



Invitation for Bid No. 2021-090

Union County Structured Cabling & Audio Visual
.....

ADDENDUM No. 1

ISSUE DATE: July 23, 2021

Responding Offerors on this project are hereby notified that this Addendum shall be made a part of the above named IFB document.

The following items add to, modify, and/or clarify the IFB documents and shall have the full force and effect of the original Documents. This Addendum shall be acknowledged by the Offeror in the IFB document.

Union county Structured Cabling and Audio Visual
 Project No.: 2021-090
 Issue to: Bidders

Union County, Owner
 Contract Document Date: June 14, 2021
 Addendum Date: July 23, 2021

A. NOTICE TO BIDDER

- 1.1 This Addendum is issued pursuant to the Conditions of the Contract and is hereby made part of the Contract Documents. The addendum serves to clarify, revise, and supersede information in the Project Manual, the Drawings, and previously issued Addenda. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form. Failure to do so may subject the Bidder to disqualification. A list of attachments, if any, is part of this document.
- 1.2 The date for receipt of bids for this project is changed by this Addendum to August 12, 2021. Sealed Bids for Union County Structured Cabling and Audio Visual will be received by the Union County Procurement Department *until* *11:00 AM local time on August 12, 2021 at the Union County Government Center, 500 N. Main Street, Suite 709, Monroe, NC 28112. The public bid opening will be conducted outdoors, in front entrance area of the Union County Government Center address listed above at the specified date and time. Late bids will not be accepted
- 1.3 The date for receipt of Requests for information for this project is changed by this Addendum to August 2, 2021 at 5:00 PM. The contact for the Requests for Information is unchanged.

B. RESPONSES TO QUESTIONS FROM POTENTIAL BIDDERS

- 1.4 Question #1: Could you confirm if you are requiring a General Contractors license or a Low Voltage Electrical License? Response as follows:
 - a) A General Contracting License is not required to submit a bid and a Low Voltage License is required.
- 1.5 Question #2: This project only covers the cabling and av systems, but the access control and security cameras components are listed on some of the drawings. Are they also in the scope of this project? If not, are they going to be handled in a later phase? Response as follows:
 - a) The successful bidder shall provide the cable, installation and terminations for the camera locations. The terminations shall be for testing purposes.
 - b) The devices (cameras and access control devices) are NOT included in the scope of the work.
 - c) The devices (cameras and access control devices) will NOT be a future phase.
- 1.6 Question #3: How do we arrange a site survey? Response as follows:
 - a) Two of the three projects (**Sheriff's Office and Emergency Services Complex**) which comprise the scope of work are currently under construction. The **Sheriff's** Office has progressed to topping out the steel but no framing has begun to date. The Emergency Services Complex is beginning foundations. The Southwest Regional Library has not begun construction to date.
- 1.7 Question #4: What sizes are the displays and video wall you are looking for and is there a preference in brand? Response as follows:
 - a) The description below is the basis of design.
 - b) Two video walls are required for the Emergency Services Complex. One in the EOC and one in 911. Each video wall shall have its own processor
 - 1) 911: Planar Direct View LED, 1.5 pixel pitch, 5 x 5 unit.
 - 2) EOC: Planar Direct View LED, 1.5 pixel pitch, 8 x 8 unit.
 - 3) Inputs to Processor: 16 separate feeds.
 - 4) Controller Location:
 - (a) 911: Adjacent to managers raised area.
 - (b) EOC: Along the dais near the center of the video wall.

- 5) Auxiliary Input:
 - (a) EOC: Planar Direct View LED, 1.5 pixel pitch, 8 x 8 unit
 - c) One video wall for the sheriff's Office located in the Community Room
 - 1) Community Room: Planar Direct View LED, 1.5 pixel pitch, 5 x 5 unit
 - d) One video wall for the sheriff's Office located in the Community Room
- 1.8 Question #5: How many rooms total are you looking to outfit? Response as follows:
- a) Two Video walls in the Emergency Services Complex and one in the Sheriff's office.
 - b) The conference rooms are shown in the bidding documents
 - c) The locations of wall mounted TV's are illustrated in the bidding documents.
- 1.9 Question #6: Is there a basis of design for the Video Management System/CCTV systems at these sites? Response as follows:
- a) See question #3 response.
- 1.10 Question #7: Will you be reusing any cameras or VMS equipment at any of these locations? Response as follows:
- a) See question #1 response.
- 1.11 Question #8: Is AIA software required for submission of the Applications for Payment? Response as follows:
- a) The use of AIA software for preparation of the applications for payment is not required. The submitted form must provide the same information and layout as AIA G702 and G703. The remainder of the requirements for application for payment are unchanged.
- 1.12 Question #9: What if the level of connectivity between the buildings in the scope of work? Response as follows:
- a) The connectivity between the three buildings in this scope of work is limited to the County infrastructure. No additional connectivity is required.

C. MODIFICATIONS TO PROJECT MANUAL

- 1.13 SECTION 00 41 13 – BID FORM: Revised as follows:
- a) Unit pricing for video walls added:
 - 1) "8 x 8 unit"
 - 2) "5 x 5" unit

D. MODIFICATIONS TO DRAWINGS

- 1.14 This Addendum includes the attached full sheets:
- a) Telecommunications Sheet TE101 (ESC), (Revision
 - 1) Added directions to Keyed Note #2.
 - 2) Edited Keyed Note #5.
 - 3) Added directions to Keyed Note 1.
 - 4) Added General Note (K).
 - 5) Adjusted conduit pathways.

- b) Telecommunications Sheet TE101 (ESC), (Revision 1).
 - 1) Removed Keyed Note #1.
 - 2) Added subscript to elevated Data Port in Mech 156.
 - 3) Removed all Wall Plated (WP) symbols from Telecom Plans.
- c) Telecommunications Sheet TE201 (SO), (Revision 1).
 - 1) Removed all Wall Plated (WP) symbols from Telecom Plans.
 - 2) Removed projector from Training Room 1400.
 - 3) Removed Keyed Note #3.
 - 4) Added video wall text to Training Room 1400.
- d) Telecommunications Sheet TE202 (SO), (Revision 1)).
 - 1) Removed all Wall Plated (WP) symbols from Telecom Plans.
- e) Telecommunications Sheet TE301, (Revision 1).
 - 1) Removed all Wall Plated (WP) symbols from Telecom Plans.
- f) Audio Visual Sheet AV001 (SO), (Revision 1).
 - 1) Modified Wall Plated (WP) description.
- g) Audio Visual Sheet AV403 (SO), (Revision 1).
 - 1) Modified Enlarged Plans #1and #2.
- h) Audio Visual Sheet AV404 (SO), (Revision 1).
 - 1) Modified Enlarged Plans #1and #2
- i) Audio Visual Sheet AV501 (SO), (Revision 1).
 - 1) Removed Projector from Training Room 1400.
 - 2) Added Video Wall text to Training Room 1400.
 - 3) Adjusted and Modified AV Line Diagram #4
 - 4) Removed Keyed Note #11.

E. ATTACHMENTS

1.15 This Addendum includes the attached full sheets:

- a) Telecommunications Sheet TE101 (ESC), (Revision
- b) Telecommunications Sheet TE101 (ESC), (Revision 1).
- c) Telecommunications Sheet TE201 (SO), (Revision 1).
- d) Telecommunications Sheet TE202 (SO), (Revision 1).
- e) Telecommunications Sheet TE301, (Revision 1).
- f) Audio Visual Sheet AV001 (SO), (Revision 1).
- g) Audio Visual Sheet AV403 (SO), (Revision 1).
- h) Audio Visual Sheet AV404 (SO), (Revision 1).
- i) Audio Visual Sheet AV501 (SO), (Revision 1).

END OF ADDENDUM

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SYMBOLS:

SYMBOL	DESCRIPTION
	DISPLAY CONNECTION WITH NETWORK AND QUAD POWER. ELECTRICAL CONTRACTOR SHALL PROVIDE WALL BOX, 1.25" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK CABLING, 0.75" CONDUIT FOR POWER AND QUAD RECEPTACLE. REFER TO DISPLAY DETAIL.
	DISPLAY CONNECTION WITH NETWORK, QUAD POWER AND AV. ELECTRICAL CONTRACTOR SHALL PROVIDE RECESSED AV WALL BOX, 2" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK AND AV CABLING, 0.75" CONDUIT FOR POWER AND QUAD RECEPTACLE. REFER TO AV DISPLAY DETAIL.
	DISPLAY CONNECTION WITH NETWORK, QUAD POWER, AND AV. ELECTRICAL CONTRACTOR SHALL PROVIDE RECESSED AV WALL BOX, 2" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK AND AV CABLING, 2" CONDUIT TO ASSOCIATED WALL PLATE FOR AV CABLING, 0.75" CONDUIT FOR POWER AND QUAD RECEPTACLE. REFER TO AV DISPLAY WITH WALL PLATE DETAIL.
	DISPLAY CONNECTION WITH NETWORK, QUAD POWER AND AV. ELECTRICAL CONTRACTOR SHALL PROVIDE RECESSED AV WALL BOX, 2" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK AND AV CABLING, 2" CONDUIT TO ASSOCIATED FLOOR BOX FOR AV CABLING, 0.75" CONDUIT FOR POWER AND QUAD RECEPTACLE. REFER TO AV DISPLAY WITH FLOOR BOX DETAIL.
	AV INPUT WALL PLATE CONNECTION. ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 2" CONDUIT TO DISPLAY CONNECTION OR ACCESSIBLE CEILING SPACE.
	RECESSED INTERCOM SPEAKER. (SOUTHWEST REGIONAL LIBRARY ONLY)
	PENDANT INTERCOM SPEAKER. (SOUTHWEST REGIONAL LIBRARY ONLY)
	RECESSED SOUND REINFORCEMENT SPEAKER.
	PENDANT SOUND REINFORCEMENT SPEAKER.
	CONDUIT/SLEEVE, 2" UNLESS OTHERWISE NOTED.
	RUNWAY LADDER CABLE TRAY IN TELECOMMUNICATIONS ROOMS.
	WIRE MESH CABLE TRAY. (SOLID LINE TYPE INDICATES INSTALLATION IN ACCESSIBLE CEILING SPACE AND DASHED LINE TYPE INDICATES INSTALLATION IN RAISED FLOOR.
	TWO-POST EQUIPMENT RACK WITH VERTICAL WIRE MANAGEMENT, PROVIDED BY TELECOMMUNICATIONS CONTRACTOR.
	FOUR-POST EQUIPMENT RACK WITH VERTICAL WIRE MANAGEMENT, PROVIDED BY TELECOMMUNICATIONS CONTRACTOR.
	3/4" FIRE RATED AC PLYWOOD WITH TWO COATS OF FIRE RETARDANT LIGHT-COLORED PAINT ON ALL SIDES. STAMP SHALL BE VISIBLE. MOUNT 8" AFF WITH GRADE A SURFACE EXPOSED.
	SECONDARY BONDING BAR.
	DRAWING NOTE

GENERAL NOTES:

- A. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT NETWORK OUTLET LOCATIONS.
- B. COORDINATE LOCATIONS OF CEILING MOUNTED DEVICES (WIRELESS ACCESS POINTS, SPEAKERS, CABLE TRAY, ETC) WITH ALL OTHER TRADES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, TECHNOLOGY, ETC).
- C. ANY DIRECTION GIVEN IN THE FIELD THAT DEVIATES FROM THE CONSTRUCTION DOCUMENTS MUST BE DOCUMENTED AND VERIFIED WITH THE ENGINEER.
- D. PROVIDE ALL REQUIRED HARDWARE FOR A COMPLETE OPERATIONAL INSTALLATION.
- E. ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED. WHERE CONDUITS ARE TO BE INSTALLED IN EXPOSED CEILING, CONDUITS SHALL BE INSTALLED TIGHT TO STRUCTURE AND PAINTED TO MATCH ADJACENT SURFACE.
- F. NO SECTION OF CONDUIT SHALL CONTAIN MORE THAN (2) 90° BENDS, OR EQUIVALENT BETWEEN PULL POINTS. PROVIDE JUNCTION BOX SIZED PER NEC OR AS INDICATED.
- G. NO SECTION OF CONDUIT SHALL BE LONGER THAN 100'-0" BETWEEN PULL POINTS. PROVIDE JUNCTION BOX SIZED PER NEC OR AS INDICATED.
- H. ALL 2" AND LARGER CONDUITS SHALL BE LABELED ON BOTH ENDS INDICATING DESTINATION LOCATION.
- I. ALL JUNCTION BOXES MOUNTED IN EXTERIOR WALLS SHALL BE WEATHERPROOF AND GASKETED.
- J. ELECTRICAL CONTRACTOR SHALL PROVIDE PULLSTRINGS (INTERIOR) OR MULE TAPE (EXTERIOR) FOR ALL CONDUITS TO BE UTILIZED FOR LOW VOLTAGE SYSTEMS.
- K. ELECTRICAL CONTRACTOR SHALL MAINTAIN FIRE RATINGS OF WALLS, PARTITIONS, FLOORS OR CEILINGS PER NEC & IBC WHEN INSTALLING RECESSED BOXES. BOXES IN RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE NOT LESS THAN 24". THE HORIZONTAL DISTANCE MAY BE REDUCED, BUT SHALL NOT BE LESS THAN THE DEPTH OF THE WALL CAVITY, WHERE FILLED WITH CELLULOSE LOOSE FILL, ROCKWOOL OR SLAG MINERAL WOOL INSULATION OR WHERE PROTECTED BY LISTED PUTTY PADS OR OTHER LISTED MATERIALS/METHODS. ELECTRICAL CONTRACTOR SHALL PROVIDE LISTED PUTTY PADS AS REQUIRED. IN NO CASE SHALL THE AGGREGATE AREA OF OPENINGS EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL SPACE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LOW VOLTAGE CONTRACTOR TO VERIFY FINAL INSTALLATION WILL SATISFY CODE REQUIREMENTS.
- L. INSTALLATION OF AC VOLTAGE CABLING IN LOW VOLTAGE PATHWAYS IS NOT ACCEPTABLE.
- M. CABLING SHALL PASS STRAIGHT THROUGH ANY PULL BOX. CHANGE OF DIRECTION IN A PULL BOX IS NOT ACCEPTABLE.
- N. CONDUITS SHALL HAVE A MAXIMUM OF 40% FILL.
- O. PROVIDE STAINLESS STEEL FACEPLATES.
- P. ALL FACEPLATES AND PATCH PANELS SHALL UTILIZE MODULAR JACKS.
- Q. ALL CABLING SHALL BE PLENUM RATED UNLESS OTHERWISE NOTED.
- R. ALL CABLING, TERMINATIONS AND HOUSINGS ARE TO BE RATED FOR THE ENVIRONMENTS IN WHICH THEY ARE INSTALLED.
- S. CABLING SHALL NOT BE PAINTED. MANUFACTURERS WARRANTY MAY BE VOIDED.
- T. TERMINATE ALL CABLING ON DEDICATED SYSTEM PATCH PANEL. (WIRELESS, DATA, SECURITY, ETC.)
- U. PROVIDE OUTSIDE PLANT CATEGORY CABLING FOR IN/UNDERSLAB OR OUTDOOR APPLICATIONS. CONDUIT CONTAINING OUTSIDE PLANT CABLING SHALL BE EXTENDED TO LOCAL TELECOMMUNICATIONS ROOM. INDOOR/OUTDOOR CATEGORY CABLING IS AN ACCEPTABLE ALTERNATIVE. GENERAL CABLE: GENSPD10 UTP INDOOR/OUTDOOR 7141007 OR APPROVED EQUAL.
- V. ALL CABLING SHALL BE TERMINATED, TESTED AND LABELED PER SPECIFICATIONS. ALL LABELING SHALL BE MACHINE PRINTED. HAND WRITTEN LABELS ARE NOT ACCEPTABLE.
- W. PROVIDE PATCH CORD FOR EACH TERMINATED PORT IN TELECOMMUNICATIONS ROOM. COORDINATE EXACT LENGTH WITH OWNER.
- X. PROVIDE EQUIPMENT CORD FOR EACH WIRELESS ACCESS POINT. COORDINATE EXACT LENGTH WITH OWNER.
- Y. PROVIDE SURGE SUPPRESSION MODULE AT DEVICES UTILIZING IN/UNDERSLAB CONDUIT AND EXTERIOR NETWORK SPEAKER LOCATIONS. DITEK, DTK-MR1050S OR APPROVED EQUAL. REFER TO EXTERIOR NETWORK DEVICE DETAIL. PROVIDE 24 CHANNEL, RACK MOUNTED SURGE SUPPRESSION AT RACK LOCATION FOR NETWORK PROTECTION. DITEK, DTK-RM24NETS OR APPROVED EQUAL. PROVIDE PATCH CORDS AS REQUIRED. INSTALL SURGE PROTECTION DEVICE WITHIN 24" OF ENTRY INTO BUILDING OR EQUIPMENT ENCLOSURE.
- Z. ALL PENETRATIONS THROUGH RATED WALLS MUST BE FIRESTOPPED. UTILIZE MECHANICAL FIRE RATED PATHWAYS. ST1 EZ-PATH OR APPROVED EQUAL.
- AA. PROVIDE METALLIC J-HOOKS FOR CABLING IN ACCESSIBLE CEILING SPACES WITHOUT CABLE TRAY. BETWEEN CONDUITS, AND BETWEEN CONDUITS AND CABLE TRAY AT 3'-5" IRREGULAR INTERVALS. PANDUIT, COOPER B-LINE, NVENT CADDY, OR APPROVED EQUAL. FOR EMERGENCY SERVICES COMPLEX (ESC) PER NFPA 1221 SECTION 5.5 J-HOOKS ARE NOT ACCEPTABLE WITHIN THE COMMUNICATIONS CENTER.
- BB. THE USE OF J-HOOKS IN EXPOSED CEILING AREAS IS NOT ACCEPTABLE. PROVIDE CONDUIT OR SOLID BOTTOM CABLE TRAY. CONDUITS AND/OR SOLID BOTTOM CABLE TRAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE.
- CC. THE USE OF J-HOOKS ABOVE INACCESSIBLE CEILING AREAS IS NOT ACCEPTABLE. PROVIDE CONDUIT.
- DD. NYLON CABLE TIE WRAPS ARE NOT ACCEPTABLE FOR BINDING OR SECURING CABLE BUNDLES. UTILIZE HOOK AND LOOP STRAPS TO SECURE CABLING. STRAPS SHALL BE EVENLY SPACED THROUGHOUT THE DRESSED LENGTH AND PLENUM RATED WHERE APPLICABLE.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	IoT	INTERNET OF THINGS
ADA	AMERICANS WITH DISABILITIES ACT	IP	INTERNET PROTOCOL
AFF	ABOVE FINISHED FLOOR (ELEVATION TAKEN FROM FINISHED FLOOR)	J-BOX	JUNCTION BOX
AFG	ABOVE FINISHED GRADE (ELEVATION TAKEN FROM FINISHED GRADE)	MH	MANHOLE
AV	AUDIO/VISUAL	MIN	MINIMUM
AVC	AUDIO/VISUAL CONTRACTOR	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NVR	NETWORK VIDEO RECORDER
BOCT	BOTTOM OF CABLE TRAY	OSP	OUTSIDE PLANT
C	CONDUIT	PDU	POWER DISTRIBUTION UNIT
CAM	CAMERA	PoE	POWER OVER ETHERNET
CATV	CABLE TELEVISION	PVC	POLYVINYL CHLORIDE
CLG	CEILING	QTY	QUANTITY
CMU	CONCRETE MASONRY UNIT	SC	SECURITY CONTRACTOR
EC	ELECTRICAL CONTRACTOR	SPECS	SPECIFICATIONS
ETR	EXISTING TO REMAIN	TC	TELECOMMUNICATIONS CONTRACTOR
EXT	EXTERIOR	TELECOM	TELECOMMUNICATIONS
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
GYP	GYPSUM BOARD	UN	UNLESS OTHERWISE NOTED
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE	UPS	UNINTERRUPTIBLE POWER SUPPLY
HDTV	HIGH DEFINITION TELEVISION	VoIP	VOICE OVER INTERNET PROTOCOL
HH	HANDHOLE	WAP	WIRELESS ACCESS POINT
		WDR	WEATHERPROOF
		#D	QUANTITY OF DATA CONNECTIONS
		#V	QUANTITY OF VOICE CONNECTIONS
		#R	QUANTITY OF RADIO CONNECTIONS

SEAL:

06-14-2021

UNION COUNTY EMERGENCY SERVICES
 SHERIFF'S OFFICE AND
 SOUTHWEST REGIONAL LIBRARY
 MONROE, NC

Rev #	Date	Description
1	7/15/2021	ADDENDUM #1

DATE: 07-15-2021
 PROJECT #: 19053
 DRAWN BY: TJH
 DESIGNED BY: TMC
 CHECKED BY: BMR

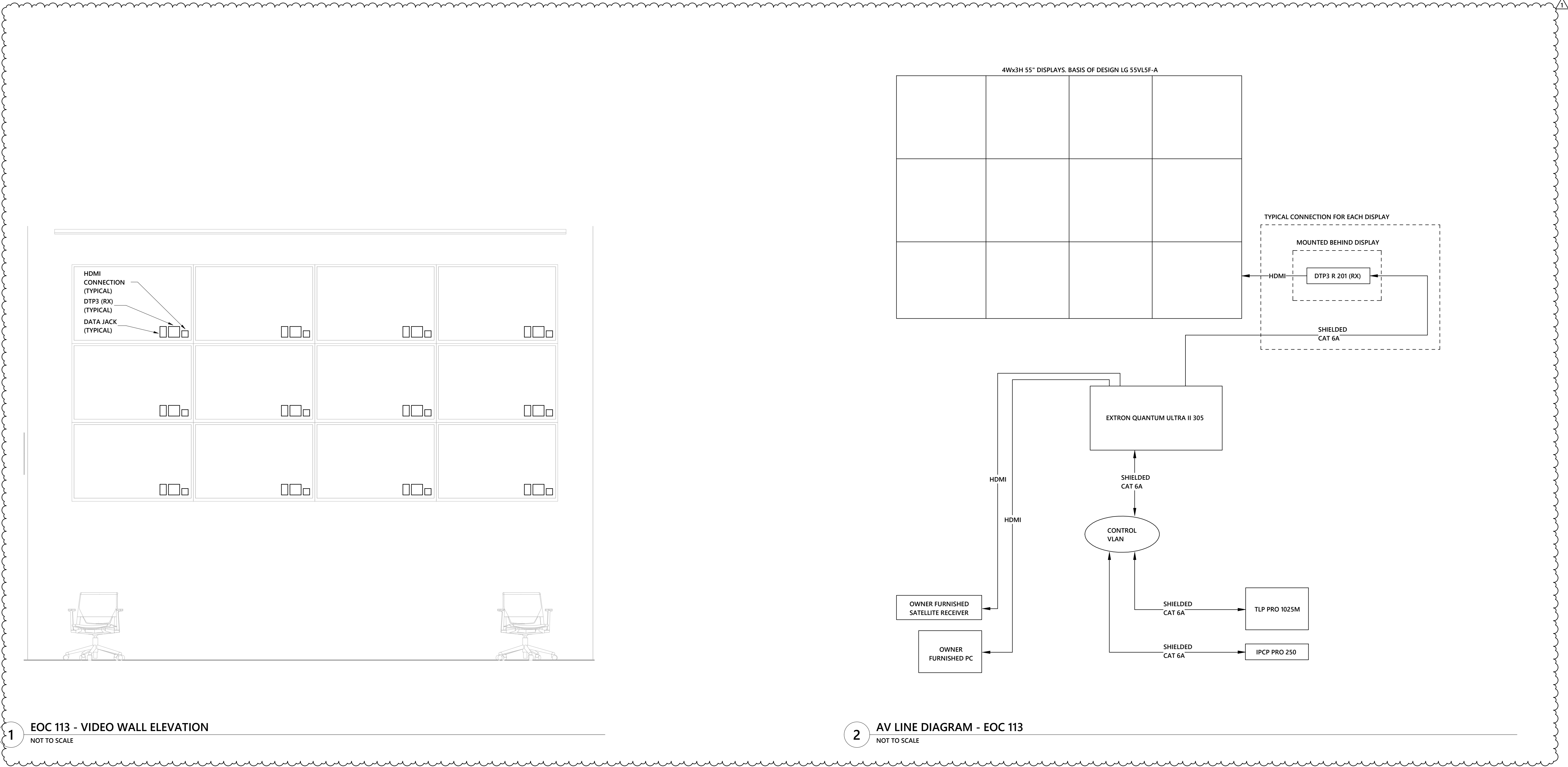
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 AV LEGEND AND NOTES

DWG #:
AV001

MECHANICAL ELECTRICAL PLUMBING
 FIRE PROTECTION TECHNOLOGY DESIGN

 1502 Fayetteville St., Suite 200, Raleigh, NC 27601
 Phone: 919.794.2020 www.optimaengineering.com
 North Carolina License Number: C10914

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Optima engineering
MECHANICAL ELECTRICAL PLUMBING
FIRE PROTECTION TECHNOLOGY DESIGN

150 Fayetteville St., Suite 200, Raleigh, NC 27601
Phone: 919.376.2020 www.optima-engineering.com
North Carolina License Number: C1094

SEAL:

Bicsi
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
THOMAS M. BICSI
BICSI 104724716
EXPIRES 12-31-22
• RCD •

06-14-2021

UNION COUNTY EMERGENCY SERVICES
SHERIFF'S OFFICE AND
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MONROE, NC

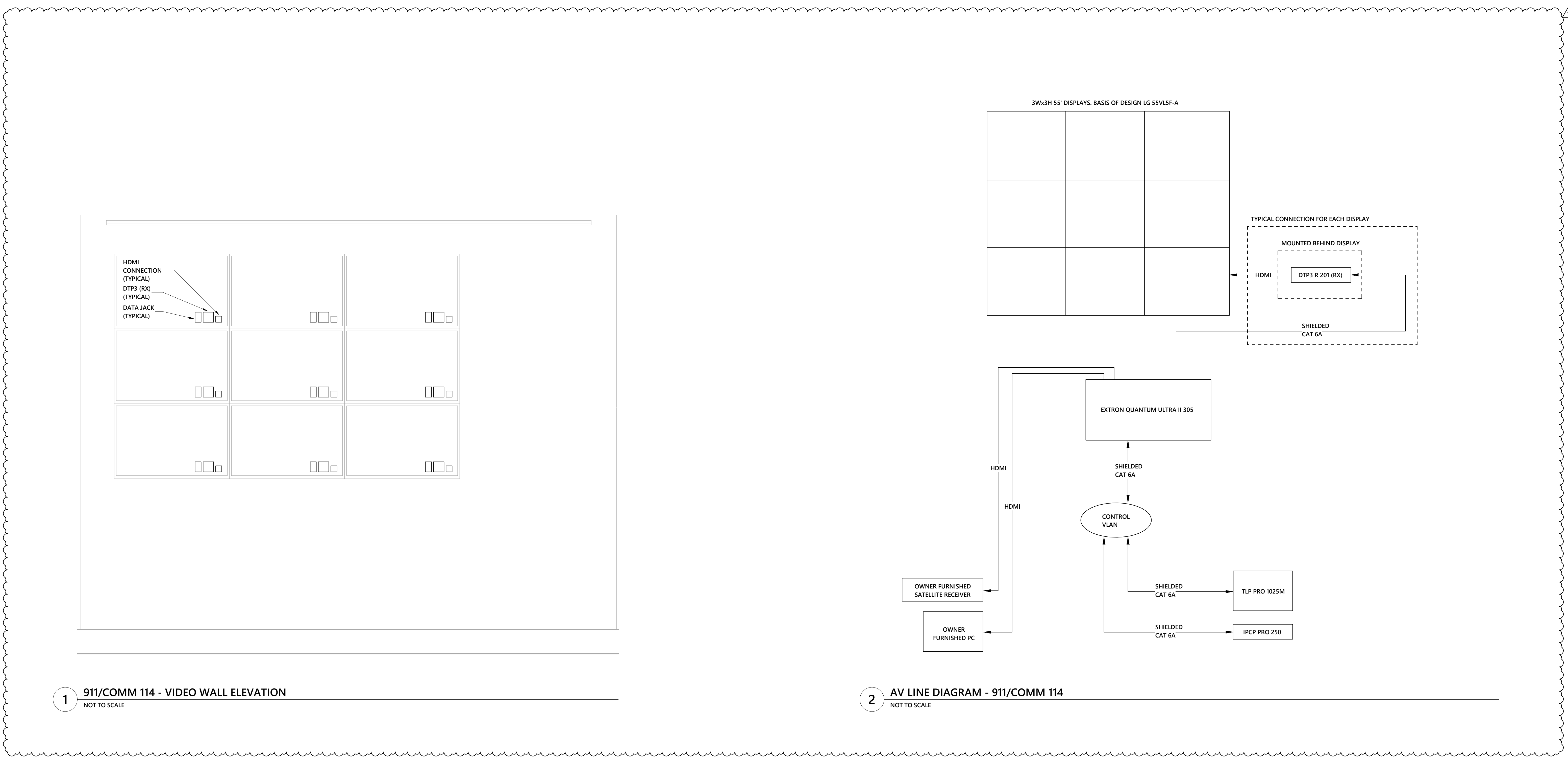
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DRAWN BY: TJH
DESIGNED BY: TMC
CHECKED BY: BMR

SHEET TITLE:
AV ENLARGED
PLANS - ESC

DWG #:
AV403

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1 911/COMM 114 - VIDEO WALL ELEVATION
NOT TO SCALE

2 AV LINE DIAGRAM - 911/COMM 114
NOT TO SCALE

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MECHANICAL ELECTRICAL PLUMBING
FIRE PROTECTION TECHNOLOGY DESIGN

190 Fayetteville St., Suite 200, Raleigh, NC 27601
Phone: 919.376.2020 www.optima-engineering.com
North Carolina License Number: C1094

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Bicsi
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BICSI 1014724716
EXPIRES 12-31-22
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06-14-2021

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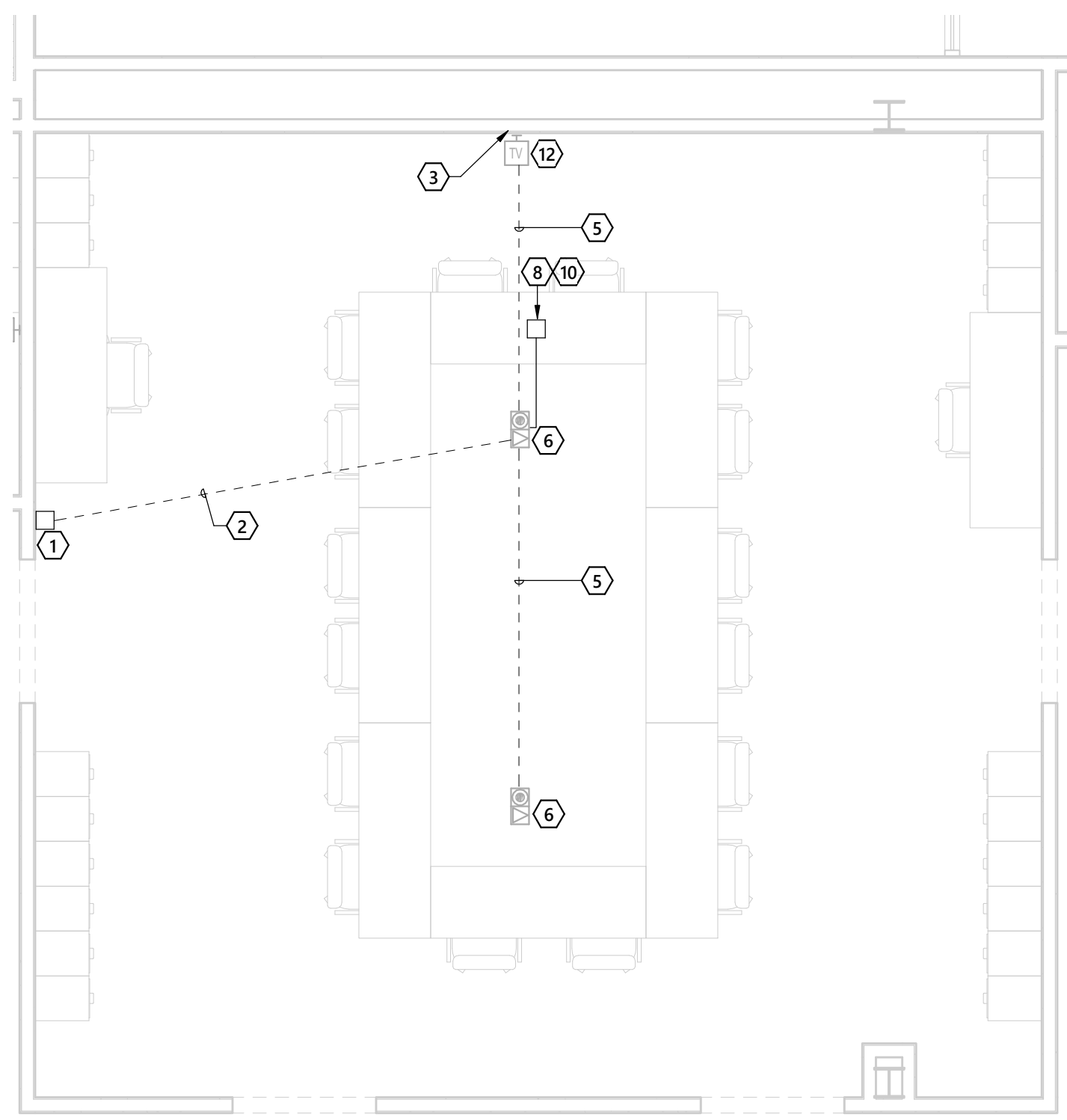
Rev #	Date	Description
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DATE: 07-15-2021
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DRAWN BY: TJH
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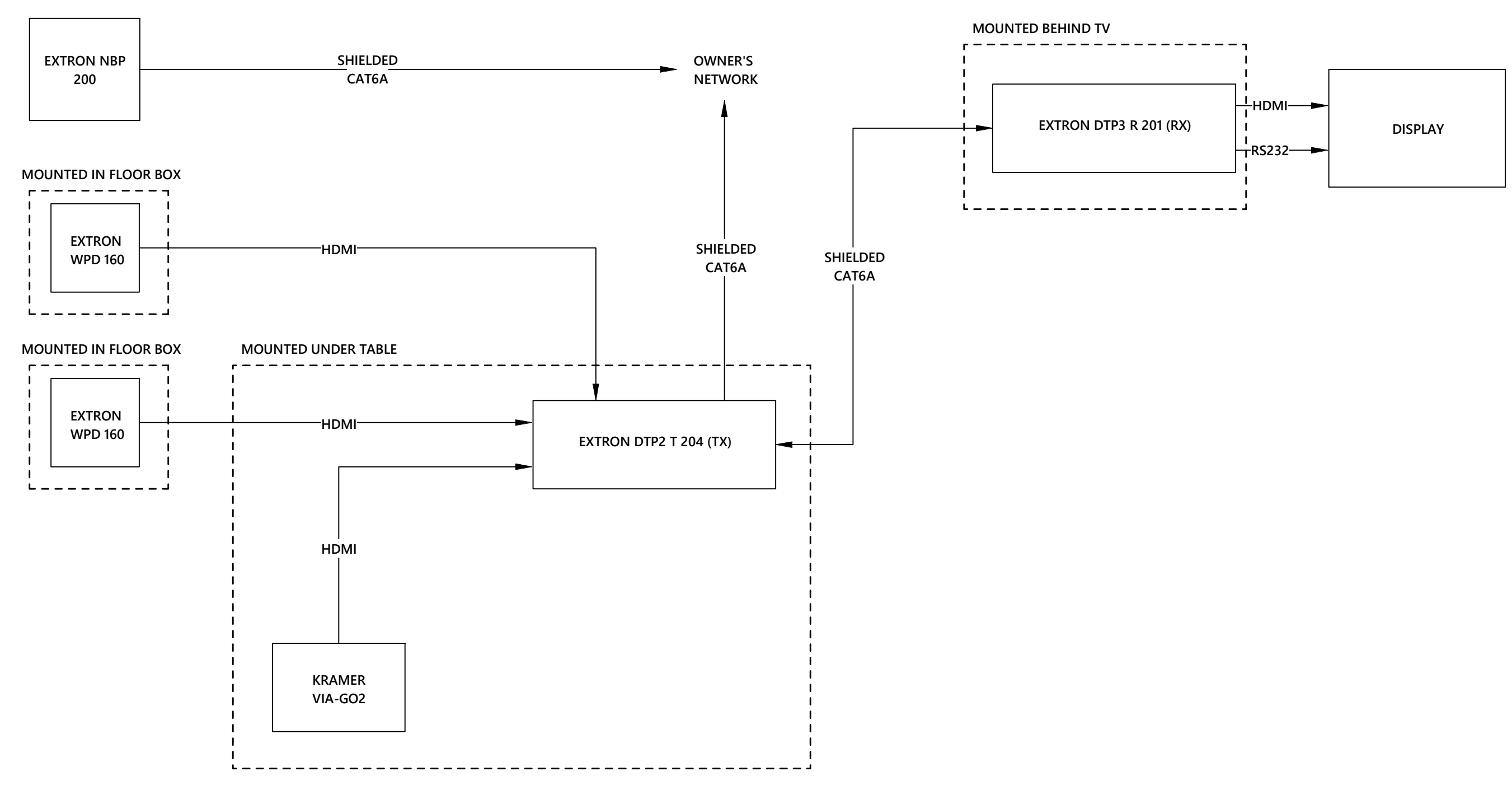
SHEET TITLE:
AV ENLARGED
PLANS - ESC

DWG #:
AV404

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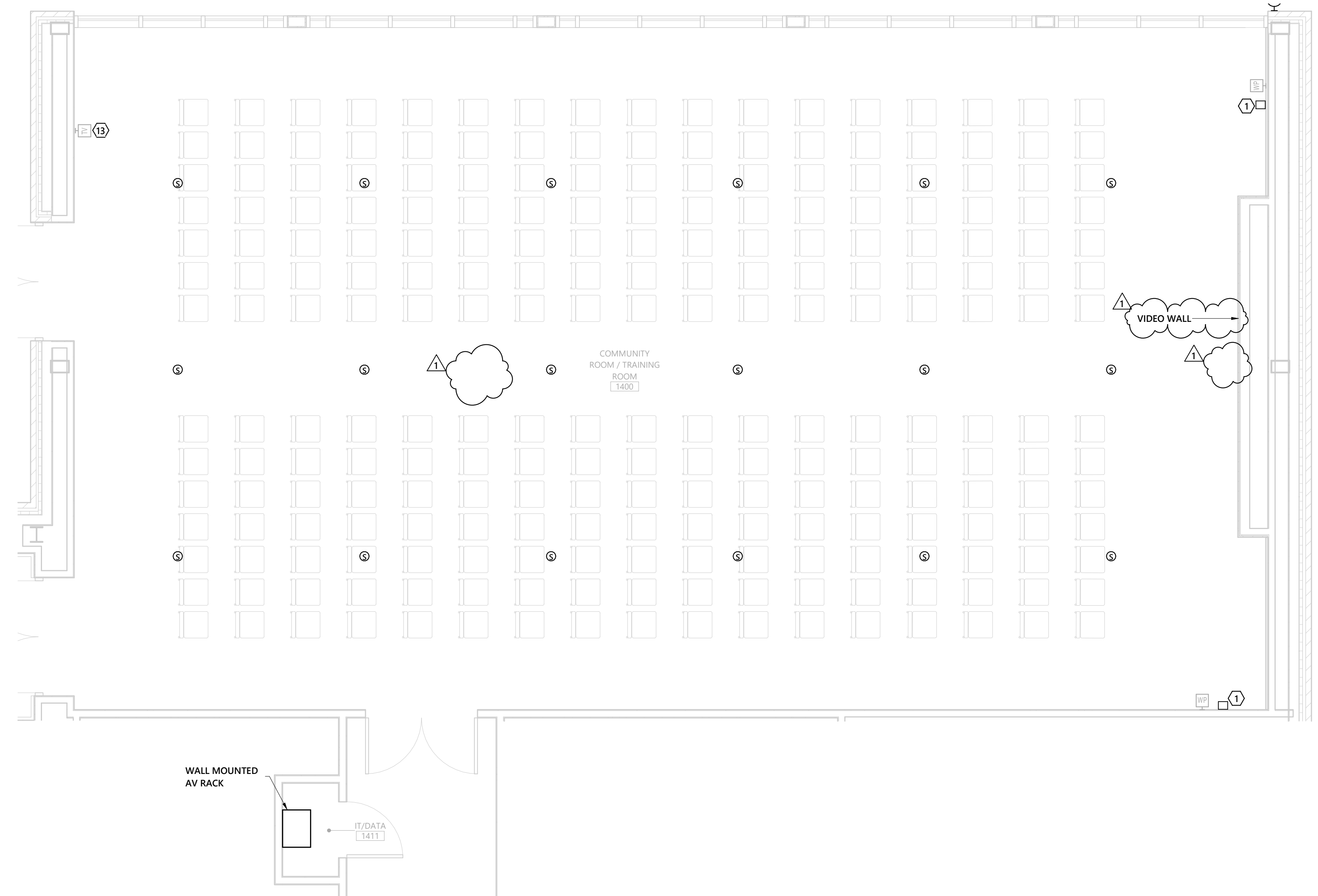


1 PATROL SQUAD BULLPEN 1301 - AV ENLARGED PLAN
1/4" = 1'-0"

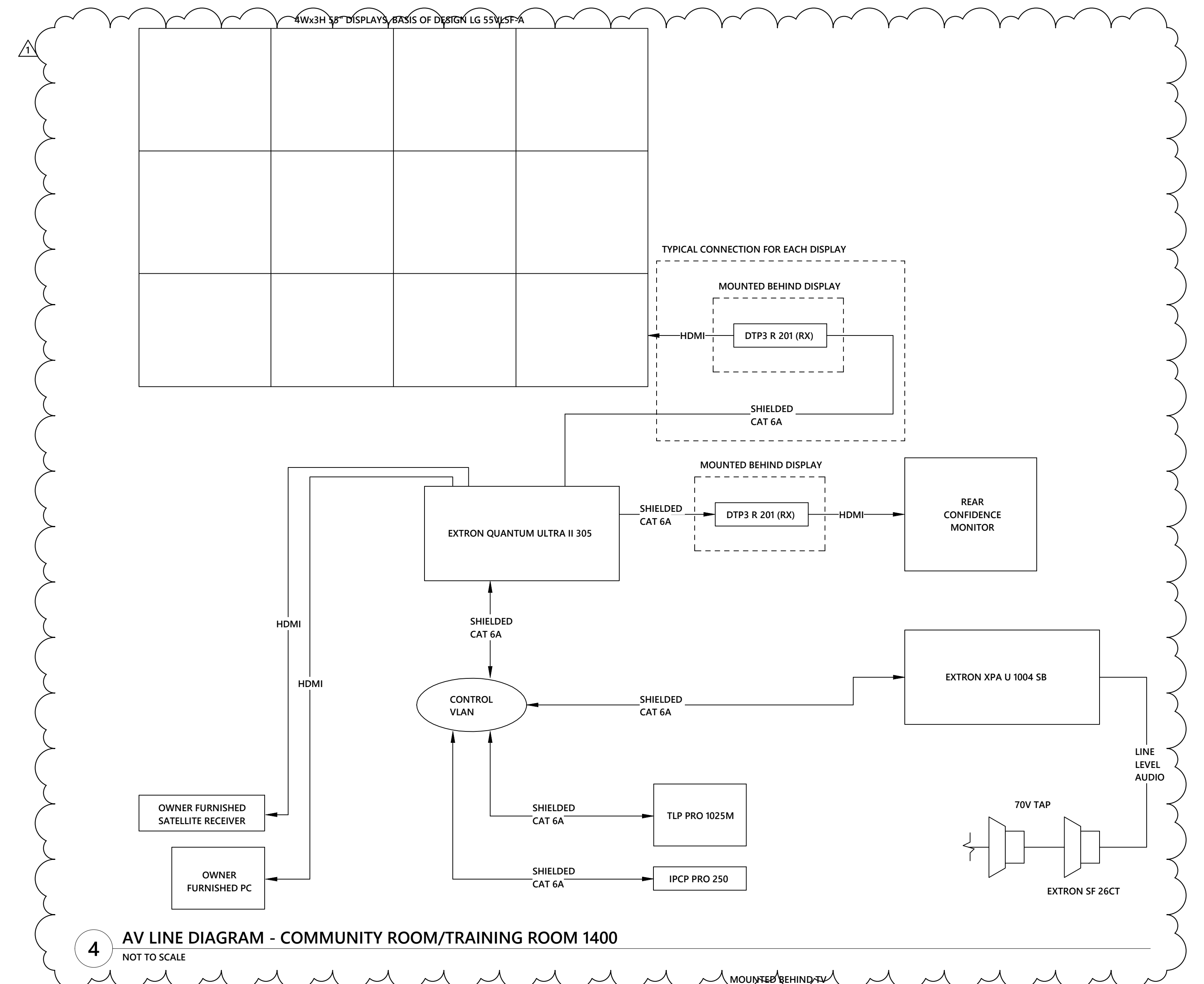


2 AV LINE DIAGRAM - PATROL SQUAD BULLPEN 1301
NOT TO SCALE

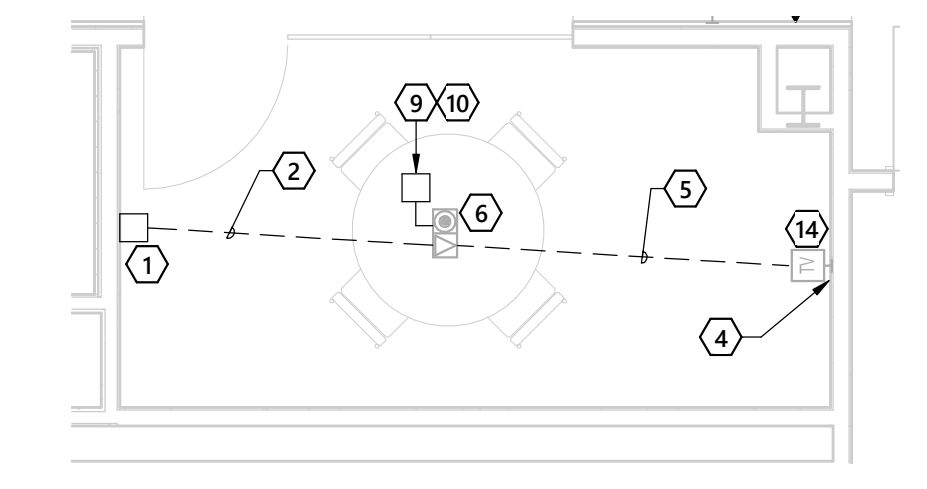
- DRAWING NOTES:**
1. NETWORK PANEL BUTTON.
 2. (1) 1" CONDUIT ROUTED FROM NBP BACKBOX TO FLOOR BOX.
 3. DTP3 R 201 (RX) MOUNTED BEHIND DISPLAY.
 4. HC404 (RX) MOUNTED BEHIND DISPLAY.
 5. (1) 2" CONDUIT ROUTED FROM FLOOR BOX TO BACKBOX FOR DISPLAY.
 6. EXTRON WPD 160. MOUNT IN FLOOR BOX.
 7. NOT USED.
 8. DPT2 T 204 (TX) UNDERTABLE.
 9. HC404 (TX) UNDERTABLE.
 10. VIA-GO2 UNDERTABLE.
 11. NOT USED.
 12. 65" DISPLAY WITH TILT MOUNT.
 13. 55" DISPLAY WITH TILT MOUNT.
 14. 42" DISPLAY WITH TILT MOUNT.



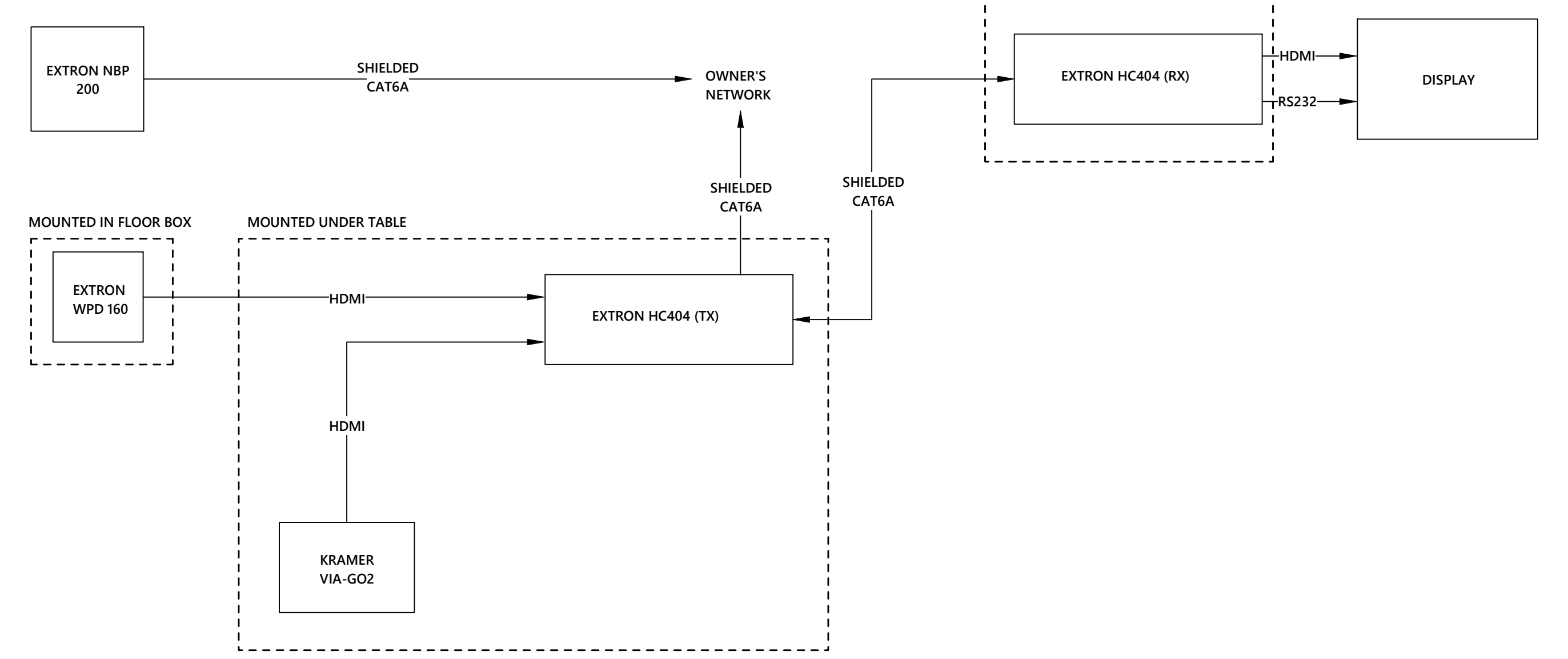
3 COMMUNITY ROOM/TRAINING ROOM 1400 - AV ENLARGED PLAN
1/4" = 1'-0"



4 AV LINE DIAGRAM - COMMUNITY ROOM/TRAINING ROOM 1400
NOT TO SCALE



5 SMALL CONFERENCE 1201 - AV ENLARGED PLAN
1/4" = 1'-0"



6 AV LINE DIAGRAM - SMALL CONFERENCE ROOM 1201
NOT TO SCALE

**MECHANICAL ELECTRICAL PLUMBING
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SEAL:

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SHERIFF'S OFFICE AND
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 DRAWN BY: TJH
 DESIGNED BY: TMC
 CHECKED BY: BMR

SHEET TITLE:
**AV ENLARGED
PLANS - SO**

DWG #:
AV501

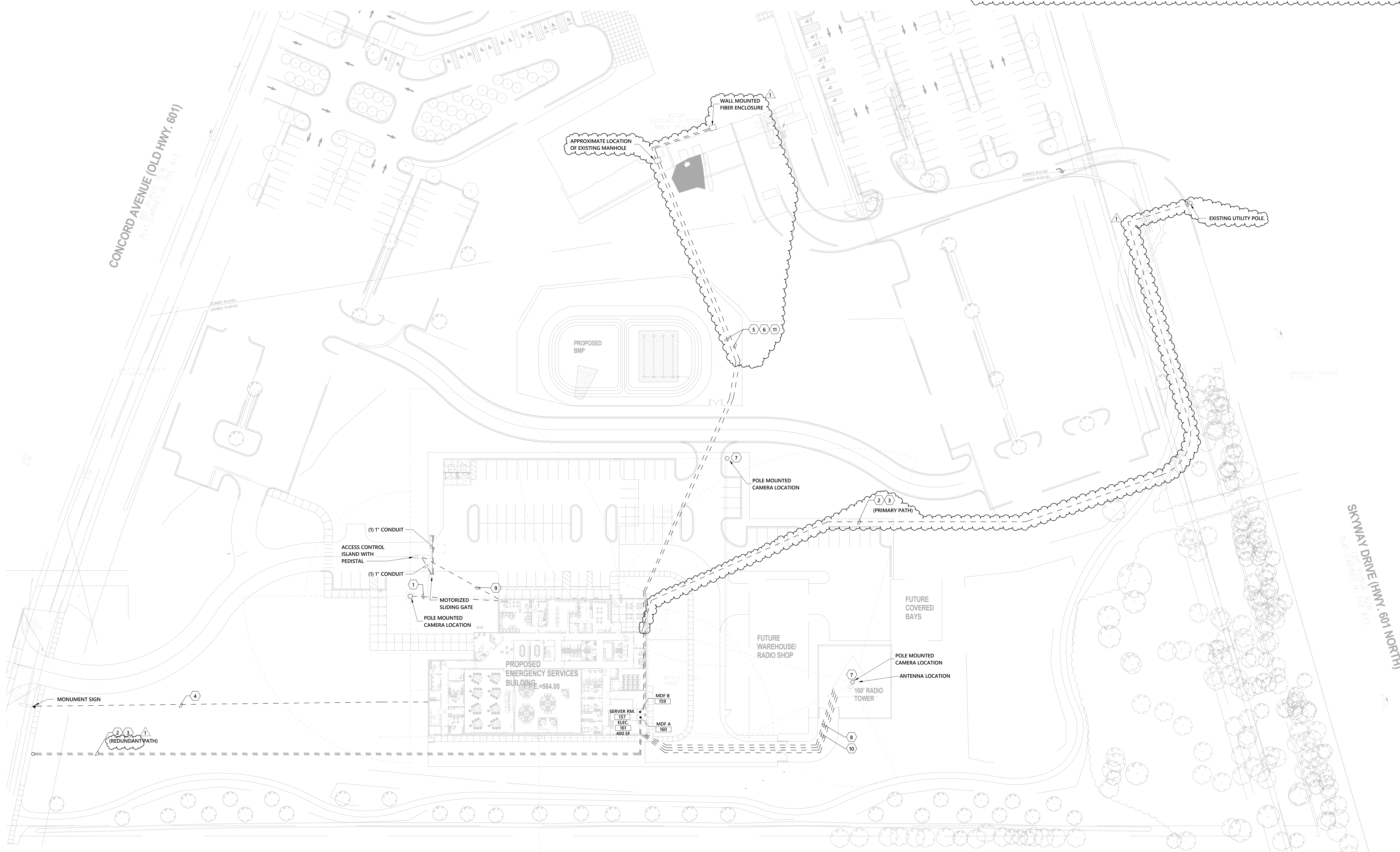
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GENERAL NOTES:

- A. CONTRACTOR SHALL COORDINATE COMMUNICATION CONDUIT STUB-UP LOCATIONS IN I.T. ROOM WITH OWNER AND UTILITY PRIOR TO ROUGH-IN.
- B. PROVIDE UNDERGROUND DETECTABLE WARNING TAPE FOR ALL UNDERGROUND FEEDERS. PERMANENT BRIGHT COLORED, CONTINUOUS-PRINTED, POLYETHYLENE TAPE, NOT LESS THAN 6 INCHES WIDE BY 4 MILS THICK, COMPOUNDED FOR PERMANENT DIRECT-BURIAL SERVICE. EMBEDDED CONTINUOUS METALLIC STRIP OR CORE AND PRINTED LEGEND INDICATING THE TYPE OF UNDERGROUND LINE, 12" BELOW FINISHED GRADE.
- C. ALL EMPTY RACEWAYS INCLUDING ALL INNERDUCTS IN RACEWAYS SHALL HAVE A PULL WIRE PER NECA STANDARDS. FURNISH UNGLUED CAP ON EACH END TO KEEP OUT DEBRIS.
- D. ALL EMPTY RACEWAYS EXTENDING THROUGH CONCRETE SLAB SHALL BE EXTENDED TO 6" ABOVE FINISHED GRADE.
- E. ASSURE AS BUILT PLANS ARE MARKED ACCURATELY.
- F. COORDINATE QUANTITY AND SIZES OF MANHOLE AND HANDHOLE LOCATIONS WITH CABLE MANUFACTURER AND FURNISH ACCORDINGLY TO ENSURE CABLE PULLING TENSION DOES NOT EXCEED CABLE MANUFACTURER RECOMMENDATIONS FOR ALL SITE WORK SHOWN ON THIS PLAN.
- G. WHERE UNDERGROUND CONDUITS TURN UP INTO EQUIPMENT OR ABOVE GRADE, RIGID STEEL METALLIC ELBOWS AND CONDUIT SHALL BE USED FOR THE STUB-UP.
- H. ALL SITE DATA CONDUITS SHALL BE RUN IN PAIRS, WITH EACH PIPE HAVING A PULLBOX, INTERCONNECTED AND TAGGED WITH PERMANENT LABELS.
- I. ALL TELECOMMUNICATIONS CONDUITS SHALL HAVE A BENDING RADIUS OF AT LEAST TEN (10) TIMES THE CONDUIT DIAMETER.
- J. ALL UNDERGROUND CONDUITS SHALL BE PVC SCHEDULE 40, CONCRETE ENCASED, WITH EXCEPTION OF SITE LIGHTING AND MONUMENT SIGN CONDUITS.
- K. CONDUIT PATHWAYS SHOWN ON THIS PLAN ARE PROVIDED BY BUILDING ELECTRICAL CONTRACTOR AND SHOWN FOR REFERENCE. STRUCTURED CABLING CONTRACTOR IS RESPONSIBLE FOR CABLING AND TERMINATIONS AS NOTED.

KEYED NOTES:

1. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (1) 4" CONDUIT TO ELECTRICAL ROOM FOR POWER AND 1.5" CONDUIT TO SERVER ROOM FOR NETWORK CABLING. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 12-STRAND ARMORED, INDOOR/OUTDOOR, OM4 FIBER OPTIC CABLE FROM POLE MOUNTED CAMERA LOCATION TO SERVER ROOM. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE WEATHERPROOF ENCLOSURE ON POLE. COORDINATE EXACT HEIGHT WITH OWNER AND SECURITY CONTRACTOR.
2. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (1) 4" EC AND (2) 2" EC FROM MDF-A & B ROOMS TO PROPERTY LINE FOR TELEPHONE, CATV AND INCOMING FIBER SERVICE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION. E.C. TO PROVIDE UP TO 350' OF ADDITIONAL (1) 4" EC AND (2) 2" EC AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION. (1) 4" EC SHALL EACH INCLUDE (3) 1-1/4" INNERDUCT AND (1) 1" INNERDUCT (SP TO PROVIDE INCOMING SERVICES).
3. ALL LOW VOLTAGE CONDUIT RUNS SHALL HAVE HAND HOLES/PULL BOXES SUPPLIED AT 150' INTERVALS UNLESS OTHERWISE INDICATED BY LOCAL UTILITY. MINIMUM SIZE SHALL BE 36" X 36".
4. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 6-STRAND MULTI-MODE, ARMORED, OUTDOOR FIBER OPTIC CABLE FROM MONUMENTAL SIGN TO SERVER ROOM. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE FIBER TO ETHERNET MEDIA CONVERTERS FOR BOTH ENDS OF THE FIBER.
5. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (2) 2" CONDUITS FROM EMERGENCY SERVICES COMPLEX TO EXISTING HHS BUILDING. (1) 2" CONDUIT TO STUB INTO MDF-A AND (1) 2" CONDUIT TO STUB INTO MDF-B. CONDUITS SHALL TERMINATE AT EXISTING HANDHOLE OUTSIDE. HHS BUILDING AT APPROXIMATE LOCATION SHOWN.
6. ALL LOW VOLTAGE CONDUIT RUNS SHALL HAVE HAND HOLES/PULL BOXES SUPPLIED AT 300' INTERVALS UNLESS OTHERWISE INDICATED BY LOCAL UTILITY. MINIMUM SIZE SHALL BE 36" X 36".
7. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (1) 4" CONDUIT TO ELECTRICAL ROOM FOR POWER AND 1.5" CONDUIT FOR NETWORK CABLING. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 6-STRAND ARMORED, INDOOR/OUTDOOR, OM4 FIBER OPTIC CABLE FROM POLE MOUNTED CAMERA LOCATION TO SERVER ROOM. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE WEATHERPROOF ENCLOSURE ON POLE. COORDINATE EXACT HEIGHT WITH OWNER AND SECURITY CONTRACTOR.
8. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (4) 4" EC FROM SERVER ROOM TO ANTENNA SITE. EACH CONDUIT SHALL INCLUDE (3) 1-1/4" INNERDUCT AND (1) 1" INNERDUCT. COORDINATE STUB-UP LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. STUB CONDUITS NEAR ANTENNA LOCATION. CAP SPARE CONDUITS AT BOTH ENDS. DRIVE A 3/4" X 24" LONG REBAR, DRIVEN TO 6" BELOW FINISHED GRADE FOR FUTURE LOCATING OF CONDUITS. A MAXIMUM TOTAL OF 180° BENDS SHALL BE MADE. BENDS SHALL BE 45° ANGLES.
9. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (2) 1" EC POWER TO ELECTRICAL ROOM AND (2) 1.5" EC COMMUNICATIONS TO SERVER ROOM FOR MOTORIZED GATE/ACCESS CONTROL ISLAND. COORDINATE EXACT REQUIREMENTS AND STUB UP LOCATIONS WITH VENDOR.
10. BUILDING ELECTRICAL CONTRACTOR SHALL PROVIDE (2) 2" EC & (6) 1" EC FOR TOWER EQUIPMENT POWER. PROVIDE 1-1/2" EC FOR TOWER CAMERA NETWORK CABLING. CONTRACTOR SHALL PROPERLY SEPARATE POWER, NETWORK AND RF CONDUITS.
11. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 12-STRAND LOOSE TUBE SINGLE MODE FIBER TERMINATED WITH LC CONNECTORS FROM MDF-A AND MDF-B TO EXISTING SP DEMARC IN HHS BUILDING. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE A WALL MOUNTED FIBER ENCLOSURE FOR FIBER TERMINATIONS. COORDINATE EXACT LOCATION WITH OWNER.



**MECHANICAL ELECTRICAL PLUMBING
FIRE PROTECTION TECHNOLOGY DESIGN**

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 Phone: 919.376.2020 www.optimaengineering.com
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06-14-2021

**UNION COUNTY EMERGENCY SERVICES
SHERIFF'S OFFICE AND
SOUTHWEST REGIONAL LIBRARY**
 MONROE, NC

Rev #	Date	Description
1	7/15/2021	ADDENDUM #1

DATE: 06-14-2021
 PROJECT #: 19053
 DRAWN BY: TJH
 DESIGNED BY: TMC
 CHECKED BY: BMR

SHEET TITLE:
**TELECOM SITE
PLAN - ESC**

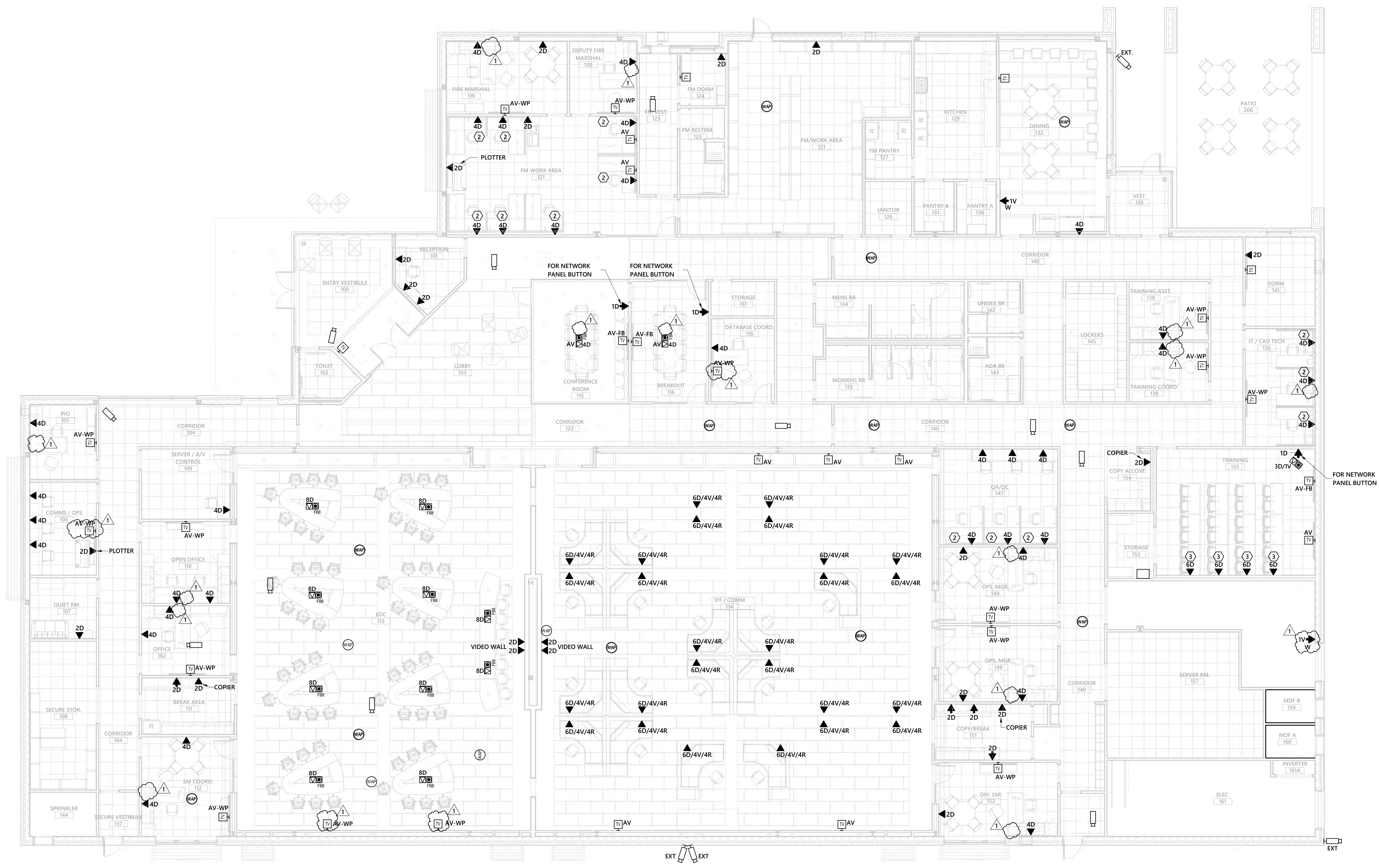
DWG #:
TE100

1 EMERGENCY SERVICES COMPLEX SITE-TELECOMMUNICATIONS PLAN
1" = 40'-0"

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- GENERAL NOTES:**
- ALL FLOOR BOXES SHALL HAVE 1" C WITH PULLSTRING ROUTED UNDERSLAB TO ABOVE LOCAL ACCESSIBLE CEILING.
 - BACK TO BACK INSTALLATION SHALL NOT BE ALLOWED. WHERE DEVICES ARE SHOWN BACK TO BACK, DEVICE SHALL BE OFFSET 3".
 - TELECOM OUTLETS LOCATED IN MECHANICAL ROOMS AND ELECTRICAL ROOMS SHALL HAVE CONTINUOUS CONDUIT FROM THE OUTLET BOX TO THE NEAREST CABLE TRAY, TELECOM ROOM OR ACCESSIBLE CEILING. NO FREE RUN CABLING IS PERMITTED IN THESE ROOMS.
 - DEVICES SHALL BE FLUSH MOUNTED, UNLESS NOTED OTHERWISE, WITH NO EXPOSED CONDUIT.
 - PROVIDE 'SSGB' GROUND BUS AT EACH NETWORK/OPERATOR CONSOLE DESK. PROVIDE 'SSGB' BENEATH RAISED FLOOR AS REQUIRED PER MOTOROLA R56 REQUIREMENTS. REFERENCE GROUNDING DETAILS FOR FURTHER DETAIL.
 - REFER TO DETAIL 8/TE400 FOR NETWORK DEVICE RACEWAY REQUIREMENTS FOR UNDER WINDOW APPLICATIONS.

- KEYED NOTES (X)**
- NOT USED.
 - NETWORK CABLING AT THIS LOCATION SHALL BE FED THRU FURNITURE CONNECTION.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE 1.5" CONDUIT AND RACO 260H/818 JUNCTION BOX FOR DATA OUTLET AT THIS LOCATION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 2-GANG FACEPLATE.



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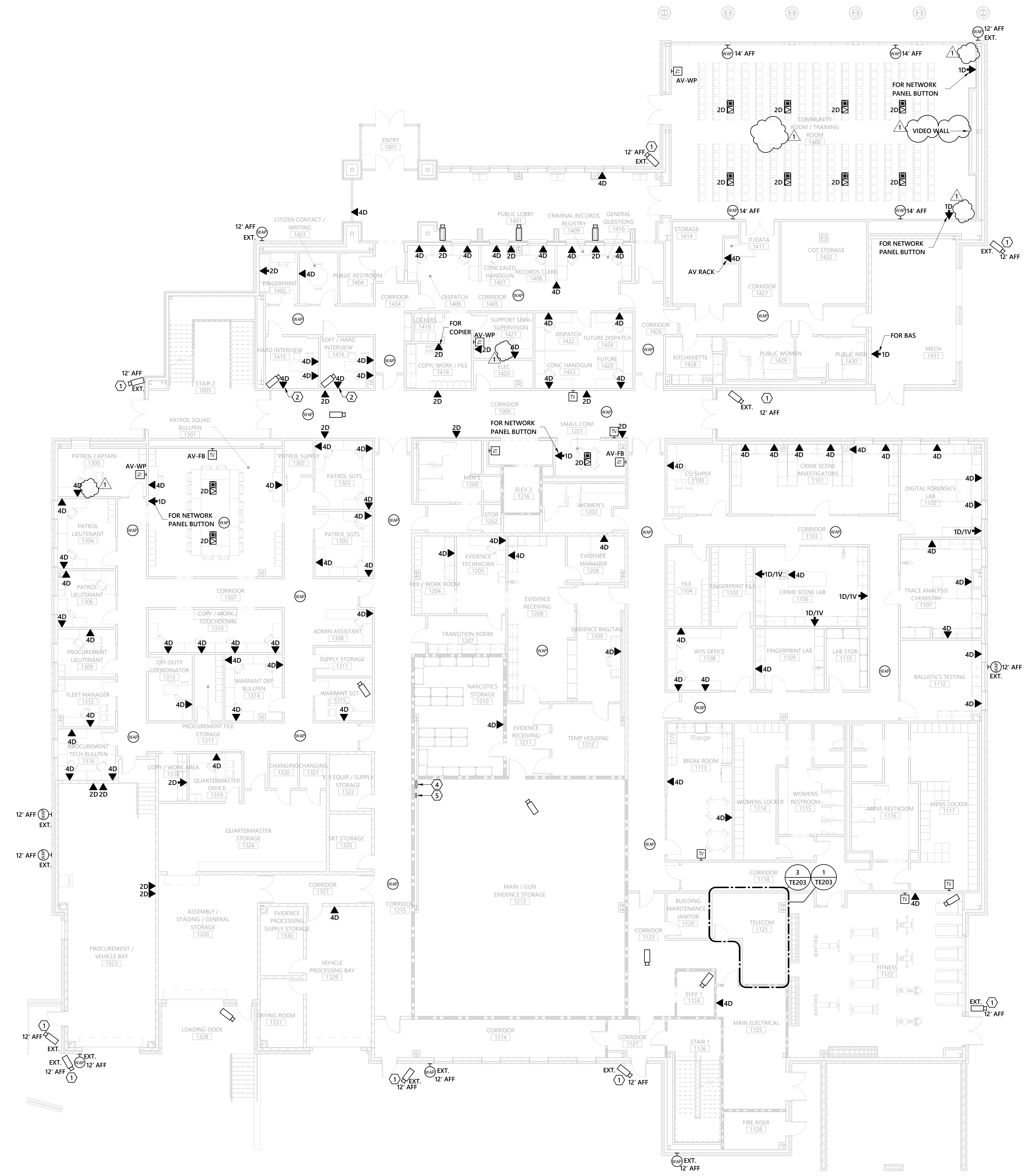
DATE: 06-14-2021
 PROJECT #: 19053
 DRAWN BY: TJH
 DESIGNED BY: TMC
 CHECKED BY: BMR

SHEET TITLE:
OVERALL FIRST FLOOR TELECOM PLAN - ESC

DWG #:
TE101

1 EMERGENCY SERVICES COMPLEX - FIRST FLOOR TELECOMMUNICATIONS PLAN
 1/8" = 1'-0"

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GENERAL NOTES:

A. REFER TO SITE PLAN TE200 AND TELECOM RISER TE204 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

KEYED NOTES:

1. ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE EXACT MOUNTING HEIGHT AND LOCATION OF SECURITY CAMERA WITH OWNER/ARCHITECT PRIOR TO ROUGH IN.
2. ROUTE NETWORK CABLES TO SERVER ROOM 2222 ON SECOND FLOOR.
3. NOT USED.
4. (1) 1/2" CONDUITS, CONTRACTOR SHALL ROUTE CONDUITS UNDERGROUND FROM TELECOM PULL BOX TO WALL CAVITY IN MAIN/GUN EVIDENCE STORAGE ROOM 1213 AND UP THRU FLOOR OF SERVER ROOM 2222 ON SECOND FLOOR.
5. (3) 3" CONDUITS, CONTRACTOR SHALL ROUTE CONDUITS UNDERGROUND FROM TELECOM PULL BOX TO WALL CAVITY IN MAIN/GUN EVIDENCE STORAGE ROOM 1213 AND UP THRU FLOOR OF SERVER ROOM 2222 ON SECOND FLOOR.

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Rev #	Date	Description
1	7/15/2021	ADDENDUM #1

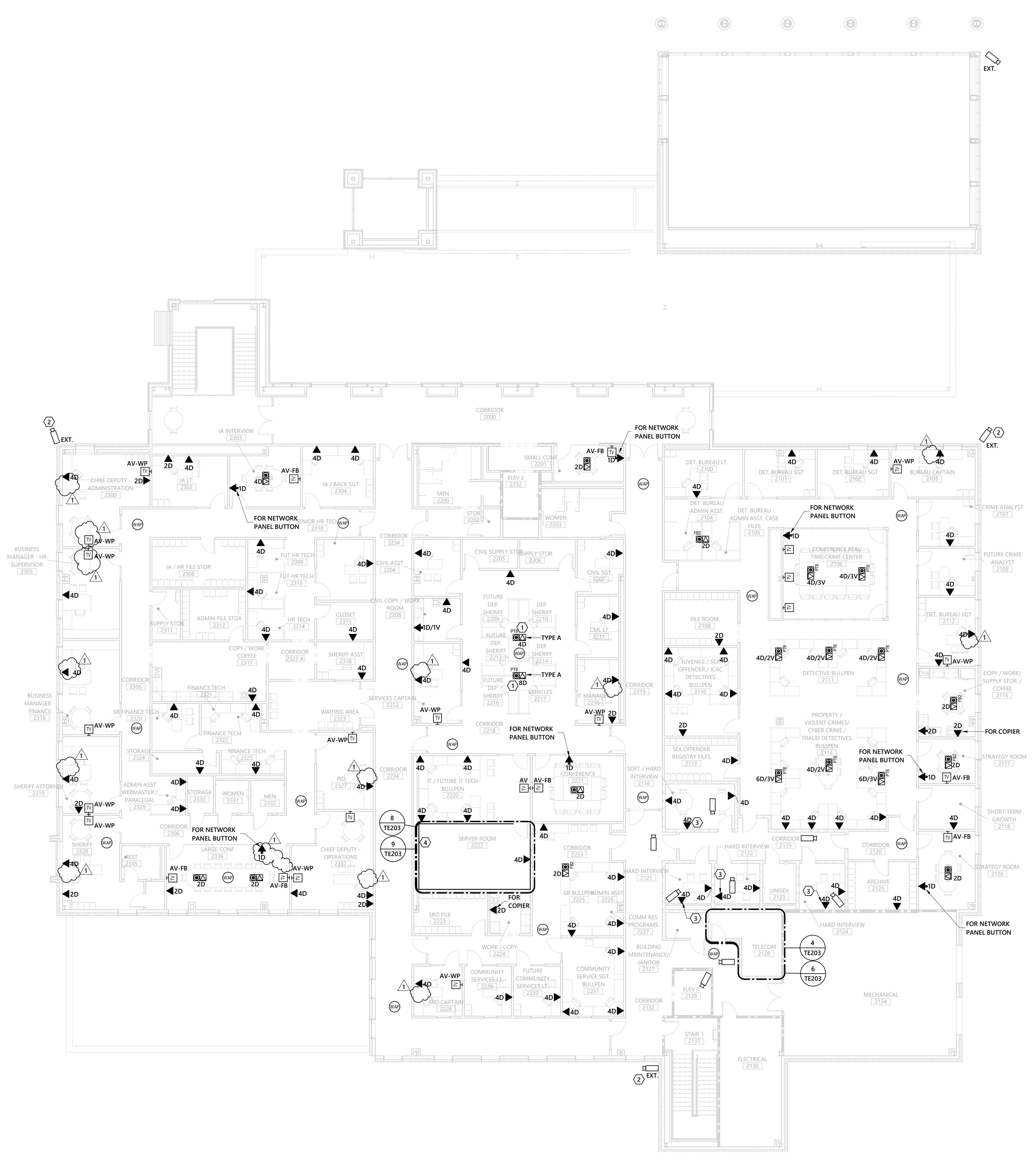
DATE: 06-14-2021
PROJECT #: 2019-026
DRAWN BY: TJH
DESIGNED BY: TMC
CHECKED BY: TMC

SHEET TITLE:
OVERALL FIRST FLOOR TELECOM PLAN - SO

DWG #:
TE201

1 SHERIFF'S OFFICE - FIRST FLOOR TELECOMMUNICATIONS PLAN
3/32" = 1'-0"

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- DRAWING NOTES:**
- STRUCTURED CABLING CONTRACTOR SHALL PROVIDE QUANTITY OF CATEGORY 6A CABLES AS INDICATED BY SUBSCRIPT. (2) CABLES SHALL BE ROUTED FROM POKE-THRU TO EACH STATION AND TERMINATED IN MODULE FACEPLATE DESIGNED FOR FURNITURE SYSTEM. EXPOSED CABLING SHALL BE PROTECTED. COORDINATE WITH FURNITURE VENDOR.
 - ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE EXACT MOUNTING HEIGHT AND LOCATION OF SECURITY CAMERA WITH OWNER/ARCHITECT PRIOR TO ROUGH IN.
 - ROUTE NETWORK CABLES TO SERVER ROOM 2222.
 - STUB NOTED CONDUITS THRU FLOOR OF SERVER ROOM 2222. MAINTAIN FIRE RATING OF FLOOR.

1 SHERIFF'S OFFICE - SECOND FLOOR TELECOMMUNICATIONS PLAN
3/32" = 1'-0"

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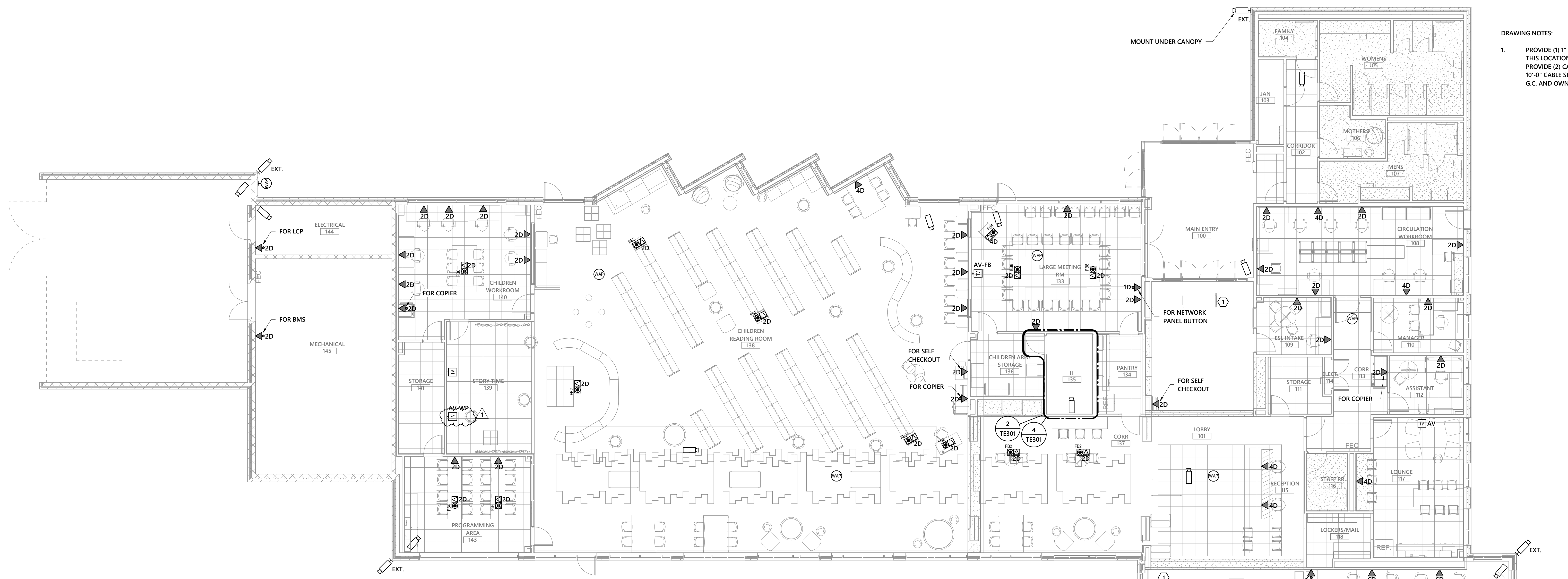
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1	7/15/2021	ADDENDUM #1

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DRAWN BY: TJH
DESIGNED BY: TMC
CHECKED BY: TMC

SHEET TITLE:
OVERALL SECOND
FLOOR TELECOM
PLAN - S0

DWG #:
TE202

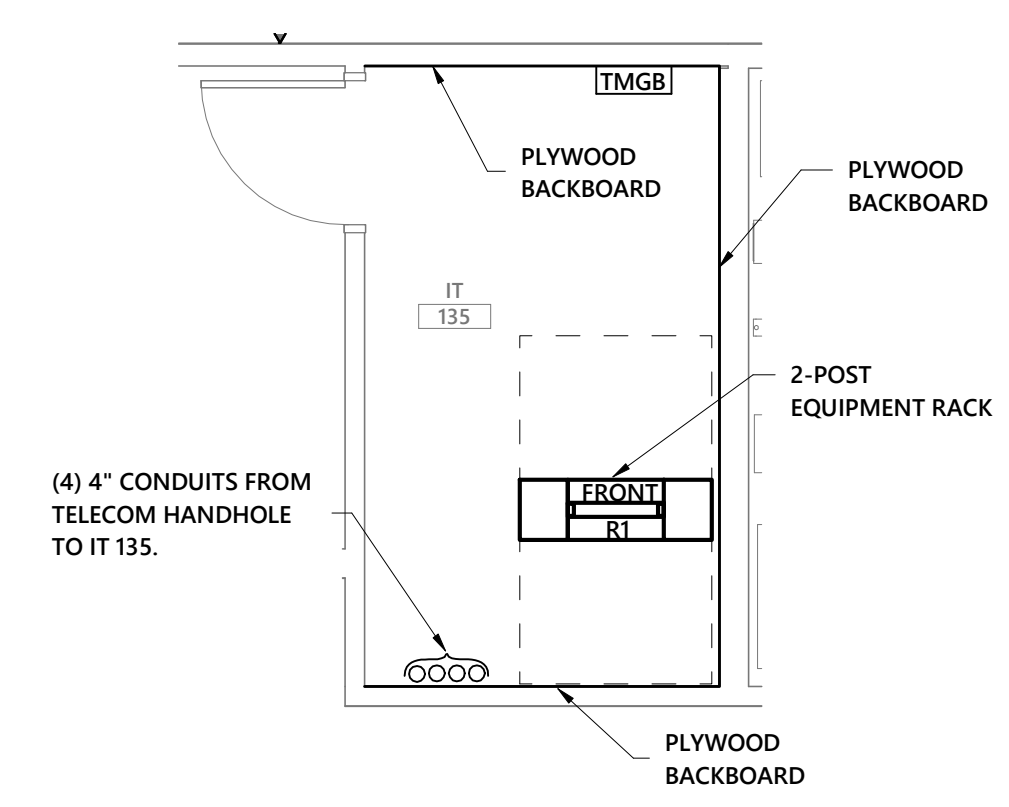
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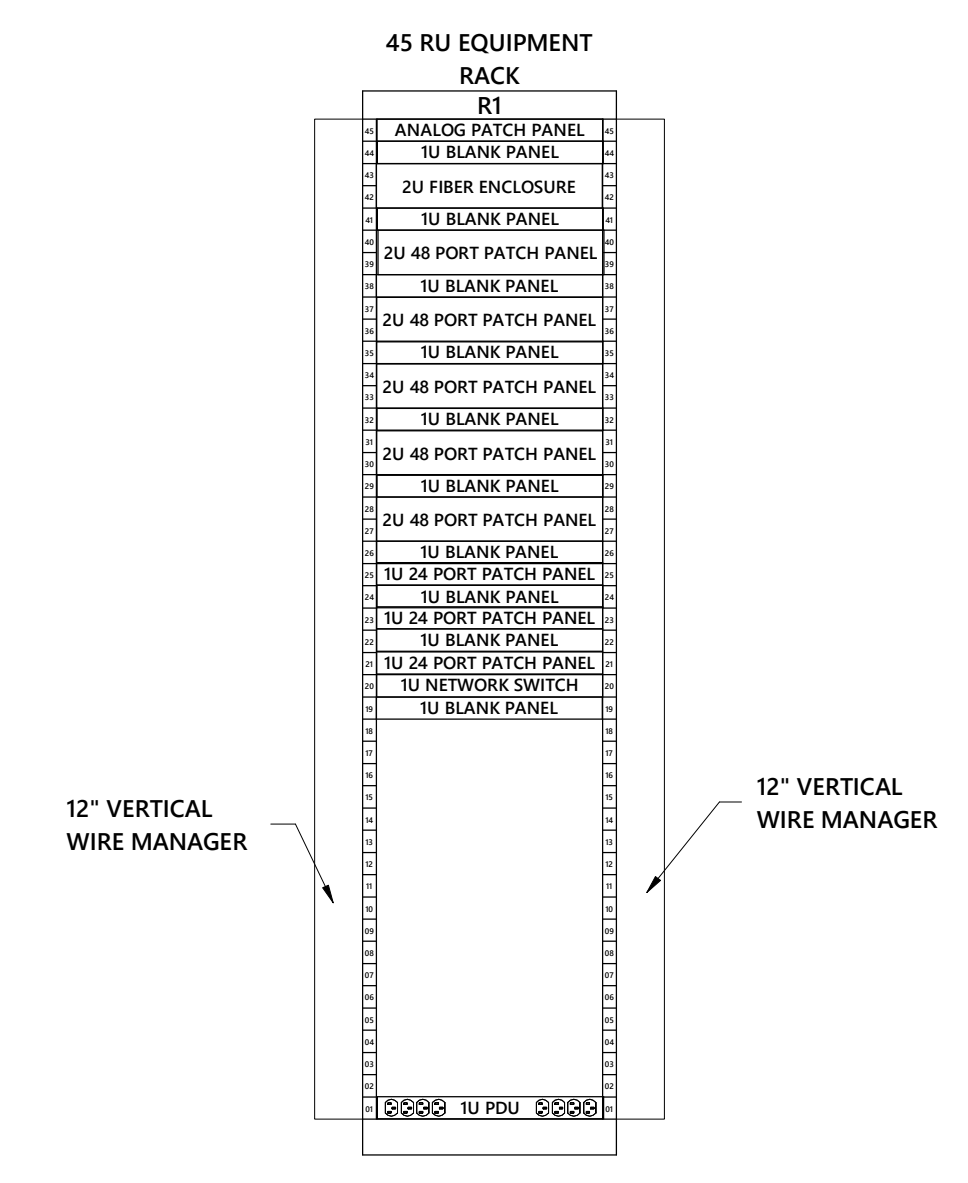
DRAWING NOTES:

- PROVIDE (1) 1" CONDUIT STUB UP IN SLAB FOR SECURITY GATE AT THIS LOCATION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6A CABLES TO THESE LOCATIONS WITH 10'-0" CABLE SLACK. FIELD COORDINATE EXACT LOCATION WITH G.C. AND OWNER.

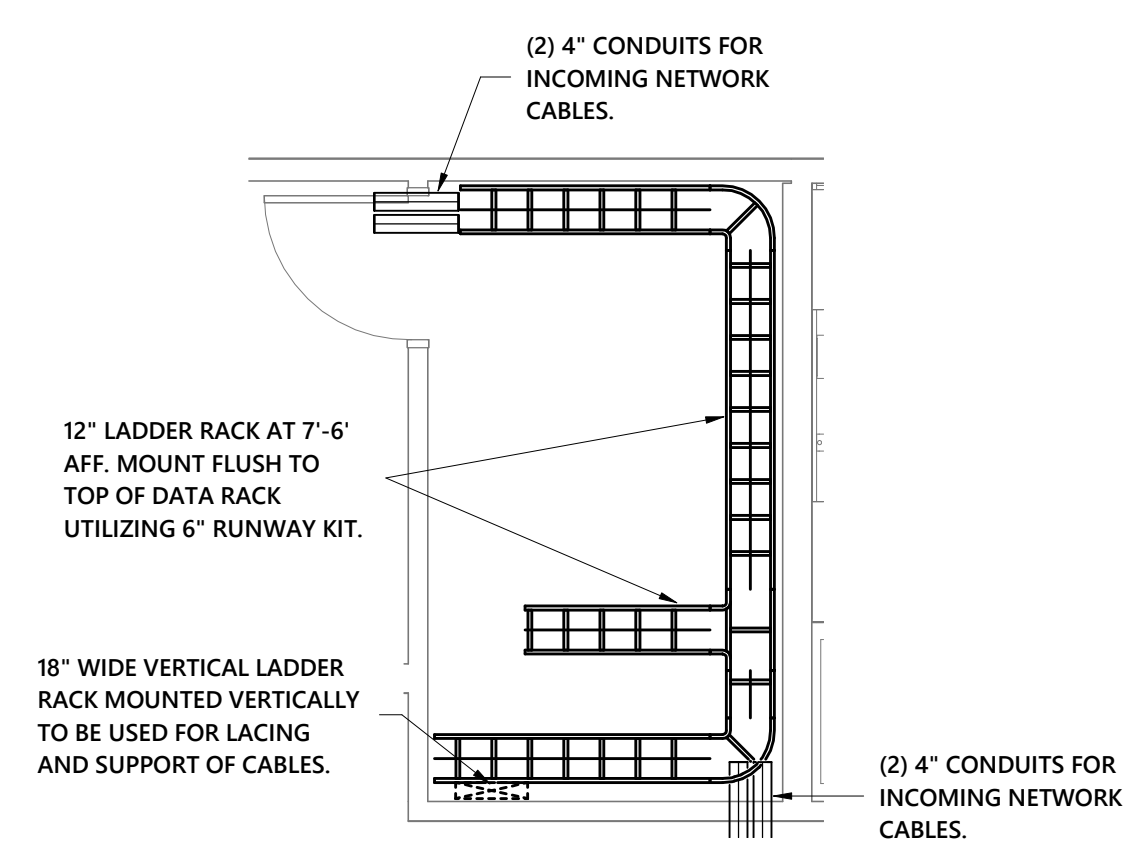
1 SOUTHWEST REGIONAL LIBRARY - FIRST FLOOR TELECOMMUNICATIONS PLAN
1/8" = 1'-0"



2 ENLARGED TELECOM ROOM PLAN - LOWER
1/4" = 1'-0"



3 EQUIPMENT RACK ELEVATION - IT ROOM 135
NO SCALE



4 ENLARGED TELECOM ROOM PLAN - UPPER
1/4" = 1'-0"



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 150 Fayetteville St., Suite 200, Raleigh, NC 27601
 Phone: 919.734.2020 www.optima-engineering.com
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 CHECKED BY: BMR

SHEET TITLE:
OVERALL FIRST FLOOR TELECOM PLAN - SWRL

DWG #:
TE301