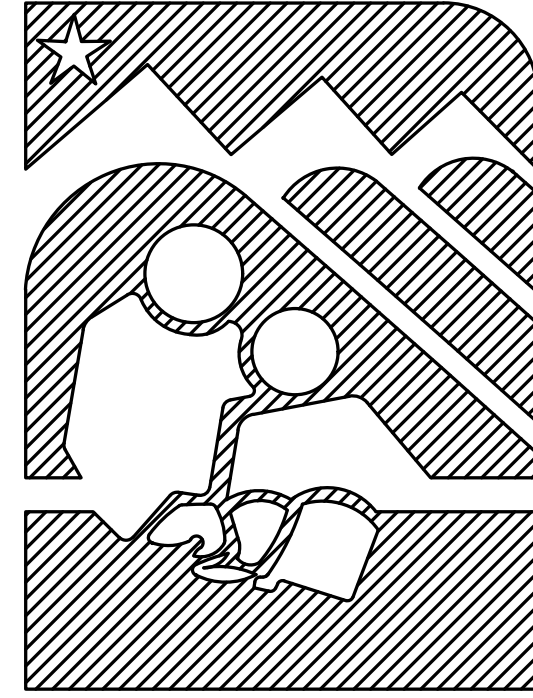


ANCHORAGE SCHOOL DISTRICT



SERVICE HIGH SCHOOL GYM PROJECTOR ADDITION

ASD PROJECT #840033

MARCH 7, 2024

SCOPE OF WORK

PROJECT SHALL CONSIST OF INSTALLATION OF OFCI PROJECTOR(S) AND MOTORIZED SCREENS. ONE PROJECTOR AND SCREEN SHALL BE INSTALLED UNDER BASE BID, TWO UNDER ADDITIVE ALTERNATE #1. CONTRACTOR SHALL PROVIDE AND INSTALL CONTROL EQUIPMENT AND CABLING AS SHOWN ON THE PLANS. EXISTING SOUND SYSTEM CABINET SHALL BE RELOCATED FROM THE GYM INTO NEARBY EQUIPMENT STORAGE ROOM AND RECONNECTED.

PREPARED BY:

RSA

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100% CONSTRUCTION DOCUMENTS

TECHNICAL DRAWING INDEX

- E0.1 - ELECTRICAL LEGEND AND PANEL SCHEDULE
- E0.2 - ELECTRICAL SPECIFICATIONS
- E1.1 - ELECTRICAL PLAN - E-F, A/V ONE-LINE AND SECTION VIEW

NOTE TO CONTRACTOR

NOTIFICATION OF POTENTIAL HAZARDS:

ASBESTOS, LEAD AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN SOME (BUT NOT ALL) BUILDINGS THAT MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINANTS, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEM THROUGHOUT THE BUILDINGS. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORKS TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION SECTION 00230, HAZARDOUS MATERIALS SURVEY REPORT, SECTION 01561, AIRBORNE CONTAMINANT CONTROL, AND DIVISION 02 SPECIFICATIONS FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.



LEGEND	
	EXISTING PANEL
	DUPLEX RECEPTACLE
	SPECIAL PURPOSE OUTLET
	JUNCTION BOX
	MOTOR (SIZED AS NOTED)
	HDMI OUTLET
	PROJECTOR
	PROJECTOR SCREEN KEYSWITCH
	NOTE TAG (No. INDICATES NOTE)
AFF	ABOVE FINISHED FLOOR
CLG	CEILING MOUNTED
E	DENOTES EXISTING ITEM
NEC	NATIONAL ELECTRICAL CODE
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
R	DENOTES RELOCATED ITEM
TYP	TYPICAL

PANEL '4EF1NPD'															
MFR/MODEL: GE 'NLAB'				VOLTS: 120/208V, 3PH, 4W				ENCLOSURE: NEMA 1				100 A			
				VOLT-AMPS				MTG: RECESSED							
NOTE	CIRC	POLE	AMPS	SERVICE	TYPE	A	B	C	TYPE	SERVICE	AMPS	POLE	CIRC	NOTE	
	1	1	20	RECP EXT. NW	RECP				MOTR	CUH-4, EF114	15	1	2		
	3	1	20	RECP EXT. NW	RECP				RECP	RECP EF1-2 & EF103	20	1	4		
	5	1	20	RECP EF114 UNDER PNL & EF115	RECP				RECP	RECP ON ROOF IN FAN EF-3	15	1	6		
	7	1	20	DOOR MAGS SW SKYWALK	MISC				MOTR	EF-3 ROOF	20	1	8		
	9	1	20	RECP EF117	RECP				MISC	FLUSH VALVE PWR & HAND SENS. EF104	20	1	10		
	11	1	20	RECP EF101	RECP				MOTR	CUH-1, EF115	20	1	12		
	13	1	20	RECP EF114	RECP					UNKNOWN	20	1	14		
	15	1	20	RECP EF114	RECP				MISC	DDC EF114	20	1	16		
	17	1	20	RECP EF114	RECP				MISC	SIEMENS CONTROL XFMR	20	1	18		
	19	1	20	RECP EF-1, ROOF	RECP					UNKNOWN	20	1	20		
	21	3	15	EF-1(1HP), ROOF	MOTR					UNKNOWN	20	1	22		
	23	3	15	AAA	MOTR			576	MOTR	PROJECTOR SCREEN #1 & #2	20	1	24	a	
	25	3	15	AAA	MOTR				MOTR	DIVIDER CURTAIN FOR EF116 & EF117	20	3	26		
a	27	2	20	PROJECTOR #1 & #2	MISC		1000		MOTR	AAA	20	3	28		
a	29	2	20	AA	MISC			1000	MOTR	AAA	20	3	30		
TOTAL V-A						0	1000	1576			2,576	VA			
TOTAL AMPS						0	8	13			7	A			
A.I.C. RATING: 10,000															
CONNECTED LOAD IN KVA (THIS PANEL):						LTG	RECP	MOTR	LG.MT	MISC	KIT	HEAT	SPEC	TOTAL	AMPS
CONNECTED LOAD IN KVA (BRANCH PANELS):						0.00	0.00	0.58	0.14	2.00	0.00	0.00	0.00	2.6 KVA	7 A
TOTAL CONNECTED LOAD IN KVA:						0.00	0.00	0.58	0.14	2.00	0.00	0.00	0.00	2.6 KVA	7 A
DEMAND LOAD IN KVA:						0.00	0.00	0.58	0.14	2.00	0.00	0.00	0.00	2.7 KVA	8 A
PANEL NOTES:									PANEL OPTIONS:						
a. PROVIDE NEW BREAKER IN EXISTING SPACE. THE NEW CIRCUIT BREAKER SHALL BE COMPATIBLE WITH AND LISTED FOR USE IN THE EXISTING PANEL BOARD AND SHALL HAVE A MINIMUM SHORT CIRCUIT AIC RATING TO MATCH THE LOWEST RATED EXISTING DEVICE IN THE PANEL.									MAIN LUGS ONLY						

LOAD STATEMENT
NEW LOAD IS MINIMAL AND EXPECTED TO BE NON-COINCIDENT WITH DIVIDER CURTAIN SO PANEL CAN SUPPORT IT.

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ANCHORAGE SCHOOL DISTRICT
 GYM PROJECTOR ADDITION

SERVICE HIGH SCHOOL
 5577 ABBOTT ROAD
 ANCHORAGE, ALASKA 99507-4399

REVISIONS:

DRAWN BY: NVF
 CHECKED BY: JAM
 DATE: 03/07/24
 JOB NUMBER: M4038
 DWG FILE: M4038-ESERIES

DRAWING TITLE:
 ELECTRICAL LEGEND
 AND PANEL SCHEDULE

SHEET:
E0.1

100% CONSTRUCTION DOCUMENTS

ELECTRICAL SPECIFICATIONS

26 05 00 – COMMON WORK RESULTS FOR ELECTRICAL

- A. SCOPE OF WORK: FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT FOR AN EXTENSION TO THE EXISTING ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.
- B. STANDARDS, CODES AND REGULATIONS: COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING CODE, AND INTERNATIONAL FIRE CODE INCLUDING ALL STATE AND LOCAL AMENDMENTS TO THESE CODES. COMPLY WITH THE LATEST PUBLISHED VERSION OF THE NECA STANDARD OF INSTALLATION.
- C. DRAWINGS: THE DRAWINGS ARE DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. UNLESS SPECIFICALLY DIMENSIONED. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION. BRING QUESTIONABLE OR OBSCURE ITEMS, APPARENT CONFLICTS BETWEEN PLANS AND SPECIFICATIONS, GOVERNING CODES OR UTILITIES REGULATIONS TO THE ATTENTION OF THE OWNER. CODES, ORDINANCES, REGULATIONS, MANUFACTURER'S INSTRUCTIONS OR STANDARDS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS.
- D. RECORD DRAWINGS: MARK UP A CLEAN SET OF DRAWINGS AS THE WORK PROGRESSES TO SHOW THE DIMENSIONED LOCATION AND ROUTING OF ALL ELECTRICAL WORK WHICH WILL BECOME PERMANENTLY CONCEALED. SHOW ROUTING OF WORK IN PERMANENTLY CONCEALED BLIND SPACES WITHIN THE BUILDING. SHOW COMPLETE ROUTING AND SIZING OF ANY SIGNIFICANT REVISIONS TO THE SYSTEMS SHOWN.
- E. WORKMANSHIP: INSTALLATION OF ALL WORK SHALL BE MADE SO THAT ITS SEVERAL COMPONENT PARTS SHALL FUNCTION AS A WORKABLE SYSTEM COMPLETE WITH ALL ACCESSORIES NECESSARY FOR ITS OPERATION. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS AND/OR INSTALLATION DRAWINGS AND IN ACCORDANCE WITH NECA STANDARDS. MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM WITH APPLICABLE INDUSTRY STANDARDS, NEMA STANDARDS AND UNDERWRITERS LABORATORIES STANDARDS WHERE APPLICABLE.
- F. SUBMITTALS: PROVIDE MATERIAL AND EQUIPMENT SUBMITTALS CONTAINING A COMPLETE LISTING OF MATERIAL AND EQUIPMENT SHOWN ON THE DRAWINGS. INCLUDE CATALOG NUMBERS, WIRING DIAGRAMS, ROUGH-IN DIMENSIONS AND PERFORMANCE DATA FOR ALL MATERIAL AND EQUIPMENT. SUBMITTALS SHALL BE IN ELECTRONIC .PDF FORMAT, SEPARATE FROM WORK FURNISHED UNDER OTHER DIVISIONS. INDEX AND CLEARLY IDENTIFY ALL MATERIAL AND EQUIPMENT BY ITEM, NAME OR DESIGNATION USED ON THE DRAWINGS. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND ARRANGEMENT ONLY AND DOES NOT RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SUBMITTALS ARE NOT CHECKED FOR QUANTITY, DIMENSION, OR FOR PROPER OPERATION. WHERE DEVIATIONS OF A SUBSTITUTE PRODUCT OR SYSTEM PERFORMANCE HAVE NOT BEEN SPECIFICALLY NOTED IN THE SUBMITTAL BY THE CONTRACTOR, PROVISIONS OF A COMPLETE AND SATISFACTORY WORKING INSTALLATION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- G. OPERATION AND MAINTENANCE MANUALS: PROVIDE OPERATION AND MAINTENANCE MANUALS FOR TRAINING OF THE OWNER'S PERSONNEL. DESCRIBE THE PROCEDURES NECESSARY TO OPERATE THE SYSTEM INCLUDING START-UP, OPERATION, EMERGENCY OPERATION AND SHUTDOWN. PROVIDE INSTRUCTIONS AND A SCHEDULE OF PREVENTIVE MAINTENANCE IN TABULAR FORM FOR ALL ROUTINE CLEANING, INSPECTION AND LUBRICATION WITH RECOMMENDED LUBRICANTS. PROVIDE INSTRUCTIONS FOR MINOR REPAIR OR ADJUSTMENTS REQUIRED FOR PREVENTIVE MAINTENANCE ROUTINES. PROVIDE MANUFACTURER'S DESCRIPTIVE LITERATURE INCLUDING APPROVED SHOP DRAWINGS COVERING DEVICES USED IN ANY CONTRACTOR-PROVIDED EQUIPMENT OR SYSTEMS WITH ILLUSTRATION, EXPLODED VIEWS, ETC.
- H. WARRANTY: THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM BENEFICIAL OCCUPANCY. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.
- I. PERMITS: SECURE AND PAY FOR ALL FEES, PERMITS, ETC. REQUIRED BY LOCAL AND STATE
- J. REFERENCE SYMBOLS: THE ELECTRICAL "LEGEND" ON THE DRAWINGS IS A STANDARDIZED VERSION, AND ALL SYMBOLS SHOWN MAY NOT BE USED. USE THE "LEGEND" AS A REFERENCE FOR THE SYMBOLS USED ON THE DRAWINGS.
- K. PENETRATION OF FIRE BARRIERS: ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE SEALED IN ACCORDANCE WITH NEC ARTICLE 300.21 AND THE FOLLOWING:
- ALL HOLES OR VOIDS CREATED TO EXTEND ELECTRICAL SYSTEMS THROUGH FIRE RATED FLOORS, WALLS OR CEILING SHALL BE SEALED WITH AN ASBESTOS-FREE INTUMESCENT FIRE STOPPING MATERIAL CAPABLE OF EXPANDING 8 TO 10 TIMES WHEN EXPOSED TO TEMPERATURES 250 DEGREES F OR HIGHER.
 - MATERIALS SHALL BE SUITABLE FOR THE FIRE STOPPING OF PENETRATIONS MADE BY STEEL, GLASS, PLASTIC AND SHALL BE CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME, SMOKE AND GASES IN COMPLIANCE WITH THE REQUIREMENTS OF ASTM E814, UL 1479 AND THE UL FIRE RESISTANCE DIRECTORY REQUIREMENTS FOR THROUGH-PENETRATION FIRESTOP DEVICES (XHCR).
 - THE RATING OF THE FIRE STOPS SHALL BE THE SAME AS THE TIME-RATED FLOOR, WALL OR CEILING ASSEMBLY.
 - INSTALL FIRE STOPPING MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

26 05 19 – WIRE AND CABLE

- A. SUBMITTALS: NONE REQUIRED FOR THIS SECTION.
- B. MATERIALS:
- ALL CONDUCTORS SHALL BE COPPER WITH TYPE XHHW, THWN, THW OR THHN INSULATION. MINIMUM BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE #12 AWG. MINIMUM CONTROL CIRCUIT CONDUCTOR SIZE SHALL BE #18 AWG.
 - CONTROL CIRCUITS SHALL BE COPPER, STRANDED CONDUCTOR, 600V INSULATION, THHN/THWN, MINIMUM SIZE 18 AWG.
- C. INSTALLATION:
- COLOR CODE WIRES BY LINE OR PHASE. COLOR CODE THE 120/208V CONDUCTORS BLACK, RED, BLUE, AND WHITE.
 - DO NOT SHARE NEUTRAL CONDUCTORS. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT THAT REQUIRES A NEUTRAL.
 - USE PROPERLY SIZED INSULATED SPRING WIRE CONNECTORS WITH PLASTIC CAPS FOR ALL CONDUCTORS #8 AWG AND SMALLER.
 - INSTALLATION SCHEDULE: BUILDING WIRE IN RACEWAYS AT ALL LOCATIONS UNLESS OTHERWISE NOTED.

26 05 29 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

- A. SUBMITTALS: NONE REQUIRED FOR THIS SECTION.
- B. MATERIAL: SUPPORT CHANNEL SHALL BE GALVANIZED OR PAINTED STEEL. HARDWARE SHALL BE CORROSION RESISTANT.
- C. INSTALLATION: EQUIPMENT WEIGHING MORE THAN 50 POUNDS SHALL BE ADEQUATELY ANCHORED TO THE BUILDING STRUCTURE TO RESIST LATERAL EARTHQUAKE FORCES.

26 05 33 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

- A. SUBMITTALS: NONE REQUIRED FOR THIS SECTION.
- B. MATERIALS
- RIGID STEEL CONDUIT: ANSI C80.1. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1; THREADED TYPE WITH INSULATED THROAT BUSHINGS, MATERIAL TO MATCH CONDUIT.
 - INTERMEDIATE METAL CONDUIT (IMC): GALVANIZED STEEL. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1; USE FITTINGS AND CONDUIT BODIES SPECIFIED ABOVE FOR RIGID STEEL CONDUIT.
 - ELECTRICAL METALLIC TUBING CONDUIT (EMT): ANSI C80.3. GALVANIZED TUBING. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1; STEEL OR MALLEABLE IRON, COMPRESSION TYPE OR SET SCREW FITTINGS WITH INSULATED THROAT BUSHINGS. DIE-CAST FITTINGS ARE NOT ACCEPTABLE. MAXIMUM SIZE SHALL BE 2". PROVIDE FACTORY ELBOWS ON SIZES 1-1/2" AND LARGER.
 - FLEXIBLE METAL CONDUIT: FS WW-C-566; STEEL, FULL WALL OR REDUCED WALL THICKNESS. FITTINGS AND CONDUIT BODIES: ANSI/NEMA FB 1; STEEL OR MALLEABLE IRON WITH INSULATED THROAT BUSHINGS. DIE CAST FITTINGS ARE NOT ACCEPTABLE.
 - PROVIDE GALVANIZED OR CADMIUM PLATED, ONE PIECE PRESSED STEEL OUTLET BOXES 4 INCH SQUARE OR OCTAGONAL, 1-1/2 INCHES DEEP MINIMUM SIZE FOR USE IN INTERIOR AREAS.
 - FOR TELECOMMUNICATIONS SYSTEMS, OUTLET BOXES SHALL BE 4 11/16 INCHES SQUARE, 2-1/4 INCHES DEEP MINIMUM.
 - PROVIDE WALL MOUNTED A/V BOX: SINGLE GANG
- C. INSTALLATION:
- INSTALL CONDUIT FOR ALL SYSTEMS UNLESS OTHERWISE NOTED, 1/2 INCH MINIMUM SIZE, EXCEPT CONDUIT FOR SPECIAL SYSTEMS SHALL BE 3/4" MINIMUM.
 - EXPOSED DRY INTERIOR LOCATIONS SHALL BE RIGID STEEL CONDUIT OR INTERMEDIATE METAL CONDUIT. ELECTRICAL METALLIC TUBING MAY BE USED EXPOSED WHEN INSTALLED ON THE CEILING, A MINIMUM OF TEN FEET ABOVE THE FLOOR OR WHERE NOT SUBJECT TO PHYSICAL DAMAGE. EMT MAY ALSO BE USED FOR CONCEALED, DRY, INTERIOR LOCATIONS.
 - MOTOR AND EQUIPMENT CONNECTIONS SHALL BE SHORT EXTENSIONS OF FLEXIBLE METAL CONDUIT TO ALLOW FOR VIBRATION.
 - INSTALL RACEWAYS PER THE LATEST NECA (NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION) STANDARDS.
 - PROVIDE RACEWAYS CONCEALED IN CONSTRUCTION UNLESS SPECIFICALLY NOTED OTHERWISE, OR WHERE INSTALLED AT SURFACE CABINETS, MOTOR AND EQUIPMENT CONNECTIONS AND IN MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS. DO NOT ROUTE CONDUITS ON ROOFS, OUTSIDE OF EXTERIOR WALLS, OR ALONG THE SURFACE OF INTERIOR FINISHED WALLS UNLESS SPECIFICALLY NOTED ON THE PLANS
 - PAIN ALL EXPOSED CONDUIT IN FINISHED AREAS TO MATCH SURFACE TO WHICH IT IS ATTACHED OR CROSSES. CLEAN GREASY OR DIRTY CONDUIT PRIOR TO PAINTING IN ACCORDANCE WITH PAINT MANUFACTURER'S INSTRUCTIONS.
 - INSTALL RACEWAYS LEVEL AND SQUARE TO A TOLERANCE OF 1/8 INCH PER 10 FEET. ROUTE EXPOSED RACEWAYS AND RACEWAYS ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS, CEILING, STRUCTURAL MEMBERS AND ADJACENT PIPING.
 - ALL CONDUIT FOR THE TELECOMMUNICATIONS DISTRIBUTION SYSTEM SHALL BE INSTALLED WITH NO MORE THAN 270 DEGREES OF BENDS BETWEEN PULLBOXES. PULL BOXES SHALL NOT BE USED IN LIEU OF CONDUIT BENDS. CONDULETS (LB FITTINGS) SHALL NOT BE INSTALLED IN ANY TELECOMMUNICATIONS RACEWAY.
 - PROVIDE OUTLET BOXES AS SHOWN ON THE DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, DEVICE INSTALLATION AND CODE COMPLIANCE.
 - USE MULTIPLE-GANG BOXES WHERE MORE THAN ONE DEVICE ARE MOUNTED TOGETHER; DO NOT USE SECTIONAL BOXES.
 - SUPPORT BOXES INDEPENDENTLY OF CONDUIT.

26 05 53 – IDENTIFICATION FOR ELECTRICAL SYSTEMS

- A. SUBMITTALS: NONE REQUIRED FOR THIS SECTION.
- B. MATERIALS:
- TAPE LABELS: ADHESIVE TAPE LABELS, WITH 3/16 INCH BOLD BLACK LETTERS ON CLEAR BACKGROUND MADE USING DYMO RHINOPRO 5000 OR EQUAL LABEL PRINTER.
 - WIRE AND CABLE MARKERS: CLOTH MARKERS, SPLIT SLEEVE OR TUBING TYPE.
- C. INSTALLATION:
- CONDUITS: MARK ALL CONDUITS ENTERING OR LEAVING PANELBOARDS WITH INDELIBLE BLACK MAGIC MARKER WITH THE CIRCUIT NUMBERS OF THE CIRCUITS CONTAINED INSIDE.
 - JUNCTION BOXES: MARK ALL CIRCUIT NUMBERS OF WIRING ON ALL JUNCTION BOXES WITH SHEET STEEL COVERS. MARK WITH INDELIBLE BLACK MARKER. ON EXPOSED JUNCTION BOXES IN PUBLIC AREAS, MARK ON INSIDE OF COVER. MARK SPECIAL SYSTEM JUNCTION BOXES WITH SHEET STEEL COVERS.
 - WIRE IDENTIFICATION: PROVIDE WIRE MARKERS ON EACH CONDUCTOR IN PANELBOARD GUTTERS, PULL BOXES, OUTLET AND JUNCTION BOXES, AND AT LOAD CONNECTION. MARKERS SHALL BE LOCATED WITHIN ONE INCH OF EACH CABLE END, EXCEPT AT PANELBOARDS, WHERE MARKERS FOR BRANCH CIRCUIT CONDUCTORS SHALL BE VISIBLE WITHOUT REMOVING PANEL DEADFRONT.
 - DEVICE PLATES: LABEL EACH RECEPTACLE DEVICE PLATE OR POINT OF CONNECTION DENOTING THE PANELBOARD NAME AND CIRCUIT NUMBER. INSTALL LABEL ON THE TOP OF EACH PLATE.

26 24 16 – PANELBOARDS

- A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.
- B. MATERIAL:
- MANUFACTURERS: SQUARE D, GE, EATON, OR EQUAL.
 - NEW BREAKERS IN EXISTING PANELS: NEMA AB 1; UL LISTED FOR USE IN THE PANEL, AMPERE RATING AND NUMBER OF POLES AS INDICATED ON PLANS. AIC RATING SHALL MATCH THE LOWEST RATED DEVICE IN THE PANEL.
- C. INSTALLATION:
- INSTALL NEW BREAKER(S) IN EXISTING PANEL(S) AND TEST FOR PROPER OPERATION. UPDATE CIRCUIT DIRECTORY TO REFLECT ALL CHANGES.

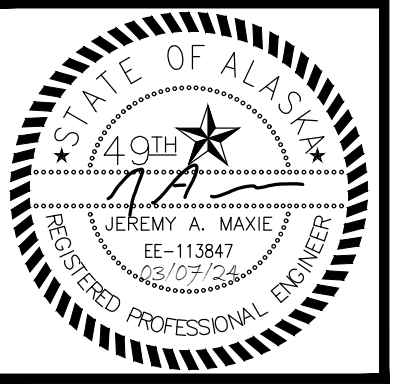
26 27 26 – WIRING DEVICES

- A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.
- B. MATERIALS:
- RECEPTACLES: CONVENIENCE AND STRAIGHT BLADE RECEPTACLES SHALL BE NEMA AND FEDERAL SPECIFICATION FS W-C-596, TYPE 5-20R, WHITE NYLON FACE. SPECIFIC USE RECEPTACLES SHALL BE NEMA WD1 OR WD5; AS REQUIRED TO MATCH LOAD SERVED, BLACK PHENOLIC FACE. TAMPER-RESISTANT RECEPTACLES SHALL BE UL 498.
 - WALL PLATES: DECORATIVE COVER PLATES IN FINISHED AREAS SHALL BE 430 OR 302 STAINLESS STEEL.
- C. INSTALLATION:
- INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS, ABOVE ACCESSIBLE CEILINGS, AND ON SURFACE-MOUNTED OUTLETS.

27 40 00 – AUDIO-VIDEO SYSTEMS

- A. SUMMARY: THIS SECTION INCLUDES REQUIREMENTS FOR AUDIO/VIDEO SYSTEM EQUIPMENT FOR CONNECTION OF OFCI COMPONENTS.
- B. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.
- C. MATERIALS:
- WALL MOUNTED AV BOX: SINGLE GANG (OR LARGER AS REQUIRED TO ACCOMMODATE DEVICES SHOWN ON PLANS), EXTRA DEEP BOX PER SECTION 26 05 33 – RACEWAY AND BOXES. PROVIDE HUBBELL I-STATION OR EQUAL DECORATOR (ONE DEVICE) OR KEYSTONE PLATE (UP TO FOUR DEVICES), WHITE FINISH.
 - VIDEO JACKS: ONE PORT FEMALE HDMI JACK. HUBBELL I-STATION OR EQUAL.
 - AUDIO CABLES: AUDIO CABLE AS RECOMMENDED BY THE MANUFACTURER FOR CONNECTION OF AUDIO OUTPUTS TO SOUND SYSTEM INPUTS.
 - HDMI CABLES: HDMI A MALE-TO-MALE CABLE, SUPPORTING ETHERNET, 3D, 4K VIDEO AND AUDIO RETURN CHANNEL (ARC), LENGTH AS REQUIRED. PROVIDE (2) PATCH CABLES FOR OWNER USE AT WALL JACKS.
 - HDMI MATRIX SWITCH: EXTRON DXP HD 4K PLUS SERIES OR EQUAL, 4X2 MATRIX WITH AUDIO OUTPUTS.
 - HDMI OVER UTP TRANSMITTER/RECEIVER: EXTRON DTP2 SERIES OR EQUAL. PROVIDE TRANSMITTER/RECEIVER PAIRS. HD BASE T IS ACCEPTABLE INSTEAD IF EQUIPMENT PROVIDED SUPPORTS IT.
 - VIDEO CABLE: PROVIDE SHIELDED TWISTED PAIR CABLE, EXTRON XTP DTP 24 OR EQUAL. DIRECT TERMINATION OF FIELD JACKS IS ACCEPTABLE.
 - EQUIPMENT SHELF: PROVIDE 1RU SHELF FOR NEW EQUIPMENT IN EXISTING SOUND SYSTEM CABINET.
 - PLUG STRIP: PROVIDE NEW PLUG STRIP WITH MINIMUM (4) OUTLETS FOR NEW EQUIPMENT.
- D. INSTALLATION
- PROVIDE CONFIGURATION OF EQUIPMENT TO SUPPORT CONNECTION OF OFCI EQUIPMENT.
 - SPLICE CABLE ONLY IN ACCESSIBLE JUNCTION BOXES OR AT TERMINAL BLOCK UNITS.
 - MAKE CABLE SHIELDS CONTINUOUS AT SPLICES AND CONNECT CIRCUIT SHIELD TO EQUIPMENT GROUND ONLY AT SOURCE END.

- INSTALL INPUT CIRCUITS IN SEPARATE CABLES AND RACEWAYS FROM OUTPUT CIRCUITS.
- LEAVE 12 INCHES EXCESS CABLE AT EACH TERMINATION AT DEVICE AND OTHER SYSTEM OUTLET IF SPACE ALLOWS.
- PROVIDE PROTECTION FOR EXPOSED CABLES WHERE SUBJECT TO DAMAGE.
- NEATLY TRAIN ALL EXCESS CABLE WITH VELCRO TIES.
- TEST ALL CABLES FOR PROPER OPERATION.
- TWISTED PAIR CABLE SHALL BE TERMINATED AND TESTED TO TIA STANDARDS AS APPLICABLE.



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ANCHORAGE SCHOOL DISTRICT
GYM PROJECTOR ADDITION

SERVICE HIGH SCHOOL
5577 ABBOTT ROAD
ANCHORAGE, ALASKA 99507-4399

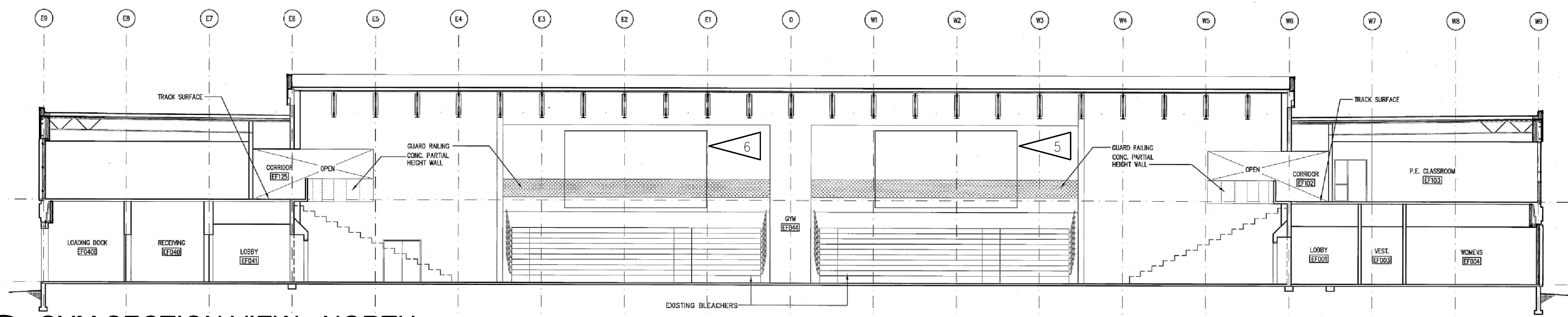
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ELECTRICAL
SPECIFICATIONS

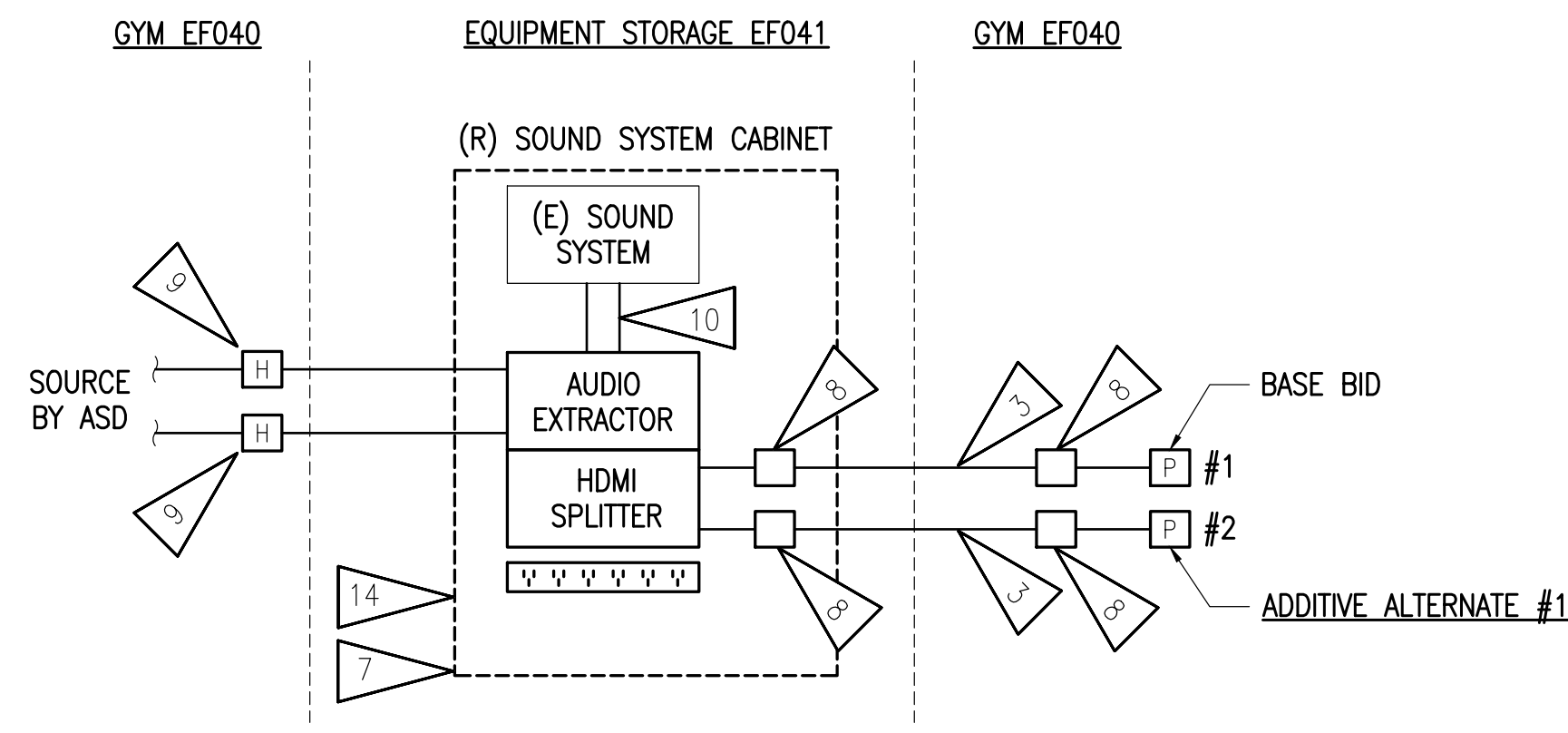
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100% CONSTRUCTION DOCUMENTS



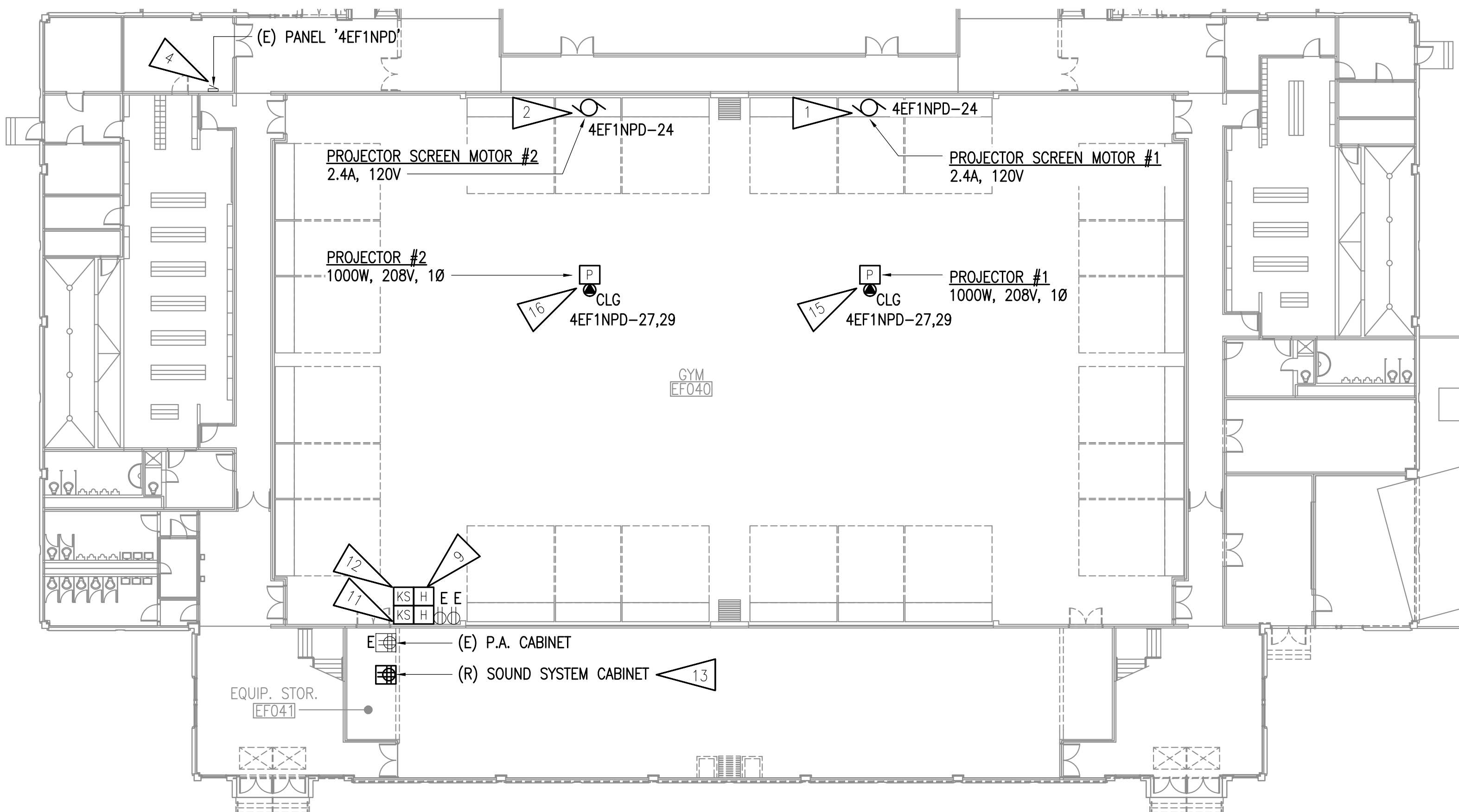
3 GYM SECTION VIEW - NORTH
NOT TO SCALE

- GENERAL NOTES:**
- THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.
 - EXISTING CONDUIT MAY BE USED FOR TELECOMMUNICATION CABLING. CONDUIT MAY HAVE OTHER SYSTEMS AND IS ACCEPTABLE FOR RE-USE IF 40% FILL IS NOT EXCEEDED.
 - DISTANCE OF PROJECTOR TO PROJECTOR SCREEN IS BASED ON BX-CTA20 LENS WITH A THROW RATIO OF 1.2-1.5:1. CONFIRM LENS AND THROW RATIO WITH ASD PRIOR TO ROUGH-IN.
 - OFCI COMPONENTS:
 - PROJECTOR: OPTOMA ZU1700.
 - SCREEN: DA-LITE PROFESSIONAL ELECTROL 326" DIAGONAL.

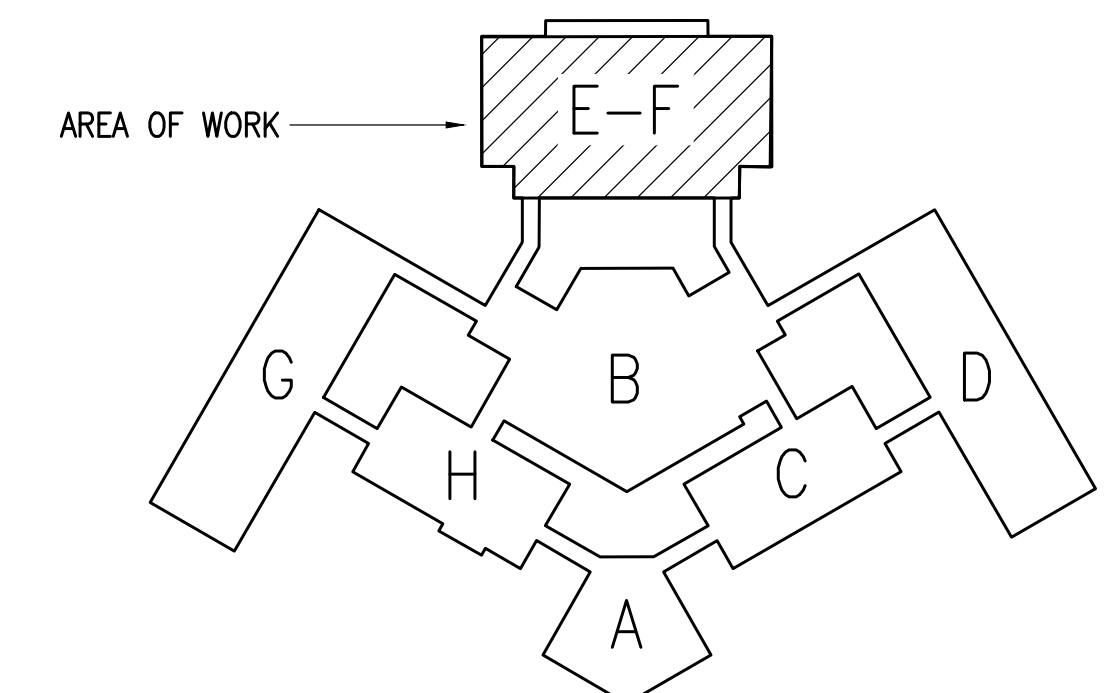


2 AUDIO/VIDEO ONE-LINE
NOT TO SCALE

- SHEET NOTES:**
- APPROXIMATE LOCATION OF OFCI PROJECTOR SCREEN MOTOR #1. UPDATE PANEL DIRECTORY.
 - BASE BID:** NO WORK.
ADD ALT #1: EXTEND OFCI PROJECTOR SCREEN MOTOR #1 CIRCUIT TO APPROXIMATE LOCATION OF OFCI PROJECTOR SCREEN MOTOR #2. UPDATE PANEL DIRECTORY.
 - BASE BID:** PROVIDE CAT6 TO PROJECTOR #1.
ADD ALT #1: PROVIDE CAT6 TO PROJECTOR #2.
 - APPROXIMATE LOCATION OF PANEL LOCATED ON UPPER LEVEL.
 - LOCATION OF OFCI PROJECTOR SCREEN
 - BASE BID:** NO WORK.
ADD ALT #1: LOCATION OF OFCI PROJECTOR SCREEN.
 - INSTALL EQUIPMENT IN RELOCATED SOUND SYSTEM CABINET. PLUG EQUIPMENT IN NEW PLUG STRIP IN SOUND SYSTEM CABINET. SEE NOTE 14.
 - HDMI OVER UTP CONVERTER. CAN BE INTEGRAL TO EQUIPMENT.
 - PROVIDE HDMI JACK(S) WHERE SHOWN. AT 48" AFF PROVIDE (1) UNDER BASE BID, (2) UNDER **ADD ALT #1**.
 - CONNECT AUDIO OUTPUTS TO INPUTS ON EXISTING SOUND SYSTEM. IF INPUTS ARE NOT AVAILABLE NOTIFY ASD FOR ASSISTANCE.
 - PROVIDE CONNECTION FROM KEY SWITCH TO PROJECTOR SCREEN #1. KEY SWITCH SHALL CONTROL POSITION OF PROJECTOR SCREEN.
 - BASE BID:** NO WORK.
ADD ALT #1: PROVIDE CONNECTION FROM KEY SWITCH TO PROJECTOR SCREEN #2. KEY SWITCH SHALL CONTROL POSITION OF PROJECTOR SCREEN.
 - REMOVE SOUND SYSTEM CABINET FROM GYM AND RELOCATE TO EQUIPMENT STORAGE AS SHOWN. EXTEND AND RECONNECT ALL AUDIO CABLES. EXTEND EXISTING CIRCUIT IN P.A. CABINET AND PROVIDE A NEW QUAD RECEPTACLE AT LOCATION SHOWN.
 - PROVIDE PLUG STRIP AND SHELF TO HOUSE NEW EQUIPMENT IN RELOCATED SOUND SYSTEM CABINET. PLUG INTO NEW QUAD RECEPTACLE.
 - APPROXIMATE LOCATION OF OFCI PROJECTOR #1. UPDATE PANEL DIRECTORY.
 - BASE BID:** NO WORK.
ADD ALT #1: EXTEND OFCI PROJECTOR #1 CIRCUIT TO APPROXIMATE LOCATION OF OFCI PROJECTOR SCREEN MOTOR #2. UPDATE PANEL DIRECTORY.



1 ELECTRICAL PLAN - E-F LOWER LEVEL
1/16" = 1'-0"



KEY PLAN

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1000 S. WILSON ROAD, SUITE 200
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Corporate No. AECCS42



ANCHORAGE SCHOOL DISTRICT
GYM PROJECTOR ADDITION

SERVICE HIGH SCHOOL
5577 ABBOTT ROAD
ANCHORAGE, ALASKA 99507-4399

REVISIONS:

DRAWN BY: NVF
CHECKED BY: JAM
DATE: 03/07/24
JOB NUMBER: M4038
DWG FILE: M4038-ESERIES

DRAWING TITLE:
ELECTRICAL PLAN -
E-F, AV ONE-LINE
AND SECTION VIEW

SHEET:
E1.1