

STATE OF MICHIGAN

KINROSS CORRECTIONAL

WI-FI CABLING INFRASTRUCTURE

KINROSS CORRECTIONAL FACILITY
INDEX NUMBER: 472ELECTRONICCOMM
FILE NUMBER: 472/17032.RWG
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CABLING DESIGN

COMMTECH DESIGN
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KINROSS
CORRECTIONAL FACILITY
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ELECTRICAL ENGINEER

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WI-FI CABLING INFRASTRUCTURE

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GENERAL ELECTRICAL NOTES

- ALL NON-FIRE RATED WALLS ARE TO BE PATCHED WITH LIKE MATERIAL TO MAINTAIN ORIGINAL RATING.
- ALL WALL AND FLOOR PENETRATIONS THROUGH FIRE RATED WALLS ARE TO BE SEALED WITH FIRE CAULK TO MAINTAIN ORIGINAL RATING.
- ALL CONDUITS SHALL BE FIELD ROUTED ALONG EXISTING PIPING AND STRUCTURAL STEEL.
- CONTRACTORS SHALL VISIT THE PROJECT SITE DURING PRE-BID WALK THROUGH TO DETERMINE THE EXACT EXTENT OF THE WORK REQUIRED BEFORE BIDDING THE PROJECT.
- REMOVE ALL EXISTING EXPOSED CONDUIT, WIRE, AND EQUIPMENT NOT TO BE RE-USED WHERE WORK IS BEING DONE EXCEPT ITEMS NOTED OTHERWISE.
- WHERE BUILDING SURFACES ARE DAMAGED BY THE REMOVAL OF OLD WORK, SURFACES SHALL BE PATCHED AND PAINTED TO MATCH ADJACENT.
- EXISTING WORK WHICH IS PRESENTLY CONCEALED, WHICH WILL REMAIN CONCEALED, AND DOES NOT INTERFERE WITH ANY NEW WORK OF ANY TRADE NEED NOT BE REMOVED. HOWEVER, ALL CONDUIT SHALL BE CAPPED BELOW FINISH SURFACE AND THEN PATCHED AND PAINTED TO MATCH, OR AS NOTED.
- EXISTING OPENINGS, WHICH ARE TO BE RE-USED, SHALL BE MODIFIED OR ENLARGED TO SUIT THE NEW SYSTEMS AS REQUIRED. PROVIDE ALL REQUIRED CUTTING AND PATCHING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING THE EXISTING WALLS TO MATCH THE ADJACENT SURFACES BEHIND ALL SURFACE MOUNTED EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL EQUIPMENT AND LOADS PRIOR TO INSTALLING SERVICE TO EQUIPMENT.
- DRAWINGS ARE BASED ON EXISTING RECORD DOCUMENTS AND CASUAL FIELD OBSERVATION PERFORMED ON AUGUST 16, 2024. REPORT ANY DISCREPANCIES TO ENGINEER FOR CLARIFICATION.
- MINIMUM RACEWAY SIZE: 3/4" TRADE SIZE. ALL FLEXIBLE CONDUIT RACEWAYS SHALL BE LIQUID TITE. MAXIMUM 36" LENGTH. REFER TO SPECIFICATION 280533 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS.
 - ALL CONDUIT ABOVE 10 FOOT SHALL MEET THE FOLLOWING REQUIREMENTS:
 - STRAP DISTANCE: 5 FEET.
 - FASTENERS: 2 HOLE
 - CONDUIT: INTERIOR EMT, EXTERIOR EXPOSED/ CONCEALED- GRC.
 - FITTINGS: COMPRESSION.
 - SECURE CONDUIT WITHIN 12 INCHES OF BOXES AND ENCLOSURES.
 - ALL CONDUIT 10 FOOT AND BELOW SHALL MEET THE FOLLOWING REQUIREMENTS:
 - STRAP DISTANCE: 3 FEET.
 - FASTENERS: 2 HOLE WITH SECURITY SCREWS.
 - CONDUIT: INTERIOR EMT, EXTERIOR EXPOSED/ CONCEALED- GRC.
 - FITTINGS: COMPRESSION.
 - BELL BOXES: FS TYPE.
 - NO KNOCKOUTS.
 - SECURE CONDUIT WITHIN 12 INCHES OF BOXES AND ENCLOSURES
- ALL EXPOSED WIRING SHALL BE IN CONDUIT. OPEN LOW VOLTAGE WIRING ABOVE CEILINGS IS ACCEPTABLE.
- ALL EXPOSED WIRING ABOVE CEILINGS SHALL BE INSTALLED WITH J-HOOKS. DO NOT CONNECT TO EXISTING CEILING TIE WIRES.
- CONDUITS AND WIRES SHALL BE INSTALLED STRAIGHT, LEVEL, AND SHALL BE PARALLEL OR PERPENDICULAR TO THE BUILDING LINES.
- CONTRACTOR SHALL VERIFY ALL VOLTAGES BEFORE CONNECTING ANY EQUIPMENT.
- ALL LOCATIONS WHERE THE WALLS CAN NOT BE FISHED SHALL BE SURFACE MOUNTED CONDUIT FOLLOWING NOTES 12 THROUGH 14 ABOVE.
- ALL WALLS THAT ARE ACCESSIBLE SHALL BE FISHED AND DEVICE CUT INTO WALL.
- ALL EXTERIOR CONCEALED CONDUIT UNDERGROUND SHALL BE RMC. TYPE EPC-40-PVC. ALL EXTERIOR ABOVE GROUND CONDUIT SHALL BE GRC.
- ALL ELECTRICAL OUTAGES SHALL NOT LAST OVER 2 HOURS. PORTABLE GENERATORS SHALL BE USED TO REPLACE ANY ELECTRICAL SERVICE EXCEEDING THAT DURATION.
- WHEN RELOCATING ANY ELECTRICAL DEVICE, CONTRACTOR SHALL COMPLETE THE RELOCATION IN ONE DAY AND VERIFY THAT ALL DEVICES RELOCATED ARE WORKING PROPERLY PRIOR TO LEAVING THE SITE.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED COMPONENTS, RACEWAYS, WIRE, AND HARDWARE, AS INDICATED ON DRAWINGS.
- ALL WORK DONE WITHOUT APPROVED SHOP DRAWINGS IS AT CONTRACTORS RISK.
- CONTRACTOR SHALL CONTACT COMMTECH FOR SPECIFICATIONS FOR CAT6 AND OTHER LOW VOLTAGE REQUIREMENTS.
- CONTRACTOR SHALL NOTIFY PSC OF ANY EXISTING INSTALLATIONS NOT MEETING THESE STANDARDS PRIOR TO STARTING WORK IN THE AREA.

ELECTRICAL SYMBOLS LEGEND

OUTLETS

- ⊕ SINGLE RECEPTACLE (120 VOLT)
- ⊕ DUPLEX RECEPTACLE
- ⊕ EMERGENCY RECEPTACLE
- ⊕ DOUBLE DUPLEX RECEPTACLE
- ⊕ F FLUSH FLOOR BOX
- ⊕ S SURFACE FLOOR BOX
- ⊕ SPECIAL EQUIPMENT RECEPTACLE
- ▼ TELEPHONE OUTLET
- ▼ DATA OUTLET
- ▼ TELEPHONE / DATA OUTLET
- PP POWER POLE
- ⊕ JUNCTION BOX
- ⊕ WALL JUNCTION BOX
- ⊕ PULL (JUNCTION) BOX
- ⊕ UNDERFLOOR JUNCTION BOX
- ⊕ CEILING MOUNTED WIFI

DESIGNATIONS

- ◇ DEMOLITION NOTE
- PLAN NOTE
- △ ADDENDUM NOTE

FIXTURES

- ⊕ LIGHT FIXTURE
- ⊕ STRIP FIXTURE
- ⊕ EMERGENCY LIGHT FIXTURE
- ⊕ IN-GRADE LIGHT FIXTURE
- ⊕ SPOTLIGHT (number of heads shown)
- ⊕ EXIT SIGN (face & direction as shown)
- ⊕ WALL MOUNT LIGHT FIXTURE
- ⊕ CEILING LIGHT FIXTURE
- ⊕ TRACK & FIXTURE
- ⊕ STREET TYPE POLE FIXTURE
- ⊕ POLE MOUNTED LIGHT FIXTURE
- ⊕ EXTERIOR WALL MOUNT LIGHT FIXTURE
- ⊕ WALLPACK LIGHT FIXTURE
- ⊕ SPECIAL PURPOSE LIGHT FIXTURE
- ⊕ HIGH BAY LIGHT FIXTURE
- ⊕ EMERGENCY EGRESS LIGHT FIXTURE (number of heads shown)
- ⊕ DOCK LIGHT FIXTURE

CIRCUITRY and RACEWAYS

- CONDUIT INSTALLED (by E.C.)
- CONDUIT INSTALLED (by others)
- CONDUIT STUB UP
- CONDUIT STUB DOWN
- 1.3 HOME RUN (with circuit numbers)
- END OF CONDUIT RUN
- END OF CONDUIT RUN, CAP AND STAKE
- "CONDUIT RUN CONTINUES" INDICATION
- FLEXIBLE PIGTAILS/CONNECTIONS
- WM WIREMOLD AS SPECIFIED
- PM PLUGMOLD AS SPECIFIED
- BD BUS DUCT
- UFD UNDERFLOOR DUCT

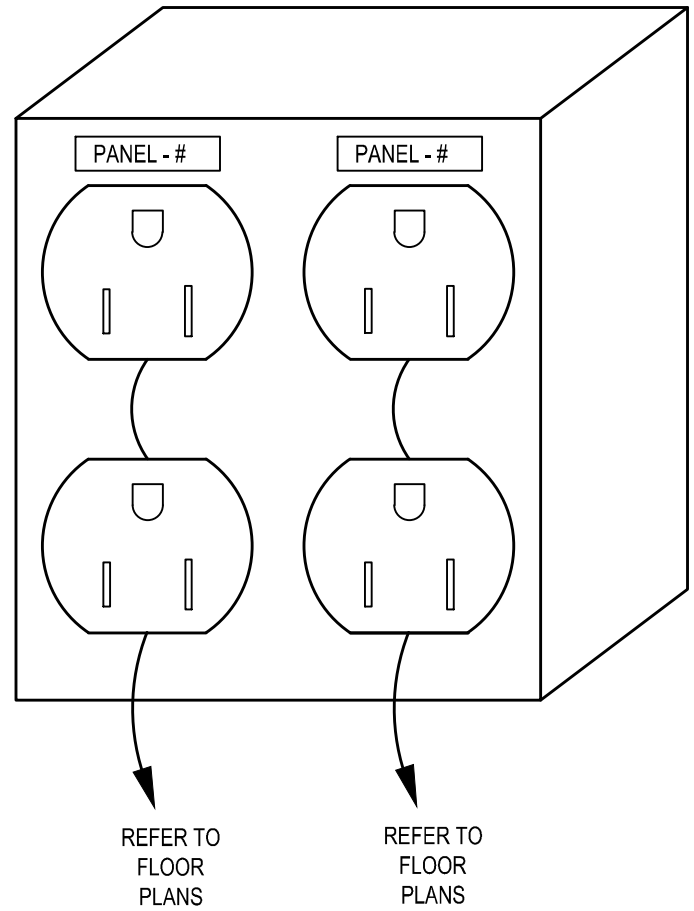
SERVICE and EQUIPMENT

- TRANSIENT VOLTAGE SURGE SUPPRESSION
- VARIABLE FREQUENCY DRIVE
- TRANSFORMER
- DISCONNECT SWITCH
- MAGNETIC STARTER
- COMB. STARTER
- PANELBOARD, SURFACE MOUNTED
- PANELBOARD, FLUSH MOUNTED
- WEATHERHEAD
- UTILITY METER, AS REQUIRED
- DIGITAL EQUIPMENT METER, AS REQUIRED
- CURRENT TRANSFORMERS
- GENERATOR, KW SHOWN
- TELEPHONE TERMINAL BOARD
- GROUND CONNECTION PER N.E.C.
- WIREWAY
- TRANSFER SWITCH
- ENCLOSED CIRCUIT BREAKER
- CAPACITOR
- CONTROL
- THERMOSTAT
- HUMIDISTAT
- PHOTOCELL, (voltage as required)
- TIME CLOCK (24 hour U.O.N.)
- PUSHBUTTON STATION (number of buttons indicated)
- CONTROL TRANSFORMER
- LIGHTING CONTACTOR
- IRRIGATION CONTROLLER (120 volt xxVxV connection by x/C)

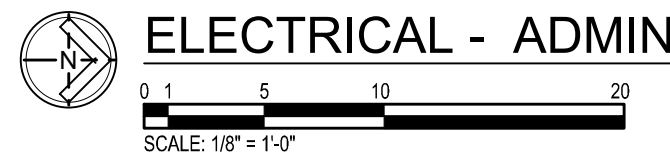
- A ABOVE COUNTER
- ACU- AIR CONDITIONING UNIT
- AFF ABOVE FINISHED FLOOR
- AHJ AUTHORITY HAVING JURISDICTION
- AHU- AIR HANDLING UNIT
- AIC AMPS INTERRUPTING CAPACITY
- AS ABOVE SHELF
- ATS AUTOMATIC TRANSFER SWITCH
- B- BOILER
- BC BELOW COUNTER
- BLDG BUILDING
- CHLR- CHILLER
- COND (C) CONDUIT
- CKT CIRCUIT
- CKT BKR CIRCUIT BREAKER
- CT- COOKING TOWER
- CU- CONDENSING UNIT
- CUH- CABINET UNIT HEATER
- DFU- DUCT FURNACE
- DISC DISCONNECT
- DWG DRAWING
- DWH- DOMESTIC WATER HEATER
- EBB- ELECTRIC BASEBOARD
- EC ELECTRICAL CONTRACTOR
- EF- EXHAUST FAN
- EM EMERGENCY
- EMT ELECTRICAL METALLIC TUBING
- EW- ELECTRIC WATER COOLER
- EX EXISTING
- FLA FULL LOAD AMPS
- FLEX FLEXIBLE CONDUIT
- FLR FLOOR
- FLUOR FLUORESCENT
- FSES FOOD SERVICE EQUIP. SUPPLIER
- F/S FIRE/SMOKE
- FU- FURNACE

ABBREVIATIONS LEGEND

- GC GENERAL CONTRACTOR
- GFI GROUND FAULT INTERRUPTER
- GND GROUND
- H- HUMIDIFIER
- HID HIGH INTENSITY DISCHARGE
- HOA HAND-OFF-AUTO SELECTOR SWITCH
- HP HORSEPOWER
- HR HOUR
- HVAC HEATING/VENTILATING/AIR CONDITIONING
- IG ISOLATED GROUND
- IMC INTERMEDIATE METAL CONDUIT
- JB JUNCTION BOX
- LC LIGHT CONTROL
- LT LIGHT
- LTG LIGHTING
- LT FLEX LIQUID TIGHT FLEXIBLE METAL CONDUIT
- MAX MAXIMUM
- MC MECHANICAL CONTRACTOR
- MCC MOTOR CONTROL CENTER
- MIN MINIMUM
- MLO MAIN LUG ONLY
- MT MOUNT
- MTD MOUNTED
- MTG MOUNTING
- MUAU MAKE-UP AIR UNIT
- NC NORMALLY CLOSED
- NIC NOT IN CONTRACT
- NL NIGHT LIGHT
- NO NORMALLY OPEN
- NTS NOT TO SCALE
- P POLE
- P- PUMP
- PB PULL BOX
- PNL PANEL
- PRV- POWER ROOF VENTILATOR
- PVC POLY VINYL CHLORIDE
- PWR POWER
- RECEPT RIGID GALVANIZED STEEL CONDUIT
- RGC ROOF TOP UNIT
- RTU- ROOF TOP UNIT
- SF- SUPPLY FAN
- SPEC SPECIFICATIONS
- SW SWITCH
- SWBD SWITCHBOARD
- TCC TEMPERATURE CONTROL CONTRACTOR
- TR TAMPER PROOF RECEPTACLE
- TS TAMPER PROOF SWITCH
- TYP TYPICAL
- UF UNDER FLOOR
- UH- UNIT HEATER
- UL UNDERWRITERS' LABORATORIES, INC.
- UNO UNLESS NOTED OTHERWISE
- V VOLTS
- VL VERIFY LOCATION WITH OWNER
- W WATTS
- W/ WITH
- WO WITHOUT
- WP WEATHER PROOF
- XFMR TRANSFORMER



1 TWO CIRCUIT QUAD-RECEPTACLE DETAIL
SCALE: N.T.S.



ELECTRICAL KEY NOTES

- 1 PROVIDE AND INSTALL DEVICE(S) ON RACK AS SHOWN. FEED FROM LOCAL PANEL IN COMMUNICATION ROOM A2. DEVICES SHALL BE 20A AND RED IN COLOR. PROVIDE AND INSTALL ALL CONDUIT, WIRE, HARDWARE, AND BREAKERS AS REQUIRED FOR A COMPLETE SYSTEM. MATCH EXISTING BREAKER TYPE. REFER TO SHEET E-100 DETAIL 1 FOR MORE INFORMATION.

OWNER BD REVIEW
11/18/24

sheet title
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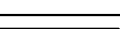
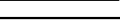
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KINCHLOE, MICHIGAN

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SHEET NUMBER
E-500

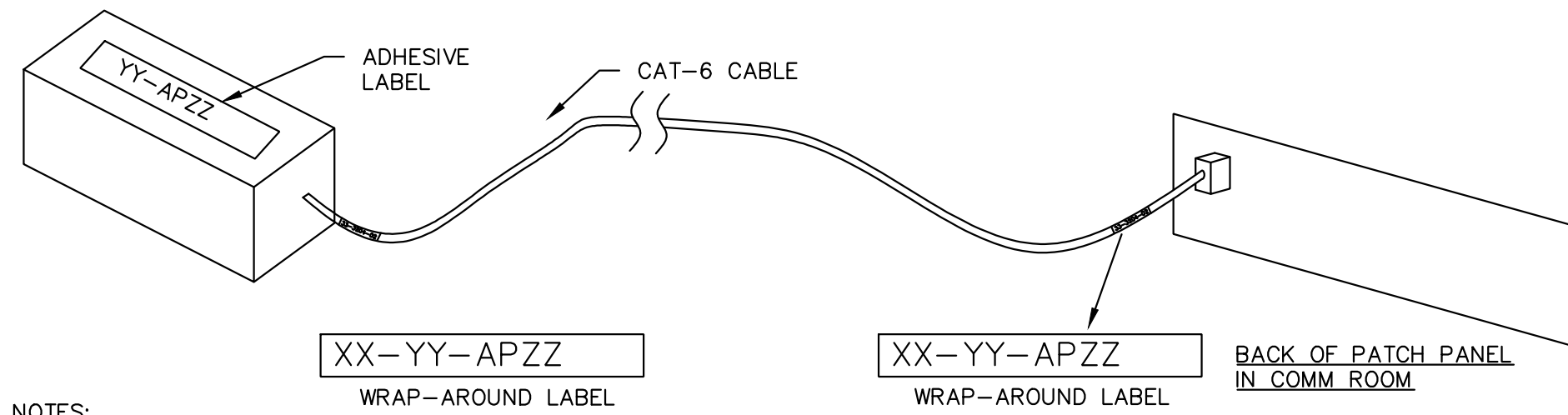
COMMUNICATION SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	EQUIPMENT SCHEDULE, SEE DETAILS AND EQUIPMENT SCHEDULES ON TC101 ETC.
	CABLE SCHEDULE, SEE COMMUNICATIONS CABLE SCHEDULE
	KEYNOTES. REFER TO NOTES ON THE SHEET FOR ADDITIONAL INFORMATION
	DATA COMMUNICATIONS OUTLET CONNECTIVITY CODE. X IS A 1 THRU 99. SEE TC7XX SHEETS FOR SPECIFIC REQUIREMENTS. XXXX NOTES THAT THE CABLE IS FOR A SPECIFIC USE
	INSTALL NEW WIRELESS ACCESS POINT. SEE DETAILS AND SPREADSHEET
	INSTALL NEW EXTERIOR WIRELESS ACCESS POINT. SEE DETAILS AND SPREADSHEET
	INSTALL NEW EXTERIOR WIRELESS ACCESS POINT. SEE DETAILS AND SPREADSHEET

ABBREVIATIONS			
ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
2G	TWO-GANG BOX – PROVIDED BY EC	NIC	NOT IN CONTRACT
AC	ABOVE COUNTER – INSTALL BACKBOX SAME HEIGHT AS OTHER ELECTRICAL OUTLETS ABOVE THE COUNTER.	PBO	PROVIDED BY OTHERS
AFF	ABOVE FINISHED FLOOR	PCO–1	PATCH CORD ORGANIZER – 1 UNIT HIGH
AFG	ABOVE FINISHED GROUND	PCO–2	PATCH CORD ORGANIZER – 2 UNITS HIGH
AWG	AMERICAN WIRE GAUGE	PET	PROTECTED ENTRANCE TERMINAL
EMT	EMT TYPE CONDUIT	QTY	QUANTITY
EC	ELECTRICAL CONTRACTOR		

CABLE SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER	PART NO.
1	CAT-6A UTP CABLES FOR WIRELESS ACCESS POINTS SHALL BE YELLOW IN COLOR	MOHAWK	M59230
2	CAT-6 UTP CABLES FOR DTMB CONNECTIVITY. SHALL BE BLUE IN COLOR	MOHAWK	M58281
3	CAT-6A UNDERGROUND CABLES. SHALL BE BLACK IN COLOR	MOHAWK	M59199
4	CATEGORY UTP CABLE, INDOOR, PLENUM RATED, EXTENDED DISTANCE. YELLOW	SUPERIOR ESSEX	PW6H-H72-6B
5	CATEGORY UTP CABLE, OUTDOOR, UNDERGROUND RATED, EXTENDED DISTANCE. BLACK	SUPERIOR ESSEX	PW04-401-5H
6	24 STRAND SINGLEMODE FIBER CABLE, PLENUM RATED -ARMORED	OCC	D2024TSLX9P18

NETWORK EQUIPMENT SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER	PART NO.
NA	CORE ETHERNET SWITCH. PROVIDED BY OWNER. MOUNT IN RACK, INSTALL AND CONNECT TO INCOMING INTERNET, WIRELESS CONTROLLERS AND SWITCHES IN ALL OTHER BUILDINGS. PROVIDE ALL PATCH CORDS FOR CONNECTIVITY. INSTALL AND CONNECT	CISCO	PROVIDED AND INSTALLED BY OWNER
NB	BUILDING ETHERNET SWITCH 48 PORT. PROVIDED BY OWNER. MOUNT IN RACK, INSTALL AND CONNECT. PROVIDE ALL PATCH CORDS FOR FIBER AND WAP CONNECTIVITY.	CISCO	PROVIDED AND INSTALLED BY OWNER
NC	WIRELESS ACCESS POINT (WAP) INDOOR OR OUTDOOR. PROVIDED BY OWNER. INSTALL AND MOUNT AT THE LOCATIONS SHOWN ON FLOORPLANS. PROVIDE PATCH CABLE AT THE WAP LOCATION. PROVIDE HARDWARE REQUIRED FOR MOUNTING. OWNER TO PROVIDE MANUFACTURERS MOUNTS.	CISCO	PROVIDED BY OWNER INSTALLED BY CONTRACTOR

COMMUNICATION EQUIPMENT SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER	PART NO.
[A]	PATCH PANEL—24 PORT, EQUIPPED WITH 8-PIN MODULAR . PATCH PANEL SHALL BE COMPLETELY FILLED WITH MODULAR JACKS. NO OPENINGS ARE ALLOWED AT PROJECT COMPLETION. INSTALL YELLOW CAT-6A MODULAR CONNECTORS TO FIT THE PATCH PANEL. EQUIP WITH REAR CABLE ORGANIZER.	HUBBELL	PANEL: HPJ24 ORGANIZER: ECMBR3
[B]	PATCH PANEL—24 PORT, EQUIPPED WITH 8-PIN MODULAR JACKS. FOR CAT-6 CABLES, THE PATCH PANEL SHALL BE COMPLETELY FILLED WITH MODULAR JACKS. NO OPENINGS ARE ALLOWED AT PROJECT COMPLETION. INSTALL BLUE CAT-6 MODULAR CONNECTORS TO FIT THE PATCH PANEL. EQUIP WITH REAR CABLE ORGANIZER.	HUBBELL	PANEL: HPJ24 ORGANIZER: ECMBR3
[C]	SINGLE RACK UNIT PATCH CORD ORGANIZER (PCO-1) WITH HINGED COVER.	HUBBELL	HC119ME3N/HC119C
[D]	TWO RACK UNIT PATCH CORD ORGANIZER (PCO-2) WITH HINGED COVER.	HUBBELL	HC2119ME3N/HC219C
[E]	TELECOMMUNICATIONS GROUND BAR (TGB). 1/4"x4"x10" EQUIPPED WITH INSULATED STAND-OFFS.	HUBBELL	HBBB14210A
[F]	2-POST RACK: 7"x19" BLACK RELAY RACK EQUIPPED WITH ONE FULL-LENGTH 6" VERTICAL ORGANIZER. RELAY RACK IS TO BE CONFIGURED WITH VERTICAL & HORIZONTAL CABLE LADDER AS SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THE SPECS. EACH RACK SHALL BE CONFIGURED WITH ONE (1) 6" WIDE VERTICAL ORGANIZER WITH A COVER.	ORTRONICS	19-84-T2SD-B/
[G]	4-POST ADJUSTABLE RACK. PUNCHED 3/8" HOLES. EQUIP WITH TWO 6" VERTICAL ORGANIZERS. SHALL HAVE STANDARD SCREW HOLES FOR MOUNTING 19" RACK COMPONENTS. EQUIP WITH CABLE LADDER AS PER SPECS AND DETAILS.	ORTRONICS	19-84-SSDA2132
[H]	POWER STRIP, VERTICAL, FOR BACK OF EACH RACK. SHALL HAVE (6) NEMA 5-20 RECEPTACLES AND SHALL BE 18" LONG. PLUG INTO WALL OUTLET. ATTACH THE POWER STRIP TO THE BACK OF THE VERTICAL CABLE LADDER OF EACH RACK.	HUBBELL	PV602A20
[J]	24" TALL WALL MOUNT CABINET. 12 RACK UNITS. 26" DEEP. INCLUDE PLEXIGLAS FRONT DOOR AND POWER STRIP. RACK MOUNTED POWER STRIP	HUBBELL	HSQ2426
[K]	36" TALL WALL MOUNT CABINET. 18 RACK UNITS. 26" DEEP. INCLUDE PLEXIGLAS FRONT DOOR AND POWER STRIP. RACK MOUNTED POWER STRIP	HUBBELL	HSQ3626
[L]	48" TALL WALL MOUNT CABINET. 24 RACK UNITS. 26" DEEP. INCLUDE PLEXIGLAS FRONT DOOR AND POWER STRIP. RACK MOUNTED POWER STRIP	HUBBELL	HSQ4826
[M]	29" TALL WALL RACK. 12 RACK UNITS. 24" DEEP. INCLUDE POWER STRIP	CHATSWORTH	11790-X25
[N]	43" TALL WALL RACK. 20 RACK UNITS. 24" DEEP. INCLUDE POWER STRIP	CHATSWORTH	11791-X25
[O]	53" TALL WALL RACK. 26 RACK UNITS. 24" DEEP. INCLUDE POWER STRIP	CHATSWORTH	11807-X25
[P]	78" TALL WALL RACK. 40 RACK UNITS. 24" DEEP. INCLUDE POWER STRIP	CHATSWORTH	11792-X25
[Q]	POWER STRIP, RACK MOUNT, PROVIDE FOR EACH RACK OR CABINET WHERE WIFI CABLES ARE BEING TERMINATED	TRIPP LITE	PDUHM20-ISO
[R]	110 STYLE SPLICE BLOCKS, WALL MOUNTED. 16 CABLES SPLICED AT WALL FOR EXTENSION TO NEW PATCH PANEL	HUBBELL	6110F TK64WL W/ CONNECTORS 6110CB4PR13 AND LABEL STRIP XPL1010W
[S]	FIBER OPTIC CABLE STORAGE RING, WALL MOUNTED. 12" OR 24". PROVIDE AND INSTALL TO SUPPORT 90 DEGREE RADIUS REQUIREMENTS OF THE FIBER CABLE	LEVITON	24" #48900-OFR
[T]	RACK MOUNT FIBER PANEL. USE WHEN TERMINATING 24 OR LESS FIBER STRANDS. PROVIDE EACH FIBER PANEL WITH "SC" SIX OR 12 PLACES AS REQUIRED FOR TERMINATION OF ALL FIBERS. PROVIDE SPLICE TRAY AND SHELF FOR FUSION SPLICES TO PIGTAILS.	HUBBELL	FPR3SP
[U]	RACK MOUNT SHELF, MESH BASE WITH 14" DEPTH MINIMUM	MIDDLE ATLANTIC	UFA-14S
[V]	HANDHOLE, SHALL BE 36" LONG, 24" WIDE AND 24" DEEP. EQUIP WITH EXTENSION FOR DEEPER ROUTING OF CONDUITS. EQUIP WITH A COVER	QUAZITE	SEE SPECS
[W]	VERTICAL ORGANIZER FOR RACKS. 6" WIDE. CUT VERTICAL ORGANIZER TO FIT SHORTER RACKS.	RLX	3326-BK06

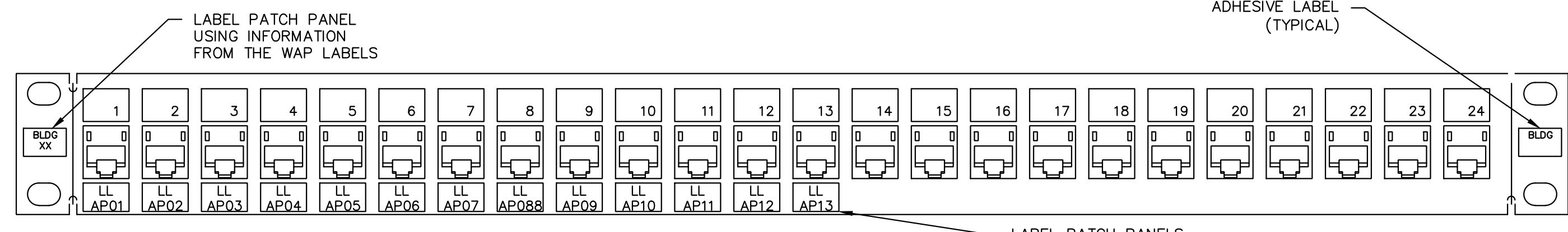


- NOTES:
1. INSTALL A WRAP-AROUND LABEL AT EACH END OF EACH CABLE.
 2. WRAP-AROUND LABELS SHALL BE LASER-PRINTED AND SHALL BE SELF-LAMINATING.
 3. LABEL ALL SURFACE MOUNT BOXES WITH THE SAME CABLE NUMBER AS THE CABLE IS NUMBERED

CABLE LABEL:
XX = COMM ROOM NUMBER. SEE FLOORPLANS
YY = FLOOR DESIGNATION
BB=BASEMENT.
LL=LOWER LEVEL.
UL= UPPER LEVEL
EX = EXTERIOR
AP = WAP
ZZ = AP NUMBER. 01 THRU 99

TYPICAL CABLE LABELING AT SURFACE BOX & PATCH PANEL

TC701

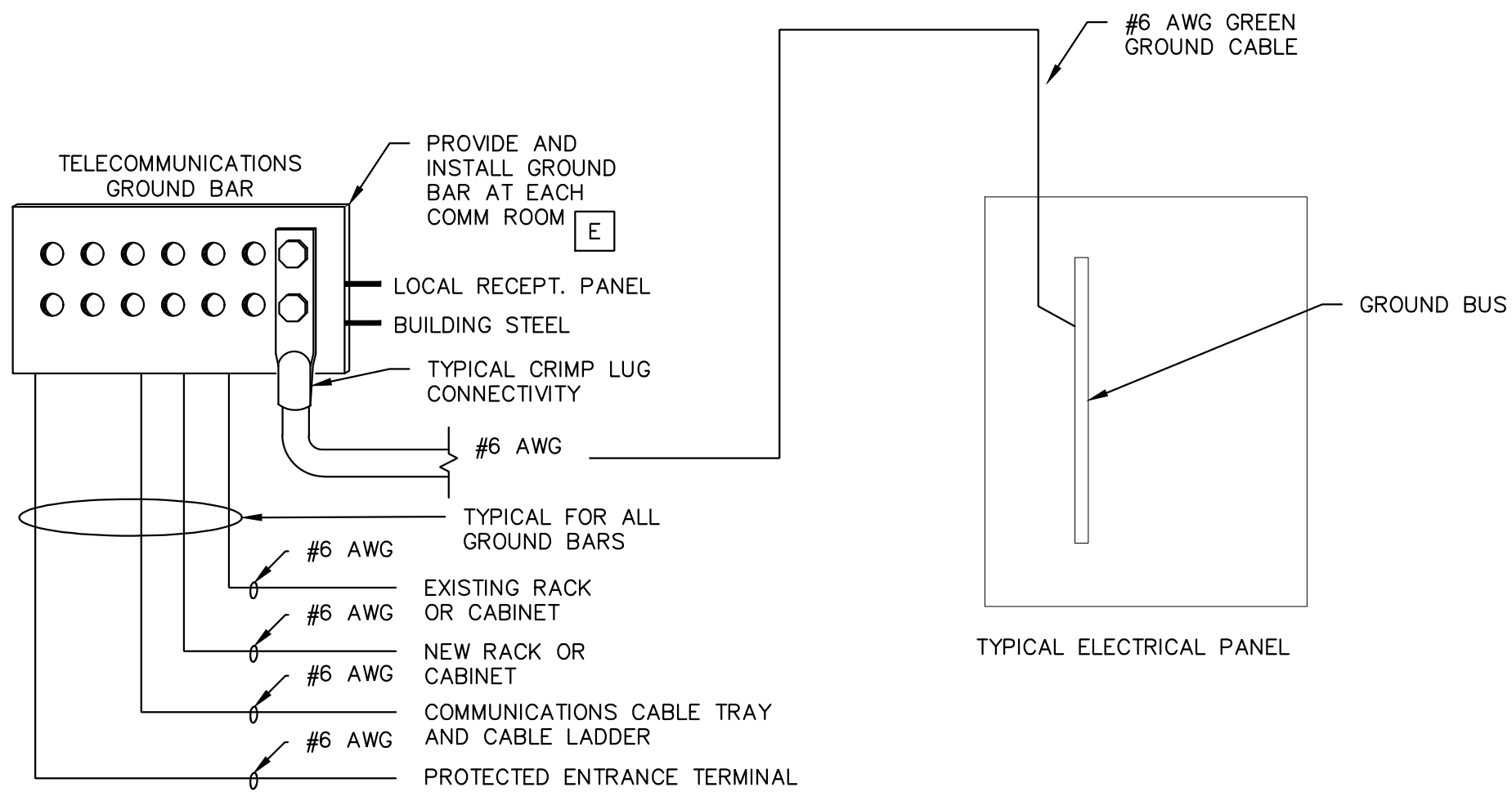


- NOTES:**
1. LABEL EACH PATCH PANEL IN THE RACK WITH THE BUILDING AND THE FLOOR WHERE THE WAPS ARE INSTALLED.
 2. INSTALL A LABEL TO EACH PATCH PORT ON THE PANEL DETAILING THE WAP NUMBER. REFER TO SPREADSHEET PROVIDED BY STATE OF MICHIGAN AT TIME OF INSTALLATION.
 3. ALL LABELS ADDED TO THE PANEL SHALL BE LASER PRINTED AND MUST FIT. ALL NUMBERS SHALL EXACTLY ALIGN WITH THE LOCATION ON THE PATCH PANEL.
 4. LABEL THE CABLES AT THE BACK OF THE PATCH PANEL WITH A WRAP AROUND, LASER PRINTED, SELF-ADHESIVE LABEL.
 5. THE CABLES SHALL BE TERMINATED ON THE PATCH PANEL IN NUMERICAL ORDER, NO EXCEPTIONS.

CABLE LABEL:
XX = COMM ROOM NUMBER. SEE FLOORPLANS
YY = FLOOR DESIGNATION
BB=BASEMENT.
LL=LOWER LEVEL.
UL= UPPER LEVEL
EX = EXTERIOR
AP = WAP
ZZ = AP NUMBER. 01 THRU 99

CAT-6 DATA PANEL TYPICAL LABELING

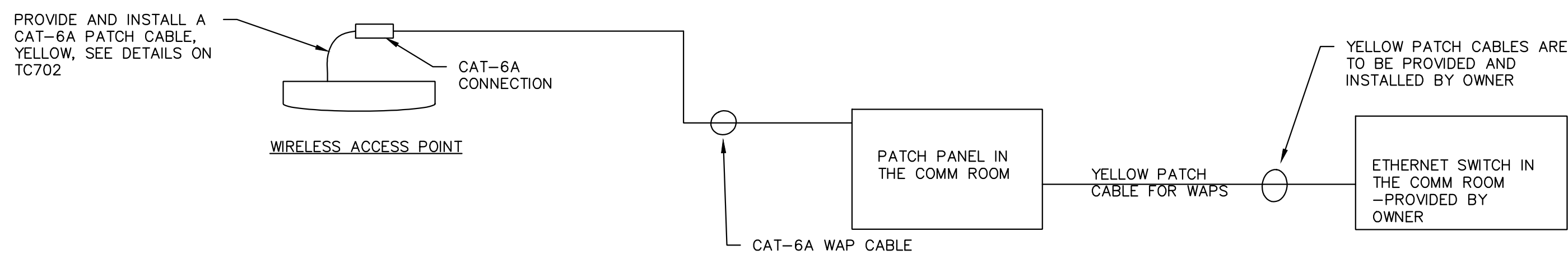
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- GROUNDING NOTES:**
1. INSTALL GROUND BAR AT EACH COMM ROOM.
 2. CONNECT THE GROUND BAR AS SHOWN IN THIS DIAGRAM & AS DIRECTED IN THE GROUNDING SPECIFICATIONS.
 3. ALL GROUND CONNECTIONS SHALL BE MADE WITH CRIMP LUGS. THIS APPLIES TO ALL CONNECTIONS TO THE GROUND BAR & THE CONNECTIONS TO THE ASSOCIATED EQUIPMENT.
 4. GROUND CONNECTIONS SHALL BE MADE WITH A MINIMUM OF #6 AWG CABLE. CABLES SHALL BE EQUIPPED WITH A GREEN SHEATH.
 5. ALL CONNECTIONS TO THE GROUND BAR SHALL BE MADE WITH PHOSPHOR BRONZE BOLTS & NUTS.
 6. ALL GROUND WIRES SHALL HAVE GREEN INSULATION UNLESS INSTALLED IN A PLenum AREA. GROUND CABLES SHALL BE INSTALLED IN A PLenum AREA SHALL BE BARE COPPER WIRE WITH GREEN TAPE AT ENDS.
 7. INSTALL THE GROUND WIRE TO GROUND BUS ON ELECTRICAL PANEL.

COMMUNICATIONS GROUNDING DETAIL

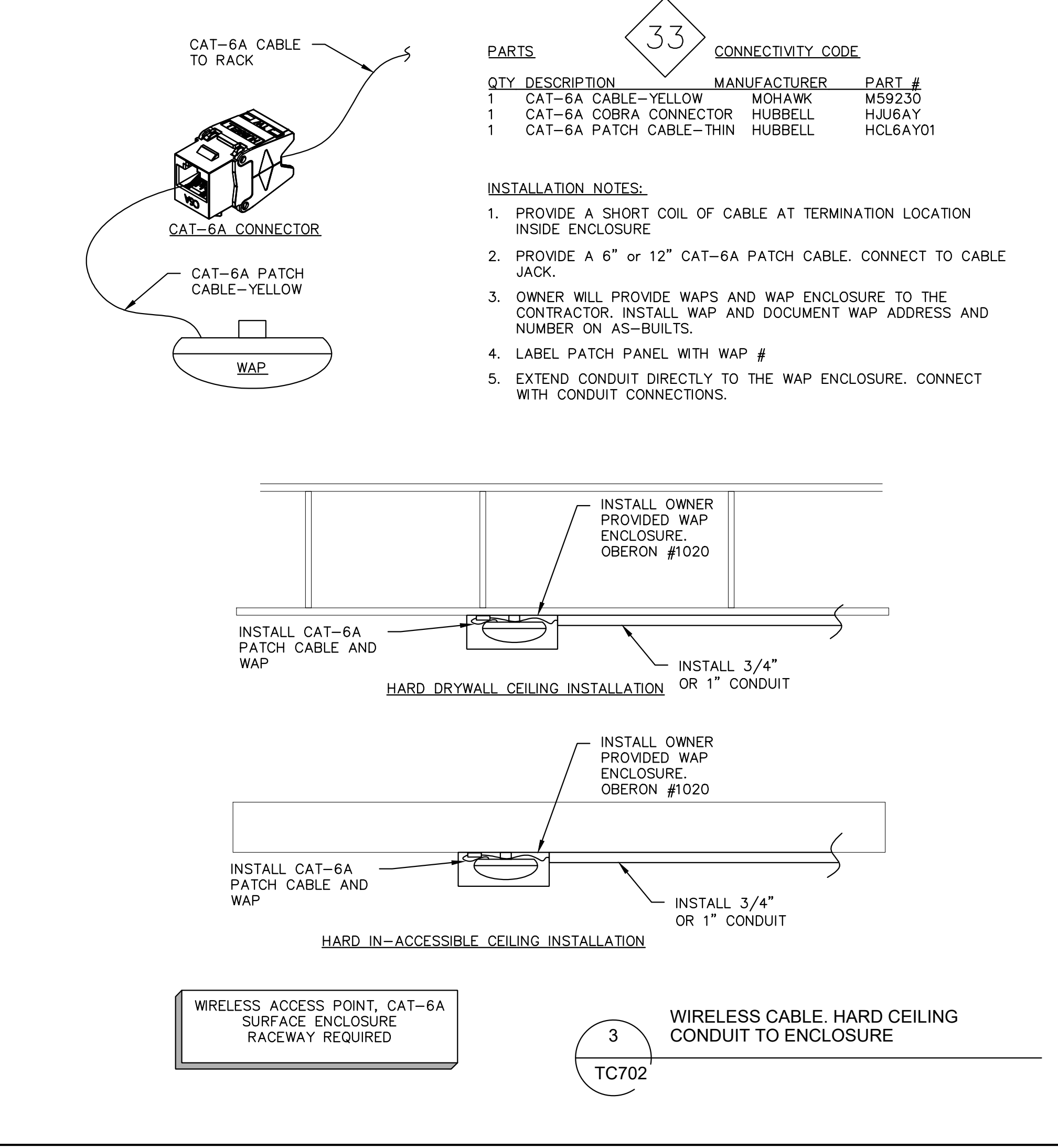
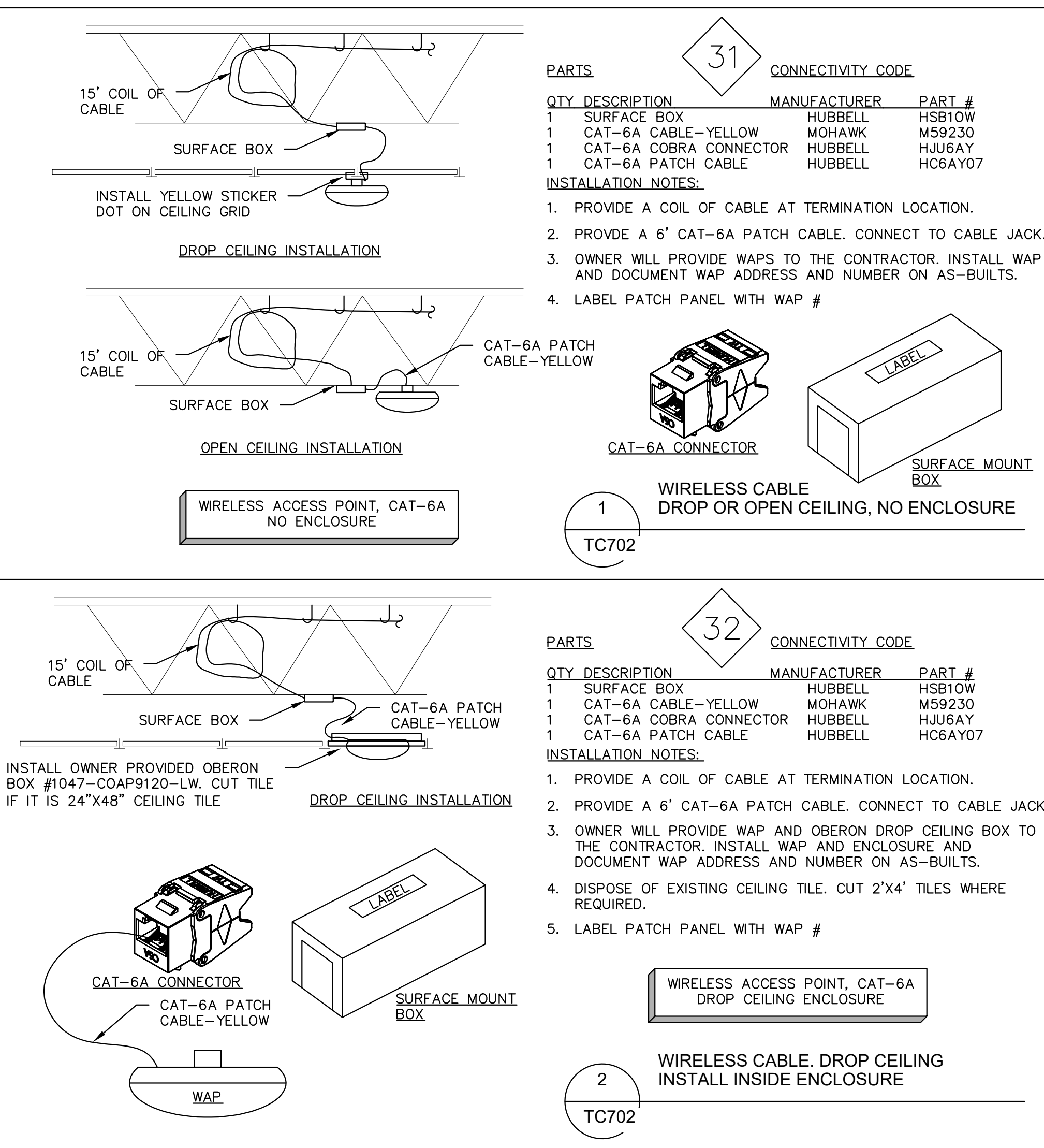
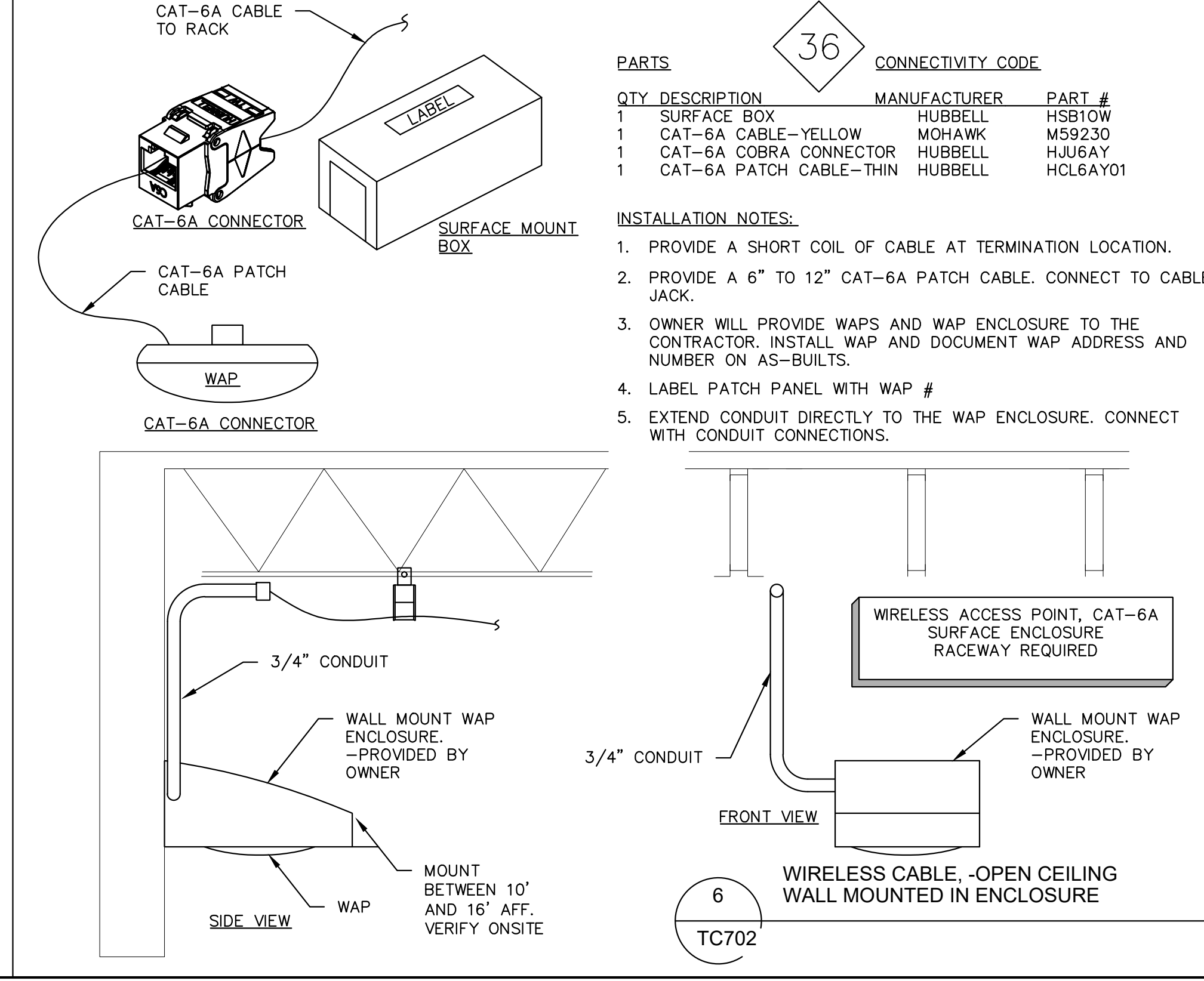
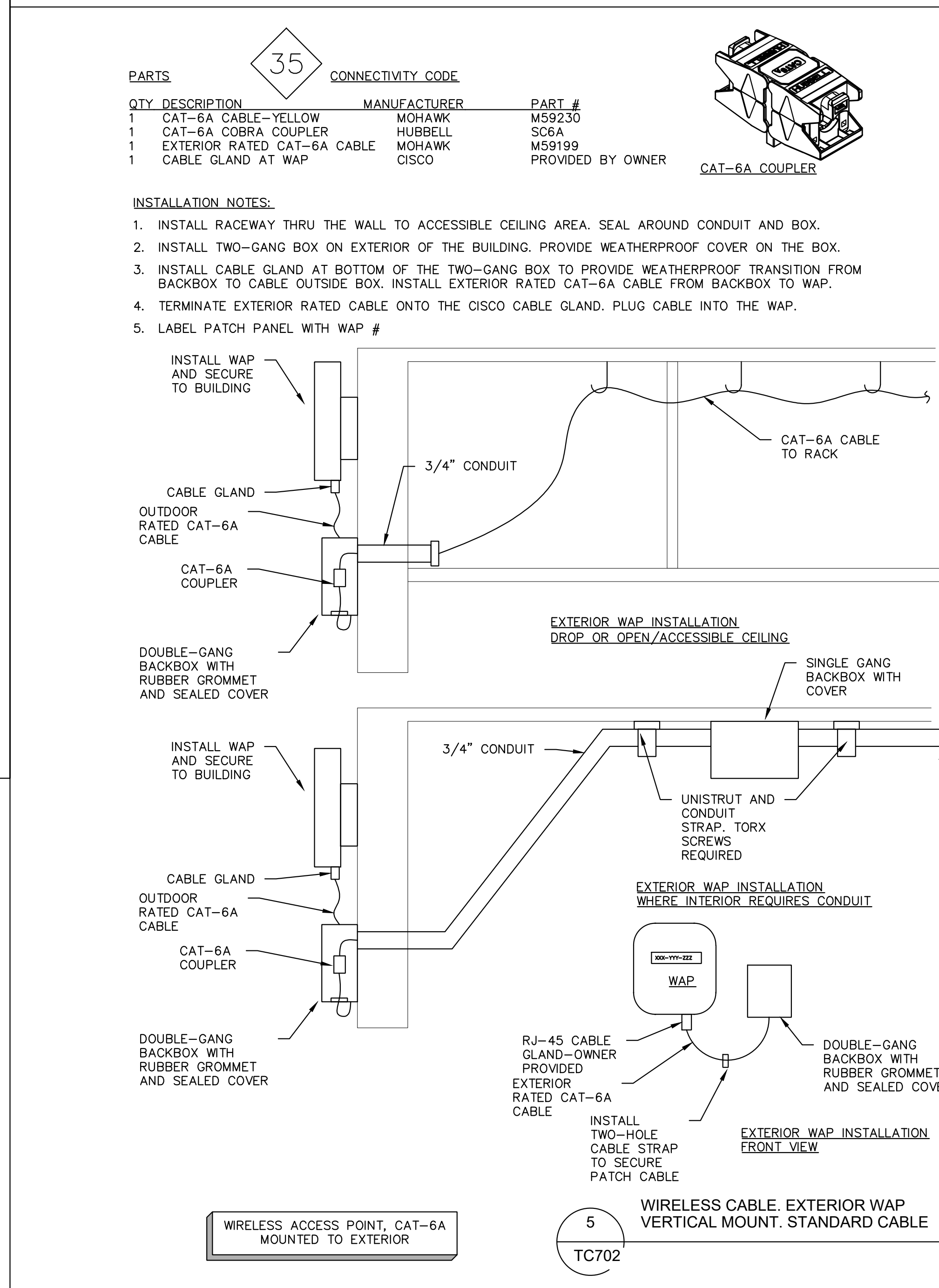
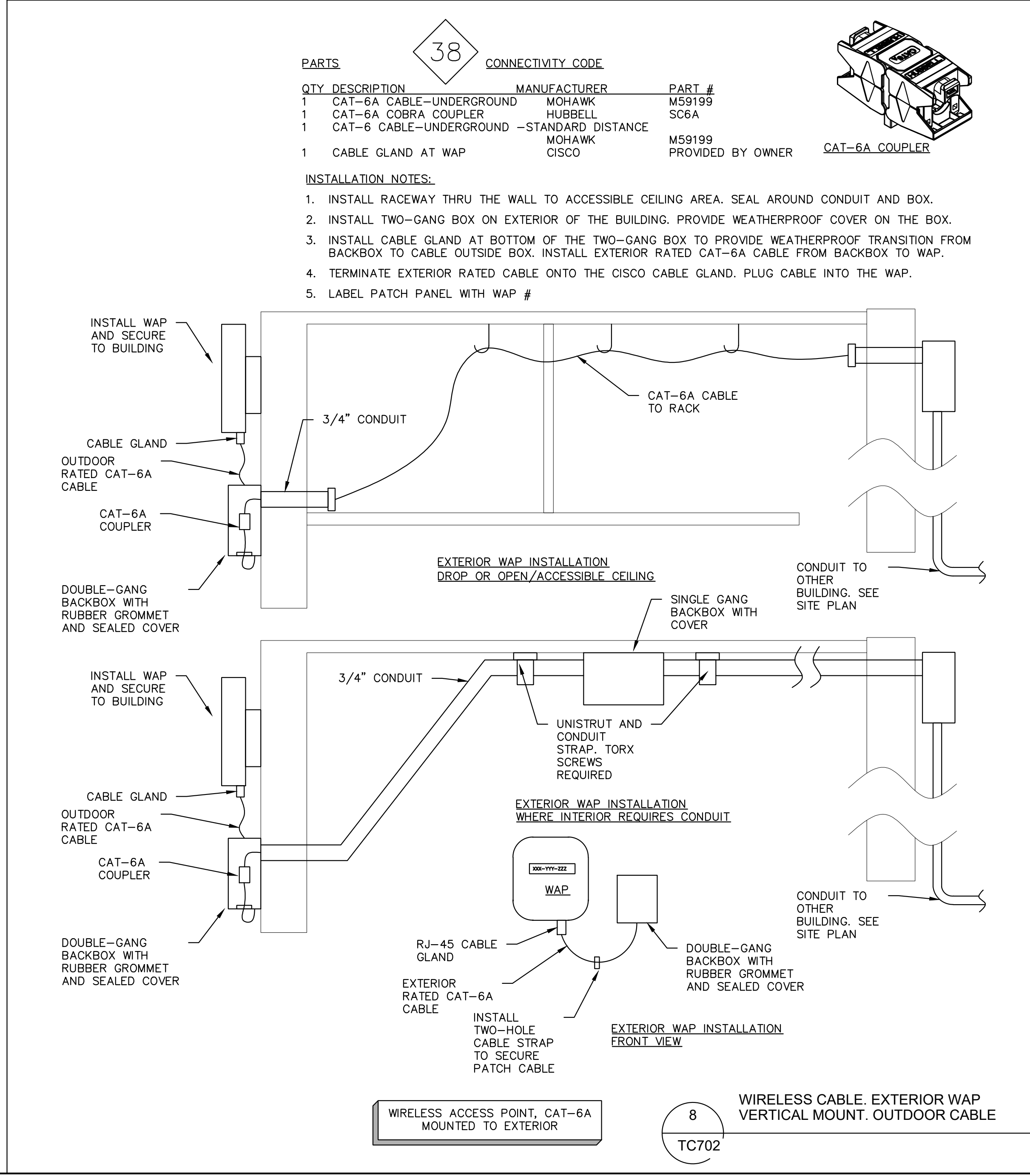
TC701

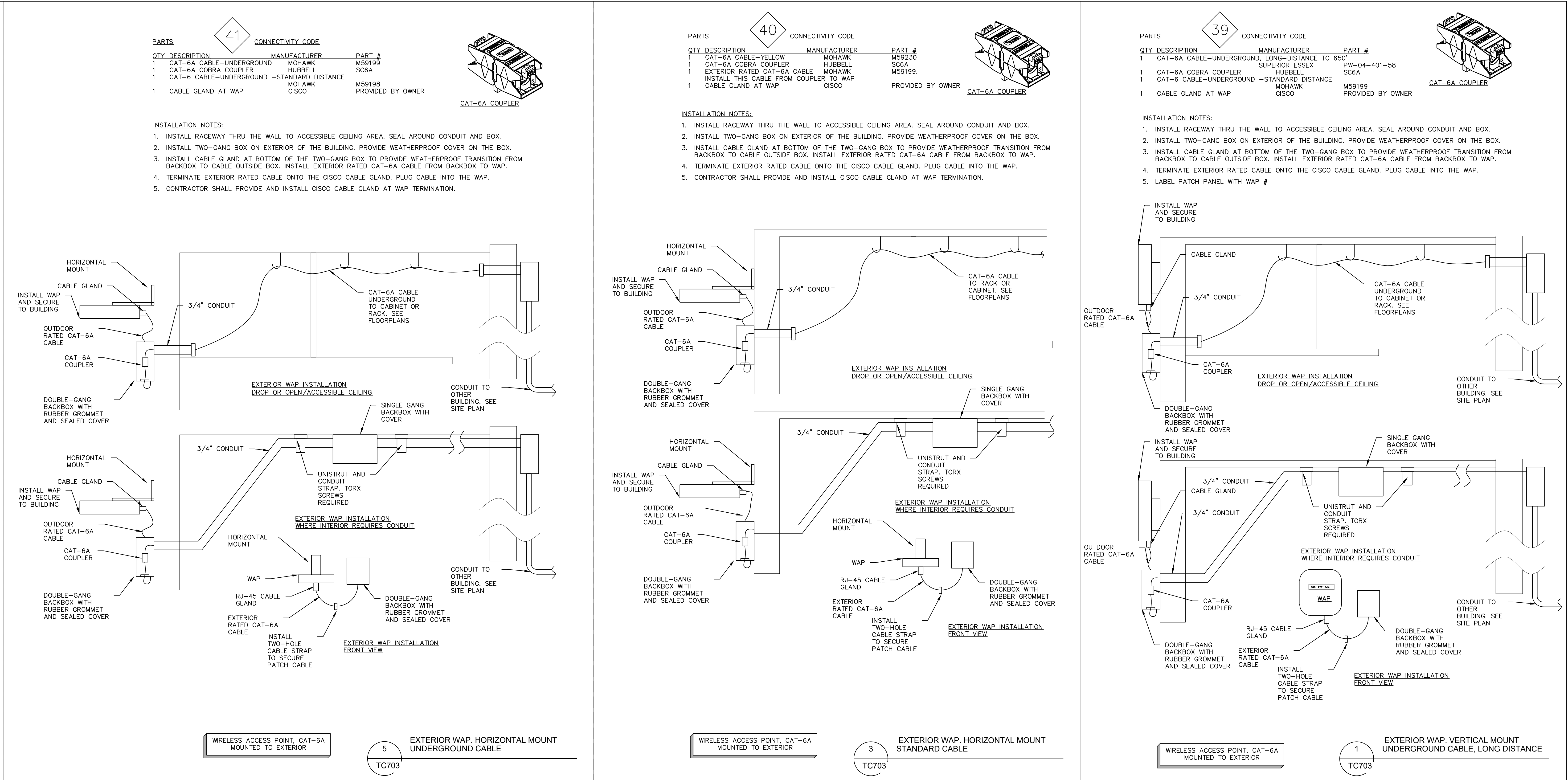


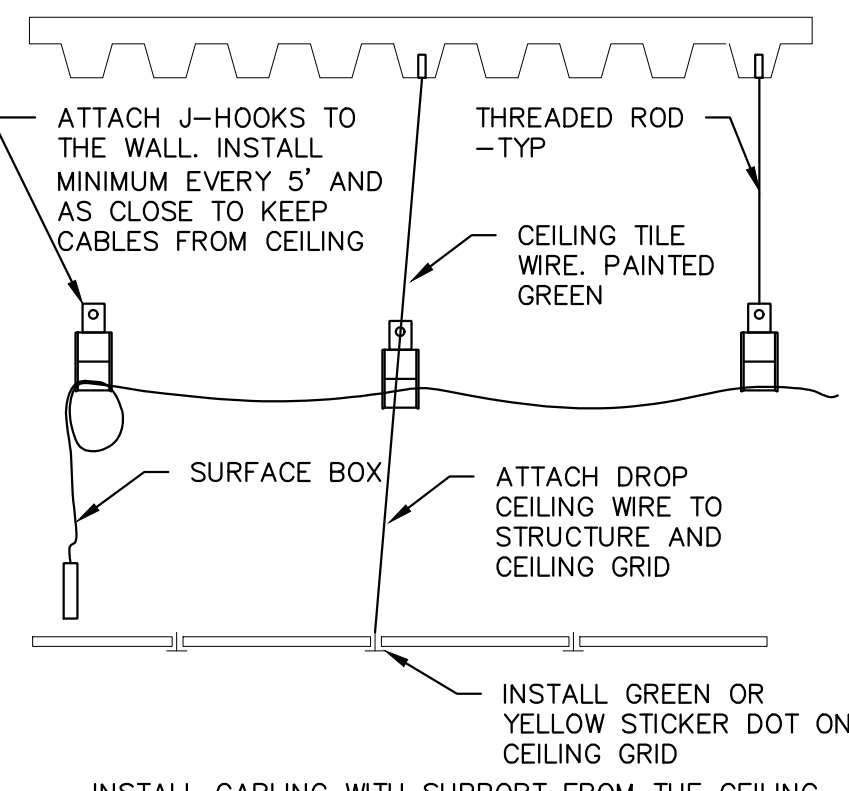
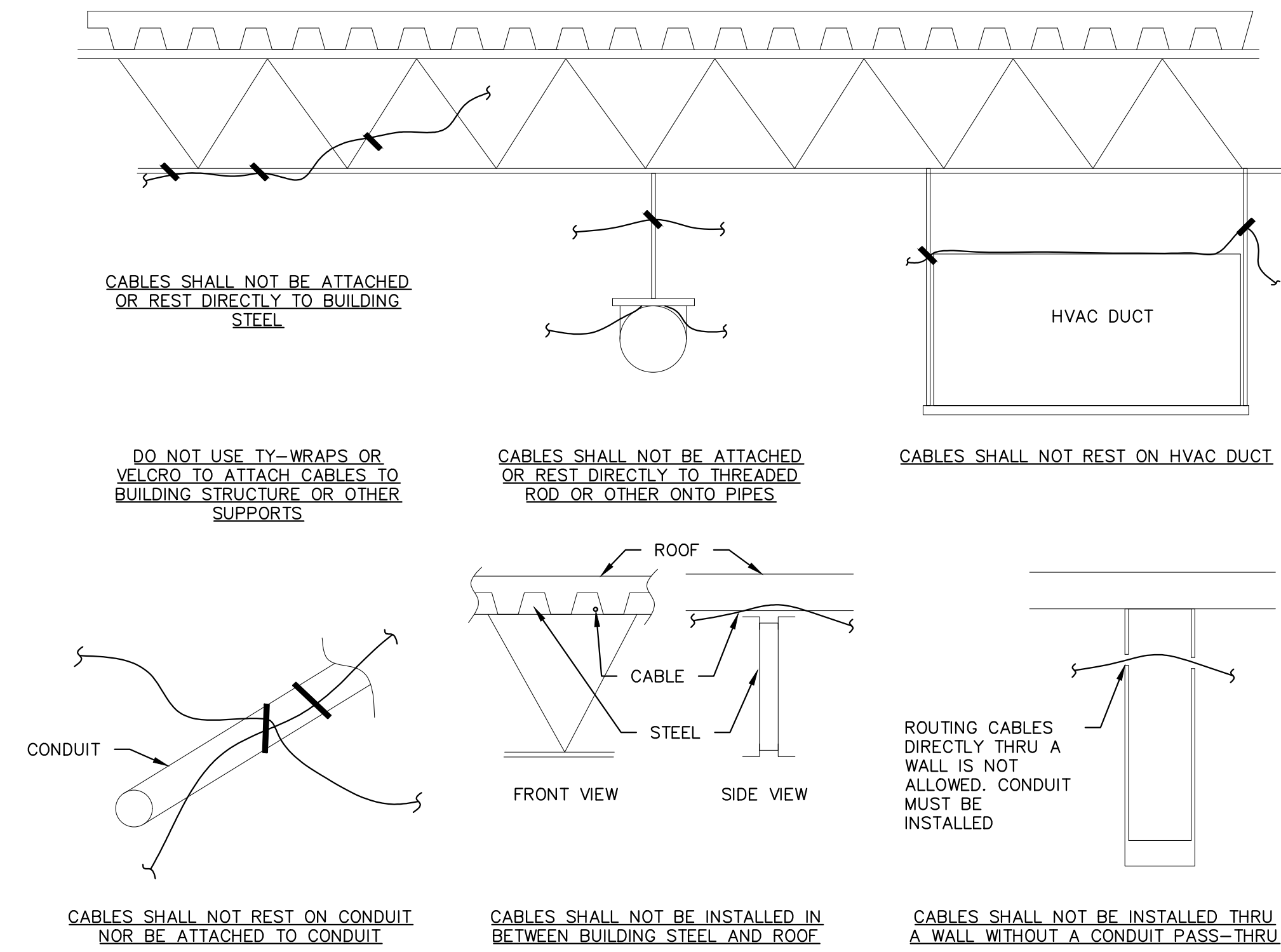
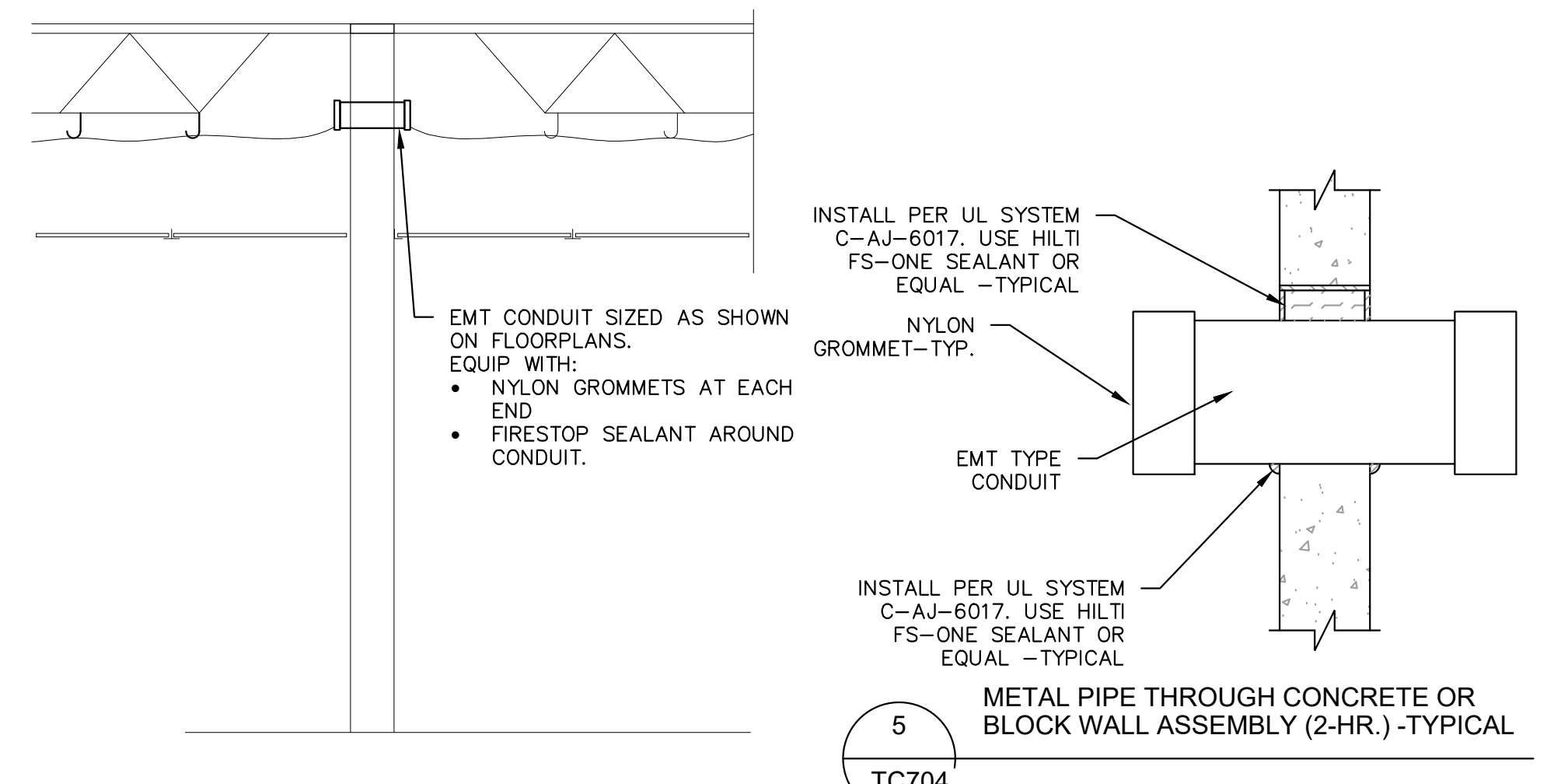
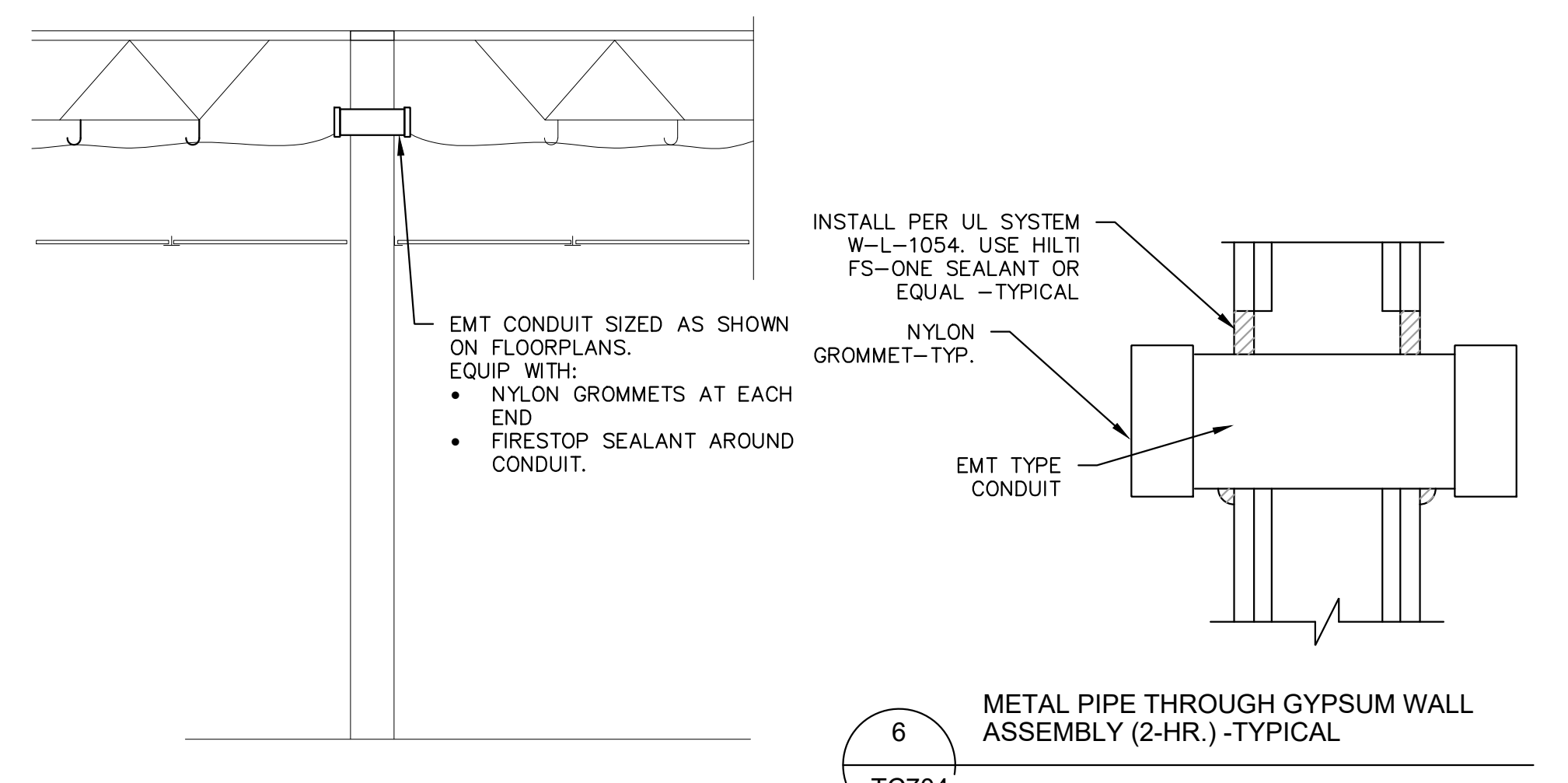
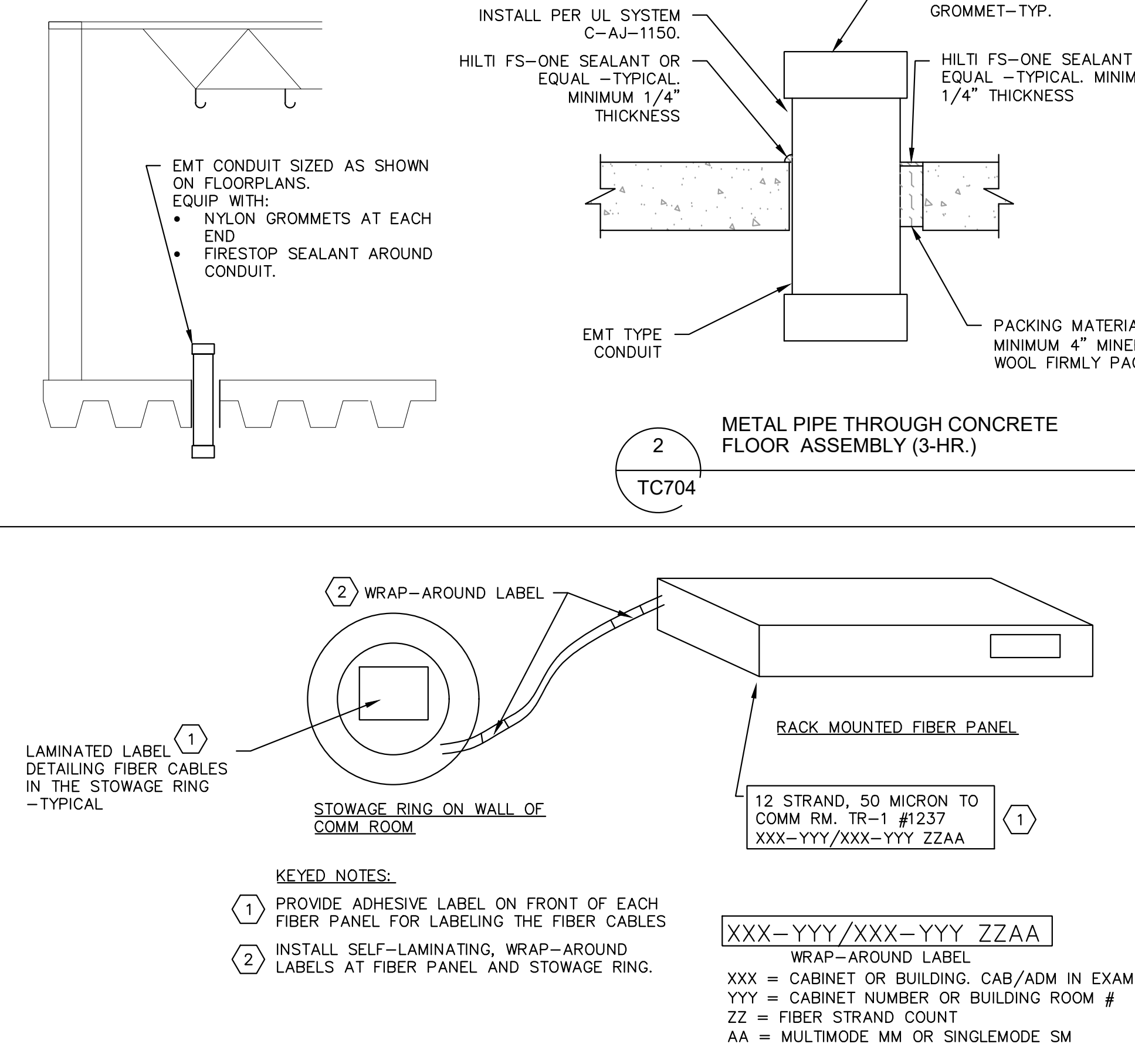
- GENERAL NOTES:
1. ALL PATCH CORDS BETWEEN PANEL AND ETHERNET SWITCH ARE PROVIDED AND INSTALLED BY THE OWNER.
 2. PROVIDE AND INSTALL PATCH CABLE AT THE WAP. SEE DETAILS ON SHEET TC702 FOR PATCH CABLE AND CONNECTIVITY DETAILS.

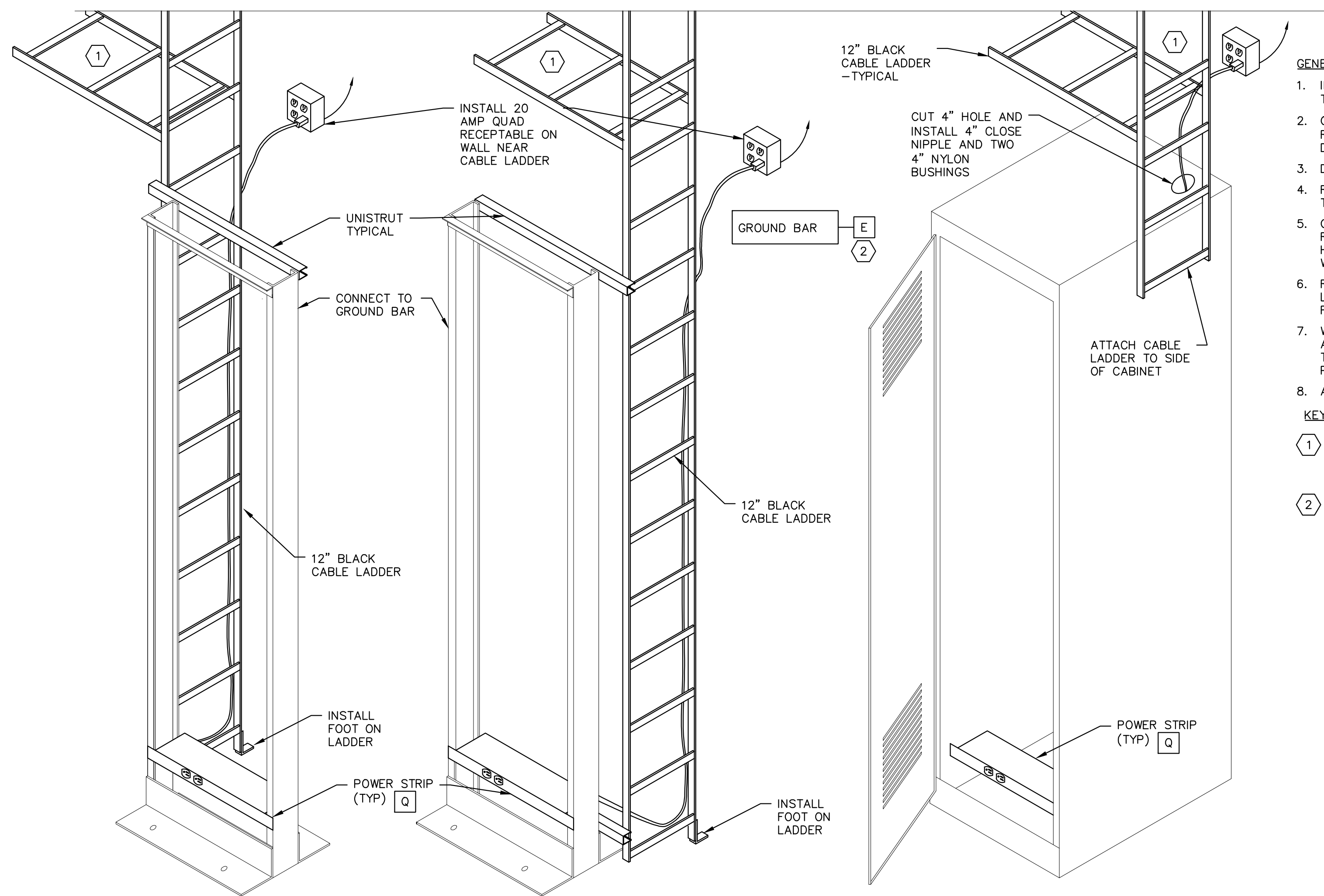
PATCH CABLE DIAGRAM TYPICAL CONNECTIVITY

TC70





	 INSTALLATION NOTES: - CONTRACTOR SHALL INSTALL CABLE SUPPORTS TO ENSURE CABLES ARE NOT LAYING ON CONDUIT, WATERPIPE OR BUILDING STEEL. - CONTRACTOR SHALL INSTALL CABLE SUPPORTS SUCH AS J-HOOKS AND BRIDLE RINGS TO SUPPORT CABLE EVERY 5' MINIMUM - WHEN ROUTING CABLES ALONG A WALL, ABOVE A CEILING OR ABOVE 12' AFG, INSTALL J-HOOKS ON WALL EVERY 5' MINIMUM OR AS REQUIRED TO KEEP CABLES FROM RESTING ON CEILING. - THERE SHALL BE ABSOLUTELY NO USE OF TAPE OR TY-WRAPS ON THE CABLES. USE ONLY VELCRO STRAPS ON CABLE. DO NOT SUPPORT CABLE DIRECTLY TO CONDUITS, PIPES OR BUILDING STEEL. - DO NOT USE EXISTING DROP CEILING TILE WIRES TO SUPPORT CABLES. WHERE NO BUILDING STEEL OR WALL IS AVAILABLE INSTALL DROP CEILING WIRES AND ANCHOR TO BUILDING STEEL OR DIRECTLY INTO CONCRETE CEILING. ATTACH TO DROP CEILING GRID. PAINT WIRES GREEN PRIOR TO INSTALLATION. - INSTALL CABLE SUPPORTS DIRECTLY ABOVE THE CAMERA OR WAP LOCATION. COIL CABLE AND SUPPORT ON A J-HOOK OR BRIDLE RING. USE VELCRO TO SECURE LOOP TO THE CABLE SUPPORT. 7 TC704 DATA CABLE DROP CEILING CABLE SUPPPORT. TYPICAL				
		 INSTALLATION NOTES: - CONTRACTOR SHALL INSTALL CABLES AROUND THE BUILDING AND SHALL SUPPORT CABLES AS PER NOTES, DETAILS AND INDUSTRY STANDARDS. - DO NOT USE ANY TY-WRAPS OR TAPE TO SUPPORT CABLES. - DO NOT ATTACH CABLES TO BUILDING STEEL, CONDUITS OR PIPES. - DO NOT INSTALL CONDUITS THRU A WALL WITHOUT INSTALLING NYLON GROMMETS TO THE END OF THE CONDUIT PASS THRU. - DO NOT ALLOW CABLES TO REST ON HVAC DUCTS. 4 TC704 CABLE INSTALLATION AND SUPPORT TYPES OF SUPPORT THAT ARE DISALLOWED			
		 5 TC704 METAL PIPE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY (2-HR.) -TYPICAL			
		 6 TC704 METAL PIPE THROUGH GYPSUM WALL ASSEMBLY (2-HR.) -TYPICAL			
		 2 TC704 METAL PIPE THROUGH CONCRETE FLOOR ASSEMBLY (3-HR.) 3 TC704 FIBER OPTIC CABLE LABELING			



GENERAL NOTES:

1. INSTALL 12" CABLE LADDER TO ROUTE CABLES FROM THE CEILING/WALL TO THE RACK OR CABINET.
2. ON RACKS, INSTALL CABLE LADDER 4" OUTSIDE THE OUTER EDGE OF THE RACK. INSTALL UNISTRUT TO SUPPORT LADDER FROM THE RACK. SEE DIAGRAM.
3. DETERMINE WHICH SIDE OF THE RACK SHALL RECEIVE THE CABLE LADDER.
4. REWORK THE EXISTING CABLES THAT ROUTE TO THE RACK TO ATTACH TO THE NEW CABLE LADDER.
5. CABLE LADDER SHALL ROUTE TO THE CEILING OR WALL. VERIFY EACH RACK AND EXISTING CABLING ROUTING. INSTALL UNISTRUT AND OTHER HARDWARE TO SECURELY ATTACH THE CABLE LADDER TO THE CEILING, WALL OR BUILDING STRUCTURE.
6. ROUTE NEW CABLES DOWN TO THE RACK OR CABINET ALONG THE CABLE LADDER. PROVIDE THE SPARE CABLING ON THE CABLE LADDER. MINIMUM 4 FEET.
7. WHERE NOTED ON THE FLOORPLANS, INSTALL A NEW 120 VOLT OUTLET AND POWER STRIP. INSTALL OUTLET TO WALL OR CABLE LADDER. INSTALL THE OUTLET CLOSE ENOUGH TO THE RACK TO ALLOW CONNECTION OF THE POWER STRIP.
8. ATTACH POWER STRIP TO THE RACK OR CABINET.

KEYED NOTES:

- 1 CONTRACTOR SHALL INSTALL 12" CABLE LADDER VERTICALLY OR HORIZONTALLY FROM TOP OF CABINET OR RACK TO THE CEILING OR WALL. USE THIS FOR ROUTING USER CABLES TO THE PANELS.
- 2 INSTALL NEW GROUND BAR. INSTALL #6 AWG GROUND CABLE FROM RACK AND CABLE LADDER TO BUILDING GROUND. THIS MAY BE GROUND BAR IN COMM ROOM OR BUILDING STEEL. USE STAR WASHERS ON EACH CONNECTION. REMOVE PAINT AT RACK AND BUILDING FOR BETTER CONNECTIVITY. SEE TC701/4

CABLE LADDER INSTALLED TO EXISTING RACK OR CABINET DETAIL-TYP

TC705

GENERAL NOTES:

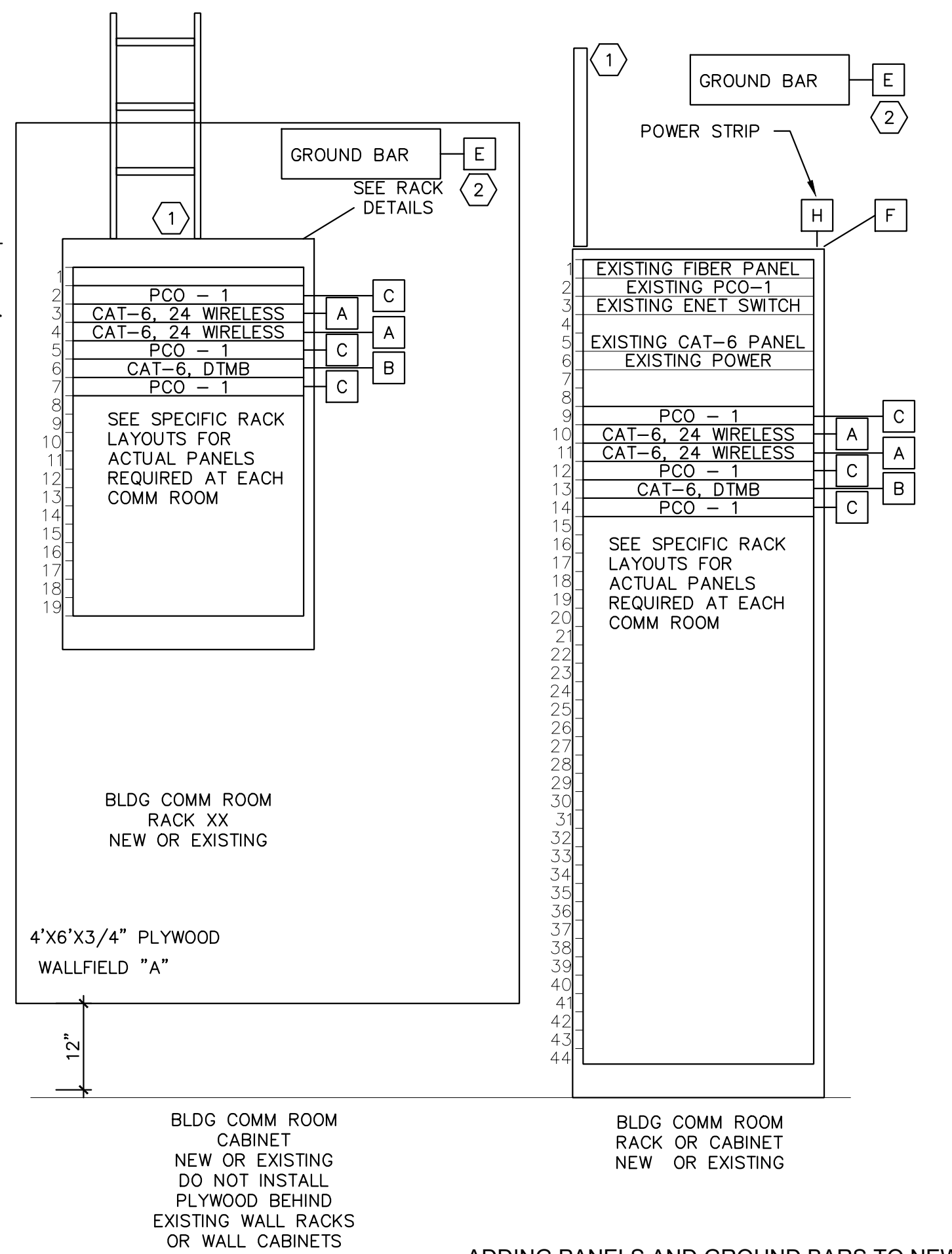
1. RACKS/CABINETS SHALL BE INSTALLED DIRECTLY BESIDE EACH OTHER & MECHANICALLY TO EACH OTHER.
2. RACKS & CABINETS SHALL BE SECURED TO THE FLOOR WITH ANCHORS. WALL MOUNTED CABINETS SHALL BE MOUNTED TO WALL SO TOP OF RACK IS NO HIGHER THAN 7' AFF.
3. INSTALL THE BACKBONE CABLES THAT ROUTE BETWEEN COMMUNICATIONS ROOMS. COIL SPARE FIBER CABLE ON THE WALL. ROUTE CABLES TO THE RACK/CABINET VIA CABLE LADDER.
4. ALL USER DATA CABLES SHALL ROUTE IN THE CEILING & THEN ROUTE DOWN VERTICAL CABLE LADDER TO THE RACK. AT THE RACK/CABINET, PROVIDE A "DRIP LOOP" FOR ALL THE CABLES DRIP LOOP SHALL BE A MINIMUM OF ONE FOOT.
5. CONNECT ALL RACKS, CABINETS AND CABLE LADDER TO THE GROUND BAR AS DESCRIBED IN THE GROUNDING DETAIL DETAIL & THE GROUNDING SPECIFICATIONS.

KEYED NOTES:

- 1 CONTRACTOR SHALL INSTALL 12" CABLE LADDER VERTICALLY FROM CABINET OR RACK TO THE CEILING AREA FOR ROUTING USER CABLES TO THE PANELS.
- 2 INSTALL NEW GROUND BAR. INSTALL #6 AWG GROUND CABLE FROM RACK AND CABLE LADDER TO BUILDING GROUND. THIS MAY BE GROUND BAR IN COMM ROOM OR BUILDING STEEL. USE STAR WASHERS ON EACH CONNECTION. REMOVE PAINT AT RACK AND BUILDING FOR BETTER CONNECTIVITY. SEE TC701/4

WALLFIELD NOTES:

- A. PLYWOOD SHALL BE INSTALLED ON THE WALL SHOWN IN THE COMMUNICATIONS ROOM FLOOR PLAN AND AS DETAILED IN THIS DRAWING.
- B. VERTICAL PLYWOOD SHALL BE MOUNTED AT 12" AFF TO THE BOTTOM OF THE PLYWOOD.
- C. HORIZONTAL PLYWOOD SHALL BE MOUNTED AT 42" AFF TO THE BOTTOM OF THE PLYWOOD.
- D. PLYWOOD SHALL BE FIRE RESISTANT PLYWOOD. GRADE "A" ON THE SIDE TOWARDS THE USER.
- E. THE CONTRACTOR SHALL INSTALL D-RINGS OR CABLE LADDER TO ROUTE CABLES HORIZONTALLY & VERTICALLY ALONG THE WALLFIELD.

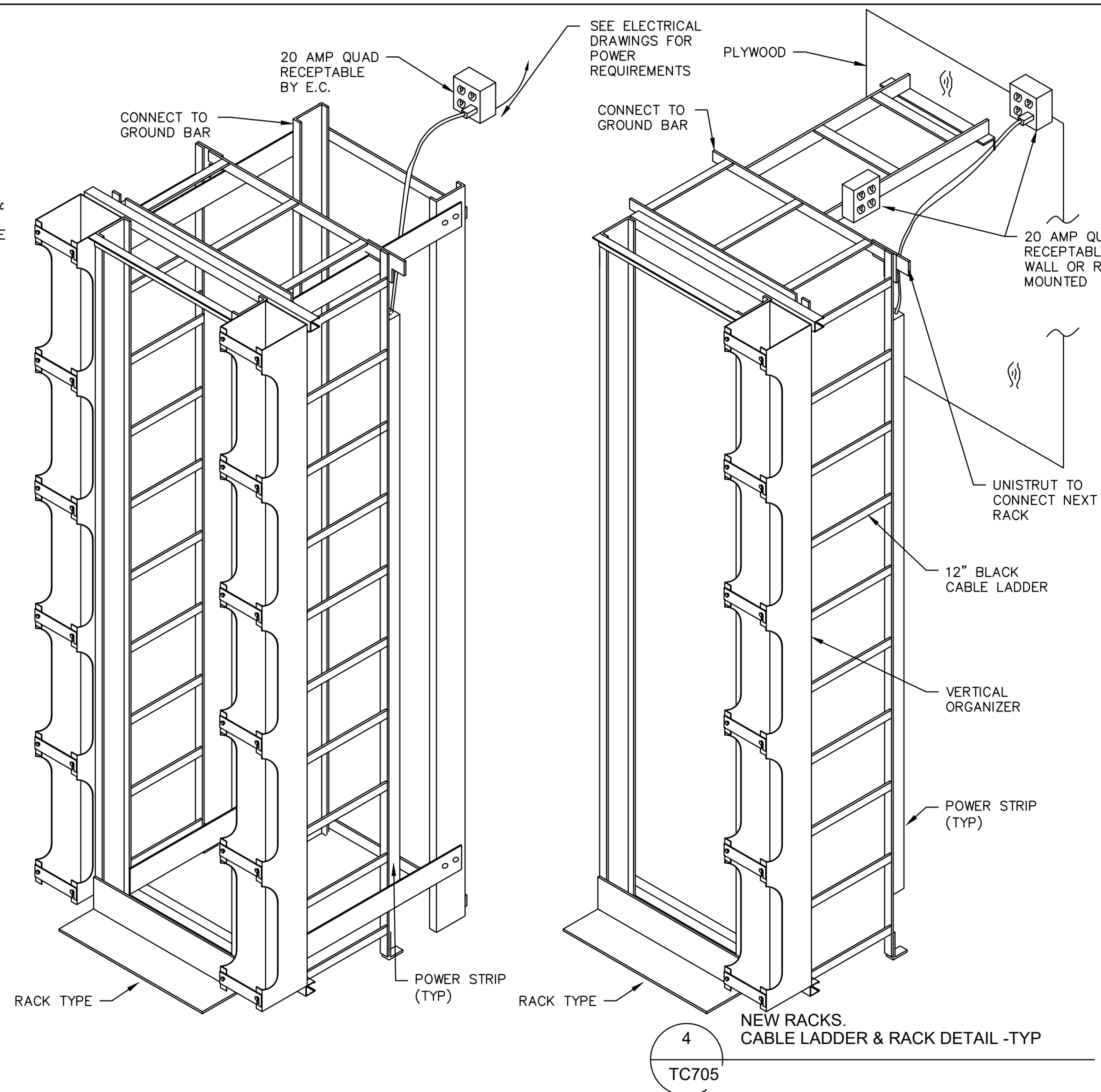


ADDING PANELS AND GROUND BARS TO NEW OR EXISTING DTMB RACKS/CABS -TYP

TC705

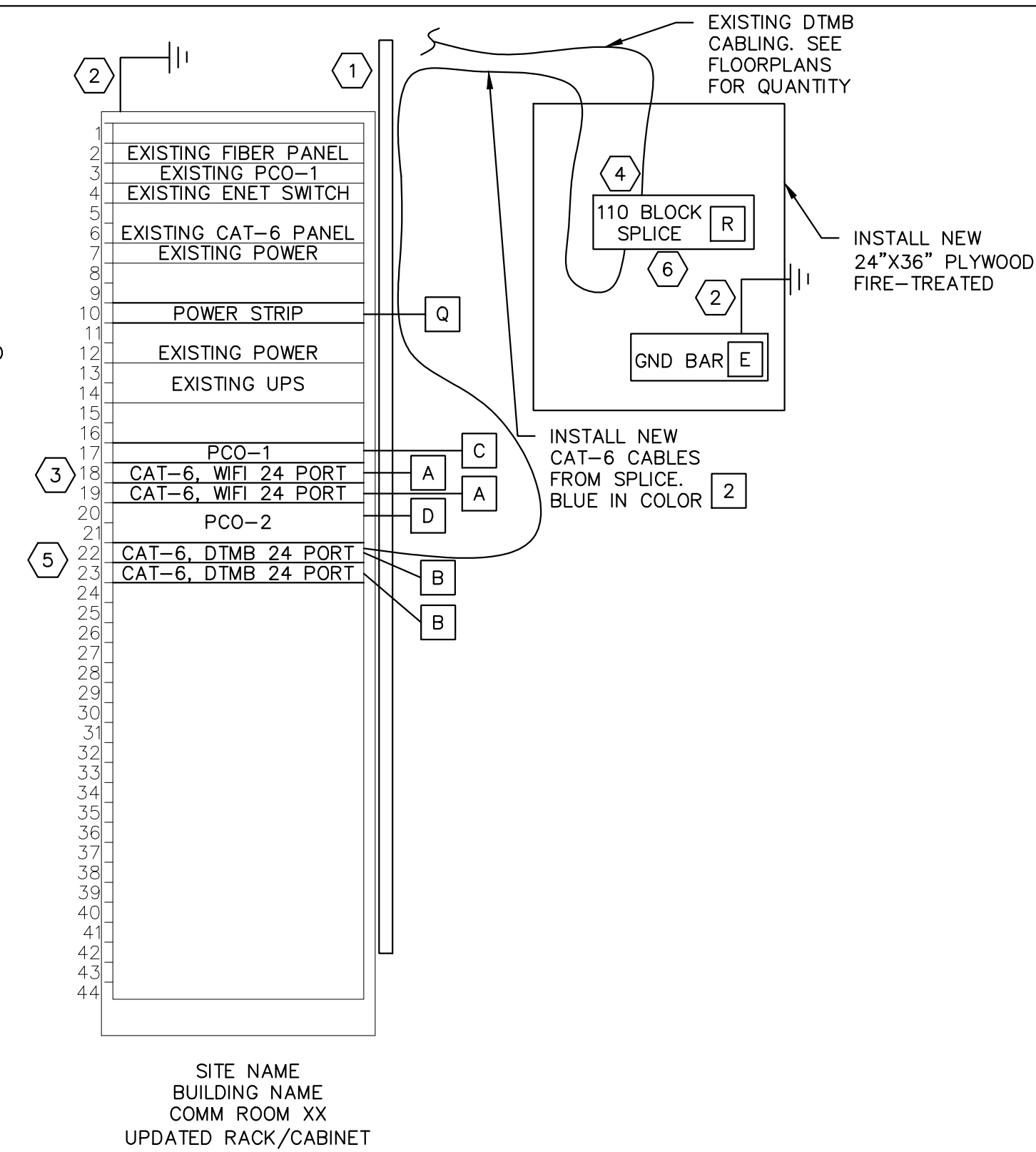
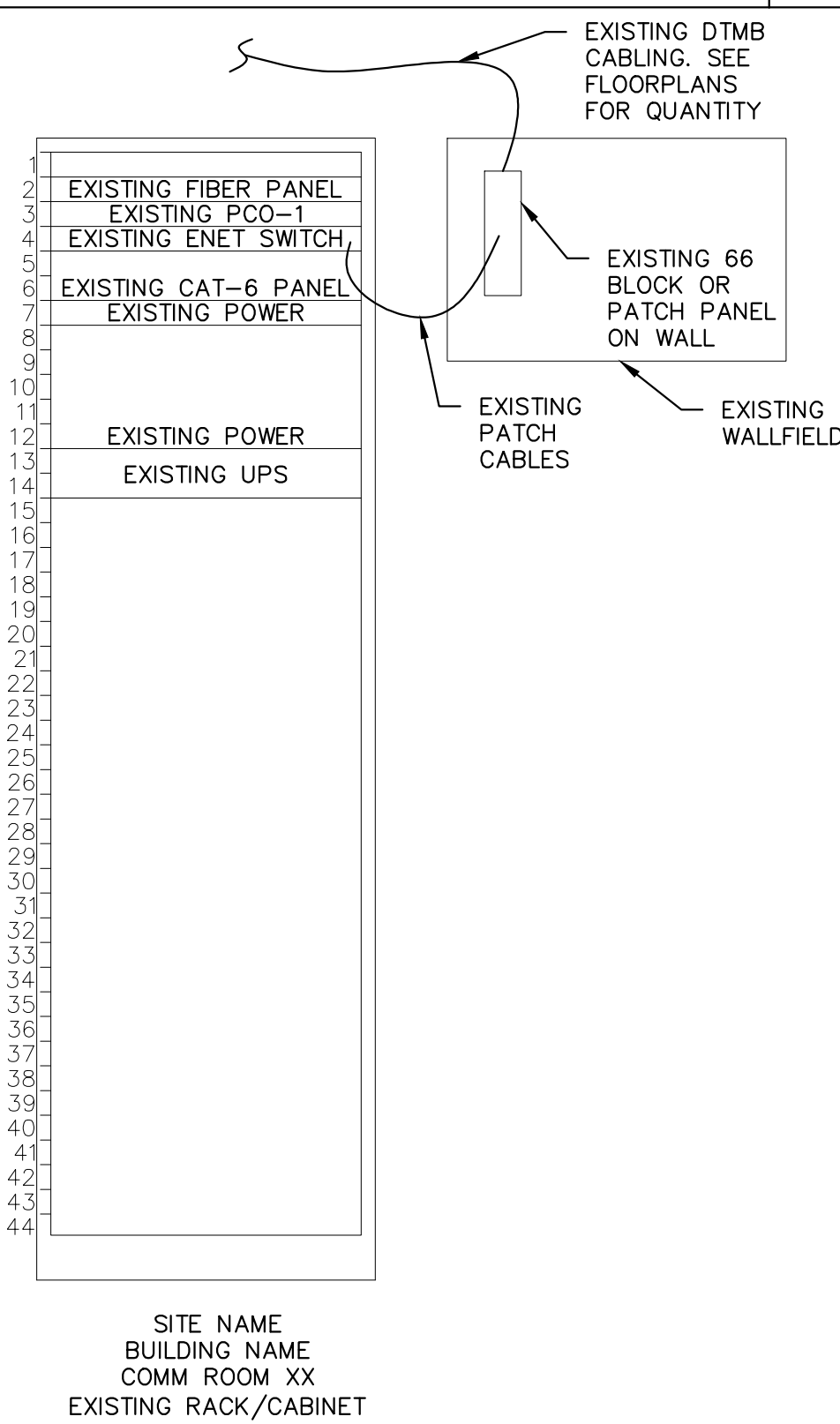
NOTES:

1. ALL RACKS SHALL BE SECURED TO THE FLOOR WITH ANCHORS & SECURED TO THE WALL WITH ADDITIONAL CABLE LADDER.
2. CONTRACTOR SHALL INSTALL RACKS WITH ALL 12" CABLE LADDER AS SHOWN. CABLE LADDER SHALL BE USED FOR ROUTING CABLES FROM ABOVE & BELOW TO THE BACK OF THE PATCH PANELS IN THE RACKS.
3. CABLE LADDER SHALL BE INSTALLED VERTICALLY & HORIZONTALLY BEHIND EACH RACK. VERTICAL LADDER SHALL BE CENTERED DIRECTLY BEHIND THE 6" VERTICAL ORGANIZER.
4. EACH RACK SHALL CONNECT TO THE NEXT WITH UNISTRUT BRACKETS CONNECTING THE CABLE LADDER, AS WELL AS A DIRECT CONNECTION OF EACH RACK TO THE VERTICAL ORGANIZERS.
5. ALL CABLE LADDER AND UNISTRUT SHALL BE CONFIGURED SO IT WILL NOT IMPEDE COMPONENTS INSTALLED IN THE RACK.
6. COMMUNICATIONS CONTRACTOR SHALL INSTALL POWER STRIPS TO THE BACK OF THE CABLE LADDER & EXTEND POWER CORD TO RECEPTACLE MOUNTED TO THE BACK OF THE VERTICAL ORGANIZER. RECEPTACLE SHALL BE A 20 AMP PLUG.
7. CONNECT RACK AND CABLE LADDER TO THE GROUND BAR IN THE COMM ROOM. SEPARATE GROUND CABLE FOR EACH. ENSURE ALL CABLE LADDER IS ELECTRICALLY CONNECTED WITH STAR WASHERS OR INDIVIDUAL GROUND BARS FOR EACH SECTION
8. ROUTE POWER CABLE ALONG CABLE LADDER FROM RACK TO THE POWER OUTLET ON THE WALL
9. ELECTRICAL CONTRACTOR SHALL INSTALL ELECTRICAL BOXES, CONDUIT & POWER CABLING.



NEW RACKS, CABLE LADDER & RACK DETAIL -TYP

TC705



GENERAL RACK NOTES:

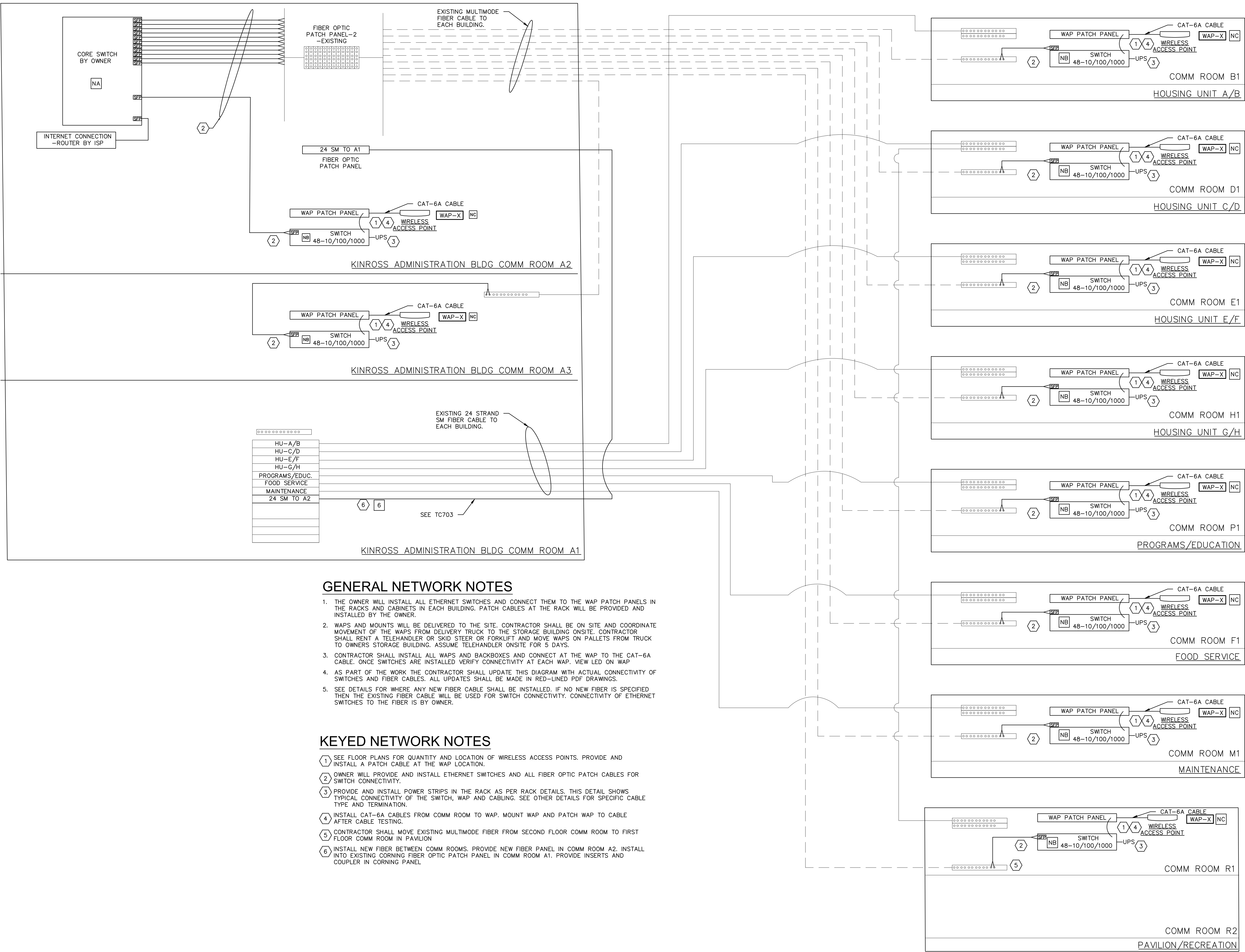
1. CONTRACTOR SHALL BE RESPONSIBLE FOR CHANGES IN THE RACK TO MOVE EXISTING EQUIPMENT AND CHANGE RACK LOCATION TO SUPPORT NEW CABLES AND ETHERNET SWITCHES. SEE FLOORPLAN FOR REPOSITIONING REQUIREMENTS
2. WHERE SHOWN ON THE FLOORPLANS, MOVE RACK AND REATTACH TO WALL OR FLOOR.
3. INSTALL A NEW GROUND CABLE FROM THE RACK TO THE GROUND BAR. INSTALL GROUND BAR AND CONNECT TO BUILDING GROUND. GROUND WIRE SHALL BE #6 AWG.
4. WHEN MOVING A RACK OR REPOSITIONING EQUIPMENT IN THE RACK THE CONTRACTOR SHALL MAKE THE SITE AWARE OF THE CHANGES PRIOR TO STARTING AND SCHEDULE THE TIME WHEN THE RACK IS BEING CHANGED.
5. ALL SYSTEMS SHALL BE TESTED TO BE OPERATIONAL PRIOR TO LEAVING EACH DAY. STAY LATE TO REPAIR ANY OUTAGES IF REQUIRED

KEYED NOTES:

- 1 INSTALL 12" CABLE LADDER FROM TOP OF EACH RACK TO THE CEILING OR WALL TO TRANSITION CABLES FROM CEILING TO PATCH PANEL. ATTACH AT CEILING AND AT RACK/CABINET /FLOOR.
- 2 INSTALL NEW GROUND BAR. INSTALL #6 AWG GROUND CABLE FROM RACK AND CABLE LADDER TO BUILDING GROUND. THIS MAY BE GROUND BAR IN COMM ROOM OR BUILDING STEEL. USE STAR WASHERS ON EACH CONNECTION. REMOVE PAINT AT RACK AND BUILDING FOR BETTER CONNECTIVITY. SEE TC701/4
- 3 INSTALL PATCH PANELS AS HIGH IN THE RACK AS POSSIBLE OR NEXT TO EXISTING STATE OF MICHIGAN PATCH PANELS. SEE RACK DETAILS FOR LOCATIONS.
- 4 TERMINATE EXISTING UTP DATA CABLES ONTO THE 110 BLOCK. INSTALL C-4 CLIPS ON TOP OF EACH CABLE. INSTALL NEW CAT-6 CABLES FROM 110 BLOCK TO PATCH PANEL IN THE RACK.
- 5 TERMINATE CAT-6 CABLES ONTO BLUE JACKS. LABEL WITH SAME LABEL AS WAS USED ON PREVIOUS 66 BLOCK STYLE PANEL THAT WAS ON THE WALL. LABEL PANEL. PROVIDE NEW BLUE PATCH CABLES AND CONNECT TO ETHERNET SWITCH. VERIFY CONNECTIVITY OF DEVICES AT USER END OF EACH CABLE.
- 6 PROVIDE QUANTITY OF 110 BLOCK SPLICES AS REQUIRED FOR EXTENSION OF ALL EXISTING CABLES. EACH 110 BLOCK SUPPORTS 16 DATA CABLES.

EXTENSION OF EXISTING DTMB CABLES TO RACK AND PANEL DETAIL -WHERE NOTED

TC705

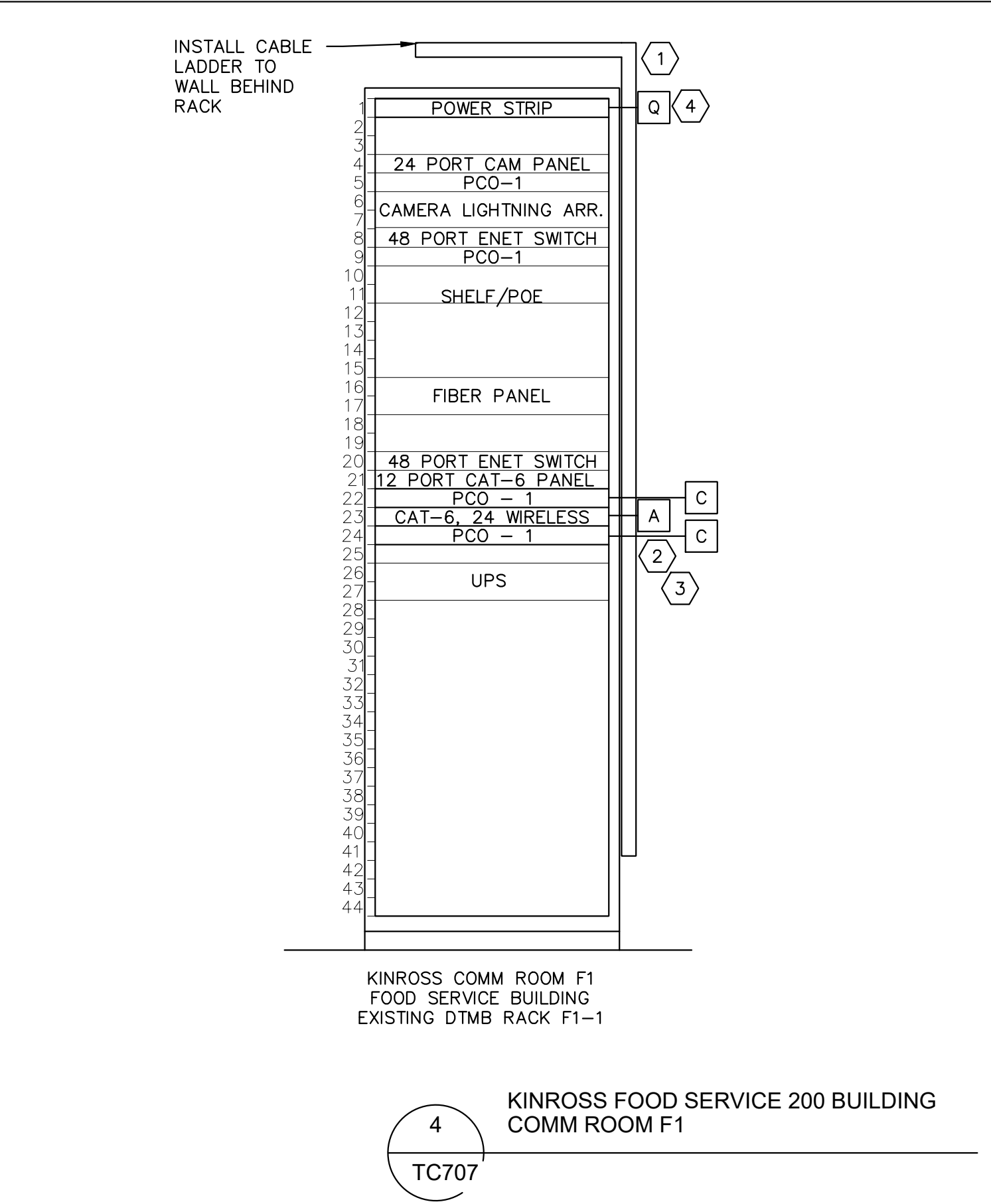
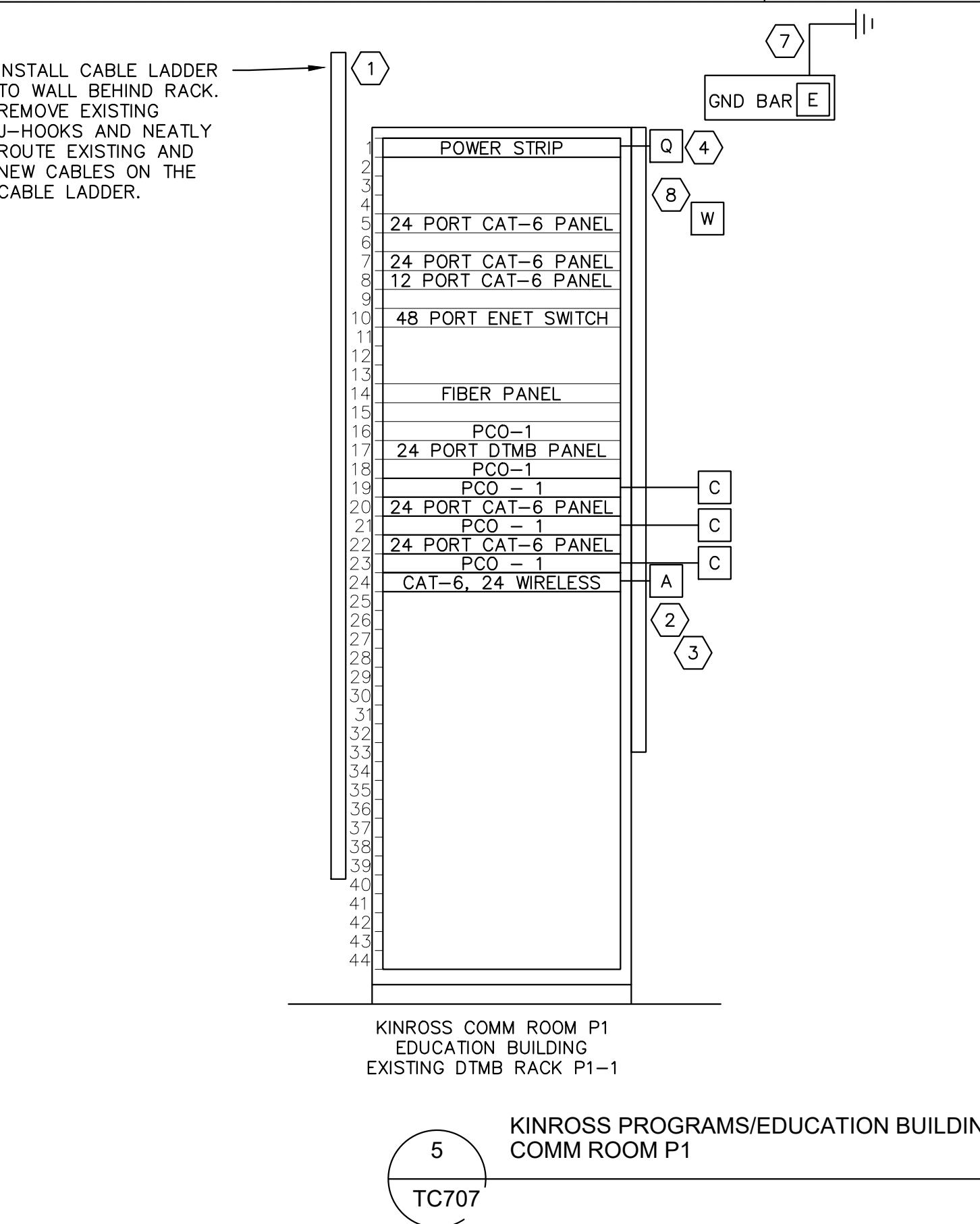
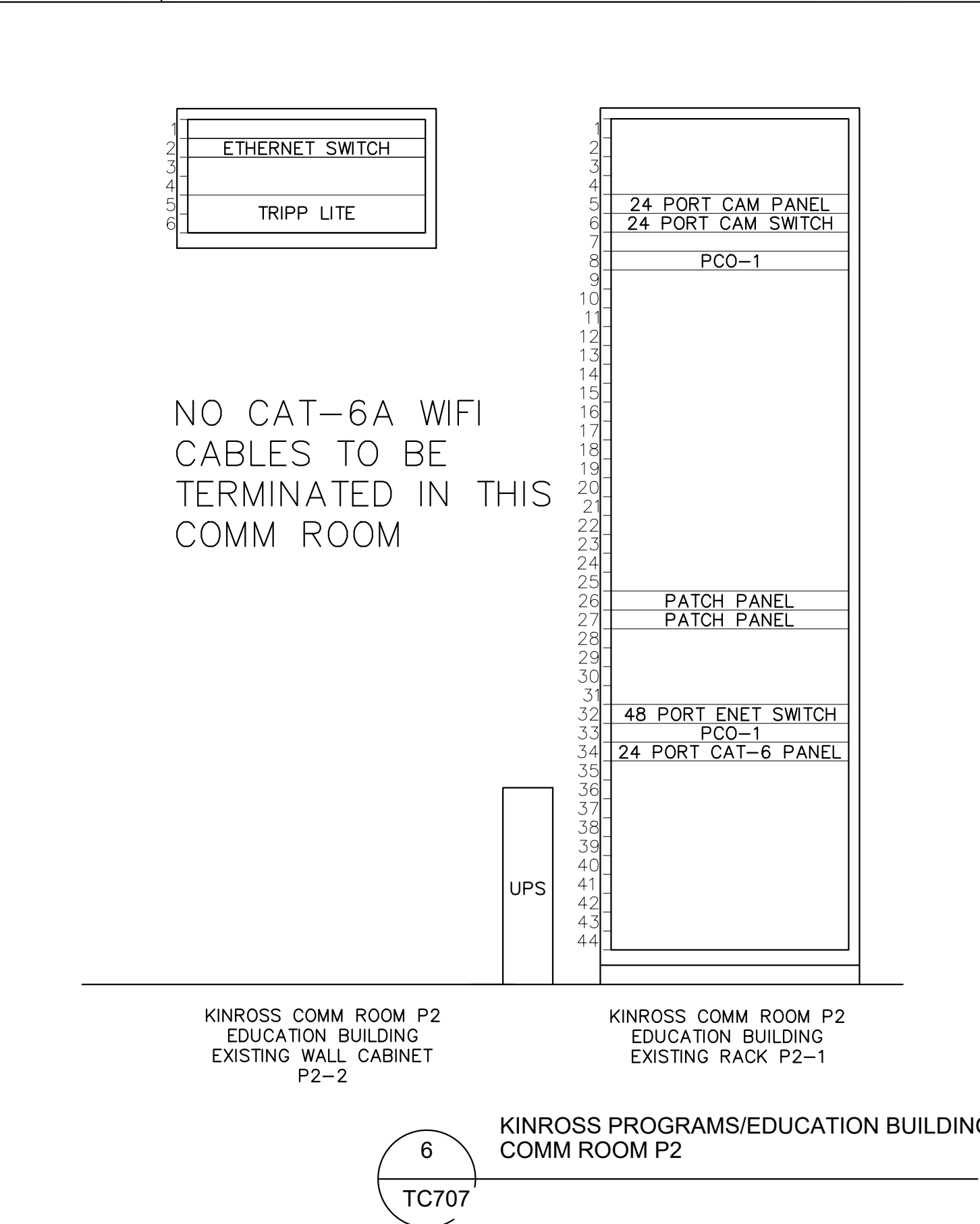
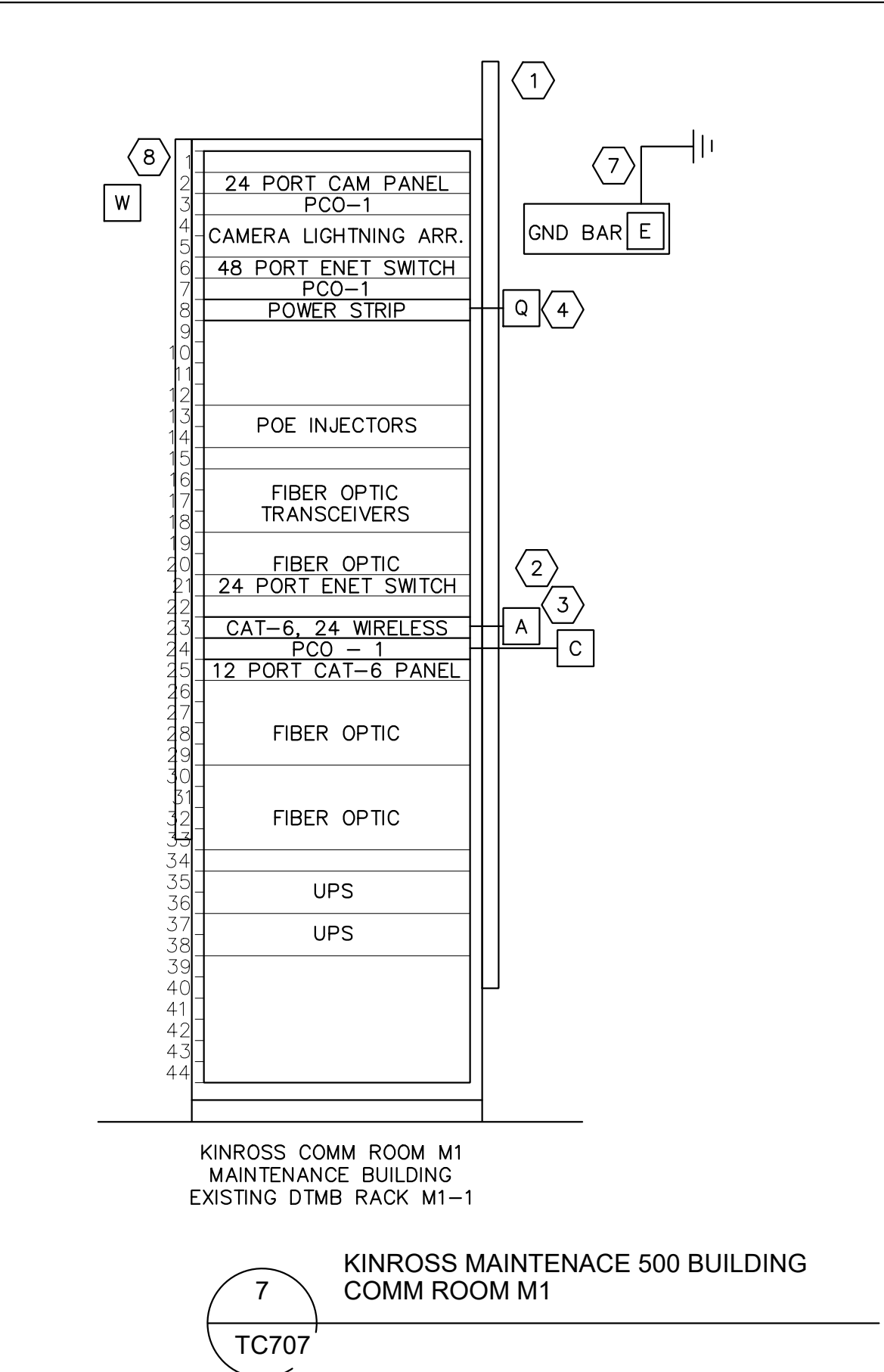
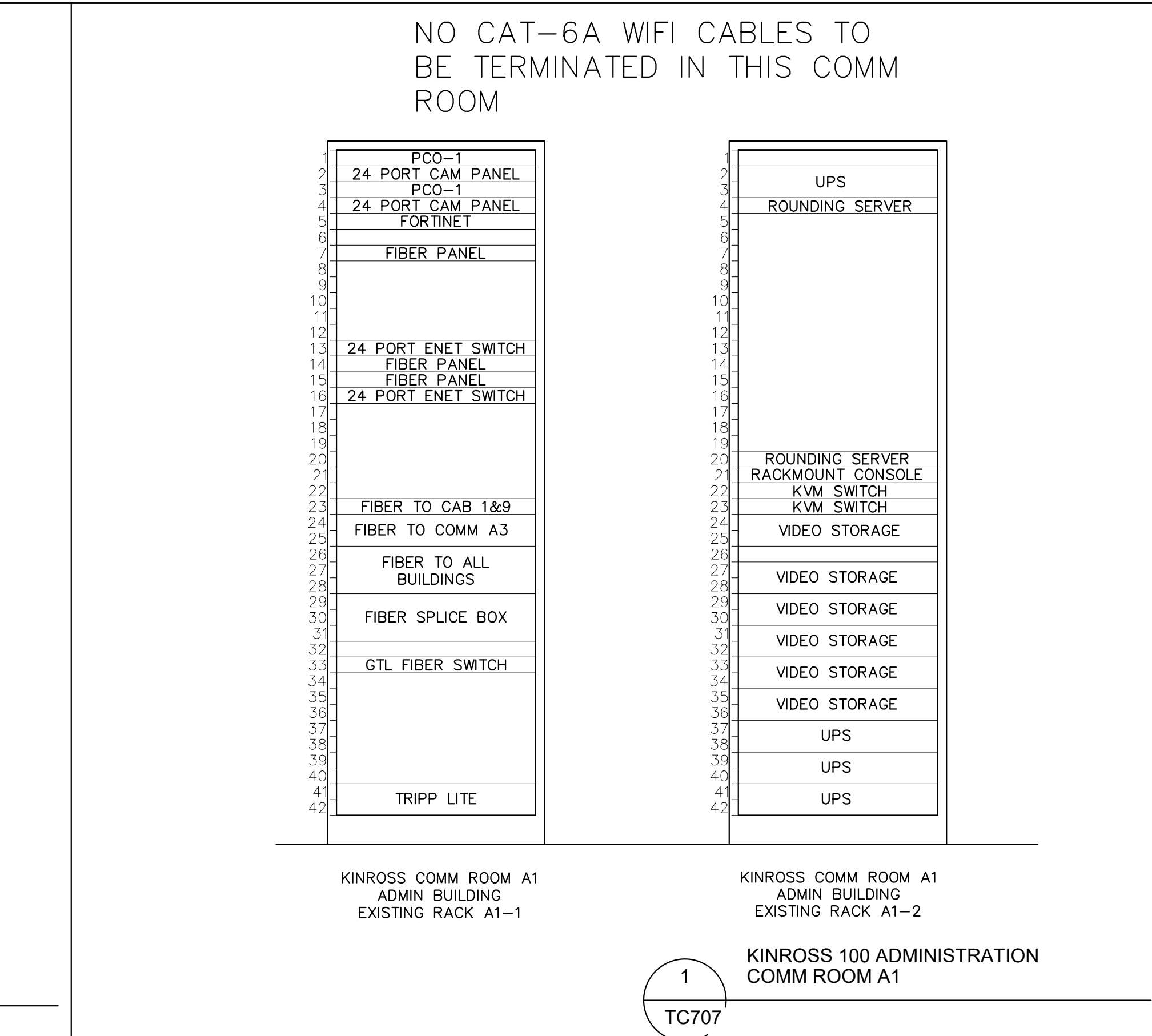
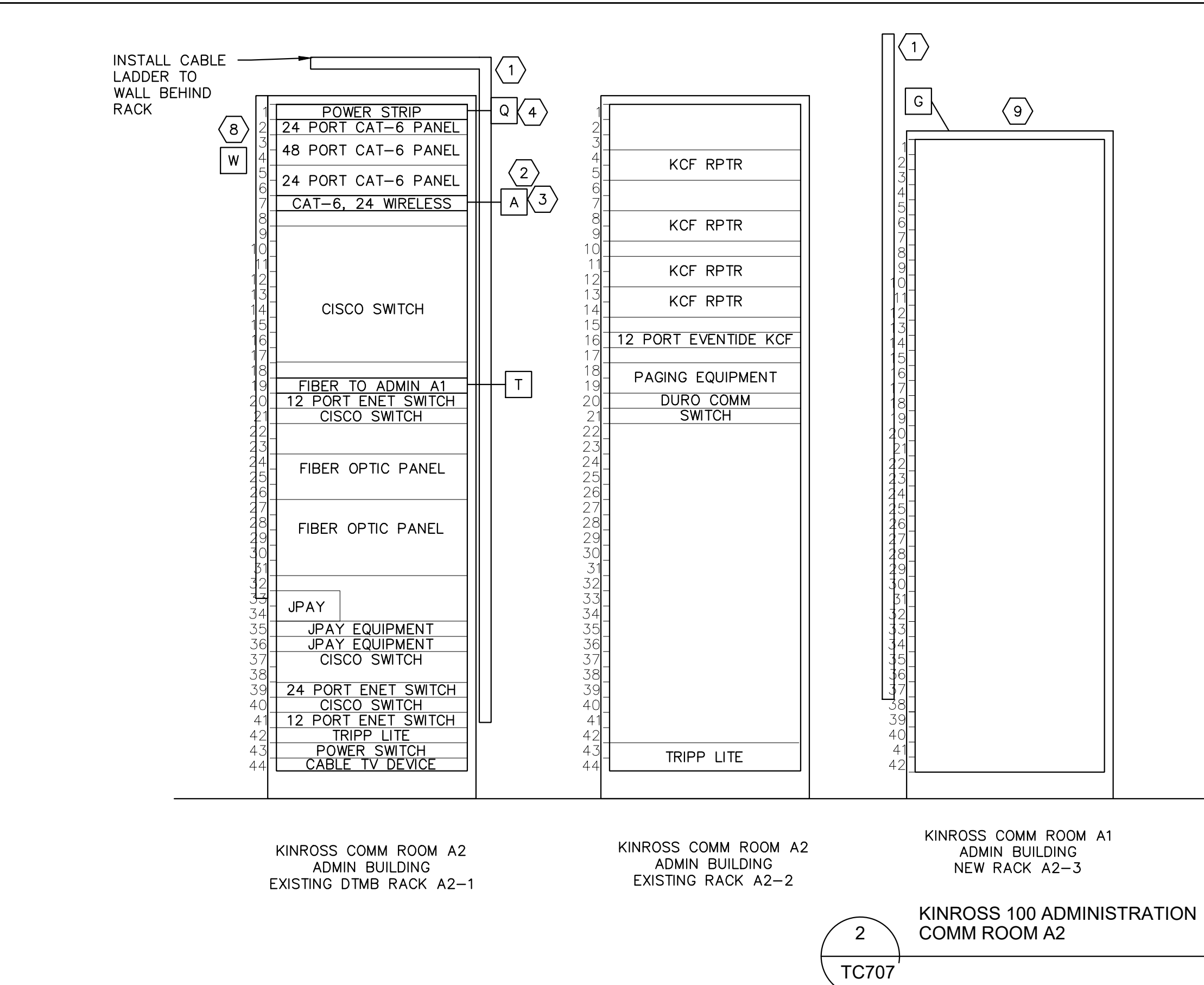
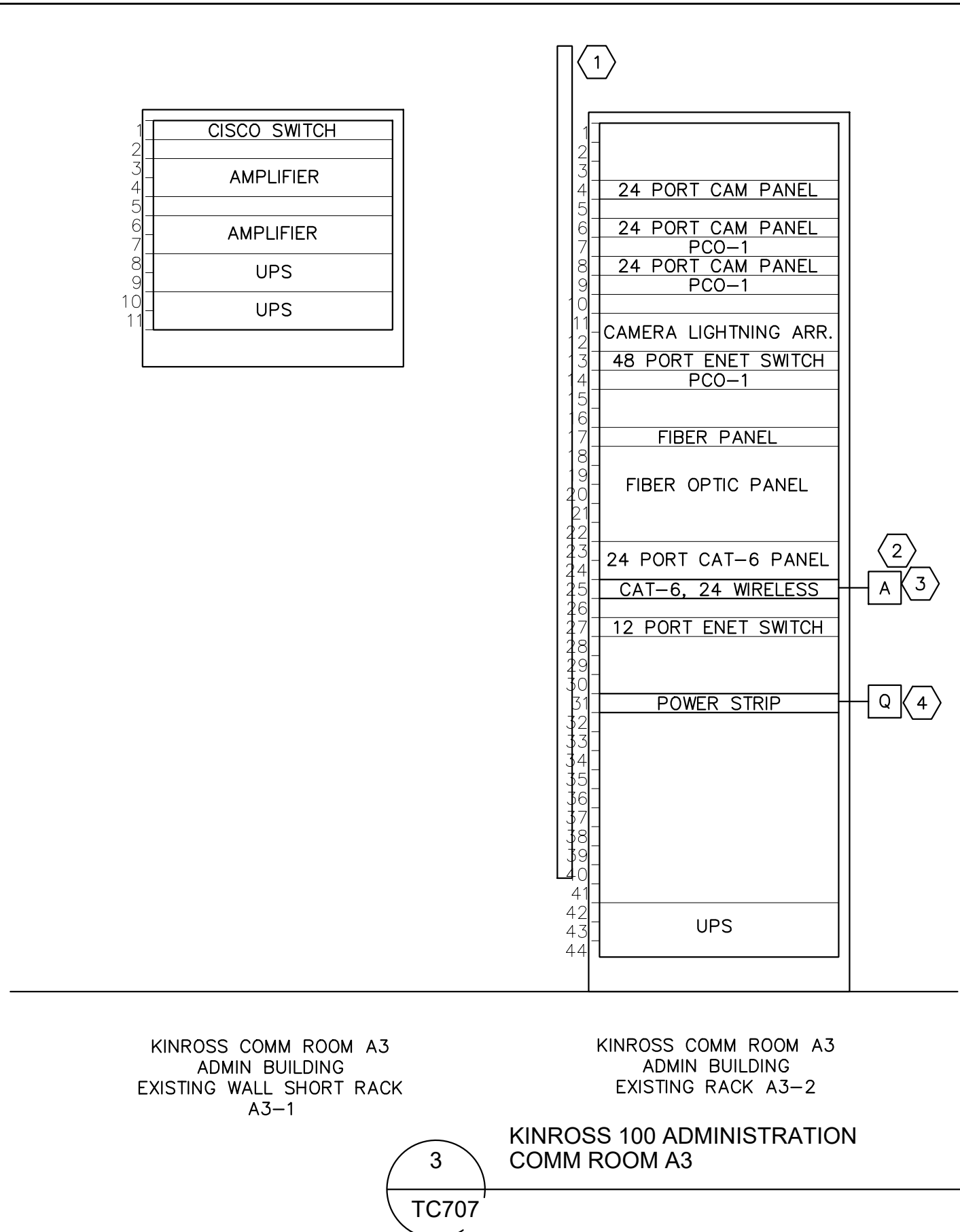


GENERAL NETWORK NOTES

1. THE OWNER WILL INSTALL ALL ETHERNET SWITCHES AND CONNECT THEM TO THE WAP PATCH PANELS IN THE RACKS AND CABINETS IN EACH BUILDING. PATCH CABLES AT THE RACK WILL BE PROVIDED AND INSTALLED BY THE OWNER.
2. WAPS AND MOUNTS WILL BE DELIVERED TO THE SITE. CONTRACTOR SHALL BE ON SITE AND COORDINATE MOVEMENT OF THE WAPS FROM DELIVERY TRUCK TO THE STORAGE BUILDING ONSITE. CONTRACTOR SHALL RENT A TELEHANDLER OR SKID STEER OR FORKLIFT AND MOVE WAPS ON PALLET FROM TRUCK TO OWNERS STORAGE BUILDING. ASSUME TELEHANDLER ONSITE FOR 5 DAYS.
3. CONTRACTOR SHALL INSTALL ALL WAPS AND BACKBOXES AND CONNECT AT THE WAP TO THE CAT-6A CABLE. ONCE SWITCHES ARE INSTALLED VERIFY CONNECTIVITY AT EACH WAP. VIEW LED ON WAP
4. AS PART OF THE WORK THE CONTRACTOR SHALL UPDATE THIS DIAGRAM WITH ACTUAL CONNECTIVITY OF SWITCHES AND FIBER CABLES. ALL UPDATES SHALL BE MADE IN RED-LINED PDF DRAWINGS.
5. SEE DETAILS FOR WHERE ANY NEW FIBER CABLE SHALL BE INSTALLED, IF NO NEW FIBER IS SPECIFIED THEN THE EXISTING FIBER CABLE WILL BE USED FOR SWITCH CONNECTIVITY. CONNECTIVITY OF ETHERNET SWITCHES TO THE FIBER IS BY OWNER.

KEYED NETWORK NOTES

- ① SEE FLOOR PLANS FOR QUANTITY AND LOCATION OF WIRELESS ACCESS POINTS. PROVIDE AND INSTALL A PATCH CABLE AT THE WAP LOCATION.
- ② OWNER WILL PROVIDE AND INSTALL ETHERNET SWITCHES AND ALL FIBER OPTIC PATCH CABLES FOR SWITCH CONNECTIVITY.
- ③ PROVIDE AND INSTALL POWER STRIPS IN THE RACK AS PER RACK DETAILS. THIS DETAIL SHOWS TYPICAL CONNECTIVITY OF THE SWITCH, WAP AND CABLING. SEE OTHER DETAILS FOR SPECIFIC CABLE TYPE AND TERMINATION.
- ④ INSTALL CAT-6A CABLES FROM COMM ROOM TO WAP. MOUNT WAP AND PATCH WAP TO CABLE AFTER CABLE TESTING.
- ⑤ CONTRACTOR SHALL MOVE EXISTING MULTIMODE FIBER FROM SECOND FLOOR COMM ROOM TO FIRST FLOOR COMM ROOM IN PAVILION.
- ⑥ INSTALL NEW FIBER BETWEEN COMM ROOMS. PROVIDE NEW FIBER PANEL IN COMM ROOM A2. INSTALL INTO EXISTING CORNING FIBER OPTIC PATCH PANEL IN COMM ROOM A1. PROVIDE INSERTS AND COUPLER IN CORNING PANEL



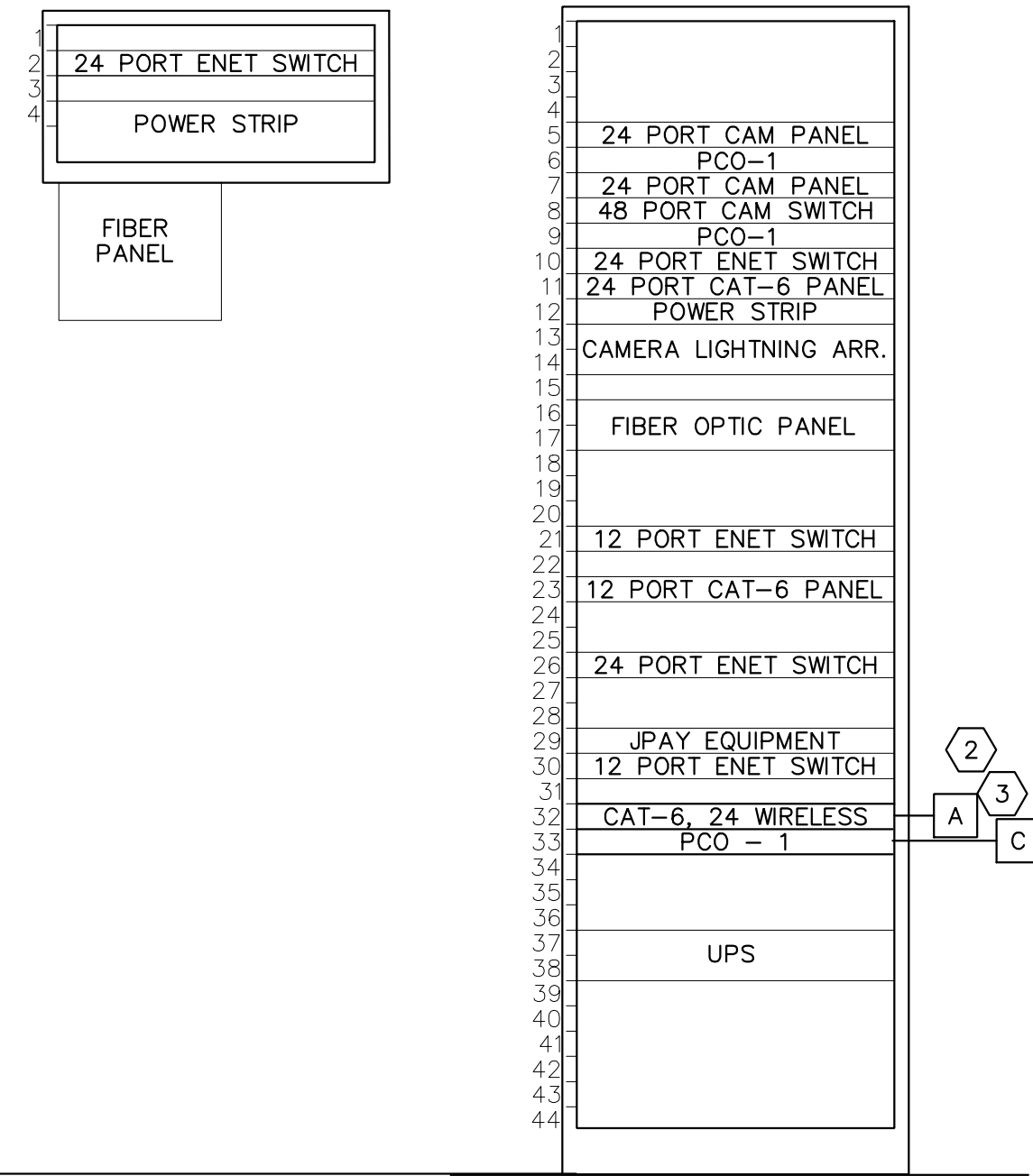
GENERAL RACK NOTES

1. VERIFY RACK EQUIPMENT AND SPACE IN THE RACK PRIOR TO INSTALLATION OF CABLES.
2. MOVE EXISTING PANELS AND OTHER EQUIPMENT UP OR DOWN AS REQUIRED TO FIT THE NEW PATCH PANELS AND SWITCHES.
3. OWNER SHALL PROVIDE AND INSTALL ALL PATCH CABLES FOR FIBER AND WAP CABLES AT THE RACKS AND ETHERNET SWITCH.
4. CONTRACTOR SHALL PROVIDE AND INSTALL CAT-6A PATCH CABLES AT EACH WAP.

KEYED RACK NOTES

1. PROVIDE VERTICAL SUPPORT OF CABLES AS THEY ROUTE FROM THE CEILING TO THE RACK. INSTALL 12" CABLE LADDER FROM RACK TO CEILING OR WALL. SUPPORT CABLE LADDER AT CEILING AND RACK WITH UNISTRUT ETC. SEE DETAILS ON TC705/3.
2. OWNER TO INSTALL CAT-6A PATCH CABLES FROM CAT-6A PANEL TO THE WI-FI SWITCH IN EACH RACK.
3. LABEL EACH PORT IN THE PATCH PANEL WITH THE WAP NUMBER. INSTALL STICKER THAT IS LASER PRINTED AT JACK IN PANEL. SEE NEW PANEL LABELING DETAILS.
4. INSTALL POWER STRIP. CONNECT TO OUTLET INSTALLED AS PART OF THIS PROJECT.
5. MOVE EXISTING CABLES. REMOVE EXISTING DTM CABLES FROM PANEL ON THE WALL. RE-ROUTE TO PATCH PANEL IN RACK. TERMINATE EXISTING DTM CABLES. SEE INDIVIDUAL RACK LAYOUTS FOR CABLE QUANTITY. PROVIDE NEW PATCH PANEL WITH BLUE CAT-6 JACKS FOR CABLE TERMINATION.
6. SPLICE EXISTING CABLES. UN-TERMINATE EXISTING DTM CABLES FROM PATCH PANEL. TERMINATE ON 110 BLOCKS. SPLICE NEW CAT-6 CABLES FROM 110 BLOCK TO NEW PATCH PANEL IN RACK. SEE TC705/2 FOR SPLICE AND EXTENSION DETAIL. SEE RACK DETAILS FOR QUANTITY OF CABLES TO EXTEND.
7. INSTALL GROUND BAR. CONNECT TO ELECTRICAL PANEL GROUND. SEE DETAIL ON TC705/2.
8. INSTALL A VERTICAL ORGANIZER TO THE SIDE OF THE RACK. RLX 3326-BK06 OR EQUAL.
9. INSTALL NEW RACK. CONNECT TO EXISTING RACK WITH THE NEW VERTICAL ORGANIZER. WORK WITH OWNER TO MAKE SPACE FOR THIS RACK. EXTEND POWER TO THE POWER STRIPS



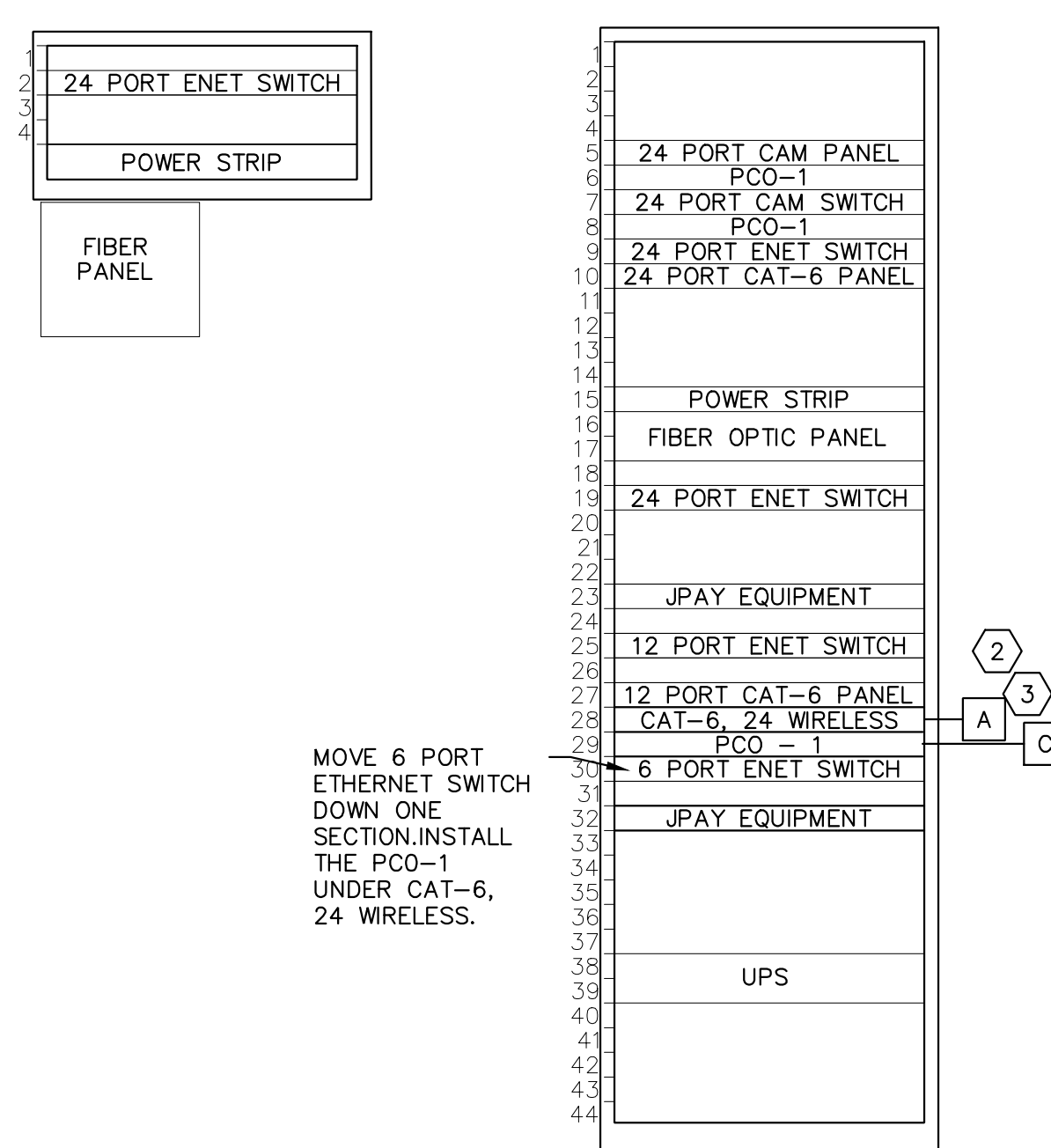


KINROSS COMM ROOM D1
HOUSING UNIT C/D
EXISTING PPD WALL CABINET
D1-2

KINROSS COMM ROOM D1
HOUSING UNIT C/D
EXISTING DTMB RACK D1-1

3
TC708

KINROSS HOUSING UNIT C/D
COMM ROOM D1

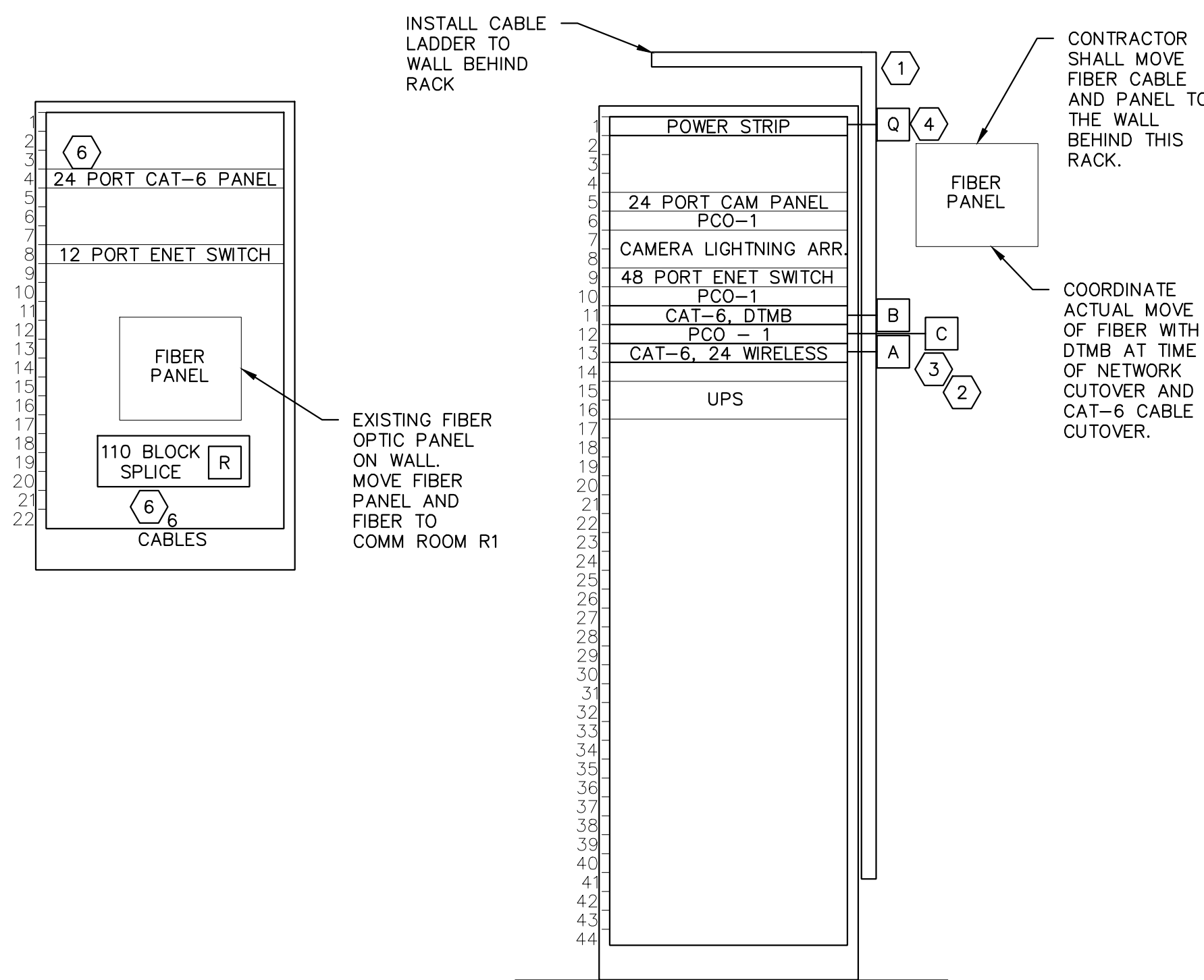


KINROSS COMM ROOM B1
HOUSING UNIT A/B
EXISTING PPD WALL CABINET
B1-2

KINROSS COMM ROOM B1
HOUSING UNIT A/B
EXISTING DTMB RACK B1-1

2
TC708

KINROSS HOUSING UNIT A/B
COMM ROOM B1



KINROSS COMM ROOM R2
PAVILION/RECREATION
EXISTING DTMB WALL RACK
R2-1

KINROSS COMM ROOM R1
PAVILION/RECREATION
EXISTING PPD RACK R1-1

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TC708

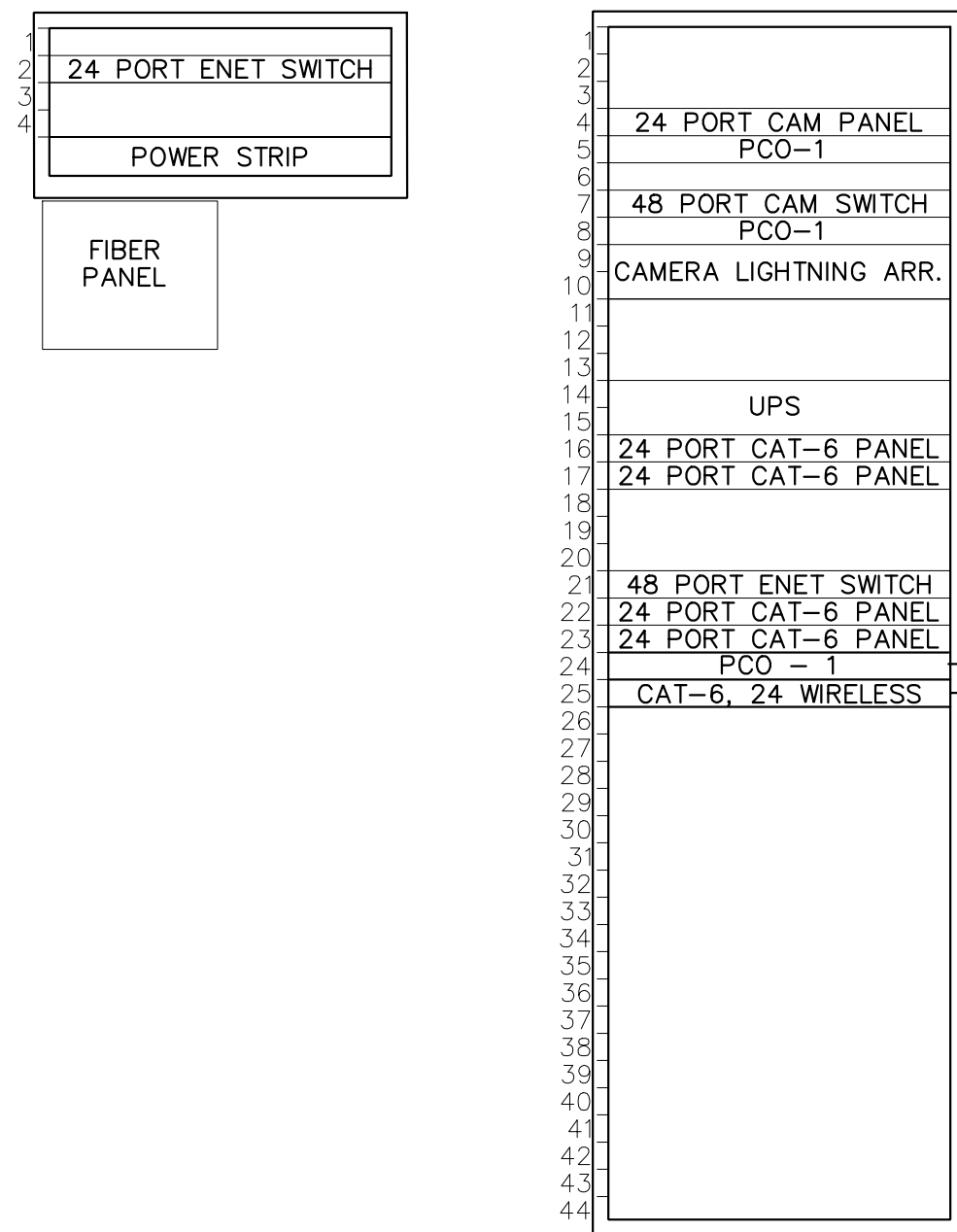
KINROSS PAVILION/RECREATION
COMM ROOM R1 AND R2

GENERAL RACK NOTES

1. VERIFY RACK EQUIPMENT AND SPACE IN THE RACK PRIOR TO INSTALLATION OF CABLES.
2. MOVE EXISTING PANELS AND OTHER EQUIPMENT UP OR DOWN AS REQUIRED TO FIT THE NEW PATCH PANELS AND SWITCHES.
3. OWNER SHALL PROVIDE AND INSTALL ALL PATCH CABLES FOR FIBER AND WAP CABLES AT THE RACKS AND ETHERNET SWITCH.
4. CONTRACTOR SHALL PROVIDE AND INSTALL CAT-6A PATCH CABLES AT EACH WAP.

KEYED RACK NOTES

- 1 PROVIDE VERTICAL SUPPORT OF CABLES AS THEY ROUTE FROM THE CEILING TO THE RACK. INSTALL 12" CABLE LADDER FROM RACK TO CEILING OR WALL. SUPPORT CABLE LADDER AT CEILING AND RACK WITH UNISTRUT ETC. SEE DETAILS ON TC705/3.
- 2 OWNER TO INSTALL CAT-6A PATCH CABLES FROM CAT-6A PANEL TO THE WI-FI SWITCH IN EACH RACK.
- 3 LABEL EACH PORT IN THE PATCH PANEL WITH THE WAP NUMBER. INSTALL STICKER THAT IS LASER PRINTED AT JACK IN PANEL. SEE NEW PANEL LABELING DETAILS.
- 4 INSTALL POWER STRIP. CONNECT TO OUTLET INSTALLED AS PART OF THIS PROJECT.
- 5 MOVE EXISTING CABLES. REMOVE EXISTING DTMB CABLES FROM PANEL ON THE WALL. RE-ROUTE TO PATCH PANEL IN RACK. TERMINATE EXISTING DTMB CABLES. SEE INDIVIDUAL RACK LAYOUTS FOR CABLE QUANTITY. PROVIDE NEW PATCH PANEL WITH BLUE CAT-6 JACKS FOR CABLE TERMINATION.
- 6 SPLICE EXISTING CABLES. UN-TERMINATE EXISTING DTMB CABLES FROM PATCH PANEL. TERMINATE ON 110 BLOCKS. SPLICE NEW CAT-6 CABLES FROM 110 BLOCK TO NEW PATCH PANEL IN RACK. SEE TC705/2 FOR SPLICE AND EXTENSION DETAIL. SEE RACK DETAILS FOR QUANTITY OF CABLES TO EXTEND.
- 7 INSTALL GROUND BAR. CONNECT TO ELECTRICAL PANEL GROUND. SEE DETAIL ON TC705/2.
- 8 INSTALL A VERTICAL ORGANIZER TO THE SIDE OF THE RACK. ORTRONICS VO-84-T6E OR EQUAL.
- 9 INSTALL NEW RACK. CONNECT TO EXISTING RACK WITH THE NEW VERTICAL ORGANIZER. WORK WITH OWNER TO MAKE SPACE FOR THIS RACK. EXTEND POWER TO THE POWER STRIPS

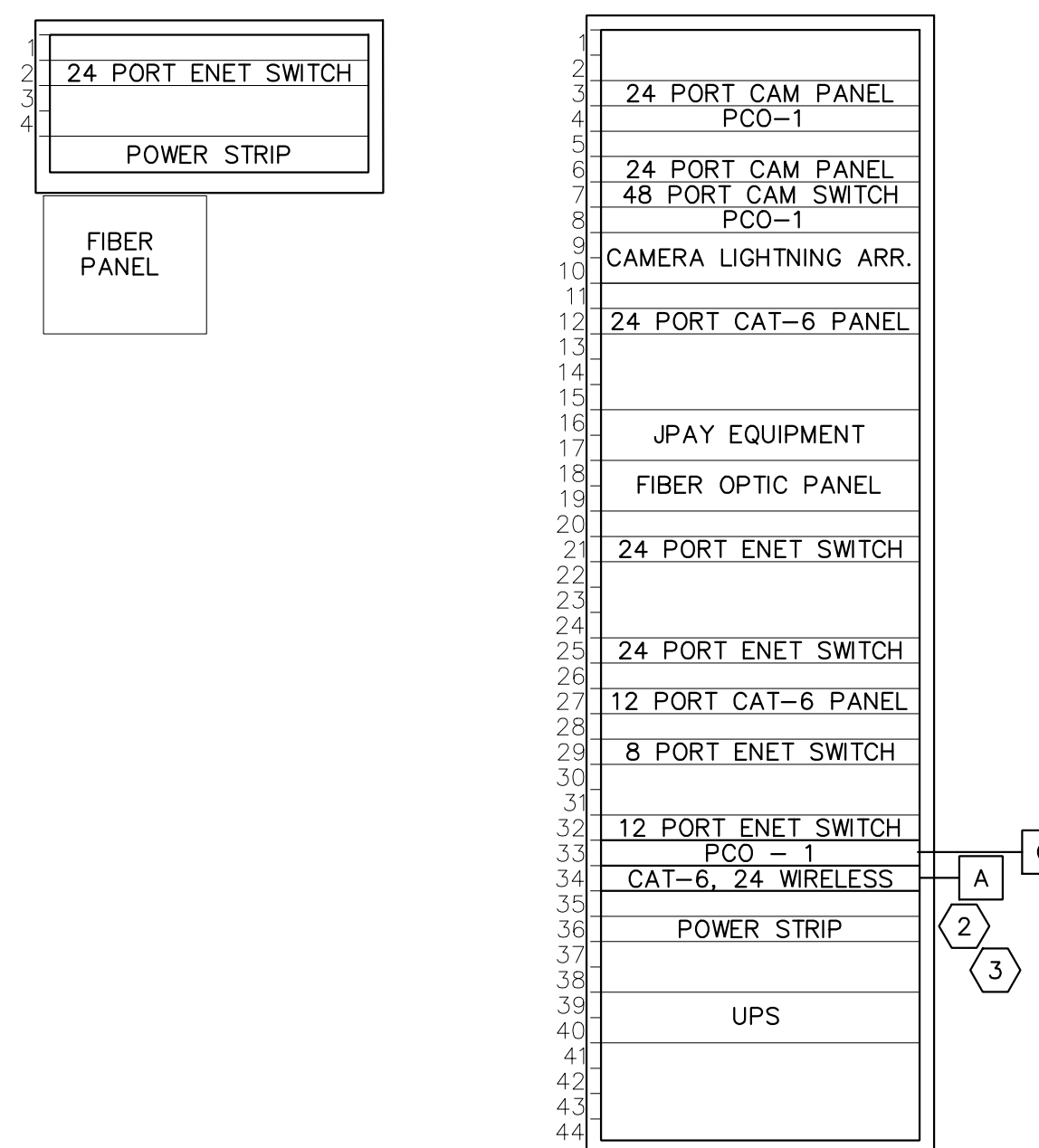


KINROSS COMM ROOM H1
HOUSING UNIT G/H
EXISTING PPD WALL
CABINET H1-2

KINROSS COMM ROOM H1
HOUSING UNIT G/H
EXISTING DTMB RACK H1-1

5
TC708

KINROSS HOUSING UNIT G/H
COMM ROOM H1



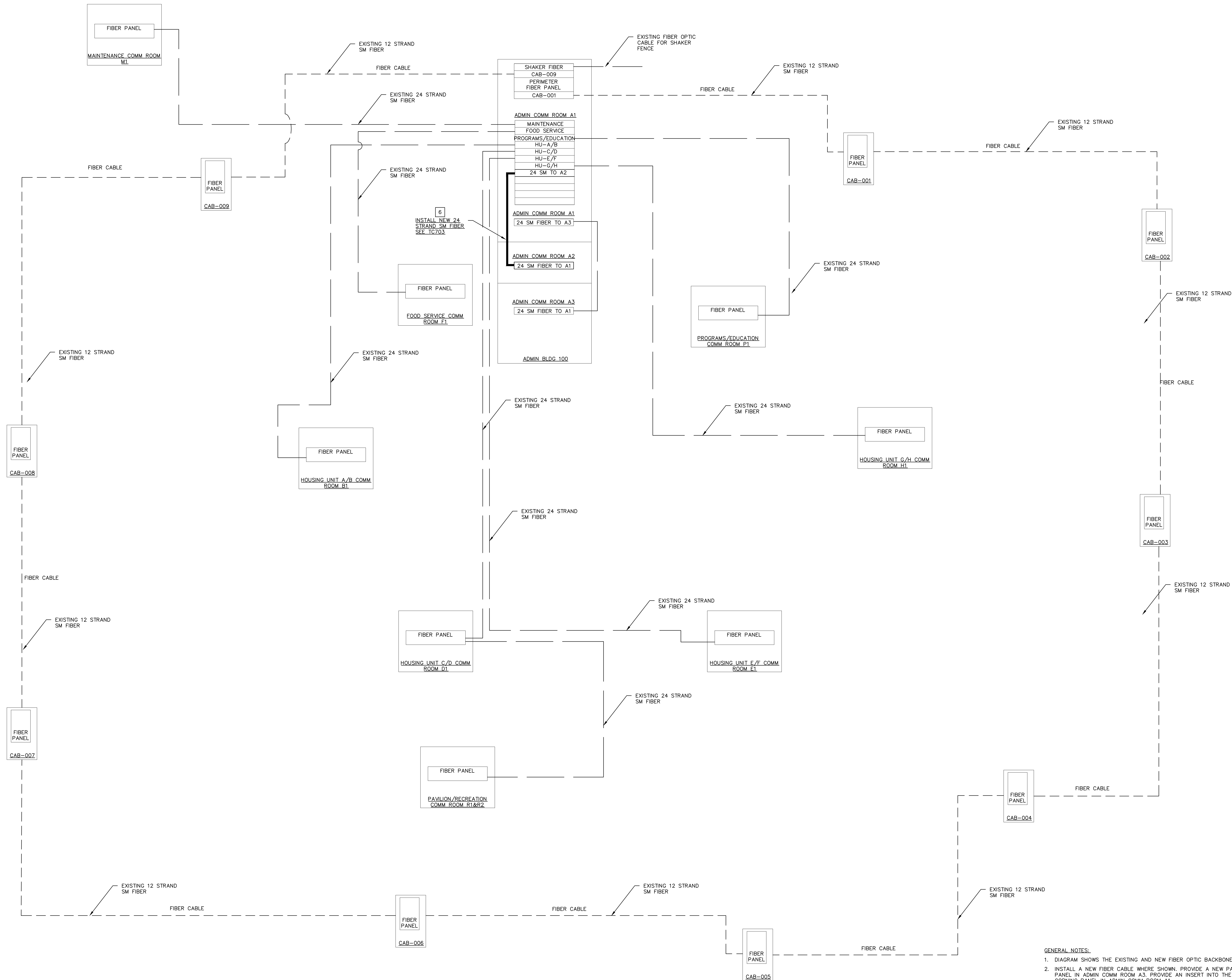
KINROSS COMM ROOM E1
HOUSING UNIT E/F
EXISTING PPD WALL CABINET
E1-2

KINROSS COMM ROOM E1
HOUSING UNIT E/F
EXISTING DTMB RACK E1-1

4
TC708

KINROSS HOUSING UNIT E/F
COMM ROOM E1





GENERAL NOTES:
1. DIAGRAM SHOWS THE EXISTING AND NEW FIBER OPTIC BACKBONE SYSTEM.
2. INSTALL A NEW FIBER CABLE WHERE SHOWN. PROVIDE A NEW PATCH PANEL IN ADMIN COMM ROOM A3. PROVIDE AN INSERT INTO THE EXISTING CORNING PANEL IN ADMIN COMM ROOM A1.

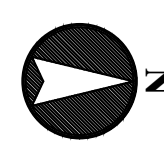
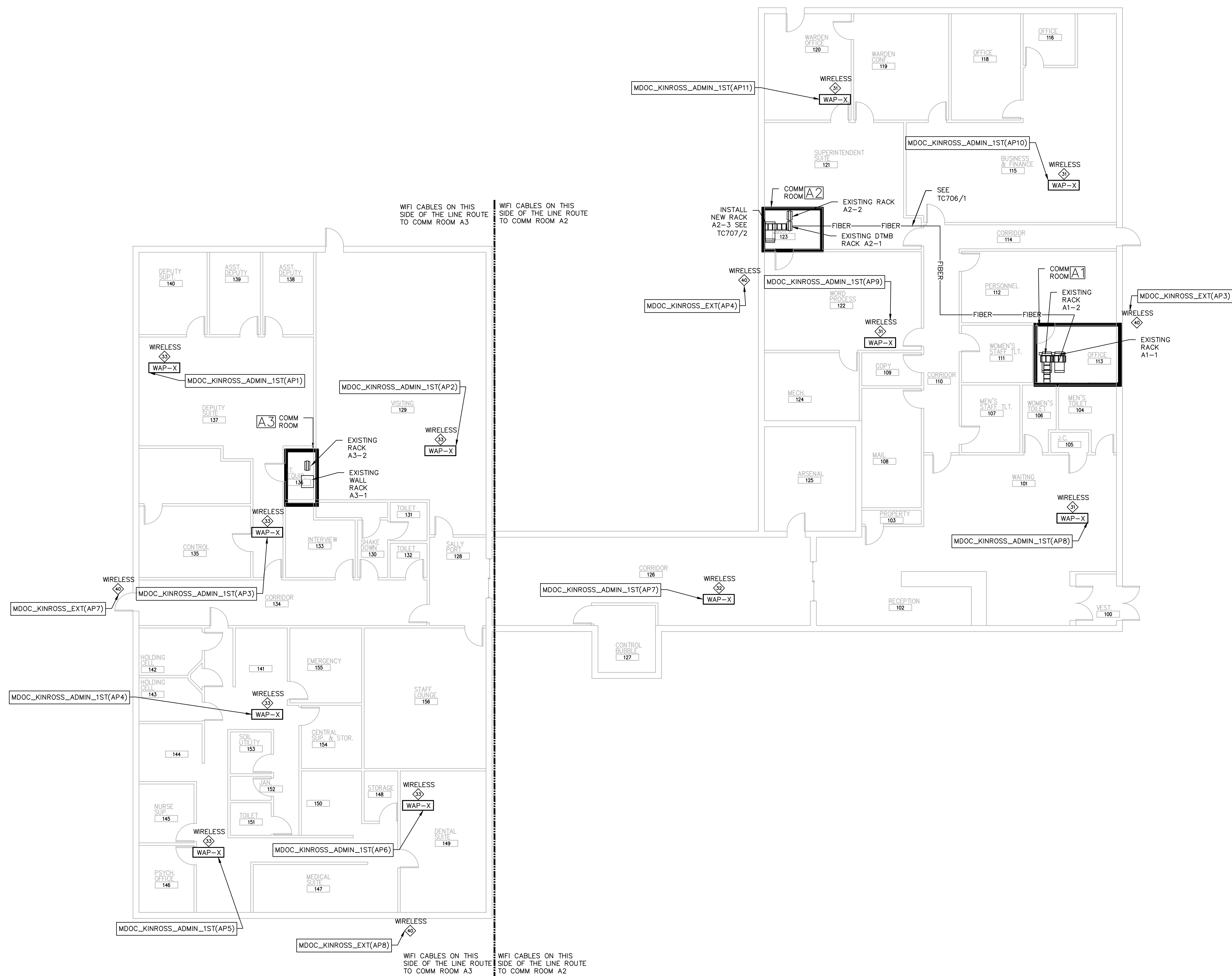
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1
TC800

KINROSS ADMINISTRATION
BUILDING WI-FI NETWORK
1/8"=1'-0" 0 1'

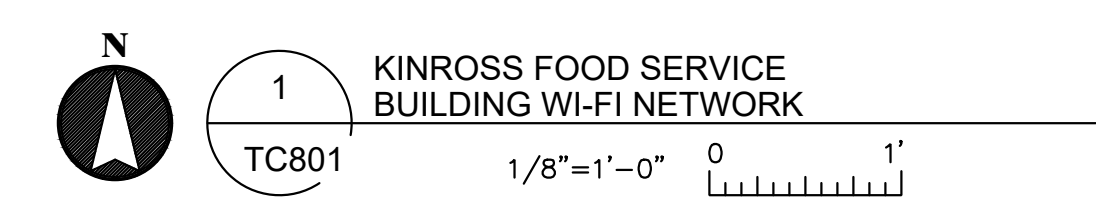
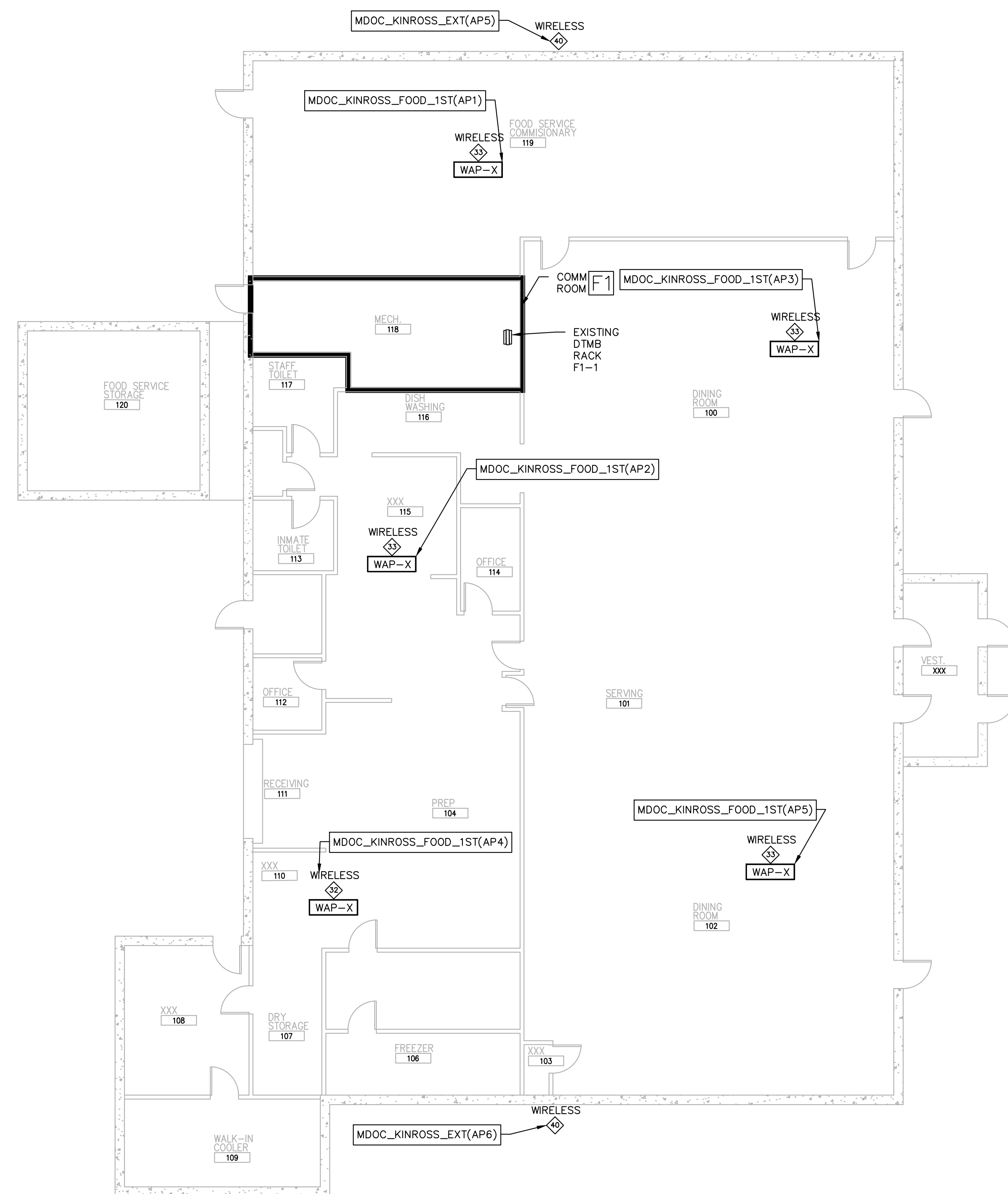
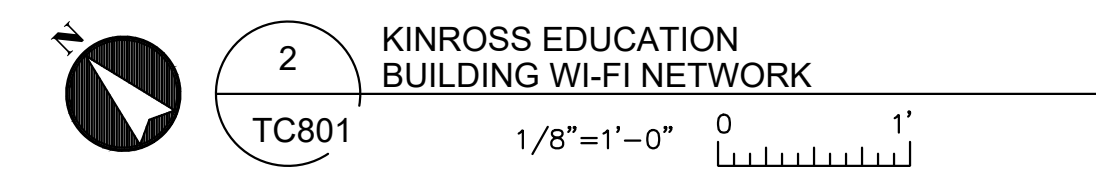
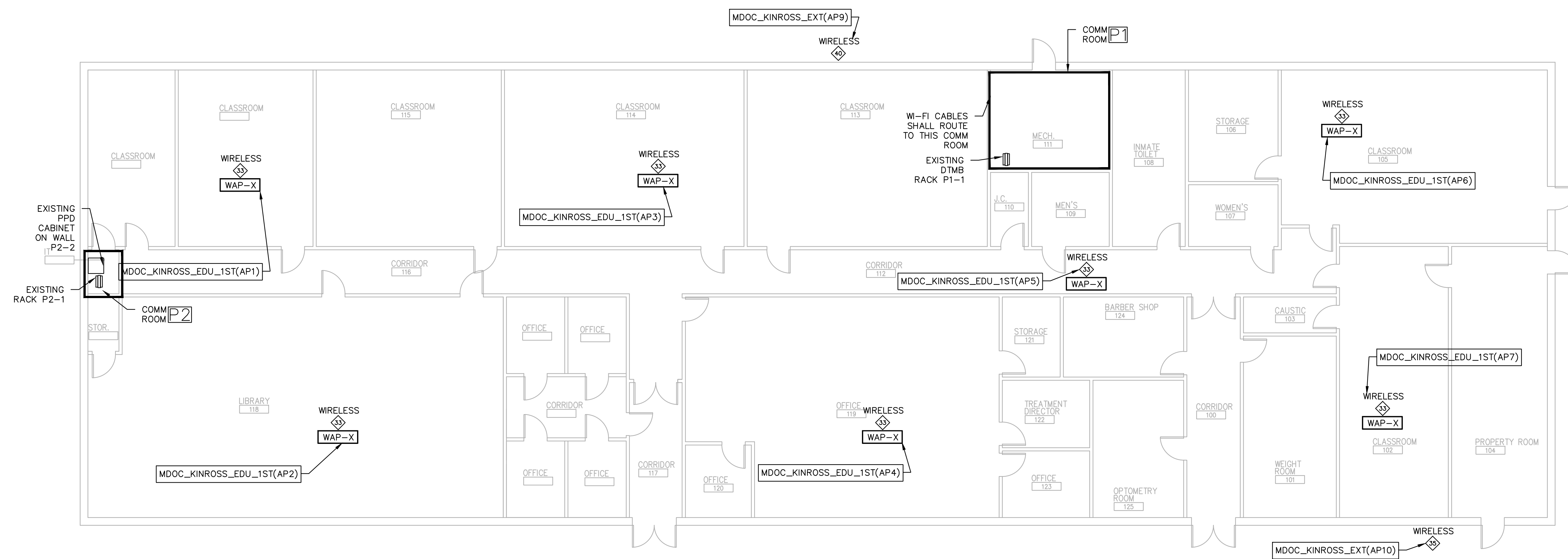
KINROSS CORRECTIONAL FACILITY
WI-FI CABLING INFRASTRUCTURE
KINCHELOE, MICHIGAN

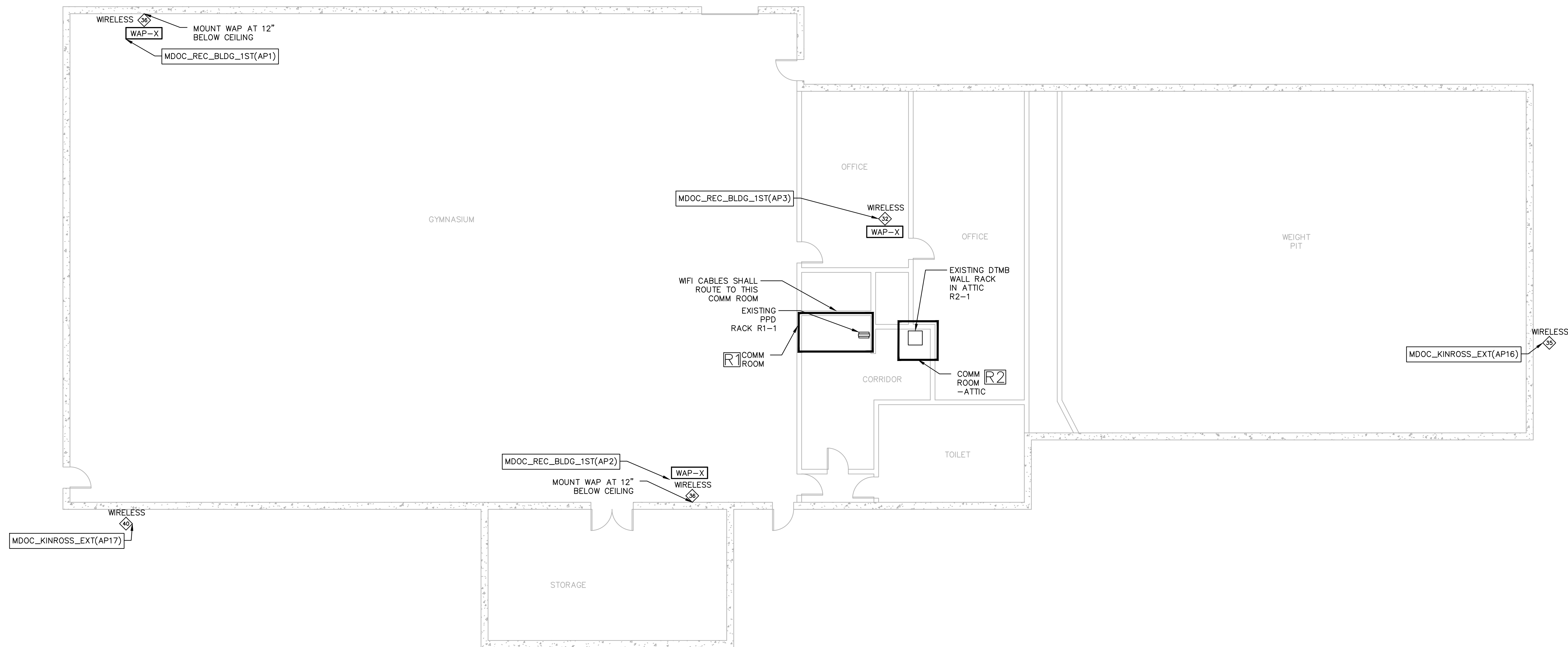
STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
FACILITIES AND BUSINESS SERVICES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM LATCH, RA, NCARB, DIRECTOR



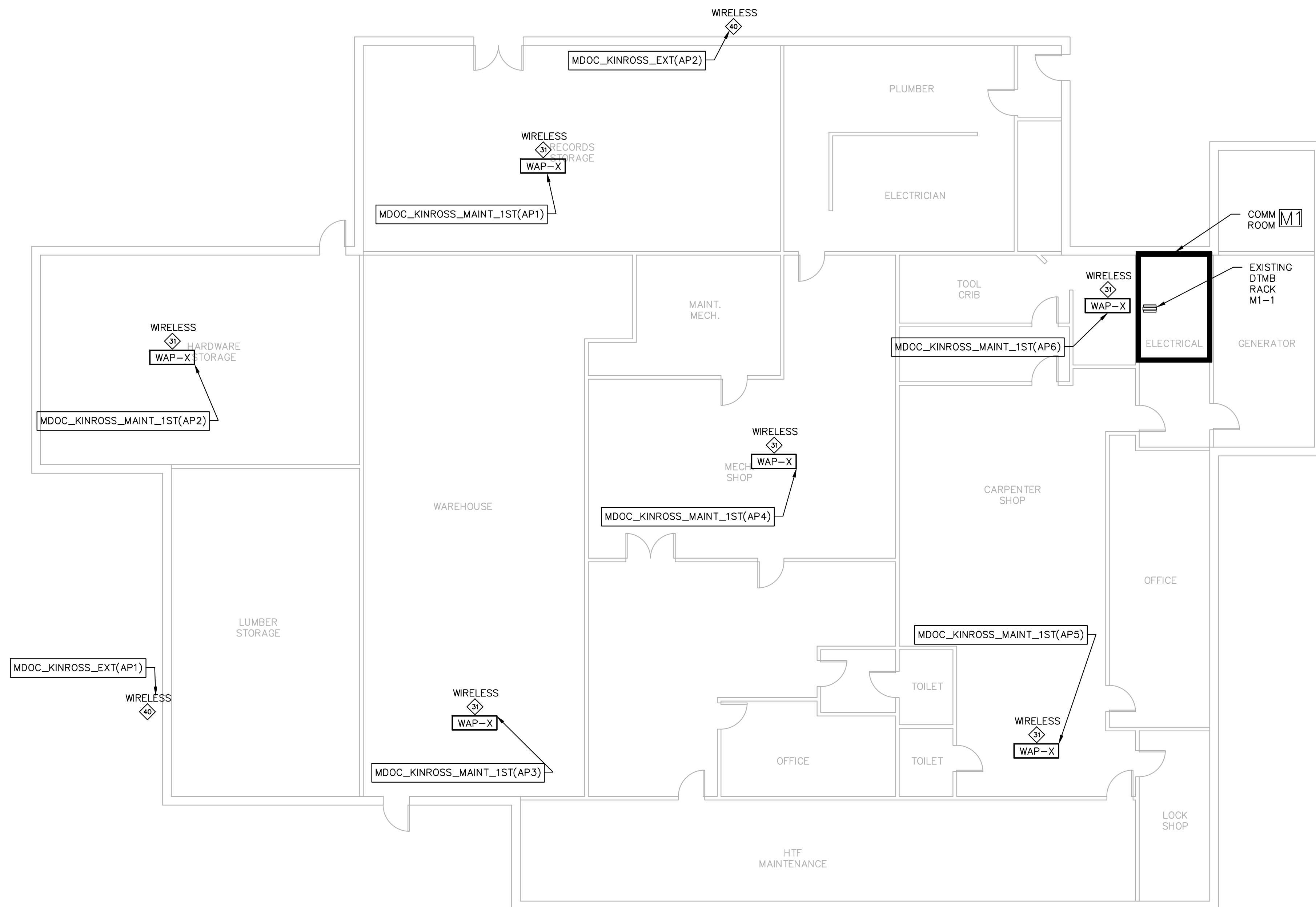
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472/17032.RWG
index no.
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contract order no.
Y17084
consultant job no.
1065_43

SHEET NUMBER
TC800
KINROSS
ADMINISTRATION BUILDING
WI-FI NETWORK



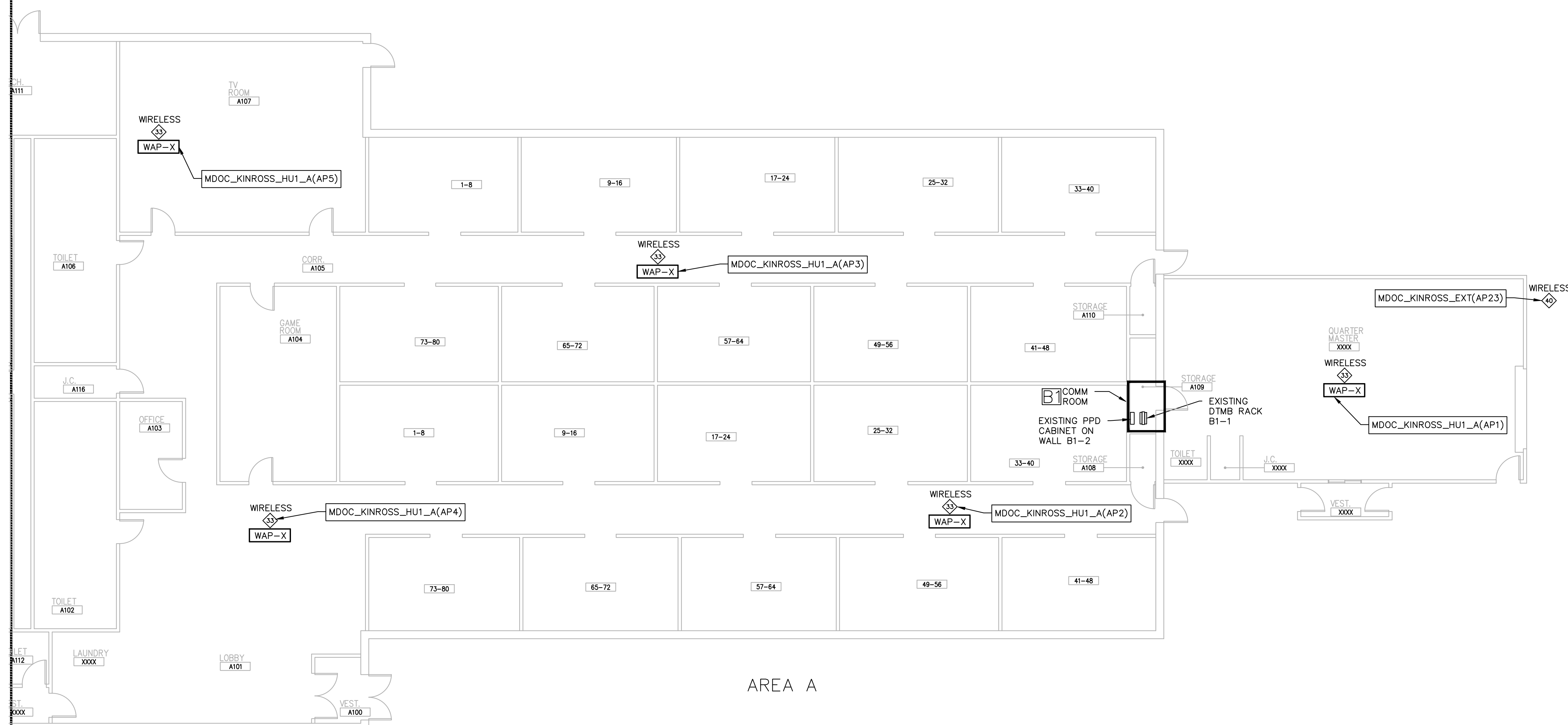


 2 SOUTH KINROSS
RECREATION/PAVILION BUILDING WI-FI NETWORK
TC802 1/8"=1'-0" 0 1'

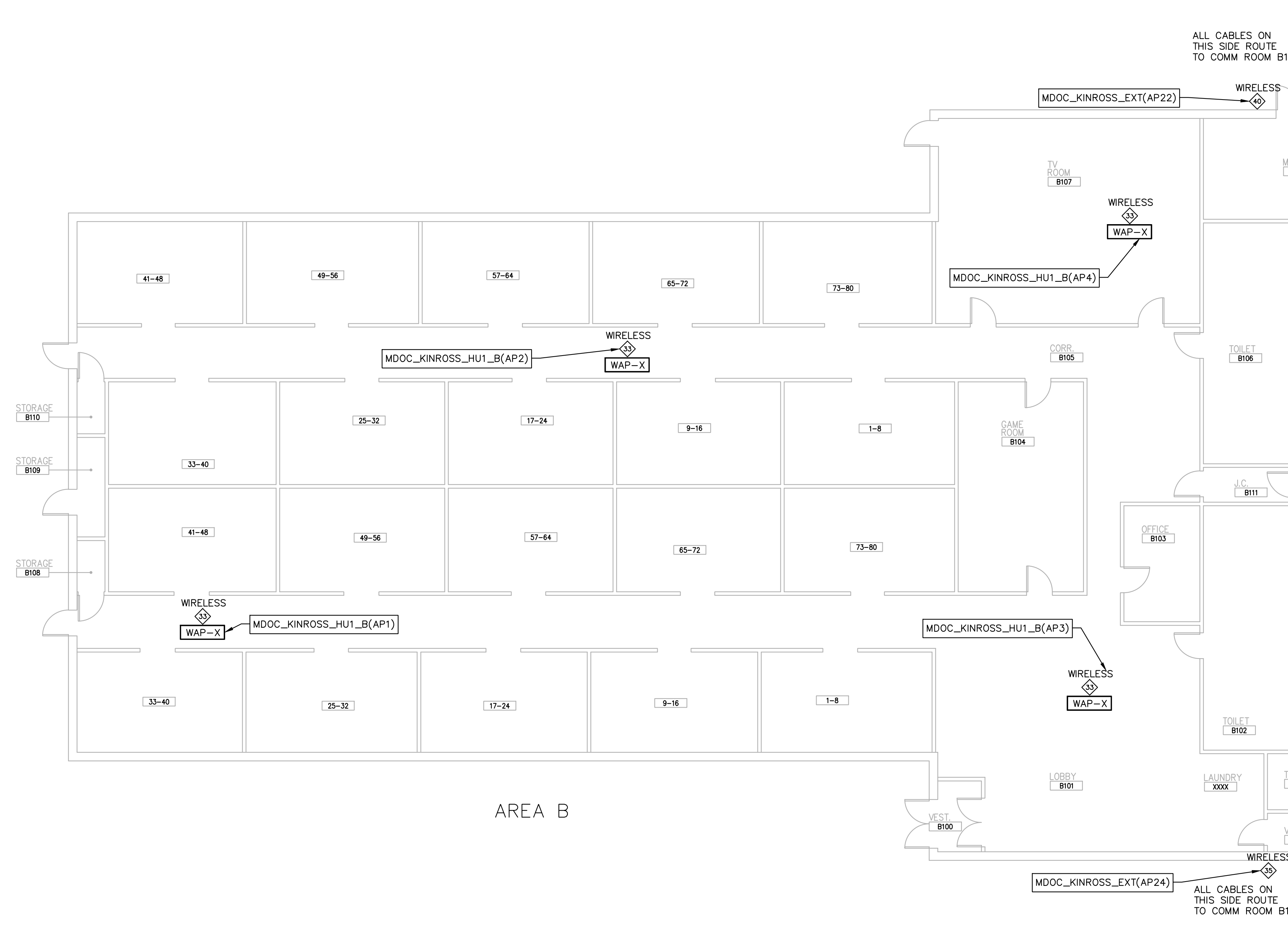
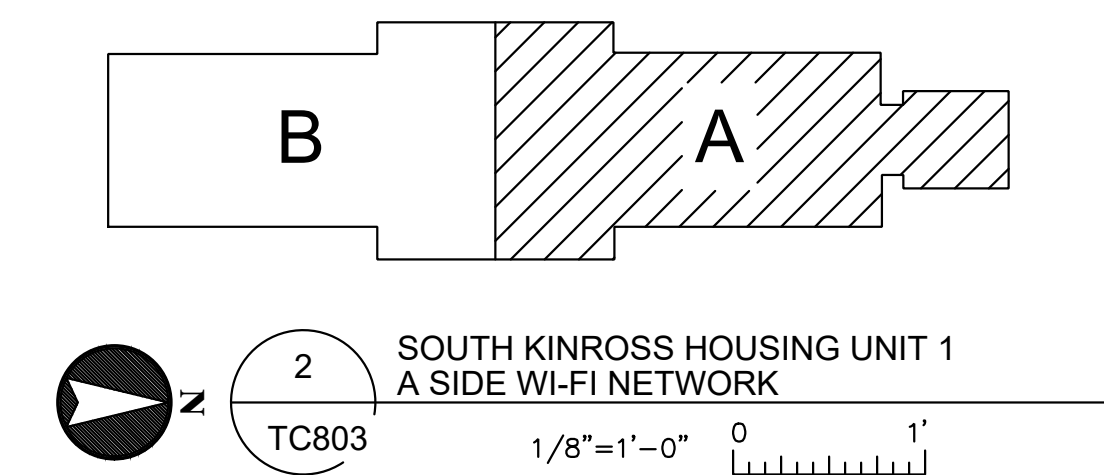


 1 SOUTH KINROSS
MAINTENANCE BUILDING WI-FI NETWORK
TC802 1/8"=1'-0" 0 1'

ALL CABLES ON
THIS SIDE ROUTE
TO COMM ROOM B1

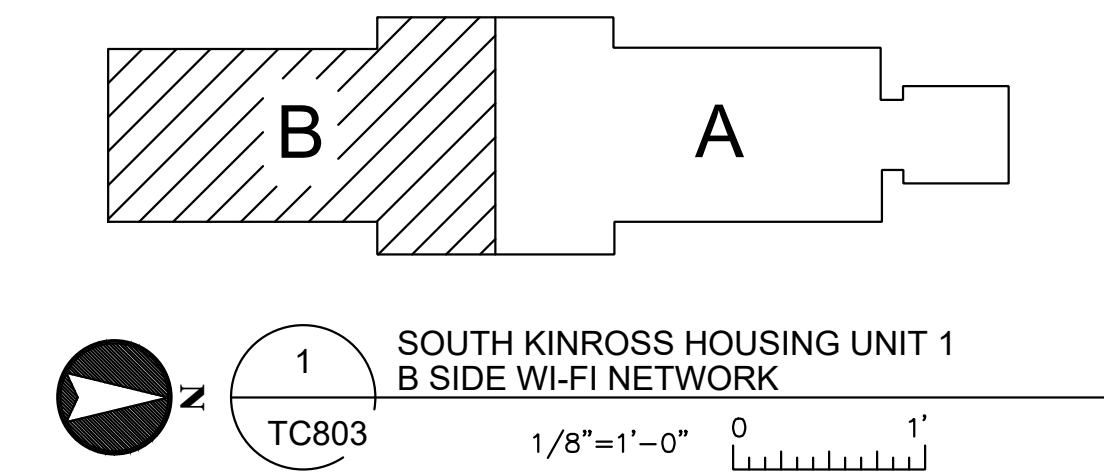


ALL CABLES ON
THIS SIDE ROUTE
TO COMM ROOM B1



ALL CABLES ON
THIS SIDE ROUTE
TO COMM ROOM B1

ALL CABLES ON
THIS SIDE ROUTE
TO COMM ROOM B1



KINROSS CORRECTIONAL FACILITY
WI-FI CABLING INFRASTRUCTURE
KINCHLOE, MICHIGAN

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index no.
472ElectronicComm
contract order no.
Y17084
consultant job no.
1065_43

SHEET NUMBER
TC803
SOUTH KINROSS
HOUSING UNIT 1
A&B
WI-FI NETWORK

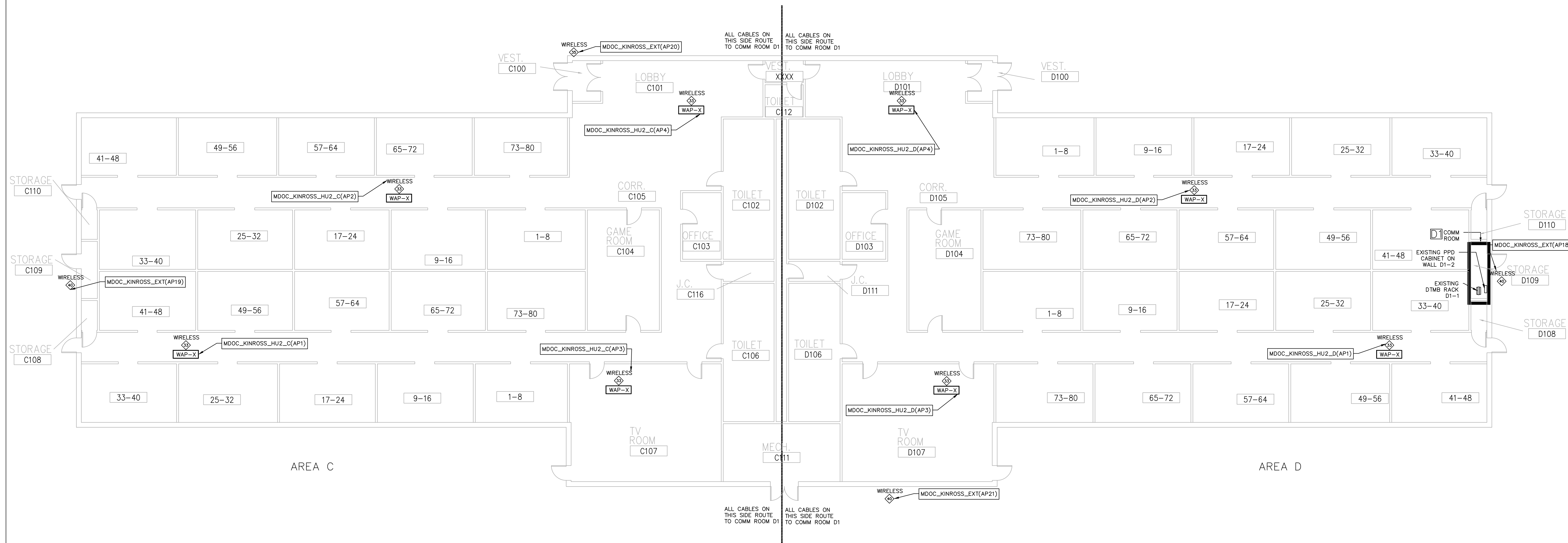
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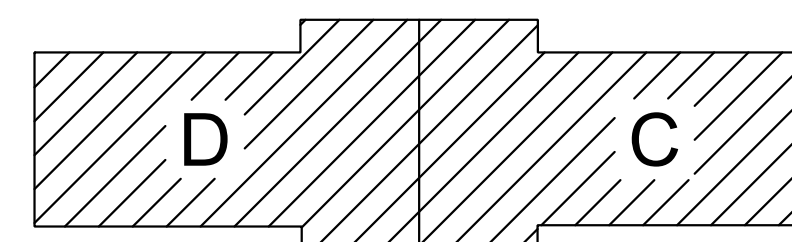
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AREA C

AREA D



1
TC804

SOUTH KINROSS HOUSING UNIT 2
C/D WI-FI NETWORK
1/8"=1'-0" 0 1'

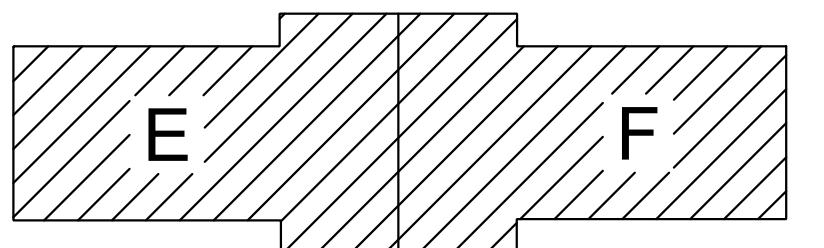
KINROSS CORRECTIONAL FACILITY
WI-FI CABLING INFRASTRUCTURE
KINCHLOE, MICHIGAN

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contract order no.
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SHEET NUMBER
TC804
SOUTH KINROSS
HOUSING UNIT 2
C/D
WI-FI NETWORK

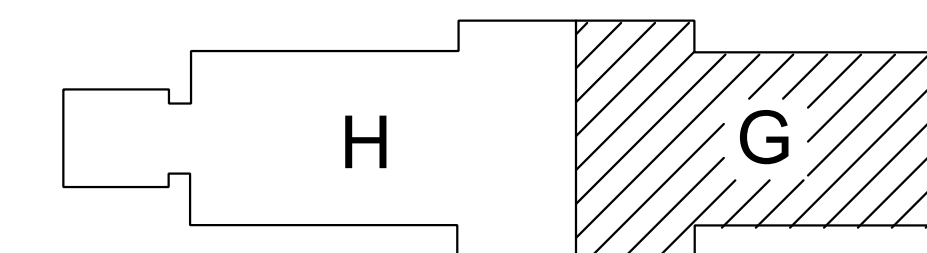
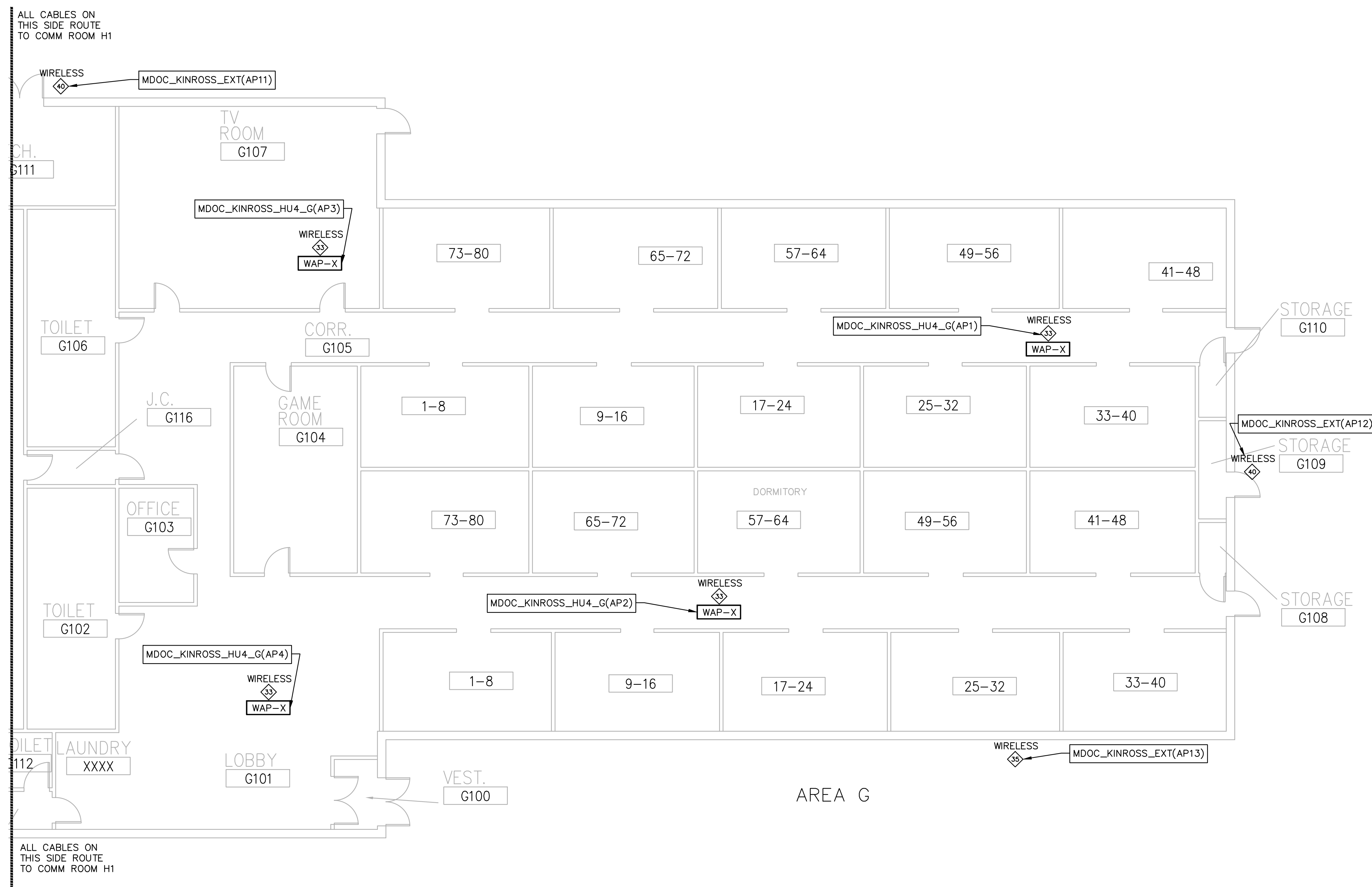


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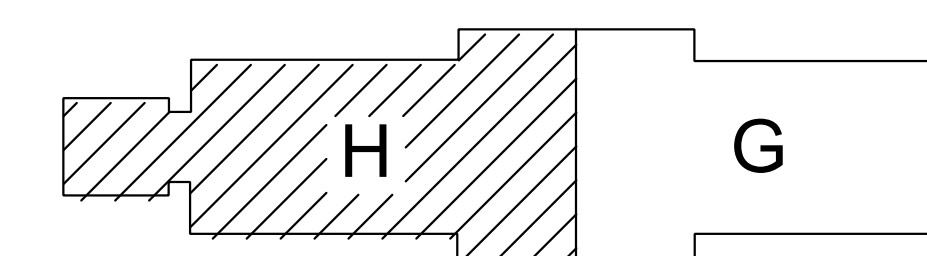
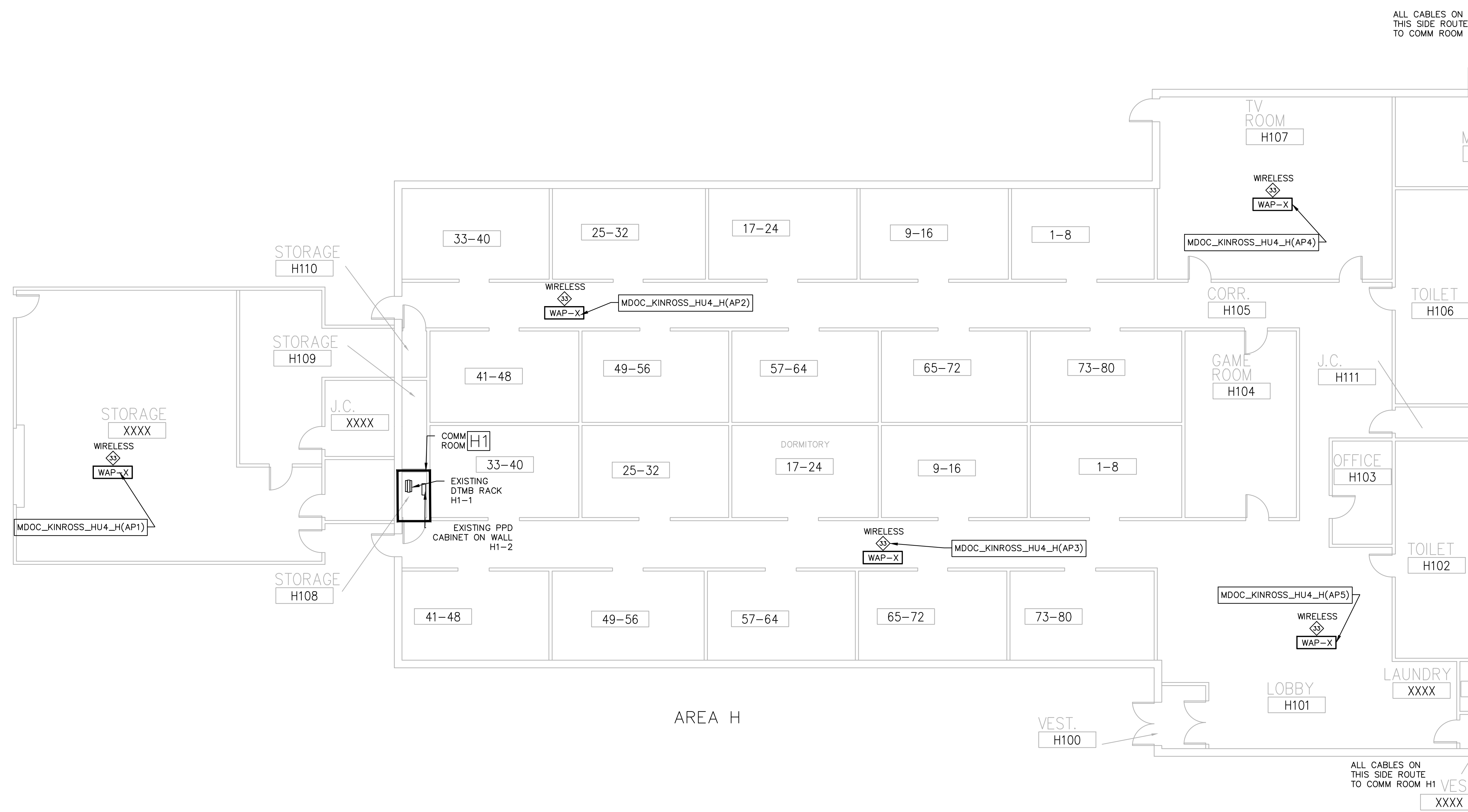
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2 SOUTH KINROSS HOUSING UNIT 4
G SIDE WI-FI NETWORK
TC806
1/8"=1'-0" 0 1'



1 SOUTH KINROSS HOUSING UNIT 4
H SIDE WI-FI NETWORK
TC806
1/8"=1'-0" 0 1'

KINROSS CORRECTIONAL FACILITY
WI-FI CABLING INFRASTRUCTURE
KINCHLOE, MICHIGAN

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contract order no.
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consultant job no.
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SHEET NUMBER
TC806
SOUTH KINROSS
HOUSING UNIT 4
G/H
WI-FI NETWORK

