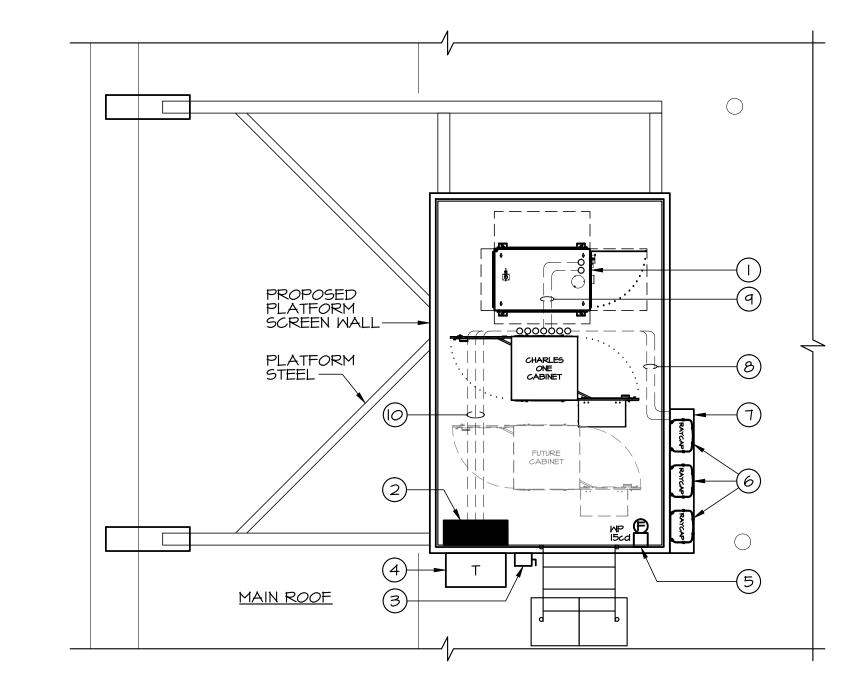
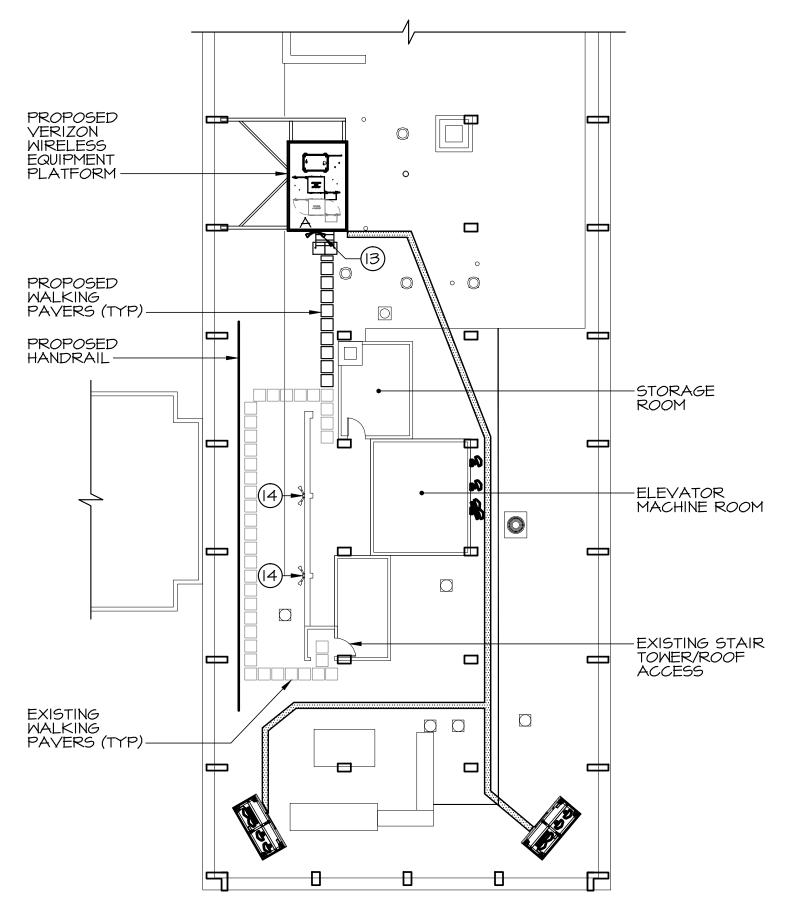


PLATFORM LIGHTING PLAN



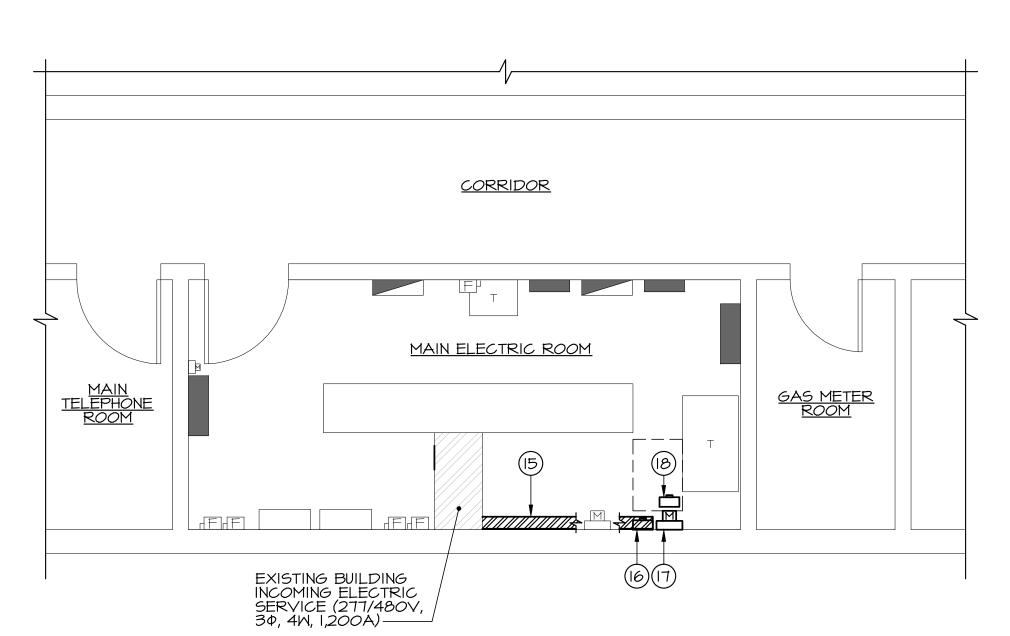




MAIN ROOF SCALE: 1/16" = 1'-0"	LIGHTING	PART	PLAN
SCALE: 1/16" = 1'-0"		· · · · · · · · · · · · · · · · · · ·	

	LIGHTING FIXTURE SCHEDULE						
		LAMPS	MOUNTING	description/voltage	CATALOG NO.		
*	>	1096 LUMENS 19.87 WATT LED 5199K	WALL OR EAVE	UL LISTED WET LOCATION LED SURFACE MOUNT WITH RUGGED CAST-ALUMINUM, CORROSION-RESISTANT HOUSING IN BRONZE OR WHITE FINISH AND CLEAR ACRYLIC LENSES, FULLY GASKETED TO PROTECT LEDS WITH TWO (2) ADJUSTABLE HEADS (120V)	LITHONIA LED FLOODLIGHT OFLR 6LC 120 P BZ		

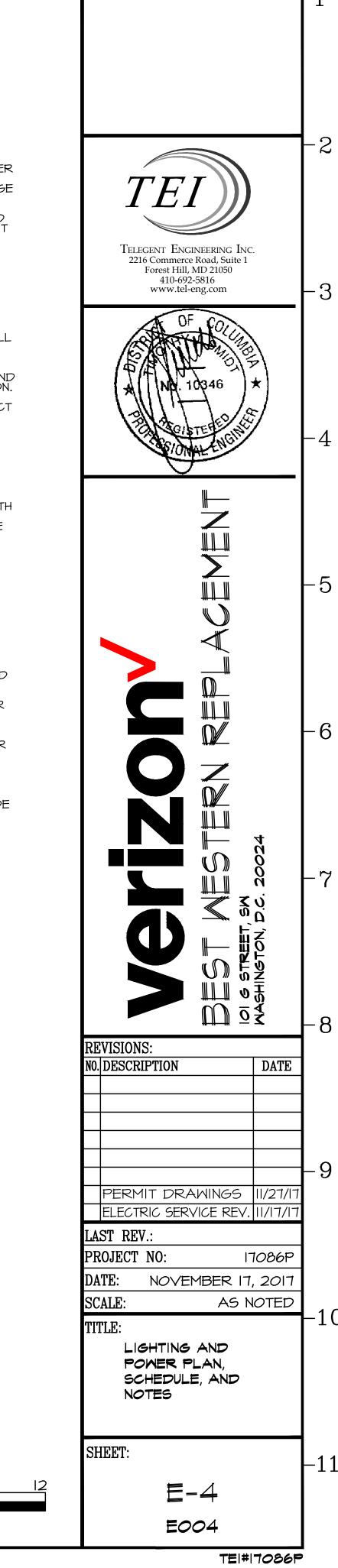
\* CONTRACTOR SHALL BYPASS BUILT-IN PHOTOCELL. FIXTURE SHALL BE CONNECTED TO SWITCHED PORTION OF LIGHTING CIRCUIT AND BE CONTROLLED BY SPRING-WOUND TIMER SWITCH.

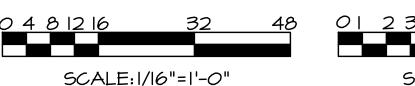


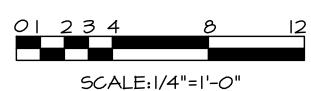
MAIN ELECTRIC ROOM POWER PLAN SCALE: 1/4" = 1'-0" (BASEMENT LEVEL)

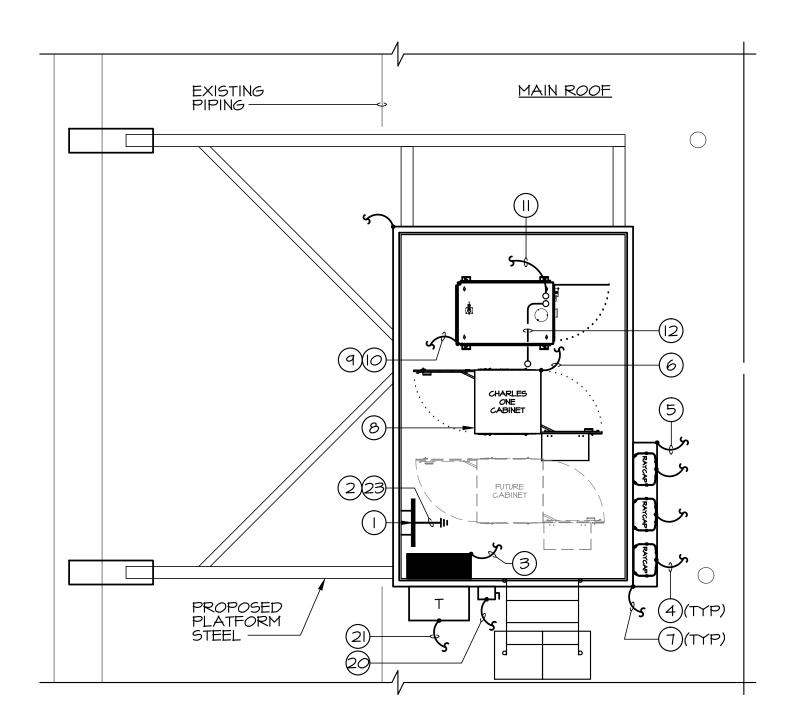
## DRAMING NOTES

- PROPOSED LOCATION OF VERIZON WIRELESS I5KW NATURAL GAS GENERATOR MOUNTED ON ELEVATED STEEL PLATFORM. REFER TO DETAIL, SHEET E-9.
- (2) PROVIDE AND INSTALL WEATHERPROOF 120/208 VOLT, 3¢, 4W, 200 AMP MCB INTERSECT PANEL WITH INTEGRATED AUTOMATIC TRANSFER SWITCH AND SURGE PROTECTION MOUNTED ON BACKBOARD. REFER TO SHEET E-2 FOR ADDITIONAL INFORMATION.
- 3 PROVIDE WEATHERPROOF, 600 VOLT RATED, 3PIOO AMP NON-FUSED DISCONNECT SWITCH. MOUNT DISCONNECT SWITCH ON VERIZON WIRELESS PLATFORM SCREEN WALL EXTERIOR. PROVIDE PHENOLIC NAMEPLATE READING "VERIZON WIRELESS TRANSFORMER PRIMARY DISCONNECT."
- PROVIDE WEATHERPROOF, 480 VOLT, 3¢, DELTA PRIMARY: 120/208V, 3¢, 4W, WYE SECONDARY, 75 KVA TRANSFORMER. SECONDARY CONDUCTOR SHALL NOT EXCEED 10 FEET IN LENGTH TO OVERCURRENT PROTECTION DEVICE. ADJUST TAP SETTING TO ACCOMMODATE FOR VOLTAGE DROP IN SECONDARY FEEDER AS REQUIRED. EXTEND #4 AWG, INSULATED, STRANDED, COPPER CONDUCTOR FROM SECONDARY SIDE OF TRANSFORMER TO EXISTING BUILDING INCOMING WATER SERVICE PIPE IN BASEMENT LEVEL TENANT STORAGE ROOM. COORDINATE SERVICE GROUND TERMINATION LOCATION IN THE FIELD.
- PROVIDE WEATHERPROOF AUDIBLE/VISUAL FIRE ALARM SIGNALING DEVICE TO MATCH BUILDING STANDARD MOUNTED ON EQUIPMENT PLATFORM (ABOVE ALL NEW EQUIPMENT). EXTEND SIGNAL CABLING IN 3/4" CONDUIT (RIGID STEEL WHERE EXPOSED TO WEATHER) AND CONNECT TO NEAREST FIRE ALARM WIRING LOOP. CONNECTION TO BUILDING SYSTEM SHALL BE COMPLETED BY BASE BUILDING FIRE ALARM CONTRACTOR.
- 6 PROPOSED LOCATION OF RAYCAP MAIN DISTRIBUTION BOX (TYP OF 3) MOUNTED ON VERIZON WIRELESS PLATFORM SCREEN WALL EXTERIOR. REFER TO DETAIL, SHEET E-6.
- 7 PROVIDE AND INSTALL (NEMA 3R) 12"x12"x6'-0" TROUGH MOUNTED ON PLATFORM SCREEN WALL EXTERIOR FOR FIBER AND DC WIRING DISTRIBUTION. REFER TO DETAIL, SHEET E-6.
- (8) EXTEND TWO (2) 3" SEALTIGHT CONDUITS FROM BOTTOM OF NEW RAYCAP TROUGH AND TURN UP THROUGH BOTTOM OF CHARLES R-F CABINET FOR EXTENSION OF DC WIRING AND FIBER CABLES. CONTRACTOR SHALL EXTEND RAYCAP ALARM WIRING IN 3" CONDUIT BEING USED FOR FIBER FOR EXTENSION INTO CHARLES CABINET. COORDINATE FINAL ROUTING IN THE FIELD.
- 9 PROPOSED ROUTE OF GENERATOR CONDUITS EXTENDING BELOW PLATFORM GRATING FROM GENERATOR AND TURN UP AT SIDE OF CHARLES CABINET. REFER TO POWER RISER, SHEET E-2 FOR ADDITIONAL INFORMATION.
- PROPOSED ROUTE OF RECTIFIER/ALARM CONDUITS EXTENDING BELOW PLATFORM GRATING FROM INTERSECT PANEL AND TURN UP AT SIDE OF CHARLES CABINET. REFER TO POWER RISER DIAGRAM, SHEET E-2 FOR ADDITIONAL INFORMATION.
- PROVIDE LIGHT FIXTURE AS DESIGNATED BY AN UPPERCASE SUBSCRIPT. MOUNT LIGHT FIXTURE TO PLATFORM SCREEN INTERIOR FOR EQUIPMENT PLATFORM ILLUMINATION. COORDINATE FINAL MOUNTING LOCATION WITH VERIZON WIRELESS REPRESENTATIVE.
- PROVIDE AND INSTALL AN EXTERIOR GRADE, SPRING WOUND TIMER SWITCH AT VERIZON WIRELESS EQUIPMENT PLATFORM FOR CONTROL OF PLATFORM LIGHTING. TIMER SWITCH SHALL BE INTERMATIC OR APPROVED EQUAL WITH 60 MINUTE MAXIMUM SETTING. MOUNT SWITCH WITHIN WEATHERPROOF GANG BOX WITH DIE-CAST ALUMINUM, WEATHERPROOF GANG BOX COVER AS MANUFACTURED BY INTERMATIC (MODEL #WPI250MVXD). COORDINATE EXACT MOUNTING LOCATION WITH VERIZON WIRELESS REPRESENTATIVE IN THE FIELD.
- PROVIDE LIGHT FIXTURE AS DESIGNATED BY AN UPPERCASE SUBSCRIPT. MOUNT LIGHT FIXTURE TO PLATFORM SCREEN EXTERIOR FOR RIOOFTOP ILLUMINATION. THIS LIGHT FIXTURE SHALL BE CONNECTED TO EXISTING BUILDING ROOF LIGHTING CIRCUIT AND BE CONTROLLED BY EXISTING ROOFTOP LIGHTING SWITCH CURRENTLY SERVING EXISTING ROOFTOP LIGHT FIXTURES.
- (14) EXISTING BUILDING ROOFTOP LIGHT FIXTURES MOUNTED ON EXTERIOR SCREEN WALL. CONTRACTOR SHALL ENSURE FIXTURES ARE OPERABLE AND SWITCH CONTROLLED AT ROOF ACCESS. CLEAN AND RE-LAMP FIXTURES AS REQUIRED.
- PROVIDE (6"W x 6"D x LENGTH REQUIRED) WIRE TROUGH WITH REMOVABLE COVERS FROM THE EXISTING INCOMING PEPCO SERVICE SECTION, SECURED TO ELECTRIC ROOM WALL ALONG REAR OF SWITCHBOARD, AND TERMINATE AT PROPOSED SERVICE DISCONNECT (ENCLOSED CIRCUIT BREAKER) FOR EXTENSION OF NEW NOMINAL 200A ELECTRIC SERVICE CABLES BY UTILITY COMPANY (4#2/O AWG + #4GRD). PROVIDE AND INSTALL 2" NIPPLE BETWEEN TROUGH AND ENCLOSED CIRCUIT BREAKER.
- PROVIDE 480 VOLT RATED, 3PIOO AMP ENCLOSED CIRCUIT BREAKER. MOUNT ENCLOSED CIRCUIT BREAKER ON MAIN ELECTRIC ROOM INTERIOR WALL AT REAR OF SWITCHBOARD. PROVIDE PHENOLIC NAMEPLATE READING "VERIZON WIRELESS ROOFTOP EQUIPMENT 277/480V,3¢,4w."
- (17) CONTRACTOR FURNISHED AND INSTALLED METER CAN MOUNTED ON ELECTRIC ROOM INTERIOR WALL. METER GLOBE PROVIDED AND INSTALLED BY UTILITY COMPANY. COORDINATE FINAL MOUNTING LOCATION WITH BUILDING OWNER REPRESENTATIVE AND UTILITY COMPANY IN THE FIELD. PROVIDE PHENOLIC NAMEPLATE READING "VERIZON WIRELESS ROOFTOP EQUIPMENT 277/480V, 3¢, 4W".
- PROVIDE 480 VOLT RATED, 3PIOO AMP SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER. MOUNT ENCLOSED CIRCUIT BREAKER ADJACENT TO NEW METER ON MAIN ELECTRIC ROOM INTERIOR WALL. PROVIDE PHENOLIC NAMEPLATE READING "VERIZON WIRELESS ROOFTOP TRANSFORMER PRIMARY DISCONNECT."









(4) 62 GENERATOR GROUNDING PLAN

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

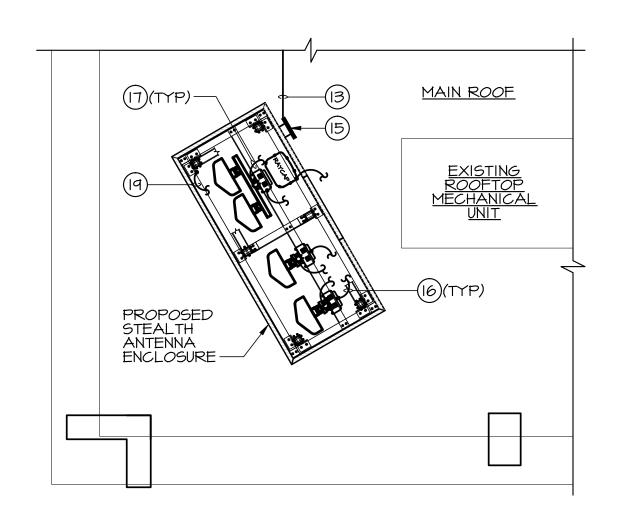


(6)(TYP)-

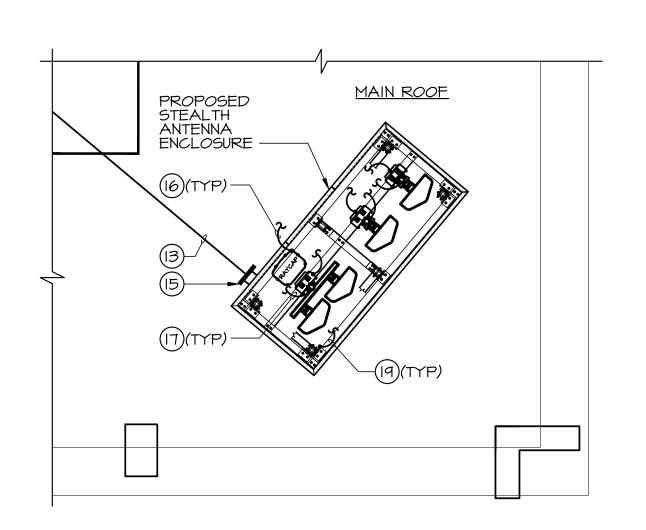
MAIN ROOF

**ROOFTOP** MECHANICAL

PIPING



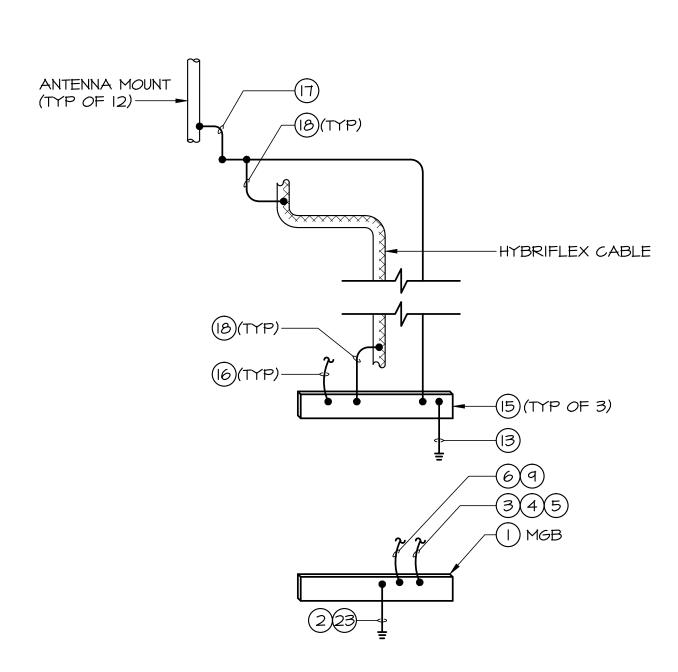




(4822) ANTENNA SECTOR GROUNDING PL SCALE: 1/4" = 1'-0"

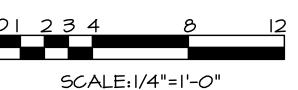
## DRAWING NOTES

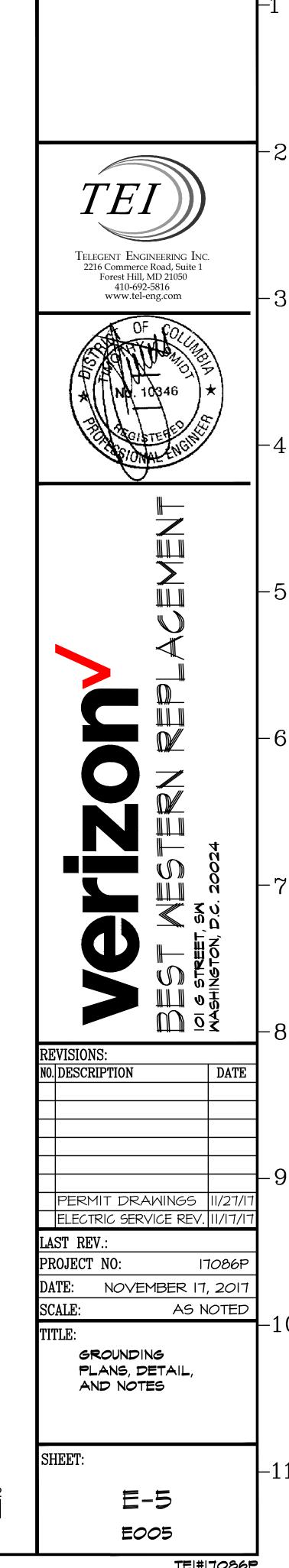
- PROVIDE AND INSTALL 24"x4"x1/4" GALVANIZED STEEL, GROUND BAR MOUNTED ON INSULATED STANDOFFS (MASTER GROUND BAR) ON NEW EQUIPMENT PLATFORM.
- 2 EXTEND I#500 KCMIL, INSULATED, STRANDED, COPPER CONDUCTOR FROM EXTERIOR GROUND BAR AND BOND TO EXISTING BUILDING INCOMING WATER SERVICE PIPE IN BASEMENT LEVEL TENANT STORAGE ROOM. ROUTE GROUND CONDUCTOR WITH NEW POWER AND TELCO CONDUIT TO FURTHEST EXTENT POSSIBLE. REFER TO ROUTING PLAN, SHEET E-3.
- 3 EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM ENCLOSURE OF PANEL BOARD TO MASTER GROUND BAR.
- 4 EXTEND I#6 AMG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM EACH MAIN DISTRIBUTION BOX MOUNTED ON EQUIPMENT PLATFORM TO MASTER GROUND BAR.
- (5) EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM RAYCAP TROUGH AND BOND TO MASTER GROUND BAR.
- 6 EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM MASTER GROUND BAR MOUNTED ON PLATFORM AND BOND TO GROUND LUG AT BOTTOM OF CHARLES R-F CABINET.
- TEXTEND I#2 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM PLATFORM STEEL AND BOND TO MASTER GROUND BAR IN TWO (2) PLACES (180 DEGREES A PART).
- (8) EXTEND 1#6 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM ARMOR GROUND CONNECTOR TO GROUND BAR MOUNTED IN CHARLES CABINET FOR ARMORED FIBER CABLE GROUNDING.
- (9) CONTRACTOR SHALL DRILL TWO (2) HOLES HORIZONTALLY AT BOTTOM, REAR OF GENERATOR ENCLOSURE, REMOVE PAINT FROM LUG AREA, APPLY SMALL AMOUNT OF NO-OX TO THE LUG/ CABINET SURFACE AND BOLT LUG TO FRAME USING STAINLESS STEEL HARDWARE. LABEL GROUND WIRES WITH THE FAR-END TERMINATION AND LEAD NUMBER ON 145CN TAGS.
- EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM MASTER GROUND BAR AND BOND TO GÉNERATOR FRAME.
- (I) EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM MASTER GROUND BAR AND BOND TO GENERATOR BUSS BAR.
- EXTEND I#2AWG, GREEN, INSULATED, STRANDED COPPER CONDUCTOR IN 3/4" SEALTIGHT CONDUIT FROM THE FRAME GROUND POINT INSIDE THE GENERATOR COMPARTMENT AND TURN UP THROUGH BOTTOM OF CHARLES CABINET. ONE CONTINUOUS RUN (UN-SPLICED) TO LAND ON DC PLANT CABINETS MAIN GROUND BAR. LABEL EACH END, "DC GEN MAIN CKT GROUND" "FROM DC GEN FRAME TO DC PLANT MAIN GROUND BAR".
- (I3) EXTEND I#2 AWG, GREEN INSULATED, STRANDED COPPER GROUND CONDUCTOR (ROOF GROUND RING) FROM MASTER GROUND BAR AT EQUIPMENT PLATFORM TO EACH SECTOR GROUND BAR. ROUTE GROUND CONDUCTOR ADJACENT TO NEW HYBRIFLEX CABLES TO FURTHEST EXTENT POSSIBLE.
- (14) PROVIDE BONDING CONNECTION FROM CABLETRAY TO EQUIPMENT GROUND CONDUCTOR.
- PROVIDE AND INSTALL 12"x4"x1/4" THICK, GALVANIZED STEEL, COAX GROUND BAR MOUNTED AT EACH ANTENNA SECTOR FOR HYBRIFLEX CABLE/ ANTENNA GROUNDING. COORDINATE FINAL MOUNTING LOCATION IN
- (16) EXTEND 1#6 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM ANTENNA SECTOR GROUND BAR TO PROPOSED RF EQUIPMENT (RRH/ DISTRIBUTION BOX). TYPICAL OF EACH ANTENNA SECTOR.
- PROVIDE BONDING CONNECTION BETWEEN ANTENNA MAST AND ANTENNA SECTOR GROUND BAR. TYPICAL OF EACH ANTENNA SECTOR.
- (B) PROVIDE BONDING CONNECTION TO OUTER CONDUCTOR OF HYBRIFLEX CABLE VIA COAX GROUNDING KIT. REFER TO DETAIL, THIS SHEET.
- (9) EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM STEALTH ANTENNA ENCLOSURE STEEL AND BOND TO SECTOR GROUND BAR.
- EXTEND I#2 AWG, GREEN, INSULATED, STRANDED COPPER GROUND CONDUCTOR FROM PRIMARY DISCONNECT ENCLOSURE TO MASTER GROUND BAR ON EQUIPMENT BACKBOARD.
- (21) EXTEND #4 AMG, INSULATED, STRANDED, COPPER CONDUCTOR FROM SECONDARY SIDE OF TRANSFORMER TO EXISTING BUILDING INCOMING WATER SERVICE PIPE IN BASEMENT LEVEL TENANT STORAGE ROOM.
- (2) REFER TO SHEET E-6 FOR GROUNDING GENERAL NOTES.
- (23) CONTRACTOR SHALL PROVIDE AND INSTALL GROUND WIRE WARNING TAG ON MAIN GROUND CONDUCTOR AT CONNECTION POINT TO EXISTING BUILDING INCOMING WATER SERVICE PIPE. LABEL SHALL READ, "WARNING -IF THIS CLAMP OR WIRE IS LOOSE OR MUST BE REMOVED, PLEASE CALL VERIZON NOC 1-800-852-2671".



ALL GROUND CONDUCTORS SHALL BE #2 AWG COPPER UNLESS OTHERWISE STATED.

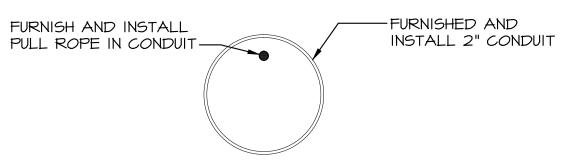
GROUNDING SYSTEM DIAGRAM NO SCALE





### GENERAL NOTES - GROUNDING

- I THE INTERIOR GROUND RING SHALL BE AS SHOWN WITH A MINIMUM NUMBER OF
- 2 ALL BENDS SHALL BE MADE WITH THE GREATEST PRACTICAL RADIUS AND SHALL NOT BE LESS THAN ONE (I) FOOT. WHEN THE ONE (I) FOOT MINIMUM IS NOT PRACTICAL, THE MINIMUM SHALL NOT BE LESS THAN SIX (6) INCHES.
- 3 USE OF 90° BENDS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY
- 4 ALL BONDING CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE BI-DIRECTIONAL. FLOOR PLAN IS DIAGRAMMATIC AND MAY NOT NECESSARILY REFLECT THIS REQUIREMENT.
- TO INSURE CONTINUITY OF CONDUITS WITHIN THE PROPOSED CELLULAR
  TELEPHONE FACILITY, ALL CONDUITS SHALL BE METALLICALLY SUPPORTED FROM
  THE UNISTRUT FRAMING WHEN RUN ON CEILING. ALL CONDUIT RUN ON WALLS
  SHALL BE BONDED TO THE INTERIOR GROUND RING EVERY 25 FEET.
- 6 ALL CONDUITS USED AS RACEWAYS FOR GROUNDING CONDUCTORS SHALL BE BONDED AT BOTH ENDS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
- 7 ALL INTERIOR BONDING CONNECTIONS NOT INDICATED SHALL BE MADE USING ONE CRIMP TYPE IC' TAP SHALL BE MADE INCORPORATING TWO-HOLE CRIMP
- PROVIDE ANDREW 36" GROUNDING CABLE REQUIRING FIELD ATTACHABLE CRIMP-ON LUG. DO NOT USE THE LUGS PROVIDED WITH THE GROUNDING KIT; PROVIDE TWO HOLE LUGS. GROUNDING CABLE SHALL BE CUT TO SHORTEST LENGTH POSSIBLE. ALL BONDING CONNECTIONS TO THE EXTERIOR GROUND BAR PLATE SHALL BE MADE USING STAINLESS STEEL NUTS AND BOLTS. CORROSION INHIBITOR SHALL BE APPLIED BETWEEN NUTS AND BOLTS AND GROUND BAR PLATE.
- 9 ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD) TO NEAREST GROUND ROD USING ERICO CADWELD "ONE-SHOT" CONNECTIONS.
- IO ALL EXTERIOR GROUND CONDUCTORS SHALL BE #2 AWG BARE, TINNED SOLID COPPER, UNLESS NOTED OTHERWISE.
- II ALL GROUND CONNECTIONS ABOVE GRADE SHALL BE TWO-HOLE COPPER COMPRESSION TYPE WITH STANDARD LENGTH BARREL (BURNDY # YA2CL-2TCI4EI). SINGLE HOLE LUGS ARE NOT ACCEPTABLE.
- 12 ALL GROUNDING SHALL BE IN ACCORDANCE WITH VERIZON BALTIMORE/ WASHINGTON REGION GROUNDING STANDARDS.
- 13 ALL MOUNTING HARDWARE FOR EXTERIOR LOCATIONS SHALL BE STAINLESS STEEL, INCLUDING NUTS, BOLTS, FLAT AND LOCK WASHERS.
- 14 ALL EXTERIOR MECHANICAL CONNECTIONS SHALL BE MADE USING OXIDE-INHIBITING JOINT COMPOUND. THE COMPOUND SHALL BE APPLIED TO ALL SURFACES OF BOLTS, WASHERS, NUTS AND CONNECTING SURFACES OF GROUND BAR PLATES. ALL BARE COPPER SURFACES OF CONDUCTORS SHALL BE COATED PRIOR TO LUGGING. JOINT COMPOUND SHALL BE BURNDY ELECTRICAL PENETROX E,
- IS TYPICAL BI-DIRECTIONAL BONDING CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE MADE USING DOUBLE CRIMP TYPE "C" TAP CONNECTORS.
- I6 ALL EXOTHERMIC WELD CONNECTIONS AND FIELD CUTS OF METALLIC OBJECTS EXPOSED TO WEATHER SHALL BE FIRST SPRAYED WITH COLD GALVANIZING (AFTER COLD DOWN) THEN BE TOPPED WITH BRUSH ON MARINE GRADE
- 17 ALL CONDUIT USED AS SLEEVES FOR GROUNDING OR BONDING CONDUCTORS SHALL
- 18 THE MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS ON ANY PART OF THE SYSTEM. IF DUE TO SOIL CONDITIONS OR OTHER PARAMETERS, THIS MAXIMUM IS EXCEEDED, CONTACT VERIZON FOR ADDITIONAL INSTRUCTIONS.
- PRIOR TO START OF GROUNDING WORK, THE CONTRACTOR SHALL OBTAIN THE LATEST COPY OF THE VERIZON BALTIMORE/WASHINGTON REGION GROUNDING STANDARDS. ANY OMISSION OF INFORMATION ON THIS DOCUMENT DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY. ALL VERIZON GROUNDING REQUIREMENTS SHALL BE MET AS OUTLINED IN VERIZON'S GROUNDING STANDARDS.
- 20 ALL EXTERIOR GROUND BARS SHALL BE GALVANIZED STEEL, SIZE AS NOTED ON PLANS, AND MANUFACTURED BY ELECTRIC MOTIONS COMPANY, INC. (WWW. ELECTRICMOTIONSCOMPANY.COM).
- 2I CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING A CLAMP ON RESISTANCE TEST TO DETERMINE THE OHMS RESISTANCE RATING OF FINAL GROUNDING SYSTEM. RESULTS OF TEST SHALL BE COMMUNICATED TO VERIZON WIRELESS CONSTRUCTION MANAGER INCLUDED IN CLOSEOUT PACKAGE.



NOTE:

I. ENTIRE TELCO CONDUIT PATHWAY SHALL NOT CONTAIN ANY LB
FITTINGS. ALL BENDS SHALL BE OF LONG SWEEPS OR MADE BY
USING JUNCTION BOXES.

DETAIL- 2" TELCO CONDUIT

GROUND BAR MANUFACTURER: ELECTRIC MOTION COMPANY, INC

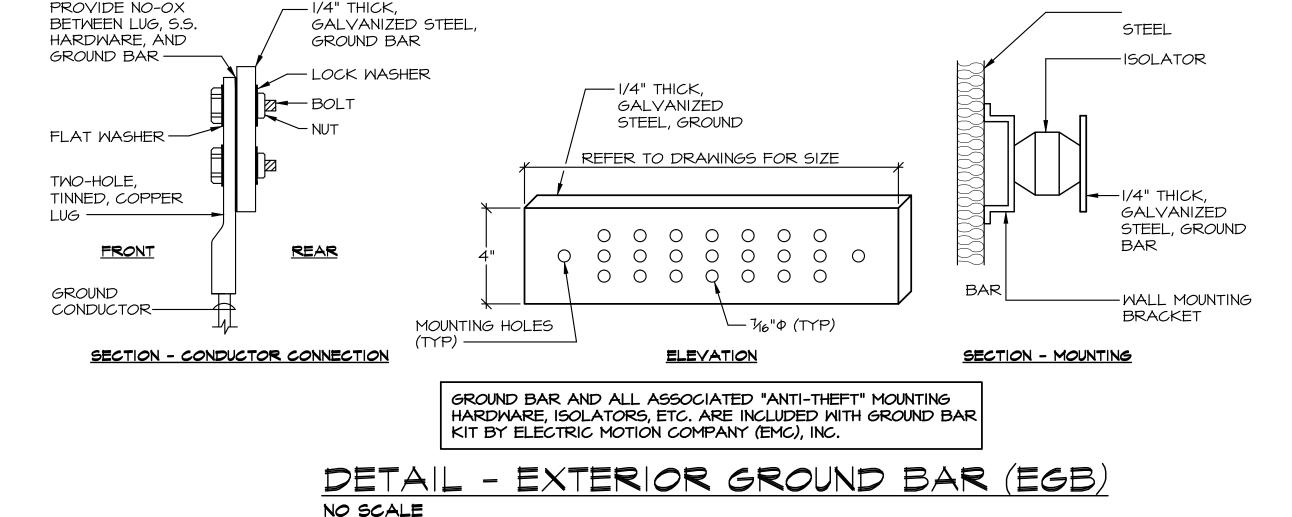
CONTACT: RANDY AUCLAIR

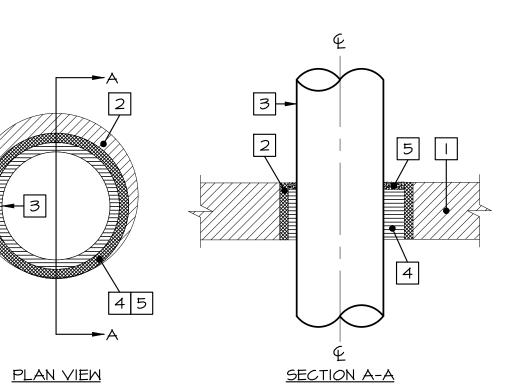
PHONE: 860.379.8515
WEB ADDRESS: WWW.ELECTRICMOTIONCOMPANY.COM

VERIZON WIRELESS GROUND BAR ORDERING INFORMATION				
PAR.	Т#	SIZE (T/H/L)	MATERIAL	
EM SGC 41	2-VZW *	1/4" × 4" × 12"	GALVANIZED	
EM SGC 42	24-VZW *	1/4" × 4" × 24"	GALVANIZED	
EM SCG 41	2-VZW *	1/4" × 4" × 12"	COPPER	
EM SCG 42	24-VZW *	1/4" × 4" × 24"	COPPER	
* GROUND BAR OPTIONS (ADDED TO SUFFIX OF ABOVE PART #'S)				
SUFFIX	KIT DESCRIPTION			
BIIB	CONSISTS OF GROUND BAR, ISOLATORS, AND BEAM CLAMP			
BIM	CONSISTS OF GROUND BAR, ISOLATORS, AND WALL MOUNTING BRACKET			
NR	CONSISTS OF GROUND BAR ONLY AND ANTI-THEFT/ NON-REMOVABLE HARDWARE.			

(EXAMPLE PART #: EM-SGC-424-VZW-BIM)

DETAIL - VZW GROUND BAR PART #'S
NO SCALE (ELECTRIC MOTION COMPANY, INC.)





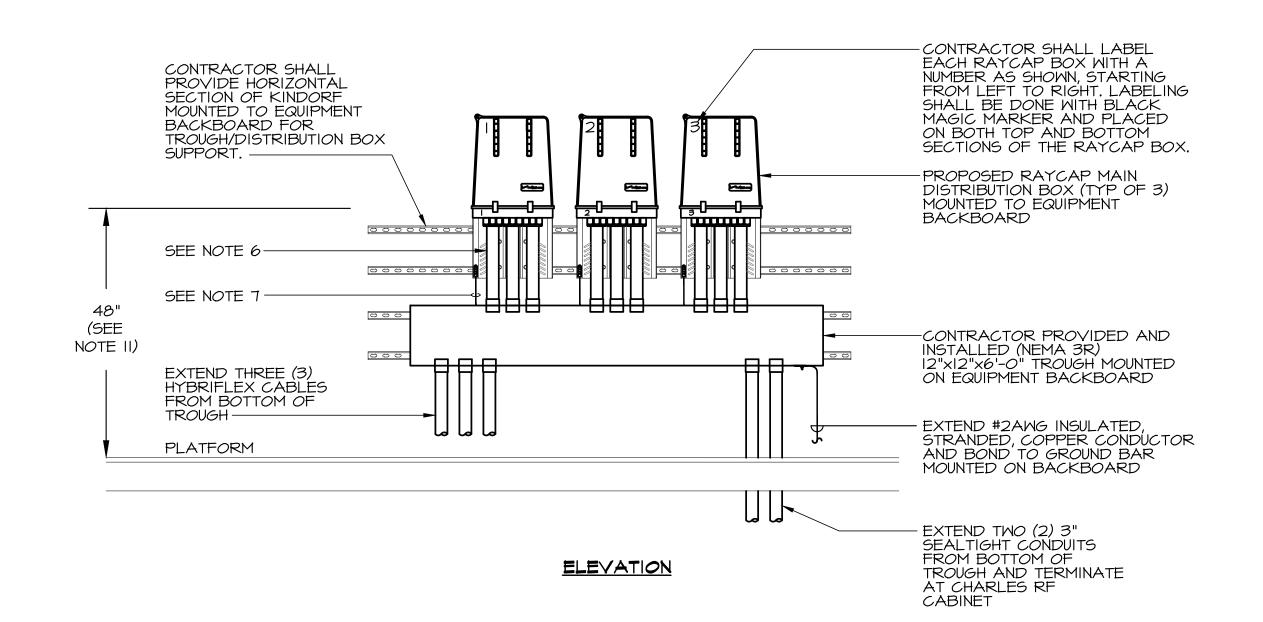
- NOTES:

  | TLOOR OR WALL ASSEMBLY MINIMUM 3-3/4" (2-HR RATING) OR MINIMUM 4-1/2" (3-HR RATING) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE FLOOR, OR 4-3/4" (2-HR RATING) OR MINIMUM 5" (3-HR RATING) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) WALL. WALL MAY ALSO BE CONSTRUCTED OF ANY U.L. CLASSIFIED CONCRETE BLOCKS\*. MAXIMUM DIAMETER OF OPENING IS 16"
- METAL SLEEVE (OPTIONAL) NOMINAL 16" DIAMETER (OR SMALLER) STEEL PIPE, CONDUIT OR STEEL EMT CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES.
- THROUGH PENETRATIONS ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUIT OR TUBING MAY BE USED: (STEEL PIPE, CONDUIT, COPPER TUBE).
- FORMING MATERIAL\* MINIMUM 2-3/4" (2-HR RATING) OR MINIMUM 3" (3-HR RATING) THICKNESS OF MINIMUM 3.5 PCF MINERAL FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. FORMING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
- FILL VOID OR CAVITY MATERIAL\* SEALANT MINIMUM I" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. DRY MIX MATERIAL MIXED WITH WATER AT A RATE OF 2.I PARTS DRY MIX TO I PART WATER BY WEIGHT IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATIONS INSTRUCTIONS.
- FILL, VOID OR CAVITY MATERIAL\* NOT SHOWN TWO COMPONENT FILL MATERIAL USED AS AN ALTERNATE TO ITEM 5. MIN. MINIMUM I" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. READY-MIXED COMPONENT MIXED WITH ACCELERATOR COMPONENT AT A RATE OF 66 PARTS OF READY-MIXED COMPONENT TO I PART ACCELERATOR COMPONENT BY WEIGHT IN ACCORDANCE WITH ACCOMPANYING INSTALLATION
  - \* BEARING THE U.L. CLASSIFICATION MARKING

DETAIL - PIPE/CONDUIT PENETRATION

THROUGH RATED WALL/FLOOR ASSEMBLY

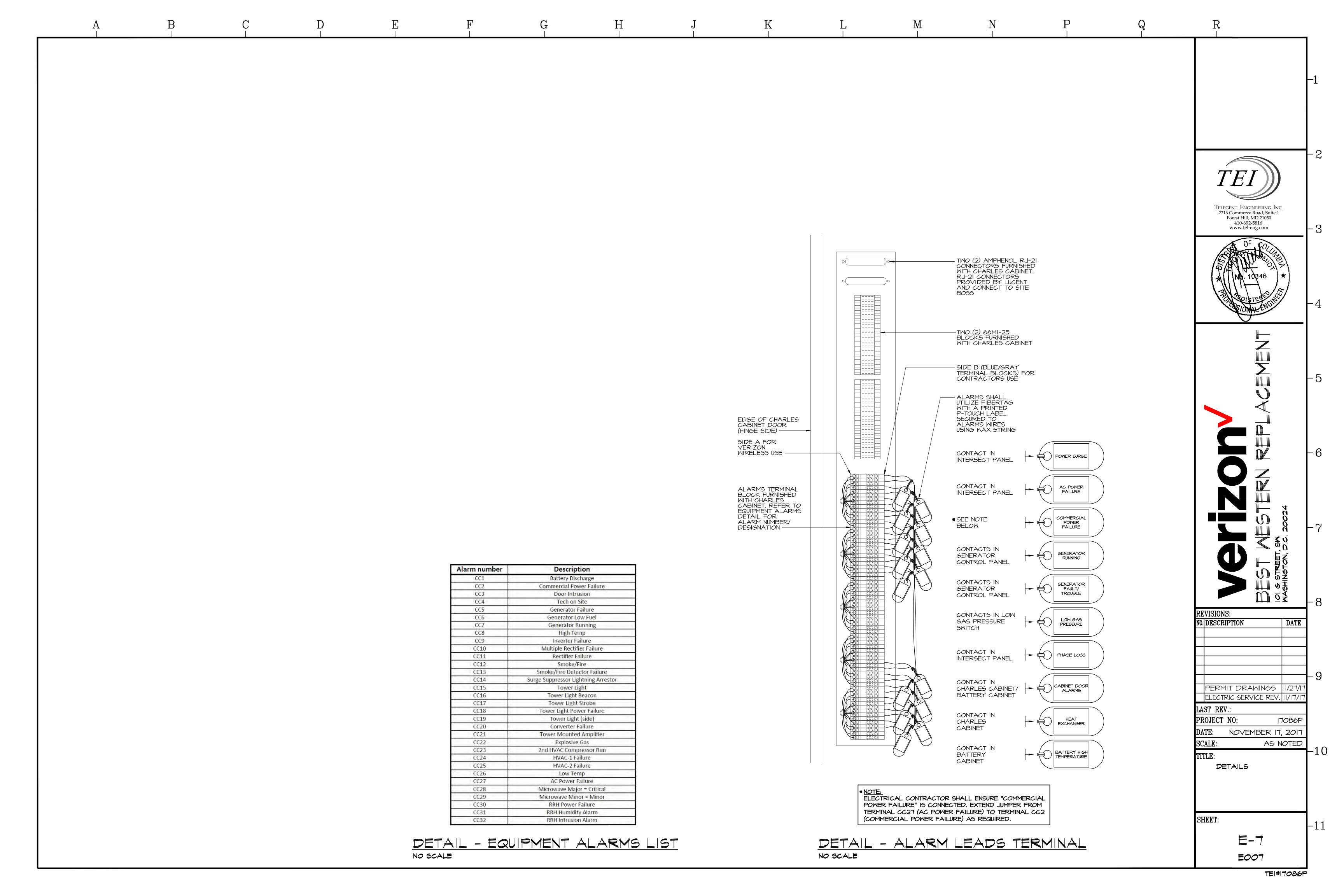
NO SCALE (U.L. THROUGH-PENETRATION FIRESTOP SYSTEM #C-AJ-1081)

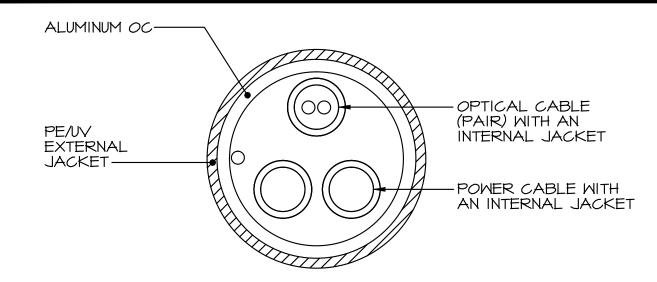


- I. ALL RAYCAP MAIN DISTRIBUTION BOXES SHALL BE MOUNTED AT 48" A.F.G. MEASURED AT LID GASKET SEAM. NO OBSTRUCTIONS DIRECTLY ABOVE THE DISTRIBUTION BOX SO THAT THE COVER CAN BE REMOVED.
- 2. ALL UNISTRUT SHALL BE SIZED TO ACCOMMODATE BOTH CONDUIT INSTALLS, 12" MINIMUM.
- 3. ALL HARDWARE SHALL BE GALVANIZED STEEL.
- 4. ALL EXTERIOR CONDUIT SHALL BE SEALTIGHT.
- 5. THE TROUGH SHALL BE 12"X12"X6'-O" NEMA 3R CLASS.
- 6. REMOVE THREE (3) 2-1/2" BLACK, HYBRIFLEX CABLE COMPRESSION FITTINGS SUPPLIED WITH THE RAYCAP BOX AND INSTALL THREE (3) 2-1/2" RIGID GALVANIZED STEEL CONDUITS WITH COMPRESSION CONNECTORS AND BUSHINGS BETWEEN THE RAYCAP BOX AND THE TOP OF THE TROUGH. TWO (2) CONDUITS SHALL BE INSTALLED SIDE BY SIDE IN THE REAR. ONE (1) CONDUIT SHALL BE INSTALLED IN THE FRONT AND LABELED "FIBER ONLY".
- 7. EXTEND #6AWG INSULATED, STRANDED, COPPER CONDUCTOR, BOLTED FROM BASE OF THE RAYCAP AND BOND TO MAIN GROUND BAR ON PLATFORM.
- 8. PULL STRING SHALL BE TERMINATED INSIDE TROUGH BOX FOR ALU USE.
- 9. VERIZON WIRELESS SUPPLIED PEEL AND STICK LABEL READING "VERIZON WIRELESS" TO BE INSTALLED ON RAYCAP DISTRIBUTION BOX MOUNTED ON BACKBOARD. PROVIDE AND INSTALL APPROPRIATE SIGNAGE AT FINAL RAYCAP BOX/TROUGH LOCATION. SIGNAGE SHALL CONSIST OF SHOCK HAZARD SIGNS AND VERIZON WIRELESS SITE ID SIGN. COORDINATE FINAL MOUNTING LOCATION OF EACH SIGN WITH VERIZON WIRELESS REPRESENTATIVE.
- IO. CONDUITS EXTENDING OUT OF TOP OF TROUGH SHALL BE STACKED ONE BEHIND THE OTHER AS OPPOSED TO SIDE BY SIDE TO ALLOW ADDITIONAL CLEARANCE BETWEEN RAYCAP BOXES. REFER TO PLAN VIEW FOR SUGGESTED STACKING OF CONDUITS. FINAL STACKING METHOD SHALL BE COORDINATED WITH VERIZON WIRELESS REPRESENTATIVE IN THE FIELD. (CONDUITS ARE SHOWN IN LINE FOR DIAGRAMMATIC PURPOSES ONLY).
- II. FINAL MOUNTING HEIGHT OF RAYCAP BOXES SHALL BE 48" FROM FINISHED PLATFORM GRATING TO BOTTOM SEAL OF RAYCAP

DETAIL- PLATFORM MOUNTED RAYCAP BOX

Telegent Engineering Inc. 2216 Commerce Road, Suite 1 Forest Hill, MD 21050 410-692-5816 www.tel-eng.com 10346 ةً و الله REVISIONS: NO. DESCRIPTION DATE |PERMIT DRAWINGS |II/27/ |ELECTRIC SERVICE REV.|II/I7/I LAST REV.: PROJECT NO: 17086F NOVEMBER 17, 2017 AS NOTEI TITLE: TEI#17086P



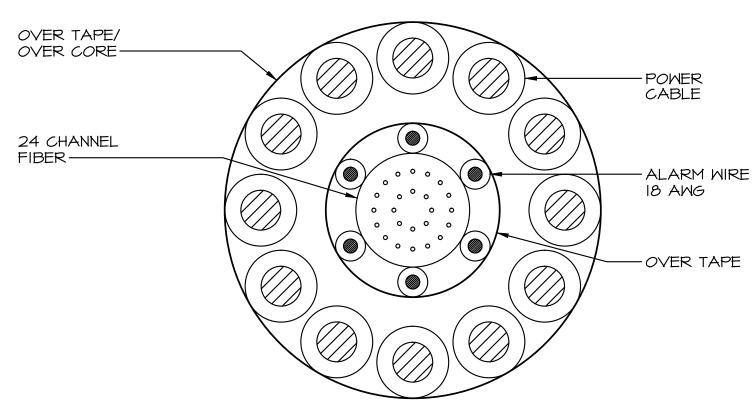


#### NOTES

I. USED FROM EACH SECTOR DISTRIBUTION BOX TO EACH RRH

- 2. I PAIR OF #8AMG DC WIRE
- 3. I PAIR OF SM FIBER
- 4. FIXED LENGTHS OF EITHER 15' OR 30'

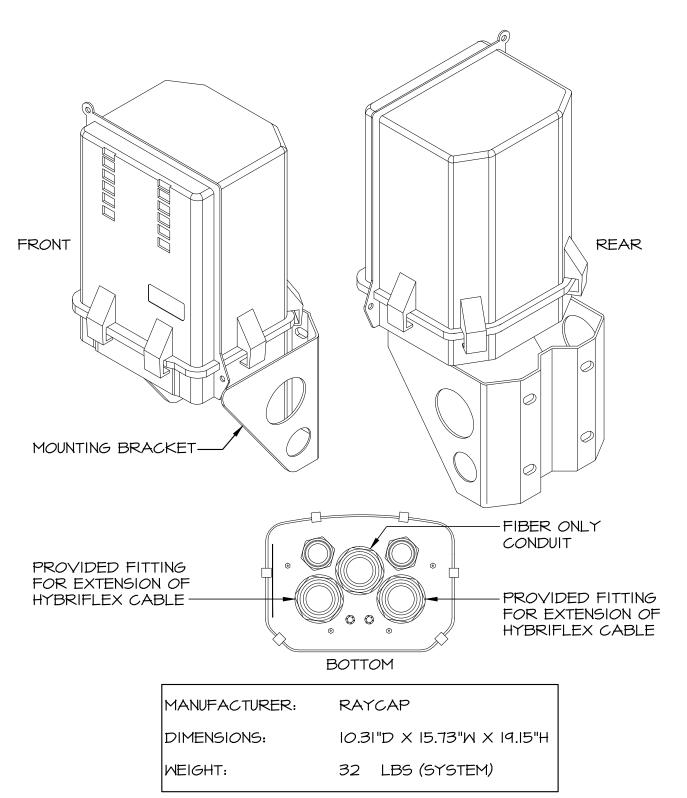
## DETAIL - IXI HYBRIFLEX CABLE (5/8") NO SCALE



#### NOTES

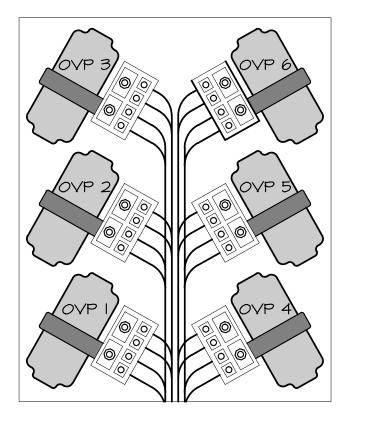
- I. USED FROM MAIN BOTTOM DISTRIBUTION BOX TO MAIN TOP DISTRIBUTION BOX
- 2. 6 PAIRS OF #6 AMG DC WIRE (3 PAIRS NEEDED FOR TODAY, 3 PAIRS FOR FUTURE GROWTH)
- 3. 12 PAIRS OF SM FIBER ( 3 PAIRS NEEDED FOR TODAY, 3 PAIRS FOR FUTURE GROWTH, 6 PAIRS ARE SPARES)
- 4. 9 PAIRS OF 18 AWG ALARM WIRE

# DETAIL - 6x12 HYBRIFLEX CABLE (1 1/4") NO SCALE



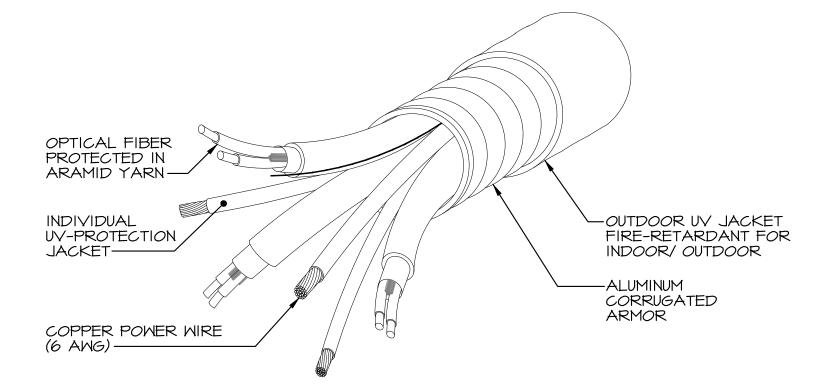
DETAIL - MAIN DISTRIBUTION BOX No scale

OVP IDENTIFIERS		BULK HEAD IDENTIFIERS
OVP - I	BI-RRH-I	I-ACTIVE
048 - 1	ALPHA	7-SPARE
<i>0</i> VP - 2	BI-RRH-2	2-ACTIVE
046 - 2	BETA	8-SPARE
0VP - 3	BI-RRH-3	3-ACTIVE
044 - 3	GAMMA	9-SPARE
0VP - 4	B2-RRH-I	4-ACTIVE
0 7 - 4	ALPHA	10-SPARE
<i>0</i> VP - 5	B2-RRH-2	5-ACTIVE
OVF - 5	BETA	II-SPARE
0VP - 6	B2-RRH-3	6-ACTIVE
OVF - 0	GAMMA	12-SPARE

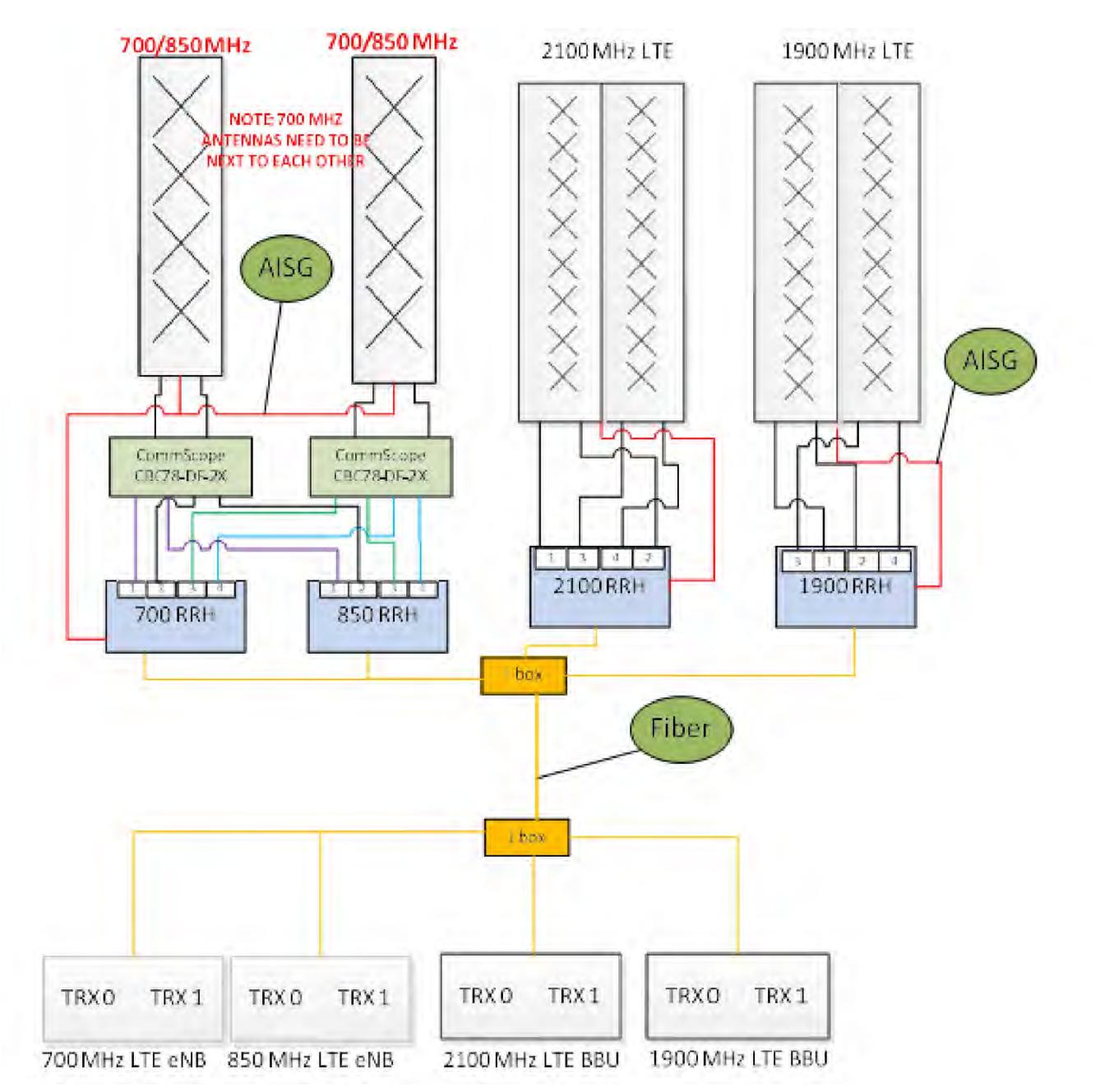


NOTE:
IN THE EVENT THE ALARMS WIRING TO THE RAYCAP BOXES IS
STRANDED, CONTRACTOR SHALL TERMINATE EACH END WITH AN
APPROPRIATELY SIZED (AWG) SPADE CONNECTOR WITH INSULATED
CRIMP TONGUE. SOLID WIRE DOES NOT REQUIRE SPADE CONNECTOR.

## DETAIL- RAYCAP OVP IDENTIFIERS NO SCALE



HYBRIFLEX CABLE CONSTRUCTION
NO SCALE



DETAIL - ANTENNA PLUMBING DIAGRAM No scale

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DETAILS AND

E008

DIAGRAM

SHEET:

