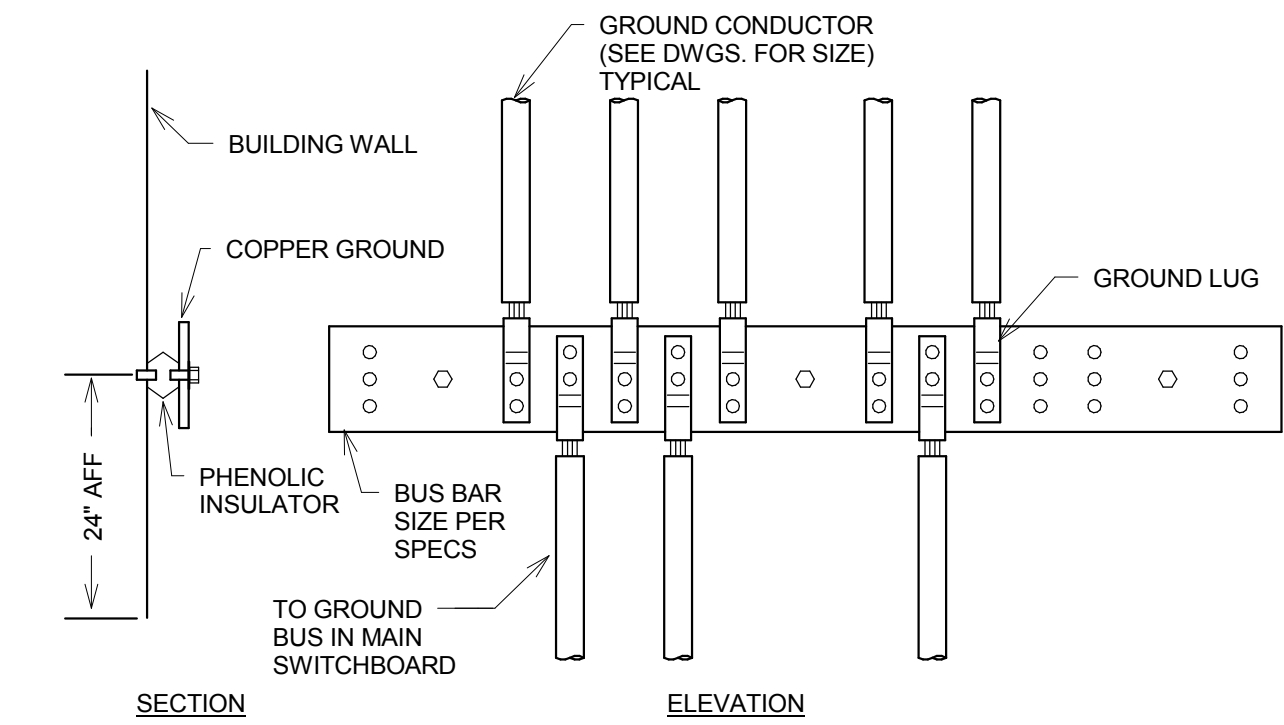
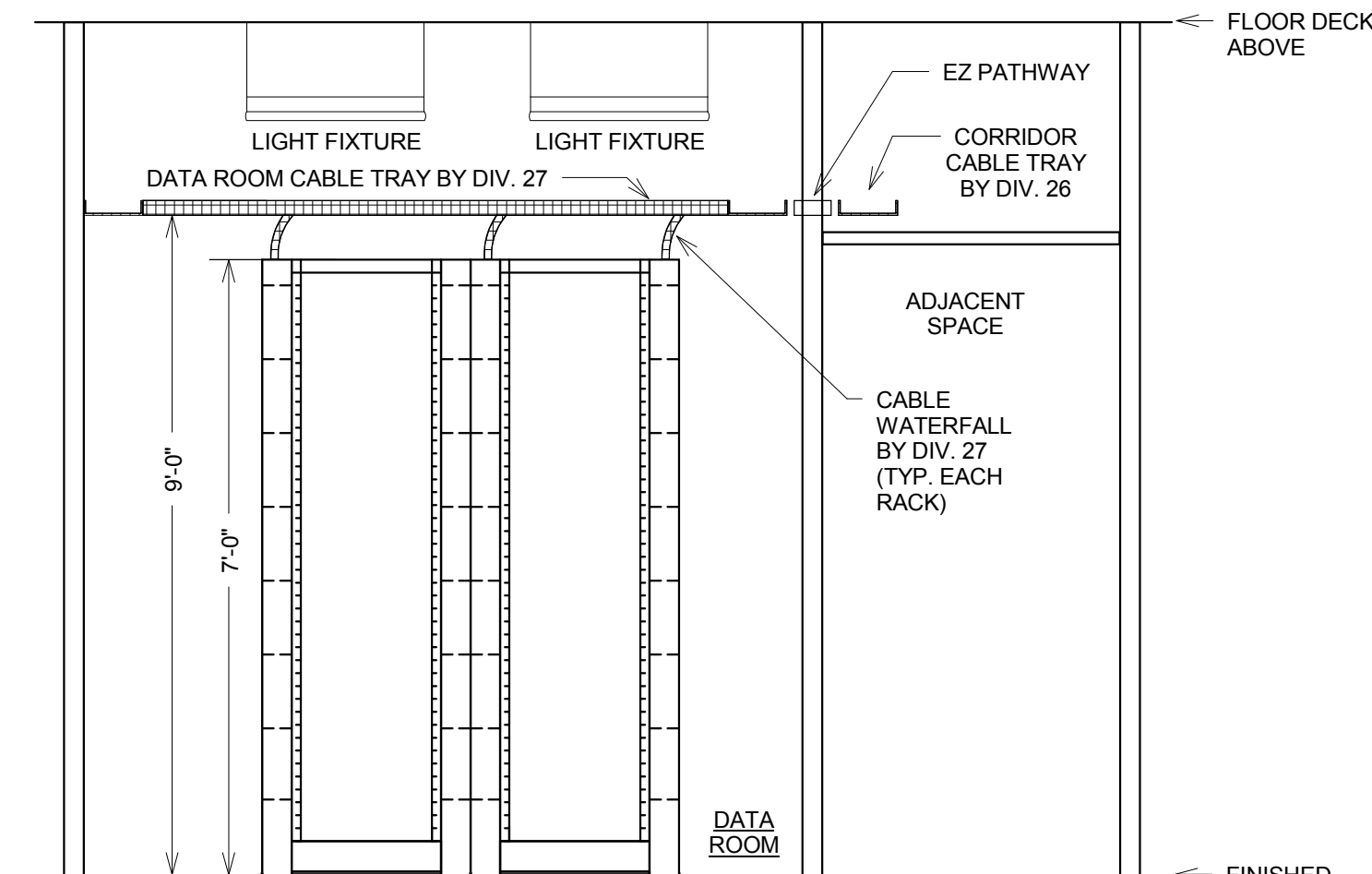


TELECOMMUNICATION ROOM (TR)
DETAIL
1/4" = 1'-0"

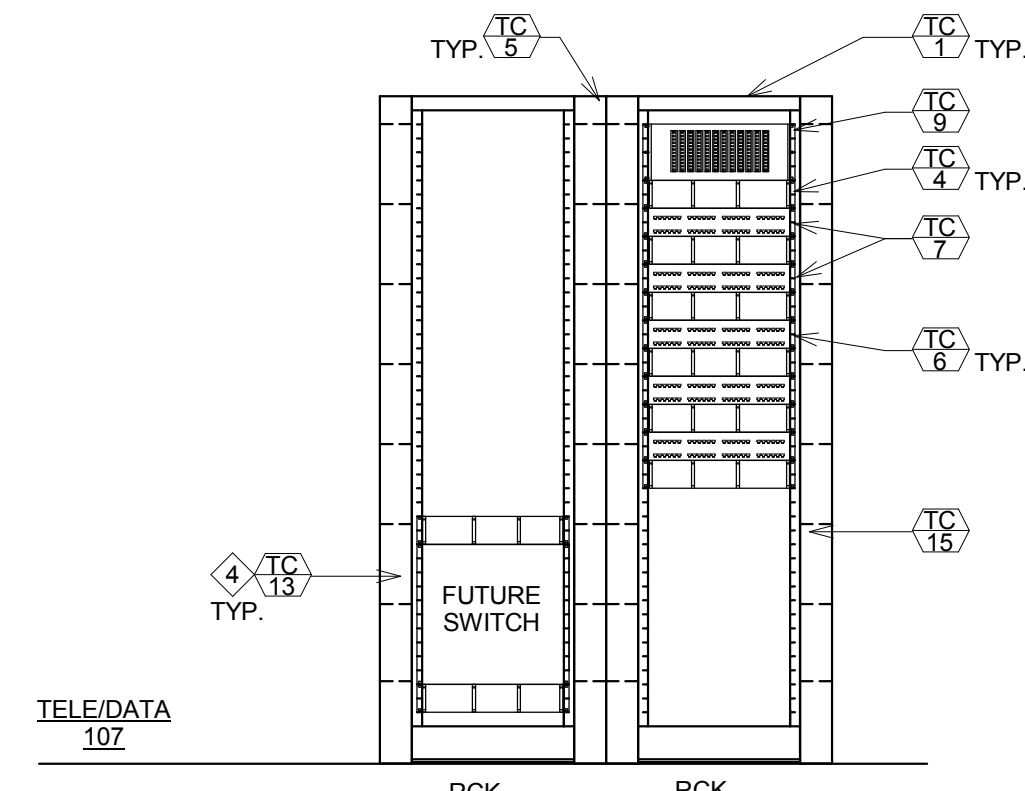


MAIN GROUND BUS BAR DETAIL - (SGB, TMGB)
12" = 1'-0"

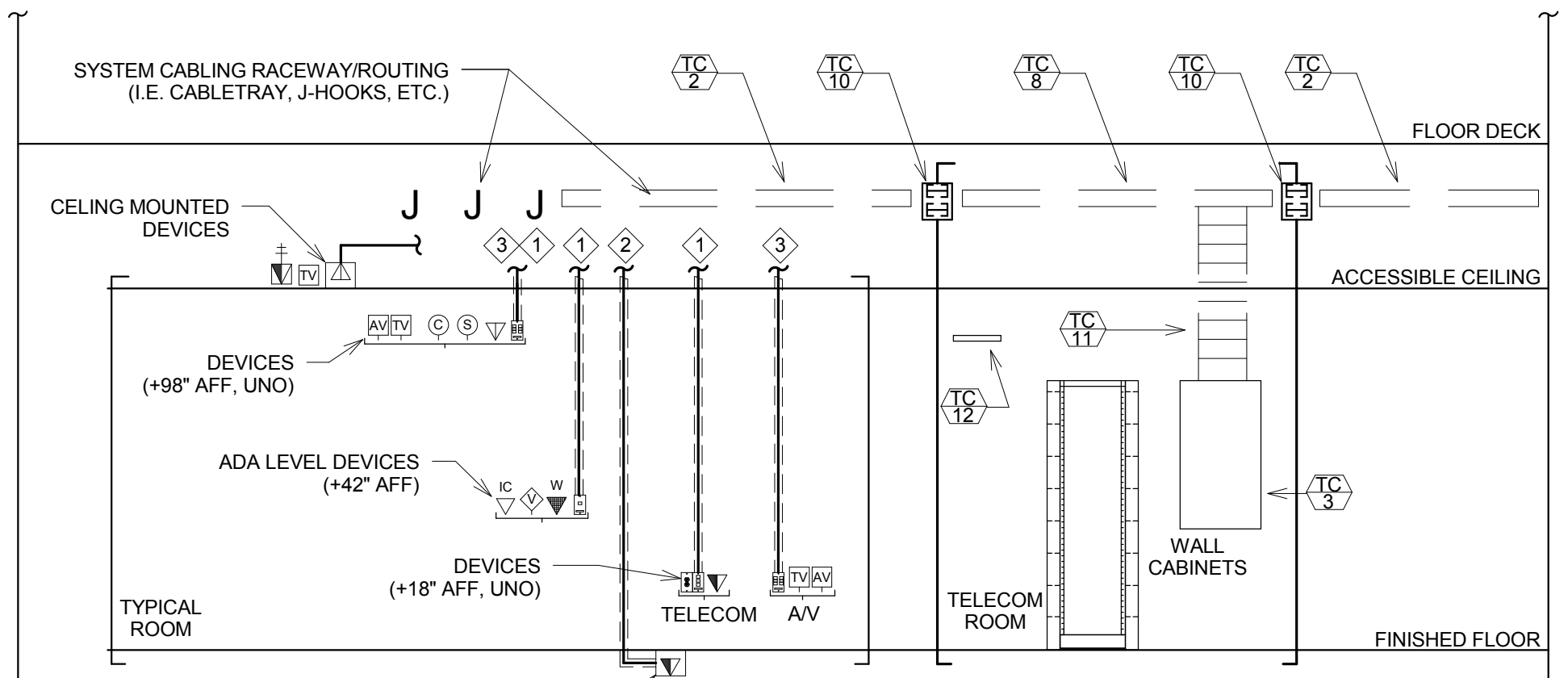
- KEY NOTES:**
- TWO-POST EQUIPMENT RACKS TO HOLD THE FOLLOWING EQUIPMENT (BY DIV. 27):
BACKBONE FIBER OPTIC PATCH PANEL
HORIZONTAL CABLING PATCH PANELS SERVING OWNER PROVIDED NETWORK SWITCHING EQUIPMENT
 - FIRE-TREATED PLYWOOD BACKBOARD FROM FLOOR TO CEILING AROUND PERIMETER OF ROOM.
 - TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) BY DIV. 26. SEE TC GROUNDING RISER ON THIS SHEET.
 - PROVIDE 12"W x 4"D BASKET STYLE CABLE TRAY.
 - PROVIDE 24" WIDE VERTICAL LADDER RACK FROM EQUIPMENT PANEL TO CEILING.



TYPICAL TELECOMMUNICATIONS ROOM
EQUIPMENT ELEVATION
1/2" = 1'-0"



107 - IT SERVER ROOM RACK/CABINET
ELEVATION
1/2" = 1'-0"

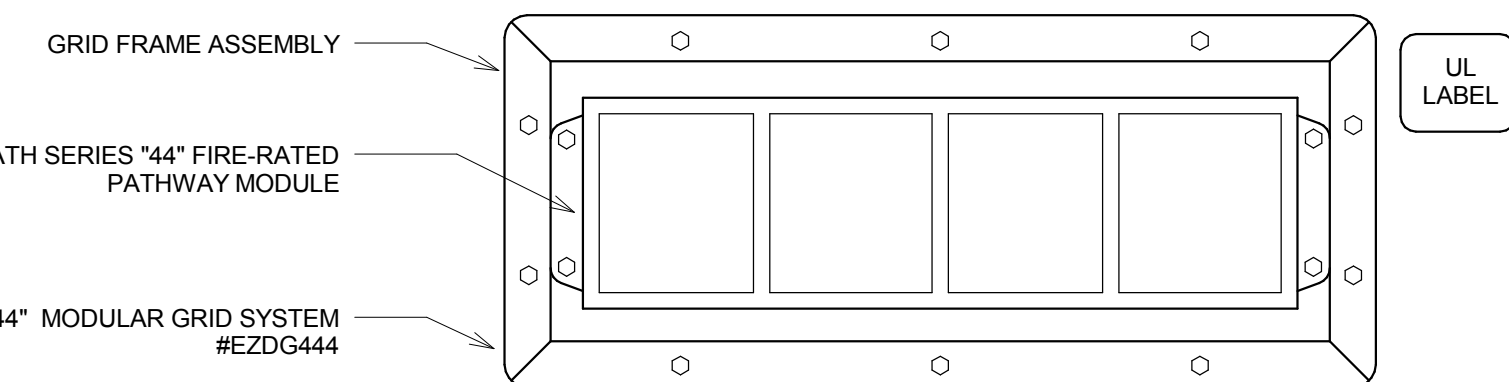


TYPICAL HORIZONTAL CABLING DETAIL
1/2" = 1'-0"

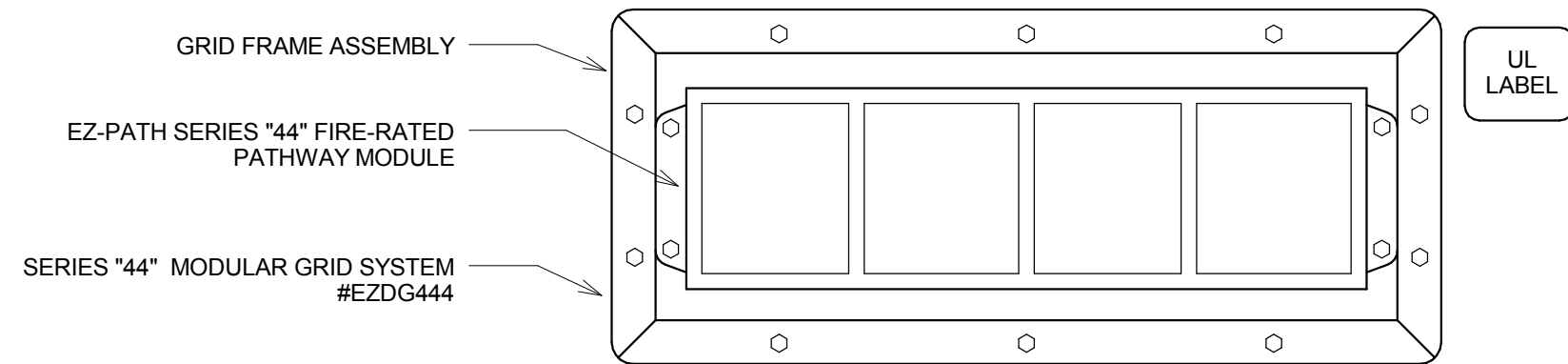
- GENERAL NOTES:**
- ALL CABLING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE.
 - PROVIDE PULLBOXES FOR LOW VOLTAGE CONDUIT RUNS SUCH THAT NO SINGLE RUN OF CONDUIT EXCEEDS 100 FEET AND A TOTAL OF 180 DEGREES OF BENDS. ALL CONDUIT AND PULLBOXES PROVIDED BY DIV. 26.
 - DIV. 26 TO PROVIDE PULL STRING IN ALL CONDUIT RUNS.
 - REFER TO SECURITY SURVEILLANCE SCHEDULES FOR CAMERA CABLING PROVIDED BY DIV. 27.
 - REFER TO DIVISION 08 SPECIFICATIONS FOR DOOR SECURITY/HARDWARE PREPARATION REQUIREMENTS.
 - FINAL QUANTITIES OF ALL PROVIDED DEVICES, SUPPORTS, HARDWARE, CABLING, ETC. TO BE VERIFIED AND PROVIDED BY THE DIVISION 27 CONTRACTOR.
 - SEE ENLARGED TELECOMMUNICATIONS ROOM LAYOUT PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
 - TELECOMMUNICATION COMMON BONDING NETWORK SHALL COMPLY WITH J-STD-607A, TIA 942, IEEE STD 1100, AND NATIONAL ELECTRIC CODE.

- KEY NOTES:**
- PROVIDE QNTY OF 4-PR UTP PLENUM RATED CABLES AS INDICATED ON PLAN DRAWINGS, ROUTED FROM TELECOMMUNICATIONS OUTLET (TO) TO THE TELECOMMUNICATIONS ROOM (TR). PROVIDE ROUGH-IN AS FOLLOWS:
A. 4 CABLES AND LESS - PROVIDE DOUBLE GANG BOX WITH SINGLE GANG MUD RING AND 1" TO ABOVE NEAREST ACCESSIBLE CEILING SPACE.
B. 5 TO 6 CABLES - PROVIDE DOUBLE GANG BOX WITH SINGLE GANG MUD RING AND (2) 1" TO ABOVE NEAREST ACCESSIBLE CEILING SPACE.
 - PROVIDE QNTY OF 4-PR UTP CABLES AS INDICATED ON PLAN DRAWINGS, ROUTED FROM TELECOMMUNICATIONS OUTLET (TO) TO THE TELECOMMUNICATIONS ROOM (TR). DIV. 26 TO PROVIDE (2) 1" CONDUITS FROM FLOORBOX TO NEAREST ACCESSIBLE CEILING SPACE. FLOORBOXES PROVIDED AND INSTALLED BY DIV. 26. CABLES ROUTED IN CONDUIT IN SLAB ON GRADE LOCATIONS SHALL BE OSP RATED.
 - PROVIDE QNTY OF PLENUM RATED CABLES REQUIRED FOR THE DEDICATED SYSTEMS AS INDICATED ON PLAN DRAWINGS AND IN SPECIFICATIONS, ROUTED FROM AV OUTLET TO ACCESSIBLE CEILING SPACE. DIV. 26 TO PROVIDE (2) 11/4" TO ABOVE NEAREST ACCESSIBLE CEILING SPACE.
 - ACTIVE EQUIPMENT (ROUTERS, SWITCHES, HUBS, ETC.) TO BE PROVIDED BY OWNER/OWNER'S REPRESENTATIVE. COORDINATE FINAL EQUIPMENT LOCATION WITH OWNER'S IT STAFF.

- ID TAG NOTATION:**
- DEVICE TYPE CALLOUT
INDIVIDUAL DEVICE CALLOUT
- EQUIPMENT:**
- TELECOMMUNICATIONS EQUIPMENT RACK (2-POST).
 - BASKET TRAY BY DIV. 26.
 - WALL MOUNTED EQUIPMENT CABINET REQUIRING DATA CONNECTION. SEE CABLING RISER DIAGRAM.
 - RACK MOUNTED HORIZONTAL WIRE MANAGEMENT.
 - RACK MOUNTED VERTICAL WIRE MANAGEMENT.
 - 48-PORT RACK MOUNTED UTP PATCH PANEL.
 - UTP PATCH PANELS FOR BACKBONE VOICE (PUNCHDOWN 2-PAIR PER JACK).
 - BASKET TRAY BY DIV. 27.
 - 48-PORT RACK MOUNT FIBER PATCH PANEL.
 - HORIZONTAL FIRE RATED PATHWAYS, (STI EZ-PATH OR EQUAL) BY FIRE STOPPING CONTRACTOR. QUANTITY OF MODULES AS NOTED ON DRAWINGS.
 - LADDER RACK BY DIV. 27.
 - TELECOMMUNICATIONS GROUNDING BUSBAR (TMGB/TGB) BY DIV. 26. DIV 27 CONTRACTOR TO BOND DATA ROOM EQUIPMENT TO BUSBAR.
 - FUTURE NETWORK SWITCH [SEE NOTE 4].



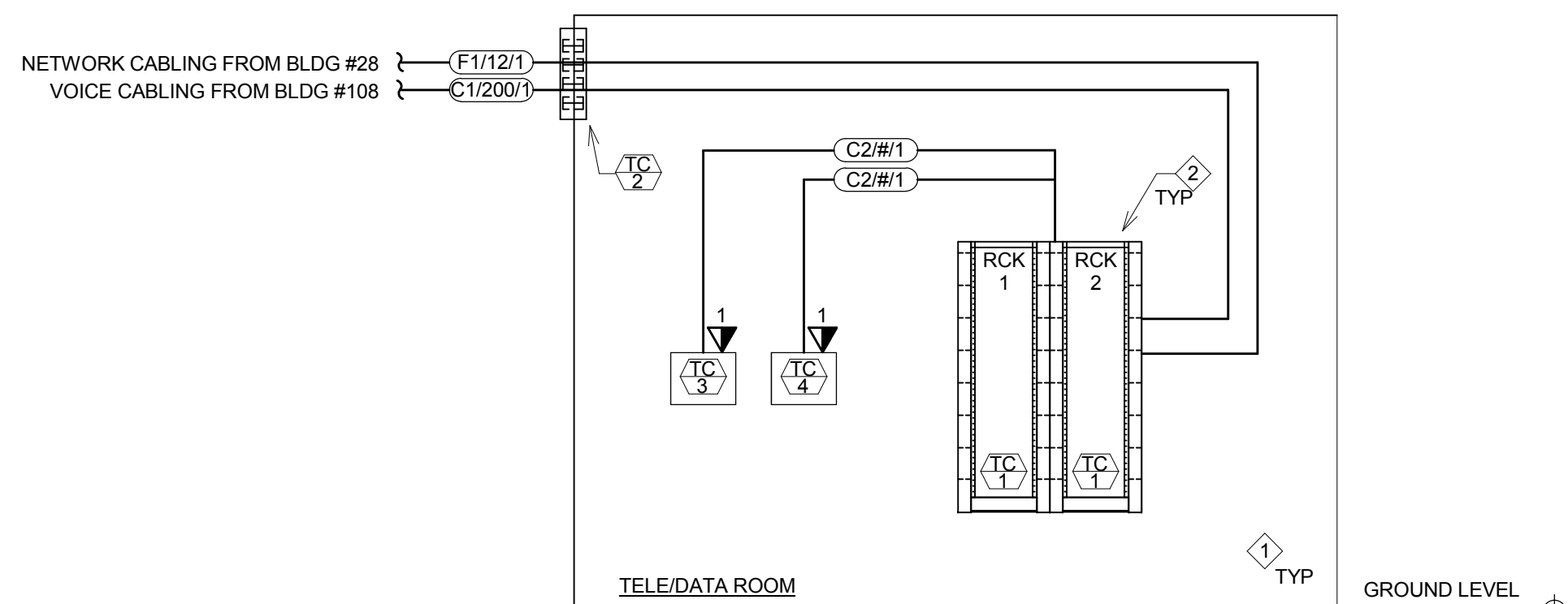
DATA ROOM - FOUR VERTICAL PENETRATIONS



CORRIDORS - FOUR HORIZONTAL PENETRATION:

EZ PATHWAY DETAIL
12" = 1'-0"

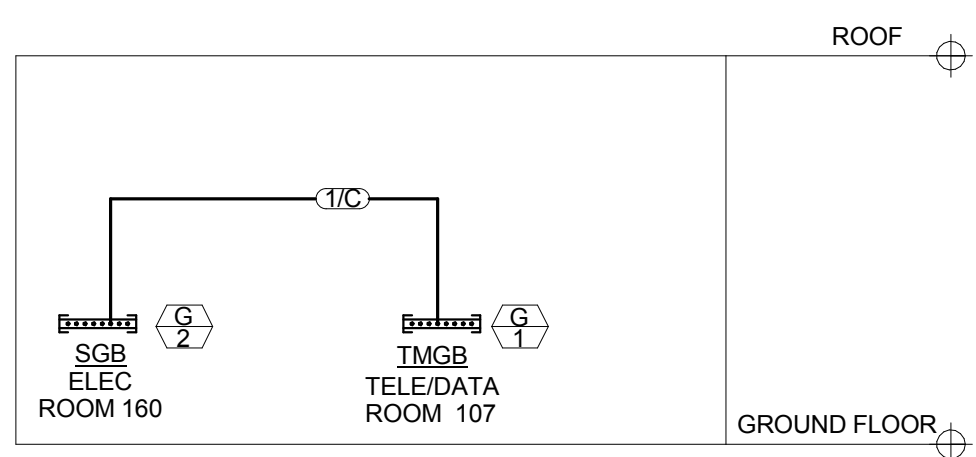
- GENERAL NOTES:**
- INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - PART NUMBERS LISTED FOR REFERENCE AND MAY NOT REPRESENT ALL REQUIRED COMPONENTS FOR A COMPLETE INSTALLATION. SEE SPECIFICATIONS.



COMMUNICATIONS CABLING RISER
DIAGRAM
1/4" = 1'-0"

- GENERAL SHEET NOTES:**
- ALL CABLING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE WHEN NOT INSTALLED IN CONDUIT OR CABLE TRAY.
 - DIV. 26 TO PROVIDE PULL STRING IN ALL CONDUIT RUNS.
 - REFER TO PLANS FOR CAMERA LOCATIONS REQUIRING CABLING PROVIDED BY DIV. 27.
 - REFER TO DIVISION 08 SPECIFICATIONS FOR DOOR SECURITY/HARDWARE PREPARATION REQUIREMENTS.
 - FINAL QUANTITIES OF ALL PROVIDED DEVICES, SUPPORTS, HARDWARE, CABLING, ETC. TO BE VERIFIED AND PROVIDED BY THE DIVISION 27 CONTRACTOR.
 - SEE ENLARGED TELECOMMUNICATIONS ROOM LAYOUT PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
 - TELECOMMUNICATION COMMON BONDING NETWORK SHALL COMPLY WITH J-STD-607A, TIA 942, IEEE STD 1100, AND NATIONAL ELECTRIC CODE.
 - ACTIVE EQUIPMENT (ROUTERS, SWITCHES, HUBS, ETC.) TO BE PROVIDED BY OWNER/OWNER'S REPRESENTATIVE. COORDINATE FINAL EQUIPMENT LOCATION WITH OWNER'S IT STAFF.
- KEY NOTES:**
- PROVIDE ALL EQUIPMENT/CABLING INDICATED ON THIS SHEET UNLESS NOTED OTHERWISE.
 - ALL TC ROOM EQUIPMENT RACKS PROVIDED AND INSTALLED BY DIV. 27.

- ID TAG NOTATION:**
- DEVICE TYPE CALLOUT
INDIVIDUAL DEVICE CALLOUT
- QTY OF PARALLEL CABLES
QTY OF CABLE PAIRS
CABLE TYPE CALLOUT (C = COPPER, F = FIBER)
- EQUIPMENT:**
- TELECOMMUNICATIONS EQUIPMENT RACK (2-POST).
 - HORIZONTAL FIRE RATED PATHWAYS (STI EZ-PATH OR EQUAL). SEE DETAILS.
 - ACCESS CONTROL SYSTEM (WALL MOUNTED CABINET).
 - BUILDING AUTOMATION SYSTEM (BAS) (WALL MOUNTED CABINET).
- CABLE TYPE:**
- F112# 12-PAIR 62.5/125 MICRON MULTIMODE FIBER OPTIC CABLE(S) ROUTED TO FIBER PATCH PANEL IN EXISTING BUILDING #28. [LAN/WAN BACKBONE].
 - C1200# 200PR CATEGORY 3 CABLE(S) ROUTED TO EXISTING PBX ROOM IN EXISTING BUILDING #108. [VOICE BACKBONE].
 - C2100# UTP CABLE(S) ROUTED TO PATCH PANEL(S). [LAN HORIZONTAL].



TC GROUNDING RISER
12" = 1'-0"

GENERAL NOTES:

- ALL CABLING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE.
- ALL BONDING BACKBONE CABLING WORK BY DIV. 26.
- DIV. 26 TO PROVIDE PULL STRING IN ALL CONDUIT RUNS.
- REFER TO GROUNDING DETAILS ON THIS SHEET.

CABLE TYPE:

- CABLE TYPE CALLOUT
- CABLE QUANTITIES
- #4 AWG CABLE (BONDING BACKBONE)

EQUIPMENT:

- DEVICE TYPE CALLOUT
- INDIVIDUAL DEVICE CALLOUT
- TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB). PROVIDED AND INSTALLED BY DIV. 26. SEE DETAIL E-E-606/3
- SERVICE GROUNDING BUS BAR (SGB) PROVIDED AND INSTALLED BY DIV. 26. SEE DETAIL E-E-606/3

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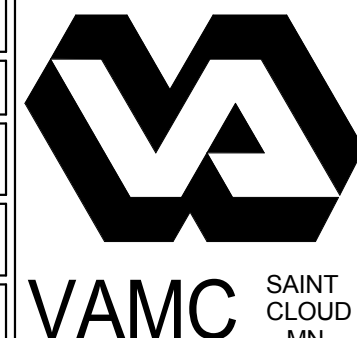
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Engineer under the laws of the State of Minnesota.

Signature
Registration No.
Date 11/17/2011

APPROVED: SERVICE LINE DIRECTOR	DATE	APPROVED: INJECTION CONTROL NURSE	DATE
APPROVED: GEARS COORDINATOR	DATE	APPROVED: PATIENT SAFETY	DATE
APPROVED: PROJECTS SECTION MANAGER	DATE	APPROVED: CHIEF OF POLICE	DATE
APPROVED: DIRECTOR TWO	DATE	APPROVED: SAFETY MANAGER	DATE

PROJECT TITLE COMMUNICATIONS ROOM DETAILS	DATE 12/16/2011
PROJECT NO. 2012.001.00	PROJECT SCALE AS NOTED
APPROVED: CHIEF OF STAFF	DATE
APPROVED: MEDICAL CENTER DIRECTOR	DATE

BUILDING No.	CHECKED BY	ISSUED BY	DATE
SW	AJZ	SW	12/16/2011
LOCATION 4801 VETERANS DR. SAINT CLOUD, MN	DATE 12/16/2011	TIME 10:00	FILE NO. E014



100% OWNER REVIEW
NOT FOR CONSTRUCTION
12/16/2011



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