INDIAN HILLS BAND & CHORAL REMODEL

CONSTRUCTION DOCUMENTS
MARCH 21, 2025

DRAWING INDEX

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
CMU	CONCRETE MASONRY UNIT
EIFS	EXTERIOR INSULATED FINISH
EQ	EQUAL
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
O.C.	ON CENTER
SPEC	SPECIFICATION
SIM	SIMILIAR
TYP	TYPICAL
T.O.	TOP OF
B.O.	BOTTOM OF
F.V.	FIELD VERIFY

MATERIAL LEGEND

- GYPSUM BOARD OR CONCRETE SURFACE
- CONCRETE
- STUD WALL
- GRAVEL
- COMPACTED FILL AND/OR EARTH
- ATLAS BRICK MASONRY
- BATT INSULATION
- RIGID INSULATION

SYMBOLS LEGEND

ROOM IDENTIFICATION NUMBER — ROOM NAME / NUM — ROOM NAME / ROOM NUMBER

DOOR NUMBER — XXX

REFERENCE NOTE — XX.XX

WINDOW TYPE — X

PARTITON WALL TYPE — XX

MILLWORK ASSEMBLY TYPE — MIL XX

SIGNAGE TYPE SEE SIGNAGE DETAILS — XX

INTERIOR ELEVATION — A1 / A2 / A3 / A4; SHADE INDICATES ELEVATED WALL; ELEVATION NUMBER; SHEET NUMBER

BUILDING SECTION — SECTION NUMBER; SHEET NUMBER

WALL SECTION — SECTION NUMBER; SHEET NUMBER

EXTERIOR ELEVATION — ELEVATION NUMBER; SHEET NUMBER

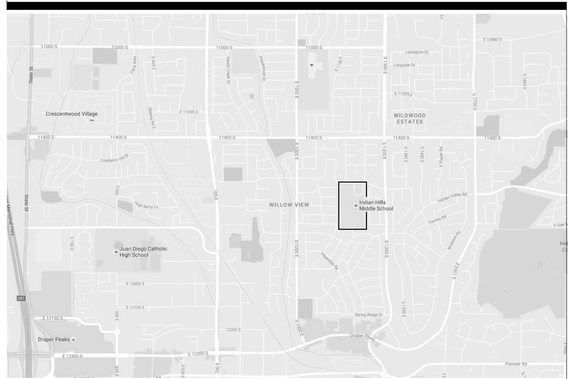
DETAIL — DETAIL NUMBER; SHEET NUMBER

DETAIL TITLE — A1 DETAIL SCALE:

REVISION DELTA — 2 — REVISION NUMBER

SITE MAP

VICINITY MAP



PROJECT TEAM

PROJECT ARCHITECT
FFKR ARCHITECTS
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SALT LAKE CITY, UT 84104
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STRUCTURAL ENGINEER
CALDER RICHARDS
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MECHANICAL ENGINEER
VAN BOERUM & FRANK
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SALT LAKE CITY, UT 84111
801.530.3148

ELECTRICAL ENGINEER
BNA CONSULTING
635 SOUTH STATE STREET
SALT LAKE CITY, UT 84111
801.532.2196

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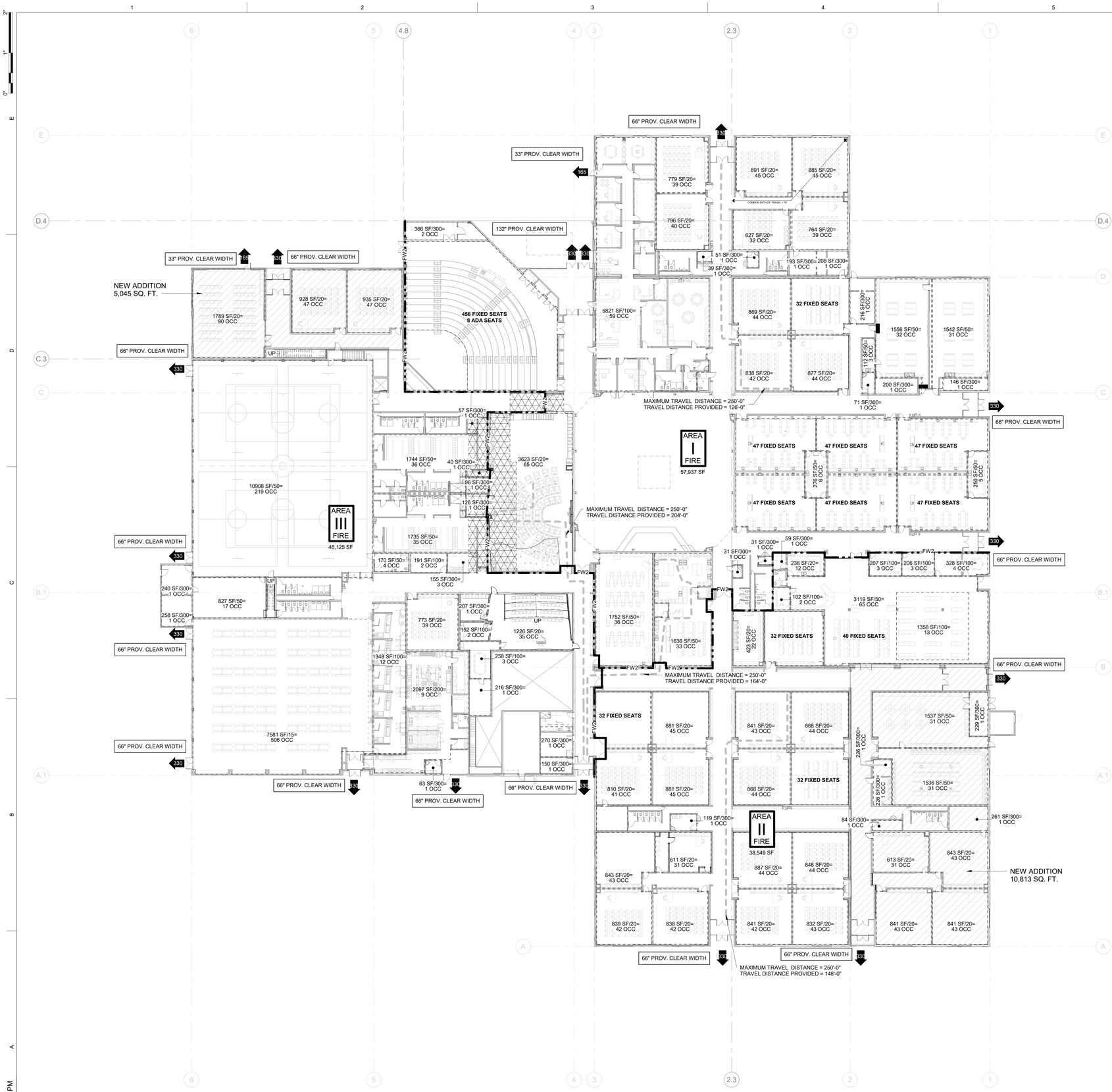
O 801.521.6186 • FFKR.COM

INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094

PROJECT NUMBER: 24038



Applicable Codes	
Code	Year
International Building Code (IBC)	2015
International Mechanical Code (IMC)	2015
International Plumbing Code (IPC)	2015
International Fire Code (IFC)	2012
International Energy Conservation Code (IECC)	2015
National Electrical Code (NEC)	2014
Uniform Code for Building Conervation (UCBC)	2012
ADA Accessibility Guidelines	2009

International Building Code (IBC) Analysis			
Construction Type	II-B		Sect. 602
Building Occupancies	B, E		Sect. 508
Design Building Area	148,893	SF	
Design Building Height (Stories)	2	Stories	
Design Building Height (Ft)	28'-0"		
Allowed Building Area	58,000	SF	Table 506.2
Allowed Building Height (Stories)	3	Stories	Table 504.4
Allowed Building Height (Ft)	75	Ft	Table 504.3

Building Square Footage			
Basement	5,403	SF	
First Floor	142,610	SF	
Level 2	880	SF	
Total	148,893	SF	

Building Occupancy & Construction Type					
Occupancy Of Building	Single		Separated Occupancies	No	Table 508.4
Most Restrictive Occ	E		Construction Type	II-B	Chapter 6

Fire Resistance Ratings for Building Elements - hours (Table 601 - Substitution 903.2)		
Are Fire Sprinklers Required	YES	Sect. 903.2
Building Element	Tabular	Substituted
Primary Structural Frame (See Section 202)	0	0
Bearing Walls - Exterior	0	0
Bearing Walls - Interior	0	0
Nonbearing Walls & Partitions - Exterior	See Table 602	
Nonbearing Walls & Partitions - Interior	0	0
Floor Construction (See Section 202)	0	0
Roof Construction (See Section 202)	0	0
FULLY AUTOMATIC SPRINKLER SYSTEM PROVIDED THROUGHOUT ENTIRE SCHOOL		

Shaft Enclosure Fire Rating (Section 713.4)		
Shaft Enclosure Fire Rating	1	Hours
Stories (including Basements)	2	

Exit Width (Section 1005)		
Stairs	Inches Req.	Inches Prov.
Basement	52"	203"
First Floor	N/A	N/A
Mezzanine	36"	40"
Doors	Inches Req.	Inches Prov.
Basement	35"	99"
First Floor	815"	1,122
Mezzanine	32"	66"

Plumbing Fixture Calculations (Section 29)						
Total Women's Fixtures	Occupants	625			Table 2902.1	
Water Closets	Required	13	Provided	26	1:	50
Lavatories	Required	13	Provided	21	1:	50
Total Men's Fixtures	Occupants	625			Table 2902.1	
Water Closets	Required	13	Provided	18	1:	50
Urinals	Required	-	Provided	16	1:	50
Lavatories	Required	13	Provided	18	1:	50
Total Misc. Fixtures					Table 2902.1	
Bathtub/Shower	Required	0	Provided	1	NA	0
Drinking Fountain	Required	13	Provided	16	See Sect. 1109.5	
Service Sink	Required	1	Provided	8		

* REQUIRED FIXTURE COUNT BASED ON THE FOLLOWING ASSEMBLY SPACES NOT BEING OCCUPIED CONCURRENT TO TYPICAL SCHOOL OCCUPANCIES: AUDITORIUM, GYMNASIUM, AND COMMONS

LIFE SAFETY LEGEND

FB1 — RATED WALL ASSEMBLY CODE

CODE	DESCRIPTION
FB1	FIRE BARRIER - 1 HOUR
FB2	FIRE BARRIER - 2 HOUR
FB3	FIRE BARRIER - 3 HOUR
FP	FIRE PARTITION
FW1	FIRE WALL - 1 HOUR
FW2	FIRE WALL - 2 HOUR
FW3	FIRE WALL - 3 HOUR
SB	SMOKE BARRIER
SP	SMOKE PARTITION

COMMON PATH OF EGRESS

FIRE EXTINGUISHER TRAVEL PATH

1 HOUR FIRE RATED

2 HOUR FIRE RATED

OCCUPANCY AREA BOUNDARY

LIFE SAFETY ARROW — 00 — NUMBER OF OCCUPANTS

FIRE EXTINGUISHER — FE

2 HR SPRAY ON FIRE PROOFING ON ROOF STRUCTURE (ROOF DECK AND ROOF JOISTS)

NEW ADDITION

KEY PLAN

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

△	DATE	REVISION

PROJECT NUMBER 24038

LIFE SAFETY PLAN

G001

A1 LEVEL 1 - OVERALL LIFE SAFETY PLAN
SCALE: 3/64" = 1'-0"

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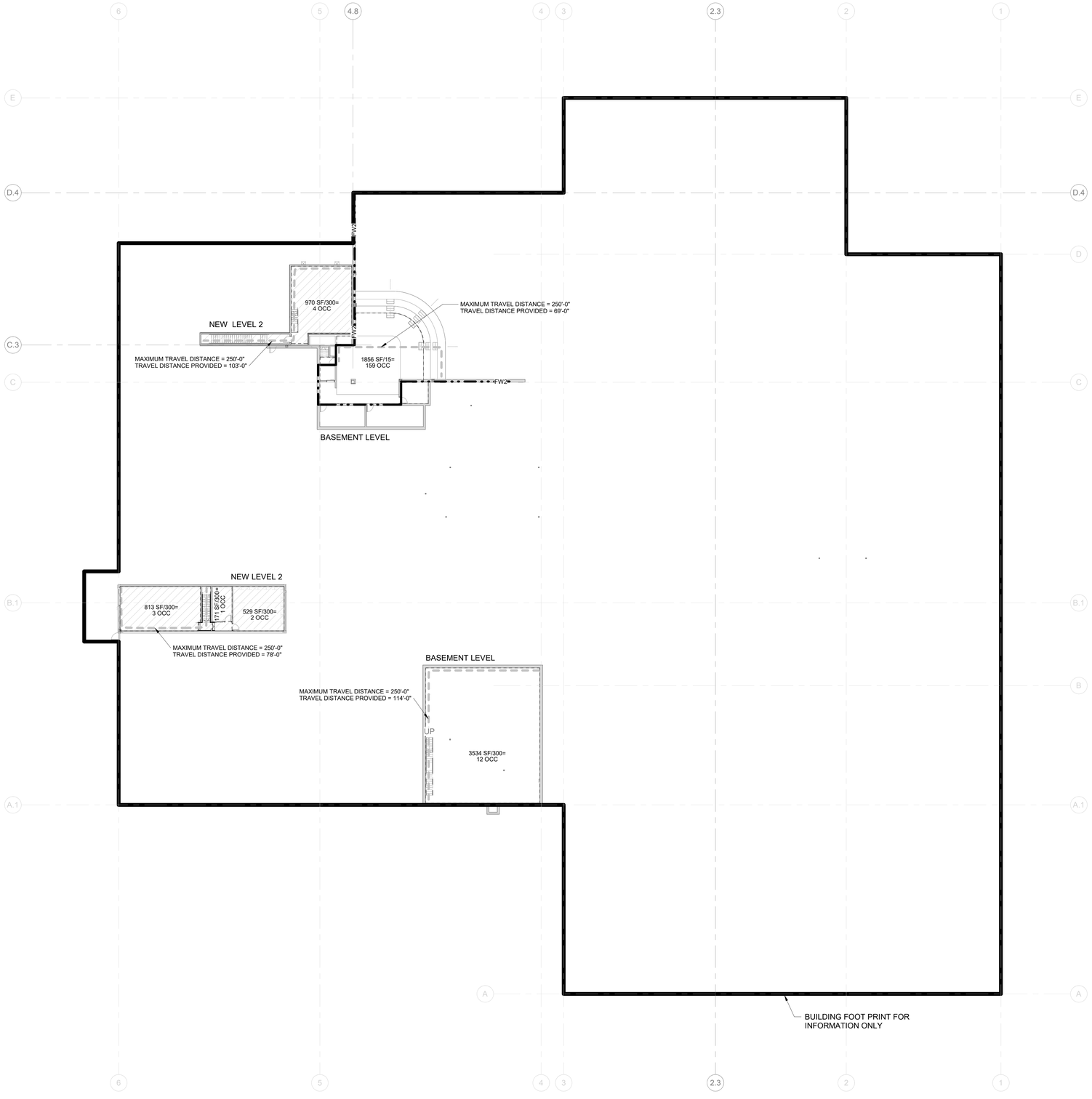

REFERENCE NOTES

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Code			Year
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* REQUIRED FIXTURE COUNT BASED ON THE FOLLOWING ASSEMBLY SPACES NOT BEING OCCUPIED CONCURRENT TO TYPICAL SCHOOL OCCUPANCIES: AUDITORIUM, GYMNASIUM, AND COMMONS

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LIFE SAFETY ARROW

001 — NUMBER OF OCCUPANTS

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FE

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NEW ADDITION

KEY PLAN

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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

△	DATE	REVISION

PROJECT NUMBER 24038

LIFE SAFETY PLAN

G002

A1 BASEMENT AND LEVEL 2 - OVERALL LIFE SAFETY PLAN
SCALE: 3/64" = 1'-0"

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ONLINE CERTIFICATIONS DIRECTORY

BXUV.U415
Fire Resistance Ratings - ANSI/UL 263

Page Bottom

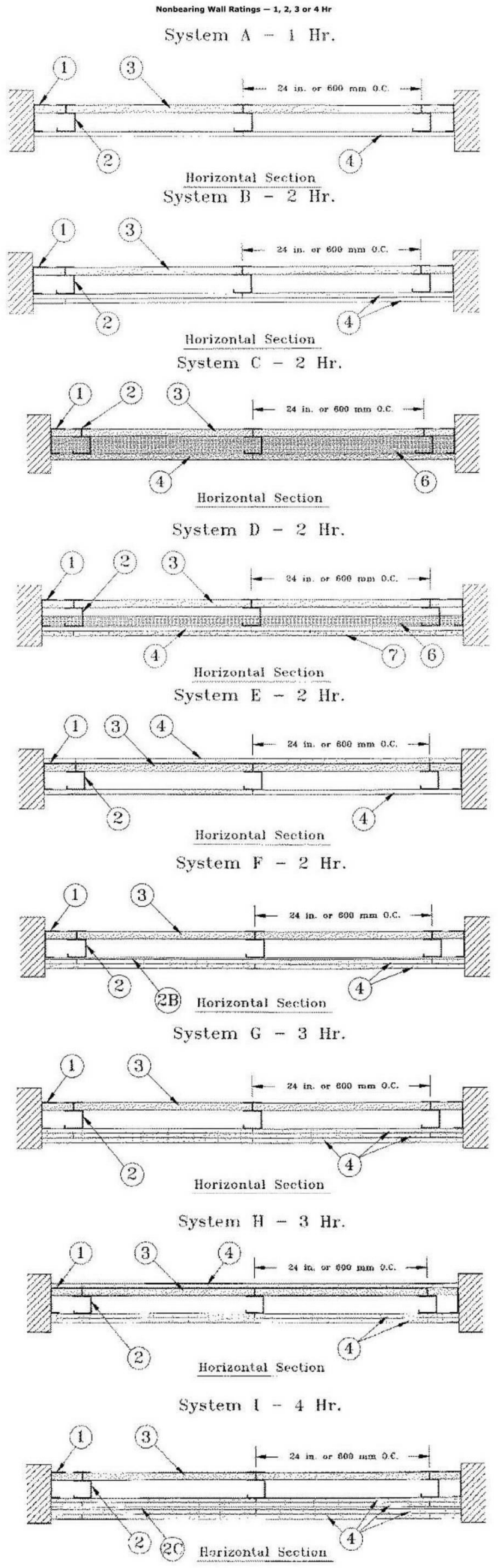
Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U415

July 30, 2007

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr



1. **Floor, Side and Ceiling Runners —** "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 5C, or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC.

2A. **Steel Studs —** (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D or Item 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, not shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. Not to be used with Type FRX or FRX-G gypsum wallboard (Item 4A) or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

2D. **Steel Framing Members* —** (Optional, not shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX or FRX-G gypsum wallboard (Item 4A) or cementitious backer units (Item 7):

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

PAC INTERNATIONAL INC — Type RSIC-1.

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.

CANADIAN GYPSUM COMPANY — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG MEXICO S A DE C V — Type SLX

4. **Gypsum Board* —**

System A - 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CANADIAN GYPSUM COMPANY — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

System B - 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

CANADIAN GYPSUM COMPANY — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR, or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

System C - 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

CANADIAN GYPSUM COMPANY — Types IP-X3, or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3, or ULTRACODE

USG MEXICO S A DE C V — Types IP-X3, or ULTRACODE

System D - 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. . Horizontal joints need not be backed by steel framing. Requires face layer of 1/2 or 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.

CANADIAN GYPSUM COMPANY — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

System E - 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.

CANADIAN GYPSUM COMPANY — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

System F - 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. Outer or face layer attached to resilient furring channels (Item 2B) with 1-5/8 in. long Type S steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered 24 in.

CANADIAN GYPSUM COMPANY — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

UNITED STATES GYPSUM CO — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

USG MEXICO S A DE C V — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX

System G - 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CANADIAN GYPSUM COMPANY — Types C, IP-X2, IPC-AR, WRC

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System H - 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers over the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CANADIAN GYPSUM COMPANY — Types C, IP-X2, IPC-AR, WRC

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, WRC

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System I - 4 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

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UNITED STATES GYPSUM CO — Types IP-X3, or ULTRACODE

USG MEXICO S A DE C V — Types IP-X3, or ULTRACODE

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, F, G, H, and I when used as the base layer, For direct attachment only) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

RAY-BAR ENGINEERING CORP — Type RB-LBG

5. **Joint Tape and Compound —** (Not Shown)

Systems A, B, C, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets* —**

Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

Systems C & D

Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.

THERMAFIBER INC — Type SAFB

7. **Cementitious Backer Units* —** (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.

UNITED STATES GYPSUM CO — DUROCK Exterior Cement Board or DUROCK Brand Cement Board.

8. **Laminating Adhesive* —** (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies.

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4A) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4A) - Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

*Bearing the UL Classification Mark

Last Updated on 2007-07-30

ONLINE CERTIFICATIONS DIRECTORY

BXUV.U499
Fire Resistance Ratings - ANSI/UL 263

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Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

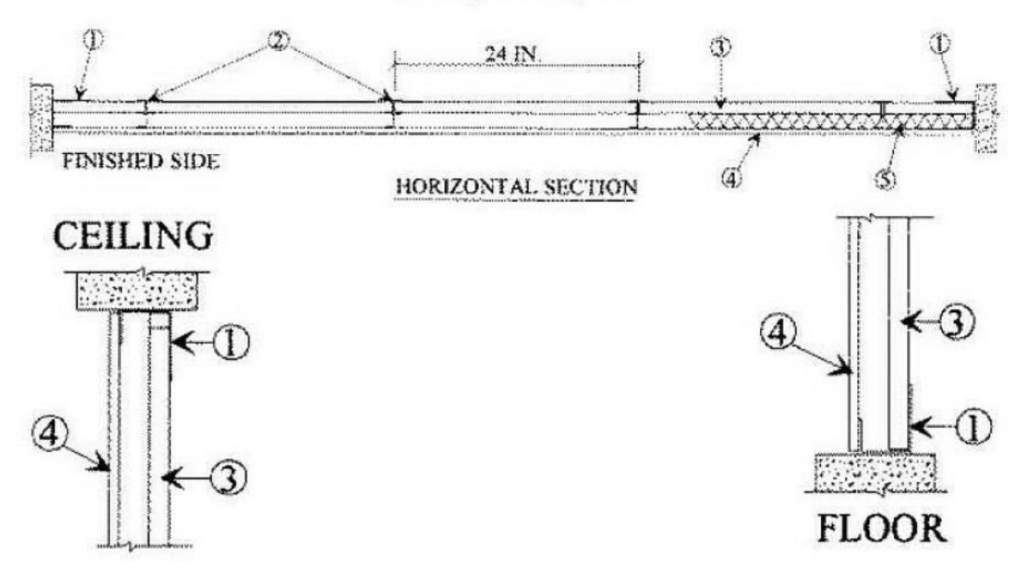
Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U499

February 29, 2008

Nonbearing Wall Rating — 1 Hr.



1. **Channel Track —** "J" -shaped channel, 2-1/2 in. deep with unequal legs of 1 in. and 2 in., fabricated from No. 25 MSG galv steel. Channels attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs —** "I" shaped studs, min 2-1/2 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel, spaced 24 in. OC. Vertically restrained walls require studs to be cut 1/2 in. less than floor to ceiling height.

2A. **Steel Studs —** (Not Shown) — "C-H" -shaped studs, min 2-1/2 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel, spaced 24 in. OC. Vertically restrained walls require studs to be cut 1/2 in. less than floor to ceiling height.

2B. **Steel Studs —** (Not Shown) — "C-T" - shaped studs, min 2-1/2 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel, spaced 24 in. OC. Vertically restrained walls require studs to be cut 1/2 in. less than floor to ceiling height.

2C. **Furring Channels —** (Optional, not shown) - Resilient furring channels fabricated from min. 25 MSG corrosion protected steel, installed horizontally, and spaced vertically a max. 24 in. OC. Flange portion of channel attached to each intersecting stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only.

3. **Gypsum Board* —** 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. widths. Vertical edges inserted in "I" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S self-drilling, self-tapping bugle head steel screws spaced not greater than 24 in. OC.

NATIONAL GYPSUM CO — Types FSW, FSW-B .

4. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, applied horizontally or vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards. When Furring Channels (Item 2C) are used, gypsum board attached vertically to furring channels with 1 in. long Type S steel screws spaced 12 in. OC.

NATIONAL GYPSUM CO — Types FSK-C, FSW, FSW-5, FSW-C, FSW-6.

4A. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards. When Furring Channels (Item 2C) are used, gypsum board attached vertically to furring channels with 1 in. long Type S steel screws spaced 12 in. OC.

NATIONAL GYPSUM CO — Types FSW-3, FSMR-C.

5. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt bearing the UL Classification Marking as to Fire Resistance. See Batt and Blankets (BZJZ) Category For Names Of Classified Companies.

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft^3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft^3.

U S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

*Bearing the UL Classification Mark

Last Updated on 2008-02-29

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Design/System/Construction/Assembly Usage Disclaimer

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- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

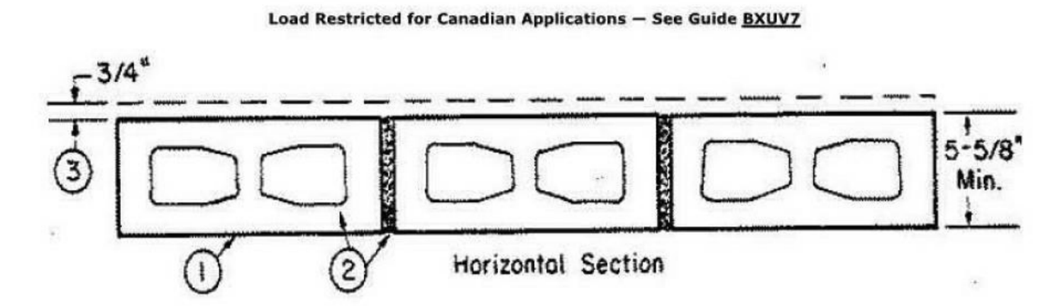
Design No. U906

September 30, 2010

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR.

Load Restricted for Canadian Applications — See Guide BXUV7



1. **Concrete Blocks* —** Nominal 6 by 8 by 16 in, hollow or solid. Various designs. Classification (2 hr).

See **Concrete Blocks** category for list of eligible manufacturers.

ANCHOR CONCRETE PRODUCTS INC

GAGNE & SON CONCRETE BLOCK INC

GLENWOOD MASONRY PRODUCTS

Allowable compressive stress of 57% of max allowable compressive stress in accordance with the empirical design method.

OLDCASTLE APG SOUTH INC, DBA ADAMS

PRODUCTS

WESTBROOK CONCRETE BLOCK CO INC

Allowable compressive stress of 75.6% of max allowable compressive stress in accordance with the empirical design method.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to Classification if used. Attached to concrete blocks (Item 1).

4. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

THE DOW CHEMICAL CO — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

*Bearing the UL Classification Mark

Last Updated on 2010-09-30

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Joint Systems

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Joint Systems

Guide Information for Fire Resistance Ratings

USE AND INSTALLATION

This category covers joint systems, which are specific constructions consisting of adjacent wall and/or floor assemblies and the materials designed to prevent the spread of fire through a linear opening between the wall and/or floor assemblies. The specifications for materials in a joint system and the assembly of the materials are details that directly relate to the established ratings. Information concerning these details is described in the individual systems. The hourly ratings apply only to the complete systems. Individual components are designated for use in a specific system to achieve specified ratings. The individual components are not assigned ratings and are not intended to be interchanged between systems. Additionally, the substitution or elimination of components required in a system should not be made unless specifically permitted in the individual system or in these general guidelines.

The Classification of joint systems contemplate installation in heated and air-conditioned environments unless stated otherwise in the description of the system.

Materials used in the joint systems are intended to be installed in accordance with the manufacturer's instructions provided with the material. The structural integrity of the floor or wall assembly has not been investigated as a result of the openings.

When the joint system specifies the insulation material is to be compressed prior to installation into the joint, the uncompressed thickness necessary can be calculated as follows:

$$T_{uncomp} = (W_{nom} \times 100) / (100 - I_{comp})$$

Where:

T_{uncomp} = Uncompressed Thickness Necessary, In.

I_{comp} = Insulation W_{nom} = Nominal (Installed) Joint Width, In.

Compression Percentage Specified in System

Unless otherwise indicated in the systems, the ratings for joint systems installed in walls apply when either face of the wall is exposed to fire. The ratings for joint systems installed in a floor apply when the underside or ceiling surface is exposed to fire.

The hourly fire-resistance ratings of the floor and wall assemblies in which, or between which, the joint system is intended to be installed are covered under Fire Resistance Ratings (BXUV). Where the individual joint system references back to fire-resistance designs, all construction details of the individual design are intended to be followed. In addition, all details relative to the construction of the wall or floor assembly contained in the individual joint system are intended to be followed. Where the construction details shown in the fire-resistance design and the joint system differ, such as in stud size and spacing, fastener spacing, etc., the most restrictive construction details prevail.

Floor-to-floor and floor-to-wall joint systems that specify installation in concrete floors may include installation in floors consisting of fluted or corrugated steel deck topped with structural concrete, provided that (1) the concrete topping thickness measured above the top plane of the steel deck is equal to or greater than the minimum concrete thickness specified in the joint system, and (2) the joint system does not require any portion of the forming material or fill material to extend below the bottom plane of the floor.

The installation contractor and Authority Having Jurisdiction should ensure the specified properties of the packing and/or forming material are satisfied as noted in the individual Classifications. Such properties may include material type (mineral wool, backer rod, fiberglass, etc.), physical properties (size, density, etc.) and installation (depth, orientation, compression, etc.). Attention should also be given to ensure the installed material matches the manufacturer (where applicable) in the individual Classifications. The material and attributes are critical to the performance of the system and the ability of such system to satisfy the conditions of acceptance in ANSI/UL 1479 and the local building code. The fire-resistance rating of the system is dependent upon the use and installation of the materials specified within the respective system.

Authorities Having Jurisdiction should be consulted as to the particular requirements covering the installation and use of these Classified systems.

NUMBERING SYSTEM

The systems are identified by an alphanumeric identification system. The alpha components identify the type of joint system and whether the joint system has movement capabilities. The numeric components identify the nominal joint width. In the case of head-of-wall joint systems, the width of the joint does not include the voids created under the crests of metal deck floor or roof systems.

The first two alpha characters identify the type of joint system as follows:

Alpha Characters	Description of Joint System
FF	Floor-to-floor
WW	Wall-to-wall
FW	Floor-to-wall
HW	Head-of-wall
BW	Bottom-of-wall
CG	Wall-to-wall joints intended for use as corner guards

The third alpha character is either S or D. The S signifies joint systems that do not have movement capabilities. This D signifies joint systems that do have movement capabilities.

The numeric component uses sequential numbers to identify the nominal width of the joint systems. The significance of the number used is:

No. Range	Nom Joint Width
0000 - 0999	Less than or equal to 2 in.
1000 - 1999	Greater than 2 in. and less than or equal to 6 in.
2000 - 2999	Greater than 6 in. and less than or equal to 12 in.
3000 - 3999	Greater than 12 in. and less than or equal to 24 in.
4000 - 4999	Greater than 24 in.

ADDITIONAL INFORMATION

For additional information, see Fire Resistance Ratings (BXRH).

REQUIREMENTS

The basic standard used to investigate products in this category is ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems."

ANSI/UL 2079 defines four types of joint systems: floor-to-floor, wall-to-wall, floor-to-wall and head-of-wall. In addition, bottom-of-wall joint systems have been investigated using the general methods and conditions of acceptance specified for the four defined types of joint systems.

All joint systems covered under this category have been investigated with a minimum positive furnace pressure differential of 0.01 in. of water maintained at a distance of 12 in. below horizontal test assemblies and at the mid-height of vertical test assemblies.

ANSI/UL 2079 requires joint systems with movement capabilities to be cycled through the intended range of movement prior to the fire test. The movement cycling is intended to demonstrate the compatibility between the individual components of the joint system and the fire resistive assembly. Joint systems are required to be cycled through the intended movement range 500 or 100 complete movement cycles at a minimum rate of 1, 10 or 30 cycles per minute prior to the fire test.

Joint systems with movement capabilities are noted through the appearance of a Class I, II and/or III designation included as part of the heading information. The definitions of the movement class designations are as follows:

Movement Class	Min No. of Cycles	Min Cycling Rate (cycles per min)
Class I	500	1
Class II	500	10
Class III	100	30

Each joint system with movement capabilities specifies a nominal joint width and the movement capabilities, expressed in either a numerical value or as a percent of the nominal joint width. When the compression or extension movement capabilities are expressed as a percent, the minimum and maximum joint widths that the joint system can accommodate are calculated as follows:

$$W_{min} = W_{nom}[1 - (\% \text{ Exp} / 100)]$$

Where:

W_{min} = Minimum Joint Width, In.

W_{nom} = Nominal Joint Width, In.

% Exp = Movement Capability in Compression Direction, Percent

and

$$W_{max} = W_{nom}[1 + (\% \text{ Comp} / 100)]$$

Where:

W_{max} = Maximum Joint Width, In.

W_{nom} = Nominal Joint Width, In.

% Comp = Movement Capability in Extension Direction, Percent

When the shear movement capabilities are expressed as a percent, the shear movement capabilities in inches that the joint system can accommodate are calculated as follows:

$$\text{Shear} = W_{nom}(\% \text{ Shear} / 100)]$$

Where:

Shear = Shear Movement, In.

W_{nom} = Nominal Joint Width, In.

% Shear = Shear Movement, Percent

All joint systems have been tested at their maximum joint width and maximum shear capabilities.

Joint systems intended to be load bearing are investigated with respect to the ability to carry the load during the fire test. The load-carrying capacity of such joints is noted in the individual joint system.

The conditions of acceptance in ANSI/UL 2079 provide criteria for an assembly rating with an optional L rating and/or W rating. The L-rating criteria determines the amount of air leakage, in cubic feet per minute per linear foot of joint opening (CFM/LIN Ft), through the joint system at ambient and/or 400°F air temperature at an air pressure differential of 0.30 in. W.C. The L ratings are intended to assist Authorities Having Jurisdiction, and others, in determining the suitability of joint systems for the protection of openings in floors and smoke barriers for the purpose of restricting the movement of smoke in accordance with ANSI/NFPA 101, "Life Safety Code."

The W rating, identified as Class 1, determines the capability of the joint system to maintain watertightness at ambient air conditions under 3 ft of water pressure head (1.3 psi) for a period of 72 hours. The W rating may be applicable for building structures whose floors are subjected to incidental standing water and/or for buildings that house critical equipment as described in ANSI/NFPA 75, "Protection of Information Technology Equipment," and ANSI/NFPA 76, "Fire Protection of Telecommunications Facilities."

The surface flammability and smoke development characteristics of Classified materials used in joint systems are measured by the test method in ANSI/UL 723 (ASTM E84 and NFPA 255), "Test for Surface Burning Characteristics of Building Materials." The flame spread index of these materials is less than 200 and the smoke developed index is less than 450. Surface burning characteristics Classifications are covered under Surface Burning Characteristics (BIKT).

UL MARK

Those materials identified by an (*) in the system description text are eligible to be produced under the Follow-Up Service Program of Underwriters Laboratories Inc. The Classification Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service.

* *

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

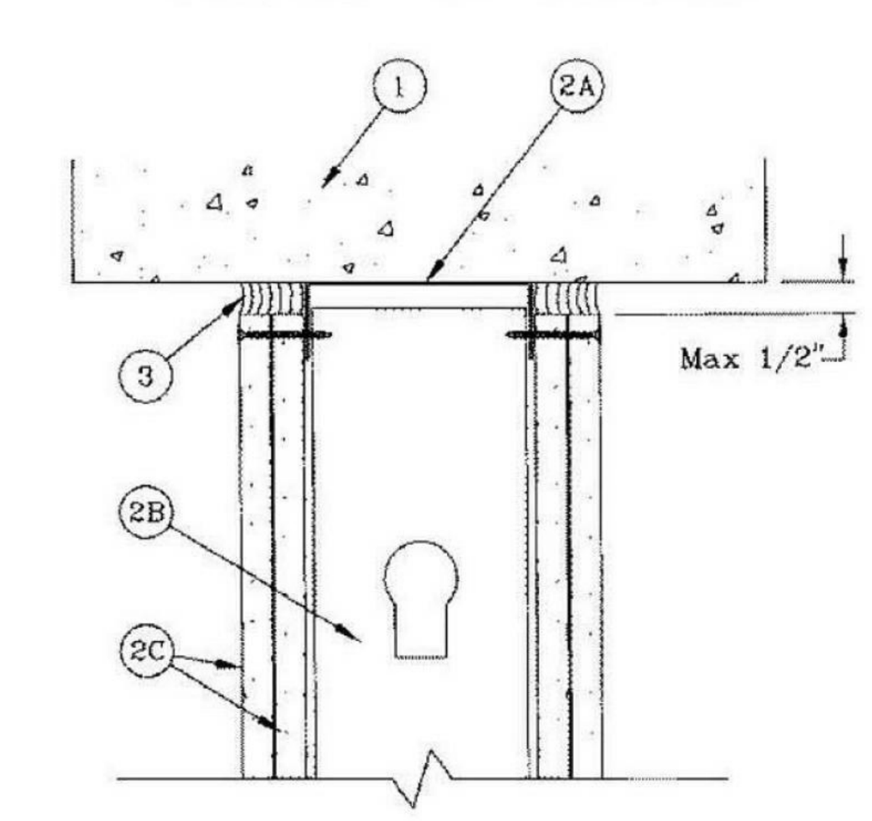
Joint Systems

See General Information for Joint Systems

System No. HW-S-0032

December 06, 1999

Assembly Ratings — 1 and 2 Hr (See Items 2 and 3)



1. **Floor or Roof Assemblies —** Min 3 in. thick lightweight (90 to 120 pcf) or 3-1/2 in. thick normal weight (145-155 pcf) concrete slab.

2. **Wall Assembly —** The 1 or 2 hr bearing or non-bearing fire-rated gypsum wallboard/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400-Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of min 25 ga galv steel channels, sized to accomodate steel studs (Item 2B). Runners to be provided with min 1 in. flanges. Runners secured to concrete with steel fasteners spaced max 24 in. OC.

B. **Studs —** Steel studs to be min 2-1/2 in. (non-bearing walls) or 3-1/2 in. (bearing walls) wide. Stud spacing not to exceed 24 in. OC.

C. **Gypsum Board* —** Type, thickness and orientation as specified in the individual Wall and Partition Design. Secured as specified in the individual Wall and Partition Design, except that a max 1/2 in. gap shall be maintained between the top edge of the wallboard and the bottom of the concrete slab.

D. **Batts and Blankets —** (Not shown) - When required, as specified in the individual Wall and Partition Design.

3. **Fill, Void or Cavity Material* —** Applied at a min thickness equal to the thickness of the gypsum wallboard face for both the 1 and 2 hr Ratings. Fill material installed on each side of the ceiling runner between the top edge of the wallboard and the bottom of the concrete slab.

UNITED STATES GYPSUM CO — Type AS

*Bearing the UL Classification Mark

UL Cutoff

Exclusive Design: (Insert "Yes" or "No")

Test Sponsor: (Name of Test Sponsor)

Original Test Date:

Original File & Project Number:

REVISION HISTORY

File Number (s)	Project or SR Number(s)	Test Record Contained in Report Dated	Description of Revision

Subscriber ID: 730408054

Directory: FIRERES

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
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INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

△ DATE REVISION

PROJECT NUMBER 24038

UL ASSEMBLIES

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STRUCTURAL DESIGN CRITERIA

Risk Category: III

Roof:
- Dead Load: DL = 20 PSF
- Ground Snow Load: Pg = 35 PSF
- Flat Roof Snow Load: Pf = 27 PSF
- Snow Exposure Factor: Ce = 1.0
- Snow Importance Factor: I = 1.1
- Thermal Factor: Ct = 1.0

Wind:
- Basic Wind Speed: V = 109 MPH
- Wind Exposure: "C"

Seismic:
- Procedure: Equivalent Lateral Force
- Site Class: D
- Importance Factor: I = 1.25
- Seismic Design Category: D
- Spectral Response Accelerations: Ss = 1.46, S1 = 0.54
- Spectral Response Coeff: SDS = 0.97, SD1 = 0.33
- Basic Seismic-Force-Resisting System:
  - Intermediate Reinforcing Masonry Shear Walls
  - R=3.5, Omega=2.5, Cd=2.25, Cs=0.36

Soils:
- Net Allowable Soil Pressure = 2000 PSF, per Report by AGEC, #1160598, 10/03/2016.

GENERAL
1. All details, sections, and notes shown on the drawings are intended to be typical and shall apply to similar situations elsewhere unless noted or shown otherwise. Notes and details on drawings shall take precedence over these General Notes. General Notes shall take precedence over the Specifications.
2. Refer to the Specifications for information not covered by these General Notes or the Structural Drawings.
3. See the Architectural Drawings for dimensions, doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfers, kerfs, etc.
4. All design, construction, and inspection shall be in conformance with the 2021 International Building Code (IBC) including all referenced standards therein.
5. The Contractor shall verify all dimensions and conditions at the site.
6. All omissions or conflicts between the various elements of the working drawings and/or Specifications shall be brought to the attention of the Architect and/or Structural Engineer before proceeding with any work involved.
7. The Structural Drawings shall be used in conjunction with the entire set of Construction Drawings. This means that detailing and shop drawing production for structural elements will require information that is contained on the Architectural and/or other consultants' drawings. The Structural Drawings may not show all dimensions, slopes, elevations, depressions, mechanical housekeeping pads, etc. The Contractor shall verify all dimensions that are shown on the Structural Drawings with the Architectural and/or other consultants' drawings. Any discrepancies shall be brought to the attention of the Architect and/or Structural Engineer before proceeding with any work involved.
8. Drawings indicate the finished product. They do not indicate a method of construction. Contractor shall take all precautions necessary to protect the structure during construction. Such precautions shall include, but not be limited to, bracing, shoring for construction equipment, etc.
9. The Contractor shall be responsible for compensating the Owner for any changes made as a result of a deviation from the Contract Documents, deviation from the Specifications, faulty materials, or faulty workmanship.
10. Options are for the Contractor's convenience. The Contractor shall be responsible for coordinating all required design changes. Cost associated with any design work initiated by the option shall be borne by the Contractor.
11. Contractor shall be responsible for safety and protection within and adjacent to the job site.
12. Temporary shoring and bracing shall be provided wherever necessary to support all loads to which the structure may be subjected including wind and soil loads. Such bracing shall be left in place as long as may be required for safety or until all structural elements are complete.
13. During and after construction the Contractor and/or Owner shall keep loads on the structure within the limits of the design loads.
14. Observation visits to the job site by field representatives of Calder Richards Consulting Engineers shall neither be construed as inspection nor approval of construction.
15. Sizes, locations, and anchorages of equipment shall be verified in the field with equipment manufacturers (suppliers) prior to placing concrete or fabricating steel.
16. Thermal or moisture protection, furnishings, doors, windows, equipment, mechanical, electrical, finishes, siding, paneling, and veneers are not part of the responsibility of the Structural Engineer.

QUALITY ASSURANCE PLAN
1. Special Inspection shall be provided by the Owner according to IBC Chapter 17 for the items identified in this section and on the Contract Documents. See Structural Special Inspection Schedule below for additional information on Steel, Concrete, Masonry, and Soils Special Inspection requirements.
2. The names and credentials of Special Inspectors to be used shall be submitted to the Building Department when applying for a Building Permit.
3. Special Inspection Reports shall be delivered to the Engineer of Record, Architect, and Owner (as requested) bi-weekly or more frequently as required by the Inspector or Building Official.
4. Off-Site Fabrication: Where fabrication of structural load-bearing members and assemblies are being performed on the premises of a fabricator's shop, special inspection of the fabricated items shall be in accordance with IBC Section 1704.2.5 unless the fabricator is approved according to IBC Section 1704.2.5.1.
5. Steel Construction: Special Inspections for steel elements shall be provided in accordance with Section 1705.2, Chapter N of AISC 360 (Current Version), and Chapter J of AISC 341 (Current Version).
6. Welding: Welding Inspection shall be provided in accordance with Sections N5.4 and N5.5 of AISC 360 (Current Version). Elements that are part of the Seismic-Force-Resisting System shall also be inspected according to Section J6 of AISC 341 (Current Version).
7. High-Strength Bolts: Special Inspection shall be provided for installation of high-strength bolts in accordance with Section N5.6 of AISC 360 (Current Version). Elements that are part of the seismic-force-resisting-system shall also be inspected according to Section J7 of AISC 341 (Current Version).
8. Concrete Construction: Special Inspections and verifications shall be provided in accordance with Section 1705.3 and Table 1705.3 of the IBC.
9. Soils: Special Inspection shall be provided for placement of fill in accordance with Section 1705.6 and Table 1705.6.
10. Epoxy Anchors: Special Inspections and Verifications shall be provided in accordance with Section 1705.3 and Table 1705.3 of the IBC. At a minimum, prior to and during epoxy injection to ensure proper installation as per manufacturer's requirements. Contractor shall submit proposed Epoxy Manufacturer's ICC-ES Report to Structural Engineer prior to installation.

QUALITY ASSURANCE - CONTRACTOR RESPONSIBILITY

Each Contractor responsible for the construction of a Wind or Seismic-Force-Resisting System, Designated Seismic System, or Wind or Seismic Resisting Component listed in the quality assurance plan shall submit a written Contractor's Statement of Responsibility to the Building Official and to the Owner prior to the commencement of work on the system or component. The Contractor's Statement of Responsibility shall contain the following:
1. Acknowledgment of awareness of the special requirements contained in the Quality Assurance Plan.
2. Acknowledgment that control will be exercised to obtain conformance with the Construction Documents approved by the Building Official.
3. Procedures for exercising control within the Contractor's organization, the method and frequency of reporting, and the distribution of reports.
4. Identification and qualifications of the person(s) exercising such control and the position(s) in the organization.

STRUCTURAL DEFERRED SUBMITTALS

Contractor shall submit Drawings and Calculations for the following items bearing the seal of a Professional Engineer Licensed in the State of the project to Architect/Engineer before submitting to jurisdiction for review and permitting.

Items:
1. Design-Build Stairs and Railings
2. Cold Formed Metal Studs

SHOP DRAWING SUBMITTALS
1. Contractor shall review and verify all Shop Drawings to ensure they comply with the requirements of the Contract Documents. Engineer will review the Shop Drawings for general conformance with the design concept. This review by the Engineer shall not be construed as approval. The Contractor shall verify all shop drawing dimensions with Structural and Architectural plans and details.
2. Provide Shop Drawings to the Engineer for review for the following, but not limited to:
   - A. Concrete Foundation Reinforcement
   - B. Wall Reinforcement
   - C. Concrete Mix Design
   - D. Structural Masonry Elements
   - E. Structural Steel
   - F. Design-Build Stairs and Railings
3. Refer to the Architectural Drawings for Shop Drawing submittals required for non-structural elements.

STRUCTURAL OBSERVATION

Calder Richards Consulting Engineers shall be notified by the Contractor 5 business days before the completion of the items listed in this section so that Structural Observation may be scheduled and performed in accordance with IBC Section 1704.6. The observations will be performed at the discretion of Calder Richards Consulting Engineers.

1. After forms, reinforcement, anchor bolts, and embeds in place for footings (before pouring).
2. After forms, reinforcement, anchor bolts, and embeds in place for foundation walls (before pouring).
3. After steel roof framing and decking in place (before covering).

SITE PREPARATION NOTES
1. Site Preparation Notes for this project are based on recommendations contained in a Soils Report referenced in the Structural Design Criteria Section, along with any addenda thereto, which have been prepared for this project. A reference copy is available upon request from the Architect. Footings and foundations as shown on drawings may vary if the subsurface soil conditions vary from those found in the Soils Report. Unless noted otherwise, follow all recommendations in the Soils Report.
2. All surface vegetation, topsoil, degradable organic, past building debris, any other deleterious materials, and non-compacted fill shall be removed from within the building pad area. The stripped soils are unsuitable as compacted structural fill.
3. The subgrade shall be proof rolled. All soft spots shall be removed and replaced with compacted structural fill.
4. The subgrade shall be scarified and compacted to the requirements of structural fill. If soft or loose areas are encountered during the scarifying and compaction process they must be completely removed and replaced with structural fill.
5. Footings shall bear upon firm undisturbed natural soils and/or upon structural fill extending to firm undisturbed natural soils.
6. The Owner's Geotechnical Engineer shall observe the natural soils at the time of footing excavation to determine the suitability of the natural soils for supporting the foundations of this building.
7. Where required, the width of structural fill below footings shall be equal to the width of the footings plus one foot for each foot of fill thickness.
8. Structural fill shall consist of well graded, granular soils with a maximum particle size of 3 inches, less 35% passing the No. 200 Sieve. Structural fill soils shall be non-expansive and have a liquid limit less than 35 and a plasticity index below 15.
9. All structural fill, where required, shall extend to suitable natural soils. Structural fill shall be placed in maximum 8 inch loose lifts and compacted to at least 95% of maximum density as determined by ASTM D-1557 and shall be compacted at a moisture content within 2% of the optimum moisture content.
10. Subgrade wall and footing backfill shall be structural fill compacted to 90% of maximum density as determined by ASTM D-1557.
11. Slabs on grade shall be underlain by a minimum of 4" of free-draining granular material. Granular material shall be placed upon properly prepared subgrade as described above.
12. Site preparation, placement and compaction of structural fill shall be observed and tested by Owner's Testing Laboratory to ensure that the above requirements are achieved.

FOOTINGS
1. All footings shall bear on original undisturbed earth or on engineered fill down to undisturbed earth compacted to 95% of maximum relative density based on ASTM D1557. Such fill shall be placed in layers not to exceed 6" in depth after compaction and shall extend down to in-situ granular soils. Unless noted otherwise, follow all recommendations in the soils report.
2. Footing elevations shown on plan are top of footings and are minimum depth. Different or unusual conditions shall be reported to the Architect and/or Engineer before proceeding.
3. Exterior wall footings shall bear at a minimum depth of *2'-6"* below finished exterior grade to achieve frost depth requirements.
4. NO footings shall be placed in water or on frozen ground.
5. Any soil condition encountered during excavation that is contrary to the conditions used for design of footings as outlined in the referenced Soils Report or on the drawings shall be brought to the attention of the Architect before proceeding.
6. DO NOT back fill behind foundation walls until top and bottom decks have been completed and attained their design strengths.
7. Back fill both sides of foundation walls at same time to prevent overturning.
8. Wall footings, where not shown otherwise, shall be 12" thick with an 8" spread each side of wall and provided with (1) #5 x continuous at bottom for each 8" of footing width.
9. Where a pipe passes through an interior or exterior foundation wall, step the footing down to pass below pipe and then step back up to indicated elevation. Provide pipe sleeve through foundation wall.
10. All footing excavations shall be examined by a Geotechnical Engineer for verification of adequate bearing conditions before placing concrete.

REINFORCING STEEL
1. All reinforcement shall be detailed and placed in accordance with ACI Detailing Manual 315R (Current Version) and ACI Standard 318 (Current Version).
2. Reinforcing steel shall be ASTM A615 Grade 60.
3. Welded wire fabric shall conform to ASTM A185. Lap one mesh tie.
4. All reinforcement shall be securely tied and held in place.
5. Provide accessories recommended by the CRSI necessary to properly support reinforcing at positions shown on plans.
6. Reinforcing bars that are to be welded, including Deformed Bar Anchors (DBA) shall comply with ASTM A706 or another weldable grade and shall be welded in accordance with the AWS recommendations.
7. All continuous reinforcement shall terminate with a 90 degree turn or a separate corner bar. All splices shall have a minimum lap or embedment per Reinforcing Schedule.
8. Where the length of a bar is given and it is to be hooked, the hook shall be in addition to the length given, unless shown otherwise.
9. Cover to main reinforcement from adjacent surfaces shall be as follows unless shown otherwise:
   - A. Cast against and permanently in contact with ground .... 3"
   - B. Exposed to weather or in contact with ground (#6 and larger) .... 2"
   - C. Exposed to weather or in contact with ground (#5 and smaller) .... 1-1/2"
   - D. Not exposed to weather or in contact with ground (slabs, joists, and walls #11 and smaller) .... 3/4"
   - E. Not exposed to weather or in contact with ground (beams, columns, pedestals and tension ties) .... 1-1/2"
   - F. In all cases minimum cover shall not be less than the diameter of adjacent bars.
10. Prior to fabrication and placement, Shop Drawings for all reinforcing steel shall be reviewed by the Structural Engineer.

CONCRETE
1. Concrete shall attain the following minimum compressive strengths at 28 days:
   - Footings .... 3000 PSI
   - Foundation Walls .... 4000 PSI
   - Interior Slabs on Grade .... 4000 PSI
2. The various concrete items are assigned to the following Exposure Categories and Classes per Section 19.3 of ACI 318 (Current Version):
   - Footings F0, S0, W0, C0
   - Foundation Walls F0, S0, W0, C0
   - Interior Slabs on Grade F0, S0, W0, C0

   See Table 19.3.1.1 of ACI 318 (Current Version) for explanations of Categories and Classes listed above.
3. A Statement of Mix Design for all concrete shall be submitted to and reviewed by the Structural Engineer prior to commencing work. All mix designs shall incorporate requirements and restrictions found in Section 19.3 & Tables 19.3.1.1, 19.3.2.1, and 19.3.3.1 of ACI 318 (Current Version). If two or more requirements are in conflict, the more restrictive requirement shall be followed.
4. All concrete work shall be placed, cured, stripped, and protected as directed by the specifications and ACI Standards and Practices.
5. Before concrete is poured, check with all trades to ensure proper placement of all openings, sleeves, curbs, conduits, bolts, inserts, etc, relative to work. NO aluminum conduit nor product containing aluminum nor any other material injurious to concrete shall be embedded in concrete.
6. Continuous top and bottom bars in walls over openings shall be spliced as follows:
   - A. Top bars - At mid-span
   - B. Bottom bars - Over support
7. Where openings larger than 16" in any direction occur in walls or slabs, provide same size additional, full length reinforcing at each side of opening equal to 1/2 the number of bars interrupted by the opening. Space additional bars at 4 x bar diameter.
8. Construction Joints and Control Joints:
   - A. Refer to drawings for typical construction joint details.
   - B. Provide a continuous tool-roughened surface at top of all walls and footings, unless noted otherwise.
   - C. All horizontal and vertical construction joints shall have a continuous 2"x4" keyway along the joint, unless noted otherwise, see details.
   - D. Provide reinforcing dowels to match the member reinforcing at the joint, unless noted otherwise.
   - E. Slabs and beams shall not have joints in horizontal plane.
   - F. Construction joints for slabs on steel deck shall not exceed a distance of 80'-0" in any direction.
   - G. Control joints shall be complete within 12 hours of concrete placement.
9. All slabs on grade shall be placed in alternate panels with a maximum width of 90 times the slab thickness in any direction. Construction joints shall not exceed 125'-0" OC in any direction; refer to typical details on drawings. Unless otherwise noted, slabs on grade shall be 4" thick and shall be reinforced with 6x6-W1.4xW1.4 welded wire fabric, centered in slab.
10. Provide a #3 nosing bar in all stair treads.
11. Where interior masonry walls do not bear on a footing provide a typical thickened slab (12" thick x 16" wide) under wall. Reinforce with (2) #4 x continuous. Dowel wall reinforcing to slab.
12. Admixtures:
    - A. Air-entraining admixtures (when used), shall comply with ASTM C260.
    - B. Calcium chloride shall not be added to concrete mix.

MASONRY (CMU AND ATLAS BRICK)
1. Concrete masonry units shall be mediumweight (105 PCF - 125 PCF), Grade N units conforming to ASTM Designation C90 and shall have a minimum compressive strength of 2000 PSI on the net section (Design strength, f'm = 2000 PSI).
2. Hollow clay brick units (Atlas Brick) shall be Grade 1 brick units conforming to ASTM Designations C652 and shall have a minimum compressive strength of 8250 PSI on the net section (Design strength, f'm = 3000 PSI).
3. Mortar shall conform to ASTM C270, Type "S" (Section 2103.2 of the International Building Code). Use Portland Cement, Type I or II. Follow the proportion method of ASTM C270.
4. All masonry shall be reinforced with both horizontal and vertical reinforcement. All grouted block cells or brick cavities with reinforcement shall be grouted full using 2500 PSI grout [for CMU and 3500 PSI grout for Atlas]. Grout shall conform to the requirements of ASTM C476. Cells shall be aligned to preserve unobstructed vertical cavities of 2"x3" minimum. **DO NOT SOLID GROUT WALLS UNLESS SPECIFICALLY NOTED ON THE PLANS.**
5. Grout shall have 3/8" maximum size coarse aggregate with a slump between 8 and 11 inches so the concrete will flow into the block cells without leaving voids.
6. All horizontal reinforcing at ends of walls shall terminate with a hook around vertical reinforcing.
7. Reinforcement Protection (Cover):
   - A. Joint reinforcement shall have not less than 5/8" mortar coverage from the exposed face.
   - B. Other reinforcement shall have a minimum coverage between the face shell and the bar of one bar diameter over all the bars, but not less than 3/4" when masonry is exposed to weather or soil. Minimum coverage shall be 2" from the outside face of masonry.
8. Continue vertical reinforcing bars in masonry columns through foundation wall into footings with matching bars and dowels. Enclose these bars with same size ties at same spacing as in masonry column. Provide matching dowels for vertical bars in masonry walls to structure below.
9. Continue horizontal reinforcement in walls through masonry columns and pilasters. This reinforcement shall have matching dowels, corner bars, at corners and at intersections of the walls with required lap lengths.
10. Unless noted otherwise, hollow cells at all four (4) sides of openings in walls shall be grouted and reinforced with (2) #5, minimum, with 2'-10" projection beyond edges of openings at each end.
11. Horizontal bars shall be placed in bond beams filled with grout at the top of all walls and at 48" OC maximum between top of wall and foundation. Bond beam units and reinforcing shall continue uninterrupted around all corners and wall intersections. Where structural steel columns or beams interrupt the continuity of a bond beam, dowels matching bond beam reinforcement shall be welded to the structural steel to provide continuity.
12. In addition ladder-type reinforcing consisting of #9 wire for each face shell of each wythe shall be used at 16" OC horizontally in all masonry walls. Reinforcement shall be for total width of cavity walls.
13. All vertical reinforcing bars shall lap with bars of the same size and spacing that extend down to structure below. Place all bars securely prior to grouting.
14. Stop grout pours 1/2" below top of block units between grout lifts.
15. All anchor bolts must be placed in grouted cells.
16. Where beams bear on concrete block walls, block cells shall be filled with grout 1'-4" wide to foundation and reinforced with a #5 each cell, unless otherwise shown.
17. An additional vertical bar (matching wall reinforcement) shall be placed at each corner, end of wall, and jamb of all openings.
18. All steel joist, joist girder, and steel beam pockets in masonry shall be grouted solid unless otherwise indicated on the drawings.
19. No masonry shall be laid when the temperature of the outside air is below 40 degrees Fahrenheit, unless approved methods are used during construction to prevent damage to the masonry. Such methods shall include protection of the masonry for a period of at least 48 hours.
20. All reinforcing shall be in place prior to grouting. Vertical reinforcing bars shall be held in position at the top, bottom and at intervals not farther apart than 200 bar diameters. Provide wire ties at all lap splices.
21. All masonry walls shall have vertical control joints at: Major changes in wall height, at changes in wall thickness, and at building construction joints. Provide matching control joints for brick veneer. Consult Architectural Drawings for locations. Where joint locations are not shown on the drawings the Contractor shall submit proposed locations to Architect / Engineer for review.

STRUCTURAL STEEL
1. All structural steel and structural steel work shall comply with the AISC "Steel Construction Manual" (Current Version) containing the specifications for the design, fabrication and erection of structural steel buildings, including the "Code of Standard Practices".
2. All wide flange structural steel shall be ASTM A992 and all miscellaneous shapes shall be ASTM A36, unless noted otherwise.
3. Structural steel tubing shall conform to ASTM A500 Grade C; Yield Stress = 50 KSI.
4. Structural steel pipe columns shall conform to ASTM A53, Grade B; Yield Stress = 35 KSI.
5. Use A325 Bolts for steel-to-steel connections, F1554 GR36 for Anchor Bolts, and A307 Bolts for all other connections (unless specified otherwise on drawings). Use 3/4" diameter minimum.
6. All welds shall be made with E70XX electrodes and by welders certified by AWS Standards within the past 12 months; provide written certification if requested. All welds shall have a minimum Charpy V-Notch toughness of 20 foot-pound at 0° F, unless noted otherwise on the plans.
7. All high-strength bolts shall be tightened to the appropriate minimum bolt tension in accordance with AISC "Specifications for Structural Joints using ASTM A325 or A490 Bolts." The preferred method of tightening is by use of "Twist off type tension control bolt assemblies." "Direct Tension Indicator" and the Turn-of-Nut method may also be used.
8. All beam connections, not shown to be moment connections and not detailed otherwise shall be made using AISC Steel Construction Manual "Single Plate Connections" Table with the maximum number of rows shown for that beam.
9. Unless noted otherwise, composite beams longer than 30'-0" supporting floor systems shall be cambered 1/4 inch per 10 feet of span.
10. Mechanical roof top units shall be placed over additional or special joists as shown on drawings. The weight, size and location of all proposed units and curbs shall be submitted to the Architect / Engineer for verification before fabrication of steel.
11. Frames for roof openings and supports for roof mounted mechanical equipment are indicated on drawings for bid purposes only. Upon receipt of mechanical submittals, the contractor shall furnish steel supplier supplementary drawings or other information necessary to layout and detail this portion of the work. Other steel work shall not be delayed by this portion of the work. Shop drawings shall be submitted to engineer for review.

METAL ROOF DECK
1. Steel roof deck shall comply with the latest requirements of the Steel Deck Institute, SDI. Submit Evaluation Report with shop drawings.
2. Steel roof deck shall be 1 1/2" deep x 20 gage galvanized, Type "B" wide rib deck with interlocking side seams. The following minimum properties must be satisfied:
   - Fy = 50 KSI
   - I = 0.231 in^4/ft
   - Sp = 0.230 in^3/ft
   - Sn = 0.237 in^3/ft
3. Weld steel roof deck to supporting framing members with 3/4" diameter puddle welds at the following spacings:
   - (7) welds per 36-inch sheet to all supports perpendicular to deck corrugations.
   - 12" OC to all supports parallel to deck corrugations.
   - 6" OC over all drag struts, shear walls, braced frames, moment frames and roof perimeter.
4. Attach interlocking seams with 1 1/2" long top seam welds at 18" OC maximum between adjacent pieces of decking. Crimp side seams before welding.
5. Provide a 2" minimum bearing and a 4" lap at the splice points of all pieces of deck.
6. Where possible, all deck shall be (3) span continuous minimum. In areas where (3) span conditions are not possible, the deck shall meet the loading criteria for the span condition. The contractor shall provide heavier gage deck and/or shoring as required.

DRILL & EPOXY ANCHORS
1. Use HILTI HIT-HY 200 adhesive system or approved equivalent for concrete and solid grouted masonry connections.
2. Use HILTI HIT-HY 270 adhesive system or approved equivalent for all hollow unit CMU connections and unreinforced masonry walls, including multi-wythe walls.
3. Anchor rods shall be ASTM F1554 Grade 36 (unless noted otherwise in drawings) with diameter indicated, threaded and galvanized.
4. Provide screen tubes for ungrouted masonry units or unreinforced masonry walls.
5. Anchor capacity is dependent upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances indicated on the drawings.
6. Substitution requests for alternate products must be approved in writing by the Structural Engineer prior to use. The contractor shall provide calculations demonstrating the substituted product is capable of achieving the performance values of the specified product. Substitutions will be evaluated by the product having an ICC-ES report showing compliance with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions.
7. The contractor shall arrange for an anchor manufacturer's representative to provide onsite installation training for all of their anchoring products specified. The contractor shall provide the engineer with documentation showing their personnel have received training prior to commencement of work.
8. Ten percent of all anchors placed shall be randomly tested to 100% of manufacturer's specified allowable load. If any anchor fails it shall be replaced and retested at no additional cost to the owner. If an anchor fails, 100% of all other anchors installed by that same crew shall be tested at no additional cost to the owner.

SPECIAL INSPECTION - STEEL CONSTRUCTION (IBC 1705.2)

Item	C/P ◄(A)
INSPECTION TASKS PRIOR TO WELDING (AISC 360-16, TABLE N5.4-1; AISC 341-16, TABLE J6.1)	
Welder qualification records and continuity records	C
Welding procedure specifications (WPSs) available	C
Manufacturer's certification for welding consumables available	C
Material identification (Type / Grade)	P
Welder identification system ◄(B)	P
Fit-up of groove welds (including joint geometry)	P
Fit-up of CJP groove welds of HSS, T-, Y-, and K- joints	C
Configuration and finish of access holes	P
Fit-up of fillet welds	P
Checking welding equipment	P
INSPECTION TASKS DURING WELDING (AISC 360-16, TABLE N5.4-2; AISC 341-16, TABLE J6.2)	
Control and handling of welding consumables	P
No welding over cracked tack welds	P
Environmental conditions	P
Welding procedure specification followed	P
Welding techniques	P
Placement and installation of HSAs	C
INSPECTION TASKS AFTER WELDING (AISC 360-16, TABLE N5.4-3; AISC 341-16, TABLE J6.3)	
Welds cleaned	P
Size, length, and location of welds	C
Welds must meet visual acceptance criteria	C
Arc strikes	C
k-Area ◄(C)	C
Weld access holes in rolled heavy shapes and built-up heavy shapes ◄(D)	C
Backing removed and weld tabs removed (if required)	C
Repair activities	C
Document acceptance or rejection of welded joint or member	C
No prohibited welds have been added without approval of the EOR	P
INSPECTION TASKS PRIOR TO BOLTING (AISC 360-16, TABLE N5.6-1; AISC 341-16, TABLE J7.1)	
Manufacturer's certifications available for fastener materials	C
Fasteners marked in accordance with ASTM requirements	P
Correct fasteners selected for the joint detail (Grade / Type / Bolt Length / If threads are to be excluded from shear plane)	P
Correct bolting procedure selected for joint detail	P
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	P
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	P
Protected storage provided for bolts, nuts, washers, and other fastener components	P
INSPECTION TASKS DURING BOLTING (AISC 360-16, TABLE N5.6-2; AISC 341-16, TABLE J7.2)	
Fastener assemblies, placed in all holes and washers and nuts are positioned as required	P
Joint brought to the snug-tight conditions prior to the pre-tensioning operations	P
Fastener component not turned by the wrench prevented from rotating	P
Fasteners are pre-tensioned in accordance with the RCSC specification, progressing systematically from the most rigid point toward free edges	P
INSPECTION TASKS AFTER BOLTING (AISC 360-16, TABLE N5.6-3; AISC 341-16, TABLE J7.3)	
Document acceptance or rejection of bolted connection	C
INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (IBC 1705.2.2 - 1705.2.4, AND TABLE 1705.2.3)	
Cold-formed steel deck:	
- A. Special inspections and qualifications of welding special inspections for cold-formed steel floor and roof deck shall be in accordance with the quality assurance inspection requirements of SDI QA/QC	C
Installation of open-web steel joists and girders:	
- A. End connections - Welding or bolted	P
- B. Bridging-horizontal or diagonal:	
- 1) Standard bridging	P
- 2) Bridging that differs from SJI specifications listed in section 2207.1 of IBC	P
NON-DESTRUCTIVE TESTING OF WELDS (AISC 360-16, SECTION N5.5)	
Ultrasonic testing (UT), magnetic particle testing (MT), penetrant testing (PT), and radiographic testing (RT), where required shall be performed by QA in accordance with AWS D1.1	-
CJP welds (Risk Category II)	P
CJP welds (Risk Category III or IV)	C
Welded joints subject to fatigue	C

SPECIAL INSPECTION - STEEL CONSTRUCTION (IBC 1705.2)

Item	C/P ◄(A)
OTHER STEEL INSPECTIONS (AISC 360-16, SECTION N5.7 AND N5.8)	
Inspect galvanized structural steel main members for cracks subsequent to galvanizing	P
Structural steel details	P
Anchor rods and other embedments supporting structural steel	P
TABLE NOTES:	
► (A) Continuous or periodic (C/P) refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.	
► (B) The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be low-stress type.	
► (C) When welding of doubler plates, continuity plates or stiffeners has been performed in the k-Area, visually inspect the web k-Area for cracks within 3" of the weld.	
► (D) After heavy shapes are welded, visually inspect the weld access hole for cracks.	

SPECIAL INSPECTION - CONCRETE CONSTRUCTION (IBC 1705.3)

Item	C/P ◄(A)
INSPECTION OF CONCRETE CONSTRUCTION (IBC 1705.3, TABLE 1705.3)	
1. Inspect reinforcement, including prestressing tendons, and verify placement	P
2. Reinforcing bar welding:	
- A. Verify weldability of reinforcing bars other than ASTM A706;	P
- B. Inspect single-pass fillet welds, maximum 5/16"; and	P
- C. Inspect all other welds	C
3. Inspect anchors cast in concrete	P
4. Inspect anchors post-installed in hardened concrete members ◄(B)	
- A. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	C
- B. Mechanical anchors and adhesive anchors not defined in 4.A	P
5. Verify use of required design mix	P
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	C
7. Inspect concrete and shotcrete placement for proper application techniques	C
8. Verify maintenance of specified curing temperature and techniques	P
9. Inspect prestressed concrete for:	
- A. Application of prestressing forces; and	C
- B. Grouting of bonded prestressing tendons	C
10. Inspect erection of precast concrete members	P
11. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structure assigned to Seismic Design Category C, D, E, or F, inspect such connections and reinforcement in the field for:	
- A. Installation of the embedded parts	C
- B. Completion of the continuity of reinforcement across joists	C
- C. Completion of connections in the field	C
12. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5	P
13. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs	P
14. Inspect formwork for shape, location and dimensions of the concrete member being formed	P
TABLE NOTES:	
► (A) Continuous or periodic (C/P) refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.	
► (B) Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.	

SPECIAL INSPECTION - SOILS (IBC 1705.6)

Item	C/P ◄(A)
INSPECTION OF SOILS (IBC TABLE 1705.6)	
Verify materials below shallow foundations are adequate to achieve the design bearing capacity	P
Verify excavations are extended to proper depth and have reached proper material	P
Perform classification and testing of compacted fill materials	P
During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thicknesses during placement and compaction of compacted fill.	C
Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly	P
TABLE NOTES:	
► (A) Continuous or periodic (C/P) refers to the frequency of inspection, which may be continuous during the task listed or periodically during the listed task, as defined in the table.	

TERMS AND ABBREVIATIONS

ABBRV	TERM
(#)	Numerical quantities when enclosed in parentheses
A/E	Architect / Engineer
AB	Anchor Bolt
ABV	Above
ADDM	Addendum
AFF	Above Finished Floor
ALUM	Aluminum
APPROX	Approximately
ARCH	Architect (Architectural)*
ASTM	American Society for Testing and Materials
B PL	Base Plate
B/B	Back to Back
bf	Beam Flange Width
BLKG	Blocking
BLW	Below
BM	Beam
BOS	Bottom of Steel
BOT	Bottom
BRG	Bearing
BTWN	Between
C TO C	Center to Center
CD	Contract Documents
CIP	Cast-In-Place
CJ	Construction Joint (Control Joint)*
CL	Centerline
CMU	Concrete Masonry Unit
COL	Column
CONC	Concrete
CONN	Connection
CONT	Continuous (Continue)*
CONTR	Contractor
COORD	Coordinate
CTR	Center
D	Depth
d	Pennyweight Nail
DB	Deck Bearing
DBA	Deformed Bar Anchor
DBL	Double
DFS	Douglas Fir - South
DIA	Diameter
DIAG	Diagonal
DIM	Dimension
DL	Dead Load
DTL	Detail
DWG	Drawing

TERMS AND ABBREVIATIONS

ABBRV	TERM
(E)	Existing
E	Modulus of Elasticity
EA	Each
EJ	Expansion Joint
EL	Elevation
ELEV	Elevator
ENGR	Engineer
EQ	Equal
EQL SP	Equally Spaced (Equal Spaces)*
EQUIP	Equipment
EQUIV	Equivalent
EST	Estimate
ETC	And so forth
EW	Each Way
EXCL	Exclude
EXP	Expansion
EXT	Exterior
(F)	Future
FDTN	Foundation
FFE	Finished Floor Elevation
FIN	Finish (Finished)*
FLR	Floor
FRMG	Framing
FSE	Finished Slab Elevation
FTG	Footing
FV	Field Verify
GA	Gage / Gauge
GALV	Galvanized
GLB	Glued Laminated Wood Beam
HGR	Hanger
HORIZ	Horizontal (Horizontally)*
HSA	Headed Stud Anchor
HSS	Hollow Structural Section
I	Moment of Inertia
ID	Inside Diameter
INT	Interior
JST	Joist
KIP (K)	Thousand Pounds
KIP FT	Thousand Foot/Pounds
KLF	KIPs per Lineal Foot

TERMS AND ABBREVIATIONS

ABBRV	TERM
LB	Pound
LHS	Left Hand Shoe
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LONG	Longitudinal
LSL	Laminated Strand Lumber
LTWT	Lightweight
LVL	Laminated Veneer Lumber
MAX	Maximum
MECH	Mechanical
MFR	Manufacturer
MIN	Minimum
MISC	Miscellaneous
N/A	Not Applicable
NTS	Not to Scale
OC	On Center
OD	Outside Diameter
OPNG	Opening
OPP	Opposite
OPT	Optional
OSB	Oriented Strand Board
P/T	Pressure Treated
PERP	Perpendicular
PLF	Pounds per Lineal Foot
PSL	Parallel Strand Lumber
PT	Post Tensioned
QA	Quality Assurance
QC	Quality Control
(RE)	Remove Existing
REINF	Reinforce (Reinforced, Reinforcing)*
REQD	Required
RFI	Request for Information
RS	Rough Sawn
RTU	Roof Top Unit

TERMS AND ABBREVIATIONS

ABBRV	TERM
SCHED	Schedule
SECT	Section
SF	Square Foot (Feet)*
SGL	Single
SHTHG	Sheathing
SIM	Similar
SL	Snow Load
SOG	Slab on Grade
SPCL	Special
SPEC	Specification
SQ	Square
SSH	Short Slotted Holes
STD	Standard
STIF	Stiffener
STRUCT	Structure (Structural)*
SYMM	Symmetrical
T&B	Top & Bottom
T&G	Tongue and Groove
THRU	Through
TO FDTN	Top of Foundation
TOB	Top of Beam
TOC	Top of Concrete
TOF	Top of Footing
TOJ	Top of Joist
TOM	Top of Masonry
TOP	Top of Parapet
TOS	Top of Steel
TOW	Top of Wall
TWS	Threaded Welded Stud
TYP	Typical
UNO	Unless Noted Otherwise
VERT	Vertical (Vertically)*
W/	With
W/O	Without
WL	Wind Load
WLD	Weld (Welded)*
WWF	Welded Wire Fabric
XS	Extra Strong
XXS	Double Extra Strong

NOTES
1. * CONTEXT INDICATES WHICH ABBREVIATION TERM IS IMPLIED. CONTACT ENGINEER IF MEANING IS NOT OBVIOUS.
2. NOT ALL ABBREVIATIONS ARE USED.
3. MANY ABBREVIATIONS MAY BE MADE PLURAL BY ADDING AN S SUFFIX.
4. FOR ABBREVIATIONS NOT LISTED, REFER TO **US NATIONAL CAD STANDARD, VERSION 3.1, TERMS AND ABBREVIATIONS SECTION**, OR CONTACT ENGINEER.

TERMS, ABBREVIATIONS, & SPECIAL INSPECTION TABLES

A5 NO SCALE

1717_01

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CANYONS SCHOOL DISTRICT

CONSTRUCTION DOCUMENTS - MARCH 21, 2025

PROFESSIONAL STRUCTURAL ENGINEER
3.21.25
SHAUN A. PACKER
#191804
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 24038

Structural Notes

S-001

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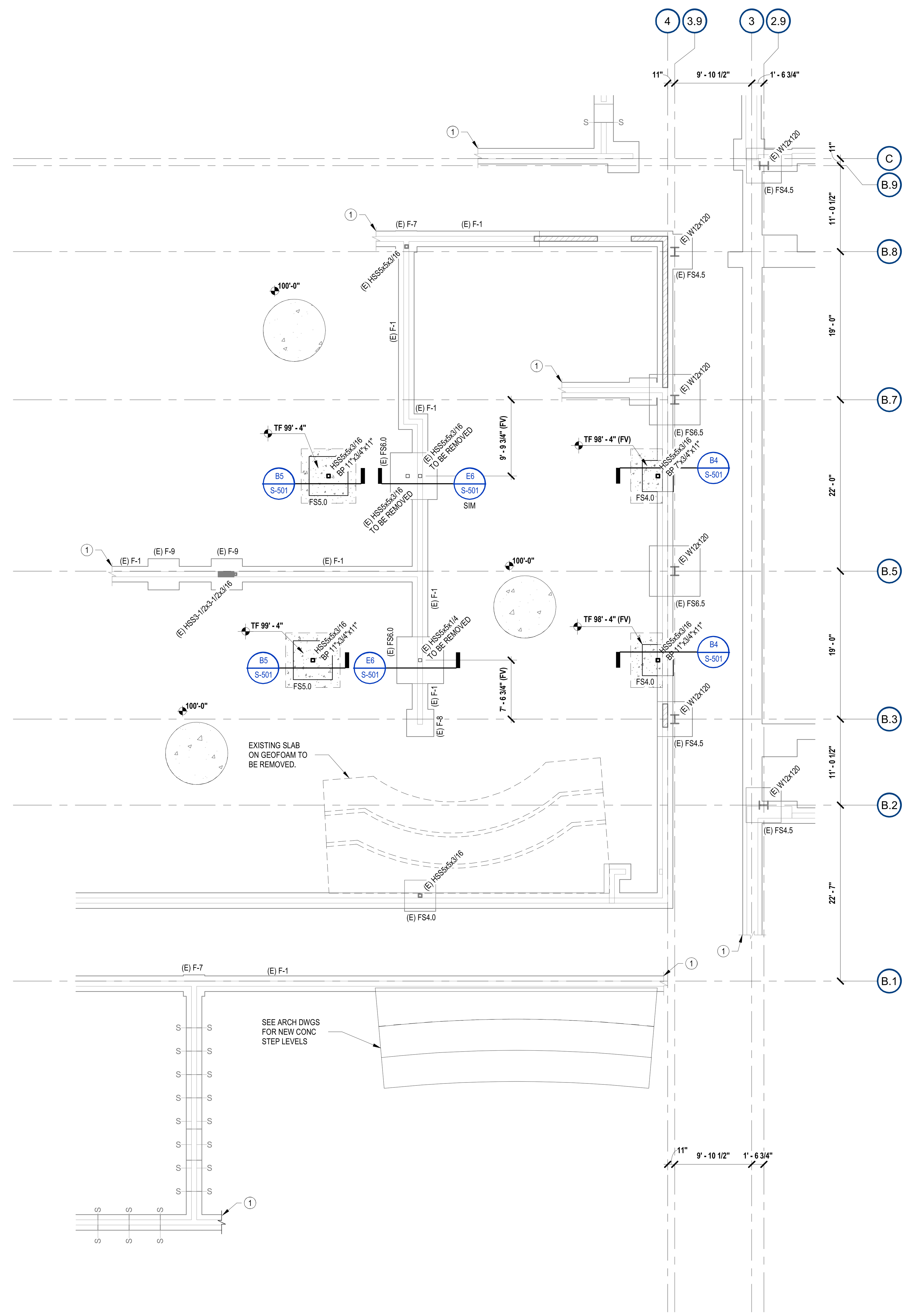
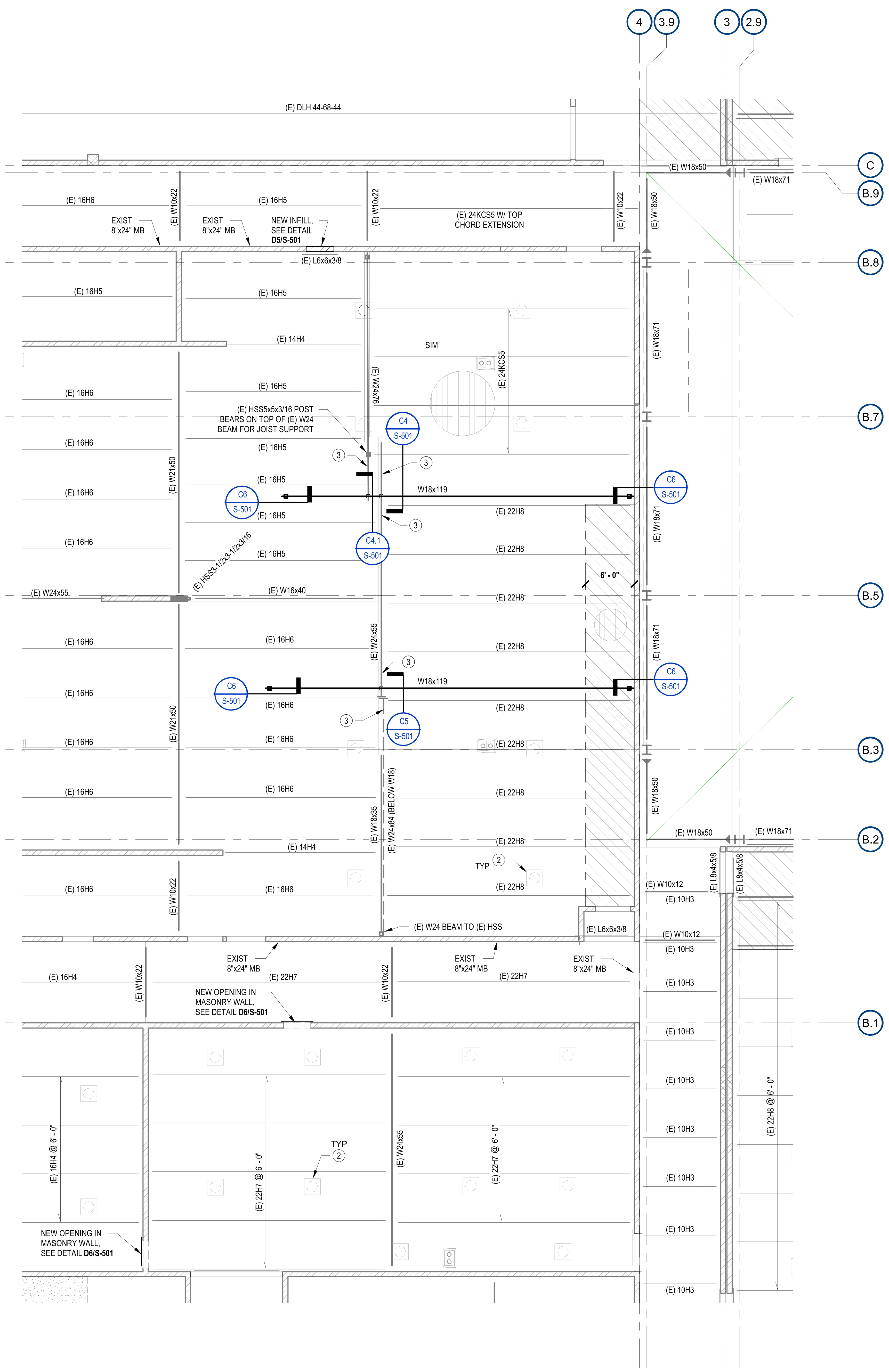


REMODEL AREA - FOOTING & FOUNDATION PLAN

1/8" = 1'-0"



REMODEL AREA - ROOF FRAMING PLAN

1/8" = 1'-0"

PLAN NOTES

\# NUMBERED NOTES BELOW ARE KEYED ON PLAN.

* SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, TYPICAL.

A SEE STRUCTURAL NOTES ON SHEET S001 FOR ADDITIONAL INFORMATION.

B TOP OF CONCRETE SLAB ELEVATION = 100'-0", UNLESS NOTED THUS: xxx'-x" SLOPE UNIFORMLY TO FLOOR DRAINS.

C PLACE CONTROL JOINTS AND CONSTRUCTION JOINTS IN NEW CONCRETE SLAB TO MATCH EXISTING. SEE DETAIL B3/S501 AND STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.

D CENTER NEW FOOTINGS ON WALLS AND COLUMNS UNLESS DIMENSIONED OTHERWISE ON PLANS.

PLAN NOTES

E (E) DENOTES EXISTING STRUCTURE BASED ON AVAILABLE RECORD DRAWINGS. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED.

F [c = X"] DENOTES BEAM CAMBER.

G SEE DETAIL B6/S501 WHERE NEW SLAB ON GRADE ABUTS EXISTING. ALL NEW CONCRETE SLAB ON GRADE SHALL BE 4" THICK MINIMUM, REINF WITH 6x6 W1.4xW1.4 WWF.

H SEE DETAIL A3/S-501 FOR CONCRETE REINFORCEMENT LAP SPLICE LENGTHS.

1 EXISTING FOOTING AND FOUNDATION CONTINUES BUT IS NOT SHOWN HERE.

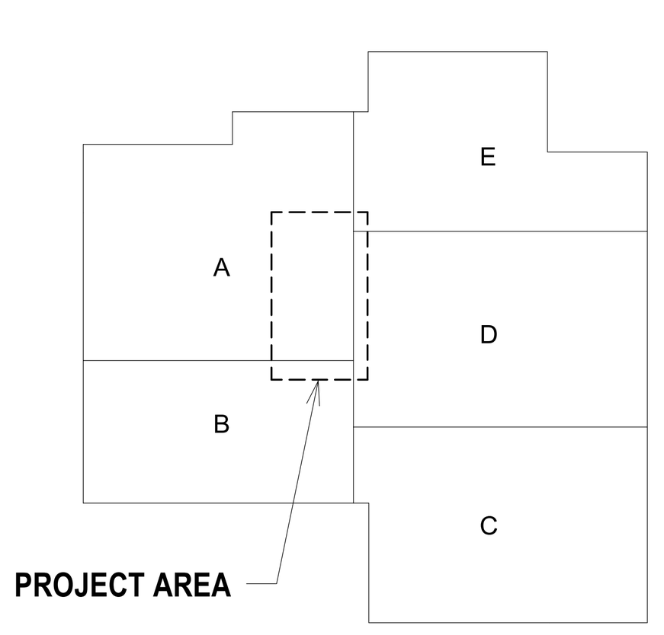
2 EXISTING SONO LIGHT DEVICE.

3 SHORE EXISTING BEAMS EACH SIDE OF NEW BEAM LOCATIONS FOR PLACEMENT OF NEW BEAMS.

PLAN LEGEND

Symbol	Description	Symbol	Description
FCx.x, FSx.x, FRx.x/y.y	CONTINUOUS FOOTING, SPOT FOOTING, RECTANGULAR FOOTING TYPES RESPECTIVELY, SEE SCHEDULE ON SHEET **A5/S-501**	FCx.x	CONCRETE FOOTING & FDTN WALL
			RECESS IN CONCRETE FDTN WALL
			MASONRY WALL
S — — — S	FOOTING STEP		MASONRY COLUMN IN WALL ABOVE
	CHANGE IN ELEVATION OR STEP IN SLAB, SEE ARCH DWGS FOR EXACT LOCATION		MASONRY BEAM
TF xx'-xx"	TOP OF FTG ELEVATION		STEEL LINTEL AT NEW WALL OPENING, SEE DETAIL **D6/S-501**
	CONCRETE SLAB ON GRADE (4" THICK MIN)		WALL ABOVE BEAM
			BEAM SPLICE
	STEEL DECK W/ SPAN DIRECTION INDICATED		MOMENT CONNECTION
			BEAM FRAMING OVER COLUMN
			JOIST, TRUSS, RAFTER OR PURLIN
Ɪ □ ○	STEEL COLUMN: WIDE FLANGE, TUBE, PIPE		

KEY PLAN



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PROJECT NUMBER 24038

Structural Plans

S-101

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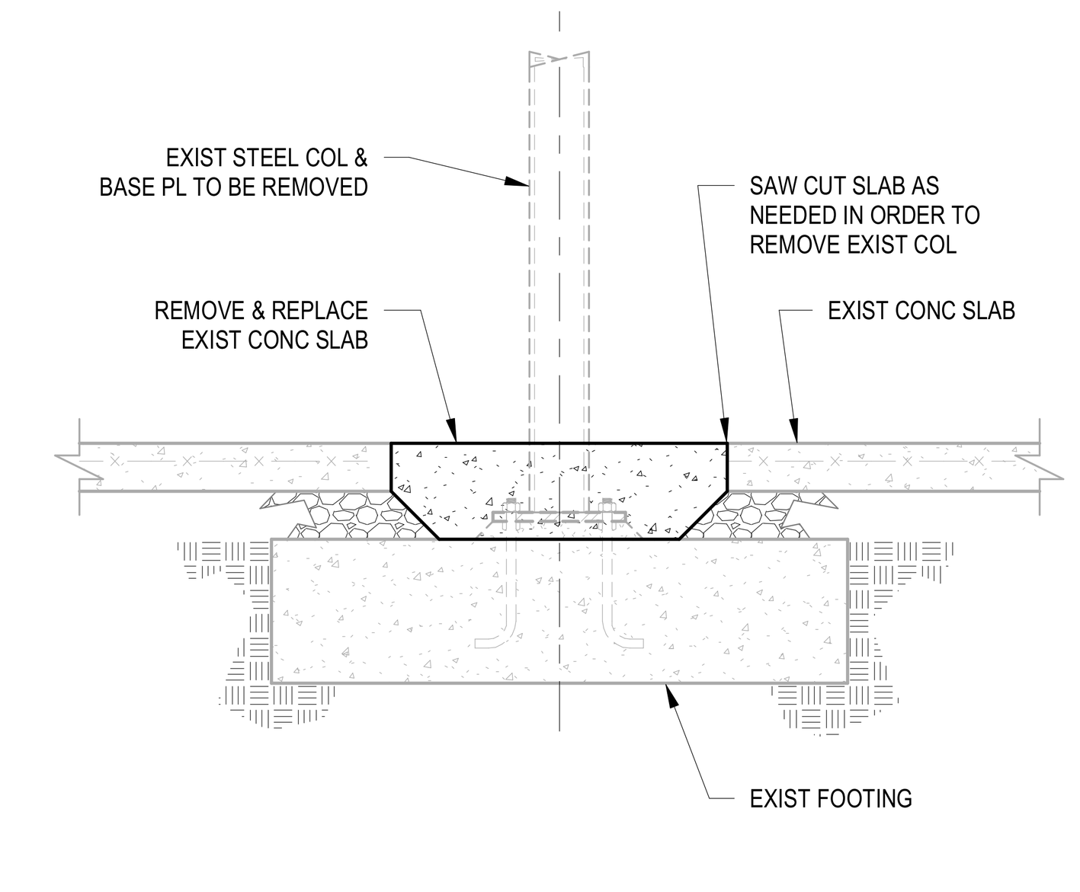
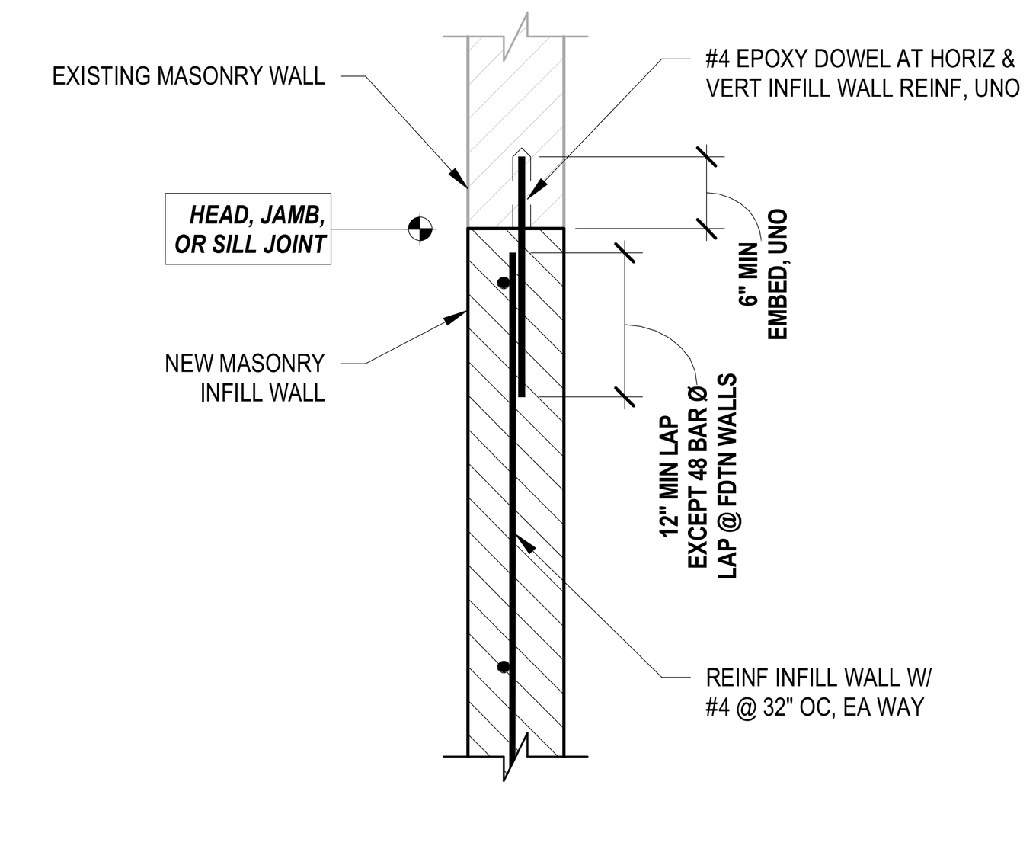
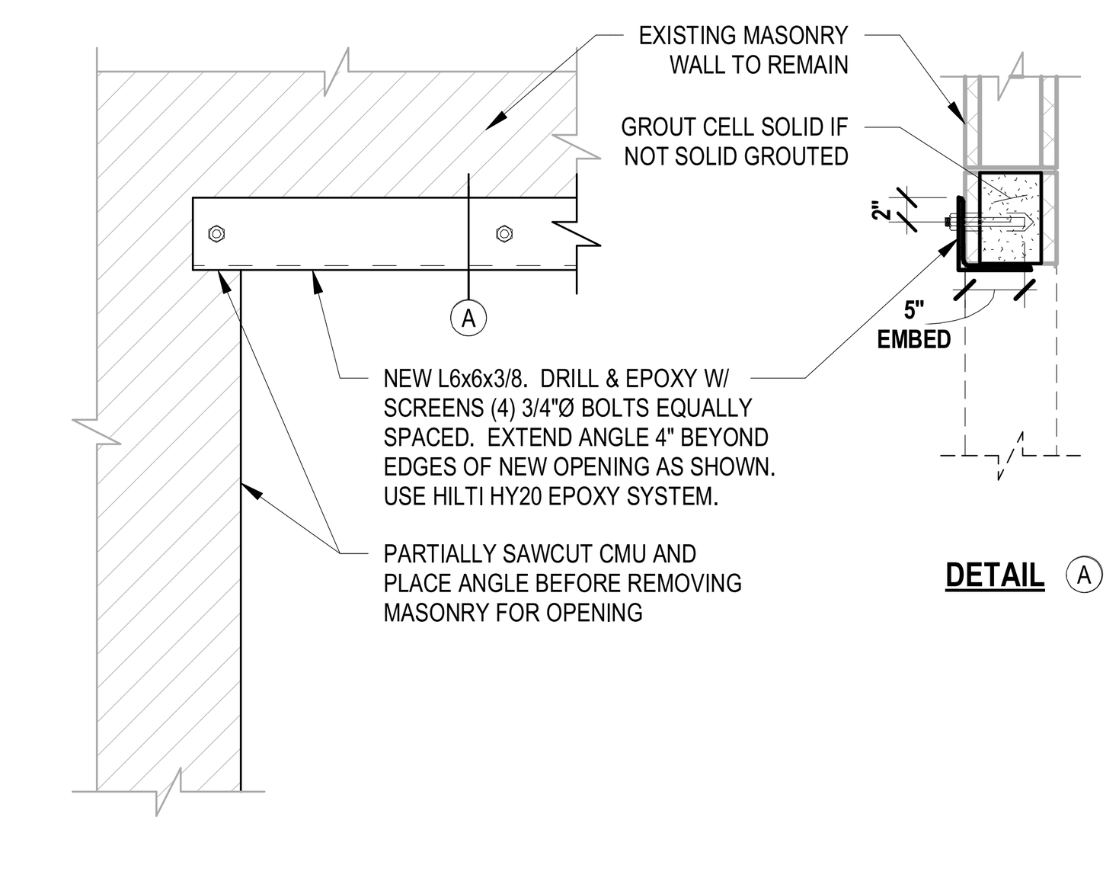


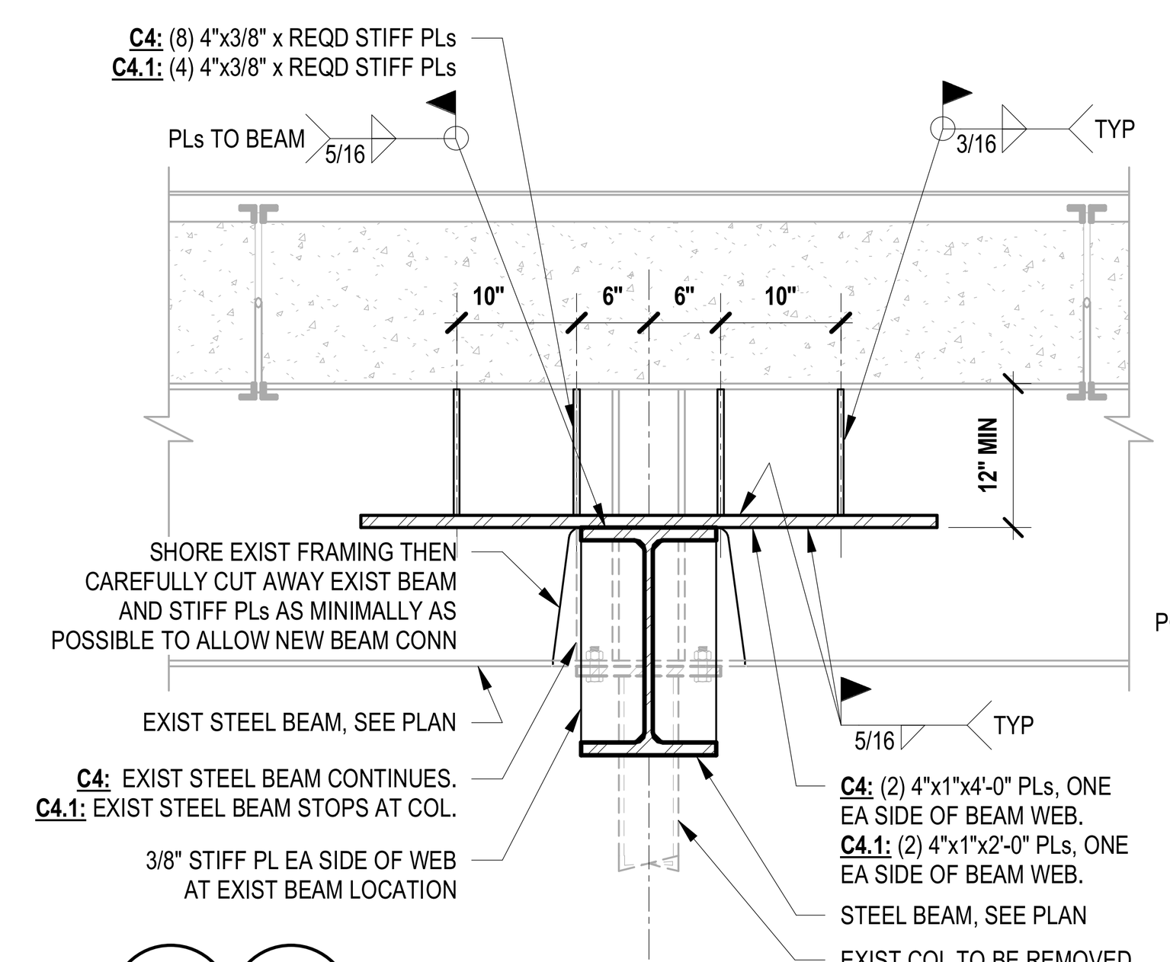
E6 -
3/4" = 1'-0"



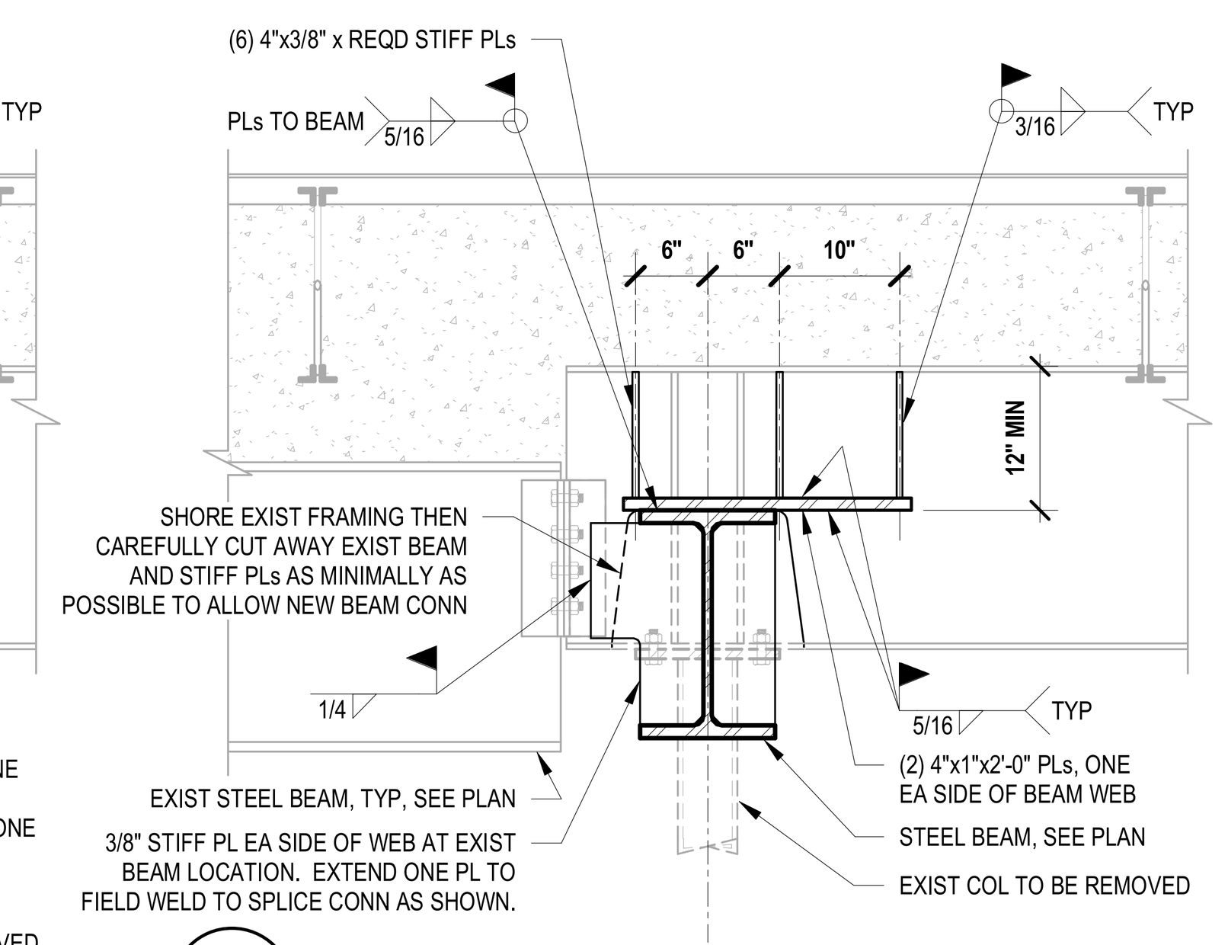
D5 MASONRY WALL INFILL
NO SCALE
5252_02



D6 NEW OPENING IN MASONRY WALL
NO SCALE
4452_02



C4 C4.1 -
3/4" = 1'-0"
4344_07



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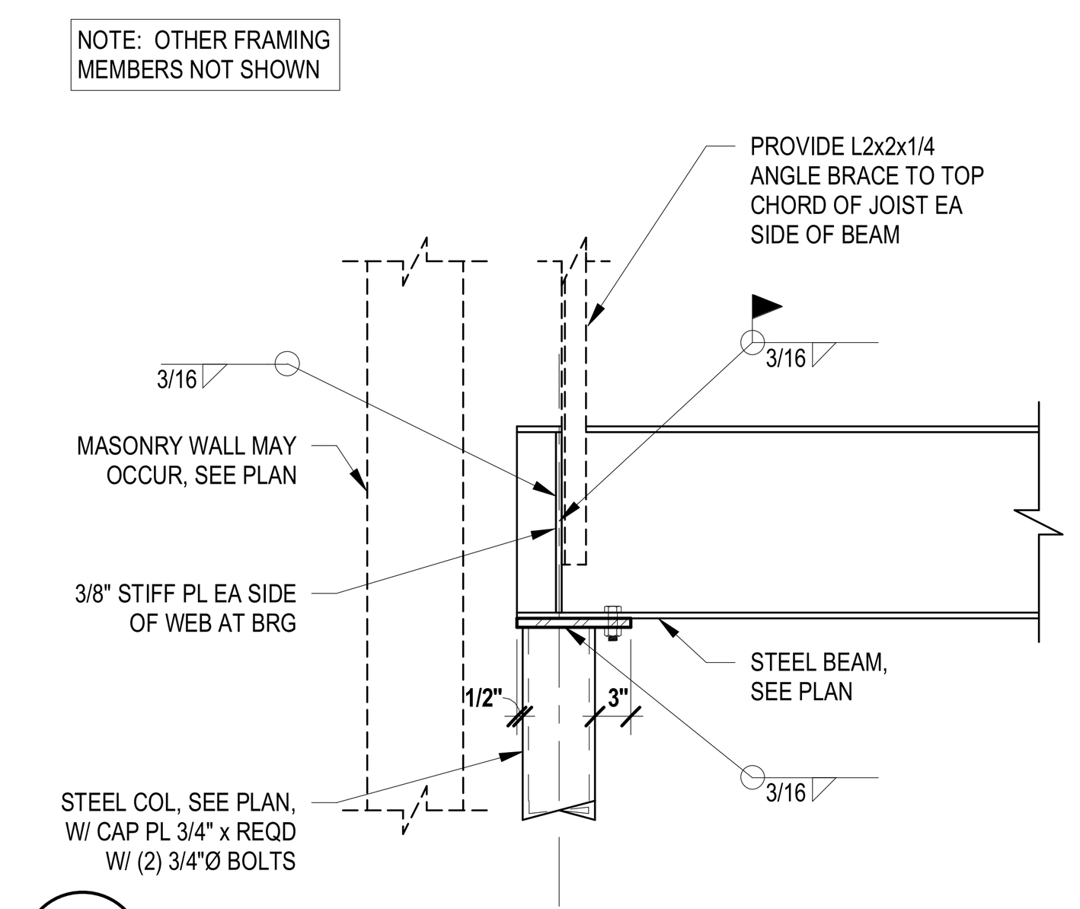
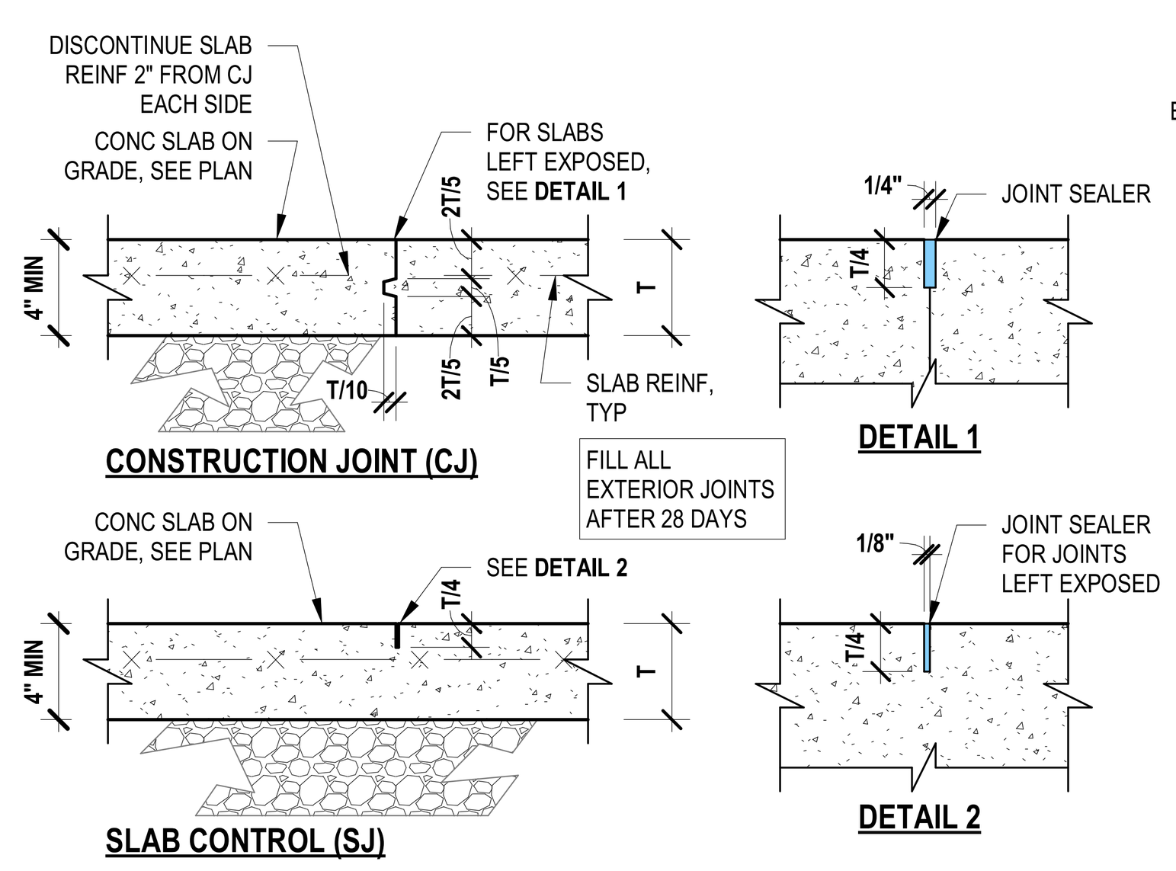
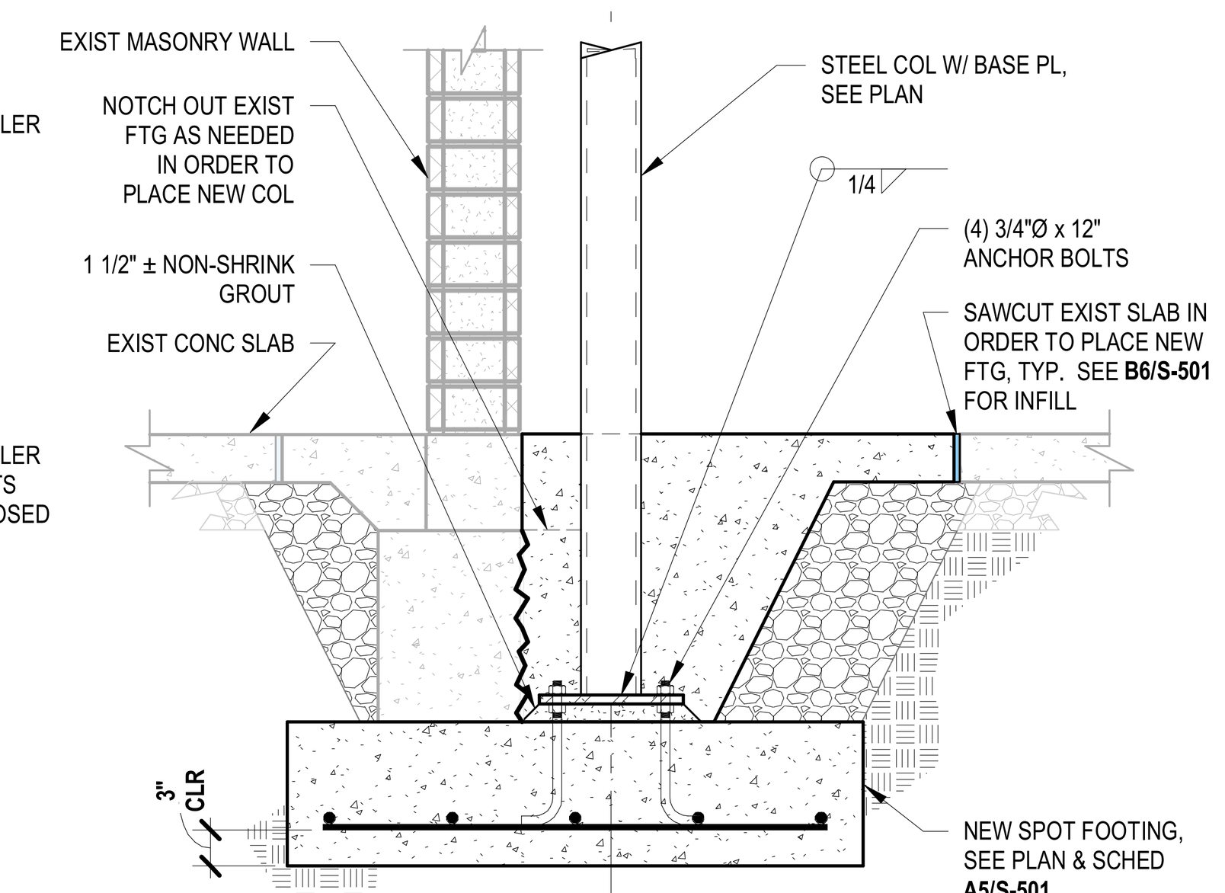
4344_07



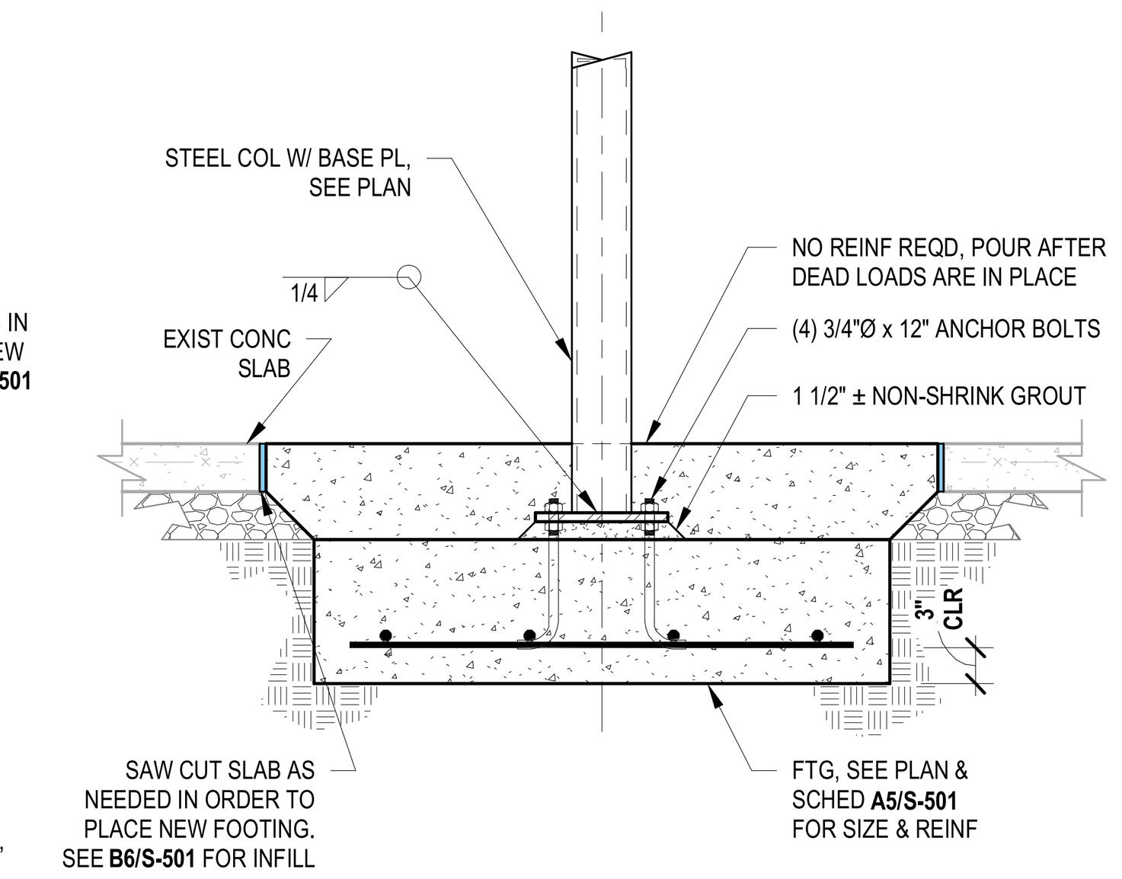
C6 -
3/4" = 1'-0"
4344_02



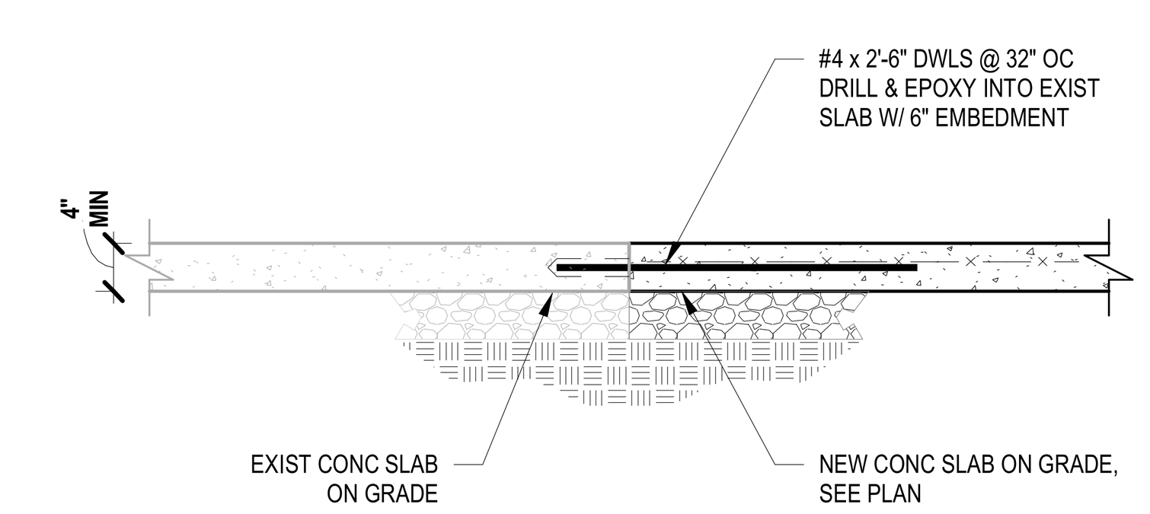
B3 TYPICAL SLAB JOINT DETAILS
NO SCALE
3677_02



B4 -
3/4" = 1'-0"
3143_03



B5 -
3/4" = 1'-0"
3143_05A



B6 NEW CONC SLAB TO EXISTING
3/4" = 1'-0"
3236_06

SCHEDULE - REINFORCING SPLICE LAP LENGTHS - f'c 3000 - 6000 PSI

	f'c = 3000psi				f'c = 4000psi				f'c = 5000psi				f'c = 6000psi			
	Regular		Top		Regular		Top		Regular		Top		Regular		Top	
Bar Size	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
#3	17"	22"	22"	28"	15"	19"	19"	24"	13"	17"	17"	22"	12"	16"	16"	21"
#4	22"	29"	29"	38"	18"	25"	26"	33"	17"	22"	23"	30"	16"	20"	21"	27"
#5	28"	36"	37"	48"	24"	31"	32"	42"	21"	28"	24"	37"	20"	25"	26"	34"
#6	33"	43"	45"	58"	29"	37"	39"	50"	26"	33"	35"	45"	24"	30"	32"	41"
#7	48"	63"	63"	82"	42"	55"	55"	71"	37"	48"	48"	62"	34"	45"	45"	58"
#8	55"	72"	72"	93"	48"	63"	63"	81"	42"	55"	55"	71"	39"	51"	51"	66"
#9	62"	81"	81"	105"	54"	71"	71"	92"	48"	62"	62"	80"	44"	57"	57"	74"
#10	70"	91"	91"	118"	61"	79"	79"	103"	54"	70"	70"	90"	50"	65"	65"	84"
#11	78"	101"	101"	131"	68"	88"	88"	114"	60"	77"	77"	100"	55"	72"	72"	93"

NOTES:
1. THE SCHEDULE SHOWN APPLIES TO REGULAR WEIGHT CONCRETE WITH 60ksi GRADE REINFORCING BARS.
2. TOP BARS ARE HORIZONTAL BARS WITH 12" OR MORE OF FRESH CONCRETE CAST BELOW THE BARS.
3. CLASS "A" SPLICES SHALL BE USED WHEN 50% (OR LESS) OF BARS SPLICED WITHIN LAP.
4. CLASS "B" SPLICES SHALL BE USED FOR ALL ELSE, TYPICALLY WITH SHEARWALLS, COLUMNS, BEAMS AND SLABS.
5. FOR BUNDLED BARS, INCREASE LAP LENGTHS AS FOLLOWS:
   BUNDLED BARS, THREE OR LESS: Ld x 1.2
   BUNDLED BARS, FOUR OR MORE: Ld x 1.33
   INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
7. LAP SPLICES ARE NOT ALLOWED FOR TIES AND STIRRUPS.

A3 -
NO SCALE
3747_01

SCHEDULE - FOOTINGS

Mark	Width	Length	Thickness	Crosswise Reinforcing	Crosswise Spacing	Lengthwise Reinforcing	Lengthwise Spacing	Notes
FS4.0	4' - 0"	4' - 0"	1' - 0"	(4) #5	EQ	(4) #5	EQ	
FS5.0	5' - 0"	5' - 0"	1' - 2"	(5) #5	EQ	(5) #5	EQ	

FOOTING NOTES:
1. WHERE CROSSWISE REINFORCING IS SPECIFIED, PLACE CROSSWISE REINFORCING 3" CLEAR FROM GRADE AND LENGTHWISE REINFORCING ON TOP OF CROSSWISE REINFORCING.
2. WHERE TOP REINFORCING IS INDICATED, PLACE TOP CROSSWISE REINFORCING 2" CLEAR FROM TOP OF FOOTING AND LENGTHWISE REINFORCING UNDER CROSSWISE REINFORCING.
3. REINFORCE FOOTINGS MARKED WITH AN ASTERISK (*) EQUALLY, TOP & BOTTOM.
4. REINFORCE FOOTINGS MARKED WITH A PLUS SIGN (+), W/ #4 @ 12" OC, EACH WAY AT TOP MAT AND BOTTOM MAT AS SCHEDULED.
5. ALL CONTINUOUS FOOTINGS SHALL BE FC2.0, AND SQUARE FOOTINGS SHALL BE FS3.0, MINIMUM, UNLESS NOTED OTHERWISE ON PLANS.

A5 FOOTING SCHEDULE
NO SCALE
3731_01

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SHAUN E. PACKER #155808

DATE | REVISION

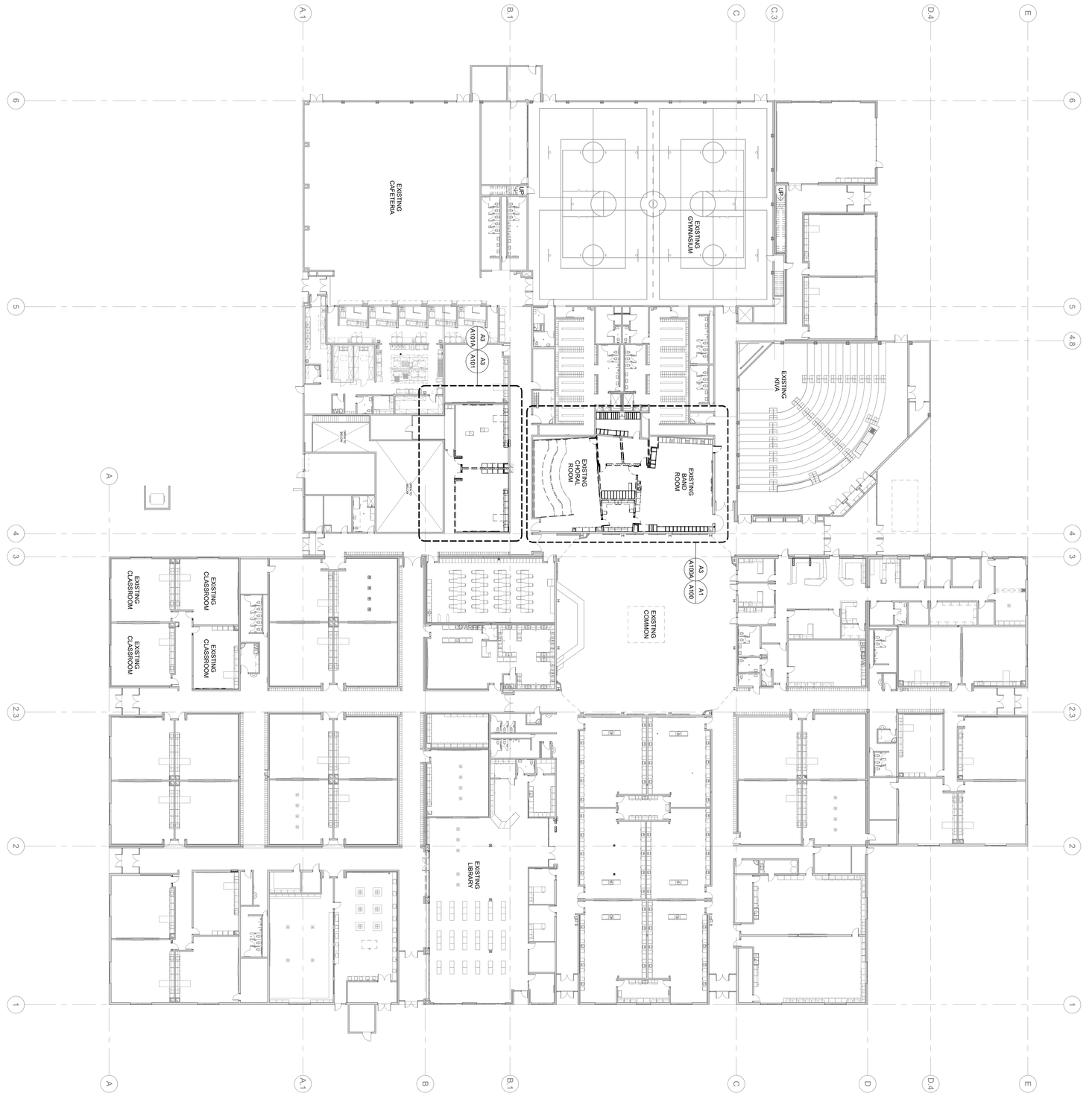
PROJECT NUMBER 24038

Structural Details

S-501

3/20/2025 3:23:17 PM

A1 LEVEL 1 - EXISTING OVERALL FLOOR PLAN
SCALE: 3/64" = 1'-0"



REFERENCE NOTES

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EXISTING OVERALL FLOOR PLAN
A000

PROJECT NUMBER 24036

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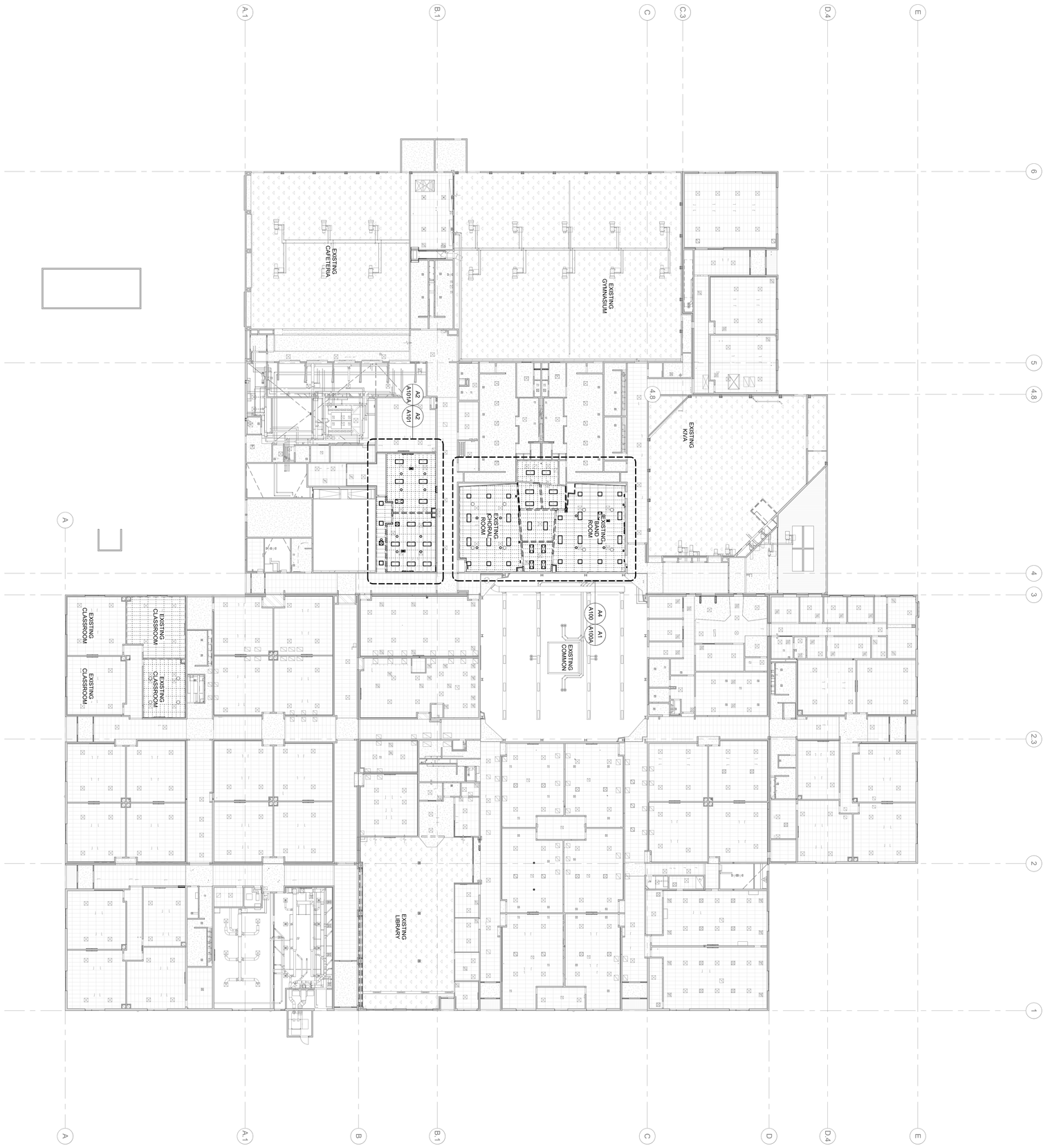
4/8/2025 10:28:45 AM

0" 1" 2"

A1

LEVEL 1 - EXISTING OVERALL REFLECTED CEILING PLAN

SCALE: 3/64" = 1'-0"



REFERENCE NOTES

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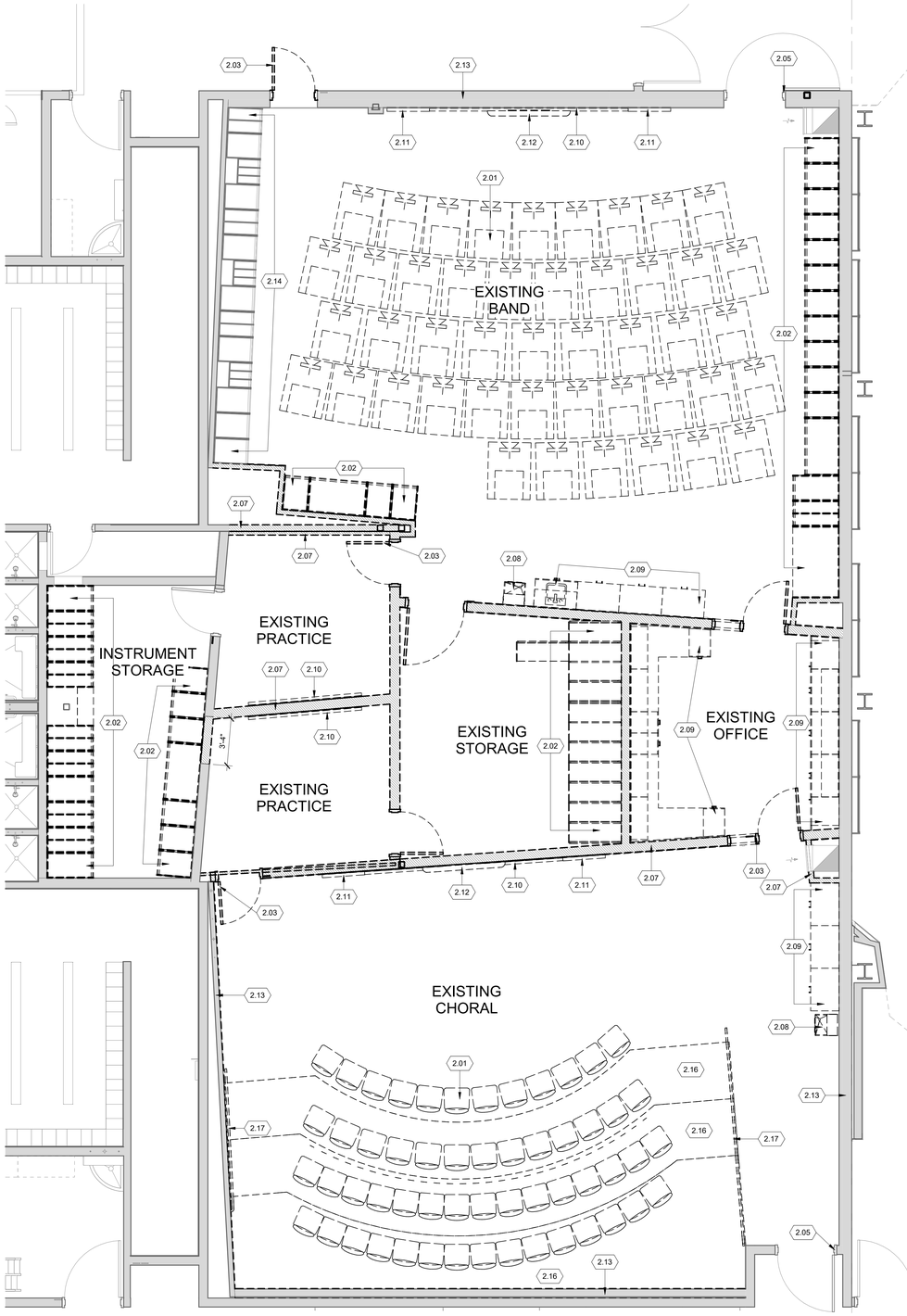
EXISTING OVERALL RCP

PROJECT NUMBER 24038

DATE REVISION

A001

A4 MUSIC ROOMS - RCP DEMOLITION
SCALE: 1/4" = 1'-0"



A1 MUSIC ROOMS - DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

2.01 EXISTING FURNITURE OWNER TO REMOVE
2.02 EXISTING MUSIC STORAGE CABINET TO BE REUSED
2.03 EXISTING DOOR TO BE REMOVED
2.05 EXISTING DOOR TO REMAIN
2.07 EXISTING WALL TO BE REMOVED
2.08 EXISTING DRINKING FOUNTAIN TO BE REMOVED AND REUSED
2.09 EXISTING MILLWORK TO BE RELOCATED FROM EXISTING CLASSROOM
2.10 EXISTING WHITE BOARD TO BE REMOVED AND REUSED OR RETURNED TO OWNER
2.11 EXISTING TACK BOARD TO BE REMOVED AND REUSED OR RETURNED TO OWNER
2.12 EXISTING PROJECTION SCREEN TO BE REMOVED AND REUSED OR RETURNED TO OWNER
2.13 EXISTING WALL TO REMAIN, PATCH AND REPAIR AS REQUIRED
2.14 EXISTING MUSIC CABINETS TO REMAIN
2.16 EXISTING CONCRETE RISERS TO BE REMOVED
2.17 EXISTING HANDRAIL TO BE REMOVED
2.18 EXISTING ACT CEILING TO BE REMOVED
2.19 EXISTING SOLAR TUBE TO REMAIN, PROTECT DURING CONSTRUCTION

DEMO CEILING LEGEND

EXISTING WALL TO REMAIN
EXISTING WALL TO BE DEMOLISHED
EXISTING 24X48 ACT TO BE DEMOLISHED

DEMO PLAN LEGEND

EXISTING WALL TO REMAIN
EXISTING WALL TO BE DEMOLISHED FULL HEIGHT, U.N.O.
EXISTING DOOR TO REMAIN
EXISTING DOOR TO BE DEMOLISHED

GENERAL NOTES

1. ALL CUTS IN EXISTING BRICK FOR NEW OPENINGS SHALL BE AT THE CLOSEST JOINT TO THE DIMENSION INDICATED ON THE PLAN AND ALL NEW OPENINGS SHALL BE BRICK MODULE. CONTACT ARCHITECT IF CLARIFICATION IS NEEDED AT ANY SPECIFIC LOCATION.RETAIN DEMO'D MASONRY TO BE REUSED.
2. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS THAT ARE TO BE REMOVED.

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BAND PLANS - DEMO

A100

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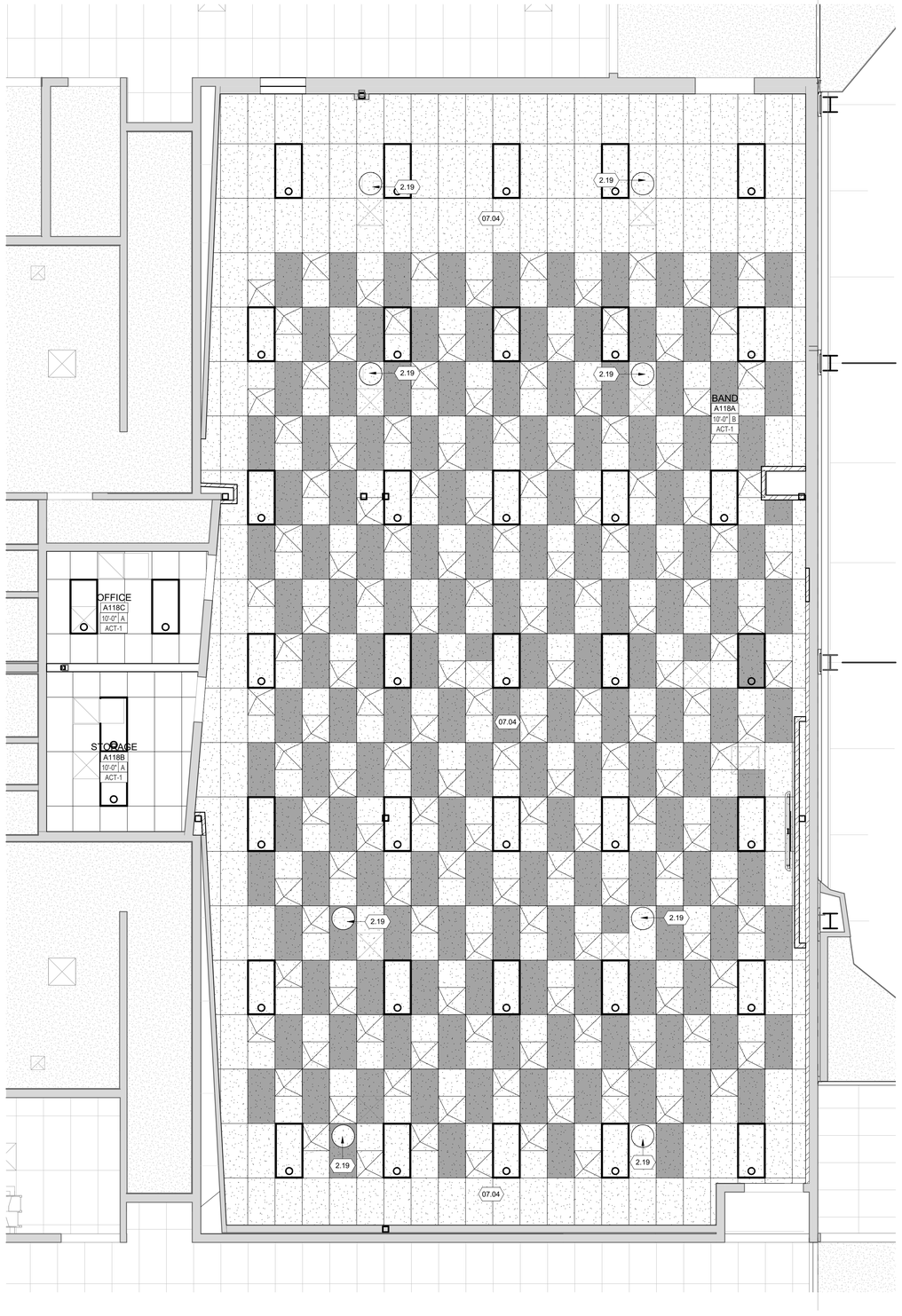
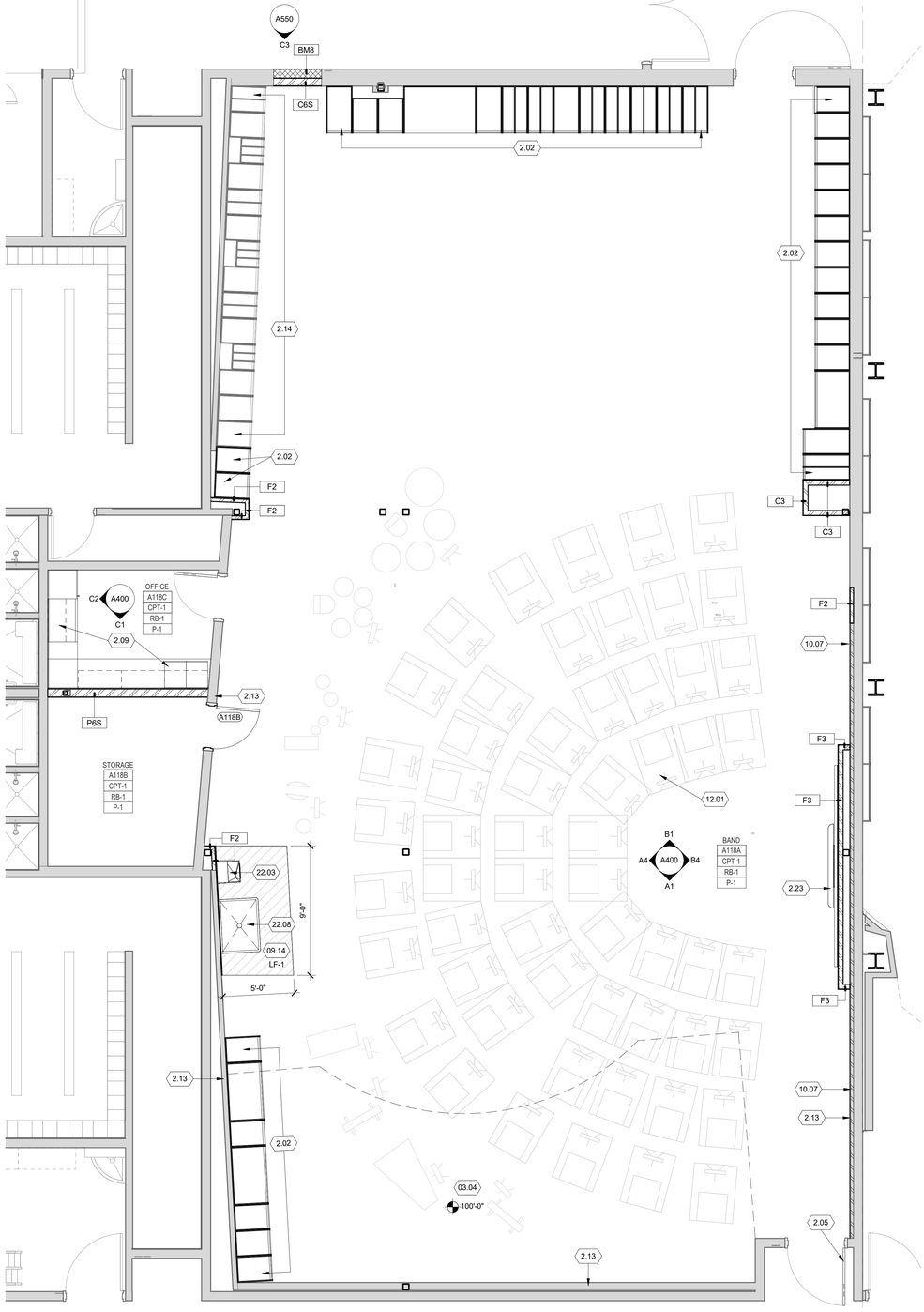


A1 BAND - REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"



A3 BAND - REFERENCE PLAN
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

- 2.02 EXISTING MUSIC STORAGE CABINET TO BE REUSED
- 2.05 EXISTING DOOR TO REMAIN
- 2.09 EXISTING MILLWORK TO BE RELOCATED FROM EXISTING CLASSROOM
- 2.13 EXISTING WALL TO REMAIN, PATCH AND REPAIR AS REQUIRED
- 2.14 EXISTING MUSIC CABINETS TO REMAIN
- 2.19 EXISTING SOLAR TUBE TO REMAIN, PROTECT DURING CONSTRUCTION
- 2.23 EXISTING FRONT OF ROOM WHITE BOARD, PROJECTION SCREEN AND TACK BOARD TO BE RELOCATED AND REUSED FROM EXISTING CLASSROOM
- 03.04 CONCRETE SLAB ON GRADE
- 07.04 APPLY K-13 TO ROOF DECKING ABOVE CEILING, 2" THICK
- 09.14 LVT FLOORING, RE FINISH SCHEDULE
- 10.07 SOUND PANELS
- 12.01 FURNITURE PROVIDED BY OWNER
- 22.03 REUSE EXISTING ELECTRIC DRINKING FOUNTAIN, SEE PLUMBING
- 22.08 JUMBO UTILITY SINK, SEE PLUMBING

LEGEND

ROOM NAME
HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT | C / PNT
C = CEILING TYPE
PNT = CEILING FINISH
SEE FINISH SCHEDULE

- EXISTING WALL TO REMAIN
- NEW METAL STUD WALL. SEE WALL TYPES.
- NEW BRICK MASONRY WALL. SEE WALL TYPES.
- NEW 24X48 ACT
- LIGHT FIXTURES
- MECHANICAL FIXTURES (RETURN / SUPPLY)
- EXISTING TUBULAR DAYLIGHTING DEVICE
- PYRAMID SHAPED CEILING TILE
- METAL MESH TILE

CEILING TYPE
A 2X4 ACOUSTICAL CEILING TILE
B 2X4 ACOUSTICAL CEILING TILE WITH PYRAMID TILES AND METAL MESH

GENERAL NOTES

1. SEE MECHANICAL DRAWINGS FOR DIFFUSER LOCATIONS IN CEILING. CONTRACTOR TO COORDINATE WITH LIGHT FIXTURES (AS INDICATED IN ELECTRICAL DRAWINGS) AND MOVE DIFFUSERS AROUND THE LIGHT FIXTURES IF THERE IS A CONFLICT.
2. CONTRACTOR SHALL VERIFY WITH ARCHITECT FOR ALL CEILING HEIGHT CLARIFICATIONS.
3. SOME OF THE ITEMS ON CEILING INDICATED IN MECHANICAL AND ELECTRICAL DRAWINGS, MAY OR MAY NOT BE, INDICATED ON ARCHITECTURAL CEILING PLANS. SEE MECHANICAL AND ELECTRICAL DRAWINGS AND COORDINATE WITH ARCHITECT FOR ANY REQUIRED CLARIFICATIONS.
4. CONTRACTOR SHALL NOT HANG CEILING TILES AND LIGHTS FROM DUCTS.
5. ALL FIRE SPRINKLER HEADS SHALL BE CENTERED IN ACOUSTICAL CEILING TILES.

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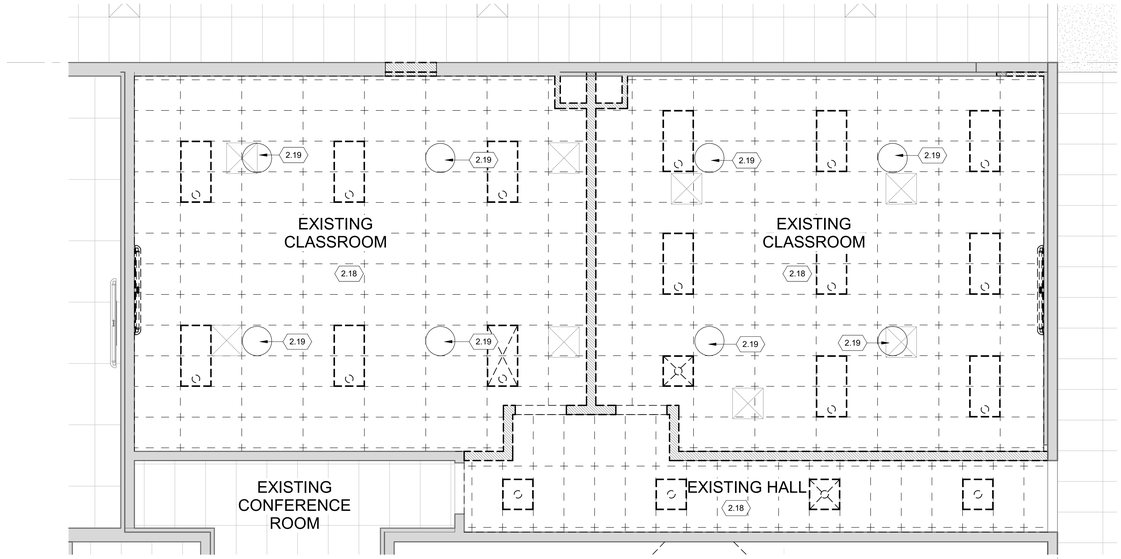
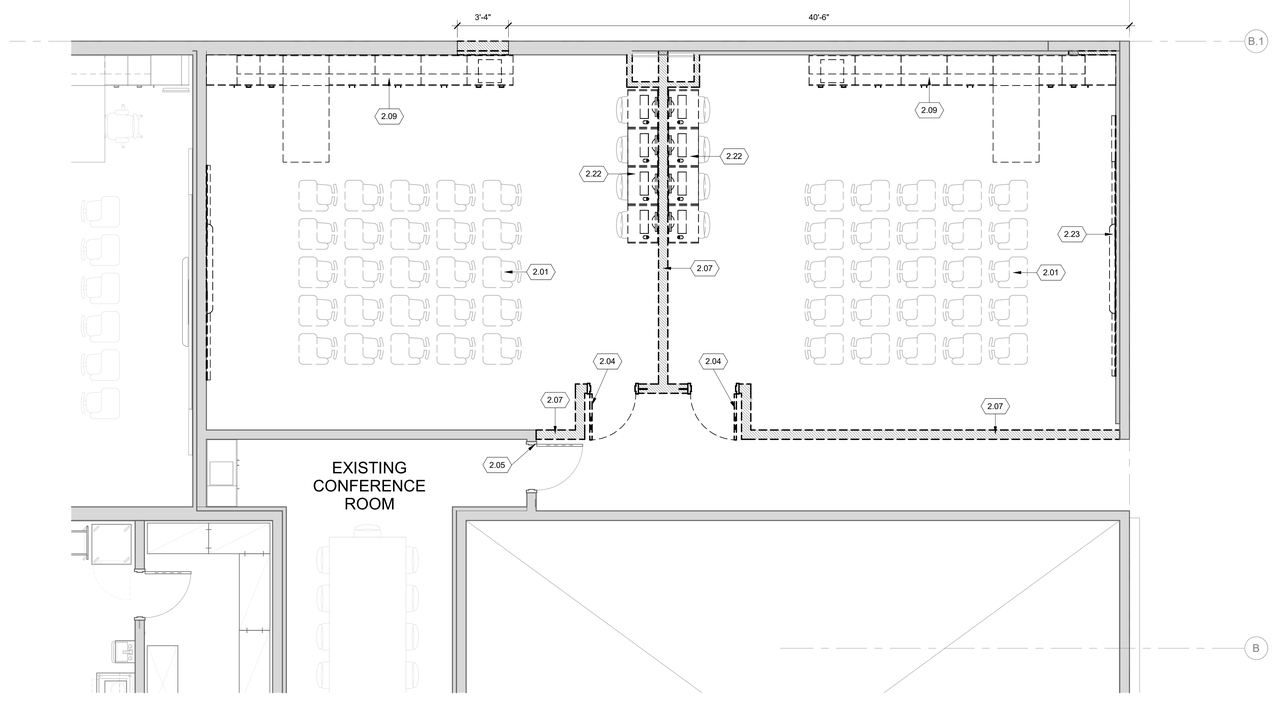
BAND PLANS

A100A

4/8/2025 10:32:14 AM



A2 CHORAL - REFLECTED CEILING PLAN DEMO
SCALE: 1/4" = 1'-0"



A3 CHORAL - REFERENCE PLAN
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

2.01 EXISTING FURNITURE OWNER TO REMOVE
2.04 EXISTING DOOR TO BE REMOVED AND REUSED
2.05 EXISTING DOOR TO REMAIN
2.07 EXISTING WALL TO BE REMOVED
2.09 EXISTING MILLWORK TO BE RELOCATED FROM EXISTING CLASSROOM
2.18 EXISTING ACT CEILING TO BE REMOVED
2.19 EXISTING SOLAR TUBE TO REMAIN, PROTECT DURING CONSTRUCTION
2.22 EXISTING MILLWORK TO BE REMOVED
2.23 EXISTING FRONT OF ROOM WHITE BOARD, PROJECTION SCREEN AND TACK BOARD TO BE RELOCATED AND REUSED FROM EXISTING CLASSROOM

DEMO CEILING LEGEND

EXISTING WALL TO REMAIN
EXISTING WALL TO BE DEMOLISHED
EXISTING 24X48 ACT TO BE DEMOLISHED

DEMO PLAN LEGEND

EXISTING WALL TO REMAIN
EXISTING WALL TO BE DEMOLISHED FULL HEIGHT, U.N.O.
EXISTING DOOR TO REMAIN
EXISTING DOOR TO BE DEMOLISHED

GENERAL NOTES

1. ALL CUTS IN EXISTING BRICK FOR NEW OPENINGS SHALL BE AT THE CLOSEST JOINT TO THE DIMENSION INDICATED ON THE PLAN AND ALL NEW OPENINGS SHALL BE BRICK MODULE. CONTACT ARCHITECT IF CLARIFICATION IS NEEDED AT ANY SPECIFIC LOCATION.RETAIN DEMO'D MASONRY TO BE REUSED.
2. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS THAT ARE TO BE REMOVED.

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CHORAL PLANS - DEMO

A101

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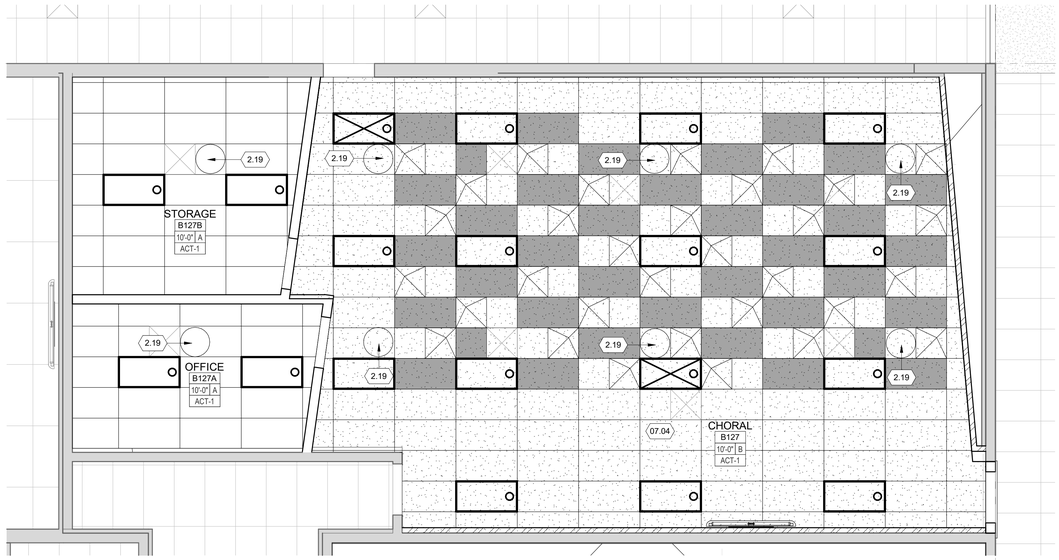
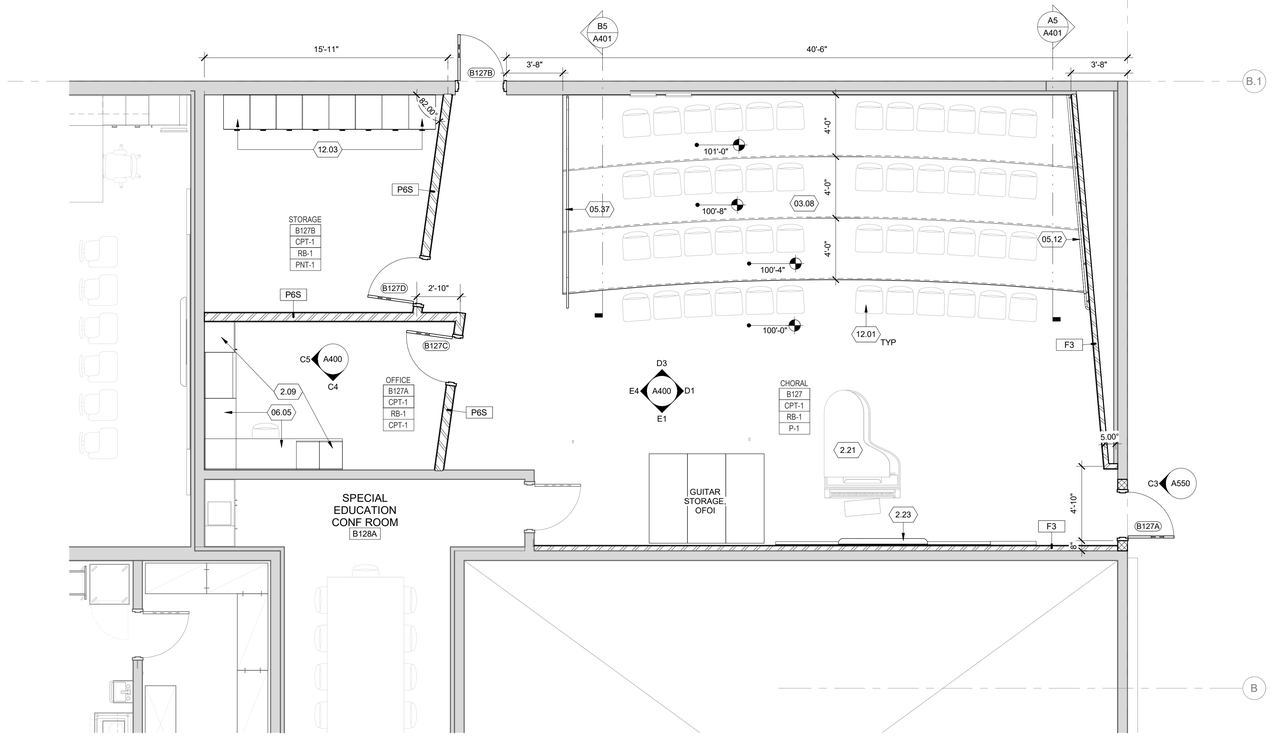


A2 CHORAL - REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"



A3 CHORAL - FLOOR PLAN
SCALE: 1/4" = 1'-0"

REFERENCE NOTES

2.09 EXISTING MILLWORK TO BE RELOCATED FROM EXISTING CLASSROOM
2.19 EXISTING SOLAR TUBE TO REMAIN, PROTECT DURING CONSTRUCTION
2.21 EXISTING PIANO, OFOI
2.23 EXISTING FRONT OF ROOM WHITE BOARD, PROJECTION SCREEN AND TACK BOARD TO BE RELOCATED AND REUSED FROM EXISTING CLASSROOM
03.08 CONCRETE RISERS
05.12 STAINLESS STEEL HANDRAIL, WALL MOUNTED
05.37
06.05 COUNTERTOP
07.04 APPLY K-13 TO ROOF DECKING ABOVE CEILING, 2" THICK
12.01 FURNITURE PROVIDED BY OWNER
12.03 MUSIC STORAGE, OFOI

LEGEND

ROOM NAME
HEIGHT ABOVE FINISHED FLOOR → RM NO. / HT | C / PNT
C = CEILING TYPE
PNT = CEILING FINISH
SEE FINISH SCHEDULE

EXISTING WALL TO REMAIN

NEW METAL STUD WALL. SEE WALL TYPES.

NEW BRICK MASONRY WALL. SEE WALL TYPES.

NEW 24X48 ACT

LIGHT FIXTURES

MECHANICAL FIXTURES (RETURN / SUPPLY)

EXISTING TUBULAR DAYLIGHTING DEVICE

PYRAMID SHAPED CEILING TILE

METAL MESH TILE

CEILING TYPE
A 2X4 ACOUSTICAL CEILING TILE
B 2X4 ACOUSTICAL CEILING TILE WITH PYRAMID TILES AND METAL MESH

GENERAL NOTES

1. SEE MECHANICAL DRAWINGS FOR DIFFUSER LOCATIONS IN CEILING. CONTRACTOR TO COORDINATE WITH LIGHT FIXTURES (AS INDICATED IN ELECTRICAL DRAWINGS) AND MOVE DIFFUSERS AROUND THE LIGHT FIXTURES IF THERE IS A CONFLICT.
2. CONTRACTOR SHALL VERIFY WITH ARCHITECT FOR ALL CEILING HEIGHT CLARIFICATIONS.
3. SOME OF THE ITEMS ON CEILING INDICATED IN MECHANICAL AND ELECTRICAL DRAWINGS, MAY OR MAY NOT BE, INDICATED ON ARCHITECTURAL CEILING PLANS. SEE MECHANICAL AND ELECTRICAL DRAWINGS AND COORDINATE WITH ARCHITECT FOR ANY REQUIRED CLARIFICATIONS.
4. CONTRACTOR SHALL NOT HANG CEILING TILES AND LIGHTS FROM DUCTS.
5. ALL FIRE SPRINKLER HEADS SHALL BE CENTERED IN ACOUSTICAL CEILING TILES.
6. MILLWORK PL-1

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CHORAL PLANS

A101A

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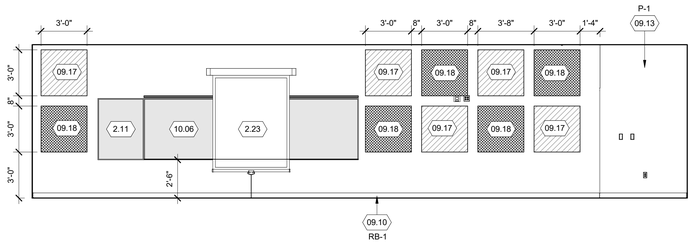
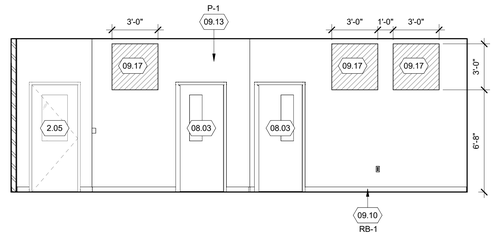


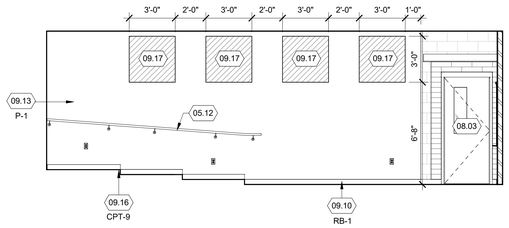


REFERENCE NOTES

2.02	EXISTING MUSIC STORAGE CABINET TO BE REUSED
2.05	EXISTING DOOR TO REMAIN
2.09	EXISTING MILLWORK TO BE RELOCATED FROM EXISTING CLASSROOM
2.11	EXISTING TACK BOARD TO BE REMOVED AND REUSED OR RETURNED TO OWNER
2.14	EXISTING MUSIC CABINETS TO REMAIN
2.23	EXISTING FRONT OF ROOM WHITE BOARD, PROJECTION SCREEN AND TACK BOARD TO BE RELOCATED AND REUSED FROM EXISTING CLASSROOM
03.08	CONCRETE RISERS
05.12	STAINLESS STEEL HANDRAIL, WALL MOUNTED
05.37	
06.05	COUNTERTOP
08.03	DOOR, SEE DOOR SCHEDULE
09.10	WALL BASE
09.13	PAINTED GYP. BD. RE FINISH SCHEDULE
09.15	CERAMIC TILE, RE: FINISH SCHEDULE
09.16	BROAD LOOM CARPET
09.17	SOUND PANELS, ABSORPTIVE 2" THICK NRC 1.0-1.05
09.18	SOUND PANELS, DIFFUSER PANELS
10.06	WHITE BOARD EXISTING REUSED
22.03	REUSE EXISTING ELECTRIC DRINKING FOUNTAIN, SEE PLUMBING
22.08	JUMBO UTILITY SINK, SEE PLUMBING

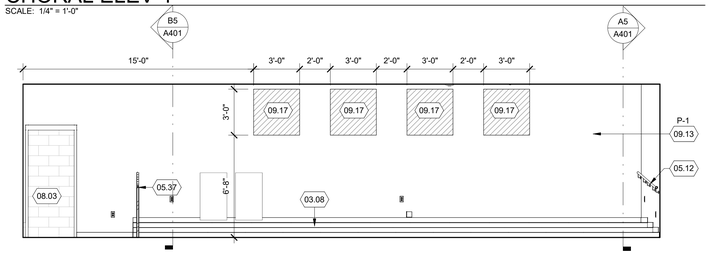
E1 CHORAL ELEV 3

SCALE: 1/4" = 1'-0"



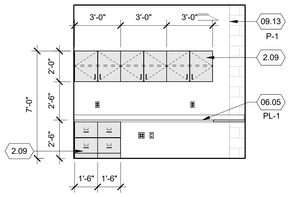
E4 CHORAL ELEV 4

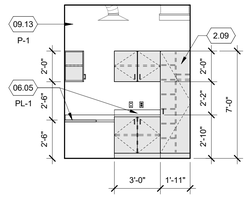
SCALE: 1/4" = 1'-0"



D1 CHORAL ELEV 2

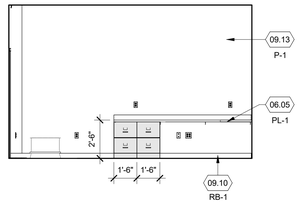
SCALE: 1/4" = 1'-0"

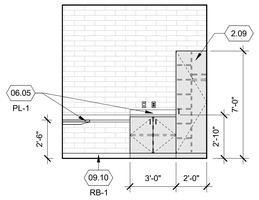




D3 CHORAL ELEV 1

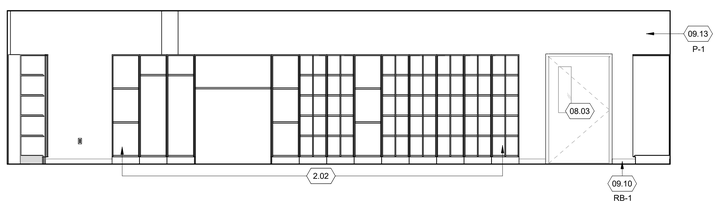
SCALE: 1/4" = 1'-0"





C1 OFFICE ELEV - 1

SCALE: 1/4" = 1'-0"



C2 OFFICE ELEV - 2

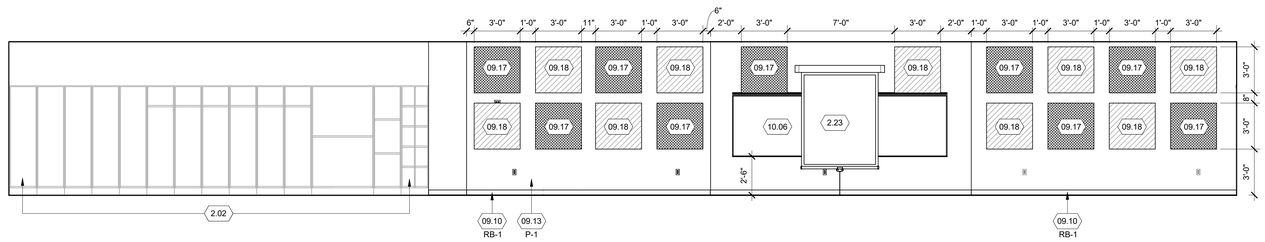
SCALE: 1/4" = 1'-0"

C4 OFFICE B127A - ELEV 1

SCALE: 1/4" = 1'-0"

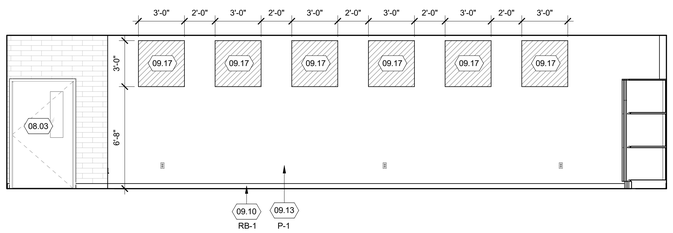
C5 OFFICE B127A - ELEV 2

SCALE: 1/4" = 1'-0"



B1 BAND - N

SCALE: 1/4" = 1'-0"



B4 BAND - E

SCALE: 1/4" = 1'-0"

A1 BAND - S

SCALE: 1/4" = 1'-0"

A4 BAND - W

SCALE: 1/4" = 1'-0"

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INTERIOR ELEVATIONS

A400

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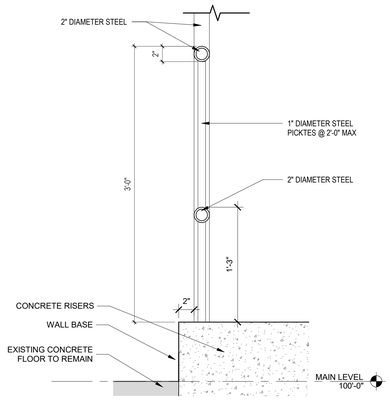
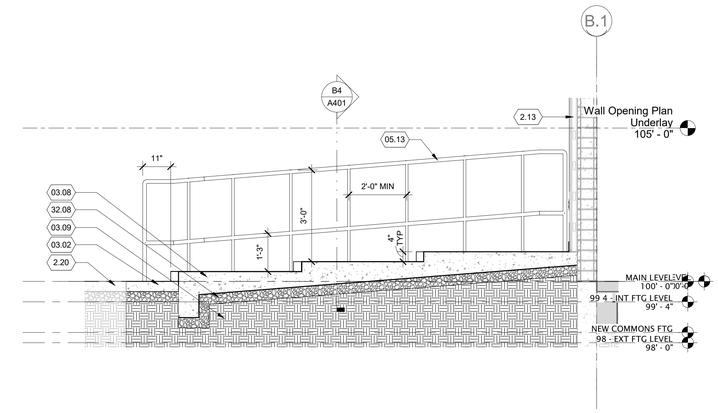
REFERENCE NOTES

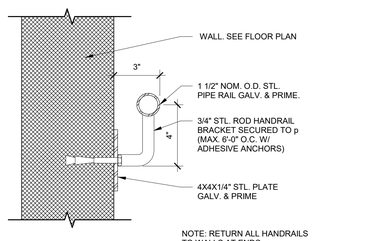
2.13 EXISTING WALL TO REMAIN, PATCH AND REPAIR AS REQUIRED
2.20 EXISTING CONCRETE FLOOR TO REMAIN
03.02 CONCRETE FLOOR
03.08 CONCRETE RISERS
03.09 STRUCTURAL FILL, SEE STRUCTURAL
05.12 STAINLESS STEEL HANDRAIL, WALL MOUNTED
05.13 STAINLESS STEEL HANDRAIL
09.10 WALL BASE
32.08 DRAINAGE GRAVEL



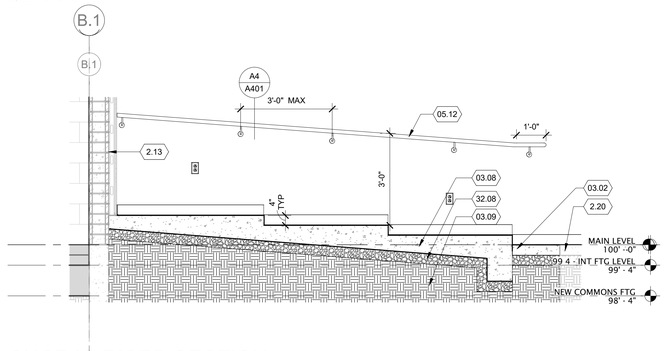
B4 GAURDRAIL W/ HANDRAIL
SCALE: 1 1/2" = 1'-0"



B5 CHORAL RISERS
SCALE: 1/2" = 1'-0"



A4 WALL MOUNTED HANDRAIL
SCALE: 3" = 1'-0"



A5 CHORAL RISER SECTION
SCALE: 1/2" = 1'-0"

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1	XXXXX	Addendum No. 1

PROJECT NUMBER 24038

STAIR SECTIONS & DETAILS

A401

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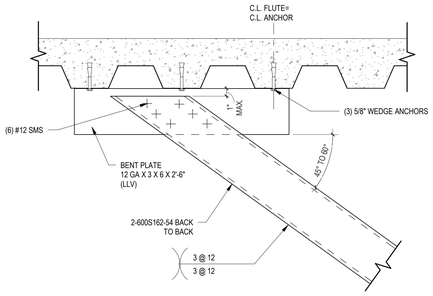
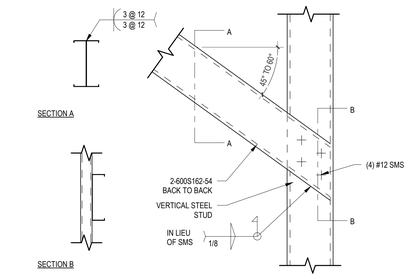
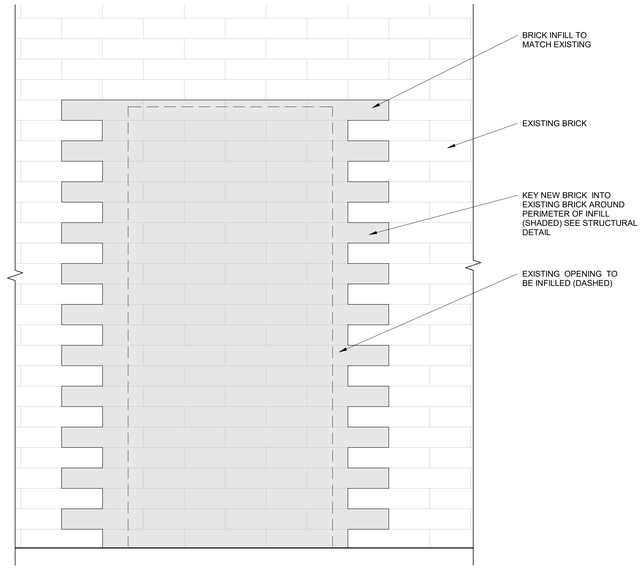


BRACE TO FLOOR (PERP TO FLUTE)
SCALE: 1-1/2" = 1'-0"

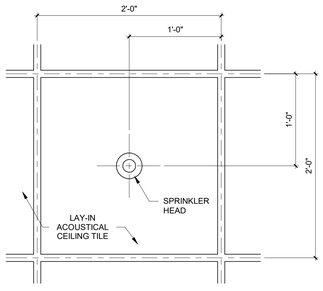


BRACE TO STUD
SCALE: 1-1/2" = 1'-0"

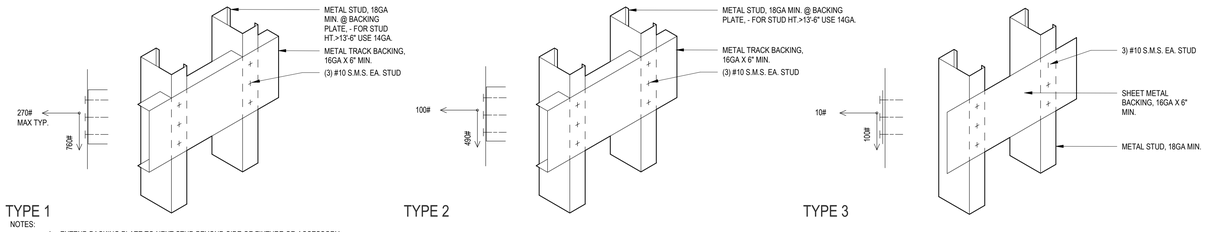
C1 WALL BRACING
SCALE: 1 1/2" = 1'-0"



C3 TYPICAL BRICK INFILL
SCALE: 1" = 1'-0"



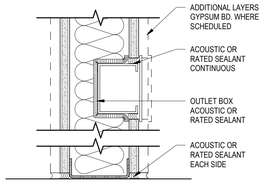
B1 SPRINKLER HEAD
SCALE: 1 1/2" = 1'-0"



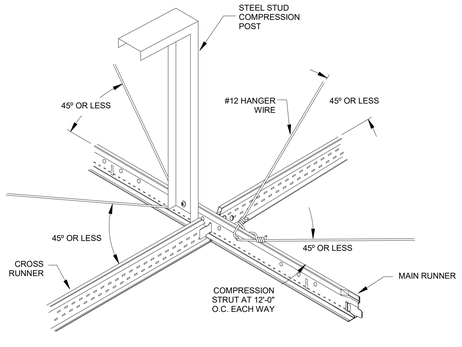
NOTES:

1. EXTEND BACKING PLATE TO NEXT STUD BEYOND SIDE OF FIXTURE OR ACCESSORY.
2. PROVIDE MET. SLEEVES THROUGH WALL FINISH AT FIXTURE AND EQUIPMENT FASTENING.
3. MAX. LOADS SHOWN ARE MAX ALLOWABLE LOADS FOR THE DIRECTION SHOWN. VERTICAL AND HORIZONTAL LOADS ARE NOT CUMULATIVE. E.I.: MAX. ALLOWABLE LOADS ARE FOR SHEAR-TENSION INTERACTION CALCULATION.
4. AS INDICATED, STUD GAUGES SHOWN ARE MINIMUM. METAL STUDS AND THEIR CONNECTIONS ARE TO BE DESIGNED PER THE PERFORMANCE REQUIREMENTS IN SPECIFICATION SECTION 09100.
5. MAXIMUM SPACING OF METAL STUDS SUPPORTING BACKING IS 16".

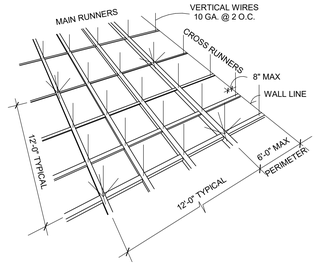
B2 BACKING PLATE SCHEDULE
SCALE: N.T.S.



B6 ELECTRICAL BOX
SCALE: 3" = 1'-0"



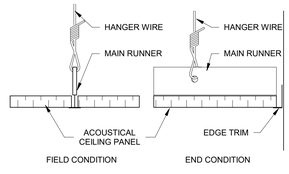
A1 TYP. SCIESMIC BRACING DETAIL
SCALE: 1/2" = 1'-0"



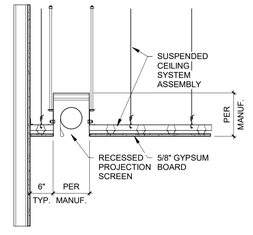
NOTE:

1. A CEILING AREA OF 144 SQ. FT. OR LESS SURROUNDED BY WALLS THAT CONNECT DIRECTLY TO THE STRUCTURE ABOVE SHALL BE EXEMPT FROM LATERAL LOAD DESIGN REQUIREMENTS OF THESE STANDARDS.
2. IN EACH ORTHOGONAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED WITH AN ICC EVALUATED & APPROVED SEISMIC CLIP SYSTEM AND 0.75" OF CLEARANCE TO ALLOW FREE HORIZONTAL MOVEMENT
3. LATERAL CEILING BRACING IS REQUIRED @ 12'-0" O.C.IN BOTH DIRECTIONS FOR ALL CEILINGS GREATER THAN 1,000 SF.
4. CEILING AREAS OVER 2,500 SF MUST HAVE SIESMIC SEPARATION JOINTS
5. LIGHT FIXTURES, MECHANICAL EQUIPMENT, ETC. MUST BE SUPPORTED INDEPENDENT OF THE CEILING SUPPORT/ BRACKETING SYSTEM.

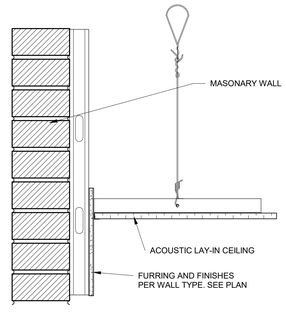
A2 TYP. SEISMIC BRACING DETAIL
SCALE: 3" = 1'-0"



A4 ACOUSTICAL PANEL DETAIL
SCALE: 3" = 1'-0"



A5 PROJECTION SCREEN DETAIL
SCALE: 3/4" = 1'-0"



A6 TYPICAL LAY-IN CEILING DETAIL
SCALE: 1 1/2" = 1'-0"

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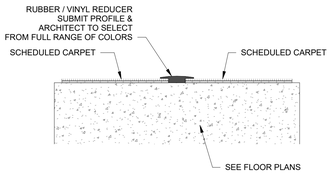
TYPICAL DETAILS

A550

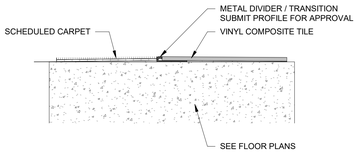
4/8/2025 10:28:57 AM

FINISH SCHEDULE						
CODE	PRODUCT TYPE	MANUFACTURER	STYLE	COLOR	SPECIFICATIONS	NOTES
BASE						
RB-1	RUBBER BASE	ROPPE	PINNACLE TYPE TS	123 CHARCOAL	4" X 1/8" STANDARD TOE	@ GYP. WALL LOCATIONS ONLY
CEILING						
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG	ULTIMA	1913 WHITE	SQ LAY-IN TILE 2' X 4' PRELUDE GRID 15/16" WHITE	
FLOORING - CARPET						
CPT-1	CARPET TILE	MOHAWK GROUP	ZIP IT GT296	966 LOW RISE	TILE SIZE: 12"x36", HERRINGBONE INSTALLATION	BAND & CHORAL
CPT-9	BROADLOOM	MOHAWK GROUP	WAVELENGTH GL149	978 BURST	RANDOM INSTALLATION	BAND & CHORAL
FLOORING - LINOLEUM						
LF-1	LINOLEUM FLOORING	FORBO	MARMOLEUM	TBD	SHEET GOOD CUT TO SIZE PER PLAN	
MISCELLANEOUS						
ACP-1	ACOUSTICAL PANEL	MDC	ZINTRA	GREY		BAND & CHORAL
ACP-2	ACOUSTICAL PANEL	MDC	ZINTRA	NAVY		BAND & CHORAL
ACP-3	ACOUSTICAL PANEL	MDC	ZINTRA	ASH		BAND & CHORAL
PAINT						
P-1	PAINT	SHERWIN WILLIAMS		SW7005 - PURE WHITE	FINISH: EGGSHELL	GENERAL PAINT
P-2	PAINT	SHERWIN WILLIAMS		SW7642 - PAVESTONE	FINISH: EGGSHELL	GENERAL PAINT
TILE						
CT-1	CERAMIC TILE	DALTILE	ELEVARE	EL47 MATTE LUNAR	TILE SIZE: 4" X 16"; VERTICAL INSTALLATION; RUNNING BOND 25%	
WOOD, PLASTICS AND COMPOSITES						
PL-1	PLASTIC LAMINATE	FORMICA		837-58 GRAPHITE		COVER UNFINISHED ENDS OR EXISTING MILLWORK WHERE EXPOSED
PL-2	PLASTIC LAMINATE	FORMICA		8824-58 WHITE DROPS		COVER UNFINISHED ENDS OR EXISTING MILLWORK WHERE EXPOSED

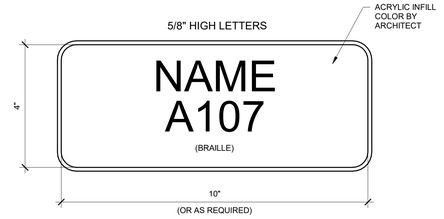
SIGNAGE SCHEDULE					
Sign Type	Number	Name	TEXT	NOTES	Level
S1	A118A	BAND			MAIN LEVEL
S2	A118B	STORAGE			MAIN LEVEL
S2	A118C	OFFICE			MAIN LEVEL
S1	B127	CHORAL			MAIN LEVEL
S2	B127A	OFFICE			MAIN LEVEL
S2	B127B	STORAGE			MAIN LEVEL
	B128A	SPECIAL EDUCATION CONF ROOM			MAIN LEVEL



B1 CARPET TO CARPET
SCALE: 3" = 1'-0"

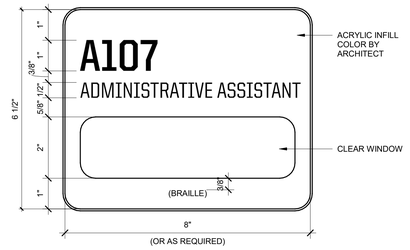


A1 CARPET TO VCT
SCALE: 3" = 1'-0"



NOTE:
• COLOR AS SELECTED BY ARCHITECT
• ROOM NAME AND NUMBER TO BE COORDINATED DURING SUBMITTAL PROCESS

B6 S2 - TYPICAL ROOM
SCALE: 6" = 1'-0"



NOTE:
• COLOR AS SELECTED BY ARCHITECT
• ROOM NAME AND NUMBER TO BE COORDINATED DURING SUBMITTAL PROCESS

A6 S1 - TYPICAL CLASSROOM
SCALE: 6" = 1'-0"

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INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

△	DATE	REVISION

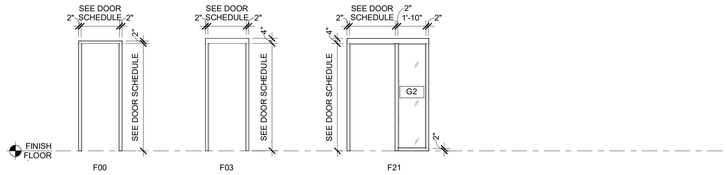
PROJECT NUMBER 24038

SIGNAGE SCHEDULE, DETAILS & FINISH SCHEDULE

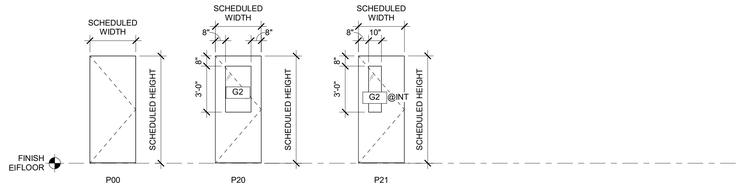
A601

4/8/2025 10:28:58 AM

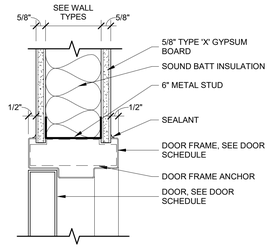
DOOR AND FRAME SCHEDULE												
	DOOR						FRAME					
DOOR NUMBER	SIZE WIDTH	SIZE HEIGHT	THICK	LEAF 1 TYPE	LEAF 2 TYPE	MATERIAL	TYPE	MATERIAL	JAMB DETAIL	HEAD DETAIL	FIRE RATING (MINUTES)	NOTES
MAIN LEVEL												
A118B	3'-0"	7'-0"	1 3/4"	P00		WD	F03	HM	B2/A602	B1/A602	90	
B127A	3'-0"	7'-0"	1 3/4"	P21		EXIST - WD	F03	HM	B2/A602	B1/A602	0	
B127B	3'-0"	7'-0"	1 3/4"	P21		EXIST - WD	F03	HM	A2/A602	A1/A602	0	
B127C	3'-0"	7'-0"	1 3/4"	P21		WD	F00	HM	C2/A602	C1/A602	0	
B127D	3'-0"	7'-0"	1 3/4"	P21		WD	F00	HM	C2/A602	C1/A602	0	

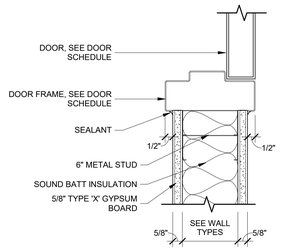


DOOR FRAMES - HOLLOW METAL
SCALE: 1/4" = 1'-0"

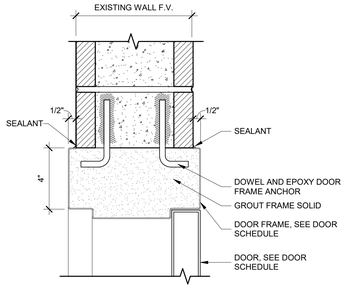


DOOR PANELS
SCALE: 1/4" = 1'-0"

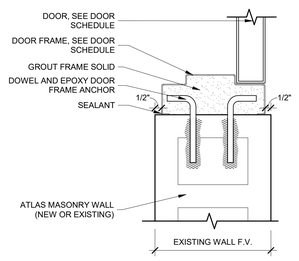




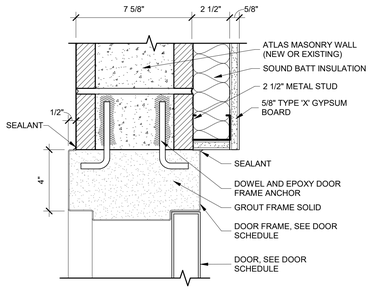
C1 DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



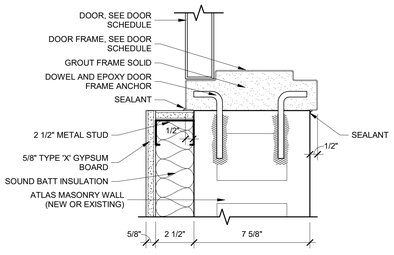
C2 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



B1 DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



B2 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



A1 DOOR HEAD DETAIL
SCALE: 3" = 1'-0"

A2 DOOR JAMB DETAIL
SCALE: 3" = 1'-0"

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△	DATE	REVISION

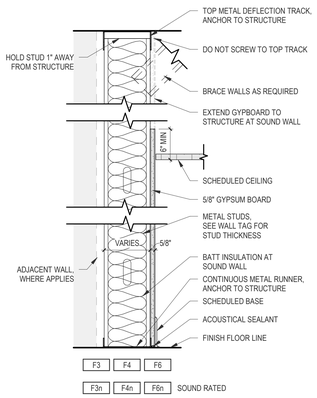
PROJECT NUMBER 24038

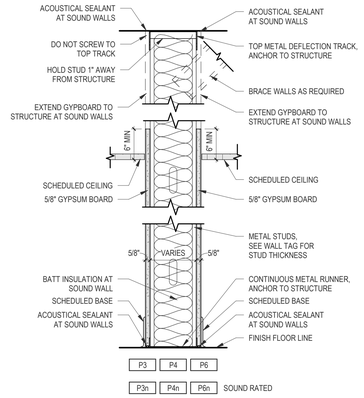
DOOR SCHEDULE & DETAILS

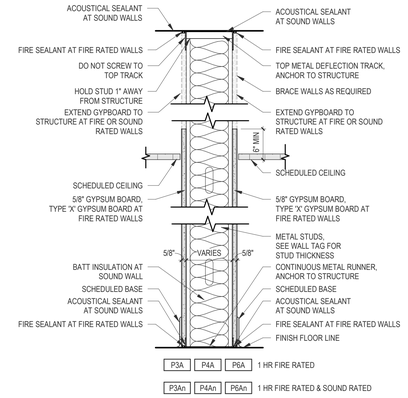
A602

4/8/2025 10:28:59 AM

REFERENCE NOTES







A1 INTERIOR WALL TYPES

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

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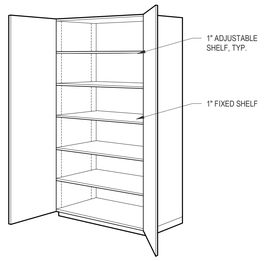
WALL TYPES

A650

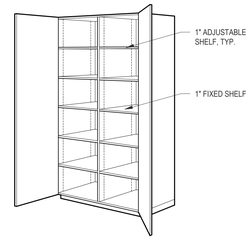
4/8/2025 10:28:59 AM

REFERENCE NOTES

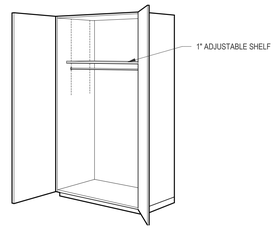
400
FULL HEIGHT CABINET - OPEN, 1 FIXED SHELF, 4 ADJUSTABLE SHELVES



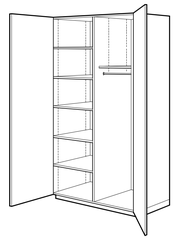
402
FULL HEIGHT CABINET - 1 FIXED SHELF, 4 ADJUSTABLE SHELVES



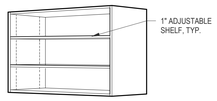
412
FULL HEIGHT CABINET - VERTICAL DIVIDER, 5 ADJUSTABLE SHELVES



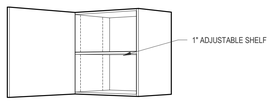
502
WARDROBE - 1 ADJUSTABLE SHELF, 1 HANGING ROD



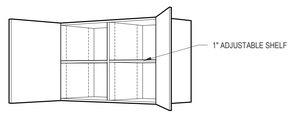
511
WARDROBE - LEFT: 5 ADJUSTABLE SELVES, FIXED VERTICAL DIVIDER, RIGHT: 1 ADJUSTABLE SHELF, 1 HANGING ROD, LOCKABLE



300
WALL HUNG CABINET - OPEN, 2 ADJUSTABLE SHELVES



301
WALL HUNG CABINET - 2 DOORS, 1 ADJUSTABLE SHELF



312
WALL HUNG CABINET - 2 DOORS, FIXED MIDDLE DIVIDER, 2 ADJUSTABLE SHELVES

230
FILE DRAWERS W/ FULL EXTENSION SLIDES AND FILE FOLLOWER OR HANGING SYSTEM

231
FILE DRAWERS w/ FULL EXTENSION SLIDES AND FILE FOLLOWER OR HANGING SYSTEM

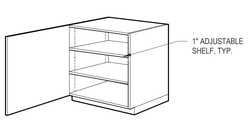
240
BASE CABINET - TOP DRAWER DIVIDED INTO THREE EQUAL, SPACES LEFT TO RIGHT

250
BASE CABINET - TOP DRAWER DIVIDED INTO THREE EQUAL SPACES LEFT TO RIGHT

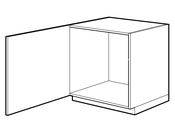
253
FILE DRAWERS w/ FULL EXTENSION SLIDES AND FILE FOLLOWER OR HANGING SYSTEM

254
BASE CABINET - 1 TOP DRAWER, 3 EQUAL DRAWERS

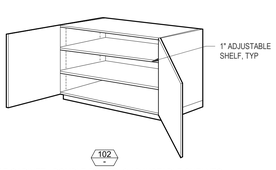
255
BASE CABINET - 3 EQUAL DRAWERS



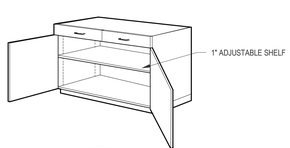
101
BASE CABINET - SINGLE DOOR, 2 ADJUSTABLE SHELVES



101A
BASE CABINET - SINGLE DOOR, NO SHELF



102
BASE CABINET - DOUBLE DOORS, 2 ADJUSTABLE SHELVES



222
BASE CABINET - 2 DOORS, 2 TOP DRAWERS

A1 MILLWORK TYPICAL CABINETS

SCALE: 6" = 1'-0"

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MILLWORK DETAILS

A800

4/8/2025 10:29:00 AM

GENERAL MECHANICAL SYMBOLS

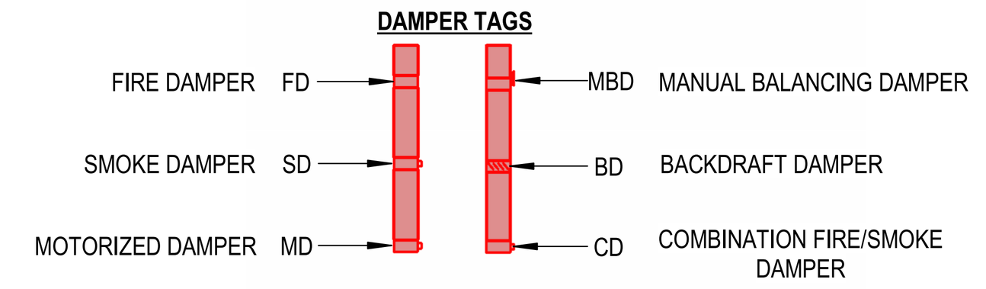
- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- POINT WHERE EXISTING IS TO BE DEMOLISHED
- NUMBER OF DETAIL ON SHEET
- NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- Room 11 — ROOM NAME AND NUMBER
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 1/8" / 12" SLOPE — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	MA	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
D	DEGREE	O	OXYGEN
DB	DRY BULB	OA	OUTSIDE AIR
DCW	DOMESTIC COLD WATER	PD	PRESSURE DROP
DHW	DOMESTIC HOT WATER	PIV	POST INDICATOR VALVE
DIA	DIAMETER	PLBG	PLUMBING
DN	DOWN	PRESS	PRESSURE
DW	DISTILLED WATER	PRV	PRESSURE REDUCING VALVE
EA	EACH	PSI	POUNDS PER SQUARE INCH
EAT	ENTERING AIR TEMPERATURE	PSIG	POUNDS PER SQUARE INCH GAUGE
ELEC	ELECTRICAL	PWR	POWER
EQUIP	EQUIPMENT	R	DUCT RISER
EWC	ELECTRIC WATER COOLER	RA	RETURN AIR
EWT	ENTERING WATER TEMPERATURE	RCP	RADIANT CEILING PANEL
EA	EXHAUST AIR	RD	ROOF DRAIN
EXIST	EXISTING	RDO	ROOF DRAIN OVERFLOW
F	DEGREES FAHRENHEIT	REC	RECESSED
FCO	FLOOR CLEAN OUT	RED	REDUCER
FD	FLOOR DRAIN	RH	RELATIVE HUMIDITY
FD	FIRE DAMPER	RL/A	RELIEF AIR
FDV	FIRE DEPARTMENT VALVE	RM	ROOM
FL	FLOOR	RPM	REVOLUTIONS PER MINUTE
FO	FUEL OIL	RW	RAIN WATER
FOV	FUEL OIL VENT	SF	SQUARE FOOT
FOR	FUEL OIL RETURN	SA	SUPPLY AIR
FOS	FUEL OIL SUPPLY	SAN	SANITARY
FPM	FEET PER MINUTE	SF	SQUARE FOOT
FS	FLOOR SINK	SD	SMOKE DAMPER
FT	FOOT/FEET	SM	SURFACE MOUNT
FTR	FIN TUBE RADIATION	SP	STANDPIPE
GAL	GALLON	SP	STATIC PRESSURE
GC	GENERAL CONTRACTOR	STM	STEAM
GPM	GALLONS PER MINUTE	T	THERMOSTAT
GW	GREASE WASTE	TD	TRENCH DRAIN
HB	HOSE BIB	TDR	TEMPERATURE DROP
HP	HORSE POWER	TEMP	TEMPERATURE
HTG	HEATING	TYP	TYPICAL
HTR	HEATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

HVAC SYMBOLS

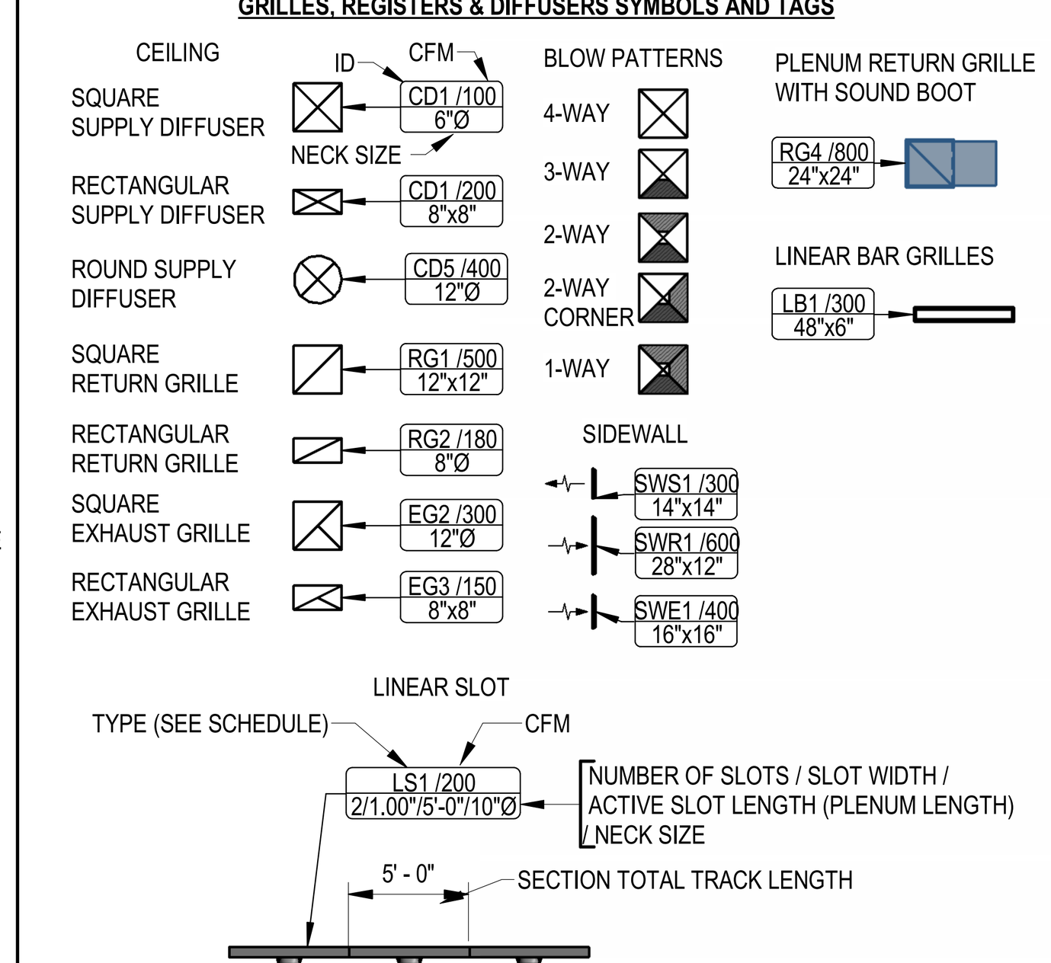
DAMPER TAGS



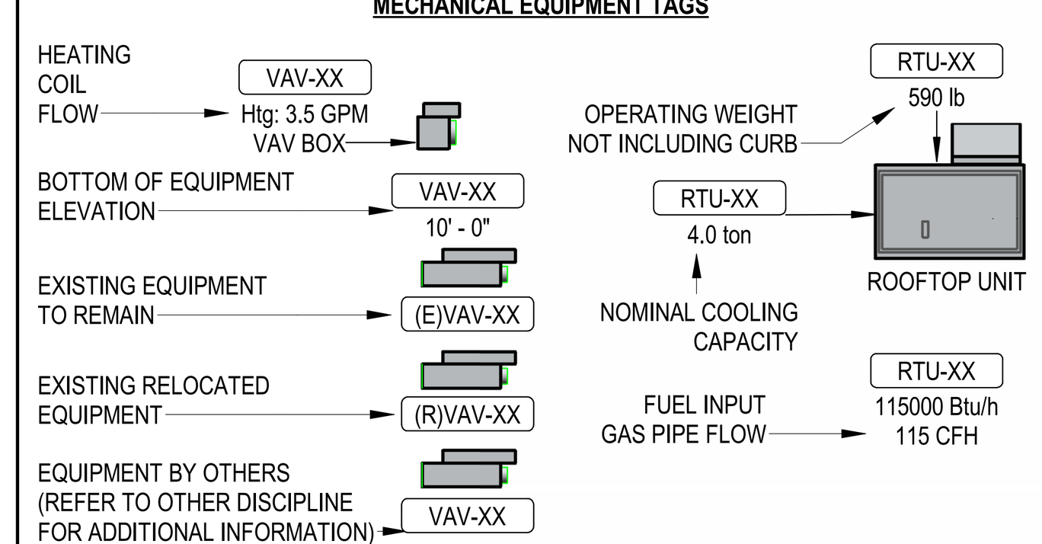
HVAC SYMBOLS

20"x8"	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
20"/8"FO	OVAL DUCT SIZE TAG (WIDTH / HEIGHT)
20"Ø	ROUND DUCT SIZE TAG (DIAMETER)
(E)	EXISTING DUCT TAG
	DUCT BEING DEMOLISHED
SA	SUPPLY AIR - LOW PRESSURE
SA	SUPPLY AIR - MEDIUM PRESSURE
OA	CONDITIONED OUTSIDE AIR
OA	OUTSIDE AIR
RA	RETURN AIR
TA	TRANSFER AIR
EA	EXHAUST AIR
RLA	RELIEF AIR
GEA	GREASE EXHAUST AIR
SEA	SMOKE EXHAUST AIR
FLUE	EXHAUST GAS FLUE
CA	COMBUSTION AIR
DROP	RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
DROP	ROUND SUPPLY/OUTSIDE AIR DUCT RISE
DROP	RECTANGULAR RETURN/TRANSFER AIR DUCT RISE
DROP	ROUND RETURN/TRANSFER AIR DUCT RISE
DROP	RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE
DROP	ROUND EXHAUST/RELIEF AIR DUCT RISE

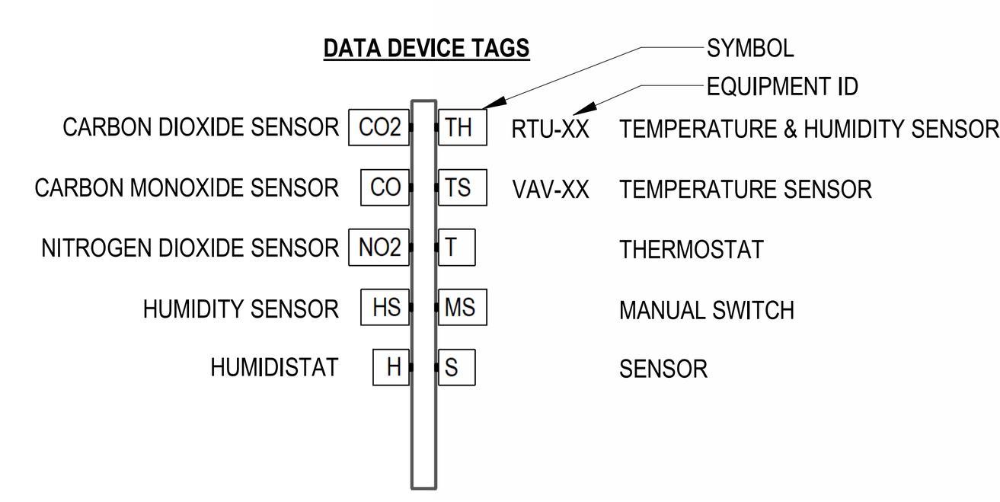
GRILLES, REGISTERS & DIFFUSERS SYMBOLS AND TAGS



MECHANICAL EQUIPMENT TAGS

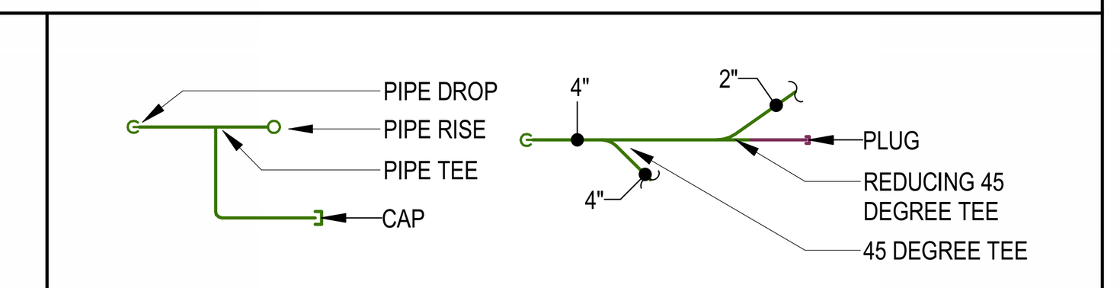


DATA DEVICE TAGS

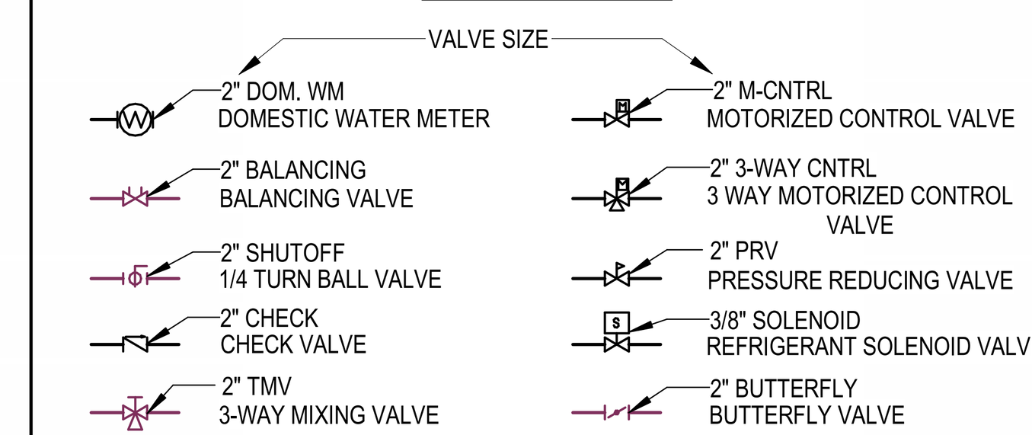


PIPING SYMBOLS

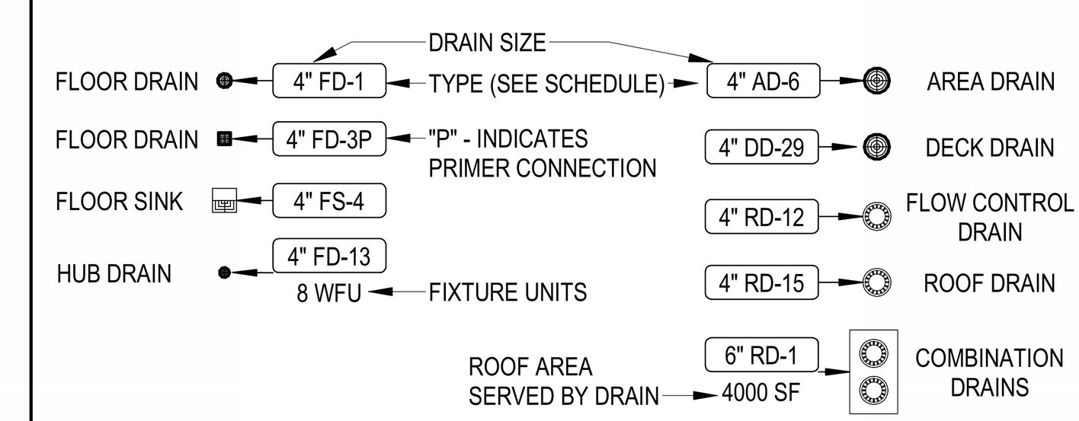
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAINAGE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
GHWR	GLYCOL HEATING WATER RETURN
GHWS	GLYCOL HEATING WATER SUPPLY
GWR	GROUND LOOP WATER RETURN
GWS	GROUND LOOP WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
NER	NET ENERGY LOOP RETURN
NES	NET ENERGY LOOP SUPPLY
NG	NATURAL GAS
PG	PROPANE GAS
REFL	REFRIGERANT-LIQUID
REFS	REFRIGERANT-SUCTION
REFHG	REFRIGERANT-HOT GAS
LPS	LOW PRESSURE STEAM
LPCR	LOW PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HPCR	HIGH PRESSURE CONDENSATE RETURN
CWV	COMBINATION WASTE & VENT
CA	COMPRESSED AIR
DCW	DOMESTIC COLD WATER
SCW	SOFT COLD WATER
FCW	FILTERED COLD WATER
NPCW	NON-POTABLE COLD WATER
RO	REVERSE OSMOSIS WATER
DHW	HOT WATER
DHW140°	HOT WATER 140°
DHWR	HOT WATER RECIRCULATION
DHWR140°	HOT WATER RECIRCULATION 140°
NPHW	NON-POTABLE HOT WATER
GV	GREASE VENT
GW	GREASE WASTE
IW	INDIRECT WASTE
OV	OIL VENT
OW	OIL WASTE
PD	PUMP DISCHARGE
V	SANITARY VENT
W	SANITARY SEWER
SHWR	SOLAR HOT WATER RETURN
SHWS	SOLAR HOT WATER SUPPLY
RD	ROOF DRAIN
RDO	ROOF DRAIN OVERFLOW
CO2	MEDICAL GAS - CARBON DIOXIDE (CO2)
HE	MEDICAL GAS - HELIUM (HE)
IA	MEDICAL GAS - INSTRUMENT AIR
MA	MEDICAL GAS - MEDICAL AIR
MV	MEDICAL GAS – MEDICAL VACUUM
N2	MEDICAL GAS – NITROGEN (N2)
N2O	MEDICAL GAS – NITROUS OXIDE (N2O)
O2	MEDICAL GAS – OXYGEN (O2)
WAGD	WASTE ANESTHESIA GAS DISPOSAL



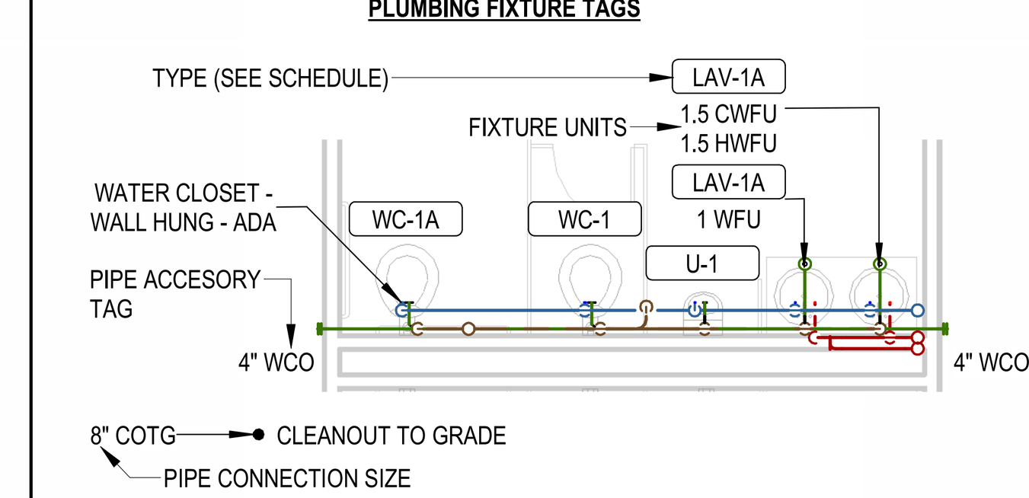
PIPE ACCESSORY TAGS



DRAIN TAGS



PLUMBING FIXTURE TAGS



* NOTE *
THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

MECHANICAL SHEET INDEX

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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

PROFESSIONAL ENGINEER
No. 4775391-2202
SPENCER W. HOWELL
STATE OF UTAH

DATE REVISION

PROJECT NUMBER 24038

MECHANICAL TITLE SHEET

M000

3/21/2025 2:43:39 PM

MECHANICAL GENERAL NOTES

1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
5. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
6. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
7. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
8. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER AND ADJUST SHEET METAL DIMENSION.
9. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING, SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
10. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
11. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
12. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
13. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
14. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
15. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE EQUIPMENT TAG TO MATCH SCHEDULE. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
16. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MINIMUM 24" X 24".
17. FLEX DUCT IS REQUIRED FOR ALL DIFFUSERS AND GRILLES INSTALLED IN LAY-IN CEILINGS. FOR DIFFUSERS AND GRILLES IN HARD LID CEILINGS, THE DUCTWORK SHALL BE EXTENDED ALL THE WAY TO THE DIFFUSER AND SHALL BE CONNECTED WITH A HARD CONNECTION OR A FLEX DUCT CONNECTION WITH A MUD RING AND LAY-IN DIFFUSER AS SHOWN ON PLANS.
18. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
19. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION. WHERE THERE ARE HARD CEILINGS THE CONTRACTOR SHALL PROVIDE 24" X 24" ACCESS DOOR.
20. SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.
21. CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 4'-0" AFF, A MINIMUM OF 8" FROM LIGHT SWITCH, UNLESS OTHERWISE NOTED ON THE ARCHITECT'S ELEVATIONS. COORDINATE EXACT LOCATIONS WITH ARCHITECT.
22. REFER TO MECHANICAL PIPING OR ZONING DRAWINGS FOR THERMOSTAT AND TEMPERATURE SENSOR LOCATIONS.
23. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPINE SHALL BE TYPE "L" COPPER UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS.
24. PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT THAT IS FLOOR MOUNTED. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.
25. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE RATED FOR PRESSURE CLASS OF 2" W.G. UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.
26. THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

MECHANICAL PIPING GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. UNLESS OTHERWISE NOTED: ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
3. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
4. ALL VALVES SHALL BE INSTALLED SO THAT VALVES REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
5. PROVIDE AIR VENT AT HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
6. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION AND TAGGED.
7. PROVIDE ISOLATION VALVES AT EACH EXIST/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
8. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL PLANS OR SPECIFICATIONS.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT , AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
30. CONTRACTOR TO PROVIDE DELEGATED DESIGN OF SEISMIC BRACING AS A DEFERRED SUBMITTAL. SEE SPECIFICATION 23 0548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC.
31. CONTRACTOR TO PROVIDE BIM COORDINATION AND VIRTUAL DESIGN AND CONSTRUCTION SERVICES TO A xxx LEVEL OF DETAIL. SEE SPECIFICATION 23 0099-BIM COORDINATION.
32. MECHANICAL, PLUMBING, AND FIRE PROTECTION CONTRACTOR SHALL REFER TO THE PROJECT STRUCTURAL DRAWINGS AND NOTES TO DETERMINE HANGER PLACEMENT.

" NOTE "

ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.

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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

LICENSED PROFESSIONAL ENGINEER
No. 4775391-2202
SPENCER W. HOWELL
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 24038

MECHANICAL GENERAL NOTES

M001

3/21/2025 2:43:39 PM

KEYNOTES

1 MD100 MAIN LEVEL MECHANICAL DEMO PLAN OVERALL
3/64" = 1'-0"

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OVERALL MAIN LEVEL MECHANICAL DEMO PLAN
MD100

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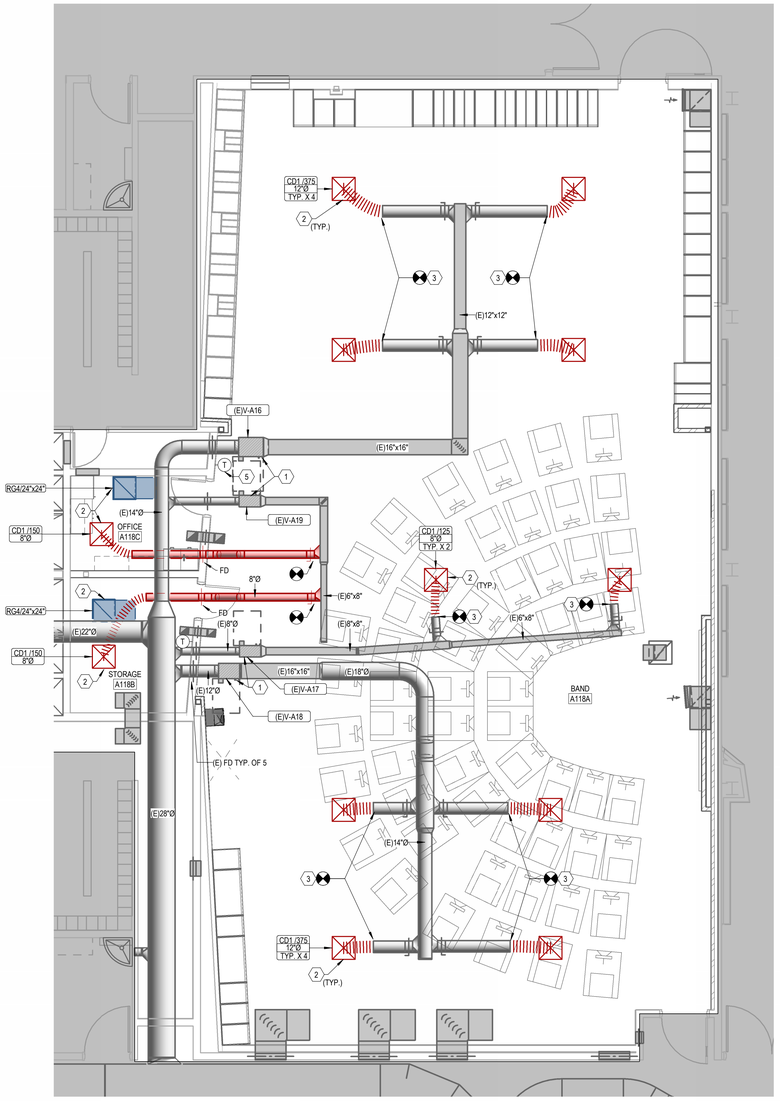
OVERALL MAIN LEVEL MECHANICAL HVAC PLAN
M100

1 MAIN LEVEL MECHANICAL HVAC PLAN OVERALL
M100/ 3/64" = 1'-0"

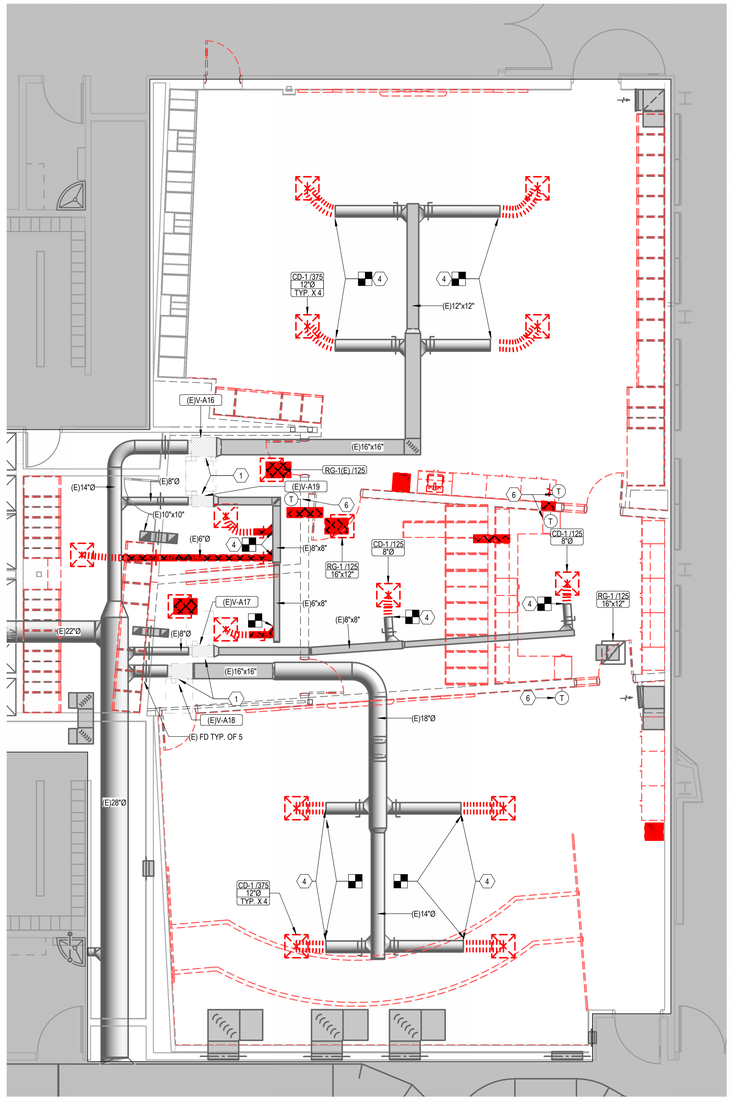
3/21/2025 2:43:49 PM

KEYNOTES

1 EXISTING VAV BOX TO REMAIN.
2 COORDINATE DIFFUSER PLACEMENT WITH NEW CEILING GRID.
3 CONNECT NEW FLEX DUCT TO EXISTING DUCT.
4 DEMO DUCT BACK TO THIS POINT AND CAP.
5 THERMOSTAT TO CONTROL V-A16, V-A17, AND V-A18 TOGETHER.
6 DEMOLISH EXISTING THERMOSTAT.



1 M101 MAIN LEVEL MECHANICAL HVAC PLAN BAND
3/16" = 1'-0"



2 M101 MAIN LEVEL MECHANICAL DEMO PLAN BAND
3/16" = 1'-0"

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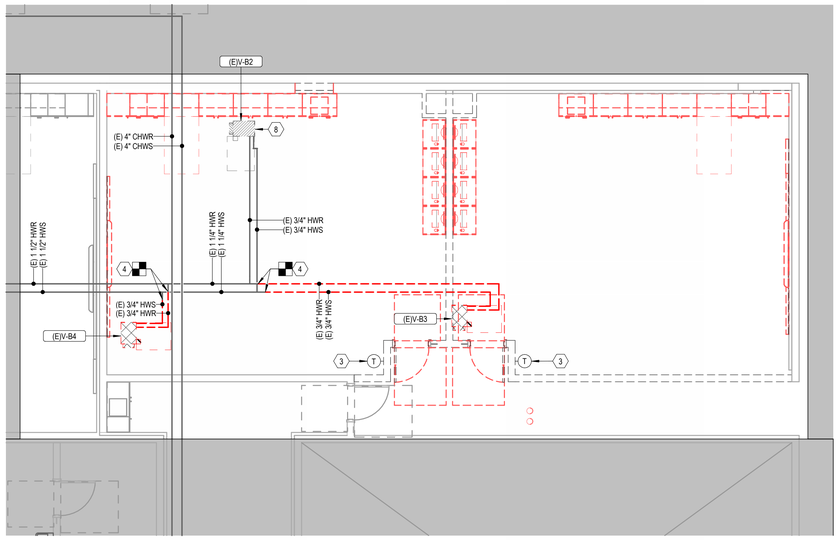
BAND MECHANICAL HVAC PLAN

M101

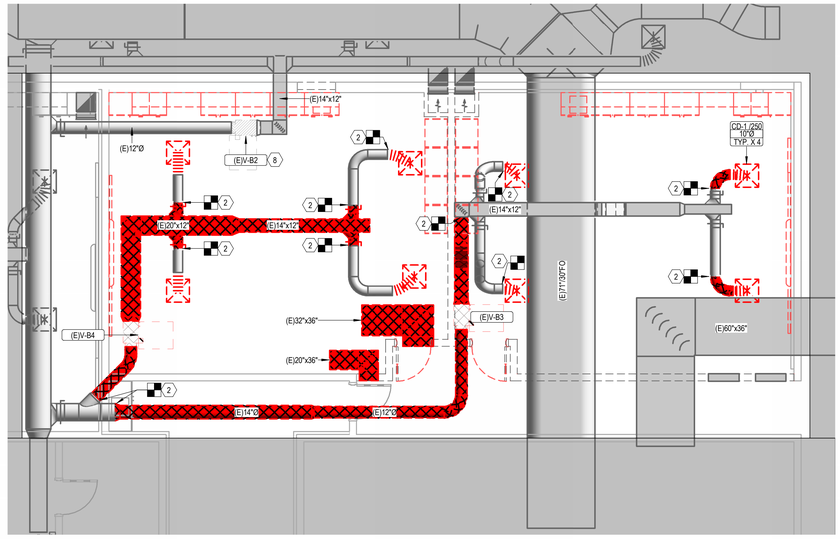
3/21/2025 2:43:51 PM

KEYNOTES

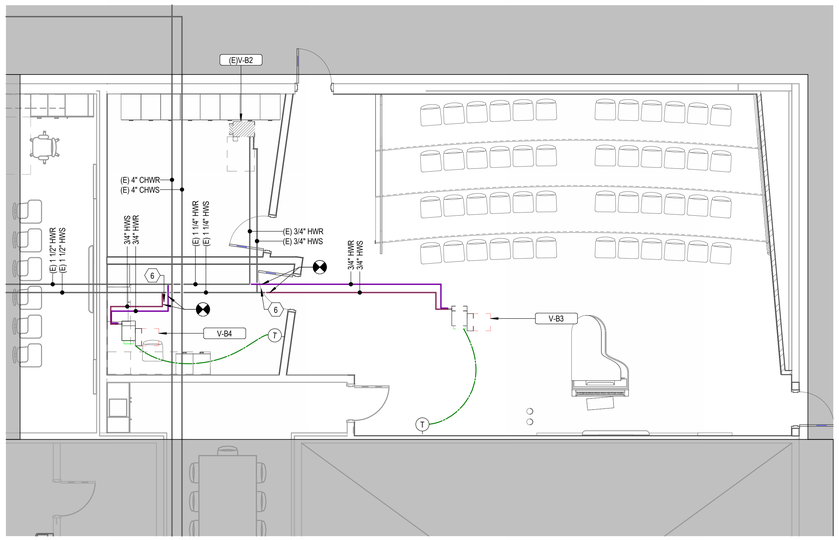
1. MODIFY EXISTING DUCTWORK AS REQUIRED FOR NEW CONNECTIONS TO NEW VAV BOX WITH REHEAT COIL.
2. DEMO DUCTWORK BACK TO THIS POINT.
3. DEMOLISH EXISTING THERMOSTAT.
4. DEMO PIPE BACK TO THIS POINT.
5. COORDINATE DIFFUSER PLACEMENT WITH NEW CEILING GRID.
6. CONNECT NEW HEATING WATER PIPES TO EXISTING HEATING WATER PIPING.
7. CONNECT NEW FLEX DUCT TO EXISTING DUCT.
8. EXISTING VAV BOX TO REMAIN.



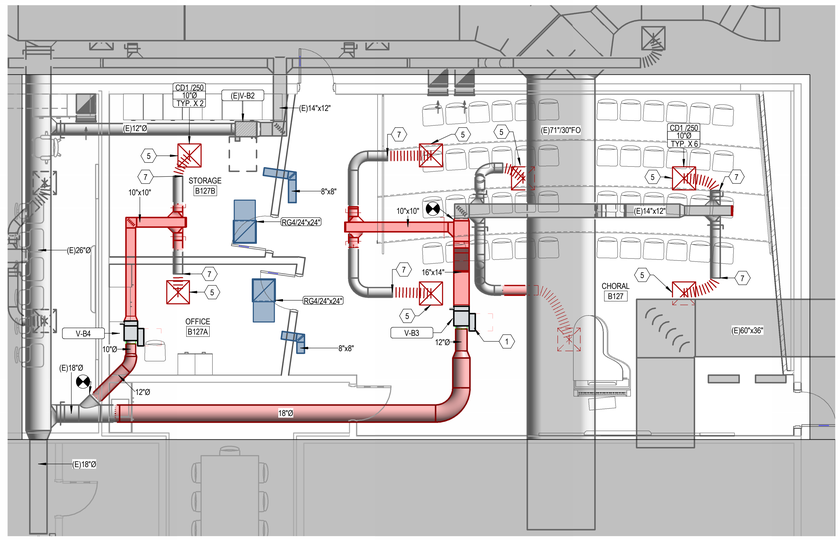
4 M102 MAIN LEVEL MECHANICAL PIPING DEMO PLAN CHORAL
3/16" = 1'-0"



1 M102 MAIN LEVEL MECHANICAL DEMO PLAN CHORAL
3/16" = 1'-0"



3 M102 MAIN LEVEL MECHANICAL PIPING PLAN CHORAL
3/16" = 1'-0"



2 M102 MAIN LEVEL MECHANICAL HVAC PLAN CHORAL
3/16" = 1'-0"

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CHORAL MECHANICAL HVAC PLAN

M102

3/21/2025 2:43:53 PM

VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

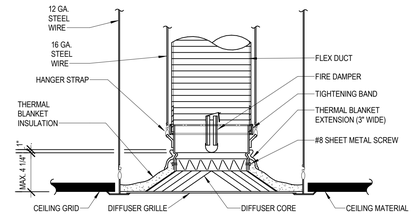
NOTES:

1. MAXIMUM DISCHARGE NC AT BOX DIFFENTIAL PRESSURE BASED ON ARI STANDARD 880-89
2. MAXIMUM STATIC PRESSURE DROP PERMISSIBLE ACROSS BOX AND COIL AT MAXIMUM COOLING CFM.
3. PRESSURE INDEPENDENT TYPE BOX.
4. STATIC PRESSURE NOT TO EXCEED 0.3".

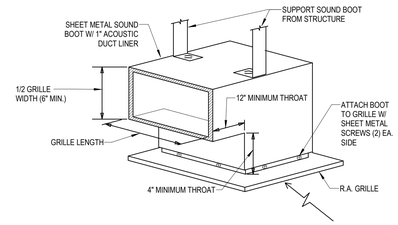
	LOCATION						PRIMARY AIRFLOW		HEATING COIL													HEATING PLANT		
											AIRSIDE						WATERSIDE					GLYCOL		
ID	NAME	NO.	MANUFACTURER	MODEL NO.	NECK SIZE	TYPE	MAX	MIN	DESCRIPTION	CAP	DESIGN FLOW	EAT(db)	LAT(db)	PD	ROWS	FPI	FLOW	EWT	LWT	VOL	PIPE DIA	TYPE	%	UNIT WEIGHT
V-B3	CHORAL	B127	TITUS	DESV	12"	SINGLE DUCT	1500 CFM	450 CFM	Heating Water Coil	43135 Btu/h	1000 CFM	55.0 °F	95.0 °F	0.14 in-wg	2	10	4.4 GPM	180 °F	160 °F	0.4 gal	3/4"	-	0	65 lb
V-B4	OFFICE	B127A	TITUS	DESV	10"	SINGLE DUCT	500 CFM	150 CFM	Heating Water Coil	17254 Btu/h	400 CFM	55.0 °F	95.0 °F	0.05 in-wg	2	10	1.8 GPM	180 °F	160 °F	0.3 gal	3/4"	-	0	55 lb

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

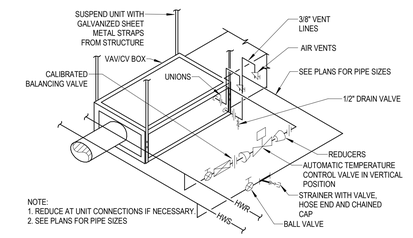
ID	MANUFACTURER AND MODEL	Count	DESCRIPTION	IMAGE
CD1	TITUS OMNI	20	STYLE: SQUARE PLAQUE FACE CEILING DIFFUSER CONSTRUCTION: STEEL FINISH: POWDER COAT WITH COLOR SELECTED BY ARCHITECT MOUNTING: SURFACE OR LAY-IN BASED ON CEILING TYPE. PROVIDE FRAME TYPE 1 FOR SURFACE MOUNT AND FRAME TYPE 3 FOR LAY-IN. FACE SIZE: 24"X24", 20"X20", OR 12"X12". VERIFY FACE SIZE WITH ARCHITECT AND ENGINEER. CORE: REMOVABLE MAX NC: 25 DAMPER: NONE CONNECTION: ROUND OR RECTANGULAR OF SIZE SHOWN ON DRAWINGS. PROVIDE ADAPTER FITTINGS AS REQUIRED. APPLICATION: VARIABLE AIR VOLUME SUPPLY	
RG4	TITUS PAR	4	STYLE: SQUARE PERFORATED FACE CEILING GRILLE WITH ACOUSTICAL SOUND BOOT CONSTRUCTION: STEEL FINISH: SELECTED BY ARCHITECT MOUNTING: SURFACE OR LAY-IN BASED ON CEILING TYPE. PROVIDE FRAME TYPE 1 FOR SURFACE MOUNT AND FRAME TYPE 3 FOR LAY-IN. FACE SIZE: 48"X24", 24"X24", 24"X12", 20"X20", 16"X16", OR 12"X12" AS SHOWN ON PLANS. VERIFY FACE SIZE WITH ARCHITECT AND ENGINEER. MAX NC:25 DAMPER: NONE CONNECTION: RECTANGULAR SOUND BOOT PER DETAIL. SEE DETAIL SHEETS. APPLICATION: RETURN OR TRANSFER MINIMUM FREE AREA: 50%	



1 / M601 FLEX DUCT SUPPLY DETAIL DETAIL
NOT TO SCALE



2 / M601 RA GRILLE WITH SOUND BOOT DETAIL
NOT TO SCALE



3 / M601 VAV/CV TERMINAL UNIT WITH 2-WAY CONTROL VALVE DETAIL
NOT TO SCALE

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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

LICENSED PROFESSIONAL ENGINEER
No. 4775391-2202
SPENCER W. HOWELL
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 24038

MECHANICAL DETAILS & SCHEDULES

M601

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GENERAL MECHANICAL SYMBOLS

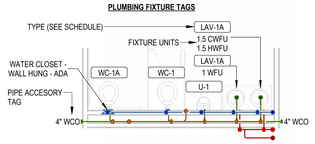
- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- POINT WHERE EXISTING IS TO BE DEMOLISHED
- NUMBER OF DETAIL ON SHEET
- NUMBER OF SHEET WHERE DETAIL APPEARS
- KEYNOTE
- CONTINUATION SYMBOL
- ROOM NAME AND NUMBER (Room 10)
- ITEM TO BE DEMOLISHED
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 1/8" / 12" SLOPE — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	MIA	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FD	FIRE DAMPER	RH	RELATIVE HUMIDITY
FDV	FIRE DEPARTMENT VALVE	RL/A	RELIEF AIR
FL	FLOOR	RM	ROOM
FO	FUEL OIL	RPM	REVOLUTIONS PER MINUTE
FOV	FUEL OIL VENT	RW	RAIN WATER
FOR	FUEL OIL RETURN	SF	SQUARE FOOT
FOS	FUEL OIL SUPPLY	S/A	SUPPLY AIR
FPM	FEET PER MINUTE	SAN	SANITARY
FS	FLOOR SINK	SF	SQUARE FOOT
FT	FOOT/FEET	SD	SMOKE DAMPER
FTR	FIN TUBE RADIATION	SM	SURFACE MOUNT
GAL	GALLON	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

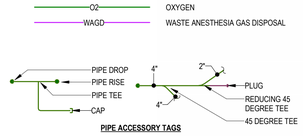
PLUMBING AND PIPING SYMBOLS

PLUMBING FIXTURE TAGS

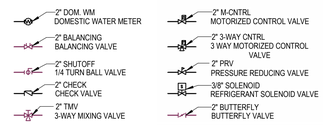


PLUMBING AND PIPING SYMBOLS

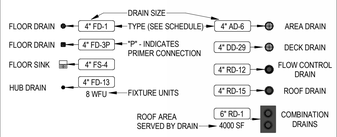
- CHWR — CHILLED WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CD — CONDENSATE DRAINAGE
- CWR — CONDENSER WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- GWR — GEOTHERMAL WATER RETURN
- GWS — GEOTHERMAL WATER SUPPLY
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- NG — NATURAL GAS
- PG — PROPANE GAS
- REFL — REFRIGERANT-LIQUID
- REFS — REFRIGERANT-SUCTION
- REFHG — REFRIGERANT-HOT GAS
- LPS — STEAM
- LPCR — CONDENSATE RETURN
- CWV — COMBINATION WASTE & VENT
- CA — COMPRESSED AIR
- DCW — DOMESTIC COLD WATER
- NPCW — NON-POTABLE COLD WATER
- SCW — SOFT COLD WATER
- FCW — FILTERED COLD WATER
- RO — REVERSE OSMOSIS WATER
- DHW — HOT WATER
- DHW140° — HOT WATER 140°
- DHWR — HOT WATER RECIRCULATION
- DHWR140° — HOT WATER RECIRCULATION 140°
- NPHW — NON-POTABLE HOT WATER
- GV — GREASE VENT
- GW — GREASE WASTE
- IW — INDIRECT WASTE
- OV — OIL VENT
- OW — OIL WASTE
- PD — PUMP DISCHARGE
- V — SANITARY VENT
- W — SANITARY WASTE
- SHWR — SOLAR HOT WATER RETURN
- SHWS — SOLAR HOT WATER SUPPLY
- RD — ROOF DRAINAGE
- RDO — ROOF DRAIN OVERFLOW
- CO2 — CARBON DIOXIDE
- HE — HELIUM
- IA — INSTRUMENT AIR
- MA — MEDICAL AIR
- MV — MEDICAL VACUUM
- N2 — NITROGEN
- N2O — NITROUS OXIDE
- O2 — OXYGEN
- WAGD — WASTE ANESTHESIA GAS DISPOSAL



PIPE ACCESSORY TAGS



DRAIN TAGS



PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT. VERIFY ALL SLOPING WITH LOCAL CODES.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
5. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
6. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS AND OTHER REQUIREMENTS.
7. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
8. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
9. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
10. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
11. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
12. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
13. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24" X 24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING. PROVIDE APPROPRIATELY SIZED ACCESS DOORS TO ANY OF THESE ITEMS INSTALLED IN A WALL. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
14. FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
15. FIELD VERIFY ALL NEW WATER, WASTE AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
16. WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR TO BE 2" MINIMUM.
17. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
    - A. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
    - B. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
    - C. LOCATE AT THE BASE OF EACH VERTICAL STACK.

PROJECT GENERAL NOTES

1. THE PROJECT GENERAL NOTES APPLY TO ALL DISCIPLINES.
2. REMOVE ALL UNUSED PIPING, DUCTWORK, EQUIPMENT, AND ACCESSORIES.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS WITHIN THE TENANT SPACE AND WITHIN CLOSE PROXIMITY TO THE TENANT SPACE. THE CONTRACTOR WILL FIELD VERIFY AS MUCH AS IS REASONABLE BEFORE THE FINAL BID. AFTER THE FINAL BID THE CONTRACTOR WILL NOTIFY THE OWNER, ARCHITECT, AND MECHANICAL DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT MAY AFFECT THE DESIGN.
4. THE MECHANICAL CONTRACTOR SHALL PERFORM SERVICE AND REPAIR ON THE EXISTING EQUIPMENT AND ITS ACCESSORIES AS FOLLOWS: CLEAN ALL COILS, REPLACE THE FILTERS AND BELTS, INSPECT, REPAIR, OR REPLACE THE ECONOMIZERS, DRIVERS AND FAN BEARINGS, MOTORS, CONTROL COMPONENTS, VALVES, AND ANY OTHER ITEM NECESSARY FOR A COMPLETE AND PROPER OPERATING SYSTEM. THIS CONTRACTOR SHALL ALSO VISIT THE SITE, PRIOR TO FINAL BIDDING, AND VERIFY ALL EXISTING SITE CONDITIONS. PROVIDE ALL MATERIAL AND COMPONENTS AS NEEDED TO BRING THE UNITS TO FULL COMPLIANCE OF THE LANDLORD'S CRITERIA AND LOCAL AUTHORITY HAVING JURISDICTION.
5. WHERE FLOOR DRAINS OCCUR WITH THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
6. COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, EQUIPMENT, CEILINGS, ARCHITECTURAL COMPONENTS, AND ANYTHING ELSE PERTAINING TO THE PROJECT TO PREVENT CONFLICTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AND THOSE OF OTHER DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.
8. FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL PLUMBING CODE.
9. LOCATE EQUIPMENT REQUIRING ACCESS 2'-0" MAXIMUM ABOVE CEILING.
10. ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.
11. COORDINATE INSTALLATION OF DUCTWORK, PIPING AND MECHANICAL EQUIPMENT WITH NEC CLEARANCES INCLUDING THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT. NO PIPING OR DUCTWORK TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S AND MCC'S. PROVIDE PANS IF REQUIRED UNDER PIPING.
12. FIRE SEAL AROUND DUCT AND PIPING PENETRATIONS OF FIRE RATED WALLS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. REFER TO SPECIFICATION.
13. PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
14. TRANSITION PIPING AND DUCTWORK SIZES TO MATCH THE SIZE OF EQUIPMENT CONNECTION.
15. REFER TO PLUMBING SERIES DRAWINGS FOR GAS PIPING.
16. ALL PIPE AND DUCT SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
17. FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SEGMENTS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.
18. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.
19. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
20. INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
21. LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT, AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD, INCLUDING, BUT NOT LIMITED TO, OFFSETS AND TRANSITIONS. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS TO AVOID INTERFERENCE IN THE FIELD.
22. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
23. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
24. DETAILS REFERENCE ALL SHEETS.
25. INSTALL ALL PIPING AND DUCTWORK WITHOUT FORCING OR SPRINGING.
26. ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY WASTE, ROOF DRAIN, CAMPUS CHILLED OR HOT WATER, AND ANY OTHER UTILITY SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.
27. LOCATE VALVING, ACCESSORIES, AND EQUIPMENT IN ACCESSIBLE LOCATIONS. WHERE LOCATED ABOVE HARD CEILING PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24" X 24". COORDINATE EXACT LOCATION AND STYLE WITH ARCHITECT. EQUIPMENT SHALL BE LOCATED IN THE CEILING CAVITY SO IT CAN BE SAFELY SERVICED FROM SOMEONE STAND ON A LADDER PLACED BELOW THE CEILING ACCESS.
28. WHERE VALVING, ACCESSORIES, OR EQUIPMENT IS LOCATED IN A WALL, PROVIDE AN APPROPRIATELY SIZED ACCESS DOOR. COORDINATE ACCESS DOOR SIZE, LOCATION, AND STYLE WITH ARCHITECT.
29. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
30. CONTRACTOR TO PROVIDE DELEGATED DESIGN OF SEISMIC BRACING AS A DEFERRED SUBMITTAL. SEE SPECIFICATION 23 0548 - VIBRATION AND SEISMIC CONTROLS FOR HVAC.
31. CONTRACTOR TO PROVIDE BIM COORDINATION AND VIRTUAL DESIGN AND CONSTRUCTION SERVICES TO A xxx LEVEL OF DETAIL. SEE SPECIFICATION 23 0099-BIM COORDINATION.
32. MECHANICAL, PLUMBING, AND FIRE PROTECTION CONTRACTOR SHALL REFER TO THE PROJECT STRUCTURAL DRAWINGS AND NOTES TO DETERMINE HANGER PLACEMENT.

" NOTE "
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

PLUMBING SHEET INDEX

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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

LICENSED PROFESSIONAL ENGINEER
No. 4775391-2202
SPENCER W. HOWELL
STATE OF UTAH

△	DATE	REVISION

PROJECT NUMBER 24038

PLUMBING TITLE SHEET

P000

3/21/2025 2:43:56 PM

1 / P100 MAIN LEVEL PLUMBING PLAN OVERALL
3/64" = 1'-0"

KEYNOTES

OVERALL MAIN LEVEL PLUMBING PLAN

P100

PROJECT NUMBER 24038

△ DATE REVISION

LICENSED PROFESSIONAL ENGINEER
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SPENCER W. HOWELL
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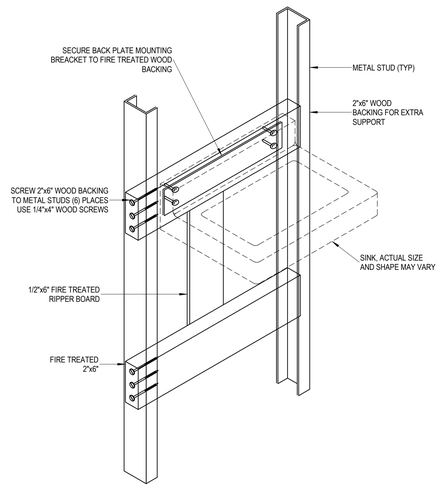
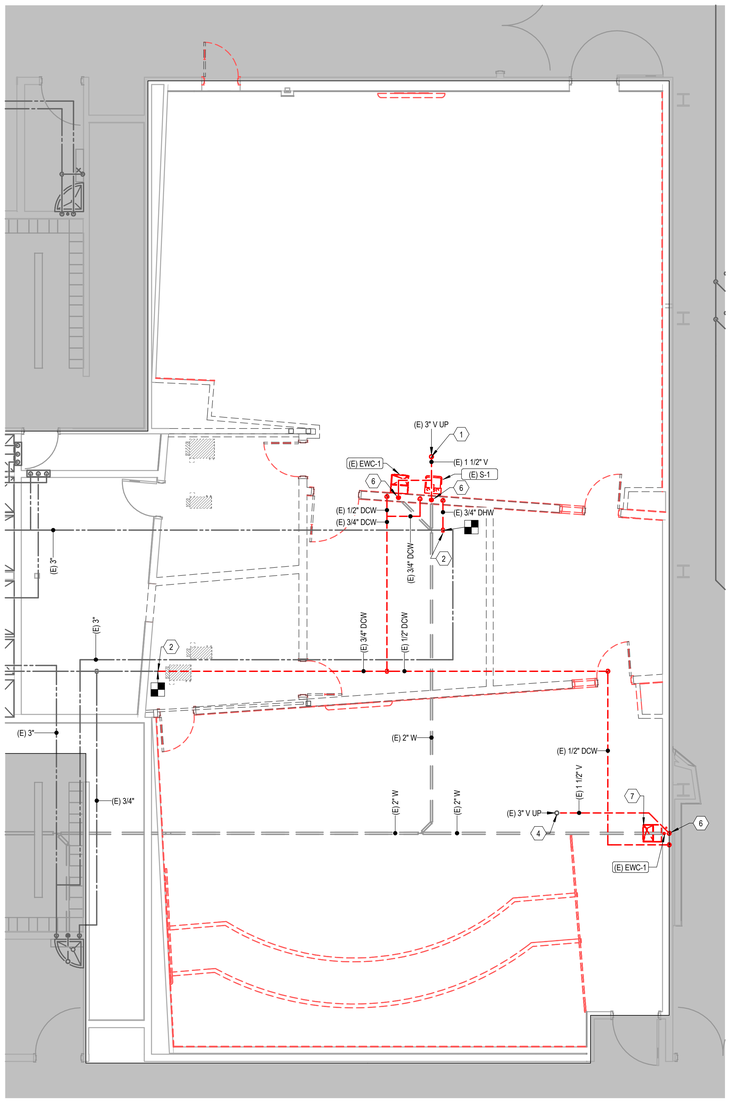
KEYNOTES

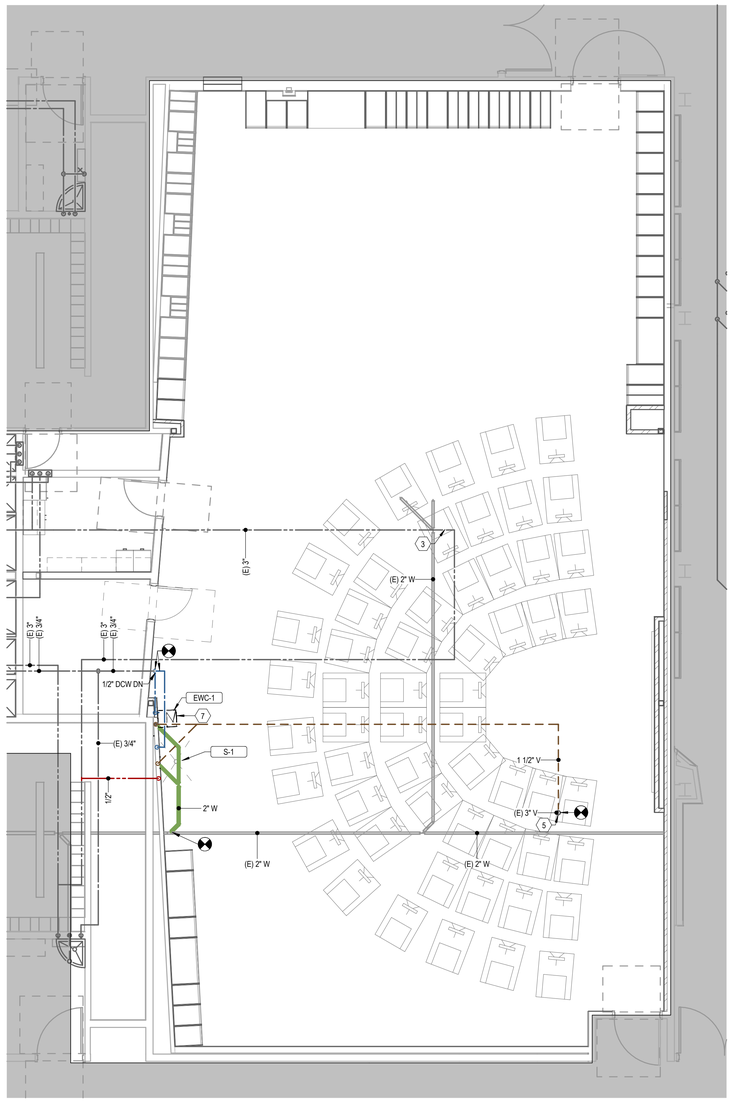
1. DEMO VENT TO ROOF AND PATCH.
2. DEMO PIPE BACK TO THIS POINT.
3. CAP OPEN END OF PIPE.
4. DEMO VENT PIPE TO THIS POINT, LEAVING THE RISE THROUGH THE ROOF.
5. CONNECT NEW VENT TO EXISTING RISE TO ROOF.
6. DEMO WASTE PIPE TO FLOOR LEVEL AND CAP.
7. REUSE EXISTING ELECTRIC DRINKING FOUNTAIN.



3 / P101 SINK SUPPORT DETAIL
NOT TO SCALE



2 / P101 MAIN LEVEL PLUMBING DEMO PLAN BAND
3/16" = 1'-0"



1 / P101 MAIN LEVEL PLUMBING PLAN BAND
3/16" = 1'-0"

PLUMBING FIXTURE SCHEDULE

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	NOTES	SPECIFICATION
S-1	SINK	1/2	1/2	3 1/2	1 1/2	STANDING BOWL, SINGLE COMPARTMENT	JUMBO (1) COMPARTMENT UTILITY SINK: GRIFFIN MEDINA JS-483; BOWL DIMENSIONS OF 48"/30"/30" (L/W/D), OVERALL DIMENSIONS OF 51"/33.5"/48" (L/W/H); ROLLED RIM, 12" TALL BACKSPLASH, AND STAINLESS STEEL LEGS WITH ADJUSTABLE FEET; (2) FAUCET HOLES ON 8" CENTERS; MATERIAL: 14 GA. STAINLESS STEEL. PROVIDE MATCHED FAUCET, BASKET DRAIN. INSTALL KIT, LOOSE KEY ANGLE STOPS, CHROME PLATED COPPER SUPPLIES AND 17 GA. CAST BRASS, CHROME PLATED "P" TRAP.
EWC-1	ELECTRIC WATER COOLER	1/2		1 1/2	1 1/2	REUSE EXISTING EWC-1	

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

FFKR ARCHITECTS
730 Pacific Avenue · Salt Lake City, Utah 84104
O 801.521.6186 · FFKR.COM

181 East 6600 South
Murray, Utah 84107
O: (801)530-3148
www.VBFA.com
VBFA Project #: 250180
VBFA

INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - MARCH 21, 2025

LICENSED PROFESSIONAL ENGINEER
No. 4775391-2202
SPENCER W. HOWELL
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 24038

BAND
MAIN
LEVEL
PLUMBING
PLAN

P101

3/21/2025 2:44:08 PM

EXISTING SYSTEMS INFORMATION AND VENDOR CONTRACTS (INCLUDE WITHIN BID)

BIDDING DIVISION 26 CONTRACTOR RESPONSIBLE FOR EXPANDING EXISTING SYSTEMS FOR THIS REMODEL PROJECT. PROVIDE A TURN-KEY SOLUTION AND BUILD-OUT FOR ALL IMPACTED SYSTEMS I.E. INTERCOM, FIRE ALARM, ACCESS CONTROL, AND INTRUSION.

INTERCOM SYSTEM - AUDIO ENHANCEMENT SYSTEM

COMPANY	AUDIO ENHANCEMENT
CONTACT	Devon Means
CELL PHONE NO.	AUDIO ENHANCEMENT
OFFICE PHONE NO.	AUDIO ENHANCEMENT
EMAIL	AUDIO ENHANCEMENT

EXTEND AND REWORK SPEAKERS AND CIRCUITS AS NEEDED. PROVIDE NEW CEILING SPEAKERS, CALL SWITCHES, SWITCHBANK, EQUIPMENT, ETC. AND CIRCUITS TO EXISTING RACK AS REQUIRED. MATCH SYSTEM WIRING. UPDATE PROGRAMMING.

FIRE ALARM SYSTEM - EXISTING GAMEWELL FCI E3 SYSTEM

COMPANY	NELSON FIRE
CONTACT	Ashley Nelson & Toby Timothy
CELL PHONE NO.	801-652-7991
OFFICE PHONE NO.	801-468-8300
EMAIL	ashley@nelsonfire.com toby@nelsonfire.com

EXTEND AND REWORK SPEAKERS AND CIRCUITS AS NEEDED. PROVIDE NEW CEILING SPEAKERS, CALL SWITCHES, SWITCHBANK, EQUIPMENT, ETC. AND CIRCUITS TO EXISTING RACK AS REQUIRED. MATCH SYSTEM WIRING. UPDATE PROGRAMMING.

GENERAL NOTE - CLASSROOM LIGHTING CONTROLS

THE EXISTING CLASSROOM LIGHTING CONTROL SYSTEM IS AN ACUITY NLIGHT® SYSTEM. DIVISION 26 SHALL REMOVE, RELOCATE, AND REINSTALL EXISTING NLIGHT CONTROL DEVICES AS INDICATED ON THE DRAWINGS. PROVIDE NEW DEVICES, RELAYS, SENSORS, AND RELATED COMPONENTS AS REQUIRED TO DELIVER A FULLY FUNCTIONAL AND CODE-COMPLIANT LIGHTING CONTROL SYSTEM. THE SYSTEM SHALL BE REPROGRAMMED TO REFLECT THE NEW CLASSROOM LAYOUT AND ZONING REQUIREMENTS. DIVISION 26 SHALL COORDINATE WITH JRC TO DEVELOP AND IMPLEMENT THE UPDATED NLIGHT CONTROL SOLUTION, ENSURING FULL INTEGRATION WITH EXISTING INFRASTRUCTURE. FOR LIGHTING CONTROL SYSTEM SUPPORT AND PROGRAMMING COORDINATION, CONTACT:

MARK BROWN
CONTROLS SPECIALIST - JRC
MARK.BROWN@JRCLIGHT.COM
(801) 972-3970 X3389

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MCM	1000 CIRCULAR MILLS
AC	ALTERNATING CURRENT	MH	MANHOLE
A.F.F.	ABOVE FINISH FLOOR	MIC	MICROPHONE
AIC	AMPS INTERRUPTING CAPACITY	MIN	MINIMUM
AM	AMPS METER	MTG	MOUNTING
AMP	AMPERE	MTR	MOTOR
ANN	ANNUNCIATOR	N/A	NOT APPLICABLE
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED
AUX	AUXILIARY	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECT. MANUFAC. ASSOC.
BC	BARE COPPER	NFPA	NATIONAL FIRE PROTECTION ASSOC.
BFG	BELOW FINISH GRADE	N.I.C.	NOT IN CONTRACT
C	CONDUIT	NO	NORMALLY OPENED
CAB	CABINET	NTS	NOT TO SCALE
CATB	COMMUNITY ANTENNA TELEVISION	OS & Y	OUTSIDE SCREW & YOKE
CATV	CABLE TELEVISION	PB	PUSHBUTTON
CKT	CIRCUIT	PF	POWER FACTOR
CLG	CEILING	PFR	PHASE FAILURE RELAY
CNTR	CONTRACTOR	PNL	PANEL
C.O.	CONDUIT ONLY	PT	POTENTIAL TRANSFORMER
CRT	COMPUTER TERMINAL	PVC	POLYVINYL CHLORIDE CONDUIT
CT	CURRENT TRANSFORMER	(R)	RELOCATE
CU	COPPER	RECEP	RECEPTACLE
C/W	COMPLETE WITH	REQ	REQUIREMENT
DB	DECIBEL	RLA	RATED LOAD AMPS
DC	DIRECT CURRENT	RMP	ROCKY MOUNTAIN POWER
DWG	DRAWING	RMS	ROOT MEAN SQUARE
[E]	EXISTING TO REMAIN, REMOVED AND/OR REINSTALLED, UNLESS OTHERWISE NOTED	SE	SERVICE ENTRANCE
		SPEC	SPECIFICATIONS
EC	EMPTY CONDUIT	SPKR	SPEAKER
EG	EMERGENCY GENERATOR	SS	SELECTOR SWITCH
EMT	ELECTRICAL METALLIC TUBING	SW	SWITCH
EX	EXPLOSION PROOF	SWBD	SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	SWGR	SWITCHGEAR
FC	FOOT CANDLE	TTB	TELEPHONE TERMINAL BOARD
FT	FOOT	TTC	TELEPHONE TERMINAL CABINET
GFI	GROUND FAULT INTERRUPTER	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
GRC	GALVANIZED RIGID CONDUIT	UG	UNDERGROUND
HP	HORSE POWER	UPS	UNINTERRUPTED POWER SUPPLY
HZ	HERTZ	V	VOLT (KV-KILOVOLT)
IFC	INTERNATIONAL FIRE CODE	VA/R	VOLT-AMPS/REACTIVE
IG	ISOLATED GROUND	VM	VOLT METER
IMC	INTERMEDIATE METALLIC CONDUIT	W	WATTS
IN	INCH	W/	WITH
J-BOX	JUNCTION BOX	WH	WATTHOUR METER
KV	KILOVOLT	W/O	WITHOUT
KVA	KILOVOLT AMPERES	WP	WEATHERPROOF
KVAR	KILOVARS	XFMR	TRANSFORMER
KW	KILOWATT	XFMR SW	TRANSFER SWITCH
LRA	LOCKED ROTOR AMPS	XP	EXPLOSION PROOF
LTG	LIGHTING	1P	SINGLE-PHASE
MNF	MANUFACTURER	2P	TWO-POLE
MAX	MAXIMUM	3P	THREE-POLE
MB	MAIN BUS	4P	FOUR-POLE
MCC	MOTOR CONTROL CENTER	Ø	PHASE

GENERAL NOTES

1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC) OF ALL EQUIPMENT FURNISHED UNDER ALL DIVISIONS, INCLUDING ALL EXISTING EQUIPMENT TO BE RE-USED. REVIEW ALL SHOP DRAWINGS AND EXISTING EQUIPMENT BEFORE BEGINNING ROUGH-IN.
4. SEE SECTION 265100 (16510) OF THE SPECIFICATION FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
6. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
7. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
8. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
9. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
10. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
11. CONTRACTOR SHALL VERIFY FURNITURE LAYOUT PRIOR TO ANY FLOORBOX OR POKE-THRU INSTALLATION. COORDINATE EXACT LOCATION OF FLOOR BOX OR POKE-THRU WITH OWNER AND FURNITURE PROVIDER PRIOR TO ROUGH-IN.
12. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 115' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH CONDUCTORS PER TABLE BELOW.

20 AMP MINIMUM BRANCH CIRCUIT CONDUCTOR SIZING		
MAXIMUM LENGTH	BRANCH CIRCUIT VOLTAGE	
CONDUCTOR LENGTH (FT)	120 VOLT	277 VOLT
<70	MIN. #12 AWG	MIN. #12 AWG
70 - 115	MIN. #10 AWG	MIN. #12 AWG
115 - 170	MIN. #8 AWG	MIN. #10 AWG
170 - 270	MIN. #6 AWG	MIN. #8 AWG
271 - 380	NOTE B	MIN. #8 AWG
>380	NOTE B	NOTE B

A. THESE ARE BASED ON MAXIMUM LENGTH OF CIRCUIT.

B. PERFORM VOLTAGE DROP CALCULATIONS AND PROVIDE CONDUCTOR SIZE TO KEEP BRANCH CIRCUIT VOLTAGE DROP LESS THAN 3% WITH A 15 AMP LOAD.

C. CONTRACTOR SHALL ENSURE THAT THE INSTALLATION OF EACH BRANCH CIRCUIT STAYS WITHIN 3% VOLTAGE DROP FOR A 15 AMP LOAD. IF NECESSARY,CONTRACTOR SHALL INCREASE WIRE AND CONDUIT SIZE TO MEET THE STANDARD AT NO ADDITIONAL COST TO OWNER.

DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAY BE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.

LIGHT FIXTURE SCHEDULE

LIGHT FIXTURE ABBREVIATION SCHEDULE — PROJECT MANAGER: DRAYTON BAILEY

A.F.F.	ABOVE FINISH FLOOR	SCBA	STANDARD PAINTED COLOR AS SELECTED BY THE ARCHITECT
WALL@CLG	WALL MOUNT AT CORNER OF WALL AND CEILING	CFBA	CUSTOM FINISH AS SELECTED BY THE ARCHITECT
CCBA	CUSTOM PAINTED COLOR AS SELECTED BY THE ARCHITECT	SFBA	STANDARD FINISH AS SELECTED BY THE ARCHITECT

LIGHT FIXTURE GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES AND, CONFIRM CEILING TYPES WITH LIGHT FIXTURE TRIMS. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO BIDDING.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS AND LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPENCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
3. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT FIXTURE, FUSING, LED DRIVERS, AND LAMP REQUIREMENTS AND ACCEPTABLE MANUFACTURERS.
4. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE.
5. REFER TO LIGHTING PLANS FOR ALL LINEAR FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF LINEAR FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH.
6. REFER TO LIGHTING PLANS FOR ALL UNDERCABINET FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF THE UNDERCABINET FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH OR TO FIT WITHIN THE MILLWORK. COORDINATE FIXTURE LAYOUT WITH MILLWORK SHOP DRAWINGS PRIOR TO LIGHTING SUBMITTALS.
7. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, NOTIFY THE ELECTRICAL ENGINEER AND/OR LIGHTING DESIGNER.
8. PRIOR APPROVALS ARE REQUIRED BEFORE BIDDING THE PROJECT AND SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) EIGHT WORKING DAYS BEFORE THE BID. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE REJECTED.
9. REFER TO SPECIFICATIONS 20 0500, 26 5100 & 26 5600 (16001, 16510 & 16551).
10. VALUE ENGINEERING CONDUCTED WITHOUT THE DESIGN TEAM IE; ARCHITECT, ENGINEER & LIGHTING CONSULTANT/DESIGNER WILL NOT BE ALLOWED, REVIEWED OR APPROVED.

TYPE	DESCRIPTION	MFR.	CATALOG #	VOLTS	TOTAL WATTS	LAMP TYPE	DIMMING TYPE	DELIVERED LUMENS	COLOR TEMP	CRI	ALTERNATE MFR
A3E	EXISTING 2X4 LED FIXTURE; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, BOX, AND RETURN TO OWNER			277 V	45 VA	LED		5,500	4000 K		
A4E	EXISTING 2X4 LED FIXTURE; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, BOX, AND RETURN TO OWNER			277 V	45 VA	LED		5,500	4000 K		
A4H	2'X4' LED FLAT PANEL LUMINAIRE; HIGH TRANSMISSION EXTRUDED LOW GLARE PMMA FROSTED ACRYLIC LENS, ULTRA-THIN <2" H; SCRATCH AND IMPACT RESISTANT; RECESSED INTO ACCESSIBLE ARCHITECTURAL CEILING; EASY TO CLEAN; 100,000 HOUR [L70]; DLC LISTED; 5 YR. WARRANTY; 0-10 DIMMING; FIELD-SELECTABLE LUMEN OUTPUT [HIGH, 4000K]	ILP	VPAN24-33L/44L/55L-U-CCTS	277 V	49 VA	LED		6,466	4000 K	80+	METALUX, LITHONIA, DAY-BRITE, LSI
A5E	EXISTING 2X4 LED FIXTURE [HIGHEST LUMEN OUTPUT FIXTURE]; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, AND REINSTALL IN NEW CEILING AS INDICATED PLANS			277 V	45 VA	LED		5,500	4000 K		
B2E	EXISTING 2X4 LED FIXTURE; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, BOX, AND RETURN TO OWNER			277 V	45 VA	LED		4,000	4000 K		
B3E	EXISTING 2X4 LED FIXTURE; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, BOX, AND RETURN TO OWNER			277 V	45 VA	LED		4,000	4000 K		
B4E	EXISTING 2X4 LED FIXTURE; REMOVE LUMINAIRES FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, BOX, AND RETURN TO OWNER			277 V	45 VA	LED		4,000	4000 K		
X1E	EXISTING EXIT SIGN; REMOVE EXIT SIGN FOR DEMOLITION OF EXISTING CEILING, CLEAN, REWORK, AND REINSTALL IN NEW CEILING AS INDICATED PLANS			277 V	2 VA	LED					

SHEET INDEX

SYMBOL LEGEND

NOTES:

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISHED FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT INDICATES FIXTURES TO BE CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
6. HEIGHT MEASURED TO TOP OF THE BOX FROM FINISHED FLOOR.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
9. DEVICES NOTED WITH AN 'A' INDICATE TO COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT INDICATES NEMA CONFIGURATION.
11. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
12. COORDINATE WITH DOOR HARDWARE SUPPLIER.
13. FOR WATER COOLER LOCATION, SEE DIAGRAM R002. FOR ALL OTHER LOCATIONS, MOUNT AT +16" TO BOTTOM OF BOX FROM FINISHED FLOOR, OR AS NOTED.
14. ARROWS SHOWN ON DEVICE INDICATE AIMING DIRECTION.
15. CAMERA NUMBERS ARE SHOWN INSIDE THE CAMERA SYMBOL. CAMERA TYPES ARE INDICATED IN TAG.
16. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF DOOR, UNLESS OVERHEAD DOOR IS A ROLL UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTRUCTIONS.
17. INSTALL DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
18. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.
19. SPEAKER TO BE MOUNTED IN HORIZONTAL POSITION.
20. MOUNTING HEIGHT IS TO BOTTOM OF DISPLAY.

*TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED ON THIS SET OF DRAWINGS.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES	SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
GENERAL							
	ONE CIRCUIT, HOME RUN TO PANEL				EQUIPMENT PANEL, SEE DRAWINGS	+72"	6.
	2 CIRCUIT, HOME RUN TO PANEL				CABLE TRAY	AS NOTED	
	3 CIRCUIT, HOME RUN TO PANEL				GROUND BUS BAR	+18"	6.
	CONDUIT RUN CONCEALED IN WALL OR CEILING			X	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND			X X	EQUIPMENT NUMBER		
	CONDUIT UP			X	ARCHITECTURAL ROOM NUMBER		
	CONDUIT DOWN			X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE		
	CONDUIT STUB LOCATION	CAP CONDUIT		X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE / LEGEND		
	CONDUIT / CIRCUIT CONTINUATION						
MULTIPLE SYSTEM SYMBOLS							
R	RECEPTACLE SWITCH PACK	ABOVE CEILING		J F	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	
	DUPLEX RECEPTACLE UPPER OUTLET SWITCH CONTROLLED	+18" OR AS NOTED	2. 9.		MOTOR OUTLET	TO SUIT EQUIP.	2.
	SIMPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.		PUSHBUTTON	+46"	2.
	DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.		NON-FUSED DISCONNECT SWITCH	+60"	5. 6.
A	DUPLEX RECEPTACLE		9.	F	FUSED DISCONNECT SWITCH	+60"	5. 6.
G	5mA GFCI CIRCUIT BREAKER PROTECTED RECEPTACLE		13.	B	BREAKER DISCONNECT SWITCH	+60"	5. 6.
WP	WEATHERPROOF RECEPTACLE	+24" OR AS NOTED	2. 9.	$	SINGLE POLE SWITCH	+46"	2. 4.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.	$T	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+46"	2.
	DUPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.		MAGNETIC STARTER	+60"	6. 7.
	FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.		MAGNETIC STARTER / DISCONNECT COMBINATION	+60"	6. 7.
	GROUND FAULT INTERRUPTER FOURPLEX RECEPT	+18" OR AS NOTED	2. 9.	VFD	VARIABLE FREQUENCY DRIVE	+66"	6.
LIGHTING							
	CEILING LIGHT FIXTURE	CEILING	1.	PP	POWER PACK	ABOVE CEILING	SEE DIAGRAM, SPEC.
	WALL LIGHT FIXTURE	AS NOTED	1.	RC X	DIGITAL ROOM CONTROLLER (SUBSCRIPT INDICATES NUMBER OF RELAYS)	ABOVE CEILING	SEE DIAGRAM, SPEC.
	RECESSED DOWNLIGHT FIXTURE	CEILING	1.	EP	EMERGENCY LIGHTING CONTROL UNIT	ABOVE CEILING	SEE DIAGRAM, SPEC.
	RECESSED WALL-WASH DOWNLIGHT FIXTURE	CEILING	1.	$3	THREE-WAY SWITCH	+46"	2. 4.
	LIGHT FIXTURE	AS NOTED	1.	$4	FOUR-WAY SWITCH	+46"	2. 4.
	EGRESS LIGHT FIXTURE	AS NOTED	1.	$K	KEY OPERATED SWITCH	+46"	2. 4.
	AREA LIGHT POLE AND FIXTURE POST TOP LIGHT POLE AND FIXTURE	CONCRETE BASE	1. 14. SEE DIAGRAM	$P	SWITCH WITH PILOT LIGHT	+46"	2. 4.
	BOLLARD	CONCRETE BASE	1. 14. SEE DIAGRAM	$D	VARIABLE INTENSITY SWITCH	+46"	2. 4.
	STEP LIGHT FIXTURE	AS NOTED	1.	$TM	TIMER SWITCH	+46"	2. 4.
	IN-GRADE LIGHT FIXTURE	CONCRETE BASE	1.		MOMENTARY CONTACT SWITCH	+46"	2. 4.
	FLOOD OR TRACK FIXTURE	AS NOTED	1.	X	LOW VOLTAGE WALLSTATION (SUBSCRIPT INDICATES CONFIGURATION & CONTROL SEQUENCE)	+46"	2. SEE DIAGRAM, SPEC.
	CEILING / WALL MOUNTED EXIT LIGHT	CEILING/ AS NOTED	1. 3. 8.		DUAL TECH. CEILING MOUNTED OCCUPANCY SENSOR (PROVIDE WITH ALL PP AND ROOM CONTROLLERS)	CEILING	SEE DIAGRAM, SPEC.
	EMERGENCY LIGHT FIXTURE	AS NOTED	1.		DUAL TECH. WALL MOUNTED OCCUPANCY SENSOR (SUBSCIPT D = DIMMING AND DAYLIGHT CONTROL)	+46"	2. 4. SEE DIAGRAM, SPEC.
	COMBO EXIT / EMERGENCY LIGHT FIXTURE	AS NOTED	1.	P	PHOTO-ELECTRIC CONTROL (LOCATE ON ROOF, FACE NORTH)	AS NOTED	MOUNT AS PER MFR.
TC	TIME CLOCK	+60"	2.		DIGITAL DAYLIGHT SENSOR	CEILING	SEE DIAGRAM, SPEC.
POWER	[ALL 120V RECEPTACLES SHALL BE CONSIDERED TAMPER-PROOF]						
IG	ISOLATED GROUND RECEPTACLE	+18" OR AS NOTED	2. 9.	J	PLUGMOLD	+46" OR AS NOTED	2. SEE SPEC.
	TAMPER-PROOF RECEPTACLE	+18" OR AS NOTED	2. 9.	DP	FLAT PANEL DISPLAY WALL BOX TVSS RECEPT., DATA AND OTHER DEVICES, REFER TO DIAGRAMS	AS NOTED	SEE DIAGRAM, SPEC. 26 2726
U	DUPLEX RECEPTACLE WITH USB OUTLET	+18" OR AS NOTED	2. 9.	CP	CEILING PROJECTION SYSTEM CEILING BOX	ABOVE CEILING	SEE DIAGRAM, SPEC.
	CONTROLLED DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.		DOORBELL CHIME	+90"	2.
	FOURPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.	FB	FLOOR BOX - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
	CONTROLLED FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.	PT	POKE THRU - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
	TVSS PROTECTED RECEPTACLE	+18" OR AS NOTED	2. 9.		PANELBOARD		
	SPECIAL PURPOSE OUTLET	+18" OR AS NOTED	2. 10. W/ CAP.		MAIN DISTRIBUTION PANEL		
	CORD DROP		SEE DIAGRAM		TELEPHONE DEMARCATION BOARD		
	CORD REEL		SEE DIAGRAM	CLG	EQUIPMENT CEILING RACK	CEILING	
	TOMBSTONE RECEPTACLE				EQUIPMENT 4-POST RACK / CABINET	AS NOTED	18. SEE SPEC.
	POWER POLE				EQUIPMENT 2-POST RACK	AS NOTED	18. SEE SPEC.
EV EV	SINGLE / DUAL PORT ELECTRICAL VEHICLE CHARGER			M	UTILITY METER / CT CABINET	+72"	6.
TELECOMMUNICATIONS							
XX W	WALL PHONE "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	+60" OR AS NOTED	2.	XX WAP XX WAP	WIRELESS ACCESS POINT, TWO CABLES SOLID = WALL, DASHED = CEILING "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	WALL / CEILING	11.
XX	DATA OUTLET, ONE CABLE "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	+18" OR AS NOTED	2. 9. 11.				
XX	DATA OUTLET, TWO CABLES "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	+18" OR AS NOTED	2. 9. 11.	SPL	SPLITTER	ABOVE CEILING	
XX	DATA OUTLET, THREE CABLES "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	+18" OR AS NOTED	2. 9. 11.	VIA	VIA	ABOVE CEILING	
XX X	DATA OUTLET, "X" INDICATES QUANTITY "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL	+18" OR AS NOTED	2. 9. 11.	BDA	FIBER BDA	ABOVE CEILING	
	DATA OUTLET, SOLID = FLOOR, DASHED = CEILING "XX" INDICATES PURPOSE: SC = SECURITY, AV = AUDIOVISUAL		11.	ANT XX	ANTENNA PS = PUBLIC SAFETY, COM = CELLULAR/COMMERCIAL	CEILING	
	TELEVISION OUTLET, SOLID = FLOOR, DASHED = CEILING	+18" OR AS NOTED	9. 11.				
FIRE ALARM							
	BELL	+94"	2.	S	SMOKE DETECTOR	CEILING	
C	CHIME / STROBE	+94" / CEILING	2.	SC	SMOKE/CARBON MONOXIDE DETECTOR	CEILING	
F	FIRE ALARM MANUAL STATION	+46"	2.	C	CARBON MONOXIDE DETECTOR	CEILING	
H	FIRE ALARM SIGNAL HORN / STROBE	+94" / CEILING	2.	H	HEAT DETECTOR	CEILING	
H CLG	CONCEALED FIRE ALARM HORN / STROBE	CEILING		D	DUCT SMOKE DETECTOR		MTD. IN DUCT
H	CONCEALED FIRE ALARM HORN / STROBE WALL	+94"	2.	D	FIRE/SMOKE DAMPER		
E	FIRE ALARM SPEAKER / STROBE	+94" / CEILING	2.		DOOR HOLDER	AS NOTED	
E CLG	CONCEALED FIRE ALARM SPEAKER / STROBE	CEILING		FS	FLOW SWITCH		
E	CONCEALED FIRE ALARM SPEAKER / STROBE WALL	+94"	2.	TS	TAMPER SWITCH		
S	FIRE ALARM STROBE	+94" / CEILING	2.	WF	WATER FLOOD INDICATOR		
S CLG	CONCEALED FIRE ALARM STROBE	CEILING			O.S. & Y. VALVE		SEE DIAGRAM
S	CONCEALED FIRE ALARM STROBE WALL	+94"	2.	R	FIRE ALARM RELAY OR SECURITY RELAY		
K	FIRE ALARM SPEAKER ONLY	+94" / CEILING	2.	CM	FIRE ALARM CONTROL MODULE		
B	FIRE ALARM STROBE WITH BLUE COLORED LENS (CO VISUAL ALARM)	+94" / CEILING	2.	MM	FIRE ALARM MONITOR MODULE		
ANN	FIRE ALARM ANNUNCIATOR PANEL	+58"	2. SEE DIAGRAM	TWZ	TWO-WAY COMMUNICATION SYSTEM CONTROL PANEL	+46"	2.
V	ASPIRATING SMOKE DETECTION SYSTEM	CEILING	MOUNT AS PER MFR.	TW	TWO-WAY COMMUNICATION SYSTEM CALL STATION	+46"	2.
B	BEAM DETECTOR		MOUNT AS PER MFR.	R	FIRE ALARM RELAY		

COLOR LEGEND

LIGHTING FIXTURES	POWER DEVICES	AUDIOVISUAL
LIGHTING DEVICES	TELECOMMUNICATIONS	SECURITY
POWER EQUIPMENT	FIRE ALARM	NURSECALL
CABLE TRAY	CONDUIT	

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Project #: 250236

INDIAN HILLS BAND & CHORAL REMODEL
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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

PROFESSIONAL ENGINEER BRIAN HICKS No. 7709037-2202 4/14/2025 STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 250273

ELECTRICAL SYMBOLS, SCHEDULES, AND NOTES

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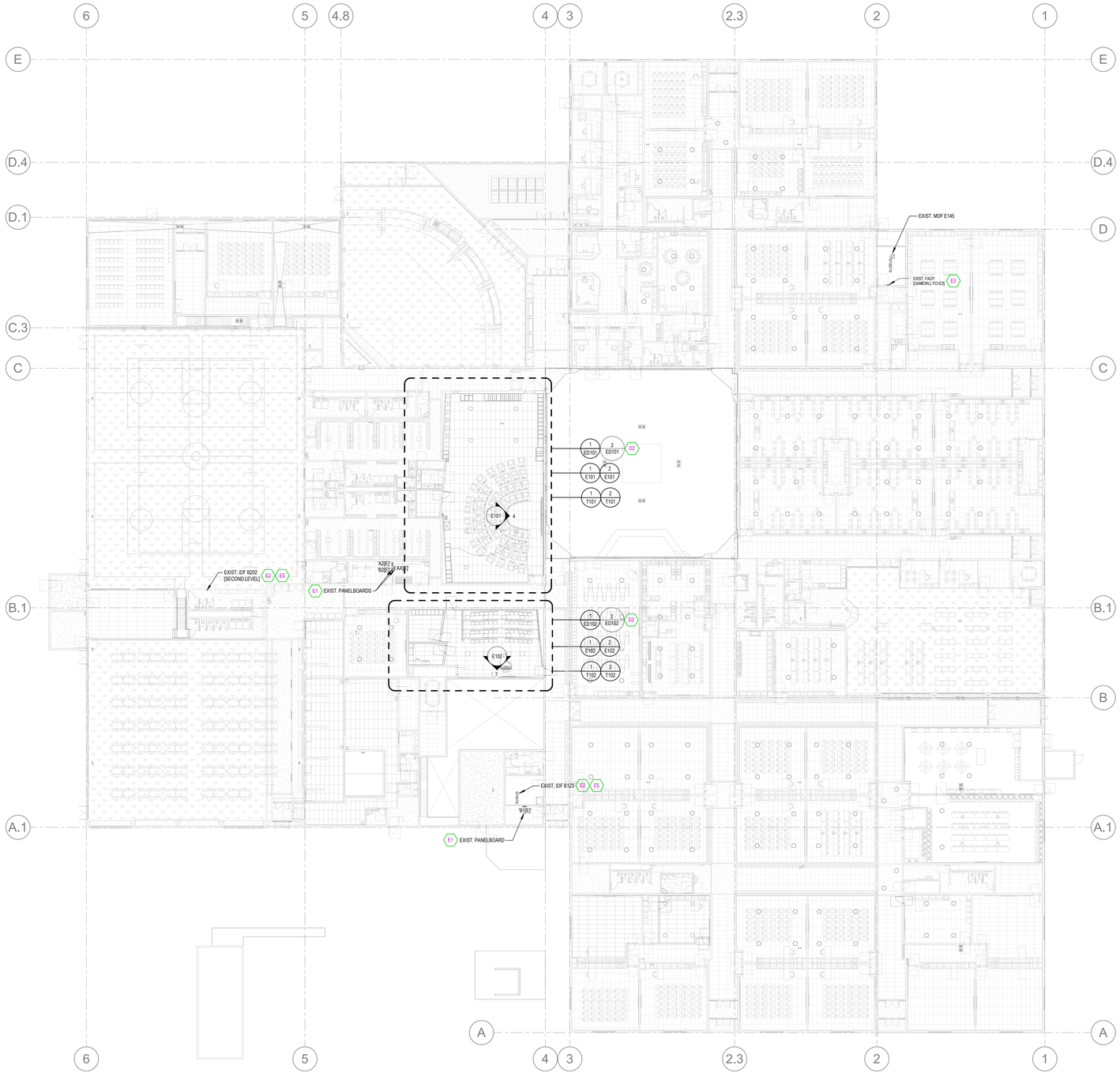

EXISTING OVERALL ELECTRICAL FLOOR PLAN
SCALE = 3/64" = 1'-0"

GENERAL ELECTRICAL DEMOLITION NOTES

1. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION.
2. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
3. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC CONTINUITY TO AND PROTECT BRANCH CIRCUITS AND/OR FEEDERS PASSING THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
3. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
4. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING AND/OR WALLS FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
5. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
6. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
7. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
8. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
9. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO: NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
10. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
11. ANY FIRE ALARM DEVICE(S) REMOVED DURING DEMOLITION ARE REQUIRED TO BE RELOCATED IN THE LOCATION NECESSARY TO PROVIDE COVERAGE PER NFPA 72, AND CIRCUITED SAME AS BEFORE. FIRE ALARM DEVICE(S) ARE NOT ALLOWED TO BE LOCATED CENTER OF ANY ROOM OR SPACE. IF MORE FIRE ALARM DEVICES ARE REQUIRED CONTRACTOR SHALL PROVIDE THEM COMPLETELY. REFER TO SHEET E401 FOR MORE INFORMATION.
12. SEE NEW ELECTRICAL SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
13. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
14. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED. PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
15. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
16. KEEP AV CLASSROOM SYSTEMS TOGETHER. LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, PROJECTORS, AND CABLING ARE TO BE LABELED WITH THE CURRENT CLASSROOM NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
17. DEVICES NOTED WITH SUBSCRIPT '[E]' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN. REMOVE AND REINSTALL DEVICES AS NOTED OR AS REQUIRED FOR CONSTRUCTION.
18. CIRCUIT #'S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
19. ALL AUDIOVISUAL EQUIPMENT IS TO BE REMOVED AND RETURNED TO OWNER.

SHEET KEYNOTES

D2 EXISTING AREAS TO BE DEMOLISHED AND REMODELED PER THE ARCHITECTURAL DRAWINGS. REMOVE ALL EXISTING LIGHT FIXTURES AND ELECTRICAL DEVICES AND APPARATUSES REQUIRED FOR DEMOLITION. REMOVE ALL CONDUIT, BOXES AND WIRE THAT ARE NOT BEING REUSED BACK TO SOURCE. KEEP EXISTING ELECTRICAL DEVICES, WIRE, CIRCUIT INTEGRITY, CONDUIT, ETC THAT ARE TO BE REUSED. RE-LOCATE OR EXTEND BOX TO NEW SURFACE AND RE-INSTALL EXISTING AND/OR NEW DEVICES AS NOTED. SEE ENLARGED PLANS FOR ELECTRICAL DEMO AND NEW ELECTRICAL LAYOUT.

E1 EXISTING POWER AND LIGHTING PANELBOARDS. REMOVE ANY CIRCUITS NOT UTILIZED FOR NEW CONSTRUCTION BACK TO PANELBOARD. UTILIZE EXISTING CIRCUIT BREAKERS THAT WERE FREED DURING CONSTRUCTION WHEN NECESSARY/AVAILABLE. PROVIDE NEW UPDATED TYPED INDEX CARD IDENTIFYING NEW AND REMAINING CIRCUITS.

E2 BIDDING DIVISION 26,27, AND 28 CONTRACTOR(S) RESPONSIBLE FOR EXPANDING EXISTING SYSTEMS FOR THE REMODELED AREAS. PROVIDE A TURN-KEY SOLUTION AND BUILD-OUT FOR ALL IMPACTED SYSTEMS I.E. NETWORK, FIRE ALARM, AND INTERCOM.

E3 EXISTING HONEYWELL FCI E3 MAIN FIRE ALARM PANEL. EXTEND EXISTING FIRE ALARM INITIATION/NOTIFICATION CIRCUITS TO ACCOMMODATE NEW FIRE ALARM DEVICES SHOWN AND AS REQUIRED. MATCH SYSTEM WIRING. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.

E5 EXISTING NETWORK RACK. REMOVE ANY DEMOLISHED NETWORK CIRCUITS BACK TO SOURCE. WHERE SHOWN ON PLANS, ROUTE NEW DATA CABLES TO THE NEAREST TELECOM ROOM. PROVIDE NEW PATCH PANEL AND TERMINATE NEW CABLES AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.

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BRIAN HICKS — No. 7209035 — PROFESSIONAL ENGINEER — STATE OF UTAH

△	DATE	REVISION

PROJECT NUMBER 250273

EXISTING OVERALL ELECTRICAL FLOOR PLAN

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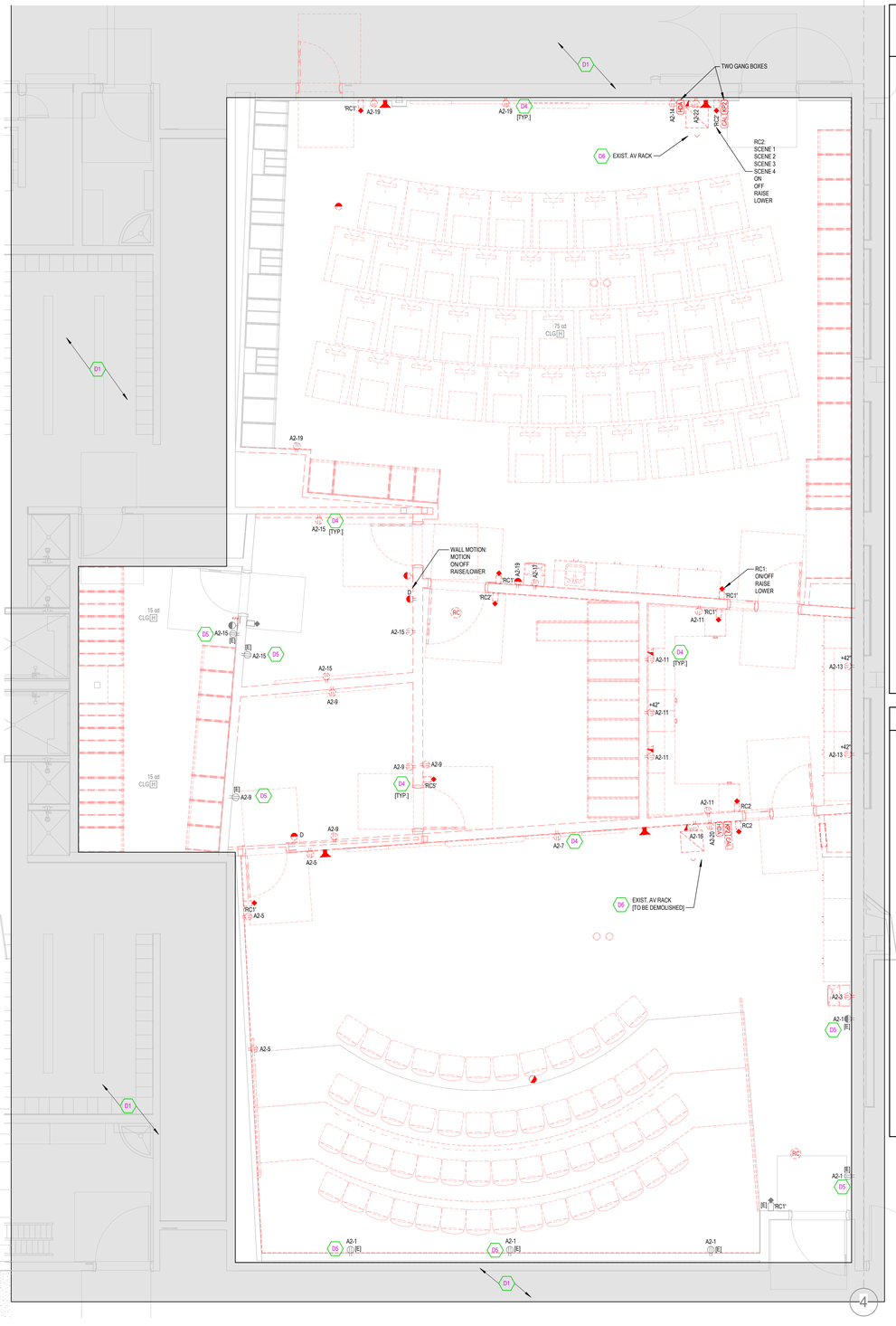
1 MUSIC ROOMS - ELECTRICAL RCP DEMOLITION PLAN
SCALE = 1/4" = 1'-0"



2 MUSIC ROOMS - ELECTRICAL DEMOLITION PLAN
SCALE = 1/4" = 1'-0"

GENERAL ELECTRICAL DEMOLITION NOTES

1. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION.
2. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
3. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC CONTINUITY TO AND PROTECT BRANCH CIRCUITS AND/OR FEEDERS PASSING THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
3. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
4. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING AND/OR WALLS FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
5. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
6. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
7. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
8. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
9. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO: NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
10. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
11. ANY FIRE ALARM DEVICE(S) REMOVED DURING DEMOLITION ARE REQUIRED TO BE RELOCATED IN THE LOCATION NECESSARY TO PROVIDE COVERAGE PER NFPA 72, AND CIRCUITED SAME AS BEFORE. FIRE ALARM DEVICE(S) ARE NOT ALLOWED TO BE LOCATED CENTER OF ANY ROOM OR SPACE. IF MORE FIRE ALARM DEVICES ARE REQUIRED CONTRACTOR SHALL PROVIDE THEM COMPLETELY. REFER TO SHEET E401 FOR MORE INFORMATION.
12. SEE NEW ELECTRICAL SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
13. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
14. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED. PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
15. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
16. KEEP AV CLASSROOM SYSTEMS TOGETHER. LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, PROJECTORS, AND CABLING ARE TO BE LABELED WITH THE CURRENT CLASSROOM NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
17. DEVICES NOTED WITH SUBSCRIPT '[E]' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN. REMOVE AND REINSTALL DEVICES AS NOTED OR AS REQUIRED FOR CONSTRUCTION.
18. CIRCUIT #'S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
19. ALL AUDIOVISUAL EQUIPMENT IS TO BE REMOVED AND RETURNED TO OWNER.

SHEET KEYNOTES

D1 NO ANTICIPATED CONSTRUCTION IN AREA, UNLESS OTHERWISE NOTED. PROTECT EXISTING ELECTRICAL APPARATUSES AND ELECTRIFIED EQUIPMENT FOR EXISTING FACILITIES AS REQUIRED. RELOCATE, REWIRE, AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.

D3 SOME EXISTING LED LIGHT FIXTURES TO BE RE-USED IN REMODELED SPACE. CAREFULLY REMOVE EXISTING LED LIGHT FIXTURES AND TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. SOME EXISTING LIGHTING CONTROLS ARE TO BE RE-USED AND REWORKED AS REQUIRED FOR NEW ROOM LAYOUTS. REMOVE THE EXISTING LIGHTING CONTROLS AS REQUIRED. MAINTAIN LIGHTING CIRCUIT INTEGRITY FOR USE WITH EXISTING AND NEW LIGHT FIXTURES THROUGHOUT THE REMODELED SPACES. BOX AND LABEL APPROPRIATELY, AND RETURN TO OWNER. ANY UNUSED FIXTURES AND CONTROL DEVICES.

D4 EXISTING RECEPTACLE AND/OR DATA DEVICE LOCATION TO BE REMOVED. VERIFY EXISTING CIRCUITING CONDITIONS AND MAINTAIN CIRCUIT INTEGRITY OF ANY ADDITIONAL DEVICES NOT SHOWN BUT WIRED TO THE EXISTING CIRCUIT. EXISTING CIRCUIT MAY BE RE-USED FOR NEW AND EXISTING DEVICES IN THE REMODEL AREA. IF CIRCUIT(S) ARE NOT REUSED REMOVE CIRCUITRY BACK TO PANELBOARD COMPLETELY AND MARK BREAKER AS SPARE. CIRCUIT # FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY.

D5 EXISTING RECEPTACLE LOCATION. IF REQUIRED, REMOVE DEVICE, RE-WORK, EXTEND TO NEW SURFACE, AND INSTALL NEW DEVICE AND COVERPLATE.

D6 REMOVE ALL CLASSROOM AV SYSTEMS COMPLETELY E.G. RACKS, AV CNTRL, AV CEILINGS BOXES, PROJECTOR AND SCREENS, IR DOME. INPUT PLATES, ETC. LABEL APPROPRIATELY AND RETURN TO OWNER. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS

D7 EXISTING AUDIO ENHANCEMENT [AE] CLASSROOM SOUND AMPLIFICATION (CEILING MOUNTED)+CEILING/INTERCOM SPEAKERS+CEILING MICROPHONE+CALL SWITCHES TO BE REMOVED COMPLETELY. PROVIDE NEW RAULAND INTERCOM MODULE IN CLASSROOM AND CALL SWITCH. SEE INTERCOM SHEETS FOR NEW REQUIREMENTS.

D8 EXISTING CEILING-MOUNTED WIRELESS ACCESS POINT TO BE REMOVED FOR REMOVAL OF EXISTING CEILING SYSTEM. TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. MAINTAIN CIRCUIT INTEGRITY AND RE-INSTALL IN NEW ACT CEILING IN SIMILAR LOCATION. EXTEND WIRING/BOX AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.

D9 DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE COMPLETELY. REWORK AND MAINTAIN FIRE ALARM CIRCUITS AS REQUIRED. LABEL APPROPRIATELY AND RETURN TO OWNER. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS

D10 EXISTING CEILING-MOUNTED FIRE ALARM TO BE REMOVED FOR REMOVAL OF EXISTING CEILING SYSTEM. TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. MAINTAIN CIRCUIT INTEGRITY AND RE-INSTALL FIRE ALARM DEVICE IN NEW ACT CEILING IN SIMILAR LOCATION OR AS SHOWN ON PLANS. EXTEND WIRING/BOX AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.

D11 EXISTING SOLATUBE SYSTEM TO REMAIN. CURRENT OPEN/CLOSE OPERATION BY LIGHTING CONTROL SYSTEM. ENSURE ALL REMAINING SOLATUBE OPERATE TOGETHER PER THE ASSOCIATED ROOM. REWORK AND PROVIDE REPROGRAMMING AS REQUIRED. MAINTAIN AND PROTECT DURING CONSTRUCTION.

D12 EXISTING CEILING-MOUNTED EXIT SIGN TO BE REMOVED FOR REMOVAL OF EXISTING CEILING SYSTEM. TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. MAINTAIN CIRCUIT INTEGRITY AND RE-INSTALL EXIT SIGN IN NEW ACT CEILING IN SIMILAR LOCATION. EXTEND WIRING/BOX AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.

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BRIAN HICKS — No. 5709037 — STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 250273

MUSIC ROOMS - ELECTRICAL DEMO PLANS

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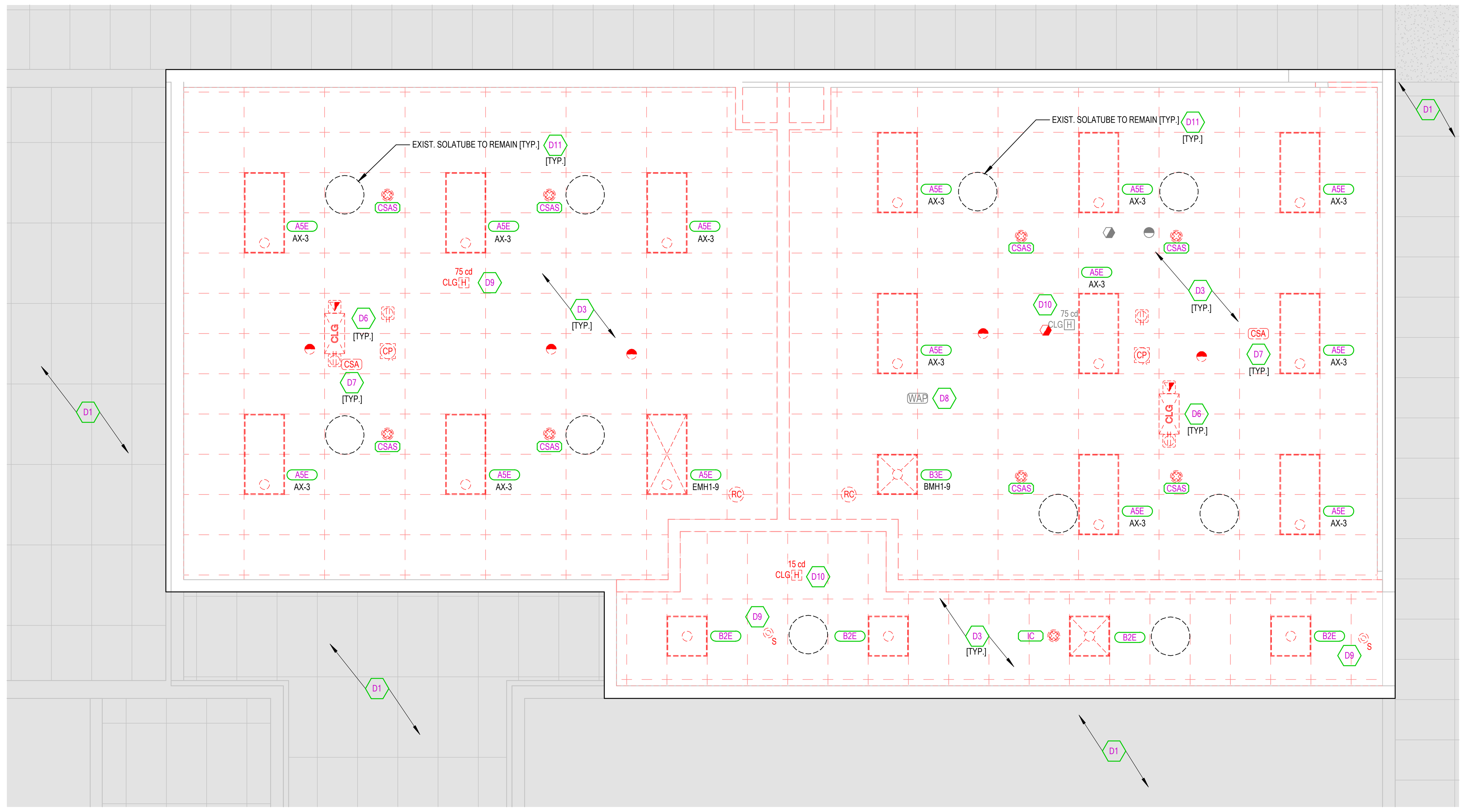
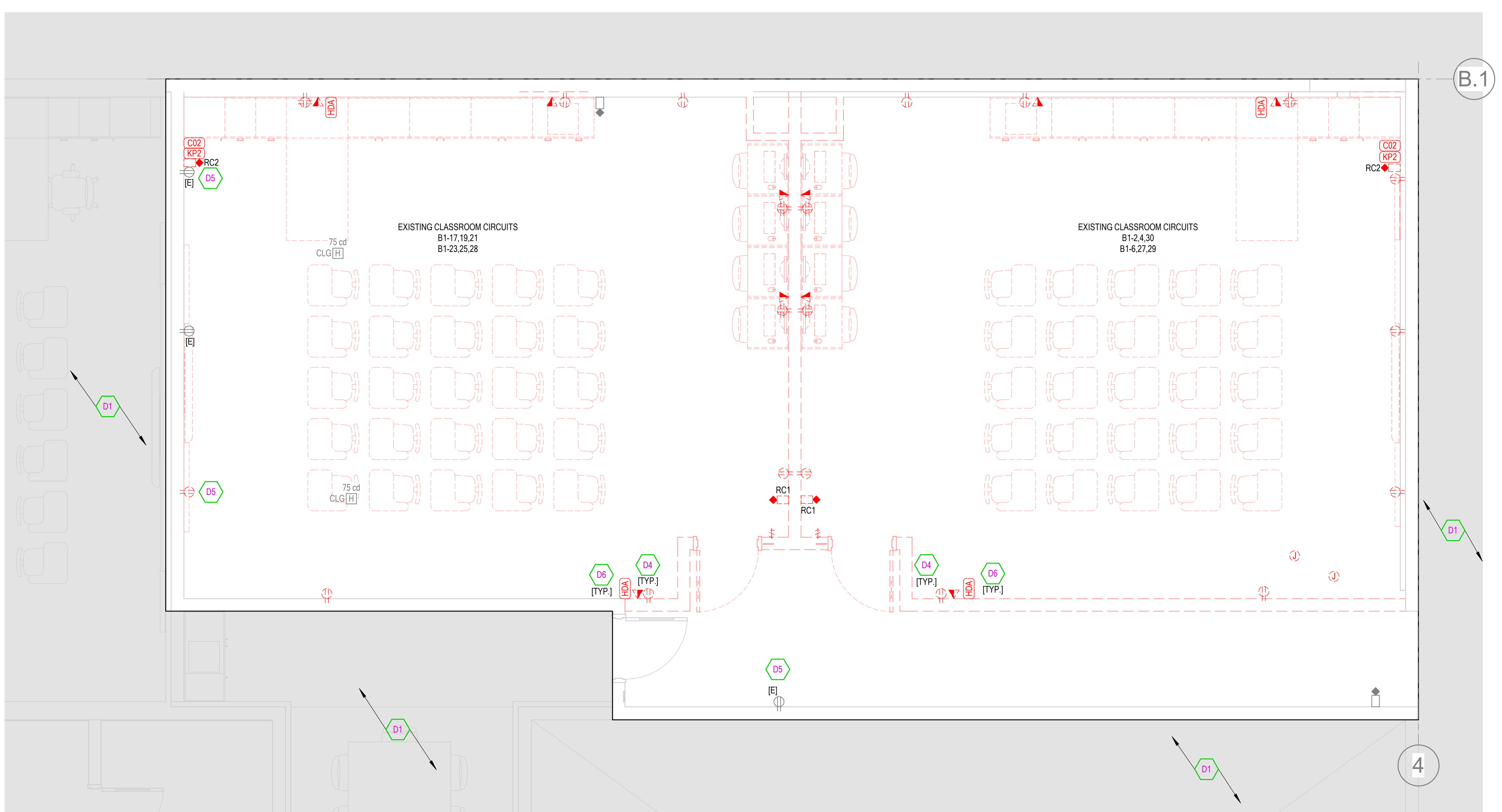


1 CLASSROOMS - ELECTRICAL RCP DEMOLITION PLAN
SCALE = 1/4" = 1'-0"



2 CLASSROOMS - ELECTRICAL DEMOLITION PLAN
SCALE = 1/4" = 1'-0"

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1. DIVISION 26 SHALL CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT WITH OWNERS. FIXTURE LOCATIONS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWINGS. EXISTING ELECTRICAL FIXTURES, DEVICES, EQUIPMENT, CIRCUITING AND/OR CIRCUITING AND/OR CONDUITS ARE NOT SPECIFIED UNLESS NOTED ON DRAWINGS. FINAL ROUTING OF THE CONDUITS, CIRCUITING AND CABLING SHALL BE DETERMINED BY THE CONTRACTOR AND CLOSELY COORDINATED WITH OWNER. ALL EXISTING CONDITIONS MUST BE VERIFIED WITHOUT EXCEPTION.
2. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
3. DURING DEMOLITION AND NEW CONSTRUCTION, THE CONTINUATION OF BUILDING SYSTEMS MAY BE NECESSARY. TRACE AND IDENTIFY EXISTING ELECTRICAL SYSTEM (POWER, LIGHTING, FIRE ALARM AND SECURITY) WIRING IN AREAS PRIOR TO DEMOLITION. ELECTRICAL CONTRACTOR SHALL DISCONNECT ALL NECESSARY EQUIPMENT TO MAKE IT SAFE FOR DEMOLITION. WHERE LIVE CIRCUITS OR FEEDERS PASS THROUGH A REMODEL AREA, CONTRACTOR SHALL MAINTAIN ELECTRIC CONTINUITY TO AND PROTECT BRANCH CIRCUITS AND/OR FEEDERS PASSING THROUGH. WHERE FEEDERS AND/OR BRANCH CIRCUITS FEED BOTH LOADS IN A REMODELED AREA AND OUTSIDE OF A REMODELED AREA, CONTRACTOR SHALL DISCONNECT AND REMOVE PORTIONS OF THE ELECTRICAL BRANCH CIRCUITS AND/OR FEEDERS WITHIN THE REMODELED AREA AND REWORK BRANCH CIRCUITS AND/OR FEEDERS TO MAINTAIN ELECTRICAL CONTINUITY TO LOADS OUTSIDE OF THE REMODELED AREA.
3. DEVICES AND EQUIPMENT TO BE DEMOLISHED SHALL BE REMOVED, INCLUDING ALL RELATED CONDUCTORS, RACEWAY, JUNCTION AND SPLICE BOXES UP TO THE PANELBOARD/SWITCHBOARD. ALL CONDUITS AND BOXES THAT ARE SURFACE MOUNTED AND NO LONGER REQUIRE ACTIVE CIRCUITS SHALL BE COMPLETELY REMOVED. DEVICES TO BE REMOVED ON DRYWALL OR PLASTER TYPE WALLS THAT ARE TO REMAIN SHALL HAVE THE WALL SURFACE PATCHED TO MATCH THE EXISTING FINISH. THE CONTRACTOR SHALL IDENTIFY ALL DEMOLISHED AND ABANDONED BRANCH CIRCUITS. THESE SHALL BE NOTED AS SPARE ON PANELBOARD SCHEDULES. THIS INCLUDES IDENTIFYING EXISTING ABANDONED AND SPARE CIRCUITS THAT ARE CURRENTLY IDENTIFIED AS USED. THE CONTRACTOR SHALL FURNISH NEW TYPED DIRECTORIES FOR ALL PANELBOARDS.
4. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING AND/OR WALLS FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
5. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 26 (16).
6. THE OWNER HAS THE RIGHT TO RETAIN ALL SALVAGEABLE MATERIAL. ANY MATERIAL THE OWNER CHOOSES NOT TO ACCEPT SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR.
7. FULLY COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CONNECTION REMOVAL AND RELOCATION WITH THE MECHANICAL CONTRACTOR.
8. CONTRACTOR TO VERIFY THAT ALL EXISTING EQUIPMENT THAT IS TO REMAIN, BE REMOVED AND RE-INSTALLED ARE IN WORKING CONDITIONS. CONTRACTOR IS TO PROVIDE OWNER WRITTEN DOCUMENTATION OF ANY ITEMS NOT IN WORKING CONDITION PRIOR TO COMMENCING WORK IN AN AREA.
9. CONTRACTOR IS TO PROTECT IN PLACE ALL MECHANICAL, PLUMBING, ELECTRICAL ABOVE CEILINGS. THIS MAY INCLUDE BUT NOT LIMITED TO: NETWORK CABLING, COAX CABLING, CONDUITS, PIPING, DUCTWORK, ETC. PROVIDE ADDITIONAL CABLING SUPPORTS AS REQUIRED FOR ANY UNSUPPORTED CABLING, RACEWAY, ETC.
10. WHERE DEVICES OR EQUIPMENT IS TO BE RELOCATED, CONTRACTOR SHALL EXTEND EXISTING CIRCUITING TO NEW LOCATION. ENSURE CIRCUIT CONTINUITY FOR OTHER DEVICES OR EQUIPMENT ON THE SAME BRANCH CIRCUIT.
11. ANY FIRE ALARM DEVICE(S) REMOVED DURING DEMOLITION ARE REQUIRED TO BE RELOCATED IN THE LOCATION NECESSARY TO PROVIDE COVERAGE PER NFPA 72, AND CIRCUITED SAME AS BEFORE. FIRE ALARM DEVICE(S) ARE NOT ALLOWED TO BE LOCATED CENTER OF ANY ROOM OR SPACE. IF MORE FIRE ALARM DEVICES ARE REQUIRED CONTRACTOR SHALL PROVIDE THEM COMPLETELY. REFER TO SHEET E401 FOR MORE INFORMATION.
12. SEE NEW ELECTRICAL SHEETS FOR NEW FIRE ALARM INFORMATION. REMOVE EXISTING FIRE ALARM DEVICE (S) AS NECESSARY FOR REMOVAL OF CEILING SYSTEM. RE-INSTALL ONCE NEW CEILING IS INSTALLED.
13. REMOVE VOICE/DATA CABLING BACK TO DATA ROOM UNLESS NOTED OTHERWISE.
14. PROVIDE BLANK COVERPLATE ON ALL EXISTING BOXES LOCATED IN MASONRY THAT ARE NOT BEING RE-USED. PROVIDE BLANK COVERPLATE ON ALL UNUSED BOXES.
15. COORDINATE THE DEMOLITION, PATCH, AND REPAIR OF CEILING FOR ALL LIGHTING AND ELECTRICAL APPARATUSES IN THIS AREA. DISCONNECT AND RE-CONNECT AS REQUIRED TO MAINTAIN ALL SYSTEMS.
16. KEEP AV CLASSROOM SYSTEMS TOGETHER. LOUDSPEAKERS, AMPLIFIERS, IR SENSORS, PROJECTORS, AND CABLING ARE TO BE LABELED WITH THE CURRENT CLASSROOM NUMBER THEY ARE REMOVED FROM. BOX EACH LOCATION IN SEPARATE BOXES AND LABEL WITH CLASSROOM NUMBER PRIOR TO RETURNING TO OWNER.
17. DEVICES NOTED WITH SUBSCRIPT '[E]' DENOTES THE DEVICES ARE EXISTING AND TO REMAIN. REMOVE AND REINSTALL DEVICES AS NOTED OR AS REQUIRED FOR CONSTRUCTION.
18. CIRCUIT #S, IF SHOWN, ARE FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY. VERIFY EXISTING CONDITIONS PRIOR TO WORK.
19. ALL AUDIOVISUAL EQUIPMENT IS TO BE REMOVED AND RETURNED TO OWNER.

SHEET KEYNOTES

D1	NO ANTICIPATED CONSTRUCTION IN AREA, UNLESS OTHERWISE NOTED. PROTECT EXISTING ELECTRICAL APPARATUSES AND ELECTRIFIED EQUIPMENT FOR EXISTING FACILITIES AS REQUIRED. RELOCATE, REWIRE, AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
D3	SOME EXISTING LED LIGHT FIXTURES TO BE RE-USED IN REMODELED SPACE. CAREFULLY REMOVE EXISTING LED LIGHT FIXTURES AND TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. SOME EXISTING LIGHTING CONTROLS ARE TO BE RE-USED AND REWORKED AS REQUIRED FOR NEW ROOM LAYOUTS. REMOVE THE EXISTING LIGHTING CONTROLS AS REQUIRED. MAINTAIN LIGHTING CIRCUIT INTEGRITY FOR USE WITH EXISTING AND NEW LIGHT FIXTURES THROUGHOUT THE REMODELED SPACES. BOX AND LABEL APPROPRIATELY, AND RETURN TO OWNER, ANY UNUSED FIXTURES AND CONTROL DEVICES.
D4	EXISTING RECEPTACLE AND/OR DATA DEVICE LOCATION TO BE REMOVED. VERIFY EXISTING CIRCUITING CONDITIONS AND MAINTAIN CIRCUIT INTEGRITY OF ANY ADDITIONAL DEVICES NOT SHOWN BUT WIRED TO THE EXISTING CIRCUIT. EXISTING CIRCUIT MAY BE RE-USED FOR NEW AND EXISTING DEVICES IN THE REMODEL AREA. IF CIRCUIT(S) ARE NOT REUSED REMOVE CIRCUITRY BACK TO PANELBOARD COMPLETELY AND MARK BREAKER AS SPARE. CIRCUIT # FROM RECORD DRAWING AND SHOWN FOR REFERENCE ONLY.
D5	EXISTING RECEPTACLE LOCATION. IF REQUIRED, REMOVE DEVICE, RE-WORK, EXTEND TO NEW SURFACE, AND INSTALL NEW DEVICE AND COVERPLATE.
D6	REMOVE ALL CLASSROOM AV SYSTEMS COMPLETELY E.G. RACKS, AV CNTRL, AV CEILINGS BOXES, PROJECTOR AND SCREENS, IR DOME, INPUT PLATES, ETC. LABEL APPROPRIATELY AND RETURN TO OWNER. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS
D7	EXISTING AUDIO ENHANCEMENT [AE] CLASSROOM SOUND AMPLIFICATION (CEILING MOUNTED)+CEILING/INTERCOM SPEAKERS+CEILING MICROPHONE+CALL SWITCHES TO BE REMOVED COMPLETELY. PROVIDE NEW RAULAND INTERCOM MODULE IN CLASSROOM AND CALL SWITCH. SEE INTERCOM SHEETS FOR NEW REQUIREMENTS.
D8	EXISTING CEILING-MOUNTED WIRELESS ACCESS POINT TO BE REMOVED FOR REMOVAL OF EXISTING CEILING SYSTEM. TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. MAINTAIN CIRCUIT INTEGRITY AND RE-INSTALL IN NEW ACT CEILING IN SIMILAR LOCATION. EXTEND WIRING/BOX AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.
D9	DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICE COMPLETELY. REWORK AND MAINTAIN FIRE ALARM CIRCUITS AS REQUIRED. LABEL APPROPRIATELY AND RETURN TO OWNER. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS
D10	EXISTING CEILING-MOUNTED FIRE ALARM TO BE REMOVED FOR REMOVAL OF EXISTING CEILING SYSTEM. TEMPORARILY STORE AND PROTECT DURING CONSTRUCTION. MAINTAIN CIRCUIT INTEGRITY AND RE-INSTALL FIRE ALARM DEVICE IN NEW ACT CEILING IN SIMILAR LOCATION OR AS SHOWN ON PLANS. EXTEND WIRING/BOX AS REQUIRED. SEE EX10X SERIES SHEET FOR NEW REQUIREMENTS.
D11	EXISTING SOLATUBE SYSTEM TO REMAIN. CURRENT OPEN/CLOSE OPERATION BY LIGHTING CONTROL SYSTEM. ENSURE ALL REMAINING SOLATUBE OPERATE TOGETHER PER THE ASSOCIATED ROOM. REWORK AND PROVIDE REPROGRAMMING AS REQUIRED. MAINTAIN AND PROTECT DURING CONSTRUCTION.

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CONSTRUCTION DOCUMENTS - APRIL 14, 2025

DATE REVISION

PROJECT NUMBER 250273

CLASSROOMS - ELECTRICAL DEMO PLANS

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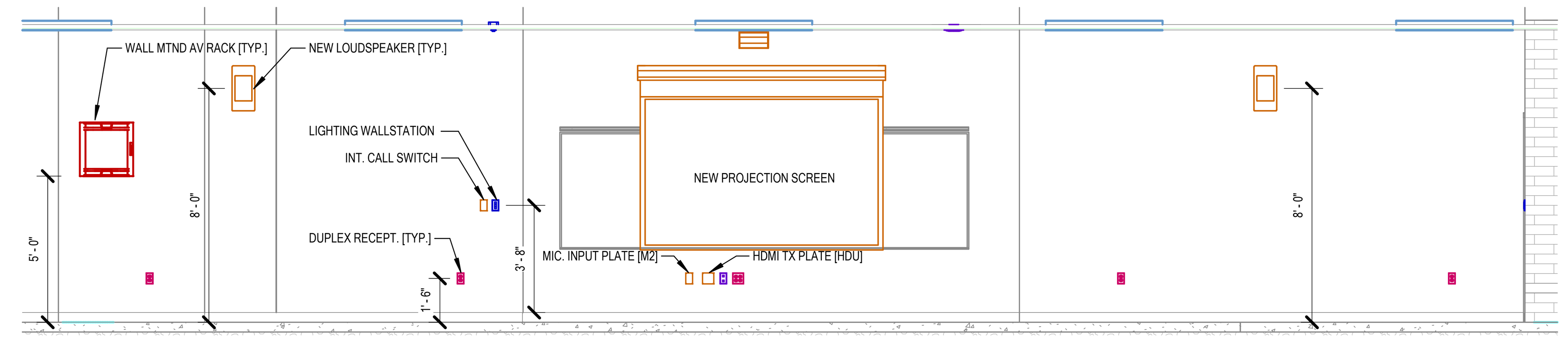
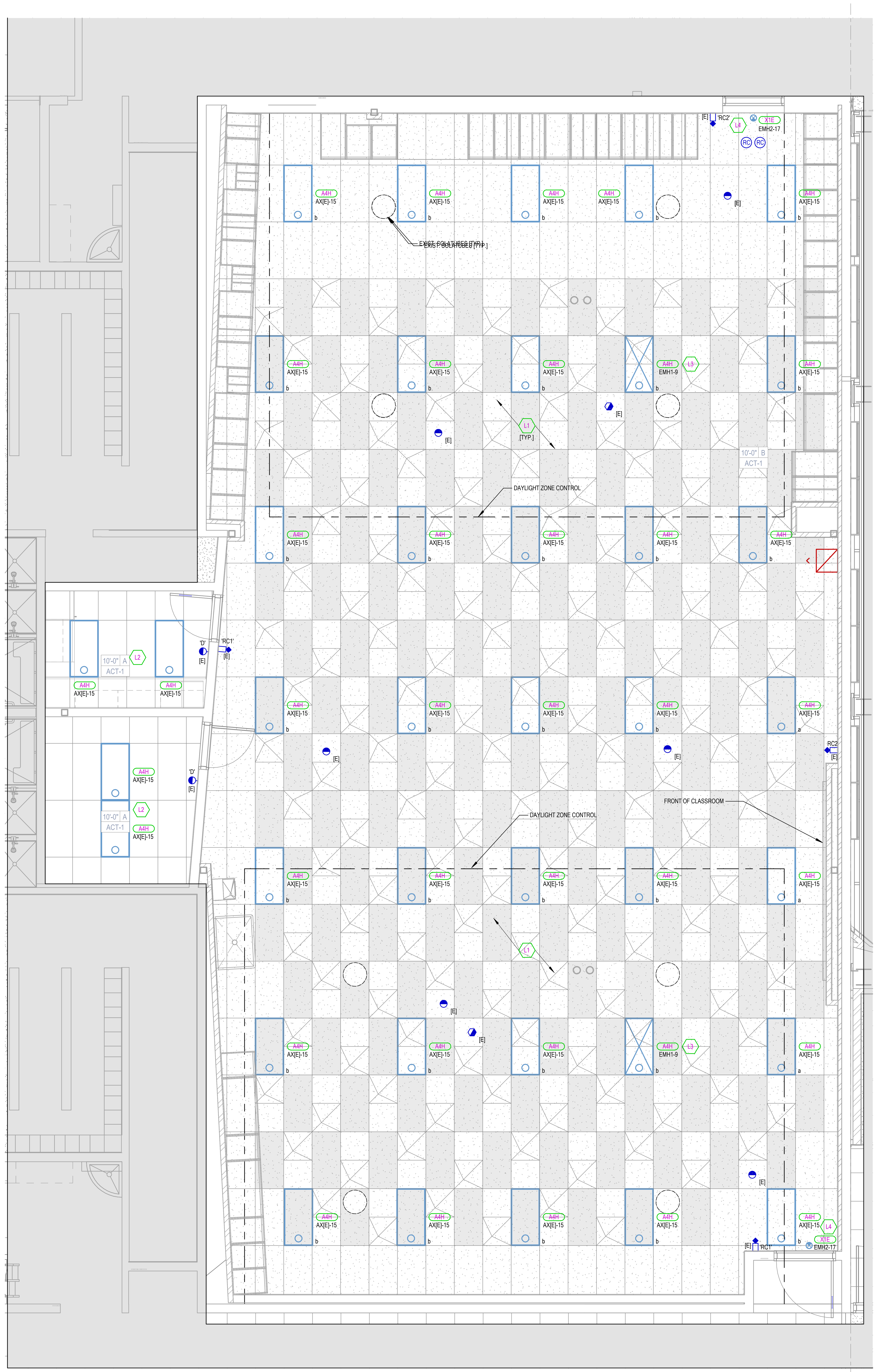
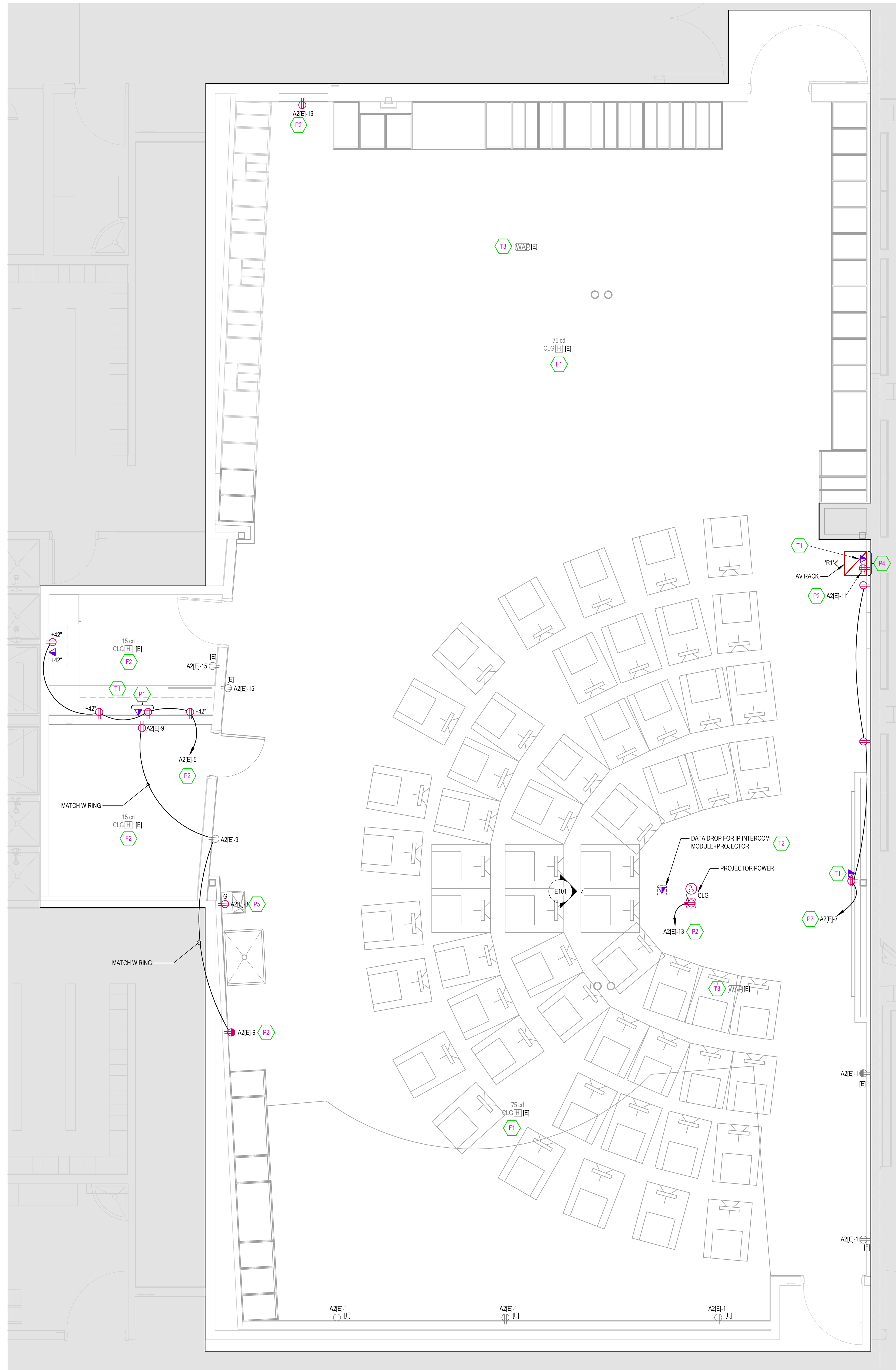


4 BAND - FRONT OF CLASSROOM
SCALE = 1/4" = 1'-0"



1 BAND - LIGHTING PLAN
SCALE = 1/4" = 1'-0"



2 BAND - ELECTRICAL PLAN
SCALE = 1/4" = 1'-0"

GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. CONTRACTOR TO PAINT EXPOSED RACEWAY TO MATCH ADJACENT SURFACES.
2. EXISTING CLASSROOM LIGHTING CONTROL SYSTEM IS ACUITY NLIGHT®. DIVISION 26 SHALL REMOVE AND REINSTALL EXISTING NLIGHT DEVICES AS INDICATED. PROVIDE NEW DEVICES, RELAYS, AND SENSORS AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. REPROGRAM LIGHTING CONTROLS TO MATCH NEW CLASSROOM LAYOUT. COORDINATE NLIGHT SOLUTION AND SYSTEM UPDATES WITH JRC.
3. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
4. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS.
5. IF SHOWN, SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
6. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
7. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC. TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
8. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC. TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC. AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
9. PROVIDE GFCI PROTECTION ON ALL DEVICES AND EQUIPMENT PER THE NEC REQUIREMENTS. DEVICES SHALL BE READILY ACCESSIBLE. IF ANY OUTLET IS INSTALLED WITHIN 6 FEET OF OUTSIDE EDGE OF SINK, CONTRACTOR SHALL PROVIDE GFCI RECEPTACLE PER NEC, WHETHER SHOWN OR NOT.
10. ALL RECEPTACLES LOCATED THROUGHOUT THE BUILDING SHALL BE TAMPER RESISTANT PER NEC 406.12.
11. PROVIDE NEW DATA DROPS/OUTLETS AS SHOWN. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF.
12. EXTEND EXISTING FIRE ALARM INITIATION/NOTIFICATION CIRCUITS TO ACCOMMODATE RELOCATED AND NEW FIRE ALARM DEVICES AS REQUIRED.
13. PROVIDE UPDATED PROGRAMMING AND COMMISSIONING ON FIRE ALARM, ACCESS CONTROL, INTRUSTION, ETC.

SHEET KEYNOTES

F1	REWORK AND REINSTALL PREVIOUSLY REMOVED FIRE ALARM DEVICE.
F2	REINSTALL EXISTING FIRE ALARM DEVICE PREVIOUSLY REMOVED DURING DEMOLITION. EXTEND EXISTING CIRCUIT AND REWORK AS REQUIRED.
L1	PROVIDE NEW FIXTURES AS SHOWN. REINSTALL AND REWORK EXISTING LIGHTING CONTROL DEVICES AS SHOWN. REPROGRAM LIGHTING CONTROLS AS INDICATED. ENSURE EXISTING SOLATUBES WORK ACCORDINGLY. WIRE FIXTURES TO LIGHTING CIRCUIT PREVIOUSLY FEEDING THIS CLASSROOM/AREA OR NEW CIRCUIT AS SHOWN.
L2	PROVIDE NEW FIXTURES AS SHOWN. REINSTALL AND REWORK EXISTING LIGHTING CONTROL DEVICES AS SHOWN. WIRE FIXTURES TO LIGHTING CIRCUIT PREVIOUSLY FEEDING THIS CLASSROOM/AREA OR NEW CIRCUIT AS SHOWN.
L3	PROVIDE EMERGENCY FIXTURE AS SHOWN. UTILIZE EXISTING UNSWITCHED EMERGENCY CIRCUIT WITHIN THE AREA AND ROUTE THROUGH UL924 RELAY WITH ROOM CONTROLLER(S) FOR AUTOMATIC ON OF EGRESS LIGHTING.
L4	REINSTALL EXISTING EXIT SIGN AS SHOWN.
P1	DEVICES LOCATED IN KNEESPACE OF MILLWORK. COORDINATE WITH MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN.
P2	PROVIDE NEW DEVICES AS SHOWN. CIRCUIT TO EXISTING RECEPTACLE CIRCUIT FREED DURING DEMOLITION. VERIFY EXISTING CIRCUITING CONDITIONS AND MAINTAIN CIRCUIT INTEGRITY OF ANY ADDITIONAL DEVICES NOT SHOWN BUT WIRED TO THE EXISTING CIRCUIT.
P4	DEVICE MOUNTED BEHIND AV RACK. COORDINATE EXACT HEIGHT AND LOCATION WITH ARCHITECTURAL/AUDIOVISUAL ELEVATIONS AND WITH AV INSTALLER PRIOR TO ROUGH-IN. POWER, DATA AND AV JUNCTION BOXES SHALL BE INSTALLED IN THE SAME STUD CAVITY.
P5	PROVIDE NEW DEVICES AS SHOWN. CIRCUIT TO EXISTING RECEPTACLE CIRCUIT FREED DURING DEMOLITION. VERIFY EXISTING CIRCUITING CONDITIONS AND MAINTAIN CIRCUIT INTEGRITY OF ANY ADDITIONAL DEVICES NOT SHOWN BUT WIRED TO THE EXISTING CIRCUIT. PROVIDE GFCI BREAKER IF REQUIRED TO PROVIDE GFCI PROTECTION.
T1	PROVIDE CAT6A DATA CABLE(S) AND OUTLET AS SHOWN. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
T2	PROVIDE 2 CAT6A DATA CABLES WITH 2 PORT SURFACE BOX FOR PROJECTOR AND IP INTERCOM MODULE. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF.
T3	REINSTALL EXISTING WIRELESS ACCESS POINT DEVICE PREVIOUSLY REMOVED DURING DEMOLITION. EXTEND EXISTING WIRING AND REWORK AS REQUIRED.

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INDIAN HILLS BAND & CHORAL REMODEL
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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

DATE REVISION

PROJECT NUMBER 250273

BAND - LIGHTING & ELECTRICAL PLANS

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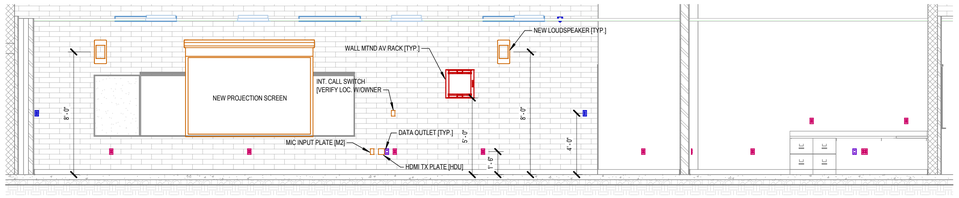
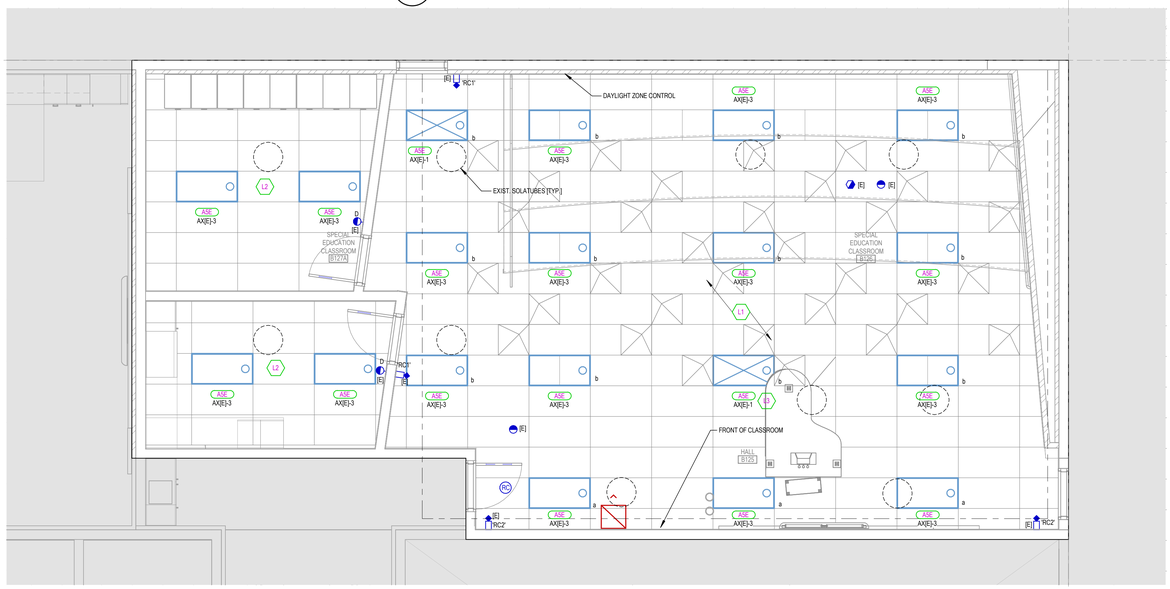
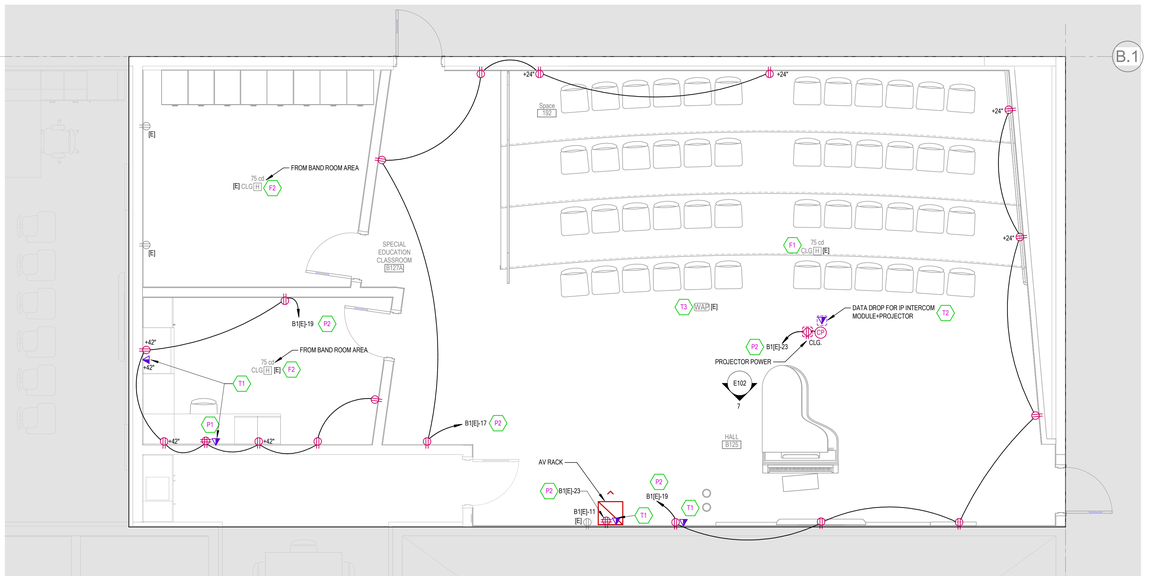


7 CHORAL - FRONT OF CLASSROOM
SCALE = 1/4" = 1'-0"



1 CHORAL - LIGHTING PLAN
SCALE = 1/4" = 1'-0"



2 CHORAL - ELECTRICAL PLAN
SCALE = 1/4" = 1'-0"

GENERAL NOTES

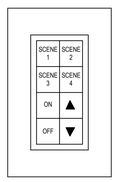
1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. CONTRACTOR TO PAINT EXPOSED RACEWAY TO MATCH ADJACENT SURFACES.
2. EXISTING CLASSROOM LIGHTING CONTROL SYSTEM IS ACUITY NLIGHT®. DIVISION 26 SHALL REMOVE AND REINSTALL EXISTING NLIGHT DEVICES AS INDICATED. PROVIDE NEW DEVICES, RELAYS, AND SENSORS AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. REPROGRAM LIGHTING CONTROLS TO MATCH NEW CLASSROOM LAYOUT. COORDINATE NLIGHT SOLUTION AND SYSTEM UPDATES WITH JRC.
3. PROVIDE UNSWITCHED NORMAL CIRCUIT HOT LEG TO ALL EMERGENCY POWER CONTROL DEVICES FOR PROPER POWER SENSING.
4. PROVIDE UNSWITCHED HOT AHEAD OF RELAY, OCCUPANCY SENSOR, OR SWITCH TO ALL EXIT SIGNS.
5. IF SHOWN, SUBSCRIPT NEAR LIGHT FIXTURES INDICATES CONTROL INTENT. PROVIDE LIGHTING CONTROLLERS WITH THE REQUIRED NUMBER OF RELAYS/DIMMERS.
6. COORDINATE PLACEMENT OF ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. WHERE DEVICES ARE SHOWN IN SAME WALL SPACE, ALIGN VERTICALLY AND HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DRAWINGS, ATHLETIC SAFETY WALL PADDING AND CABINETRY DRAWINGS.
7. ALL THE LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, SOUND AMPLIFICATION, ETC. TO BE ROUTED THROUGH CONDUIT IN EXPOSED AND CLOUDED CEILING AREAS.
8. ALL LOW VOLTAGE WIRE/CABLE FOR LIGHTING SENSORS, AUDIO/VISUAL EQUIPMENT, CLASSROOM SOUND AMPLIFICATION, ETC. TO BE PROPERLY SUPPORTED PER THE TELE/DATA SPEC, AND AT 5'-0" INTERVALS AND TO FOLLOW BUILDING STRUCTURAL LINES. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED.
9. PROVIDE GFCI PROTECTION ON ALL DEVICES AND EQUIPMENT PER THE NEC REQUIREMENTS. DEVICES SHALL BE READILY ACCESSIBLE. IF ANY OUTLET IS INSTALLED WITHIN 6 FEET OF OUTSIDE EDGE OF SINK, CONTRACTOR SHALL PROVIDE GFCI RECEPTACLE PER NEC, WHETHER SHOWN OR NOT.
10. ALL RECEPTACLES LOCATED THROUGHOUT THE BUILDING SHALL BE TAMPER RESISTANT PER NEC 406.12.
11. PROVIDE NEW DATA DROPS/OUTLETS AS SHOWN. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF.
12. EXTEND EXISTING FIRE ALARM INITIATION/NOTIFICATION CIRCUITS TO ACCOMMODATE RELOCATED AND NEW FIRE ALARM DEVICES AS REQUIRED.
13. PROVIDE UPDATED PROGRAMMING AND COMMISSIONING ON FIRE ALARM, ACCESS CONTROL, INTRUSTION, ETC.

SHEET KEYNOTES

F1	REWORK AND REINSTALL PREVIOUSLY REMOVED FIRE ALARM DEVICE.
F2	REINSTALL EXISTING FIRE ALARM DEVICE PREVIOUSLY REMOVED DURING DEMOLITION. EXTEND EXISTING CIRCUIT AND REWORK AS REQUIRED.
L1	PROVIDE NEW FIXTURES AS SHOWN. REINSTALL AND REWORK EXISTING LIGHTING CONTROL DEVICES AS SHOWN. REPROGRAM LIGHTING CONTROLS AS INDICATED. ENSURE EXISTING SOLATUBES WORK ACCORDINGLY. WIRE FIXTURES TO LIGHTING CIRCUIT PREVIOUSLY FEEDING THIS CLASSROOM/AREA OR NEW CIRCUIT AS SHOWN.
L2	PROVIDE NEW FIXTURES AS SHOWN. REINSTALL AND REWORK EXISTING LIGHTING CONTROL DEVICES AS SHOWN. WIRE FIXTURES TO LIGHTING CIRCUIT PREVIOUSLY FEEDING THIS CLASSROOM/AREA OR NEW CIRCUIT AS SHOWN.
L3	PROVIDE EMERGENCY FIXTURE AS SHOWN. UTILIZE EXISTING UNSWITCHED EMERGENCY CIRCUIT WITHIN THE AREA AND ROUTE THROUGH UL924 RELAY WITH ROOM CONTROLLER(S) FOR AUTOMATIC ON OF EGRESS LIGHTING.
P1	DEVICES LOCATED IN KNEESPACE OF MILLWORK. COORDINATE WITH MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN.
P2	PROVIDE NEW DEVICES AS SHOWN. CIRCUIT TO EXISTING RECEPTACLE CIRCUIT FREED DURING DEMOLITION. VERIFY EXISTING CIRCUITING CONDITIONS AND MAINTAIN CIRCUIT INTEGRITY OF ANY ADDITIONAL DEVICES NOT SHOWN BUT WIRED TO THE EXISTING CIRCUIT.
T1	PROVIDE CAT6A DATA CABLE(S) AND OUTLET AS SHOWN. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
T2	PROVIDE 2 CAT6A DATA CABLES WITH 2 PORT SURFACE BOX FOR PROJECTOR AND IP INTERCOM MODULE. ROUTE AND TERMINATE AT NEAREST TELECOM ROOM/IDF.
T3	REINSTALL EXISTING WIRELESS ACCESS POINT DEVICE PREVIOUSLY REMOVED DURING DEMOLITION. EXTEND EXISTING WIRING AND REWORK AS REQUIRED.

GENERAL DIAGRAM NOTES

1. ALL PROGRAMING SHALL MEET THE REQUIREMENTS OF THE IECC 2021 OR CURRENT ENERGY CODE APPLIED TO THE PROJECT.
2. EXISTING CLASSROOM LIGHTING CONTROL SYSTEM IS AN ACUITY NLIGHT® SYSTEM. DIVISION 26 SHALL REMOVE, RELOCATE, AND REINSTALL EXISTING NLIGHT CONTROL DEVICES AS INDICATED ON THE DRAWINGS. PROVIDE NEW DEVICES, RELAYS, SENSORS, AND RELATED COMPONENTS AS REQUIRED TO DELIVER A FULLY FUNCTIONAL AND CODE-COMPLIANT LIGHTING CONTROL SYSTEM. THE SYSTEM SHALL BE REPROGRAMMED TO REFLECT THE NEW CLASSROOM LAYOUT AND ZONING REQUIREMENTS. DIVISION 26 SHALL COORDINATE WITH JRC TO DEVELOP AND IMPLEMENT THE UPDATED NLIGHT CONTROL SOLUTION, ENSURING FULL INTEGRATION WITH EXISTING INFRASTRUCTURE. FOR LIGHTING CONTROL SYSTEM SUPPORT AND PROGRAMMING COORDINATION.
3. COORDINATE ALL INSTALLATION REQUIREMENTS, CONNECTIONS AND CABLE TYPE WITH THE SUPPLIER PRIOR TO ANY INSTALLATION.
4. PROVIDE DAYLIGHT ZONE CONTROL REQUIREMENTS PER C405.2.2.3.
6. PROGRAM OF ALL LIGHTING CONTROL SYSTEMS AS INDICATED AND/OR AS DIRECTED BY THE ELECTRICAL ENGINEER AND/OR OWNER. MEET WITH THE ELECTRICAL ENGINEER AT THEIR OFFICE PRIOR TO PREPARATION OF SHOP DRAWINGS TO DISCUSS SPECIFIC PROGRAMMING AND ZONING REQUIREMENTS OF SYSTEM(S). EACH NETWORKED OR STANDALONE SYSTEM SHALL BE PROGRAMMED TO REVERT BACK TO ITS NORMAL

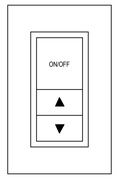


WALL STATION 'RC2' CONFIGURATION

ENGRAVING		PROGRAMMING
SCENE 1	SCENE 2	SCENE 1 = BUTTON TO TOGGLE LIGHTS 'A' ALONG TEACHING WALL ON/OFF AND LOWER LIGHTS 'B' TO 50%.
		SCENE 2 = BUTTON TO TOGGLE LIGHTS 'A' ALONG TEACHING WALL ON/OFF.
SCENE 3	SCENE 4	SCENE 1 = BUTTON SHALL TURN ON/OFF ALL FIXTURES IN ASSOCIATED ZONE 'A'
		SCENE 2 = BUTTON SHALL TURN ON/OFF ALL FIXTURES IN ASSOCIATED ZONE 'B'
ON	▲	ON = BUTTON TO TURN ALL LIGHTING IN ROOM ON
		RAISE = BUTTON SHALL RAISE LIGHT LEVEL IN SPACE
OFF	▼	OFF = BUTTON TO TURN ALL LIGHTING IN ROOM OFF
		LOWER = BUTTON SHALL LOWER LIGHT LEVEL IN SPACE

CONTROL SEQUENCE

UPON ENTERING THE ROOM, OCCUPANCY SENSOR SHALL TURN LIGHTS ON TO 50% LIGHTING LEVEL. OCCUPANT THEN HAS CONTROL OF LIGHTING THRU WALL STATION. WHEN ROOM IS VACANT, OCCUPANCY SENSOR WILL TURN OFF LIGHTS AFTER TIME DELAY.

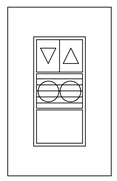


WALL STATION 'RC1' CONFIGURATION

ENGRAVING	PROGRAMMING
ON/OFF	ON = BUTTON TO TURN ALL LIGHTING IN ROOM ON
	OFF = BUTTON TO TURN ALL LIGHTING IN ROOM OFF
▲	BUTTON SHALL RAISE LIGHT LEVEL IN SPACE
▼	BUTTON SHALL LOWER LIGHT LEVEL IN SPACE

CONTROL SEQUENCE

UPON ENTERING THE ROOM, OCCUPANCY SENSOR SHALL TURN LIGHTS ON TO 50% LIGHTING LEVEL. OCCUPANT THEN HAS CONTROL OF LIGHTING THRU WALL STATION. WHEN ROOM IS VACANT, OCCUPANCY SENSOR WILL TURN OFF LIGHTS AFTER TIME DELAY.



WALL STATION 'D' CONFIGURATION

ENGRAVING	PROGRAMMING
ON/OFF	BUTTON SHALL TOGGLE ON/OFF LIGHTING LOAD
RAISE	PRESS AND HOLD - BUTTON SHALL INCREASE LIGHT LEVELS
LOWER	PRESS AND HOLD - BUTTON SHALL DECREASE LIGHT LEVELS

CONTROL SEQUENCE

UPON ENTERING THE SPACE, THE INTEGRAL OCCUPANCY SENSOR SHALL TURN LIGHTING ON TO 50% LIGHT LEVEL. OCCUPANT THEN CAN SET LIGHT LEVELS BASED UPON AVAILABLE SCENES. IF APPLICABLE, THE INTEGRAL DAYLIGHT SENSOR SHALL ADJUST LIGHT LEVELS IN THE DAYLIGHTING CONTROL ZONE BASED ON AVAILABLE NATURAL LIGHT LEVELS. OCCUPANCY SENSOR WILL TURN OFF LIGHTS AFTER VACANCY/TIME OUT. DISABLE PHOTOCELL/ADAPTIVE DAYLIGHT HARVESTING MODE IN ROOMS THAT DO NOT REQUIRE DAYLIGHTING. PROVIDE 0-10V WIRING TO CONTROLLED FIXTURES ACCORDINGLY.

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Project #: 250236

INDIAN HILLS BAND & CHORAL REMODEL
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CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

△ DATE REVISION

PROJECT NUMBER 250273

CHORAL - LIGHTING & ELECTRICAL PLANS

E102

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TYPICAL INSTALLATION FOR ELECTRICAL SYSTEMS

NOTES:

1. FREE AIR CABLE SHALL BE CLASSIFIED PLENUM RATED 2 UNSHIELDED CABLE NEC TYPE CMP AND CEC TYPE CMP FT6.SPECIAL COLOR CODE SPECIFIC TO LOW VOLTAGE BALLAST/DRIVER 0-10V WIRING PROTOCOL. PRODUCT SHALL BE MANUFACTURED TO BE IN COMPLIANT WITH THE REQUIREMENTS OF UL444 FOR INSTALLATIONS AND APPLICATIONS IN ACCORDANCE WITH NEC ARTICLES 725 AND 800.

2. FREE AIR CABLE SHALL BE INSTALLED IN A CLEAN AND CRAFTMANSHIP-LIKE MANNER. SUPPORT AT 5'-0" INTERVALS ALONG THE PATH OF THE ACCOMPANYING BRANCH CIRCUIT LIGHTING RACEWAY. PULLING WIRE DIAGONALLY ACROSS ROOMS IS NOT ALLOWED. USING CEILING SYSTEM OR LIGHT FIXTURE SUPPORT/SEISMIC WIRES FOR SUPPORT IS NOT ALLOWED

3. UTILIZE 18 AWG GAUGE WIRE FOR DISTANCES UP TO 300' AND 16 AWG FOR DISTANCES UP TO 400'.

4. SUPPORT RACEWAYS RIGIDLY ATTACHED TO THE STRUCTURE AT INTERVALS NOT TO EXCEED 8' ON CENTER. PROVIDE A MINIMUM OF 2 SUPPORTS PER 10' OF RACEWAY. SUPPORT RACEWAY WITHIN 12" OF JUNCTION BOX, COUPLING, OUTLET, OR FITTING. PROVIDE RACEWAY SUPPORTS AT EACH 90 DEGREE BEND. REFER TO SPECIFICATION FOR MARE DETAILS.

5. LOCATE LIGHTING JUNCTION BOX WITHIN 3' OF LAY IN FIXTURE.

6. MAKE SPLICES OF 0-10V CABLES INSIDE OF JUNCTION BOXES

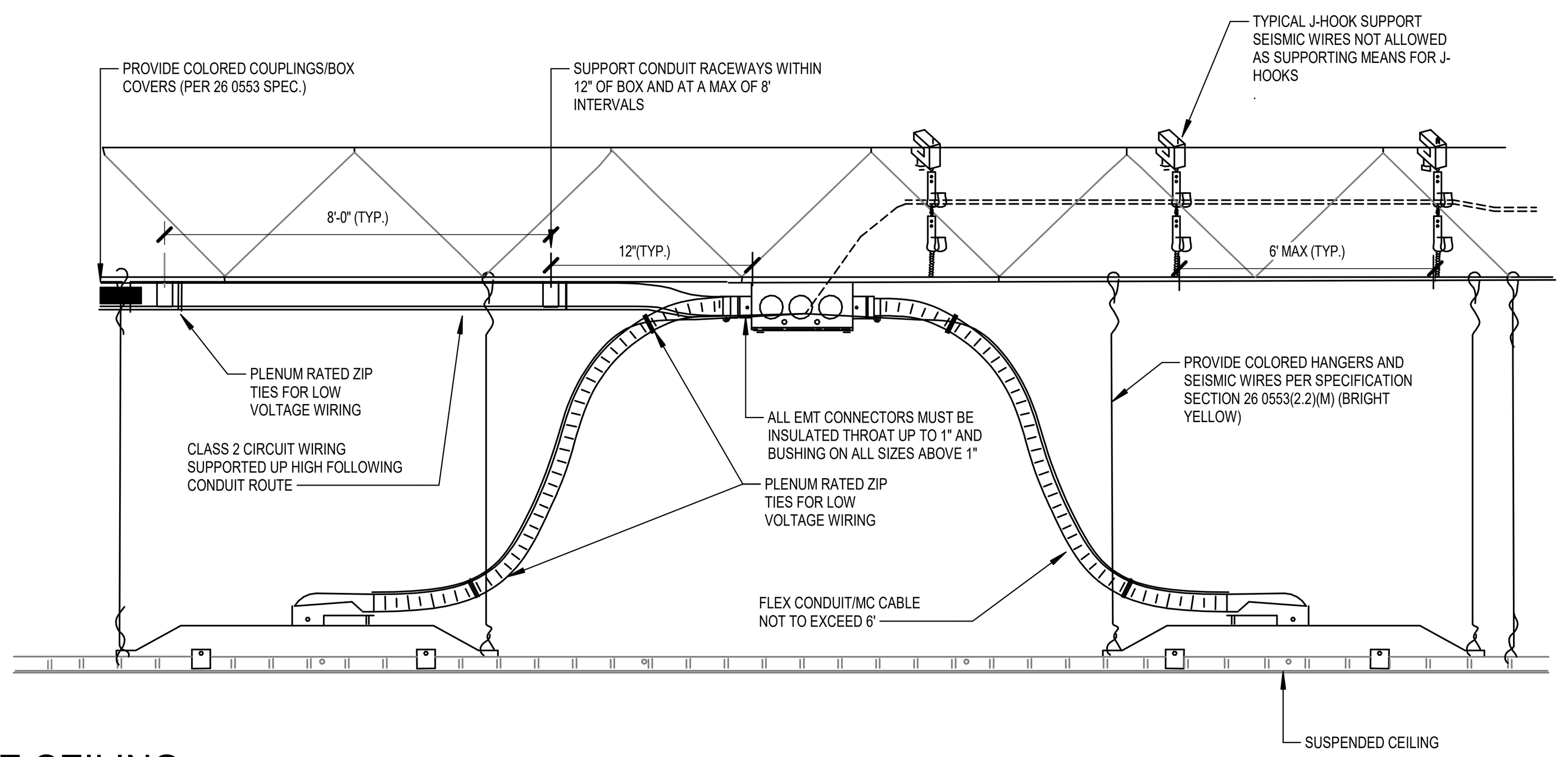


DIAGRAM (A029) A029 - TYPICAL ABOVE CEILING ROUGH-IN

NTS

NOTE:
TYPICAL OF 2'X2', 2'X4', 1'X4', AND 4'X4' FIXTURES

1. #12 GA. WIRE HANGER AT EACH CORNER OF FIXTURE (TYP.) INDEPENDENT OF CEILING SUPPORT SYSTEM AND IDENTIFIED AS PER SPECIFICATIONS.
2. FIXTURE CLAMP. PROVIDE ONE PER SIDE PER FIXTURE.

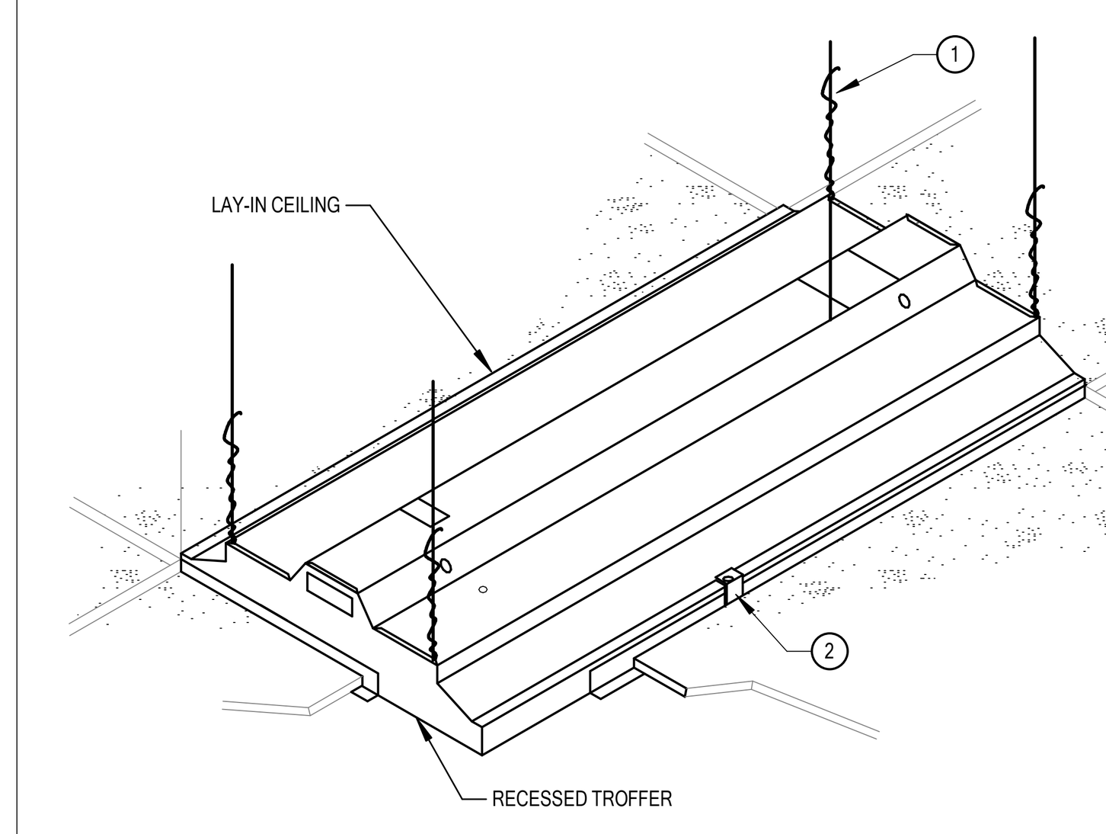


DIAGRAM (A001) TYP. RECESSED FIXTURE MOUNTING

NTS

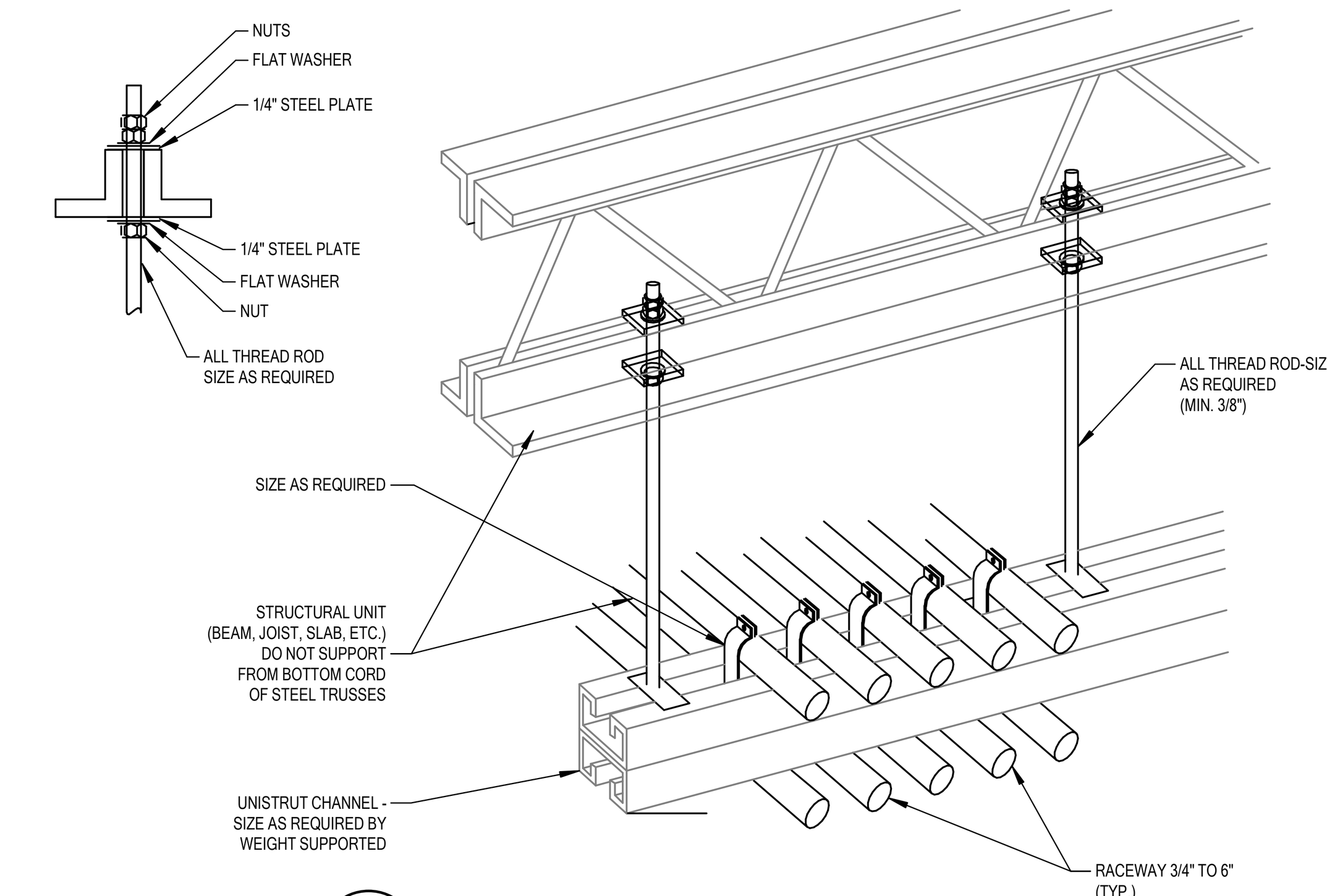


DIAGRAM (H001) TYPICAL TRAPEZE CONDUIT RACK

NTS

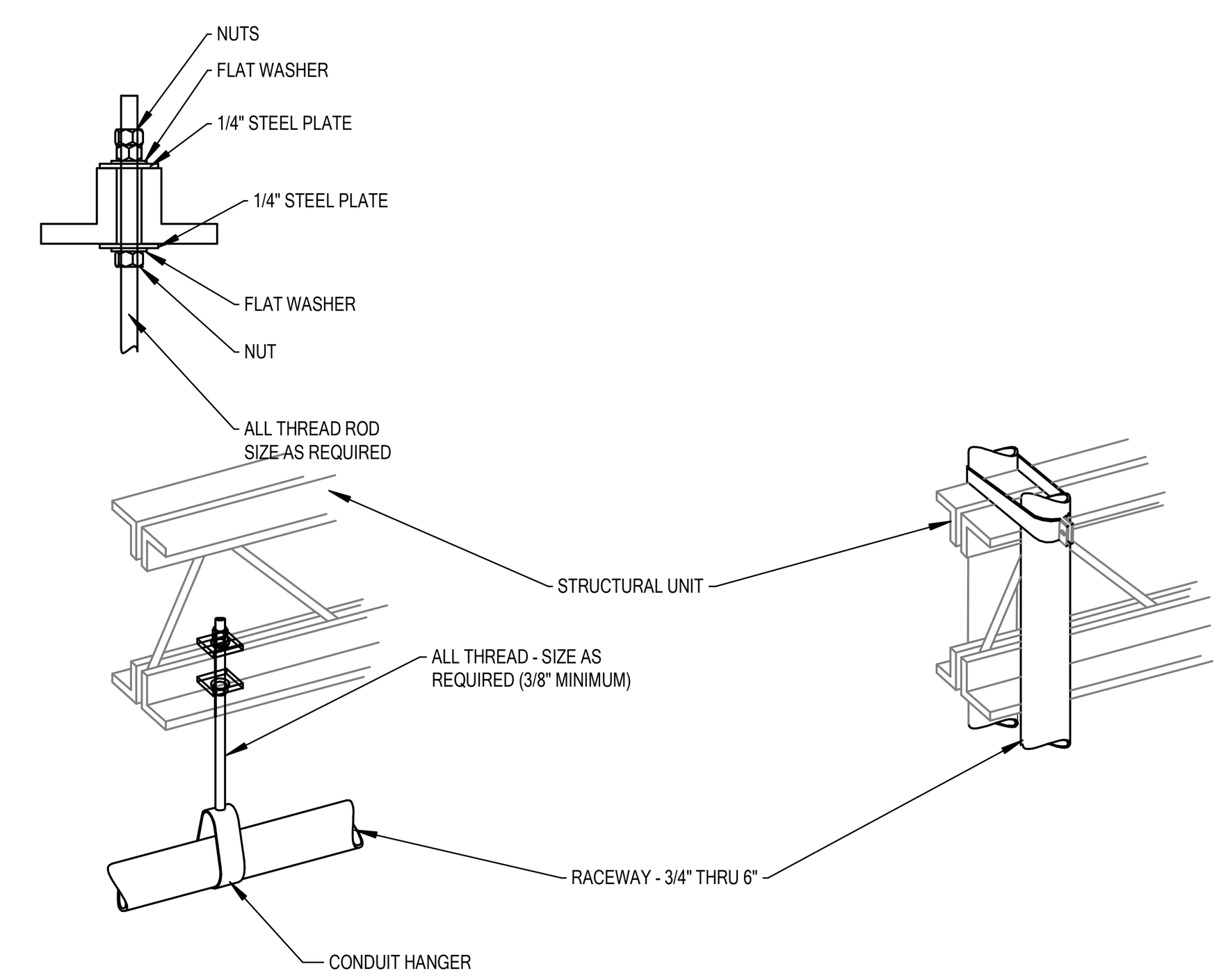
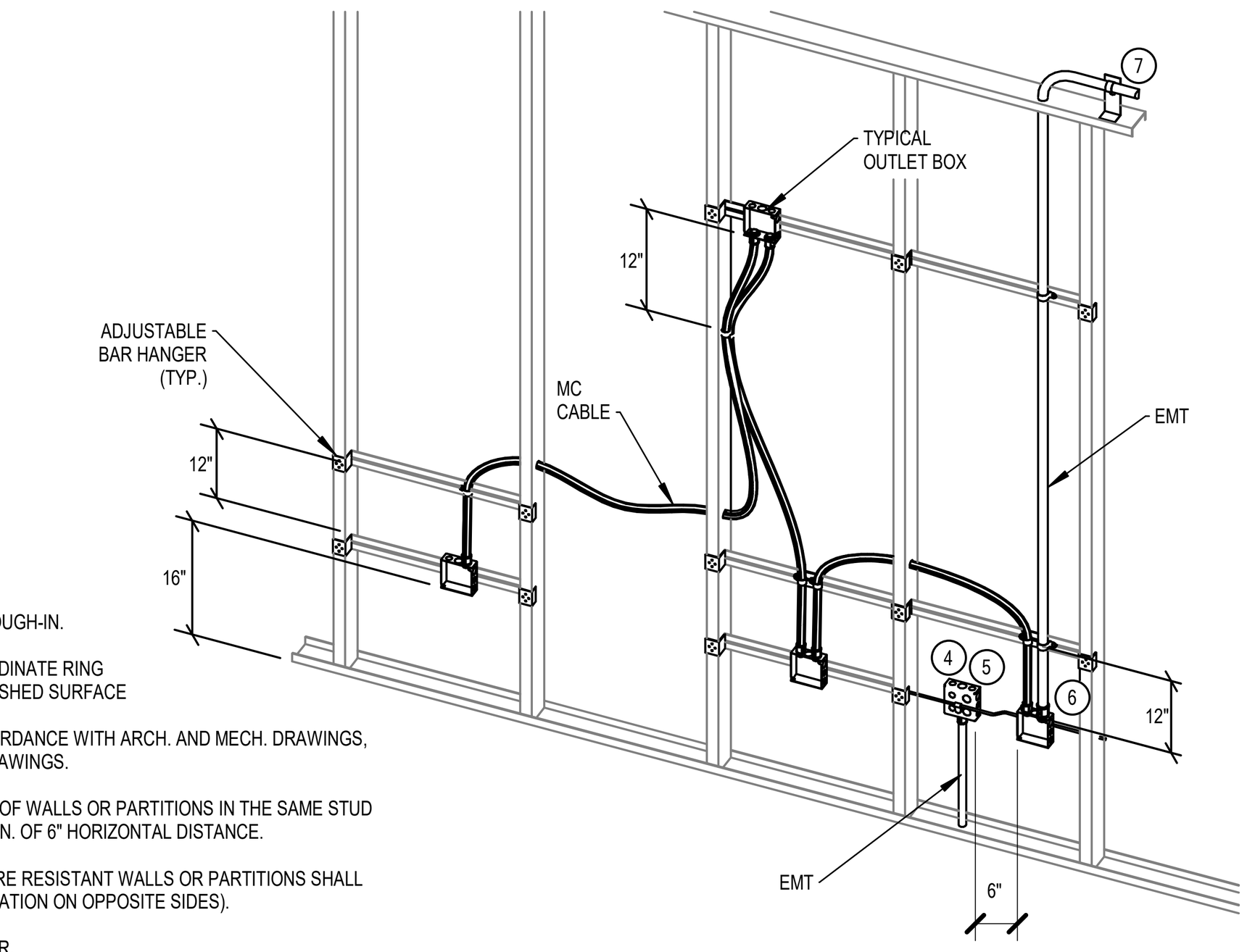


DIAGRAM (H003) TYPICAL RACEWAY SUPPORT METHODS

NTS

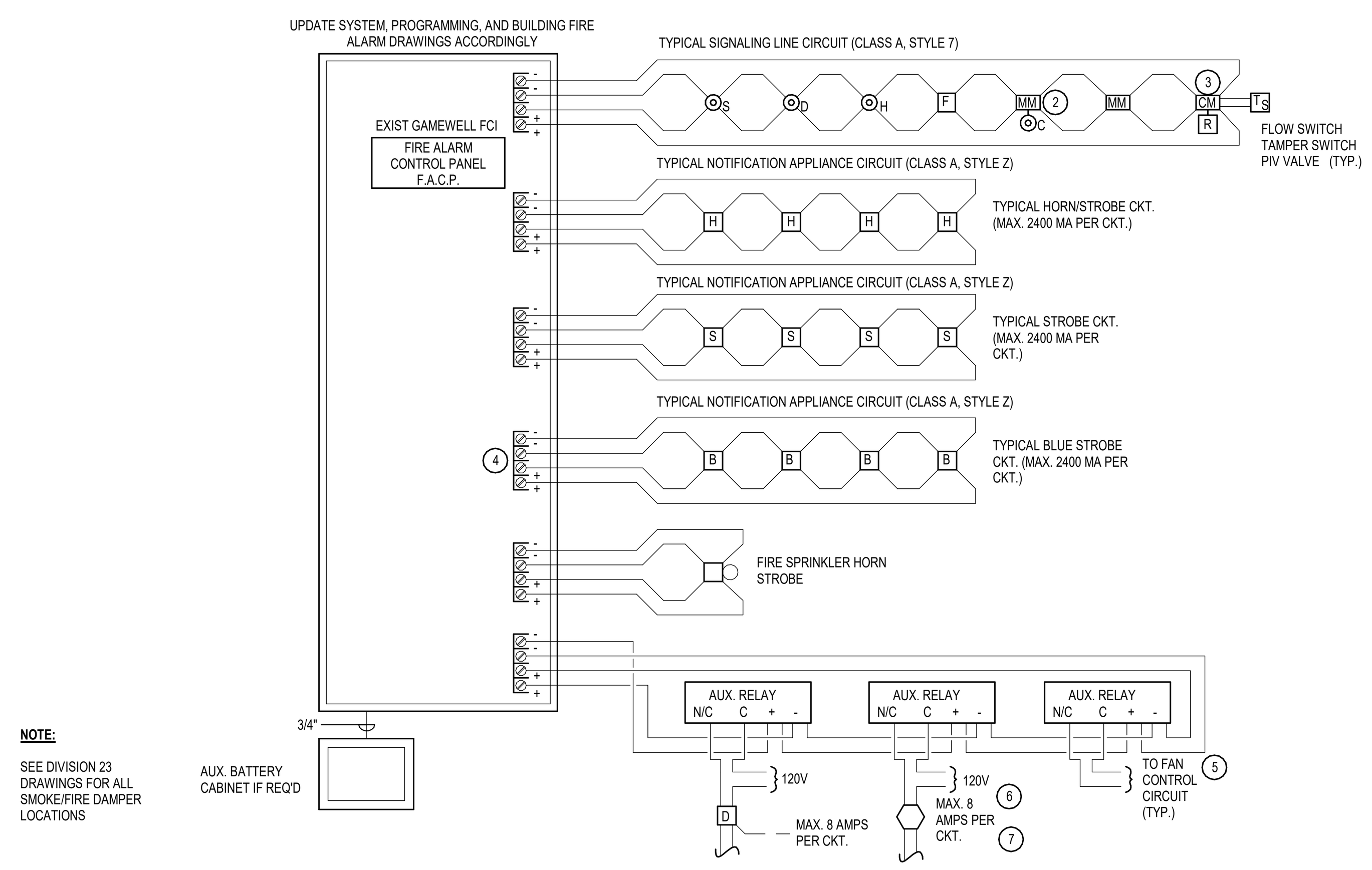


NOTES:
1. TYP. FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISHED SURFACE
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCH. AND MECH. DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
5. ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.5.2 (24" SEPARATION ON OPPOSITE SIDES).
6. INSULATED THROAT EMT CONNECTOR.
7. HOME RUN TO PANEL MUST BE IN RACEWAY.

DIAGRAM (H013) TYPICAL ROUGH IN REQUIREMENTS FOR MC CABLE - EMT CONDUIT HOMERUN

NTS

NOTE:
1. PROVIDE ADDRESSABLE INITIATION LOOP(S) AND POWER CIRCUIT FOR THE CARBON MONOXIDE DETECTORS.
2. PROVIDE CARBON MONOXIDE DETECTOR WITH ASSOCIATED MONITOR MODULE. SEE PLANS FOR QUANTITY AND LOCATION.
3. PROVIDE CONTROL MODULE WITH FAN SHUTDOWN RELAY TO SHUTDOWN MECHANICAL UNIT ON LOCAL CARBON MONOXIDE DETECTOR ACTIVATION.
4. PROVIDE FIRE ALARM BLUE STROBE(S). SEE PLANS FOR QUANTITY AND LOCATIONS.
5. PROVIDE DUCT SMOKE DETECTORS AND FAN RELAYS AT ALL FAN UNITS 2000 CFM AND OVER. SHUT DOWN ALL SUPPLY AND RETURN FANS UPON A GENERAL ALARM SIGNAL.
6. PROVIDE KEY OVERRIDE SWITCH FOR EVERY PAIR OF ELECTROMAGNETIC DOOR HOLDERS/RELEASES.
7. PROVIDE KEY OVERRIDE SWITCH IN MAIN ADMINISTRATION OFFICE THAT WILL RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING.
8. COORDINATE WITH THE ACCESS CONTROL PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE ACCESS CONTROL SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.
9. COORDINATE WITH THE INTERCOM PROVIDER TO PROVIDE INPUT POINT THAT WILL ALLOW THE INTERCOM SYSTEM TO RELEASE ALL ELECTROMAGNETIC DOOR HOLDER/RELEASES THROUGHOUT THE BUILDING DURING A LOCK DOWN EVENT OR PER THE OWNERS REQUIREMENTS.



NOTE:
SEE DIVISION 23 DRAWINGS FOR ALL SMOKE/FIRE DAMPER LOCATIONS

DIAGRAM (D016) TYPICAL FIRE ALARM RISER - K-12 SCHOOL

NTS

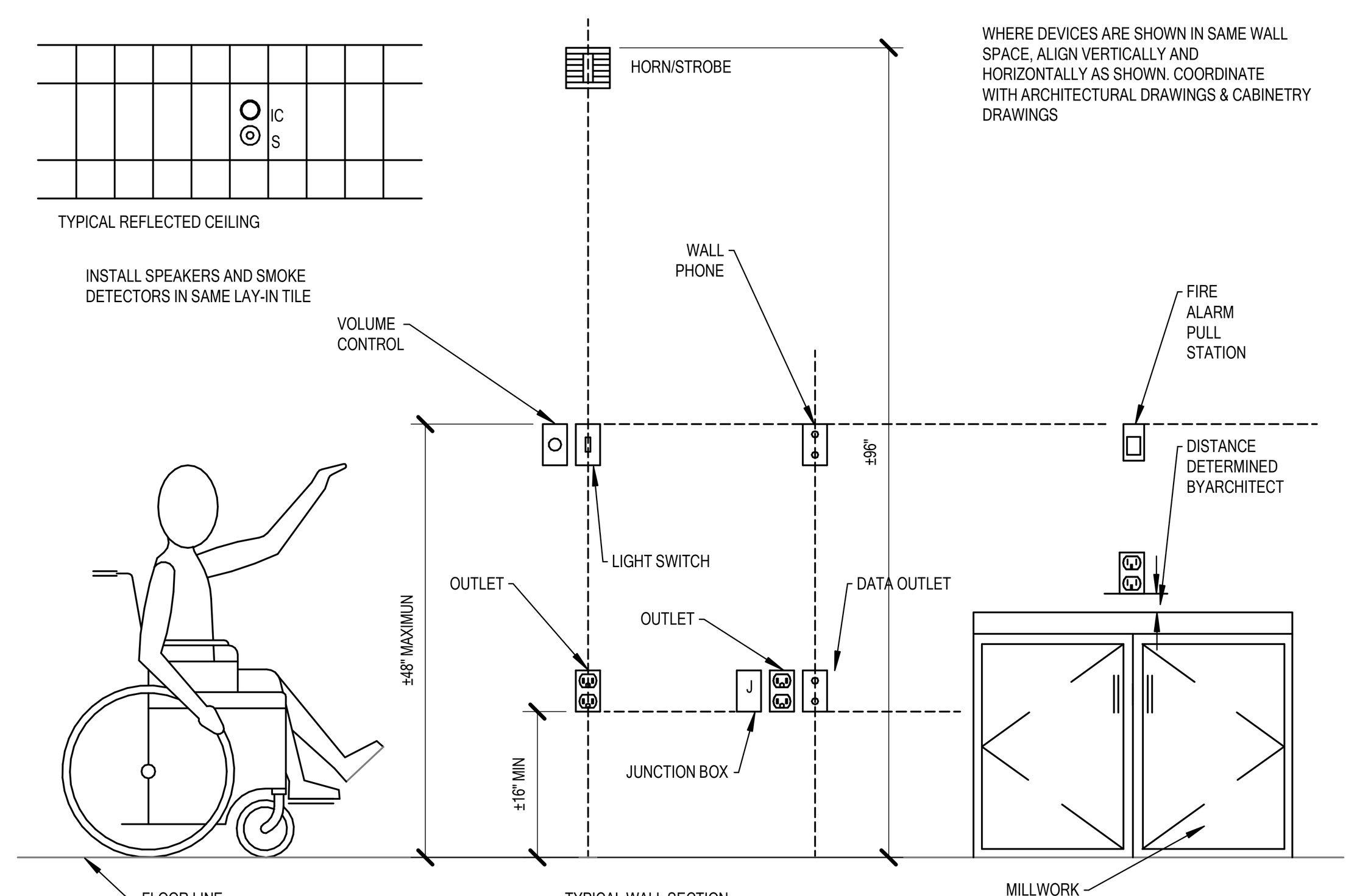
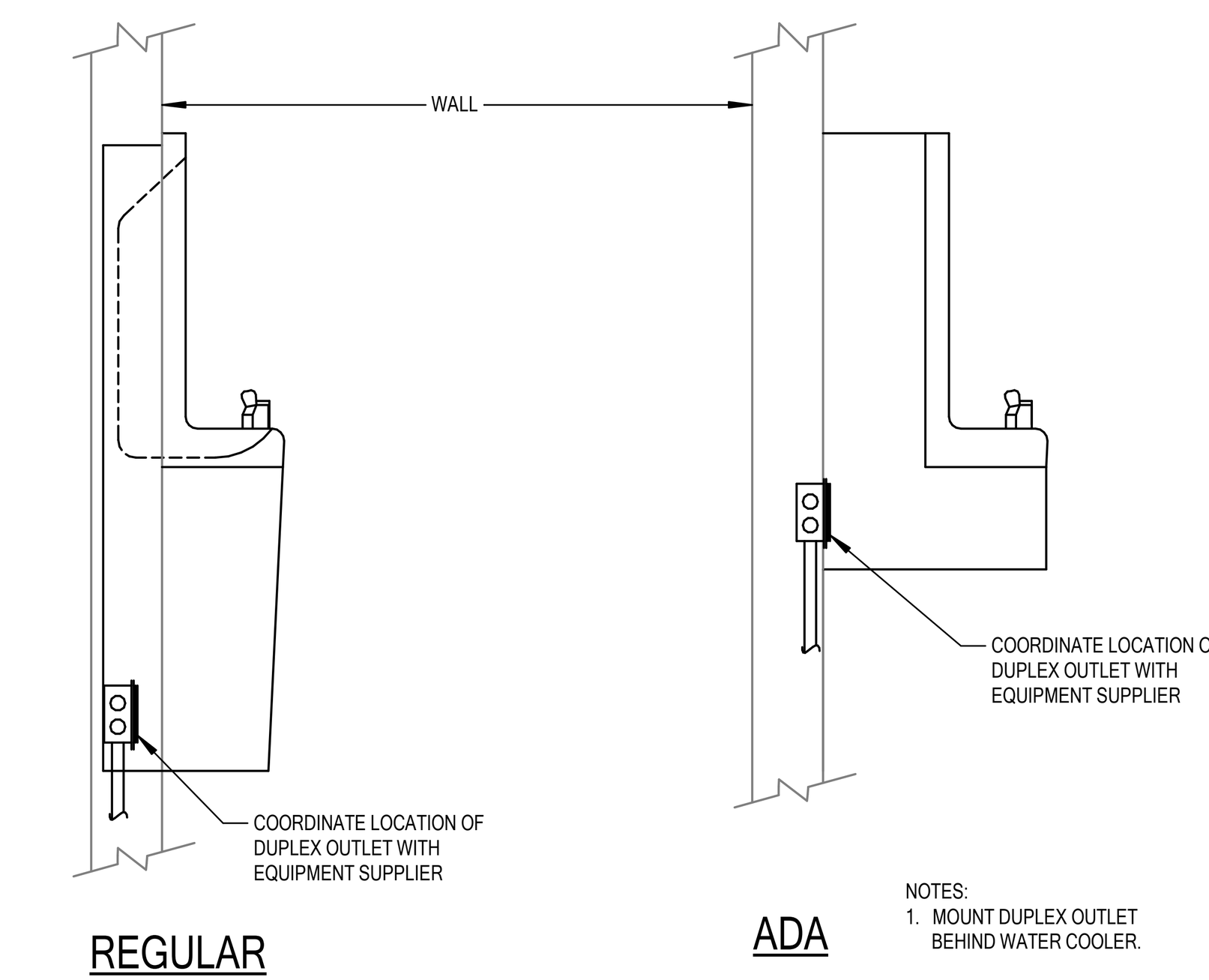


DIAGRAM (R001) DEVICE MOUNTING HEIGHTS

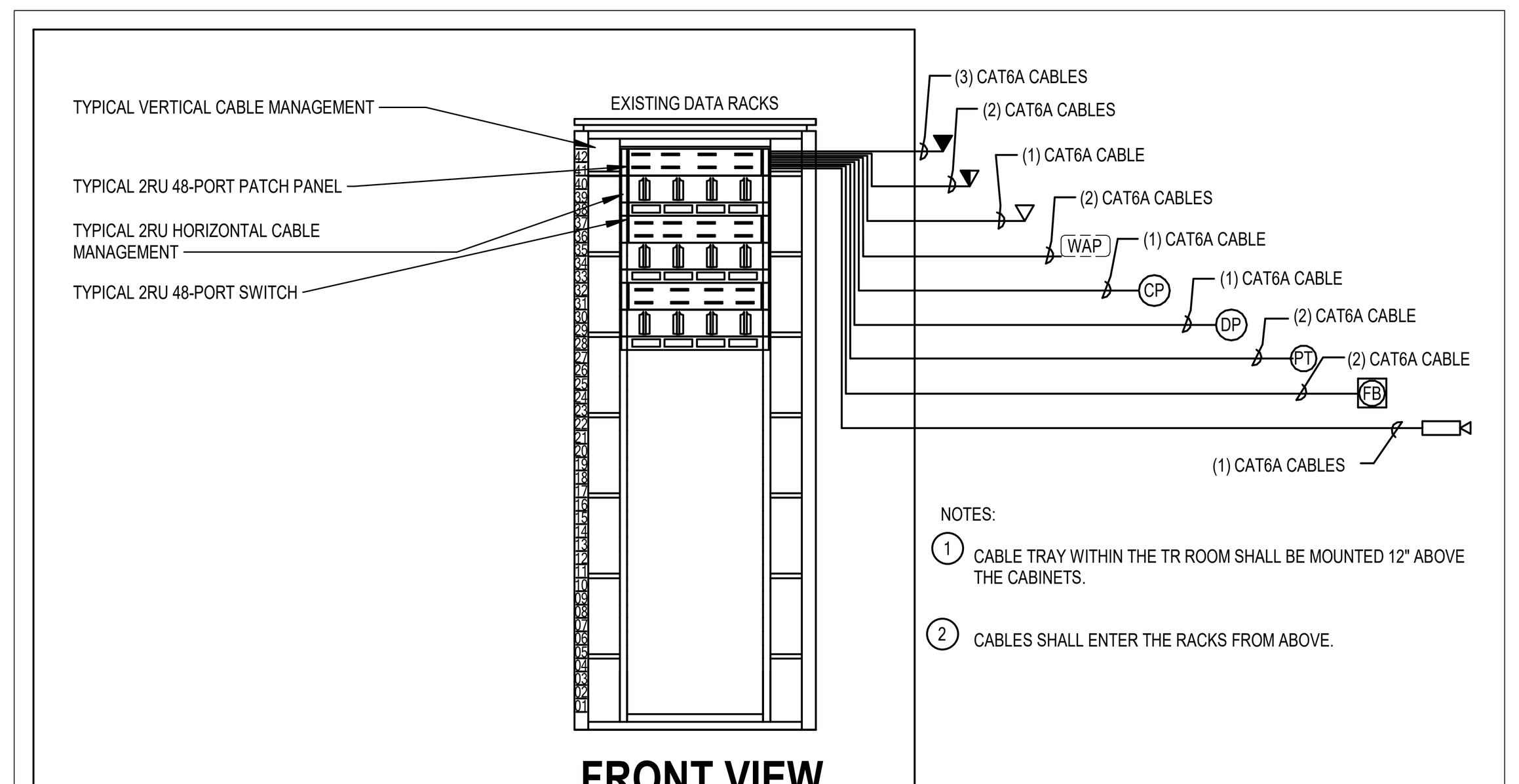
NTS



NOTES:
1. MOUNT DUPLEX OUTLET BEHIND WATER COOLER.
2. PROVIDE 5mA GFCI CIRCUIT BREAKER IN PANEL.

DIAGRAM (R002) ELECTRIC WATER COOLER (EWC)

NTS



NOTES:
1. CABLE TRAY WITHIN THE TR ROOM SHALL BE MOUNTED 12" ABOVE THE CABINETS.
2. CABLES SHALL ENTER THE RACKS FROM ABOVE.

DIAGRAM (F030) TYPICAL DATA RISER

NTS

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ELECTRICAL DIAGRAMS

E701

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CABLING GROUPS AND CONDUIT SEPARATION SCHEDULE

AUDIO AND VIDEO WIRING TYPES:

AUDIO AND VIDEO SYSTEM WIRING IS DIVIDED INTO WIRING GROUPS ACCORDING TO THEIR NOMINAL LEVELS:

GROUP	WIRING TYPE
GROUP 1	FIBER OPTIC CABLE
GROUP 2	O mV TO 100 mV SIGNALS, EXAMPLE: MICROPHONE LEVEL SIGNAL
GROUP 3	100 mV TO 10 V SIGNALS, EXAMPLE: LINE-LEVEL SIGNAL
GROUP 4	10 V TO 70 V SIGNALS, EXAMPLE: SPEAKER LEVEL SIGNAL
GROUP 5	CONTROL, DIGITAL CIRCUITS, DATA AND VIDEO

NOTE: GROUPS LISTED ABOVE SHALL NEVER BE COMBINED WITHIN THE SAME CONDUIT

AUDIO AND VIDEO CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING WIRING OF DIFFERENT AUDIO AND VIDEO GROUPS IS AS FOLLOWS:

GROUP	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
GROUP 1	ADJACENT	ADJACENT	ADJACENT	ADJACENT	ADJACENT
GROUP 2	ADJACENT	ADJACENT	6"	12"	12"
GROUP 3	ADJACENT	6"	ADJACENT	12"	6"
GROUP 4	ADJACENT	12"	12"	ADJACENT	6"
GROUP 5	ADJACENT	12"	6"	6"	ADJACENT

NOTE: NINETY DEGREE CROSSING IN CLOSE PROXIMITY IS PERMITTED.

ELECTRICAL CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING AUDIO AND VIDEO WIRING AND OTHER ELECTRICAL SERVICE CONDUIT IS AS FOLLOWS:

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
277/480V AC CIRCUIT	ADJACENT	24"	24"	24"	24"
120/208V AC CIRCUIT	ADJACENT	24"	12"	12"	24"

NOTE: CONDUITS SHALL NOT RUN MORE THAN 20 FEET IN PARALLEL WITHIN THE GIVEN DISTANCES ABOVE.

AUDIOVISUAL CABLE AND CONDUIT SCHEDULE

NOTES:
1. APPROVED EQUALS FROM OTHER MANUFACTURERS ARE BELDEN, GEPCO/GENERAL, ICE, KRAMER, EXTRON, CRESTRON, LIBERTY CABLE, AND WINDY CITY WIRE.
2. PROVIDE PLENUM RATED CABLES IN ANY "AIR HANDLING" SPACES E.G. ABOVE CEILINGS, RAISED FLOORS, CHASES, ETC.
3. CABLE QUANTITY INDICATED ON DRAWINGS SHOWS ON FINAL RUN. IF NOT NOTED PROVIDE CABLING FOR SINGLE DEVICE.
4. CONDUIT REQUIREMENTS SHOWN ARE MINIMUM CONDUIT SIZE REQUIRED FOR A SINGLE CABLE, UNLESS OTHERWISE NOTED ON DRAWINGS. NUMBER OF CABLES LISTED IS THE MAXIMUM AMOUNT ALLOWED FOR CONDUIT SIZE INDICATED.
5. WHEN COMBINING CABLE TYPES OF THE SAME GROUP, THE TYPE WITH THE LARGEST CONDUIT REQUIREMENT DICTATES CONDUIT SIZE.
6. PROVIDE ON ALL HDMI CABLES LONGER THAN 35' OR WITH MORE THAN (3) CONNECTION POINTS (1) ACTIVE HDMI EXTENSION DEVICE.
7. ALL CATEGORY CABLE SHALL BE TESTED AND CERTIFIED TO ANSI/TIA/EIA-568C AND IEEE 802.3an STANDARDS USING A LEVEL IIIe TESTER.
8. REFER TO SPECIFICATIONS FOR STP CABLE REQUIREMENTS. ALL UNSHIELDED (UTP) CATEGORY CABLES WITHIN THE PROJECT SHALL BE SUPPLIED FROM A SINGLE MANUFACTURER AND MATCH MAKE/MODEL.
9. HDMI CABLES ARE INTENDED TO PASS 4K 60 4:4:4 FROM SOURCE TO DESTINATION. CONTRACTOR TO VERIFY THE LENGTH OF ALL CABLES USED MEET THIS REQUIREMENT.

* INDICATES DEFAULT CABLE IF MANUFACTURER DOES NOT RECOMMEND A SPECIFIC CABLE.

** INDICATES DEFAULT CABLE IF HORIZONTAL CABLING IS EXCLUDED FROM THE PROJECT AND NOT OWNER PROVIDED.

CABLE TYPE	DESCRIPTION	CONDUIT REQUIREMENTS	MANUFACTURER	MODEL NUMBER	CABLE GROUP
(#)AT	ANTENNA, COAXIAL RG8X	1" CONDUIT = (7) CABLES 1 1/2" CONDUIT = (12) CABLES	WEST PENN	807 *	5
(#)CT	CONTROL, 2/22 SHIELDED, 2/18 UNSHIELDED	1" CONDUIT = (7) CABLES 1 1/4" CONDUIT = (12) CABLES	WEST PENN	77350 * D25350 (P) *	5
(#)HD	HDMI < 20', ULTRA FLEXIBLE	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON CRESTRON	HDMI ULTRA/## CBL-HD-##	5
(#)HD	HDMI > 20'	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON KRAMER	HDMI PRO P/XX CP-HM/HM/ETH (P)	5
(#)LA (#)MA	LINE LEVEL, 22 AWG MICROPHONE, 22 AWG	1" CONDUIT = (23) CABLES 1 1/2" CONDUIT = (77) CABLES	WEST PENN	291 D25454 (P)	3 2
(#)MFB	MULTIMODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)RG6	RG-6 COAXIAL CABLE	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)RG11	RG-11 COAXIAL CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (6) CABLES	WEST PENN	821 D25821 (P)	5
(#)S12	SPEAKER, 12 AWG	1" CONDUIT = (3) CABLES 1 1/2" CONDUIT = (7) CABLES 2" CONDUIT = (11) CABLES	WEST PENN	227 25227B (P)	4
(#)S16	SPEAKER, 16 AWG	1" CONDUIT = (10) CABLES 1 1/4" CONDUIT = (17) CABLES	WEST PENN	225 25225B (P)	4
(#)SFB	SINGLE MODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)STP	SHIELDED TWISTED PAIR, CAT 6A	1" CONDUIT = (4) CABLES 1 1/4" CONDUIT = (8) CABLES	PER MFG WEST PENN	4246AF * 254246AF (P) *	5
(#)UTP	UN-SHIELDED TWISTED PAIR CAT 6	1" CONDUIT = (9) CABLES 1 1/4" CONDUIT = (15) CABLES	PER SPEC WEST PENN	4246 ** 254246 (P) ** SPEC 27 1500	5
(#)VG	HIGH RESOLUTION VIDEO	1" CONDUIT = (1) CABLES 1 1/4" CONDUIT = (4) CABLES	WEST PENN	5CRGB 255CRGB (P)	5
(#)SDI	SERIAL DIGITAL INTERFACE (RG-6 COAX)	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)USB	USB EXTENSION CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (10) CABLES	CABLES TO GO	52108	5
(#)X#	MANUFACTURER PROPRIETARY CABLE	AS NOTED	SPEC. 27 4100	SPEC. 27 4100	NA

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MEP	MECHANICAL, ELECTRICAL AND PLUMBING
AFF	ABOVE FINISH FLOOR	MFG	MANUFACTURER
ARCH	ARCHITECTURE	MAX	MAXIMUM
AUX	AUXILIARY	MIC	MICROPHONE
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BC	BARE COPPER	MTG	MOUNTING
C	CONDUIT	N/A	NOT APPLICABLE
CATV	CABLE TELEVISION	NIC	NOT IN CONTRACT
CLG	CEILING	NTS	NOT TO SCALE
CNTR	CONTRACTOR	PLEN	PLENUM
CU	COPPER	(R)	RELOCATE
C/W	COMPLETE WITH	RECPT	RECEPTACLE
DWG	DRAWING	SPEC	SPECIFICATIONS
(E)	EXISTING	SPKR	SPEAKER
FT	FOOT	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
IG	ISOLATED GROUND	UG	UNDERGROUND
IN	INCH	UPS	UNINTERRUPTED POWER SUPPLY
J-BOX	JUNCTION BOX	W	WATTS
LTG	LIGHTING	W/O	WITHOUT

AUDIOVISUAL SYMBOL LEGEND

NOTES:
1. HEIGHT MEASURED TO BOTTOM OF THE DEVICE FROM FINISHED FLOOR.
2. HEIGHT MEASURED TO CENTER LINE OF THE DEVICE FROM THE FINISHED FLOOR.
3. REFER TO DIAGRAMS AND ELEVATIONS FOR CUSTOM ROUGH-IN REQUIREMENTS.
4. STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS.
5. ROUGH-IN TO BE HORIZONTAL.
6. ROUGH-IN TO BE INSTALLED ABOVE ACCESSIBLE CEILING.
7. ROUGH-IN TO BE INSTALLED ABOVE CEILING.
8. DEVICE IS TYPICALLY LOCATED IN MILLWORK, FURNITURE, BEHIND A MONITOR OR ABOVE A PROJECTOR.
9. ABOVE TABLE/COUNTER MOUNTED DEVICE.
10. REFER TO MANUFACTURER'S RECOMMENDED CABLE REQUIREMENTS FOR EXACT CABLE REQUIRED.
11. FOLLOW BICSI STANDARDS FOR CABLE ROUTING AND DISTANCES.
12. JUNCTION BOX INDICATED IS FOR MOST INSTALLATIONS. DEVICE WILL BE NOTED WHEN JUNCTION BOX SIZE REQUIREMENTS ARE DIFFERENT FROM INDICATED.
13. MOUNTING HEIGHT SHOWN IS FROM THE BOTTOM OF THE MONITOR TO THE FINISHED FLOOR.

GENERAL SCHEDULE NOTES:

A. TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED IN THIS SET OF DRAWINGS.
B. DEVICES WITH "A" ADJACENT TO IT INDICATE DEVICE TO BE COORDINATED WITH MILLWORK PRIOR TO ROUGH-IN.
C. ROUGH-IN JUNCTION BOX, CONDUIT, AND MOUNTING HEIGHT ARE DEFAULT REQUIREMENTS. REFER TO PLANS FOR SPECIFIC NOTES AND REQUIREMENTS FOR A SPECIFIC INSTANCE.
D. CONDUIT STUBBED INTO ACCESSIBLE CEILING UNLESS OTHERWISE NOTED.
E. CABLE FROM DEVICE TO BE HOMERUN TO DESTINATION WITHOUT SPLICES.

SYMBOL	DESCRIPTION	J-BOX	CONDUIT	MOUNTING HEIGHT	CABLE TYPE	NOTES
M1 M2	MICROPHONE INPUT, WALL PLATE (M1/M2 = D1, M3/M4 = D2)	D1,D2	(1) 3/4"	RECEPTACLE HEIGHT	(#) MA	2,4.
AX	AUXILIARY INPUT, 3.5MM/RCA CONNECTION, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
T TS	AUDIO OUTPUT, WALL PLATE (T = XLR MALE CONNECTION, TS = 1/4 TS CONNECTION)	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
MA	MICROPHONE INPUT WITH AUXILIARY INPUT, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) MA (1) LA	2,4.
MC#	MICROPHONE, CEILING ARRAY, INPUT, OR STANDARD (# = INIDICATES TYPE)	D1	(1) 3/4"	CEILING	(1) MA	2,4.
MB	TABLE TOP BOUNDARY MICROPHONE		(1) 1/2"	ON TABLE/ MILLWORK	(1) MA	2,3,9.
MW	WALL MOUNTED MICROPHONE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
MXT	MICROPHONE AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
MT	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D1	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M2D	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M4D	FOUR MICROPHONE INPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
BXT	BLUETOOTH AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
BT	BLUETOOTH, WALL PLATE, AUDIO EXTENDER	D1	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
VG	VGA INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) VG	2,4.
HD	HDMI INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) LA	2,4.
HV	HDMI AND VGA INPUT, WALL PLATE	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) VG	2,4.
EN1	AVoIP ENCODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
DC1	AVoIP DECODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
TxH	HDBaseT, HDMI INPUT TRANSMITTER, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxD	HDBaseT, HDMI AND VGA TRANSMITTER, WALL PLATE	D2	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxM	HDBaseT, HDMI, DISPLAY PORT AND/OR VGA TRANSMITTER BOX, SURFACE MOUNTED			IN MILLWORK/ UNDER TABLE	(1) STP	2,4,11.
TxT	HDBaseT CATEGORY INPUT, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
RxH	HDBaseT, HDMI RECEIVER, WALL PLATE	D1	(1) 1"	AS NOTED	(1) STP	2,4,11.
US#	USB INPUT, WALL PLATE, UTP EXTENDER, (# = INDENTIFIES UNIQUE PLATE)	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
Rx Tx	HDBaseT DEVICE, SURFACE MOUNTED T = TRANSMITTER, R = RECEIVER		(1) 1"	IN MILLWORK/ UNDER TABLE	(1) STP	2,4,8,11.
CHD	DUAL HDMI TRANSMITTER, WALL PLATE	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
HDU	HDMI AND USB TRANSMITTER, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
CAL	2-WAY INTERCOMMUNICATION PUSHBUTTON STATION	D1	(1) 3/4"	SWITCH HEIGHT	AS NOTED	2,7,10.
CSA	CLASSROOM SOUND AMPLIFICATION SYSTEM	D2	(1) 1 1/4" (1) 1"	IN MILLWORK/ AS NOTED		2,3.
CI	CREWCOM HEADSET INPUT, WALL PLATE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
CIS	CREWCOM WALL STATION, WALL PLATE	D3	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
IR IR	INFRARED SENSOR, WALL/CEILING	D1	(1) 3/4"	AS NOTED	(1) UTP OR (1) BUS	2,6,11.
ALS ALS	ASSISTIVE LISTENING SYSTEM ANTENNA/EMITTER, WALL/CEILING	A1	(1) 1"	AS NOTED	AS NOTED	2,6.
AT AT	AV ANTENNA, WALL/CEILING	D1	(1) 1"	AS NOTED	(1) AT	2,6.
V	VOLUME CONTROL	D1	(1) 1"	SWITCH HEIGHT	(1) S16	2,4.
SV	VOLUME CONTROL WITH SOURCE SELECTOR	D2	(1) 1"	SWITCH HEIGHT	(1) S16 (1) UTP	2,4,9,11.
TPT	TOUCH PANEL, TABLE TOP		(1) 1"	AS NOTED	(1) UTP	
TP#	TOUCH PANEL, WALL MOUNTED, REFER TO SPECIFICATIONS FOR TOUCH PANEL TYPE AND ORIENTATION	SCH	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,5,11.
KP#	KEYPAD, WALL MOUNTED, REFER TO SPECIFICATIONS FOR KEYPAD TYPE	SCH	(1) 1"	SWITCH HEIGHT	(1) BUS or (1) UTP	2,4,10.
RS#	ROOM SCHEDULING TOUCHPANEL	SCH	(1) 1"	SWITCH HEIGHT	(1) STP	
TB#	TABLE/FURNITURE BOX, NUMBER REFERS TO TYPE REFER TO SPECIFICATIONS/DIAGRAMS FOR REQUIREMENTS			IN MILLWORK	SEE DIAGRAMS.	
	LOUDSPEAKER, WALL MOUNTED	C#	(1) 3/4"	AS NOTED	(1) S16	2,4.
	LOUDSPEAKER, ARRAY, CABINET, CLUSTER	A0	(1) 3/4"	AS NOTED	(1) S12	2,4.
	LOUDSPEAKER, CEILING RECESSED OR PENDANT	C#	(1) 3/4"	CEILING	(1) S16	2,7.
SB#	SOUND BAR, REFER TO SPECIFICATIONS FOR TYPE	D1	(1) 1"	UNDER DISPLAY OR AS NOTED		1,5.
SB#	DISPLAY, REFER TO SPECIFICATIONS FOR DISPLAY TYPE AND SIZE	PER SCH	(1) 1 1/4" (1) 1"	AS NOTED	AS NOTED	4,13.
SC# SC#	PROJECTION SCREEN REFER TO SPECIFICATIONS FOR SCREEN TYPE AND SIZE	(2) A0	(1) 3/4"	CEILING OR WALL	(1) UTP	2,7.
P#	PROJECTOR	D2	(1) 1 1/4"	CEILING OR AS NOTED	AS NOTED	2,6.
	AV CAMERA	C#	(1) 1"	AS NOTED	AS NOTED	1.
	EQUIPMENT CABINET/RACK	C#	SCH	AS NOTED		
CLG	EQUIPMENT CEILING RACK	C#	SCH	AS NOTED		
	EQUIPMENT 2-POST CABINET/RACK	C#	SCH	AS NOTED		
GP# GP#	PASS THROUGH PLATE, # = NUMBER OF GANGS	D#	(1) 1-1/2"	AS NOTED		2.
J	JUNCTION BOX, ABOVE ACCESSIBLE CEILING	A0	AS NOTED	AS NOTED		
C##	CUSTOM JUNCTION BOX, REFER TO SCHEDULE AND DIAGRAM FOR EQUIPMENT, JUNCTION BOX AND CONDUIT	SCH	SCH	AS NOTED	AS NOTED	
FB	FLOOR BOX - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		AS NOTED		AS NOTED	
PT	POKE THRU - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		(1) 1 1/2"		AS NOTED	
	CONDUIT RUN CONCEALED IN WALL OR CEILING		AS NOTED			
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		AS NOTED			
	CONDUIT UP		AS NOTED			
	CONDUIT DOWN		AS NOTED			
	CONDUIT STUB LOCATION		AS NOTED			
	CONDUIT/CIRCUIT CONTINUATION		AS NOTED			
####	DEVICE/EQUIPMENT TYPE CALLOUT					
## #	ELEVATION VIEW TAG (# = VIEW NUMBER, ## = SHEET NUMBER)					
# ##	DIAGRAM CALLOUT TAG					

LOW VOLTAGE SCOPE OF WORK

NOTES:...
1. RESPONSIBILITY MATRIX DELINEATES THE SCOPE OF WORK BETWEEN THE OWNER AND THE CONTRACTORS. CONTRACTORS ARE RESPONSIBLE TO COORDINATE BETWEEN EACH OTHER FOR THE FULL SCOPE OF WORK THEY ARE RESPONSIBLE FOR.
2. ADDITIONAL NOTES MAY BE PRESENT WITHIN THE CONTRACT DOCUMENTS INDICATING SPECIFIC EQUIPMENT PROVIDED BY OTHERS OR REQUIRE INSTALLATION BY SPECIFIC DIVISIONS.
3. INSTALLER PROVIDING THE SYSTEM CABLING SHALL PROVIDE THE CABLING, TERMINATION AND CERTIFICATION FOR A COMPLETE SYSTEM INSTALLATION, UNLESS OTHERWISE SPECIFICALLY NOTED WITHIN THE CONTRACT DOCUMENTS.
4. INSTALLER TO VERIFY WITH CONTRACT DOCUMENTS FOR THE CONNECTION TYPE (MALE OR FEMALE) REQUIRED FOR EACH SYSTEM.
5. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

LEGEND

AC	ACCESS CONTROL CONTRACTOR
AV	AUDIOVISUAL CONTRACTOR
DC	DOOR HARDWARE CONTRACTOR
EC	ELECTRICAL CONTRACTOR
FR	FURNITURE CONTRACTOR
GC	GENERAL CONTRACTOR
IC	INTRUSTION DETECTION CONTRACTOR
LVC	DATA CABLING CONTRACTOR
NIC	NOT IN CONTRACT
OWNER	OWNER
SC	VIDEO SURVEILLANCE CONTRACTOR
SPEC	SEE SPECIFICATIONS

DESCRIPTION	FURNISHED BY	INSTALLED BY
GENERAL		
STRUCTURAL BACKI`NG AND SUPPORT FOR WALL MOUNTED EQUIPMENT	GC	GC
EQUIPMENT POWER (120V, 208V, 240V, 277V, 480V)	EC	EC
ROUGH OR FINISHED TRIM, CASEWORK, MILLWORK, EQUIPMENT RACK PEDESTALS, STRUCTURAL WORK FOR SPECIAL CONSTRUCTION	GC	GC
SUPPORT CABLES, PRE-CONSTRUCTION KITS, TILE BRIDGES AND/OR BACK BOXES FOR CEILING MOUNTED DEVICES.	EC	EC
TEST	TS	TS
AUDIOVISUAL **BOXES/DEVICES**		
SPECIALTY BACK BOXES, TILE BRIDGES, SUPPORT CABLES, PRECONSTRUCTION KITS, ETC. FOR AUDIOVISUAL COMPONENTS (TOUCH PANELS, LOUDSPEAKERS, KEYPADS, ETC.)	AV	AV
CUSTOM AUDIOVISUAL CONNECTOR INSERT PLATE FOR FLOOR BOXES AND/OR WALL PLATES	AV	AV
FURNITURE BOXES WITH AUDIOVISUAL CONNECTIONS AND/OR CABLES	AV	AV
FURNITURE BOX TABLE CUTTING	GC	GC
CONDUIT/WIRE		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, FLAT PANEL DISPLAY BACK BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE FROM DEVICE LOCATION TO TR(MDF)/ER(IDF) TERMINATED IN PATCH PANEL	LVC	LVC
COAXIAL CABLE	LVC	LVC
CATEGORY CABLING FROM DEVICE TO DEVICE, NOT TERMINTATED IN PATCH PANELS WITHIN THE ER(MDF/TR(IDF)	AV	AV
CONDUIT/WIRE EQUIPMENT		
EQUIPMENT RACKS NOT WITHIN THE ER(MDF)/TR(IDF) FOR SYSTEM COMPONENTS	AV	AV
LIGHTING CONTROL SYSTEM INTERFACE DEVICE(S) AND CABLING TO AV CONTROL SYSTEM. TERMINATION INTO AV SYSTEM CONTROLLER BY AV INSTALLER	EC	EC
MOTORIZED SHADE CONTROL SYSTEM INTERFACE DEVICE(S) AND CABLING TO AV CONTROL SYSTEM. TERMINATION INTO AV SYSTEM	AV	AV
INSTRUCTOR'S LECTERNS/CONSOLES WITH INTEGRATED AUDIOVISUAL SYSTEMS COMPONENTS	AV	AV
NETWORK SWITCHES WITHIN THE ER(MDF)/TR(IDF) FOR AUDIOVISUAL NETWORK, AUDIO, CONTROL AND VIDEO	OWNER	OWNER
PROJECTOR/MONITORS		
VIDEO PROJECTOR	OWNER	AV
PROJECTOR SCREEN MANUAL AND/OR MOTORIZED HOUSING	AV	AV
FLAT PANEL MONITOR MOUNTS	AV	AV
FLAT PANEL MONITORS	AV	AV
VIDEO PROJECTOR MOUNTS	AV	AV
PROJECTOR SCREEN, FIXED FRAME (SIMILAR TO WHITEBOARD)	GC	GC
PROJECTOR SCREEN MANUAL AND/OR MOTORIZED ROLLER	AV	AV
INTERACTIVE FLAT PANEL MONITORS AND MOUNTS	OWNER	OWNER
ACCESS CONTROL SYSTEM **CONDUIT/WIRE**		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
TERMINATING AND TESTING THE CATEGORY AND FIBER OPTIC CABLING	LVC	LVC
ACCESS CONTROL CABLING	AC	AC
TERMINATING AND TESTING THE ACCESS CONTROL CABLING	AC	AC
ACCESS CONTROL SYSTEM **EQUIPMENT**		
ACCESS CONTROL SERVER	OWNER	OWNER
ACCESS CONTROL OPERATING SOFTWARE	AC	AC
ACCESS CONTROL SYSTEM HEAD-END CONTROL PANEL(S), AND POWER SUPPLY(S)	AC	AC
INDIVIDUAL ACCESS CONTROL DOOR CONTROLLERS (IF APPLICABLE)	AC	AC
RECHARGABLE BACKUP BATTERIES	AC	AC
ACCESS CONTROL END DEVICES (E.G., CREDENTIAL CARD READERS, DOOR POSITION CONTACTS, REQUEST TO EXIT MOTIONS, PUSH TO EXIT BUTTONS, DESK DOOR RELEASE BUTTONS, DURESS/PANIC BUTTONS, SCHOOL LOCKDOWN CREDENTIAL CARD READER OR BUTTON, ETC.)	AC	AC
ELECTRIFIED LOCKING DOOR HARDWARE EQUIPMENT (E.G, ELECTRIC STRIKES, ELECTRIFIED LOCKSETS, ELECTRIFIED EXIT RIM DEVICES (CRASH BARS), ELECTROMAGNETIC LOCKS, ELECTRIC POWER TRANSFER/ELECTRIC HINDGE, ETC.)	DC	DC
POWER SUPPLIES FOR ELECTRIFIED LOCKING DOOR HARDWARE EQUIPMENT	AC	AC
CREDENTIALS (E.G. CARDS, FOBS, TAGS, MOBILE CREDENTIALS)	AC	AC
BADGE PRINTER FOR CREDENTIAL CARDS.	AC	AC
IP TWO-WAY AUDIO VIDEO INTERCOM SYSTEM (E.G., EXTERIOR DOOR STATIONS, ANSWERING BASE STATIONS, SDXC MEMORY CARDS, IP LICENSES, ETC).	AC	AC
EXTERIOR PEDESTALS AND ENCLOSURES	AC	AC
NETWORK EQUIPMENT SPECIFICALLY FOR THE ACCESS CONTROL SYSTEM (E.G., NETWORK SWITCHES, PoE SWITCHES, ROUTERS, PATCH PANELS, EQUIPMENT RACKS, ETC).	OWNER	OWNER
OPERATING BASE STATION, WORK STATION EQUIPMENT (COMPUTER SERVER, MONITOR, KEYBOARD, MOUSE).	OWNER	AC
(UPS) UNINTERRUPTIBLE POWER SUPPLY, SURGE PROTECTORS, POWER SURGE & SUPPRESSION EQUIPMENT.	OWNER	OWNER
INTRUSION DETECTION SYSTEM **CONDUIT/WIRE**		
ROUGH-IN: CONDUIT WITH PULL STRING, JUNCTION BOXES, FLOOR BOXES, ETC.	EC	EC
CATEGORY AND FIBER OPTIC CABLING	LVC	LVC
TERMINATING AND TESTING THE CATEGORY AND FIBER OPTIC CABLING	LVC	LVC
INTRUSION LOW VOLTAGE CABLING	IC	IC
TERMINATING AND TESTING THE INTRUSION LOW VOLTAGE CABLING	IC	IC
INTRUSION DETECTION SYSTEM **EQUIPMENT**		
INTRUSION DETECTION (ARM/DISARM) KEYPADS	IC	IC
END DEVICES: (E.G.; DOOR & WINDOW POSITION CONTACTS, GARAGE/ROOF HATCH POSITION CONTACTS, MOTION DETECTORS, GLASS BREAK DETECTORS, SMOKE DETECTORS, HEAT DETECTORS, TEMPERATURE SENSOR, HUMIDITY SENSORS, WATER LEAK SENSOR, ETC.)	IC	IC
INTRUSION DETECTION WIRELESS EQUIPMENT (E.G., TRANSMITTERS, RECEIVERS, REPEATERS, ETC.)	IC	IC
CELLULAR BACKUP COMMUNICATOR	IC	IC
RECHARGABLE BACK-UP BATTERIES	IC	IC
INTERIOR AND/OR EXTERIOR AUDIBLE SIRENS AND/OR STROBES	IC	IC
IP CAMERA & VIDEO SURVEILLANCE SYSTEM **CONDUIT/WIRE**		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
TERMINATING AND TESTING THE CATEGORY AND FIBER OPTIC CABLING	LVC	LVC
IP CAMERA & VIDEO SURVEILLANCE SYSTEM **EQUIPMENT**		
(NVR) NETWORK VIDEO RECORDER SERVER	SC	SC
(VMS) VIDEO MANAGEMENT SYSTEM OPERATING SOFTWARE	SC	SC
VIDEO ANALYTIC SOFTWARE AND LICENSING	SC	SC
IP SURVEILLANCE CAMERA SOFTWARE LICENSES	SC	SC
IP SURVEILLANCE CAMERAS	SC	SC
IP SURVEILLANCE CAMERA MOUNTS AND MOUNTING HARDWARE EQUIPMENT	SC	SC
AUDIO MICROPHONE FOR IP SURVEILLANCE CAMERA	SC	SC
MICRO SDXC MEMORY CARD(S) FOR IP SURVEILLANCE CAMERAS	SC	SC
IP SURVEILLANCE CAMERA ETHERNET EXTENDERS, MEDIA CONVERTERS, PoE INJECTORS, POWER SUPPLIES	SC	SC
IN-LINE CAT6 CATEGORY CABLE SURGE PRTECTORS	SC	SC
(UPS) UNINTERRUPTIBLE POWER SUPPLY, SURGE PROTECTORS, POWER SURGE & SUPPRESSION EQUIPMENT	OWNER	OWNER
OPERATING BASE STATION AND WORK STATION EQUIPMENT (E.G., COMPUTER SERVERS, MONITORS, KEYBOARDS, MOUSE, SPEAKERS, ETC.)	OWNER	SC
NETWORK EQUIPMENT SPECIFICALLY FOR THE IP VIDEO SURVEILLANCE SYSTEM (E.G. NETWORK SWITCHES, PoE SWITCHES, ROUTERS, PATCH PANELS, EQUIPMENT RACKS, ETC.)	OWNER	OWNER
TELEPHONE / DATA **BOXES/DEVICES**		
CUSTOM TELECOMMUNICATIONS CONNECTOR INSERT PLATE FOR FLOOR BOXES AND/OR WALL PLATES	EC	EC
TELEPHONE / DATA **CONDUIT/WIRE**		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, FLAT PANEL DISPLAY BACK BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
TERMINATE CABLE (PATCH PANEL AND DATA PORT), INCLUDING TESTING	LVC	LVC
PATCH CABLES FOR DEVICES WITHIN THE TR/ER FOR CONNECTION BETWEEN PATCH PANELS AND NETWORK SWITCHES	LVC	LVC
TELEPHONE / DATA **EQUIPMENT**		
EQUIPMENT RACKS WITHIN THE ER(MDF)/TR(IDF) FOR SYSTEM COMPONENTS	LVC	LVC
WIRELESS ACCESS POINTS	OWNER	LVC
RACK MOUNT UPS, POWER DISTRIBUTION UNIT (PDU)	LVC	LVC
DATA SWITCHES, SERVERS, FIREWALL, ETC	OWNER	OWNER

AUDIOVISUAL SHEET INDEX

REFERENCE NOTES

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Project #: 250236

INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

PROFESSIONAL ENGINEER BRIAN HICKS No. 7709037-2202 4/14/2025 STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 250273

AUDIOVISUAL SYMBOLS AND NOTES

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PROJECTOR SCREEN SCHEDULE

TYPE	IMAGE SIZE (lx) IN INCHES						CASE DIMENSIONS (Cx) IN INCHES			WEIGHT	OPERATION	PROJECTION ORIENTATION	CONTROL TYPE	MOUNTING TYPE	NOTES
	DIAGONAL	HEIGHT	WIDTH	ASPECT RATIO	BLACK DROP LENGTH	BOTTOM OF IMAGE AFF	LENGTH	WIDTH	DEPTH						
SC1	113	59 7/8"	95 13/16"	16:10	8"	48	6"	6"	6"	60 LBS	MANUAL	FRONT	MANUAL	WALL MOUNTED	

AV CUSTOM BACK BOX SCHEDULE

TYPE	MANUFACTURER	MODEL	BOX DIMENSIONS (Cx) IN INCHES			CONDUIT'S	MOUNTING TYPE	MOUNTING HEIGHT	NOTES
			HEIGHT	WIDTH	DEPTH				
C02	HUBBELL	HBL260	4 3/16"	2 1/8"	2 1/8"	(1) 1 1/2"	RECESSED	HORIZONTAL	2-GANG CUSTOM JUNCTION BOX, REFER TO SCHEDULE AND DIAGRAM FOR EQUIPMENT, JUNCTION BOX AND CONDUIT
CAL	HUBBELL	HBL263	4 3/16"	2 1/8"	2 1/8"	(2) 1"	RECESSED	HORIZONTAL	3-GANG

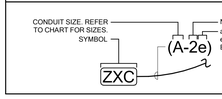
AV EQUIPMENT RACK SCHEDULE

TYPE	DIMENSIONS				JUNCTION BOX	MOUNTING TYPE	NOTES
	HEIGHT	WIDTH	DEPTH	RU's			
R1	22"	19 1/4"	18"	12	C2	FLOOR	WALL MOUNTED EQUIPMENT RACK, HEIGHT INDICATED IS FROM BOTTOM OF RACK.

AV LOUDSPEAKER SCHEDULE

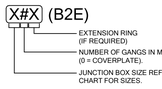
TYPE	DIMENSIONS				SHAPE	WEIGHT	INSTALLATION	NOTES
	WIDTH (H)	WIDTH (V)	DIAMETER	DEPTH				
IC1	12"	24"	12"	3"	SQUARE	4.7 LBS	CEILING RECESSED	CLASSROOM LOUDSPEAKER
W1	9 3/8"	18 1/2"		10"	SQUARE	28.2 LBS	SURFACE	

CONDUIT SCHEDULE LEGEND:



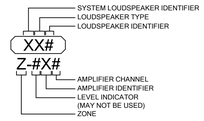
CONDUIT SIZE CHART
A = 3/4" CONDUIT
B = 1" CONDUIT
C = 1-1/4" CONDUIT
D = 1-1/2" CONDUIT
E = 2" CONDUIT
F = 3" CONDUIT
G = 4" CONDUIT

ROUGH-IN JUNCTION BOX LEGEND:



JUNCTION BOX SIZE
A = 4" SQ. 2-1/8" DEEP JUNCTION BOX
B = 4-11/16" SQ. JUNCTION BOX
C = CUSTOM JUNCTION BOX, SEE SCHEDULE FOR SIZE
D = HUBBELL - HBL260/HBL985

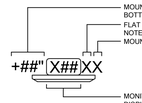
LOUDSPEAKER LEGEND:



LOUDSPEAKER TYPES
A = ARRAY, CABINET, CLUSTER
C = CEILING RECESSED
P = PENDANT MOUNTED
R = WALL RECESSED
S = CEILING SURFACE MOUNTED
W = WALL SURFACE MOUNTED

SYSTEM LOUDSPEAKER IDENTIFIER
BLANK = SYSTEM SPECIFIC
I = INTERCOM SYSTEM
SM = SOUND MASKING SYSTEM

FLAT PANEL MONITOR LEGEND:



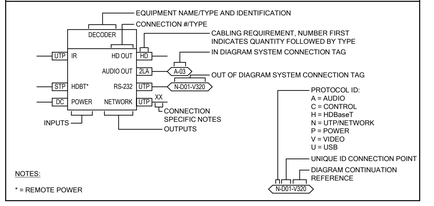
NOTES:
* HEIGHT INDICATED IS THE MAX HEIGHT, MOUNT SHALL ADJUST DOWN

MOUNT TYPES
F = FLAT MOUNT
T = TILT MOUNT
E = EXTENSION MOUNT
S = ARTICULATING MOUNT
H = ADJUSTABLE HEIGHT MOUNT*

MONITOR TYPES
D = TYPICAL COMMERCIAL GRADE
L = DIRECT VIEW LED PRODUCT
R = RESIDENTIAL GRADE
S = INTERACTIVE COMMERCIAL GRADE
V = VIDEO WALL (SLIM BEZEL)

FLAT PANEL SPECIAL NOTES
CLG = CEILING (POLE) MOUNTED
D = DIGITAL SIGNAGE
P = PORTRAIT ORIENTATION
R = RECESSED

SIGNAL FLOW LEGEND:



NOTES:
* = REMOTE POWER

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BRIAN HICKS
No. 7709037[illegible]
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AUDIOVISUAL SCHEDULES

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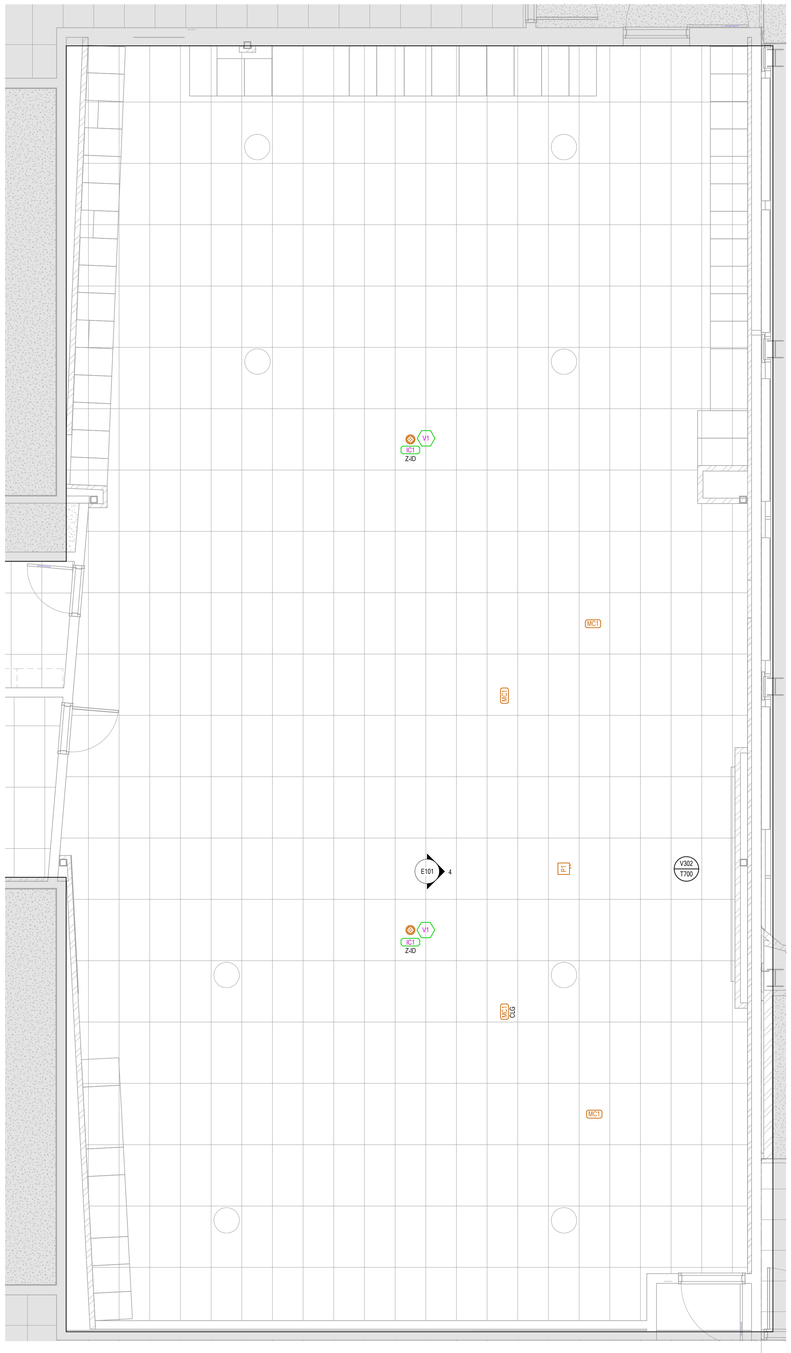
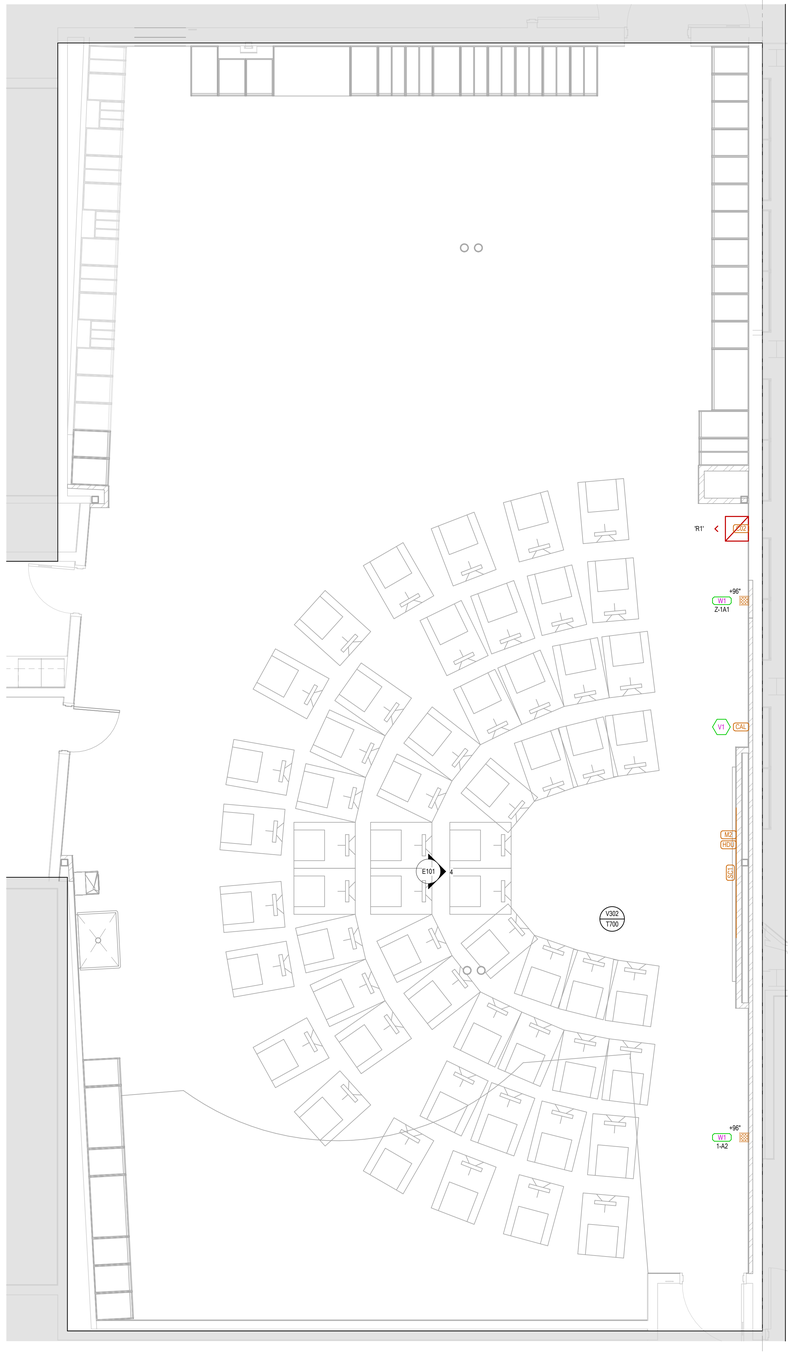


1 BAND - AV REFLECTED CEILING PLAN
SCALE = 1/4" = 1'-0"



2 BAND - AUDIOVISUAL PLAN
SCALE = 1/4" = 1'-0"

AUDIOVISUAL GENERAL NOTES

1. THIS SHEET SET SHOWS WORK AND MATERIALS BY DIVISION 26 AND DIVISION 27. SEE SPECIFICATIONS AND DRAWING NOTES FOR RESPONSIBILITY FOR EACH ITEM.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIRED PROVISIONS WITH THE PROJECT AV SYSTEMS INTEGRATOR PRIOR TO INSTALLATION OF AV SYSTEM ROUGH-IN. WHERE CONDUIT AND JUNCTION BOX PROVISIONS ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS, NOTIFY THE AV CONSULTANT IN WRITING OF THE REQUIREMENTS. WHERE MINOR MODIFICATIONS TO PROVISIONS ARE REQUIRED, THEY SHALL BE MADE AT NO ADDITIONAL COST AS A MATTER OF JOB COORDINATION.
3. BIDDERS SHALL THOROUGHLY ACQUAINT AND EXAMINE THE EXISTING PROJECT CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. INCLUDING THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. BIDDERS SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM AND BRING ANY DISCREPANCIES OR OMISSIONS FOUND IN THE DRAWINGS TO THE AV CONSULTANT'S ATTENTION BEFORE SUBMITTING BID.
4. AV SYSTEMS INTEGRATOR SHALL PROVIDE A FULLY FUNCTIONING SYSTEM IN EVERY RESPECT. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
5. THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT, AND ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE FURNISHED BY THE PROJECT AV SYSTEMS INTEGRATOR.
6. NO CHANGES TO THE DESIGN SHALL BE MADE WITHOUT THE PROJECT AV CONSULTANT'S WRITTEN CONSENT.
7. WHERE APPLICABLE, AV SYSTEMS INTEGRATOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES.
8. REFER TO DRAWINGS FOR EXACT NUMBER OF COMPONENTS USED IF NOT SPECIFIED IN EQUIPMENT LIST.
9. COORDINATE EXACT SPEAKER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
10. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL SPEAKERS AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND AV CONSULTANT PRIOR TO RELEASE.
11. INSTALL/SUSPEND ALL AUDIOVISUAL SYSTEMS EQUIPMENT IN COMPLIANCE WITH SEISMIC CODES, MANUFACTURER'S WRITTEN INSTRUCTIONS, AND INDUSTRY BEST PRACTICES. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.
12. ALL TWISTED-PAIR (U/UTP, F/UTP, U/FTP, S/FTP) CATEGORY TYPE CABLING SHALL BE TERMINATED BY CERTIFIED DATA TECHNICIANS. TEST PER SPECIFICATIONS REQUIREMENTS AND PROVIDE DATA TO AV CONSULTANT.
13. ALL HDBaseT SIGNAL CABLING, TERMINATIONS, AND TERMINATION HARDWARE SHALL COMPLY WITH TIA/EIA WIRING CONFIGURATION T568 B. ALL HDBaseT SIGNAL CABLING SHALL BE SHIELDED/FOIL (SF/UTP) CATEGORY TYPE CABLE.
14. CONDUCT A RADIO FREQUENCY AUDIT OF THE SITE PRIOR TO SELECTING RF OPERATIONAL FREQUENCIES. AV SYSTEMS INTEGRATOR TO ENSURE INTERFERENCE FREE OPERATION OF ALL RF DEVICES. AV SYSTEMS INTEGRATOR SHALL COORDINATE AUDIT RESULTS WITH MANUFACTURER PRIOR TO PURCHASING RF EQUIPMENT.
15. PROVIDE RACK MOUNT KITS FOR ALL RACK MOUNTED EQUIPMENT. PROVIDE CUSTOM RACK MOUNT KITS WHEN NOT AVAILABLE FROM THE EQUIPMENT MANUFACTURER.
16. PROVIDE SURGE PROTECTION DEVICE (SPD) IN ALL AV EQUIPMENT RACKS.
17. ALL AV EQUIPMENT RACKS SHALL BE GROUNDED AND BONDED TO MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (NED), IEC 1000-5-2 ANSIJ-STD-607-A.
18. ALL AV EQUIPMENT SHALL BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS.
19. PROVIDE MANUFACTURER RECOMMENDED POWER SUPPLIES OR TRANSFORMERS FOR ALL SPECIFIED EQUIPMENT.
20. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR LACK OF COORDINATION WITH AV CONSULTANT AS ADDRESSED IN THE DOCUMENTS
21. UNLESS SPECIFICALLY SPECIFIED OR NOTED PROVIDE COMMERCIAL QUALITY EQUIPMENT, MATERIALS AND COMPONENTS DESIGNED FOR CONTINUOUS USE. CONSUMER QUALITY COMPONENTS ARE NOT ACCEPTABLE.

SHEET KEYNOTES

V1	PROVIDE NEW INTERCOM CLASSROOM MODULE, LOUDSPEAKER(S), AND CALL SWITCH. CONNECT TO SCHOOL INTERCOM NETWORK AS REQUIRED

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Project #: 250236

INDIAN HILLS BAND & CHORAL REMODEL
1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

△ DATE REVISION

PROJECT NUMBER 250273

BAND - AUDIOVISUAL PLANS

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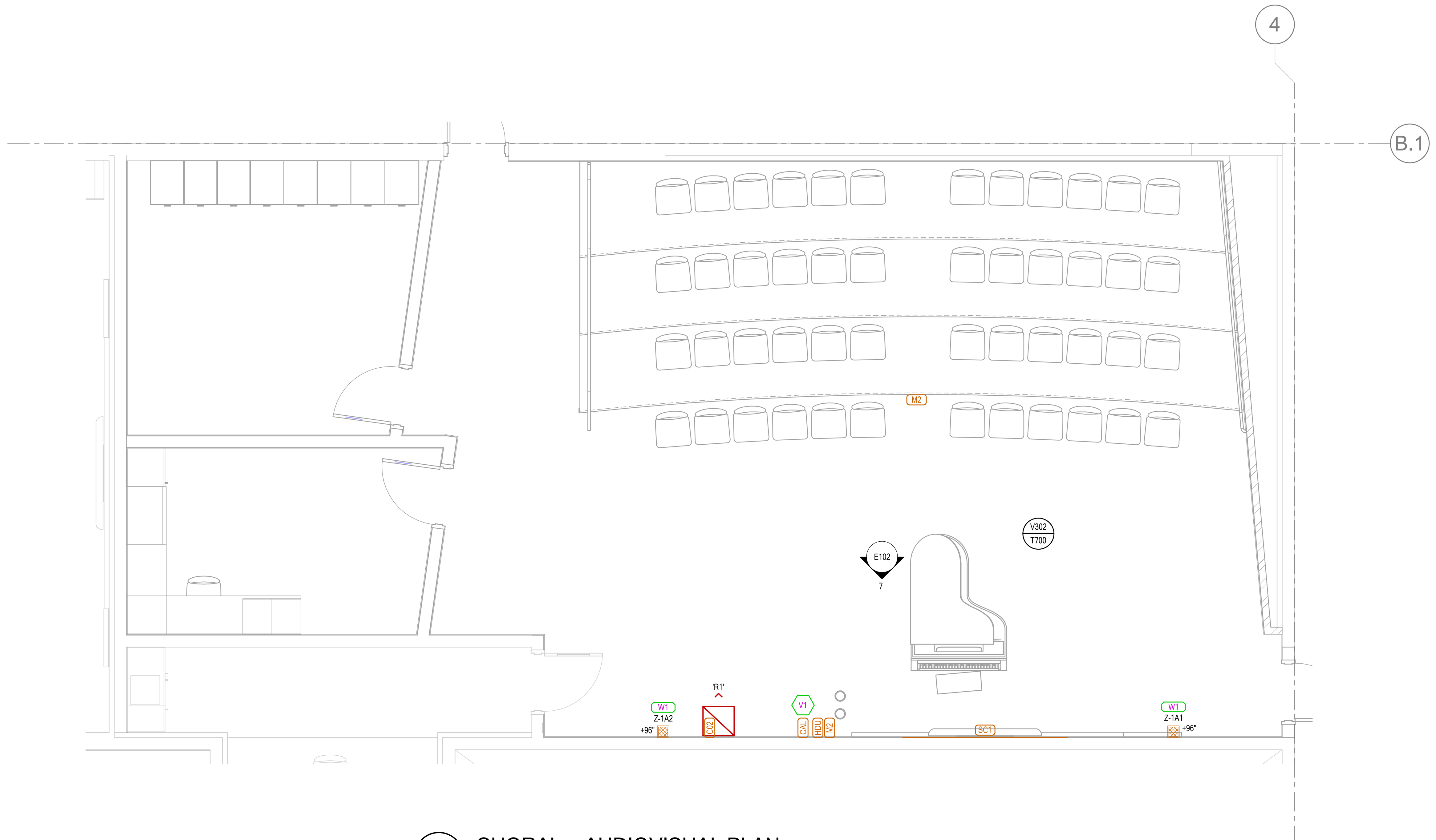
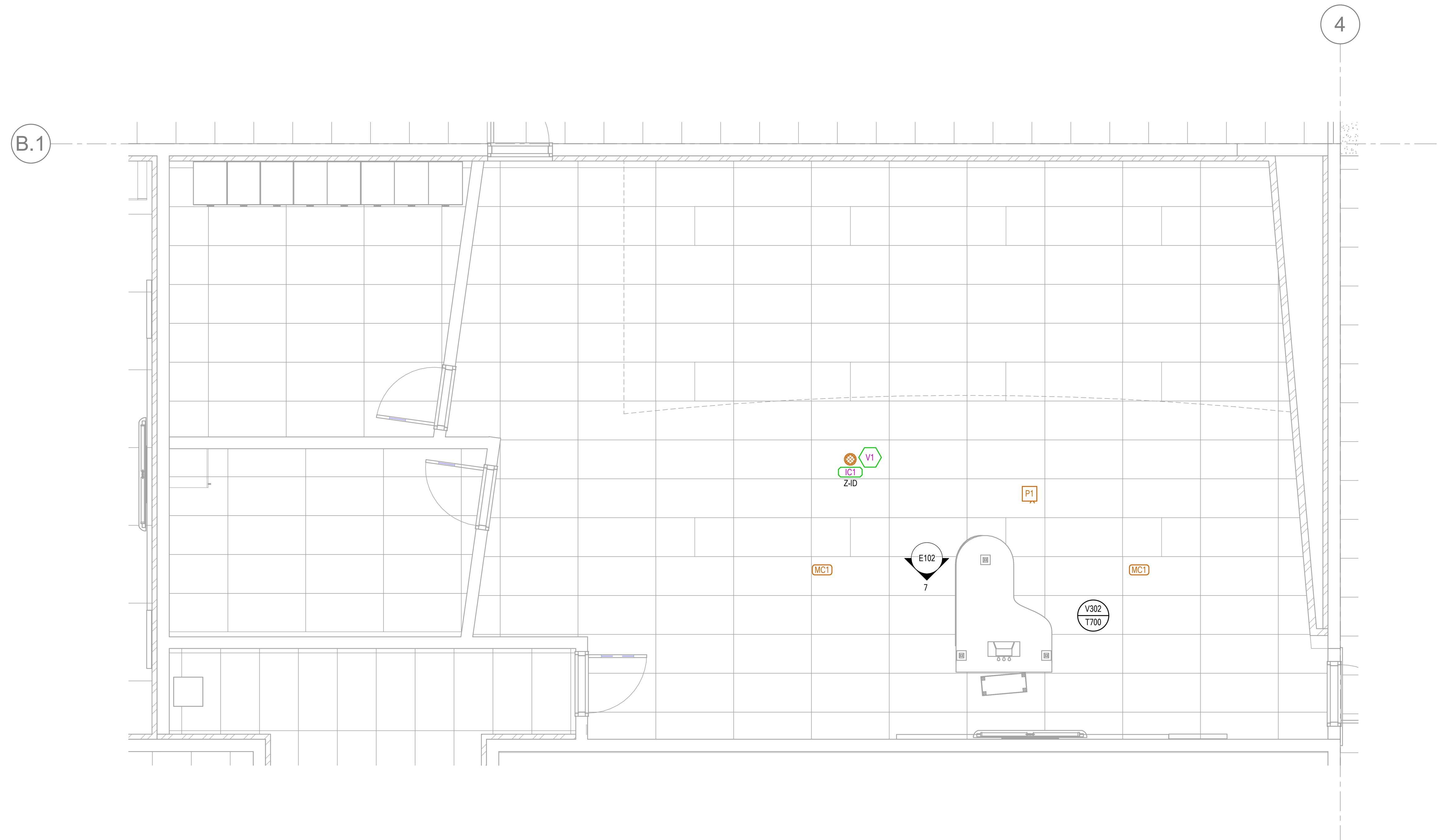


1 CHORAL - AUDIOVISUAL PLAN
SCALE = 1/4" = 1'-0"



2 CHORAL - AV REFLECTED CEILING PLAN
SCALE = 1/4" = 1'-0"

AUDIOVISUAL GENERAL NOTES

1. THIS SHEET SET SHOWS WORK AND MATERIALS BY DIVISION 26 AND DIVISION 27. SEE SPECIFICATIONS AND DRAWING NOTES FOR RESPONSIBILITY FOR EACH ITEM.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIRED PROVISIONS WITH THE PROJECT AV SYSTEMS INTEGRATOR PRIOR TO INSTALLATION OF AV SYSTEM ROUGH-IN. WHERE CONDUIT AND JUNCTION BOX PROVISIONS ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS, NOTIFY THE AV CONSULTANT IN WRITING OF THE REQUIREMENTS. WHERE MINOR MODIFICATIONS TO PROVISIONS ARE REQUIRED, THEY SHALL BE MADE AT NO ADDITIONAL COST AS A MATTER OF JOB COORDINATION.
3. BIDDERS SHALL THOROUGHLY ACQUAINT AND EXAMINE THE EXISTING PROJECT CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. INCLUDING THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. BIDDERS SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM AND BRING ANY DISCREPANCIES OR OMISSIONS FOUND IN THE DRAWINGS TO THE AV CONSULTANT'S ATTENTION BEFORE SUBMITTING BID.
4. AV SYSTEMS INTEGRATOR SHALL PROVIDE A FULLY FUNCTIONING SYSTEM IN EVERY RESPECT. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
5. THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT, AND ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS. BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE FURNISHED BY THE PROJECT AV SYSTEMS INTEGRATOR.
6. NO CHANGES TO THE DESIGN SHALL BE MADE WITHOUT THE PROJECT AV CONSULTANT'S WRITTEN CONSENT.
7. WHERE APPLICABLE, AV SYSTEMS INTEGRATOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES.
8. REFER TO DRAWINGS FOR EXACT NUMBER OF COMPONENTS USED IF NOT SPECIFIED IN EQUIPMENT LIST.
9. COORDINATE EXACT SPEAKER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
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1180 EAST SANDERS ROAD, SANDY, UT 84094
CANYONS SCHOOL DISTRICT
CONSTRUCTION DOCUMENTS - APRIL 14, 2025

PROFESSIONAL ENGINEER
BRIAN HICKS
No. 7709037-2202
4/14/2025
STATE OF UTAH

△ DATE REVISION

PROJECT NUMBER 250273

CHORAL - AUDIOVISUAL PLANS

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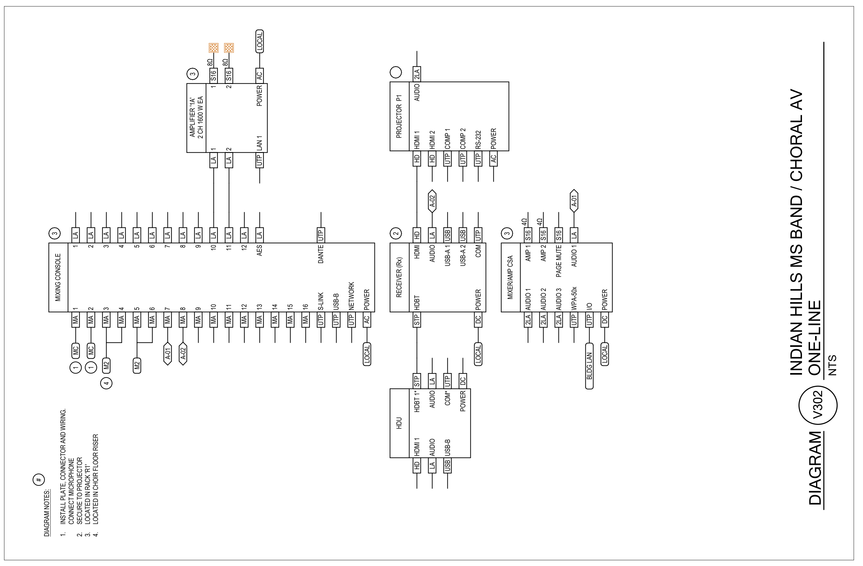

DIAGRAM (V302) INDIAN HILLS MS BAND / CHORAL AV ONE-LINE
NTS

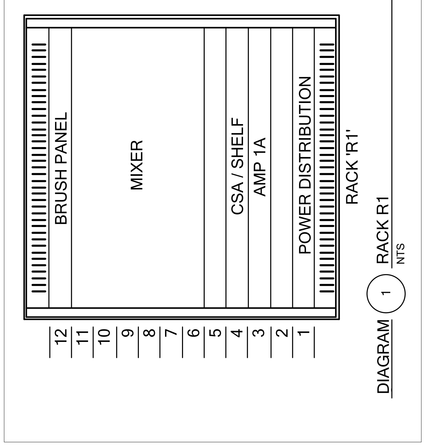

DIAGRAM (1) RACK R1
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AUDIOVISUAL DIAGRAM

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