-0"x4'-0" EQUIPMENT PAD
- 5 NEW VERIZON ILC CABINET ON NEW EQUIPMENT H-FRAME
- 6 FOR POWER - (1) 2" SCH. 40 PVC CONDUIT FOR POWER FROM EXISTING UTILITY POLE TO NEW VERIZON 200A METER SOCKET W/ DISCONNECT
- 7 (1) 2" SCH. 40 PVC CONDUIT FROM NEW VERIZON 200A METER SOCKET W/ DISCONNECT TO NEW ILC CABINET
- 8 FOR TELCO - (1) 4" SCH 40 PVC CONDUIT WITH (3) 1" INNERDUCTS, MULE TAPE AND TRACE WIRE FOR FIBER BETWEEN THE (2) NEW FIBER HANDHOLES (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 9 FOR TELCO - (1) 2" SCH 40 PVC CONDUIT WITH MULE TAPE FOR FIBER FROM THE NEW FIBER HANDHOLE TO THE EQUIPMENT CABINET.

NOTE:
ICE BRIDGE NOT SHOWN FOR CLARITY.

NOTE:
CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. COORDINATE LOCATION OF ALL PROPOSED DIGGING & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

NOTES:

UNDERGROUND 2-3' CONDUIT - CONTRACTOR TO VERIFY UNDERGROUND OBSTRUCTION.



1 OVERALL CONDUIT LAYOUT
SCALE: NOT TO SCALE

ABBREVIATIONS:

&	AND
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
BTS	BARE TINNED STRANDED
C	CONDUIT
CAB	CABINET
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
DLO	DIESEL LOCOMOTIVE CABLE
DWG	DRAWING
EGR	EXTERIOR GROUND RING
EIGB	EXTERIOR ISOLATED GROUND BAR
G	GROUND
GPS	GLOBAL POSITIONING SYSTEM
HALO	INTERIOR GROUND RING
MIGB	MAIN ISOLATED GROUND BAR
MCN	MULTI-GROUNDED NEUTRAL
MSC	MOBILE SWITCHING CENTER
MTSO	MOBILE TELEPHONE SWITCHING OFFICE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
SST	SELF SUPPORT TOWER
TGR	TOWER GROUND RING
TYP.	TYPICAL
W/	WITH

ELECTRICAL SYMBOLS:

ϕ	RECEPTACLE
— P — P —	BURIED POWER CONDUIT
— T — T —	BURIED TELCO CONDUIT
(M)	ELECTRICAL METER
#	INDICATES CODED NUMBER
	SAFETY SWITCH
$\emptyset$	UTILITY POLE

LEGEND

— P —	ELECTRICAL
— G —	FUEL/GAS/OIL
— T —	TELECOMM
----	SCAN LIMIT

UTILITY GUIDANCE

BU: 877803
ORDER: 547366
RES: ROBERT ROSS

UTILITY GUIDANCE (NON DOCUMENTED): GROUND LEASE DOES NOT SPECIFY OUR UTILITY RIGHTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY CCRE AS FURTHER COORDINATION MAY BE NEEDED.

JURISDICTIONAL APPROVAL

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
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SHEET NUMBER:

E-1

REVISION:

14

CODED DRAWING NOTES:

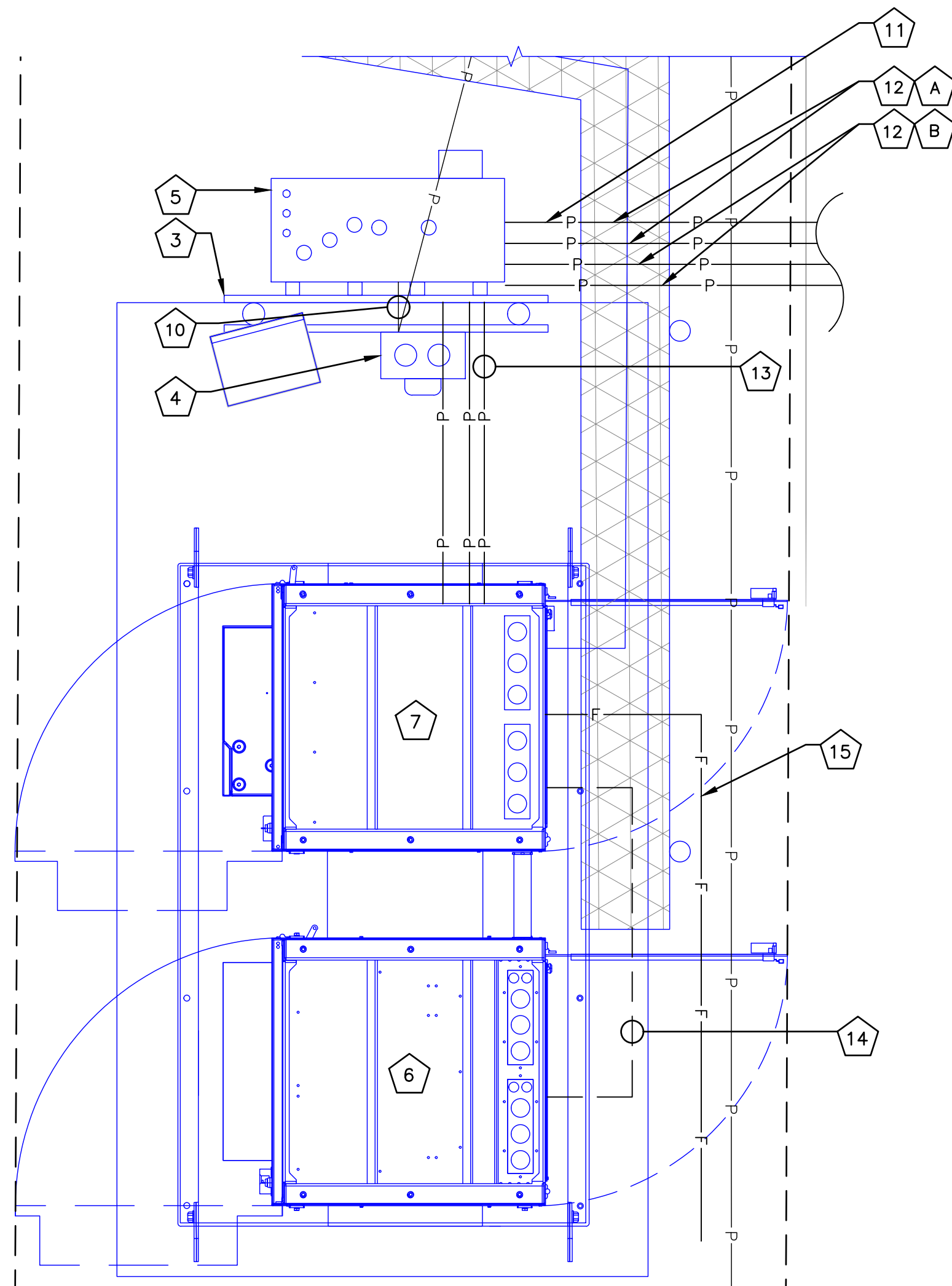
- 1 EXISTING UTILITY POLE W/ POLE MOUNTED TRANSFORMER (NOT SHOWN)
- 2 NEW VERIZON FIBER HANDHOLE (MEET ME POINT) (LOCATION TBD) (NOT SHOWN)
- 3 NEW UTILITY H-FRAME
- 4 NEW VERIZON 200A METER SOCKET W/ DISCONNECT IN EMPTY METER SLOT C ON EXISTING METERBANK
- 5 NEW VERIZON ILC CABINET W/ INTEGRATED ATS
- 6 NEW VERIZON BATTERY CABINET
- 7 NEW VERIZON RF CABINET
- 8 NEW VERIZON BACKUP GENERATOR (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 9 FOR POWER – (1) 2" SCH. 40 PVC CONDUIT FROM EXISTING UTILITY POLE (NOT SHOWN) TO NEW VERIZON METER/DISCONNECT SWITCH (NOT SHOWN) (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)
- 10 (1) 2" SCH. 40 PVC CONDUIT FROM NEW ELECTRIC METER/DISCONNECT SWITCH TO NEW ILC CABINET W/ INTEGRATED ATS
- 11 (1) 3/4" SCH. 40 PVC CONDUIT FOR ALARMS FROM NEW ILC CABINET W/ INTEGRATED ATS TO NEW VERIZON BACKUP GENERATOR (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 12 (1) 2" SCH. 40 PVC CONDUIT FOR POWER FROM NEW ILC CABINET W/ INTEGRATED ATS TO NEW TO PROPOSED VERIZON BACKUP GENERATOR (CONTRACTOR TO SUPPLY SIZE/ITY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 13 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FROM NEW VERIZON ILC CABINET W/ INTEGRATED ATS TO NEW VERIZON POWER RF CABINET (CONTRACTOR TO SUPPLY SIZE/QTY CONDUCTORS PER MANUFACTURER SPECIFICATIONS)
- 14 (1) 2" GRC OR LIQUIDTIGHT CONDUIT FROM NEW VERIZON RF CABINET TO NEW VERIZON BATTERY CABINET
- 15 FOR TELCO – (1) 2" PVC CONDUIT FROM NEW FIBER HANDHOLE TO NEW VERIZON RF CABINET (PENDING COORDINATION WITH LOCAL UTILITY COMPANY)

NOTE:
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NOTE:
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- PROVIDE 200 LB TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT.
- PULL BOXES SHALL BE INSTALLED AS NEEDED PER NEC UTILITY REQUIREMENTS.



1 EQUIPMENT CONDUIT LAYOUT
SCALE: NOT TO SCALE

ABBREVIATIONS:

&	AND
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
BTS	BARE TINNED STRANDED
C	CONDUIT
CAB	CABINET
CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
DLO	DIESEL LOCOMOTIVE CABLE
DWG	DRAWING
EGR	EXTERIOR GROUND RING
EIGB	EXTERIOR ISOLATED GROUND BAR
G	GROUND
GPS	GLOBAL POSITIONING SYSTEM
HALO	INTERIOR GROUND RING
MGB	MAIN ISOLATED GROUND BAR
MGN	MULTI-GROUNDED NEUTRAL
MSC	MOBILE SWITCHING CENTER
MTSO	MOBILE TELEPHONE SWITCHING OFFICE
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QTY	QUANTITY
RGS	RIGID GALVANIZED STEEL
SS	STAINLESS STEEL
SST	SELF SUPPORT TOWER
TGR	TOWER GROUND RING
TYP.	TYPICAL
W/	WITH

ELECTRICAL SYMBOLS:

⌀	RECEPTACLE
—P—P—	BURIED POWER CONDUIT
—T—T—	BURIED TELCO CONDUIT
(M)	ELECTRICAL METER
#	INDICATES CODED NUMBER
□	SAFETY SWITCH
⊘	UTILITY POLE

GENERATOR CONDUITS:

- A. (1) 2" CONDUIT (AC POWER) ILC TO GENERATOR
- B. (1) 1" CONDUIT WITH 2 #12 AC CIRCUITS (CHARGER AND HEATER) ILC TO GENERATOR
- C. (1) 1" CONDUIT WITH 1 #14 DC CIRCUIT (START/STOP) ILC TO GENERATOR
- D. (1) 1" CONDUIT WITH 2 CATS'S (1 TO THE TRANSFER SWITCH AND 1 TO THE GENERATOR) ILC TO GENERATOR

EQUIPMENT CABINET:

- E. (1) 2" CONDUIT (AC POWER) ILC TO EQUIPMENT CABINET/PLINTH
- F. (1) 2" CONDUIT (ALARMS) ILC TO EQUIPMENT CABINET/PLINTH
- G. (1) 2" CONDUIT (FUTURE) ILC TO EQUIPMENT CABINET/PLINTH
- H. (1) 3" CONDUIT (OR PER JURISDICTION) (MAIN POWER) METER TO ILC

JURISDICTIONAL APPROVAL

verizon

180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon

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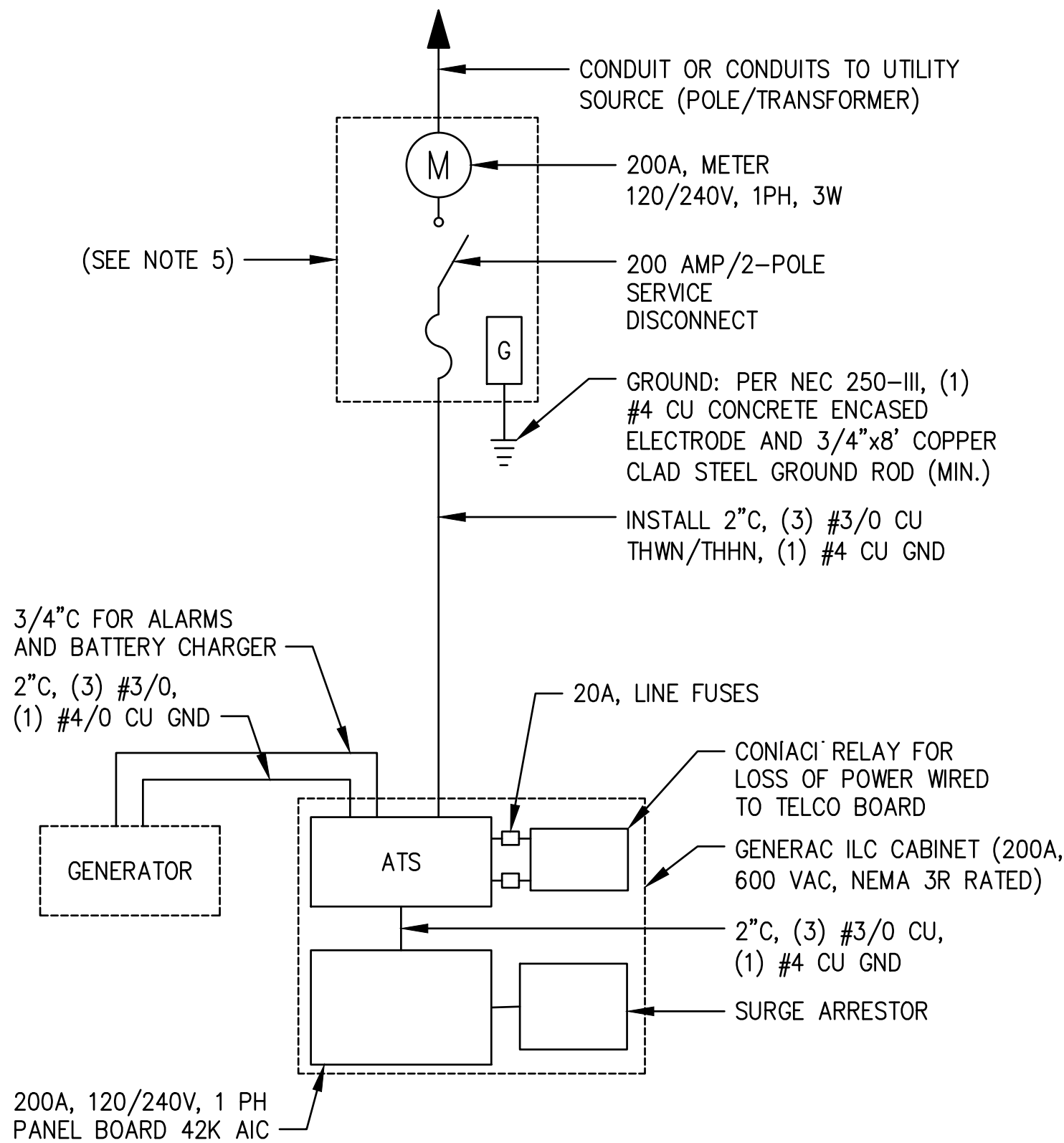
E-2

REVISION:

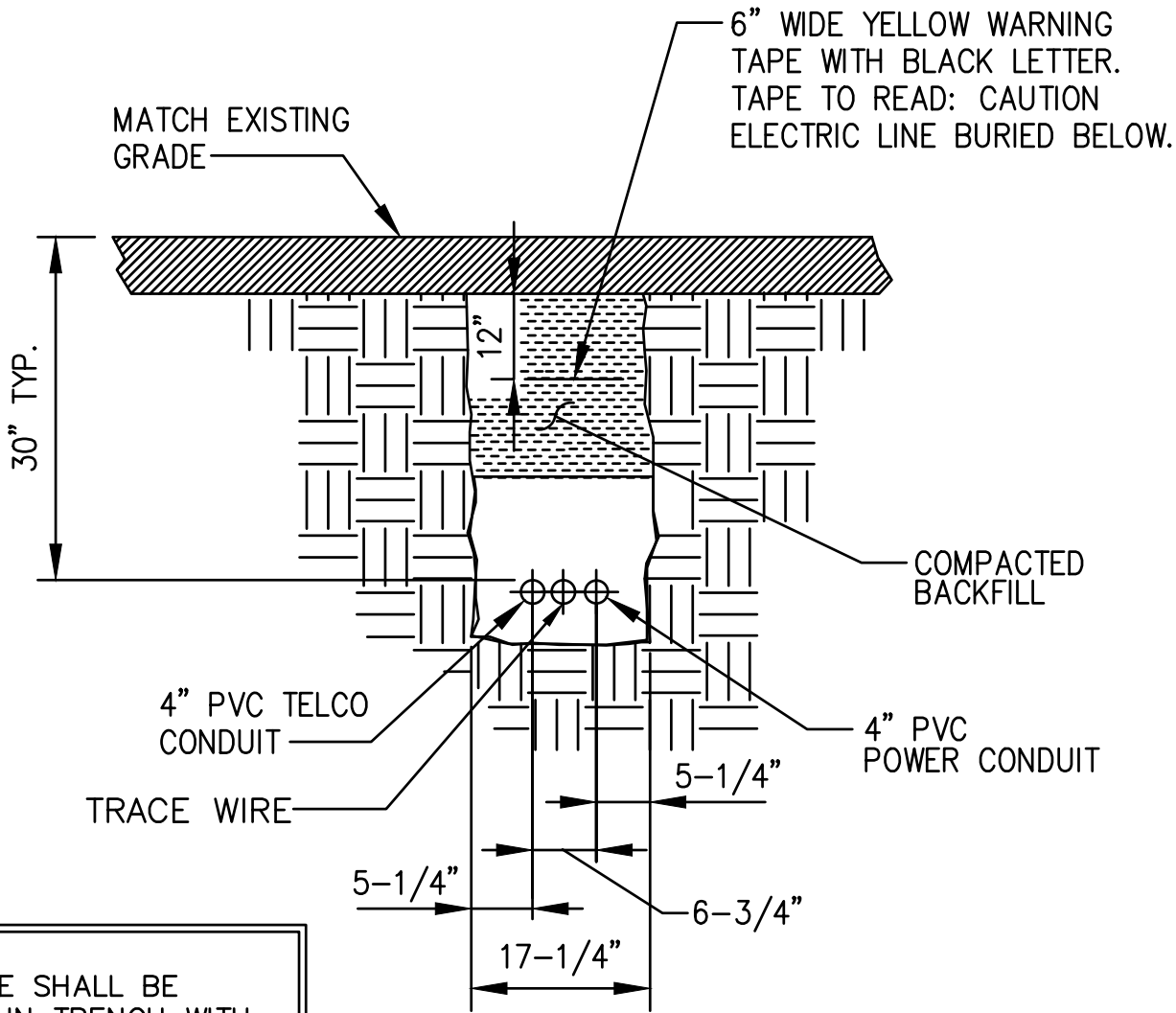
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POWER NOTES:

- (1) ALL SERVICE EQUIPMENT SHALL USE EUSERC/POWER COMPANY REQUIREMENTS AND BE REVIEWED & APPROVED BY POWER COMPANY PRIOR TO CONSTRUCTION.
- (2) ALL CONDUITS MUST BE COPPER UNLESS OTHERWISE SPECIFIED.
- (3) CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR FINAL AND EXACT WORK/MATERIALS REQUIREMENTS & CONSTRUCT TO UTILITY ENGINEERING PLANS & SPECIFICATIONS ONLY.
- (4) CONTRACTOR SHALL FURNISH AND INSTALL CONDUITS, PULL WIRES, CABLE PULL BOXES, CONCRETE ENCASEMENT OF CONDUITS, TRANSFORMER PAD, BARRIERS, POLE RISER TRENCHING, BACK FILL, PAY ALL UTILITY FEES, & INCLUDE REQUIREMENTS IN SCOPE
- (5) COMMERCIAL ELECTRICAL SERVICE COMBINATION METER AND MAIN DISCONNECT, 200A 120/240V, 1-PHASE, 3-WIRE, RING-TYPE, WITH TEST-PASS FACILITIES, 10K AIC, NEMA 3R ENCLOSURE
- (6) THE DESIGN CRITERIA USED FOR THIS PROJECT WAS THE 2014 NEC

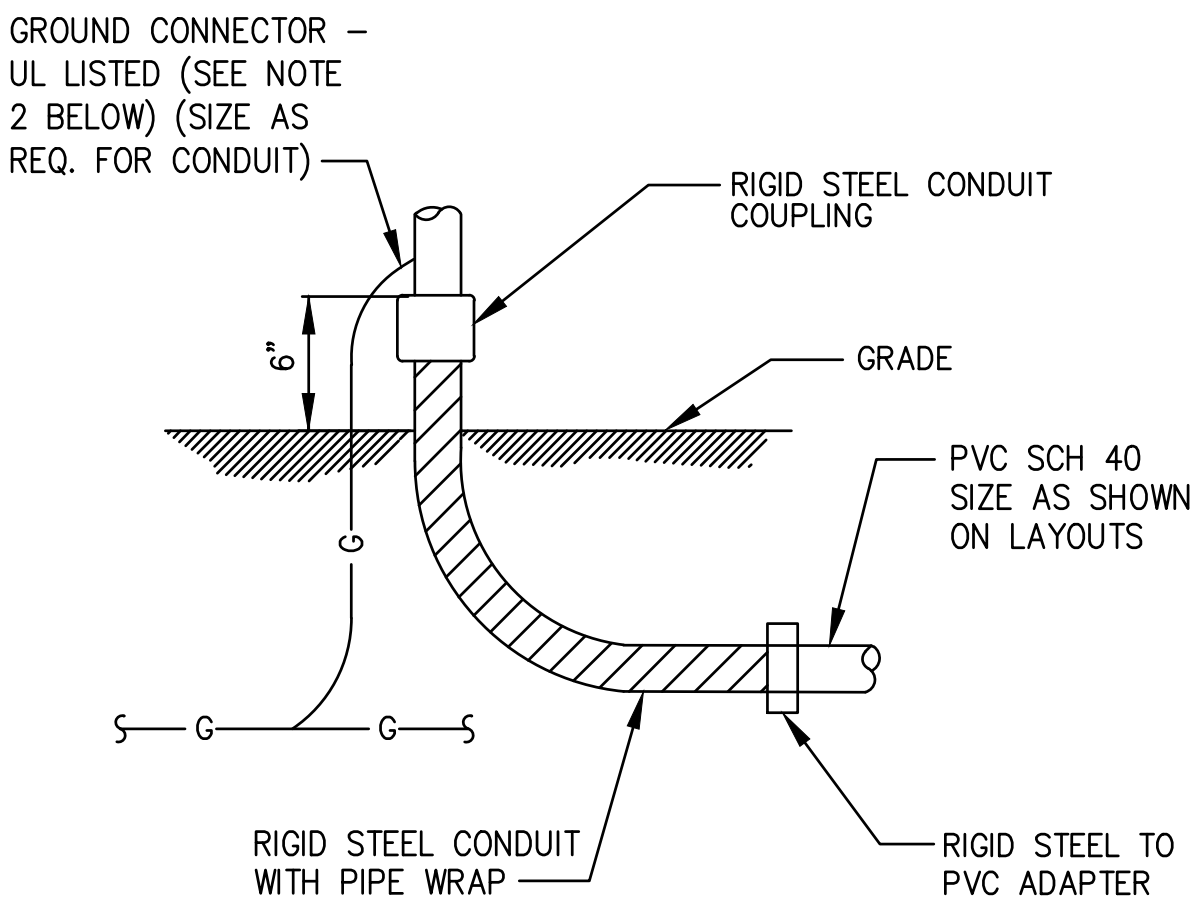


1 ELECTRICAL ONE LINE DIAGRAM (TYPICAL)
SCALE: NOT TO SCALE



- NOTE:
TRACE WIRE SHALL BE INSTALLED IN TRENCH WITH THE FIBER / TELCO CONDUIT.
- NOTE:
NUMBER AND SIZE OF CONDUITS MAY VARY. SEE DWG E-1 FOR CONDUIT SIZE AND LOCATION. CONFIRM DIMENSIONS SHOWN WITH UTILITY COMPANY.

3 CONDUIT TRENCH DETAILS
SCALE: NOT TO SCALE



- NOTES:
1. ALL CONDUIT ABOVE GRADE MUST BE RIGID STEEL OR LIQUDTIGHT
2. ALL NEW STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 G90 AFTER FABRICATION.
3. FIELD ABRASIONS SHALL BE TOUCH UP PAINTED WITH ZINC RICH GALVANIZING REPAIR PAINT IN ACCORDANCE WITH ASTM A780.
4. ALL EXPOSED ENDS OF CONDUITS SHALL HAVE WEATHER PROOF CAPS. DO NOT USE DUCT TAPE.
5. PROVIDE 200LB. TEST PULL WIRES IN EACH TELEPHONE AND POWER CONDUIT. STUB CONDUITS INTO ENCLOSURE AND LABEL.

4 UNDERGROUND CONDUIT STUB-UP
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL

verizon
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SHEET NUMBER:

E-3

REVISION:

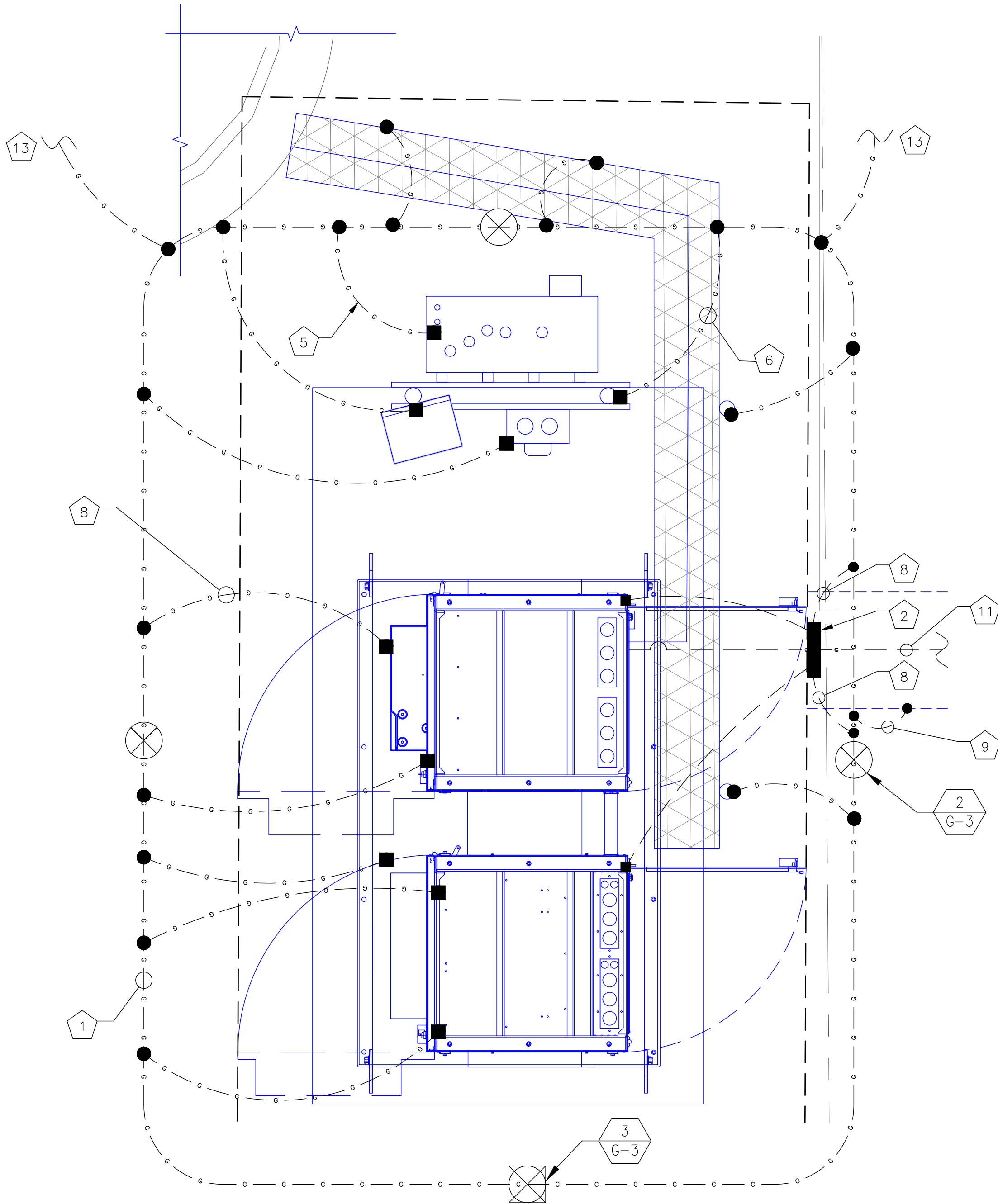
14

CODED DRAWING NOTES:

- 1 PROPOSED VERIZON BURIED EQUIPMENT GROUND RING (#2 SOLID TINNED BCW)
- 2 PROPOSED EQUIPMENT GROUND BAR NEAR PROPOSED VERIZON EQUIPMENT (TYP. OF (2))
- 3 PROPOSED VERIZON POWER DISTRIBUTION CABINET TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 4 PROPOSED VERIZON BBU CABINET TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 5 PROPOSED VERIZON ILC CABINET W/ INTEGRATED ATS TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 6 PROPOSED EQUIPMENT H-FRAME TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS
- 7 EXISTING TOWER GROUND RING (NOT SHOWN)
- 8 BOND PROPOSED EQUIPMENT GROUND BAR TO NEW VERIZON BURIED EQUIPMENT GROUND RING WITH #2 SOLID TINNED BCW. (TYP. OF (2) PLACES PER GROUND BAR)
- 9 BOND PROPOSED ICE BRIDGE TO NEW VERIZON BURIED EQUIPMENT GROUND RING WITH #2 SOLID TINNED BCW. (TYP.)
- 10 PROPOSED VERIZON TOWER BASE CIGBE (TYP. OF (1)) (NOT SHOWN)
- 11 BOND PROPOSED VERIZON TOWER BASE CIGBE (NOT SHOWN) TO PROPOSED EQUIPMENT GROUND BAR WITH #2 SOLID TINNED BCW. (CONTRACTOR TO VERIFY)
- 12 BOND PROPOSED VERIZON TOWER TOP CIGBE (NOT SHOWN) TO PROPOSED TOWER BASE CIGBE (NOT SHOWN) WITH #2 SOLID TINNED BCW. (CONTRACTOR TO VERIFY)
- 13 BOND PROPOSED VERIZON BURIED EQUIPMENT GROUND RING TO EXISTING COMPOUND GROUNDING SYSTEM WITH #2 SOLID TINNED BCW. (TYP. OF (2) PLACES) (CONTRACTOR TO VERIFY)
- 14 BOND TOWER BASE CIGBE (NOT SHOWN) TO EXISTING TOWER GROUND RING (NOT SHOWN) WITH #2 SOLID TINNED BCW. (CONTRACTOR TO VERIFY)
- 15 PROPOSED BACKUP GENERATOR TO BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS

GROUNDING SYMBOLS:

- ⊗ GROUND ROD
- ACCESS WELL
- ⊗ GROUND ROD WITH ACCESS
- COMPRESSION TYPE CONNECTION
- EXOTHERMIC WELD TYPE CONNECTION
- - G - - #2/0 BTS COPPER CONDUCTOR
- # INDICATES CODED NOTE

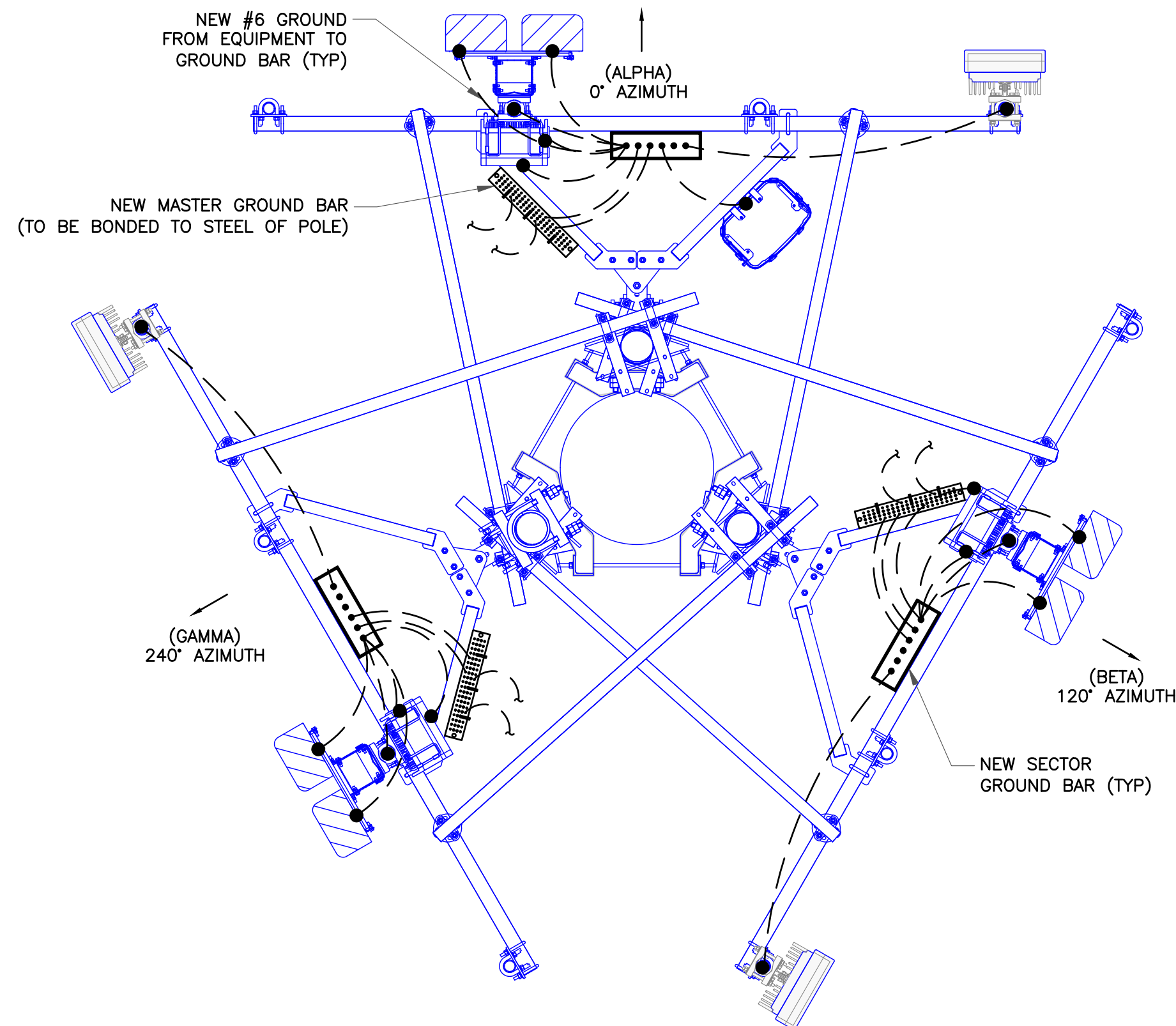


2 TYPICAL GROUNDING PLAN
SCALE: NOT TO SCALE

GENERAL GROUNDING NOTES:

- TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
 - #2 BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELD TO RODS OR GROUND RING
 - LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
- ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
- OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELD AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
- CONTRACTOR TO INSTALL GROUNDING IN CLOSE PROXIMITY TO EQUIPMENT PLATFORM OR PAD.
- MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE A MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREES.
- ALL CADWELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
- BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
- THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
- BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
- THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND.
- BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

NOTE:
CONTRACTOR TO GROUND
PROPOSED ICE BRIDGE TO
CROWN CASTLE SPECIFICATIONS



1 ANTENNA GROUNDING PLAN
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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13	10/15/2024	RC	FINAL	AMP
14	12/05/2024	RC	FINAL	AMP



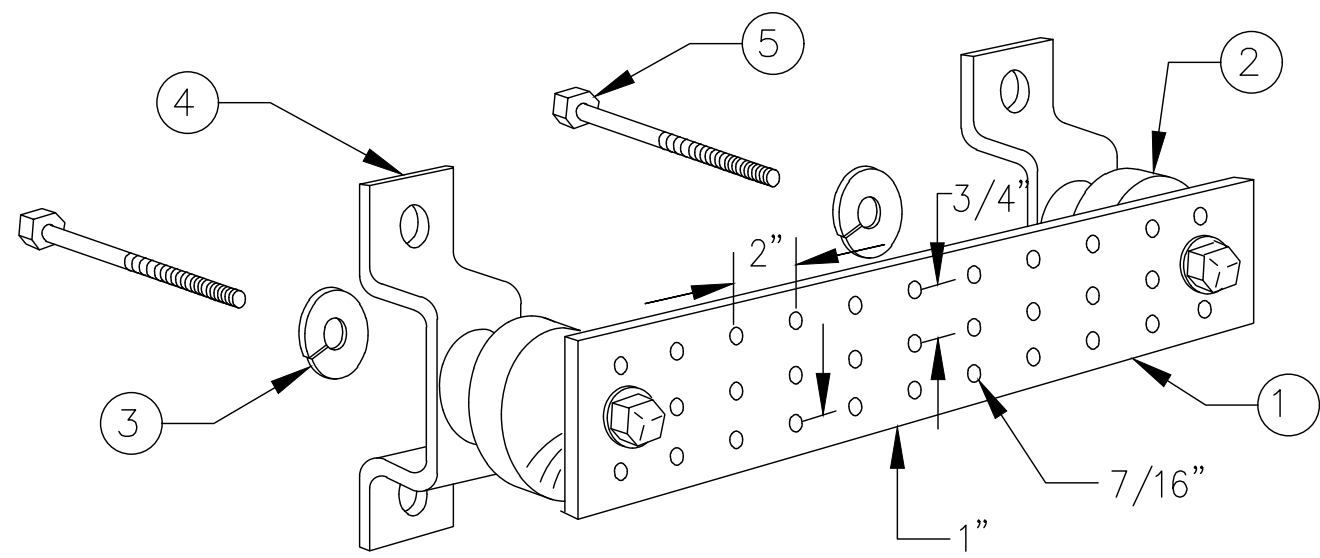
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TO ALTER THIS DOCUMENT.

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G-1

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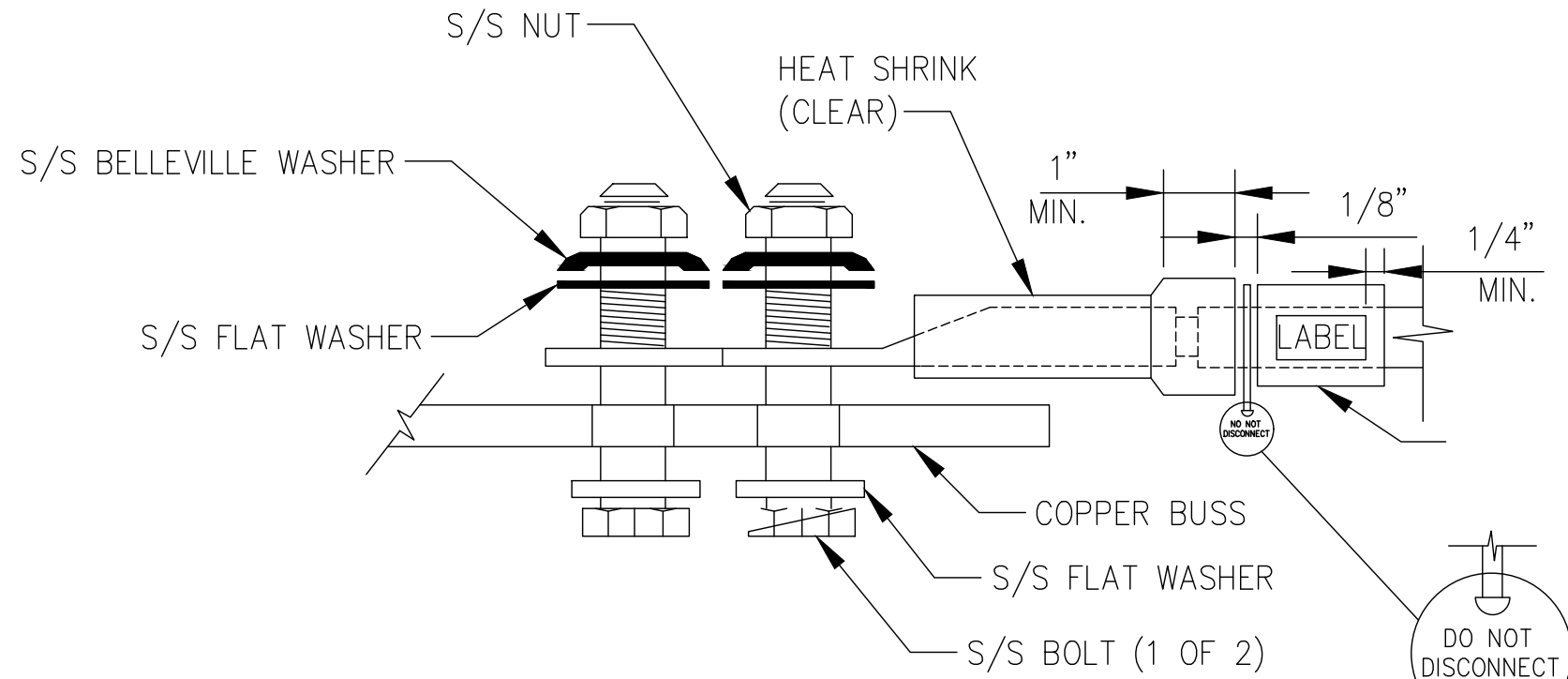
LEGEND

1. TINNED COPPER GROUND BAR, 1/4"x4"x20", NEWTON INSTRUMENT CO., HARGER TGB14420M, OR EQUIVALENT. HOLE CENTERS TO MATCH
2. NEMA DOUBLE LUG CONFIGURATION.
3. INSULATORS, NEWTON INSTRUMENT CO. CAT. NO. 3061-4 OR HARGER EQUIVALENT.
4. 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUIVALENT.
5. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR HARGER EQUIVALENT.
6. 5/8-11"x1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR HARGER EQUIVALENT.

NOTES:

1. ALL MOUNTING HARDWARE CAN ALSO BE USED ON 6", 12", 18", ETC. GROUND BARS.
2. ENTIRE ESSEMBLY AVAILABLE FROM NEWTON INSTRUMENT CO. CAT. NO. 2106060010 OR AS HARGER TGB14420M.

1 TYPICAL GROUND BAR
SCALE: NOT TO SCALE

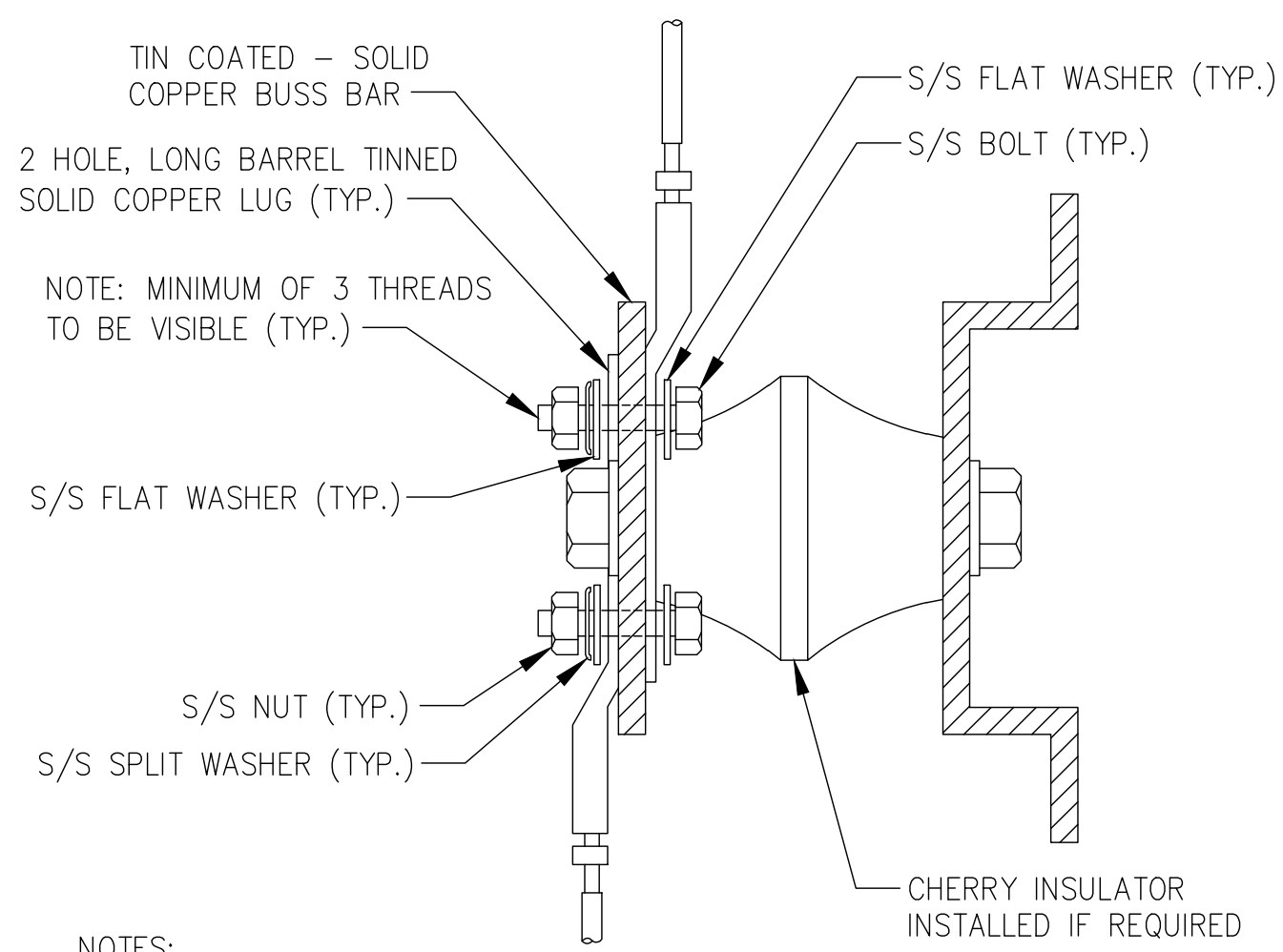


NOTE:

ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION COMPOUND.

"DO NOT DISCONNECT" TAG ON ALL GROUND BAR INTERCONNECTS

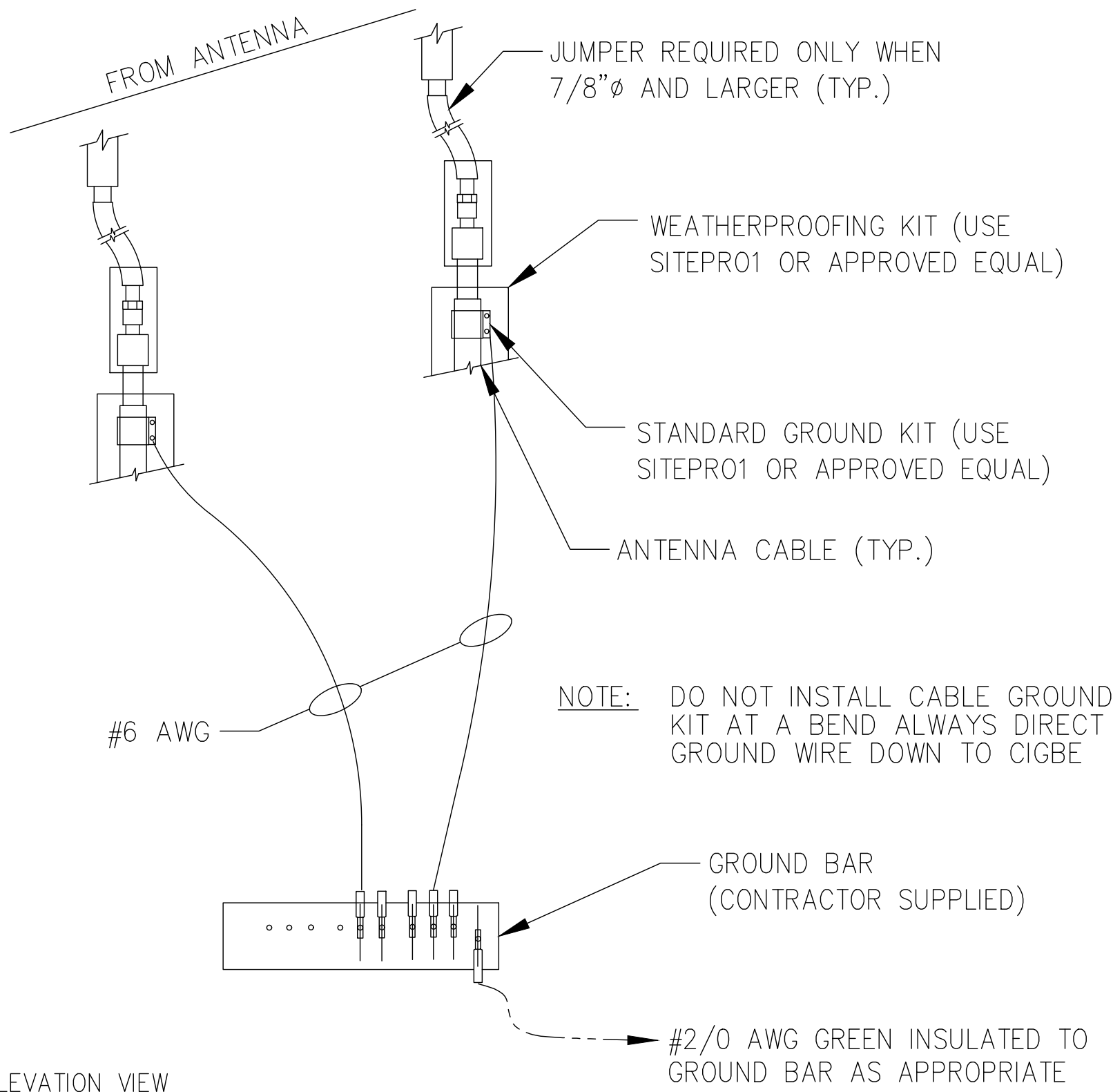
2 TYPICAL EQUIPMENT GROUND CONNECTION
SCALE: NOT TO SCALE



NOTES:

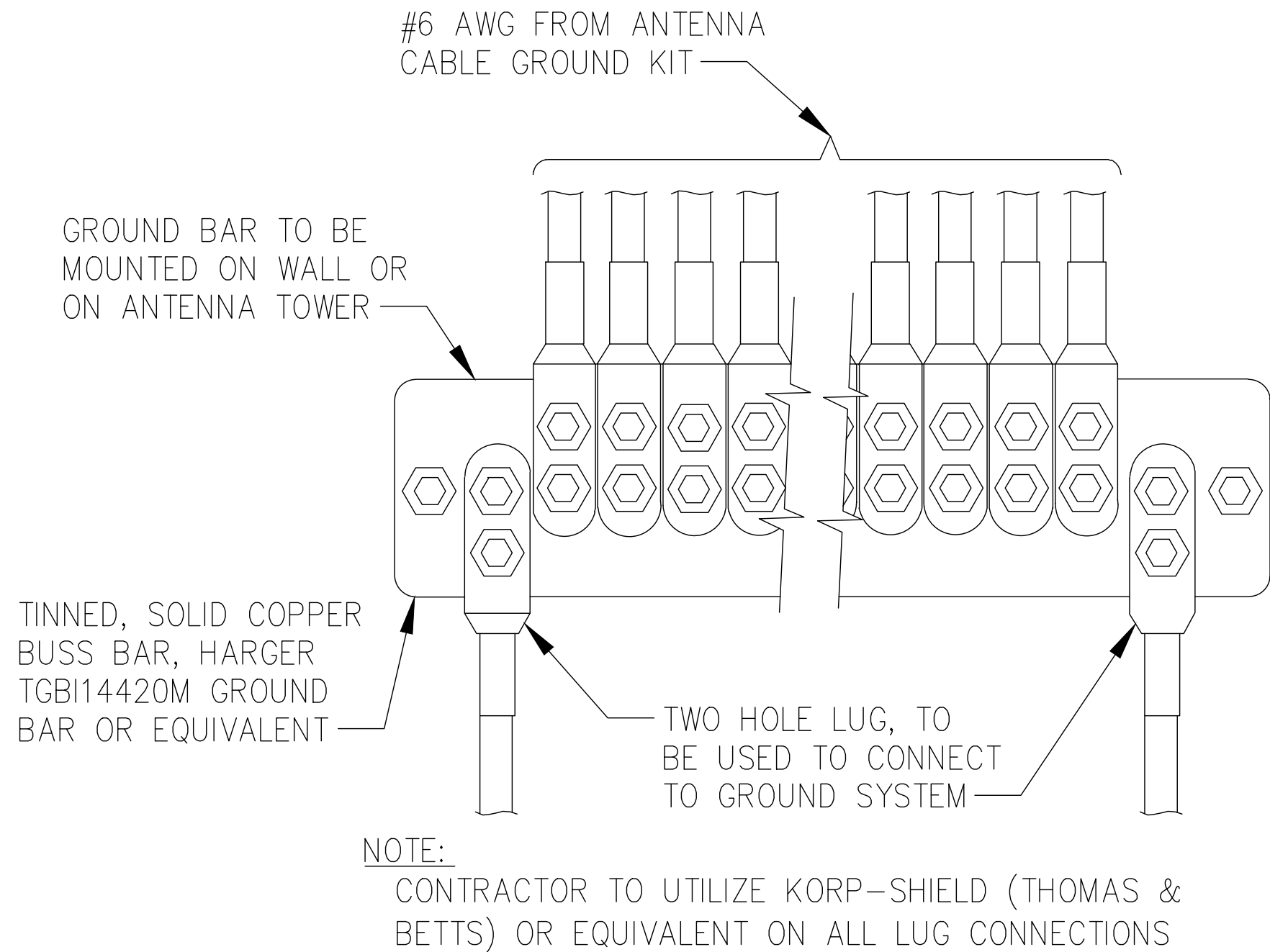
1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
2. COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
3. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

3 TYPICAL GROUND LUG
SCALE: NOT TO SCALE

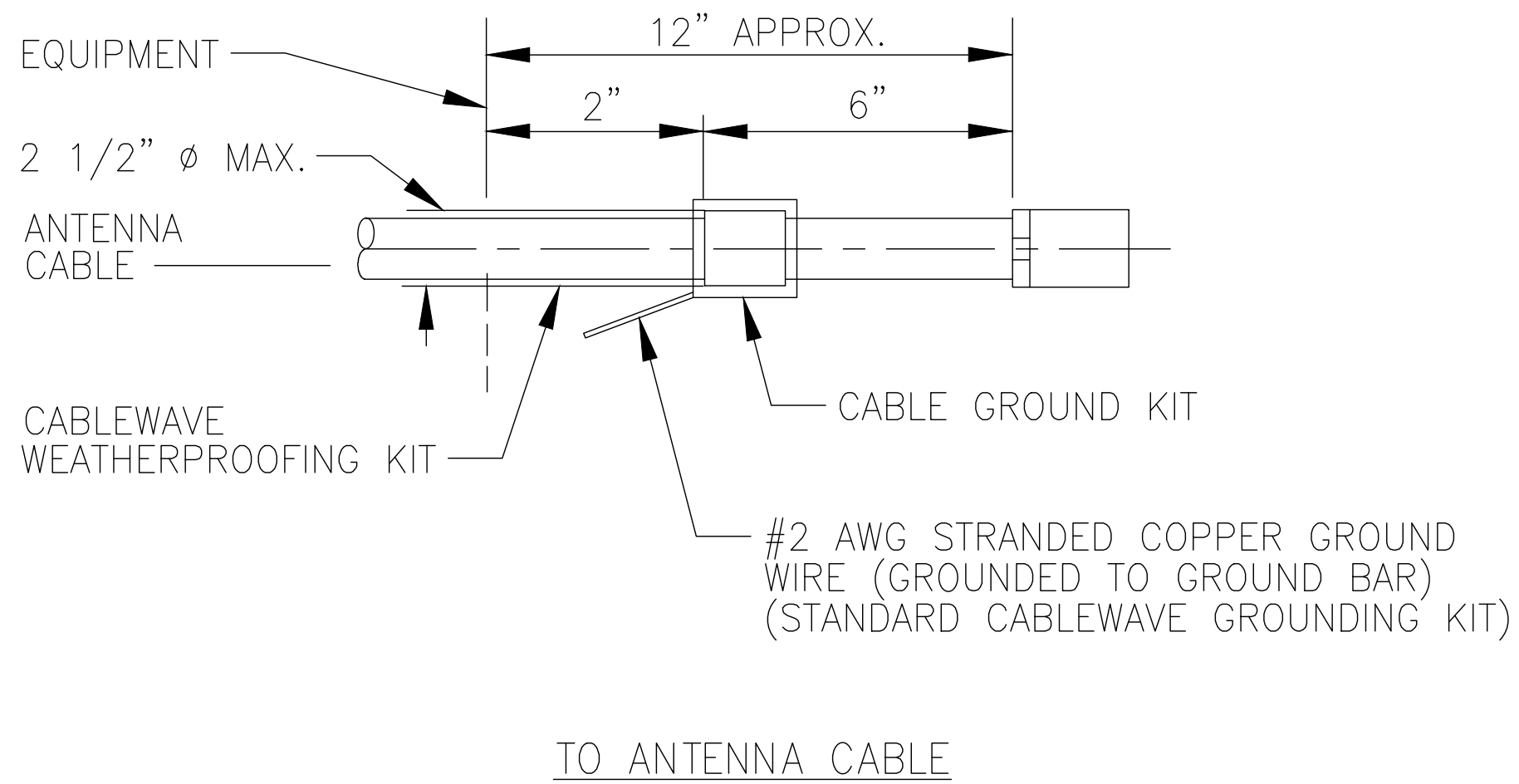


ELEVATION VIEW

4 TYPICAL CONNECTION OF GROUND WIRES TO GROUNDING BARS@ANTENNA
SCALE: NOT TO SCALE



5 TYPICAL ANTENNA GROUND BAR
SCALE: NOT TO SCALE



NOTE:

DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

6 TYPICAL CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL



180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921



1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

VERIZON SITE NUMBER: 16968208

BU #: 877803
KCYC LEES SUMMIT DT
207 SE DOUGLAS
LEE'S SUMMIT, MO 64063
EXISTING 180'-0" MONOPOLE

ISSUED FOR:

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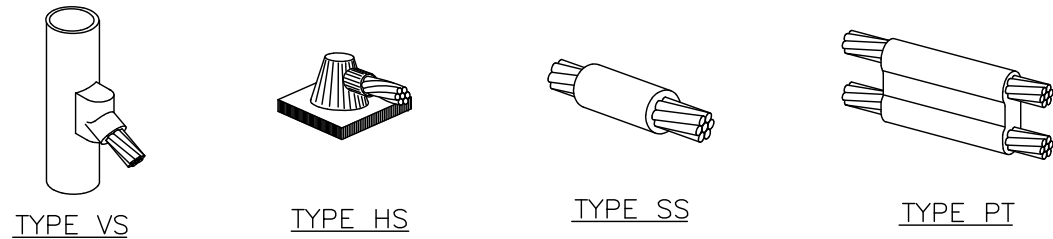
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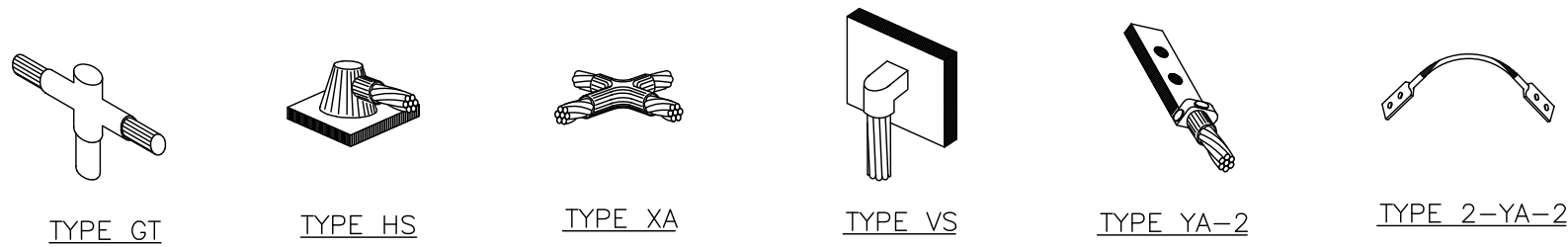
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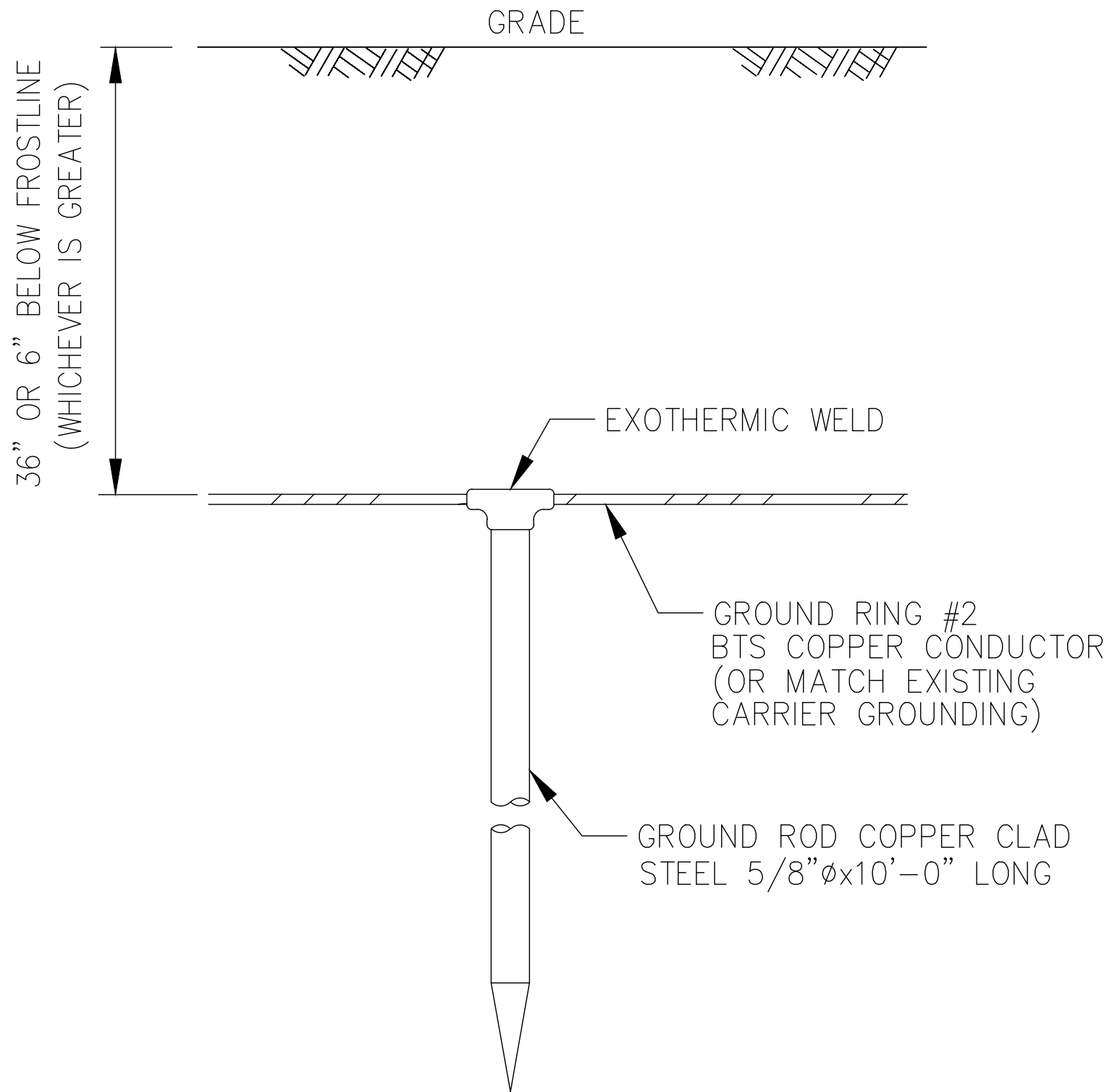
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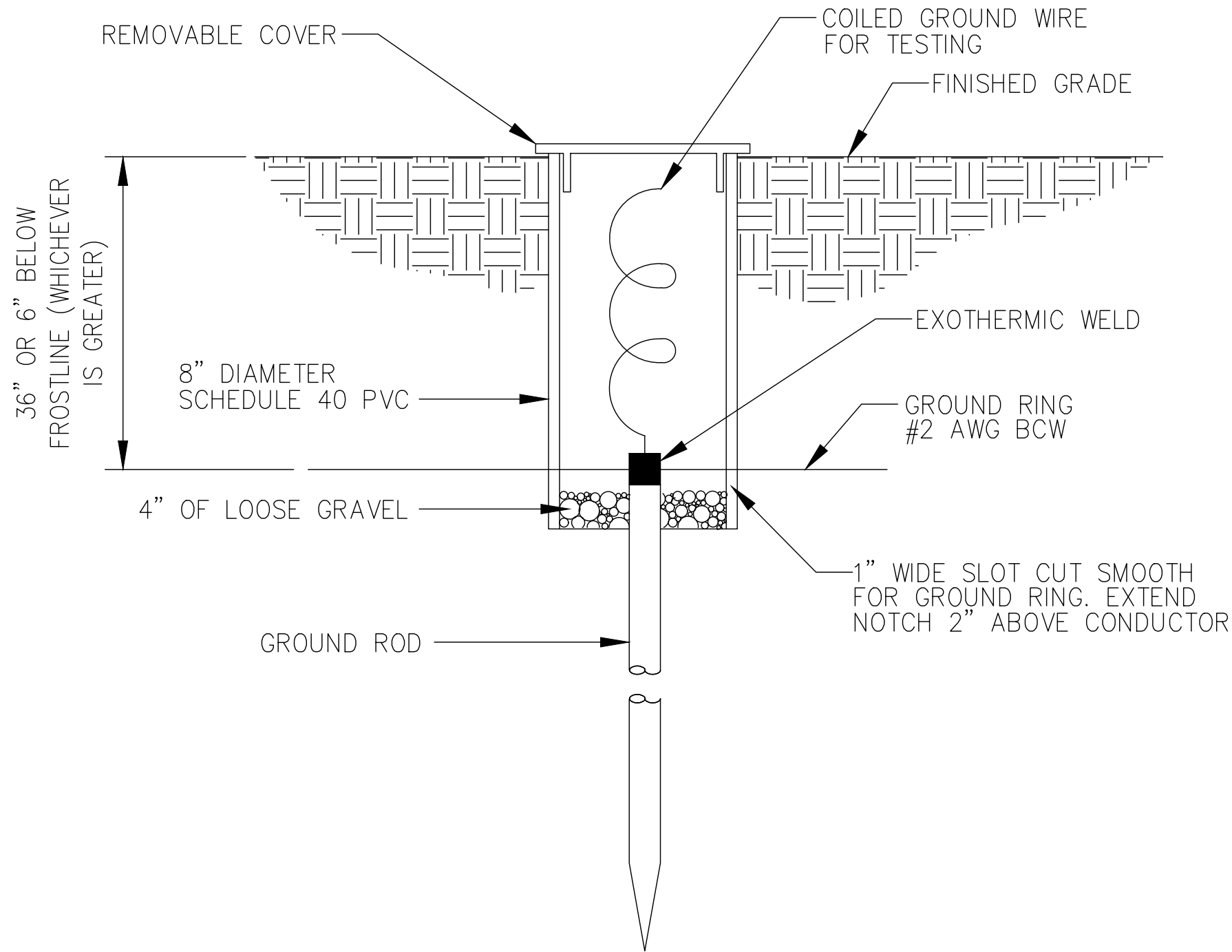
NOTE: ERICO CADWELD "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT



1 TYPICAL EQUIPMENT GROUND CONNECTIONS
SCALE: NOT TO SCALE



2 TYPICAL GROUND ROD
SCALE: NOT TO SCALE



3 TYPICAL INSPECTION SLEEVE
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
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SHEET NUMBER:

G-3

REVISION:

14

NOTE: LEE’S SUMMIT FIRE STATION
BUN: 877803

PROPERTY DESCRIPTION: LEASE AREA (AS PROVIDED)

All that part of Lot 8, Block 17, W.B. Howards Addition, a subdivision in the city of Lee’s Summit, Jackson County, Missouri described as follows: Commencing at the most Northerly corner of said Lot 8, thence South 45° East along the most Northeasterly line of said Lot 8, a distance of 4.59 feet, thence South 44° 41’ 08” West parallel to the most Northwesterly line of said Lot 8, a distance of 30.00 feet to the point of beginning, thence continuing South 44° 41’ 08” West, a distance of 30.00 feet, thence South 45° East a distance of 40.00 feet, thence North 44°41’ 08” East, a distance of 30.00 feet, thence North 45° West, a distance of 40.00 feet to the point of beginning.

City of Lee’s Summit
APN: 61–340–20–06–00–0–00–000
Deed: N/A

Given under my hand and seal _____

JEFFREY B. LOVELACE
MO–LS2580

DATE: _____

LEE’S SUMMIT FIRE STATION
BUN: 877803

PROPERTY DESCRIPTION: NON–EXCLUSIVE ACCESS & UTILITY EASEMENT (AS SURVEYED)

A 20 foot wide Access and Utility Easement being situated in Lots 7 and 8, Block 17, WILLIAM B. HOWARD’S FIRST ADDITION TO THE CITY OF LEE’S SUMMIT, Jackson County, Missouri, lying 10.00 feet on each side of following described centerline:

COMMENCING at the most Northerly corner of said Lot 8; thence along the Northeasterly line of said Lot 8, South 28°44’45” East, a distance of 4.59 feet; thence departing said Northeasterly line, South 60°48’47” West, a distance of 47.24 feet; thence North 29°11’13” West, a distance of 10.00 feet to the POINT OF BEGINNING; thence North 60°48’47” East, a distance of 20.00 feet; thence North 29°11’13” West, a distance of 4.59 feet; thence North 60°48’47” East, a distance of 27.35 feet to the Southwesterly line of an existing Public Alley in said Block 17 and the POINT OF TERMINATION. Containing 1,039 square feet or 0.02 acres more or less.

City of Lee’s Summit
APN: 61–340–20–06–00–0–00–000
Deed: N/A

Given under my hand and seal _____

JEFFREY B. LOVELACE
MO–LS2580

DATE: _____