

**NIGHT WORK NOTE**

ALL WORK WITHIN EXISTING OCCUPIED BUILDINGS SHALL BE ACCOMPLISHED ON WEEKDAYS OR AT NIGHT WHEN SCHOOL IS NOT IN REGULAR SESSION. EXACT TIMES SHALL BE AS DIRECTED BY THE SCHOOL PRINCIPAL. WORK DURING THE DAY AND ON WEEKENDS SHALL NOT BE ALLOWED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE SCHOOL PRINCIPAL. ALL EXISTING SYSTEMS SHALL BE MAINTAINED IN FULL WORKING ORDER AT ALL TIMES.

**EXISTING SYSTEMS NOTE**

MAINTAIN ALL EXISTING SYSTEMS SHOWN TO BE DEMOLISHED IN FULL OPERATION UNTIL NEW SYSTEMS ARE IN PLACE AND FULLY OPERATIONAL. PROVIDE ALL TEMPORARY MEASURES REQUIRED TO MAINTAIN EXISTING SYSTEMS FULLY OPERATIONAL UNTIL CUTOVER TO NEW SYSTEM IS COMPLETE. AT NO ADDITIONAL COST TO THE OWNER, CUTOVER TO NEW SYSTEMS SHALL OCCUR AT A TIME PRE-APPROVED BY THE SCHOOL DISTRICT'S PROJECT MANAGER AT NIGHT OR ON A WEEKEND WHEN SCHOOL IS NOT IN SESSION.

**GENERAL CONDUIT PATHWAYS NOTE**

RUN ALL CABLING IN CONDUIT PATHWAYS AS INDICATED. THE CONTRACTOR AGREES TO USE THE CONDUIT SYSTEM AS SHOWN, OR SHALL PROVIDE ADDITIONAL CONDUIT AT NO ADDITIONAL COST TO THE OWNER AS REQUIRED TO PROPERLY INSTALL ALL CABLING INDICATED, WITHOUT DAMAGE TO CABLING. ALL CONDUIT SHALL CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.

**RIGID CONDUIT NOTE**

PROVIDE RIGID THREADED CONDUIT (RMC) WITH THREADED MALLEABLE IRON FITTINGS AS INDICATED FOR BACKBONE CONDUIT. MAINTAIN ELECTRICAL CONTINUITY FROM END-TO-END AND GROUND PER "CC GROUNDING NOTES" AND "GENERAL ABOVEGROUND CONDUIT NOTES".

**DOCUMENTATION OF EXISTING CONDITIONS**

THE PROJECT REQUIRES THAT THE CONTRACTOR WORK ABOVE CEILINGS IN EXISTING OCCUPIED BUILDINGS. IN ALL SUCH CASES, THE CONTRACTOR SHALL PROVIDE PHOTOGRAPHIC DOCUMENTATION OF THE CONDITIONS OF ALL EXISTING CEILINGS (TO REMAIN) WHERE WORK IS TO BE PERFORMED USING A HIGH RESOLUTION DIGITAL CAMERA PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR SHALL PROVIDE DIGITAL FILES OF ALL PHOTOGRAPHS (WITH AREAS LABELED) TO THE OWNER'S PROJECT MANAGER. THE CONTRACTOR SHALL REPLACE ALL CEILING TILES OR REPAIR OTHER CEILING TYPE FINISHES (MATCH EXISTING) DAMAGED AS A RESULT OF WORK UNDER THIS CONTRACT.

**FIRESTOPPING NOTE**

THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF ALL WALLS WHICH EXTEND TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE. FIRESTOPPING SHALL BE ACCOMPLISHED USING UL CLASSIFIED SYSTEMS WITH FIRE RATING EQUAL TO OR GREATER THAN THE FIRE RATING OF THE FLOOR OR WALL ASSEMBLY PENETRATED. FIRESTOP SYSTEMS SHALL BE 3M, NELSON OR ENGINEER APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT A MANUFACTURER'S STANDARD DETAIL FOR EACH TYPE OF FLOOR AND WALL PENETRATION REQUIRED FOR THIS PROJECT. ALL OTHER PENETRATIONS OR OPENINGS IN NON-FIRE RATED WALLS SHALL BE REPAIRED AND SEALED WITH MATERIALS TO MATCH THE CONSTRUCTION OF THE WALL.

THE CONTRACTOR SHALL PROVIDE DETAILS FOR EACH DIFFERENT TYPE OF FIRESTOP ASSEMBLY REQUIRED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO INSTALLATION. EACH DETAIL SHALL INCLUDE THE TEST ASSEMBLY NUMBER AND A DESCRIPTION OF THE MATERIALS TO BE USED. HAVE APPROVED FIRESTOPPING DETAILS AVAILABLE AT PROJECT SITE AT TIME OF INSPECTION.

**COMMUNICATIONS SITE PLAN KEY NOTES:**

- (1A) NEMA 3R PULLBOX AT PENETRATION OF WALL, GALVANIZED STEEL WITH FACTORY PAINTED FINISH, SIZE 12"x 12"x 6", HOFFMAN A-12R126 (NO EQUAL).
- (2A) 2" RIGID METALLIC CONDUIT (RMC OUTDOORS, RMC OR IMC INDOORS). SEE "GENERAL ABOVEGROUND CONDUIT NOTES".
- (2B) 2" PVC CONDUIT (UNDERGROUND), SCHEDULE 80, RUN UNDERGROUND DIRECT BURIED, MINIMUM BURIAL DEPTH 24" BELOW FINISHED GRADE. PROVIDE CONTINUOUS WARNING TAPE (ORANGE 3" WIDE - DETECTABLE - CARLON MAT3061) OVER ALL BURIED CONDUIT AT 6" BELOW FINISH GRADE. INSTALL 3/8" MARKED PULL TAPE (CARLON TL382) ALONG WITH REQUIRED CABLES. SEE "GENERAL UNDERGROUND CONDUIT NOTES".
- (4) CONDUIT PENETRATION THRU BUILDING EXTERIOR WALL/FLOOR/SOFFIT/FASCIA. SEE "WALL/FLOOR/SOFFIT/FASCIA PENETRATION NOTE".
- (5) ROUTE BACKBONE CONDUIT THRU BUILDING ABOVE CEILING AND UP HIGH ALONG UNDERSIDE OF ROOF STRUCTURE. SEE "GENERAL ABOVEGROUND CONDUIT NOTES".
- (6) SLEEVE CONDUIT WITH 6'-0" LONG SECTION OF SCHEDULE 80 PVC SLEEVE (4" SLEEVE FOR 2" CONDUIT & 6" SLEEVE FOR 3" CONDUIT) WHERE CONDUIT PENETRATES OR PASSES UNDER FOUNDATION/FOUNDATION WALL.
- (7) TURN RIGID (RMC OR IMC) CONDUIT DOWN AT EXISTING COMMUNICATIONS BACKBOARD ABOVE RACK WHERE NEW FIBER DRAWER WILL BE INSTALLED - ELECTRICAL CONTRACTOR COORDINATE LOCATION WITH SCGS, MATCH EXISTING INSTALLATION, TRIM CEILING NEATLY AND TERMINATE WITH UL LISTED RIGID CONDUIT THREADED MALLEABLE IRON INSULATED GROUNDING BUSHING WITH BRONZE LUG (0-2/GEENEY TYPE IBC-L-BC) PRIOR TO INSTALLING CABLING AND BOND TO EXISTING CER MAIN GROUNDING BUSBAR WITH #6 AWG INSULATED (GREEN) COPPER GROUNDING CONDUCTOR.
- (7A) TURN RIGID CONDUIT UP FROM UNDERGROUND, UP EXTERIOR WALL, AND INTO NEMA 3R BOX TO ENTER BUILDING OR THRU SOFFIT TO ENTER BUILDING, STRAP HARD TO WALL USING OPPOSING DOUBLE RIGID CONDUIT SINGLE HOLE CLAMPS AND STRUCTURAL GRADE EXPANSION ANCHORS WITH HOT DIP GALVANIZED BOLTS AT 4'-0" ON CENTER. PAINT TO MATCH WALL. SEE "BUILDING ENTRANCE - NEMA 3R BOX AT CONDUIT PENETRATION OF WALL", "BUILDING ENTRANCE - CONDUIT TURNING UP THRU SOFFIT" AND "CONDUIT TURNING DOWN INTO EARTH".
- (7B) TURN SCHED 80 PVC CONDUIT UP, SLEEVE AND SEAL FLOOR PENETRATION AND TERMINATE WITH END BELL AT 4" A.F.F. SEE ENLARGED FLOOR PLANS FOR LOCATION OF CONDUIT TURNING UP.
- (8) SAW CUT AND PATCH EXISTING SIDEWALK TO MATCH EXISTING.
- (9) SMALL COMMUNICATIONS HANDHOLE, SEE DETAIL.

**WALL/FLOOR/SOFFIT/FASCIA PENETRATION NOTE**

**FIRE-RATED WALLS AND FLOORS:**  
THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF ALL FLOORS AND ALL WALLS THAT EXTEND TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE. FIRESTOPPING SHALL BE ACCOMPLISHED USING UL CLASSIFIED SYSTEMS WITH FIRE RATING EQUAL TO OR GREATER THAN THE FIRE RATING OF THE FLOOR OR WALL ASSEMBLY PENETRATED. FIRESTOP SYSTEMS SHALL BE 3M, NELSON OR ENGINEER APPROVED EQUAL. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT A MANUFACTURER'S STANDARD DETAIL FOR EACH TYPE OF FIRE-RATED WALL AND FLOOR PENETRATION REQUIRED FOR THIS PROJECT.

**INTERIOR NON-FIRE-RATED WALLS:**  
ALL OPENINGS IN WALLS THAT DO NOT EXTEND TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE SHALL BE SLEEVED, REPAIRED AND COMPLETELY SEALED WITH MATERIALS TO MATCH THE WALL CONSTRUCTION.

**EXTERIOR WALLS:**  
SLEEVE WALL OPENING WITH SECTION OF SCHEDULE 40 PVC CONDUIT SIZED TO ACCEPT CONDUIT WITH ±1/4" ANNUAL SPACE FOR CAULK. SEAL BETWEEN SLEEVE AND CONDUIT WITH BACKER AND DOUBLE APPLICATION OF CLEAR LIFETIME SILICONE CAULK (BOTH SIDES). REPAIR WALL OPENING AROUND SLEEVE WITH NON-SHRINK HYDRAULIC GROUT FINISHED SMOOTH TO WALL SURFACE (BOTH SIDES). FINISH PAINT TO MATCH EXISTING BUILDING WALL COLOR.

**SOFFITS:**  
PENETRATE SOFFIT CENTERED IN FLAT PART OF PANEL. CUT CIRCULAR OPENING IN FASCIA NO MORE THAN 1/4" LARGER THAN SLEEVE DIAMETER. COVER OPENING AND MAKE WEATHERTIGHT WITH STAINLESS STEEL ESCUTCHEON SET IN BED OF CLEAR LIFETIME SILICONE CAULK AND SECURED WITH SS SCREWS.

**FASCIA:**  
PENETRATE FASCIA CENTERED IN FLAT PART OF PANEL. CUT CIRCULAR OPENING IN FASCIA NO MORE THAN 1/4" LARGER THAN SLEEVE DIAMETER. PROVIDE SLEEVE SAME AS FOR EXTERIOR WALLS AND SEAL WATERIGHT (SLEEVE TO FASCIA AND SLEEVE TO CONDUIT) WITH BACKING AND DOUBLE APPLICATION OF CLEAR LIFETIME SILICONE CAULK (BOTH SIDES). COVER OPENING WITH STAINLESS STEEL ESCUTCHEON SET IN BED OF CLEAR LIFETIME SILICONE CAULK AND MAKE WEATHERTIGHT. SECURED WITH SS SCREWS.

**COMMUNICATIONS SITE PLAN LEGEND:**

- ☐ PB COMMUNICATIONS PULL BOX, SIZE AS INDICATED.
- ☐ HH COMMUNICATIONS HAND HOLE. SEE HAND HOLE DETAILS.
- COMMUNICATIONS BACKBONE CONDUIT RUN ABOVEGROUND, QUANTITY AS INDICATED.
- COMMUNICATIONS BACKBONE CONDUIT RUN UNDERGROUND, QUANTITY AS INDICATED.

**USE OF EXISTING BACKBONE CONDUIT**

THE EXISTING BACKBONE CONDUIT CURRENTLY SERVING EXISTING MEDIA CENTER BUILDING 12 SHALL BE RE-PURPOSED UNDER THIS PROJECT TO SERVE EXISTING BUILDING 12, THE NEW CLASSROOM BUILDING AND ADDITIONAL GROWTH TO THE NORTH OF THE CAMPUS. TO ACCOMPLISH THIS THE EXISTING BACKBONE CABLING CURRENTLY FEEDING BUILDING 12 SHALL BE PULLED OUT (WITH THE EXCEPTION OF THE FIBER OPTIC CABLE AND COAXIAL TV CABLE) AND NEW FIBER OPTIC BACKBONE CABLE PULLED IN FROM CER.1.307 TO BUILDING 12 CC.12.108A.

THERE ARE FOUR BACKBONE CABLES SERVING EXISTING MEDIA CENTER BUILDING 12 FROM CER.1.037 - 62.5 MICRON MULTIMODE FIBER OPTIC, 25 PAIR COPPER VOICE, 25 PAIR INTERCOM/PA, AND RG11 COAXIAL TELEVISION CABLE. THE EXISTING MULTIMODE FIBER OPTIC CABLE AND THE RG11 COAXIAL TV CABLE SHALL REMAIN AND BE KEPT IN SERVICE IF POSSIBLE. DEMOLISH THE COPPER INTERCOM/PA CABLE WITH SURGE PROTECTORS EACH END AND THE COPPER VOICE CABLE WITH SURGE PROTECTORS EACH END, PULLING TWO 2500 POUND DETECTABLE MULE TAPES IN AT THE SAME TIME.

USE ONE OF THE MULE TAPES TO PULL IN THE NEW SINGLEMODE FIBER OPTIC CABLE AND A SECOND 2500 POUND DETECTABLE MULE TAPE. TIE THE TWO MULE TAPES OFF AT EACH END LEAVING 10 FEET OF SLACK IN EACH TAPE OUTSIDE OF THE CONDUIT. THE NEW BACKBONE CABLE SHALL BE CONTINUOUS FROM ONE END TO THE OTHER END WITH NO TERMINATIONS OR SPLICES.

AFTER THE NEW SINGLEMODE FIBER OPTIC CABLE IS PULLED IN IMMEDIATELY TERMINATE THE CABLE AS INDICATED ON THE DATA SINGLE LINE AND TEST THE FIBER OPTIC CABLING AS REQUIRED BY THE SPECIFICATIONS. IN COORDINATION WITH DISTRICT IT STAFF MAKE ALL NEW FIBER PATCH CORD CONNECTIONS TO NEW AND EXISTING EQUIPMENT IN CER.1.037 AND CC.12.108A BRING ALL SYSTEMS BACK TO FULL OPERATION.

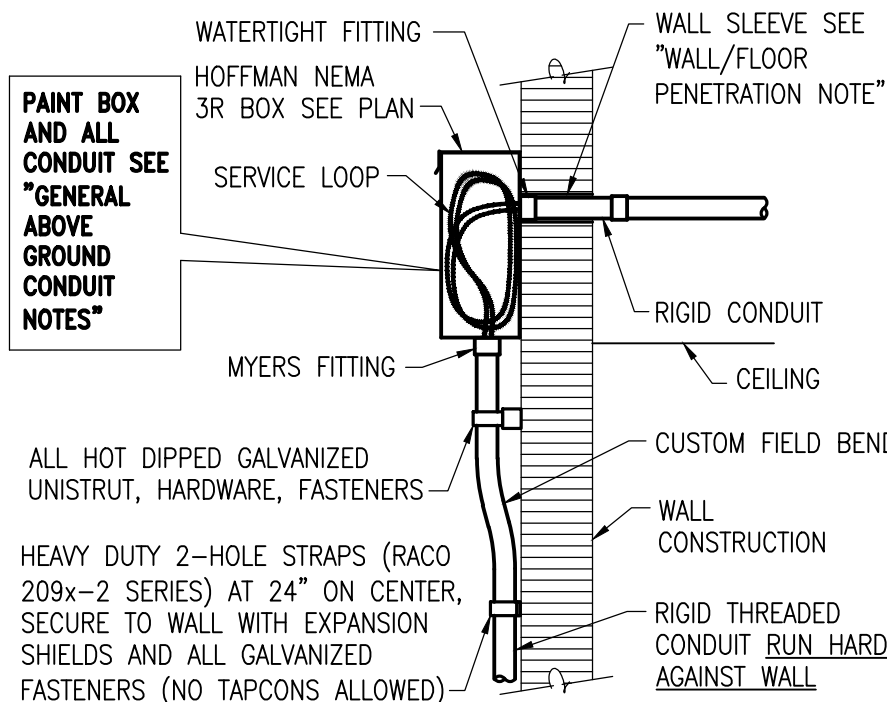
DEMOLISH EXISTING INTERCOM/PA AND VOICE SURGE PROTECTORS AND ALL TERMINAL EQUIPMENT AT EACH END, TAKING CARE NOT TO DISTURB EXISTING SERVICES TO OTHER BUILDINGS IN THE CER. TURN PROTECTORS OVER TO OWNER.

THIS WORK SHALL BE DONE AT A TIME:

1. AFTER ALL REQUIRED MATERIALS AND EQUIPMENT HAVE BEEN RECEIVED.
2. WHEN MEDIA CENTER BUILDING 12 IS NOT IN USE AND COMMUNICATIONS SERVICES CAN BE INTERRUPTED TO ALLOW REMOVAL OF EXISTING CABLING AND INSTALLATION OF NEW CABLING. MAINTAIN ALL EXISTING SYSTEMS IN BUILDING 12 IN FULL OPERATION UNTIL THAT TIME.

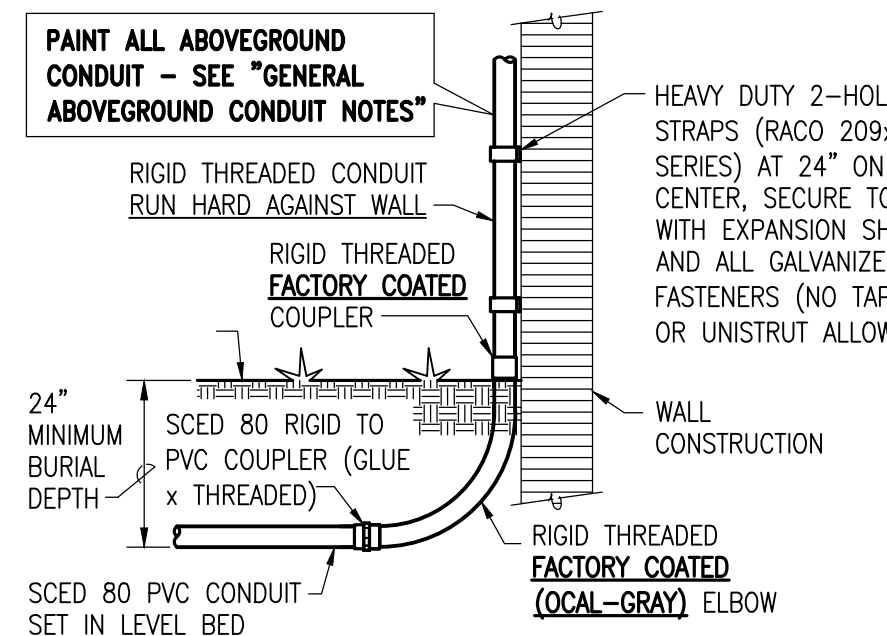
THE GENERAL CONTRACTOR SHALL SCHEDULE THE BUILDING 12 OUTAGE WITH THE OWNER'S PROJECT MANAGER AND THE SCHOOL ADMINISTRATION WELL AHEAD OF TIME, AND SHALL NOTIFY AND COORDINATE WITH AFFECTED SUBCONTRACTORS.

THE EXISTING INTERCOM/PA SYSTEM IN MEDIA CENTER BUILDING 12 SHALL BE REPLACED DURING THE SAME OUTAGE. SEE "EXISTING BUILDING 12 INTERCOM/PA SYSTEM NOTES" SHEET T202.



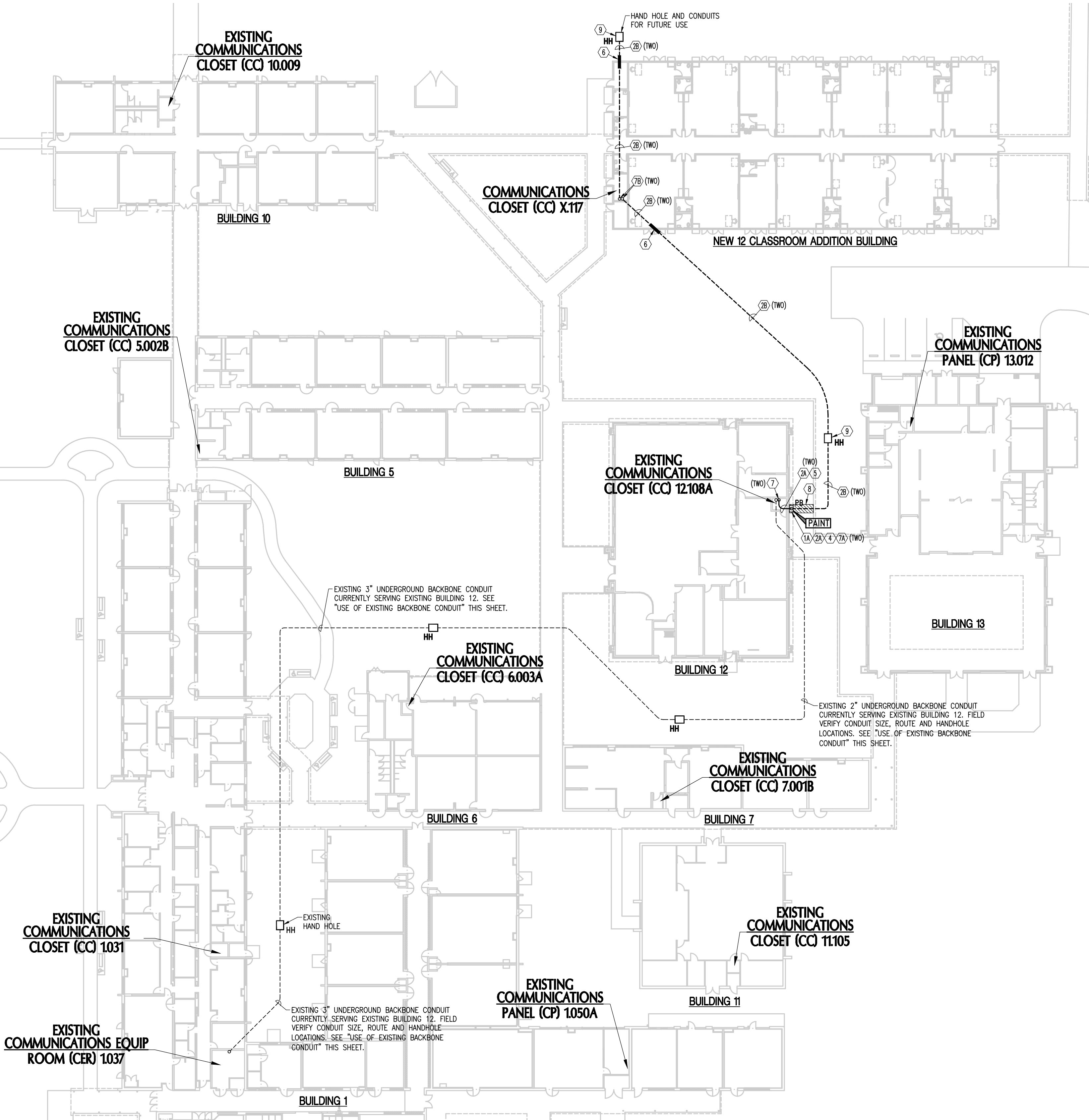
**BUILDING ENTRANCE - NEMA 3R BOX AT CONDUIT PENETRATION OF WALL OR FASCIA**

NOT TO SCALE



**BUILDING ENTRANCE - CONDUIT TURNING DOWN INTO EARTH**

NOT TO SCALE



**COMMUNICATIONS SITE PLAN**

SCALE: 1" = 30'-0"

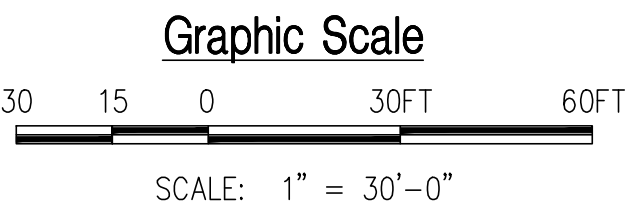
NOTE: SITE PLAN SCALE IS APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY ALL DISTANCES IN THE FIELD PRIOR TO BIDS.

**CONDUIT WORK NOTE**

ALL CONDUIT WORK INDICATED SHALL BE PROVIDED AS PART OF THIS CONTRACT AND SHALL BE PERFORMED BY A LICENSED CERTIFIED ELECTRICAL CONTRACTOR IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. PERMANENTLY LABEL ALL CONDUITS.

**PROJECT NOTE (ALL SHEETS)**

ALL MATERIALS AND EQUIPMENT INDICATED AND REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION SHALL BE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNDER THIS PROJECT UNLESS SPECIFICALLY INDICATED TO BE EXISTING OR TO BE PROVIDED BY OTHERS.



**Premier**  
Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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**12 CLASSROOM ADDITION BUILDING**

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL 32401



Designed by:  
G. Cook

Drawn By:  
J. Cook

**REVISION**

#	Description	Date

Communications  
Site Plan

06/06/25

T101

Design - Build Contractor

230 West 5th Street  
Panama City, FL 32401  
(850) 215-5540

495 Grand Blvd., Suite 206  
Miramar Beach, FL 32550  
(850) 269-6842

**Reliant South**  
Construction Group

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



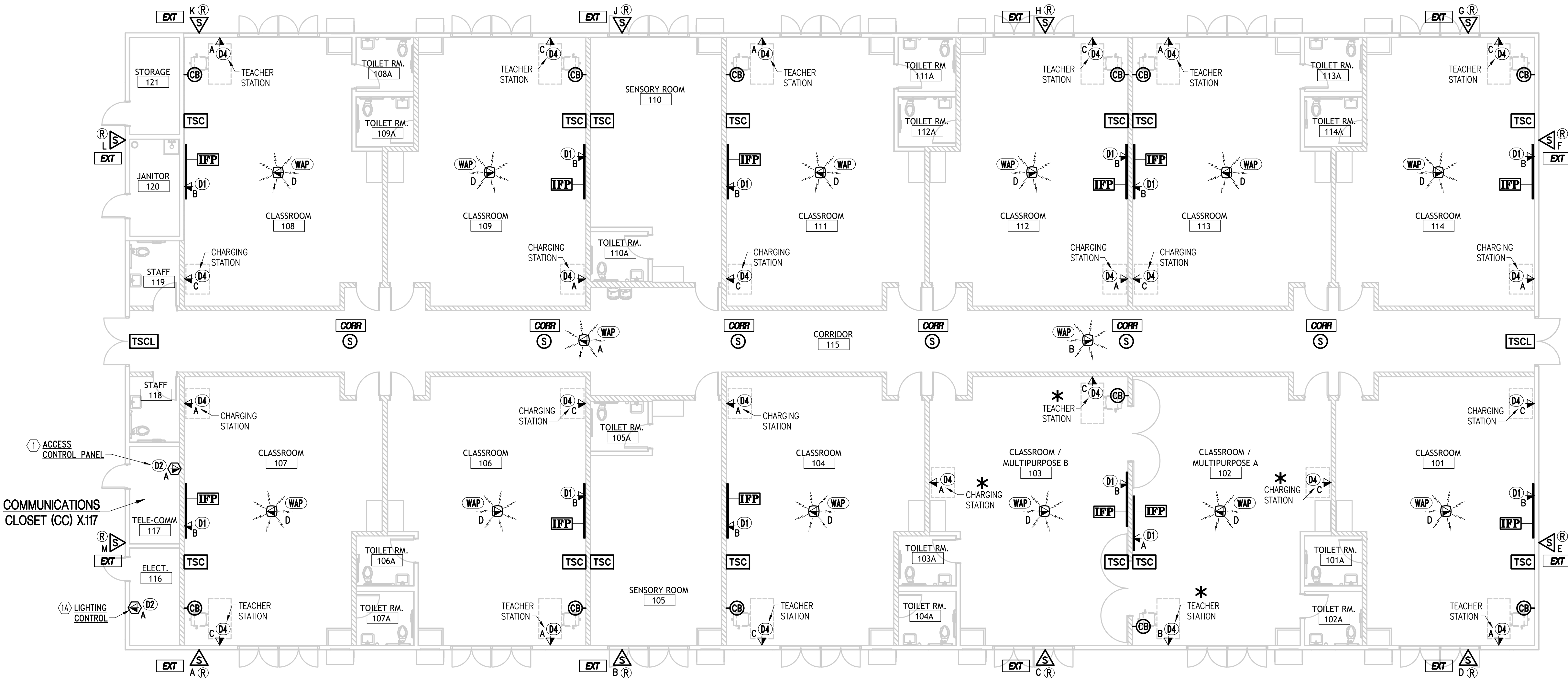
ABBREVIATIONS

CER	COMMUNICATIONS EQUIPMENT ROOM	RMC	RIGID METALLIC CONDUIT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CC	COMMUNICATIONS CLOSET	IMC	INTERMEDIATE METALLIC CONDUIT	OFOI	OWNER FURNISHED OWNER INSTALLED
CO	COMMUNICATIONS OUTLET	HH	HAND HOLE	CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
A.F.F.	ABOVE FINISHED FLOOR	WP	WATERPROOF	AV, A/V	AUDIO-VISUAL
AC	ABOVE COUNTER	SS	STAINLESS STEEL	WAP	WIRELESS ACCESS POINT
N.I.C.	NOT IN CONTRACT	IFP	INTERACTIVE FLAT PANEL DISPLAY	CM	CONSTRUCTION MANAGER
HPP	HORIZONTAL PATCH PANEL	FP	FLAT PANEL DISPLAY	PM	PROJECT MANAGER
PB	PULLBOX	SCED	SCHEDULE	GC	GENERAL CONTRACTOR
GALV	GALVANIZED STEEL	TYP	TYPICAL	PA	PUBLIC ADDRESS SYSTEM
DDC	DIRECT DIGITAL CONTROLS (HVAC)	ARCH	ARCHITECTURAL	EXT	EXTERIOR
EMS	ENERGY MANAGEMENT SYSTEM = DDC (HVAC)	SCS	STRUCTURED CABLING SYSTEM	CCTV	CLOSED CIRCUIT TELEVISION SECURITY CAMERA SYSTEM
IP	INTERNET PROTOCOL	SCSC	STRUCTURED CABLING SYSTEM CONTRACTOR		

COMMUNICATIONS LEGEND

CORRIDOR	115	ARCHITECT'S ROOM NUMBER, SEE "GENERAL LABELING NOTE."
D1		COMMUNICATIONS OUTLET (CO), TYPE 'D1'. SEE DETAILS. LETTER INDICATES DESIGNATION OF OUTLET IN ROOMS WITH MORE THAN ONE OUTLET.
D2		COMMUNICATIONS OUTLET (CO), TYPE 'D2'. SEE DETAILS. LETTER INDICATES DESIGNATION OF OUTLET IN ROOMS WITH MORE THAN ONE OUTLET.
D4		COMMUNICATIONS OUTLET (CO), TYPE 'D4'. SEE DETAILS. LETTER INDICATES DESIGNATION OF OUTLET IN ROOMS WITH MORE THAN ONE OUTLET.
WAP		WIRELESS ACCESS POINT (WAP) MOUNTED IN CEILING OR ON WALL AS INDICATED. SEE WIRELESS ACCESS POINT (WAP) MOUNTING DETAILS. LETTER INDICATES DESIGNATION OF WAP IN ROOMS WITH MORE THAN ONE WAP.
D2		SPECIAL SERVICE OUTLET (CO), TYPE 'D2'. SEE "SPECIAL SERVICES NOTE" AND PLANS. RUN CABLING CONTINUOUS TO CER/CC IN CONDUIT, LETTER INDICATES DESIGNATION OF OUTLET IN ROOMS WITH MORE THAN ONE OUTLET.
IFPP		INTERACTIVE FLAT PANEL, SEE DETAILS.
CORR		INTERCOM/PA SYSTEM ONE-WAY SPEAKER HARD-WIRED ZONE NAME.

TSC	INDOOR WALL MOUNT IP AND POE COMBINATION TALKBACK INTERCOM/PA SPEAKER/SIGN/FLASHER/CLOCK (TSC) WITH SOFTWARE VOLUME CONTROL VALCOM VL520BK-F. COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS.
TSCL	LARGE INDOOR WALL MOUNT IP AND POE COMBINATION TALKBACK INTERCOM/PA SPEAKER/SIGN/FLASHER/CLOCK (TSCL) WITH SOFTWARE VOLUME CONTROL VALCOM VL550F. COORDINATE MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS. COORDINATE WITH EXIT SIGNS, FIRE ALARM DEVICES AND ANY OTHER ITEMS MOUNTED IN THESE LOCATIONS PRIOR TO ROUGH-IN.
TS	INDOOR CEILING MOUNT IP AND POE TALKBACK INTERCOM/PA SPEAKER WITH SOFTWARE VOLUME CONTROL, 2'x2' LAY-IN WITH PLENUM RATED BACKBOX, VALCOM VE4022A-2 OR V-9022A-2 IN LAY-IN CEILINGS. 8-INCH CEILING SPEAKERS VALCOM V-9916M BRIDGE AND BACKBOX IN HARD CEILINGS. VALCOM VE4028A SQUARE GRILLE SPEAKER WITH VB-A13 SURFACE WALL MOUNT ANGLED BOX IN ROOMS WITH EXPOSED ROOF STRUCTURE OR IN ROOMS WITH INACCESSIBLE HARD CEILINGS. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATION AND QUANTITIES OF SPEAKER TYPES BASED ON CEILING CONDITIONS.
S	INDOOR CEILING MOUNT ONE-WAY ANALOG INTERCOM/PA SPEAKER WITH INTEGRAL AMPUFIER AND VOLUME CONTROL, 2'x2' LAY-IN WITH PLENUM RATED BACKBOX, VALCOM VE9022A-2 OR V-9022A-2 IN LAY-IN CEILINGS. 8-INCH CEILING SPEAKERS VALCOM V-1020C WITH VALCOM V-9916M BRIDGE AND BACKBOX IN HARD CEILINGS. VALCOM V-9852 VANDAL RESISTANT SURFACE WALL MOUNT IN ROOMS WITH EXPOSED ROOF STRUCTURE OR IN ROOMS WITH INACCESSIBLE HARD CEILINGS. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATION AND QUANTITIES OF SPEAKER TYPES BASED ON CEILING CONDITIONS.
R	OUTDOOR ONE-WAY INTERCOM/PA SPEAKER WITH INTEGRAL AMPLIFIER AND VOLUME CONTROL, RECESS MOUNT HORN TYPE, VALCOM V-1080 FLEXHORN WITH VALCOM V-9805 VANDAL RESISTANT ENCLOSURE/BACKBOX AND VANDAL RESISTANT STAINLESS STEEL FACEPLATE (BACKBOX AND FACEPLATE BOTH IN V-9805 PART NUMBER). FLUSH MOUNT IN WALL AT HEIGHT AND FINAL LOCATION AS DIRECTED BY THE ARCHITECT. GC/CM PROVIDE CUTOUT IN WALL CONSTRUCTION AS REQUIRED. COORDINATE EXACT LOCATIONS AND HEIGHT WITH GENERAL CONTRACTOR AND ARCHITECT PRIOR TO ROUGH-IN. PROVIDE 1/2" CONDUIT SLEEVE THRU WALL AND SET JUNCTION BOX IN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING INSIDE BUILDING.
CB	IP INTERCOM/PA CALL SWITCH, VALCOM VE2972. FLUSH MOUNT IN WALL AT 48" A.F.F. USING CONCEALED CONDUIT ROUGH-IN. SEE DETAILS.



COMMUNICATIONS FLOOR PLAN KEY NOTES:

- 1 ACCESS CONTROL PANEL CONNECTION: SEE SPECIAL SERVICES NOTE. RUN CABLING CONTINUOUS IN CONDUIT, PROVIDE "BISCUIT" STYLE 'D2' OUTLET LABELED WITH "ACCESS CONTROL" AND SERVING CLOSET. MOUNT INSIDE ACCESS CONTROL PANEL. COORDINATE WITH GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR, AND ACCESS CONTROL SYSTEM CONTRACTOR. ACCESS CONTROL SYSTEM CONTRACTOR IS RESPONSIBLE FOR ANY UL SECONDARY LISTED SURGE PROTECTION DEVICE REQUIRED TO PROTECT ACCESS CONTROL PANEL. SEE DATA SINGLE LINE FOR CABLING.
- 1A LIGHTING CONTROL PANEL CONNECTION: SEE SPECIAL SERVICES NOTE. RUN CABLING CONTINUOUS IN CONDUIT, PROVIDE "BISCUIT" STYLE 'D2' OUTLET LABELED WITH "LIGHTING CONTROL" AND SERVING CLOSET. MOUNT OUTLET INSIDE THE LIGHTING CONTROL PANEL AS DIRECTED BY THE ELECTRICAL CONTRACTOR. FINAL LOCATION OF LCP PANEL IS UNKNOWN - COORDINATE WITH THE GENERAL CONTRACTOR AND THE ELECTRICAL CONTRACTOR FOR FINAL LCP PANEL LOCATION. SEE DATA SINGLE LINE FOR CABLING.

SOUND ISOLATION NOTES

PUTTY PADS:

PROVIDE SOUND ISOLATION TREATMENT ON ALL WALL BOXES MOUNTED IN INTERIOR WALLS FOR ALL SYSTEMS AND SERVICES TO INCLUDE BUT NOT BE LIMITED TO COMMUNICATIONS OUTLETS, INTERCOM/PA CALL SWITCHES AND INTERCOM/PA SPEAKERS.

PROVIDE STI SPECSEAL "SSP" PUTTY PADS FOR THIS PURPOSE AND APPLY TO BACK, TOP, BOTTOM AND BOTH SIDES OF ALL BOXES. PROVIDE SPECSEAL "SSP4S" PADS FOR SINGLE GANG BOXES AND SPEDSEAL "SSP9S" FOR DOUBLE GANG BOXES.

APPLY PUTTY PADS IN MINIMUM FULL 3/16" THICKNESS ALL AROUND AND PRESS PADS INTO BOX SURFACES IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

WALL BOX SEPARATION:

ON INTERIOR WALLS STAGGER PLACEMENT OF WALL BOXES FOR ELECTRICAL, COMMUNICATIONS, INTERCOM/PA AND SIMILAR DEVICES TO PROVIDE HORIZONTAL SEPARATION OF AT LEAST 24". COORDINATE WITH THE GC/CM AND THE WORK OF OTHER TRADES. PLACEMENT OF BOXES WHERE LOCATION IS CRITICAL SUCH AS AT INTERACTIVE FLAT PANELS SHALL TAKE PRECEDENCE OVER OTHER APPLICATIONS.

DEVICES ON OPPOSITE SIDES OF INTERIOR WALLS SHALL NOT BE INSTALLED WITHIN THE SAME STUD CAVITY TO MINIMIZE SOUND TRANSFER. EXCEPTION - INSTALL CALL SWITCHES AT TEACHER STATIONS IN CLASSROOMS WITHIN THE SAME WALL CAVITY AND AT THE SAME HEIGHT AS LOCATION IS CRITICAL TO ALLOW SPACE FOR A BOOKSHELF.

DEVICES ON THE SAME SIDE OF A WALL MAY BE IN THE SAME STUD CAVITY IF SEPARATED VERTICALLY BY 24" OR MORE.

\*LOCATE TEACHER STATION AND CHARGING STATION AS DIRECTED BY THE OWNER'S PROJECT MANAGER IN THE FIELD. LOCATE ANYWHERE WITHIN ROOMS 102 AND 103 AT NO ADDITIONAL COST TO THE OWNER.

COMMUNICATIONS OUTLET NOTE

COMMUNICATIONS OUTLET LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EACH OUTLET WITH THE ARCHITECT, THE OWNER'S PROJECT MANAGER AND THE ELECTRICAL CONTRACTOR PRIOR TO THE CONDUIT AND DEVICE BOX ROUGH-IN. PARTICULAR ATTENTION SHALL BE GIVEN TO COORDINATION OF OUTLET LOCATIONS RELATIVE TO WINDOWS, CASEWORK AND OTHER OBSTRUCTIONS. ALL COMMUNICATIONS OUTLETS (CO'S) SHALL BE LOCATED AT 18" A.F.F. UNLESS INDICATED OTHERWISE ON FLOOR PLANS AND DETAILS OR SO DIRECTED BY ARCHITECT IN THE FIELD. FOR MOUNTING HEIGHTS OF LARGE SURFACE RACEWAY AND BOXES AT STUDENT COMPUTER STATIONS AND TEACHER STATIONS, SEE LARGE RACEWAY DETAILS.

SPECIAL SERVICES NOTE

PROVIDE TWO CAT 6 CONNECTIONS TO EACH OF THE FOLLOWING SPECIAL SERVICES UNLESS NOTED OTHERWISE:

- ACCESS CONTROL - COMM ROOM 117 (TWO DATA)
- LIGHTING CONTROL - ELECT ROOM 116 (TWO DATA)

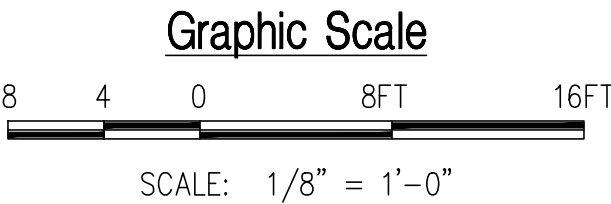
COORDINATE LOCATIONS AND INTERFACE REQUIREMENTS WITH THE OWNER'S PROJECT MANAGER. HOMERUN CABLING CONTINUOUS IN 3/4" EMT CONDUIT FROM SERVING CC TO SERVICE POINT FOR EACH SYSTEM. SEE PLANS FOR LOCATIONS AND ADDITIONAL REQUIREMENTS. SEE DATA SINGLE LINE DIAGRAMS.

GENERAL LABELING NOTE

- ALL COs, PROTECTOR BLOCKS, VOICE BLOCKS, AND HORIZONTAL PATCH PANELS SHALL BE LABELED USING THE FINAL FISH ROOM NUMBERS. OBTAIN FINAL FISH ROOM NUMBERS FROM THE ARCHITECT PRIOR TO LABELING.
- ALL LABELS FOR COs, PROTECTOR BLOCKS, VOICE BLOCKS, AND HORIZONTAL PATCH PANELS SHALL BE PRODUCED USING FACTORY LABEL SHEETS FOR LASER PRINTERS MANUFACTURED FOR THE SPECIFIC DEVICE.

PROJECT NOTE (ALL SHEETS)

ALL MATERIALS AND EQUIPMENT INDICATED AND REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION SHALL BE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNDER THIS PROJECT UNLESS SPECIFICALLY INDICATED TO BE PROVIDED BY OTHERS.



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Florida Certificate of Authorization #9308  
Premier Project #25006

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CONTRACT DOCUMENTS DWGS

12 CLASSROOM ADDITION BUILDING

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL. 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



Design - Build Contractor

230 West 5th Street  
Panama City, FL 32401  
(850) 215-5540

495 Grand Blvd., Suite 206  
Miramar Beach, FL 32550  
(850) 269-6842



Designed by:

G. Cook

Drawn By:

J. Cook

REVISION

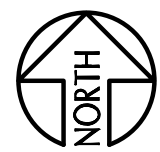
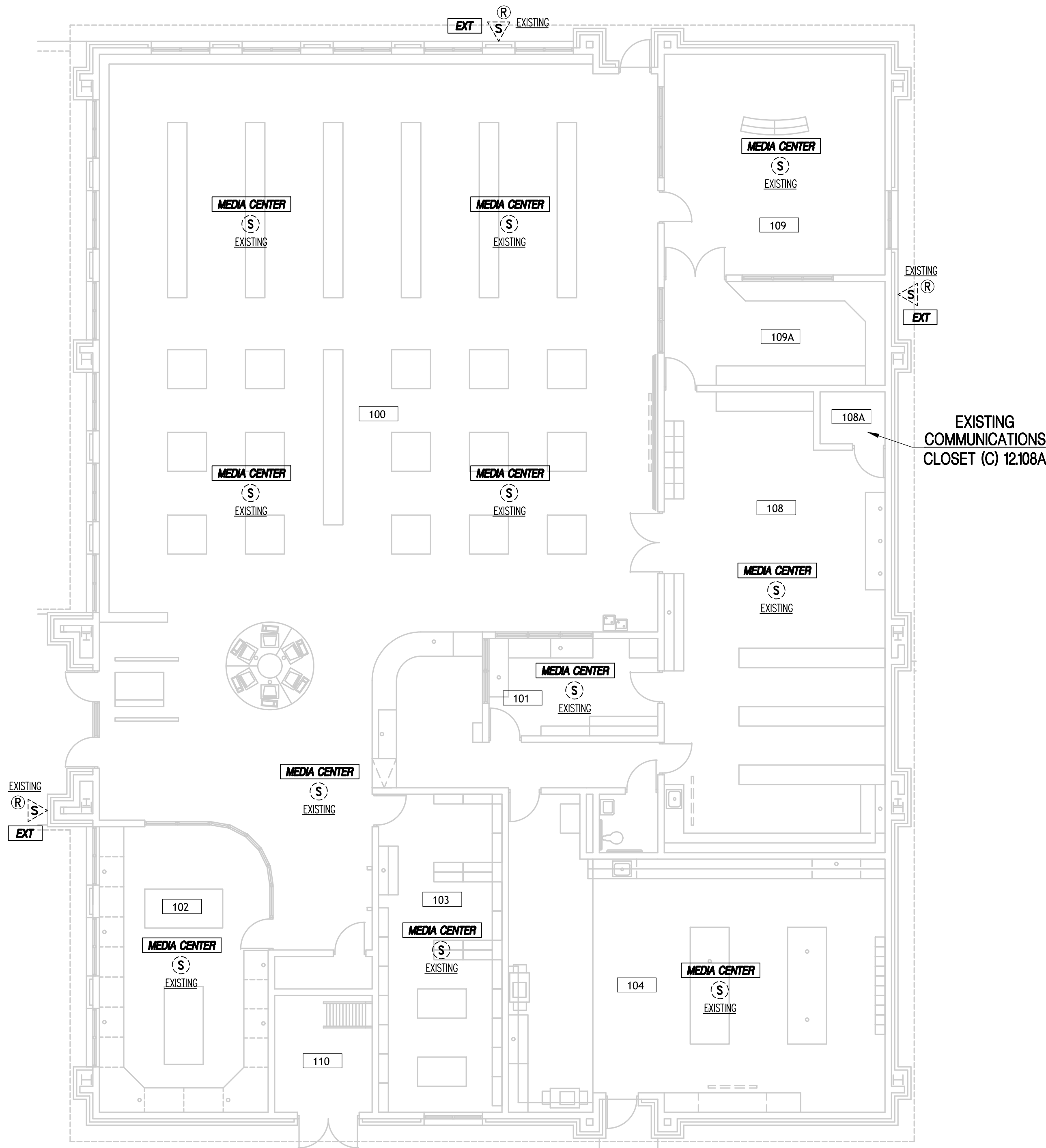
#	Description	Date

Communications Floor Plan

06/06/25

T201



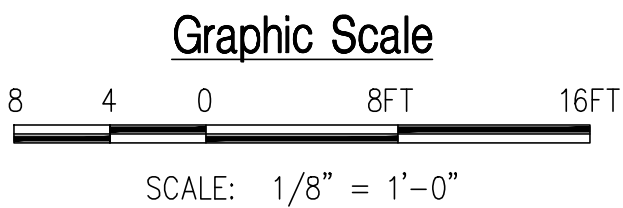


COMMUNICATIONS FLOOR PLAN - EXISTING BUILDING 12

SCALE: 1/8" = 1'-0"

EXISTING BUILDING 12 INTERCOM/PA SYSTEM NOTES

1. DEMOLISH EXISTING INTERCOM/PA SYSTEM COMPONENTS IN EXISTING CER-1.037 ASSOCIATED WITH INTERCOM/PA SERVICE TO EXISTING MEDIA CENTER BUILDING 12. SEE "USE OF EXISTING BACKBONE CONDUIT" SHEET T101. TURN ANY COMPONENTS THE OWNER ELECTS TO RETAIN POSSESSION OF OVER TO THE OWNER'S PROJECT MANAGER TO INCLUDE BUT NOT BE LIMITED TO PA HEAD END COMPONENTS AND SURGE PROTECTION DEVICES.
2. EXISTING ONE-WAY INTERCOM/PA SPEAKERS IN BUILDING 12 SHALL REMAIN IN SERVICE (MEDIA CENTER AND EXTERIOR ZONES). PROTECT AND REUSE EXISTING POWER AND AUDIO CABLE FROM SPEAKERS BACK TO EXISTING PA SPEAKER 66 BLOCK IN CC.12.108A.
3. LEAVE EXISTING PA SPEAKER 66 BLOCK IN PLACE IN CC.12.108A WITH PA SPEAKER POWER SUPPLY, UPS AND CROSS-CONNECTS - REWORK CROSS-CONNECTS AS REQUIRED. DEMOLISH EXISTING PA SPEAKER AUDIO 66 BLOCK (BLOCK CONNECTED TO BACKBONE CABLE).
4. CONTRACTOR PROVIDE NEW VALCOM VE8004BR 4 PORT RACK MOUNT ONE-WAY SPEAKER ZONE EXPANDER. RACK MOUNT ON EXISTING CC.12.108A WALL RACKS. COORDINATE LOCATION WITHIN RACKS WITH OWNER'S IT STAFF.
5. USE YELLOW CATEGORY 5e OR 6 PATCH CORDS TO MAKE NEW CROSS-CONNECTS FROM ZONE EXPANDER ANALOG AUDIO OUTPUTS TO EXISTING PA SPEAKER 66 BLOCK MAINTAINING EXISTING PAGE ZONES. CUT ONE END OFF OF EACH PATCH CORD AND CONNECT PLUG END INTO ONE OF THE FACTORY ANALOG AUDIO OUT RJ-45 CONNECTORS ON THE REAR OF THE ZONE EXPANDER. PUNCH OTHER END DOWN ON 66 BLOCK.
6. PROVIDE YELLOW CATEGORY 6 PATCH CORD FROM ZONE EXPANDER IP/POE RJ-45 ETHERNET NETWORK JACK TO POE SWITCH IN CC RACKS.
7. SEE DATA SINGLE LINE SHEET T401.
8. CLOSELY COORDINATE INSTALLATION WITH DISTRICT IT STAFF (ANDREW PATE). DISTRICT WILL PROGRAM INTERCOM/PA SYSTEM HEADEND. CONTRACTOR WORK WITH DISTRICT TO SET ALL SPEAKER VOLUMES.



**Premier**  
Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

CONTRACT DOCUMENTS DWGS

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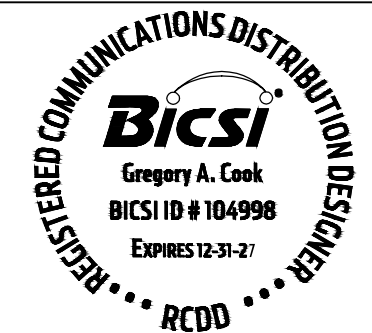
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12 CLASSROOM ADDITION BUILDING

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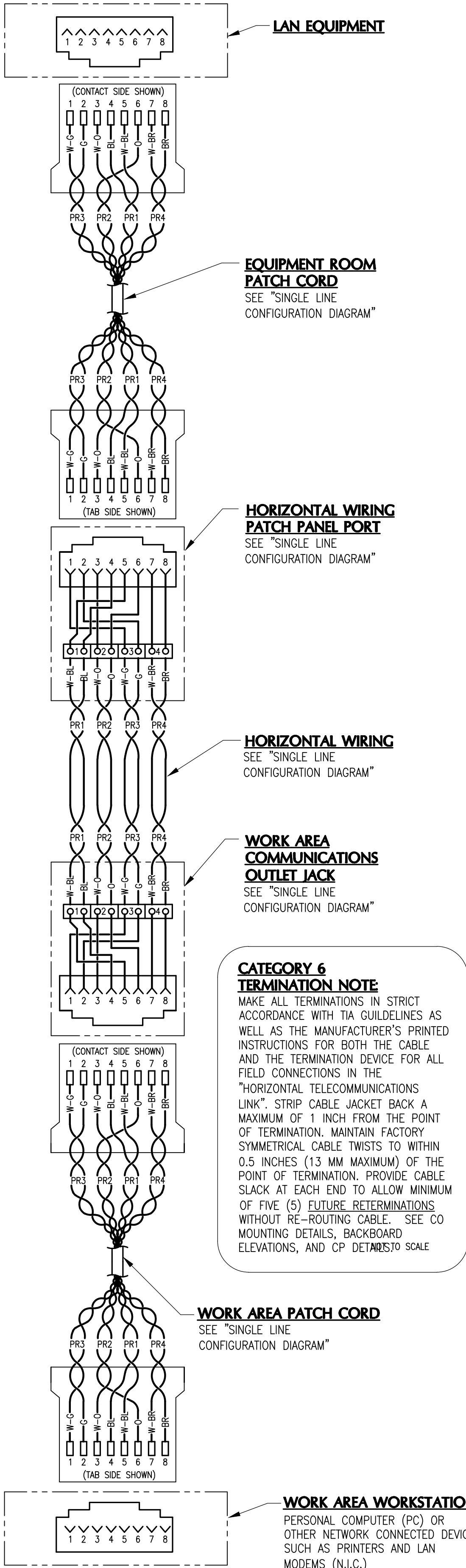
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#	Description	Date

Communications  
Floor Plan -  
Existing  
Building 12  
06/06/25

T202



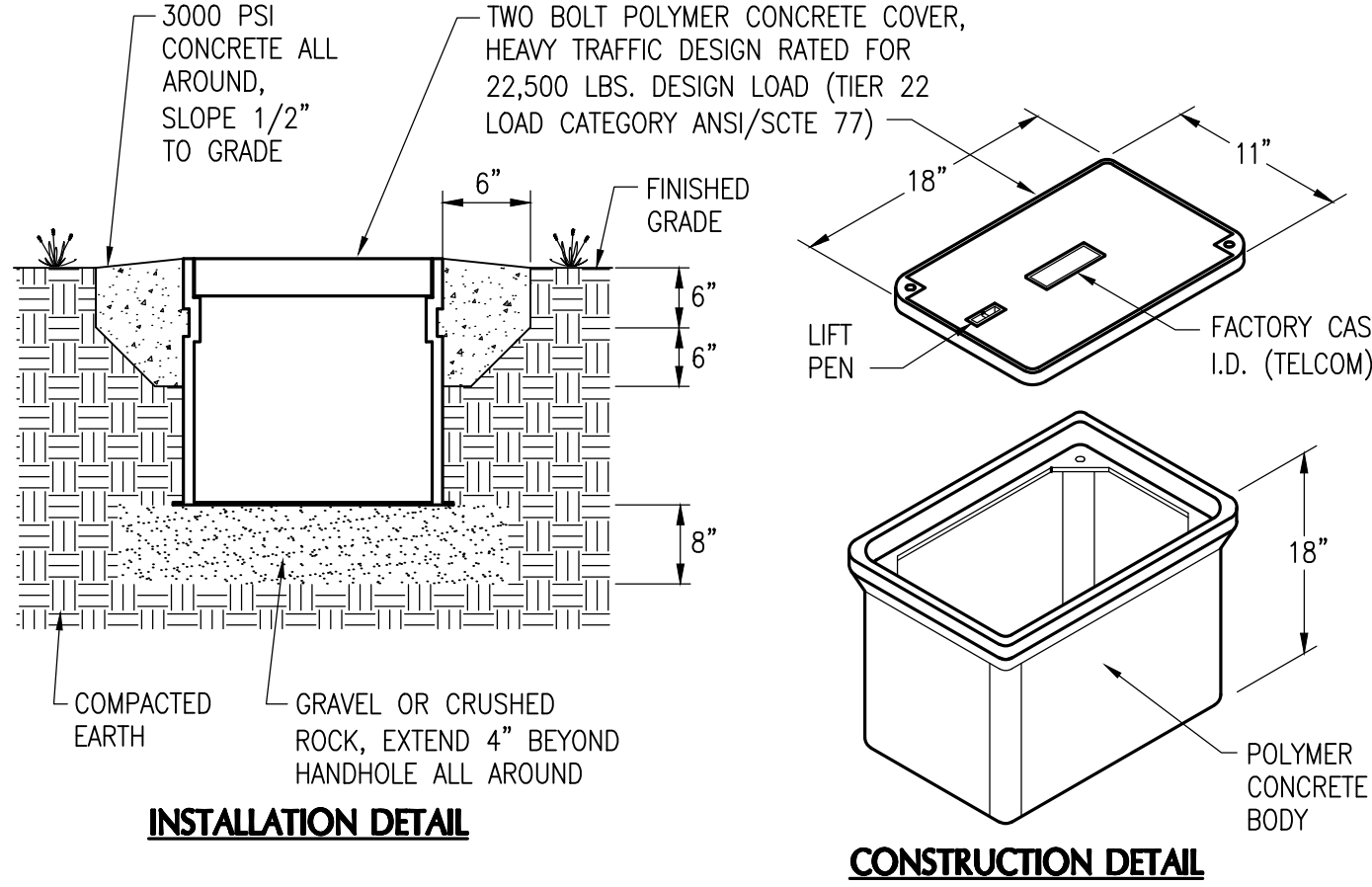


**FREE-ROUTED HORIZONTAL CABLING CONDUIT SLEEVES NOTE**

CONDUIT SLEEVES FOR FREE-ROUTED HORIZONTAL CAT 6 AND CAT 6A CABLING: FINAL ROUTING PATHS FOR HORIZONTAL CABLING SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. FOR THIS REASON CONDUIT SLEEVES ARE NOT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE EMT CONDUIT SLEEVES IN THE QUANTITIES AND LOCATIONS REQUIRED TO SUIT THE CONTRACTOR SELECTED HORIZONTAL CABLE ROUTING AND AS REQUIRED FOR A COMPLETE INSTALLATION, REGARDLESS OF WHETHER THOSE SLEEVES ARE INDICATED ON THE DRAWINGS OR NOT, AND AT NO ADDITIONAL COST TO THE OWNER. AT ALL LOCATIONS WHERE HORIZONTAL CABLING RUNS THRU MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, STORAGE ROOMS, OR ANY OTHER TYPE OF ROOM WITH EXPOSED STRUCTURE CEILING, ALL SUCH CABLING SHALL BE RUN IN CONTINUOUS CONDUIT SLEEVES EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES TRAVERSING INACCESSIBLE (HARD) CEILING OR SOFFIT AREAS AND EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS FOR CABLE PASS-THRU - PROVIDE ACCESS PANELS IN INACCESSIBLE CEILINGS AS REQUIRED TO INSTALL SLEEVES. SLEEVES SHALL BE SIZED FOR MAXIMUM 30 PERCENT CABLE FILL AND SHALL BE CONSTRUCTED AND PROVIDED WITH PULL BOXES AND ACCESS DOORS PER THE GENERAL ABOVEGROUND CONDUIT NOTES. GENERAL CONTRACTOR PAINT EXPOSED CONDUIT SLEEVES IN ALL FINISHED/OCCUPIED SPACES WITH NO CEILINGS TO MATCH ADJACENT SURFACES.

**FREE-ROUTED HORIZONTAL CABLE ROUTING NOTE**

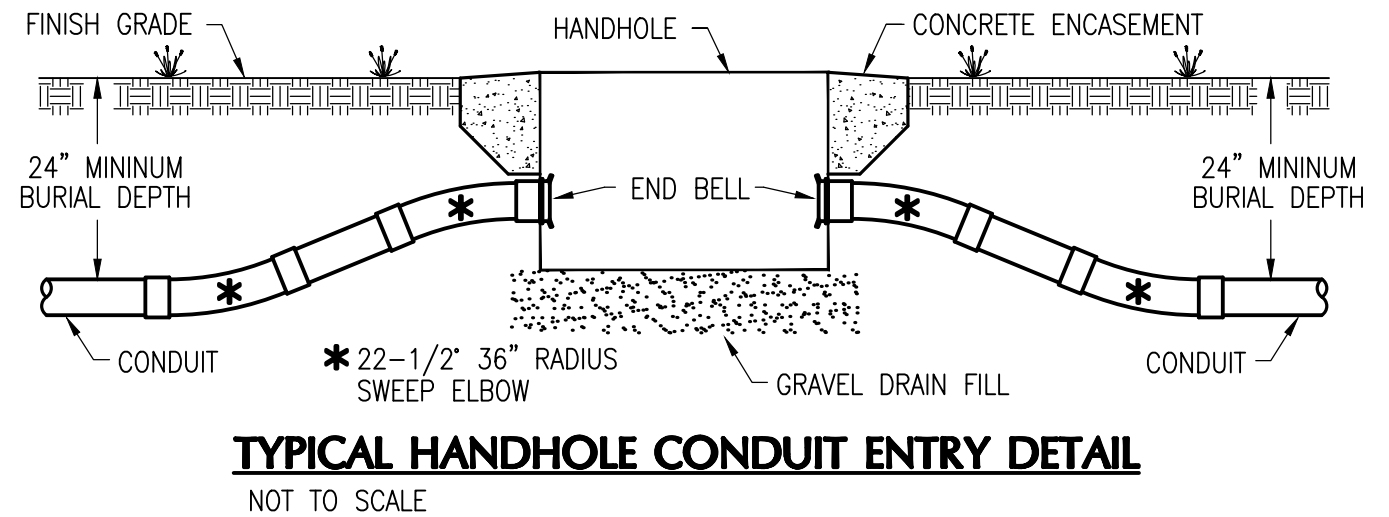
ALL COMMUNICATIONS CABLE NOT SHOWN TO BE INSTALLED IN CONDUIT SHALL BE RUN ABOVE CEILINGS AND SHALL BE ROUTED UP HIGH DIRECTLY UNDER THE BUILDING ROOF STRUCTURE AND PROPERLY SUPPORTED WITH APPROVED HANGERS AT 4'-0" ON CENTER TO THE NEAREST WIRE BASKET CABLE TRAY (SEE "WIRE BASKET CABLE TRAY NOTES" THIS SHEET). DO NOT RUN CABLES CLOSER THAN 6" BELOW ROOF DECK (TO AVOID DAMAGE FROM LONG SCREWS USED IN FUTURE ROOF REPLACEMENTS). RUN ALL CABLING ABOVE DUCTWORK, PIPING, CONDUITS AND ALL OTHER WORK BY OTHER TRADES AND PLACE FOR MAXIMUM PHYSICAL PROTECTION. BUNDLE CABLES TOGETHER AND ROUTE PARALLEL AND PERPENDICULAR TO BUILDING LINES. HANGERS SHALL BE ERICO CADDY "CABLECAT" CATEGORY-5 WITH WIDE BASE LOOP. SEE 'CATEGORY 6 & CATEGORY 6A CABLE J-HOOK SCHEDULE' FOR MINIMUM J-HOOK SIZES AND MAXIMUM CABLE BUNDLE CABLE REQUIREMENTS. BUNDLE CABLES AT 4'-0" O.C. WITH VELCRO, COLOR BLUE FOR CATEGORY 6 CABLES AND COLOR RED FOR CATEGORY 6A WAP CABLES. ATTACH HANGERS TO THE BUILDING STRUCTURE. DO NOT ATTACH HANGERS TO CEILING GRID OR SUPPORT WIRES, CONDUITS, DUCTWORK, PIPING, OR ANY OTHER SYSTEM COMPONENT OR WORK OF OTHER TRADES. INSTALL CABLES TO AVOID ELECTROMAGNETIC INTERFERENCE FROM MOTORS, TRANSFORMERS, GENERATORS, ELEVATORS, POWER CABLES/CONDUITS, LIGHTING FIXTURES, ETC. DO NOT ROUTE CABLE THRU FIRE DAMPERS, HVAC DUCTS, VENTILATING SHAFTS, OR GRATES. DO NOT BLOCK ACCESS TO PULL/JUNCTION BOXES, HATCHES, DOORS, UTILITY ACCESS PANELS, MECHANICAL SERVICE AREAS, ELECTRICAL SERVICE AREAS, OR ANY OTHER SPACE ASSOCIATED WITH SERVICE OR ACCESS OF ANY TYPE. DO NOT RUN HORIZONTAL CABLING ABOVE CEILINGS OF CHEMICAL STORAGE ROOMS.



**COMMUNICATIONS HANDHOLE NOTES:**

- HANDHOLE SHALL BE 11"x18"x24" DEEP, OLDCASTLE H SERIES. COVER AND BODY SHALL BOTH BE HEAVY TRAFFIC RATED, 22,500 POUND DESIGN LOAD, ANSI/SCTE 77 TIER 22 LOAD CATEGORY. COVER LOGO SHALL BE "TELCOM" OR "COMMUNICATIONS". INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND THE REQUIREMENTS OF THIS PROJECT.
- TERMINATE CONDUITS ENTERING HANDHOLE WITH END BELL (CARLON E997). CONSTRUCT CONDUIT RISE TO ENTER BOX FROM SIDE WITH 22-1/2" SWEEP ELBOWS. SEE "TYPICAL HANDHOLE CONDUIT ENTRY DETAIL". DO NOT ENTER HANDHOLE FROM BOTTOM.

**SMALL COMMUNICATIONS HANDHOLE TYPICAL DETAILS**  
NOT TO SCALE



**GENERAL ABOVEGROUND CONDUIT NOTES:**

- CONDUIT INSTALLER PROVIDE PULL STRINGS IN ALL HORIZONTAL CABLE CONDUITS AND PULL TAPE IN ALL BACKBONE CONDUITS FOR USE BY CABLING INSTALLER.
- LOCATION AND ROUTING OF ABOVEGROUND CONDUITS IS APPROXIMATE AND DEPICTS DESIGN INTENT ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING FINAL CONDUIT ROUTING IN THE FIELD. THE CONTRACTOR SHALL COORDINATE THE FINAL ROUTING OF CONDUITS TO AVOID CONFLICTS WITH OTHER TRADES, WHILE MINIMIZING CHANGES IN DIRECTION AND OVERALL CONDUIT LENGTH. OBTAIN APPROVAL OF ENGINEER PRIOR TO ANY CHANGES IN ROUTING. CONDUIT INSTALLER - PROVIDE PULL TAPE IN ALL BACKBONE CABLING CONDUITS CONTINUOUS FROM END TO END.
- FREE-ROUTE CATEGORY 6 AND CATEGORY 6A HORIZONTAL CABLES NOT OTHERWISE INDICATED TO BE HOMERUN IN CONDUIT. SEE "HORIZONTAL CABLE ROUTING NOTE" AND "HORIZONTAL CABLING CONDUIT SLEEVES NOTE".
- PROVIDE A HOMERUN CONDUIT RUN CONTINUOUSLY CONCEALED IN WALLS AND OVERHEAD FROM EACH SPECIAL SERVICE OUTLET TO SERVING CC. EACH HOMERUN CONDUIT SHALL BE 3/4" TRADE SIZE. CONDUIT INSTALLER SHALL PROVIDE PULL STRINGS IN ALL HORIZONTAL CONDUITS CONTINUOUS FROM END TO END.
- CONDUITS RUN INDOORS SHALL BE RUN CONCEALED OVERHEAD ABOVE CEILINGS UNLESS LOCATED IN SPACES WITHOUT CEILINGS, IN AN UNFINISHED SPACE SUCH AS EQUIPMENT ROOMS. INDOOR CONDUIT SHALL BE EMT WITH STEEL FITTINGS EXCEPT WHERE RIGID THREADED CONDUIT IS INDICATED. DIE CAST EMT FITTINGS ARE NOT ALLOWABLE. FITTINGS IN EXPOSED INDOOR LOCATIONS SHALL BE STEEL COMPRESSION TYPE. FITTINGS IN CONCEALED INDOOR LOCATIONS SHALL BE STEEL SET SCREW TYPE. SUPPORT EXPOSED CONDUIT AT A MINIMUM OF 4'-0" ON CENTER WITH 2-HOLE HEAVY DUTY GALVANIZED STEEL HARDWARE. DO NOT RUN CONDUITS BELOW SLAB EXCEPT AS SPECIFICALLY INDICATED.
- WHERE RIGID CONDUIT (RMC) IS INDICATED, PROVIDE ALL THREADED WATERTIGHT RIGID GALVANIZED THREADED FITTINGS. IN ALL LOCATIONS WHERE INDICATED OUTDOORS PROVIDE RIGID CONDUIT ONLY (RMC). WHERE INDICATED INDOORS CONTRACTOR MAY PROVIDE IMC CONDUIT, BUT ALL FITTINGS SHALL BE THREADED RMC. MAINTAIN ELECTRICAL CONTINUITY FROM END-TO-END AND TERMINATE/GROUND WITH UL LISTED BONDING BUSHING.
- SUPPORT CONDUIT DIRECTLY FROM BUILDING STRUCTURE USING APPROVED HARDWARE. DO NOT SUPPORT CONDUIT FROM OTHER SYSTEMS COMPONENTS OR SUPPORTS. ROUTE ALL CONDUITS AS HIGH AS POSSIBLE. WHERE CONDUIT IS EXPOSED RUN HARD AGAINST WALL OR UNDERSIDE OF ROOF/FLOOR DECK. RUN ALL CONDUITS PARALLEL/PERPENDICULAR AND PLUMB WITH BUILDING LINES.
- CONDUIT BODIES SUCH AS 'LB' FITTINGS ARE NOT ALLOWABLE.
- PROVIDE PULLBOXES OF THE SAME TYPE AND SIZE AS THOSE INDICATED ON DRAWINGS FOR EACH RUN OF CONDUIT AT EVERY 100 FEET ON CENTER AND AT EACH END OF CONDUIT RUNS CONTAINING A TOTAL OF TWO 90 DEG BENDS OR A COMBINATION OF LESSER BENDS TOTALING 180 DEG (MINIMUM REQUIREMENTS - PROVIDE WHETHER SPECIFICALLY INDICATED OR NOT). CONDUIT RUNS CONTAINING MORE THAN TWO 90 DEG BENDS WITHOUT A PULLBOX ARE NOT ALLOWABLE. FACTORY CONDUIT ELBOWS AND ALL OTHER BENDS SHALL HAVE A MINIMUM RADIUS OF SIX TIMES THE INTERNAL CONDUIT DIAMETER. CONDUIT OFFSETS AND PULLBOXES REQUIRED TO SUIT FIELD CONDITIONS AND TO CONFORM TO THESE REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- PULLBOXES FOR BACKBONE CONDUITS SHALL BE AS INDICATED. PULL BOXES FOR HOMERUN CONDUITS SHALL BE 4" WIDE x 4" LONG x 2-1/8" DEEP NEMA 1 GALVANIZED STEEL WITH SCREW COVER. WHERE HOMERUN CONDUITS ARE TIGHTLY RACKED WITH UNIFORM SPACING, WIDER PULL BOXES MAY BE PROVIDED TO SERVE MULTIPLE CONDUITS. TERMINATE CONDUITS AT OPPOSITE ENDS OF PULLBOXES. DO NOT TERMINATE CONDUITS IN PULLBOXES AT RIGHT ANGLES TO EACH OTHER. HOMERUN CONDUITS SHALL NOT BE COMBINED INTO LARGER CONDUITS SERVING MULTIPLE OUTLETS. PROVIDE INDIVIDUAL HOMERUN CONDUITS FROM EACH SECURITY CAMERA.
- WHERE CONDUIT AND PULLBOXES ARE LOCATED ABOVE NON-ACCESSIBLE CEILINGS OR SOFFITS (EXAMPLE PLASTER, METAL, OR GYPSUM BOARD), INSTALL AN 24"x 24" ALL ALUMINUM CEILING ACCESS DOOR IN CEILING DIRECTLY BELOW EACH SUCH PULLBOX. ACCESS DOORS SHALL BE LARSEN'S L-LCP, ALL ALUMINUM CONSTRUCTION AND FASTENERS. PROVIDE ACCESS DOORS FACTORY PRIMED FOR PAINTING. FINISH PAINT WITH TWO COATS ENAMEL AFTER INSTALLATION TO MATCH EXISTING CEILING, SOFFIT, OR WALL.
- TERMINATE ALL CONDUIT ENDS WITH THREADED PLASTIC INSULATING BUSHINGS (PUSH-ON NOT ALLOWABLE). BUSHINGS MUST FIT TIGHTLY ON CONDUIT CONNECTOR THREADS. INSTALL ALL BUSHINGS PRIOR TO PULLING CABLE. CONDUIT INSTALLER PROVIDE PULL STRINGS IN ALL HORIZONTAL CABLE CONDUITS AND PULL TAPE IN ALL BACKBONE CONDUITS FOR USE BY CABLING INSTALLER. LEAVE 10'-0" OF PULL TAPE SLACK AT EACH END OF BACKBONE CONDUIT AND TAPE EXCESS INTO ROLL.
- IDENTIFICATION: IDENTIFY ALL COMMUNICATIONS CONDUIT SLEEVES AND PULLBOXES ABOVE LAY-IN CEILINGS, ACCESS DOORS AND IN ROOF SPACE WITH BLUE PAINT AT EVERY PULLBOX AND ON CONDUIT AT EACH COUPLER (PAINT ENTIRE COUPLER). DO NOT PAINT CONDUIT COUPLERS AND ENCLOSURES IN CER/CC. IDENTIFY ALL BACKBONE CONDUIT PULLBOXES. PAINT WITH 1" TALL LETTER STENCIL (COLOR BLUE) THE WORDS "TELCOM" ON EACH PULLBOX COVER. LETTERING SHALL BE LEVEL AND SQUARE AND AT CENTER OF PULLBOX COVER.
- IDENTIFICATION: IDENTIFY ALL CCTV IP SECURITY CAMERA CONDUIT SLEEVES AND PULLBOXES ABOVE LAY-IN CEILINGS, ACCESS DOORS AND IN ROOF SPACE WITH GREEN PAINT AT EVERY PULLBOX AND ON CONDUIT AT EACH COUPLER (PAINT ENTIRE COUPLER). DO NOT PAINT CONDUIT COUPLERS AND ENCLOSURES IN CER/CC. IDENTIFY ALL CCTV CONDUIT PULLBOXES. PAINTING WITH 1" TALL LETTER STENCIL (COLOR GREEN) THE WORDS "CCTV" ON EACH PULLBOX COVER. LETTERING SHALL BE LEVEL AND SQUARE AND AT CENTER OF PULLBOX COVER.
- IDENTIFICATION: IDENTIFY ALL INTERCOM/PA CONDUIT SLEEVES AND PULLBOXES ABOVE LAY-IN CEILINGS, ACCESS DOORS AND IN ROOF SPACE WITH YELLOW PAINT AT EVERY PULLBOX AND ON CONDUIT AT EACH COUPLER (PAINT ENTIRE COUPLER). DO NOT PAINT CONDUIT COUPLERS AND ENCLOSURES IN CER/CC. PAINT WITH 1" TALL LETTER STENCIL (COLOR YELLOW) THE WORDS "INTERCOM/PA" ON EACH PULLBOX COVER. LETTERING SHALL BE LEVEL AND SQUARE AND AT CENTER OF PULLBOX COVER.
- PAINTING: PAINT ALL OUTDOOR CONDUITS WHERE ENTERING EXISTING BUILDING, SEE SITE PLAN. COLORS SHALL MATCH EXISTING ADJACENT SURFACES (INCLUDING MATCHING COLOR AND LUSTER FOR BRICK WALLS). PREP ALL GALVANIZED SURFACES BY THOROUGHLY WASHING WITH VINEGAR, THEN PRIME WITH GLIDDEN "GRIPPER" GL-3250 GREY PRIMER. PREP FACTORY PAINTED BOXES BY ROUGHENING WITH SANDPAPER, PRIMING, AND PAINTING. FINISH ALL SURFACES WITH TWO COATS PREMIUM GRADE ACRYLIC LATEX EXTERIOR PAINT. COLOR TO MATCH ADJACENT SURFACE. PROVIDE SEMI-GLOSS PAINT AT FASCIAS AND OTHER PRE-FINISHED METAL SURFACES AND SURFACES FINISHED WITH SEMI-GLOSS PAINT. PROVIDE FLAT PAINT AT BRICK WALLS AND OTHER FLAT FINISHED SURFACES.

**GENERAL UNDERGROUND CONDUIT NOTES:**

- LOCATION AND ROUTING OF NEW UNDERGROUND CONDUIT IS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATION AND ROUTING OF CONDUIT TO AVOID CONFLICTS WITH BURIED UTILITIES AND OTHER OBSTRUCTIONS. SIGNIFICANT CHANGES TO CONDUIT ROUTING SHALL REQUIRE THE APPROVAL OF THE ENGINEER.
- ALL BURIED CONDUIT SHALL BE SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT. ALL PVC CONDUIT JOINTS SHALL BE CLEANED AND GLUED FOR A WATERTIGHT CONNECTION. TERMINATE ENDS OF PVC CONDUIT AT CLOSETS AND HANDHOLES WITH END BELLS.
- SEAL ALL UNDERGROUND CONDUITS WATERTIGHT AT ALL HANDHOLE EXITS AND AT ALL BUILDING ENTRY POINTS FOLLOWING CABLE INSTALLATION TO PREVENT THE ENTRY OF WATER INTO BUILDINGS, AND TO PREVENT THE ENTRY OF WATER OR DEBRIS INTO THE CONDUITS FROM THE BUILDING OR HANDHOLES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING BURIED UTILITIES PRIOR TO COMMENCING ANY EXCAVATION REQUIRED FOR WORK UNDER THE PROJECT. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITIES THAT OCCURS AS A RESULT OF OPERATIONS PERFORMED UNDER THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER. REPAIRS SHALL BE MADE USING MATERIALS & METHODS TO MATCH EXISTING CONSTRUCTION AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO RE-COVERING.
- LOCATION OF HANDHOLES SHOWN IS INTENDED TO PLACE HANDHOLES IN ACCESSIBLE SODDED, PLANTED OR PAVED AREAS. COORDINATE LOCATIONS WITH DRAINAGE STRUCTURES, SIDEWALKS, OTHER OUTSIDE STRUCTURES, AND LANDSCAPING TO AVOID CONFLICTS.
- PROVIDE HANDHOLES IN UNDERGROUND CONDUIT AS INDICATED AND ADDITIONAL HANDHOLES AS REQUIRED DUE TO CHANGES IN CONDUIT DIRECTION. INSTALL A HANDHOLE IN EACH CONDUIT RUN OF LONGER THAN 500 FEET OR CONTAINING THE EQUIVALENT OF MORE THAN TWO 90° BENDS. INSTALL HANDHOLES AFTER BENDS AS INDICATED. DO NOT USE HANDHOLES TO MAKE A CHANGE IN DIRECTION.
- RESTORE TO THEIR ORIGINAL ELEVATION AND CONDITION UNPAVED SURFACES DISTURBED DURING INSTALLATION OF UNDERGROUND CONDUIT. PRESERVE AND REPLACE SOD OR TOPSOIL AFTER INSTALLATION IS COMPLETED. REPLACE SOD THAT IS DAMAGED WITH SOD OF TYPE AND QUALITY EQUAL TO THAT REMOVED.
- WHERE TRENCHES OR OTHER EXCAVATIONS ARE MADE IN AREAS OF EXISTING WALKWAYS WHERE SURFACE TREATMENT OF ANY KIND EXISTS, RESTORE SUCH SURFACE TREATMENT TO THE SAME THICKNESS AND IN THE SAME KIND AS PREVIOUSLY EXISTED (EXCEPT AS OTHERWISE INDICATED) AND TO MATCH AND TIE INTO THE ADJACENT AND SURROUNDING SURFACES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING SURFACE TREATMENT SUCH AS CONCRETE OR ASPHALTIC PAVING. THE DRAWINGS SHALL NOT BE CONSTRUED AS PROVIDING ACCURATE REPRESENTATION OF THE TYPE, LOCATION OR EXTENT OF SURFACE TREATMENT OF ANY KIND.
- THE MINIMUM BEND RADIUS FOR ALL UNDERGROUND CONDUITS SHALL BE 10 TIMES THE INTERNAL CONDUIT DIAMETER.
- BURIED WARNING AND IDENTIFICATION TAPE: PROVIDE METALLIC DETECTION TAPE MANUFACTURED SPECIFICALLY FOR WARNING AND IDENTIFICATION OF BURIED UTILITIES. INSTALL TAPE DIRECTLY ABOVE EACH BURIED CONDUIT AT DEPTH OF 10 TO 12 INCHES BELOW GRADE FOR ENTIRE LENGTH OF CONDUIT. TAPE SHALL BE DETECTABLE BY ANY STANDARD NON-FERRIC METAL DETECTOR. PROVIDE TAPE IN ROLLS, 2 INCHES MINIMUM WIDTH, COLOR ORANGE, WITH WARNING AND IDENTIFICATION IMPRINTED IN BOLD BLACK LETTERS CONTINUOUSLY AND REPEATEDLY OVER ENTIRE TAPE LENGTH. WARNING AND IDENTIFICATION SHALL READ "CAUTION BURIED COMMUNICATIONS LINE BELOW". USE PERMANENT CODE AND LETTER COLORING UNAFFECTED BY MOISTURE AND OTHER SUBSTANCES CONTAINED IN BACKFILL MATERIAL.
- UNDERGROUND CONDUIT VALIDATION - FOLLOWING INSTALLATION OF UNDERGROUND CONDUITS, PERFORM THE FOLLOWING OPERATION FOR EACH CONDUIT: CLEAN, LUBRICATE AND VALIDATE EACH INSTALLED CONDUIT FOR SERVICEABILITY BY RUNNING A FULL SIZE RUBBER DUCT SWAB THROUGH THE CONDUIT FROM END TO END. CONDUITS THAT ARE OBSTRUCTED MAY BE CLEANED USING A WIRE BRUSH MANDREL, THEN REVALIDATED WITH THE FULL SIZE RUBBER DUCT SWAB. CONDUITS THAT DO NOT ALLOW PASSAGE OF THE FULL SIZE RUBBER DUCT SWAB SHALL BE REPLACED.
- PULL TAPES: AS BACKBONE CABLING RUNS ARE INSTALLED CONDUIT INSTALLER SHALL PROVIDE A CONTINUOUS MARKED PULL TAPE (MULE TAPE WP2500P 2500 LB. TENSILE STRENGTH) FOR THE FULL LENGTH OF THE END-TO-END CABLE RUN WITH 10 FEET OF SLACK AT EACH END PULLED IN ALONGSIDE CABLING. BUNDLE SLACK NEATLY AT EACH END AND TIE OFF TO CONDUIT SUPPORT STRUT AT EACH END. PROVIDE CONTINUOUS FACTORY UNCUIT LENGTHS OF PULL TAPE FROM END-TO-END - UNDER NO CIRCUMSTANCES SHALL PULL PARTIAL LENGTH SECTION OF PULL TAPE BE TIED TOGETHER.
- SPARE CONDUITS: FOR CONDUITS THAT ARE INDICATED AS SPARE, INSTALL A CONTINUOUS MARKED PULL TAPE (CARLON TL382 1800 LB. TENSILE STRENGTH) FOR THE FULL LENGTH OF THE END-TO-END CONDUIT RUN WITH 10 FEET OF SLACK AT EACH END, TIE EACH END OF THE TAPE TO A BLANK DUCT PLUG WITH ROPE TIE TAB, PUSH SLACK TAPE BACK INTO CONDUIT, AND INSTALL A DUCT PLUG IN EACH CONDUIT END FOR A WATERTIGHT SEAL.

**Premier**  
Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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RELIANT SOUTH  
Construction Group

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER  
Bicsi  
Gregory A. Cook  
BICS1 ID # 104998  
EXPIRES 12-31-27  
RCD

Designed by:  
G. Cook

Drawn By:  
J. Cook

REVISION

#	Description	Date

Communications  
Typical Details

06/06/25

T301



### ATTACHMENT NOTES

ALL ATTACHMENTS SHALL BE MADE WITH HIGH STRENGTH/HIGH LOAD COMMERCIAL GRADE FASTENERS. ALL FASTENERS AND MISCELLANEOUS RELATED HARDWARE SHALL BE STAINLESS STEEL. TAP-CONS OR RAM-SET TYPE FASTENERS ARE NOT ALLOWABLE. ATTACHMENTS AT VARIOUS BUILDING WALL CONSTRUCTIONS SHALL BE AS FOLLOWS AS A MINIMUM REQUIREMENT. COMPLY WITH MORE STRINGENT FASTENER SPECIFICATIONS WHEN REQUIRED BY THE LOADING APPLICATION OR RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM COMPONENT:

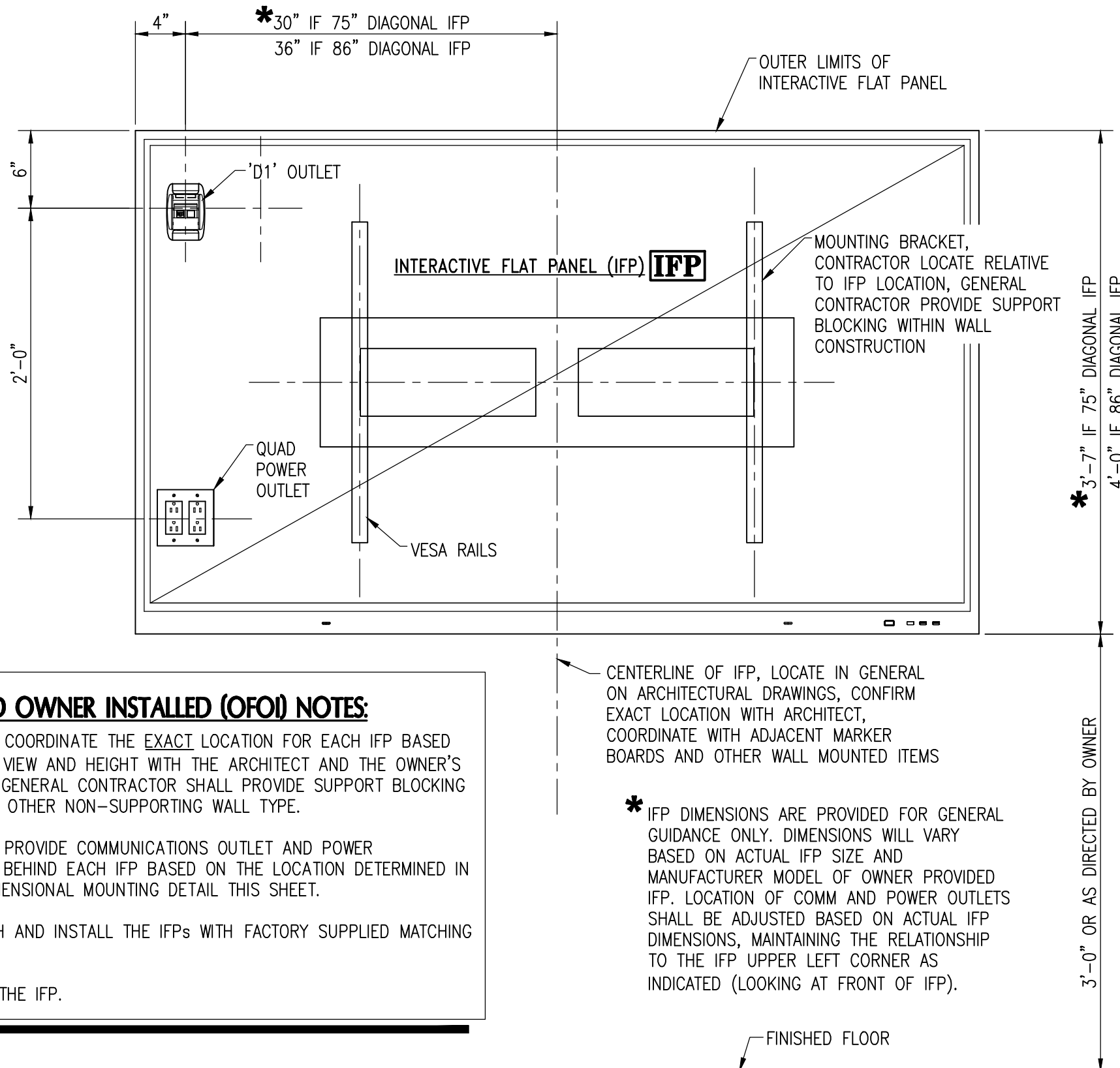
- AT FRAMED WALLS WITH GYP BOARD FINISH OR AT OPEN BLOCK CELLS OF CMU WALLS PROVIDE TOGGLER 'SNAP-TOGGLE' TOGGLE BOLTS. AT FRAMED WALLS FASTENERS SHALL BE PLACED AT STUDS.
- AT BRICK WALLS, BLOCK WEBS AND FILLED CELLS OF CMU WALLS, AND AT CONCRETE WALLS, PROVIDE COMMERCIAL GRADE HIGH LOAD EXPANSION ANCHORS SUCH AS TOGGLER 'ALLIGATOR' SOLID-WALL ANCHORS WITH STAINLESS STEEL FASTENERS.
- FASTENERS SHALL BE FULL SIZE OF FASTENER HOLES/OPENING IN EQUIPMENT TO BE SECURED (ALLOWING FOR STANDARD CLEARANCES - FASTENERS SIZE 1/16" LESS THAN HOLE SIZE).

### CATEGORY 6 & CATEGORY 6A CABLE J-HOOK SCHEDULE

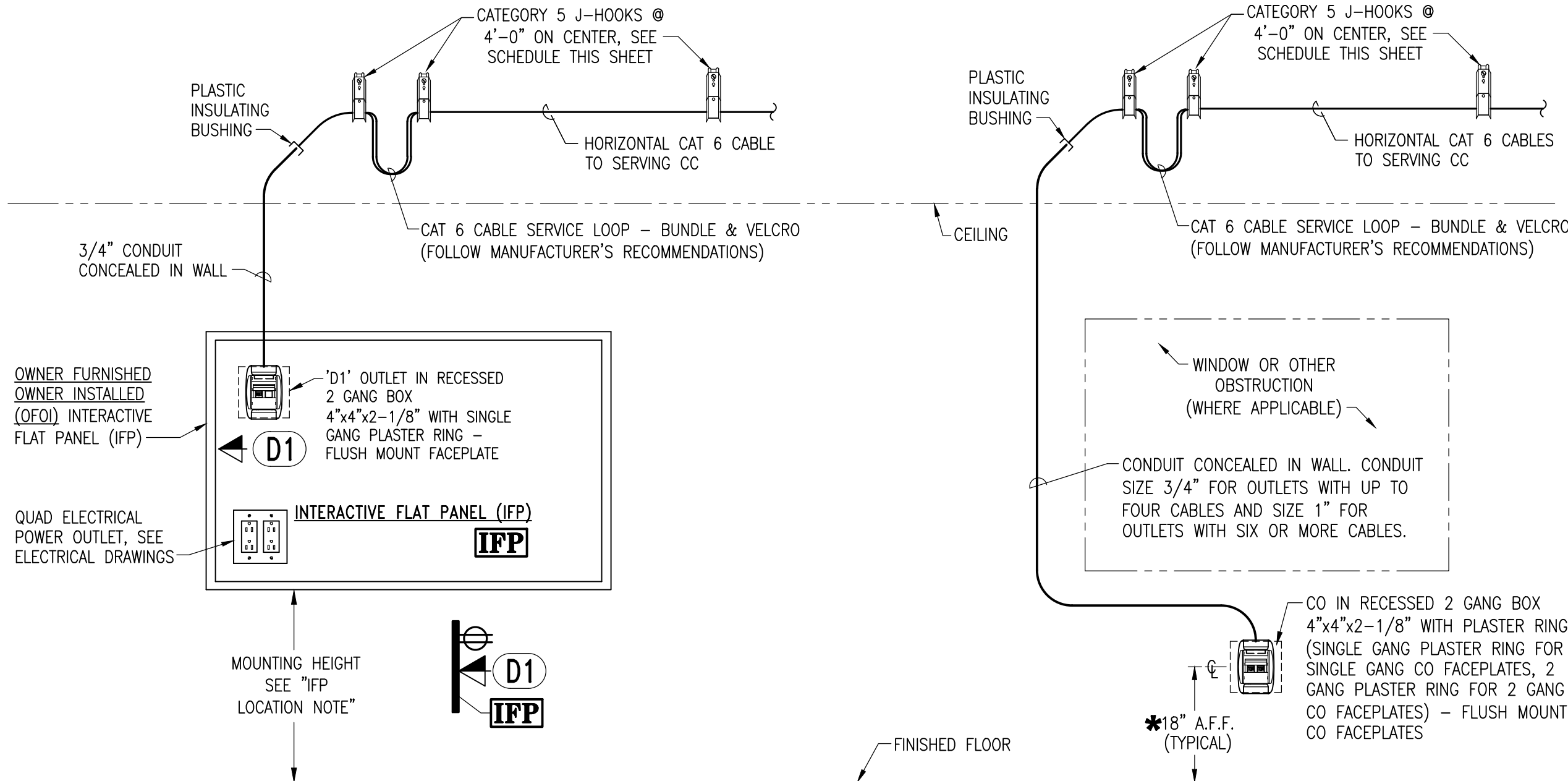
J-HOOK SIZE, ERICO CADDY CAT HP SERIES PART #	MAXIMUM BUNDLE SIZE (NUMBER OF CABLES)		NOTES
	CATEGORY 6	CATEGORY 6A	
CAT32HP	24	24	NOTES 1, 2

#### NOTES:

- USE CADDY CAT32HP SIZE J-HOOKS FOR ALL CABLE TYPES AND APPLICATIONS.
- LIMIT BUNDLE SIZE TO 24 CABLES MAXIMUM FOR ALL CABLE TYPES AND APPLICATIONS.



INTERACTIVE FLAT PANEL DIMENSIONAL MOUNTING DETAIL  
NOT TO SCALE



TYPICAL FLUSH MOUNT 'D1' OUTLET  
AND QUAD POWER AT 'IFP' MOUNTING DETAIL  
NOT TO SCALE

#### IFP LOCATION NOTE

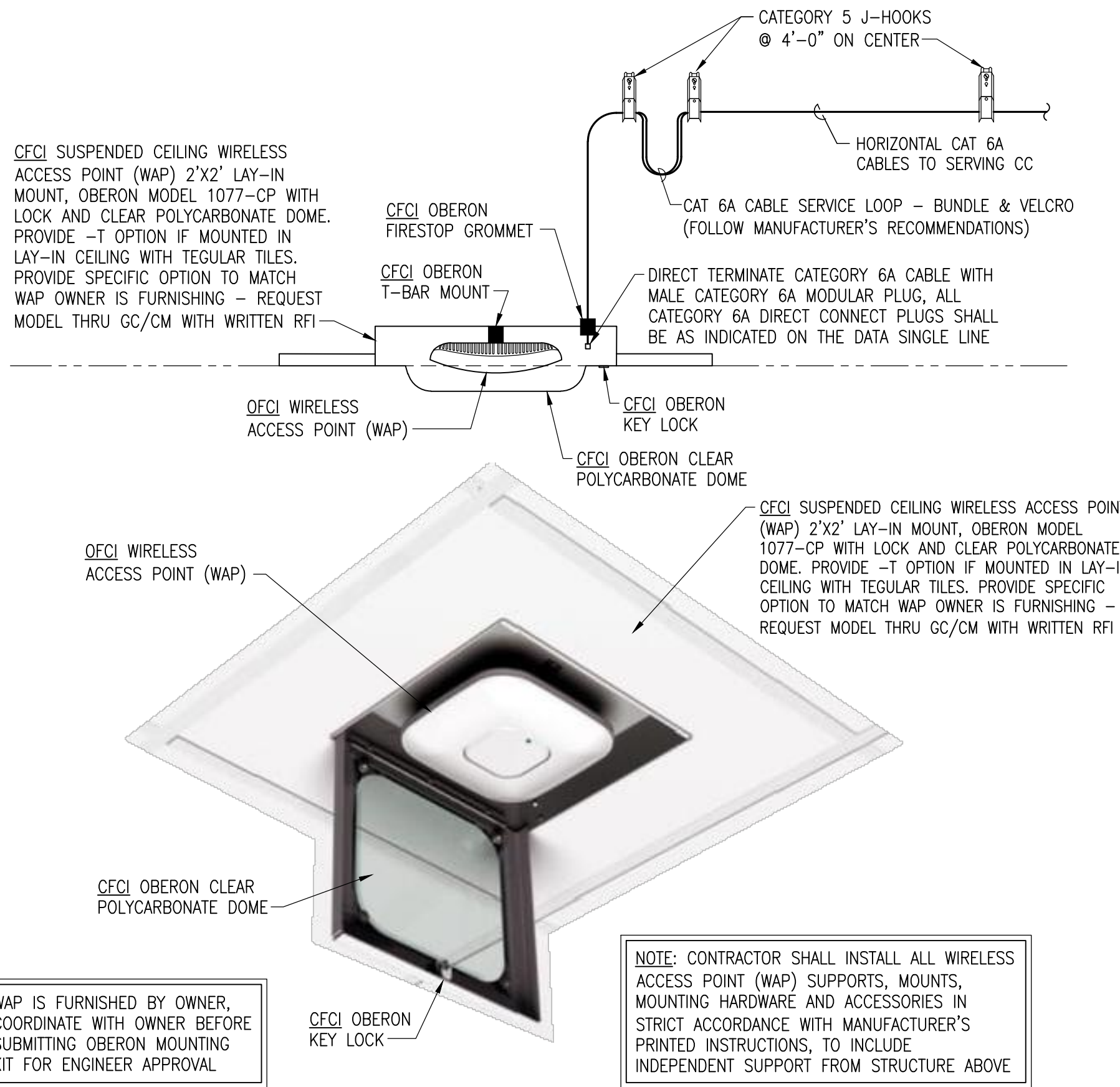
SEE "IFP OWNER FURNISHED OWNER  
INSTALLED (OFOI) NOTES" THIS SHEET

#### \*NOTES:

- COMMUNICATIONS OUTLET (CO) MOUNTING HEIGHT MAY VARY AT CABINETS OR CASEWORK. LOCATE AND MOUNT CO's AS DIRECTED BY ARCHITECT IN FIELD. MATCH HEIGHT OF ADJACENT ELECTRICAL POWER OUTLETS.
- MOUNTING HEIGHT OF COMMUNICATIONS OUTLET (CO) SHOWN TO BE MOUNTED ABOVE COUNTER (AC) SHALL BE COORDINATED WITH THE ARCHITECT AND THE GENERAL CONTRACTOR IN THE FIELD PRIOR TO ROUGH-IN.
- REFER TO ARCHITECTURAL DRAWINGS INTERIOR ELEVATIONS FOR CASEWORK DRAWINGS.

### TYPICAL FLUSH MOUNT COMMUNICATIONS OUTLET (CO) MOUNTING DETAIL

NOT TO SCALE



### LAY-IN CEILING RECESSED MOUNT WIRELESS ACCESS POINT (WAP) MOUNTING DETAILS

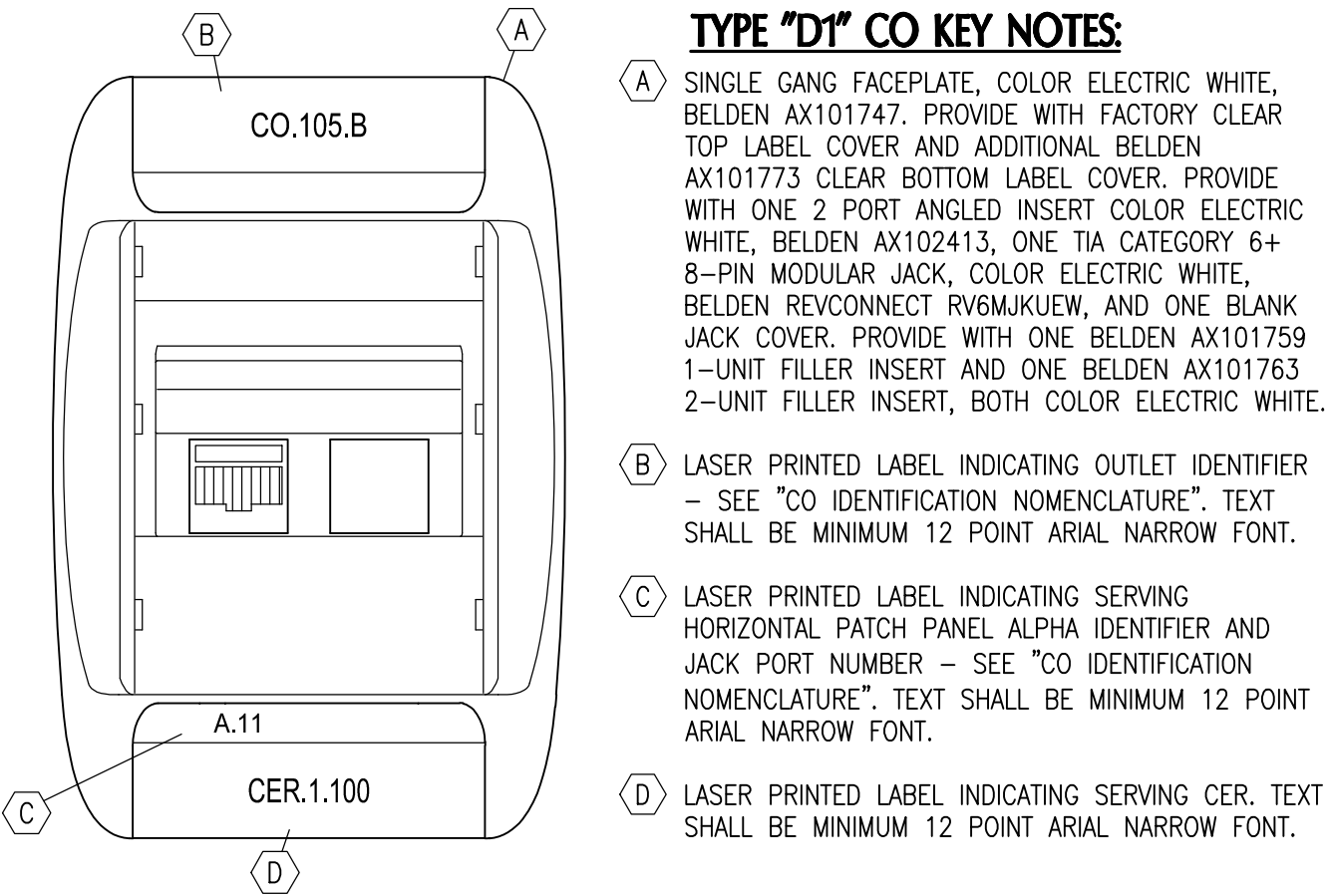
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Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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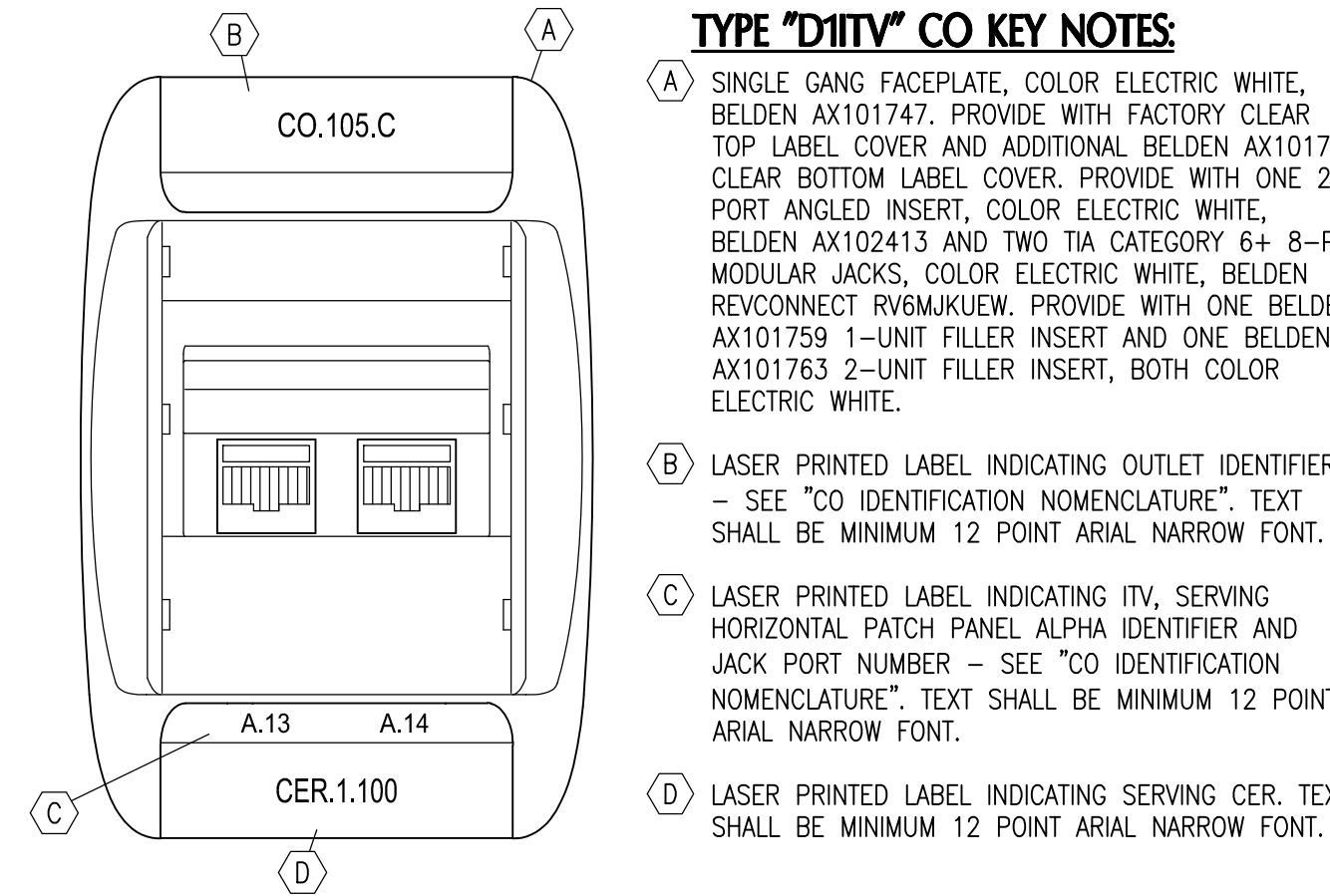




**TYPE "D1" COMMUNICATIONS OUTLET (CO)**

NOT TO SCALE

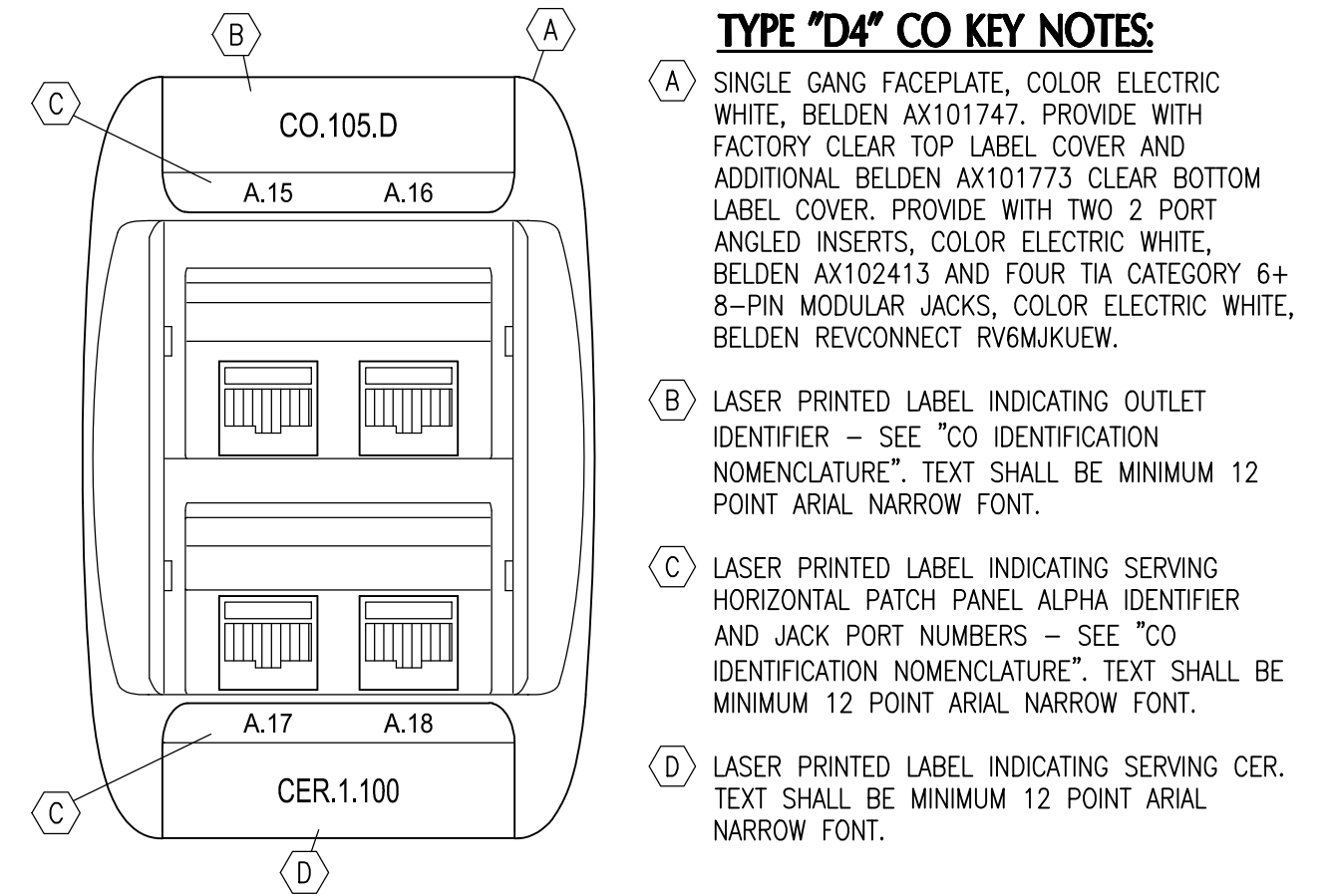
(D1 = ONE DATA)



**TYPE "D2" COMMUNICATIONS OUTLET (CO)**

NOT TO SCALE

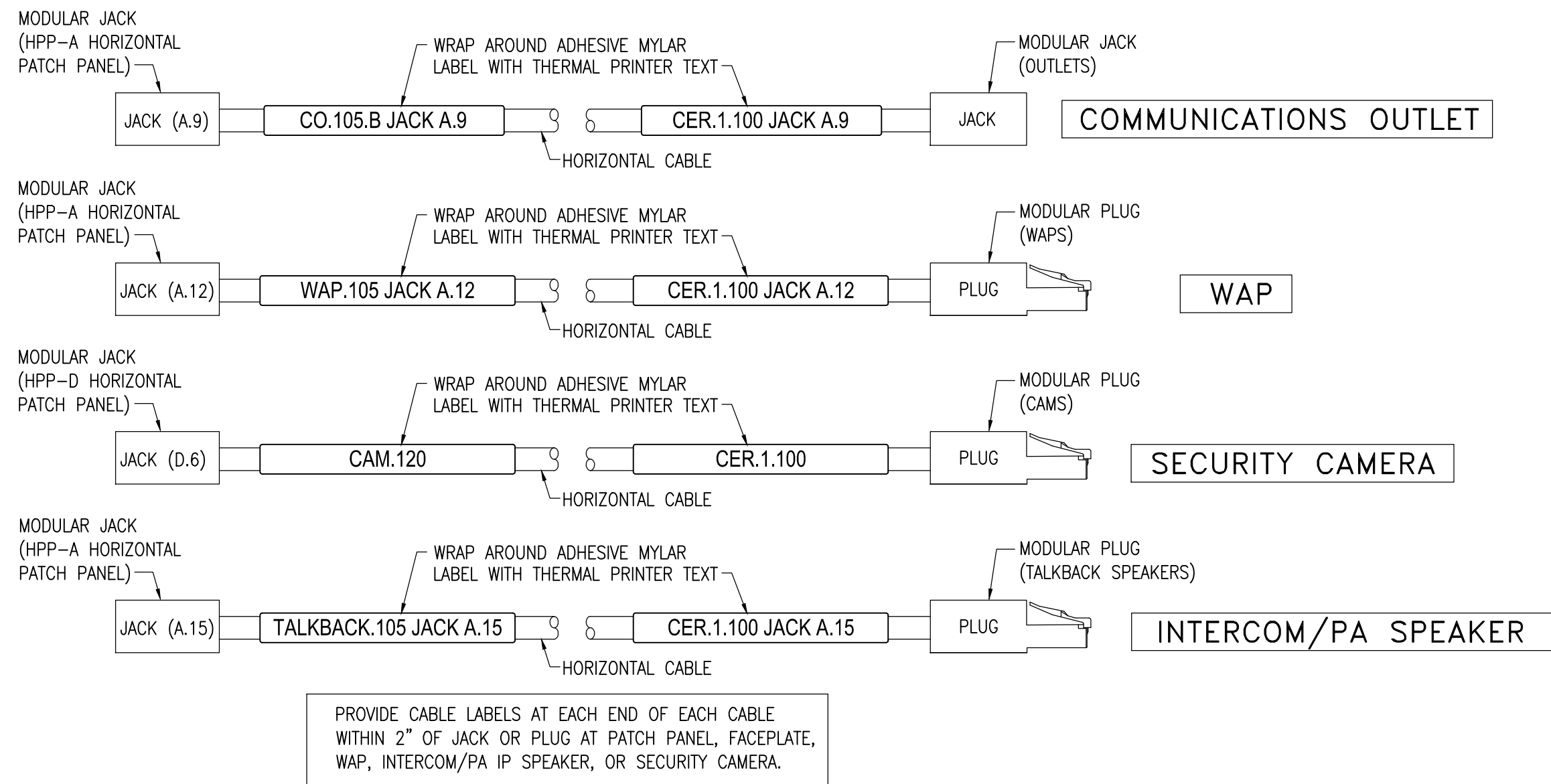
(D2 = TWO DATA/VOICE)



**TYPE "D4" COMMUNICATIONS OUTLET (CO)**

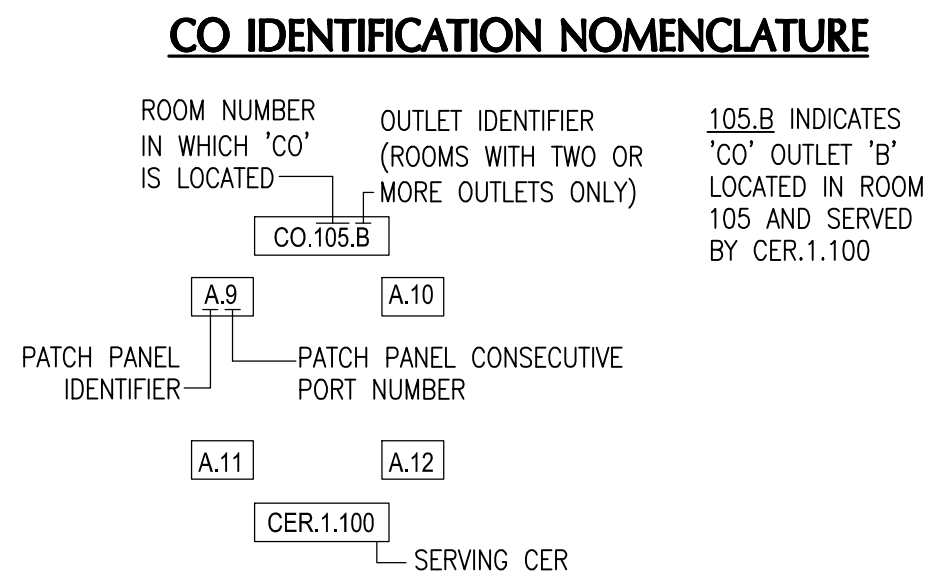
NOT TO SCALE

(D4 = FOUR DATA/VOICE)



**HORIZONTAL CABLE IDENTIFIER LABELS**

NOT TO SCALE



ENGRAVED PLASTIC TAG WITH 1/2" HIGH WHITE LETTER ON BLACK BACKGROUND. TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH, SECURE TAG WITH DOUBLE SIDED TAPE ON FAR RIGHT SIDE OF PATCH PANEL FRONT FACE

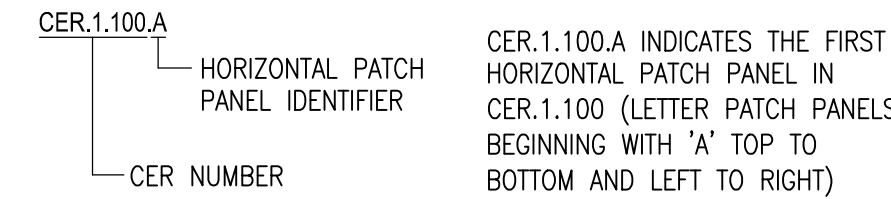
A

**TYPICAL HORIZONTAL PATCH PANEL ENGRAVED TAG DETAIL**

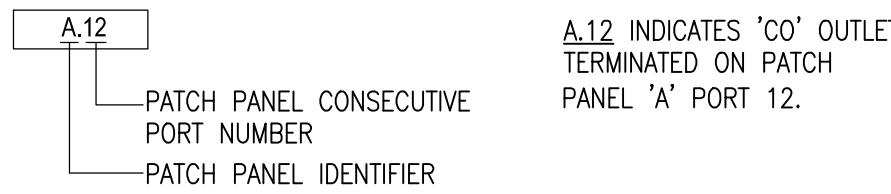
NOT TO SCALE

SEE "COMMUNICATIONS TYPICAL LABELING DETAILS"

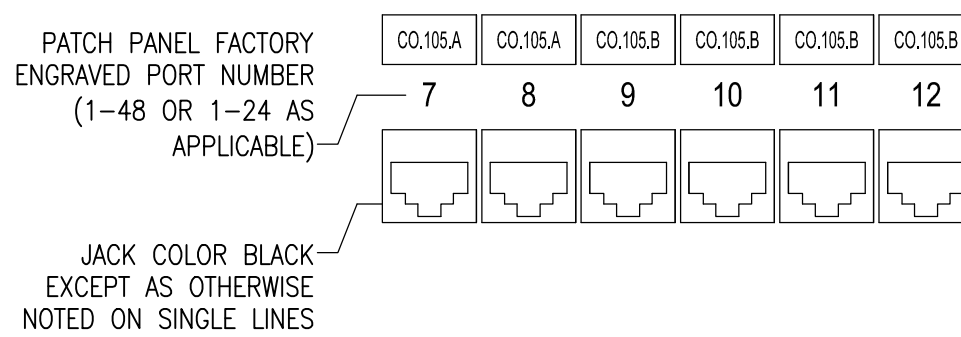
**HORIZONTAL PATCH PANEL I.D. NOMENCLATURE**



**HORIZONTAL PATCH PANEL PORT NUMBER IDENTIFICATION**

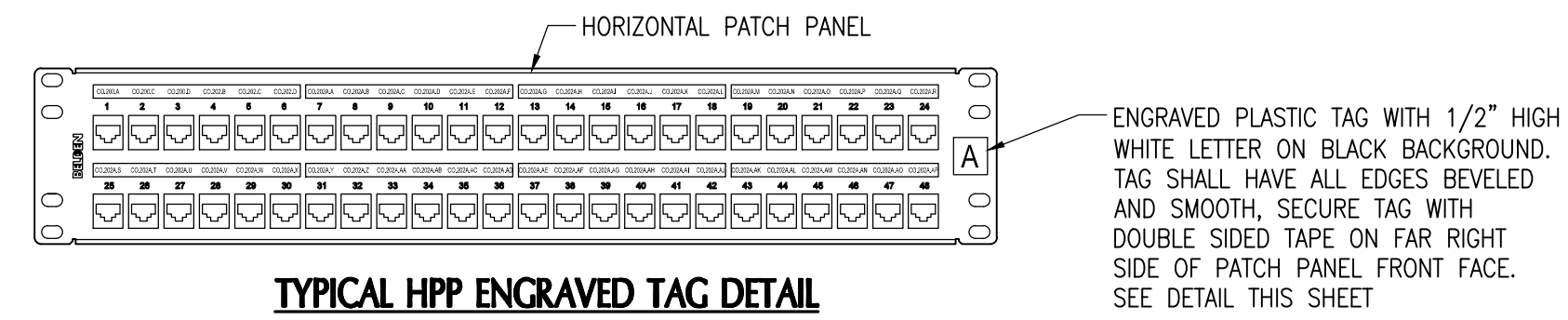


**HORIZONTAL PATCH PANEL PORT LABELING NOMENCLATURE**



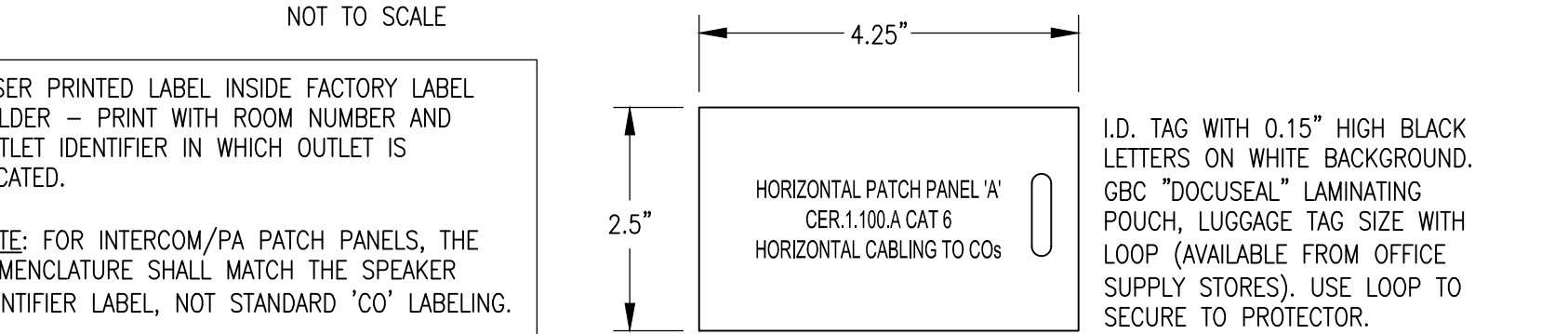
**CATEGORY 6 and 6A HORIZONTAL PATCH PANEL TERMINATION/LABELING REQUIREMENTS**

- TERMINATE CATEGORY 6 AND CATEGORY 6A HORIZONTAL CABLING SEQUENTIALLY ON HORIZONTAL PATCH PANELS IN NUMERICAL ORDER BY ROOM NUMBER FOR ALL SERVICES (COS, INTERCOM/PA SPEAKERS AND WAPS) – THOSE SERVICES ARE MIXED ON THE HORIZONTAL PATCH PANELS. REFER TO FLOOR PLANS FOR ROOM NUMBER AND LOCATION. ONLY THE IP SECURITY CAMERA PATCH PANEL HPP-D IS DEDICATED TO ONE SERVICE (SECURITY CAMERAS). TERMINATE CATEGORY 6 CABLES FOR SECURITY CAMERAS IN NUMERICAL ORDER BY CAMERA NUMBER WITH NUMBERING SYSTEM AS DIRECTED BY THE OWNER AND CAMERA INTEGRATOR.
- PROVIDE OVERALL IDENTIFICATION TAG FOR EACH HORIZONTAL PATCH PANEL IN ACCORDANCE WITH "HORIZONTAL PATCH PANEL I.D. NOMENCLATURE". TAG CONSTRUCTION AND LAYOUT SHALL BE PER "TYPICAL HORIZONTAL PATCH PANEL LAMINATED I.D. TAG DETAIL".
- PROVIDE ENGRAVED TAG FOR EACH HORIZONTAL PATCH PANEL INDICATING LETTER IDENTIFIER. SEE "TYPICAL HPP ENGRAVED TAG DETAIL".



**TYPICAL HPP ENGRAVED TAG DETAIL**

NOT TO SCALE



**TYPICAL HORIZONTAL PATCH PANEL LAMINATED I.D. TAG DETAIL**

NOT TO SCALE

**GENERAL LABELING NOTES:**

- ROOM NUMBERS INDICATED THIS SHEET TO INCLUDE COMMUNICATIONS ROOM NUMBERS ARE PROTOTYPICAL TO INDICATE REQUIRED LABELING METHODS AND ARE NOT BASED ON ACTUAL ROOM NUMBERS FOR THIS PROJECT.
- ALL LABELS SHALL BE BASED ON THE FINAL FLORIDA INVENTORY OF SCHOOL HOUSES ("FISH") ACTUAL ROOM NUMBERS. OBTAIN FINAL "FISH" ROOM NUMBERS FROM THE ARCHITECT PRIOR TO LABELING.
- ALL LABELS FOR COMMUNICATIONS OUTLETS AND HORIZONTAL PATCH PANELS SHALL BE PRODUCED USING FACTORY NON-ADHESIVE LABEL SHEETS FOR LASER PRINTERS MANUFACTURED FOR THE SPECIFIC DEVICE AND USING LABELING SOFTWARE PROVIDED BY MANUFACTURER'S REPRESENTATIVE.
- ALL LABELS SHALL BE HEIGHT OF PLASTIC LABEL HOLDERS AND SAME HEIGHT AND WIDTH AS INDIVIDUAL PAPER LABELS FACTORY FURNISHED WITH THE COMMUNICATIONS OUTLETS OR PATCH PANEL LABEL HOLDERS (LABELS SHALL COMPLETELY FILL PLASTIC LABEL HOLDERS).
- ALL LABELS SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER, STRAIGHT AND CENTERED ON LABEL HOLDERS.

**GENERAL TEXT WIDTH NOTE**

USE ARIAL NARROW FONT, WHICH IS VERY COMPRESSED BY WIDTH. IF ADDITIONAL WIDTH COMPRESSION IS REQUIRED FOR UNUSUALLY LONG LABELS, USE THE MS WORD FORMAT-FONT-CHARACTER SPACING-SPACING-CONDENSED-BY ½ POINTS (USE POINT REDUCTIONS OF LESS THAN ONE IN TENTHS OF A POINT – USE NO MORE REDUCTION THAN REQUIRED TO FIT LABEL).

**FACEPLATE AND DEVICE COLOR NOTE**

VERIFY ALL FACEPLATE AND DEVICE COLORS WITH THE ARCHITECT AND OWNER'S PROJECT MANAGER PRIOR TO PRE-INSTALLATION SUBMITTALS. PROVIDE ALTERNATE COLOR STANDARD WITH THE MANUFACTURER AT NO ADDITIONAL COST TO THE OWNER IF SO DIRECTED. COORDINATE WITH THE ENGINEER PRIOR TO ORDERING MATERIALS.

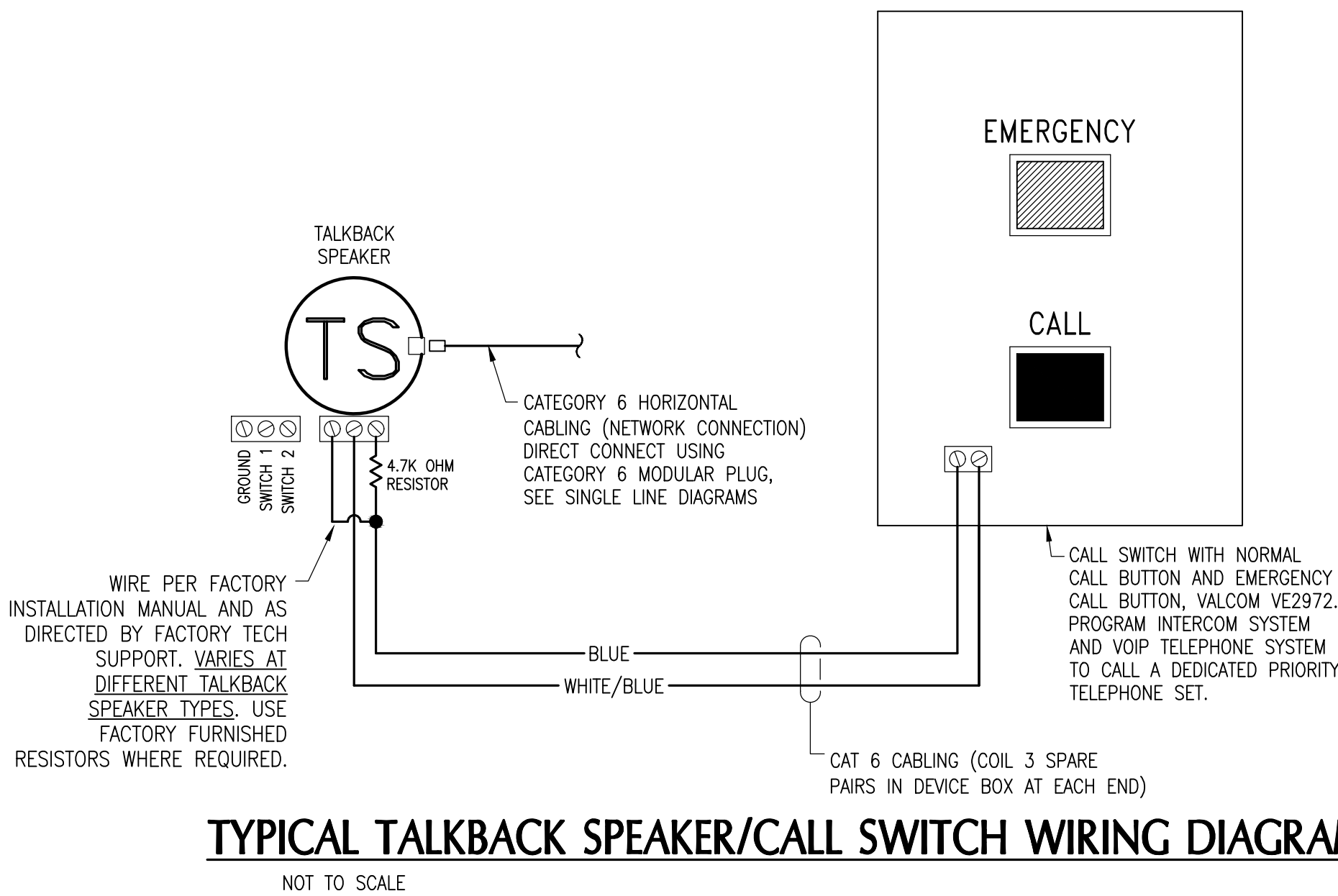
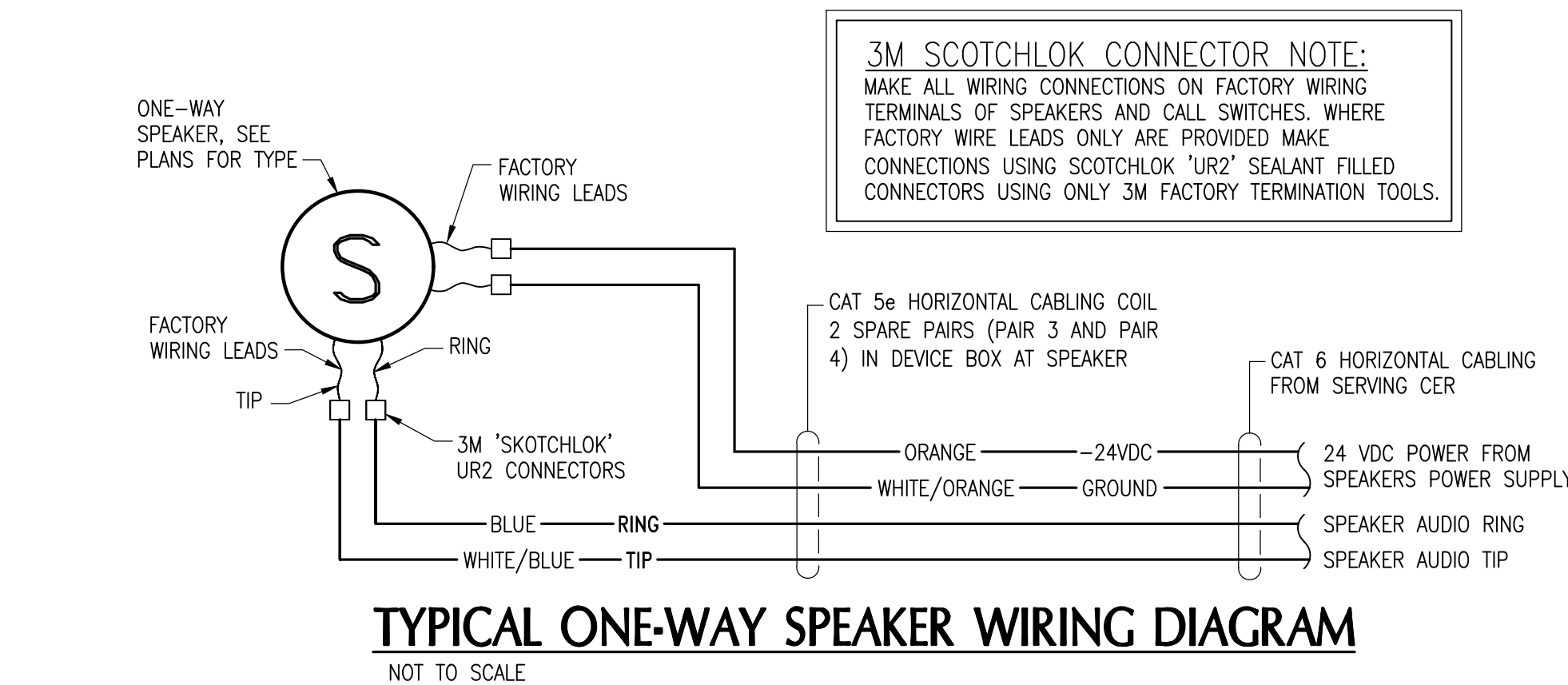


**TYPICAL SPEAKER SLEEVES CONDUITS AT CER DETAIL**  
NOT TO SCALE

## TYPICAL ONE-WAY SPEAKER MOUNTING DETAIL

## PROGRAMMING, START-UP AND TRAINING REQUIREMENTS

1. THE CONTRACTOR SHALL MEET THE MINIMUM QUALIFICATIONS FOR STRUCTURED CABLEB SYSTEM CONTRACTORS DETAILED IN THE SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROVIDE A SENIOR TECHNICIAN WHO SHALL BE IN RESPONSIBLE CHARGE AT ALL TIMES DURING SYSTEM INSTALLATION, SETUP, VOLUME ADJUSTMENT AND PROGRAMMING.
3. INSTALL AND TEST THE SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
4. PROVIDE THE SERVICES OF VALCOM FOR ON-SITE SYSTEM STARTUP, FINAL SETUP AND OWNER TRAINING UNDER THE VALCOM ENGINEERED PROFESSIONAL SYSTEMS SUPPORT (VEPSS) PROGRAM. PROVIDE SERVICES OF NATIONAL SERVICES SUPPORT SUPERVISOR RICK HAMILTON FOR NOT LESS THAN 8 HOURS ON-SITE AT THE SCHOOL. CONTACT RICK HAMILTON AT THE START OF THE PROJECT (RLH@VALCOM.COM).
5. PROVIDE SYSTEM COMPLETE WITH CONFIGURATION AND PROGRAMMING OF PAGING GROUPS, CLASS CHANGE SCHEDULES, SYSTEM TONES, CAMPUS PLAN GRAPHICAL USER INTERFACE, AND ALL SYSTEM FEATURES AVAILABLE WITH THE INTERCOM/PA SYSTEM. COORDINATE FINAL CONFIGURATION AND PROGRAMMING WITH THE OWNER'S PROJECT MANAGER. ADJUST ALL SPEAKER AND TALKBACK VOLUMES TO THE SATISFACTION OF THE DISTRICT AND THE SCHOOL. COORDINATE SOFTWARE PAGING GROUPS (COMBINATIONS OF HARD-WIRED PAGING GROUPS) WITH THE OWNER'S PROJECT MANAGER AND THE SCHOOL PRINCIPAL.
6. USE SPEAKER AND ZONE IDENTIFICATION INDICATED ON DRAWINGS FOR DOCUMENTATION OF ALL SYSTEM PROGRAMMING AND CABLE TESTS. USE DISTRICT STANDARD NAMING CONVENTIONS FOR IDENTIFICATION OF TALKBACK SPEAKER STATIONS AND ONE-WAY ZONES IN SOFTWARE PROGRAMMING -- COORDINATE PRIOR TO PROGRAMMING WITH OWNER'S PROJECT MANAGER.
7. COMPLETE INSTALLATION AND TESTING OF ALL WIRING PRIOR TO MAKING CONNECTIONS TO SPEAKERS.
8. TEST CATEGORY 6 CABLES SERVING ONE-WAY SPEAKERS IN ACCORDANCE WITH TESTING PROCEDURES IN SPECIFICATIONS AND DOCUMENT RESULTS. INSTALL ALL CROSS-CONNECTS REQUIRED TO COMPLETE END-TO-END CIRCUITS TO SPEAKERS, BUT DO NOT CONNECT TO HEADEND OR SPEAKERS. TEST EACH END-TO-END CIRCUIT FOR IMPEDANCE. MEASURED IMPEDANCE SHALL BE EQUAL TO THE SPEAKER IMPEDANCE PLUS WIRE RESISTANCE. SPEAKER CIRCUITS MEASURING LESS THAN 20 Ohms IMPEDANCE SHALL NOT BE CONNECTED TO THE SYSTEM (PROVIDE RESISTORS AS REQUIRED). PROVIDE CABLE TEST RESULTS TO ENGINEER.
9. TEST AND CERTIFY CATEGORY 6 CABLES SERVING IP TALKBACK SPEAKERS SAME AS REQUIRED FOR HORIZONTAL DATA CABLEING, AND INCLUDE PRINTED TEST DOCUMENTATION IN CABLE TEST RESULTS.
10. FOLLOWING SUCCESSFUL COMPLETION OF WIRE TESTS, CONNECT SPEAKERS AND DO PRELIMINARY CHECK FOR VALID SPEAKER OPERATION. DURING HANDLING AND INSTALLATION OF SPEAKERS AND HEADEND COMPONENTS, DO NOT ALTER FACTORY PRESET VOLUME LEVELS.
11. FOLLOWING SUCCESSFUL VALIDATION OF SPEAKER OPERATION, PERFORM PLANNED AND SYSTEMATIC ADJUSTMENT OF SYSTEM AND SPEAKER VOLUMES IN STRICT ACCORDANCE WITH LATEST REVISION OF MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. FINAL VOLUME ADJUSTMENTS SHALL BE MADE WITH EACH SPEAKER LOCATION AT ITS NORMALLY ANTICIPATED AMBIENT NOISE LEVEL. SYSTEM "BALANCING" SHALL INCLUDE BUT NOT BE LIMITED TO ADJUSTMENT OF SYSTEM TONES, MICROPHONE VOLUME, GROUP/ALL CALL PAGE TO TALKBACK STATIONS, AUX MUSIC SOURCE DISTRIBUTION TO TALKBACK STATIONS, GROUP/ALL CALL PAGE TO EACH ONE-WAY ZONE, AUX MUSIC SOURCE DISTRIBUTION TO ONE-WAY ZONES, "PHONE TO SPEAKER" VOLUME ADJUSTMENT AT EACH TALKBACK STATION, AND "SPEAKER TO PHONE" VOLUME ADJUSTMENT AT EACH TALKBACK STATION. WALK SCHOOL DURING UNOCCUPIED PERIOD WITH MINIMUM BACKGROUND NOISE AND MAKE ALL NECESSARY CORRECTIONS REQUIRED TO ELIMINATE BACKGROUND NOISE AND "HISS". MEASURE AND RECORD ALL SYSTEM, ZONE AND TALKBACK STATION SOUND LEVEL ADJUSTMENTS AND PROVIDE TYPED COPY TO DISTRICT'S PA TECHNICIAN.
12. PROVIDE AND COORDINATE TIE-IN OF THE INTERCOM/PA SYSTEM TO THE VOIP TELEPHONE SYSTEM WITH THE OWNER. TIE-IN AND RELATED COORDINATION SHALL BE A JOINT EFFORT BETWEEN THE INTERCOM/PA CONTRACTOR AND THE TELEPHONE SYSTEM PROVIDER AND SHALL INCLUDE VOIP SYSTEM INTERFACE TO PA SYSTEM, PROGRAMMING OF TELEPHONE SYSTEM SETS FOR PAGING ACCESS, AND DISPLAY OF INCOMING INTERCOM/PA SYSTEM CALLS ON NOT LESS THAN THREE VOIP TELEPHONE SYSTEM SETS IN LOCATIONS SELECTED BY SCHOOL STAFF.
13. PROVIDE WINDOWS PROGRAMMING TOOL AND TRAIN OWNER IN THE USE OF THE TOOL FOR SCHEDULING AND CLASS CHANGE TONES.
14. ORGANIZE AND PROVIDE THREE FORMAL TRAINING SESSIONS EACH CONSISTING OF TWO HOURS OF TRAINING TO SCHOOL STAFF, ONE SESSION 3 DAYS BEFORE SYSTEM CUTOVER, ONE ON THE FIRST DAY FOLLOWING CUTOVER, AND ONE FOLLOWING CUTOVER AT ANY TIME SELECTED BY SCHOOL STAFF.
15. COMPLETE ALL WORK DESCRIBED ABOVE PRIOR TO CUTOVER. CUTOVER TO THE NEW SYSTEM ON A WEEKEND OR HOLIDAY PERIOD WHEN SCHOOL IS NOT IN SESSION. SYSTEM SHALL BE FULLY OPERATIONAL IN EVERY RESPECT AT COMPLETION OF CUTOVER.
16. PROVIDE THE SERVICES OF SENIOR TECHNICIAN ON-SITE FOR FOUR HOURS ON THE FIRST DAY OF SCHOOL FOLLOWING SYSTEM CUTOVER. THE SENIOR TECHNICIAN SHALL ASSIST SCHOOL STAFF IN THE PROPER OPERATION OF THE SYSTEM, SHALL TROUBLE-SHOOT AND CORRECT ANY PROBLEMS ENCOUNTERED WITH THE SYSTEM, AND SHALL FINE-TUNE SYSTEM PROGRAMMING TO THE SATISFACTION OF SCHOOL STAFF AND THE OWNER'S PROJECT MANAGER. MAKE FOLLOW-UP VISITS AS REQUIRED TO FINE TUNE SYSTEM OPERATION TO THE SATISFACTION OF THE DISTRICT'S PA TECHNICIAN.
17. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE SYSTEM ALONG WITH SUBMITTAL DATA SHEETS ON ALL ASSOCIATED PRODUCTS.

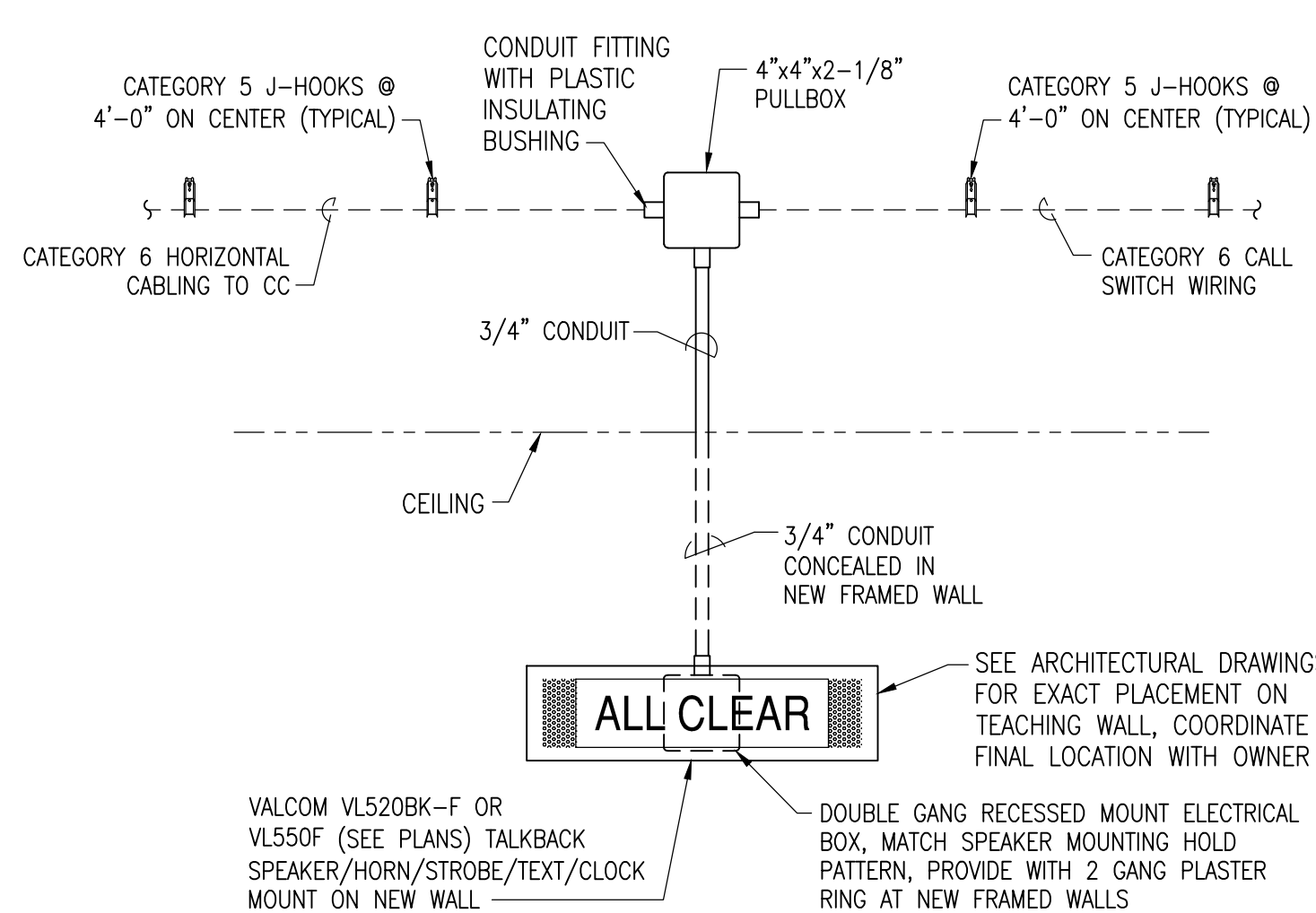


## INTERCOM/PA GENERAL NOTES

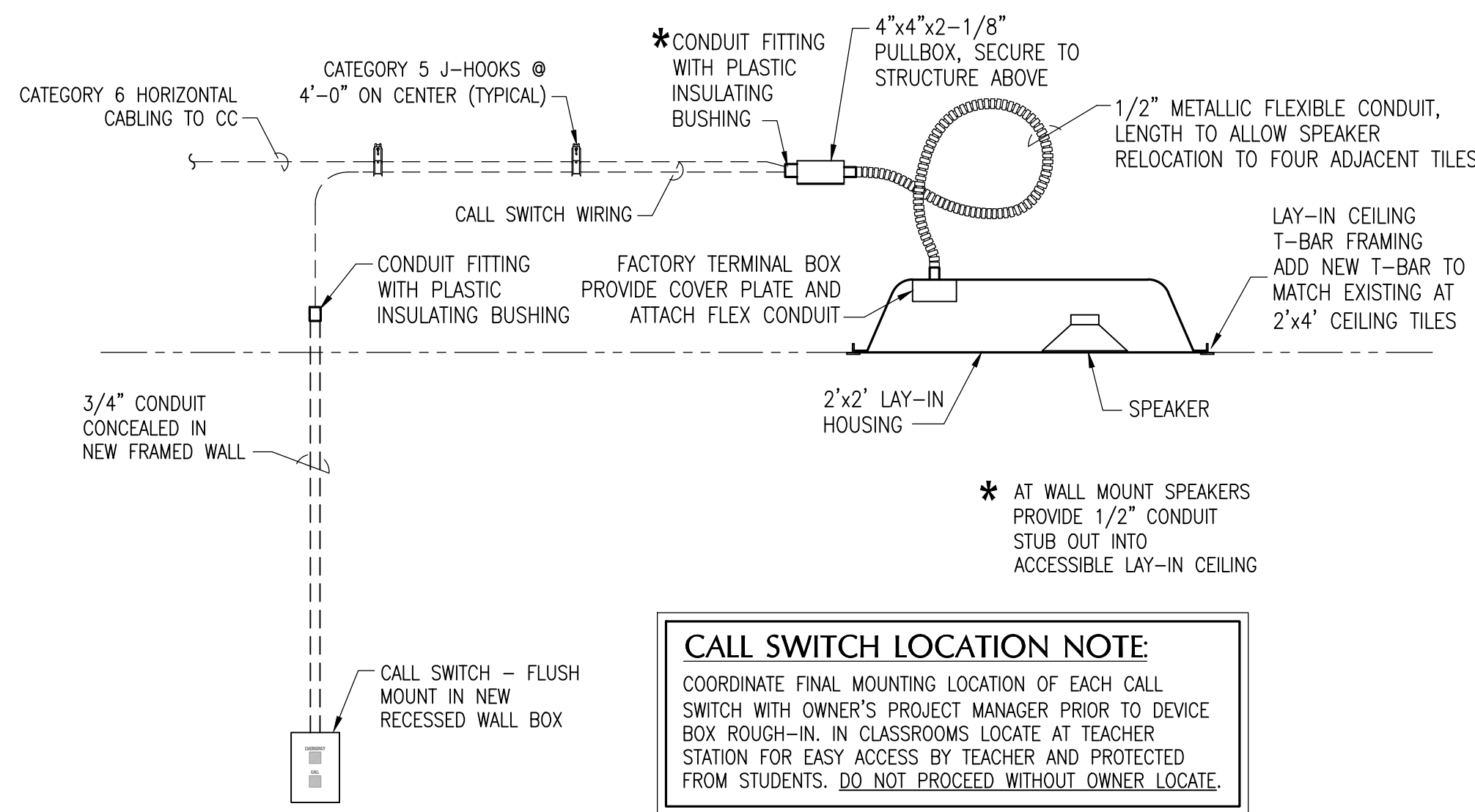
3. RUN CABLE CONTINUOUSLY IN CONDUIT IN ALL AREAS WITH NO CEILING AND EXPOSED ROOF STRUCTURE TO ACCESSIBLE LAY-IN CEILING SPACE. WORK WITH GC TO ROUTE CONDUITS THRU AREA FOR LOWEST POSSIBLE VISIBILITY, RUN WITH OTHER TRADES WHEREVER POSSIBLE. PREP, PRIME AND PAINT ALL EXPOSED CONDUIT TO MATCH ADJACENT SURFACES.
4. PROVIDE CONDUIT FOR EXTERIOR SPEAKERS EXTENDING INTO THE BUILDING TO ACCESSIBLE LAY-IN CEILING SPACE.
5. PROVIDE CONDUIT SLEEVES WITH INSULATING BUSHING EACH END TURNING DOWN INTO SERVING CER FOR ENTRY OF FREE ROUTED CABLES INTO CER. SIZE SLEEVES FOR 30% FILL.
6. IDENTIFY ALL INDOOR INTERCOM/PA, SLEEVES, CONDUIT AND PULLBOXES ABOVE LAY-IN CEILINGS, AT ACCESS DOORS, IN ROOF SPACE, AND IN ALL EXPOSED LOCATIONS (EXCEPT WITHIN CER) WITH YELLOW PAINT AT EVERY PULLBOX AND ON CONDUIT AT EACH COUPLER (PAINT ENTIRE COUPLER).
7. ALL HORIZONTAL INTERCOM/PA (NETWORK) CABLES TO TALKBACK SPEAKERS SHALL BE FOUR PAIR 24 AWG UTW CATEGORY 6 PLENUM (CMP) RATED JACKET WITH YELLOW JACKET SHALL BE FREE ROUTED FROM THE SERVING CER/CC TO EACH TALKBACK SPEAKER AS INDICATED ON THE DATA SINGLE LINE DIAGRAM. IN NO CASE SHALL CABLES BE DASHY-CHAINED BETWEEN MULTIPLE TALKBACK SPEAKERS OR ANY OTHER INTERCOM/PA DEVICE EXCEPT AS INDICATED FROM CALL SWITCH TO ASSOCIATED TALKBACK SPEAKER IN SAME ROOM. PUNCH CABLES DOWN ON PATCH PANELS IN CER AND DIRECT CONNECTORIZE AT SPEAKERS USING CATEGORY 6 PLUG PER SINGLE LINE DIAGRAM.
8. ALL HORIZONTAL INTERCOM/PA (SPEAKER SIGNAL AND POWER) CABLES TO ONE-WAY SPEAKERS SHALL BE FOUR PAIR 24 AWG UTW CATEGORY 6 RISER (CMR) RATED JACKET WITH YELLOW JACKET AND SHALL BE FREE ROUTED FROM THE CER TO THE NEAREST ONE-WAY SPEAKER ON THAT ZONE, THEN DASHY-CHAINED TO OTHER ONE-WAY SPEAKERS ON THE SAME ZONE AND IN CLOSE PROXIMITY TO THE FIRST ONE-WAY SPEAKER. PUNCH CABLES DOWN ON 110 WIRING BLOCKS IN CC AND DIRECT TERMINATE ON WIRING TERMINALS AT ONE-WAY SPEAKERS. SEE INTERCOM SINGLE LINE WIRING DIAGRAMS FOR MAXIMUM SPEAKER QUANTITIES PER DASHY-CHAIN.
9. MAKE ALL NON-NETWORK WIRING CONNECTIONS ON FACTORY WIRING TERMINALS OF ONE-WAY SPEAKERS AND CALL SWITCHES. WHERE FACTORY WIRE LEADS ONLY ARE PROVIDED AT SPEAKERS MAKE CONNECTIONS USING SCOTCHLOK 'UR2' SEALANT FILLED CONNECTORS USING ONLY 3M FACTORY TERMINATION TOLS. WHERE WIRE-TO-WIRE CONNECTIONS ARE REQUIRED MAKE CONNECTIONS USING SCOTCHLOK 'UR2' CONNECTORS.
10. CEILING MOUNT SPEAKER LOCATIONS SHOWN ARE APPROXIMATE. COORDINATE EXACT SPEAKER LOCATION WITHIN CEILING WITH LIGHT FIXTURES, HVAC DISTRIBUTION DEVICES, FIRE ALARM DEVICES, AND ANY OTHER CEILING MOUNTED DEVICES TO AVOID CONFLICTS. PLACE AS NEAR TO LOCATION INDICATED AS POSSIBLE IN SYMMETRICAL PATTERN. MOUNT TALKBACK SPEAKERS IN CLASSROOMS FOR EASE OF USE BY TEACHER (TALKBACK/CALLOUT) WHILE MAINTAINING ADEQUATE SOUND DISTRIBUTION THROUGHOUT CLASSROOM SPACE.

### DIRECT CONNECT NOTE

DIRECT TERMINATE CATEGORY 6 CABLES FOR INTERCOM/PA TALKBACK SPEAKERS WITH PLATINUM TOOLS EXEZ-RJ45 TERMINATION SYSTEM WITH EXEZ44 OR EXEZ48 CONNECTOR AS REQUIRED TO SUIT CABLE CONDUCTOR AND OVERALL JACKET DIAMETERS. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS USING FACTORY EXO CRIMP FRAME WITH EXO-EX DIE (1006B1C). CABLE JACKET MUST BE EXTENDED INTO THE CONNECTOR FOR STRAIN RELIEF PER DATA SINGLE LINE.



## TYPICAL MULTIFUNCTION SPEAKER MOUNTING DETAIL



### TYPICAL TALKBACK SPEAKER/CALL SWITCH STATION MOUNTING DETAIL

## INTERCOM/PA SYSTEM

### HORIZONTAL CABLE ROUTING NOTE

ALL INTERCOM/PA SYSTEM CABLEING NOT SHOWN TO BE INSTALLED IN CONDUIT SHALL BE RUN ABOVE CEILING/AND SHALL BE ROUTED UP HIGH DIRECTLY UNDER THE BUILDING ROOF STRUCTURE AND PROPERLY SUPPORTED WITH APPROVED HANGERS AT 4'-0" ON CENTER, BUT DO NOT RUN CABLES CLOSER THAN 6" BELOW ROOF DECK (TO AVOID DAMAGE FROM LONG SCREWS USED IN FUTURE ROOF REPLACEMENTS). RUN ALL CABLEING ABOVE DUCTWORK, PIPING, CONDUNTS/AND ALL OTHER WORK BY OTHER TRADES AND PLACE FOR MAXIMUM PHYSICAL PROTECTION. BUNDLE INTERCOM/PA CABLES TOGETHER AND ROUTE PARALLEL AND PERPENDICULAR TO BUILDING LINES. HANGERS SHALL BE ERICO DAGE "CABLECAT" CATEGORY-5 WITH WIDE BASE LOU. BUNDLE CABLES AT 4'-0" O.C. WITH VELCRO, COLOR YELLOW. ATTACH HANGERS TO THE BUILDING STRUCTURE. DO NOT ATTACH HANGERS TO CEILING GRID OR SUPPORT WIRES, CONDUNTS, DUCTWORK, PIPING, OR ANY OTHER SYSTEM COMPONENT OR WORK OF OTHER TRADES. INSTALL CABLES TO RUN ABOVE ELECTRICAL PANELS, TRANSFORMERS, GENERATORS, ELEVATORS, POWER CABLES/CONDUNTS, LIGHTING FIXTURES, ETC. DO NOT ROUTE CABLE THRU FIRE DAMPERS, HVAC DUCTS, VENTILATING SHAFTS, OR GRATES. DO NOT BLOCK ACCESS TO PULL/JUNCTION BOXES, HATCHES, DOORS, UTILITY ACCESS PANELS, MECHANICAL SERVICE AREAS, ELECTRICAL SERVICE AREAS, OR ANY OTHER SPACE ASSOCIATED WITH SERVICE OR ACCESS OF ANY TYPE. ALL HANGERS, SUPPORTS AND VELCRO WRAPS SHALL BE NEW AND SHALL BE USED FOR INTERCOM/PA SYSTEM CABLEING ONLY. STRUCTURED CABLEING SYSTEM CABLE HANGERS SHALL NOT BE USED UNDER ANY CIRCUMSTANCES.

### SPEAKER ATTACHMENT NOTES

ALL ATTACHMENTS SHALL BE MADE WITH HIGH STRENGTH/HIGH LOAD COMMERCIAL GRADE FASTENERS. ALL FASTENERS AND MISCELLANEOUS RELATED HARDWARE SHALL BE STAINLESS STEEL, TAP-CONS OR RAM-SET TYPE FASTENERS ARE NOT ALLOWABLE. ATTACHMENTS AT VARIOUS BUILDING WALL CONSTRUCTIONS SHALL BE AS FOLLOWS AS A MINIMUM REQUIREMENT. COMPLY WITH MORE STRINGENT FASTENER SPECIFICATIONS WHEN REQUIRED BY THE LOADING APPLICATION OR RECOMMENDED BY THE MANUFACTURER OF EACH SYSTEM COMPONENT:

1. AT FRAMED WALLS WITH GYP BOARD FINISH OR AT OPEN BLOCK CELLS OF CMU WALLS PROVIDE TOGGLE/ "SNAP-TOGGLE" TOGGLE BOLTS. AT FRAMED WALLS FASTENERS SHALL BE PLACED AT STUDS.
2. AT BRICK WALLS, BLOCK WEBS AND FILLED CELLS OF CMU WALLS, AND AT CONCRETE WALLS, PROVIDE COMMERCIAL GRADE HIGH LOAD EXPANSION ANCHORS SUCH AS TOGGLE/ 'ALLIGATOR' SOLID-WALL ANCHORS WITH STAINLESS STEEL FASTENERS.
3. AT METAL SOFFIT OR FASCIA CONSTRUCTION PROVIDE STAINLESS STEEL THRU BOLTS ALL THE WAY THRU SOFFIT OR FASCIA FRAMING. PROVIDE SUPPLEMENTARY FRAMING ON INTERIOR AS REQUIRED FOR SECURE MOUNTING.
4. FASTENERS SHALL BE FULL SIZE OF FASTENER HOLES/OPENING IN EQUIPMENT TO BE SECURED (ALLOWING FOR STANDARD CLEARANCES - FASTENERS SIZE 1/16" LESS THAN HOLE SIZE).

INTERCOM/PA SYSTEM  
HORIZONTAL CABLING CONDUIT SLEEVES NOTE:

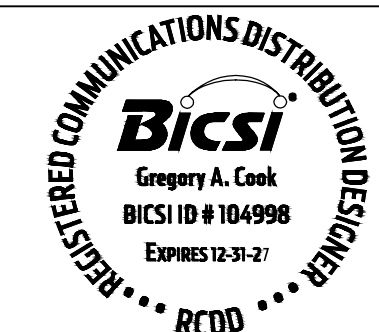
CONDUIT SLEEVES FOR INTERCOM/PA SYSTEM HORIZONTAL CABLING: FINAL ROUTING PATHS FOR HORIZONTAL CABLING SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR IN THE FIELD. FOR THIS REASON CONDUIT SLEEVES ARE NOT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE EM CONDUIT SLEEVES IN THE QUANTITIES AND LOCATIONS REQUIRED TO SUIT THE ELECTRICAL CONTRACTOR'S ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE INSTALLATION, REGARDLESS OF WHETHER THOSE SLEEVES ARE INDICATED ON THE DRAWINGS OR NOT, AND AT NO ADDITIONAL COST TO THE OWNER. AT ALL LOCATIONS WHERE HORIZONTAL CABLING RUNS THRU MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, STORAGE ROOMS, OR ANY OTHER TYPE OF ROOM WITH EXPOSED STRUCTURE CEILING, ALL SUCH CABLING SHALL BE RUN IN CONTINUOUS CONDUIT SLEEVES EXTENDING TO THE TOP OF THE EXPOSED CEILING. IN ALL OTHER AREAS, THE CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES TRAVERSING INACCESSIBLE (HARD) CEILING OR SOFFIT AREAS AND EXTENDING TO THE NEAREST ACCESSIBLE LAY IN CEILING AT BOTH ENDS FOR CABLE PASS-THRU. SLEEVES SHALL BE SIZED FOR MAXIMUM 30 PERCENT CABLE FILL AND SHALL BE CONSTRUCTED PER THE GENERAL ABOVEGROUND CONDUIT NOTES. GENERAL CONTRACTOR PAINT EXPOSED CONDUIT SLEEVES IN ALL FINISHED/OCCUPIED AREAS TO MATCH SURROUNDING SURFACES. IN UNFINISHED AREAS, ALL SLEEVES SHALL BE NEW AND SHALL BE USED FOR INTERCOM/PA SYSTEM CABLING ONLY. STRUCTURED CABLING SYSTEM SLEEVES SHALL NOT BE USED UNDER ANY CIRCUMSTANCES.

Design - Build Contractor

230 West 5th Street  
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495 Grand Blvd., Suite 200  
Miramar Beach, FL 32550  
(850) 269-6842

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL. 32401



Designed by:  
G. Cook

Drawn By:  
J. Cook

## REVISION

[illegible]

Intercom/PA  
System Notes &  
Typical Details  
06/06/25

T304

**Premier**  
Engineering Group, LLC  
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Premier Project #25006

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**FIBER OPTIC BACKBONE  
CABLE NOMENCLATURE**

EXISTING CER.1.037 / EXISTING CC.12.108A

TELCOM ROOM NUMBER POINT OF ORIGIN	TELCOM ROOM NUMBER POINT OF ENDING
--	--

**FIBER OPTIC CABLE LABELING**

LABEL ALL FIBER OPTIC CABLES AS INDICATED WITH  
PERMANENT MYLAR WRAP WRITE-ON MARKERS

OWNER FURNISHED CONTRACTOR INSTALLED (OFCI): 24 OR 48 PORT POE ENABLED ETHERNET WORKGROUP SWITCH WITH FIBER UPLINK. MOUNT IN RACK AS REQUIRED BY OWNER'S PROJECT MANAGER AND COMPLETE ALL PATCHING - SEE SPECIFICATIONS.

OWNER FURNISHED CONTRACTOR INSTALLED (OFCI): WIRELESS ACCESS POINT.

FIBER DRAWER FOR OS2 SINGLEMODE BACKBONE CABLING, SPECIFICATION GRADE, 24 FIBER, RACK MOUNT 1U, BELDEN FX ECX-01U. PROVIDE WITH TWO (2) 12 FIBER SINGLEMODE "LC" SHUTTERED FIBER SPLICER CASSETTES, COLOR BLUE, BELDEN FCS06LDFP. SPLICER CASSETTES SHALL BE FACTORY PRE-LOADED AND SHALL INCLUDE FACTORY WITH HEAT SHRINK SLEEVES READY FOR FIELD FUSION SPLICING. SECURE FIBER OPTIC CABLE ASSEMBLY TO FIBER DRAWER USING FACTORY STRAIN RELIEF ATTACHMENTS. LABEL PORTS WITH SOURCE (CER), DESTINATION (CC) AND NUMERICAL PORT NUMBER.

FIBER OPTIC PATCH CORD, DUPLEX FIBER, SINGLEMODE, DUAL "LC" CONNECTORS BOTH ENDS, BELDEN, COLOR YELLOW. PROVIDE QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. FOR FIBER PATCH CORDS CONNECTING OWNER FURNISHED EQUIPMENT, PROVIDE "LC" X OTHER END AS REQUIRED TO SUIT EQUIPMENT. VERIFY END CONNECTORS REQUIRED PRIOR TO PURCHASING, SEE "FIBER PATCH CORD NOTE" THIS SHEET.

EQUIPMENT ROOM DATA/VOIP PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6 MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR BLACK. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C6011xxxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

EQUIPMENT ROOM WAP PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6A MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR RED. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C601100xxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

EQUIPMENT ROOM INTERCOM/PA PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6+ MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR YELLOW. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C6011xxxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

EQUIPMENT ROOM IP SECURITY CAMERA PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6+ MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR GREEN. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C6011xxxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

DIRECT TERMINATE CATEGORY 6A CABLES FOR WAPS WITH MALE CATEGORY 6 MODULAR PLUG, 8P8C, GOLD PLATED CONTACTS WITH INTEGRAL STRAIN RELIEF BOOT, BELDEN REYCONNET "RVAPFUBK" WITH CABLE DIAMETER RANGE MATCHING CATEGORY 6 CABLE PROVIDED. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS USING FACTORY FURNISHED DIE SET AND HAND CRIMP TOOL. CABLE JACKET MUST BE EXTENDED THRU THE STAIN RELIEF BOOT AND INTO THE CABLE JACKET STRAIN RELIEF CRIMP TABS AND PROPERLY SECURED.

DIRECT TERMINATE CATEGORY 6 CABLES FOR INTERCOM/PA SPEAKERS AND IP SECURITY CAMERAS WITH PLATINUM TOOLS ezEX-RJ45 TERMINATION SYSTEM WITH ezEX44 or ezEX48 CONNECTOR AS REQUIRED TO SUIT CABLE CONDUCTOR AND OVERALL JACKET DIMENSIONS. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS USING FACTORY EXO CRIMP FRAME WITH EXO-EX DIE (100061C). CABLE JACKET MUST BE EXTENDED INTO THE CONNECTOR FOR STRAIN RELIEF.

HORIZONTAL UN-LOADED MIXED USE PATCH PANEL, 48 PORT, TIA 568A PINOUT, BELDEN RVMPF2U48BK-P. PROVIDE WITH FACTORY PLASTIC LABELING WINDOWS AND BELDEN AJ107527 ACCESSORY NON-ADHESIVE LABEL SHEETS, FACTORY CABLE MANAGEMENT BAR, AND MOUNTING HARDWARE. PROVIDE WITH TIA CATEGORY 6+ 8-PIN MODULAR JACKS IN ALL PORTS. BELDEN REYCONNECT RV6MKUBK COLOR BLACK, EXCEPT PROVIDE CATEGORY 6+ BELDEN REYCONNECT RV6MKUYJL COLOR YELLOW FOR INTERCOM/PA SYSTEM IP SYSTEM IP TALKBACK SPEAKER JACKS AND PROVIDE CATEGORY 6A 10GX BELDEN RV6MKJURD COLOR RED FOR WAP JACKS TO MATCH THE USER/SERVICE COLOR SCHEDULE.

HORIZONTAL UN-LOADED IP SECURITY CAMERA DEDICATED PATCH PANEL, 24 PORT, TIA 568A PINOUT, BELDEN RVMPF1U24BK-P. PROVIDE WITH FACTORY PLASTIC LABELING WINDOWS AND BELDEN AJ107527 ACCESSORY NON-ADHESIVE LABEL SHEETS, FACTORY CABLE MANAGEMENT BAR, AND MOUNTING HARDWARE. PROVIDE WITH TIA CATEGORY 6 8-PIN MODULAR JACKS IN ALL PORTS. BELDEN REYCONNECT RV6MKUGN COLOR GREEN TO MATCH THE USER/SERVICE COLOR SCHEDULE.

TIA CATEGORY 6 DATA/VOIP HORIZONTAL CABLING, 4 PAIR UTP, 23 GAGE SOLID COPPER CONDUCTORS. MAXIMUM INSTALLED LENGTH 90 METERS (295'). PROVIDE DOCUMENTATION OF CURRENT UL CERTIFICATION WITH SUBMITTALS. PROVIDE WITH CMR (RISER) JACKET, COLOR GREY. SEE SCHEDULE THIS SHEET FOR APPROVED CABLES.

TIA CATEGORY 6A WAP HORIZONTAL CABLING, 4 PAIR UTP, 23 GAGE SOLID COPPER CONDUCTORS. MAXIMUM INSTALLED LENGTH 90 METERS (295'). PROVIDE DOCUMENTATION OF CURRENT UL CERTIFICATION WITH SUBMITTALS. PROVIDE WITH CMR (RISER) JACKET, COLOR RED. SEE SCHEDULE THIS SHEET FOR APPROVED CABLES.

TIA CATEGORY 6 INTERCOM/PA HORIZONTAL CABLING, 4 PAIR UTP, 23 GAGE SOLID COPPER CONDUCTORS. MAXIMUM INSTALLED LENGTH 90 METERS (295'). PROVIDE DOCUMENTATION OF CURRENT UL CERTIFICATION WITH SUBMITTALS. PROVIDE WITH CMR (RISER) JACKET, COLOR YELLOW. SEE SCHEDULE THIS SHEET FOR APPROVED CABLES. ALSO SEE SHEET T304.

TIA CATEGORY 6 IP SECURITY CAMERA HORIZONTAL CABLING, 4 PAIR UTP, 23 GAGE SOLID COPPER CONDUCTORS. MAXIMUM INSTALLED LENGTH 90 METERS (295'). PROVIDE DOCUMENTATION OF CURRENT UL CERTIFICATION WITH SUBMITTALS. PROVIDE WITH CMR (RISER) JACKET, COLOR GREEN. SEE SCHEDULE THIS SHEET FOR APPROVED CABLES.

TYPE "D1" COMMUNICATIONS OUTLET (CO) WITH ONE (1) CATEGORY 6 8-PIN MODULAR JACK. SEE PLANS AND DETAILS.

TYPE "D2" COMMUNICATIONS OUTLET (CO) WITH TWO (2) CATEGORY 6 8-PIN MODULAR JACKS. SEE PLANS AND DETAILS.

TYPE "D4" COMMUNICATIONS OUTLET (CO) WITH FOUR (4) CATEGORY 6 8-PIN MODULAR JACKS. SEE PLANS AND DETAILS.

WORKSTATION DATA PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6+ MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR BLACK. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C601100xxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

WORKSTATION VOIP PATCH CORDS, FACTORY TERMINATED AND TESTED CATEGORY 6+ MODULAR PATCH CORD (UTP) 4-PAIR UNSHIELDED CABLE WITH 23 GAGE SOLID COPPER CONDUCTORS, COLOR GRAY. PROVIDE WITH 8-PIN MODULAR PLUG ON BOTH ENDS AND TIA 568A PIN/PAIR ASSIGNMENTS, BELDEN C6011xxxx (NO EQUAL). FIELD BUILT OR ASSEMBLED PATCH CORDS WILL NOT BE ACCEPTED. PROVIDE PATCH CORD QUANTITIES AND LENGTHS AS SCHEDULED THIS SHEET. PROVIDE DOCUMENTATION OF FACTORY TESTING AT SUBMITTAL.

FIBER OPTIC BACKBONE "BLACK" CABLE, LOOSE TUBE PE JACKET DIRECT BURIAL GRADE OUTSIDE PLANT, DRY WATER BLOCK CABLE CORE, GEL FILLED BUFFER TUBES. 24 FIBER OPTIC, 24 STRANDS SINGLEMODE (0.40 dB/km @ 1310nm, 0.30 dB/km @ 1550 nm). GENERAL CABLE A00244MIA-DWB OR ENGINEER APPROVED EQUAL BY CORNING, BELDEN OR SUPERIOR ESSEX. AT BOTH ENDS PROVIDE SLACK IN CABLE BEHIND FIBER DRAWER TO ALLOW DRAWER PULL-OUT. SECURE FIBER OPTIC CABLE ASSEMBLY TO FIBER DRAWER USING FACTORY STRAIN RELIEF ATTACHMENTS. AT BOTH ENDS PROVIDE SLACK IN CABLE BEHIND FIBER DRAWER TO ALLOW DRAWER PULL-OUT. SECURE FIBER OPTIC CABLE ASSEMBLY TO FIBER DRAWER USING FACTORY STRAIN RELIEF ATTACHMENTS. AT BOTH ENDS TERMINATE FIBERS ON FUSION SPLICER. PICTIALS WITH HEAT SHRINK SLEEVES IN BELDEN UNLOADED CASSETTES USING FIELD FUSION SPLICER IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. NEATLY ORGANIZE TERMINATED FIBER WITHIN FIBER DRAWER AND SECURE. RUN CABLE CONTINUOUS FROM SOURCE TO DESTINATION WITH NO SPLICES OR TERMINATIONS.

SCSC PROVIDE: UNINTERRUPTIBLE POWER SUPPLY (UPS), 3000 VA. RACK MOUNT IN CC. SEE RACK ELEVATIONS.

SCSC PROVIDE: AMERICAN POWER CONVERSION SMT1500RM2UCNC (2 RACK UNITS HIGH - 2 POST MOUNTING) 1500 VA RACK MOUNT UPS (QUANTITY ONE). PROVIDE WITH FACTORY NETWORK CARD.

USER/SERVICE COLOR SCHEDULE					
SERVICE	EQUIPMENT ROOM PATCH CORDS	PATCH PANEL JACK COLOR	HORIZONTAL CABLING	'CO' MODULAR JACKS	WORK AREA PATCH CORDS
DATA	CAT 6 – BLACK	CAT 6 JACK – BLACK	CAT 6 – GRAY	CAT 6 – MATCH FACEPLATE COLOR	CAT 6 – BLACK
VOIP	CAT 6 – BLACK	CAT 6 JACK – BLACK	CAT 6 – GRAY	CAT 6 – MATCH FACEPLATE COLOR	CAT 6 – GRAY
SECURITY CAMERA	CAT 6 – GREEN	CAT 6 JACK – GREEN	CAT 6 – GREEN	N/A	N/A
WAP	CAT 6A – RED	CAT 6A JACK – RED	CAT 6A – RED	N/A	N/A
INTERCOM/PA	CAT 6 – YELLOW	CAT 6 JACK – YELLOW	CAT 6 – YELLOW	N/A	N/A

Diagram illustrating a Fiber Optic Network Configuration:

- EXISTING CORE SWITCH, OWNER TO PROVIDE FIBER UPLINK FOR CONNECTION TO NEW CCs**: A dashed box representing the existing core switch.
- 24 PORT FIBER DRAWER RACK MOUNT IN EXISTING CER**: A rack mount unit (labeled 5) connected to the existing core switch.
- 24 PORT FIBER DRAWER RACK MOUNT IN CC**: A rack mount unit (labeled 5) connected to the existing core switch via a fiber line (labeled 14).
- 6**: A label near the existing core switch.
- 14**: A label for the fiber line connecting the two rack mount units.

EXISTING POE ENABLED ETHERNET WORKGROUP SWITCH, RACK MOUNT IN CC

EXISTING PA SPEAKER AUDIO/POWER 66 BLOCK TO REMAIN, SEE "EXISTING BUILDING 12 INTERCOM/PA SYSTEM NOTES" SHEET T202.

EXISTING ONE-WAY CEILING SPEAKERS ON SAME ZONE SEE PLAN

EXISTING HORIZONTAL SPEAKER CABLING TO REMAIN

EXISTING HORIZONTAL SPEAKER CABLING TO REMAIN

EXISTING ONE-WAY HORN SPEAKERS ON SAME ZONE SEE PLAN

4 PORT ONE-WAY ZONE EXPANDER, SEE "EXISTING BUILDING 12 INTERCOM/PA SYSTEM NOTES" SHEET T202.

CROSS-CONNECTS

YELLOW 8B (PA PATCH CORD)

NOT TO SCALE

DATA PATCH CORD SCHEDULE						
TYPE	LENGTH/QT'Y	LENGTH/QT'Y	LENGTH/QT'Y	LENGTH/QT'Y	LENGTH/QT'Y	LENGTH/QT'Y
6 FIBER	1M / 5	2M / 10	3M / 8	10M / 6	-- / --	-- / --
8 DATA/VOIP	1' / 250	3' / 100	5' / 50	-- / --	-- / --	-- / --
8A WAP	1' / 70	3' / 10	5' / 5	-- / --	-- / --	-- / --
8B PA	1' / 30	3' / 5	5' / 5	-- / --	-- / --	-- / --
8C CAM	1' / 25	3' / 5	5' / 5	-- / --	-- / --	-- / --
12 DATA	-- / --	3' / 40	5' / 75	7' / 200	10' / 40	15' / 15
12A VOIP	-- / --	-- / --	5' / 15	7' / 30	10' / 5	-- / --

- 1) FURNISH PATCH CORDS TO OWNER LOOSE PRIOR TO INSTALLATION. VERIFY ALL QUANTITIES AND LENGTHS WITH THE OWNER'S PROJECT MANAGER AND PROVIDE SIGNED COPY OF RECEIPT TO ENGINEER AT PROJECT SUBSTANTIAL COMPLETION.
- 2) SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS FOR PATCH CORD DELIVERY AND INSTALLATION. ALL PATCH CORDS SHALL BE NEATLY ROUTED, BUNDLED AND SECURED AT 6" ON CENTER WITH BLACK VELCRO STRAPS. BUNDLE DATA PATCH CORDS SEPARATELY. DO NOT BUNDLE WITH VOICE PATCH CORDS. BUNDLE FIBER OPTIC PATCH CORDS SEPARATELY FROM COPPER PATCH CORDS.
- 3) PROVIDE EXCEL SPREADSHEET IDENTIFYING CONNECTIONS MADE. SEE SPECIFICATIONS.

APPROVED CATEGORY 6 & CATEGORY 6A HORIZONTAL CABLES				
APPLICATION	MANUFACTURER	PART NUMBER	UL JACKET	JACKET COLOR
RISER_CAT_6 (DATA/VOIP)	MOHAWK	ADVANCENET 6E M5720S	CMR	GRAY
	BERK-TEK	LANMARK 2000 11098648	CMR	GRAY
	GENERAL	GENSPEED 6500 7133933	CMR	GRAY
	BELDEN	3600 SERIES 3612008U	CMR	GRAY
RISER_CAT_6 (CAMERA)	MOHAWK	ADVANCENET M5720E	CMR	GREEN
	BERK-TEK	LANMARK-1000 10065433	CMR	GREEN
	GENERAL	GENSPEED 6000 7133906	CMR	GREEN
	BELDEN	3600 SERIES 3612005U	CMR	GREEN
RISER_CAT_6 (INTERCOM/PA)	MOHAWK	6 LAN M5829A	CMR	YELLOW
	BERK-TEK	LANMARK LM-1000	CMR	YELLOW
	GENERAL	GENSPEED 6000 7133962	CMR	YELLOW
	BELDEN	2400 SERIES 2412004	CMR	YELLOW
RISER_CAT_6A (WAP)	MOHAWK	GIGALAN 10 SD M59151	CMR	RED
	BERK-TEK	LANMARK-XTP 11091203	CMR	RED
	GENERAL	GENSPEED 10 MTP 7143854	CMR	RED
	BELDEN	10GXS12002U	CMR	RED

**Premier**  
Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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**RELIANT SOUTH**  
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(850) 269-6842

# 112 CLASSROOM ADDITION BUILDING

**ROSENWALD ELEMENTARY SCHOOL**  
924 BAY AVE, PANAMA CITY, FL. 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



G. Cook

Drawn By:  
J. Cook

[illegible]

Data System Single  
Line Configuration  
Diagram  
06/06/25

T401



OWNER FURNISHED CONTRACTOR INSTALLED (OFCI): POE ENABLED NETWORK WORKGROUP SWITCH. SEE DATA SINGLE LINE DIAGRAM.

TALKBACK SPEAKERS PATCH PANEL: TIA CATEGORY 6 HORIZONTAL PATCH PANEL. SEE DATA SINGLE LINE DIAGRAM.

4 PORT ONE-WAY SPEAKER ZONE EXPANDER (CFCI): PROVIDES VOICE ACCESS TO FOUR ZONES OF ONE-WAY PAGING OVER IP NETWORK. VALCOM 8000 SERIES, RACK MOUNT, POE POWERED, ONE POE ETHERNET NETWORK PORT AND FOUR POE ETHERNET SIGNAL CHANNELS, VALCOM VE8004BR. WHERE TWO 4 PORT ONE-WAY ZONE EXPANDERS ARE REQUIRED IN A CC PUNCHED WALL MOUNT MODEL (VE8004B) AND RACK MOUNT TWO EXPANDERS TOGETHER IN SAME SINGLE RACK SPACE USING FACTORY INTERLOCK BRACKETS. MAKE WIRING CONNECTIONS, PROGRAM, SETUP AND FULLY CONFIGURE. PROVIDE ALL COORDINATION WITH OWNER AND TELEPHONE SYSTEM INTEGRATOR AND VALCOM REQUIRED TO COMPLETE INTERFACE.

ONE-WAY SPEAKERS WIRING BLOCK: 100 PAIR ONE-WAY SPEAKERS HORIZONTAL WIRING BLOCK. SIEMON S110DB1-100RFT 100 PAIR 110 RACK MOUNT PANEL, 1 RMS, PROVIDE WITH TWENTY-FOUR 4 PAIR CONNECTING BLOCKS (REPLACE FOUR FACTORY 5 PAIR WITH 4 PAIR). PROVIDE WITH TWO S110-CVR-50-00 CLEAR 50 PAIR COVERS - SECURE ENGRAVED TAG TYPE LABELS TO RIGHT HAND COVER. WILL SERVE UP TO TWENTY-FOUR ONE-WAY SPEAKER ZONE 4 PAIR HORIZONTAL WIRING CONNECTIONS.

EQUIPMENT ROOM PA CATEGORY 6 PATCH CORDS, COLOR YELLOW. SEE DATA SINGLE LINE DIAGRAM.

TIA CATEGORY 6 HORIZONTAL CABLING, 4 PAIR UTP, 23 GAGE SOLID COPPER CONDUCTORS, COLOR YELLOW. SEE DATA SINGLE LINE DIAGRAM FOR APPROVED CABLES.

DIRECT TERMINATE CATEGORY 6 CABLES FOR INTERCOM/PA TALKBACK SPEAKERS. SEE DATA SINGLE LINE DIAGRAM.

PROVIDE FOUR CATEGORY 6 PATCH CABLES WITH RJ45 PLUG END FROM RJ45 JACKS ON '4 PORT ONE-WAY SPEAKER ZONE EXPANDER' AND PUNCH DOWN OTHER END ON AUDIO PAIR OF EACH ONE-WAY SPEAKER ZONE CABLE ON TOP CONNECTORS OF 'ONE-WAY SPEAKERS WIRING BLOCK'.

ONE-WAY SPEAKERS POWER SUPPLY, VALCOM CLASS CONNECTION 'VP-C6124' 6 AMP 24VDC POWER SUPPLY (THREE OUTPUTS AT 2 AMPS EACH +120 VALCOM POWER UNITS), RACK MOUNT ON EXTRA HEAVY DUTY ALUMINUM 5 RMS (8.75" HIGH) BLANK RACK PLATE ON REAR OF RACK. DISTRIBUTE LOADS EVENLY ACROSS OUTPUTS.

UNINTERRUPTIBLE POWER SUPPLY (UPS), 3000 VA. RACK MOUNT IN CC. SEE RACK ELEVATIONS.

GENERAL REQUIREMENTS: LABEL 110 BLOCK ROWS USING FACTORY CLEAR PLASTIC LABEL HOLDERS (SIEMON S110-HLDR) AND FACTORY WHITE 4 PAIR ROW LABELS (SIEMON S110-LBL-2 OR S110-SHT-2).

1. **ONE-WAY SPEAKERS WIRING BLOCKS:** PROVIDE FACTORY ROW LABELS (WHITE) WHICH DESIGNATE PAIR COUNTS IN PAIR INCREMENTS. USE FACTORY ROW LABELS LASER PRINTED TO IDENTIFY EACH ONE-WAY SPEAKER ZONE CABLE IN ACCORDANCE WITH "SPEAKER IDENTIFICATION NOMENCLATURE" THIS SHEET. PROVIDE ENGRAVED PLASTIC TAG MOUNTED ON BLOCK COVER. PROVIDE TEXT AS INDICATED ON "ENGRAVED TAG DETAIL". IN ADDITION PROVIDE LAMINATED PAPER I.D. TAG ATTACHED TO RIGHT SIDE OF BLOCK WITH FLEXIBLE LOOP (IBICO/CBC LUGGAGE TAG WITH LOOP). FOR TAG FABRICATION AND TEXT LAYOUT, SEE "LAMINATED I.D. TAG DETAIL" THIS SHEET.
2. **TALKBACK SPEAKERS PATCH PANELS:** USE FACTORY ROW LABELS LASER PRINTED TO IDENTIFY EACH TALKBACK SPEAKER IN ACCORDANCE WITH "SPEAKER IDENTIFICATION NOMENCLATURE" THIS SHEET. PROVIDE ENGRAVED PLASTIC TAG MOUNTED ON WIRE MANAGER. PROVIDE TEXT AS INDICATED ON "ENGRAVED TAG DETAIL". IN ADDITION PROVIDE LAMINATED PAPER I.D. TAG ATTACHED TO RIGHT SIDE OF PATCH PANEL WITH FLEXIBLE LOOP (IBICO/CBC LUGGAGE TAG WITH LOOP). FOR TAG FABRICATION AND TEXT LAYOUT, SEE "LAMINATED I.D. TAG DETAIL" THIS SHEET.

**A** YELLOW/WHITE CROSS-CONNECTS FROM "ONE-WAY SPEAKERS ZONE EXTENDER" TO "ONE-WAY SPEAKERS WIRING BLOCK" FOR CONNECTIONS TO ONE-WAY SPEAKER HARD-WIRED PAGING ZONES. SEE KEY NOTES. DASHY-CHAIN ON "ONE-WAY SPEAKERS HORIZONTAL WIRING BLOCK" TOP CONNECTORS TO BRIDGE MULTIPLE ONE-WAY SPEAKERS ON SAME HARD-WIRED PAGING ZONE TOGETHER, SEE "SPEAKERS 110 BLOCK TERMINATION NOTES".

**B** RED/WHITE CROSS-CONNECTS FROM ONE-WAY SPEAKERS POWER SUPPLY TO "ONE-WAY SPEAKERS WIRING BLOCK" FOR CONNECTIONS TO ONE-WAY SPEAKER POWERED, 22 GAGE CRYSTAL BLACK/WHITE DASHY-CHAIN ON "ONE-WAY SPEAKERS WIRING BLOCK" TOP CONNECTORS TO BRIDGE MULTIPLE ONE-WAY SPEAKERS ON SAME POWER SUPPLY OUTPUT TOGETHER, SEE "SPEAKERS 110 BLOCK TERMINATION NOTES". BALANCE LOAD ACROSS MULTIPLE OUTPUT POWER SUPPLIES.

MAKE ALL TERMINATIONS IN STRICT ACCORDANCE WITH TIA GUIDELINES AS WELL AS THE MANUFACTURER'S PRINTED INSTRUCTIONS FOR BOTH THE CABLE AND THE TERMINATION DEVICE FOR ALL FIELD CONNECTIONS IN THE "HORIZONTAL TELECOMMUNICATIONS LINK". STRIP CABLE JACKET BACK A MAXIMUM OF 1 INCH FROM THE POINT OF TERMINATION. MAINTAIN FACTORY SYMMETRICAL CABLE TWISTS TO WITHIN 0.5 INCHES (13 MM MAXIMUM) OF THE POINT OF TERMINATION. PROVIDE CABLE SLACK AT EACH END TO ALLOW MINIMUM OF FIVE (5) FUTURE RE-TERMINATIONS WITHOUT RE-ROUTING CABLE.

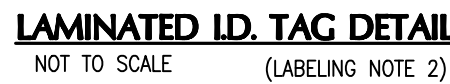
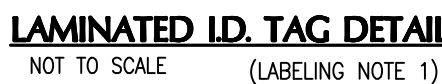


Diagram illustrating the structure of the label **X.114.109.A**:

- X.114**: SERVING CC ROOM NUMBER
- 109**: NUMBER OF ROOM IN WHICH SPEAKER IS LOCATED
- A**: SPEAKER IDENTIFIER (ROOMS WITH TWO OR MORE SPEAKERS ONLY)

EXAMPLE: LABEL X.114.109.A  
INDICATES SPEAKER 'A' LOCATED IN ROOM 109 AND SERVED BY CC.X.114

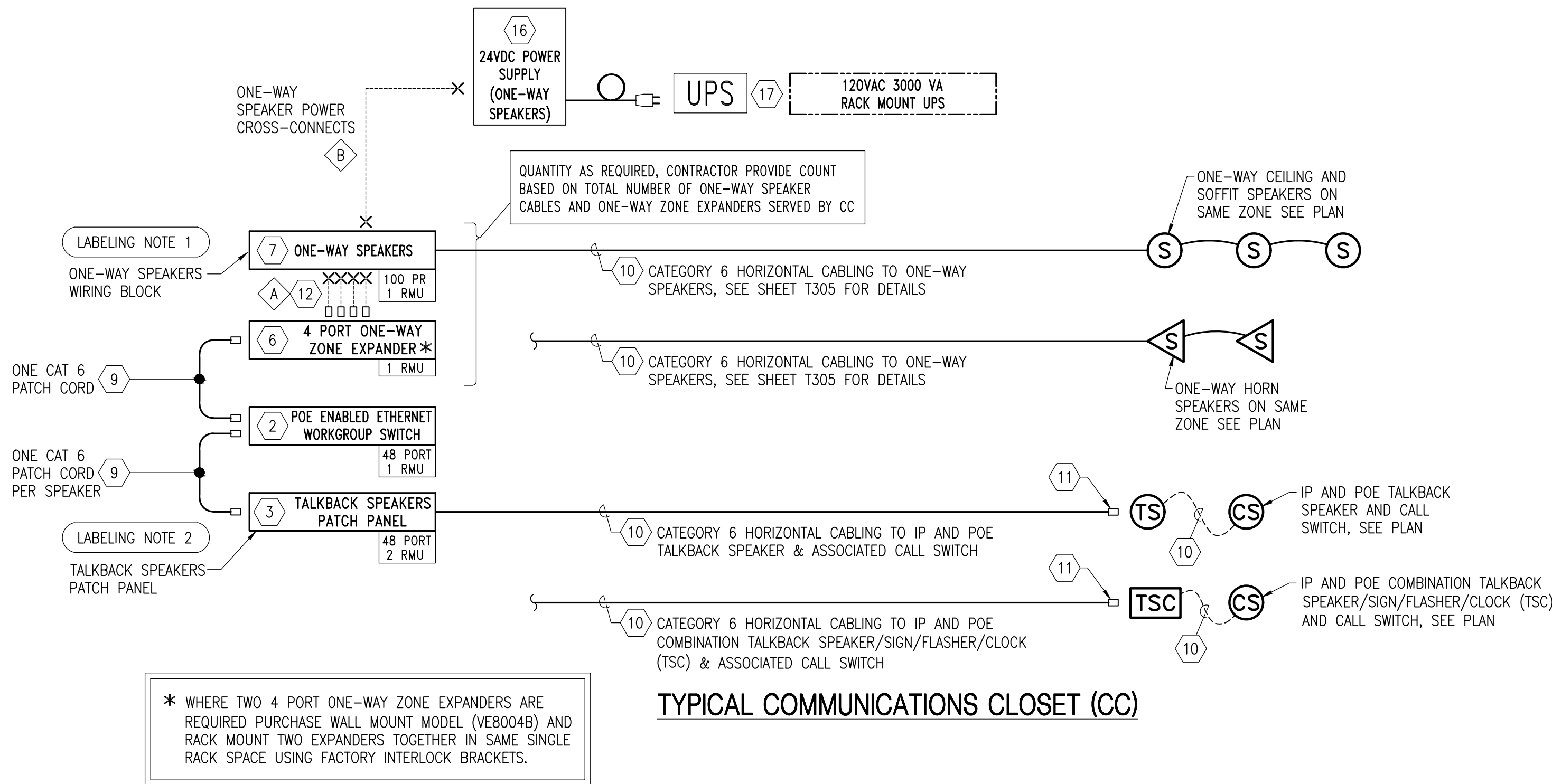
X.114.EXT.A

SERVING CC  
ROOM NUMBER

SPEAKER IDENTIFIER  
(AREAS WITH TWO OR  
MORE SPEAKERS ONLY)

ZONE NAME

EXAMPLE: LABEL  
X.114.EXTERIOR.A INDICATES  
SPEAKER 'A' LOCATED IN  
EXTERIOR ZONE AND SERVED  
BY CC.X.114

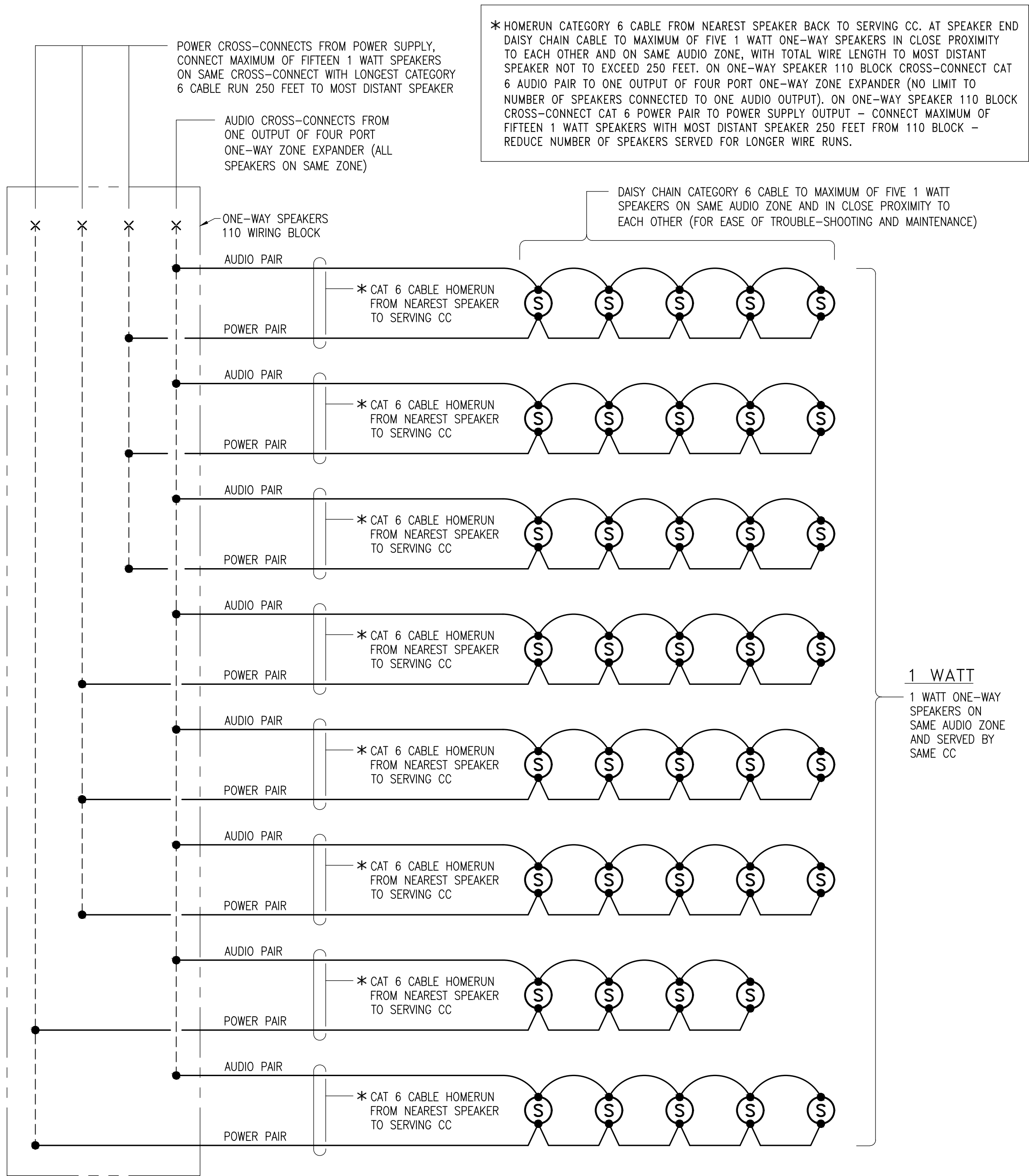


NOT TO SCALE

**NOTE:** RUN ALL CABLES CONTINUOUS BETWEEN TERMINATION POINTS INDICATED WITH NO INTERMEDIATE SLICES OR TERMINATIONS.

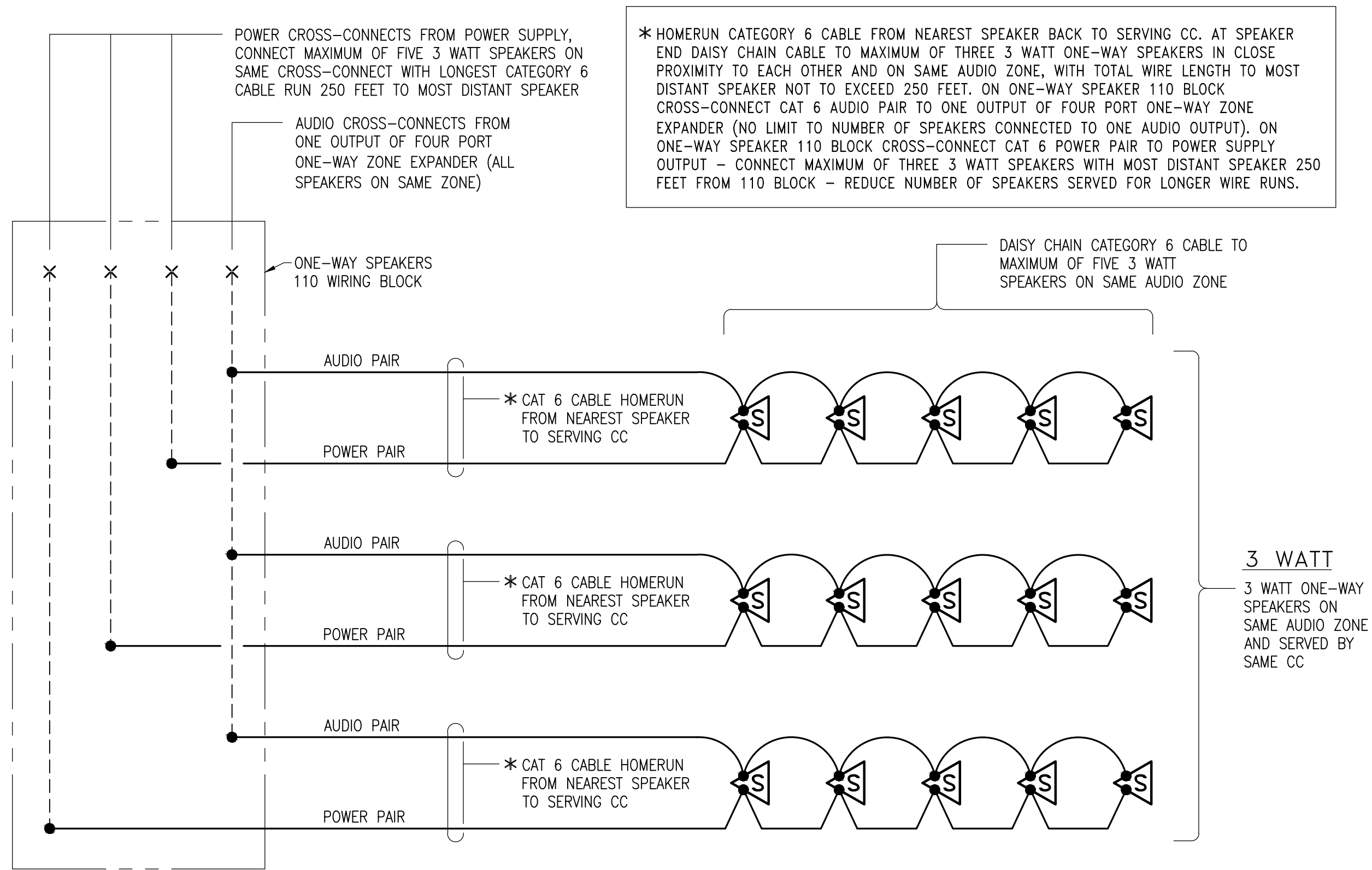
1. PUNCH DOWN FOUR PAIR ONE-WAY SPEAKER ZONE CABLES ON BOTTOM 110 4-PAIR CONNECTING BLOCKS.
2. PUNCH DOWN ONE-WAY ZONE CROSS-CONNECTS FROM ONE-WAY ZONE EXTENDERS ON TOP 110 4-PAIR CONNECTING BLOCKS SPEAKER AUDIO PAIR (PAIR 1). WHERE MULTIPLE ONE-WAY SPEAKERS ARE ON A ONE-WAY ZONE RUN CROSS-CONNECTS CONTINUOUSLY "DAISY-CHAINED" BETWEEN SPEAKER AUDIO PAIRS AND PUNCH DOWN.
3. PUNCH DOWN POWER CROSS-CONNECTS (FROM 24VDC SPEAKER POWER SUPPLY) ON TOP 110 4-PAIR CONNECTING BLOCKS SPEAKER POWER PAIRS (PAIR 2). RUN CROSS-CONNECTS CONTINUOUSLY "DAISY-CHAINED" BETWEEN SPEAKER POWER PAIRS AND PUNCH DOWN. DISTRIBUTE LOADS EVEN ACROSS POWER SUPPLY SUPPLY OUTPUTS.





1 WATT ONE-WAY SPEAKER ZONE AUDIO AND POWER DISTRIBUTION WIRING DIAGRAM  
NOT TO SCALE

NEW CLASSROOM BUILDING



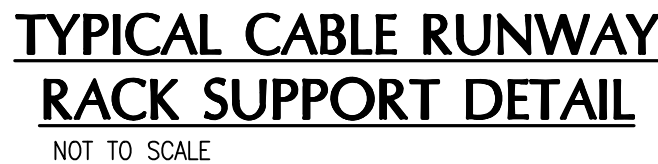
3 WATT ONE-WAY SPEAKER ZONE AUDIO AND POWER DISTRIBUTION WIRING DIAGRAM  
NOT TO SCALE

NEW CLASSROOM BUILDING

REVISION		
#	Description	Date



BOTTOM OF CABLE RUNWAY MUST BE MOUNTED AT EXACTLY 7'-6" ABOVE THE FINISHED FLOOR TO ALLOW INSTALLATION OF 7'-6" HIGH RACKS. RACKS ARE 7'-6" HIGH TO ALLOW CABLE RUNWAY TO CLEAR DOOR FRAMES.



① PLYWOOD BACKBOARD, 8'-0" HIGH X FULL WIDTH OF WALL AS INDICATED, MOUNT WITH BOTTOM AT 6" ABOVE FINISH FLOOR. ROUGH ALL ELECTRICAL OUTLETS IN SPACE BEHIND BACKBOARD FOR FLUSH MOUNT INSTALLATION OF FACEPLATES. BACKBOARDS SHALL BE 3/4" THICK AC CABINET GRADE PLYWOOD (FACE "A" SIDE INTO ROOM). COUNTERSINK ALL SCREWS. FINISH WITH SMOOTH, SEMI-GLOSS ACRYLIC PAINT. SEAM AND JOINTS TO BE PAINTED TO MATCH SURFACE. SMOOTH AFTER EACH COAT. PRETREAT BARE PLYWOOD WITH FLAMECHIEF M-111 AND ALLOW TO DRY BEFORE PAINTING. APPLY FIRST COAT WITH FIRE RETARDANT PAINT. ADD 8 OUNCES OF FLAMECHIEF M-111PA TO ONE GALLON OF ACRYLIC PAINT. MIX WITH MIXING MIXTURE. FLUSH ALL ELECTRICAL OUTLETS AND SWITCHES TO FACE OF BACKBOARD. FINISH WITH THICK COAT OF SEMI-GLOSS ACRYLIC PAINT, COLOR BATTLESHIP GREY. FINAL SURFACE SHALL BE UNIFORMLY SMOOTH AND EVEN. TOUCH UP END OF EACH PROJECT. COORDINATE WORK WITH ELECTRICAL CONTRACTOR TO ENSURE THAT POWER CORDS ARE PROPERLY LOCATED. POWER CONDUITS ARE RECESSED BEHIND BACKBOARD, AND FACEPLATES ARE FLUSH ON FACE OF BACKBOARD.

SPECIAL BACKBOARD DUST CONTROL NOTE: COMPLETE ALL BACKBOARD WORK INCLUDING FINISH PAINTING PRIOR TO INSTALLATION OF RACKS AND BACKBOARD MOUNTED EQUIPMENT AND PRIOR TO PULLING CABLING INTO CER AND CCS.

- CC GENERAL NOTES:

**CABLE ROUTING:** ROUTE CABLING IN CABLE RUNWAY. BUNDLE FIBER OPTIC, VOICE BACKBONE AND HORIZONTAL CABLING SEPARATELY. SECURE BUNDLES WITH BLACK VELCRO AT MINIMUM OF 12" ON CENTER IN CABLE RUNWAY AND AT MINIMUM OF 6" ON CENTER IN RACK VERTICAL CABLING SECTIONS. THE FINISHED INSTALLATION SHALL MEET THE APPROVAL OF THE ENGINEER FOR OVERALL QUALITY, ORGANIZATION, AND NEATNESS OF APPEARANCE. SEE SINGLE LINE CONFIGURATION DIAGRAMS FOR CABLE TYPES AND QUANTITIES.

BACKBOARD LAYOUT: BACKBOARD AND RACK ARRANGEMENT AND EQUIPMENT LOCATIONS INDICATED ARE DRAWN TO SCALE. DO NOT MODIFY LAYOUT WITHOUT PRIOR APPROVAL OF ENGINEER. USE ALL BLACK HARDWARE ON FACE OF RACKS.

CC FASTENERS: ALL ATTACHMENTS MADE TO CABLE TRAY OR RACKS SHALL HAVE SCREWS, BOLTS OR ANY OTHER MOUNTING HARDWARE INSTALLED IN DIRECTION AWAY FROM ANY COMMUNICATIONS CABLING. SELF TAPPING SCREWS ARE NOT ACCEPTABLE. ALL MOUNTING SCREWS SHALL BE BLACK.

CC PAINTING: TOUCH-UP PAINT ALL NICKS AND SCRATCHES ON ALL RACKS, CABLE RUNWAY, BACKBOARDS, ETC. AFTER INSTALLATION IS COMPLETE. TOUCH-UP SHALL BE DONE USING MANUFACTURER PROVIDED PAINT TO MATCH. ALL SCREWS, NUTS, AND BOLTS SHALL BE PAINTED TO MATCH HARDWARE.

**CATEGORY 6 TERMINATIONS:** MAKE ALL TERMINATIONS IN STRICT ACCORDANCE WITH TIA GUIDELINES AS WELL AS THE MANUFACTURER'S PRINTED INSTRUCTIONS FOR BOTH THE CABLE AND THE TERMINATION DEVICE FOR ALL FIELD CONNECTIONS IN THE "HORIZONTAL TELECOMMUNICATIONS LINK". STRIP CABLE JACKET BACK A MAXIMUM OF 1 INCH FROM THE POINT OF TERMINATION. MAINTAIN FACTORY SYMMETRICAL CABLE TWISTS TO WITHIN 0.5 INCHES (13 MM MAXIMUM) OF THE POINT OF TERMINATION. PROVIDE CABLE SLACK AT EACH END TO ALLOW MINIMUM OF FIVE (5) FUTURE RETERMINATIONS WITHOUT RE-ROUTING CABLE. SEE CO MOUNTING DETAILS, BACKBOARD ELEVATIONS, AND CC DETAILS.

1. ALL GROUND CONNECTIONS SHALL BE MADE WITH HEAVY DUTY 2 HOLE LONG BARREL COMPRESSION LUGS WITH INSPECTION PORT AND THREE CRIMP LINES (HARGER GECB4-2C FOR #4AWG, GECB6-2C FOR #6AWG) AND 3/8" SS HEX HEAD CAP SCREWS WITH TWO FLAT WASHERS AND SS LOCKING NUTS (TWO SETS PER 2 HOLE LUG). CONTRACTOR CRIMP USING HARGER MCT101/O MECHANICAL COMPRESSION TOOLS AND COLOR CODED DIE FOR CONDUCTOR SIZE SPECIFIED (BLUE FOR #6 AWG AND GRAY FOR #4 AWG). PUSH CONDUCTOR CONDUCTOR FULLY INTO BARREL AND TIGHT AGAINST INSPECTION PORT AND PROFESSIONALLY CRIMP EACH LUG THREE TIMES AT FACTORY LINES ON BARREL.
2. PROVIDE GROUNDING BUSBAR IN CC AS INDICATED. ELECTRICAL CONTRACTOR GROUND MAIN BUSBAR TO BUILDING MAIN ELECTRICAL SERVICE GROUND (BUILDING IN WHICH CER IS LOCATED) WITH #4 AWG INSULATED (GREEN) SOLID COPPER GROUNDING CONDUCTOR. RUN CONDUCTOR FROM BUSBAR LOCATION TO BUILDING MAIN ELECTRICAL SERVICE GROUND IN EMT CONDUIT. PROVIDE INSULATED GROUNDING BUSHING - MALLEABLE IRON, STEEL CITY #89-80T AT BOTH CONDUIT ENDS AND GROUND EACH END PER NEC. GROUNDING TO BUILDING STRUCTURE CONDUITS, UTILITY PIPING, OR ELECTRICAL SUBPANELS IN LIEU OF BONDING TO BUILDING MAIN ELECTRICAL SERVICE GROUND IS NOT ACCEPTABLE.
3. GROUND ALL COMMUNICATION RACKS WITH #6 AWG INSULATED (GREEN) SOLID COPPER GROUNDING CONDUCTOR TO MAIN GROUNDING BUSBAR. GROUND RACKS INDIVIDUALLY TO BUSBAR (DO NOT LOOP GROUNDS). ROUTE CONDUCTOR ALONG RACK REAR AND IN CABLE RUNWAY TO GROUNDING BUSBAR.
4. GROUND EACH CONDUIT AND CONDUIT SUPPORT STRUT WITH #6 AWG INSULATED (GREEN) SOLID COPPER GROUNDING CONDUCTOR TO GROUNDING BUSBAR. ROUTE CONDUCTOR IN CABLE RUNWAY TO GROUNDING BUSBAR.
5. GROUND CABLE RUNWAY WITH #6 AWG INSULATED (GREEN) SOLID COPPER GROUNDING CONDUCTOR TO GROUNDING BUSBAR. ROUTE CONDUCTOR IN CABLE RUNWAY TO GROUNDING BUSBAR.
6. PROVIDE UL LISTED RIGID CONDUIT THREADED MALLEABLE IRON INSULATED GROUNDING BUSHING WITH BRONZE LUG (O-Z/GEDNYE TYPE IBC-L-BC) ON END OF BACKBONE CONDUITS AND GROUND TO BUSBAR WITH #6 AWG INSULATED (GREEN) CONDUCTOR TO GROUNDING CONDUCTOR. PLASTIC INSULATED BUSHING IS ALSO REQUIRED.



CC.X.117 - ENLARGED FLOOR PLAN

SCALE:  $1/2" = 1'-0"$

LOCATE LIGHT FIXTURES TO CLEAR CABLE RUNWAY FOR LAMP CHANGE/FIXTURE MAINTENANCE, REGARDLESS OF FIXTURE LAYOUT INDICATED ON ELECTRICAL DRAWINGS. PROVIDE UNIFORM 50 FOOTCANDLE LIGHT LEVEL AT 48" A.F.F.

IN CC, RECESS ALL POWER CONDUITS AND DEVICE BOXES INTO WALLS BEHIND BACKBOARD TO ALLOW FLUSH MOUNTING OF POWER OUTLET FACE PLATES. DO NOT SURFACE MOUNT CONDUITS ON BACKBOARDS

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Premier Project #25006

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# 112 CLASSROOM ADDITION BUILDING

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL. 32401

924 BAY AVE, PANAMA CITY, FL. 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



Designed by:

G. Cook

Drawn By:

J. Cook

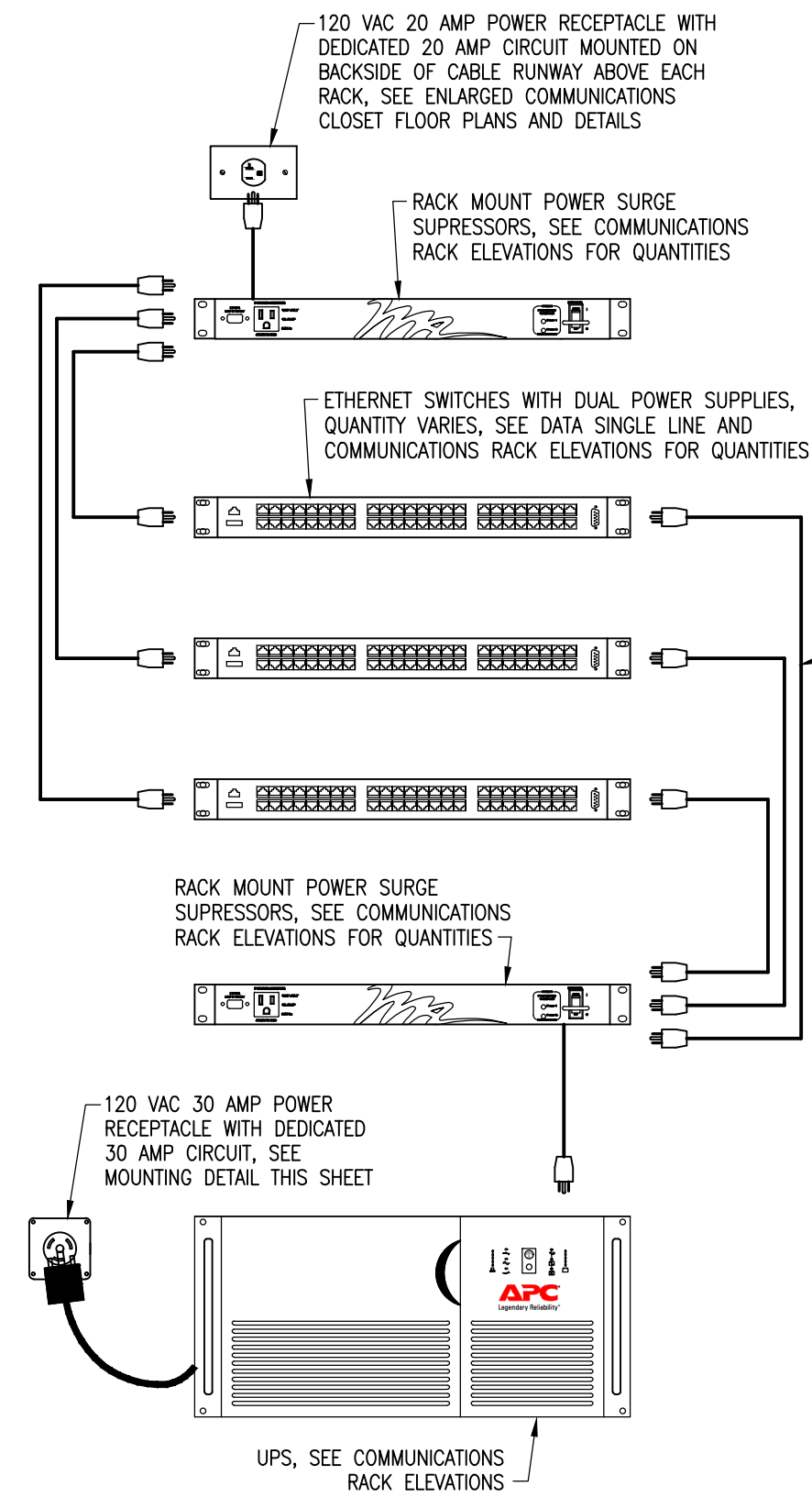
## REVISION

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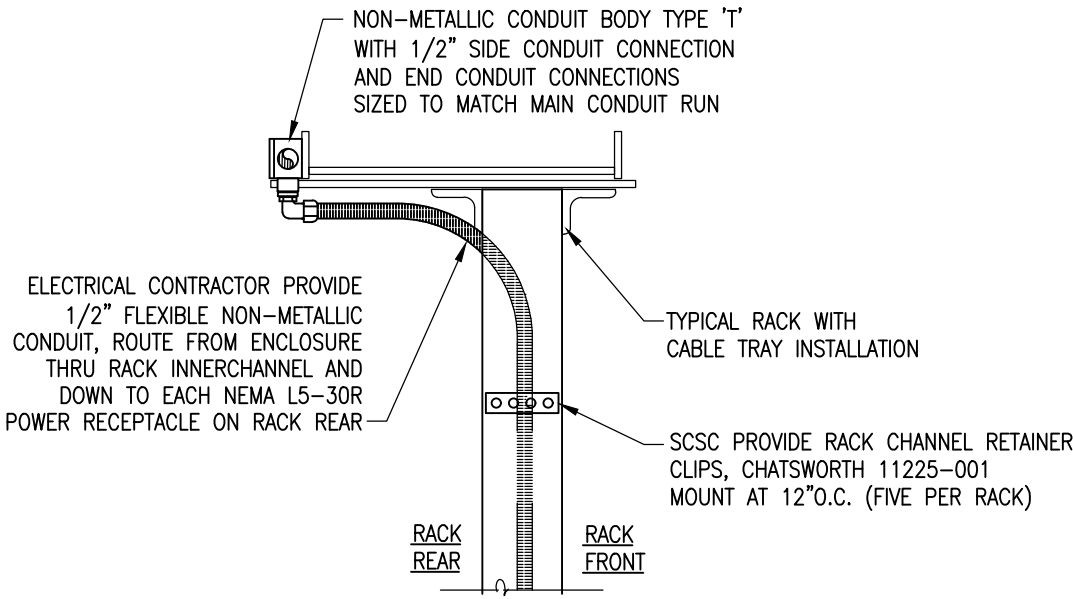
Communications  
Closet (CC)  
Enlarged Floor  
Plan  
06/06/25

T501

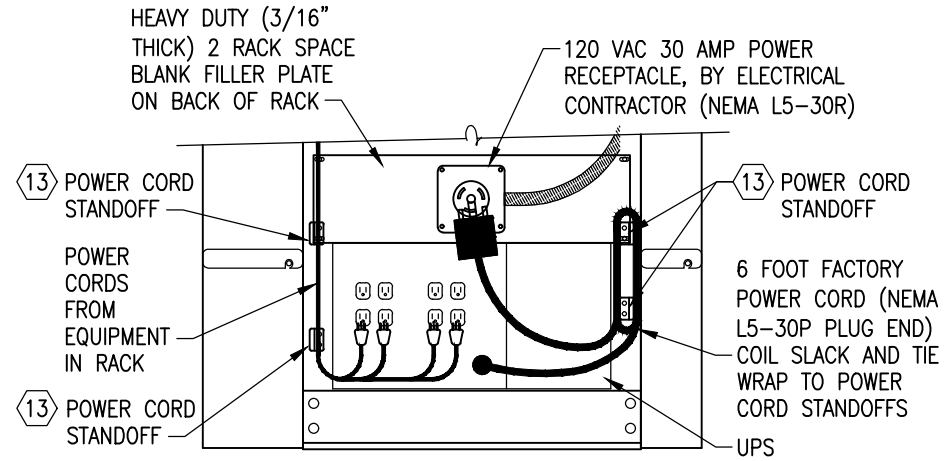




**TYPICAL RACK POWER DISTRIBUTION DIAGRAM**  
NOT TO SCALE

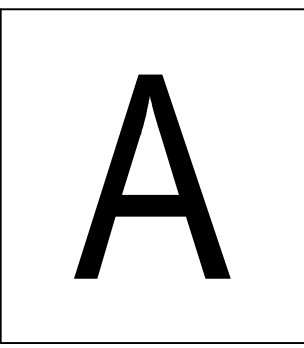


**TYPICAL POWER CONDUIT TO UPS  
30 AMP POWER OUTLET DETAIL**  
(INSTALLATION AT FILE SERVER CABINETS SIMILAR)

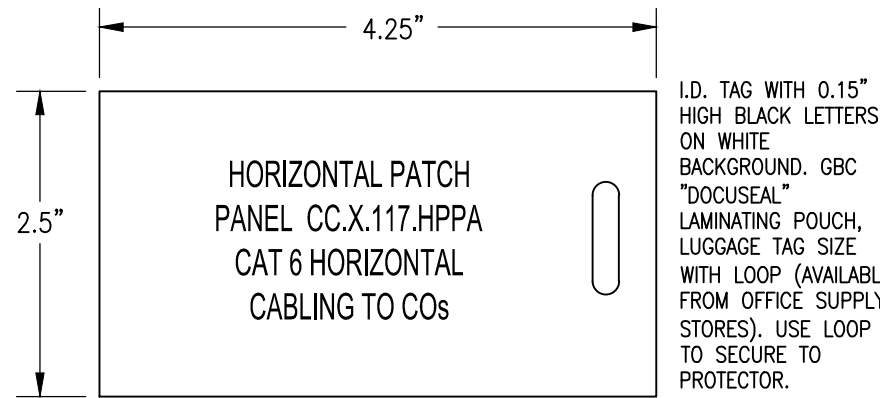


**POWER CORD ROUTING DETAIL AT UPS  
PARTIAL RACK REAR ELEVATIONS**  
(INSTALLATION AT FILE SERVER CABINETS SIMILAR)

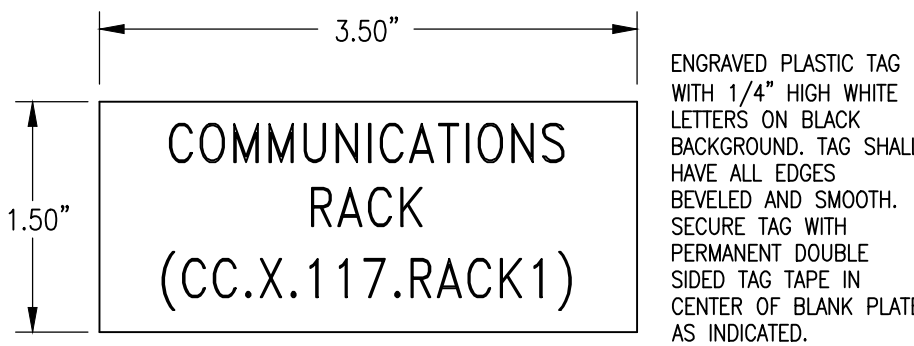
ENGRAVED PLASTIC TAG  
WITH 1/2" HIGH WHITE  
LETTER ON BLACK  
BACKGROUND. TAG SHALL  
HAVE ALL EDGES BEVELED  
AND SMOOTH. SECURE TAG  
WITH DOUBLE SIDED TAPE  
ON FAR RIGHT SIDE OF  
PATCH PANEL FRONT FACE



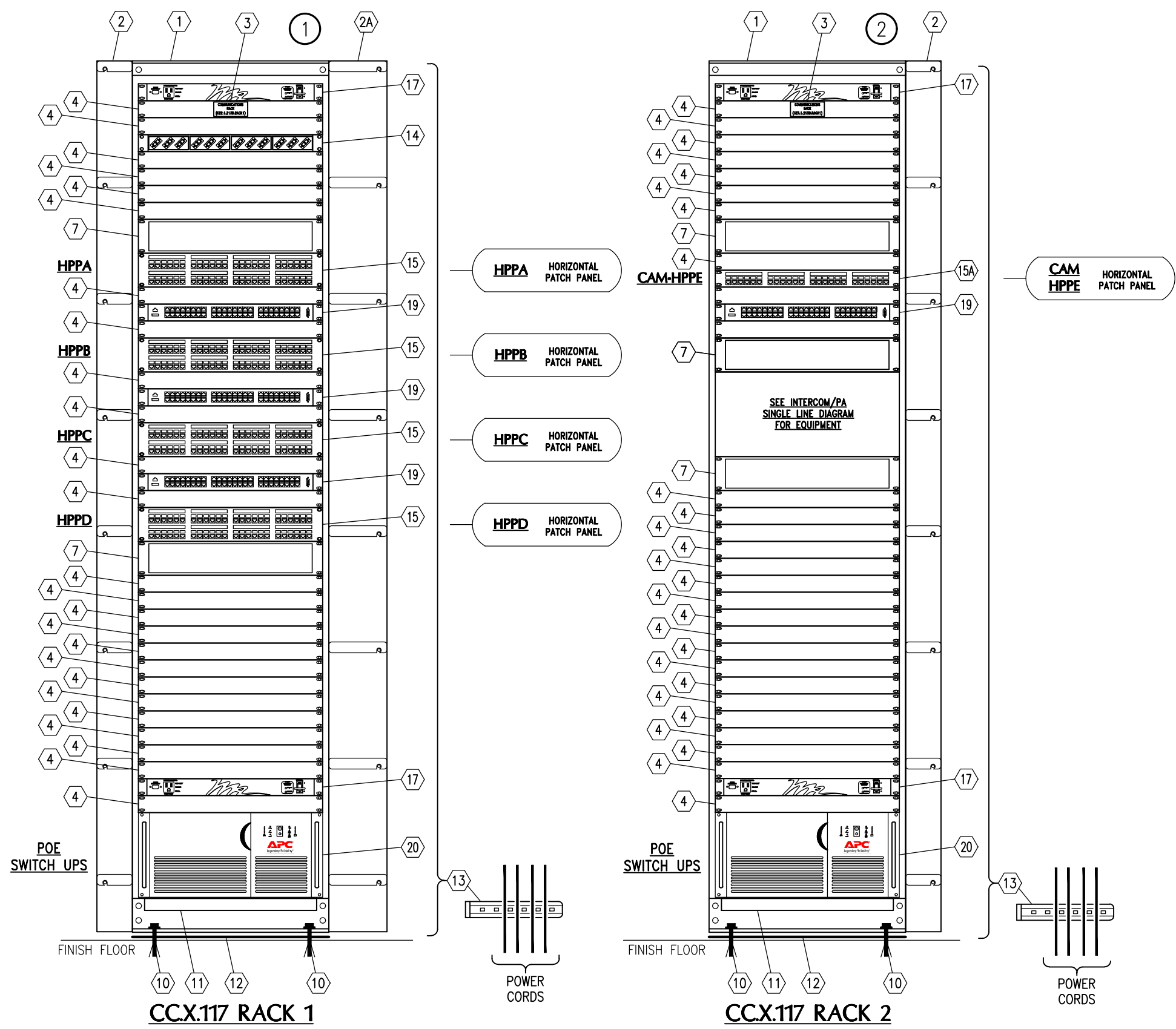
**TYPICAL HORIZONTAL PATCH PANEL ENGRAVED TAG DETAIL**  
NOT TO SCALE SEE "COMMUNICATIONS  
TYPICAL LABELING DETAILS"



**TYPICAL HORIZONTAL PATCH PANEL LAMINATED ID TAG DETAIL**  
NOT TO SCALE SEE "COMMUNICATIONS  
TYPICAL LABELING DETAILS"



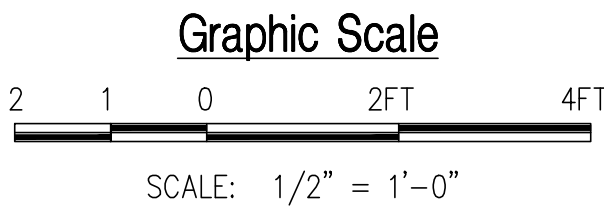
**TYPICAL COMMUNICATIONS RACK ENGRAVED TAG DETAIL**  
FULL SIZE



**COMMUNICATIONS RACK ELEVATIONS**  
SCALE: 1"= 1'-0"

**COMMUNICATIONS RACK ELEVATION KEY NOTES:**

- UNIVERSAL 7'-6" HIGH x 19" WIDE ALUMINUM FLOOR MOUNT RACK WITH UNIVERSAL 5/8", 5/8", 1/2" ALTERNATING HOLE PATTERN FRONT AND BACK, AND BLACK BAKED ENAMEL FINISH, CHATSWORTH 46353-705. PROVIDE WITH GROUND TERMINAL BLOCK, CHATSWORTH 08009-001.
- DOUBLE SIDED VERTICAL CABLE MANAGER WITH INTEGRAL HINGED FRONT DOOR/COVER, SIZE 3.65" x 7'-6", COLOR BLACK, CHATSWORTH "CCS" 30161-705.
- DOUBLE SIDED VERTICAL CABLE MANAGER WITH INTEGRAL HINGED FRONT DOOR/COVER, SIZE 6" x 7'-6", COLOR BLACK, CHATSWORTH "CCS" 30162-705.
- IDENTIFICATION TAG AT TOP OF RACK, SEE "TYPICAL COMMUNICATIONS RACK ENGRAVED TAG DETAIL".
- ONE RACK SPACE BLANK FILLER PLATE, COLOR BLACK, CHATSWORTH 30026-701.
- TWO RACK SPACE HINGED HORIZONTAL CABLE MANAGER ON FRONT SIDE OF RACK, PANOUT WMPHF2E.
- CONCRETE FLOOR RACK MOUNTING KIT, CHATSWORTH 40604-001.
- RACK BASE DUST COVER, BLACK ENAMEL FINISH, CHATSWORTH 41050-719.
- RACK ISOLATION KIT, CHATSWORTH 10605-019.
- NYLON CABLE STANDOFF BRACKET, CHATSWORTH 10001-001. MOUNT ON BACK LEFT SIDE OF ALL RACKS AT 12" ON CENTER FOR ROUTING GROUNDING CONDUCTORS AND POWER EXTENSION CORDS UP AND DOWN RACKS. TYWRAP EACH CONDUCTOR AND CORD INDIVIDUALLY ON STANDOFF. (NOT SHOWN ON ELEVATIONS)
- FIBER DRAWER FOR BACKBONE CABLES, 24 PORT, RACK MOUNT. SEE "DATA SINGLE LINE CONFIGURATION DIAGRAM".
- 48 PORT SHARED HORIZONTAL PATCH PANEL (HPP). SEE "DATA SINGLE LINE CONFIGURATION DIAGRAM".
- 24 PORT SECURITY CAMERA HORIZONTAL PATCH PANEL (CAM-HPP). SEE "DATA SINGLE LINE CONFIGURATION DIAGRAM".
- RACKMOUNT POWER SURGE SUPPRESSOR, MIDDLE ATLANTIC PDY-920R-SP, COLOR BLACK, WITH EIGHT 120 VAC POWER RECEPTACLES ON BACK OF UNIT, ONE 120 VAC CONVENIENCE OUTLET ON FRONT, FRONT POWER SWITCH, AND 9" POWER CORD.
- OWNER FURNISHED CONTRACTOR INSTALLED (OFCI). 48 OR 24 PORT POE ETHERNET WORKGROUP SWITCH FOR DATA, VOIP, WAP, IP SECURITY CAMERA AND INTERCOM/PA IP SPEAKER CONNECTIONS. SEE "DATA SYSTEM SINGLE LINE CONFIGURATION DIAGRAM". WHERE EQUIPMENT VARIES IN SIZE OR QUANTITY FROM THAT INDICATED, PROVIDE BLANK FILLER PLATES TO COVER ALL UNUSED RACK SPACES.
- SCSC PROVIDE: AMERICAN POWER CONVERSION SMX3000LVC (4 RACK UNITS HIGH - 2 POST MOUNTING) 3000 VA RACK MOUNT UPS, (QUANTITY ONE PER RACK - FOR POE ETHERNET WORKGROUP SWITCHES). PROVIDE WITH FACTORY NETWORK CHAD. ELECTRICAL CONTRACTOR PROVIDE RACK MOUNT 120 VAC L5-30P 30 AMP DEDICATED CIRCUIT RECEPTACLE FOR EACH UPS. SEE "TYPICAL POWER CONDUIT TO UPS 30 AMP POWER OUTLET DETAIL" AND "TYPICAL 3000 VA UPS 30 AMP POWER OUTLET MOUNTING DETAIL" DETAILS, THIS SHEET.



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**12 CLASSROOM ADDITION BUILDING**

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



Designed by:

G. Cook

Drawn By:

J. Cook

REVISION		
#	Description	Date

Communications  
Rack Elevations

06/06/25

T502

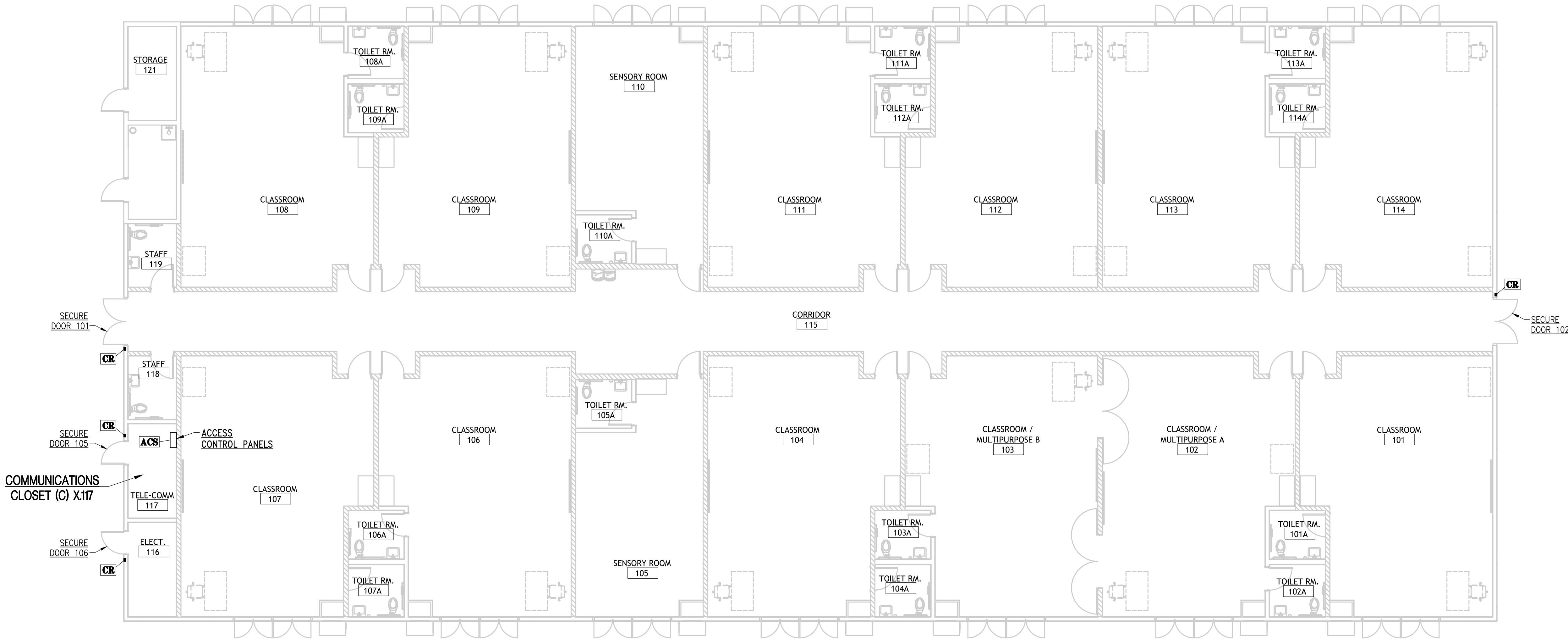


ACCESS CONTROL SYSTEM HORIZONTAL CABLING CONDUIT SLEEVES NOTE:

CONDUIT SLEEVES FOR ACCESS CONTROL SYSTEM CABLING: FINAL ROUTING PATHS FOR FREE-ROUTED ACCESS CONTROL SYSTEM HORIZONTAL CABLING ABOVE CEILINGS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. FOR THIS REASON CONDUIT SLEEVES AT WALL PENETRATIONS ARE NOT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE EMT CONDUIT SLEEVES IN THE QUANTITIES AND LOCATIONS REQUIRED TO SUIT THE CONTRACTOR SELECTED HORIZONTAL CABLE ROUTING AS REQUIRED FOR A COMPLETE INSTALLATION, AND AT NO ADDITIONAL COST TO THE OWNER. AT ALL LOCATIONS WHERE HORIZONTAL CABLING RUNS THRU MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, OR ANY OTHER TYPE OF UNFINISHED SPACE WITH EXPOSED STRUCTURE CEILING, ALL SUCH CABLING SHALL BE RUN IN CONTINUOUS CONDUIT SLEEVES EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES TRAVERSING INACCESSIBLE (HARD) CEILING OR SOFFIT AREAS AND EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS FOR CABLE PASS-THRU. SLEEVES SHALL BE SIZED FOR MAXIMUM 30 PERCENT CABLE FILL. TERMINATE ALL SLEEVES WITH PLASTIC INSULATING BUSHING AT EACH END.

ACCESS CONTROL SYSTEM HORIZONTAL CABLE ROUTING NOTE:

ALL ACCESS CONTROL SYSTEM HORIZONTAL CABLE NOT SHOWN TO BE INSTALLED IN CONDUIT SHALL BE FREE-ROUTED ABOVE CEILINGS AND SHALL BE ROUTED UP HIGH DIRECTLY UNDER THE BUILDING ROOF STRUCTURE AND PROPERLY SUPPORTED WITH APPROVED HANGERS AT 4'-0" ON CENTER, BUT DO NOT RUN CABLES CLOSER THAN 6" BELOW ROOF DECK (TO AVOID DAMAGE FROM LONG SCREWS USED IN FUTURE ROOF REPLACEMENTS). RUN ALL CABLING ABOVE DUCTWORK, PIPING, CONDUITS AND ALL OTHER WORK BY OTHER TRADES AND PLACE FOR MAXIMUM PHYSICAL PROTECTION. BUNDLE CABLES TOGETHER AND ROUTE PARALLEL AND PERPENDICULAR TO BUILDING LINES. HANGERS SHALL BE ERICO CADDY "CABLECAT" CATEGORY-5 WITH WIDE BASE LOOP. LOCATE HANGERS AND BUNDLE CABLES AT 4'-0" O.C. WITH VELCRO, COLOR BLACK. ATTACH HANGERS TO THE BUILDING STRUCTURE. DO NOT ATTACH HANGERS TO CEILING GRID OR SUPPORT WIRES, CONDUITS, DUCTWORK, PIPING, OR ANY OTHER SYSTEM COMPONENT OR WORK OF OTHER TRADES. INSTALL CABLES TO AVOID ELECTROMAGNETIC INTERFERENCE FROM MOTORS, TRANSFORMERS, GENERATORS, ELEVATORS, POWER CABLES/CONDUITS, LIGHTING FIXTURES, ETC. DO NOT ROUTE CABLE THRU FIRE DAMPERS, HVAC DUCTS, VENTILATING SHAFTS, OR GRATES. DO NOT BLOCK ACCESS TO PULL/JUNCTION BOXES, HATCHES, DOORS, UTILITY ACCESS PANELS, MECHANICAL SERVICE AREAS, ELECTRICAL SERVICE AREAS, OR ANY OTHER SPACE ASSOCIATED WITH SERVICE OR ACCESS OF ANY TYPE. DO NOT RUN HORIZONTAL CABLING ABOVE CEILINGS OF CHEMICAL STORAGE ROOMS.



ACCESS CONTROL SYSTEM FLOOR PLAN

SCALE: 1/8" = 1'-0"

CR LOCATION NOTE

CARD READER LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND INTENDED ONLY TO SHOW DOOR SERVED AND UNSECURE SIDE MOUNTING. THE OWNER'S PROJECT MANAGER WILL LOCATE ALL LISTED DEVICES IN THE FIELD ANYWHERE IN THE GENERAL VICINITY OF THE DOOR SERVED OR AREA INDICATED AT NO ADDITIONAL COST TO THE OWNER. GC/CM, ACSC AND EC COORDINATE FINAL LOCATIONS WITH OWNER AND ARCHITECT PRIOR TO BEGINNING ROUGH-IN. DEVICE HEIGHTS SHALL BE AS DIRECTED BY THE ARCHITECT.

STOREFRONT NOTE

MOUNT ALL CARD READERS FLUSH IN WALL. MOUNT CARD READERS IN STOREFRONT FRAMING ONLY WHERE SPECIFICALLY DIRECTED BY THE OWNER. GENERAL CONTRACTOR REQUEST DIRECTION FROM THE OWNER AND ACSC PRIOR TO COMMENCEMENT OF ANY RELATED WORK AND REVIEW EACH SECURE DOOR INSTALLATION WHERE STOREFRONT MOUNTING IS REQUIRED SEE "GENERAL CONDUIT NOTES - ACCESS CONTROL SYSTEM" NOTE 3 SHEET ACS202 AND ACSC PROVIDE NARROW STYLE CARD READER. THE GENERAL CONTRACTOR AND STOREFRONT SYSTEM INSTALLER SHALL PROVIDE THE ELECTRICAL CONTRACTOR ACCESS TO THE FRAMING TO RUN THE WIRING AS EACH DOOR IS INSTALLED.

ABBREVIATIONS

- CC COMMUNICATIONS CLOSET  
ACS ACCESS CONTROL SYSTEM  
ACSC ACCESS CONTROL SYSTEM CONTRACTOR  
SCSC STRUCTURED CABLING SYSTEM CONTRACTOR  
EC ELECTRICAL CONTRACTOR  
CM/GC CONSTRUCTION MANAGER

SECURE SIDE MOUNTING

ALL CONDUIT AT SECURE AND MONITORED DOORS SHALL BE INSTALLED ON THE SECURE SIDE (SIDE OPPOSITE CARD READER).

PROJECT NOTE (ALL SHEETS):

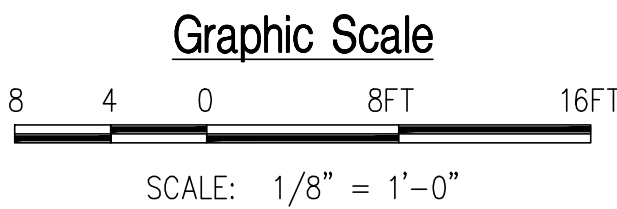
ALL MATERIALS AND EQUIPMENT INDICATED AND REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION SHALL BE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNDER THIS PROJECT UNLESS SPECIFICALLY INDICATED TO BE EXISTING OR PROVIDED BY OTHERS.

NO EXPOSED CONDUIT OR CABLE NOTE

EXPOSED CONDUIT, CABLE, POWER TRANSFERS, FLEX CONDUIT, OR FLEX DOOR CORDS ARE NOT ALLOWED AT ANY SECURE DOOR INSTALLATION.

ACCESS CONTROL SYSTEM LEGEND

- CORRIDOR 115 ARCHITECT'S ROOM NUMBER, SEE "GENERAL LABELING NOTE"  
ACS ACCESS CONTROL SYSTEM PANEL  
CR CARD READER



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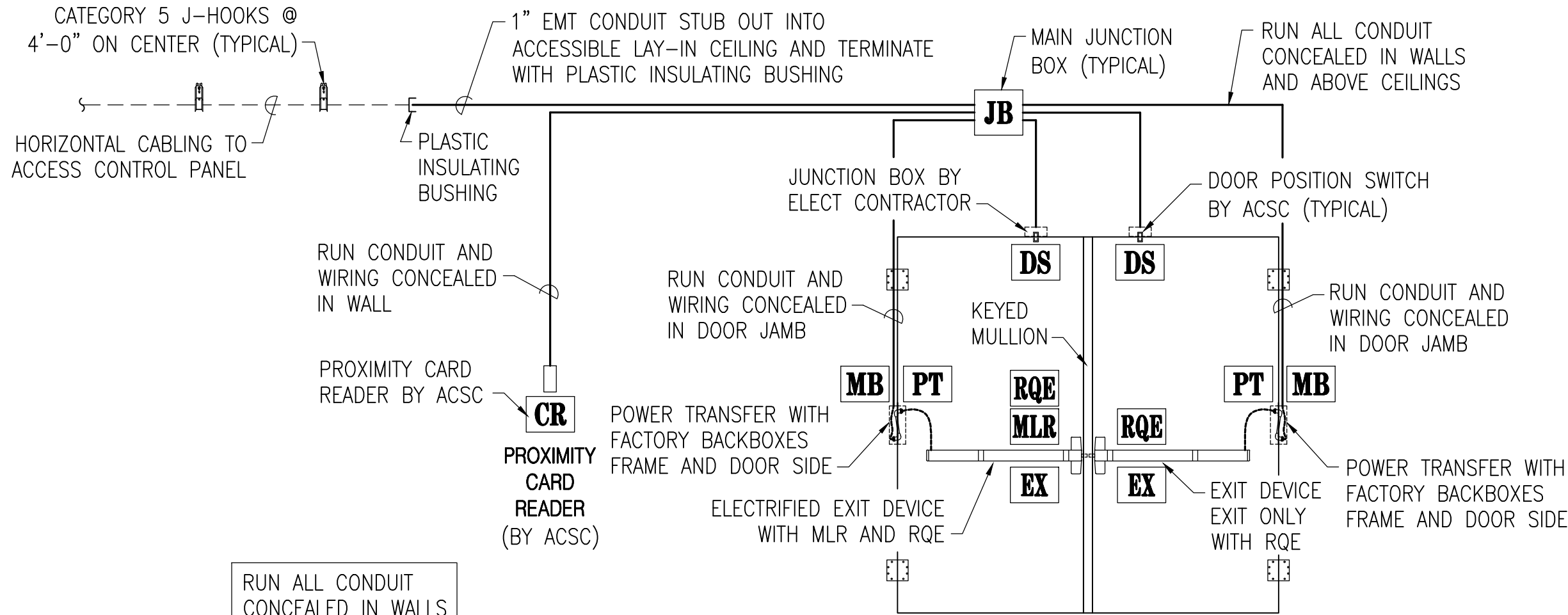
DOOR POSITION SWITCH NORMALLY OPEN

DOOR POSITION SWITCHES SHALL BE NORMALLY OPEN. EACH DPS SHALL BE HELD IN CLOSED POSITION BY MAGNET WHEN DOOR IS CLOSED AND MAGNET IS WITHIN MANUFACTURER'S SPECIFIED GAP DISTANCE FROM SWITCH. DPS SHALL MOVE TO OPEN POSITION WHEN DOOR IS OPENED (CIRCUIT IS OPENED AND CURRENT DOES NOT FLOW). CIRCUIT IS ALSO OPENED IF WIRE IS CUT. OPEN CIRCUIT SHALL GENERATE ALARM STATE UNLESS RQE IS SIGNALLED (EXCEPT WHERE RQE IS NOT CALLED FOR IN THE DOOR HARDWARE SPECIFICATION.)

CARD READER NOTES

ALL CARD READERS SHALL BE COMBINATION CARD READER/KEYPAD AND SHALL BE HID 'SIGNO 40KNKS-00-000000'. ALL CARD READERS SHALL BE INSTALLED USING FACTORY MOUNTING PLATE SUPPLIED WITH READER. PROVIDE CARD READER/KEYPADS STANDARD WITH THE SCHOOL DISTRICT AT THE TIME OF PROJECT MATERIAL SUBMITTALS AT NO ADDITIONAL COST TO THE OWNER. THE OWNER'S SCHOOL SAFETY SPECIALIST WILL PROVIDE FINAL DIRECTION ON THE CARD READER/KEYPAD PART NUMBER TO USE – CONTRACTOR TO REQUEST IN WRITING.

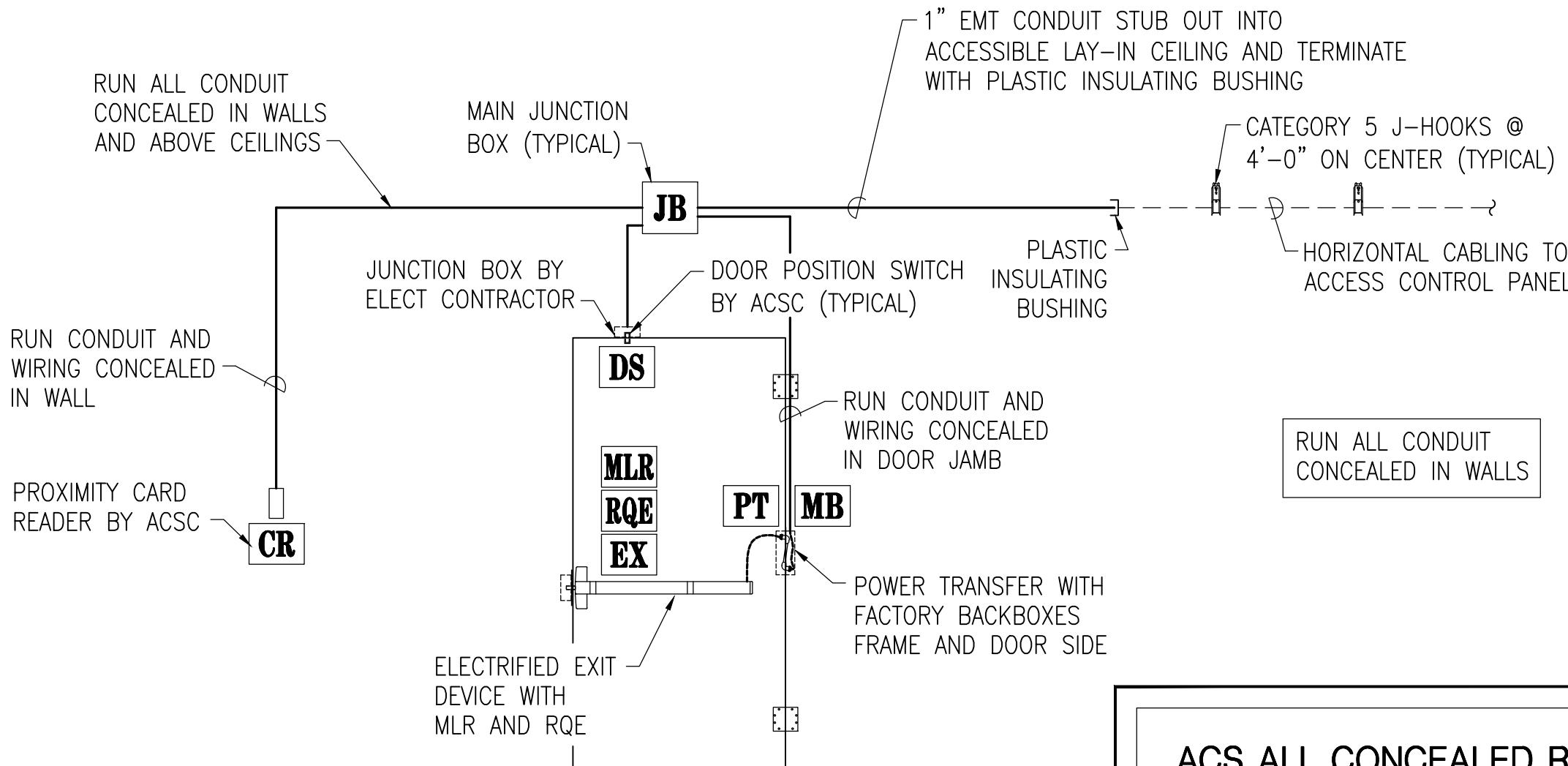
PROVIDE SINGLE GANG DEEP WALL BOX FOR ALL CARD READERS INSTALLED IN WALLS UNLESS OTHERWISE DIRECTED BY ACCESS CONTROL SYSTEM CONTRACTOR. PROVIDE MASONRY BOX WHERE MOUNTED IN BRICK. UNDER NO CIRCUMSTANCES SHALL OVERSIZE OPENINGS BE COVERED WITH PLATES AND THE DEVICES MOUNTED ON THE PLATES. BRICK AND ALL OTHER WALL FINISH OPENINGS SHALL BE COMPLETELY COVERED AND CONCEALED BY THE CARD READER. MAKE INSTALLATION OF ALL EXTERIOR CARD READERS WATERTIGHT.



DOOR ROUGH-IN DETAIL ①

N.T.S.

EXTERIOR DOUBLE DOORS 101 AND 102



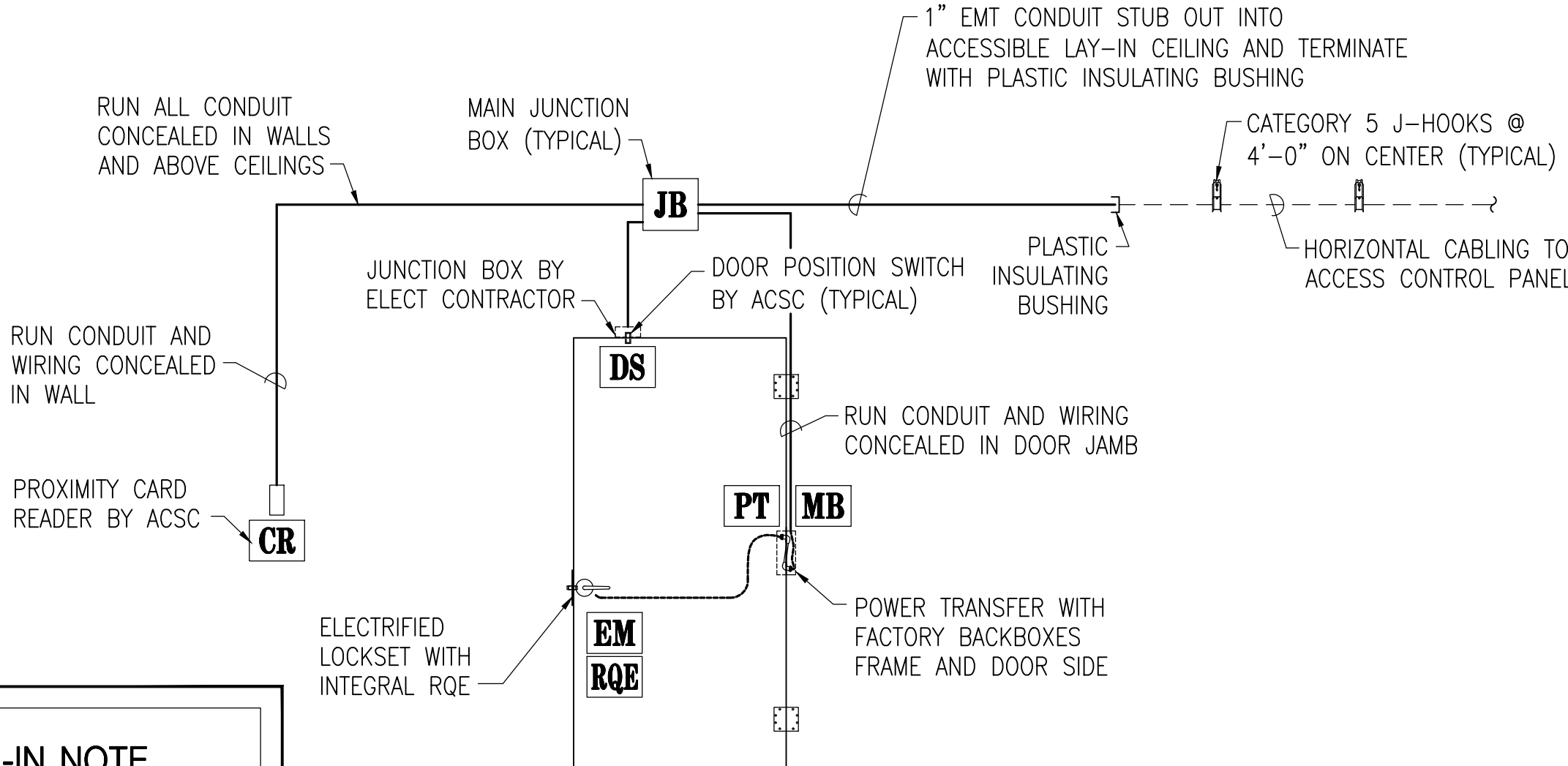
DOOR ROUGH-IN DETAIL ②

N.T.S.

ELECTRICAL ROOM 106

ACS ALL CONCEALED ROUGH-IN NOTE

THE ACCESS CONTROL SYSTEM ROUGH-IN AND WIRING SHALL BE INSTALLED TOTALLY CONCEALED AND RECESSED IN WALLS AND ABOVE CEILINGS. CARD READERS SHALL BE FLUSH MOUNTED ON WALL FINISH. UNDER NO CIRCUMSTANCES WILL EXPOSED WIRE, CONDUIT, SURFACE RACEWAY, SURFACE BOXES, OR FLEXIBLE DOOR LOOP CORDS BE ALLOWED.



DOOR ROUGH-IN DETAIL ③

N.T.S.

COMMUNICATIONS CLOSET DOOR 105

MOUNTING HEIGHTS:

DOOR LAYOUTS INDICATED ON THIS SHEET ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW CORRECT HEIGHTS FOR DEVICES – COORDINATE MOUNTING HEIGHTS WITH ARCHITECT AND MOUNT AT CONSISTENT HEIGHTS – COMPLY WITH ADA.

SECURE SIDE MOUNTING

ALL CONDUIT AT SECURE AND MONITORED DOORS SHALL BE INSTALLED ON THE SECURE SIDE (SIDE OPPOSITE CARD READER).

DOOR ORIENTATION NOTE:

RIGHT HAND/LEFT HAND ORIENTATION FOR EACH DOOR SHALL BE IN ACCORDANCE WITH ARCHITECTURAL DRAWINGS – DOOR LAYOUTS INDICATED ON THIS SHEET ARE DIAGRAMMATIC AND NOT INTENDED TO PROVIDE CORRECT ORIENTATION.

TYPICAL SECURE SINGLE DOOR OPERATION

PRESENTING VALID CREDENTIAL TO CARD READER TIED TO ACCESS CONTROL SYSTEM SIGNALS TIMED ELECTRIC UNLOCKING OF THE ELECTRIFIED EXIT DEVICE OR ELECTRIFIED LOCKSET. ELECTRIC LOCKING MECHANISM SHALL ALWAYS FAIL SECURE (LOCKS ON LOSS OF POWER). DOOR POSITION SWITCH TIED TO THE INTRUSION ALARM SYSTEM MONITORS STATUS OF EACH DOOR LEAF FOR DOOR HELD OPEN OR UNAUTHORIZED ENTRY. REQUEST-TO-EXIT SWITCH INTERNAL TO EXIT DEVICE OR LOCKSET AND TIED TO THE INTRUSION ALARM SYSTEM IS ACTIVATED UPON EXITING THROUGH EITHER DOOR LEAF FROM THE SECURE SIDE SIGNALING AUTHORIZED EXITING. MECHANICAL FREE EGRESS FROM THE SECURE SIDE SHALL ALWAYS BE POSSIBLE.

TYPICAL SECURE DOUBLE DOOR OPERATION

PRESENTING VALID CREDENTIAL TO CARD READER TIED TO ACCESS CONTROL SYSTEM SIGNALS TIMED ELECTRIC UNLOCKING OF THE ACTIVE LEAF ELECTRIFIED EXIT DEVICE OR ELECTRIFIED LOCKSET. ELECTRIC LOCKING MECHANISM IN ACTIVE LEAF SHALL ALWAYS FAIL SECURE (LOCKS ON LOSS OF POWER). DOOR POSITION SWITCHES TIED TO THE INTRUSION ALARM SYSTEM MONITOR STATUS OF EACH DOOR LEAF FOR DOOR HELD OPEN OR UNAUTHORIZED ENTRY. REQUEST-TO-EXIT SWITCHES INTERNAL TO BOTH EXIT DEVICES OR LOCKSETS AND TIED TO THE INTRUSION ALARM SYSTEM IS ACTIVATED UPON EXITING THROUGH EITHER DOOR LEAF FROM THE SECURE SIDE SIGNALING AUTHORIZED EXITING. MECHANICAL FREE EGRESS FROM THE SECURE SIDE SHALL ALWAYS BE POSSIBLE THRU EITHER LEAF.

ACCESS CONTROL SYSTEM LEGEND

- BB** BATTERY BACKUP
- CR** CARD READER
- DS** DOOR POSITION SWITCH
- EX** RIM EXIT DEVICE
- EM** ELECTRIFIED LOCKSET
- JB** JUNCTION BOX
- MB** MORTAR BOX
- MLR** MOTORIZED LATCH RETRACTION
- PS** POWER SUPPLY
- PT** POWER TRANSFER
- RQE** REQUEST TO EXIT
- ①** DOOR DETAIL NUMBER
- #1** DOOR HARDWARE SPEC SET #

Premier Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

CONTRACT DOCUMENTS DWGS

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12 CLASSROOM ADDITION BUILDING

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



Designed by:  
G. Cook

Drawn By:  
J. Cook

#	Description	Date

Access Control System Typical Rough-in Details  
06/06/25

ACS201



Design - Build Contractor

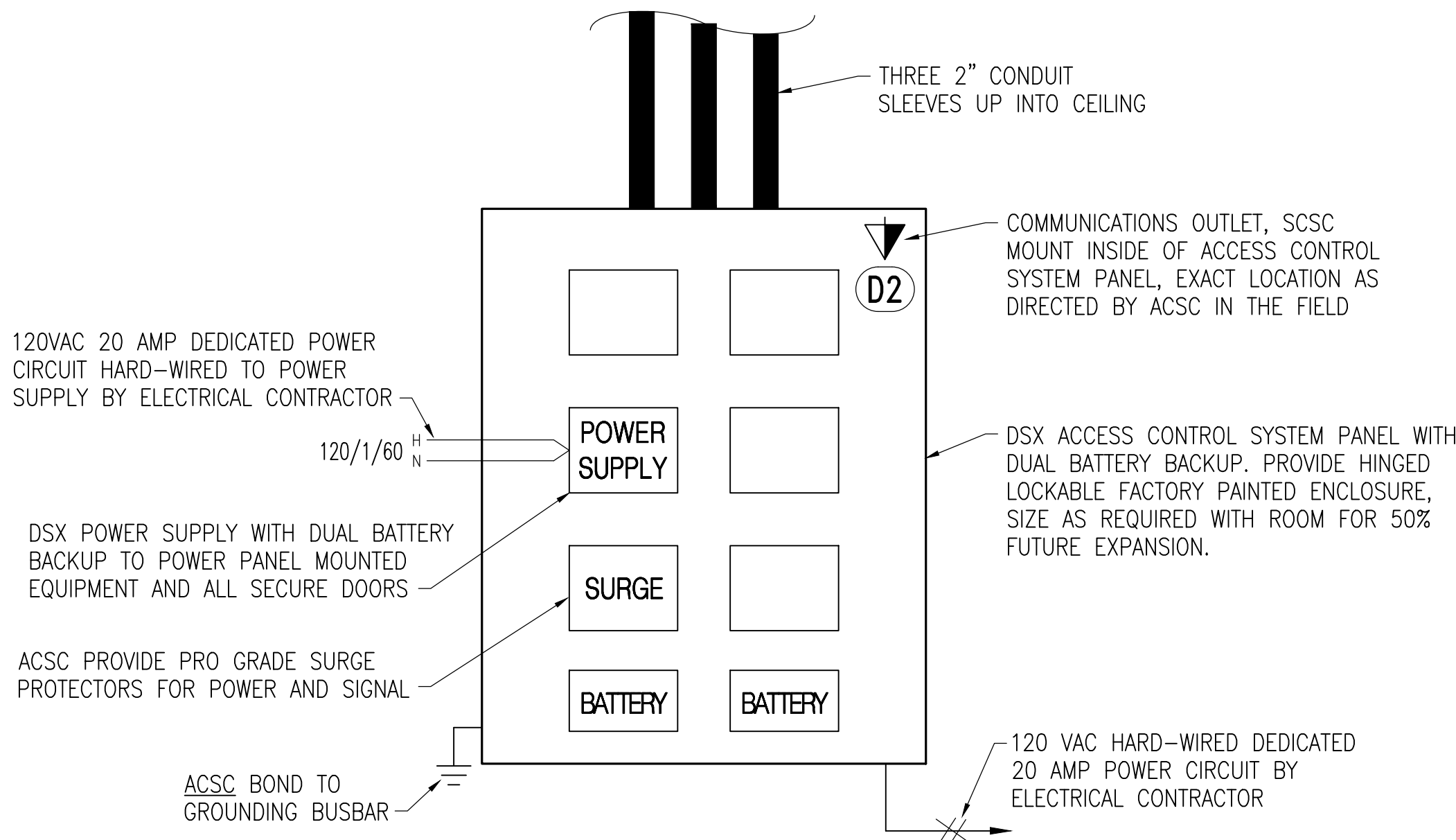
230 West 5th Street  
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## GENERAL CONDUIT NOTES - ACCESS CONTROL SYSTEM

- RUN ALL ACCESS CONTROL SYSTEM CABLING CONTINUOUSLY IN CONDUIT AT DOOR ROUGH-IN, SEE ROUGH-IN DETAILS SHEET ACS200. ALL INTERIOR CONDUIT SHALL BE EMT WITH STEEL SET SCREW FITTINGS (DIE CAST FITTINGS ARE NOT ALLOWABLE). CONDUIT SIZE SHALL BE 1" MINIMUM OR LARGER AS INDICATED, EXCEPT WHERE 1/2" CONDUIT IS SPECIFICALLY ALLOWED AT LOCAL DOOR DEVICES. WHERE CONDUIT SIZE IS NOT SPECIFICALLY INDICATED PROVIDE SIZE AS REQUIRED FOR EACH CONDUIT RUN WITH MAXIMUM 30% CONDUIT FILL RATE.
- ELECTRICAL CONTRACTOR PROVIDE ALL CONDUIT AS INDICATED AND ALL ADDITIONAL CONDUIT AS REQUIRED FOR A COMPLETE SYSTEM, TO INCLUDE CONDUIT SLEEVES. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT REQUIRED BY THE ACCESS CONTROL SYSTEM CONTRACTOR ALONG WITH ALL CONDUIT INDICATED ON THE DRAWINGS, AND SHALL INCLUDE AS PART OF THE BASE BID ALL SUCH CONDUIT WORK.
- DO NOT MOUNT CARD READERS IN STOREFRONT FRAMING UNLESS SPECIFICALLY DIRECTED TO DO SO BY THE OWNER. WHERE DOORS ARE MOUNTED IN A STOREFRONT SYSTEM AND WHERE THE OWNER SPECIFICALLY DIRECTS THE ACSC TO MOUNT THE ASSOCIATED CARD READERS IN THE STOREFRONT SYSTEM RUN ALL WIRING IN CONDUIT PROVIDED BY THE ELECTRICAL CONTRACTOR CONCEALED IN STOREFRONT SYSTEM FRAMING. AT CONTRACTOR'S OPTION WIRING WITHIN THE STOREFRONT MAY BE RUN CONTINUOUSLY IN STAINLESS STEEL ARMORED FLEXIBLE CONDUIT, SIZE AS REQUIRED, CONNECTING TO THE EMT WITH A FITTING MADE FOR THAT PURPOSE AT A JUNCTION BOX ABOVE THE CEILING, BUT UNDER NO CIRCUMSTANCES SHALL ANY WIRING BE RUN WITHIN STOREFRONT FRAMING WITHOUT CONDUIT. CLOSELY COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR AND STOREFRONT SUPPLIER PRIOR TO MANUFACTURER OF STOREFRONT SYSTEM.
- EXTEND 1" CONDUIT FROM EACH SECURE DOOR MAIN JUNCTION BOX MAIN JUNCTION BOX TO THE NEAREST ACCESSIBLE LAY-IN CEILING AND TERMINATE WITH PLASTIC INSULATING BUSHING. RUN 1/2" CONDUIT FROM MAIN JUNCTION BOX CONTINUOUS TO EACH POWER TRANSFER BACKBOX, EACH DOOR POSITION SWITCH JUNCTION BOX AND EACH CARD READER JUNCTION BOX. PROVIDE OTHER CONDUITS AS INDICATED IN DOOR DETAILS AND ELSEWHERE ON THE DRAWINGS AND AS REQUIRED BY THE ACSC.
- RUN CONDUIT AND MOUNT MAIN JUNCTION BOXES FOR EACH SECURE DOOR ON THE SECURE SIDE OF THE DOOR SERVED IN AN ACCESSIBLE/SERVICABLE LOCATION ABOVE A LAY-IN CEILING AS CLOSE TO THE DOOR AS POSSIBLE OR IN A NEARBY ELECTRICAL EQUIPMENT ROOM. RUN ALL CONDUITS AT SECURE DOORS CONCEALED ABOVE CEILINGS AND IN WALLS. EXPOSED WIRING, SURFACE RACEWAY AND ARMORED DOOR LOOPS AND CABLES ARE NOT ALLOWED.
- MOUNT ACS PANELS AND ASSOCIATED POWER SUPPLIES IN COMM ROOMS ONLY. MOUNT POWER SUPPLIES INSIDE OF ACS PANELS.
- FIRE WALLS: FIRESTOP ALL SECOND FLOOR PENETRATIONS AND ALL PENETRATIONS OF FIRE RATED WALLS. FIRESTOP USING ASSEMBLY UL LISTED FOR THE SPECIFIC APPLICATION AND FLOOR OR WALL RATING. INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND THE CONDITIONS OF THE UL LISTING.
- SMOKE WALL PENETRATIONS AND PENETRATIONS OF NON-FIRE RATED WALLS EXTENDING UP TO THE STRUCTURE ABOVE: ALL CONDUIT PENETRATIONS OF ALL WALLS INDICATED ON THE ARCHITECTURAL DRAWINGS AS SMOKE WALLS/BARRIERS/PARTITIONS AND ALL NON-FIRE RATED WALLS INDICATED ON THE ARCHITECTURAL DRAWINGS AS EXTENDING UP TO THE STRUCTURE ABOVE SHALL BE SEALED SMOKETIGHT WITH STI SMOKE 'N' SOUND SEALANT WITH UL LISTED 'L' SMOKE RATING AND 'ST' ACOUSTICAL RATING OF 62. SEALANT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS FOR 1/4" SEALANT CAULK ON BOTH SIDES OF THE WALL. SEALANT INSTALLATION ON ONLY ONE SIDE OF THE WALL IS NOT ACCEPTABLE. AT THE CONTRACTOR'S OPTION PROVIDE AN ALTERNATE ACOUSTICAL SEALANT WITH EQUAL 'ST' RATING AT THRU PENETRATIONS OF NON-SMOKE RATED WALLS THAT EXTEND UP TO THE STRUCTURE ABOVE FOR SOUND ISOLATION. INSTALL SAME AS INDICATED FOR STI SMOKE 'N' SOUND ABOVE.
- ELECTRICAL CONTRACTOR PROVIDE HEAVY DUTY PULL STRINGS IN ALL CONDUITS SERVING SECURE DOORS AND DEVICES FOR USE BY CABLING INSTALLER - RUN CONTINUOUS FROM PULL POINT TO PULL POINT WITH NOT LESS THAN 10 FEET SLACK COILED AT EACH END.
- SUPPORT CONDUIT DIRECTLY FROM BUILDING STRUCTURE USING APPROVED HARDWARE. DO NOT SUPPORT CONDUIT FROM OTHER SYSTEMS COMPONENTS OR SUPPORTS. RUN ALL CONDUITS PARALLEL/PERPENDICULAR AND PLUMB WITH BUILDING LINES.
- CONDUIT BODIES SUCH AS 'LB' FITTINGS ARE NOT ALLOWABLE.
- TERMINATE ALL CONDUIT ENDS WITH THREADED PLASTIC INSULATING BUSHINGS (PUSH-ON NOT ALLOWABLE). BUSHINGS MUST FIT TIGHTLY ON CONDUIT CONNECTOR THREADS. INSTALL ALL BUSHINGS PRIOR TO PULLING CABLE.
- IDENTIFICATION: IDENTIFY ALL INDOOR ACS CONDUITS AND PULLBOXES ABOVE LAY-IN CEILINGS AT EVERY PULLBOX AND ON CONDUIT AT EACH COUPLER (PAINT ENTIRE COUPLER) WITH WHITE PAINT. DO NOT PAINT SLEEVES IN EQUIPMENT ROOMS.



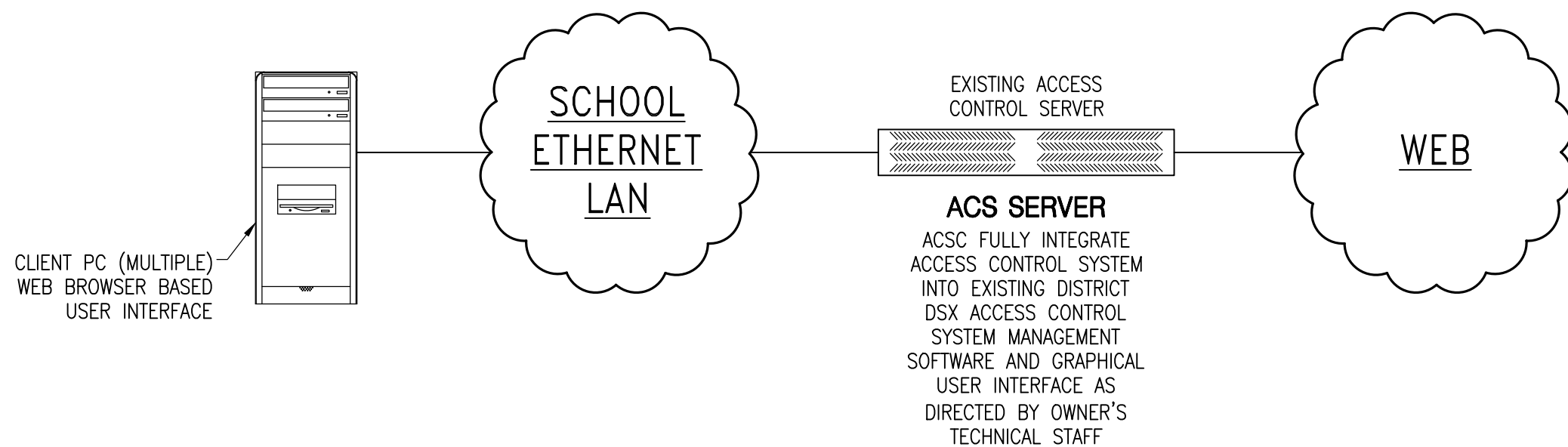
TYPICAL ACCESS CONTROL SYSTEM PANEL DETAIL  
NOT TO SCALE

## ACCESS CONTROL SYSTEM CONTRACTOR

THE GENERAL CONTRACTOR SHALL INCLUDE A COMPLETE ACCESS CONTROL SYSTEM WITH INTEGRATED INTRUSION ALARM AND LOCKDOWN FOR THIS PROJECT PROVIDED BY A SPECIALIZED ACCESS CONTROL SYSTEM CONTRACTOR (ACSC). THE ACCESS CONTROL SYSTEM CONTRACTOR SHALL BE DSX CERTIFIED PRIOR TO BIDS, SHALL BE WELL EXPERIENCED IN THE INTEGRATION OF AN ACCESS CONTROL SYSTEM OF THE TYPE AND SIZE REQUIRED FOR THIS PROJECT INTO DSX, SHALL MEET ALL ADDITIONAL QUALIFICATIONS STATED IN THE SPECIFICATIONS, AND SHALL BE APPROVED IN ADVANCE OF BIDS BY THE OWNER. EACH GC/CM SUBMITTING A BID FOR THIS PROJECT SHALL CONTACT THE OWNER'S PROJECT MANAGER AND OBTAIN A LIST OF APPROVED ACCESS CONTROL SYSTEM CONTRACTORS FOR THIS PROJECT PRIOR TO BIDS.

THE SCOPE OF WORK SHALL INCLUDE THE ACCESS CONTROL SYSTEM WITH INTRUSION ALARM AND LOCKDOWN COMPLETE WITH ALL WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS, ALL DEVICES, EQUIPMENT AND WORK DESCRIBED IN THE INTEGRATOR'S COST PROPOSAL AND ASSOCIATED STATEMENT OF WORK, ALL OTHER DEVICES, EQUIPMENT AND WORK REQUIRED FOR A COMPLETE SYSTEM, ALL WIRING AND CABLING (EXCEPT AS INDICATED BELOW FOR CATEGORY 6 CABLING BY THE SCSC), AND ALL PROGRAMMING AND SETUP REQUIRED TO MAKE THE SYSTEM FULLY OPERATIONAL AND FUNCTIONAL TO THE SATISFACTION OF THE OWNER.

RELATED WORK TO BE PROVIDED BY OTHERS BUT NOT INCLUDED IN THE SCOPE OF WORK FOR THE ACCESS CONTROL SYSTEM CONTRACTOR SHALL INCLUDE CONDUIT FOR ALL ACCESS CONTROL SYSTEM WIRING AND CABLING AND ALL POWER AND GROUNDING REQUIRED FOR THE ACCESS CONTROL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ASSOCIATED CONDUIT, POWER AND GROUNDING WORK WITH THE ACCESS CONTROL SYSTEM CONTRACTOR - BUT THE SCOPE OF CONDUIT, POWER AND GROUNDING WORK SHALL NOT BE LESS THAN THAT DESCRIBED ON THE DRAWINGS. THE SCSC SHALL PROVIDE CATEGORY 6 CABLING TO EACH ACCESS CONTROL SYSTEM PANEL AS INDICATED ON THE DRAWINGS.



## ACCESS CONTROL SYSTEM CABLING REQUIREMENTS

- PROVIDE JACKETED WIRE FOR ALL APPLICATIONS.
- PROVIDE SHIELDED CABLE WHERE RECOMMENDED BY THE CONNECTED EQUIPMENT MANUFACTURER. TERMINATE SHIELD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- HOMERUN CARD READER CABLE FROM READER TO SERVING ACCESS CONTROL SYSTEM PANEL. PROVIDE SLACK IN CABLE AT MAIN PULL BOX AT EACH SECURE DOOR. MAKE ALL WIRING CONNECTIONS TO CABLE IN MAIN PULL BOX AT EACH SECURE DOOR.
- FOR PURPOSES OF BIDS THE ACS CONTRACTOR SHALL PROVIDE THE FOLLOWING WIRING FOR THE ACS AND OTHER SECURITY SYSTEMS. FOLLOWING BIDS THE ACSC SHALL SHALL PROVIDE WIRING AS REQUIRED FOR EACH APPLICATION AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE THE FOLLOWING WIRING TO EACH CARD READER:  
4-CONDUCTOR/18 AWG, 3-PAIR/22 AWG, 2-CONDUCTOR/22 AWG, 4-CONDUCTOR/22 AWG
- PROVIDE WIRING AS REQUIRED TO ALL OTHER ACCESS CONTROL AND SECURITY SYSTEM DEVICES AND POWER SUPPLIES.
- CONDUCTOR QUANTITIES AND GAUGES ARE MINIMUM, PROVIDE HIGHER CONDUCTOR COUNT AND LARGER GAUGES AS REQUIRED FOR EACH WIRED DEVICE PER MANUFACTURER'S INSTRUCTIONS.



ACSC, EC, SCSC AND GC/CM COORDINATION NOTES

1. THE ACSC SHALL PROVIDE THE ACCESS CONTROL SYSTEM NOTIFICATION OF ALARMS TO OWNER IDENTIFIED CENTRAL RECEIVING STATIONS, OTHER WORK SHOWN TO BE BY THE ACSC IN THE DRAWINGS AND SPECIFICATIONS, AND ALL OTHER WORK REQUIRED FOR COMPLETE AND FULLY FUNCTIONAL SYSTEMS.
2. THE ACSC WILL FULLY INTEGRATE THE ACCESS CONTROL SYSTEM INTO THE OWNER'S EXISTING DSX ACCESS CONTROL SYSTEM SOFTWARE FOR MANAGEMENT OF THE ACCESS CONTROL SYSTEM TO INCLUDE INTRUSION ALARM AND LOCKDOWN.
3. THE ACSC SHALL PROVIDE ALL LOW VOLTAGE WIRING ASSOCIATED WITH THE SYSTEM LISTED ABOVE.
4. THE ACSC SHALL PROVIDE ALL MAINS POWER TO LOW VOLTAGE POWER SUPPLIES REQUIRED TO POWER ACCESS CONTROL SYSTEM PANELS AND ALL SECURE DOORS. THE ACSC SHALL FURNISH THOSE POWER SUPPLIES TO THE EC FOR INSTALLATION.
5. THE ACSC SHALL PROVIDE A DETAILED STATEMENT OF WORK WITH INCLUSIONS AND EXCLUSIONS TO THE GC/CM AND EC FOR FINAL COORDINATION, ALONG WITH WIRING DIAGRAMS, INSTALLATION, OPERATION AND MAINTENANCE MANUALS, AND OTHER INFORMATION REQUIRED FOR THE GC AND EC TO COMPLETE THEIR ASSOCIATED WORK IN A TIMELY MANNER IN ACCORDANCE WITH THE OVERALL PROJECT SCHEDULE.
6. THE GC/CM SHALL PROVIDE OVERALL COORDINATION AND SCHEDULING FOR THE SYSTEM LISTED ABOVE TO INCLUDE DIRECT COORDINATION BETWEEN THE ACSC AND EC FOR ROUGH-IN AND OTHER WORK ITEMS THAT ARE TIME CRITICAL. THE GC/CM SHALL ALSO PROVIDE OVERALL COORDINATION OF EQUIPMENT LOCATIONS WITH THE ARCHITECT, OWNER, EC AND ACSC.
7. THE EC AND ACSC SHALL COORDINATE PROJECT REQUIREMENTS AS SOON AS THE ACSC IS IDENTIFIED BY THE OWNER AND CONTINUALLY DURING THE COURSE OF THE PROJECT.
8. THE EC SHALL PROVIDE ALL CONDUIT, BOXES, ENCLOSURES, PULL STRINGS AND TAPES, SLEEVES, FIRESTOPPING, SMOKESTOPPING, POWER, GROUNDING, AND ALL OTHER WORK REQUIRED BY CODE OR FOR COMPLETE AND FULLY FUNCTIONAL SYSTEMS BUT NOT PROVIDED BY THE ACSC OR SPECIFICALLY IDENTIFIED AS PROVIDED BY OTHERS, WHETHER SPECIFICALLY SHOWN OR NOT.
9. THE EC SHALL WIRE AND MAKE ALL CONNECTIONS TO ALL ELECTRIFIED DOOR HARDWARE AND DOOR HARDWARE THAT REQUIRES ANY TYPE OF 120 VAC WIRING CONNECTION. SEE DOOR HARDWARE SPECIFICATION SECTION 087100 AND ARCHITECTURAL AND ELECTRICAL DRAWINGS.
10. ACCESS CONTROL SYSTEM PANELS – CATEGORY 6 OUTLET: CATEGORY 6 CABLING AND MODULAR OUTLETS FOR NETWORK CONNECTIONS TO ACSC PANELS SHALL BE PROVIDED BY THE STRUCTURED CABLING SYSTEM CONTRACTOR (SCSC) COMPLETE TO INCLUDE PATCH PANELS, TERMINATION, LABELING, TESTING, AND PATCHING TO ASSIGNED NETWORK CONNECTIONS. THE CATEGORY 6 CABLES SHALL BE TERMINATED ON A BISCUIT JACK BY THE SCSC INSIDE THE ACSC PANELS. SCSC AND ACSC COORDINATE FINAL OUTLET LOCATIONS WITHIN PANELS.

ACCESS CONTROL SYSTEM GENERAL NOTES:

1. REFER TO SPECIFICATION SECTION 087100 – DOOR HARDWARE TO CROSS REFERENCE DOOR HARDWARE SET NUMBERS TO INDIVIDUAL DOOR NUMBERS ALONG WITH OTHER INFORMATION FOR SECURE DOORS TO INCLUDE OPERATION. DOOR HARDWARE INDICATED ON ACS DRAWINGS IS FOR INFORMATION ONLY. SEE DOOR HARDWARE SPECIFICATION FOR FINAL DOOR HARDWARE REQUIREMENTS. ALL DOOR HARDWARE COMPONENTS LISTED IN SPECIFICATION SECTION 087100 – DOOR HARDWARE SHALL BE PROVIDED BY THE DOOR HARDWARE PROVIDER UNLESS SPECIFICALLY INDICATED TO BE PROVIDED BY OTHERS. CARD READERS AND DOOR POSITION SWITCHES SHALL BE PROVIDED BY THE ACCESS CONTROL SYSTEM CONTRACTOR. POWER SUPPLIES SHALL HAVE DUAL BATTERY BACKUP AND SHALL BE FURNISHED BY THE ACCESS CONTROL SYSTEM CONTRACTOR INTEGRAL TO THE DSX CONTROL PANELS. LOW VOLTAGE WIRING SHALL BE PROVIDED BY THE ACCESS CONTROL SYSTEM CONTRACTOR. ALL CONDUIT FOR LOW VOLTAGE WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. 120VAC POWER AND ALL CONDUIT FOR POWER SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
2. ALL DOORS SHALL FAIL SECURE UPON LOSS OF POWER TO LOCKING DEVICE FOR ANY REASON.
3. ALL DOORS SHALL HAVE MECHANICAL FREE EGRESS FROM SECURE SIDE TO UNSECURE SIDE UNLESS SPECIAL CIRCUMSTANCES DICTATE OTHERWISE AS SPECIFICALLY DESCRIBED IN THE DOOR HARDWARE SPECIFICATIONS.
4. ALL DOORS SHALL HAVE REQUEST TO EXIT FEATURE PROVIDED BY THE DOOR LOCKING DEVICE MANUFACTURER AS PART OF THE DOOR HARDWARE PACKAGE. REQUEST TO EXIT SHALL INDICATE AUTHORIZED EGRESS FROM SECURE SIDE TO UNSECURE SIDE SO THAT INTRUSION ALARM IS NOT ACTIVATED.
5. ALL SECURE DOOR MAIN JUNCTION BOXES SHALL BE 12"x12"x6" NEMA 1 SCREW COVER AND SHALL BE INSTALLED IN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING AS CLOSE TO DOOR SERVED AS POSSIBLE.
6. MOUNT ALL CARD READERS FLUSH IN WALL. DO NOT MOUNT IN STOREFRONT FRAMING UNLESS SPECIFICALLY DIRECTED TO DO SO BY THE OWNER OR ARCHITECT. WHERE STOREFRONT MOUNTING IS REQUIRED SEE "GENERAL CONDUIT NOTES – ACCESS CONTROL SYSTEM" NOTE 3 SHEET ACS202 AND ACSC PROVIDE NARROW STILE CARD READER.
7. PROVIDE WEATHERPROOF CARD READERS, ROUGH-IN AND MOUNTING AT ALL LOCATIONS.
8. CARD READER LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND INTENDED ONLY TO SHOW DOOR SERVED AND UNSECURE SIDE MOUNTING . THE OWNER'S PROJECT MANAGER AND ARCHITECT PROVIDE DIRECTION ON EXACT LOCATION OF ALL CARD READERS IN THE FIELD – WHICH MAY BE ANYWHERE IN THE VICINITY OF THE DOOR SERVED AT NO ADDITIONAL COST TO THE OWNER. THE GC SHALL REQUEST LOCATIONS WELL PRIOR TO COMMENCEMENT OF ROUGH-IN.
9. THE GC/CM SHALL PROVIDE OVERALL COORDINATION AND SCHEDULING FOR THE ACCESS CONTROL SYSTEM INCLUDING DIRECT COORDINATION BETWEEN THE ACSC AND EC FOR ROUGH-IN AND OTHER WORK ITEMS THAT ARE TIME CRITICAL. THE GC SHALL ALSO PROVIDE OVERALL COORDINATION OF EQUIPMENT LOCATIONS (CARD READERS) WITH THE ARCHITECT, OWNER, EC AND ACSC.
- 10.PROVIDE WALL/MORTAR/JUNCTION BOXES AT ALL POWER TRANSFERS, AND DOOR POSITION SWITCHES REGARDLESS OF WALL TYPE AND WHETHER DOOR FRAMES ARE MORTAR FILLED OR NOT. CONNECT CONDUIT TO BOXES WITH MORTAR TIGHT COMPRESSION FITTINGS. PROVIDE GROMMETS WHERE WIRING PASSES THRU OPENINGS IN METAL COMPONENTS. COMPLY WITH CODE FOR PROTECTION OF CONDUITS IN CONTACT WITH MORTAR OR CONCRETE.
- 11.FINAL DOOR NUMBERS SHALL BE BASIS FOR SYSTEM LABELING AND PROGRAMMING SHALL BE BASED ON FINAL ROOM NUMBERS USED FOR ROOM SIGNAGE. FINAL NUMBERING/LABELING SCHEME FOR DOORS OTHER SECURITY DEVICES SHALL BE WORKED OUT IN CLOSE COORDINATION WITH THE OWNER'S PROJECT MANAGER AND ARCHITECT.

INTRUSION ALARM NOTES

THE ACS CONTRACTOR SHALL SETUP THE INTRUSION ALARM SYSTEM AS AN EXTENSION OF AND FULLY INTEGRATED INTO THE OWNER'S DSX ACCESS CONTROL SYSTEM FOR A SEAMLESS USER INTERFACE.

ALL SECURE DOORS ARE MECHANICAL FREE EGRESS AT ALL TIMES. ALL SECURE DOORS SHALL FAIL SECURE (LOCKED) UPON A POWER FAILURE. A FIRE ALARM EVENT SHALL NOT UNLOCK ANY SECURE DOOR.

ALL SECURE DOORS SHALL HAVE REQUEST TO EXIT INTEGRAL TO THE DOOR HARDWARE SUCH THAT EGRESS THRU A SECURE DOOR FROM THE SECURE SIDE SHALL NOT GENERATE AN INTRUSION ALARM.

THE INTRUSION ALARM SHALL OPERATE ON AN ARMED/DISARMED MODE BASIS, WITH THE MODE BASED ON TIME OF DAY.

IN ADDITION THE OWNER SHALL HAVE THE ABILITY TO INDEX THE SYSTEM TO MULTIPLE SPECIAL EVENT MODES.

ARMED MODE – GENERAL:

IN THE ARMED MODE ALL SECURE DOORS ARE ELECTRICALLY LOCKED AND MAY BE ENTERED ONLY BY INDIVIDUALS WITH VALID CARD READER CREDENTIAL AND PERMISSION TO ENTER THE BUILDING DURING THE TIME WHEN THE SYSTEM IS ARMED.

UNARMED MODE – GENERAL:

IN THE UNARMED MODE ALL SECURE DOORS ARE ELECTRICALLY LOCKED AND MAY BE ENTERED ONLY BY INDIVIDUALS WITH VALID CARD READER CREDENTIAL AND PERMISSION TO ENTER THE BUILDING DURING THE TIME WHEN THE SYSTEM IS UNARMED. ALTERNATELY THE OWNER MAY CHOOSE TO HAVE ONE OR MORE SECURE DOORS ELECTRICALLY UNLOCKED DURING THE TIME WHEN THE SYSTEM IS UNARMED.

THE OWNER MAY ELECT TO SET SYSTEM ARMED AND UNARMED MODES BASED ON TIME OF DAY ONLY, OR TO KEEP THE SYSTEM IN ARMED MODE AT ALL TIMES.

AN INTRUSION ALARM SHALL BE GENERATED ANYTIME A SECURE DOOR IS ELECTRICALLY LOCKED AND IS FORCED OPEN AS SENSED BY THE DOOR POSITION SWITCH(ES), EXCEPT FOR EXCEPTIONS ON A DOOR-BY-DOOR AND TIME-OF-DAY BASIS AS DIRECTED BY THE OWNER. IN ARMED MODE A DOOR-HELD-OPEN NOTIFICATION MAY BE GENERATED FIRST, FOLLOWED BY AN INTRUSION ALARM, AS DIRECTED BY THE OWNER.

AN INTRUSION ALARM SHALL AUTOMATICALLY INITIATE A LOCKDOWN, UNLESS OTHERWISE DIRECTED BY THE OWNER.

SEE 'EMERGENCY NOTIFICATION NOTE' FOR REQUIREMENTS RELATED TO EMERGENCY NOTIFICATION OF INTRUSION ALARMS. THE OWNER MAY ELECT TO HAVE UP TO DIFFERENT LEVELS OR TYPES OF ALARM NOTIFICATION FOR INTRUSION ALARMS.

THESE MODES OF OPERATION MAY VARY AT THE OWNER'S DIRECTION AND NO ADDITIONAL COST TO THE OWNER.

THESE OPERATING NOTES ARE FOR GENERAL INFORMATION ONLY AND ARE NOT INTENDED TO CONVEY THE FULL SCOPE OF ACS CONTRACTOR WORK. IT SHALL BE THE SOLE RESPONSIBILITY OF THE ACS CONTRACTOR TO COORDINATE ALL REQUIRED DETAILS OF BUILDING OPERATIONAL MODES ALONG WITH DETAILS OF SYSTEM OPERATION WITH THE OWNER'S PROJECT MANAGER AND OTHER OWNER PERSONNEL. INTENDED SYSTEM OPERATION SHALL BE APPROVED BY THE OWNER'S PROJECT MANAGER PRIOR TO SYSTEM SETUP AND PROGRAMMING. PROVIDE A MINIMUM OF 1 HOUR TRAINING TO STAFF ACROSS THE FIRST YEAR OF OPERATION, WITH TIMES AND DURATION SET BY THE OWNER'S PROJECT MANAGER. FOLLOWING OCCUPANCY OF THE SCHOOL THE ACSC SHALL CONTINUE TO FINE TUNE OPERATING MODES WITH THE INVOLVEMENT OF THE SCHOOL PRINCIPAL AND THE OWNER'S PROJECT MANAGER FOR THE FIRST YEAR OF OPERATION.

EMERGENCY NOTIFICATION NOTE

THE ACS CONTRACTOR SHALL PROVIDE ALL WORK REQUIRED TO TIE THE ACCESS CONTROL SYSTEM INSTALLED UNDER THIS PROJECT TO THE EXISTING CAMPUS INTRUSION ALARM SYSTEM TO IMMEDIATELY SEND EMERGENCY NOTIFICATION TO OWNER DESIGNATED RECEIVING STATIONS OF AN INTRUSION ALARM EVENT.

ALARM REPORTING

LOCKDOWN NOTES

THE ALL SECURE DOORS INSTALLED UNDER THIS PROJECT TO THE EXISTING CAMPUS LOCKDOWN SYSTEM.

THE ACCESS CONTROL SYSTEM SHALL IMMEDIATELY ELECTRICALLY LOCK ALL SECURE DOORS UPON ACTIVATION OF THE LOCKDOWN SYSTEM BY SCHOOL PERSONNEL FROM A SINGLE POINT IN ADMIN. THE SCHOOL MAY HAVE MORE THAN ONE LOCKDOWN SWITCH IN ADMIN – IF SO THEY SHALL BE FULLY REDUNDANT AND SHALL OPERATE IN PARALLEL SUCH THAT EITHER SWITCH SHALL INITIATE A CAMPUS-WIDE LOCKDOWN. THE LOCKDOWN SHALL BE RELEASED AND SECURE DOORS PLACED IN NORMAL STATUS FOR THE CURRENT TIME ONLY WHEN THE LOCKDOWN SWITCH IS RETURNED TO NORMAL POSITION. ALL SECURE DOORS WITH ELECTRIC LOCKING DEVICES SHALL FAIL SECURE UPON LOSS OF POWER FOR ANY REASON. MECHANICAL FREE EGRESS SHALL ALWAYS BE AVAILABLE AT ALL SECURE DOORS.

THE ACCESS CONTROL SYSTEM SHALL ALSO IMMEDIATELY LOCK ALL SECURE DOORS UPON A FORCED ENTRY ALARM FROM THE INTRUSION ALARM SYSTEM, UNLESS OTHERWISE DIRECTED BY THE OWNER (ACCESS CONTROL SYSTEM CONTRACTOR REQUEST DIRECTION IN WRITING FROM OWNER'S PROJECT MANAGER). THE LOCKDOWN SHALL BE RELEASED AND SECURE DOORS PLACED IN NORMAL STATUS FOR THE CURRENT TIME ONLY WHEN THE LOCKDOWN SWITCH IS RETURNED TO NORMAL POSITION.

PROJECT NOTE (ALL SHEETS):

ALL MATERIALS AND EQUIPMENT INDICATED AND REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION SHALL BE NEW AND SHALL BE PROVIDED BY THE ACSC CONTRACTOR UNDER THIS PROJECT UNLESS SPECIFICALLY INDICATED TO BE EXISTING OR TO BE PROVIDED BY OTHERS.

**Premier**  
Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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12 CLASSROOM ADDITION BUILDING

ROSENWALD ELEMENTARY SCHOOL  
924 BAY AVE, PANAMA CITY, FL 32401

FOR BAY DISTRICT SCHOOL - 1311 BALBOA AVE., PANAMA CITY, FL 32401



Designed by:

G. Cook

Drawn By:

J. Cook

REVISION

#	Description	Date

Access Control  
System Typical  
Details  
06/06/25

ACS203

Design - Build Contractor

230 West 5th Street  
Panama City, FL 32401  
(850) 215-5540

495 Grand Blvd., Suite 206  
Miramar Beach, FL 32550  
(850) 269-6842

**Reliant South**  
Construction Group



#	Description	Date

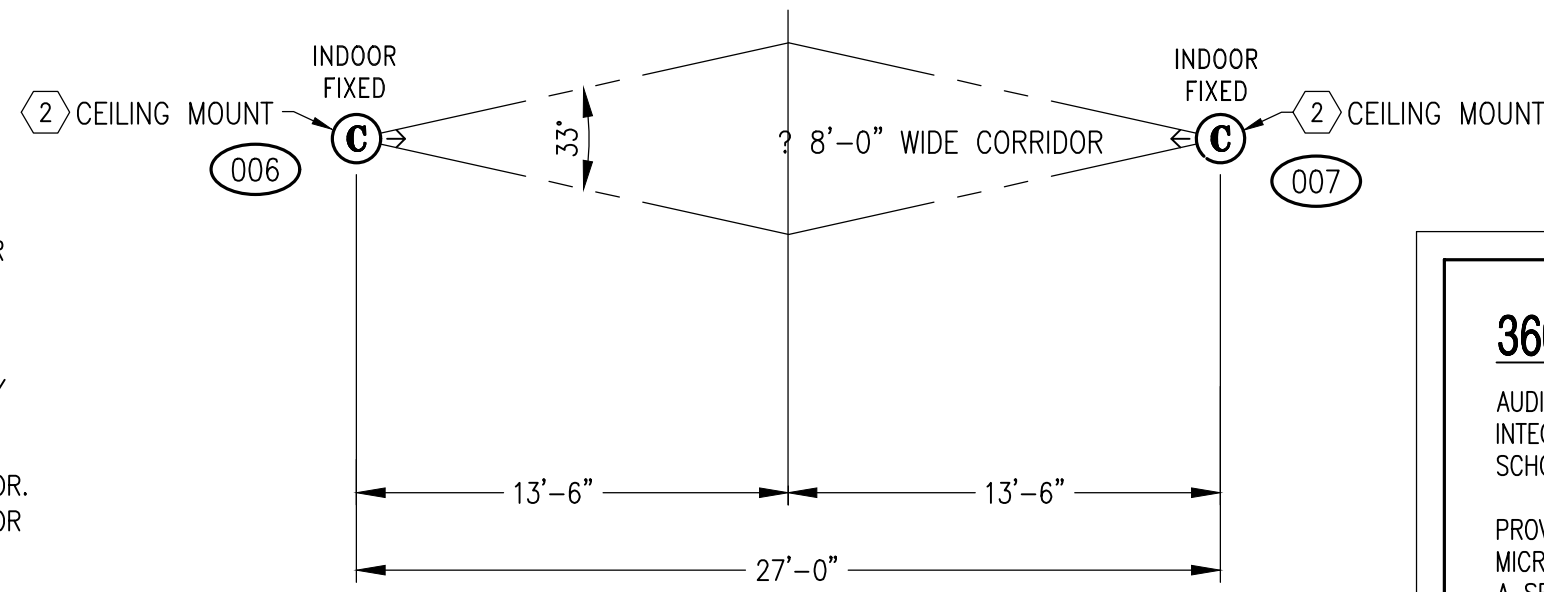
## IP SECURITY CAMERA SYSTEM FLOOR PLAN KEY NOTES

- 1) IPRO WV-S8574L 32 MEGAPIXEL HI-RES 4 X 4K MULTI-IMAGER OUTDOOR FIXED CAMERA (COLOR WHITE) - CORNER MOUNT. INSTALL AND SETUP FOR 270 DEGREE PLUS DOWNLOOK VIEW. VERIFY EXACT LOCATION WITH OWNER AND CAMERA INTEGRATOR PRIOR TO INSTALLATION. CORNER MOUNT USING IPRO WV-QSR503-W SHROUD, IPRO WV-QWL501-W OUTDOOR WALL MOUNT AND IPRO WV-QCN500-W CORNER MOUNT ADAPTER (ALL COLOR WHITE). LOCATE CORNER MOUNT AND DRILL HOLE THROUGH CORNER OF WALL IN EXACT LOCATION REQUIRED FOR CONDUIT TO EXTEND THRU FACTORY OPENING IN CORNER MOUNT AND TERMINATE IN FACTORY CONDUIT CONNECTOR IN WALL MOUNT. UNDER NO CIRCUMSTANCES WILL EXPOSED CONDUIT OR WIRING BE ALLOWED AT CAMERA MOUNTING. SET CORNER MOUNT IN FULL BED OF LEXEL CLEAR SEALANT/ADHESIVE AND SECURE TO STRUCTURE WITH EIGHT 3/8" DIAMETER STAINLESS STEEL BOLTS AND WASHERS. SECURE WALL MOUNT TO CORNER MOUNT WITH FOUR 3/8" DIAMETER STAINLESS STEEL BOLTS AND WASHERS. MAKE ALL PENETRATIONS OF WALL WATERTIGHT WITH LEXEL SEALANT. EXTEND CONDUIT TO 4"x4"x2-1/8" NEMA 1 PULL BOX MOUNTED INDOORS IN NEAREST ACCESSIBLE LOCATION ABOVE LAY-IN CEILING NEAR CAMERA, THEN FREE-ROUTE CAT 6 CABLE ABOVE CEILING WITH CAT 5 J-HOOKS TO SERVING CC. SCSC PROVIDE CATEGORY 6 CABLE FOR NETWORK AND POE SERVICES CONTINUOUS FROM CAMERA TO SERVING CC.
- 2) IPRO WV-S2500-V3L 5MP INDOOR FIXED CAMERA (COLOR WHITE) - CEILING MOUNT. VERIFY EXACT LOCATION WITH OWNER AND CAMERA INTEGRATOR PRIOR TO INSTALLATION. FLUSH MOUNT IN LAY-IN CEILING USING IPRO WV-QEM100W EMBEDDED CEILING MOUNT BRACKET. SUPPORT MOUNTING BRACKET FROM ROOF OR FLOOR STRUCTURE ABOVE. FREE-ROUTE CAT 6 CABLE ABOVE CEILING WITH CAT 5 J-HOOKS TO SERVING CC. SCSC PROVIDE CATEGORY 6 CABLE FOR NETWORK AND POE SERVICES CONTINUOUS FROM CAMERA TO SERVING CC.
- 3) IPRO WV-S4176A 12 MEGAPIXEL INDOOR 360 DEGREE CAMERA - CEILING MOUNT AND SETUP FOR 360 DEGREE VIEW. VERIFY EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. MOUNT ON CEILING USING DOUBLE GANG ELECTRICAL BOX WITH DOUBLE GANG PLASTER RING SUPPORTED BY ERICO CADDY 512HD METAL HEAVY DUTY TILE CEILING BRIDGE AND FACTORY FURNISHED CAMERA ATTACHMENT PLATE - CAMERA INTEGRATOR PROVIDE INFORMATION TO ELECTRICAL CONTRACTOR ON COMPATIBLE GANG BOX. EXTEND 3/4" CONDUIT TO 4"x4"x2-1/8" NEMA 1 PULL BOX MOUNTED INDOORS IN NEAREST ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. THEN FREE-ROUTE CAT 6 CABLE ABOVE CEILING WITH CAT 5 J-HOOKS TO SERVING CC. SCSC PROVIDE CATEGORY 6 CABLE FOR NETWORK AND POE SERVICES CONTINUOUS FROM CAMERA TO SERVING CC. AT EACH WV-S4176A CAMERA INTEGRATOR PROVIDE CAMERA AUDIO WITH FULL SETUP OF AUDIO IN IPRO VIDEO-INSIGHT DISTRICT STANDARD VMS WITH LISTEN-IN ON SCHOOL COMPUTERS AND ON THE DISTRICT NETWORK AS DIRECTED BY THE OWNER. SEE "IP SECURITY CAMERA AUDIO NOTES" THIS SHEET.
- 4) TRITON SENSOR TRTN-UA-IPS. INSTALL IN CEILING IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. CAMERA INTEGRATOR SETUP IN VIDEO INSIGHT AS DIRECTED BY OWNER. FREE-ROUTE CAT 6 CABLE ABOVE CEILING WITH CAT 5 J-HOOKS TO SERVING CC. SCSC PROVIDE CATEGORY 6 CABLE FOR NETWORK AND POE SERVICES CONTINUOUS FROM CAMERA TO SERVING CC.

## CORRIDOR CAMERAS

FOR INDOOR FIXED CAMERAS WITH OPPOSING VIEW IN 8'-0" WIDE CORRIDORS AND TAGGED WITH KEY NOTE 2 (IPRO MODEL WV-S22500-V3L), CONFIGURE AS FOLLOWS:

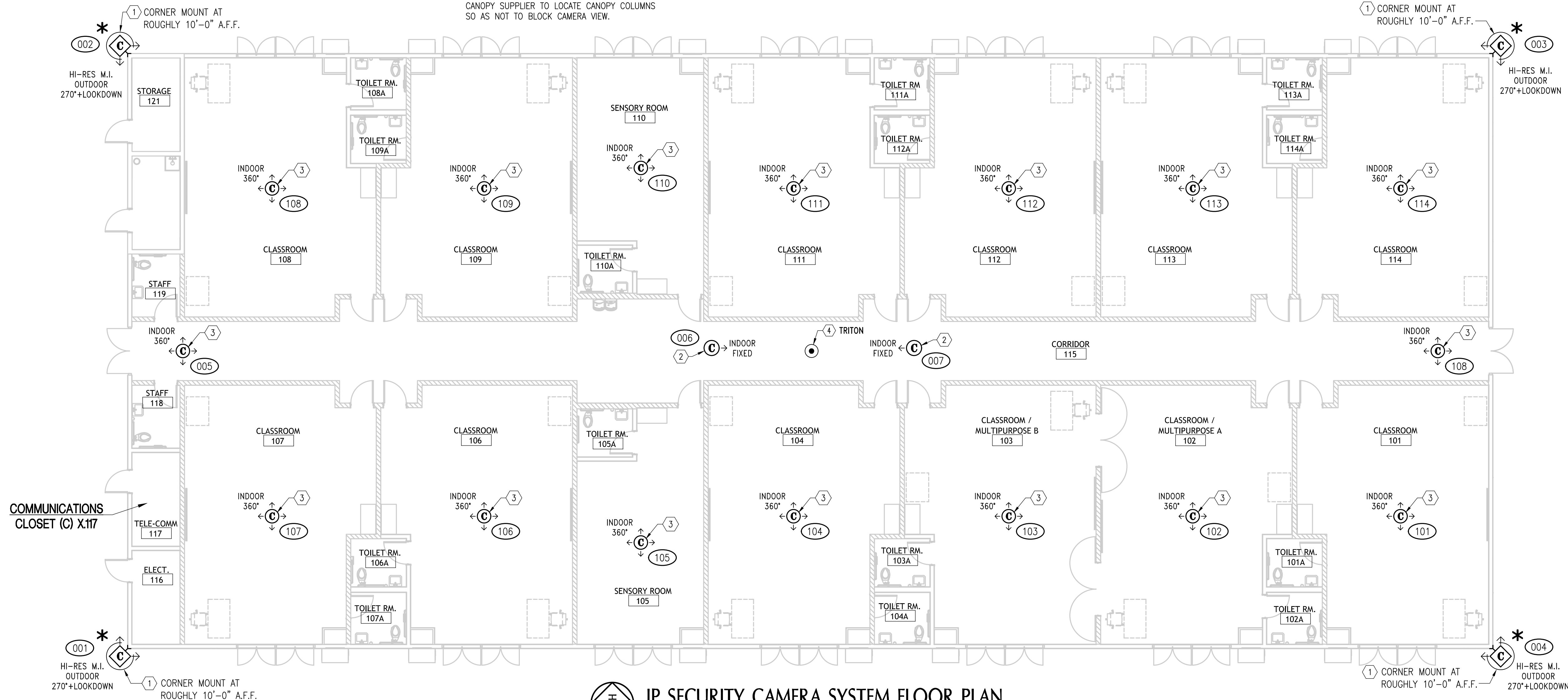
1. LOCATE CENTER OF CORRIDOR IN BOTH DIRECTIONS (CORRIDOR WIDTH AND LENGTH).
2. SET EACH CAMERA AT 13'-6" FROM CORRIDOR CENTER FOR TOTAL DISTANCE BETWEEN CAMERAS OF 27'-0".
3. SET CAMERA HORIZONTAL ANGULAR FIELD OF VIEW TO FACTORY MINIMUM OF 33 DEGREES
4. WHERE CAMERA VIEWS MEET AT CENTER OF CORRIDOR HORIZONTAL FIELD OF VIEW SHOULD EQUAL WIDTH OF CORRIDOR.
5. RESULTING RESOLUTION AT EACH END OF 8'-0" WIDE CORRIDOR IS 50 PIXELS PER FOOT.
6. SET VERTICAL ADJUSTING ANGLE TO MAXIMIZE VIEW OF FLOOR WITH MINIMUM VIEW OF CEILING AT END OF CORRIDOR.



## CORRIDOR CAMERA LAYOUT DIAGRAM

NOT TO SCALE

\*SET CAMERA HEIGHT TO JUST SEE BELOW ADJACENT COVERED WALKWAY ROOF STRUCTURE WHERE APPLICABLE. CM WORK WITH ALUMINUM CANOPY SUPPLIER TO LOCATE CANOPY COLUMNS SO AS NOT TO BLOCK CAMERA VIEW.



## IP SECURITY CAMERA SYSTEM FLOOR PLAN

SCALE: 1/8" = 1'-0"

## CAMERA ATTACHMENT NOTES:

ALL CAMERA ATTACHMENTS SHALL BE MADE VANDAL-RESISTANT. FASTENER SIZES INDICATED FOR CAMERA MOUNTS ARE APPROXIMATE AND MUST BE VERIFIED WITH THE ACTUAL HARDWARE RECEIVED. FASTENERS FOR THREADED CONNECTIONS SHALL BE SAME SIZE AS THREADED HOLE. FASTENERS FOR SMOOTH HOLES SHALL BE 1/16" SMALLER THAN HOLE DIAMETER. ALL FASTENERS, WASHERS AND MISCELLANEOUS RELATED HARDWARE SHALL BE STAINLESS STEEL. ATTACHMENTS AT VARIOUS WALL CONSTRUCTIONS SHALL BE AS FOLLOWS:

1. AT FRAMED WALLS AND AT OPEN CELLS OF CMU WALLS, PROVIDE STAINLESS STEEL "SNAP-TOGGLE" TOGGLE BOLTS. ATTACH TO FRAMING OF FRAMED WALLS.
2. AT METAL SOFFIT OR FASCIA CONSTRUCTION PROVIDE STAINLESS STEEL THRU BOLTS ALL THE WAY THRU SOFFIT OR FASCIA FRAMING. PROVIDE SUPPLEMENTARY FRAMING ON INTERIOR AS REQUIRED FOR SECURE MOUNTING.
3. AT BRICK WALLS, BLOCK WEBS AND FILLED CELLS OF CMU WALLS, AND AT CONCRETE WALLS, PROVIDE COMMERCIAL GRADE HIGH LOAD EXPANSION ANCHORS SUCH AS TOGGLE "ALLIGATOR" SOLID-WALL ANCHORS WITH STAINLESS STEEL FASTENERS.

## ABBREVIATIONS

CER	COMMUNICATIONS EQUIPMENT ROOM
CC	COMMUNICATIONS CLOSET
SCSC	STRUCTURED CABLING SYSTEM CONTRACTOR
EC	ELECTRICAL CONTRACTOR
CM/GC	CONSTRUCTION MANAGER

## SECURITY LEGEND

CORRIDOR 115	ARCHITECT'S ROOM NUMBER, SEE "SECURITY DEVICE IDENTIFICATION NOTE."
	INDOOR CEILING MOUNT FIXED SECURITY CAMERA
	INDOOR CEILING MOUNT 360 DEGREE FIXED SECURITY CAMERA
	OUTDOOR CORNER MOUNT HI-RES MULTI-IMAGER (M.I.) 270 DEGREE FIXED SECURITY CAMERA
1	CAMERA NUMBER

## SECURITY CAMERA IDENTIFICATION NOTE

ALL SECURITY CAMERAS SHALL BE IDENTIFIED BASED CAMERA NUMBERS INDICATED ON THE FLOOR PLAN ALONG WITH CAMERA LOCATION - EITHER 'EXT' FOR EXTERIOR CAMERAS OR FINAL FISH ROOM NUMBER FOR INDOOR CAMERAS UNLESS OTHERWISE DIRECTED BY THE OWNER DURING CONSTRUCTION. OBTAIN FINAL ROOM NUMBERS FROM THE ARCHITECT PRIOR TO IDENTIFYING AND LABELING DEVICES.

## CAMERA FASTENER SIZE NOTE:

FASTENER SIZES INDICATED FOR CAMERA MOUNTS ARE APPROXIMATE AND MUST BE VERIFIED WITH THE ACTUAL HARDWARE RECEIVED. FASTENERS FOR THREADED CONNECTIONS SHALL BE SAME SIZE AS THREADED HOLE. FASTENERS FOR SMOOTH HOLES SHALL BE 1/16" SMALLER THAN HOLE DIAMETER. ALL FASTENERS SHALL BE STAINLESS STEEL.

## PROJECT NOTE (ALL SHEETS):

ALL MATERIALS AND EQUIPMENT INDICATED AND REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION SHALL BE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNDER THIS PROJECT UNLESS SPECIFICALLY INDICATED TO BE EXISTING OR TO BE PROVIDED BY OTHERS.

## DIRECT CONNECT NOTE

DIRECT TERMINATE CATEGORY 6 CABLE WITH MALE MODULAR PLUG, ALL CATEGORY 6 DIRECT CONNECT PLUGS SHALL BE AS INDICATED ON THE IP SECURITY CAMERA SINGLE LINE.

## Graphic Scale

8 4 0 8FT 16FT

SCALE: 1/8" = 1'-0"

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Engineering Group, LLC  
Florida Certificate of Authorization #9308  
Premier Project #25006

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SECURITY CAMERA SYSTEM HORIZONTAL CABLING CONDUIT SLEEVES NOTE:

CONDUIT SLEEVES FOR SECURITY CAMERA SYSTEM CABLING: FINAL ROUTING PATHS FOR FREE-ROUTED SECURITY CAMERA SYSTEM HORIZONTAL CABLING ABOVE CEILINGS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. FOR THIS REASON CONDUIT SLEEVES AT WALL PENETRATIONS ARE NOT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE EMT CONDUIT SLEEVES IN THE QUANTITIES AND LOCATIONS REQUIRED TO SUIT THE CONTRACTOR SELECTED HORIZONTAL CABLE ROUTING AS REQUIRED FOR A COMPLETE INSTALLATION, AND AT NO ADDITIONAL COST TO THE OWNER. AT ALL LOCATIONS WHERE HORIZONTAL CABLING RUNS THRU MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, OR ANY OTHER TYPE OF UNFINISHED SPACE WITH EXPOSED STRUCTURE CEILING, ALL SUCH CABLING SHALL BE RUN IN CONTINUOUS CONDUIT SLEEVES EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES TRAVERSING INACCESSIBLE (HARD) CEILING OR SOFFIT AREAS AND EXTENDING TO THE NEAREST ACCESSIBLE LAY-IN CEILING AT BOTH ENDS FOR CABLE PASS-THRU. SLEEVES SHALL BE SIZED FOR MAXIMUM 30 PERCENT CABLE FILL. TERMINATE ALL SLEEVES WITH PLASTIC INSULATING BUSHING AT EACH END.

SECURITY CAMERA SYSTEM HORIZONTAL CABLE ROUTING NOTE:

ALL SECURITY CAMERA SYSTEM HORIZONTAL CABLE NOT SHOWN TO BE INSTALLED IN CONDUIT SHALL BE FREE-ROUTED ABOVE CEILINGS AND SHALL BE ROUTED UP HIGH DIRECTLY UNDER THE BUILDING ROOF STRUCTURE AND PROPERLY SUPPORTED WITH APPROVED HANGERS AT 4'-0" ON CENTER, BUT DO NOT RUN CABLES CLOSER THAN 6" BELOW ROOF DECK (TO AVOID DAMAGE FROM LONG SCREWS USED IN FUTURE ROOF REPLACEMENTS). RUN ALL CABLING ABOVE DUCTWORK, PIPING, CONDUITS AND ALL OTHER WORK BY OTHER TRADES AND PLACE FOR MAXIMUM PHYSICAL PROTECTION. BUNDLE CABLES TOGETHER AND ROUTE PARALLEL AND PERPENDICULAR TO BUILDING LINES. HANGERS SHALL BE ERICO CADDY "CABLECAT" CATEGORY-5 WITH WIDE BASE LOOP. LOCATE HANGERS AND BUNDLE CABLES AT 4'-0" O.C. WITH VELCRO, COLOR GREEN. ATTACH HANGERS TO THE BUILDING STRUCTURE. DO NOT ATTACH HANGERS TO CEILING GRID OR SUPPORT WIRES, CONDUITS, DUCTWORK, PIPING, OR ANY OTHER SYSTEM COMPONENT OR WORK OF OTHER TRADES. INSTALL CABLES TO AVOID ELECTROMAGNETIC INTERFERENCE FROM MOTORS, TRANSFORMERS, GENERATORS, ELEVATORS, POWER CABLES/CONDUITS, LIGHTING FIXTURES, ETC. DO NOT ROUTE CABLE THRU FIRE DAMPERS, HVAC DUCTS, VENTILATING SHAFTS, OR GRATES. DO NOT BLOCK ACCESS TO PULL/JUNCTION BOXES, HATCHES, DOORS, UTILITY ACCESS PANELS, MECHANICAL SERVICE AREAS, ELECTRICAL SERVICE AREAS, OR ANY OTHER SPACE ASSOCIATED WITH SERVICE OR ACCESS OF ANY TYPE. DO NOT RUN HORIZONTAL CABLING ABOVE CEILINGS OF CHEMICAL STORAGE ROOMS.

IP SECURITY CAMERA SYSTEM INTEGRATOR

THE GENERAL CONTRACTOR SHALL INCLUDE A COMPLETE IP SECURITY CAMERA SYSTEM WITH HALO DETECTORS FOR THIS PROJECT PROVIDED BY A SPECIALIZED IP SECURITY CAMERA SYSTEM INTEGRATOR WITH RELATED WORK PROVIDED BY THE SCSC AND THE ELECTRICAL CONTRACTOR. THE IP SECURITY CAMERA SYSTEM INTEGRATOR SHALL BE IPRO VIDEO-INSIGHT (VI) VMS CERTIFIED PRIOR TO BIDS, SHALL BE WELL EXPERIENCED IN THE INTEGRATION OF IP SECURITY CAMERAS INTO VIDEO-INSIGHT, SHALL MEET ALL ADDITIONAL QUALIFICATIONS STATED IN THE SPECIFICATIONS, AND SHALL BE APPROVED IN ADVANCE OF BIDS BY THE OWNER. CM COORDINATE WITH OWNER.

THE IP SECURITY CAMERA SYSTEM INTEGRATOR SHALL ALSO BE THE ACCESS CONTROL SYSTEM CONTRACTOR FOR THIS PROJECT. SEE ACCESS CONTROL SYSTEM DRAWINGS.

THE SCOPE OF WORK SHALL INCLUDE THE IP SECURITY CAMERA SYSTEM WITH HALO DETECTORS COMPLETE WITH ALL WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS, ALL DEVICES, EQUIPMENT AND WORK DESCRIBED IN THE INTEGRATOR'S COST PROPOSAL AND ASSOCIATED STATEMENT OF WORK, ALL OTHER DEVICES, EQUIPMENT AND WORK REQUIRED FOR A COMPLETE SYSTEM, AND ALL PROGRAMMING AND SETUP REQUIRED TO MAKE THE SYSTEM FULLY OPERATIONAL AND FUNCTIONAL TO THE SATISFACTION OF THE OWNER.

THE IP SECURITY CAMERA SYSTEM INTEGRATOR SHALL PROVIDE ALL CAMERAS AND CAMERA MOUNTS AND ALL HALO DETECTORS, SHALL LOCATE CAMERAS PRIOR TO ROUGH-IN, TEST THE OPERATION OF EACH INSTALLED CAMERA, SET FINAL CAMERA VIEWING ANGLES, FIELDS OF VIEW, LENS SETTINGS, COMPRESSION SETTINGS AND OTHER CAMERA SETTINGS FOR OPTIMUM PERFORMANCE, SHALL FULLY INTEGRATE THE CAMERAS AND HALO DETECTORS IN THE OWNER'S EXISTING IPRO VIDEO-INSIGHT VMS, SHALL PROVIDE SOFTWARE UPGRADES AND REGISTER CAMERA LICENSES, SHALL PROVIDE FINAL SETUP, PROGRAMMING, TESTING AND OWNER TRAINING FOR THE SYSTEM, AND SHALL MAKE THE SYSTEM FULLY OPERATIONAL AND FUNCTIONAL TO THE SATISFACTION OF THE OWNER.

THE SERVER NVR SHALL BE OWNER FURNISHED CONTRACTOR INSTALLED (CFCI). THE OWNER SHALL PROVIDE THE SERVER NVR TO THE IP SECURITY CAMERA SYSTEM INTEGRATOR FOR INSTALLATION, SETUP, PROGRAMMING, AND FULL INTEGRATION INTO THE IP SECURITY CAMERA SYSTEM. THE INTEGRATOR SHALL HAVE QUALIFIED AND EXPERIENCED PERSONNEL ON STAFF AND ASSIGNED TO THE PROJECT FOR ALL ASSOCIATED WORK.

RELATED WORK TO BE PROVIDED BY OTHERS BUT NOT INCLUDED IN THE SCOPE OF WORK FOR THE IP SECURITY CAMERA SYSTEM INTEGRATOR SHALL INCLUDE WORK BY THE STRUCTURED CABLING SYSTEM CONTRACTOR (SCSC) AS INDICATED ON THE DRAWINGS. THE SCSC SHALL PROVIDE ALL CATEGORY 6 CABLING, PATCH PANELS, TERMINATION AND TESTING, AND CLOSE COORDINATION WITH THE GC/CM, ELECTRICAL CONTRACTOR AND THE IP SECURITY CAMERA SYSTEM INTEGRATOR.

ADDITIONAL RELATED WORK TO BE PROVIDED BY OTHERS BUT NOT INCLUDED IN THE SCOPE OF WORK FOR THE IP SECURITY CAMERA SYSTEM INTEGRATOR SHALL INCLUDE WORK BY THE ELECTRICAL CONTRACTOR AS INDICATED ON THE DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT ALONG WITH ALL POWER AND GROUNDING REQUIRED FOR THE IP SECURITY CAMERA SYSTEM. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE ASSOCIATED CONDUIT, POWER AND GROUNDING WORK WITH THE INTEGRATOR, SCSC AND CM - BUT THE SCOPE OF CONDUIT, POWER AND GROUNDING WORK SHALL NOT BE LESS THAN THAT DESCRIBED ON THE DRAWINGS.

IP SECURITY CAMERA LOCATION NOTES

MOUNTING LOCATIONS AND HEIGHTS INDICATED FOR CAMERAS ARE APPROXIMATE AND SHALL BE COORDINATED IN DETAIL BEFORE ANY ROUGH-IN BEGINS. THE CM SHALL TAKE THE LEAD IN COORDINATING FINAL CAMERA LOCATIONS WITH THE ARCHITECT, OWNER, SCSC AND DISTRICT SECURITY STAFF. SEE SPECIFICATIONS. THE CM SHALL COORDINATE ROUGH-IN REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR BASED ON THE CAMERA LOCATIONS DETERMINED BY THIS EFFORT.

THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL INDOOR CEILING MOUNTED CAMERAS WITH LIGHTING FIXTURES, EXIT SIGNS AND OTHER CEILING MOUNTED DEVICES THAT EXTEND BELOW THE CEILING ALONG WITH CEILING FEATURES INVOLVING CHANGES IN CEILING HEIGHT THAT WILL IMPEDE FULL CAMERA VIEWS.

THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL INDOOR WALL MOUNTED CAMERAS WITH ALL NEARBY WALL MOUNTED OR CEILING MOUNTED LIGHTING FIXTURES AND OTHER DEVICES THAT WILL IMPEDE FULL CAMERA VIEWS.

THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL OUTDOOR CAMERA WITH CANOPIES, SOFFITS, GUTTER DOWNSPOUTS, POLES AND ANY OTHER OBSTRUCTION THAT WILL IMPEDE FULL CAMERA VIEWS.

ALL FINAL CAMERA LOCATIONS SHALL PROVIDE AN UNOBSTRUCTED VIEW OF THE AREA SERVED BY EACH CAMERA.

AT ANY LOCATION WHERE GUTTER DOWNSPOUTS OR OTHER OBSTRUCTIONS INTERFERE WITH A CAMERA'S FULL FIELD OF VIEW TIGHT TO THE BUILDING EXTERIOR, PROVIDE STANDOFF PADDING USING KING STARBOARD, 1-1/2" THICK, COLOR TO MATCH COLOR OF CAMERA MOUNT AS CLOSELY AS POSSIBLE PROVIDE MULTIPLE STANDOFF PADS AS REQUIRED TO COMPLETELY CLEAR DOWNSPOUT OR OBSTRUCTION AND PROVIDE FULL CAMERA VIEW AS INDICATED. PADS SHALL BE EXACT DIMENSION OF CAMERA WALL MOUNT PLATE, AND SHALL BE APPLIED BETWEEN THE WALL MOUNT PLATE AND THE CORNER MOUNT BRACKET. EDGES OF PADS SHALL BE CUT STRAIGHT AND SANDED SMOOTH FOR BEST APPEARANCE.

CONTRACTOR RESPONSIBILITY

1. GC/CM SCHEDULE A SITE MEETING WITH THE OWNER'S PROJECT MANAGER, IP SECURITY CAMERA SYSTEM INTEGRATOR, SCSC AND ELECTRICAL CONTRACTOR TO COORDINATE CAMERA LOCATIONS TO INCLUDE PLACEMENT IN PLAN VIEW AND CAMERA MOUNTING HEIGHT PRIOR TO COMMENCING CONDUIT ROUGH-IN AND CAMERA INSTALLATION. THE OWNER'S PROJECT MANAGER WILL MAKE THE FINAL DECISION FOR EACH CAMERA LOCATION. THE CONTRACTOR SHALL MARK THOSE LOCATIONS IN THE PRESENCE OF THE OWNER.

2. PARTICULAR ATTENTION SHALL BE GIVEN TO COORDINATION OF CAMERA LOCATIONS AND VIEWS RELATIVE TO OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO CEILING FEATURES, SOFFIT FEATURES, LIGHT FIXTURES, GUTTER DOWNSPOUTS, PA HORN SPEAKERS, EXTERIOR COVERED WALKWAYS, ALUMINUM CANOPIES, AND OTHER TYPE CANOPIES AND OUTLYING STRUCTURES. ALSO SEE 'IP SECURITY LOCATION NOTES' SHEET SEC101.

3. AS PART OF THE MEETING AS CAMERAS ARE LOCATED INTEGRATOR DISCUSS INTENDED CAMERA VIEWS WITH THE OWNER'S PROJECT MANAGER. TAKE SPECIAL NOTE WHERE CAMERA VIEWS MUST SEE UNDER A COVERED WALKWAY OR A CLEAR VIEW OF THE AREA DIRECTLY UNDER THE WALKWAY OR OVER COVERED WALKWAYS TO AREAS BEYOND THE WALKWAYS. FOR MULTI-IMAGER CAMERAS DISCUSS ALL VIEWS WITH THE OWNER.

4. COORDINATE FINAL CAMERA LABELING SCHEME WITH OWNER AND COMPLETE LABELING BEFORE TESTING.

5. INTEGRATOR PRE-CONFIGURE CAMERAS ON THE BENCH PRIOR TO INSTALLATION.

6. SCSC PROVIDE ALL CATEGORY 6 CABLING PER THE DRAWINGS.

7. SCSC TEST ALL CABLES FOLLOWING TERMINATION. CONFIRM CORRECT LABELING AS TESTING IS DONE. REVIEW CABLE TESTS, MAKE CORRECTIONS AS NEEDED AND RETEST UNTIL ALL CABLES PASS WITHOUT QUALIFICATION. PROVIDE COPY OF TEST RESULTS TO OWNER.
8. SCSC CHECKOUT FINAL WIRING CONNECTIONS TO ALL CAMERAS. AT EACH EXTERIOR CAMERA TAKE SPECIAL CARE TO CONFIRM THAT WIRING IS RUN CONCEALED INTERNAL TO CAMERA MOUNT AND HOUSING AND THAT ALL WEATHERPROOFING MEASURES ARE CORRECTLY COMPLETED (EXAMPLE - FACTORY WEATHERPROOFING TAPE AT CABLE CONNECTION TO CAMERA LEAD).

9. AFTER THE CAMERAS ARE MOUNTED AND THE WIRING IS COMPLETED BY THE SCSC THE INTEGRATOR SHALL TEST THE OPERATION OF EACH CAMERA AND SET FINAL CAMERA RESOLUTION, VIEWING ANGLES, FIELDS OF VIEW, LENS SETTINGS AND OTHER CAMERA SETTINGS.

10. INTEGRATOR AND SCSC BE PRESENT WHEN THE OWNER'S IT STAFF STARTS UP ETHERNET EQUIPMENT AND TURNS SYSTEM ON. PROVIDE ASSISTANCE TO OWNER IN TROUBLE-SHOOTING THAT MAY RELATE TO CABLE PLANT, TO INCLUDE CONNECTIONS TO CAMERA EQUIPMENT OR PATCHING IN THE SERVING CLOSET.

11. THE OWNER WILL PROVIDE THE LOCAL SERVER NVR FOR RECORDING CAMERAS AT THE SCHOOL LEVEL.

12. THE OWNER HAS STANDARDIZED ON I-PRO VIDEO INSIGHT SOFTWARE FOR A MULTI-SITE WEB BASED VIDEO MANAGEMENT SYSTEM (VMS). INTEGRATOR FULLY INTEGRATE THE IP SECURITY CAMERA SYSTEM FOR THIS PROJECT INTO THE VIDEO INSIGHT SYSTEM IN CLOSE COORDINATION WITH THE OWNER'S IT STAFF. SETUP VIEWING AND RECORDING OF CAMERAS AT THE LOCAL SERVER NVR AND AT THE SPRINGFIELD DISTRICT EMERGENCY OPERATIONS CENTER (EOC). SET CAMERA RESOLUTION AND FRAME RATE (FRAMES PER SECOND).

13. CORRECT ANY DEFICIENCIES DISCOVERED BY THE OWNER IN THE FIELD WITH CAMERA MOUNTING, CABLE INSTALLATION, OR OTHER INSTALLATION RELATED ISSUES.

REVISION		
#	Description	Date