

PRE-BID CLARIFICATION FORM

PROJECT NAME:		FILLMORE HIGH SCHOOL NEW ATHLETIC COMPLEX	
PROJECT NUMBER:		Project No. 2024-017 / DSA #03-123950	
TO:		RJ Stump Fillmore Unified School Dist.  Roy Frey WestGroup Designs	
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DATE:	2/5/2025		
FROM:	Neil Hulin	EMAIL:	<a href="mailto:nhulin@bowecontractors.com">nhulin@bowecontractors.com</a>
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	E2-1.2/E603

REQUESTED CLARIFICATION:

Please circle all applicable bid packages below, that this RFI pertains to:

Base bid

Alt #1

Alt #2

Sheet E603 shows quantities of Security equipment that are not shown in floor plans (Power supply, 12 popit, 10 IR Motion detectors, 3 keypad). Please confirm room numbers and device locations. Provide specifications for security equipment.

PRE-BID CLARIFICATION FORM

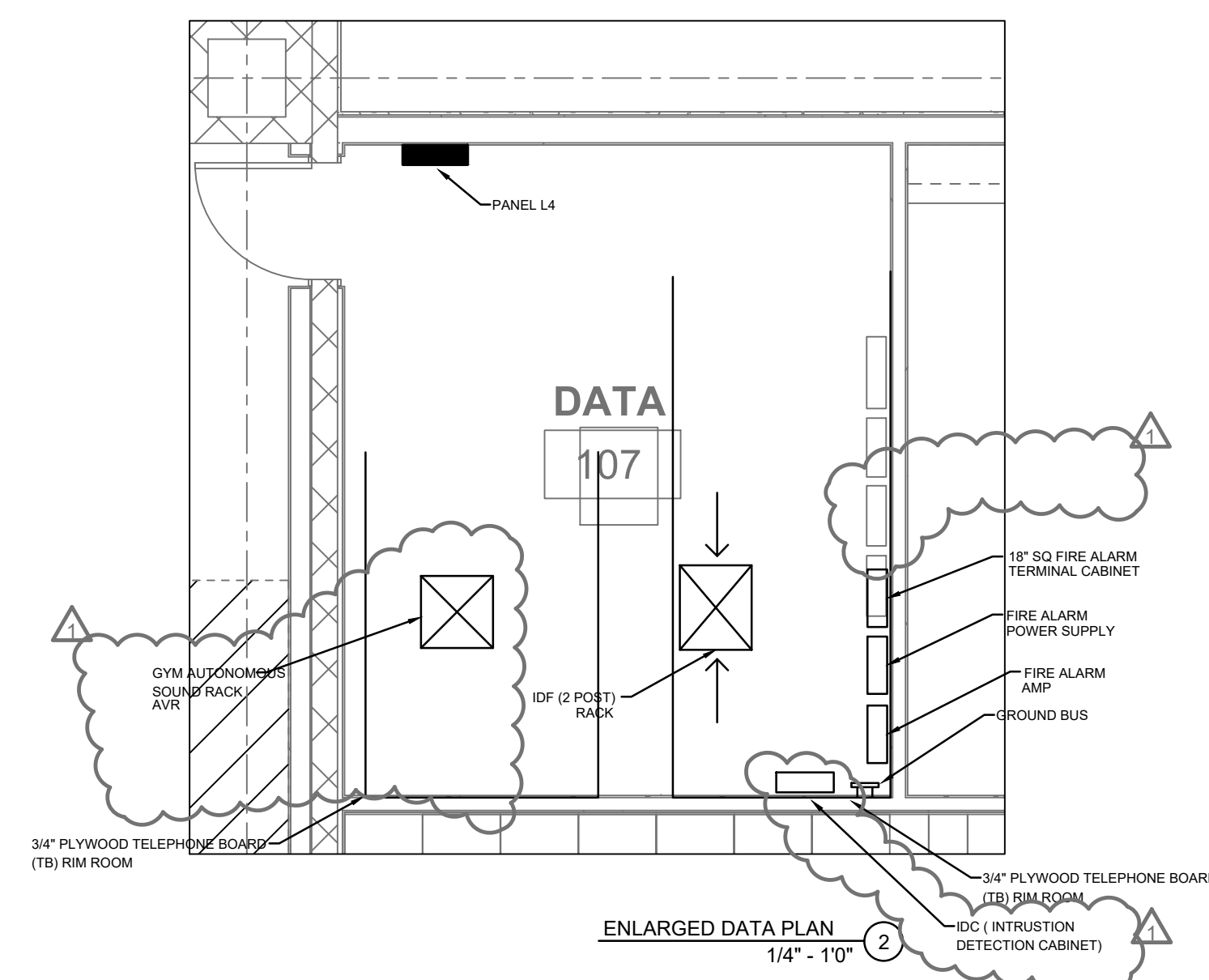
RESPONSE TO CLARIFICATION:

See updated E2-1.1, E601 and E603 for updated intrusion detection locations and block diagram.  
See added spec 28 28 00 intrusion system.  
DL - AGD - 2/10/25

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.



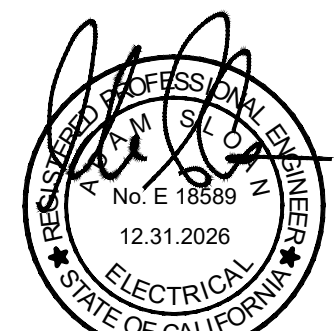
- PLAN NOTE:
1. PROVIDE 24" SQ. X 6" DEEP PULL BOX WITH BARRIERS. PROVIDE PATHWAY BETWEEN BOXES.
  2. BLEACHER SEATING AP'S NEED TO BE 6-8FT ABOVE TOP OF SEATING, MOUNTED ON WALL.
  3. OUTDOOR AP'S, CAMERAS, AND SPEAKER TO BE STANDARD +BED HEIGHT OF 12'.
  4. PROVIDE 12" SQ PULL BOX. DROP DOWN TO SCOREBOARD. 1 1/4" PATHWAY TYP. ABOVE.
  5. INDICATES RACKING CONDUIT PATHWAYS ABOVE.
  6. PROVIDE AT 12" H.F.F. (2) SQ BOXES WITH:
    - ASS LISTENING
    - WIRE MICROPHONE
    - ANTENNAS
  7. PROVIDE 6" SQ LOW VOLTAGE PULL BOX LABEL. AV SYSTEM
  8. ANTENNA LOCATION. MOUNTED ON WALL AT 12' AFF. HOMERUN 1 1/4" TO AV ROOM.



- SECURITY INTRUSION.
- KEY PAD.
- EXTERIOR WEATHER PROOF SPEAKER (FLUSH GRILL).
- ATLAS CLOCK/SPEAKER (FLUSH MTD).
- 3/4" UP TO ACCESSIBLE CEILING. (2) - INDICATES CAT 6A CABLE.
- FLUSH W/ FLOOR, DEEP BOX.



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FILLMORE HIGH SCHOOL ATHLETIC COMPLEX  
FILLMORE UNIFIED SCHOOL DISTRICT  
555 CENTRAL AVE, FILLMORE CA, 93015

ISSUED FOR:

REVISIONS:

REF.1 1-29-25

REGISTRATION/SIGNATURE:

SHEET TITLE:

1ST FLOOR  
LOW VOLTAGE PLAN

SHEET NUMBER:

E2-1.2

WD PROJ. # 22851 | DRAWN BY: DL, AM | CHECKED: GM | DATE: 06/07/23

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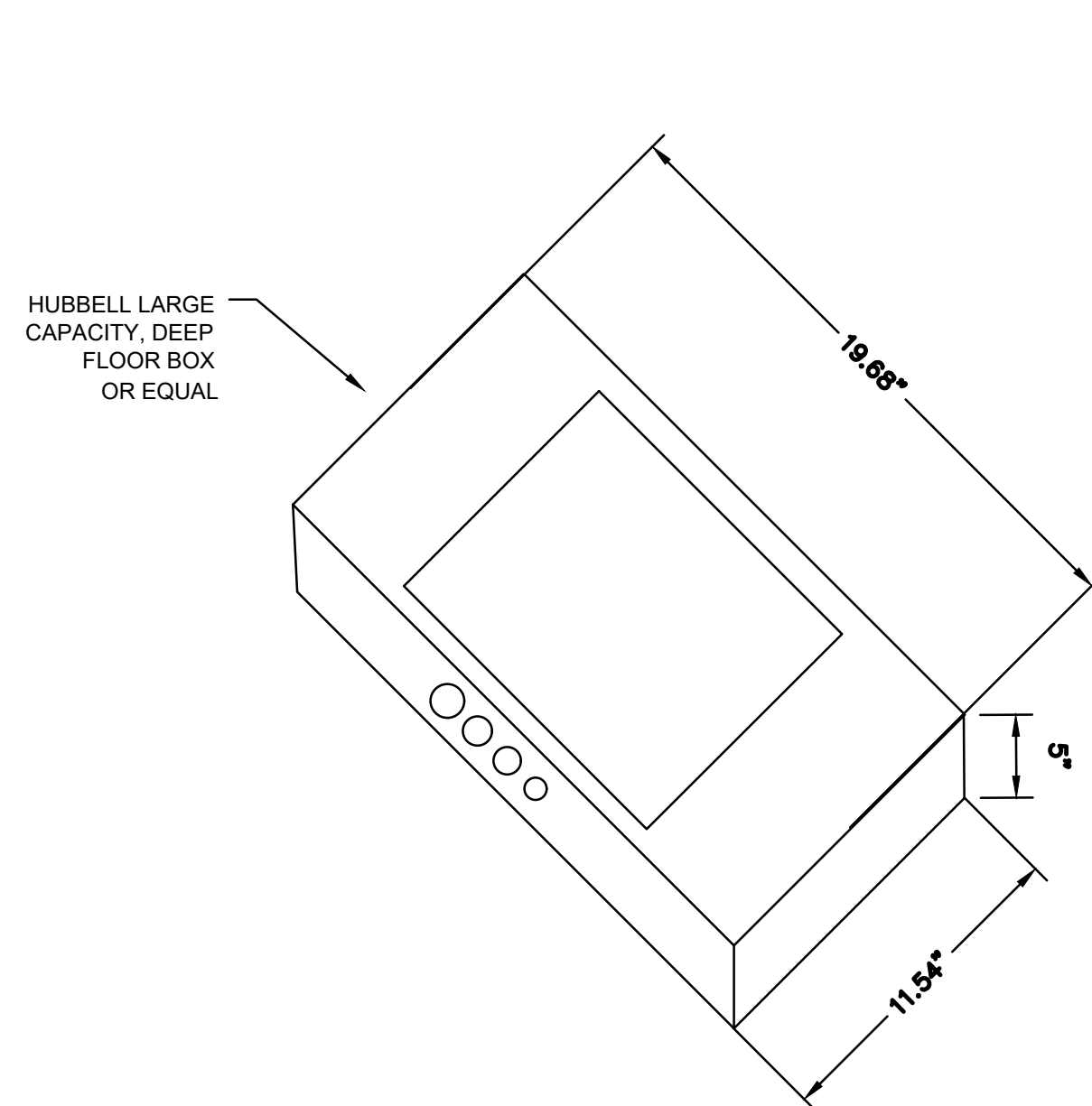
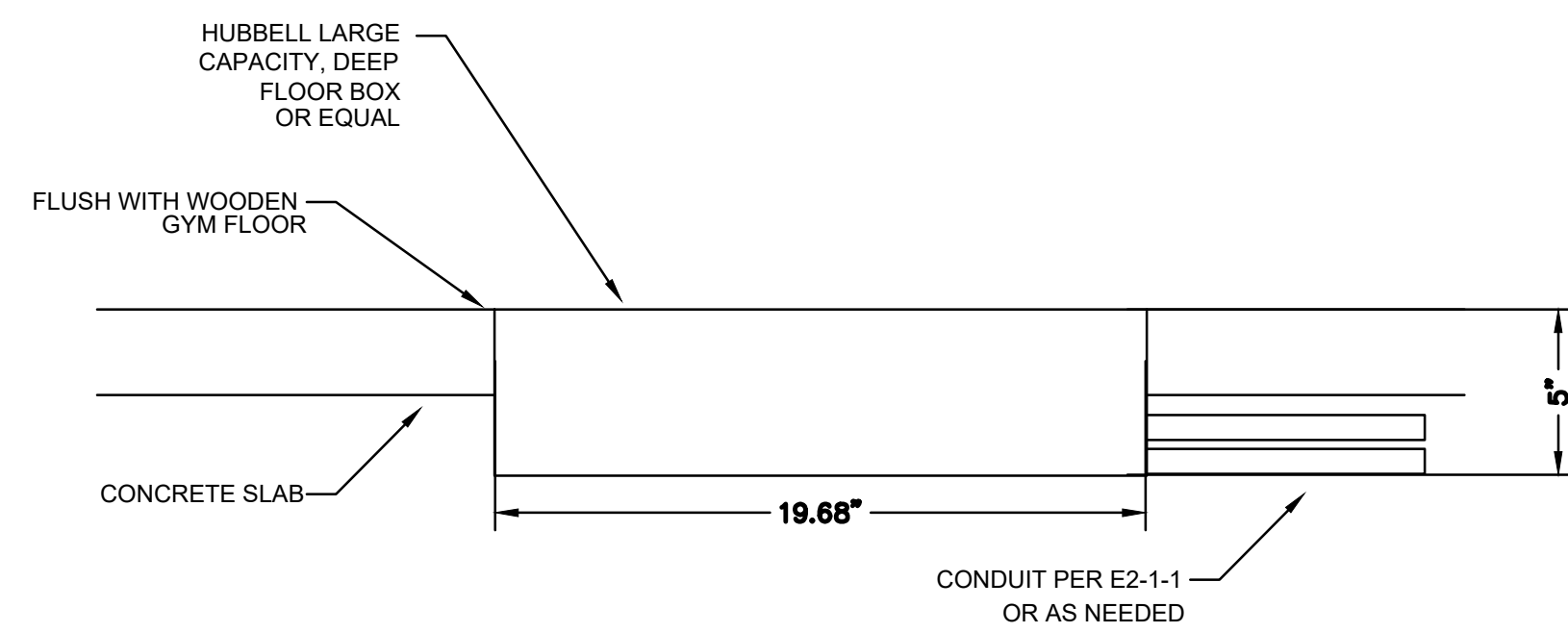
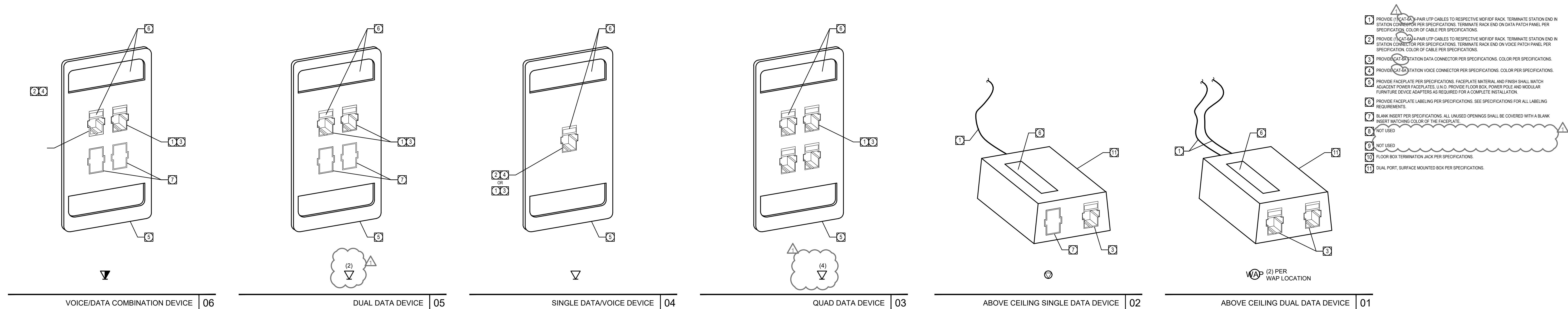
1ST FLOOR LOW VOLTAGE PLAN



1  
1/8" = 1'-0"

NOT FOR CONSTRUCTION



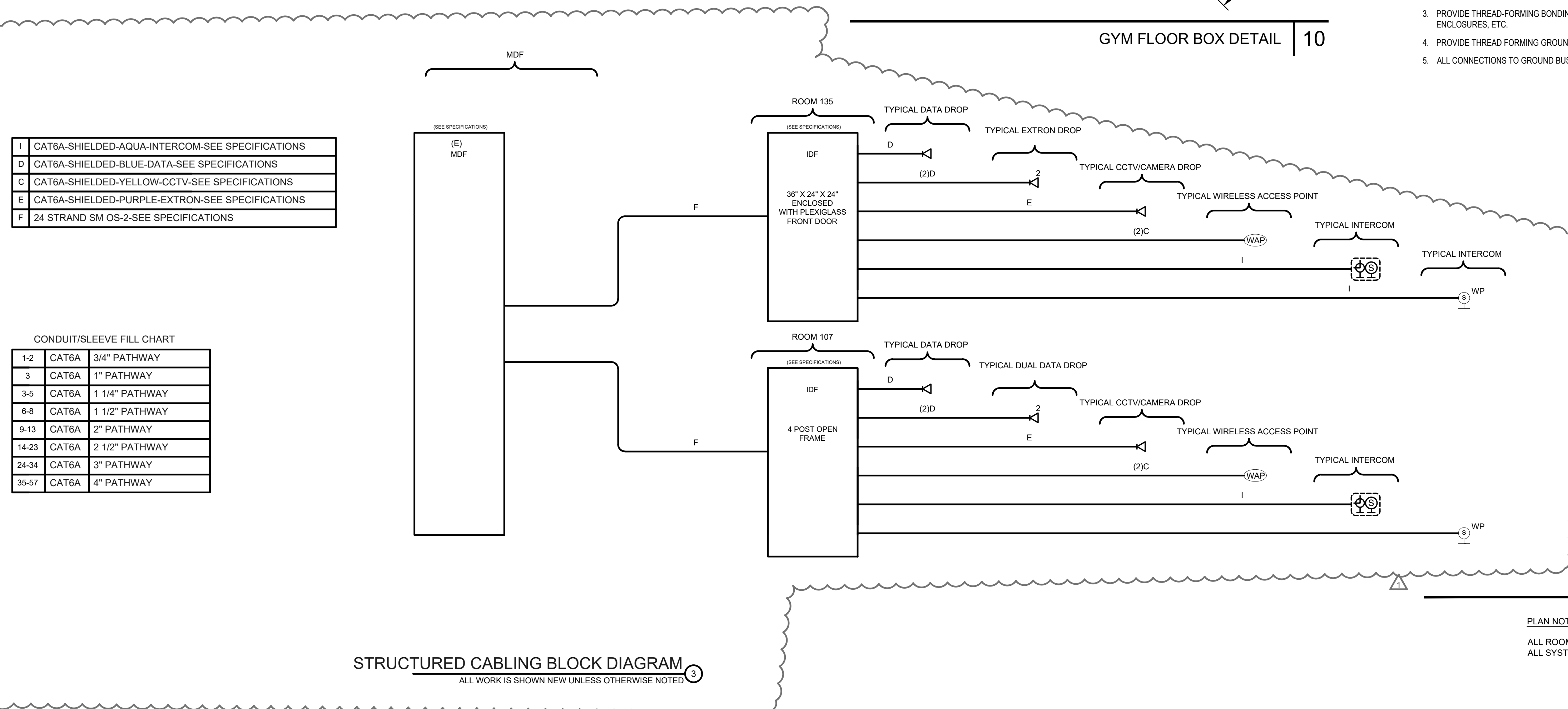
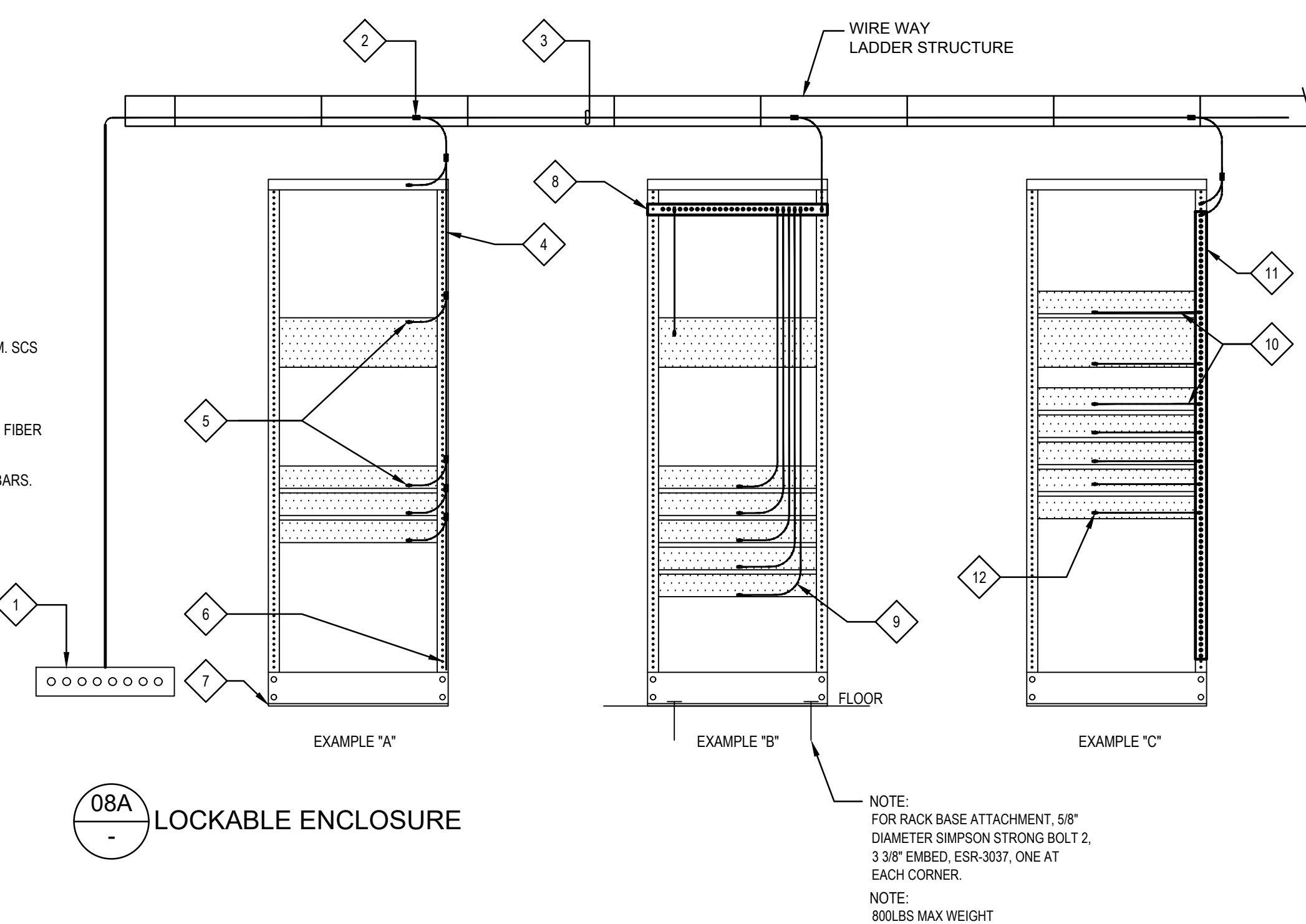


- 1 ANSICOMPLIANT TELECOMMUNICATIONS MAIN GROUND BUSBAR (TMGB), TELECOMMUNICATION GROUNDING BUSBAR (TGB) PER SPECIFICATIONS. SEE GENERAL TELECOMMUNICATIONS GROUNDING NOTES. PROVIDED AND INSTALLED BY E.C.
- 2 IRREVERSIBLE COMPRESSION CONNECTOR
- 3 TELECOMMUNICATION EQUIPMENT BONDING CONDUCTOR (TEBC), #6 AWG GREEN INSULATED GROUND CONDUCTOR, TYPICAL U.O.N.
- 4 RACK BONDING CONDUCTOR. ALL CONDUCTORS ROUTED TO TMGB/TEBC.
- 5 INDIVIDUAL EQUIPMENT BONDING CONDUCTORS FROM EACH PIECE OF EQUIPMENT AND RACK TO THE RACK BONDING CONDUCTOR.
- 6 RACK BONDING CONDUCTOR EXTENDED TO BOTTOM OF RACK TO ACCOMMODATE FUTURE GROWTH.
- 7 RACK ISOLATION GROUND PLATES (IF APPLICABLE).
- 8 TOP MOUNTED RACK GROUNDING BUSBAR (RGB).
- 9 MINIMUM BENDING RADIUS MUST BE MAINTAINED ON ALL CONDUCTORS.
- 10 UNIT BONDING CONDUCTOR.
- 11 VERTICALLY MOUNTED RACK GROUNDING BUSBAR.
- 12 INDIVIDUAL EQUIPMENT GROUNDING TERMINAL. TYPICAL EACH PIECE OF EQUIPMENT.

- 1. GENERAL DETAIL ONLY. SCS CONTRACTOR SHALL COORDINATE WITH PLANS AND PROVIDE A COMPLETE SYSTEM. SCS CONTRACTOR SHALL COMPLY WITH ALL ANSICOMPLIANT, EIA AND TIA STANDARDS.
- 2. ALL ITEMS SHALL BE PROVIDED BY SCS CONTRACTOR UNLESS OTHERWISE NOTED.
- 3. PROVIDE THREAD-FORMING BONDING SCREWS TO ATTACH ALL PATCH PANELS, HORIZONTAL CABLE MANAGERS, FIBER ENCLOSURES, ETC.
- 4. PROVIDE THREAD-FORMING GROUNDING SCREWS TO ATTACH EQUIPMENT GROUND CONDUCTOR TO RACK BUSBARS.
- 5. ALL CONNECTIONS TO GROUND BUSBARS SHALL BE 2-HOLE COMPRESSION LUGS, UNLESS OTHERWISE NOTED.

#### GENERAL CABLING NOTES

- 1. OPTICAL FIBER CABLE SHALL BE PLACED WITH A MINIMUM OF THREE (3) METER MINIMUM SERVICE MAINTENANCE LOOP AT EACH END OF THE RUN. AT EACH SIDE OF A SEISMIC JOINT.
- 2. ALL STATION CABLES SHALL BE NEATLY DRESSED AND SECURED EVERY FOUR FEET AT A MINIMUM.
- 3. ALL STATION CABLES SHALL BE TERMINATED ON THE SAME FLOOR AS THE FLOOR SERVING BOF/IDF UNLESS OTHERWISE NOTED IN THESE DRAWINGS.
- 4. PROVIDE A ONE (1) METER SLACK LOOP FOR ALL WAO SUPPORTED BY OPEN CEILING CABLE DISTRIBUTION. THE SLACK LOOP MUST BE SUPPORTED ABOVE THE WAO IN NEAT AND REPEATABLE FASHION THAT MEETS BOTH INDUSTRY AND MANUFACTURER PRACTICES.
- 5. STANDARD WAO FACEPLATE SHALL CONSIST OF A DOUBLE-GANG PLATE, 8-POSITION, STAINLESS STEEL IN COLOR VOICE - ONE (1) CABLE BEING FOR VOICE USE, AND TERMINATED ON A CATEGORY 6A 110-STYLE IDC RAG INSERT. THE BOF/IDF SIDE SHALL BE TERMINATED ON A WALL-MOUNTED CATEGORY 6A 110-STYLE BLOCK. DATA - TWO (2) CABLES ARE TO BE FOR THE DATA USE TERMINATED ON A CATEGORY 6A 110-STYLE INSERT WITH THE BOF/IDF SIDE TERMINATED ON 110-STYLE IDC GAS-TIGHT CATEGORY 6A 110-STYLE PATCH PANEL MODULE.
- 7. THE CONTRACTOR SHALL PROVIDE WIRE GUIDES FOR ALL EXPOSED AUDIO-VISUAL AND NETWORK DEVICES LOCATED IN AREAS THAT CAN BE SUBJECT TO VANDALISM SUCH AS GYMS, RESTROOMS, LOCKER AND SHOWER ROOMS, MULTIPURPOSE DINING, CLASSROOMS/LABS, AND ASSEMBLY ROOMS, AND ALL HALLWAYS AND CORRIDORS ASSOCIATED WITH THESE SPACES.
- 8. ALL CONDUITS CROSSING BUILDING SEISMIC SEPARATIONS OR EXPANSION JOINTS SHALL BE PROVIDED WITH APPROVED CONNECTIONS.
- 9. COORDINATE INSTALLATION OF LIGHTING FIXTURES WITH CABLE TRAY AND EQUIPMENT IN BOF, IDF, AND ALL A/V ROOMS/SPACES TO MAINTAIN REQUIRED LIGHTING LEVELS WITH ALL EQUIPMENT IN PLACE.
- 10. CABLING SHALL COMPLY TO ANSI/TIA/EIA WIRING STANDARDS 568A.
- 11. CONTRACTOR TO CONFIRM LENGTH OF CABLES WITH DISTRICT PRIOR TO ORDERING.



**PLAN NOTES:**

ALL ROOMS SHALL BE COMMISSIONED.

ALL SYSTEMS SHALL BE MUTE/ VOLUME ADJUSTED FOR EMERGENCY PRE-RECORDED MESSAGE.

**EQUIPMENT RACK GROUNDING DETAIL 07**

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**FILLMORE HIGH SCHOOL ATHLETIC COMPLEX**

**FILLMORE UNIFIED SCHOOL DISTRICT**

555 CENTRAL AVE, FILLMORE CA, 93015

ISSUED FOR:

REVISIONS:

REF 1 1-28-25

REGISTRATION/SIGNATURE:

SHEET TITLE:

**ELECTRICAL DETAILS**

SHEET NUMBER:

**E601**

WD PROJ. # 22851 | DRAWN BY: DL, AM | CHECKED: GM | DATE: 06/07/23

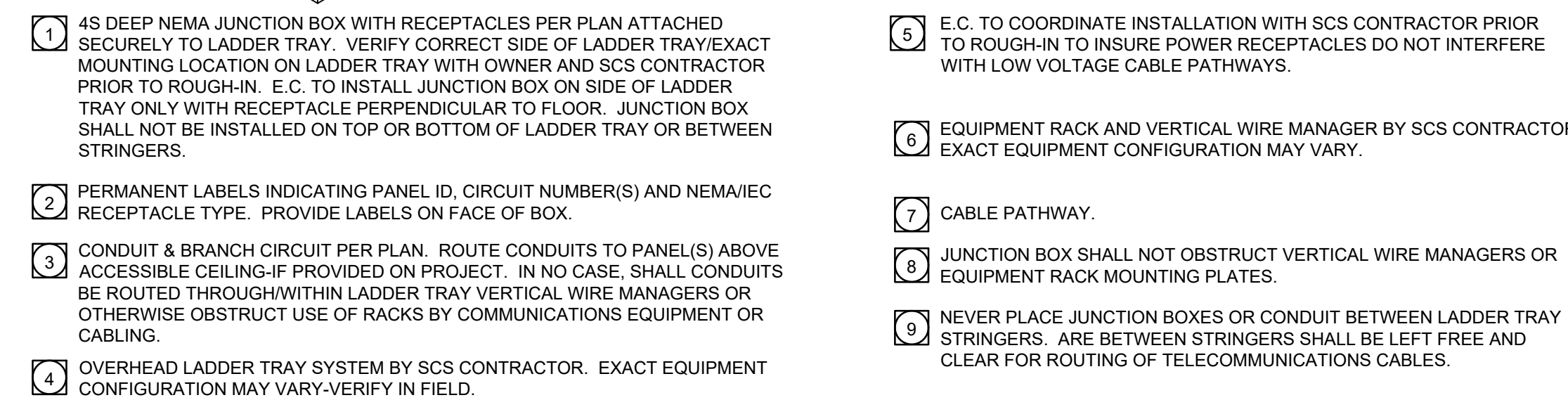
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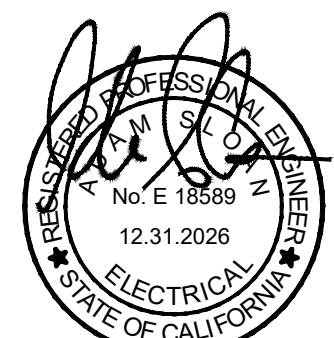


- 1 STANDOFF MOUNTS SHALL BE 14" TO ALLOW STRAPPING TO PASS BEHIND TRAY.
- 2 CABLE FEEDERS.
- 3 WIRE MESH CABLE TRAY. WIDTH SHALL BE THE SPAN OF CONDUITS. HEIGHT SHALL BE FROM BOTTOM OF HORIZONTAL TRAY TO CONDUITS. STRAP CABLE TO WIRE MESH CABLE TRAY AS SPECIFIED.
- 4 EXTEND MESH CABLE TRAY FROM HORIZONTAL TRAY 10" TO BELOW HUNG SLEEVES OR CONDUITS. VERTICAL SPAN LESS THAN 24" MAY NOT REQUIRE A VERTICAL TRAY.
- 5 ALL CONDUITS, CABLE TRAY AND WALL PENETRATIONS SHALL HAVE CABLE RUNWAY RADIOUS DIPS.
- 6 HORIZONTAL CABLE TRAY SHALL BE SUPPORTED AT 4' INTERVALS WITH SPECIFIED SUPPORT BRACKETS.
- 7 PROVIDE CABLE RUNWAY RADIOUS DROUPTS WHEREVER CABLES LEAVE HORIZONTAL TRAY. PROVIDE ONE (1) FOR EVERY CABINET AND TWO (2) FOR EVERY TWO-POST RACK.
- 8 HORIZONTAL CABLE TRAY.
- 9 HORIZONTAL CABLE TRAY SECTIONS SHALL BE SPIKED WITH SPECIFIED CABLE RUNWAY JUNCTION SPIKE KIT. EACH SECTION SHALL BE BONDED WITH SPECIFIED CABLE GROUP STRAP KIT.
- 10 CONDUIT WITH BUSHINGS AND PULL ROPS. SIZE, QUANTITY AND SPECIFICATIONS PER PLANS. SEAL ALL CONDUITS PER NATIONAL FIRE CODE.
- 11 VERTICAL DATA RACK, SIZE AND SPECIFICATION PER PLANS.
- 12 HORIZONTAL CABLE TRAY SHALL BE SUPPORTED AT 4' INTERVALS WITH SPECIFIED CEILING SUPPORTS.

- |   |   |   |
|---|---|---|
| 13  | PLYWOOD BACKBOARD AS SPECIFIED ON PLANS.  | 5 |
| 14  | SLEEVE WALL PENETRATION WITH BUSHINGS: SIZE, QUANTITY AND SPECIFICATIONS PER PLANS. SCS CONTRACTOR SHALL SEAL INSIDE OF SLEEVE AFTER CLAMP INSTALLATION PER NATIONAL FIRE CODE.         |   |
| 15  | ANSI COMPLIANT TELECOMMUNICATIONS GROUND BUS BAR PER SPECIFICATIONS. SEE GENERAL TELECOMMUNICATIONS REQUIREMENTS FOR ADDITIONAL DETAILS AND STANDARDS.                                  |   |
| 16  | PROVIDE FIRESTOP AROUND ALL CONDUIT PENETRATIONS AS REQUIRED. PROVIDED AND INSTALLED BY E.C.  |   |
| 17  | PROVIDE FIRESTOP LABEL AS REQUIRED BY CODE.   |   |
| 18  | PROVIDE CLAMP RUNWAY MOUNTING KIT TO HORIZONTAL TRAY PER SPECIFICATIONS. PROVIDE 2" CLEARANCE BETWEEN HORIZONTAL TRAY AND RACK/CABINETS.  |   |
| 19  | FOR CEILING PENETRATIONS, PROVIDE SLEEVES (WITH BUSHINGS) AND ROUTE THROUGH CEILING.  |   |
| 20  | PROVIDE CLAMP RUNWAY CLIPS SPACED AT 24" O.C. ON EACH SIDE WITH 1/8"MSMS ATTACHING CLIP TO THE LADDER RACK, AND #10 SS ATTACHING THE CLIP TO THE WALL BACKING, WALL BACKING PER 150909. |   |
| GENERAL NOTE: ONLY SCS CONTRACTOR SHALL COORDINATE WITH PLANS AND PROVIDE A COMPLETE SYSTEM. SCS CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND STANDARDS. |   |   |
| 1. ALL ITEMS SHALL BE PROVIDED BY SCS CONTRACTOR UNLESS OTHERWISE NOTED.  |   |   |
| 2. SCS CONTRACTOR SHALL COORDINATE ALL HORIZONTAL AND VERTICAL TRAY ROUGH-IN LOCATIONS WITH E.C. AND PROVIDE PROPER CLAMP TRANSITION.                             |   |   |



## MDF / IDF LADDER TRAY / RECEPTACLE MOUNTING DETAIL 02



FILLMORE HIGH  
SCHOOL ATHLETIC  
COMPLEX  
FILLMORE  
UNIFIED SCHOOL  
DISTRICT  
555 CENTRAL AVE, FILLMORE  
CA. 93015

[illegible]

REGISTRATION/SIGNATURE:			
SHEET TITLE:  <div style="text-align: center; font-size: 2em; font-weight: bold; margin-top: 50px;">           ELECTRICAL DETAILS         </div>			
SHEET NUMBER:  <div style="text-align: center; font-size: 3em; font-weight: bold; margin-top: 50px;">           E603         </div>			
WD PROJ. # 22851	DRAWN BY: DL, AM	CHECKED GM	DATE 06/07/23

## SECTION 28 28 00

### Intrusion System

#### SECTION 1 – GENERAL

##### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specifications apply to work of this Section.

##### 1.02 SCOPE OF WORK

A. The work under this section includes all labor, material, equipment, testing, and accessories required to furnish and install a complete, tested, working Intrusion System as indicated on the drawings and as specified herein.

B. It is the intent of the Drawings and Specifications for the Contractor to provide and install a complete, fully operational, and tested system.

C. All miscellaneous system components including, but not limited to, cables, termination equipment, punch blocks, patch panels, backboards, dedicated power provisions, as well as any other related items, shall be furnished and installed complete under this section, such that the system shall perform all functions listed herein in compliance with all of the specified requirements.

##### 1.03 GENERAL REQUIREMENTS

A. The contractor shall hold a valid State of California C-7 Low-Voltage and C-10 Electrical License, and shall have completed at least 20 projects of equal scope, shall have been in business of furnishing and installing systems of this scope and magnitude for at least five years, and capable of being bonded to assure the owner of performance and satisfactory service during the guarantee period. Contractor shall be DMP Certified (Digital Monitoring Products).

B. The contractor shall hold all other licenses required by the legally constituted authorities having jurisdiction over the work. Contractor shall be licensed by the Bureau of Security Services. All workers shall also hold individual BSS security level clearances.

C. All work shall be performed under the supervision of a company accredited by the basic equipment manufacturer and such accreditation must be presented.

D. The installing contractor shall be a factory authorized distributor and warranty station for the brand of equipment offered and shall maintain a fully equipped service organization capable of furnishing adequate repair service to the equipment. The installing contractor shall maintain a spare set of all major parts for the system at all times. All system components shall be 100% backed up with stock at contractors shop.

E. All of the equipment in this specification shall be furnished and installed by the Authorized Factory Distributor of the equipment. The Contractor shall furnish a letter from the manufacturer of all major equipment, which certifies that the installing contractor is the Authorized Distributor and that the equipment has been installed according to factory intended practices.

F. If applicable, all of the equipment in this specification shall be furnished and installed with the most current software package available at the time of installation. At the time of Owner Acceptance of the installation, all equipment shall include any and all updated software revisions. In addition, when the software is available in disk format, a backup copy of the most up to date revision shall be handed to the Owner at the completion of the project.

#### 1.04 QUALITY ASSURANCE

A. In order to maintain a high degree of quality assurance, the contractor shall, without exception, use the parts and supplies as specified in this specification.

#### 1.05 SUBMITTAL AND MANUAL

A. Submittal requirements of this section are:

1. Within thirty-five (35) calendar days after the date of award of the Contract, the Contractor shall submit eight copies of the complete submission to the Architect for review.

2. The submission shall consist of five major sections with each section separated with index tabs. Each page in the submission shall be numbered chronologically and shall be summarized in the index.

3. The first section shall be the "index" which shall include the project title and address, name of the firm submitting the proposal and name of the Architect.

4. The second section shall include a copy of the Contractors valid C-7 and C-10 California State Contractors license and letters from Extron that the company is a fully licensed distributor of the product specified, a list of 20 projects of equal or greater scope, provide copy of Contractors Extron Training Certificates and a list of proposed instrumentation to be used by the contractor. In addition, provide a written notice guarantying the provision of the requested warranty. **Contractor shall include their DMP Certification, BSS ACO License, and all intended workforce BSS individual certifications. Contractors not holding these certificates will be deemed non-responsive.**

5. The third section shall contain the comparative specification listing, including a complete listing of the characteristics of the equipment to be furnished next to all of the specified equipment's features and functions as stated in the specifications and data sheets.

6. The fourth section shall contain an original factory data sheet for every component in the specifications.

7. The fifth section shall contain a designation schedule for each device location and complete 1/8" = 1'-0" scale AutoCAD created drawing showing system wiring plans. The

Architect / Engineer will provide AutoCAD format drawings of the original associated plans, upon receipt of a written request from the contractor at no charge. These shop drawings shall also include exact projector placement, along with any structural drawings that are required.

B. Failure to comply with all of the requirements listed above will result in the rejection of the entire submittal package.

C. The Contractor shall provide two copies of an "Operating and Servicing Manual" for the system. The manuals shall be bound in flexible binders. All data shall be printed material or typewritten. Each manual shall include the following:

1. Instructions necessary for the proper operation and servicing of the system.
2. Complete as-built installation drawings of the system.
3. A schematic diagram of major components and replacement numbers.

#### 1.06 GENERAL SYSTEM PRODUCT, INSTALLATION AND OVERALL SYSTEM WARRANTY

A. Prior to Owner acceptance, the contractor shall provide to Owner, a product and performance warranty.

B. The warranty shall commence from the date of final written acceptance by the Owner.

C. All conditions for obtaining the warranty shall be the sole responsibility of the contractor.

D. The contractor shall maintain a competent service organization and shall, if requested, submit a service maintenance agreement to the owner after the end of the guarantee period.

#### 1.07 SPECIFIC PRODUCT, INSTALLATION AND OVERALL SYSTEM WARRANTY

A. The entire system shall be warranted free of mechanical or electrical defects for a period of one (1) year after final acceptance of the installation. Any material showing mechanical or electrical defects shall be replaced promptly at no expense to the Owner.

#### 1.08 ACCEPTABLE MANUFACTURERS

A. Manufacturer of general intrusion systems and associated equipment shall be that of Digital Monitoring Products.

B. It is the responsibility of the bidder to insure that the proposed product meets or exceeds every standard set forth in these specifications and the equipment's technical data sheets.

C. The functions and features specified are vital to the operation of this facility. Therefore, inclusion of a component's manufacturer in the list of acceptable manufacturers does not release the contractor from strict compliance with the requirements of this specification.



D. All basic electronic equipment (not including cable) specified herein shall be produced by a single manufacturer of established reputation and experience who shall have produced similar apparatus for at least three or more years and who shall be able to refer to similar installations rendering satisfactory service.

#### 1.08 SPECIFIC PROJECT REQUIREMENTS

A. Site has a existing DMP XR-500 panel in main office. Contractors scope to install any needed backbone cabling to renovated building. Contractor to install DMP 714 Loop expanders, field cabling, end devices and program to customer satisfaction. Zoning per end device.

#### 2.00 PART 2- PRODUCTS

A. Loop Expander- DMP 714 with Cabling separation by use of 66 Blocks and bridge clips in electrical room.

B. Motion Detectors- DMP MX-40

C. Door Contacts- DMP GP-23 or Equal.

D. Cabling-  
1. LX and Keypad Back Bone Cabling- West Penn 244 or AQ244.  
2. End point (field cabling). Cable Wholesale Part 10K4-04912TH

#### 2.01 Functions

A. System shall be armable by 'AREA'.

B. In Armed State, any movement by any person more than 8' with in area of protection, or door opening shall cause immediate alarm signals to be actuated. Unless entry/exit area.

#### PART 3 - EXECUTION

##### 3.01 GENERAL INSTALLATION REQUIREMENTS

A. The wiring of the system shall be executed in accordance with the drawings and the equipment manufacturer's wiring diagrams. It shall be the responsibility of the factory-authorized distributor of the approved equipment to install the equipment and guarantee the system to operate as per plans and specifications.

B. Furnish all conduit, junction boxes, conductors, equipment plugs, terminal strips, etc., and labor to install a complete and operable system.

C. The cables within racks or cabinets shall be carefully cabled and laced with no. 12 Cord waxed linen lacing twine or ty-raps.

D. Splices of conductors in underground pull boxes are not permitted.

E. The labor employed by the contractor shall be regularly employed in the installation and repair of the specified systems and shall be acceptable to the owner and architect to engage in the installation and service of this system.

F. The contractor shall thoroughly clean all equipment and materials. All exposed parts of the equipment, cabinets, and other equipment shall be left in a clean condition, unblemished and free of all dirt, dust, smudges, spots, fingerprints, etc., The contractor shall remove all debris and rubbish occasioned by the electronic systems work from the site. The contractor shall thoroughly clean all buildings of any dirt, debris, rubbish, marks, etc., Caused by the performance of this work.

G. The system must meet all local and other prevailing codes.

H. All cabling installations shall be performed by qualified technicians.

I. In order to ensure proper terminations, it is required that all cables shall be stripped using a special tool approved by the manufacturer of the cable / terminating device.

J. The use of lubricants (i.e. Yellow 77) to facilitate the installation of cables in conduits is highly discouraged. If such a lubricant must be used, the contractor shall verify the acceptability of the lubricant to be used with the cable manufacturer, prior to using such a lubricant.

K. Under no circumstance are "channel locks" or other pliers to be used.

L. Cable may be run exposed above ceilings, provided the cabling is supported independent of other utilities such as conduits, pipes, and the ceiling support systems. The cables shall not be laid directly on the ceiling panels. The use of cable ties shall be done in accordance with the cable manufacturer's requirements. The cable jacket composition must meet local and all other prevailing fire and safety codes.

M. All firewalls penetrated by system cabling shall be sealed by use a non-permanent fire blanket or other method in compliance with the current edition of National Fire Protection Association (NFPA) and the National Electric Code (NEC) or other prevailing code. The contractor must not use concrete or other non-removable substance for fire stopping on cable trays, wireways or conduits. Contractors who use this method will be required to replace all cables affected and provide the original specified access to each effected area.

N. Contractor shall connect system to District Network.

O. Materials shall be installed in strict compliance with local building codes. All work shall be performed in accordance with the Extron instructions and in a manner satisfactory to the owner's representative.

O. The installer shall be fully qualified and factory trained by Extron, Inc. in the installation, operation, and programming of the system.



Q. System shall be, with out exception, be installed in a individual exact point identification fashion. This means that each and every point to be annunciated and reported as to its exact device.

### 3.2 GENERAL TESTING REQUIREMENTS

A. Provide all instruments for testing and demonstrating in the presence of the owner's inspector that the frequency response is as stated in the factory data sheets. Check all circuits and wiring to verify they are free of shorts and grounds.

B. System shall be complete and properly operating prior to calling for the test. The inspector, contractor and engineer shall walk test system at district's option and contractor shall make minor satisfactory adjustments to the system in the presence of the inspector. Contractor shall coordinate the time of test with the district inspector. This test shall be performed during a time when there are no other persons on the site.

C. Provide two portable radio transceivers to be used when walk testing the system. The transceivers shall be capable of communication throughout the entire site.

### 3.03 FINAL ACCEPTANCE

A. The Owner or Owner's representative may visit the site during the installation of the system to ensure that correct installation practices are being followed.

B. The Owner or Owner's representative will conduct a final job review once the contractor has finished the job. This review will take place within one week after the contractor notifies the owner.

C. Two copies of all as-built drawings for all identifications shall be provided to the Owner before the owner's review.

D. The Owner or Owner's representative will review the installation and drawings prior to the system acceptance.

E. The Owner or Owner's representative may test some of the systems features to ensure that the certification data is correct.

F. In the event that repairs or adjustments are necessary, the contractor shall make these repairs at his own expense. All repairs shall be completed within 10 days from the time they are discovered.

G. The contractor shall provide not less than eight (8) hours for site instruction of personnel in the operation and maintenance of the installed systems. This instruction time shall be divided as directed by the Owner.

END OF SECTION