USU CAINE LYRIC THEATRE - FLY LOFT AND STAGE IMPROVEMENTS PROJECT

30 WEST CENTER STREET, LOGAN UT 84321

USU PROJECT NO: C001541

PROJECT TEAM

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VICINITY PLAN



PROJECT LOCATION
30 WEST CENTER STREET
LOGAN, UTAH

SCOPE OF WORK

PROJECT INCLUDES THE DEMOLITION AND REPLACEMENT OF THE EXISTING FLY LOFT AND STAGE AREA (APPROXIMATELY 1,200 SF) WITH NEW STEEL STRUCTURE SUPPORTED ON MICROPILE FOUNDATION SYSTEM; NEW STAGE FLOOR SYSTEM; NEW BASEMENT (BELOW STAGE) FINISHES AND LIGHTING; NEW NON-MOTORIZED THEATRICAL RIGGING AND INFRASTRUCTURE; NEW FLY AND LOADING GALLERIES; RELOCATION OF THE EXISTING AIR HANDLER UNIT TO NEW STEEL SUPPORT STRUCTURE; FIRE RISER, FIRE ALARM CONTROL PANEL, AND FIRE ALARM DEVICE REPLACEMENT; AND MISCELLANEOUS ELECTRICAL, MECHANICAL, AND ARCHITECTURAL IMPROVEMENTS.

USU AND DFCM STANDARDS AND REQUIREMENTS

THIS PROJECT TO BE IN COMPLIANCE WITH THE STATE OF UTAH ADOPTED CODES, INCLUDING ALL UTAH STATE AMENDMENTS.

THE FOLLOWING CONSTRUCTION CODES ARE INCORPORATED BY REFERENCE, AND TOGETHER WITH THE AMENDMENTS SPECIFIED IN CHAPTER 3, STATEWIDE AMENDMENTS INCORPORATED AS PART OF STATE CONSTRUCTION CODE, AND CHAPTER 4, LOCAL AMENDMENTS INCORPORATED AS PART OF STATE CONSTRUCTION CODE, ARE THE CONSTRUCTION STANDARDS TO BE APPLIED TO BUILDING CONSTRUCTION, ALTERATION, REMODELING, AND REPAIR, AND IN THE REGULATION OF BUILDING CONSTRUCTION, ALTERATION, REMODELING, AND REPAIR IN THE STATE:

- 2021 EDITION OF THE INTERNATIONAL BUILDING CODE, INCLUDING APPENDICES C AND J, ISSUED BY THE INTERNATIONAL CODE COUNCIL

-2021 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

- APPENDIX AQ OF THE 2021 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

- 2021 EDITION OF THE INTERNATIONAL PLUMBING CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

- 2021 EDITION OF THE INTERNATIONAL MECHANICAL CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

-2021 EDITION OF THE INTERNATIONAL FUEL GAS CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

-2020 EDITION OF THE NATIONAL ELECTRICAL CODE, ISSUED BY THE NATIONAL FIRE PROTECTION ASSOCIATION

- 2021 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

- 2021 EDITION OF THE INTERNATIONAL EXISTING BUILDING CODE, ISSUED BY THE INTERNATIONAL CODE COUNCIL

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY, THE FOLLOWING DOCUMENTS MUST BE PRESENTED:

1. A CODE INSPECTION REPORT RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED
2. FINAL REPORT FROM THE SPECIAL INSPECTION AGENCY
3. CERTIFICATE OF FIRE CLEARANCE FROM THE STATE FIRE MARSHALL.
4. REPORT OF THE DISINFECTION OF THE POTABLE WATER SYSTEM. IPC 610, IF APPLICABLE.
5. A STAMPED AND SIGNED FINAL REPORT FROM THE STRUCTURAL ENGINEER WHEN STRUCTURAL OBSERVATION IS REQUIRED BY IBC 1710.
6. FINAL REPORT FROM THE SPECIAL INSPECTOR AND THE MECHANICAL ENGINEER WHEN SMOKE CONTROL IS REQUIRED. THE REPORTS MUST COMPLY WITH IBC 909.18.8.3

DEFERRED SUBMITTALS

SUBMITTAL
1. FIRE SPRINKLER SYSTEM
2. FIRE ALARM SYSTEM
3. SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT
4. SEISMIC RESTRAINTS FOR ELECTRICAL EQUIPMENT
5. MICROPILE DESIGN.
6. FLY AND LOADING GALLERY FALL PROTECTION

NOTES:
A. SUBMITTALS FOR FIRE ALARM AND SUPPRESSION SHALL BE SUBMITTED TO THE STATE FIRE MARSHAL FOR APPROVAL.
B. WORK RELATED TO THE DEFERRED SUBMITTALS IS NOT TO COMMENCE UNTIL THE BUILDING OFFICIAL HAS APPROVED THE SUBMITTAL.

ADDITIVE ALTERNATES

AS PART OF BIDDING, CONTRACTOR IS TO BREAK OUT COSTING FOR THE ADDITIVE ALTERNATES CONTAINED HEREIN. LINE ITEMS REQUIRED INCLUDE:

ADDITIVE ALTERNATE #1: NEW WASHER AND DRYER, FREE STANDING SERVICE SINK, AND ASSOCIATED PLUMBING SCOPE AT STORAGE/LAUNDRY 201 (APPROXIMATELY GRID 7). THIS ADDITIVE ALTERNATE IS INCLUDING IN THE DRAWINGS.

ADDITIVE ALTERNATE #2: NEW SMALL BATHROOM WITH TOILET AND WALL MOUNTED SINK AT STORAGE 205. SEE PLUMBING DRAWING KEYED NOTES FOR ADDITIONAL INFORMATION.

ADDITIVE ALTERNATE #3: NEW REPLACEMENT LIGHTING DIMMING RACK AT WEST SIDE STAGE 203. SEE THEATRICAL LIGHTING POWER CONTROLS SPECIFICATION SECTION 26 6112.

ADDITIVE ALTERNATE #4: NEW SECOND WASHER AND DRYER AND ASSOCIATED PLUMBING/ELECTRICAL REQUIRED. WASHER AND DRYER TO BE LOCATED AT THE NORTH WALL OF STORAGE 205. SEE PLUMBING DRAWING KEYED NOTES FOR ADDITIONAL INFORMATION.

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GI020 SYMBOLS AND ABBREVIATIONS
GI040 EXISTING CONDITION PHOTOGRAPHS
GI050 LIFE SAFETY AND EGRESS PLANS
GI060 SPECIAL INSPECTION AND MATERIAL TESTING REQUIREMENTS
GI070 3D REFERENCE VIEWS

CIVIL
CD101 CIVIL DEMOLITION PLAN
CS201 CIVIL SITE UTILITY
C-501 CIVIL DETAILS

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S002 GENERAL STRUCTURAL NOTES
S101 FOOTING + FOUNDATION PLAN
S111 STAGE FRAMING PLAN
S112 GALLERY FRAMING PLANS
S121 LOW ROOF FRAMING PLAN
S122 FLYLOFT ROOF FRAMING PLAN
S301 STRUCTURAL SCHEDULES
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S401 LATERAL FRAME ELEVATIONS
S402 LATERAL FRAME ELEVATIONS
S501 STRUCTURAL DETAILS
S511 STRUCTURAL DETAILS
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AD102 DEMOLITION STAGE LEVEL FLOOR PLAN AND ENLARGED PLAN
AD103 DEMOLITION ROOF PLANS
AD301 DEMOLITION BUILDING SECTION
AS100 SITE ACCESS PLAN - FOR REFERENCE ONLY
AS101 SITE PLAN
AE101 BASEMENT LEVEL AND APARTMENT FLOOR PLANS
AE102 STAGE LEVEL FLOOR PLAN AND ENLARGED STAGE AREA FLOOR PLAN
AE103 BASEMENT LEVEL AND APARTMENT REFLECTED CEILING PLANS
AE104 STAGE LEVEL AND ENLARGED STAGE AREA REFLECTED CEILING PLANS
AE105 FINISH PLANS
AE109 ROOF PLAN
AE201 EXTERIOR ELEVATIONS
AE301 BUILDING SECTIONS
AE302 BUILDING SECTIONS
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AE305 WALL SECTIONS
AE306 ENLARGED LOADING AND FLY GALLERY FLOOR PLANS AND SECTION
AE307 GALLERY LADDERS SECTIONS AND ELEVATIONS
AE308 ENLARGED STAGE/GREEN RM. PLAN, SECTION, AND INTERIOR ELEVATIONS
AE501 WALL, FLOOR, AND ROOF ASSEMBLIES
AE502 DETAILS
AE503 DETAILS
AE504 DETAILS
AE505 DETAILS
AE506 DETAILS
AE601 DOOR AND DOOR FRAME TYPES AND SCHEDULE

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MD103 ROOF MECHANICAL DEMO PLANS
M101 BASEMENT AND APARTMENT MECHANICAL PLANS
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EY501 ACCESS CONTROL DETAILS
EY601 FIRE ALARM RISER DIAGRAMS
EY602 AUXILIARY RISER DIAGRAMS

THEATRE
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XE411 STAGE LEVEL PLAN
XE412 BALCONY LEVEL PLAN
XE413 RIGGING STEEL LEVEL RCP
XE511 THEATRE SECTIONS
XE512 STATIC BATTEN RIGGING AND RIGGING WALL KNEE ELEVATIONS
XE611 RIGGING DETAILS AND SCHEDULES
EIS101 STAGE AND BALCONY LEVEL PLANS
XL101 PERFORMANCE LIGHTING DETAILS

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL



SEAL

IF THIS SHEET IS LESS THAN 30"X42" IT IS A REDUCED PRINT.
SCALE REDUCED ACCORDINGLY

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

COVER SHEET

		SHEET NO.
SCALE		GI010
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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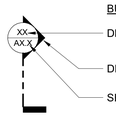
DRAWING SYMBOLS

BUILDING OR WALL SECTION

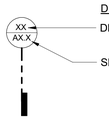


DRAWING IDENTIFICATION

DIRECTION INDICATOR.

SHEET NUMBER WHERE DRAWN

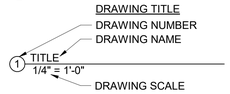
DETAIL



DRAWING IDENTIFICATION

SHEET NUMBER WHERE DRAWN

DRAWING TITLE

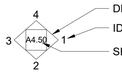


DRAWING NUMBER

DRAWING NAME

DRAWING SCALE

INTERIOR OR EXTERIOR ELEVATION



DIRECTION INDICATOR.

IDENTIFIES SPECIFIC ELEVATION

SHEET NUMBER WHERE DRAWN

ELEVATION REFERENCE



ELEVATION IDENTIFICATION

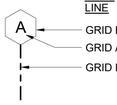
ELEVATION HEIGHT

KEY NOTE

1

KEY NOTES INDICATED IN SPECIFIC DETAILS ARE TYPICAL FOR GIVEN OR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.

GRID LINE



GRID BUBBLE

GRID ALPHANUMERIC ANNOTATION

GRID LINE



CLEAR FINISH DIMENSION



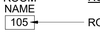
WALL ASSEMBLY TYPE.
SEE WALL TYPES SHEET.
EXTERIOR WALL (EW)
INTERIOR WALL (IW)



FLOOR / ROOF
ASSEMBLY TYPE.
FLOOR ASSEMBLY (F)
ROOF ASSEMBLY (R)

ROOM NAME

ROOM TAG



ROOM NUMBER



DOOR TAG



WINDOW TAG



CEILING HEIGHT



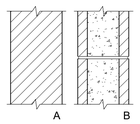
FINISH TAG

GRAPHIC SYMBOLS

DESCRIPTION



CONCRETE OR CEMENTITIOUS MATERIAL



"CMU" CONCRETE MASONRY UNIT



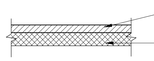
PLYWOOD



CEMENT PLASTER



STEEL



FIBER BOARD

RIGID INSULATION

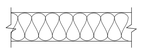


BITUMINOUS SHEATHING OR OTHER MEMBRANE

OTHER ASSEMBLY MATERIAL



CERAMIC OR VCT TILE PER SCHEDULES



INSULATION: THERMAL OR SOUND AS REQUIRED BY ASSEMBLY DETAIL



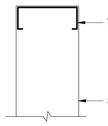
GYPSUM WALLBOARD



CONTINUOUS WOOD MEMBER



WOOD MEMBER INTERRUPTED AT SHORT INTERVALS OR BLOCKING



TRACK

STEEL STUDS (DRAWINGS AT LARGER SCALES)

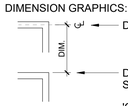
STEEL STUD

DIMENSIONING NOTES

DIMENSIONS:

NOTE: DIMENSIONS IN THESE DRAWINGS ARE GENERALLY PLACED AS INDICATED BELOW, UNLESS NOTED OTHERWISE.

1. MASONRY: TO UNFINISHED FACE (NOTE @ SPLIT FACE CONDITION THESE DRAWINGS ASSUME STANDARD 8" OR 12" WIDE BLOCK)
2. CONCRETE: TO UNFINISHED FACE
3. STRUCTURAL: TO STEEL OR TUBING FACE OR CENTER LINE
4. COLUMNS: CENTER LINE
5. NONBEARING PARTITIONS: TO FACE OF STUD. SEE NOTE 9 BELOW
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ARCHITECTURAL DIMENSIONS TO ASSURE PROPER PLACEMENT OF ALL PARTS AND MATERIALS IN CONJUNCTION WITH ALL OTHER DISCIPLINES REPRESENTED IN THESE DOCUMENTS, PRIOR TO COMMENCING WORK.
7. VERIFY ALL DIMENSIONS INCLUDING SITE CONDITIONS BEFORE STARTING WORK.
8. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE.
9. DIMENSION GRAPHICS:

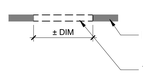


DIMENSION TO CENTER LINE

DIMENSION TO FACE OF STUD OR OTHER UNFINISHED SURFACE

'CLR.' MEANS THE DIMENSIONS REQUIRED AFTER ALL FINISHES HAVE BEEN APPLIED TO THE SUBJECT SURFACES

10. EXISTING CONDITIONS:
ALL EXISTING CONSTRUCTION SHOWN IS ILLUSTRATED BELOW. ALL DIMENSIONSIONS TO EXISTING ELEMENTS ARE APPROXIMATE ONLY AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR.



EXISTING TO REMAIN

TO BE DEMOLISHED

ABBREVIATIONS

#	POUND, NUMBER
&	AND
@	AT
Ø	DIAMETER
℄	CENTERLINE
AB	ANCHOR BOLT
ABV	ABOVEV
AC	ASPHALTIC CONCRETE
ACOUS	ACOUSTIC, ACOUSTICAL
ACT	ACOUSTIC CEILING TILE
ADJ	ADJUSTABLE, ADJACENT
AF	ACCESS FLOORING
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANOD	ANODIZED
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AWP	ACOUSTICALL WALL PANEL
BD	BOARD
BLDG	BUILDING
BLK	BLOCK, BLOCKING
BM	BEAM
BOT	BOTTOM
BRKT	BRACKET
BUR	BUILT UP ROOF
C	CARPET
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CI	CAST IRON
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CHAIN LINK
CLG	CEILING
CLOS	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMPTR	COMPUTER
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTROL
CORR	CORRIDOR
CP	CONTROL POINT
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGANOL
DIM	DIMENSION
DIV	DIVISION(S)
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWGS	DRAWINGS
(E)	EXISTING
E	EAST
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATION
EOC	EMERGENCY OPERATIONS CENTER
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXPD	EXPOSED
EXT	EXTERIOR
EXTG	EXISTING
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FL	FLOOR
FO	FACE OF
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FRAMG	FRAMING
FS	FINISH SURFACE
FT	FOOT, FEET
FTG	FOOTING
FUR	FURRING
G	GAS LINE
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GI	GALVANIZED IRON
GL	GLASS
GLZ	GLAZING
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HIGH
HC	HOLLOW CORE, HANDICAPPED
HD	SURFACE HARDENER
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HTR	HEATER
HYDR	HYDRAULIC
IN	INCHES
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JST	JOIST
KITCH	KITCHEN
LA	LANDSCAPE AREA
LAM	LAMINATED
LAV	LAVATORY
LBS	POUNDS
LIB	LIBRARY
LP	LOW POINT
LTG	LIGHTING
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MDL	MODEL
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MFRD	MANUFACTURED
MIN	MINIMUM
MOUNT	MOUNTED
MRGB	MOISTURE RESISTANT GYPSUM BOARD
MS	MAGNETIC SWITCH
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NR	NON-RATED
O/	OVER
OC	ON CENTER
OCCUP	OCCUPANCY
OD	OUTSIDE DIAMETER
OTS	OPEN TO STRUCTURE
PL	PLATE
PL CEM	PLASTER CEMENT
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLY	PLYWOOD
PP	POWER POLE
PR	PAIR
PRE	FACTORY PRE-FINIISHED
PROJ	PROJECTION
PT	PAINT
PTD	PAINTED
PVMT	PAVEMENT
R	RADIUS
RA	RETURN AIR
RB	RUBBER BASE
RCP	REFLECTED CEILING PLAN
RE:	REFER TO:
REF	REFRIGERATOR
REINF	REINFORCED
REQD	REQUIRED
REV	REVISION
RI	RISER
RM	ROOM
RR	RUBBER RISER
RT	RUBBER TREAD
S	SOUTH
SA	SUPLLY AIR
SAQD	SEE AQUATICS DRAWINGS
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SED	SEE ELECTRICAL DRAWINGS
SERV	SERVER
SF	SQUARE FEET
SGL	SINGLE
SHLV	SHELVING
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SL	SLOPE
SM	SHEET METAL
SMD	SEE MECHANICAL DRAWINGS
SPD	SEE PLUMBING DRAWINGS
SPEC	SPECIFICATIONS
SQ	SQUARE
SRF	SHEET RUBBER FLOORING
SS	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
ST	STEEL
STD	STANDARD
STL	STEEL
STN	STAIN
STOR	STORAGE
STRUCT	STRUCTURE
SUSP	SUSPENDED
SW	SWITCH
T	TREAD
T&G	TOUNGE AND GROOVE
TB	TOP AND BOTTOM
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY, TEMPERED
TG	TREE GRATE
THK	THICK
TJI	TRUSS JOIST
TO	TOP OF
TOC	TOP OF CONCRETE
TOP	TOP OF PARAPET
TOPL	TOP OF PLATE
TOS	TOP OF STEEL
TP	TOILET PARTITION
TS	TUBE STEEL
TW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
UOC	UNLESS OTHERWISE CALLED
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VP	VENEER PLASTIC
W	WEST
W/	WITH
W/H	WATER HEATER
WAINS	WAINSCOT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WM	WIRE MESH
WP	WEATHERPROOF
WR	WATER RESISTANT
WRGB	WATER RESISTANT GYPSUM BOARD
WWM	WELDED WIRE MESH

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND EXISTING CONDITIONS AT THE PROJECT SITE PRIOR TO BID SUBMITTAL AND START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY SPARANO + MOONEY ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATIONS.
2. ALL WORK SHALL CONFORM TO & BE IN FULL & COMPLETE COMPLIANCE WITH ALL **UTAH STATE UNIVERSITY AND DFCM** ADOPTED STANDARDS, REGULATIONS, ORDINANCES, AND CODES.
3. THE CONTRACTOR SHALL IDENTIFY CRITICAL DUE DATES FOR OWNER SELECTIONS TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR.
4. CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS & COMPLY WITH SAMPLE SUBMITTAL REQUIREMENTS AS REQUIRED PER THE PROJECT MANUAL (SPECIFICATIONS).
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF WORK AT HIS OWN EXPENSE FOR WORK INSTALLED IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, STIFFENERS, BRACING, FRAMING, HANGERS, OR OTHER SUPPORT FOR ALL FIXTURES, EQUIPMENT, CABINETRY, FURNISHINGS AN ALL OTHER ITEM REQUIRING THE SAME.
8. PROVIDE FLASHING AND COUNTER FLASHING AT ALL EXTERIOR OPENINGS THAT ARE EXPOSED TO THE WEATHER AND ALL VALLEYS, RIDGES, AND JUNCTIONS BETWEEN EXPOSED HORIZONTAL AND VERTICAL SURFACES.
9. CLEAN UP JOBSITE ON DAILY BASIS.
10. ALL DEBRIS & TRASH MUST BE PLACED IN DUMPSTER ON DAILY BASIS.
11. MAINTAIN AN ORDERLY, CLEAN, SAFE AND EFFICIENT JOBSITE AT ALL TIMES.

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

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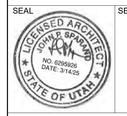

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

SYMBOLS AND ABBREVIATIONS

SCALE	12" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.

GI020

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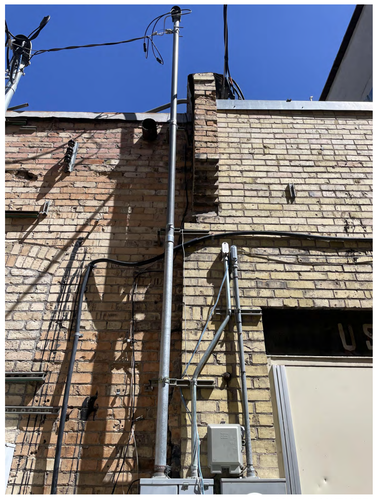
SOUTH SIDE ALLEY

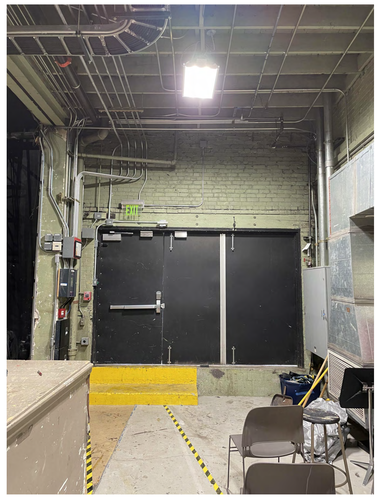




FRONT FACADE



MASONRY AT SOUTH SIDE



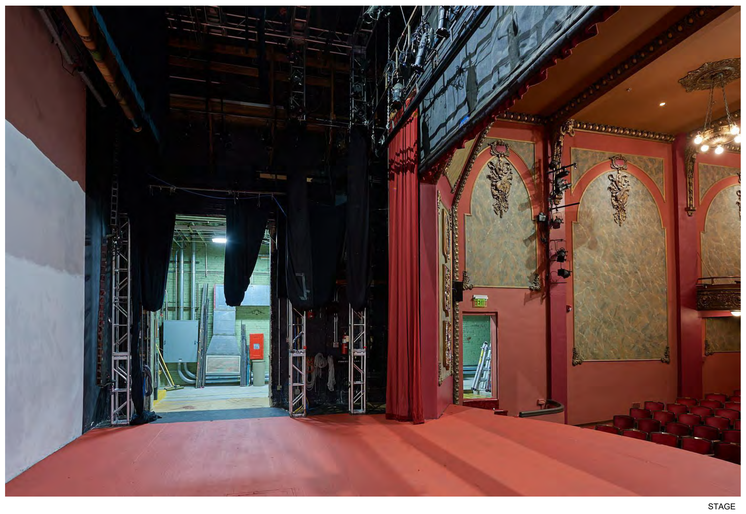
WEST SIDE STAGE INTERIOR



AIR HANDLER ABOVE WEST SIDE STAGE



BELOW STAGE - GREEN ROOM



STAGE



AIR HANDLER ABOVE WEST SIDE STAGE

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

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LICENSED ARCHITECT
JOHN P. SPARANO
NO. 6295826
DATE: 3/14/25
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

EXISTING CONDITION PHOTOGRAPHS

SCALE	
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
GI040

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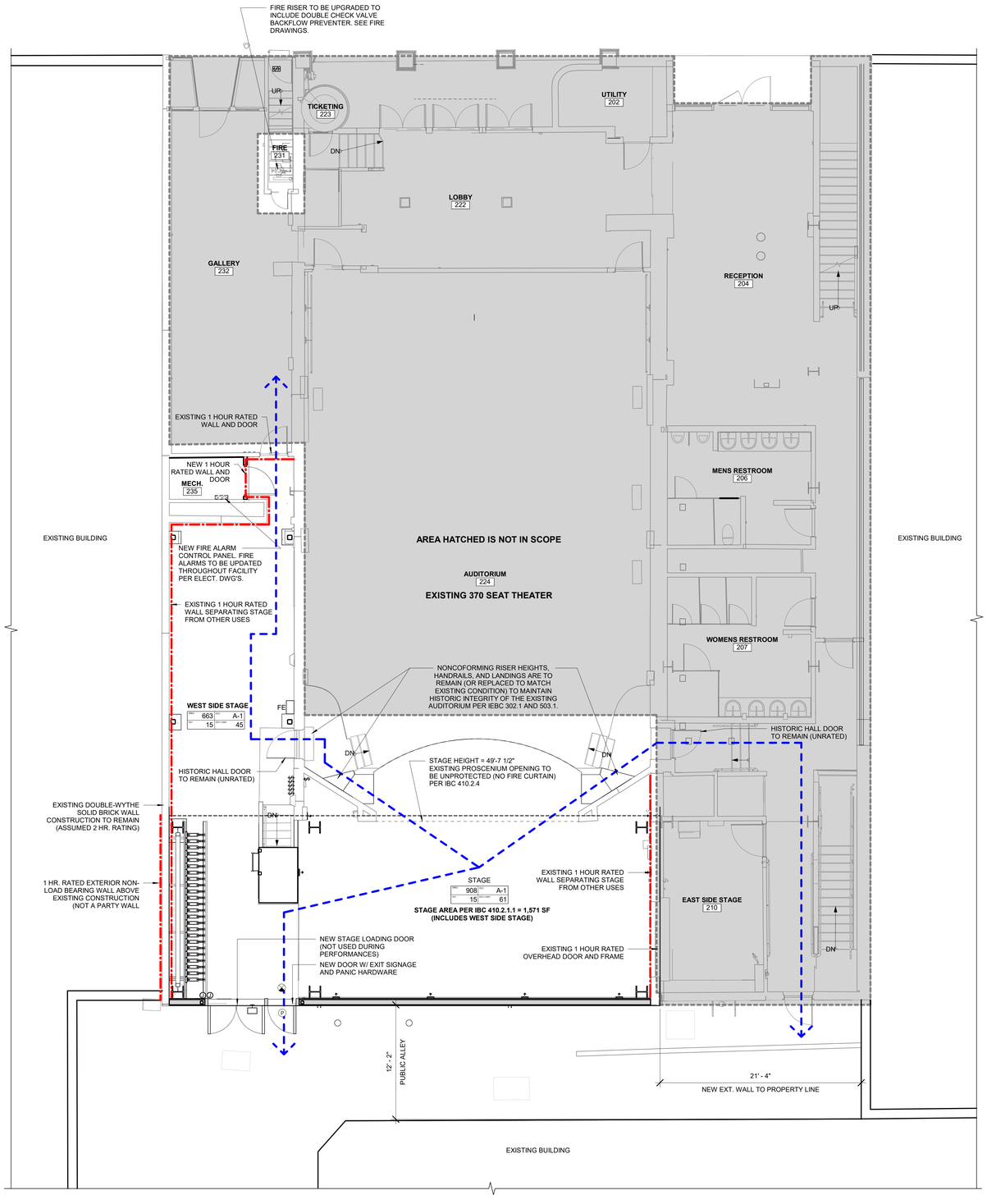
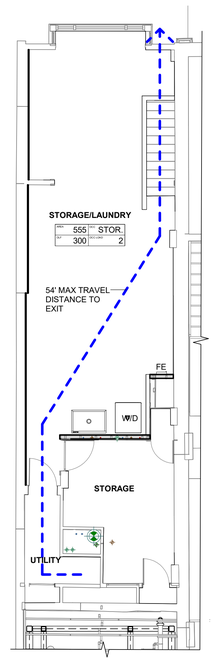
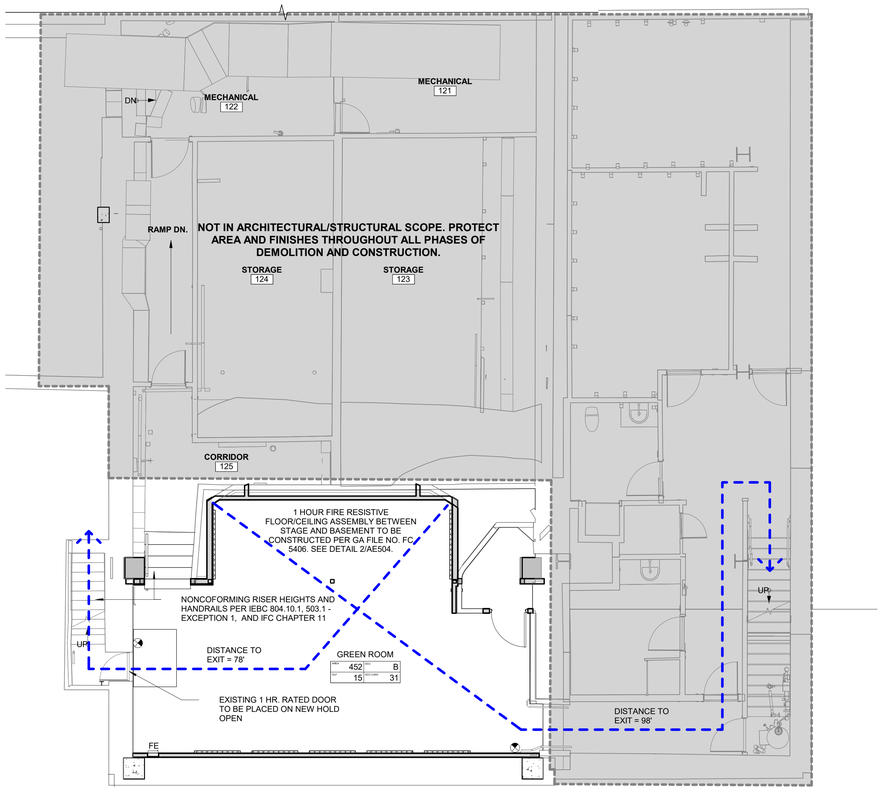


2 MAIN LEVEL LIFE SAFETY AND EGRESS PLAN
3/16" = 1'-0"



3 APARTMENT LEVEL LIFE SAFETY AND EGRESS PLAN
3/16" = 1'-0"



1 BASEMENT LEVEL LIFE SAFETY AND EGRESS PLAN
3/16" = 1'-0"

CODE ANALYSIS

NOTE: PROJECT SCOPE INLCUDES THE FLY LOFT AND STAGE AREA ONLY. EXISTING AUDITORIUM, LOBBIES, BALCONY, RESTROOMS, DRESSING ROOMS, AND OTHER SPACES ARE NOT PART OF THE PROJECT AREA.

APPLICABLE CODES	Year		Year
International Building Code	2021	National Electrical Code	2020
International Mechanical Code	2021	Uniform Code for Building Conservation	2021
International Fuel Gas Code	2021		
International Fire Code	2021		
International Energy Conservation Code	2021	ADA Accessibility Guidelines	2017 ICC A117.1

A. Occupancy and Group: A-1
Change in Use: Yes ____ No X Mixed Occupancy: Yes ____ No X
Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

B. Seismic Design Category: D1 Design Wind Speed: 120 MPH

C. Type of Construction (circle one):
I A | I B | II A | II B | III A | III B | IV HT | V A | (V B)

D. Fire Resistance Rating:
Requirements for the Exterior Walls based on the fire separation distance (in hours)
North: 0 South: 1 East: 0 West: 1

E. Mixed Occupancies: NO Nonseparated Uses: NO

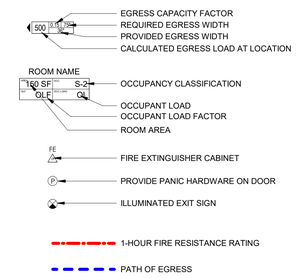
F. Sprinklers:
Required: X Provided: X
Type of Sprinkler System (IBC 903.3.1): NFPA 13 SPRINKLER SYSTEM

G. Number of Stories: 2 Building Height: 51'-4" Highest Floor Height: 13'-6"

H. Actual Area per Floor (square feet):

Basement	=	4,040 SF
L1	=	6,820 SF
L2	=	2,850 SF
TOTAL	=	13,710 SF
ALLOWABLE PER TABLE 506.2	=	22,000 SF

GRAPHIC LEGEND:



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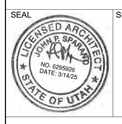

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

LIFE SAFETY AND EGRESS PLANS

SCALE	As indicated	SHEET NO.
JOB NO.	23-05	GI050
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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Special Inspection, Material Testing & Structural Observation Items Required by Chapter 17 of the 2021 IBC

Indicate items requiring special inspection, structural testing, or structural observations by checking the appropriate box. All items not requiring inspection/testing should be removed from the form. For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases "periodic" inspections/tests shall be performed prior to commencing the task, intermittently during the task, and at the completion of the task. The "Detailed Instructions & Frequency" provides a description of the procedural requirements for tasks requiring "periodic" inspections. The design professional in responsible charge should revise the requirements as needed on a project-specific basis.

FABRICATORS (IBC 1704.2.5.1 & 1705.10)

☐ Approved Fabricator Yes ☐ No ☐

Fabricators Name:	
Fabricators plant location	

Required In-plant Inspections: ☐ Steel Construction ☐ Concrete Construction ☐ Wood Construction ☐ Cold-formed Construction ☐ Other: _____ ☐ Other: _____

STRUCTURAL STEEL (IBC 1705.2.1, 1705.12.1 & 1705.13.1)

Item			*Detailed Instructions and Frequencies*
PRIOR TO WELDING (TABLE N5.4-1, AISC 360-16):			
Welder qualification records	☒ Observe	☐ Perform	Verify welder qualification records and continuity records.
Welding procedures (WPS) and consumable certificates	☐ Observe	☒ Perform	
Material identification	☒ Observe	☐ Perform	Verify type and grade of material.
Welder identification	☒ Observe	☐ Perform	Confirm a system is in place by which a welder who has welded a joint or member can be identified.
Fit-up groove welds	☒ Observe	☐ Perform	Verify joint preparation, dimensions, cleanliness, tacking, and backing.
Fit-up of CJP welds to HSS T-, Y- and K- joints without backing	☒ Observe	☐ Perform	Verify joint preparation, dimensions, cleanliness and tacking.
Access holes	☒ Observe	☐ Perform	Verify configuration and finish.
Fit-up of fillet welds	☒ Observe	☐ Perform	Verify dimensions, cleanliness and tacking.
DURING WELDING (TABLE N5.4-2, AISC 360-16):			
Control and handling of welding consumables	☒ Observe	☐ Perform	Verify packaging and exposure control.
Cracked tack welds	☒ Observe	☐ Perform	Verify that welding does not occur over cracked tack welds.
Environmental conditions	☒ Observe	☐ Perform	Verify wind speed is within limits as well as precipitation and temperature.
WPS followed	☒ Observe	☐ Perform	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.

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Welding techniques	☒ Observe	☐ Perform	Verify interpass and final cleaning, each pass is within profile limitations, and quality of each pass.
Headed stud anchors	☐ Observe	☒ Perform	Verify placement and installation of head stud anchors.
AFTER WELDING (TABLE N5.4-3, AISC 360-16):			
Welds cleaned	☒ Observe	☐ Perform	Verify that welds have been properly cleaned.
Size, length, and location of welds	☐ Observe	☒ Perform	Verify the size, length and location of welds.
Welds meet visual acceptance criteria	☐ Observe	☒ Perform	Verify that welds meet crack prohibition, base metal fusion, profile, size, undercut, and porosity provisions.
Arc strikes	☐ Observe	☒ Perform	Verify that arc strikes do not exist outside the permanent weld areas.
k-area	☐ Observe	☒ Perform	When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks.
Backing & weld tabs removed	☐ Observe	☒ Perform	If required on the approved construction documents, verify that back and weld tabs are removed.
Repair activities	☐ Observe	☒ Perform	Verify that repair activities are performed in accordance with AISC 360 and AWS D1.1.
Documentation	☐ Observe	☒ Perform	Document the acceptance or rejection of the welded joint or member.
Prohibited welds	☒ Observe	☐ Perform	Verify that no prohibited welds have been added with the approval of the engineer of record.
NONDESTRUCTIVE TESTING (SECTION N5, AISC 360-16):			
CJP welds (Risk Cat. II)	☐ Observe	☒ Perform	UT testing shall be performed on 10% of CJP groove welds in butt, T- and corner joints subject to predominately applied tension loading in materials 5/16-inch thick or greater. Thickness must be verified on 100% of CJP welds in SDC D, E or OMF Cat. 2.
CJP welds (Risk Cat. III or IV)	☐ Observe	☒ Perform	UT testing shall be performed on all CJP groove welds in butt, T- and corner joints subject to tension or applied tension loading in materials 5/16-inch thick or greater.
Welded joints subject to fatigue	☐ Observe	☒ Perform	Welded joints subject to fatigue (see Table A-3.1 of AISC 360) shall have radiographic or UT testing.
PRIOR TO BOLTING (TABLE N5.6-1, AISC 360-16):			
➢ *Not required if only snug-tight joints are specified (see Section N5.6(1) of AISC 360-16).*			
Certifications of fasteners	☐ Observe	☒ Perform	Verify that manufacturer's certificates are available for fastener materials.
Fasteners marked	☒ Observe	☐ Perform	Verify that fasteners have been marked in accordance with ASTM requirements.
Proper fasteners for joint	☒ Observe	☐ Perform	Verify grade, type, and bolt length if threads are excluded from the shear plane.
Proper bolting procedure	☒ Observe	☐ Perform	Verify proper procedure is used for the joint detail.
Connecting elements	☒ Observe	☐ Perform	Verify appropriate faying surface condition and hole preparation, if specified, meet requirements.
Pre-installation verification testing	☒ Observe	☐ Perform	Observe and document verification testing by installation personnel for fastener assemblies and methods used.
Proper storage	☒ Observe	☐ Perform	Verify proper storage of bolts, nuts, washers, and other fastener components.

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DURING BOLTING (TABLE N5.6-2, AISC 360-16):			
➢ *Not required if only snug-tight joints are specified (per Section N5.6(1) of AISC 360-16).*			
➢ *Not required for pretensioned joints using turn-of-the-nut method with match-marking, direct-tension-indicators, or tension-all type tension control method (per Section N5.6(2) of AISC 360-16).*			
Fastener assemblies	☒ Observe	☐ Perform	Verify that fastener assemblies are of suitable condition, placed, and washers are positioned as required.
Snug-tight prior to pretensioning	☒ Observe	☐ Perform	Verify that joints are brought to snug-tight condition prior to pretensioning operation.
Fastener component	☐ Observe	☒ Perform	Verify that fastener component is not turned by wrench prevented from rotating.
Pretensioned fasteners	☒ Observe	☐ Perform	Verify that fasteners are Pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges.
AFTER BOLTING (TABLE N5.6-3, AISC 360-16):			
Documentation	☐ Observe	☒ Perform	Document the acceptance or rejection of bolted connections.
OTHER STEEL INSPECTIONS (SECTION N5.7 & N5.8, AISC 360-16; Tables J8.1 & J10.1, AISC 341-16):			
Galvanized structural steel	☒ Observe	☐ Perform	Verify that exposed cut surfaces of galvanized structural steel does not include cracks prior to galvanizing the surface.
Structural steel details	☒ Observe	☐ Perform	All fabricated steel or steel frames shall be inspected to verify compliance with the details shown in the approved construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection.
Anchor rods and other embedments supporting structural steel	☒ Observe	☐ Perform	Shall be on the premises during the placement of anchor rods and other embedments supporting structural steel for compliance with construction documents. Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.
Reduced beam sections (RBS)	☐ Observe	☒ Perform	Verify conformance with approved construction documents and AISC 360 shall have radiographic or UT testing.
Protected zones	☐ Observe	☒ Perform	Verify that no holes or unapproved attachments are made within the protected zone *(see Table J8.1 of AISC 341-16).*
Hi-ples	☐ Observe	☒ Perform	Verify that no holes or unapproved attachments occur within the protected zones of piling *(see Table J10.1 of AISC 341-16).*
COMPOSITE CONSTRUCTION – STEEL & CONCRETE (TABLES J9.1, J9.2, J9.3 of AISC 341-16):			
Prior to concrete placement	☒ Observe	☐ Perform	Verify type and grade of reinforcing steel; carbon equivalent if specified; size; cover; bar spacing; reinforcing steel splice locations and orientation; that bar has not been bent; bar is tied and supported; proper clearances are provided; and composite member has required size.
During concrete placement	☒ Observe	☐ Perform	Verify concrete/grout mix design; limitations on water added to truck/chute, and proper placement techniques are used to limit segregation.
After concrete placement	☒ Observe	☐ Perform	Document that minimum concrete compressive strength was achieved at specified age.

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STEEL ROOF AND FLOOR DECKS (IBC 1705.2.2 and SDI QA/QC - 2017):			
Prior to metal deck attachment	☐ Observe	☒ Perform	Verify steel document compliance of materials (deck and all deck accessories) with approved construction documents, including profiles, material properties, and base metal thickness.
After metal deck placement	☐ Observe	☒ Perform	Verify and document compliance of deck, and deck accessories, with the approved construction documents. Verify that mill certificates comply with approved construction documents.
Prior to welding	☒ Observe	☐ Perform	Verify that welding procedures and certifications of consumables are available, material is properly identified, and welding equipment is appropriate.
During welding	☒ Observe	☐ Perform	Verify that welders are qualified, proper handling of consumables is provided, that environmental conditions are acceptable and WPS is followed.
After welding	☐ Observe	☒ Perform	Verify size, location and appearance of welds. Verify that repair activities are acceptable.
Prior to mechanical fastening	☒ Observe	☐ Perform	Verify that manufacturer's installation instructions and tools are available. Verify proper storage of fasteners.
During mechanical fastening	☒ Observe	☐ Perform	Verify that fasteners are positioned appropriately and installed per manufacturer's instructions.
After mechanical fastening	☐ Observe	☒ Periodic	Verify spacing and type of all fasteners. Verify that repair activities are acceptable.
OPEN-WEB STEEL JOISTS AND JOIST GIRDERS (IBC TABLE 1705.2.3):			
End connections – welded or bolted	☐ Continuous	☒ Periodic	Visual inspection to confirm that end connections conform to the approved construction documents.
Bridging – horizontal or diagonal	☐ Continuous	☒ Periodic	Verify that the correct bridging is provided per the approved construction documents.
COLD-FORMED STEEL CONSTRUCTION (IBC 1705.2.4, 1705.11.2, 1705.12.3, and 1705.12.9):			
Trusses spanning 60 feet or greater	☐ Continuous	☒ Periodic	Verify that temporary and permanent truss bracing is installed in accordance with approved truss package. *Performed by code inspection firm.*
Wind-force-resisting systems or seismic-force-resisting systems	☐ Continuous	☒ Periodic	Verify completion of bracing operations. If fastener spacing is < 4"o.c.: Verify that proper screw penetrations, bolting, welding and other fastening of shear walls, diaphragms, drag struts, braces, shear connections, and hold-downs has occurred. *Performed by code inspection firm.*
Cold-formed steel special bolted moment frames	☐ Continuous	☒ Periodic	Visual inspections during installation cold-formed bolted moment frames located in Seismic Design Category "D-F".
CONCRETE CONSTRUCTION (IBC 1705.3 & 1705.12.1)			
Item			*Detailed Instructions and Frequencies*
Reinforcing steel, including prestressing tendons	☐ Continuous	☒ Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all

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			mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Welding of reinforcing steel	☐ Continuous	☒ Periodic	Visually inspect all welds and also verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4 Continuously inspect any welds over 5/16" thick.
Cast-in bolts & embeds	☐ Continuous	☒ Periodic	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
Post-installed anchors or dowels	☐ Continuous	☒ Periodic	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report. Horizontally or upwardly inclined anchors that resist sustained tension loads require continuous inspection and approved installers.
Use of required mix design	☐ Continuous	☒ Periodic	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 19, 26.4.3, 26.4.4; and IBC 1904.1, 1904.2.
Concrete sampling for strength tests, slump, air content, and temperature	☒ Continuous	☐ Periodic	
Concrete & shotcrete placement	☒ Continuous	☐ Periodic	
Curing temperature and techniques	☐ Continuous	☒ Periodic	Verify that the ambient temperature for concrete is kept at: > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (see ACI 318: 26.5.3-26.5.5). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete. Shotcrete shall be kept continuously moist for not less than 24 hours after shotcreting. All concrete materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is not exceeded.
Pre-stressed concrete	☒ Continuous	☐ Periodic	ACI 318 26.10
Erection of precast concrete	☐ Continuous	☒ Periodic	Verify that all precast elements are stored, assembled and braced in accordance with the approved construction documents.
Precast concrete diaphragm connections or reinforcement classified as moderate or high deformability elements in seismic design category C-F	☒ Continuous	☐ Periodic	Inspect connections and reinforcement in the field for: a. Installation of the embedded parts b. Completion of the continuity of reinforcement across joints c. Completion of connections in the field.
Installation & connection of precast concrete diaphragm connections	☐ Continuous	☒ Periodic	
Strength verification	☐ Continuous	☒ Periodic	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.
Formwork	☐ Continuous	☒ Periodic	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.

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MASONRY CONSTRUCTION (IBC 1705.4)

Item			*Detailed Instructions and Frequencies*
PRIOR TO CONSTRUCTION (Table 3, TMS-602-16):			
Review material certificates, mix designs, test results and construction procedures	☐ Continuous	☒ Periodic	Verify that materials conform to the approved construction documents. Mix designs, test results, material certificates, and construction procedures should be submitted in sequence for review. Mortar mix designs shall conform to ASTM C 270 while grout shall conform to ASTM C 476. Material certificates shall be provided for reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.
AT MASONRY CONSTRUCTION BEGINS (TABLE 4, TMS-602-16):			
Proportion of site-prepared mortar	☐ Continuous	☒ Periodic	Verify that mortar is of the type and color specified on the construction documents, that it conforms to ASTM C 270, and that it is mixed in accordance with Article 2.6 A of TMS-602-16.
Grade and size of prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that prestressing tendons comply with Article 2.4 B of TMS-602-16 and that anchorages, couplers, and end blocks comply with Article 2.4 H.
Reinforcement, connectors, and anchorages	☐ Continuous	☒ Periodic	Verify that reinforcement, connectors, and anchorages are of the proper grade, type and size in accordance with Article 1.4 of TMS-602-16. Prestressing tendons shall be placed per Article 3.6 A.
Prestressing technique	☐ Continuous	☒ Periodic	Verify that prestressing technique complies with Article 3.6 B of TMS-602-16.
Properties of thin-bed mortar for AAC masonry	☐ Continuous	☒ Periodic	Verify that mortar complies with Article 2.1 C of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
Sample panel	☐ Continuous	☒ Periodic	Verify that sample panels are prepared, constructed and that subsequent work conforms per Article 3.D of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
PRIOR TO GROUTING (TABLE 4, TMS-602-16):			
Grout space	☐ Continuous	☒ Periodic	Verify that grout space is free of mortar droppings, debris, loose aggregate, and other deleterious materials and that cleanouts are provided per Article 3.2 D and 3.2 F of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
Placement of prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that prestressing tendons and anchorages are installed per the approved construction documents and per Articles 2.4 and 3.6 of TMS-602-16.
Placement of reinforcement, connectors, and anchor bolts	☐ Continuous	☒ Periodic	Verify that reinforcement, joint reinforcement, wall ties, anchor bolts and veneer anchors are installed in accordance with the approved construction documents and Articles 3.2 E and 3.4 of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)

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Preparation of site, grouted grout and prestressing grout for bonded tendons	☐ Continuous	☒ Periodic	Verify that grout is proportioned per ASTM C 476 and has a slump between 8-11 inches. Self-consolidated grout shall have a suggested slump cone (see Articles 2.6 B and 2.4 G.1.b of TMS-602-16.)
DURING MASONRY CONSTRUCTION (TABLE 4, TMS-602-16):			
Materials and procedures	☐ Continuous	☒ Periodic	Ensure that materials and procedures conform to the approved construction documents and Article 1.5 of TMS-602-16.
Placement of masonry units and mortar joint construction	☐ Continuous	☒ Periodic	Verify that masonry units are properly placed and that mortar joint construction conforms to Article 3.3 B of TMS-602-16.
Size and location of structural elements	☐ Continuous	☒ Periodic	Verify the locations of structural elements with respect to the approved plans and confirm that tolerances meet the requirements of Article 3.3 F of TMS-602-16.
Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	☐ Continuous	☒ Periodic	Verify that correct anchorages and connectors are provided per the approved plans and Sections 1.2.1, 6.2.2 and 6.3.1 of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
Welding of reinforcement	☒ Continuous	☐ Periodic	
Preparation, construction, and protection of masonry during cold weather (<40°F) or hot weather (>90°F).	☐ Continuous	☒ Periodic	Verify that cold-weather construction is performed in accordance with Article 1.8 C of TMS-602-16 and hot weather construction per Article 1.8 D of TMS-602-16.
Application and measurement of prestressing force	☒ Continuous	☐ Periodic	
Placement of grout and prestressing grout for bonded tendons is in compliance	☒ Continuous	☐ Periodic	
Placement of AAC masonry units and construction of thin-bed mortar joints	☐ Continuous	☒ Periodic	Verify that mortar is placed in accordance with Article 3.3 B 9 of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
Observation of grout specimens, mortar specimens, and/or prisms	☐ Continuous	☒ Periodic	Confirm that specimens/prisms are performed as required by Article 1.4 B of TMS-602-16. (If Risk Category IV this should be performed on a continuous basis.)
MINIMUM TESTING:			
Verification of f'm and f'AAC	☐ Continuous	☒ Periodic	Determine the compressive strength for each wythe by the "unit strength method" or by the "prism test method" as specified in Article 1.4 B of TMS 602-16 prior to construction. (For Risk Category IV buildings, one should be verified at every 5,000ft² of construction.)
Verification of Slump Flow and Visual Stability Index (VSI) for self-consolidating grout	☐ Continuous	☒ Periodic	Compressive strength tests should be performed in accordance with ASTM C 1019 for slump flow and ASTM C 1611 for VSI.
Verification of proportions of materials for premixed or pre-blended mortar and grout	☐ Continuous	☒ Periodic	Verify that proportions for mixes meet ASTM C 270 and proportions for grout meet ASTM C 476. (This applies to Risk Category IV buildings only.)

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WOOD CONSTRUCTION (IBC 1705.5, 1705.11.1 & 1705.12.2)

Item			*Detailed Instructions and Frequencies*
High-load diaphragms	☐ Continuous	☒ Periodic	Verify thickness and grade of sheathing, size of framing members at panel edges, nail/staple diameters and length, and the number of fastener lines and fastener spacing per approved plans. *Performed by code inspection firm.*
Wood trusses spanning > 60 feet	☐ Continuous	☒ Periodic	Verify that temporary and permanent truss bracing is installed in accordance with approved truss package. *Performed by code inspection firm.*
Structural wood	☐ Continuous	☒ Periodic	If fastener spacing is < 4"o.c.: Verify that proper nailing, bolting, anchoring and other fastening of shear walls, diaphragms, drag struts, braces, and hold-downs. *Performed by code inspection firm.*

MASS TIMBER CONSTRUCTION (IBC 1705.5.3)

Item			*Detailed Instructions and Frequencies*
Anchorage of connections of mass timber to timber/non-foundation systems	☐ Continuous	☒ Periodic	
Erection of mass timber construction	☐ Continuous	☒ Periodic	
Scaling of mass timber	☐ Continuous	☒ Periodic	Where sealant or adhesive required by IBC 703.7 is applied to mass timber building elements in the construction documents.
Inspection of connections where installation methods are required to meet design loads	See below	See below	
Threaded fasteners	☐ Continuous	☒ Periodic	Verify use of proper installation equipment. Verify use of pre-drilled holes where required. Inspect screws, including diameter, length, head type, spacing, penetration angle and depth.
Adhesive anchors installed horizontally or upwardly inclined to resist sustained tension	☒ Continuous	☐ Periodic	
Adhesive anchors installed downwardly inclined	☐ Continuous	☒ Periodic	
Bolted connections	☐ Continuous	☒ Periodic	
Concealed connections	☐ Continuous	☒ Periodic	

SOILS CONSTRUCTION (IBC 1705.6)

Item			*Detailed Instructions and Frequencies*
Verify subgrade is adequate to achieve design bearing capacity	☐ Continuous	☒ Periodic	Prior to placement of concrete.
Verify excavations extend to proper depth and material	☐ Continuous	☒ Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	☐ Continuous	☒ Periodic	Prior to placement of compacted fill.
Perform classification and testing	☐ Continuous	☒ Periodic	All materials shall be checked at each lift for proper

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of compacted fill materials	☒ Continuous	☐ Periodic	classifications and gradations not less than once for each 10,000ft² of surface area.
Verify proper materials, densities and lift thicknesses during placement and compaction.	☒ Continuous	☐ Periodic	Samples shall be taken from subgrade, floor, roof and wall assemblies and structural members. No more than 10% of the compacted fill may miss the thickness requirements by the fire-resistance design.

DRIVEN DEEP FOUNDATIONS (IBC 1705.7)

Item			*Detailed Instructions and Frequencies*
Verify material, sizes and lengths	☒ Continuous	☐ Periodic	
Determine capacities and conduct necessary load tests	☒ Continuous	☐ Periodic	
Observe driving operations	☒ Continuous	☐ Periodic	
Verify placement locations & plumbness, confirm type & size of hammer, record number of blows per foot, record tip and butt elevations and document any damage to element	☒ Continuous	☐ Periodic	
Perform additional inspections for special conditions or other specialty elements.	☐ Continuous	☐ Periodic	Steel per IBC 1705.2 Concrete per IBC 1705.3 Specialty items per registered design professional

CAST-IN-PLACE DEEP FOUNDATIONS (IBC 1705.8)

Item			*Detailed Instructions and Frequencies*
Observe drilling operations and reporting	☒ Continuous	☐ Periodic	
Verify placement locations & plumbness, confirm element diameters, lengths, embedment and adequate end-bearing capacity. Record concrete or grout volumes.	☒ Continuous	☐ Periodic	
Perform additional inspections for special elements.	☐ Continuous	☐ Periodic	Concrete per IBC 1705.3

MICRO-PILE FOUNDATIONS (IBC 1705.9)

Item			*Detailed Instructions and Frequencies*
Record installation equipment used, pile dimensions, tip elevations, final depth, and final installation torque	☒ Continuous	☐ Periodic	
Verify that helical piles used match the approved submittal	☒ Continuous	☐ Periodic	

SPRAYED FIRE-RESISTANT MATERIALS (IBC 1705.15)

Item			*Detailed Instructions and Frequencies*
Surface preparation	☐ Continuous	☒ Periodic	Prior to application, confirm that surface has been

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			prepared per the approved fire-resistance design and manufacturer's instructions.
Material thickness	☐ Continuous	☒ Periodic	Samples shall be taken from subgrade, floor, roof and wall assemblies and structural members. No more than 10% of the compacted fill may miss the thickness requirements by the fire-resistance design.
Material density	☐ Continuous	☒ Periodic	Density tests shall be performed in accordance with ASTM E 605 for every 2,500ft² of floor, roof or wall area. One sample must also be provided for each beam, girder, truss or column at each story. The bond strength shall not be less than 150psi.
Bonding strength	☐ Continuous	☒ Periodic	Bond strength tests shall be performed in accordance with ASTM E 736 for every 2,500ft² of floor, roof or wall area. One sample must also be provided for each beam, girder, truss or column at each story. The bond strength shall not be less than 150psi.

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC 1705.16 & AWCI 12-B)

Item			*Detailed Instructions and Frequencies*
Surface preparation	☐ Continuous	☒ Periodic	Prior to application confirm that surface temperature and substrate are acceptable, and that a compatible primer is used in accordance with AWCI 12-B.
Thickness	☐ Continuous	☒ Periodic	Record thickness of primer or other existing coating on substrate prior to application of coating. Final thickness of coating must be verified in multiple locations prior to applying topcoat per AWCI 12-B.

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (IBC 1705.17)

Item			*Detailed Instructions and Frequencies*
Material and installation	☐ Continuous	☒ Periodic	Verify that water-resistive barrier, complying with ASTM E 2570, is installed appropriately over a sheathing substrate. *Performed by code inspection firm.* (Not required if applied over concrete, masonry, or if a means of draining moisture to exterior is provided.)

FIRE-RESISTANT PENETRATIONS AND JOINTS (IBC 1705.18)

➢ *Only required for high-rise buildings or those assigned to Risk Category III or IV per IBC Table 1604.5 or in fire areas containing group R occupancies with an occupant load greater than 250.*

Item			*Detailed Instructions and Frequencies*
Penetration firestops	☐ Continuous	☒ Periodic	Listed systems shall be inspected in accordance with ASTM E 2174.
Fire-resistant joint systems	☐ Continuous	☒ Periodic	Listed systems shall be inspected in accordance with ASTM E 2393.

SMOKE CONTROL (IBC 1705.19)

Item			*Detailed Instructions and Frequencies*
Verify device locations and perform leakage testing	☐ Continuous	☒ Periodic	During erection of ductwork and prior to concealment. Conducted by rational analysis.
Pressure difference testing, free-movement and functions and	☐ Continuous	☒ Periodic	Prior to occupancy and after sufficient completion. As defined by rational analysis.

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control verification			

ARCHITECTURAL COMPONENTS (IBC 1705.13.5)

➢ *Only required for buildings located within Seismic Design Category D, E or F.*

Item			*Detailed Instructions and Frequencies*
Erection and fastening of exterior cladding or interior and exterior veneers	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. *Performed by code inspection firm.* (Not required if < 30 feet or less than 5psf).
Erection and fastening of interior and exterior nonbearing walls	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. *Performed by code inspection firm.* (Not required if < 30 feet or for interior walls < 15psf).
Access floors	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. Inspection of post-installed anchors shall comply with approved ICC-ES report. *Performed by code inspection firm.*

STORAGE RACKS (IBC 1705.13.7)

➢ *Only required for buildings located within Seismic Design Category D, E or F.*

Item			*Detailed Instructions and Frequencies*
Materials used	☐ Continuous	☒ Periodic	
Fabricated storage rack elements	☐ Continuous	☒ Periodic	IBC 1704.2.5
Storage rack anchorage installation.	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. Inspection of post-installed anchors shall comply with approved ICC-ES report. *Performed by code inspection firm.*
Completed storage rack system	☐ Continuous	☒ Periodic	Verify that completed system complies with the approved construction documents. *Performed by code inspection firm.*

MECHANICAL & ELECTRICAL COMPONENTS (IBC 1705.13.6)

➢ *Only required for buildings located within Seismic Design Category C, D, E, or F.*

Item			*Detailed Instructions and Frequencies*
Attachment of emergency or standby power systems	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. *Performed by code inspection firm.*
Installation of piping systems carrying flammable, combustible or highly toxic materials	☐ Continuous	☒ Periodic	Verify that installation and restraint comply with approved construction documents. *Performed by code inspection firm.*
Installation of HVAC ductwork containing hazardous materials	☐ Continuous	☒ Periodic	Verify that installation and restraint comply with approved construction documents. *Performed by code inspection firm.*
Installation of vibration isolation systems having a clearance of <¼"	☐ Continuous	☒ Periodic	Verify that installation complies with approved construction documents and manufacturer's recommendations. *Performed by code inspection firm.*

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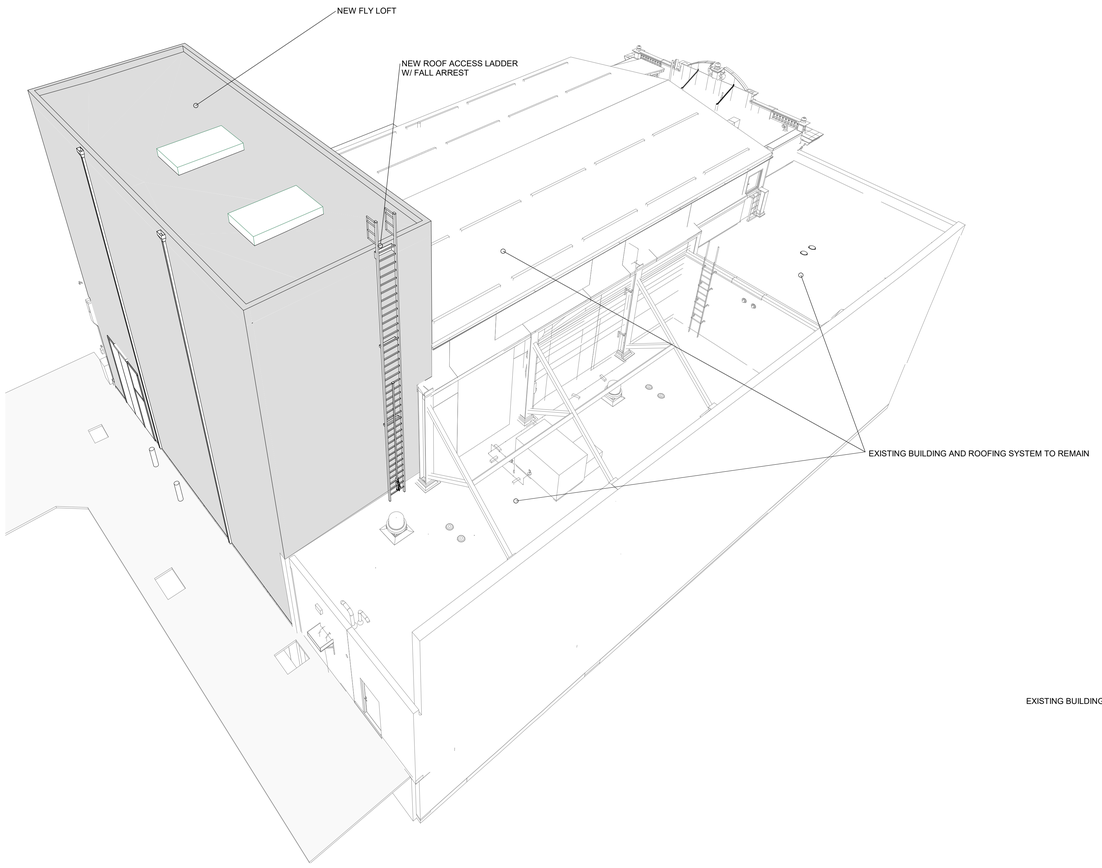
Clearances to fire sprinkler drops and sprigs	☐ Continuous	☒ Periodic	Verify that 3-inches of clearance exists between MEP or structural elements and sprinkler drops or sprigs. *Performed by code inspection firm.* (Not required if flexible sprinkler piping is used).
Designated seismic systems	☐ Continuous	☒ Periodic	Verify seismic qualification per Section 13.2.2 of ASCE 7. Verify that the label, anchorage or mounting conforms to the manufacturer's certificate of compliance. *Performed by code inspection firm.*

SPECIALLY ISOLATED STRUCTURES (IBC 1705.13.8 & 1705.14.4)

Item			*Detailed Instructions and Frequencies*
Prototype tests	☐ Continuous	☒ Periodic	Prototype tests shall be performed on selected samples of the isolator system in accordance with Section 17.8 of ASCE 7-16.
Fabrication and installation	☐ Continuous	☒ Periodic	Verify that fabrication and installation of isolator units and energy dissipation devices conform to manufacturer's recommendations and approved construction documents.

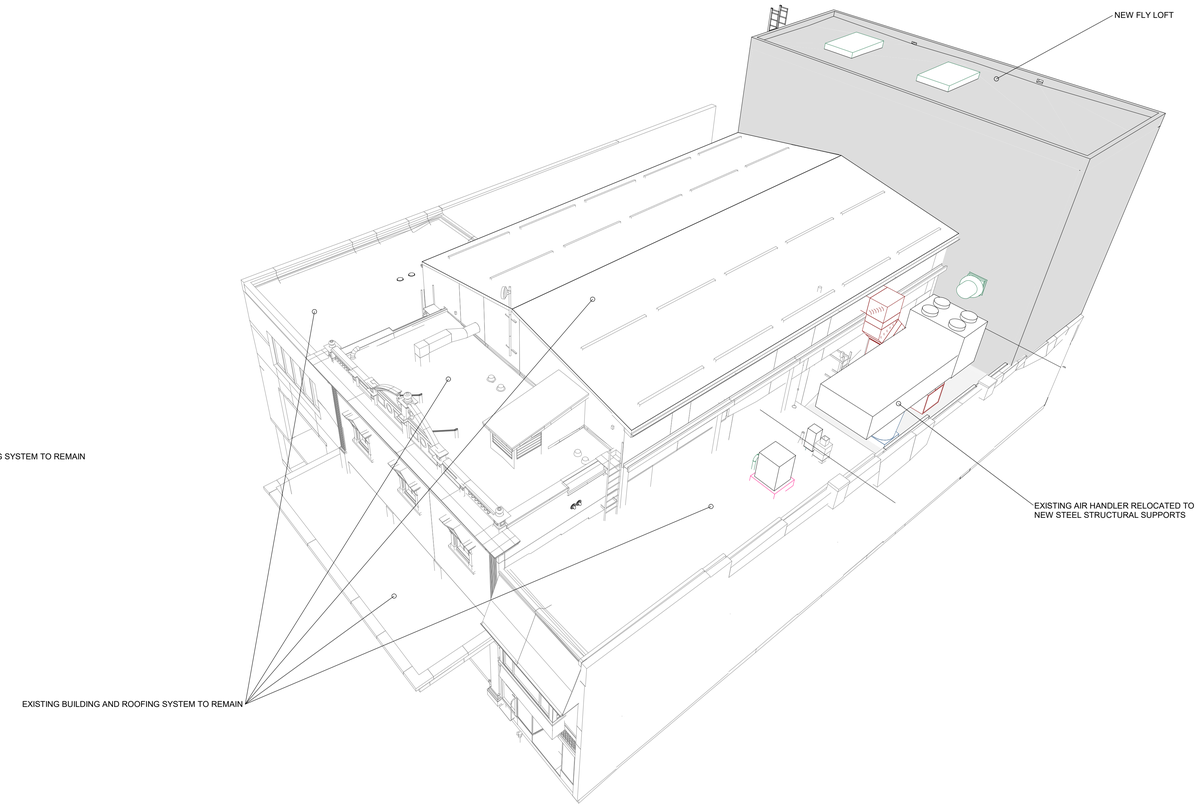
SPECIAL CASES (IBC 1705.1.1) – material alternatives or unusual design applications

| *Item* | | | *Detailed Instructions and



2 BIRDSEYE VIEW 2 - FOR REFERENCE

NOTE: VIEW FOR REFERENCE ONLY. ADJACENT BUILDING CONTEXT NOT SHOWN.



1 BIRDSEYE VIEW 1 - FOR REFERENCE

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

3D REFERENCE VIEWS

SCALE	
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

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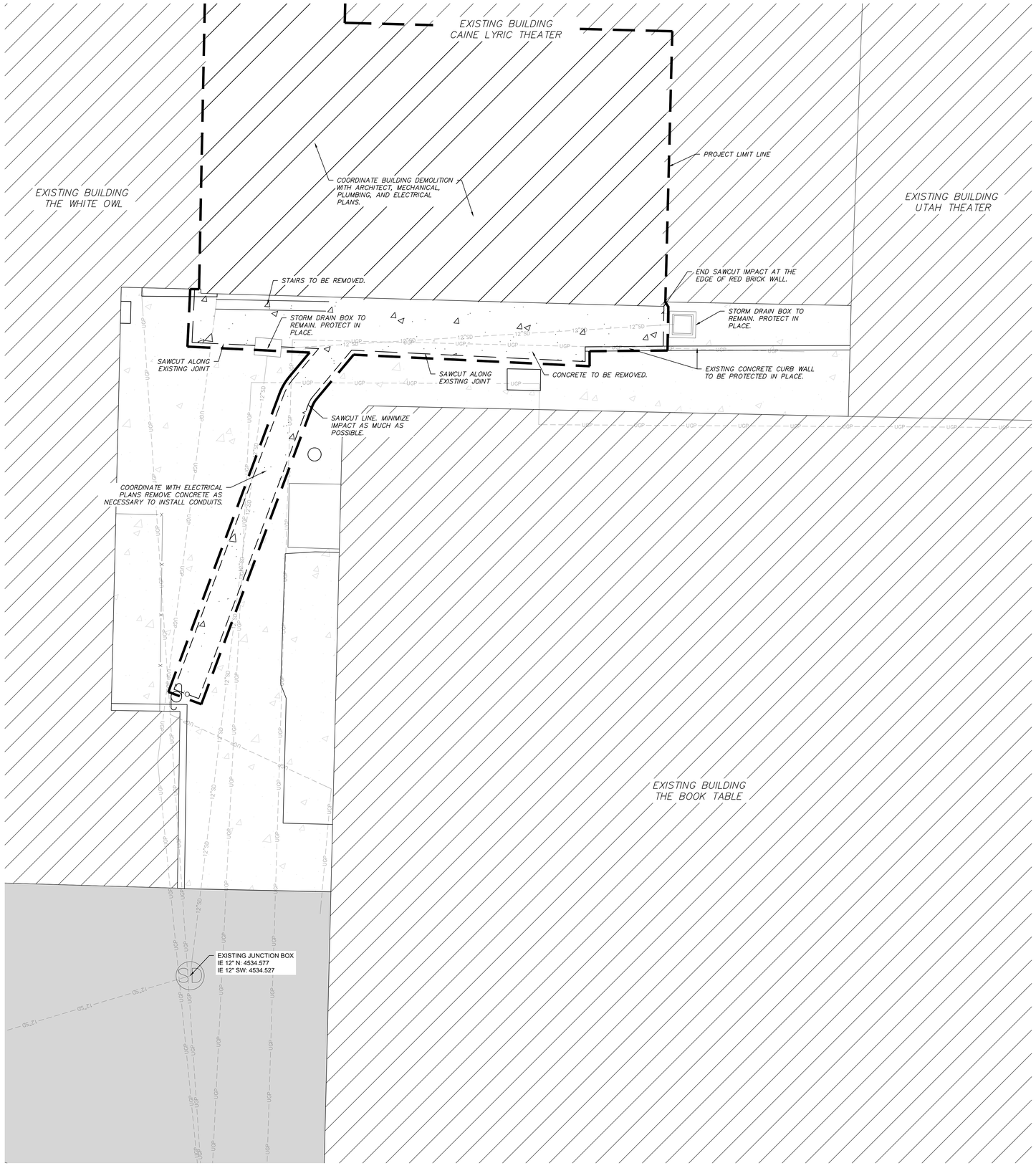

LEGEND

- EXISTING BUILDING
- SEE ARCHITECTURAL PLANS FOR BUILDING DEMOLITION
- EXISTING ASPHALT TO REMAIN
- EXISTING CONCRETE TO REMAIN
- CONCRETE TO BE REMOVED
- SAWCUT LINE
- SAWCUT ALONG THE EXISTING CONCRETE JOINT

DEMOLITION GENERAL NOTES:

1. THE CONTRACTOR SHALL REVIEW DEMOLITION PLAN AND COMPARE WITH EXISTING CONDITIONS. THE CONTRACTOR SHALL RESOLVE ANY DISCREPANCIES BETWEEN THE DEMOLITION PLAN AND EXISTING CONDITIONS WITH UNIVERSITY PERSONNEL, THE CIVIL ENGINEER AND/OR THE RESPECTIVE UTILITY COMPANY PRIOR TO ANY DEMOLITION ACTIVITIES.
2. THE CONTRACTOR SHALL PROMPTLY REPAIR ANY DAMAGES TO ADJACENT FACILITIES OR FINISHES CAUSED BY DEMOLITION OR CONSTRUCTION WORK. ALL REPAIR WORK SHALL BE AT NO ADDITIONAL COST TO THE UNIVERSITY.
3. THE PROJECT AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS AND REFUSE AT ALL TIMES. CONTRACTOR TO REMOVE ALL DEMOLITION DEBRIS FROM SITE IMMEDIATELY UPON DECONSTRUCTION AND TO ENSURE PROPER AND LEGAL DISPOSAL OF ALL DEMOLITION MATERIAL.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES. LOCATIONS SHOWN ARE NOT GUARANTEED AND MUST BE CONFIRMED
5. IF DISCREPANCIES EXIST BETWEEN THE DEMOLITION PLAN AND EXISTING SITE CONDITIONS, THE CIVIL ENGINEER MUST BE NOTIFIED IMMEDIATELY.
6. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IMMEDIATELY IF THERE IS ANY DOUBT AS TO THE REMOVAL OR PRESERVATION OF ANY ELEMENT WITHIN THE PROJECT AREA.
7. EXISTING UNDERGROUND INSTALLATIONS AND UTILITIES SHOWN ON THE DEMOLITION PLAN ARE APPROXIMATE LOCATIONS. THE CIVIL ENGINEER DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION, BUT PROVIDES IT FOR REFERENCE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION ACTIVITIES.
8. THE CONTRACTOR SHALL COORDINATE ALL INFORMATION SHOWN ON DEMOLITION PLAN WITH ALL OTHER PLANS IN DOCUMENT SET PRIOR TO CONSTRUCTION.
9. USU AND BLUE STAKES DIGGING PERMIT REQUIRED.
10. CONTRACTOR TO LEGALLY DISPOSE OF ALL WASTE AND DEBRIS.
11. RECYCLE ASPHALT, CONCRETE, METALS, ETC, WHERE POSSIBLE.
12. CONTRACTOR TO COORDINATE ALL EXISTING ROOF DRAIN LOCATIONS (IF IMPACTED AND APPLICABLE) AND PROVIDE FOR NECESSARY ROOF DRAINAGE AND DISCHARGE AS NECESSARY DURING CONSTRUCTION
13. CONTRACTOR IS RESPONSIBLE TO REMOVE AND DISPOSE OF ALL WASP NESTS IN PROJECT AREA.
14. CONTRACTOR IS TO COORDINATE DEMOLITION WITH MECHANICAL, ARCHITECTURAL, PLUMBING, AND ELECTRICAL PLANS.

CIVIL DEMO PLAN

SCALE: 1" = 5'

GRAPHIC SCALE 1"= 5'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

CIVIL DEMOLITION PLAN

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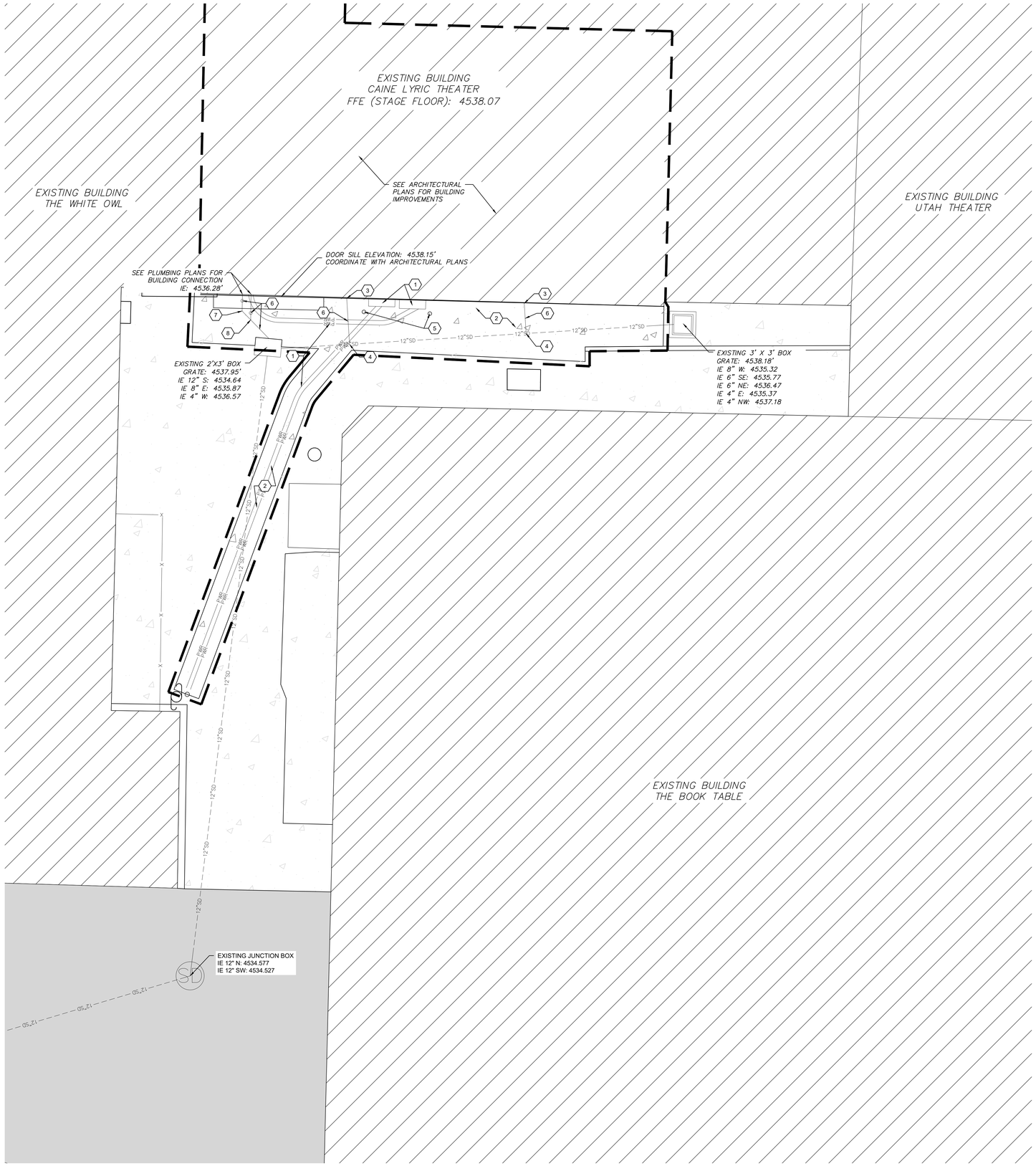
SHEET NO.
CD101



CIVIL SITE / UTILITY PLAN

SCALE: 1" = 5'

0 2.5' 5' 10'

GRAPHIC SCALE 1"= 5'

UTILITY PLAN GENERAL NOTES:

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY USU FACILITIES & LOGAN CITY AS WELL AS FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND ARE TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE ACTUAL LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. GENERAL CONTRACTOR TO INSURE ENTIRE INSTALLATION SHALL MEET ALL APPLICABLE CODES.
4. VERIFY ALL CONDITIONS AND DIMENSIONS ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY PROVIDER. GENERAL CONTRACTOR TO VERIFY AND FOLLOW ALL UTILITY PROVIDER REQUIREMENTS, PROCEDURES, STANDARDS AND SPECIFICATIONS.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION AND ELEVATION OF EXISTING UTILITIES WHICH MAY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION. IF A CONFLICT DOES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE.
7. ALL WATER LINES TO HAVE A MINIMUM COVER OF 5'-6".
8. SEPARATE WATER AND SEWER MAIN LINES AND SERVICES BY 10-FEET MINIMUM FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
9. ALL FIRE LINE & DOMESTIC WATER CONNECTIONS TO MEET USU AND LOGAN CITY STANDARDS AND REQUIREMENTS FOR BACKFLOW PREVENTION.
10. INSTALL CLEAN-OUTS ON ROOF DRAIN PIPING AT 100-FT MAX. SPACING AND AT CHANGE OF DIRECTION.
11. ALL UTILITY PIPE TRENCHING, EXCAVATION & BACKFILL TO MEET LOGAN CITY STANDARDS.

KEY NOTES:

1. SEE ELECTRICAL PLANS
2. CONSTRUCT STANDARD CONCRETE SECTION. SEE SHEET C-501 / DETAIL 1.
3. INSTALL 6" BOOT AND PVC STORM DRAIN LINE. SEE SHEET C-501 / DETAIL 2.
4. INSTALL INSERTA TEE. CONNECT TO EXISTING 12" LINE. CONTRACTOR TO VERIFY DEPTH.
5. INSTALL 5" BOLLARD. SEE SHEET C-501 / DETAIL 3.
6. INSTALL 6" PVC STORM DRAIN LINE. SLOPE = 1% MIN.
7. INSTALL 6" X 6" 45° PVC ELBOW
8. INSTALL 6" X 6" X 6" 45° PVC WYE.

LEGEND

- EXISTING BUILDING
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PWR — PROPOSED 4" CONDUIT
- 12"SD — EXISTING 12" STORM DRAIN
- 6"SD — PROPOSED 6" PVC STORM DRAIN LINE

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FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

DFCM PROJECT NO: 14385770

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SEAL

PROFESSIONAL ENGINEER
STATE OF UTAH
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REVISION SCHEDULE

NO	DATE	DESCRIPTION

CIVIL SITE / UTILITY

SCALE	1" = 5'
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
CS201

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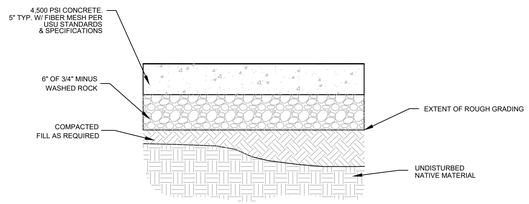
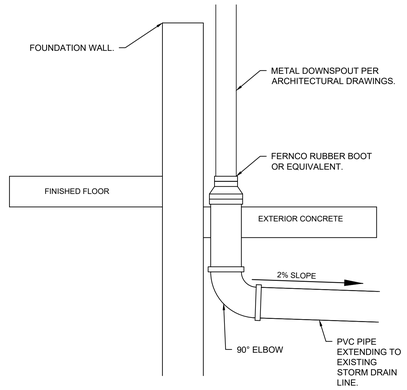
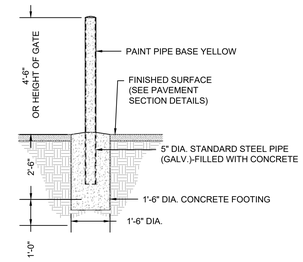


NOTES:
1. ALL CONCRETE CONTROL JOINTS AND EXPANSION JOINTS SHALL MEET USU STANDARDS & SPECIFICATIONS FOR PLACEMENT, MATERIALS & EXECUTION

1 *STANDARD CONCRETE SECTION*
SCALE: NTS



2 *DOWNSPOUT BOOT*
SCALE: NTS



3 *5-INCH BOLLARD*
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

CIVIL DETAILS

SCALE	NTS
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
C-501

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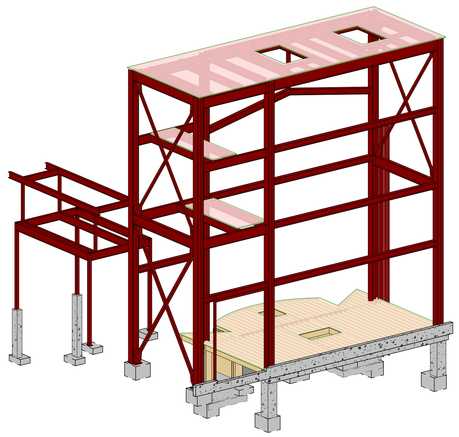

A1
S001
ISOMETRIC VIEW - GENERAL PURPOSE ONLY
Scale: NTS

STRUCTURAL DRAWING LEGEND

CONCRETE CONSTRUCTION

- CONCRETE SPOT FOOTING
- CONCRETE CONTINUOUS FOOTING
- CONCRETE WALL
- CONCRETE COLUMN
- CONCRETE PIER (CAST INTEGRAL WITH WALL)
- CONCRETE BEAM / JOIST FRAMING MEMBER
- CONCRETE LINTEL / BEAM (INTEGRAL WITH WALL)
- C.J. CONCRETE SLAB CONTROL/CONSTRUCTION JOINT (SEE GENERAL STRUCTURAL NOTES)
- REINFORCED CAST IN PLACE CONCRETE SUSPENDED SLAB
- CONCRETE SLAB ON GRADE (SEE CONCRETE SLAB ON GRADE SCHEDULE)
- SLAB ON GRADE BLOCKOUT AROUND ALL COLUMNS
- FOOTING STEP
- HELICAL PILE (DESIGNED BY MANUFACTURER) SEE PLAN FOR REQUIRED LOADING
- LATERAL LOAD HELICAL PILE (DESIGNED BY MANUFACTURER) SEE PLAN FOR REQUIRED LOADING

MASONRY CONSTRUCTION

- MASONRY WALL
- MASONRY LINTEL (INTEGRAL)
- MASONRY JAMB COLUMN (INTEGRAL)
- MASONRY COLUMN (FREE-STANDING)
- MASONRY COLUMN (INTEGRAL)

STEEL CONSTRUCTION

- STEEL COLUMN (WIDE FLANGE SHAPE)
- STEEL COLUMN (HSS)
- STEEL COLUMN (HSS ROUND)
- STEEL BASE PLATE
- STEEL BEAM / JOIST FRAMING MEMBER
- DRAG STRUT CONNECTION (SEE STEEL CONNECTION SCHEDULE)
- MOMENT FRAME CONNECTION (SEE STRUCTURAL ELEVATIONS)
- BRACED FRAME CONNECTION (SEE STRUCTURAL ELEVATIONS)
- DOUBLE SHEAR CONNECTION (SEE STEEL CONNECTION SCHEDULE)
- CANTILEVER MOMENT CONNECTION (SEE STRUCTURAL DETAILS)
- BEAM SIZE (X) C=Y" (Z, Z)

BEAM SIZE = BEAM DESIGNATION
X = # OF HEADED STUDS (SPACED UNIFORMLY ACROSS BEAM)
Y = BEAM CAMBER (CROWN UPWARD @ MIDSPAN)
Z = SPECIAL REACTIONS OR OTHER NOTES

ALL BEAM ENDS UNLESS NOTED WITH SPECIAL SYMBOL OR DETAILED OTHERWISE ARE TO BE SIMPLE SHEAR TAB CONNECTIONS (SEE SCHEDULE)

- STEEL ROOF DECK (SEE PLANS AND GENERAL NOTES FOR SPECIFIC INFORMATION)
- CONCRETE SLAB ON STEEL DECK (SEE PLANS AND GENERAL NOTES FOR SPECIFIC INFORMATION)

WOOD CONSTRUCTION

- PLYWOOD / OSB WOOD DECK (SEE WOOD DECK SCHEDULE)
- WOOD BEARING WALL
- WOOD SHEARWALL
- WOOD HEADER (INTEGRAL WITH WALL)
- WOOD COLUMN (INTEGRAL WITH WALL)
- WOOD COLUMN (FREE-STANDING)
- H# HOLDOWN AS DESIGNATED (SEE SCHEDULE)
- A WOOD SHEAR WALL (SEE SCHEDULE)

GENERAL ANNOTATIONS

STACKED STRUCTURAL TAGS REPRESENT STRUCTURAL RELATIONSHIPS BETWEEN VARIOUS ELEMENTS

- COLUMN W/ BASE PLATE SUPPORTED ON PIER / WALL SUPPORTED ON FOOTING (SEE STRUCTURAL SCHEDULES FOR ALL DIMENSIONS AND INFORMATION)
- FSX.X CONCRETE FOOTING TAG
- XC# COLUMN TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, S=STEEL, W=WOOD
- # BASE PLATE TAG
- XW# WALL TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, W=WOOD
- XB# BEAM TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY, W=WOOD
- XL# LINTEL TAG (X=MATERIAL, #=DESIGNATION) C=CONCRETE, M=MASONRY
- 98'-0" ELEVATION AT TOP OF FOOTING
- STEP CHANGE IN ELEVATION
- SLOPED 1/4 ROOF SLOPE DESIGNATION (SEE ARCH FOR ACTUAL SLOPES)
- SPECIAL DECK OR FLOOR AREA
- 1 A101 TYP DETAIL OR PLAN REFERENCE
- TYPICAL (TYP) OR SIMILAR (SIM) DETAIL
- SHEET REFERENCE
- 1 A101 TYP SECTION REFERENCE
- TYPICAL (TYP) OR SIMILAR (SIM) DETAIL
- SHEET REFERENCE
- S1 S101 ELEVATION REFERENCE
- SHEET REFERENCE
- N DESIGNATES PLAN NORTH

GREY TONE OR LIGHTER DRAWING ELEMENTS DESIGNATE EXISTING STRUCTURAL COMPONENTS AND/OR ELEMENTS

STRUCTURAL ABBREVIATIONS

ABV	ABOVE	FC#	CONTINUOUS FOOTING	MISC	MISCELLANEOUS
ADD'L	ADDITIONAL	FS#	SPOT FOOTING	ML#	MASONRY LINTEL
ALT	ALTERNATE	FT	FOOT	MW#	MASONRY WALL
ARCH	ARCHITECT(URAL)	FTG	FOOTING	NS	NON-SHRINK
BLDG	BUILDING	FDTN	FOUNDATION	NTS	NOT TO SCALE
BLW	BELOW	GA	GAUGE	NW	NORMAL WEIGHT
BTM	BOTTOM	GALV	GALVANIZED	OC	ON CENTER
BTWN	BETWEEN	GLB	GLUE-LAMINATED BEAM	OF	OUTSIDE FACE
CJ	CONTROL OR CONSTRUCTION JOINT	GR	GRADE	OPP	OPPOSITE
CJP	COMPLETE JOINT PENETRATION	GSN	GENERAL STRUCTURAL NOTES	OWSJ	OPEN WEB STEEL JOIST
CLR	CLEAR	HK	HOOK	PCF	POUNDS PER CUBIC FOOT
CMU	CONCRETE MASONRY UNIT	HSA	HEADED STUD ANCHOR	PL	PLATE
COL	COLUMN	HORIZ	HORIZONTAL	PLF	POUNDS PER LINEAL FOOT
CONC	CONCRETE	HT	HEIGHT	PSF	POUND PER SQUARE FOOT
CONST	CONSTRUCTION	INT	INTERIOR	PSI	POUND PER SQUARE INCH
CONT	CONTINUOUS	IF	INSIDE FACE	REINF	REINFORCING
COORD	COORDINATE	IBC	INTERNATIONAL BUILDING CODE	REQD	REQUIRED
CRWW	CONCRETE RETAINING WALL	IEBC	INTERNATIONAL EXISTING BUILDING CODE	SC#	STEEL COLUMN
CTR	CENTER(ED)	ICC	INTERNATIONAL CODES COUNCIL	SIM	SIMILAR
CW#	CONCRETE WALL	IN	INCH	SOG	SLAB ON GRADE
DBA	DEFORMED BAR ANCHOR	K	KIP(S) = 1000 POUNDS	SOMD	SLAB ON METAL DECK
DBL	DOUBLE	KLF	KIPS PER LINEAL FOOT	STD	STANDARD
DIA	DIAMETER	KSF	KIPS PER SQUARE FOOT	STIFF	STIFFENER
DIM	DIMENSION	KSI	KIPS PER SQUARE INCH	STL	STEEL
DWG	DRAWING	LBS	POUNDS	T+B	TOP AND BOTTOM
EF	EACH FACE	LG	LIGHT GAUGE	TOF	TOP OF FOOTING
EJ	SEISMIC ISOLATION JOINT	LLH	LONG LEG HORIZONTAL	TOS	TOP OF SLAB
EA	EACH	LLV	LONG LEG VERTICAL	TOW	TOP OF WALL
ELEC	ELECTRICAL	LSH	LONG SIDE HORIZONTAL	TYP	TYPICAL
ELEV	ELEVATION	LW	LIGHT-WEIGHT	UNO	UNLESS NOTED OTHERWISE
EQ	EQUAL	MANUF	MANUFACTURER	VERT	VERTICAL
EQUIP	EQUIPMENT	MAX	MAXIMUM	VIF	VERIFY IN FIELD
EXIST	EXISTING	MC#	MASONRY COLUMN	W/	WITH
EXT	EXTERIOR	MECH	MECHANICAL	W/C	WATER / CEMENT RATIO
FF	FINISH FLOOR	MEP	MECH/ELEC/PLUMB	WC#	WOOD COLUMN
		MIN	MINIMUM	WWF	WELDED WIRE FABRIC

GENERAL PROJECT INSTRUCTIONS

1. GENERAL NOTES: THESE GENERAL STRUCTURAL NOTES DO NOT SUPERSEDE THE PROJECT SPECIFICATIONS, BUT ARE INTENDED TO BE COMPLIMENTARY TO THEM. CONSULT THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS IN EACH SECTION. NOTATION AND SPECIFIC DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THESE NOTES AND TYPICAL DETAILS.

2. CONTRACT DRAWINGS: THE PRIME CONTRACT DRAWINGS ARE THE ARCHITECTURAL DRAWINGS. THESE STRUCTURAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. ALL OMISSIONS OR CONFLICTS, INCLUDING DIMENSIONS, BETWEEN THE VARIOUS ELEMENTS OF THE STRUCTURAL DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK INVOLVED. IN CASE THERE IS A CONFLICT BETWEEN DRAWINGS, FOLLOW THE MOST STRINGENT REQUIREMENT, SUBMIT A REQUEST FOR INFORMATION, AND/OR PROCEED AS DIRECTED BY THE ARCHITECT WITHOUT ANY ADDITIONAL COST TO THE OWNER. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK.

3. STRUCTURAL DRAWINGS: THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS. ONLY THE PRIMARY STRUCTURAL ELEMENTS AND SYSTEMS ARE INDICATED WITHIN THESE STRUCTURAL DRAWINGS. ALL STRUCTURAL DETAILS ARE REPRESENTATIVE IN NATURE AND ARE NOT TO BE SCALED FOR ANY REASON. MANY OTHER ELEMENTS SUCH AS, ARCHITECTURAL LAYOUTS, ELEVATIONS, SLOPES, DEPRESSIONS, CURBS, MECHANICAL/ELECTRICAL EQUIPMENT, EXTERIOR LIGHT GAUGE FRAMING, STAIRS, ETC. ARE GENERALLY NOT SHOWN IN THESE STRUCTURAL DRAWINGS. IT IS INTENDED THAT ALL SHOP DRAWINGS AND DETAILING OF STRUCTURAL ELEMENTS WILL REQUIRE INFORMATION FROM ALL CONTRACT DOCUMENTS, NOT JUST THESE STRUCTURAL DRAWINGS.

4. PROJECT COORDINATION: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE ALL ITEMS WITH ALL TRADES TO INSURE THERE ARE NO CONFLICTS BETWEEN OTHER TRADES AND THE STRUCTURAL ELEMENTS. ANY OPENINGS, PENETRATIONS, OR ATTACHMENTS TO ANY STRUCTURAL ELEMENT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SHALL BE COORDINATED WITH THE ARCHITECT/ENGINEER.

5. SUBMITTALS: STRUCTURAL SUBMITTALS SHALL ONLY BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AFTER THE GENERAL CONTRACTOR HAS REVIEWED AND APPROVED THE SUBMITTAL. CONTRACTOR SHALL ALLOW AT LEAST 10 BUSINESS DAYS (2 WEEKS) FOR EACH SUBMITTAL TO BE REVIEWED. IF AN ITEM IS SUBMITTED WHILE ANOTHER SUBMITTAL IS UNDER REVIEW, THE 10 DAY REVIEW PERIOD FOR THAT NEWLY SUBMITTED ITEM DOES NOT BEGIN UNTIL THE PREVIOUS SUBMITTAL IS COMPLETE. THE SHOP DRAWING REVIEW PROCESS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OF COMPLETING THE PROJECT ACCORDING TO THE CONTRACT DOCUMENTS, REGARDLESS OF INFORMATION SHOWN IN THE REVIEW COMMENTS. SHOP DRAWINGS MADE FROM REPRODUCTIONS OF THESE STRUCTURAL DRAWINGS WILL BE REJECTED.

6. SHORING AND BRACING REQUIREMENTS: THE STRUCTURAL SYSTEMS SHOWN IN THESE DRAWINGS SHALL NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS ARE IN PLACE AND COMPLETED. IT IS THEREFORE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO DETERMINE THE METHOD OF CONSTRUCTION SEQUENCE, AS WELL AS PROVIDE ANY SHORING, BRACING, ETC. TO INSURE THE STRUCTURE IS STABLE UNTIL ALL ELEMENTS ARE COMPLETED.

7. FIELD VERIFICATION: THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, AND CONDITIONS. IF THE CONTRACT DRAWINGS DO NOT REPRESENT ACTUAL CONDITIONS, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION WITHIN THAT AREA. IF CONTRACTOR PROCEEDS WITH ANY WORK WITHOUT PROPERLY FIELD VERIFYING DIMENSIONS, CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION AND DESIGN COSTS ASSOCIATED WITH FIXING THE SITUATION.

8. PERMIT PLAN CHECK: PRIOR TO OBTAINING FINAL BUILDING PERMITS FROM THE BUILDING OFFICIAL AND OTHER AUTHORITIES HAVING JURISDICTION, ALL PRICING, BIDDING, OR CONSTRUCTION PROGRESS IS DONE AT THE CONTRACTOR'S OWN RISK. CHANGES TO THESE DRAWINGS MAY BE REQUIRED AS PART OF THE PLAN CHECK AND PERMITTING PROCESS AND THUS STRUCTURAL DESIGN STUDIO, INC. WILL NOT BE HELD LIABLE (FINANCIAL OR OTHERWISE) FOR ANY CHANGES MADE TO THESE DRAWINGS.

9. NOTICE OF COPYRIGHT: ALL DRAWINGS, DETAILS, NOTES, ELEMENTS, ETC. CONTAINED WITHIN THESE DRAWINGS ARE COPYRIGHTED BY STRUCTURAL DESIGN STUDIO, INC. SUBMISSION OR DISTRIBUTION OF DOCUMENTS TO MEET OFFICIAL REGULATORY REQUIREMENTS OR FOR SIMILAR PURPOSES IN CONNECTION WITH THE PROJECT IS NOT TO BE CONSTRUED AS PUBLICATION IN DEROGATION OF STRUCTURAL DESIGN STUDIO, INC.'S RIGHTS. THE DOCUMENTS DEFINING THE STRUCTURE ARE INSTRUMENTS OF SERVICE PREPARED BY STRUCTURAL DESIGN STUDIO, INC. FOR ONE USE ONLY. FURTHERMORE, THESE DOCUMENTS SHALL NOT BE REPRODUCED, OR COPIED, IN WHOLE OR IN PART BY THE CONTRACTOR OR HIS SUBCONTRACTORS FOR PREPARATION OF SHOP DRAWINGS OR ANY OTHER SUBMITTALS.

CRITERIA FOR STRUCTURAL DESIGN

1. **GOVERNING BUILDING CODES AND GENERAL DESIGN STANDARDS**
   A. 2021 INTERNATIONAL BUILDING CODE (IBC)
   B. ASCE/SEI 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   C. 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC) - PRESCRIPTIVE METHOD

2. **ROOF LIVE LOADING:**
   A. ROOF LIVE LOAD = 20 PSF
   B. ROOF SNOW LOAD = 30 PSF
      a. GROUND SNOW LOAD, Pg = 43 PSF
      b. FLAT ROOF SNOW LOAD, Pf = 30 PSF
      c. SNOW EXPOSURE FACTOR, Ce = 0.90
      d. IMPORTANCE FACTOR, Is = 1.10
      e. THERMAL FACTOR, Ct = 1.00
      f. SLOPE FACTOR(S), Cs = 1.00
      g. SNOW DRIFT SURCHARGE AREAS = SEE ROOF PLANS

3. **FLOOR LIVE LOADING:**
   A. LIVE LOAD REDUCTION AS PERMITTED IN IBC 1603.1.1 AND 1607.11 HAS BEEN USED FOR DESIGN OF GIRDERS, COLUMNS, FOUNDATIONS
   B. FLOORS = 150 PSF (150 PSF LIVE LOAD + 0 PSF PARTITION LOAD)
   C. EXIT AREAS, STAIRS + COORIDORS = 0 PSF LIVE LOAD

4. **SEISMIC DESIGN CRITERIA AND PARAMETERS:**
   A. RISK CATEGORY III (SUBSTANTIAL HAZARD) - BUILDING TYPE
   B. SEISMIC DESIGN CATEGORY = D
   C. SPECTRAL RESPONSE ACCELERATIONS:
      Ss = 1.07 g Sds = 0.86 g
      S1 = 0.36 g Sd1 = 0.46 g
   D. SOIL SITE CLASS = SITE CLASS-D (DEFAULT)
      Fa = 1.20 Fv = 1.94
   E. BASIC SEISMIC-FORCE-RESISTING SYSTEM:

N-S (SPECIAL CONCENTRIC BRACED FRAME)	R = 6.00	Cd = 5.00	Ω = 2.00
E-W (SPECIAL MOMENT FRAME)	R = 8.00	Cd = 5.50	Ω = 3.00

   F. IMPORTANCE FACTOR, Ie = 1.25
   G. SEISMIC RESPONSE COEFFICIENT, Cs = 0.18
   H. DESIGN BASE SHEAR, V = 0.18W KIPS
   I. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE (ELF-STATIC)

5. **WIIND DESIGN CRITERIA:**
   A. BASIC WIND SPEED (Vult) = 120 MPH
   B. ALLOWABLE STRESS WIND DESIGN SPEED (V) = 93 MPH
   C. RISK CATEGORY III (SUBSTANTIAL HAZARD) - BUILDING TYPE
   D. EXPOSURE CATEGORY = EXPOSURE B (URBAN/SUBURBAN)
   E. INTERNAL PRESSURE COEFFICIENT (Gcpi) = ±0.18
   F. TOPOGRAPHIC FACTOR (Kht) = 1.00
   G. COMPONENTS AND CLADDING:
      a. WALL INTERIOR ZONES = 20.7 PSF / -23.7 PSF
      b. WALL END ZONES = 19.6 PSF / -25.9 PSF
      c. ROOF INTERIOR ZONES = 16.0 PSF / -36.1 PSF
      d. ROOF END ZONES = 16.0 PSF / -48.5 PSF
      e. ROOF CORNER ZONES = 16.0 PSF / -64.3 PSF

FOUNDATION CRITERIA & EARTHWORK GUIDELINES

1. **GEOTECHNICAL INFORMATION**
   A. A SOILS INVESTIGATION AND GEOTECHNICAL REPORT WAS COMPLETED ON BEHALF OF THIS PROJECT BY AGEC APPLIED GEOTECH (PROJECT NO. 1240906), AND IS DATED 01/27/2025 . AS DIRECTED BY THE OWNER THIS REPORT WAS USED IN THE DESIGN OF THE FOUNDATION SYSTEMS FOR THIS PROJECT. IT SHALL NOT BE CONSIDERED A WARRANTY TO THE SOILS OR SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BY THE CONTRACTOR. THE REPORT IS NOT PART OF THESE STRUCTURAL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT DIRECTLY FROM THE OWNER AND SHALL FOLLOW THE RECOMMENDATIONS OF THE REPORT. ANY QUESTIONS OR INQUIRIES REGARDING SOIL PREPARATION, REMEDIATION, ETC. SHALL BE DIRECTED TO THE GEOTECHNICAL ENGINEER.

2. **SHALLOW FOUNDATION REQUIREMENTS:**
   A. ALL FOOTINGS + FOUNDATIONS TO BE PLACED ON PROPERLY PREPARED NATIVE SOILS AND/OR COMPACTED STRUCTURAL FILL.
   B. 3OTTOM OF FOOTING MUST BEAR AT LEAST 30 INCHES BELOW FINAL GRADE
   C. BASED ON FINAL IN-FIELD GRADE, CONTRACTOR SHALL COORDINATE FOOTING ELEVATIONS SHOWN ON PLAN AND PROVIDE ADDITIONAL FOOTING STEPS AS NECESSARY TO INSURE THE ABOVE REQUIREMENT IS MET IN ALL CONDITIONS.
   D. DO NOT PLACE ANY FOOTING ON UNSUITABLE OR DELETERIOUS MATERIAL. REMOVE ALL UNSUITABLE MATERIAL BELOW FOOTINGS AND REPLACE IT WITH COMPACTED STRUCTURAL FILL AS OUTLINED IN THE GEOTECHNICAL REPORT, AND IN ACCORDANCE WITH THE TYPICAL COMPACTED STRUCTURAL FILL DETAIL CONTAINED IN THESE DRAWINGS.
   E. ALL NATURAL UNDISTURBED SOILS LOCATED BELOW ALL FOOTINGS SHALL BE PROOF ROLLED AND TESTED PRIOR TO PLACING CONCRETE. REMOVE ALL SOFT SPOTS AND REPLACE WITH COMPACTED STRUCTURAL FILL AS OUTLINED IN THE GEOTECHNICAL REPORT.
   F. ALL STRUCTURAL FILL SHALL BE TESTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THE GOVERNING BUILDING CODE.

3. **SOIL PROPERTIES + DESIGN PARAMETERS:**
   A. NET SOIL BEARING PRESSURE = 1,500 PSF
   B. LATERAL LOAD SLIDING COEFFICIENT = 0.45
   C. SHORT-TERM SOIL CAPACITY INCREASE (WIND/SEISMIC) = 50%
   D. LATERAL SOIL PROPERTIES FOR USE IN RETAING STRUCTURE:
      a. SOIL UNIT WEIGHT = 120 PCF
      b. ACTIVE PRESSURE (Ka) = 40 PCF
      c. AT-REST PRESSURE (Ko) = 55 PCF
      d. SEISMIC PRESSURE-INCREASE VALUES ABOVE BY 35 PCF
      e. PASSIVE PRESSURE (Kp) = 300 PCF
      f. SEISMIC PASSIVE PRESSURE-DECREASE VALUE ABOVE BY 50 PCF

4. **MICRO PILE FOUNDATION CRITERIA:**
   A. MICRO PILES SHALL BE A DEFERRED SUBMITTAL AND DESIGNED BY A PROFESSIONAL ENGINEER AS INDICATED IN THE DEFERRED SUBMITTAL SECTION OF THE THESE NOTES.
   B. SEE PLAN NOTES AND DETAILS FOR LOADING CRITERIA FOR MICRO PILE DESIGN.
   C. INSTALLATION OF MICRO PILES SHALL BE IN ACCORDANCE WITH SPECIFIED EMBEDMENT DEPTH AND RESISTANCE CRITERIA AS DETERMINED BY THE REGISTERED DESIGN PROFESSIONAL OF THE MICRO PILES.
   D. GENERAL CONTRACTOR SHALL PROVIDE AN AS-INSTALLED PLAN SHOWING ALL MICRO PILE LOCATIONS, DIMENSIONS, ANGLES AND DEPTHS.

CONCRETE MATERIAL & DESIGN PROPERTIES

1. **CONCRETE MATERIALS:**
   A. ALL MATERIALS SHALL COMPLY WITH THOSE SPECIFIED IN AMERICAN CONCRETE INSTITUTE (ACI) 318-19, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."

2. **CONCRETE UNIT WEIGHTS** (MAXIMUM AIR DRY WEIGHT):
   A. NORMAL WEIGHT CONCRETE SHALL BE BETWEEN 145 TO 150 POUNDS PER CUBIC FOOT.

3. **CONCRETE CEMENT TYPES:**
   A. PROJECT SHALL UTILIZE CEMENT TYPE (III/V) FOR ALL CONCRETE IN CONTACT WITH SOIL, AND TYPE III AT ALL OTHER LOCATIONS.

4. **ADMIXTURES:**
   A. AIR-ENTRAINING ADMIXTURES, COMPLY WITH ASTM C260 / C260M: WHEN AIR CONTENT OF A TROWEL FINISHED FLOOR SLAB IS IN EXCESS OF 3%, THERE IS AN INCREASED RISK FOR BLISTERING AND DELAMINATIONS TO OCCUR. WHEN THIS SITUATION EXISTS, THE CONTRACTOR MUST PAY SPECIAL ATTENTION TO THE FINISHING PROCEDURES TO HELP MINIMIZE SUCH RISKS.
   B. NO ADMIXTURE CONTAINING ANY CALCIUM CHLORIDE, OR OTHER CORROSIVE SUBSTANCE MAY BE ADDED TO THE MIX.
   C. ALL EXTERIOR PRIMARY STRUCTURAL ELEMENTS EXPOSED TO THE OUTSIDE AIR SHALL HAVE 6% AIR ENTRAINMENT.

5. **CONCRETE MIX DESIGNS**
   A. SUBMITTALS SHALL BE SUBMITTED FOR EACH DIFFERENT MIX DESIGN, SHOWING SUCCESSFUL DATA FOR AT LEAST 5 YEARS FOR REVIEW PRIOR TO IT BEING USED ON THE PROJECT. CONCRETE MIX DESIGNS SHALL INCORPORATE THE FOLLOWING PROPERTIES AS FOLLOWS:

CONCRETE MIX PROPERTIES

ELEMENT	PROPERTIES		EXPOSURE CLASS			
	$F'_{c\,(PSI)}$	W/C	FREEZE	SULFATE	WATER	CORR
FOOTINGS	3000	0.50	F0	S0	W0	C0
WALLS	4500	0.45	F1	S0	W0	C1
COLUMNS	4500	0.45	F1	S0	W0	C1
BEAM/JOIST/SLAB	4000	0.45	F0	S0	W0	C0
NW-SOMD	4000	0.45	F0	S0	W0	C0
LW-SOMD	4000	0.45	F0	S0	W0	C0
INT-SOG	4000	0.45	F0	S0	W0	C0
EXT-SOG	4500	0.45	F3	S0	W0	C1

DEFERRED SUBMITTALS (STRUCTURAL)

1. DEFERRED SUBMITTALS REQUIRED BY STRUCTURAL ENGINEER ARE AS FOLLOWS:
   A. MICRO PILE FOUNDATION SYSTEM

2. DEFERRED SUBMITTALS SHALL INCLUDE STRUCTURAL CALCULATIONS, PLANS, AND DETAILS PROPERLY SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF ELEMENTS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM. DRAWINGS, CALCULATIONS, ETC SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.

3. STRUCTURAL ENGINEER WILL RELY ON THE SEAL OF THE SPECIALTY ENGINEER 'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.

4. DEFERRED SUBMITTALS ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION IN ACCORDANCE WITH IBC 107.3.4.1.

CONCRETE REINFORCING & CONSTRUCTION

1. **REINFORCING STEEL MATERIALS:**
   A. ASTM A615 GRADE 60, F_Y = 60,000 PSI MIN. UNLESS NOTED OTHERWISE.
   B. ALL REINFORCING STEEL SHALL BE BENT COLD, AND SHALL ONLY BE BENT ONCE UNLESS APPROVAL HAS BEEN GIVEN BY THE ENGINEER OF RECORD.
   C. REINFORCING STEEL SHALL NOT BE WELDED UNLESS NOTED OTHERWISE.

2. **MINIMUM REINFORCING STEEL:** UNLESS SCHEDULED OTHERWISE, MINIMUM WALL REINFORCING SHALL BE AS FOLLOWS:
   A. HORIZONTAL REINFORCING: AREA OF STEEL (IN²/FT) SHALL BE AT LEAST 0.030 X GROSS WALL THICKNESS, WITH BAR SPACED NO FURTHER APART THAN 18 INCHES ON CENTER.
   B. VERTICAL REINFORCING: AREA OF STEEL (IN²/FT) SHALL BE AT LEAST 0.018 X GROSS WALL THICKNESS, WITH BARS SPACED NO FURTHER APART THAN 18 INCHES ON CENTER.
   C. PLACE STEEL IN THE CENTER OF THE WALL, EXCEPT WHERE SHOWN OTHERWISE. WALLS 10" OR THICKER SHALL HAVE TWO CURTAINS OF REINFORCING PLACED NEAR EACH FACE OF THE WALL.
   D. CONCRETE CLEAR COVER OVER REINFORCING STEEL SHALL COMPLY WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" OR AS OUTLINED BELOW.
      a. CAST-IN-PLACE CONCRETE:
         • CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
      b. CONCRETE FORMED AND EXPOSED TO EARTH OR WEATHER:
         • #6 THRU #18 BARS = 2"
         • #5 AND SMALLER BARS = 1.1/2"
      c. CONCRETE WHICH IS NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
         • SLABS, WALLS, JOISTS; #11 BARS AND SMALLER = 3/4"
      d. BEAMS, COLUMNS: PRIMARY REINF, TIES, STIRRUPS, SPIRALS = 1.1/2"

3. **REINFORCING STEEL DETAILING:**
   A. ALL REINFORCING, INCLUDING WWF, SHALL BE DETAILED, AND SUPPORTED TO COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS FROM THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
   B. LAP SPLICE LENGTHS SHALL BE DETAILED TO COMPLY WITH THE CONCRETE LAP SPLICE SCHEDULE AND INFORMATION BELOW.
      a. IN LIEU OF OVERLAPPING SPLICES, CONTRACTOR MAY SPLICE REINFORCING WITH MECHANICAL COUPLERS CAPABLE OF DEVELOPING 125% TENSION CAPACITY OF THE BAR BEING SPLICED. CONTRACTOR SHALL SUBMIT APPROVED ICC EVALUATION SERVICE REPORT (ICC-ES) FOR THE DESIRED PRODUCT. IF MECHANICAL SPLICES ARE USED, SPLICES AND/OR COUPLERS ON ADJACENT BARS SHALL BE STAGGERED A MINIMUM OF 24" APART ALONG THE LONGITUDINAL AXIS OF THE REINFORCING BARS.
   C. PRIOR TO PLACING CONCRETE ALL EMBEDDED ITEMS INCLUDING DOWELS, ANCHOR BOLTS, EMBED, ETC. SHALL BE SECURELY TIED TO FORMWORK.
   D. PROVIDE CORNER BARS AT INTERSECTING WALL CORNERS USING THE SAME BAR SIZE AND SPACING AS THE HORIZONTAL WALL REINFORCING. UNLESS NOTED OTHERWISE, CORNER BAR LAP LENGTHS SHALL CONFORM WITH REINFORCING BAR LAP SPLICE LENGTHS. SEE DETAILS FOR MORE INFORMATION.
   E. ALL VERTICAL REINFORCING SHALL BE DOWELED TO FOOTINGS, OR TO THE STRUCTURE BELOW. DOWELS SHALL BE THE SAME SIZE AND SAME SPACING AS THE VERTICAL REINFORCING SCHEDULED (OR DETAILED) FOR THE ELEMENT ABOVE. REINFORCING EXTENDING INTO FOOTINGS SHALL TERMINATE WITH A STANDARD 90 DEGREE ACI STANDARD HOOK AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE FOOTING.
   F. HORIZONTAL WALL REINFORCING SHALL TERMINATE AT ENDS OF WALLS INCLUDING OPENINGS INTO THE FAR END OF THE JAMB COLUMN WITH A 90-DEGREE OR 180-DEGREE STANDARD ACI HOOK, TERMINATOR, OR A PROPERLY PLACED CORNER BAR, UNLESS SHOWN OTHERWISE.
   G. SPLICES IN HORIZONTAL REINFORCEMENT SHALL BE STAGGERED, SO THE SPLICE LAPS WILL NOT OVERLAP. SPLICES IN TWO CURTAINS WHERE USED SHALL NOT OCCUR IN THE SAME LOCATION, SPLICE LAPS SHALL NOT OVERLAP.
   H. PROVIDE (2) - #5 X 4'-0" DIAGONAL BARS AT THE CORNERS OF ALL OPENINGS. DIAGONAL BARS SHALL BE CENTERED ON THE CORNER OF THE OPENING.
   I. ALL TIED COLUMNS SHALL HAVE TIES SPACED AT ONE-HALF THE REQUIRED TIE SPACING FOR A DISTANCE OF ONE-SIXTH OF THE COLUMN HEIGHT ABOVE AND BELOW ALL FLOOR (OR BEAM) AND ROOF (OR BEAM) LEVELS OR ANY OTHER POINT OF LATERAL SUPPORT, UNLESS NOTED OR DETAILED OTHERWISE.
   J. COLUMN CROSS-TIES SHALL HAVE A 135 DEGREE HOOK AT ONE END AND A 90 DEGREE HOOK AT THE OTHER. THE HOOKS SHALL ENGAGE THE VERTICAL COLUMN REINFORCEMENT. THE 135 DEGREE HOOKS OF CONSECUTIVE CROSS-TIES ENGAGING THE SAME VERTICAL BARS SHALL ENGAGE ALTERNATE VERTICAL BARS
   K. SPLICES IN VERTICAL COLUMN REINFORCING WILL BE PERMITTED AT FLOOR LEVELS ONLY, UNLESS SHOWN OTHERWISE.

4. **CONSTRUCTION REQUIREMENTS:**
   A. TIE WIRES AND CHAIRS SHALL BE USED TO SUPPORT REINFORCING BARS, WELDED WIRE FABRIC, TIE BARS AND POST-TENSION TENDONS.
   B. NO ALUMINUM CONDUIT OR PRODUCT CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO CONCRETE SHALL BE EMBEDDED IN CONCRETE.
   C. ONLY A SINGLE TYPE OF CONCRETE MIX DESIGN SHALL BE PLACED ON THE SITE AT ANY GIVEN TIME.
   D. FORMWORK SHALL COMPLY WITH CURRENT VERSION OF ACI STANDARDS PUBLICATION 347 AND PROJECT SPECIFICATIONS. THE GENERAL CONTRACT

WOOD MATERIAL & DESIGN PROPERTIES

1. **DESIGN & CONSTRUCTION STANDARDS:**
   A. ALL WOOD MATERIALS AND ELEMENTS ARE TO BE IN ACCORDANCE WITH ANSI/AWC NDS-2018 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.

2. **WOOD MATERIALS:**
   A. DIMENSIONAL FRAMING LUMBER: NUMBER 1 DOUGLAS FIR-LARCH OR BETTER OR AS NOTED OTHERWISE
   B. ENGINEERED LAMINATED VENEER LUMBER (LVL): ALL LVL MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
      F_B = 2600 PSI, F_V = 285 PSI, E = 1900 KSI.
   C. ENGINEERED JOISTS (TJI): MUST BE MANUFACTURED BY TRUS JOIST MACMILLAN CORP. ANY SUBSTITUTIONS SUCH AS BCI AS MANUFACTURED BY BOISE CASCADE CORP. MUST MEET OR EXCEED THE CAPACITY OF THE MEMBERS SHOWN IN THE STRUCTURAL DRAWINGS.
      STRUCTURAL PANEL SHEATHING: ALL PANELS SHALL BE RATED BY THE AMERICAN PLYWOOD ASSOCIATION (APA). PANELS SHALL BE INTERIOR GRADE WITH EXTERIOR GLUE WITH THE FOLLOWING PANEL SPAN RATING, UNLESS NOTED OTHERWISE,
      ROOF = 48/24 FLOORS = 32/16 WALLS = 24/16
   D. SPECIAL TREATMENTS (AMERICAN WOOD PRESERVERS INSTITUTE STANDARDS):
      a. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY OR SOIL: PRESSURE TREAT WITH METHODS THAT ARE NON-METALLIC AND THAT DO NOT CONTAIN ARSENIC. SUCH PRODUCTS INCLUDE EL2 DCOI-IMIDICLOPRID-STABILIZER, PT1 PLUS STABILIZER OR APPROVED EQUIVALENT BY THE ARCHITECT. ALL FASTENERS WHICH ARE TO BE INSTALLED IN PRESERVATIVE WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.10.6.
      b. FIRE RETARDANT: PRESSURE TREAT WITH DRICON OR EQUAL AS APPROVED BY THE ARCHITECT.
      c. POLES AND PILES: AWPI-CP-77, PENTACHLOROPHENOL IN HEAVY OIL.

WOOD FRAMING & CONSTRUCTION

1. **WOOD FRAMING ELEMENTS:**
   A. NAILS: STANDARD COMMON WITH THE FOLLOWING PROPERTIES:
      (NAIL SIZE | SHANK DIAMETER | MINIMUM PENETRATION)
      (6D | 0.113" | 1.1/4") (8D|0.131"|1.1/2") (10D | 0.148" | 1.5/8")
      (12D | 0.148" | 1.5/8") (16D | 0.162" | 1.3/4")
   B. FRAMING CONNECTIONS: ALL FRAMING CONNECTIONS NOT SHOWN OR OTHERWISE INDICATED ON THE DRAWINGS SHALL BE CONNECTED IN A MANNER SIMILAR TO THE CONNECTIONS SHOWN IN THE DRAWINGS OR WITH APPROVED SIMPSON STRONG-TIE CONNECTORS OR EQUAL WITH APPROVAL OF ENGINEER.
      FRAMING CONNECTORS UNLESS NOTED OTHERWISE (THE FOLLOWING NOTATIONS REFER TO SIMPSON STRONG-TIE CONNECTORS):
      a. JOIST AND RAFTERS: "BA" OR "MIT" HANGERS AS REQUIRED
      b. BEAMS:
         a. LVL: "HGU" OR "HGLTV" HANGERS
         b. GLULAM: "EG" HANGERS AND "HGLB" BEAM SEATS
         c. HINGE CONNECTORS: "HCCTA"
         d. COLUMNS: "CC" CAPS AND "CB" COLUMN BASES
      c. HOLD DOWN ANCHORS: "HDU"
   C. BOLTS FOR CONNECTIONS: ASTM A307 WITH ASTM A563 HEAVY HEX NUTS AND HARDENED WASHERS, GRADE A, UNLESS NOTED OTHERWISE.

2. **GENERAL FRAMING & CONSTRUCTION:**
   A. CONNECT ALL ITEMS AS PER IBC TABLE 2304.10.2, "FASTENING SCHEDULE", UNLESS NOTED OTHERWISE IN SPECIFIED DETAILS.
   B. MINIMUM NAILING REQUIREMENTS (SEE DRAWINGS FOR AREAS WITH GREATER REQUIREMENTS):
      a. ROOF: NAIL ALL SHEATHING PANELS WITH 8D COMMON NAILS AT 6" OC AT ALL SUPPORTED EDGES AND AT 12" OC AT ALL INTERMEDIATE SUPPORTS. USE TWO PLYCLIPS BETWEEN EACH SUPPORT FOR SPANS GREATER THAN 24" OC AND ONE PLYCLIP BETWEEN EACH SUPPORT FOR LESSER SPANS AT ALL UNSUPPORTED PANEL EDGES.
      b. FLOOR: NAIL ALL SHEATHING PANELS WITH 8D COMMON NAILS AT 6" OC AT ALL SUPPORTED EDGES AND 8D AT 10" OC AT ALL INTERMEDIATE SUPPORTS.
      c. WALLS: NAIL ALL SHEATHING PANELS WITH 8D COMMON NAILS AT 6" OC AT ALL EDGES AND AT 12" OC AT ALL INTERMEDIATE SUPPORTS (3/8" OR 7/16" PANELS ON STUDS SPACED AT 24" OC REQUIRES 6" SPACING AT ALL INTERMEDIATE SUPPORTS). SOLID BLOCK ALL PANEL EDGES.
   C. BLOCKING, BRIDGING, AND BRACING: PROVIDE SOLID SHAPED BLOCKING AT LEAST 2 IN.(NOMINAL) THICK AND FULL DEPTH OF JOIST AT ENDS AND AT EACH SUPPORT OF JOIST. PROVIDE APPROVED BRIDGING AT 8'-0" OC MAXIMUM BETWEEN JOIST END SUPPORTS. SOLID BLOCKING BETWEEN JOISTS SHALL BE NAILED TO THE WOOD PLATE AT THE TOP OF THE WALL WITH ONE SIMPSON "A35" FRAMING ANCHOR PER EACH PIECE OF BLOCKING. FILL ALL HOLES IN THE FRAMING ANCHORS WITH 8D SHORT NAILS.
   D. LAMINATED BUILT-UP BEAMS OF 2X MEMBER 12 IN. OR LESS IN DEPTH SHALL BE SPIKED TOGETHER WITH NOT LESS THAN 16D SPIKES AT TWELVE-INCH (12 IN.) CENTERS, STAGGERED. UNLESS SO SPIKED, OR IF THE DEPTH OF BEAM IS MORE THAN TWELVE INCHES (12 IN.), THE LAMINATIONS SHALL BE CONNECTED TOGETHER WITH 1/2" DIAMETER BOLTS AT 24 IN. OC STAGGERED. BOLTS SHALL BE PLACED 1/4 THE DEPTH OF THE MEMBER FROM THE TOP AND BOTTOM OF THE MEMBER.
   E. PRE-FABRICATED WOOD JOISTS (TJI): ALL REQUIRED BLOCKING, BRIDGING AND BRACING SHALL BE PROVIDED BY JOIST MANUFACTURER AND INSTALLED BY CONTRACTOR. ALL PENETRATIONS THROUGH THE JOISTS SHALL BE DONE PER MANUFACTURERS' RECOMMENDATIONS AND REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS (STRUCTURAL)

1. IN ADDITION TO STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED IN IBC SECTION 110, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS AS REQUIRED IN IBC SECTION 1704 AND 1705. THESE SECTIONS REFER TO THE SPECIAL INSPECTIONS PERTAINING TO THE STRUCTURAL SYSTEM ONLY AND DOES NOT ENCOMPASS INSPECTIONS REQUIRED BY OTHER DISCIPLINES.

2. UNLESS WAIVED BY THE BUILDING OFFICIAL, THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS.

3. TYPES OF WORK REQUIRING SPECIAL INSPECTION AND TESTING ON THIS PROJECT ARE LISTED IN THE FOLLOWING MATERIAL SPECIFIC TABLES. THESE TABLES ARE NOT MEANT TO ENCOMPASS ALL SPECIAL INSPECTIONS ON THE PROJECT, JUST THOSE DIRECTLY RELATED TO ELEMENTS AND MATERIALS USED FOR STRUCTURAL SUPPORT.

4. IN ADDITION TO THE SUBMITTAL REPORTS OF SPECIAL INSPECTIONS AND TESTS, REPORTS AND CERTIFICATIONS SHALL BE SUBMITTED BY THE OWNER (OR OWNER'S AGENT) TO THE BUILDING OFFICIAL FOR EACH OF THE FOLLOWING:
   A. CERTIFICATES OF COMPLIANCE FOR THE FABRICATION OF STRUCTURAL LOAD BEARING OR LATERAL LOAD RESISTING MEMBERS OR ASSEMBLIES ON THE PREMISES OF A REGISTERED AND APPROVED FABRICATOR.
   B. CERTIFICATES OF COMPLIANCE FOR SEISMIC QUALIFICATION OF NONSTRUCTURAL COMPONENTS, SUPPORTS AND ATTACHMENTS.
   C. CERTIFICATES OF COMPLIANCE FOR DESIGNATED SEISMIC SYSTEM.
   D. REPORTS OF MATERIAL PROPERTIES VERIFYING COMPLIANCE WITH THE REQUIREMENTS OF AWS D1.4 FOR WELDABILITY AS SPECIFIED IN SECTION 26.6.4 OF ACI 318 FOR REINFORCING BARS IN CONCRETE COMPLYING WITH A STANDARD OTHER THAN ASTM A706 THAT ARE TO BE WELDED.
   E. REPORTS OF MILL TESTS IN ACCORDANCE WITH SECTION 20.2.2.5 OF ACI 318 FOR REINFORCING BARS COMPLYING WITH ASTM A615 AND USED TO RESIST EARTHQUAKE INDUCED FLEXURAL OR AXIAL FORCES IN THE SPECIAL MOMENT FRAMES, SPECIAL STRUCTURAL WALLS OR COUPLING BEAMS CONNECTING SPECIAL STRUCTURAL WALLS OF SEISMIC FORCE RESISTING SYSTEMS.

5. STRUCTURAL OBSERVATIONS (WHEN REQUIRED BY BUILDING OFFICIAL)
   A. STRUCTURAL OBSERVATIONS MAY BE PERFORMED AS DEEMED NECESSARY BY THE STRUCTURAL ENGINEER OF RECORD.
   B. OBSERVATION VISITS TO THE SITE BY THE ENGINEER'S FIELD REPRESENTATIVES SHALL NOT BE CONSTRUED AS AN INSPECTION OR APPROVAL OF CONSTRUCTION.
   C. IN AN EFFORT TO KEEP THE STRUCTURAL ENGINEER OF RECORD CURRENT AS TO THE STATE OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER VIA TELEPHONE OR EMAIL TWENTY-FOUR HOURS PRIOR TO:
      a. PLACING OF ANY CONCRETE IN STRUCTURAL MEMBERS DESIGNATED IN THESE DRAWINGS.
      b. COMPLETING OF WELDING OF ANY MAJOR PORTIONS OF STEEL DECKING DESIGNATED IN THESE DRAWINGS.
      c. COMPLETING THE MAIN ERECTION OF STRUCTURAL STEEL ELEMENTS DESIGNATED IN THESE DRAWINGS.
      D. COMPLETING THE WELDING/BOLTING OF BRACED FRAMES OR MOMENT FRAMES PART OF THE LATERAL FORCE RESISTING SYSTEM DESIGNATED IN THESE DRAWINGS.

SOILS INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	PO	CO
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	X	-
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	X	-
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	X	-
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	-	X
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	X	-

NOTES:
PO = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
CO = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.6 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SECTION OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND BUILDING OFFICIAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.
2. REFER TO PROJECT GEOTECHNICAL REPORT, PROVIDED BY OWNER, TO VERIFY REQUIREMENTS FOR COMPACTED FILL, SOIL PROPERTIES, AND PREPARATION GUIDELINES.

MICRO PILE FOUNDATION INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	PO	CO
OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE ACCURATE RECORDS FOR EACH ELEMENT.	-	X
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM HELICAL DIMENSIONS, TIP ELEVATIONS, FINAL DEPTH, FINAL INSTALLATION TORQUE.	-	X

NOTES:
PO = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
CO = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.9 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SECTION OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND BUILDING OFFICIAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.
2. REFER TO PROJECT GEOTECHNICAL REPORT, PROVIDED BY OWNER, TO VERIFY REQUIREMENTS FOR HELICAL PILE INSTALLATION, PRELIMINARY DEPTHS, AND POTENTIAL LOADING REQUIREMENTS.
3. REFER TO STRUCTURAL DRAWINGS FOR SERVICE LOADING REQUIRED AT EACH HELICAL PILE LOCATION.

CONCRETE CONSTRUCTION INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	PO	CO
INSPECT REINFORCEMENT, INCLUDING, PRESTRESSING TENDONS, AND VERIFY PLACEMENT	X	-
REINFORCING BAR WELDING: - VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 - INSPECT SINGLE-PASS FILLET WELDS, MINIMUM 5/16" - INSPECT ALL OTHER WELDS	X X -	- - X
INSPECTION OF ANCHORS CAST IN CONCRETE	X	-
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS - ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS -MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED	- X	X -
VERIFYING USE OF REQUIRED DESIGN MIX	X	-
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	-	X
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	-	X
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	X	-
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		
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	X	-

NOTES:
PO = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
CO = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.3 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SECTION OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND BUILDING OFFICIAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

STRUCTURAL STEEL WELDING INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	QC	QA
INSPECTION TASKS PRIOR TO WELDING		
WELDING QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	O
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLE AVAILABLE	P	P
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
WELDER IDENTIFICATION SYSTEM	O	O
FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY) -- JOINT PREPARATION -- DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) -- CLEANLINESS (CONDITION OF STEEL SURFACES) -- TACKING (TACK WELD QUALITY AND LOCATION) -- BACKING TYPE AND FIR (IF APPLICABLE)	O	O
FIT-UP CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) -- JOINT PREPARATION -- DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) -- CLEANLINESS (CONDITION OF STEEL SURFACES) -- TACKING (TACK WELD QUALITY AND LOCATION)	P	O
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O
FIT-UP OF FILLET WELDS -- DIMENSIONS (ALIGNMENT, GAPS AT ROOT) -- CLEANLINESS (CONDITION OF STEEL SURFACES) -- TACKING (TACK WELD QUALITY AND LOCATION)	O	O
CHECK WELDING EQUIPMENT	O	-
INSPECTION TASKS DURING WELDING		
CONTROL AND HANDLING OF WELDING CONSUMABLES -- PACKAGING -- EXPOSURE CONTROL	O	O
NO WELDING OVER CRACKED TACK WELDS	O	O
ENVIRONMENTAL CONDITIONS -- WIND SPEED WITHIN LIMITS -- PRECIPITATION AND TEMPERATURE	O	O
WPS FOLLOWED -- SETTINGS ON WELDING EQUIPMENT -- TRAVEL SPEED -- SELECTED WELDING MATERIALS -- SHIELDING GAS TYPE/FLOW RATE -- PREHEAT APPLIED -- INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) -- PROPER POSITION (F, V, H, OH)	O	O
WELDING TECHNIQUES -- INTERPASS AND FINAL CLEANING -- EACH PASS WITHIN PROFILE LIMITATIONS -- EACH PASS MEETS QUALITY REQUIREMENTS	O	O
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P
INSPECTION TASKS AFTER WELDING		
WELDS CLEANED	O	O
SIZE, LENGTH AND LOCATION OF WELDS	P	P
WELDS MEET VISUAL ACCEPTANCE CRITERIA -- CRACK PROHIBITION -- WELD/BASE-METAL FUSION -- CRATER CROSS SECTION -- WELD PROFILES -- WELD SIZE -- UNDERCUT -- POROSITY	P	P
ARC STRIKES	P	P
K-AREA	P	P
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P
REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF EOR	O	O

NOTES:
QC = REPRESENTS QUALITY CONTROL PERSONNEL PROVIDED BY THE FABRICATOR AND THE ERECTOR WHO ARE QUALIFIED TO PERFORM REQUIRED TASKS.
QA = REPRESENTS QUALITY ASSURANCE PERSONNEL PROVIDED BY OTHERS (OWNER ENGAGED) AS REQUIRED BY JURISDICTION AND/OR OWNER.
O = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
P = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.2 AND 1705.12.1 OF THE INTERNATIONAL BUILDING CODE AS WELL AS AISC 360, CHAPTER N. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.
2. ALL ELEMENTS THAT ARE PART OF THE LATERAL FORCE RESISTING SYSTEM (LFRS) MUST, IN ADDITION TO REQUIREMENTS ABOVE ADHERE TO AISC-341 CHAPTER J. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

STRUCTURAL STEEL BOLTING INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	QC	QA
INSPECTION TASKS PRIOR TO BOLTING		
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O
INSPECTION TASKS DURING BOLTING		
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	O	O
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O
INSPECTION TASKS AFTER BOLTING		
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P

NOTES:
QC = REPRESENTS QUALITY CONTROL PERSONNEL PROVIDED BY THE FABRICATOR AND THE ERECTOR WHO ARE QUALIFIED TO PERFORM REQUIRED TASKS.
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P = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.2 AND 1705.12.1 OF THE INTERNATIONAL BUILDING CODE AS WELL AS AISC 360, CHAPTER N. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.
2. ALL ELEMENTS THAT ARE PART OF THE LATERAL FORCE RESISTING SYSTEM (LFRS) MUST, IN ADDITION TO REQUIREMENTS ABOVE ADHERE TO AISC-341 CHAPTER J. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

WOOD CONSTRUCTION INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	PO	CO
INSPECTION OF HIGH-LOAD DIAPHRAGMS TO VERIFY THE FOLLOWING: -- STRUCTURAL PANEL GRADE AND THICKNESS -- NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES -- NAIL AND/OR STAPLE DIAMETER AND LENGTH, NUMBER, FASTENER LINES, SPACING,EDGE MARGIN	X	-
INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN SEISMIC/WIND FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, AND HOLD-DOWNS	X	-
VERIFY INSTALLATION OF PREFABRICATED WOOD STRUCTURAL TRUSSES/JOISTS FOR COMPLIANCE WITH DETAILS AND REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS	X	-
INSPECTION OF METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60' OR GREATER; VERIFY TEMPORARY INSTALLATION RESTRAINT/BRACING AND PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE	X	-

NOTES:
PO = REPRESENTS PERIODIC INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
CO = REPRESENTS CONTINUOUS INSPECTION AND/OR OBSERVATION REQUIRED DURING THE GIVEN TASK.
1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.5 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SECTION OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND BUILDING OFFICIAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

STRUCTURAL DECK WELDING INSPECTION AND TESTING TABLE

VERIFICATION + INSPECTION	QC	QA
INSPECTION TASKS PRIOR TO DECK PLACEMENT		
VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	P	P
INSPECTION TASKS AFTER DECK PLACEMENT		
VERIFY COMPLIANCE OF DECK AND ALL ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS	P	P
VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	-	P
DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	P	P
INSPECTION TASKS PRIOR TO WELDING		
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	O	O
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	O	O
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O
CHECK WELDING EQUIPMENT	O	O
INSPECTION TASKS DURING WELDING		
USE OF QUALIFIED WELDERS	O	O
CONTROL AND HANDLING OF WELDING CONSUMABLES	O	O
ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	O	O
WPS FOLLOWED	O	O
INSPECTION TASKS AFTER WELDING		
VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	P	P
WELD MEET VISUAL ACCEPTANCE CRITERIA	P	P
VERIFY REPAIR ACTIVITIES	P	P
DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	P	P

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1. TABLE IS SPECIFICALLY BASED UPON SECTION 1705.2 AND 1705.12.1 OF THE CALIFORNIA BUILDING CODE AS WELL AS AISC 360, CHAPTER N. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.
2. ALL ELEMENTS THAT ARE PART OF THE LATERAL FORCE RESISTING SYSTEM (LFRS) MUST, IN ADDITION TO REQUIREMENTS ABOVE ADHERE TO AISC-341 CHAPTER J. FABRICATOR/ERECTOR AND SPECIAL INSPECTOR AND/OR TESTING AGENCY IS RESPONSIBLE FOR FOLLOWING THE REQUIREMENTS OUTLINED IN THESE SECTIONS OF THE CODE AND ENSURING THEY ARE IN COMPLIANCE WITH BUILDING CODE AND JURISDICTIONAL REQUIREMENTS RELATED TO INSPECTION, TESTING AND REPORTING.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

GENERAL STRUCTURAL NOTES

SCALE	As indicated
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S002

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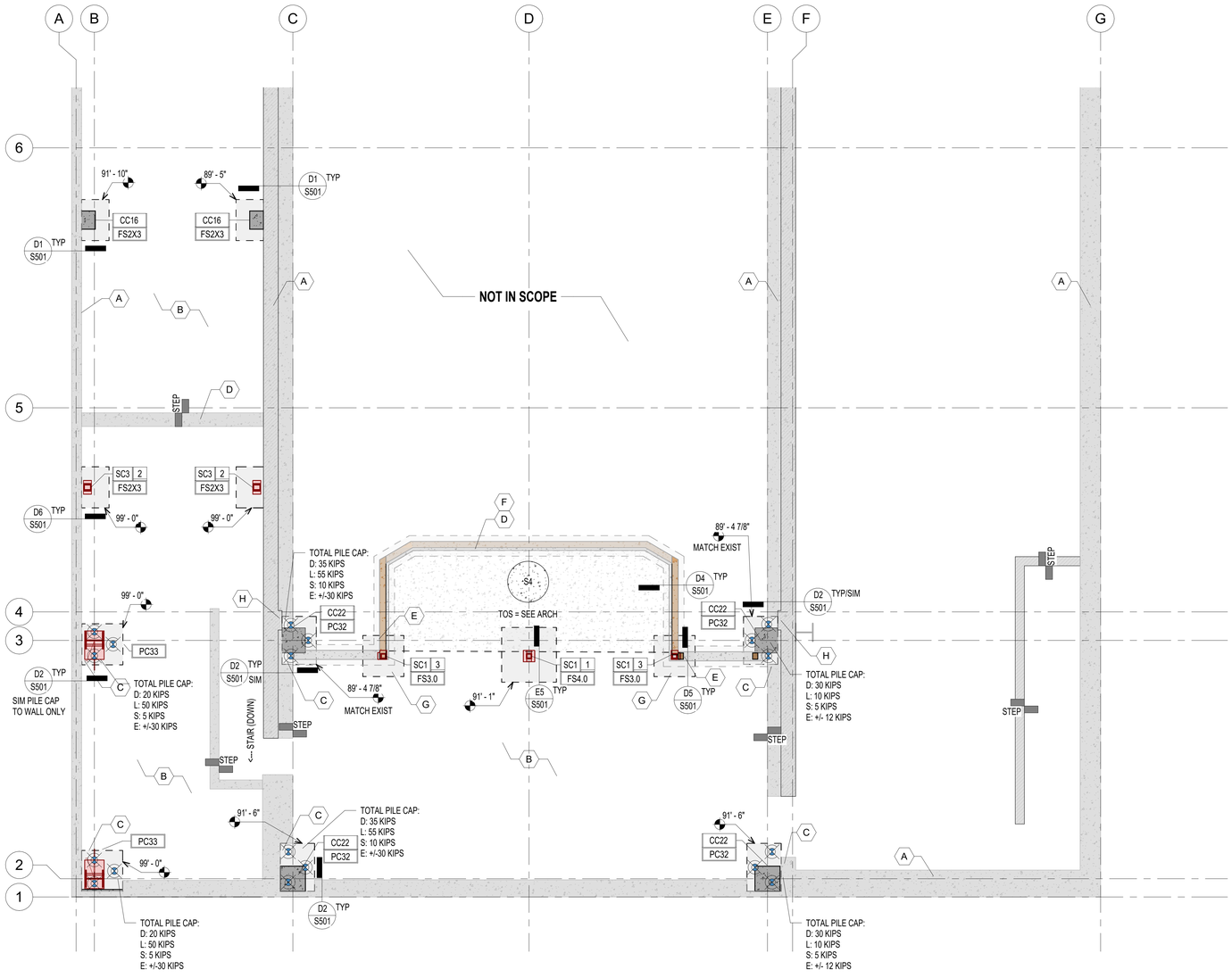

A1 / S101 FOOTING + FOUNDATION PLAN
Scale: 1/4" = 1'-0"

N

MICRO PILES

ALL MICRO PILES SHALL BE DESIGNED BY THE CONTRACTOR TO RESIST THE UNFACTORED LOAD CASE MAGNITUDES LOADS SHOWN ON THE PLAN. CONTRACTOR TO APPLY ALL APPLICABLE CODE PRESCRIBED LOAD COMBINATIONS.

DESIGNATIONS SHOWN REPRESENT THE FOLLOWING LOAD CASES:

D: DEAD LOAD
L: LIVE LOAD
W: WIND LOAD
E: SEISMIC LOAD
S: SNOW OR ICE LOAD

1. ALL POSITIVE LOADS REPRESENT MICRO PILES IN COMPRESSION. NEGATIVE LOADS (-) REPRESENT MICRO PILES IN TENSION. LOADS WITH +/- DESIGNATION REPRESENT MICRO PILES IN BOTH TENSION AND COMPRESSION.
2. DUE TO THE UNCERTAINTY OF THE SOIL CONTRACTOR IS TO WORK WITH GEOTECHNICAL ENGINEER REGARDING THE MICROPILE DESIGN AND VERIFY CAPACITY OF MICROPILES WITH TEST PILES AS REQUIRED TO ASCERTAIN SOIL CAPACITIES.
3. INSTALLATION OF MICRO PILES ARE TO BE COORDINATED WITH THE EXISTING AND NEW UTILITIES BY THE CONTRACTOR TO INSURE THAT NO UTILITIES ARE DAMAGED DURING INSTALLATION.

FOOTING + FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL, CIVIL, AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS ETC.
2. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
3. SEE ARCHITECTURAL DRAWINGS FOR ALL SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.
4. SEE ARCHITECTURAL, CIVIL, AND LANDSCAPE DRAWINGS FOR ADDITIONAL EXTERIOR CONCRETE SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
5. ALL PIERS/COLUMNS SHALL BE CENTERED ON FOOTINGS UNLESS NOTED OTHERWISE.
6. UNLESS NOTED OTHERWISE ALL FOUNDATION WALLS SHALL BE CENTERED ON CONTINUOUS WALL FOOTINGS.
7. CONTRACTOR TO COORDINATE THE LAYOUT OF ALL SLAB AND WALL CONTROL/CONSTRUCTION JOINTS IN ACCORDANCE WITH GENERAL STRUCTURAL NOTES AND WITH VISUAL REQUIREMENTS OF ARCHITECTURAL DRAWINGS.
8. CONTRACTOR TO COORDINATE SIZE, LOCATION, AND THICKNESS OF ALL HOUSEKEEPING/EQUIPMENT PADS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
9. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SEQUENCE FOR ALL STRUCTURAL ELEMENTS IN THE PROJECT. CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY SHORING OR BRACING AS NEEDED UNTIL STRUCTURE IS COMPLETE.
10. ALL BOTTOM OF FOOTING ELEVATIONS SHALL BE PLACED AT LEAST 30 INCHES BELOW FINAL EXTERIOR GRADE. ADD ADDITIONAL FOOTING STEPS AS REQUIRED TO ACCOMPLISH THIS. CONTRACTOR TO COORDINATE THESE FOOTING STEP LOCATIONS.
11. NO UTILITIES SHALL PASS BELOW FOOTINGS. DROP FOOTINGS AS NEEDED TO ALLOW UTILITIES TO PASS THROUGH FOUNDATION WALL. CONTRACTOR SHALL COORDINATE ALL UTILITY AND FOOTING STEP LOCATIONS.
12. PRIOR TO BACKFILLING, ALL BASEMENT WALLS SHALL BE BRACED UNTIL FLOOR DECK IS INSTALLED AND FLOOR CONCRETE (IF APPLICABLE) HAS REACHED ITS SPECIFIED COMPRESSIVE STRENGTH.
13. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL ELEMENTS, SIZES, DIMENSIONS, LOCATIONS, ETC. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
14. CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING ELEMENTS. ANY VISIBLE DETERIORATION OR DAMAGE SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
15. CONTRACTOR IS RESPONSIBLE FOR REPLACING/REPAIRING SLAB ON GRADE TO INSTALL NEW FOOTINGS.
16. CONTRACTOR SHALL TAKE SPECIAL CARE DURING DEMOLITION NOT TO DAMAGE ANY STRUCTURAL ELEMENT THAT IS TO REMAIN. ANY DAMAGED ELEMENTS MUST BE REPAIRED/REPLACED AT NO ADDITIONAL COST TO OWNER.

KEYNOTES

A	EXISTING MASONRY/CONCRETE WALL TO REMAIN
B	EXISTING SLAB ON GRADE - REPAIR + REPLACE AS REQUIRED TO INSTALL NEW FOUNDATION SYSTEMS
C	NOTCH EXISTING MASONRY/CONCRETE FOUNDATION AND INSTALL NEW MICROPILES + CONCRETE PILE CAP. INFILL WALL WITH CONCRETE
D	EXISTING CONCRETE WALLS TO REMAIN
E	REPAIR + REPLACE EXISTING WALL IN ORDER TO PLACE NEW FOOTINGS (MATCH EXISTING WALL/FOOTING REINFORCING AND REPLACE IN KIND). DRILL + EPOXY NEW WALLS/FOOTINGS TO EXISTING.
F	EXISTING WOOD WALLS TO REMAIN
G	FOOTING TO BE POURED AROUND EXISTING WALL FOOTING. DOWEL REINF TO EXISTING FOOTING (4" MIN EMBED). THIS WILL REQUIRE THE CONTRACTOR TO INVESTIGATE WHAT IS EXISTING BELOW SLAB. REPAIR/REPLACE SLAB AS REQUIRED TO INSTALL THE NEW FOOTING
H	EXISTING MASONRY PIER SUPPORTING PROSCENIUM TRUSS - EXTREME CAUTION NEEDS TO BE USED WHEN WORKING AROUND THIS AREA SO AS NOT TO COMPROMISE THE STRUCTURAL SUPPORT OF THAT TRUSS. GENERAL CONTRACTOR TO PROVIDE ANY SHORING NECESSARY TO PROVIDE A STABLE STRUCTURE DURING THE CONSTRUCTION PROCESS.

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NO	DATE	DESCRIPTION

FOOTING + FOUNDATION PLAN

SCALE	1/4" = 1'-0"
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ISSUE	BID SET
DATE	MARCH 14, 2025

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S101

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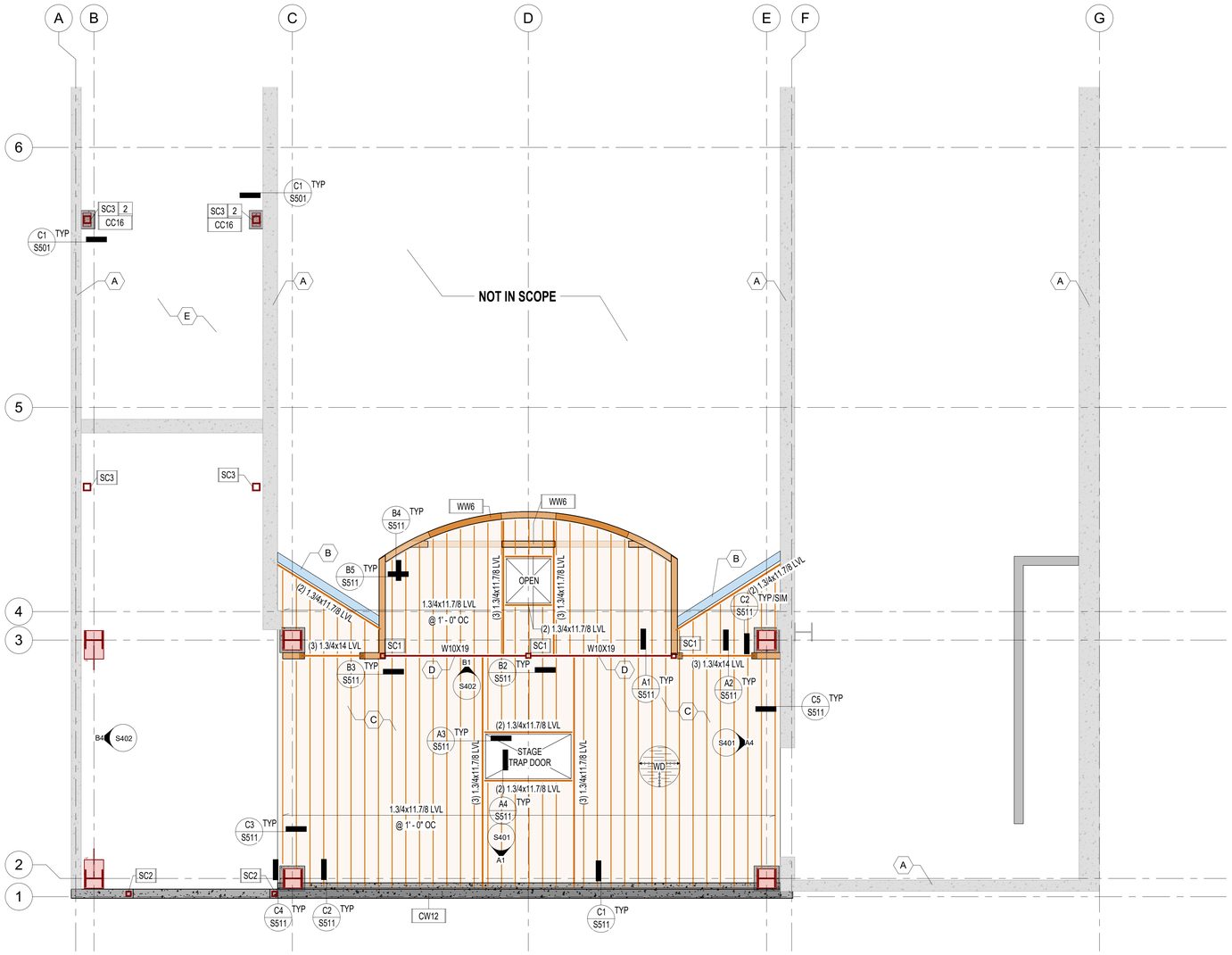

A1 S111 STAGE LEVEL - STRUCTURAL FRAMING PLAN
Scale: 1/4" = 1'-0"

N

FLOOR FRAMING PLAN NOTES

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.
3. ALL STEEL COLUMN BASE PLATES SHALL BE CENTERED ON PIERS/COLUMNS UNLESS NOTED OTHERWISE.
4. CONTRACTOR TO COORDINATE LOCATION AND SIZE OF ALL OPENINGS WITH ARCHITECTURAL DRAWINGS AND TRAP DOOR REQUIREMENTS.
5. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SEQUENCE FOR ALL STRUCTURAL ELEMENTS IN THE PROJECT. CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY SHORING OR BRACING AS NEEDED UNTIL STRUCTURE IS COMPLETE.
6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL ELEMENTS, SIZES, DIMENSIONS, LOCATIONS, ETC. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
7. CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING ELEMENTS. ANY VISIBLE DETERIORATION OR DAMAGE SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
8. CONTRACTOR SHALL TAKE SPECIAL CARE DURING DEMOLITION NOT TO DAMAGE ANY STRUCTURAL ELEMENT THAT IS TO REMAIN. ANY DAMAGED ELEMENTS MUST BE REPAIRED/REPLACED AT NO ADDITIONAL COST TO OWNER.
9. ALL BEAM-TO-BEAM CONNECTIONS SHALL BE SINGLE SHEAR TAB CONNECTIONS UNLESS NOTED OTHERWISE. SEE TYPICAL STEEL-TO-STEEL CONNECTION SCHEDULE.
10. COORDINATE ALL SLAB EDGES AROUND PERIMETER AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
11. STAGE FRAMING IS DESIGNED TO SUPPORT A MAN LIFT THAT TOTALS NO MORE THAN A COMBINED WEIGHT OF 2,500# (EQUIPMENT + LOAD). THERE IS TO BE NO OTHER LIVE LOAD OR STORAGE ON THE STAGE AT THE SAME TIME AS THE MANLIFT. AT ANY TIME THE MANLIFT IS NOT ALLOWED TO BE OVER, NOR WITHIN 2 FEET OF ANY STAGE FLOOR OPENING.

(A) KEYNOTES

A	EXISTING MASONRY/CONCRETE WALL TO REMAIN
B	EXISTING PROSCENIUM WALL - TO REMAIN. CONTRACTOR TO TAKE SPECIAL CARE THAT NO DAMAGE TO WALL OCCUR
C	PLYWOOD DECKING SYSTEM (SEE ARCH FOR MAKEUP)
D	2" DIA HOLE THROUGH STEEL BEAM WEB. HOLE MUST BE CENTERED BETWEEN FLANGES.
E	EXISTING 7" THICK CONCRETE SUSPENDED SLAB

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STAGE FRAMING PLAN

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JOB NO.	23-05
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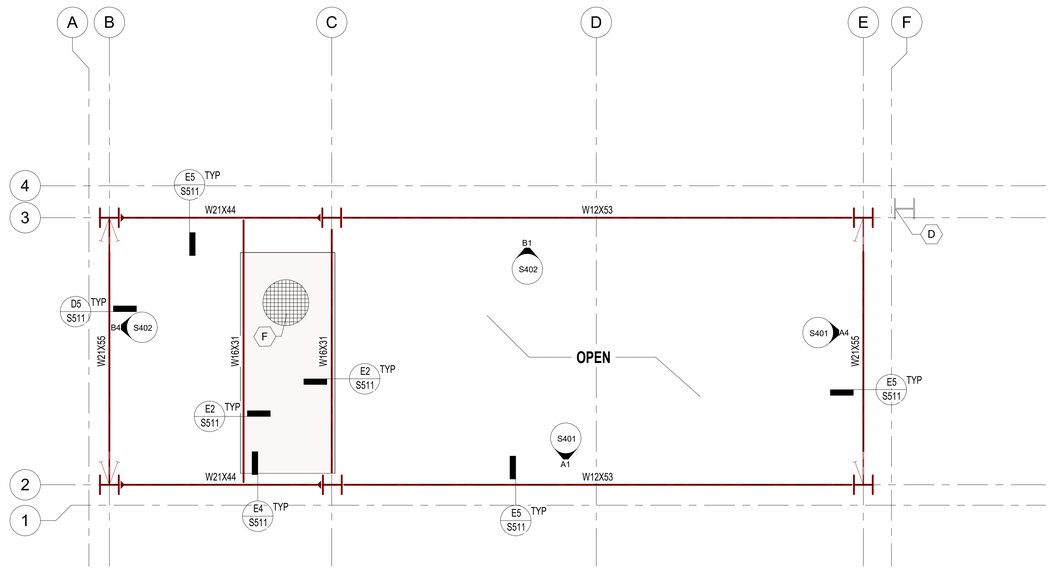

A1 / S112 LOWER GALLERY LEVEL - STRUCTURAL FRAMING PLAN
Scale: 1/4" = 1'-0"

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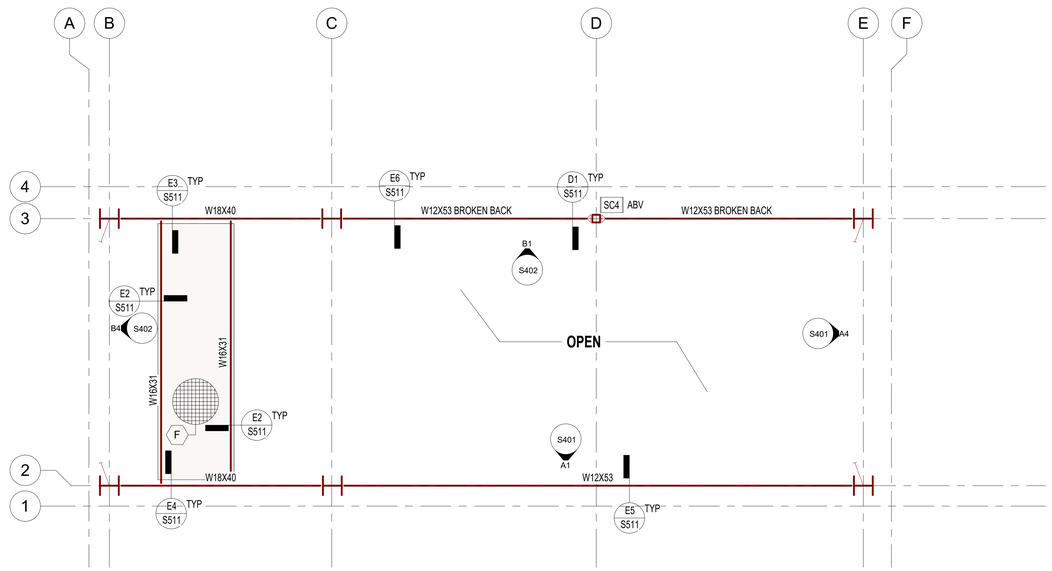

A3 / S112 UPPER GALLERY LOADING - STRUCTURAL FRAMING PLAN
Scale: 1/4" = 1'-0"

N

ROOF FRAMING PLAN NOTES

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL ROOF STEPS AND SLOPES TO DRAINS, ETC.
3. CONTRACTOR TO COORDINATE SIZE, LOCATIONS AND SUPPORT OF ALL EQUIPMENT WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
4. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SEQUENCE FOR ALL STRUCTURAL ELEMENTS IN THE PROJECT. CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY SHORING OR BRACING AS NEEDED UNTIL STRUCTURE IS COMPLETE.
5. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL ELEMENTS, SIZES, DIMENSIONS, LOCATIONS, ETC. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
6. CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING ELEMENTS. ANY VISIBLE DETERIORATION OR DAMAGE SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
7. CONTRACTOR SHALL TAKE SPECIAL CARE DURING DEMOLITION NOT TO DAMAGE ANY STRUCTURAL ELEMENT THAT IS TO REMAIN. ANY DAMAGED ELEMENTS MUST BE REPAIRED/REPLACED AT NO ADDITIONAL COST TO OWNER.
8. ALL BEAM-TO-BEAM CONNECTIONS SHALL BE SINGLE SHEAR TAB CONNECTIONS UNLESS NOTED OTHERWISE. SEE TYPICAL STEEL-TO-STEEL CONNECTION SCHEDULE.
9. COORDINATE ALL SLAB EDGES AROUND PERIMETER AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
10. VERIFY, SIZE, WEIGHT, LOCATION, AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT AND ROOF OPENINGS WITH ARCHITECT AND MECHANICAL ENGINEER.

A KEYNOTES

A	EXISTING MASONRY/CONCRETE WALL TO REMAIN (THIS WALL WAS PREVIOUSLY SEISMICALLY UPDATED)
B	EXISTING WOOD ROOF DECKING TO REMAIN. FOR OVERLAYMENT USE 7/16 OSB NAILED WITH 8d NAILS AT 6" OC AT ALL PANEL EDGES AND 12" OC FIELD NAILING.
C	EXISTING MASONRY/CONCRETE WALL TO REMAIN
D	EXISTING STEEL COLUMN/BRACE FROM PREVIOUS SEISMIC UPGRADE
E	NEW MECHANICAL UNIT. STEEL SUPPORT FRAME IS DIRECTLY BELOW DECK, THEN ADDITIONAL POSTS THAT EXTEND UP TO THE UNIT SUPPORTS (W12x26's) THESE ARE ALL MOMENT CONNECTIONS. THERE NEEDS TO BE AN ALLOWANCE OF 4" ON ALL SIDES OF THE POSTS THAT PENETRATE THE ROOF TO ALLOW MOVEMENT. ADD L4X4X1/4 BRACES ON ALL (4) SIDES OF THE UPPER FRAME TO PROVIDE NECESSARY STABILITY.
F	2" GW-200 19-W-2 STEEL GRATING (GALVANIZED)
G	WOOD FRAMED EXTERIOR SKIN WALL (SEE ARCH + TYPICAL EDGE DETAILS)

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DFCM PROJECT NO: 14385770

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07-FEB-2025

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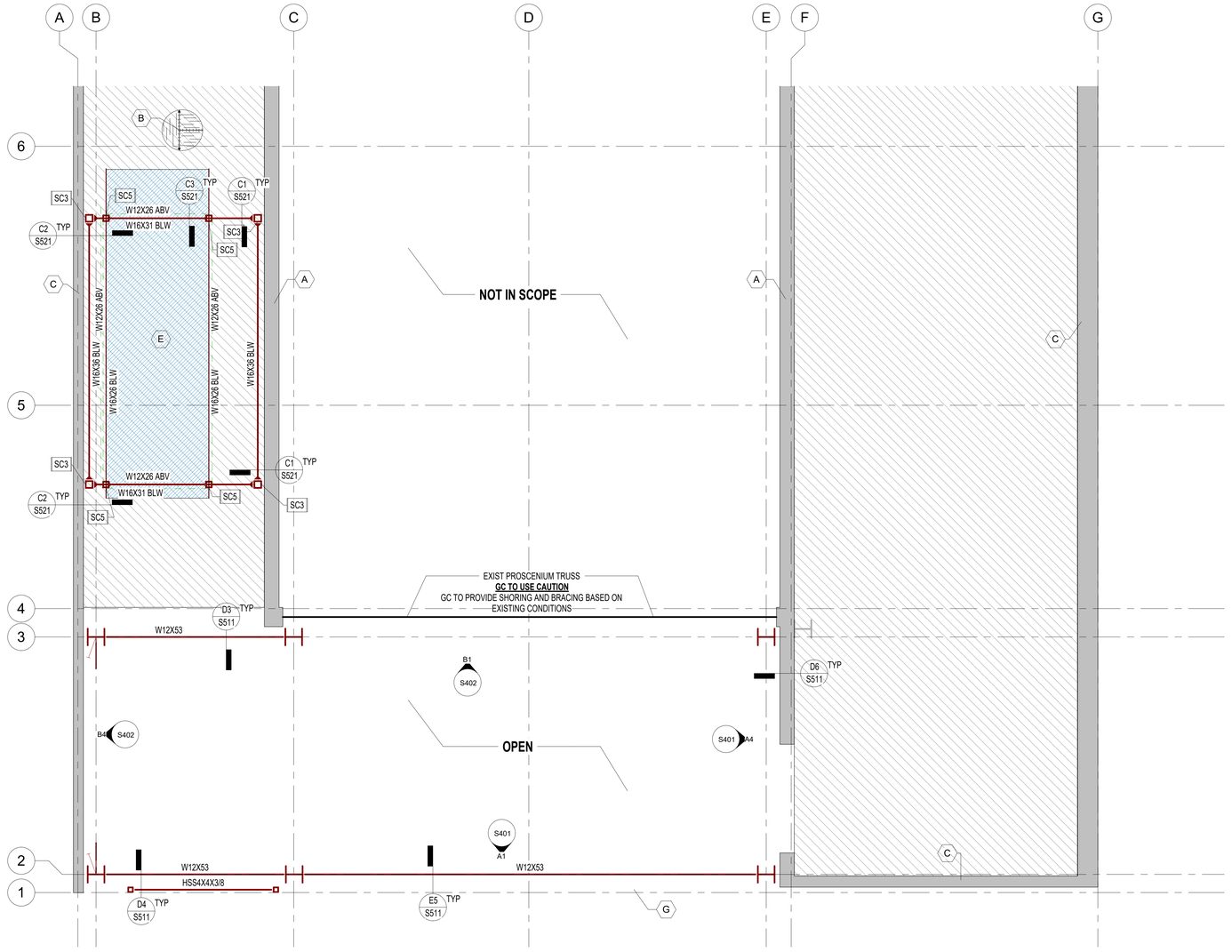
REVISION SCHEDULE

NO	DATE	DESCRIPTION

GALLERY FRAMING PLANS

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
S112



A1 S121 LOW ROOF - STRUCTURAL FRAMING PLAN
Scale: 1/4" = 1'-0"

N

ROOF FRAMING PLAN NOTES

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL ROOF STEPS AND SLOPES TO DRAINS, ETC.
3. CONTRACTOR TO COORDINATE SIZE, LOCATIONS AND SUPPORT OF ALL EQUIPMENT WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
4. CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION SEQUENCE FOR ALL STRUCTURAL ELEMENTS IN THE PROJECT. CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY SHORING OR BRACING AS NEEDED UNTIL STRUCTURE IS COMPLETE.
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6. CONTRACTOR SHALL FIELD VERIFY THE CONDITION OF EXISTING ELEMENTS. ANY VISIBLE DETERIORATION OR DAMAGE SHALL BE REPORTED TO THE ARCHITECT AND/OR ENGINEER.
7. CONTRACTOR SHALL TAKE SPECIAL CARE DURING DEMOLITION NOT TO DAMAGE ANY STRUCTURAL ELEMENT THAT IS TO REMAIN. ANY DAMAGED ELEMENTS MUST BE REPAIRED/REPLACED AT NO ADDITIONAL COST TO OWNER.
8. ALL BEAM-TO-BEAM CONNECTIONS SHALL BE SINGLE SHEAR TAB CONNECTIONS UNLESS NOTED OTHERWISE. SEE TYPICAL STEEL-TO-STEEL CONNECTION SCHEDULE.
9. COORDINATE ALL SLAB EDGES AROUND PERIMETER AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
10. VERIFY, SIZE, WEIGHT, LOCATION, AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT AND ROOF OPENINGS WITH ARCHITECT AND MECHANICAL ENGINEER.

A KEYNOTES

A	EXISTING MASONRY/CONCRETE WALL TO REMAIN (THIS WALL WAS PREVIOUSLY SEISMICALLY UPDATED)
B	EXISTING WOOD ROOF DECKING TO REMAIN. FOR OVERLAYMENT USE 7/16 OSB NAILED WITH 8d NAILS AT 6" OC AT ALL PANEL EDGES AND 12" OC FIELD NAILING.
C	EXISTING MASONRY/CONCRETE WALL TO REMAIN
D	EXISTING STEEL COLUMN/BRACE FROM PREVIOUS SEISMIC UPGRADE
E	NEW MECHANICAL UNIT. STEEL SUPPORT FRAME (G) DIRECTLY BELOW DECK, THEN ADDITIONAL POSTS THAT EXTEND UP TO THE UNIT SUPPORTS (W12x26's) THESE ARE ALL MOMENT CONNECTIONS THERE NEEDS TO BE AN ALLOWANCE OF 4" ON ALL SIDES OF THE POSTS THAT PENETRATE THE ROOF TO ALLOW MOVEMENT. ADD L4X4X1/4 BRACES ON ALL (4) SIDES OF THE UPPER FRAME TO PROVIDE NECESSARY STABILITY.
F	2" GW-200 19-W-2 STEEL GRATING (GALVANIZED)
G	WOOD FRAMED EXTERIOR SKIN WALL (SEE ARCH + TYPICAL EDGE DETAILS)

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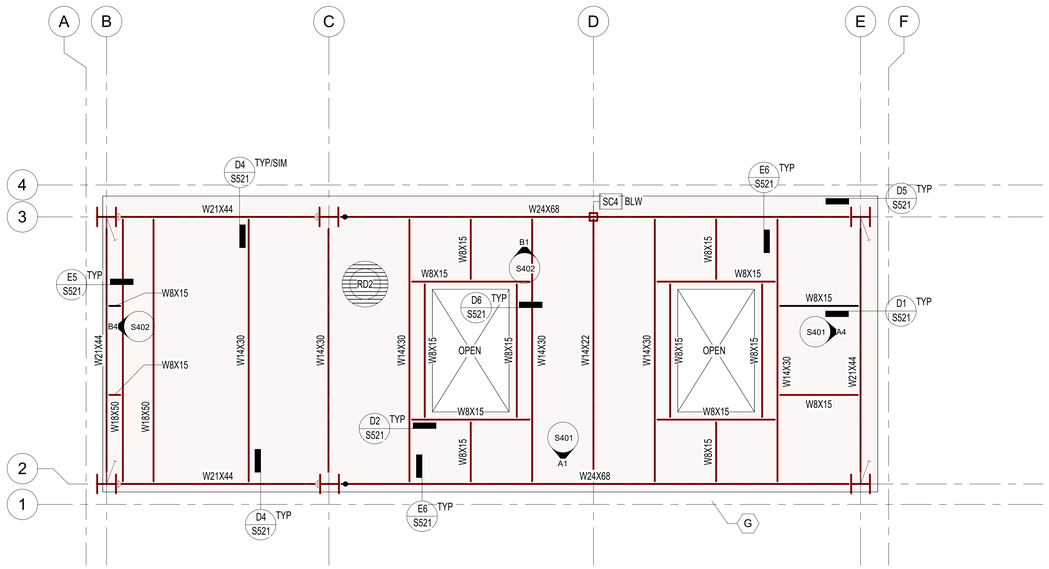
REVISION SCHEDULE

NO	DATE	DESCRIPTION

LOW ROOF FRAMING PLAN

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
S121



A1 S122 FLYLOFT HIGH ROOF - STRUCTURAL FRAMING PLAN
Scale: 1/4" = 1'-0"

N

ROOF FRAMING PLAN NOTES

1. ALL DIMENSIONS SHOWN ON THIS PLAN ARE FOR GENERAL INFORMATION ONLY. CONTRACTOR TO COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL ROOF STEPS AND SLOPES TO DRAINS, ETC.
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8. ALL BEAM-TO-BEAM CONNECTIONS SHALL BE SINGLE SHEAR TAB CONNECTIONS UNLESS NOTED OTHERWISE. SEE TYPICAL STEEL-TO-STEEL CONNECTION SCHEDULE.
9. COORDINATE ALL SLAB EDGES AROUND PERIMETER AND OPENINGS WITH ARCHITECTURAL DRAWINGS.
10. VERIFY, SIZE, WEIGHT, LOCATION, AND CONFIGURATION OF ALL ROOF TOP EQUIPMENT AND ROOF OPENINGS WITH ARCHITECT AND MECHANICAL ENGINEER.

(A) KEYNOTES

A	EXISTING MASONRY/CONCRETE WALL TO REMAIN (THIS WALL WAS PREVIOUSLY SEISMICALLY UPDATED)
B	EXISTING WOOD ROOF DECKING TO REMAIN. FOR OVERLAYMENT USE 7/16 OSB NAILED WITH 8d NAILS AT 6" OC AT ALL PANEL EDGES AND 12" OC FIELD NAILING.
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F	2" GW-200 19-W-2 STEEL GRATING (GALVANIZED)
G	WOOD FRAMED EXTERIOR SKIN WALL (SEE ARCH + TYPICAL EDGE DETAILS)

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

FLYLOFT ROOF FRAMING PLAN

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
S122

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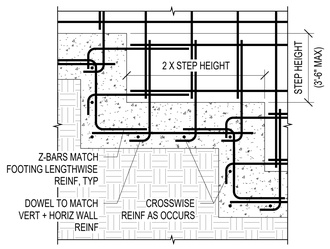
CONCRETE LAP SPLICE SCHEDULE

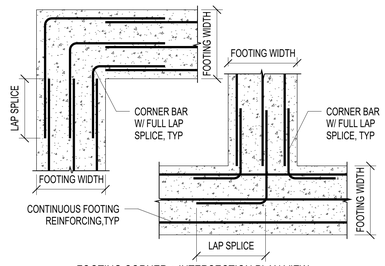
BAR SIZE	TENSION BARS						COMP BARS
	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 4500 PSI		
	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	f'c = ALL
#3	22"	29"	19"	25"	18"	23"	12"
#4	29"	38"	25"	33"	24"	31"	15"
#5	36"	47"	31"	40"	30"	39"	19"
#6	43"	56"	37"	48"	35"	46"	23"
#7	63"	82"	54"	70"	51"	66"	27"
#8	72"	94"	62"	81"	59"	77"	30"
#9	81"	105"	70"	91"	66"	86"	34"
#10	90"	117"	78"	101"	73"	95"	38"
#11	98"	127"	85"	111"	80"	104"	42"

NOTES:
1. TOP BARS ARE HORIZONTAL BARS, SPLICED SO THAT 12" OR MORE OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCING BAR.
2. ALL COLUMNS CAST INTEGRAL WITH WALLS, OR WHICH SUPPORT STEEL BRACED OR MOMENT FRAMES, OR WHICH ARE DESIGNATED MOMENT FRAMES ARE TO USE REGULAR LAP SPLICES. ALL OTHER CONCRETE COLUMNS MAY USE COMPRESSION BAR (COMPBAR) LAP SPLICE VALUES.
3. FOR VERTICAL BARS IN SHEAR WALL BOUNDARY ELEMENTS (SEE CONCRETE WALL SCHEDULE AND NOTES), LAP SPLICE VALUES ABOVE SHALL BE MULTIPLIED BY 1.25.
4. WHERE LIGHTWEIGHT CONCRETE IS USED, LAP SPLICE VALUES ABOVE SHALL BE MULTIPLIED BY 1.33.
5. WHERE EPOXY COATED REINFORCING IS SPECIFIED, LAP SPLICE VALUES ABOVE SHALL BE MULTIPLIED BY 1.5.

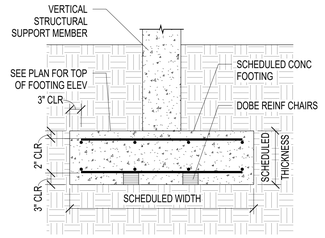
E1 S301 CONCRETE LAP SCHEDULE
Scale: NTS



FOOTING STEP



FOOTING CORNER + INTERSECTION PLAN VIEW



FOOTING REINF CLEAR COVERAGE

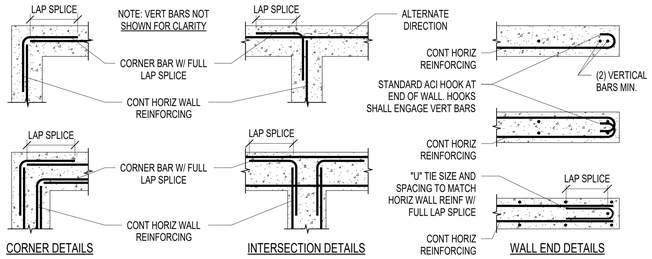
CONCRETE FOOTING SCHEDULE

FX##

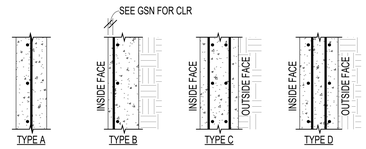
MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				COMMENTS
				NO. BARS	BAR SIZE	LENGTH	SPACING	NO. BARS	BAR SIZE	LENGTH	SPACING	
FS2X3	2' - 0"	3' - 0"	12"	4	#5	1' - 6"	10"	4	#5	2' - 6"	6"	
FS3.0	3' - 0"	3' - 0"	12"	4	#5	2' - 6"	10"	4	#5	2' - 6"	10"	
FS4.0	4' - 0"	4' - 0"	12"	5	#5	3' - 6"	11"	5	#5	3' - 6"	11"	

NOTES:
1. CONTINUOUS FOOTINGS SHALL BE CENTERED UNDER WALLS, UNO.
2. SPOT FOOTINGS SHALL BE CENTERED UNDER COLUMNS, UNO.
3. ALL FOOTINGS SHALL BE FORMED AND NOT EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.
4. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER.
5. REINFORCING IN CONTINUOUS FOOTINGS SHALL PASS THROUGH INTERSECTING SPOT FOOTINGS.
6. TOP REINFORCING IF NOTED ON SCHEDULE OR SHOWN IN DETAILS SHALL BE #5 @ 12" OC UNLESS NOTED OTHERWISE
7. AS A MINIMUM ALL FOOTINGS GREATER THAN OR EQUAL TO 18" IN THICKNESS REQUIRE #6 @ 12" OC EA WAY IN THE TOP OF FOOTING. REFER TO SCHEDULE FOR MORE STRINGENT REQUIREMENTS.
8. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

E2 S301 CONCRETE FOOTING SCHEDULE + DETAILS
Scale: NTS



CORNER DETAILS | INTERSECTION DETAILS | WALL END DETAILS



REINFORCED CONCRETE WALL SECTION TYPES

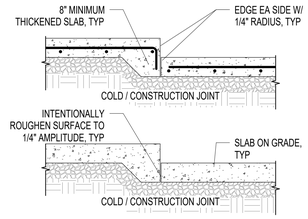
CONCRETE WALL SCHEDULE

CW#

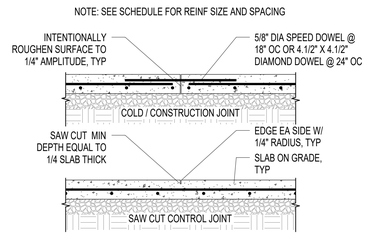
MARK	WIDTH	TYPE	WALL REINFORCING		COMMENTS
			HORIZONTAL	VERTICAL	
CW12	8"	TYPE-C	#5 @ 12" OC EF	#5 @ 12" OC EF	

NOTES:
1. AT TOP AND BTM OF WALL, INCLUDING ALL DECK BEARING ELEVATIONS PROVIDE (2) #5 CONT IN ADDITION TO SCHEDULED REINFORCING.
2. OUTSIDE FACE OF REINFORCING DESIGNATION TO BE PLACED ON THE SOIL SIDE OF THE WALL.
3. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

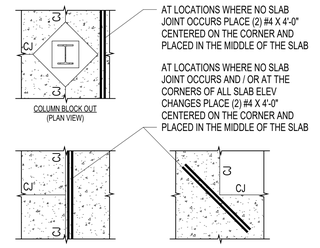
D2 S301 CONCRETE WALL SCHEDULE + DETAILS
Scale: NTS



CONCRETE SLAB ON GRADE RECESSED JOINTS



CONCRETE SLAB ON GRADE JOINTS



DISCONTINUOUS CONTROL JOINT
(PLAN VIEW)

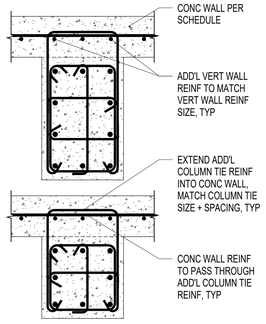
CONCRETE SLAB ON GRADE SCHEDULE

S#

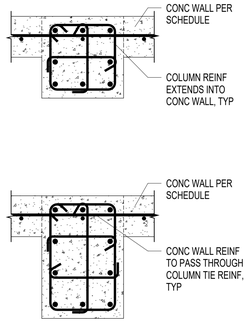
MARK	THICK	SLAB REINFORCING	SLAB BASE MATERIAL	COMMENTS
S4	4"	N/A	SEE GEOTECH	

NOTES:
1. SEE GEOTECHNICAL REPORT FOR ADDITIONAL SLAB ON GRADE REQUIREMENTS.
2. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.
3. PERFORMANCE OF SLABS ON GRADE ARE SOLELY BASED ON PROPER PREPERATION OF SUBGRADE MATERIAL. THEREFORE STRUCTURAL DESIGN STUDIO CANNOT BE RESPONSIBLE FOR ANY SLAB CRACKING. CONTRACTOR TO TAKE SPECIAL CARE IN PREPERATION OF SUBGRADE MATERIAL.

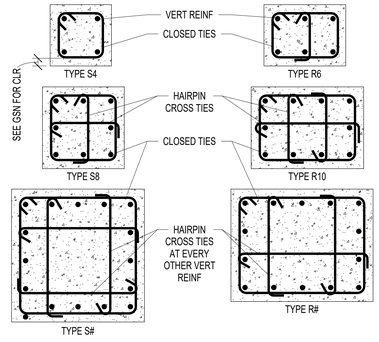
C2 S301 CONCRETE SLAB ON GRADE SCHEDULE + DETAILS
Scale: NTS



CONCRETE COLUMN "ADJACENT" TO CONC WALL



CONCRETE COLUMN "INTEGRATED" INTO CONC WALL



CONCRETE COLUMN REINFORCING LAYOUT TYPES

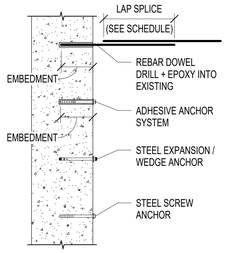
CONCRETE COLUMN SCHEDULE

CC#

MARK	SIZE	TYPE	COLUMN REINFORCING		COMMENTS
			VERTICAL BARS	TIES	
CC16	16X12	R6	(6) #8	#3 @ 6" OC	
CC22	22x22	S8	(8) #8	#4 @ 10" OC	

NOTES:
1. DESIGNATION "TYPE S[#] AND R[#]" WHERE [#] EQUALS THE NUMBER OF VERTICAL REINFORCING BARS.
2. ALL PIERS SHALL BE CENTERED ON COLUMN BASE PLATE ABOVE UNLESS NOTED OTHERWISE.
3. ALL VERT REINFORCING SHALL BE DOWELED TO FOOTING BELOW WITH SAME SIZE REINFORCING WITH STANDARD 90 DEGREE HOOK.
4. TIES SHALL BE PLACED @ 3" OC AROUND ANCHOR BOLTS UNO.
5. SEE GENERAL STRUCTURAL NOTES FOR REINFORCING LAYOUT.

B2 S301 CONCRETE COLUMN SCHEDULE + DETAILS
Scale: NTS



TYPICAL POST-INSTALLED ANCHOR SCHEDULE

ANCHOR TYPE	ANCHOR	EVAL REPORT
ADHESIVE ANCHOR SYSTEM	HIT-RE 500 V3	ICC-ES ESR-3814
	DEWALT PURE 110+	ICC-ES ESR-3298
	SIMPSON SET-3G	ICC-ES ESR-4057
STEEL EXPANSION / WEDGE ANCHOR	HILTI KWIK BOLT TZ	ICC-ES ESR-1917
	DEWALT POWER-STUD+ SD2	ICC-ES ESR-2502
	SIMPSON STRONG-BOLT 2	ICC-ES ESR-3037
STEEL SCREW ANCHOR	HILTI KWIK HUS-EZ	ICC-ES ESR-3027
	DEWALT SCREW-BOLT+	ICC-ES ESR-3889
	SIMPSON TITEN HD	ICC-ES ESR-2713

ADHESIVE ANCHOR SYSTEM EMBEDMENT						
SIZE (DIA)	#3 (3/8")	#4 (1/2")	#5 (5/8")	#6 (3/4")	#7 (7/8")	#8 (1")
EMBEDMENT	4.1/2"	6.1/2"	7.1/2"	10"	12"	13"

NOTES:
1. CAST-IN-PLACE ANCHORS CALLED OUT IN PLANS **SHALL NOT** BE REPLACED WITH POST-INSTALLED ANCHORS UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER OF RECORD.
2. ALL POST-INSTALLED ANCHORS INTO HARDENED CONCRETE SHALL BE SELECTED FROM THE PRE-APPROVED PRODUCTS (SHOWN IN THE TABLE) OR ENGINEER APPROVED EQUAL UNLESS NOTED OTHERWISE.
3. ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S PUBLISHED INSTRUCTIONS AND APPLICABLE CODE EVALUATION REPORTS.
4. ALL POST-INSTALLED ANCHOR INSTALLATIONS ARE SUBJECT TO CONTINUOUS SPECIAL INSPECTION (SEE EVALUATION REPORTS AND SPECIAL INSPECTION TABLES).
5. SCHEDULED EMBEDMENT ABOVE ARE MINIMUM VALUES, HOWEVER ANY EMBEDMENT LENGTHS SHOWN IN PLANS GOVERN OVER THESE VALUES.
6. ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS. FOR INSTALLATIONS SOONER THAN 21 DAYS, CONSULT MANUFACTURER.
7. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH ACI 318-14 (SECTION 17.8.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
8. IF TEMPERATURE OF BASE MATERIAL AT TIME OF ADHESIVE INSTALLATION IS AT 40 DEGREES (FAHRENHEIT) OR LESS, VERIFY WITH MANUFACTURER THAT FULL STRENGTH OF ADHESIVE CAN BE OBTAINED, OTHERWISE AN "ACRYLIC" ADHESIVE IS REQUIRED.
9. DO NOT DAMAGE EXISTING REINFORCING OR EMBEDS DURING THE INSTALLATION OF POST-INSTALLED ANCHORS. CONTRACTOR TO LOCATE ALL EXISTING EMBEDDED ITEMS AND REINFORCING PRIOR TO THE INSTALLATION OF POST-INSTALLED ANCHORS.

A4 S301 CONCRETE POST-INSTALLED ANCHOR SCHEDULE
Scale: NTS

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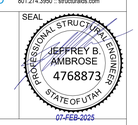

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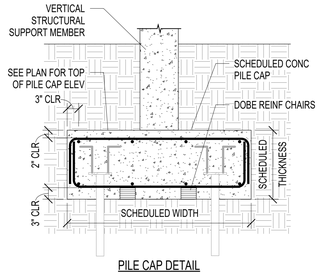
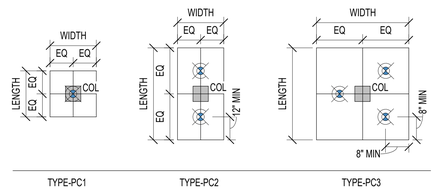


PILE CAP DETAIL



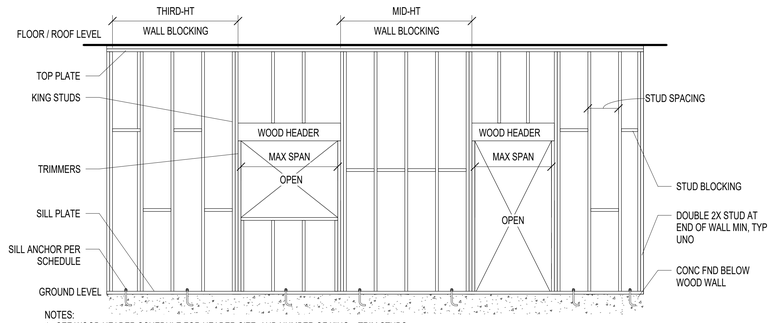
CONCRETE PILE CAP SCHEDULE

PC##

MARK	WIDTH	LENGTH	THICK	CROSSWISE REINFORCING				LENGTHWISE REINFORCING				COMMENTS
				NO. BARS	BAR SIZE	LENGTH	SPACING	NO. BARS	BAR SIZE	LENGTH	SPACING	
PC32	2' - 6"	3' - 6"	2' - 4"	5	#7	2' - 0"	9"	5	#7	3' - 0"	6"	PILE CAP
PC33	3' - 0"	3' - 0"	2' - 4"	5	#7	2' - 6"	7 1/2"	5	#7	2' - 6"	7 1/2"	PILE CAP

NOTES:
1. PLACE ALL REINFORCING IN BOTTOM + TOP OF PILE CAP.
2. PILE CAPS SHALL BE CENTERED UNDER COLUMNS, U.N.O.
3. ALL PILE CAPS SHALL BE FORMED AND NOT EARTH FORMED OR OVERSIZED WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL ENGINEER.
4. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

E3 / S302 CONCRETE PILE CAP SCHEDULE + DETAILS
Scale: NTS



NOTES:
1. SEE WOOD HEADER SCHEDULE FOR HEADER SIZE, AND NUMBER OF KING + TRIM STUDS.
2. SEE WOOD WALL SCHEDULE FOR STUD SIZE, SPACING, AND BLOCKING REQUIREMENTS.
3. SEE SHEATHING SCHEDULE FOR ADDITIONAL FRAMING AND FASTENING REQUIREMENTS.

TYPICAL WOOD WALL ELEVATION

WOOD HEADER SCHEDULE

MARK	HEADER	MAX SPAN	KING STUDS	TRIM STUDS	COMMENTS
N/A	(3) 2X12	6'-0"	(2)	(1)	

NOTES:
1. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

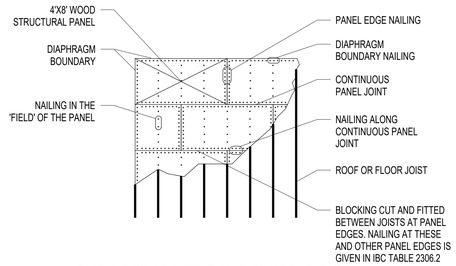
WOOD WALL SCHEDULE

WW#

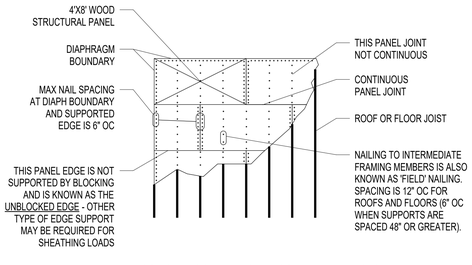
MARK	STUD	SPACING	BLOCKING	TOP PLATE	SILL ANCHOR	COMMENTS
EXT	2x6 LVL	16" OC	MID HT	DBL 2X6	SEE DETAILS	EXTERIOR SKIN WALLS (SEE ARCH FOR MAKEUP)
WW6	2x6 Wood Wall	16" OC	MID HT	DBL 2X6	5/8" @ 32" OC	

NOTES:
1. ALL EXTERIOR WALLS ARE TO BE SHEATHED W/ 15/32" OSB W/ 8d NAILS @ 6" OC EDGE 12" OC FIELD UNO.
2. SEE SHEAR WALL SCHEDULE FOR REQUIREMENTS FOR NAILING, HOLD DOWN, SILL ANCHORS, AND FRAMING REQUIREMENTS.
3. SILL PLATE SHALL BE CONNECTED USING 5/8" DIA J-BOLTS (9" EMBED) @ 24" OC UNO.
4. ALL SILL NAILING MUST BE STAGGERED TO AVOID SILL PLATE SPLITTING.

D3 / S302 TYPICAL WOOD WALL + HEADER SCHEDULE
Scale: 3/8" = 1'-0"



PARTIAL ROOF OR FLOOR PLAN (BLOCKED DIAPHRAGM)



PARTIAL ROOF OR FLOOR PLAN (UNBLOCKED DIAPHRAGM)

WOOD DECK SCHEDULE

MARK	THICKNESS	TYPE	BOUNDARY NAILING	FIELD NAILING	BLOCKING	COMMENTS
WD	3/4"	OSB-T&G	10d @ 12" OC	10d @ 12" OC	NONE	NOTE 2

NOTES:
1. FOR BLOCKED EDGE NAILING NOMINAL DEPTH OF BLOCKING MUST BE 3" MIN.
2. EXTERIOR GLUE TO BE APPLIED AT RIGHT ANGLES TO JOISTS TO MEET FIRE REQUIREMENTS. COORDINATE WITH ARCHITECT.

C3 / S302 WOOD DIAPHRAGM SHEATHING SCHEDULE + DETAILS
Scale: 3/4" = 1'-0"

GENERAL WOOD FRAMING SCHEDULE

CONNECTION	MINIMUM NAILING, U.N.O.	CONNECTION	MINIMUM NAILING, U.N.O.
JOIST TO SILL, TOP PLATE OR GIRDER	(3)8d, (3)3" X 0.131", TOENAIL	RIM JOIST TO TOP PLATE	8d @ 6" OC,3" X 0.131" @ 6" OC, TOENAIL
BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	(2)8d, (2)3" X 0.131", TOENAIL EACH END	TOP PLATES, LAPS AND INTERSECTIONS	(2)16d, (3)3" X 0.131", FACE NAIL
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d @ 16" OC, 3" X 0.131" @ 12" OC, FACE NAIL	BUILT UP HEADERS (2" TO 2" HEADER)	16d @ 16" OC, FACE NAIL EACH EDGE
		CEILING JOIST TO TOP PLATE	(3)8d, (3)3" X 0.131", TOENAIL EACH JOIST
TOP OR BOTTOM PLATE TO STUD	(2)16d, (3)3" X 0.131", END NAIL	CONTINUOUS HEADER TO STUD	(4)8d, TOENAIL
STUD TO TOP OR BOTTOM PLATE	(4)8d, (4)3" X 0.131", TOENAIL; (2)16d, (3)3" X 0.131", END NAIL	CEILING JOIST, LAPS OVER PARTITIONS	(3)16d, (4)3" X 0.131", FACE NAIL
STUD TO STUD (NOT AT BRACED WALL PANELS)	16d @ 24" OC, 3" X 0.131" @ 16" OC, FACE NAIL	CEILING JOISTS TO PARALLEL RAFTERS (HEEL JOIST)	SEE IBC TABLE 2308.7.3.1, FACE NAIL
TOP PLATE TO TOP PLATE	16d @ 16" OC, 3" X 0.131" @ 12" OC, FACE NAIL	RAFTER OR ROOF TRUSS TO TOP PLATE	(3)10d, (3)3" X 0.131", TOENAIL
BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	(3)8d, (3)3" X 0.131", TOENAIL EACH END	KING STUD OR POST TO HEADER	(3)16d, FACE NAIL @ STUDS; SIMPSON A34, TOP & BOTTOM @ POSTS
		BUILT-UP BEAMS	SEE "TYPICAL BUILT-UP BEAM REQ'S"
RIM JOIST TO TOP PLATE	8d @ 6" OC,3" X 0.131" @ 6" OC, TOENAIL	LEDGER STRIP	(3)16d, (4)3" X 0.131", FACE NAIL EACH JOIST OR RAFTER
2X OR LVL TO STEEL HSS COLUMNS/BEAMS	SIMPSON STRONG DRIVE TF-SELF TAPPING SCREWS @ 12" OC		

NOTES:
1. USE COMMON NAILS FOR ALL NAILING.
2. REQUIREMENTS SHOWN ABOVE SHALL NOT REPLACE THOSE SHOWN IN PLANS OR DETAILS. IN ANY CASE, USE THE MORE STRINGENT REQUIREMENT.

ROOF AND WALL SHEATHING TO FRAMING	1/2" OR LESS	8d	6" OC EDGE NAILING	12" OC FIELD NAILING	SINGLE FLOOR SHEATHING TO FRAMING	3/4" OR LESS	8d	6" OC EDGE NAILING	12" OC FIELD NAILING
	19/32" - 3/4"	8d	6" OC EDGE NAILING	12" OC FIELD NAILING		7/8" - 1"	8d	6" OC EDGE NAILING	12" OC FIELD NAILING
	7/8" - 1.1/4"	10d	6" OC EDGE NAILING	12" OC FIELD NAILING		1.1/8" - 1.1/4"	10d	6" OC EDGE NAILING	12" OC FIELD NAILING

B4 / S302 GENERAL WOOD FRAMING SCHEDULE
Scale: 3/4" = 1'-0"

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07-FEB-2025

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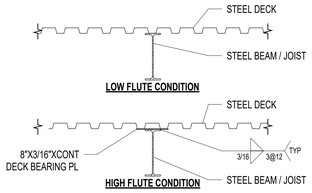
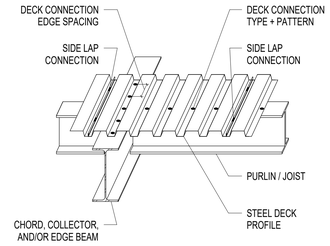


NOTE: THIS DETAIL APPLIES WHEREVER THE DECK FLUTE DOES NOT ALIGN WITH THE BEAM / JOIST FLANGE.

CHORD / COLLECTOR DECK CONNECTION



STEEL DECK FASTENING PATTERN TO SUPPORT

STEEL DECK SCHEDULE + DETAILS

E3 / S303 — Scale: NTS

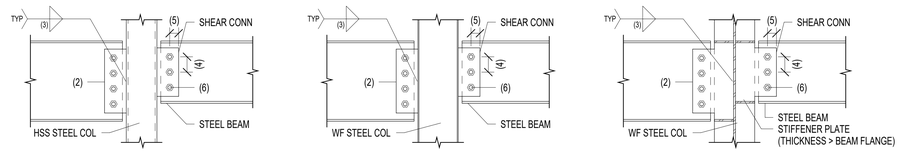
STEEL DECK PROFILE + CONNECTION SCHEDULE

SD#

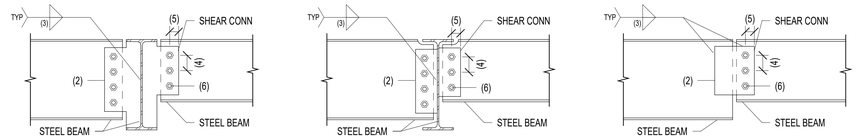
MARK	STEEL DECK			DECK CONNECTION			SIDE LAP CONNECTION		DECK PERFORMANCE	
	PROFILE	GAUGE	FINISH	TYPE	PATTERN	EDGE SPACING	TYPE	SPACING	MIN SHEAR	MAX FLEXIBILITY
RD2	1.1/2" HSB - ACOUSTIC DECK	20 GA	G90	ASW	36/7	12" OC	TSW	12" OC	750 PLF	9.8+10R

LEGEND
- ASW = 3/4" ARC SPOT WELD (PUDDLE WELD)
- PIN = PIN CONNECTIONS (POWDER ACTUATED FASTENER) ACCEPTABLE FASTENERS: HILTI X-HSN-24 @ SUPPORTS 3/16" THROUGH 3/8" THICK HILTI X-ENP-19 @ SUPPORTS 1/4" THICK AND GREATER
- VST = VERCO SHEARTRANZ II-42 SYSTEM
- TSW = TOP SEAM WELD (1.1/2" IN LENGTH MINIMUM)
- BTN = BUTTON PUNCH (3/16")
- SCR = #10 SCREW
- VSC = VERCO PUNCHLOK II SYSTEM
- TBD = DECK CONNECTION AND SIDELAP SPACING TO BE DETERMINED BY CONTRACTOR TO MEET THE MINIMUM ALLOWABLE SHEAR AND FLEXIBILITY REQUIREMENTS LISTED IN SCHEDULE. CONTRACTOR TO SUBMIT ICC REPORT FOR APPROVAL.

NOTES:
- A. STEEL ROOF DECK SHALL COMPLY WITH THE LATEST REQUIREMENTS OF THE STEEL DECK INSTITUTE (SDI).
- B. WHEN FIRE PROOFING IS TO BE USED, DECK SHALL BE COATED WITH SPECIAL PAINT IN ORDER TO PROPERLY RECEIVE FIRE PROOFING.
- C. ALL DECK SHALL BE INSTALLED WITH INTERLOCKING SIDE SEAMS, AND SHALL BE CRIMPED PRIOR TO CONNECTING.
- D. MINIMUM SHEAR DENOTED IN SCHEDULE REPRESENTS THE MINIMUM ALLOWABLE DECK SHEAR FOR A 6' - 0" SPAN REQUIRED FOR APPLICATION IN THIS PROJECT.
- E. ALL DECK SHALL BE 3-SPAN CONTINUOUS MINIMUM. CONTRACTOR SHALL CONTACT ENGINEER AND PROVIDE OPTIONS WHEN 3-SPAN IS NOT POSSIBLE.
- F. MINIMUM DECK BEARING SHALL BE 2".
- G. DO NOT SUPPORT ANY HANGING LOADS FROM STEEL ROOF DECK.
- H. ALL DECK DESIGNATED AS G60 OR G90 IS A GALVANIZED DECK.
- I. GENERAL CONTRACTOR TO FOLLOW MANUFACTURER GUIDELINES FOR ALL DECK, CONNECTION, ATTACHMENTS, ETC.
- J. FOR FINAL FINISH SEE ARCHITECT DRAWINGS + SPECIFICATIONS.



WF-BEAM TO HSS COLUMN | WF-BEAM TO WF-COLUMN FLANGE | WF-BEAM TO WF-COLUMN WEB



WF-BEAM TO WF-BEAM EXTENDED SHEAR PLATE CONNECTION | WF-BEAM TO WF-BEAM | WF-BEAM TO WF-BEAM

STEEL CONNECTION SCHEDULE

BEAM SIZE (1)	SHEAR TAB (2)	WELD SIZE (3)	MIN. BOLT SPACING (4)	EDGE DIST (5)	NO. OF BOLT (6)	BOLT DIA. (6)
W6	3/8"	5/16"	2"	1 1/2"	2	3/4"
W8	3/8"	5/16"	2 1/2"	1 3/4"	2	7/8"
W10	3/8"	5/16"	3"	1 3/4"	2	7/8"
W12	3/8"	5/16"	3"	1 3/4"	3	7/8"
W14	3/8"	5/16"	3"	1 3/4"	3	7/8"
W16	3/8"	5/16"	3"	1 3/4"	4	7/8"
W18	3/8"	5/16"	3"	1 3/4"	5	7/8"
W21	3/8"	5/16"	3"	1 3/4"	6	7/8"
W24	3/8"	5/16"	3"	1 3/4"	7	7/8"
W27	7/16"	3/8"	3"	2"	7	1"
W30	7/16"	3/8"	3"	2"	8	1"
W33	7/16"	3/8"	3"	2"	9	1"
W36	7/16"	3/8"	3"	2"	10	1"

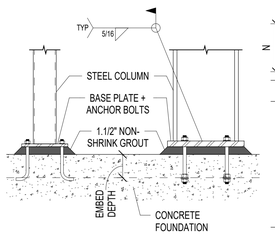
NOTES:
1. SEE GENERAL STRUCTURAL NOTES AND OTHER SCHEDULES FOR ALL OTHER REQUIREMENTS.

BEAMS MARKED WITH A DOUBLE SHEAR CONNECTION SYMBOL SHALL BE CONNECTED AS THAT SHOWN ABOVE BUT WITH ANGLES ON EACH SIDE OF THE BEAM WEB THAT MEET THE SPECIFIED THICKNESS IN THE SCHEDULE. THEY SHALL BE WELDED TO THE SUPPORTING MEMBER USING A 3-SIDED FILLET WELD OF THE SIZE SHOWN IN THE SCHEDULE.

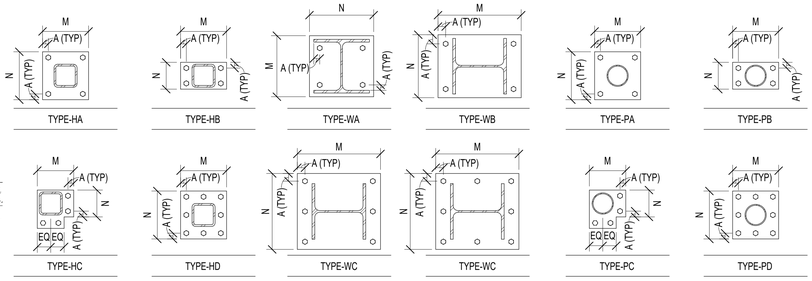
BEAMS MARKED WITH A SEISMIC DRAG STRUT CONNECTION ARE CONNECTED SIMILAR TO THOSE SHOWN ABOVE BUT THE SHEAR TAB OR ANGLE SHALL BE WELDED TO THE BEAM WEB WITH A 3-SIDED FILLET WELD MEETING THE SPECIFIED THICKNESS SHOWN IN THE SCHEDULE.

TYPICAL STEEL CONNECTION SCHEDULE + DETAILS

D2 / S303 — Scale: NTS



TYPICAL COLUMN BASE CONDITION



HSS COLUMN BASE PLATE TYPES | WIDE FLANGE COLUMN BASE PLATE TYPES | ROUND HSS + PIPE COLUMN BASE PLATE TYPES

GRAVITY STEEL COLUMN + BASE PLATE SCHEDULE

C1 / S303 — Scale: NTS

STEEL COLUMN SCHEDULE

SC#

MARK	COLUMN SIZE	COMMENTS
SC1	HSS4X4X1/4	
SC2	HSS4X4X1/2	
SC3	HSS6X6X1/2	
SC4	HSS6X6X1/2	HANGING
SC5	HSS5X5X5/16	

NOTES:
1. ALL COLUMNS TO BE CENTERED ON FOOTINGS AND FOUNDATIONS UNLESS SPECIFICALLY NOTED OTHERWISE.

STEEL BASE PLATE SCHEDULE

#

MARK	TYPE	"M" DIM	"N" DIM	PLATE THICKNESS	GROUT THICKNESS	"A" DIM	NO. OF ANCHORS	ANCHOR SIZE	ANCHOR EMBED	ANCHOR TYPE
1	TYPE-HA	10"	10"	3/4"	1 1/2"	2"	4	5/8"	6"	TITEN HD
2	TYPE-HB	12"	7"	3/4"	1 1/2"	2"	4	5/8"	6"	TITEN HD
3	TYPE-HC	8"	8"	3/4"	1 1/2"	2"	4	5/8"	6"	TITEN HD

NOTES:
1. ALL COLUMNS TO BE CENTERED ON BASE PLATES UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL ANCHOR BOLTS SHALL BE STANDARD 90 DEGREE HOOK BOLTS W/ 3" HOOK LENGTH UNO.
3. ALL ANCHORS DESIGNATED "HEADED" ARE TO BE HEADED ANCHOR RODS W/ 3"X3"X3/8" PLATE WASHERS WITH DOUBLE NUTS EMBEDDED IN CONCRETE AT THE EMBEDMENT DEPTH SPECIFIED.
4. ALL ANCHOR RODS ARE TO BE ASTM F1554-36 UNLESS NOTED OTHERWISE
5. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

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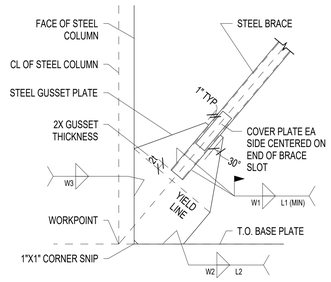
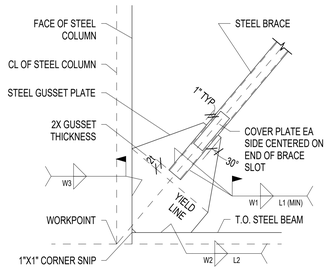


TYPICAL STEEL GUSSET PLATE TO BASE PLATE DETAIL



TYPICAL STEEL GUSSET PLATE TO STEEL BEAM DETAIL

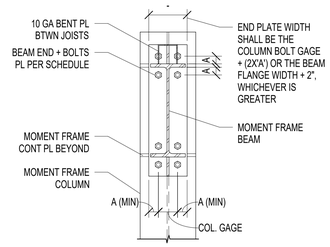
STEEL GUSSET PLATE CONNECTION SCHEDULE

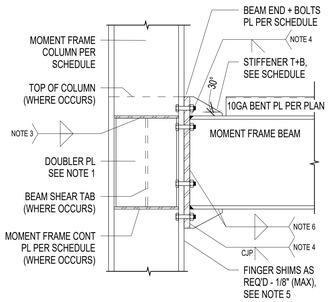
MARK	GUSSET PLATE THICKNESS	GEOMETRY + WELDING INFORMATION					COVER PLATE INFO		SPECIAL NOTES
		W1 SIZE	L1 LENGTH	W2 SIZE	L2 LENGTH	W3 SIZE	PLATE SIZE	WELD	
1	3/4"	1/4"	14"	5/16"	22"	3/16"	3"X12"X1/4"	1/4"	
2	3/4"	1/4"	14"	5/16"	22"	3/16"	3"X12"X1/4"	1/4"	
3	3/4"	3/8"	14"	3/8"	23"	5/16"	3"X12"X1/4"	1/4"	
4	3/4"	3/8"	14"	3/8"	16"	3/8"	3"X12"X1/4"	1/4"	

NOTES:
1. ALL GUSSET PLATES SHALL BE A572 GRADE 50 STEEL.
2. ALL COVER PLATES SHALL BE A572 GRADE 50 STEEL.
3. AT CONTRACTORS OPTION, FILLET WELDS MAY BE REPLACED WITH CJP WELDS SO LONG AS REQUIRED TESTING IS PERFORMED PER GOVERNING BUILDING CODE.

DETAIL NOTES:
1. YIELD LINE SHOULD EXACTLY INTERSECT WITH COLUMN FACE OR BASE PLATE FACE BASED ON GEOMETRY.
2. LENGTH L1 IS A MINIMUM WELD LENGTH. USE LENGTH L2 AS A BASELINE TO ESTABLISH THE YIELD LINE.
3. PLACE 1/2" THICK FOAM EACH SIDE OF GUSSET PLATE WHEN CONCRETE POURS AROUND GUSSET PLATE.

E3 / S304 STEEL CONCENTRIC BRACED FRAME (SCBF) GUSSET SCHEDULE
Scale: NTS





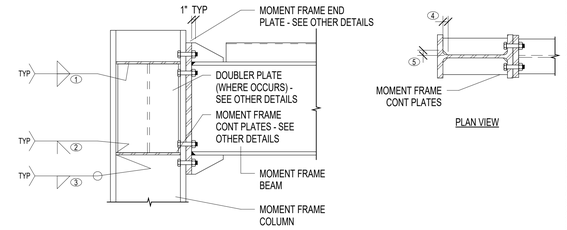
4-BOLT STIFFENED BEP CONNECTION

MOMENT FRAME BOLTED END PLATE CONNECTION SCHEDULE

BEAM	END PLATE THICKNESS	BOLT SIZE	BOLT EDGE DIST "A"	VERT BOLT DIST "B"	CONTINUITY PLATE THICKNESS	MAX BRACE SPACING	NOTES
W21X44	1 1/4"	1 1/4"	2"	3.3/4"	1/4"	5'-3" UNO	DOUBLER PLATE = 3/8"

NOTES:
1. SEE NOTES FOR DOUBLER PLATES THICKNESS. DOUBLER PLATES SHALL BE INSTALLED PRIOR TO CONTINUITY PLATES AND SHALL EXTEND AT LEAST AS HIGH AS THE END PLATE. ALL DOUBLER PLATES SHALL WELD TO THE COLUMN WEB USING AN ALL AROUND FILLET WELD WITH A WELD SIZE EQUAL TO THE DOUBLER PLATE THICKNESS MINUS 1/16" (1/4" MIN).
2. CONTINUITY PLATES SHALL BE AT LEAST THE THICKNESS OF THE BEAM FLANGE FRAMING INTO THE COLUMN AND A572-50 GRADE.
3. TWO-SIDED FILLET WELD EQUAL TO ONE-HALF OF THE PLATE THICKNESS PLUS 1/16" (1/4" MIN) EACH SIDE.
4. COMPLETE JOINT PENETRATION (CJP) GROOVE WELD. SEE GENERAL STRUCTURAL NOTES FOR BACKER BAR, BACK GOUGING AND REINFORCING WELDS (NO WELD ACCESS HOLE IN BEAM WEB IS ALLOWED. BACKER BARS ARE NOT REQUIRED AT BEAM/FLANGE INTERSECTION). ALL BEAM FLANGE INTERSECTION WELDS SHALL BE TESTED BY ULTRASONIC METHOD IN THE SHOP, REGARDLESS OF THE FABRICATOR APPROVALS.
5. DIMENSIONS PER FINGER SHIM DETAIL. UP TO 2 SHIMS MAY BE USED TO FILL A 1/8" MAX GAP. SHIMS SHALL NOT BE INSTALLED WITH FINGERS POINTING UP. SEE 'TYPICAL FINGER SHIM PLATE ELEVATIONS' ON THIS SHEET.
6. TWO-SIDED FILLET WELD EQUAL TO ONE-HALF OF THE BEAM WEB THICKNESS PLUS 1/16" (1/4" MIN) EACH SIDE.
7. ALL MOMENT FRAME BEAMS SHALL BE BRACED AT THE FLOOR AND/OR ROOF.
8. STIFFENER PLATES FOR STIFFENED MOMENT FRAME BOLTED END PLATE SYSTEMS SHALL MATCH THE THICKNESS OF THE MINIMUM OF CONNECTING MOMENT FRAME BEAM WEB THICKNESS AND 1/2" (PLATE MUST BE A572-50 GRADE).
9. ALL BOLTS ARE PRE-TENSIONED TO THE AISC-LRFD STANDARDS (TABLE J3.1). TYPICAL BOLT SPACING IS 3 TIMES THE BOLT DIAMETER UNO.
10. USE ASTM A490 BOLTS FOR ALL BOLTED END PLATE MOMENT FRAME CONNECTIONS.
11. ALL END PLATES MUST BE ASTM A572-50 GRADE.
12. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

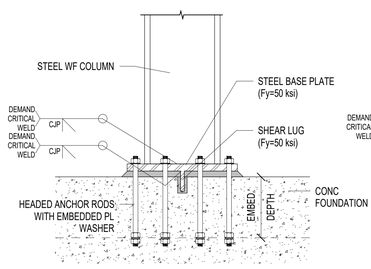
① FILLET WELD SIZE = 0.75 X PLATE THICKNESS
② CJP TYPICAL EXCEPT AT EXTERIOR BEAM - COL CONNECTIONS (BEAM ONE SIDE ONLY); CONT PLATE TO COL FLANGE WELD MAY BE FILLET WELDS AT FREE SIDE (3/4 X PLATE THICKNESS AT TOP & BOT. FACE OF PLATE)
③ AISC (MIN) CONT FILLET WELDS UNDER BACKING PLATE
④ 'A' DIMENSION OF COLUMN PLUS 1 1/2"
⑤ 'k1' DIMENSION OF COLUMN (MIN)



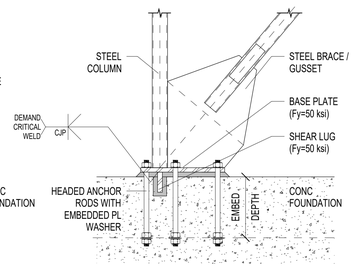
BEP CONTINUITY PLATE CONFIGURATION DETAIL

PLAN VIEW

C4 / S304 STEEL BOLTED END PLATE (BEP) MOMENT FRAME SCHEDULE + DETAILS
Scale: NTS

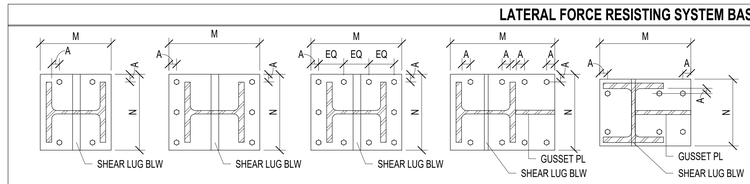


TYPICAL MOMENT FRAME COLUMN BASE CONDITION



TYPICAL BRACED FRAME COLUMN BASE CONDITION

LATERAL FORCE RESISTING SYSTEM BASE PLATE SCHEDULE



NOTES:
1. THE WIDTH OF ALL SHEAR LUGS IS THE SAME AS THE 'N' DIMENSION SHOWN IN BASE PLATE TYPES.
2. ALL ANCHOR BOLTS ARE HEADED ANCHOR RODS W/ 3"X3"X3/8" PLATE WASHERS WITH DOUBLE NUTS EMBEDDED IN CONCRETE AT THEIR EMBEDMENT DEPTH SPECIFIED.
3. NOTCH SHEAR LUGS AS REQ'D TO ACCOMMODATE REINF STEEL
4. ALL FRAMES BASE PLATES AND SHEAR LUGS SHALL BE A572 GRADE 50 STEEL.
5. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.

B3 / S304 LATERAL FORCE RESISTING SYSTEM STEEL BASE PLATE SCHEDULE
Scale: NTS

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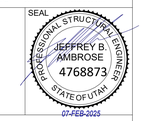

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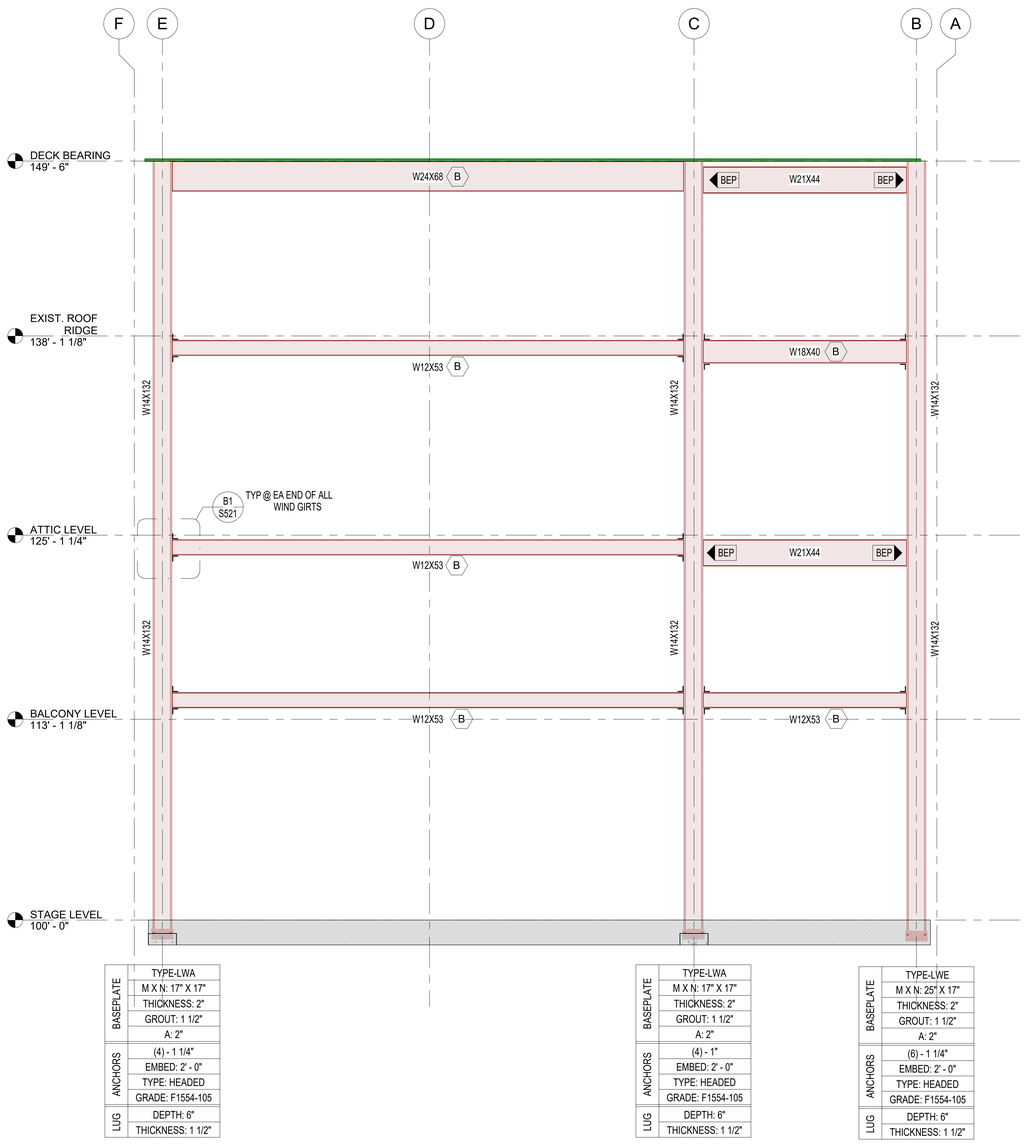
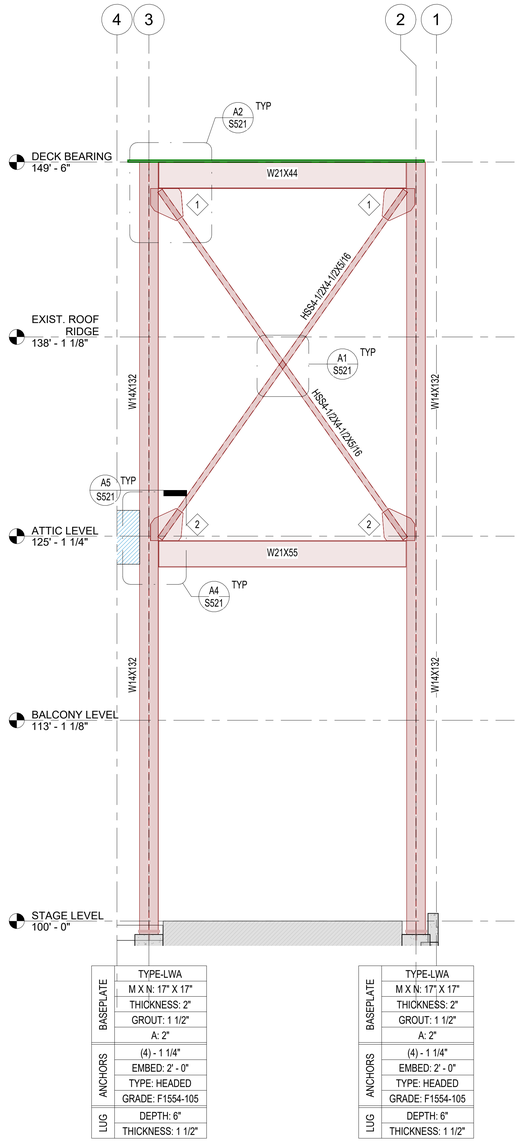


BASEPLATE	TYPE-LWA	TYPE-LWA	TYPE-LWE
	M X N: 17" X 17"	M X N: 17" X 17"	M X N: 25" X 17"
	THICKNESS: 2"	THICKNESS: 2"	THICKNESS: 2"
	GROUT: 1 1/2"	GROUT: 1 1/2"	GROUT: 1 1/2"
	A: 2"	A: 2"	A: 2"
ANCHORS	(4) - 1 1/4"	(4) - 1"	(6) - 1 1/4"
	EMBED: 2' - 0"	EMBED: 2' - 0"	EMBED: 2' - 0"
	TYPE: HEADED	TYPE: HEADED	TYPE: HEADED
	GRADE: F1554-105	GRADE: F1554-105	GRADE: F1554-105
LUG	DEPTH: 6"	DEPTH: 6"	DEPTH: 6"
	THICKNESS: 1 1/2"	THICKNESS: 1 1/2"	THICKNESS: 1 1/2"

A1 S401 FRAME ELEVATION - GRID 2
Scale: 1/4" = 1'-0"



BASEPLATE	TYPE-LWA	TYPE-LWA	TYPE-LWA
	M X N: 17" X 17"	M X N: 17" X 17"	M X N: 17" X 17"
	THICKNESS: 2"	THICKNESS: 2"	THICKNESS: 2"
	GROUT: 1 1/2"	GROUT: 1 1/2"	GROUT: 1 1/2"
	A: 2"	A: 2"	A: 2"
ANCHORS	(4) - 1 1/4"	(4) - 1 1/4"	(4) - 1 1/4"
	EMBED: 2' - 0"	EMBED: 2' - 0"	EMBED: 2' - 0"
	TYPE: HEADED	TYPE: HEADED	TYPE: HEADED
	GRADE: F1554-105	GRADE: F1554-105	GRADE: F1554-105
LUG	DEPTH: 6"	DEPTH: 6"	DEPTH: 6"
	THICKNESS: 1 1/2"	THICKNESS: 1 1/2"	THICKNESS: 1 1/2"

A4 S401 FRAME ELEVATION - GRID E
Scale: 1/4" = 1'-0"

FRAME ELEVATION LEGEND + NOTES

- BEP — MOMENT FRAME - BOLTED END PLATE CONNECTION - SEE SCHEDULE
- BFP — MOMENT FRAME - BOLTED FLANGE PLATE CONNECTION - SEE SCHEDULE
- RBS — MOMENT FRAME - REDUCED BEAM SECTION - SEE SCHEDULE
- 3 — BRACED FRAME - GUSSET PLATE CONNECTION - SEE SCHEDULE
- FLOOR ELEVATION - COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

PROTECTED ZONES

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KEYNOTES

A	EXISTING BRACED FRAME COLUMN
B	BEAM IS NOT PART OF THE LATERAL FRAME BUT IS REQUIRED TO ACT AS A WIND GIRT

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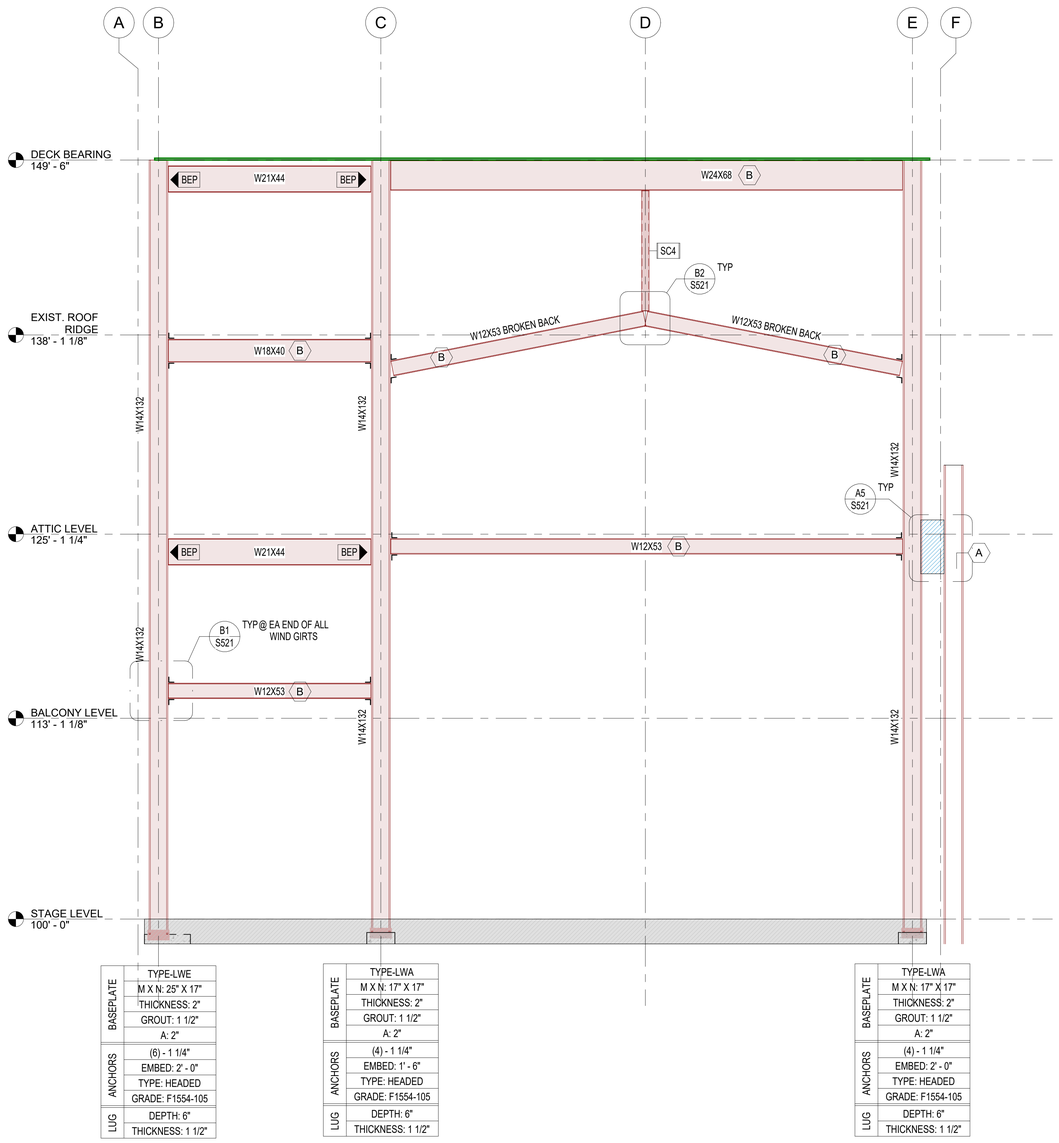
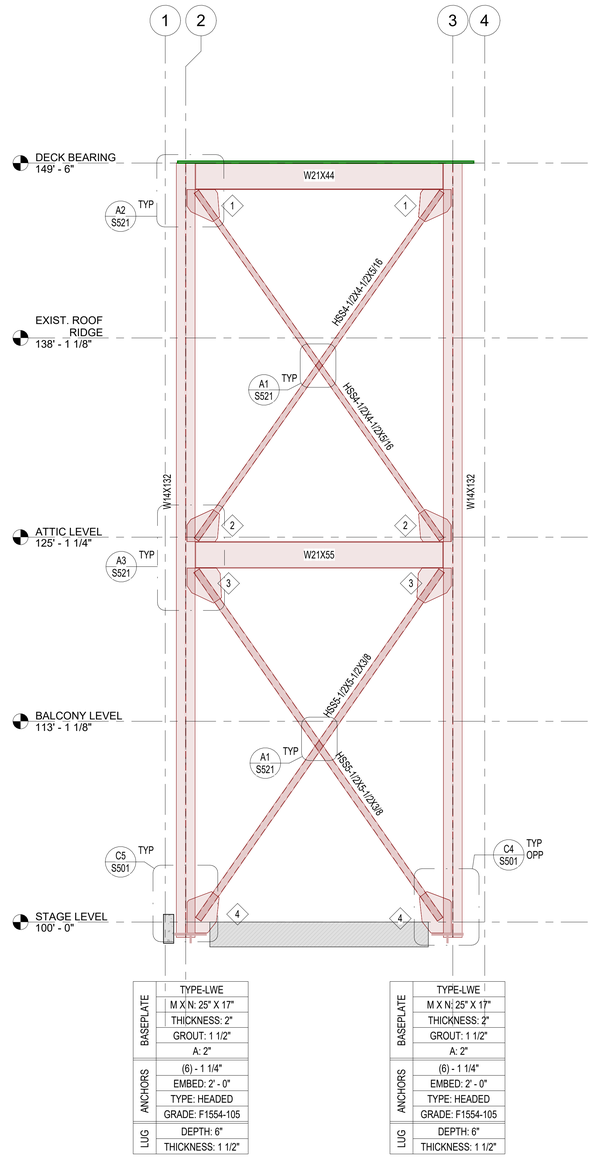


B1 S402 FRAME ELEVATION - GRID 3
Scale: 1/4" = 1'-0"



B4 S402 FRAME ELEVATION - GRID B
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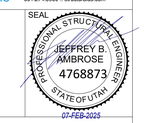

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SHEET NO.
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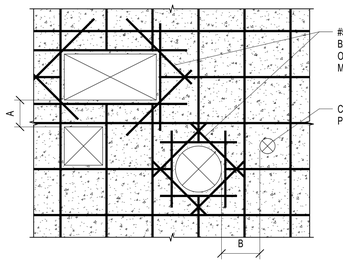
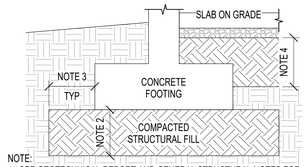


NOTES FOR REINFORCING AROUND OPENINGS:
1. ALL OPENINGS REQUIRE ADDITIONAL REINFORCING EXCEPT WHERE OPENING SIZE OR LOCATION IS SUCH THAT NO REINFORCING STEEL IS INTERRUPTED (i.e. CONDUITS, SMALL PIPES, etc.). WHERE OPENINGS ARE LARGER THAN THIS SPACING PROVIDE REINFORCING AROUND THE PERIMETER OF THE OPENING EQUAL TO THE AMOUNT INTERRUPTED AND PLACE HALF AT EACH SIDE OF THE OPENING. EXTEND A FULL LAP LENGTH BEYOND OPENING.

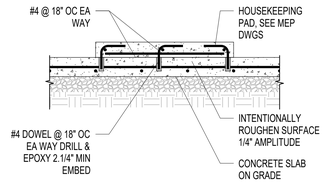
NOTES FOR ADJACENT OPENINGS:
A = THE LARGEST HEIGHT / DIAMETER OF THE TWO ADJACENT OPENINGS DIVIDED BY 2.0 (WALL THICKNESS MIN)
B = THE LARGEST WIDTH / DIAMETER OF THE TWO ADJACENT OPENINGS DIVIDED BY 2.0 (WALL THICKNESS MIN)

E1 S501 TYPICAL MISC OPENINGS IN REINF FOUNDATION WALLS
Scale: NTS

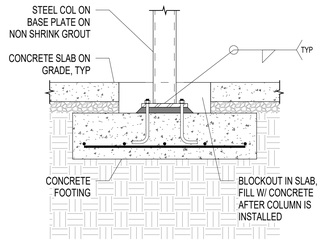


NOTE:
1. SEE GEOTECHNICAL REPORT AND GENERAL STRUCTURAL NOTES FOR COMPACTED STRUCTURAL FILL MATERIAL REQUIREMENTS AND ADDITIONAL INFORMATION.
2. FOR EXTENTS OF COMPACTED STRUCTURAL FILL BELOW FOOTING SEE GEOTECHNICAL REPORT.
3. FOR COMPACTED STRUCTURAL FILL EXTENTS BEYOND FOOTING EA SIDE SEE GEOTECHNICAL REPORT.
4. FOR EXTENTS OF COMPACTED STRUCTURAL FILL BELOW SLAB ON GRADE SEE GEOTECHNICAL REPORT.

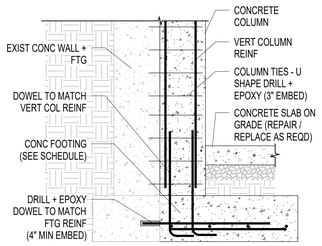
E3 S501 TYPICAL COMPACTED STRUCTURAL FILL
Scale: NTS



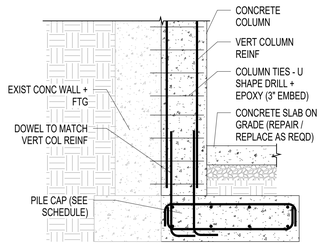
E4 S501 TYPICAL SLAB HOUSEKEEPING PAD
Scale: NTS



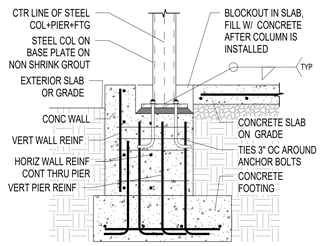
E5 S501 TYPICAL STEEL COLUMN ON FOOTING
Scale: NTS



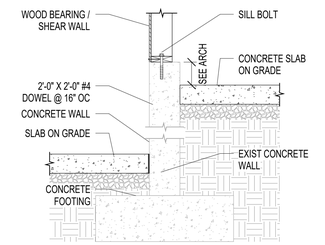
D1 S501 TYPICAL BASEMENT COLUMN ON FOOTING
Scale: NTS



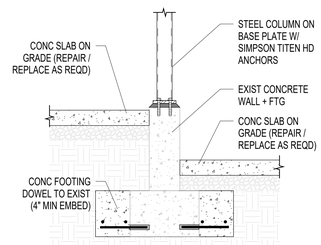
D2 S501 TYPICAL BASEMENT COLUMN ON PILE CAP
Scale: NTS



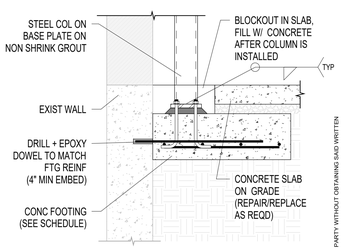
D3 S501 TYPICAL STEEL COLUMN TO FOOTING
Scale: NTS



D4 S501 TYPICAL WOOD WALL @ EXIST GRADE STEP
Scale: NTS



D5 S501 TYPICAL NEW COLUMN ON EXISTING WALL
Scale: NTS



D6 S501 TYPICAL COLUMN ON FOOTING
Scale: NTS

C1 S501 TYPICAL STEEL COLUMN ON CONCRETE PIER
Scale: NTS

C2 S501 BRACED FRAME @ CONCRETE PIER - EXT WALL
Scale: NTS

C3 S501 TYPICAL BRACED FRAME @ CONCRETE PIER
Scale: NTS

C4 S501 TYPICAL BRACED FRAME @ FOOTING DETAIL
Scale: NTS

C5 S501 TYPICAL BRACED FRAME @ FOOTING DETAIL
Scale: NTS

C6 S501 TYPICAL MOMENT FRAME COLUMN ON PIER
Scale: NTS

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IMPROVEMENTS PROJECT

DFCM PROJECT NO: 14385770

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4768873
STATE OF UTAH
07-FEB-2025

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ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
S501

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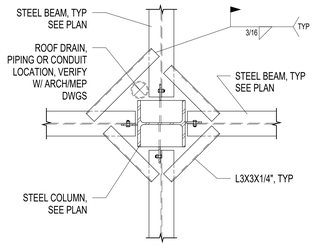
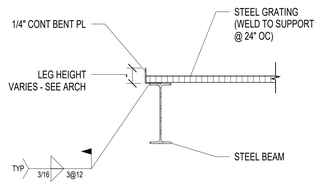
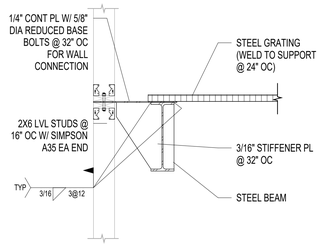


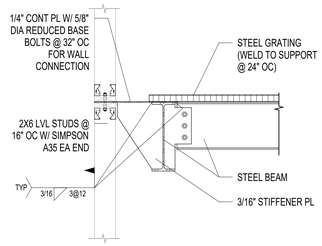
E1 S511 TYPICAL DECK BEARING AT COLUMN
Scale: NTS



E2 S511 TYPICAL GRATING EDGE FRAMING
Scale: NTS



E3 S511 TYPICAL GRATING AT EXTERIOR WALL
Scale: NTS



E4 S511 TYPICAL GRATING AT EXTERIOR WALL
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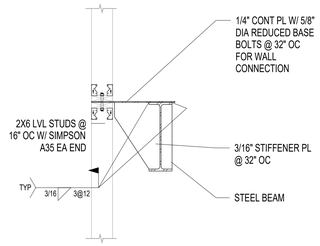
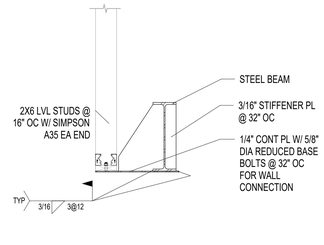
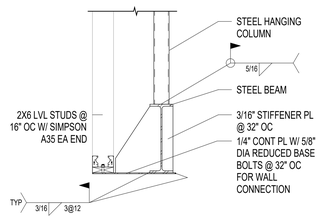


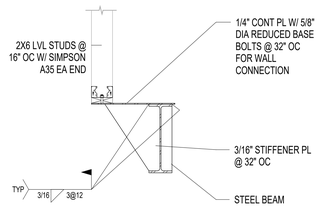
E5 S511 TYPICAL EXTERIOR SKIN WALL SUPPORT
Scale: NTS



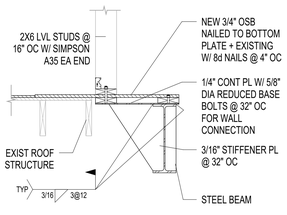
E6 S511 TYPICAL EXTERIOR SKIN WALL SUPPORT
Scale: NTS



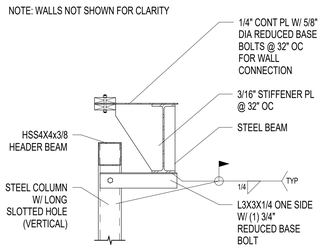
D1 S511 TYPICAL EXTERIOR SKIN WALL SUPPORT
Scale: NTS



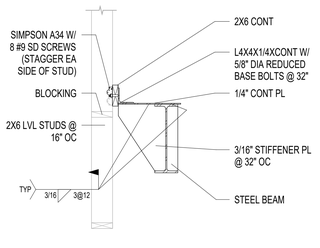
D2 S511 TYPICAL EXTERIOR SKIN WALL SUPPORT
Scale: NTS



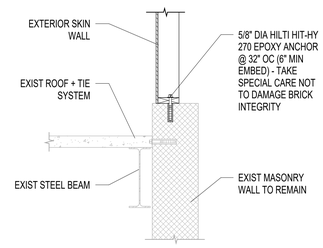
D3 S511 TYPICAL JOINT AT NEW TO EXISTING
Scale: NTS



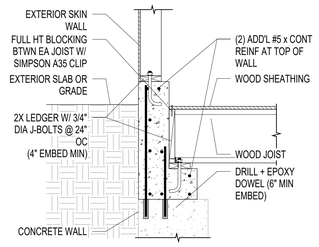
D4 S511 TYPICAL JAMB COLUMN TO STEEL BEAM
Scale: NTS



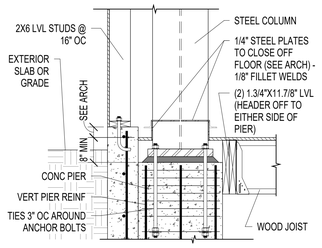
D5 S511 EXTERIOR WALL @ WALL CANTILEVER
Scale: NTS



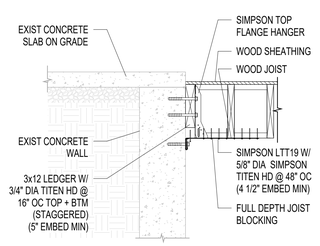
D6 S511 EXTERIOR SKIN WALL TO TOP OF WALL
Scale: NTS



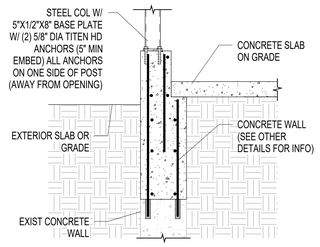
C1 S511 TYPICAL FLOOR JOIST TO NEW WALL
Scale: NTS



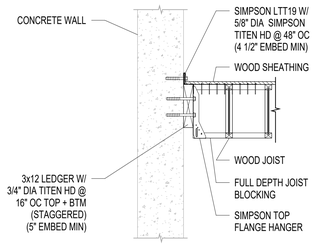
C2 S511 TYPICAL FLOOR FRAMING @ COLUMN
Scale: NTS



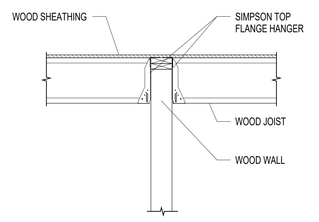
C3 S511 FLOOR JOIST PARALLEL TO WALL
Scale: NTS



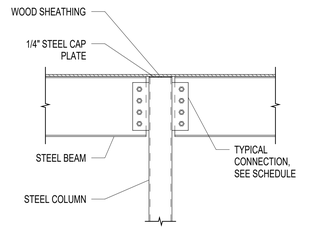
C4 S511 TYPICAL STEEL JAMB COLUMN @ EXTERIOR
Scale: NTS



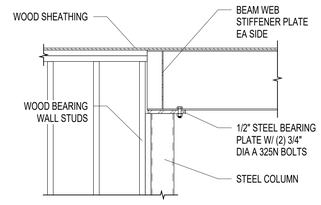
C5 S511 TYPICAL FLOOR JOIST PARALLEL TO WALL
Scale: NTS



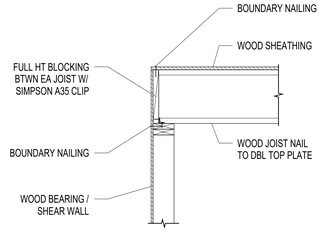
B1 S511 WOOD JOIST TO WOOD BEAM DETAIL
Scale: NTS



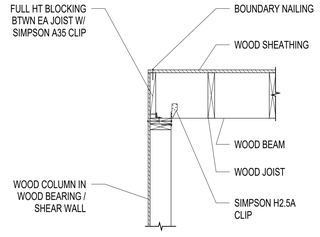
B2 S511 TYPICAL BEAM TO COLUMN DETAIL
Scale: NTS



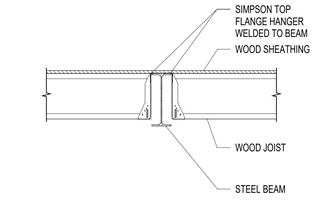
B3 S511 TYPICAL BEAM TO COLUMN DETAIL
Scale: NTS



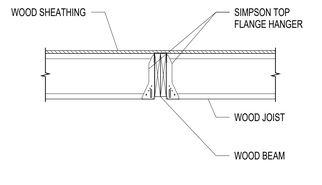
B4 S511 TYPICAL FRAMING @ FLOOR EDGE
Scale: NTS



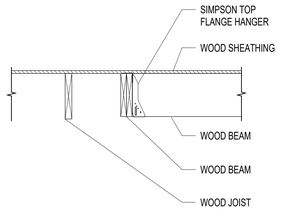
B5 S511 TYPICAL WOOD BEAM TO WOOD WALL DETAIL
Scale: NTS



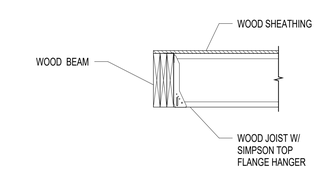
A1 S511 TYPICAL WOOD JOIST TO STEEL BEAM CONN
Scale: NTS



A2 S511 TYPICAL WOOD JOIST TO WOOD BEAM DETAIL
Scale: NTS



A3 S511 TYPICAL WOOD BEAM TO WOOD BEAM DETAIL
Scale: NTS



A4 S511 TYPICAL WOOD BEAM @ FLOOR DETAIL
Scale: NTS

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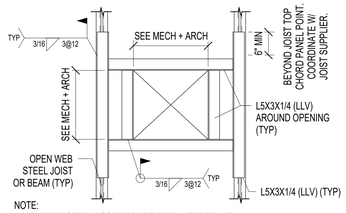
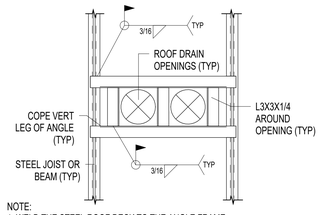


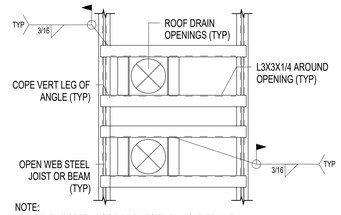
NOTE:
1. WELD THE STEEL ROOF DECK TO THE ANGLE FRAME.
2. REFER TO TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT FRAME DETAIL FOR FRAMES BENEATH MECHANICAL UNITS.

E1 S521 TYPICAL ROOF OPENING SUPPORT
Scale: NTS



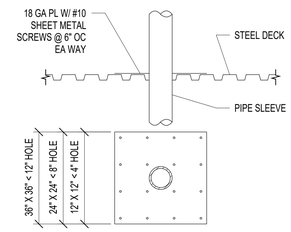
NOTE:
1. WELD THE STEEL ROOF DECK TO THE ANGLE FRAME.
2. REFER TO TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT FRAME DETAIL FOR FRAMES BENEATH MECHANICAL UNITS.

E2 S521 TYPICAL ROOF DRAIN SUPPORT
Scale: NTS

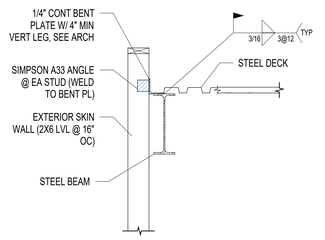


NOTE:
1. WELD THE STEEL ROOF DECK TO THE ANGLE FRAME.
2. REFER TO TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT FRAME DETAIL FOR FRAMES BENEATH MECHANICAL UNITS.

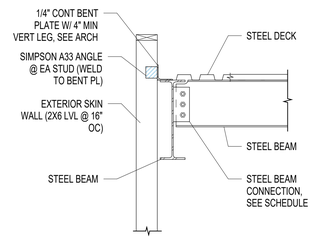
E3 S521 TYPICAL ROOF DRAIN SUPPORT
Scale: NTS



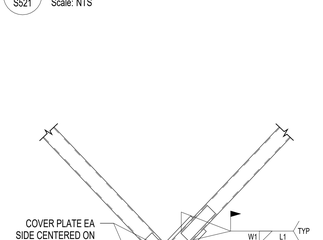
E4 S521 PIPE OPENING IN ROOF DECK
Scale: NTS



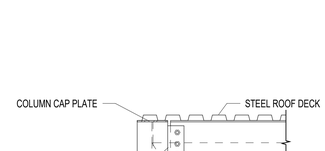
E5 S521 TYPICAL EDGE DETAIL
Scale: NTS



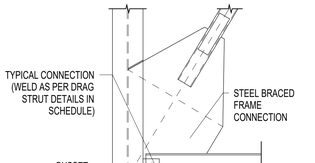
E6 S521 TYPICAL EDGE DETAIL @ BEAM
Scale: NTS



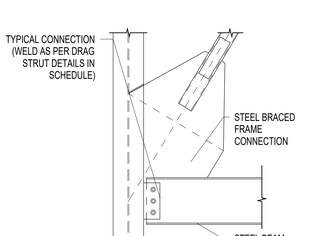
D1 S521 TYPICAL EDGE DETAIL (L > 14")
Scale: NTS



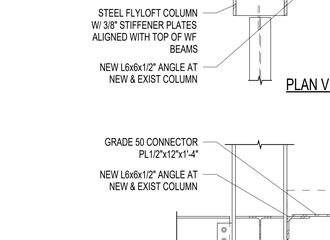
D2 S521 TYPICAL BEAM TO BEAM
Scale: NTS



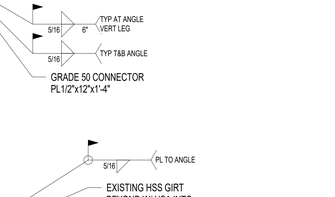
D3 S521 TYPICAL BEAM TO BEAM CONNECTION DETAIL
Scale: NTS



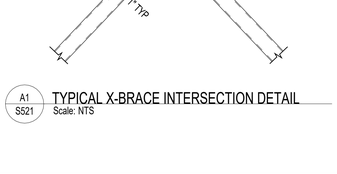
D4 S521 TYPICAL BEAM EDGE AT MOMENT FRAME
Scale: NTS



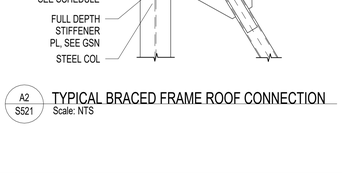
D5 S521 TYPICAL BEAM TO COLUMN DETAIL
Scale: NTS



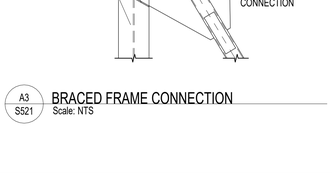
D6 S521 TYPICAL EDGE DETAIL
Scale: NTS



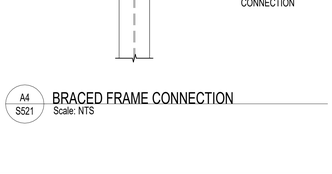
C1 S521 MECHANICAL PLATFORM MOMENT FRAME
Scale: NTS



C2 S521 MECHANICAL PLATFORM CONNECTIONS
Scale: NTS



C3 S521 CONTINUOUS BEAM @ COLUMN
Scale: NTS



C4 S521 TYPICAL ROOF OPENING SUPPORT
Scale: NTS

B1 S521 TYPICAL WIND GIRT TORSION CONNECTION
Scale: NTS

B2 S521 TYPICAL STEEL BROKEN BACK BEAM @ POST
Scale: NTS

A1 S521 TYPICAL X-BRACE INTERSECTION DETAIL
Scale: NTS

A2 S521 TYPICAL BRACED FRAME ROOF CONNECTION
Scale: NTS

A3 S521 BRACED FRAME CONNECTION
Scale: NTS

A4 S521 BRACED FRAME CONNECTION
Scale: NTS

A5 S521 FLYLOFT COLUMN TO EXIST SHEAR WALL/FRAME
Scale: NTS

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

DFCM PROJECT NO: 14385770

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PROFESSIONAL STRUCTURAL ENGINEER
STATE OF UTAH
07-FEB-2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

STRUCTURAL DETAILS

SCALE	3/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
S521

GRAPHIC LEGEND

(E) ELEMENT TO REMAIN.

(E) ELEMENT TO BE DEMOLISHED SHOWN DASHED, LINE TYPE VARIES. SEE SPECIFIC KEYED NOTES FOR ADDITIONAL INFORMATION.

EXISTING BUILDING ELEMENT TO REMAIN, PROTECT THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

NOTE: SEE CONSULTANT DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

GENERAL DEMOLITION NOTES

A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.

B. SEE FLOOR PLANS, BUILDING SECTIONS, AND DETAILS FOR ADDITIONAL INFORMATION AND TO PROVIDE CLARITY ON DEMOLITION REQUIRED IN RELATION TO NEW CONSTRUCTION.

C. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

D. PER THE "**ASBESTOS (LIMITED), AND LEAD (LIMITED) AND HAZARDOUS MATERIALS INSPECTION, SURVEY AND ASSESSMENT** REPORT (DATED DECEMBER 28, 2024 AND INCLUDED IN PROJECT MANUAL), ASBESTOS AND LEAD ARE PRESENT IN THE PROJECT AREA. ABATEMENT OF EXISTING VCT/MASTIC AND FIRE CURTAIN HAVE BEEN COMPLETED BY USU. REMAINING ASBESTOS/LEAD MATERIALS IS TO BE COMPLETED BY A QUALIFIED/LICENSED SUBCONTRACTOR AND IS PART OF THE PROJECT SCOPE. TCLP TESTING HAS BEEN COMPLETED BY USU AND RESULT ARE CONSIDERED 'PASSING' FOR LEAD. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

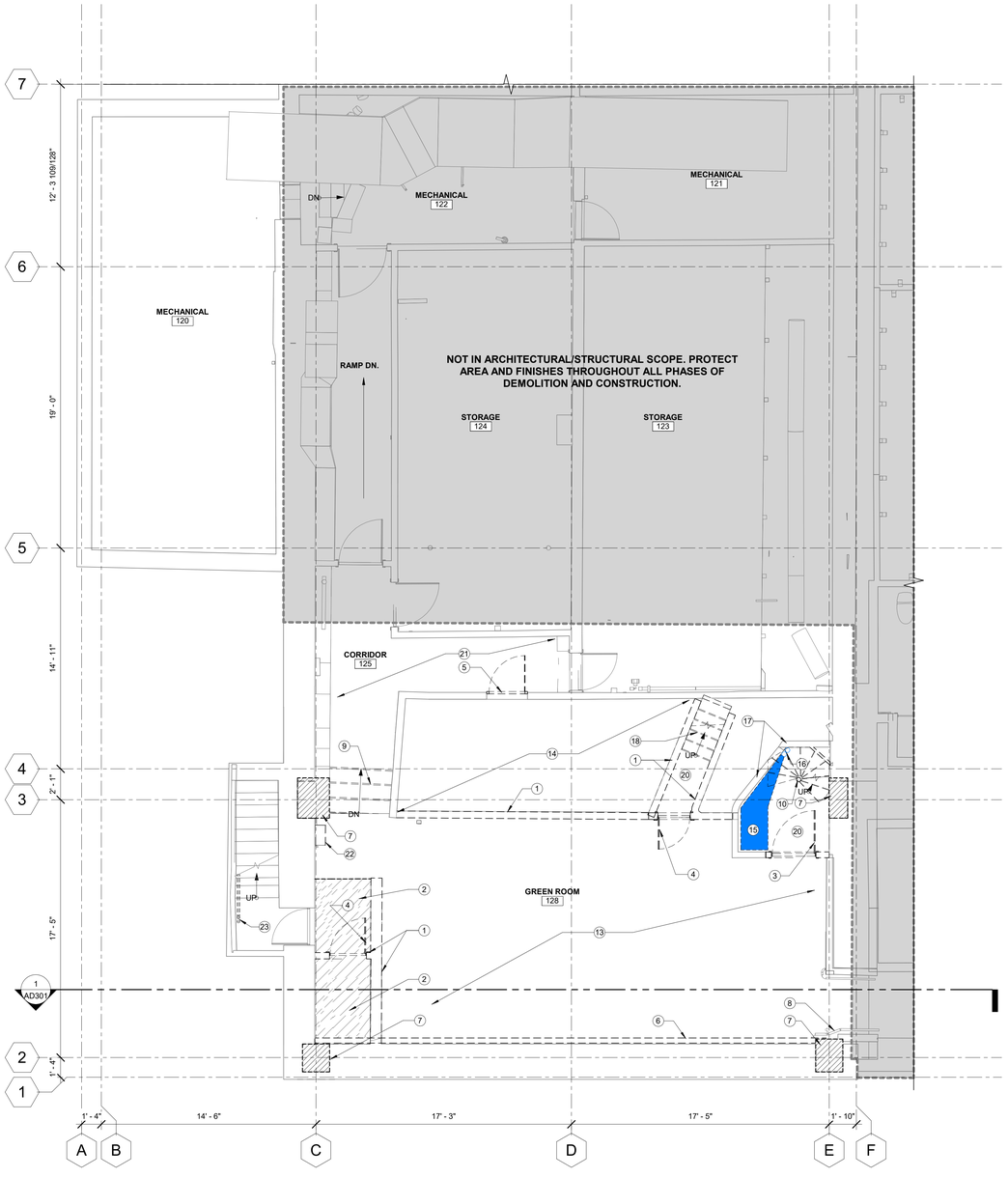
E. AN ASBESTOS INSPECTION WAS COMPLETED ON THE INTERIOR OF THE EXISTING APARTMENT AND NO ASBESTOS CONTAINING MATERIAL WAS IDENTIFIED.

F. SEE CIVIL, MECHANICAL, PLUMBING, FIRE, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.

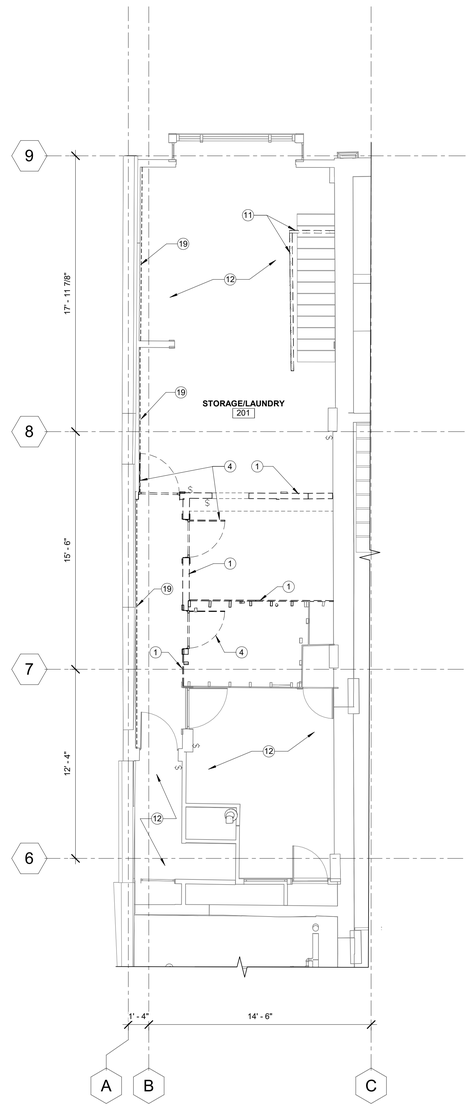
G. SALVAGE A QUANTITY OF (100) EXTERIOR BRICKS FOR USU TO UTILIZE FOR DONOR RECOGNITION. BRICKS TO BE REMOVED AND PLACED ON SITE FOR OWNER TO PICK UP AND TAKE TO STORAGE.

KEYNOTE LEGEND

1 EXISTING WALL TO BE DEMOLISHED.
2 EXISTING CONCRETE SLAB TO BE REMOVED.
3 EXISTING DOOR AND ADJACENT FRAMING TO BE DEMOLISHED AS REQUIRED FOR NEW DOOR/FRAME INSTALLATION. SEE BASEMENT FLOOR PLAN.
4 EXISTING DOOR TO BE DEMOLISHED.
5 EXISTING ACCESS DOOR PANEL TO BE DEMOLISHED.
6 EXISTING FURRING WALL TO DEMOLISHED TO EXPOSE FOUNDATION WALL BEYOND.
7 SAWCUT AND REMOVE CONCRETE/STONE FOUNDATION WALL AS REQUIRED FOR NEW CONCRETE STRUCTURAL PIERS. SEE STRUCTURAL DRAWINGS.
8 REMOVE EXISTING RAILING TO ACCOMMODATE NEW CONSTRUCTION. REINSTALL.
9 EXISTING CONCRETE STAIRS TO BE DEMOLISHED.
10 EXISTING SPIRAL STAIR TO BE DEMOLISHED.
11 EXISTING METAL GUARD RAIL TO BE DEMOLISHED.
12 REMOVE EXISTING CARPET THROUGHOUT ALL AREAS OF EXISTING APARTMENT UNIT.
13 EXISTING CARPET AND RUBBER BASE TO BE REMOVED.
14 EXISTING DUCTS, PIPES, ELECTRICAL CONDUITS, AND OTHER ITEMS IN UNEXCAVATED AREA TO BE REMOVED. EXCAVATE SOIL AS REQUIRED FOR NEW GREEN ROOM EXTENSION.
15 CRITICAL NOTE: ALL AV RUNS AND CABLING IN THIS AREA TO BE PROTECTED THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
16 CRITICAL NOTE: MAINTAIN EXISTING CONDUITS IN PLACE THAT RUN FROM AV ROOM THROUGH STAGE FLOOR AND TO ATTIC. PROTECT THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
17 EXISTING WALLS AND CONCEALED SUPPORT FRAMING OF PROSCENIUM WALL TO REMAIN IN PLACE.
18 EXISTING STAIR TO BE REMOVED.
19 DEMO EXISTING FAUX WOOD FINISH AND ANY REQUIRED SUSTRATE AS REQUIRED FOR NEW ELECTRICAL DEVICE PLACEMENT. SEE ELECTRICAL DRAWINGS.
20 VCT/MASTIC REMOVED BY OTHERS (NIC). SEE ASBESTOS SURVEY IN SPECIFICATIONS.
21 DEMO PORTION OF CEILING AS REQUIRED FOR NEW CONSTRUCTION.
22 DEMO EXISTING FIRE EXTINGUISHER CABINET.
23 EXISTING HANDRAIL TO BE REMOVED.



② BASEMENT LEVEL DEMOLITION FLOOR PLAN
1/4" = 1'-0"



① APARTMENT DEMOLITION FLOOR PLAN
1/4" = 1'-0"

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DEMOLITION BASEMENT LEVEL AND APARTMENT FLOOR PLANS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AD101

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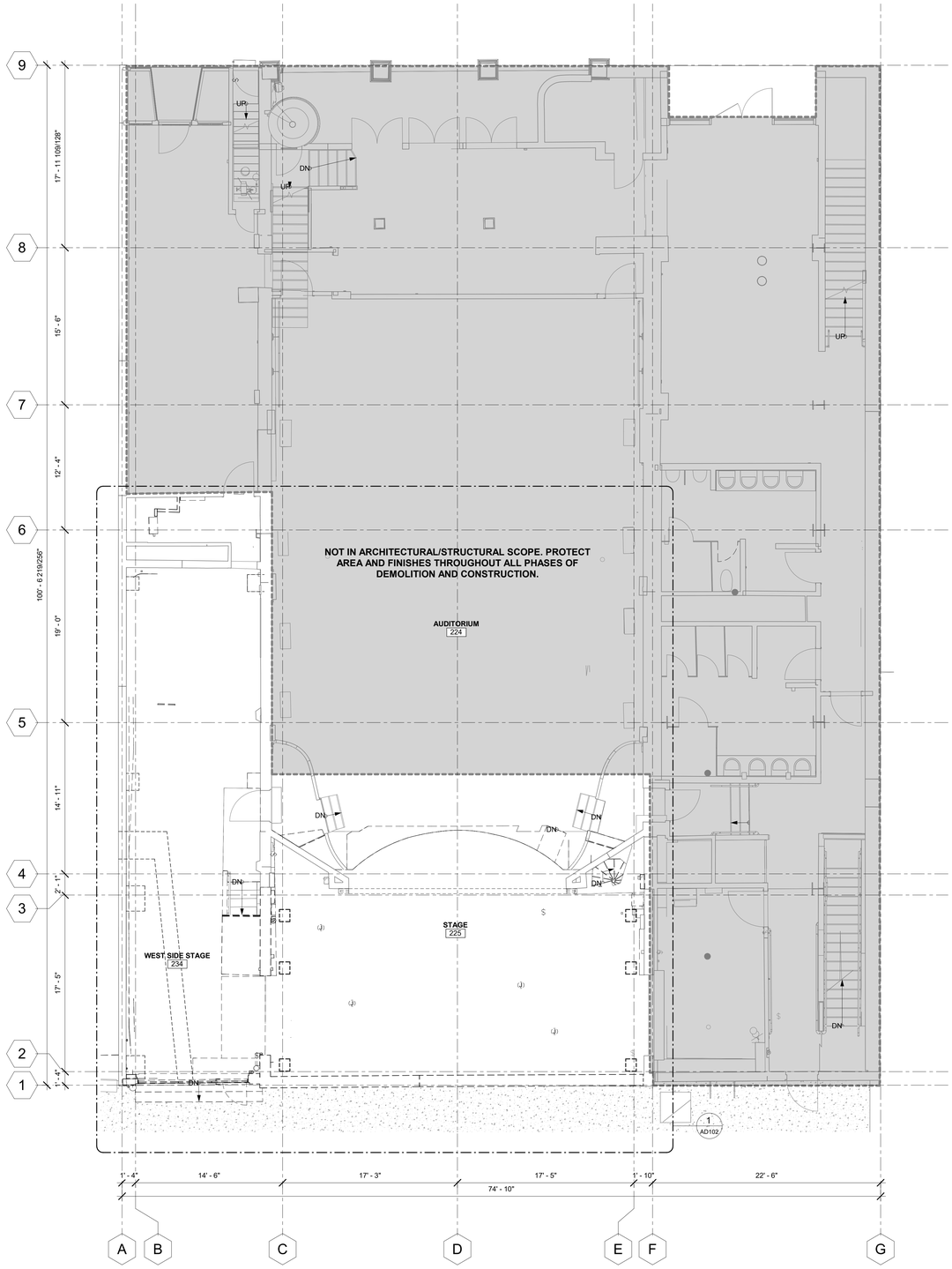
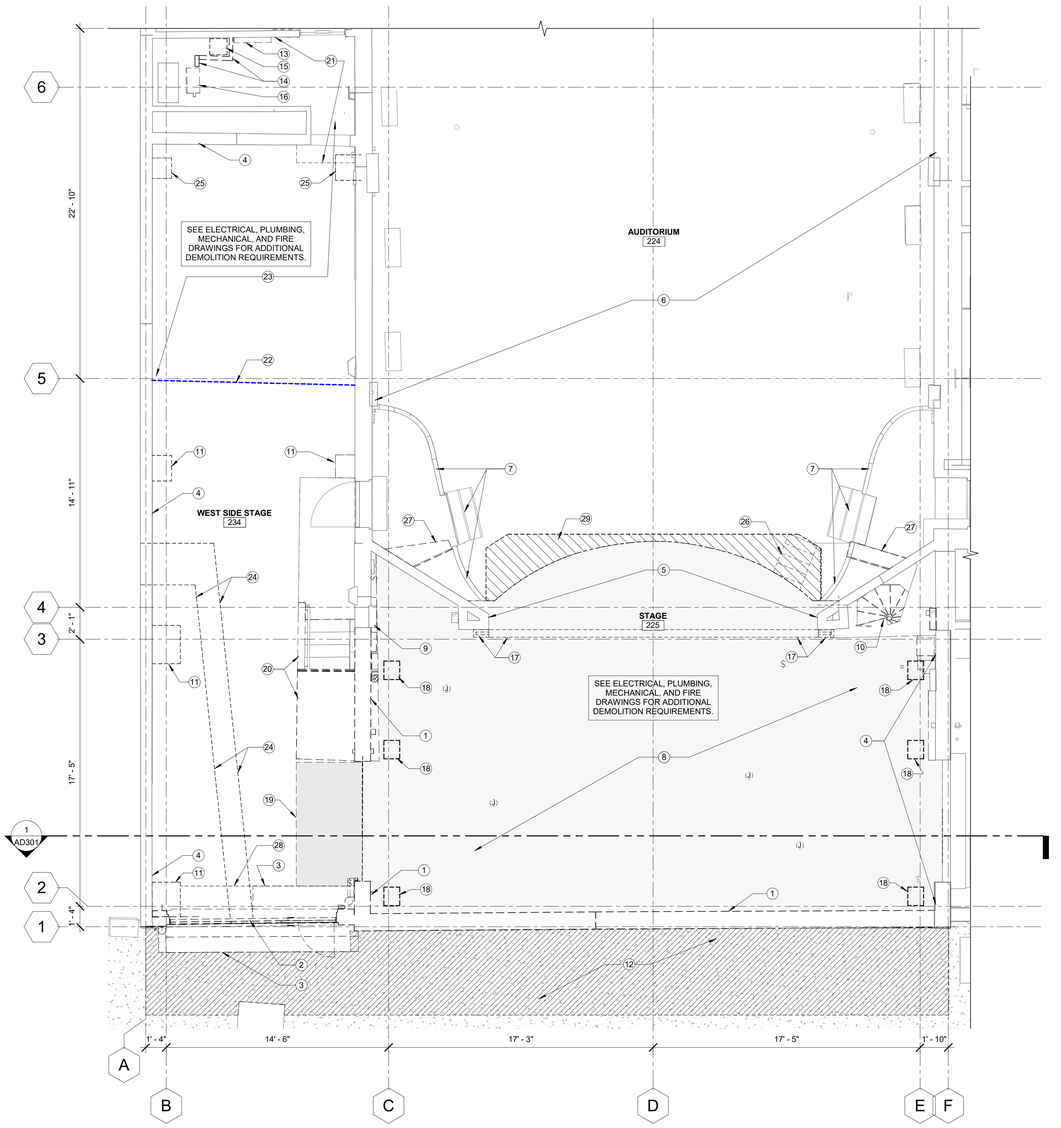


2 DEMOLITION STAGE LEVEL FLOOR PLAN
3/16" = 1'-0"



1 DEMOLITION ENLARGED STAGE AREA PLAN
1/4" = 1'-0"

KEYNOTE LEGEND

1 EXISTING MULTI-WYTHE BRICK WALL TO BE DEMOLISHED.
2 EXISTING HM FRAMED DOOR SYSTEM TO DEMOLISHED.
3 EXISTING CONCRETE STAIRS TO BE DEMOLISHED.
4 EXISTING MASONRY WALL TO REMAIN. PROTECT IN PLACE.
5 EXISTING HISTORIC PROSCENIUM WALLS AND OPENING TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. PLEASE NOTE THAT PROSCENIUM WALLS BEAR ON EXISTING STAGE PLATFORM AND MUST BE SHORED AND SUPPORTED PRIOR TO STAGE DEMOLITION.
6 EXISTING AUDITORIUM AND SEATING TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.
7 EXISTING HISTORIC PLASTER, WOOD/PLASTER WALL, AND STAIR TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.
8 EXISTING STAGE FLOORING AND STRUCTURE TO BE DEMOLISHED.
9 EXISTING MASONRY COLUMN TO REMAIN. PROTECT IN PLACE.
10 EXISTING SPIRAL STAIR TO BE DEMOLISHED.
11 SAWCUT AND REMOVE CONCRETE SLAB ON GRADE AS REQUIRED FOR NEW STRUCTURAL COLUMNS. EXTENT OF SLAB DEMO TO BE DETERMINED BY CONTRACTOR.
12 SAWCUT AND REMOVE CONCRETE SLAB AS REQUIRED FOR NEW STRUCTURE. SEE CIVIL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
13 EXISTING LOW WALL AND ASSOCIATED PLUMBING TO BE DEMOLISHED. SEE ALSO PLUMBING DEMOLITION PLANS.
14 EXISTING WOOD FRAMED WALLS AND GYPSUM FINISH TO BE REMOVED.
15 EXISTING MASONRY FLUE ABOVE TO BE DEMOLISHED TO FULL HEIGHT ABOVE ROOF.
16 EXISTING FURNACE TO BE DEMOLISHED. SEE ALSO MECHANICAL DEMOLITION PLANS.
17 EXISTING FIRE CURTAIN FABRIC REMOVED BY OTHERS (NIC). FIRE CURTAIN STRUCTURE/TRACK TO BE DEMOLISHED. SEE ASBESTOS SURVEY IN SPECIFICATIONS.
18 EXISTING STAGE TRUSS IS TO BE DISASSEMBLED BY CONTRACTOR AND MOVED TO AN OUTDOOR LOCATION WHERE IT CAN BE PICKED UP BY USU AND MOVED TO STORAGE. CONTRACTOR IS TO DISASSEMBLE CAREFULLY TO MAKE SURE ALL PIECES AND PARTS ARE RETURNED TO USU.
19 EXISTING WOOD FLOOR SYSTEM TO BE REMOVED.
20 EXISTING WOOD STAIR SURROUND WALLS AND CAP TO BE REMOVED.
21 EXISTING CARPET AND RUBBER BASE TO BE REMOVED.
22 LINE REPRESENTS TRANSITION POINT FROM EXISTING SLAB ON GRADE TO EXISTING SUSPENDED CONCRETE SLAB.
23 EXISTING SUSPENDED CONCRETE SLAB. VERIFY EXTENTS IN FIELD. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.
24 SAWCUT AND REMOVE CONCRETE SLAB ON GRADE AS REQUIRED FOR ROOF DRAINS AND ELECTRICAL CONDUITS. EXTENT OF SLAB DEMOLITION TO BE DETERMINED BY CONTRACT. SEE PLUMBING AND ELECTRICAL DRAWINGS.
25 SAWCUT AND REMOVE CONCRETE SUSPENDED SLAB AS REQUIRED FOR NEW STRUCTURAL COLUMNS.
26 EXISTING STAIR TO BE REMOVED.
27 EXISTING TEMPORARY STAIR TO BE REMOVED.
28 DEMO CONCRETE SLAB AS REQUIRED FOR NEW STAGE DOORS AND SLOPED SLAB CONDITION. SEE FLOOR PLAN AND DETAILS.
29 SAW CUT EXISTING FLOOR FINISH AND CLEANLY REMOVE PORTION OF FLOOR TO BEARING LINE OF EXISTING WALL BELOW AND AS REQUIRED FOR NEW GREEN ROOM EXTENSION. SEE FLOOR PLANS AND REFLECTED CEILING PLANS.

GENERAL DEMOLITION NOTES

A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.

B. SEE FLOOR PLANS, BUILDING SECTIONS, AND DETAILS FOR ADDITIONAL INFORMATION AND TO PROVIDE CLARITY ON DEMOLITION REQUIRED IN RELATION TO NEW CONSTRUCTION.

C. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

D. PER THE '**ASBESTOS (LIMITED), AND LEAD (LIMITED) AND HAZARDOUS MATERIALS INSPECTION, SURVEY AND ASSESSMENT** REPORT (DATED DECEMBER 28, 2024 AND INCLUDED IN PROJECT MANUAL), ASBESTOS AND LEAD ARE PRESENT IN THE PROJECT AREA. ABATEMENT OF EXISTING VCT/MASTIC AND FIRE CURTAIN HAVE BEEN COMPLETED BY USU. REMAINING ASBESTOS/LEAD MATERIALS IS TO BE COMPLETED BY A QUALIFIED/LICENSED SUBCONTRACTOR AND IS PART OF THE PROJECT SCOPE. TCLP TESTING HAS BEEN COMPLETED BY USU AND RESULT ARE CONSIDERED 'PASSING' FOR LEAD. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

E. AN ASBESTOS INSPECTION WAS COMPLETED ON THE INTERIOR OF THE EXISTING APARTMENT AND NO ASBESTOS CONTAINING MATERIAL WAS IDENTIFIED.

F. SEE CIVIL, MECHANICAL, PLUMBING, FIRE, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.

G. SALVAGE A QUANTITY OF (100) EXTERIOR BRICKS FOR USU TO UTILIZE FOR DONOR RECOGNITION. BRICKS TO BE REMOVED AND PLACED ON SITE FOR OWNER TO PICK UP AND TAKE TO STORAGE.

GRAPHIC LEGEND

(E) ELEMENT TO REMAIN.

(E) ELEMENT TO BE DEMOLISHED SHOWN DASHED. LINE TYPE VARIES. SEE SPECIFIC KEYED NOTES FOR ADDITIONAL INFORMATION.

EXISTING BUILDING ELEMENT TO REMAIN, PROTECT THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

NOTE: SEE CONSULTANT DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL

LICENSED ARCHITECT JOHN D. SPARANO NO. 6295626 DATE: 3/14/25 STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DEMOLITION STAGE LEVEL FLOOR PLAN AND ENLARGED PLAN

SCALE	As indicated	SHEET NO.
JOB NO.	23-05	AD102
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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KEYNOTE LEGEND

1 EXISTING WOOD FLY LOFT ROOF STRUCUTURE TO BE DEMOLISHED.
2 EXISTING STEEL AIR HANDLER SUPPORTS TO BE DEMOLISHED.
3 EXISTING AIR HANDLER TO BE REMOVED FROM EXISTING SUPPORT FRAME AND RELOCATED TO NEW STRUCTURAL SUPPORT SYSTEM. SEE MECHANICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFO.
4 EXISTING MECHANICAL DUCTS TO BE REMOVED AS NOTED ON MECHANICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFO.
5 EXISTING PVC MEMRANE ROOFING TO REMAIN (INSTALLED IN 2024). TIE-IN AND MODIFICATIONS MUST MEET MANUFACTURER REQUIRMENTS AND WARRANTY MUST BE MAINTAINED.
6 PORTION OF EXISTING WOOD ROOF STRUCTURE TO BE REMOVED.

GENERAL ROOF DEMOLITION NOTES

A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.

B. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

C. THE WEST SIDE PARAPET WALLS OF THE CAINE LYRIC THEATRE BUILDING ARE SHARED WITH THE ADJACENT BUILDING. THE EXISTING ROOFING SYSTEM OF THE ADJACENT BUILDING IS IN POOR CONDITION. CONTRACTOR TO REVIEW THE EXISTING CONDITIONS AND TO DETERMINE THE EXTENT AND METHOD OF WORK THAT MAY BE REQUIRED TO KEEP THE ADJACENT BUILDING WATER TIGHT THROUGHOUT ALL PHASES OF THE PROJECT.

D. PER THE **'ASBESTOS (LIMITED), AND LEAD (LIMITED) AND HAZARDOUS MATERIALS INSPECTION, SURVEY AND ASSESSMENT'** REPORT (DATED DECEMBER 28, 2024 AND INCLUDED IN PROJECT MANUAL) ASBESTOS IS PRESENT IN THE ROOF AREAS BEING DEMOLISHED. ABATEMENT OF ASBESTOS CONTAINING ROOF MATERIALS IS TO BE COMPLETED BY A QUALIFIED/LICENSED SUBCONTRACTOR AND IS PART OF THE PROJECT SCOPE. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

E. CONTRACTOR TO INSPECT THE EXISTING WOOD ROOF DECK SHEATHING FOR DAMAGE/WATER DAMAGE AND TO REPLACE DAMAGED AREAS WITH WOOD SHEATHING TO MATCH.

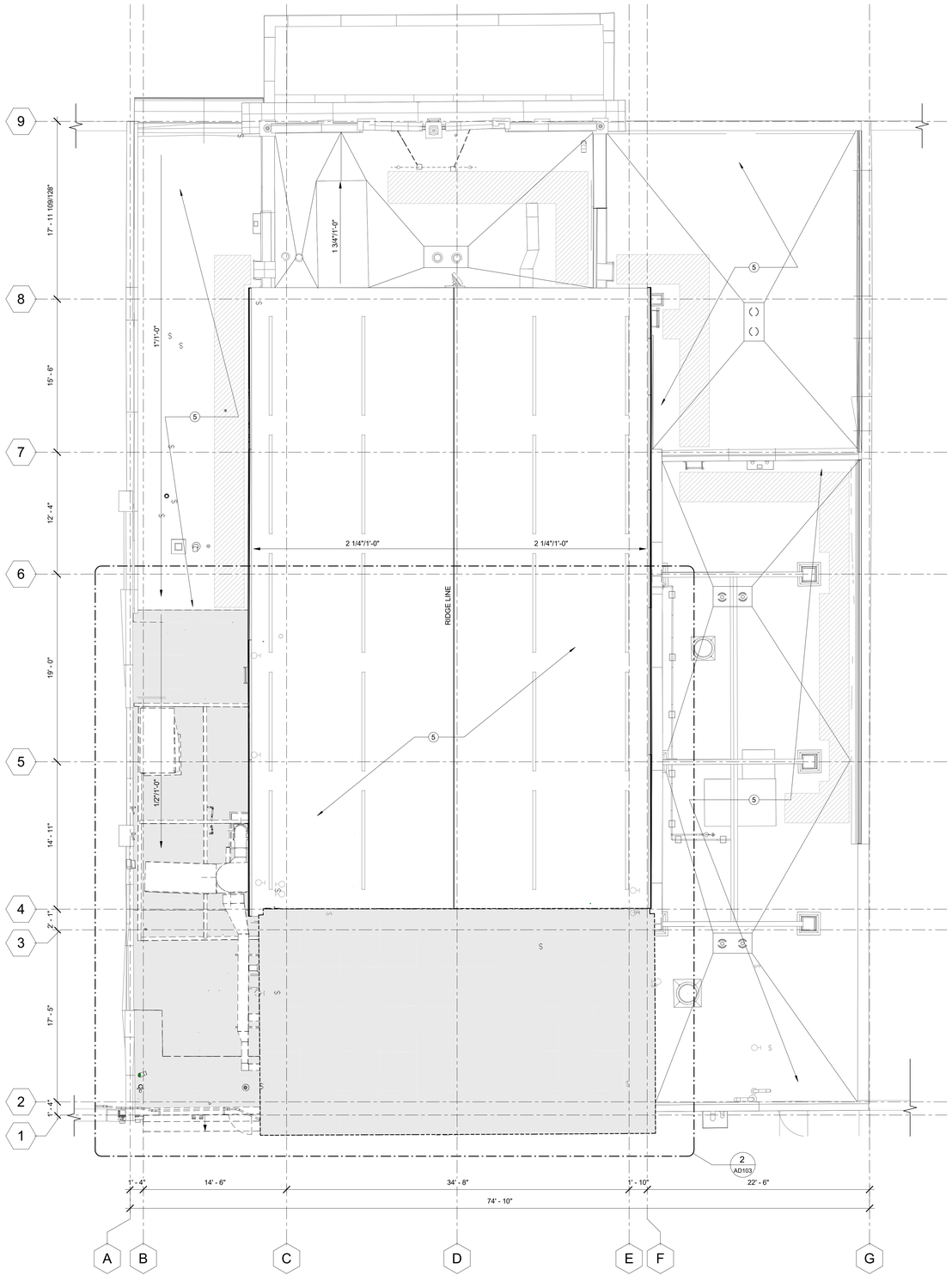
GRAPHIC LEGEND

(E) ELEMENT TO REMAIN

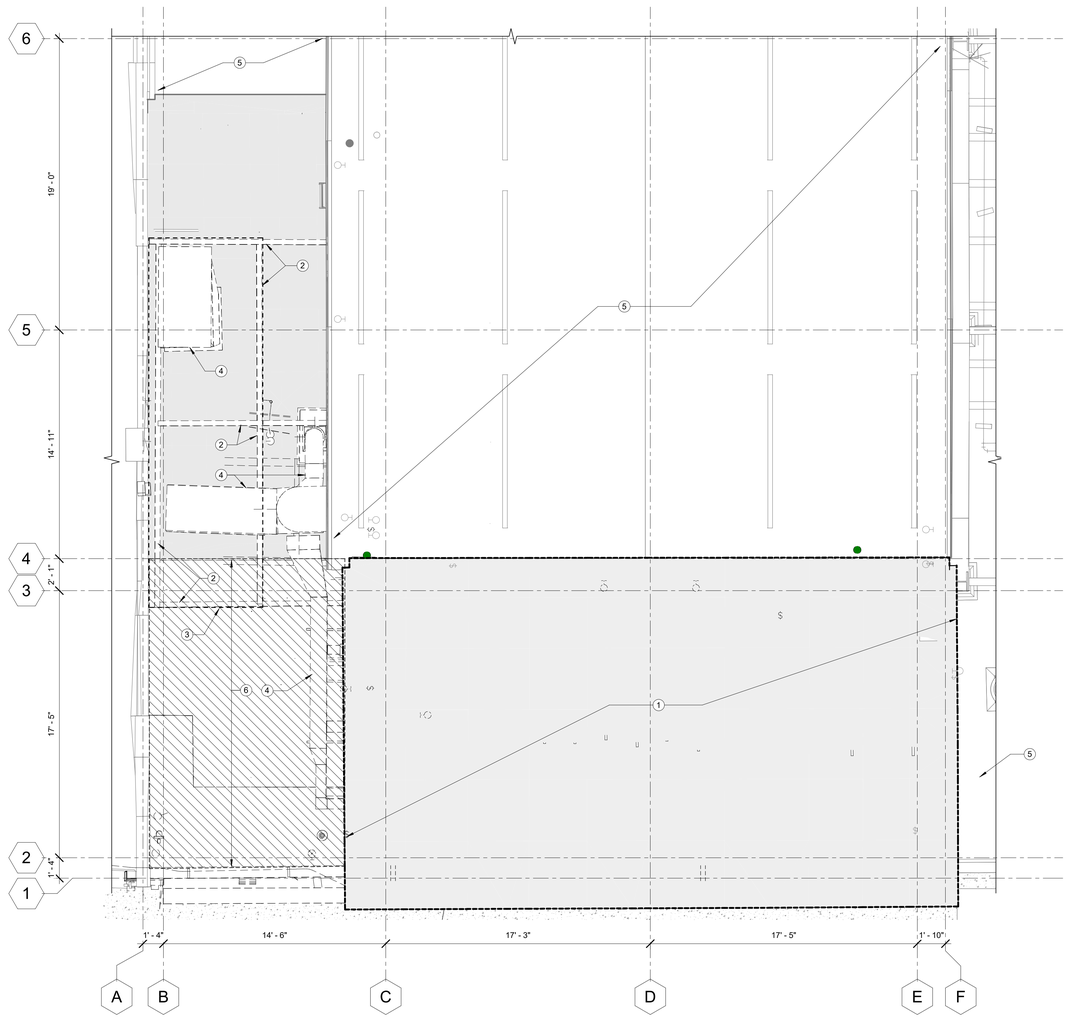
(E) ELEMENT TO BE DEMOLISHED SHOWN DASHED, LINE TYPE VARIES. SEE SPECIFIC KEYED NOTES FOR ADDITIONAL INFORMATION.

EXISTING BUILDING ROOFING SYSTEM TO BE DEMOLISHED

NOTE: SEE CONSULTANT DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS



1 OVERALL DEMOLITION ROOF PLAN
3/16" = 1'-0"



2 ENLARGED DEMOLITION ROOF PLAN
1/4" = 1'-0"

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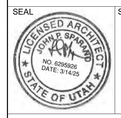
30 WEST CENTER STREET
LOGAN, UT 84321

USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL



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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DEMOLITION ROOF PLANS

		SHEET NO.
SCALE	As indicated	AD103
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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GENERAL DEMOLITION NOTES

A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.

B. SEE FLOOR PLANS, BUILDING SECTIONS, AND DETAILS FOR ADDITIONAL INFORMATION AND TO PROVIDE CLARITY ON DEMOLITION REQUIRED IN RELATION TO NEW CONSTRUCTION.

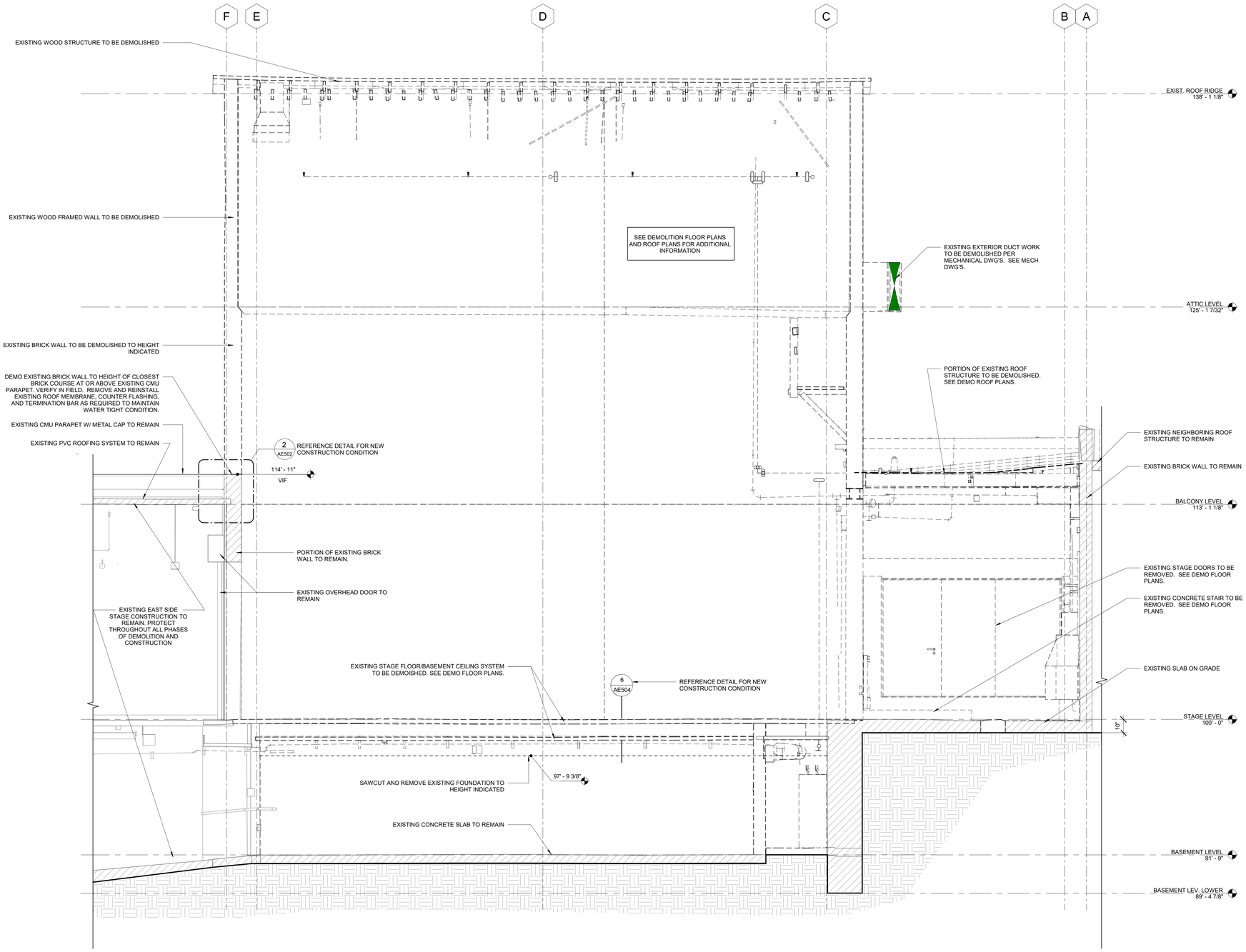
C. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

D. PER THE "**ASBESTOS (LIMITED), AND LEAD (LIMITED) AND HAZARDOUS MATERIALS INSPECTION, SURVEY AND ASSESSMENT** REPORT (DATED DECEMBER 28, 2024 AND INCLUDED IN PROJECT MANUAL), ASBESTOS AND LEAD ARE PRESENT IN THE PROJECT AREA. ABATEMENT OF EXISTING VCT/MASTIC AND FIRE CURTAIN HAVE BEEN COMPLETED BY USU. REMAINING ASBESTOS/LEAD MATERIALS IS TO BE COMPLETED BY A QUALIFIED/LICENSED SUBCONTRACTOR AND IS PART OF THE PROJECT SCOPE. TCLP TESTING HAS BEEN COMPLETED BY USU AND RESULT ARE CONSIDERED 'PASSING' FOR LEAD. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

E. AN ASBESTOS INSPECTION WAS COMPLETED ON THE INTERIOR OF THE EXISTING APARTMENT AND NO ASBESTOS CONTAINING MATERIAL WAS IDENTIFIED.

F. SEE CIVIL, MECHANICAL, PLUMBING, FIRE, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.

G. SALVAGE A QUANTITY OF (100) EXTERIOR BRICKS FOR USU TO UTILIZE FOR DONOR RECOGNITION. BRICKS TO BE REMOVED AND PLACED ON SITE FOR OWNER TO PICK UP AND TAKE TO STORAGE.



1 DEMOLITION BUILDING SECTION
3/8" = 1'-0"

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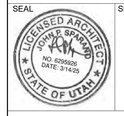

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DEMOLITION BUILDING SECTION

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SCALE	As indicated	AD301
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ISSUE	BID SET	
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CENTER STREET



1 SITE ACCESS PLAN
1" = 10'-0"

CONSTRUCTION ACCESS AND STAGING NOTES

a. THE INTENT OF THE ATTACHED DRAWING AND INFORMATION IS PROVIDED FOR REFERENCE ONLY. MEANS AND METHODS OF CONSTRUCTION, STAGING, SITE FENCING, PUBLIC WAY PROTECTION, AND OTHER TEMPORARY CONSTRUTION RELATED ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
b. THE EXISTING ALLEY TO THE SOUTH OF THE CAINE LYRIC THEATRE PROVIDES REQUIRED EGRESS AND LOADING/DELIVERY FOR ADJACENT PROPERTY OWNERS. SEE ITEMS NOTED ON THE ATTACHED DRAWINGS FOR REFERENCE.
c. THE CITY OF LOGAN REQUIRES PERMITTING FOR ALL CONSTRUCTION RELATED ACTIVITIES THAT OBSTRUCT PUBLIC SIDEWALKS, ROADWAYS, OR OTHER ACCESS (CONSTRUCTION STAGING, LOADING, CRANE PLACEMENT OR SIMILAR). ADVANCED NOTICE, COORDINATION, AND PERMITTING WITH LOGAN CITY FOR 'RIGHT OF WAY' PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ALL ASSOCIATED FEES.
d. A PEDESTRIAN PASSAGE ON CENTER STREET SHALL BE MAINTAINED. CONTRACTOR SHALL PROVIDE, AND MAINTAIN, A DELINEATED/PROTECTED 4 FT WIDE ADA COMPLIANT PEDESTRIAN AND WHEELCHAIR BYPASS, WITH RAMPS, FOR THE DURATION OF THE PROJECT.
e. A PHYSICAL BARRIER (JERSEY BARRIER, WATER WALL, FENCE, ETC.) MUST BE MAINTAINED WHEREVER THE PEDESTRIAN PATH AND THE VEHICLE TRAVEL LANE ARE ADJACENT.
f. PARKING STALL CLOSURE MAY BE REQUESTED WHEN ACTIVELY WORKING IN FRONT OF THE BUILDING, OR CONDUCTING CONSTRUCTION ACTIVITIES REQUIRING ACCESS FROM THE CENTER STREET SIDE. PARKING STALL CLOSURE WILL BE LIMITED TO THE 6 STALLS IN FRONT OF THE BUILDING. THE 7TH STALL MAY BE USED FOR PEDESTRIAN BYPASS.
g. THE SIDEWALK/PARKING STALLS MUST BE OPENED COMPLETELY AND TRAFFIC CONTROL REMOVED IF WORK IS NOT ACTIVELY HAPPENING FOR MORE THAN 3 CONSECUTIVE DAYS.
h. EAST BOUND TRAFFIC TRAVEL LANE SHALL BE MAINTAINED AT A MINIMUM WIDTH OF 12 FT.
i. CENTER STREET CANNOT BE CLOSED AND PEDESTRIAN/TRAFFIC CONTROL REMOVED DURING CERTAIN SPECIAL EVENTS. DATES FOR THESE EVENTS ARE DIFFERENT EACH YEAR AND WILL BE CONSIDERED ON THE RIGHT OF WAY PERMIT APPLICATION ON A CASE BY CASE BASIS.
j. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO ADJACENT BUILDINGS AND BUSINESSES THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR TO COORDINATE WITH THE BUILDING/BUSINESS OWNERS.
k. IF ANY BLUE STAKING IS REQUIRED FOR THE WORK, CONTRACTOR SHALL INFORM BLUE STAKES (NOTE ON APPLICATION) THAT CHALK BASED PAINT IS REQUIRED IN DOWNTOWN LOGAN. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL BLUE STAKE MARKS UPON COMPLETION OF THE PROJECT PRIOR TO REFUNDING OF THE RIGHT OF WAY PERMIT DEPOSIT.
l. CONTRACTOR SHALL COORDINATE WITH LOGAN CITY ECONOMIC DEVELOPMENT DIRECTOR KIRK JENSEN (435-716-9015) FOR ANY UNANTICIPATED IMPACTS THAT EXTEND BEYOND THE CONSTRUCTION AREA, AS WELL AS DOWNTOWN EVENTS.
m. THE UTAH THEATRE WILL HAVE PERFORMANCES OCCURING DURING THE FOLLOWING TIMES THAT REQUIRE CONSTRUCTION ACTIVITIES TO LIMIT OUTSIDE NOISE (DRILLING, SAW CUTTING, NAIL GUNS, ETC...)

- MAY 15, 16, 20-23, 27, AND 28: 9:45 AM TO 2:00 PM
- JULY 18: 12:00 PM TO 7:00 PM

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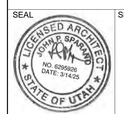

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

SITE ACCESS PLAN - FOR REFERENCE ONLY

		SHEET NO.
SCALE	As indicated	AS100
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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1 SITE PLAN
1/8" = 1'-0"

GENERAL NOTES

A. STAGE LEVEL FFE - 100'-0" = 4538.07.
B. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.
C. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
D. SEE CIVIL DRAWINGS FOR SITE DEMOLITION REQUIRED.
E. SEE CIVIL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION RELATED TO SITE UTILITIES AND REQUIRED SITE WORK.

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REVISION SCHEDULE

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SITE PLAN

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SCALE	As indicated	AS101
JOB NO.	23-05	
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DATE	MARCH 14, 2025	

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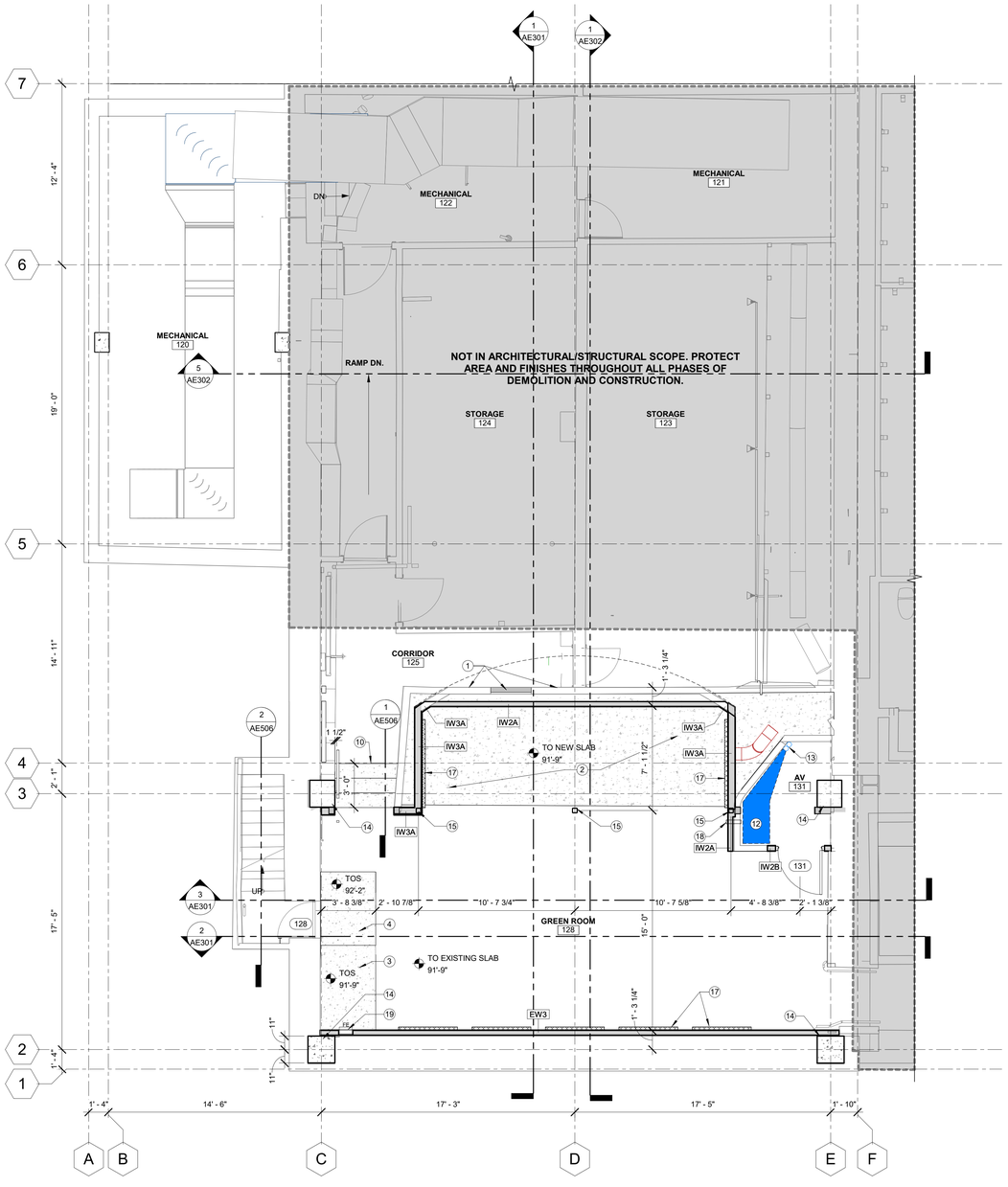
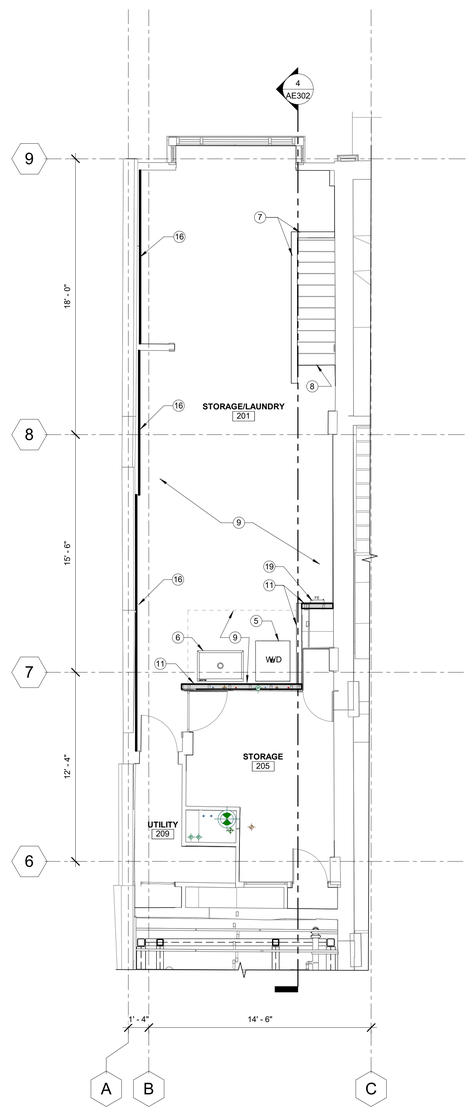
D. THE CONTRACTCOR SHALL PROVIDE HEATING AND COOLING DURING DEMOLITION AND CONSTRUCTION FOR THE HISTORIC AREAS OF THE BUILDING THAT HAVE WOOD FINISHES INCLUDING THE EXISTING LOBBY AREAS, AUDITORIUM, GALLERY, AND BALCONY. HEATING AND COOLING IS TO BE PROVIDED BY EITHER USE OF THE EXISTING ROOF TOP AIR HANDLER OR TEMPORARY HEATING AND COOLING EQUIPMENT.
E. SEE THEATRICAL CONSULTANT DRAWINGS FOR THEATRICAL RIGGING AND INFRASTRUCTURE INFORMATION.
F. NEW STAGE FLOOR SYSTEM IS DESIGNED FOR A MAXIMUM LOAD OF 2,500 PSF.

KEYNOTE LEGEND

1 INFILL EXISTING OPENING WITH 2X FRAMING AND GYPSUM BOARD FINISH, FLUSH TO EXISTING WALLS. SKIMCOAT AND REPAINT ENTIRE WALL.
2 NEW CONCRETE SLAB.
3 NEW CONCRETE SLAB FLUSH TO EXISTING ROOM SLAB.
4 NEW CONCRETE SLAB FLUSH TO STAIR LANDING SLAB.
5 NEW STACKABLE WASHER AND ELECTRIC DRYER PROVIDED AND INSTALLED BY CONTRACTOR. WASHER AND DRYER TO BE FRONT LOAD TYPE AND TO BE MANUFACTURERED BY LG, SAMSUNG, OR EQ.
6 NEW SERVICE SINK PER PLUMBING DRAWINGS.
7 NEW 42" FRAMED WALL W/ GYPSUM BOARD FINISH AND PAINT.
8 EXISTING ACCESS STAIR TO REMAIN.
9 INFILL EXISTING SUBFLOOR W/ SHEATHING TO MATCH EXISTING THICKNESS AT AREAS OF WATER DAMAGE. WHERE WALLS HAVE BEEN REMOVED, AND WHERE SHEATHING HAS BEEN REMOVED. INSTALL NEW PLYWOOD SHEATHING AS FINISHED FLOOR PER FINISH PLANS .
10 NEW CONCRETE STAIR.
11 NEW 5/8" TYPE 'X' GYPSUM FINISH OVER EXISTING FRAMING. FUR/SHIM AS REQUIRED.
12 CRITICAL NOTE: ALL AV RUNS AND CABLING IN THIS AREA TO BE PROTECTED THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
13 CRITICAL NOTE: MAINTAIN EXISTING CONDUITS IN PLACE THAT RUN FROM AV ROOM THROUGH STAGE FLOOR AND TO ATTIC. PROTECT THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
14 CONCRETE PIER PER STRUCTURAL.
15 STEEL COLUMN PER STRUCTURAL, TYP.
16 NEW 5/8" TYPE 'X' GYPSUM FINISH OVER EXISTING WALL. PAINT.
17 2-1/8" THICK FABRIC WRAPPED ACOUSTICAL WALL PANEL.
18 (2) STACKED 2" ID WALL EYE THROUGH WALL FINISHED GROMMET (9" TO 12" WHITE) FOR THROUGH WALL CABLES. SEE INTERIOR ELEVATIONS.
19 NEW SEMIRECESSED FIRE EXTINGUISHER CABINET WITH EXTINGUISHER PER SPEC.



3 BASEMENT LEVEL FLOOR PLAN
1/4" = 1'-0"



1 APARTMENT FLOOR PLAN
1/4" = 1'-0"

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USU PROJECT NO: C001541

CONSULTANT

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LICENSED ARCHITECT
JOHN P. SPARANO
NO. 6295926
DATE: 3/14/25
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT LEVEL AND APARTMENT FLOOR PLANS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE101

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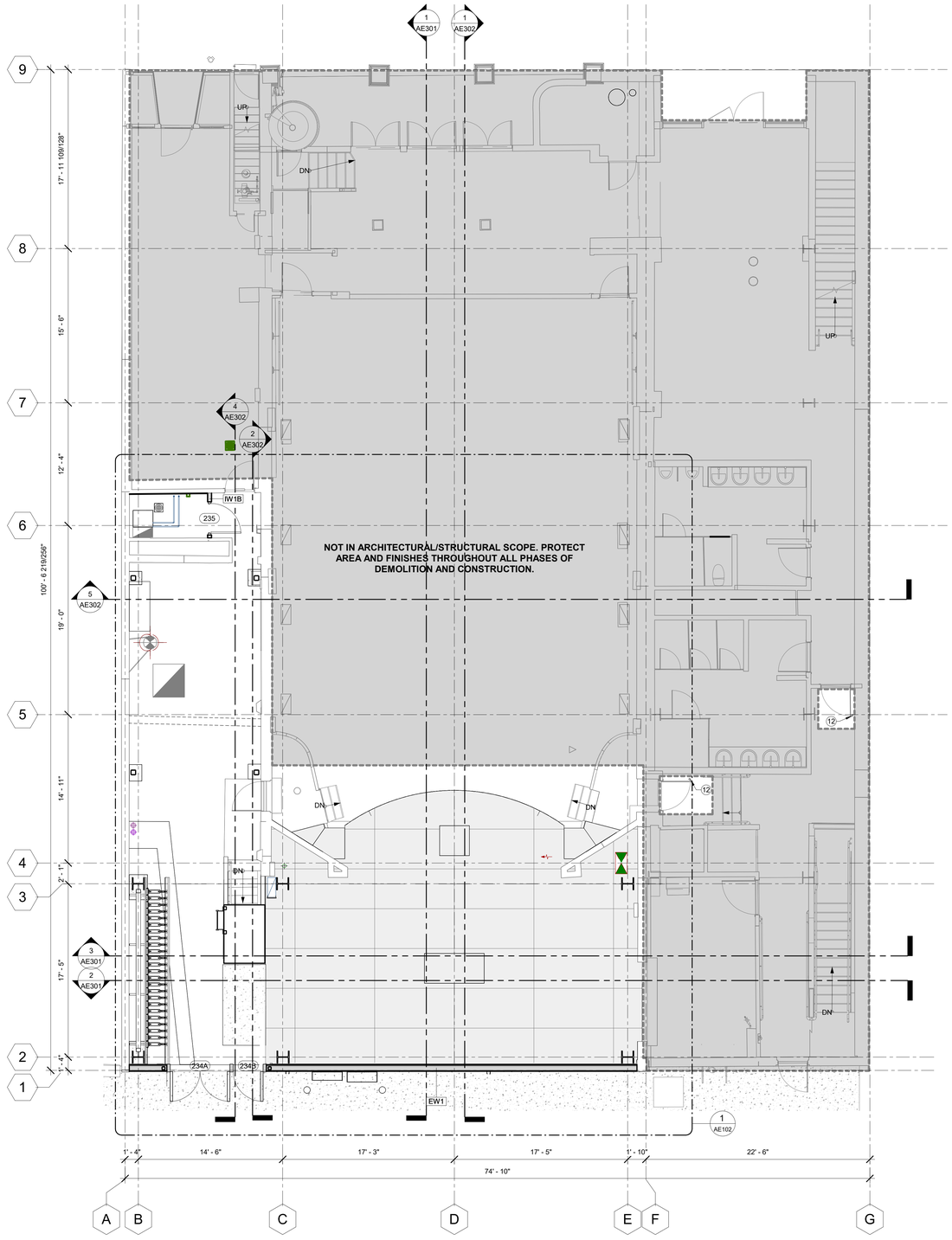
GENERAL NOTES

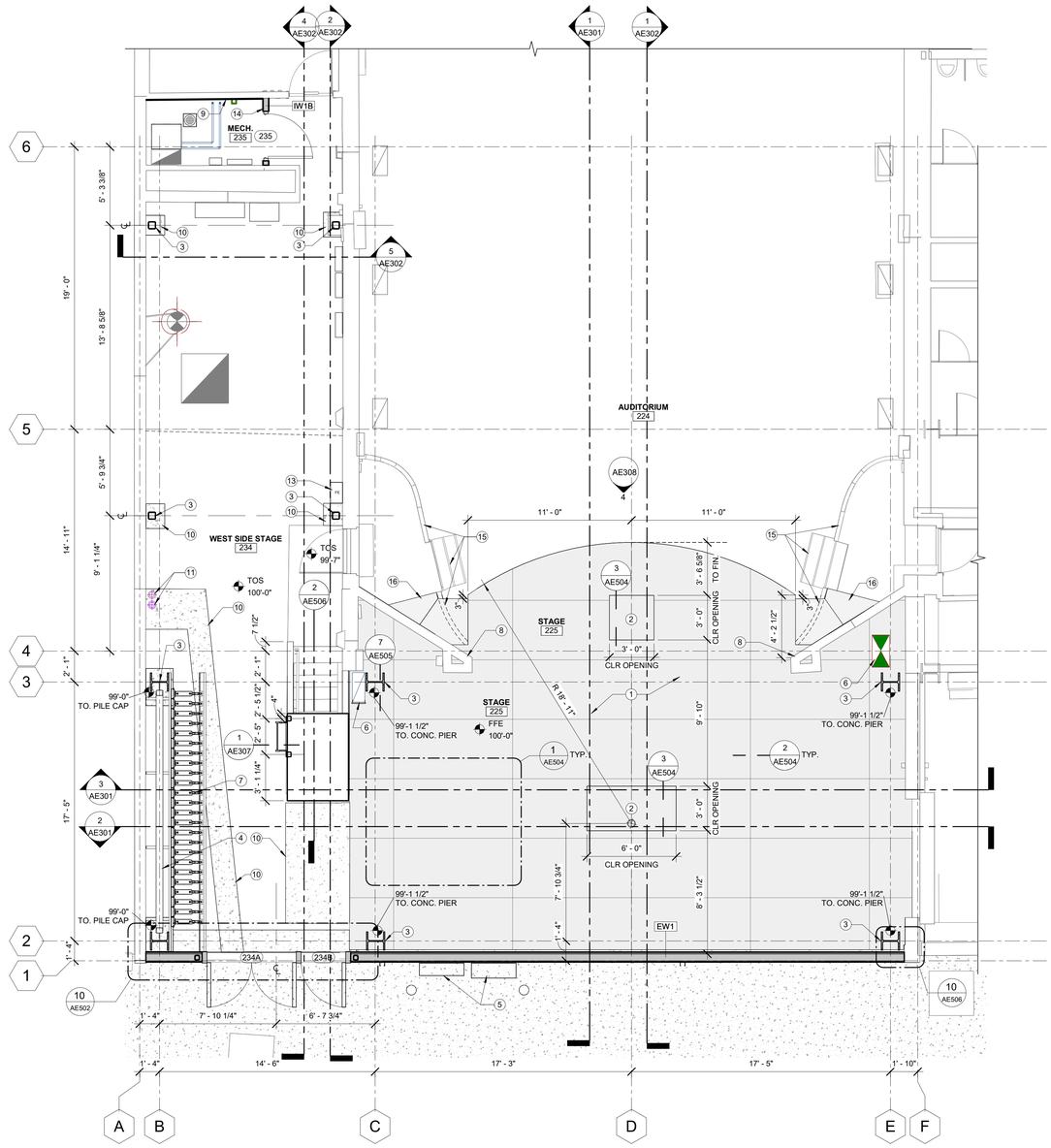
A. STAGE LEVEL FFE - 100'-0" = 4538.07.
B. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.
C. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
D. THE CONTRACTCOR SHALL PROVIDE HEATING AND COOLING DURING DEMOLITION AND CONSTRUCTION FOR THE HISTORIC AREAS OF THE BUILDING THAT HAVE WOOD FINISHES INCLUDING THE EXISTING LOBBY AREAS, AUDITORIUM, GALLERY, AND BALCONY. HEATING AND COOLING IS TO BE PROVIDED BY EITHER USE OF THE EXISTING ROOF TOP AIR HANDLER OR TEMPORARY HEATING AND COOLING EQUIPMENT.
E. SEE THEATRICAL CONSULTANT DRAWINGS FOR THEATRICAL RIGGING AND INFRASTRUCTURE INFORMATION.
F. NEW STAGE FLOOR SYSTEM IS DESIGNED FOR A MAXIMUM LOAD OF 2,500 PSF.

KEYNOTE LEGEND

1 NEW STAGE FLOORING AND STRUCTURE.
2 REMOVABLE TRAP DOOR.
3 STEEL COLUMN PER STRUCTURAL, TYP. PAINT, SEE FINISH SCHEDULE.
4 STEEL CROSS BRACING PER STRUCTURAL DRAWINGS. PAINT, SEE FINISH SCHEDULE.
5 ELECTRICAL EQUIPMENT/PANELS PER ELECTRICAL DRAWINGS.
6 MECHANICAL DUCT PER MECHANICAL DRAWINGS.
7 THEATRICAL EQUIPMENT PER THEATRICAL DRAWINGS.
8 EXISTING HISTORIC PROSCENIUM WALLS AND OPENING TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. PLEASE NOTE THAT PROSCENIUM WALLS BEAR ON EXISTING STAGE PLATFORM AND MUST BE SHORED AND SUPPORTED PRIOR TO STAGE DEMOLITION.
9 PROVIDE NEW 5/8" TYPE 'X' GYPSUM BOARD FULL LENGTH AND HEIGHT OF WALL.
10 INFILL CONCRETE SLAB FLUSH EXISTING ADJACENT SLAB.
11 ROOF DRAIN PIPING PER PLUMBING DRAWINGS.
12 PROVIDE AND INSTALL IVES FS SERIES MANUAL TYPE FLOOR MOUNT DOOR HOLDER ON EXISTING DOOR. COLOR TO BE SATIN BRASS (US4).
13 NEW SURFACE MOUNT FIRE EXTINGUISHER CABINET WITH EXTINGUISHER PER SPEC.
14 FIRE SEAL ALL CONDUIT, DUCT, AND SIMILAR PENETRATIONS THIS WALL TO MAINTAIN FIRE RATING.
15 EXISTING HISTORIC PLATFORM, WOOD/PLASTER WALL, AND STAIR TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.
16 STAGE ACCESS STEP TO BE FRAMED AROUND EXISTING HISTORIC WALL WITHOUT DAMAGING THE EXISTING WALL. SEE DETAILS.



2 STAGE LEVEL FLOOR PLAN
3/16" = 1'-0"



1 ENLARGED STAGE AREA FLOOR PLAN
1/4" = 1'-0"

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NO	DATE	DESCRIPTION

STAGE LEVEL FLOOR PLAN AND ENLARGED STAGE AREA FLOOR PLAN

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE102

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GRAPHIC LEGEND

5/8" TYPE X GYPSUM BOARD CEILING, PAINT.

LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.

SUPPLY/ RETURN AIR DIFFUSER. SEE MECHANICAL DRAWINGS.

24" X 24" CEILING ACCESS PANEL

P1 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 7006 - EXTRA WHITE
FINISH: SATIN

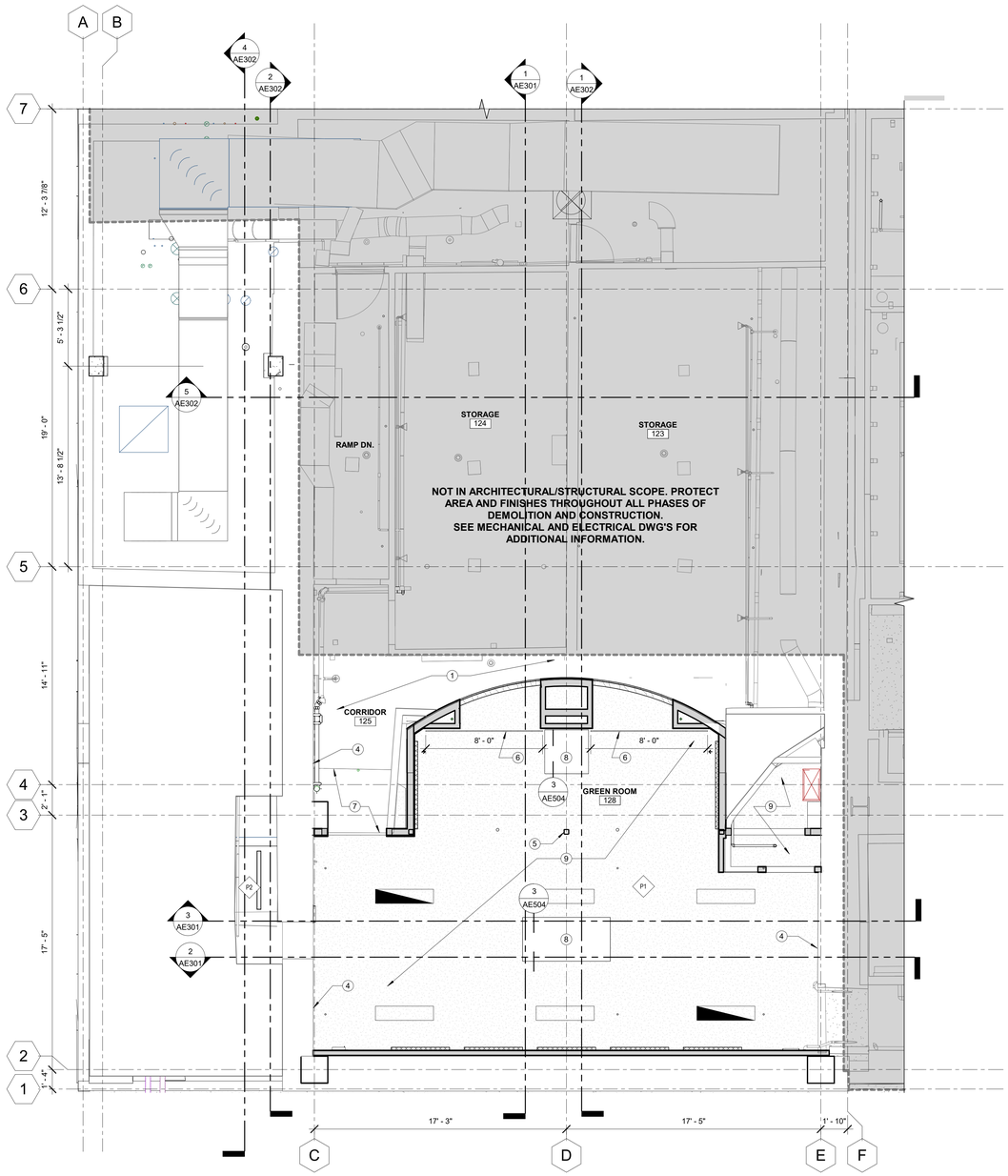
P2 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 6993 - BLACK OF NIGHT
FINISH: EGG SHELL

GENERAL NOTES

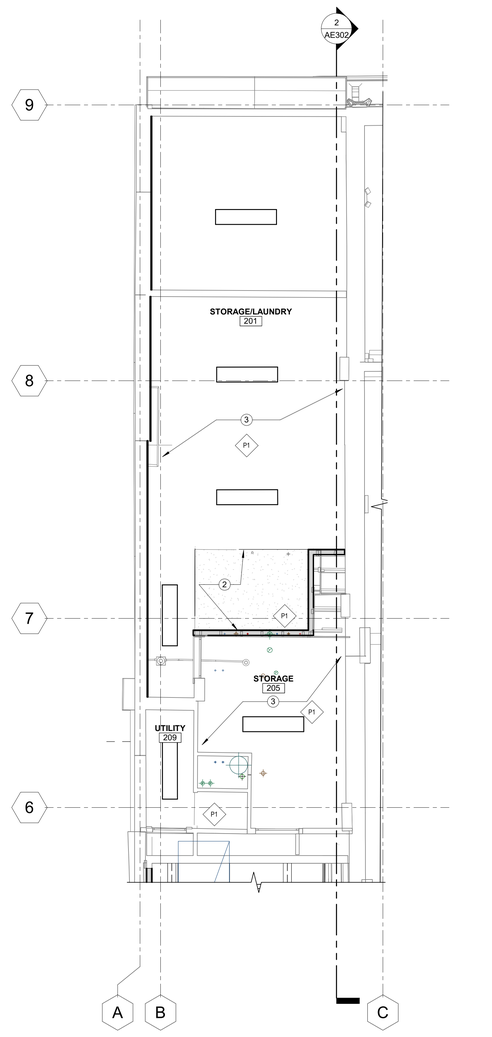
A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.
B. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
C. SEE THEATRICAL CONSULTANT DRAWINGS FOR THEATRICAL RIGGING AND INFRASTRUCTURE INFORMATION.
D. SEE ELECTRICAL, MECHANICAL, AND FIRE SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTE LEGEND

1 EXISTING CEILING TO BE PATCHED/REPARIED/REPAINTED AS REQUIRED.
2 5/8" TYPE 'X' GYPSUM BOARD CEILING PER DETAILS, PAINT.
3 CONTRACTOR TO DETERMINE EXTENT OF DEMOLITION OF EXISTING CEILING AS REQUIRED FOR NEW FIRE SPRINKLERS, LIGHTING, AND MECHANICAL WORK. PATCH, REPAIR, AND OR REPLACE CEILING AS REQUIRED FOR NEW WORK. IN ADDITION, ALL EXISTING HOLES/CRACKS IN CEILING TO BE PATCHED AND REPAIRED. MATCH TEXTURE AND REPAINT ENTIRE CEILING.
4 PATCH AND REPAIR EXISTING WALL AND REPAINT. COLOR PER FINISH SCHED.
5 STEEL COLUMN PER STRUCTURAL, TYP. PAINT, SEE FINISH SCHEDULE.
6 RECESSED FLUSH DRAPERY TRACK. COLOR TO BE WHITE.
7 EXISTING SLOPED GYPSUM BOARD CEILING OVER STAIR TO BE REMOVED AND REPLACED AS REQUIRED FOR NEW CONSTRUCTION. VERIFY REQUIREMENTS IN FIELD.
8 REMOVABLE TRAP DOOR.
9 1 HOUR FIRE RESISTIVE FLOOR/CEILING ASSEMBLY BETWEEN STAGE AND BASEMENT TO BE CONSTRUCTED PER GA FILE NO. FC 5406. SEE DETAIL 2/AE504. FIRE SEAL ALL PENETRATIONS AND PERIMETER CONDITION AS REQUIRED TO MAINTAIN RATING. 5/8" TYPE 'X' GYP. BD. FINISH LAYER TO BE PAINTED PER FINISH SCHED.



1 BASEMENT LEVEL REFLECTED CEILING PLAN
1/4" = 1'-0"



2 APARTMENT CEILING PLAN
1/4" = 1'-0"

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL



SEAL

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT LEVEL AND APARTMENT REFLECTED CEILING PLANS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE103

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GRAPHIC LEGEND

5/8" TYPE X GYPSUM BOARD CEILING, PAINT.

LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.

SUPPLY/ RETURN AIR DIFFUSER. SEE MECHANICAL DRAWINGS.

24" X 24" CEILING ACCESS PANEL

P1 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 7006 - EXTRA WHITE
FINISH: SATIN

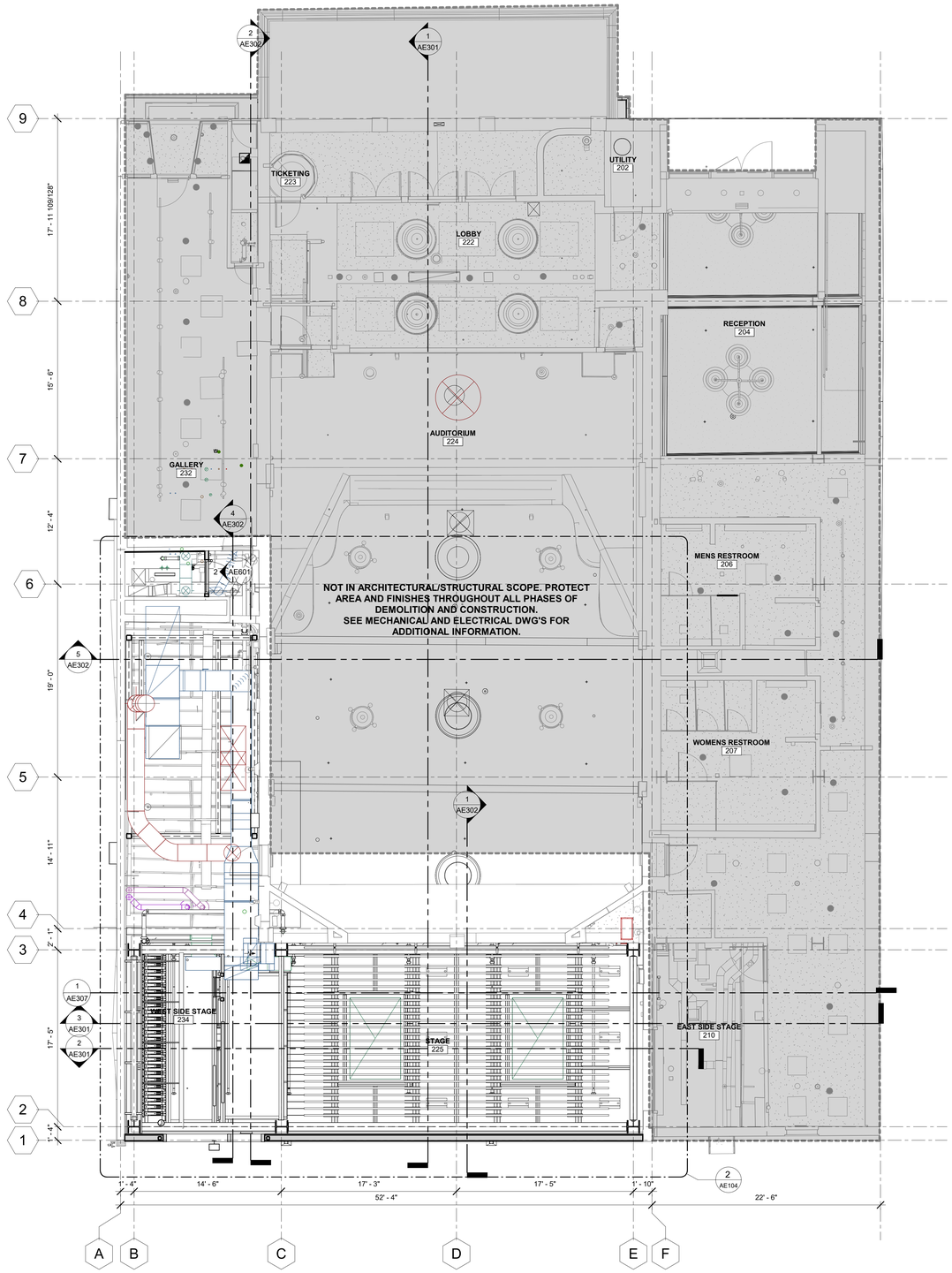
P2 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 6993 - BLACK OF NIGHT
FINISH: EGG SHELL

GENERAL NOTES

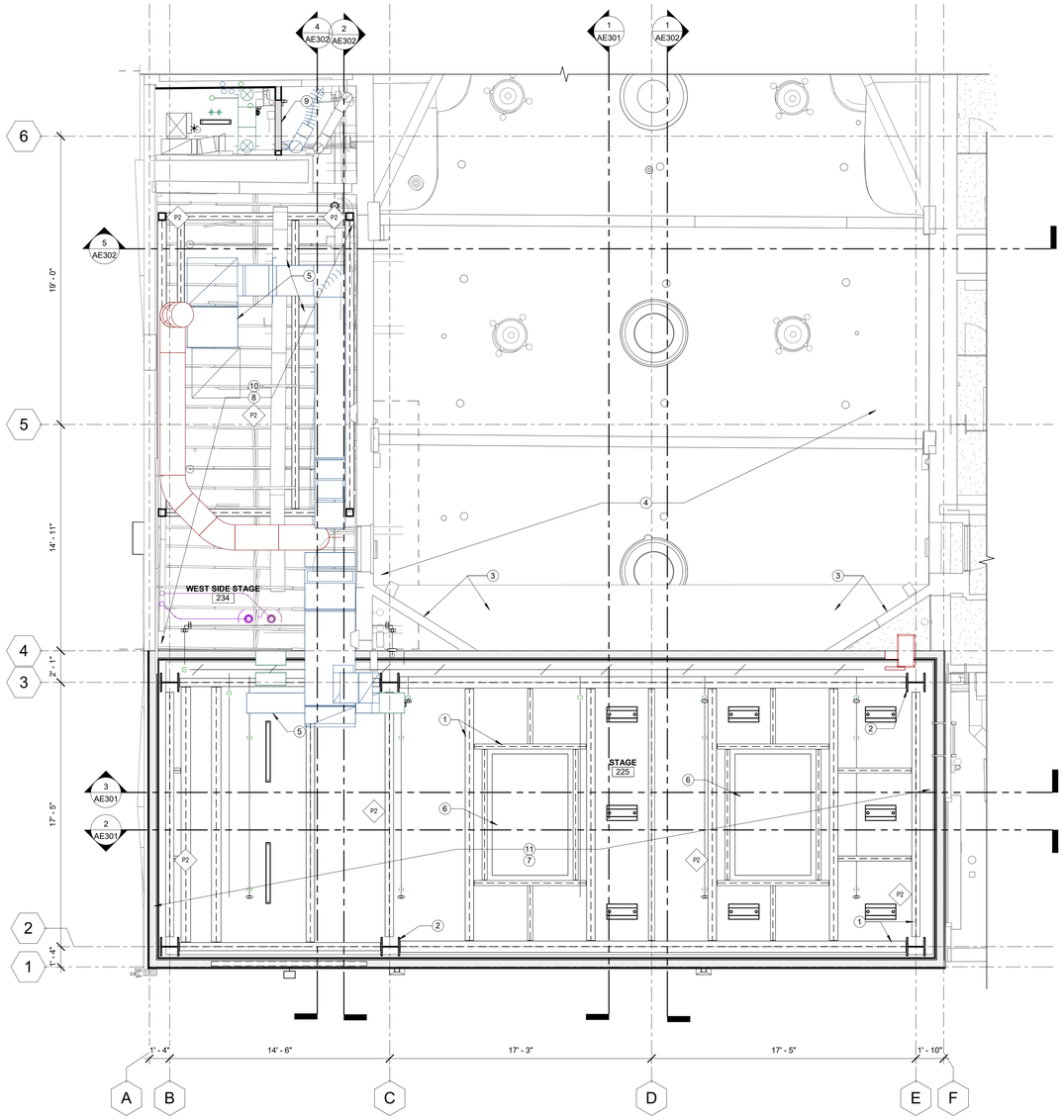
A. CONTRACTOR TO REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO BIDDING.
B. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE/ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
C. SEE THEATRICAL CONSULTANT DRAWINGS FOR THEATRICAL RIGGING AND INFRASTRUCTURE INFORMATION.
D. SEE ELECTRICAL, MECHANICAL, AND FIRE SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTE LEGEND

1 STEEL BEAM PER STRUCTURAL, TYP. PAINT, COLOR PER FINISH SCHEDULE.
2 STEEL COLUMN PER STRUCTURAL, TYP. PAINT, SEE FINISH SCHEDULE.
3 EXISTING HISTORIC PROSCENIUM WALLS AND OPENING TO REMAIN IN PLACE. PROTECT DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. PLEASE NOTE THAT PROSCENIUM WALLS BEAR ON EXISTING STAGE PLATFORM AND MUST BE SHORED AND SUPPORTED PRIOR TO STAGE DEMOLITION.
4 EXISTING HISTORIC AUDITORIUM CEILING AND LIGHT FIXTURES TO REMAIN. PROTECT THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
5 MECHANICAL DUCT PER MECHANICAL DRAWINGS.
6 SMOKE VENT PER MECHANICAL DRAWINGS.
7 ALL STRUCTURAL BEAMS/COLUMNS TO BE PAINTED..
8 ALL CEILING JOISTS, DUCTS, CONDUITS, PIPING AND SIMILAR ELEMENTS TO BE PAINTED.
9 FIRE SEAL ALL CONDUIT, DUCT, AND SIMILAR PENETRATIONS THIS WALL TO MAINTAIN FIRE RATING.
10 EXISTING WOOD FRAMING AND DECK.
11 EXPOSED STEEL STRUCTURAL DECK (NO PAINT).



1 STAGE LEVEL REFLECTED CEILING PLAN
3/16" = 1'-0"



2 ENLARGE STAGE AREA REFLECTED CEILING PLAN
1/4" = 1'-0"

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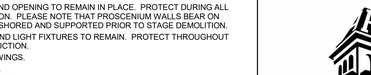

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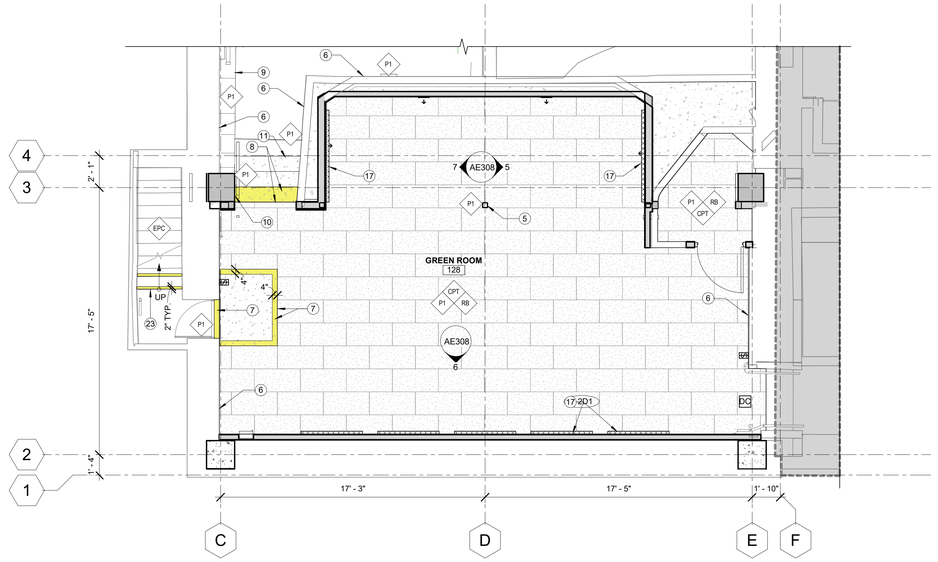
REVISION SCHEDULE

NO	DATE	DESCRIPTION

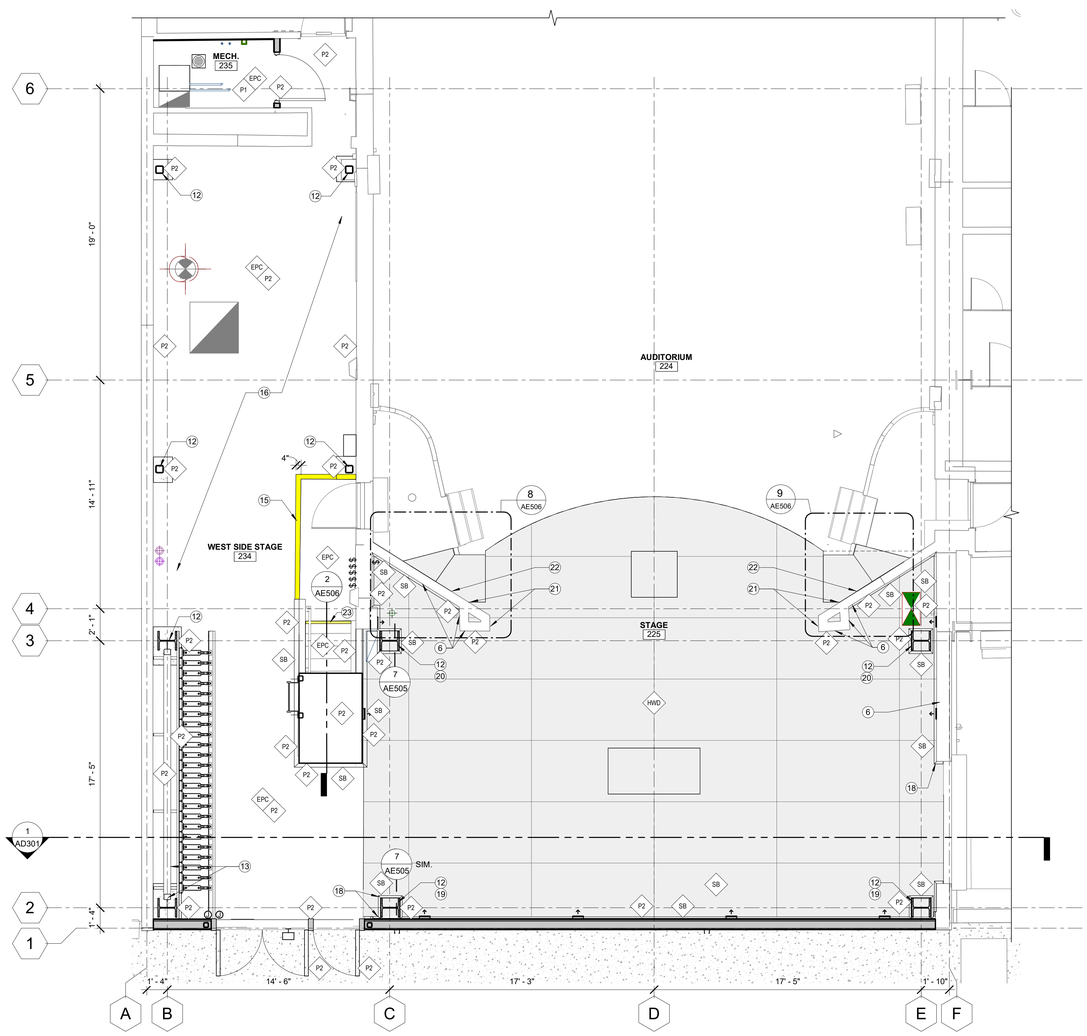
STAGE LEVEL AND ENLARGED STAGE AREA REFLECTED CEILING PLANS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

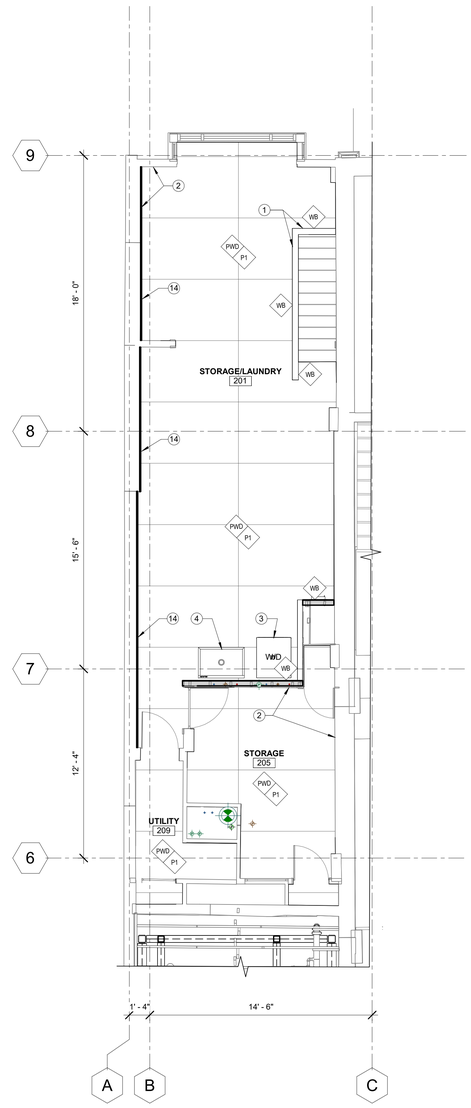
SHEET NO.
AE104



3 BASEMENT LEVEL FINISH PLAN
1/4" = 1'-0"



2 ENLARGED STAGE AREA FINISH PLAN
1/4" = 1'-0"



1 APARTMENT FINISH PLAN
1/4" = 1'-0"

GENERAL NOTES

A. SEE REFLECTED CEILING PLANS FOR ADDITIONAL FINISH INFORMATION.
B. ALL NEW GYPSUM BOARD WALLS AND CEILINGS TO RECEIVE A LEVEL 4 FINISH AND PAINT. SEE FINISH SCHEDULE.
C. ALL NEW HOLLOW METAL DOORS AND FRAMES TO BE PAINTED, ALL SIDES. SEE FINISH SCHEDULE.
D. PLEASE NOTE THAT PAINT FINISHES AT THE STAGE EXTEND THE FULL HEIGHT OF THE FLY LOFT (+-50').

KEYNOTE LEGEND

1 NEW 42" FRAMED WALL W/ GYPSUM BOARD FINISH AND PAINT.
2 EXISTING WOOD BASE TO REMAIN, TYP.
3 NEW STACKABLE WASHER AND ELECTRIC DRYER PROVIDED AND INSTALLED BY CONTRACTOR. WASHER AND DRYER TO BE FRONT LOAD TYPE AND TO BE MANUFACTURERED BY LG, SAMSUNG, OR EQ.
4 NEW SERVICE SINK PER PLUMBING DRAWINGS.
5 STEEL COLUMN TO BE PAINTED. SEE FINISH SCHEDULE.
6 PATCH AND REPAIR EXISTING WALL AND REPAINT. COLOR PER FINISH SCHED.
7 EPOXY PAINT STEP RISER AND 4" EDGE BAND. COLOR: YELLOW.
8 EPOXY PAINT TOP STEP RISER AND STAIR. COLOR: YELLOW.
9 EXISTING CURB WALL TO BE PAINTED.
10 NEW CONCRETE PIER TO BE PAINTED.
11 NEW CONCRETE STAIR.
12 STEEL COLUMN PER STRUCTURAL, TYP. PAINT, SEE FINISH SCHEDULE.
13 STEEL CROSS BRACING PER STRUCTURAL DRAWINGS. PAINT, SEE FINISH SCHEDULE.
14 NEW 5/8" TYPE 'X' GYPSUM FINISH OVER EXISTING WALL. PAINT.
15 EPOXY PAINT 4" EDGE BAND AT TOP OF SLAB STEP. COLOR: YELLOW.
16 CLEAN AND PREP. NEW AND EXISTING SLABS AT WEST SIDE STAGE FOR EPOXY COATING.
17 2-1/8" THICK FABRIC WRAPPED ACOUSTICAL WALL PANEL.
18 STEEL BASE TO HAVE INSIDE AND OUTSIDE MITERED CORNERS, TYP.
19 STEEL BASE (3) SIDES AND TOP ENCLOSURE ONE SIDE, THIS COLUMN.
20 STEEL BASE (4) SIDES AND TOP ENCLOSURE TWO SIDES, THIS COLUMN.
21 NEW PAINT GRADE WOOD BASE TO MATCH EXISTING. EXTEND BASE AROUND PROSCENIUM OPENING AND TERMINATE INTO STEEL BASE.
22 PROTECT EXISTING PAINT AND WALL FINISH IN PLACE AT FRONT AND SIDE FACE OF PROSCENIUM.
23 EPOXY PAINT 2" BAND AT STEP EDGES, TYP. COLOR: YELLOW.

FINISH LEGEND

FLOOR FINISH

CPT CARPET TILE
MFR: SHAW CONTRACT
STYLE: PRESENT TILE - ST361
COLOR: BRISTLE - 58515 (FINAL COLOR APPROVAL BY OWNER, SUBMIT FULL COLOR OPTIONS)
SIZE: 18"X36"
LAYOUT: STAGGER

HWD HARDBOARD FLOORING
TYPE: MASONITE
THICKNESS: 1/4"
FINISH: AXALTA TUFCOTE 2.1 ST SATIN BLACK WATERBORNE ACRYLIC

PWD PLYWOOD FLOORING
TYPE: BCX SANDED PLYWOOD
THICKNESS: 1/2"
FINISH: NONE
NOTE: FASTEN WITH #7, 1-3/4", WSHL SUBFLOOR SCREWS @ 16" OC.

EPC EPOXY FLOOR COATING
TYPE: WATERBASED EPOXY COATING
FINISH: MATTE
COLOR: MID GRAY

WALL BASE FINISH

RB RUBBER BASE
MFR: ROPPE
TYPE: 700 SERIES - STANDARD TOE
COLOR: 100 BLACK (TO MATCH EXISTING, VERIFY COLOR IN FIELD)
SIZE: 4"

SB STEEL ANGLE BASE
TYPE: 3"X3"X3/16" PAINTED STEEL BASE
FINISH: AXALTA TUFCOTE 2.1 ST SATIN BLACK WATERBORNE ACRYLIC

WB PAINT GRADE WOOD BASE
TYPE: POPLAR
COLOR: P1
FINISH: SEMIGLOSS

PAINT FINISH

P1 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 7006 - EXTRA WHITE

LOCATION: GYPSUM BOARD/PLASTER WALLS AND CEILINGS AS INDICATED
FINISH: SATIN

LOCATION: STEEL STRUCTURAL ELEMENTS/HOLLOW METAL DOORS AND FRAMES
FINISH: SEMIGLOSS

P2 PAINT
MFR: SHERWIN WILLIAMS
COLOR: SW 6993 - BLACK OF NIGHT

LOCATION: GYPSUM BOARD/BRICK WALLS/STRUCTURAL ELEMENTS AS INDICATED
FINISH: EGG SHELL

LOCATION: HOLLOW METAL DOORS AND FRAMES
FINISH: SEMIGLOSS

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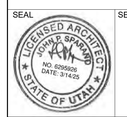

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

FINISH PLANS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE105

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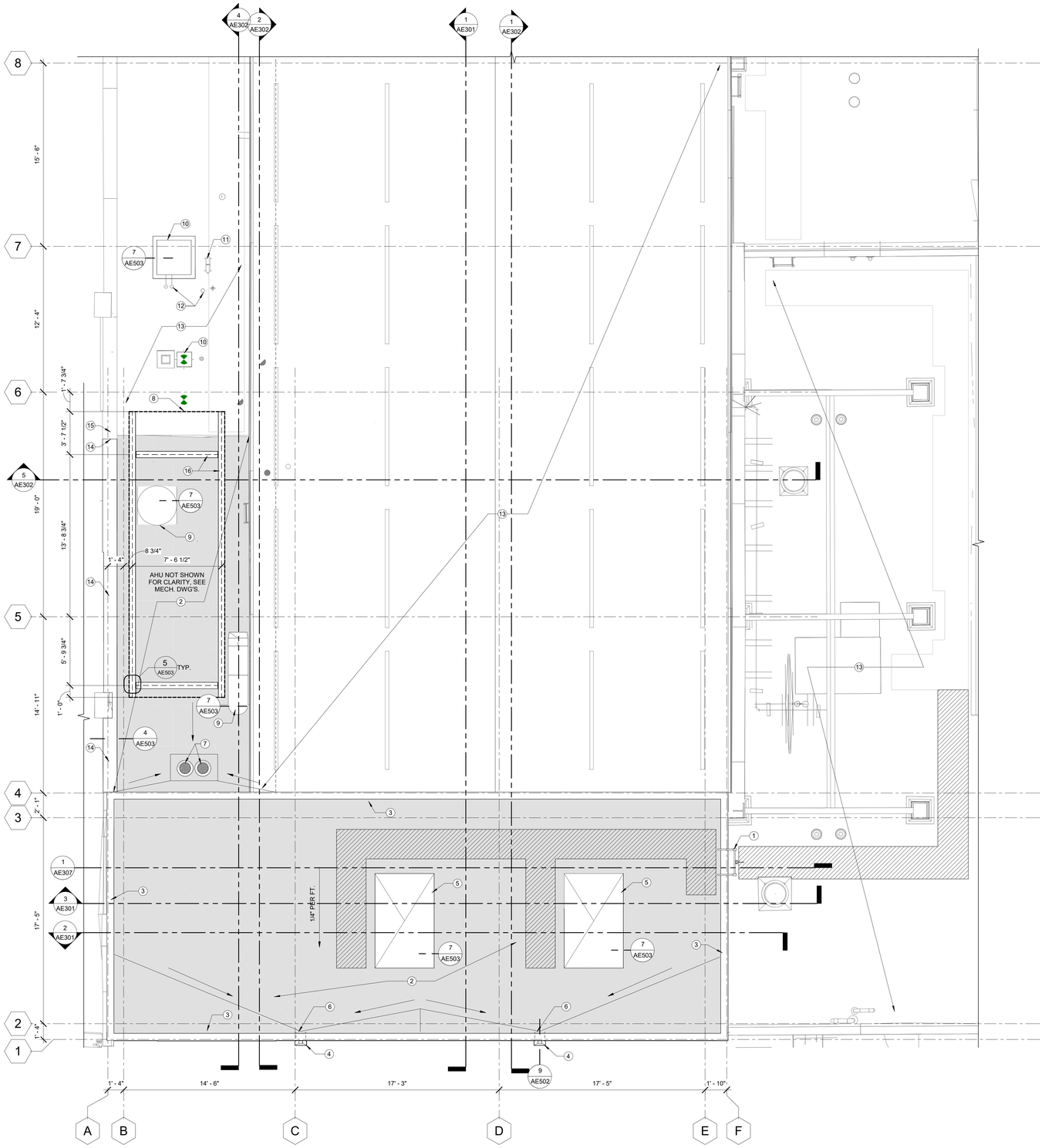

1 ROOF PLAN
1/4" = 1'-0"

GENERAL NOTES

A. THE ROOFING SYSTEM IS REQUIRED TO MEET ALL USU AND DFCM STANDARDS, INCLUDING ALL DFCM MANUFACTURER ROOFING WARRANTY REQUIREMENTS. SEE https://dfcm.utah.gov/construction-management/roofing-program/ FOR ADDITIONAL INFORMATION.

B. THE EXISTING CAINE LYRIC THEATRE IS AN IMPORTANT HISTORIC BUILDING AND THE BUILDING INTERIOR MUST BE PROTECTED FROM DAMAGE AND ROOF LEAKS THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.

C. THE WEST SIDE PARAPET WALLS OF THE CAINE LYRIC THEATRE BUILDING ARE SHARED WITH THE ADJACENT BUILDING. THE EXISTING ROOFING SYSTEM OF THE ADJACENT BUILDING IS IN POOR CONDITION. CONTRACTOR TO REVIEW THE EXISTING CONDITIONS AND TO DETERMINE THE EXTENT AND METHOD OF WORK THAT MAY BE REQUIRED TO KEEP THE ADJACENT BUILDING WATER TIGHT THROUGHOUT ALL PHASES OF THE PROJECT.

D. PER THE **"ASBESTOS, AND LEAD AND HAZARDOUS MATERIALS INSPECTION, SURVEY AND ASSESSMENT"** REPORT (DATED DECEMBER 28, 2024 AND INCLUDED IN PROJECT MANUAL), ASBESTOS IS PRESENT IN THE PROJECT ROOF AREA AND REQUIRES ABATEMENT. ROOF ABATEMENT OF ASBESTOS MATERIALS IS TO BE COMPLETED BY A QUALIFIED/LICENSED SUBCONTRACTOR AND IS PART OF THE PROJECT SCOPE. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

E. A ROOFING PREINSTALLATION CONFERENCE IS REQUIRED AND SHALL INCLUDE THE GENERAL CONTRACTOR, ROOFING SUBCONTRACTOR, USU ROOFING PROGRAM MANAGER, AND ARCHITECT.

F. A ROOF SLOPE OF 1/4" PER FOOT MINIMUM IS REQUIRED AND ALL ROOF AREAS ARE TO HAVE POSITIVE DRAINAGE TO ROOF DRAINS.

G. ALL DRAIN SUMPS ARE TO BE CONSTRUCTED OUT OF MANUFACTURED TAPER INSULATION PANELS. HAND-CUT TAPER SUMPS ARE NOT ALLOWED. DRAIN SUMPS ARE TO BE 8 TIMES WIDER THAN THE DRAIN PIPE MINIMUM. DRAIN SUMPS MUST NOT EXCEED 12 TIMES THE PIPE DIAMETER.

H. CONTRACTOR TO VERIFY QUANTITY AND LOCATION OF ALL ROOF PENETRATIONS AND SHALL FLASH PER DETAILS AND MANUFACTURER'S REQUIREMENTS.

I. PRE-MANUFACTURED ACCESSORIES ARE REQUIRED FOR ALL PIPE FLASHINGS, INSIDE AND OUTSIDE CORNERS, AND ANY OTHER LOCATION PRE-MANUFACTURED ACCESSORIES ARE AVAILABLE AS REQUIRED BY THE MANUFACTURER'S WARRANTY REQUIREMENTS.

J. THE USU ROOFING MANAGER SHALL BE INCLUDED IN THE FINAL ROOFING INSPECTION WITH THE ROOFING SUBCONTRACTOR AND ROOFING MANUFACTURER REPRESENTATIVE.

GRAPHIC LEGEND

- AREA TO RECEIVE NEW MEMBRANE ROOFING SYSTEM
- EXISTING PVC MEMBRANE ROOFING SYSTEM INSTALLED IN 2024. ANY TIE-IN OR ROOF MODIFICATIONS MUST MAINTAIN ROOF WARRANTY
- NEW ROOF WALK PAD (HEAT WELDED TO MEMBRANE) W/ TEXTURED SURFACE FOR SLIP RESISTANCE, COLOR: LIGHT GRAY

KEYNOTE LEGEND

1 PREFABRICATED FIXED ALUMINUM LADDER W/ FALL ARREST PER OSHA REQUIREMENTS. SEE SPECIFICATIONS.
2 80 MIL. FULLY ADHERED PVC MEMBRANE ROOFING SYSTEM. COLOR: LIGHT GRAY.
3 PREFINISHED METAL CAP FLASHING W/ STANDING SEAMS AT 10'-0 O.C. MAX.
4 NEW 24 GA. COMMERICAL DOWNSPOUT CONDUCTOR HEAD AND GUTTER DOWNSPOUT W/ KYNAR FINISH.
5 SMOKE VENT PER MECHANICAL DRAWINGS.
6 THROUGH WALL SCUPPER TO CONDUCTOR HEAD AND DOWNSPOUT GUTTER.
7 PRIMARY AND OVERFLOW ROOF DRAIN PER PLUMBING DRAWINGS. ROOF DRAINS TO HAVE NEW HEAT CABLE PER ELECTRICAL DRAWINGS.
8 EXISTING AIR HANDING UNIT (SHOWN DASHED) RELOCATED TO NEW STEEL STRUCTURE. SEE MECHANICAL AND STRUCTURAL DWG'S.
9 MECHANICAL DUCT PENETRATION AT NEW CURB. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
10 NEW MECHANICAL EQUIPMENT PER MECHANICAL DRAWINGS.
11 NEW DRYER VENT PER MECHANICAL DRAWINGS. FLASH PER ROOF MANUFACTURER REQUIREMENTS.
12 NEW ROOF PENETRATIONS PER MECHANICAL/ELECTRICAL DRAWINGS. FLASH PER ROOF MANUFACTURER REQUIREMENTS.
13 EXISTING PVC MEMRANE ROOFING TO REMAIN (INSTALLED IN 2024). TIE-IN AND MODIFICATIONS MUST MEET MANUFACTURER REQUIRMENTS AND WARRANTY MUST BE MAINTAINED.
14 NEW 24 GA. PREFINISHED CAP FLASHING OVER NEW WOOD FURRING WALL WITH TIE-IN TO EXISTING BRICK PARAPET. SEE DETAIL. EXISTING BRICK PARAPET STEPS AND VARIES IN WIDTH. VERIFY CONDITIONS AND DIMENSIONS IN FIELD.
15 EXISTING 24 GA. PREFINISHED CAP FLASHING TO REMAIN.
16 NEW STEEL AIR HANDLER SUPPORT STRUCTURE WITH HIGH PERFORMANCE COATING.

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL

LICENSED ARCHITECT
JOHN R. PARRY
NO. 8255826
DATE: 3/14/25
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ROOF PLAN

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE109

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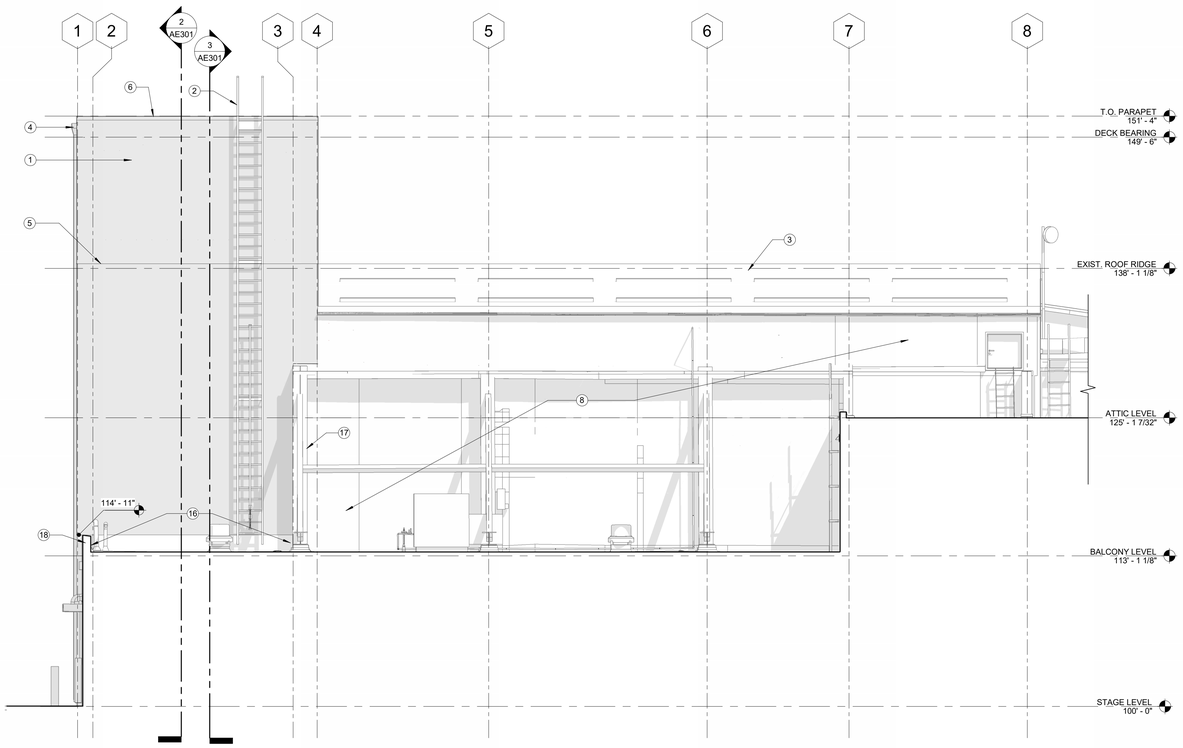
KEYNOTE LEGEND

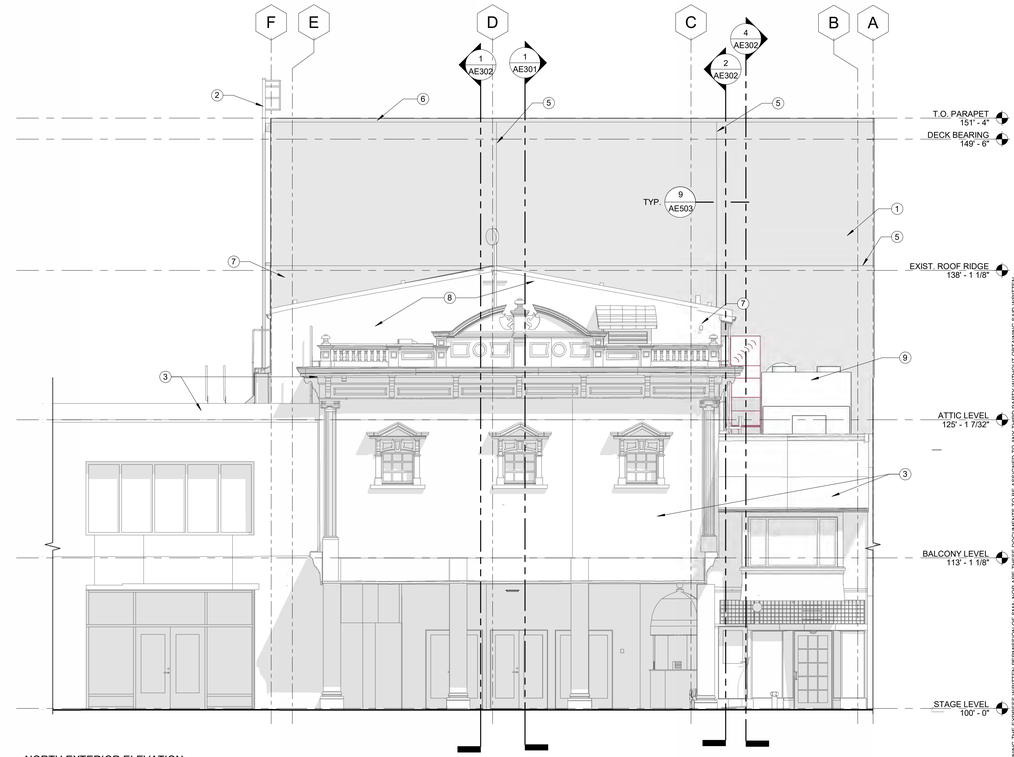
12 ELECTRICAL EQUIPMENT/PANELS PER ELECTRICAL DRAWINGS.
13 RESET AND REPOINT EXISTING BRICK PARAPET TO STABLE CONDITION FROM GRIDS 1 TO 4. MAINTAIN WATER TIGHT ENCLOSURE OF NEIGHBORING PROPERTY THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
14 NEW LIGHT FIXTURE PER ELECTRICAL DRAWINGS.
15 END OF EXISTING BRICK WALL TO REMAIN TO HAVE BRICK RESET AND REPOINTED AS NEEDED FOR STABLE CONDITION. BRICK INFILL REQUIRED IS TO HAVE BRICK COLORING TO MATCH EXISTING TO THE EXTENT POSSIBLE.
16 RESET AND REPOINT EXISTING BRICK PARAPET TO STABLE CONDITION. MAINTAIN WATER TIGHT ENCLOSURE OF EAST SIDE STAGE ROOF THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
17 EXISTING STEEL COLUMN AND ANGLE BRACE TO REMAIN.
18 EXISTING CMU WALL/PARAPET TO REMAIN.

KEYNOTE LEGEND

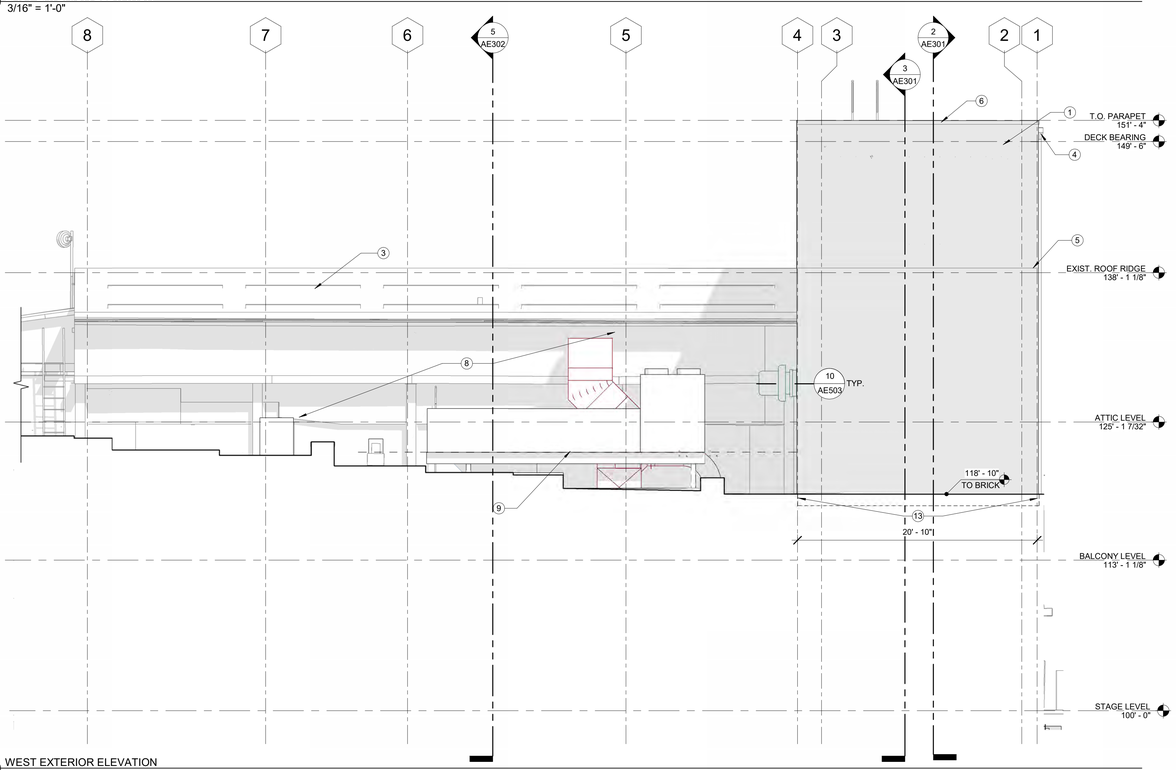
1 NEW FLY LOFT WALL W/ STUCCO FINISH.
2 PREFABRICATED FIXED ALUMINUM LADDER W/ FALL ARREST PER OSHA REQUIREMENTS. SEE SPECIFICATIONS.
3 EXISTING BUILDING TO REMAIN.
4 NEW 24 GA. COMMERICAL DOWNSPOUT CONDUCTOR HEAD AND GUTTER DOWNSPOUT W/ KYNAR FINISH.
5 STUCCO CONTROL JOINT, TYP.
6 PREFINISHED METAL CAP FLASHING W/ STANDING SEAMS AT 10'-0 O.C. MAX.
7 EXISTING WALL TO REMAIN. ALIGN STUCCO FINISH OF NEW AND EXISTING, AND STUCCO ENTIRE EXISTING WALL TO MATCH NEW.
8 EXISTING STUCCO WALL TO RECEIVE NEW TOP COAT FINISH.
9 EXISTING AIR HANDING UNIT (SHOWN DASHED) RELOCATED TO NEW STEEL STRUCTURE. SEE MECHANICAL AND STRUCTURAL DWG'S.
10 PROTECTION BOLLARD PER CIVIL DWG'S.
11 RUBBER BOOT TRANSITION TO STORM DRAIN PER CIVIL DWG'S.



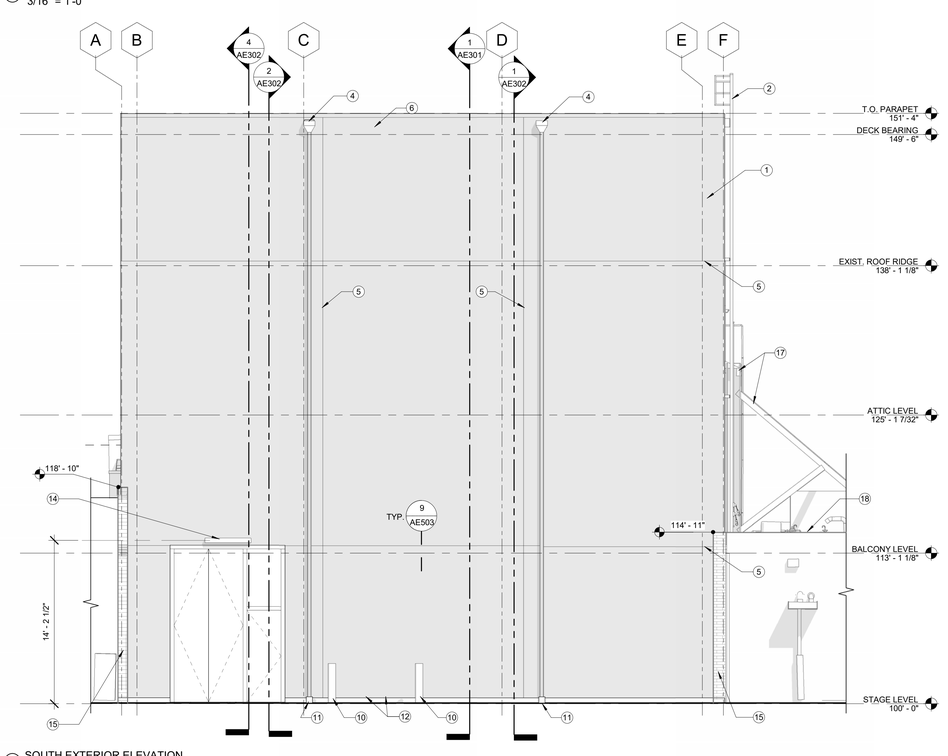
2 EAST EXTERIOR ELEVATION
3/16" = 1'-0"



1 NORTH EXTERIOR ELEVATION
3/16" = 1'-0"



4 WEST EXTERIOR ELEVATION
3/16" = 1'-0"



3 SOUTH EXTERIOR ELEVATION
3/16" = 1'-0"

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USU PROJECT NO: C001541

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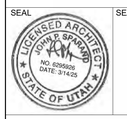
SEAL



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REVISION SCHEDULE

NO	DATE	DESCRIPTION

EXTERIOR ELEVATIONS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE201

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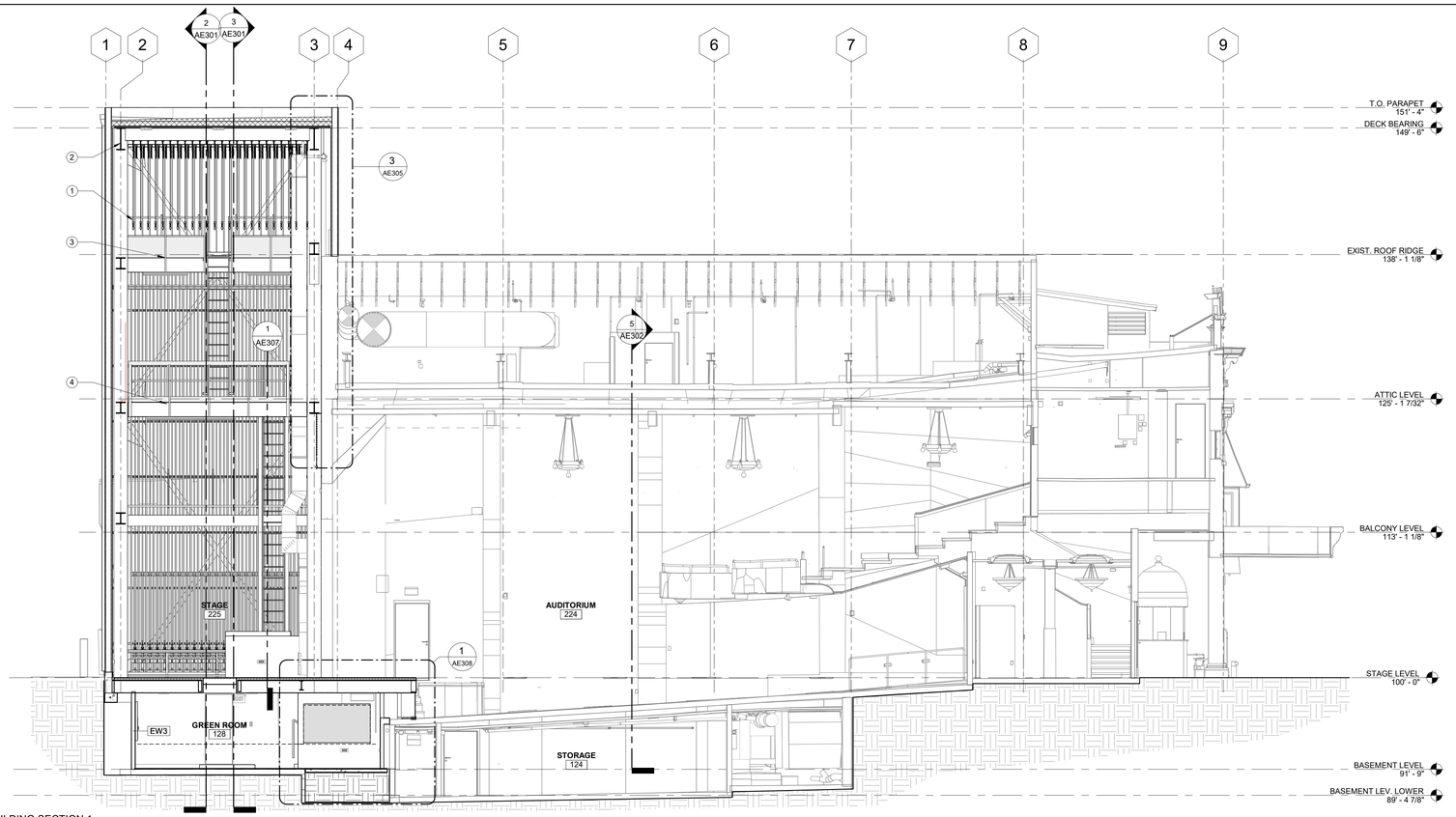
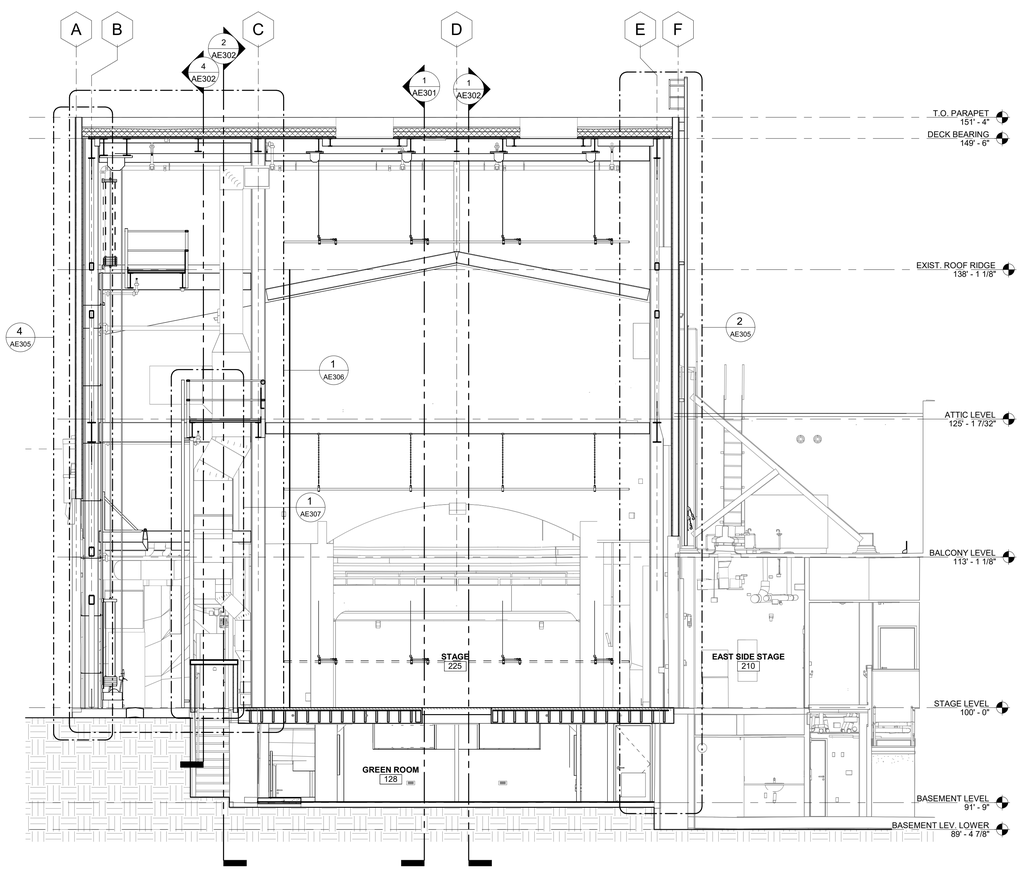
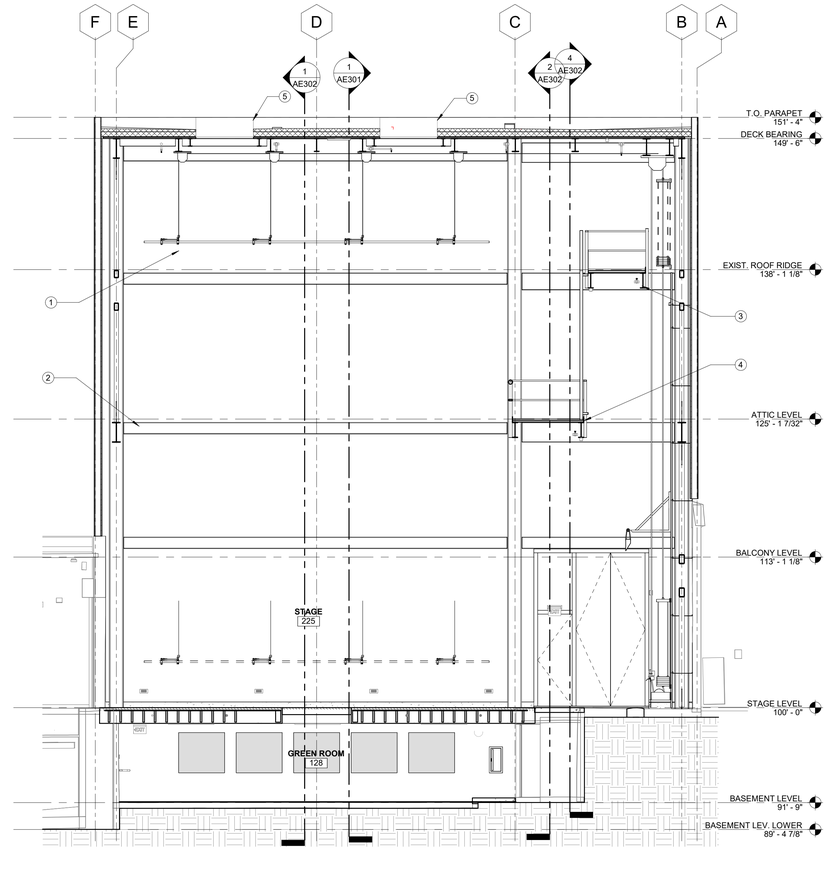


1 BUILDING SECTION 1
3/16" = 1'-0"



3 BUILDING SECTION 3
3/16" = 1'-0"



2 BUILDING SECTION 2
3/16" = 1'-0"

KEYNOTE LEGEND

1 THEATRICAL EQUIPMENT PER THEATRICAL DRAWINGS.
2 STEEL BEAM PER STRUCTURAL, TYP. PAINT, COLOR PER FINISH SCHEDULE.
3 LOADING GALLERY.
4 FLY GALLERY.
5 SMOKE VENT PER MECHANICAL DRAWINGS.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BUILDING SECTIONS

SCALE	3/16" = 1'-0"	SHEET NO.
JOB NO.	23-05	AE301
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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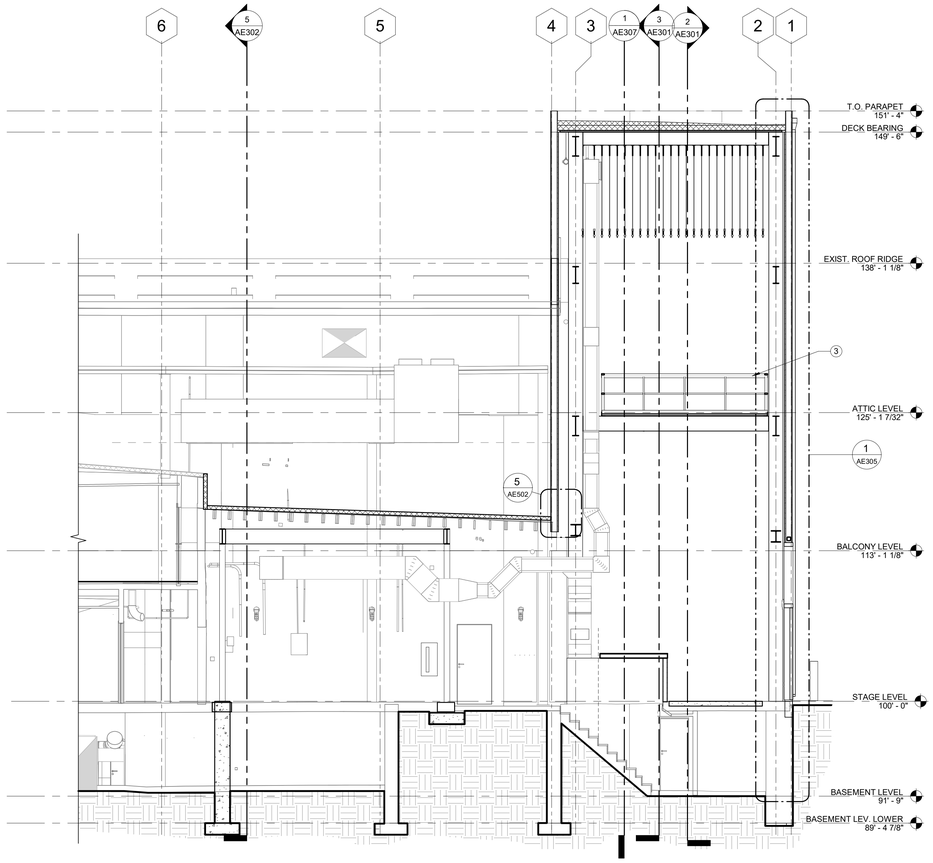
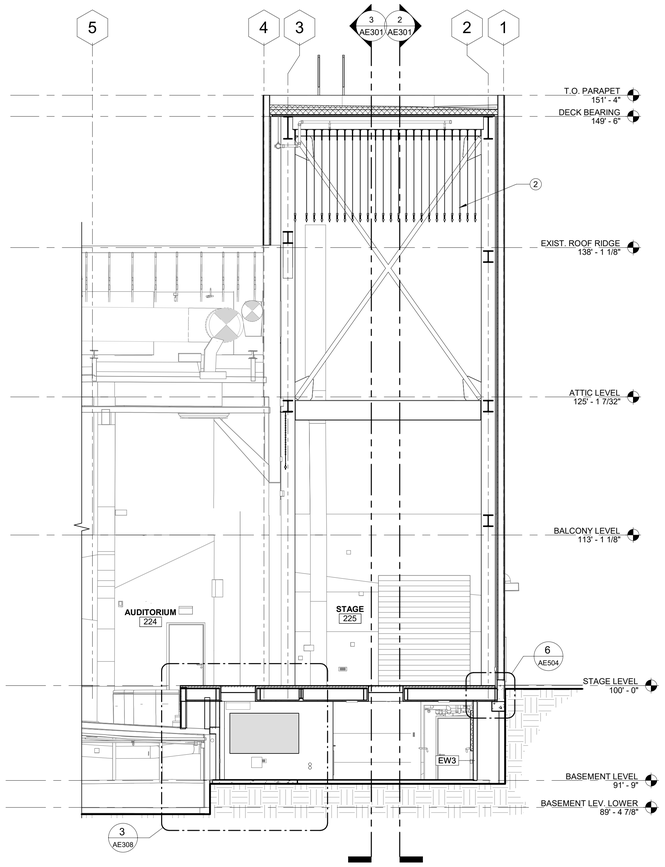
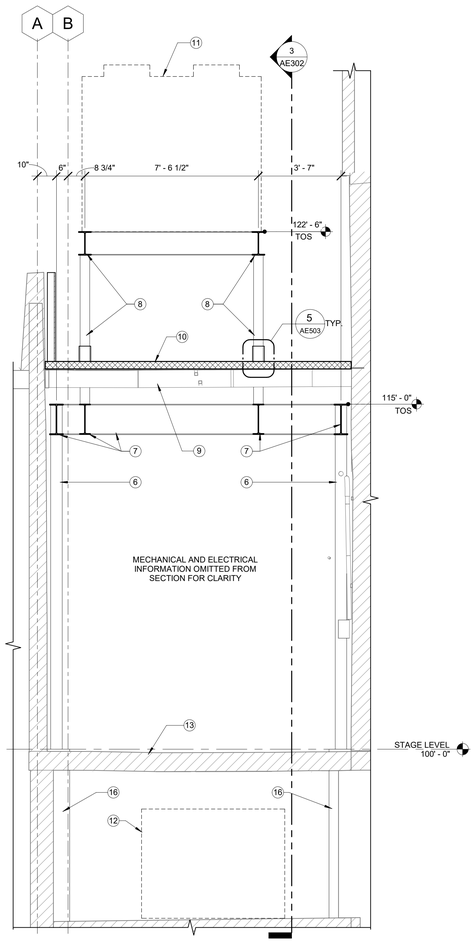


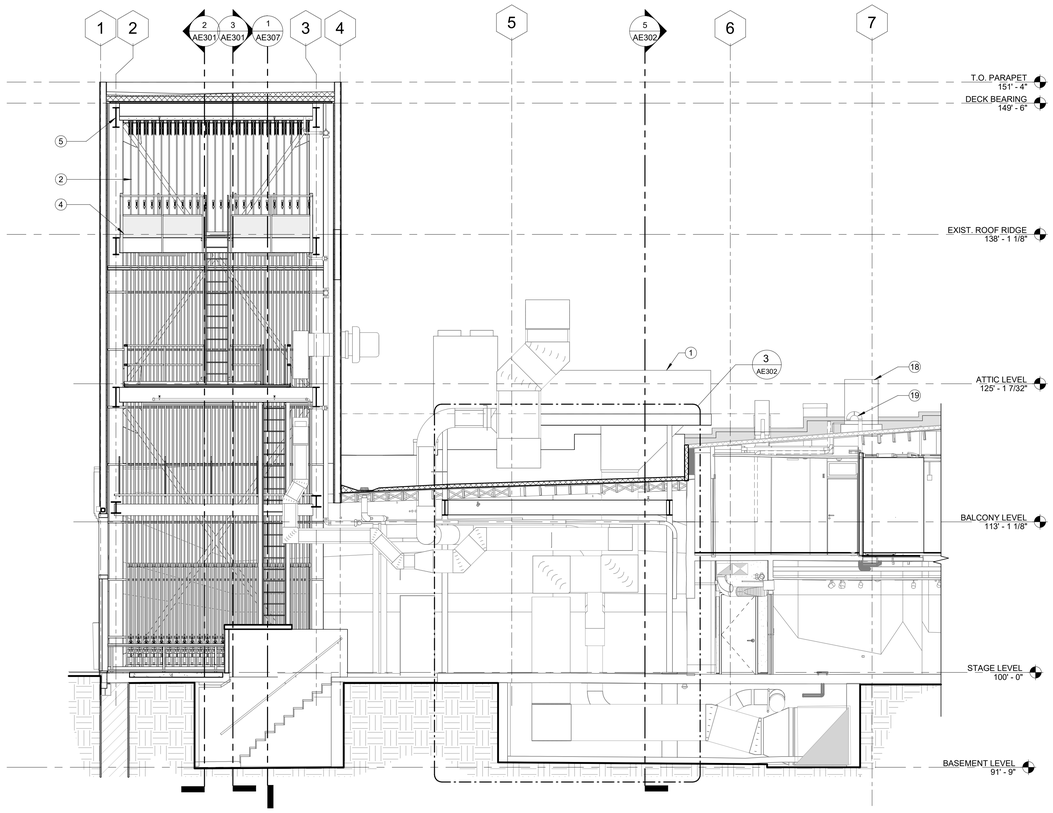
2 BUILDING SECTION 5
3/16" = 1'-0"



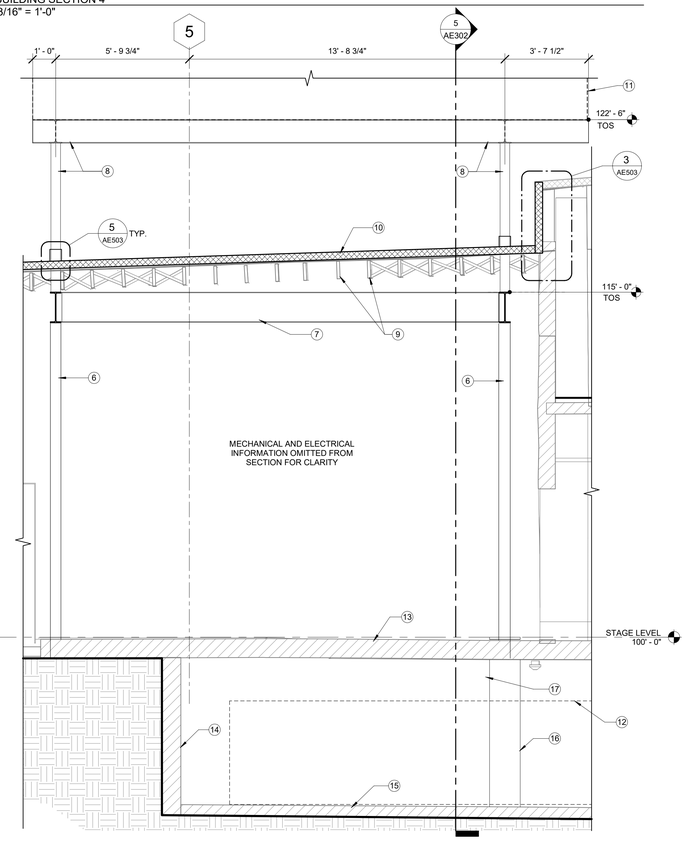
1 BUILDING SECTION 4
3/16" = 1'-0"



5 ENLARGED BUILDING SECTION AT AHU SUPPORT 2
3/8" = 1'-0"



4 BUILDING SECTION 6
3/16" = 1'-0"



3 ENLARGED BUILDING SECTION AT AHU SUPPORT 1
3/8" = 1'-0"

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KEYNOTE LEGEND

1 EXISTING AIR HANDLING UNIT RELOCATED PER MECHANICAL DRAWINGS.
2 THEATRICAL EQUIPMENT PER THEATRICAL DRAWINGS.
3 FLY GALLERY.
4 LOADING GALLERY.
5 STEEL BEAM PER STRUCTURAL, TYP. PAINT, COLOR PER FINISH SCHEDULE.
6 STEEL COLUMN PER STRUCTURAL DRAWINGS.
7 STEEL BEAM PER STRUCTURAL DRAWINGS.
8 AHU STEEL SUPPORT STRUCTURE PER STRUCTURAL DWG'S. EXTERIOR EXPOSED STEEL TO RECEIVE HIGH PERFORMANCE COATING PER SPECIFICATIONS. PLEASE NOTE STEEL MUST BE SANDBLASTED, SHOP PRIMED, AND FINISH COATED PRIOR TO INSTALLATION. ONLY PAINT TOUCH-UP SHOULD OCCUR IN THE FIELD.
9 EXISTING WOOD JOIST ROOF STRUCTURE.
10 NEW MEMBRANE ROOFING SYSTEM PER ROOF PLAN AND SPEC.
11 RELOCATED AIR HANDLER SHOWN DASHED.
12 EXISTING RETURN AIR DUCT SHOWN DASHED.
13 EXISTING SUSPENDED CONCRETE SLAB.
14 EXISTING CONCRETE WALL.
15 EXISTING CONCRETE SLAB ON GRADE.
16 NEW CONCRETE COLUMN PER STRUCTURAL.
17 APPROXIMATE LOCATION OF NEW ELECTRICAL CONDUITS. SEE ELECTRICAL DRAWINGS.
18 NEW MECHANICAL EQUIPMENT PER MECHANICAL DRAWINGS.
19 NEW DRYER VENT PER MECHANICAL DRAWINGS. FLASH PER ROOF MANUFACTURER REQUIREMENTS.

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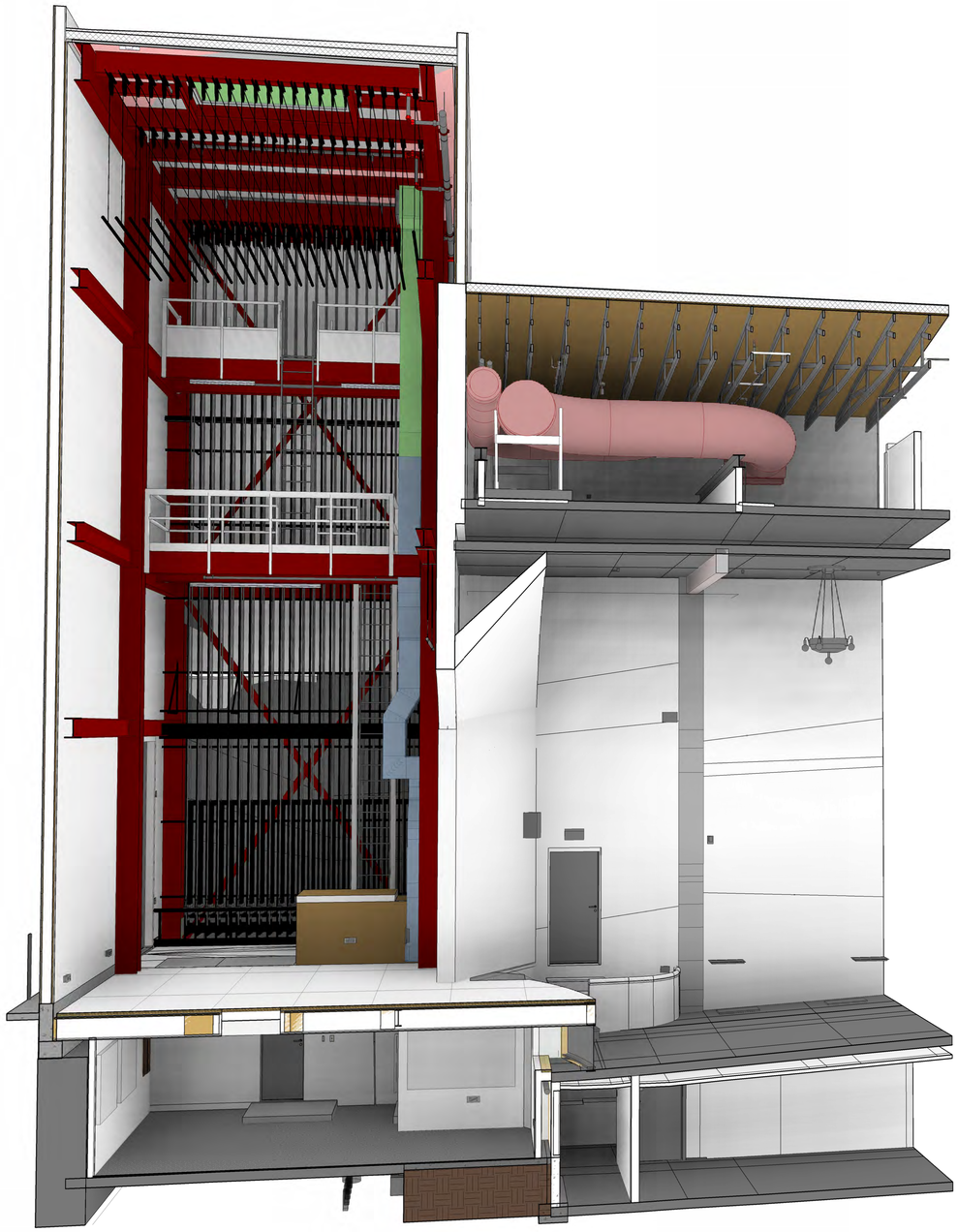
REVISION SCHEDULE

NO	DATE	DESCRIPTION

BUILDING SECTIONS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE302



2 3D BUILDING SECTION 2



1 3D BUILDING SECTION 1

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BUILDING 3D SECTIONS

SCALE	
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE303

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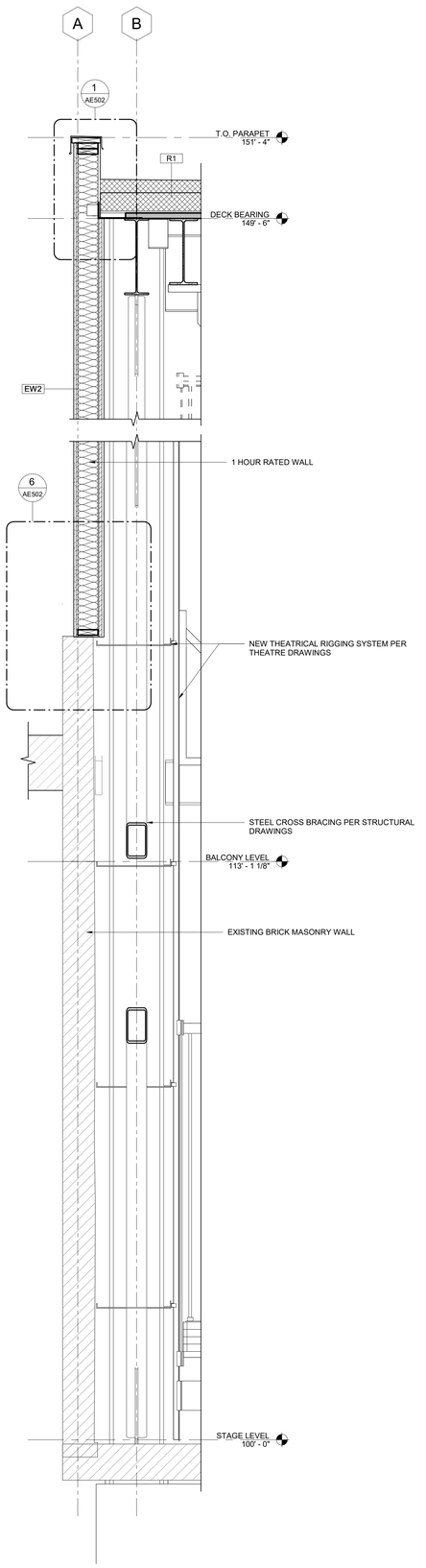
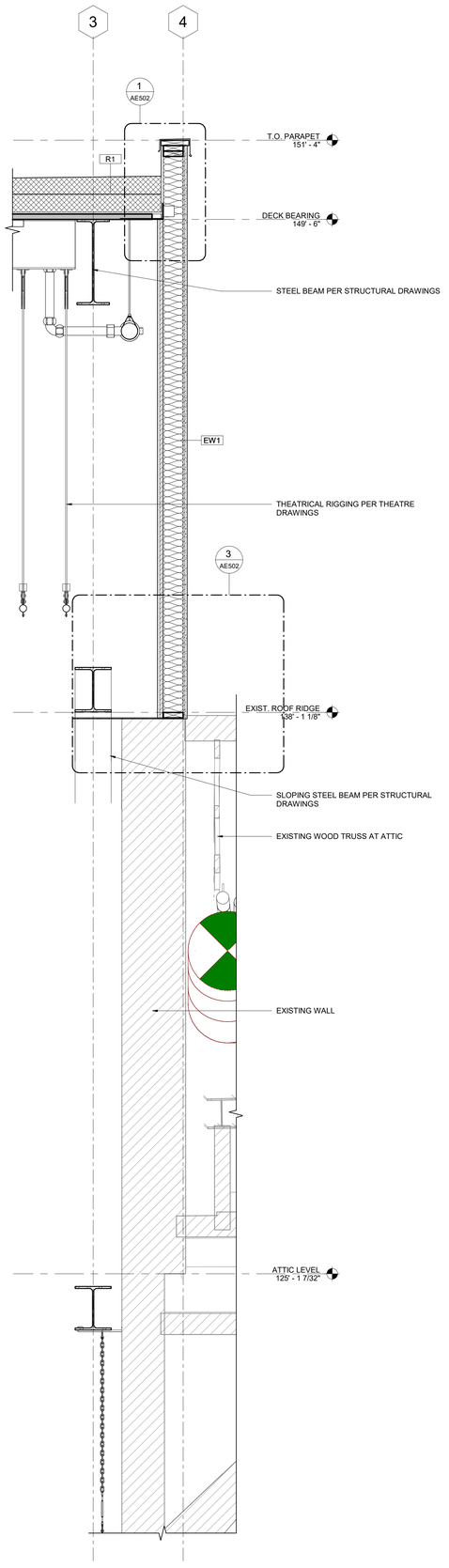
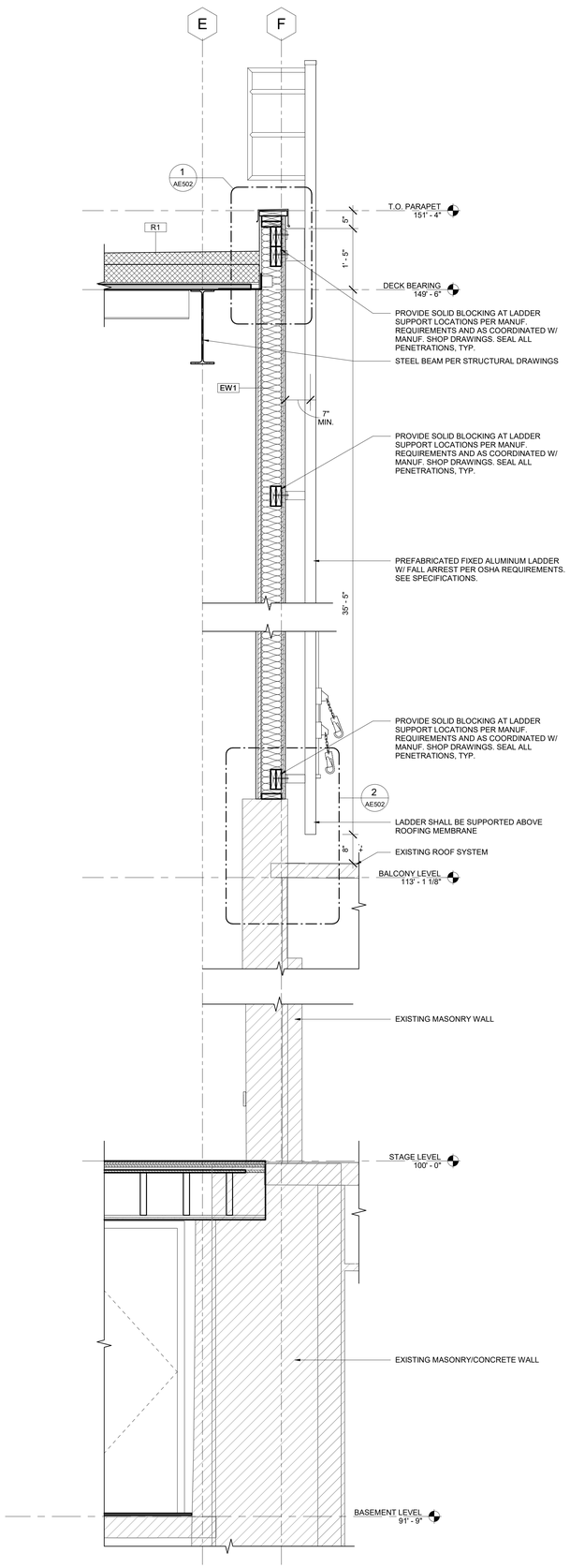


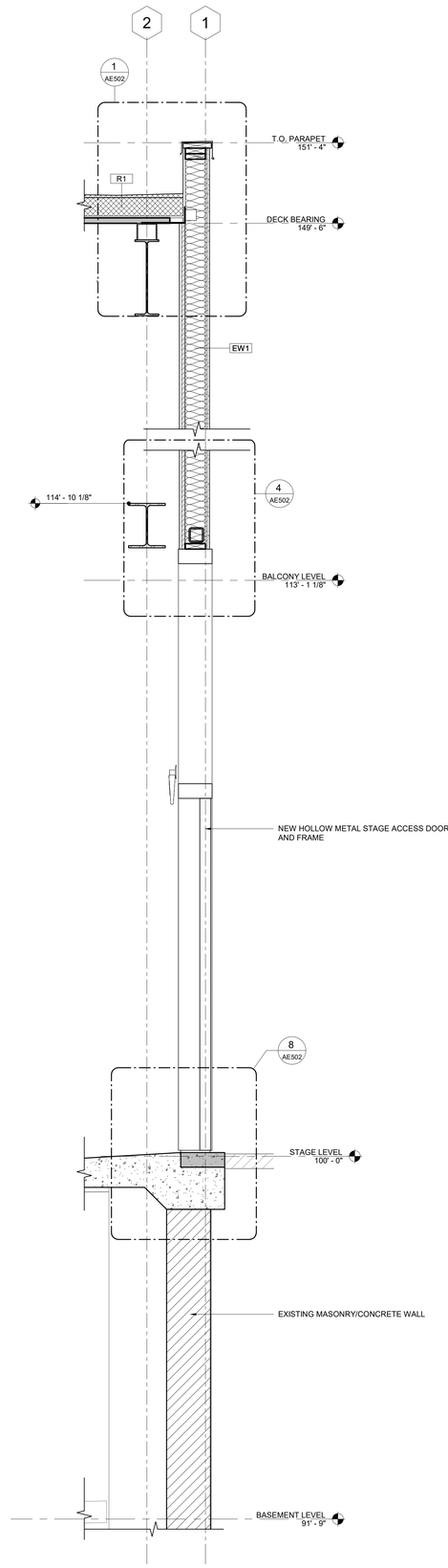
4 WALL SECTION 4
3/4" = 1'-0"



3 WALL SECTION 3
3/4" = 1'-0"



2 WALL SECTION 2
3/4" = 1'-0"



1 WALL SECTION 1
3/4" = 1'-0"

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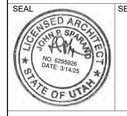

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

WALL SECTIONS

SCALE	3/4" = 1'-0"	SHEET NO. AE305
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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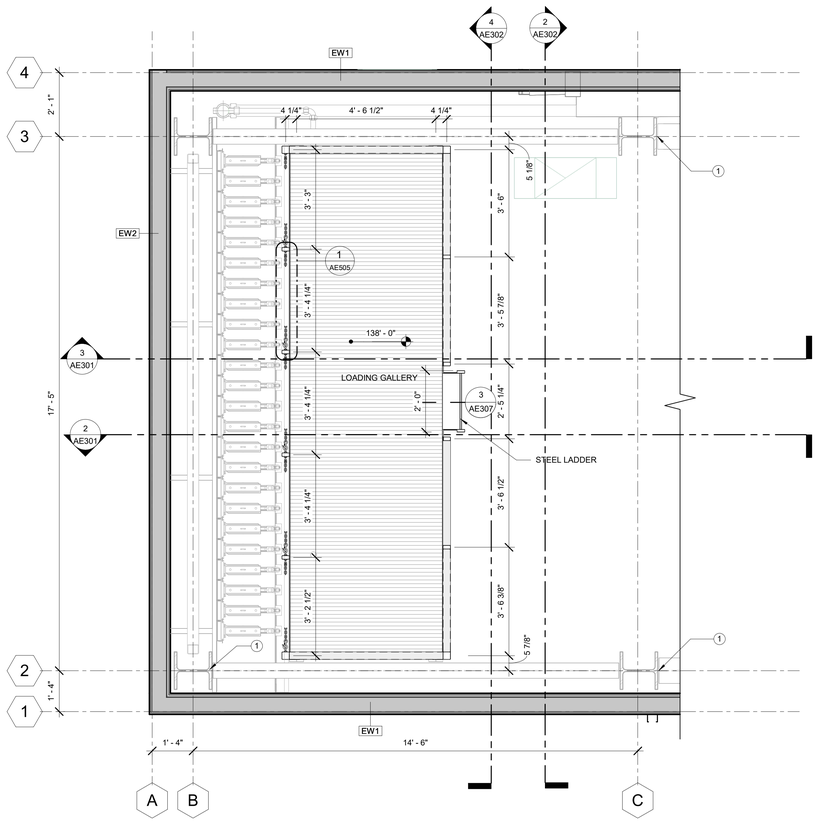
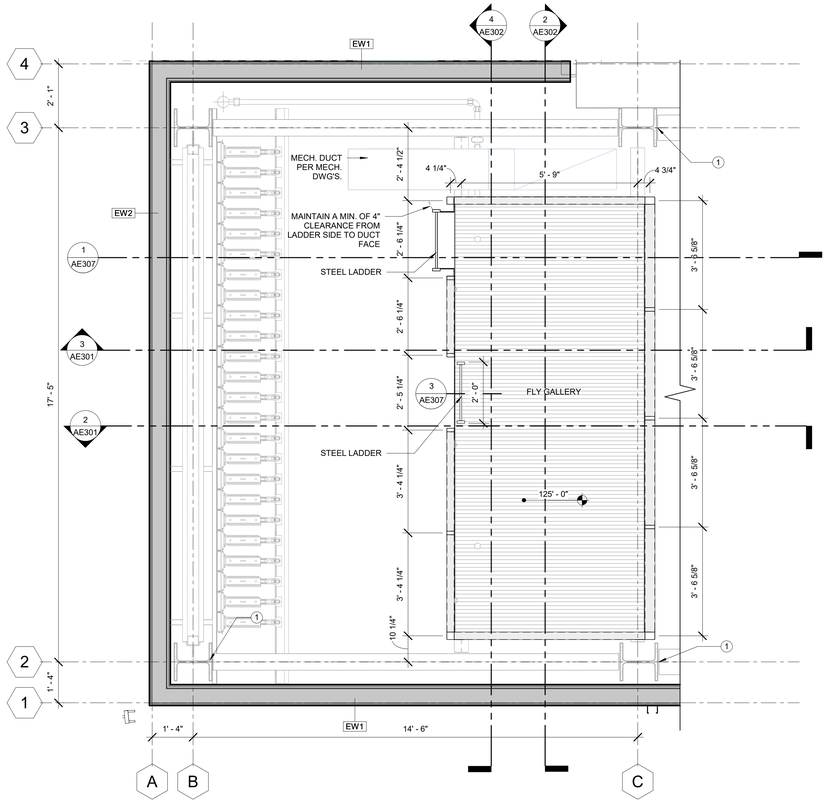
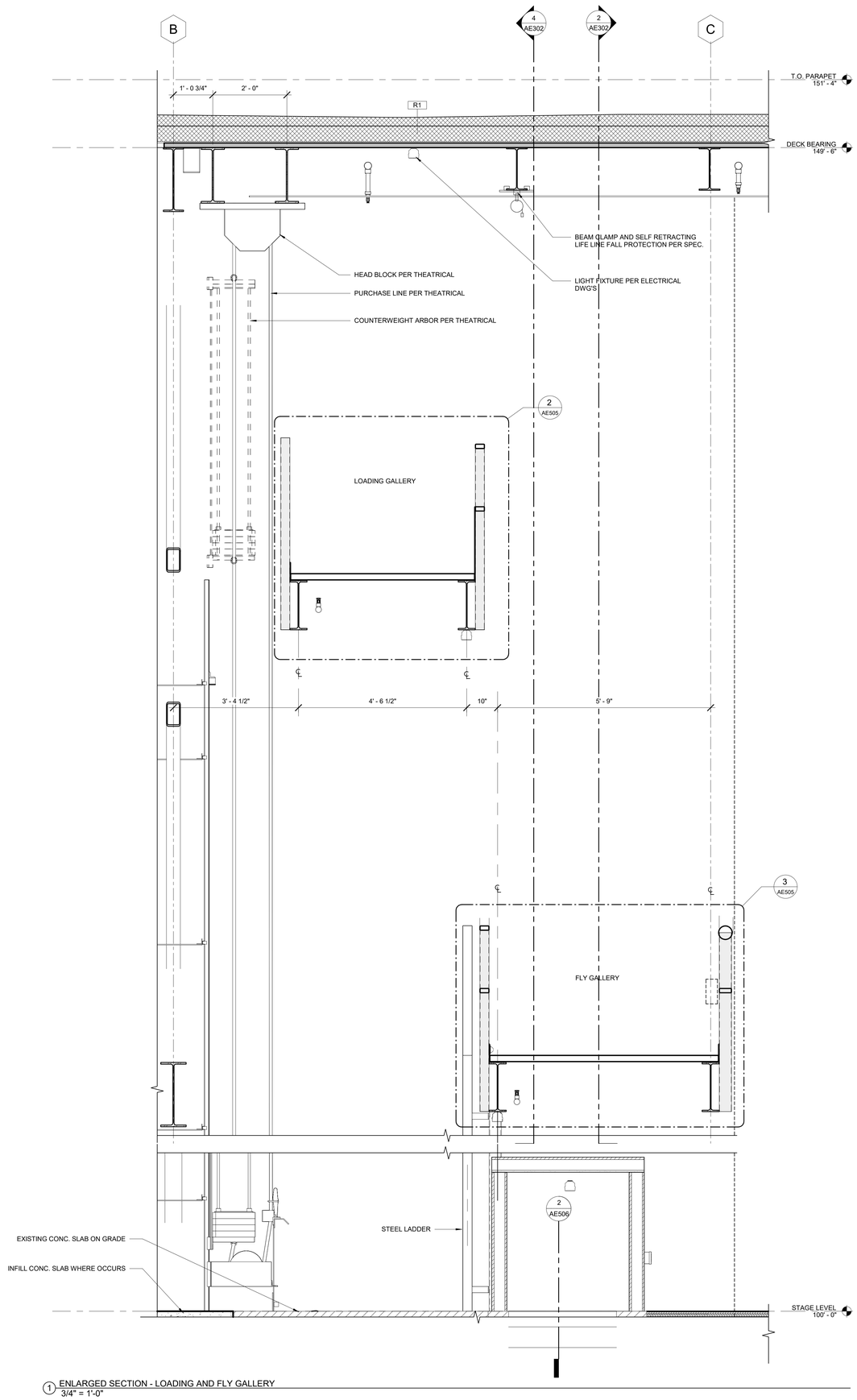


2 ENLARGED FLOOR PLAN - LOADING GALLERY
1/2" = 1'-0"



3 ENLARGED FLOOR PLAN - FLY GALLERY
1/2" = 1'-0"



1 ENLARGED SECTION - LOADING AND FLY GALLERY
3/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ENLARGED LOADING AND
FLY GALLERY FLOOR
PLANS AND SECTION

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE306

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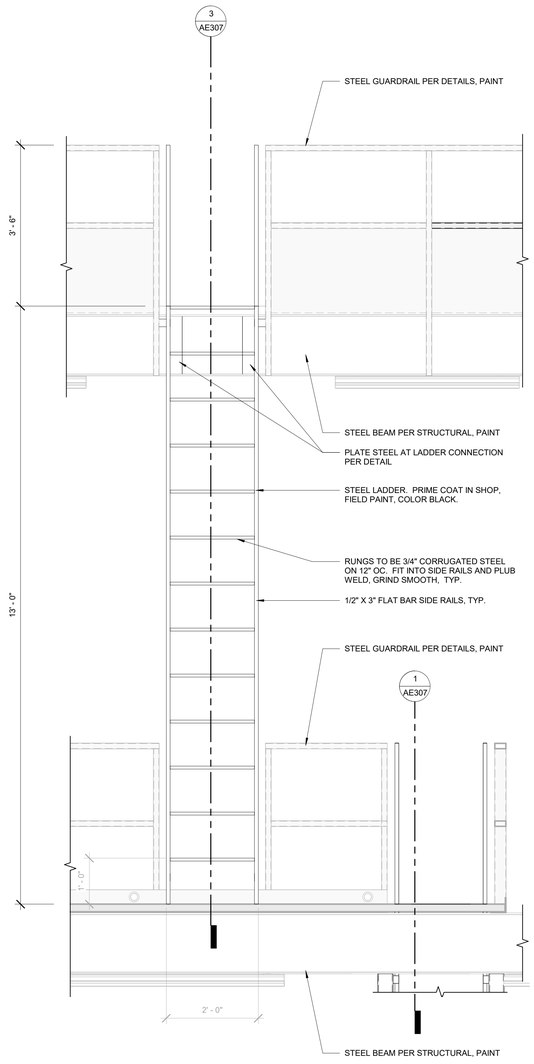
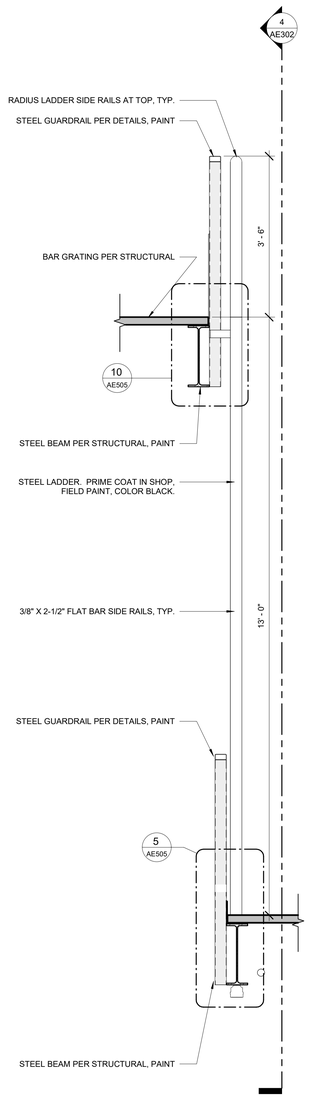
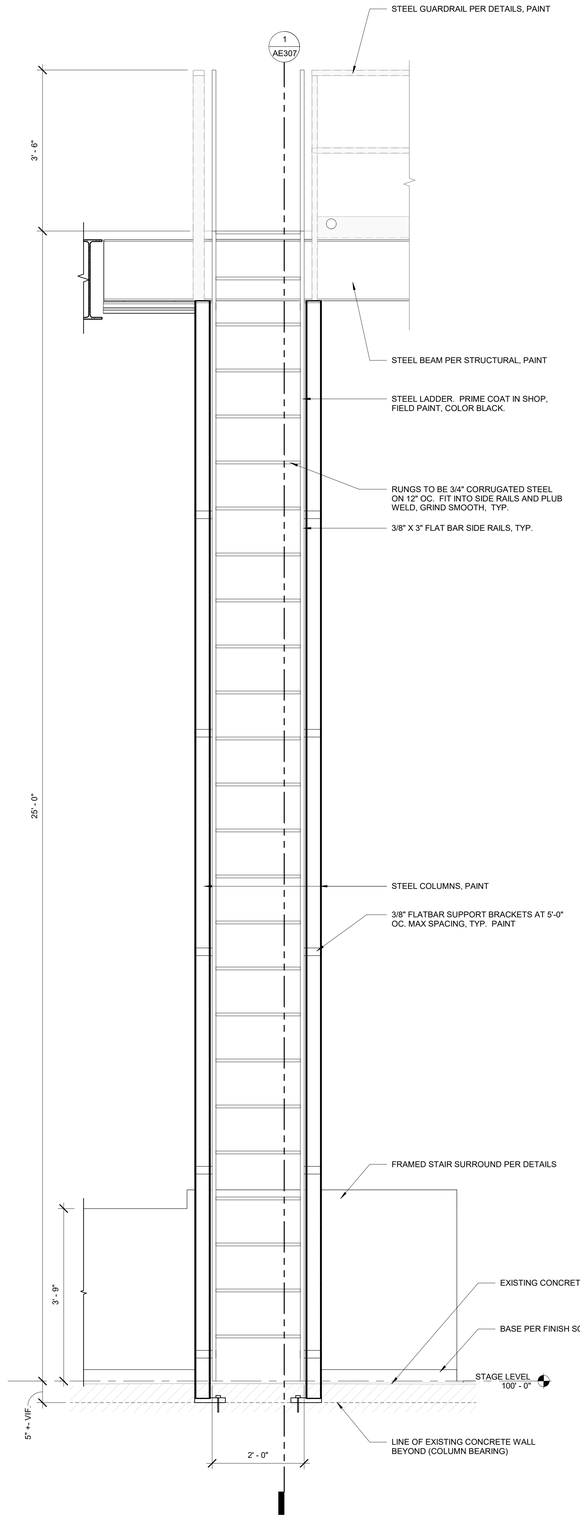


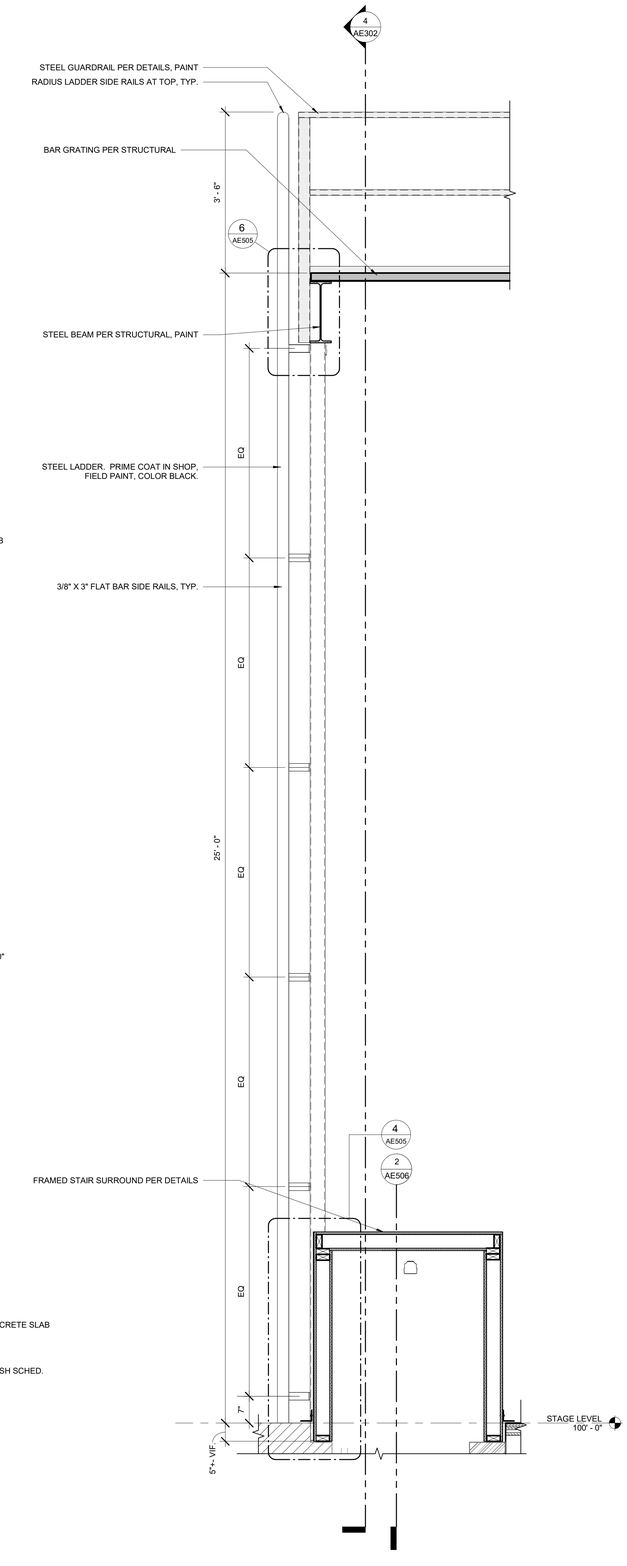
4 LOADING GALLERY LADDER ELEVATION
3/4" = 1'-0"



3 LOADING GALLERY LADDER SECTION
3/4" = 1'-0"



2 FLY GALLERY LADDER ELEVATION
3/4" = 1'-0"



1 FLY GALLERY LADDER SECTION
3/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

GALLERY LADDERS SECTIONS AND ELEVATIONS

SCALE	3/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE307

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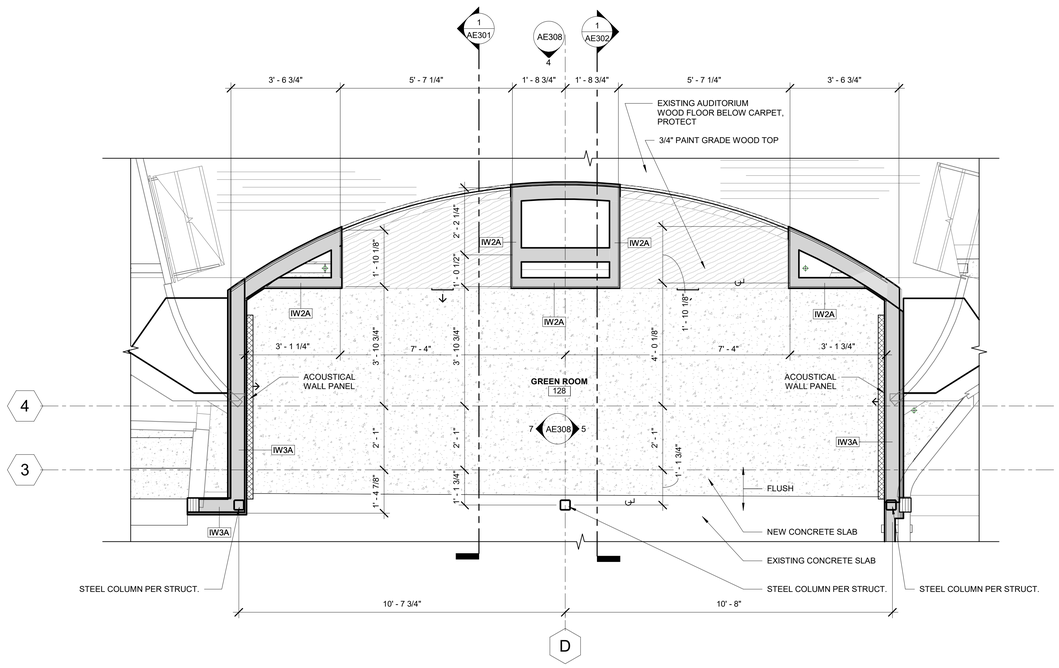
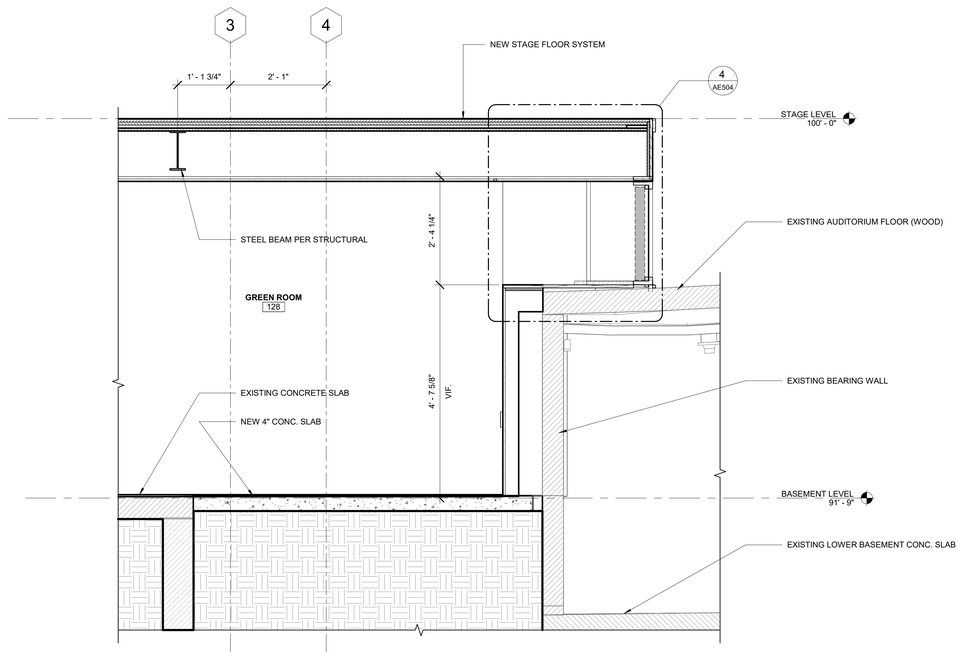
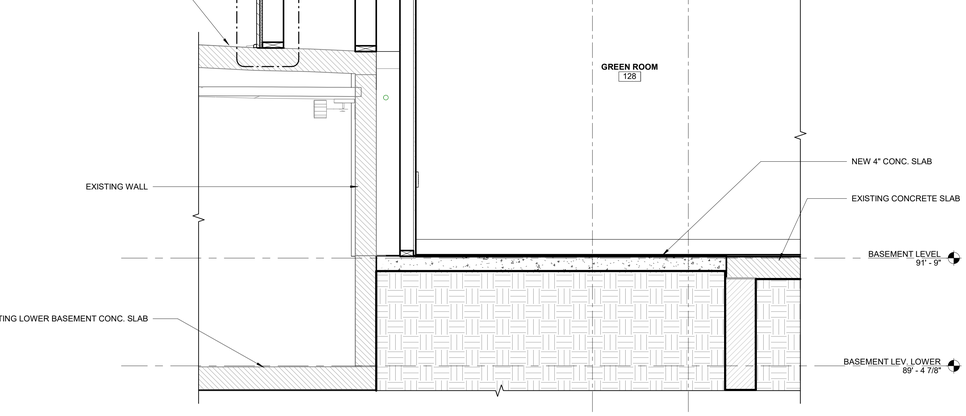


2 ENLARGED FLOOR PLAN - GREEN ROOM 128 AT OPENINGS
1/2" = 1'-0"

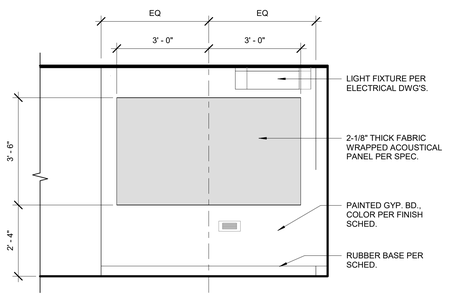


1 ENLARGED SECTION - GREEN ROOM 128
3/4" = 1'-0"

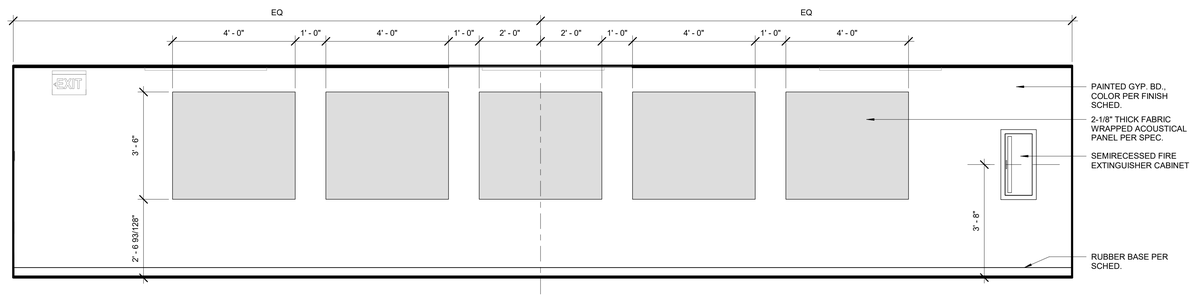
4 STAGE FRONT ELEVATION
1/2" = 1'-0"



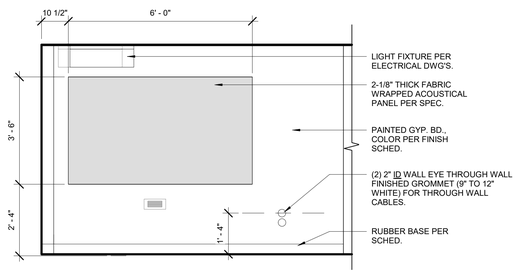
3 ENLARGED SECTION 2 - GREEN ROOM 128
3/4" = 1'-0"



7 GREEN ROOM 128 - WEST ELEVATION
1/2" = 1'-0"



6 GREEN ROOM 128 - SOUTH ELEVATION
1/2" = 1'-0"



5 GREEN ROOM 128 - EAST ELEVATION
1/2" = 1'-0"

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

CONSULTANT

SEAL

LICENSED ARCHITECT
SHANE P. SPARANO
STATE OF UTAH
NO. 8295626
DATE: 3/14/25

SEAL

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ENLARGED STAGE/GREEN RM. PLAN, SECTION, AND INTERIOR ELEVATIONS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE308

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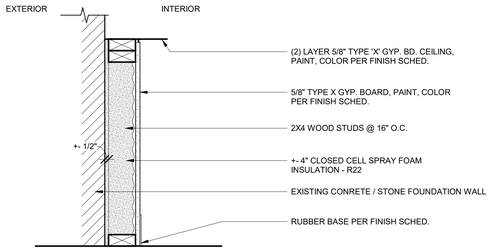
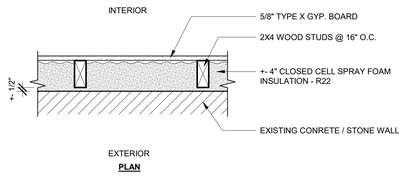
EXTERIOR WALL ASSEMBLIES



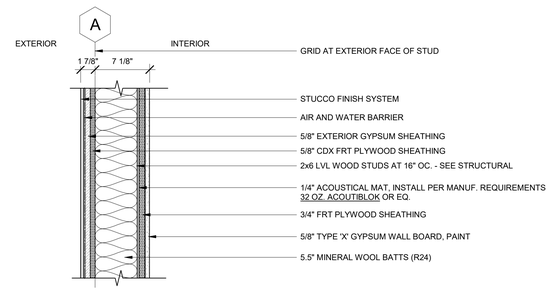
SECTION



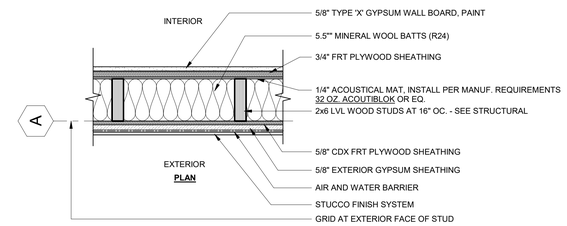
PLAN

EW3 ...

TYPE	DESCRIPTION	THERMAL VALUE	STC	FIRE RATING
EW3	EXTERIOR FURRED BASEMENT WALL	R22	-	-



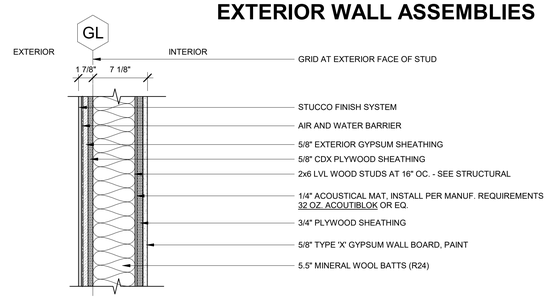
SECTION



PLAN

EW2 ...

TYPE	DESCRIPTION	THERMAL VALUE	STC	FIRE RATING
EW2	STUCCO SYSTEM OVER 6" WOOD STUD WALL ASSEMBLY	R28	50	1 HR.



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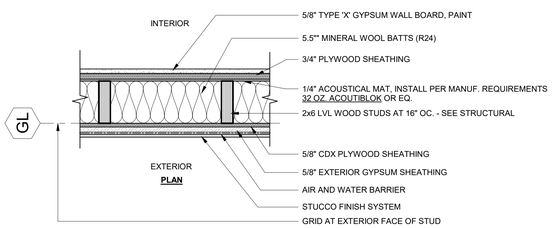
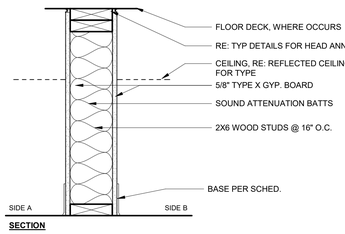


PLAN

EW1 .

TYPE	DESCRIPTION	THERMAL VALUE	STC	FIRE RATING
EW1	STUCCO SYSTEM OVER 6" WOOD STUD WALL ASSEMBLY	R28	50	NA

INTERIOR WALL ASSEMBLIES



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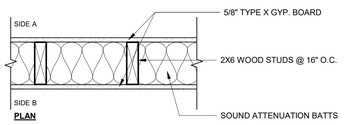
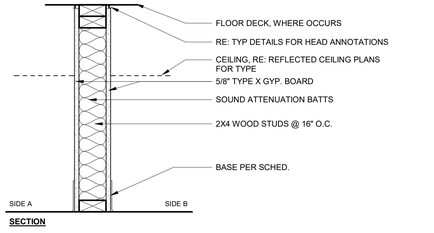


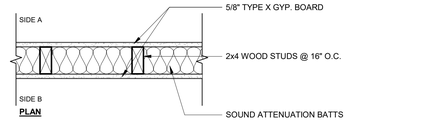
PLAN

IW3 2X6 WOOD STUD PARTITION WALL

TYPE	SIDE A	SIDE B	SOUND BATT	STC	FIRE RATING	ASSEMBLY
IW3A	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	--	--	--	--	--
IW3B	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	REQUIRED	--	--	--



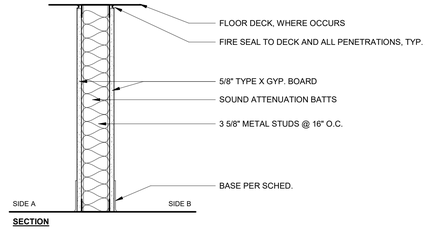
SECTION



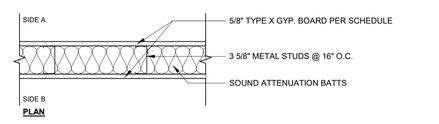
PLAN

IW2 2X4 WOOD STUD PARTITION WALL

TYPE	SIDE A	SIDE B	SOUND BATT	STC	FIRE RATING	ASSEMBLY
IW2A	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	--	--	--	--	--
IW2B	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	REQUIRED	--	--	--



SECTION

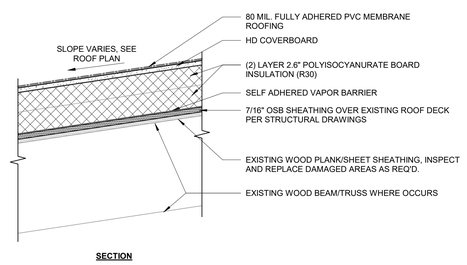


PLAN

IW1 3 5/8" METAL STUD PARTITION WALL

TYPE	SIDE A	SIDE B	SOUND BATT	STC	FIRE RATING	ASSEMBLY
IW1A	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	--	--	--	--	--
IW1B	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	(1) LAYER 5/8" TYPE 'X' GYPSUM BOARD	REQUIRED	--	1 HR.	--

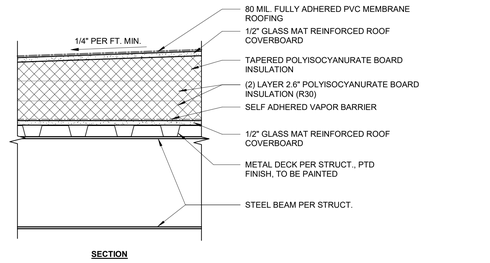
ROOF ASSEMBLIES



SECTION

R2 PVC MEMBRANE OVER EXISTING SLOPING WOOD DECK

TYPE	DESCRIPTION	FIRE RATING	STC	R-VALUE	ASSEMBLY #
R3	PVC MEMBRANE	NR		R-30	



SECTION

R1 PVC MEMBRANE OVER LIGHT WEIGHT CONCRETE

TYPE	DESCRIPTION	FIRE RATING	STC	R-VALUE	ASSEMBLY #
R1	PVC MEMBRANE	NR		R-30	

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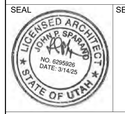

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

WALL, FLOOR, AND ROOF ASSEMBLIES

		SHEET NO.
SCALE	1 1/2" = 1'-0"	AE501
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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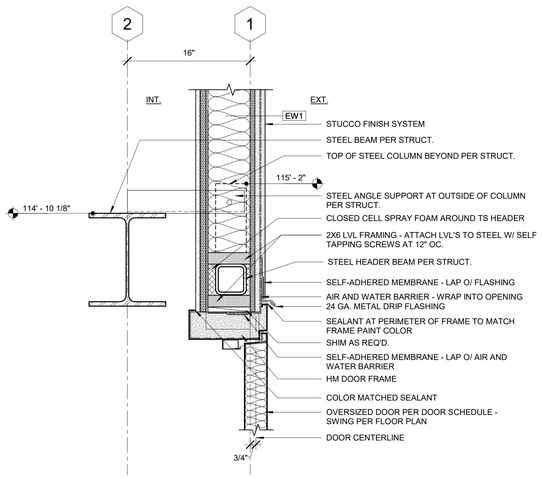
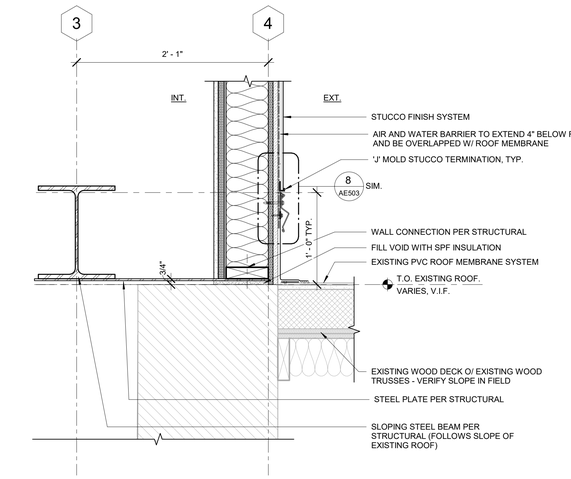
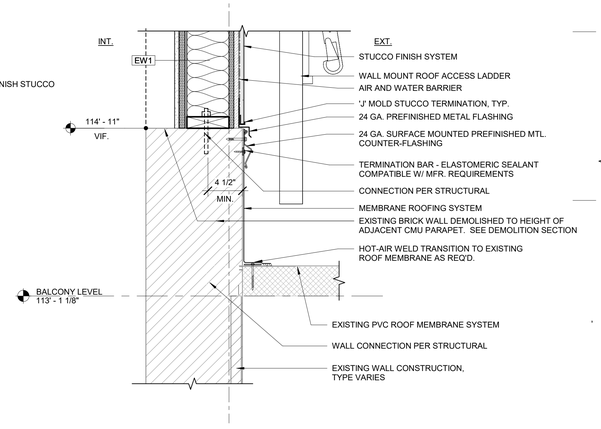


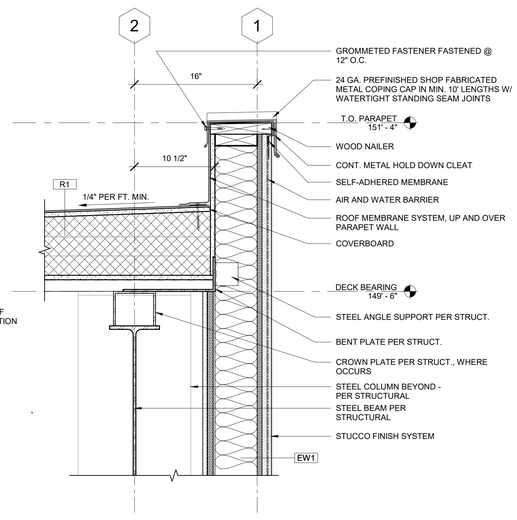
4 EXT. HM DOOR HEAD
1 1/2" = 1'-0"



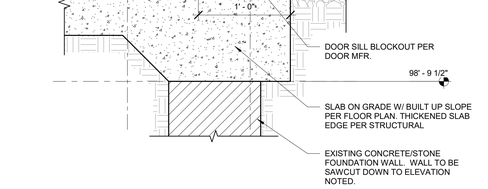
3 NEW TO EXISTING WALL - NORTH
1 1/2" = 1'-0"



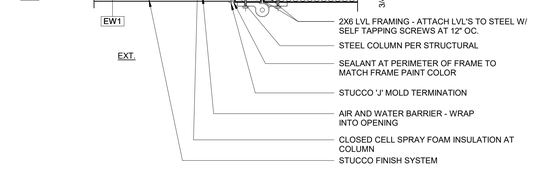
2 NEW TO EXISTING WALL - EAST
1 1/2" = 1'-0"



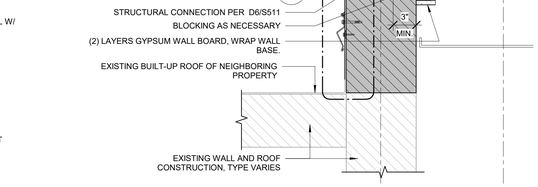
1 PARAPET
1 1/2" = 1'-0"



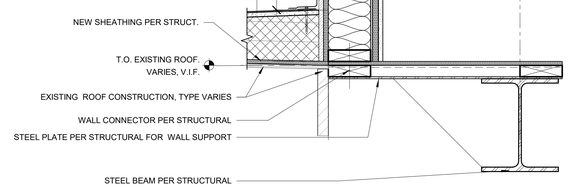
8 EXT. HM DOOR SILL
1 1/2" = 1'-0"



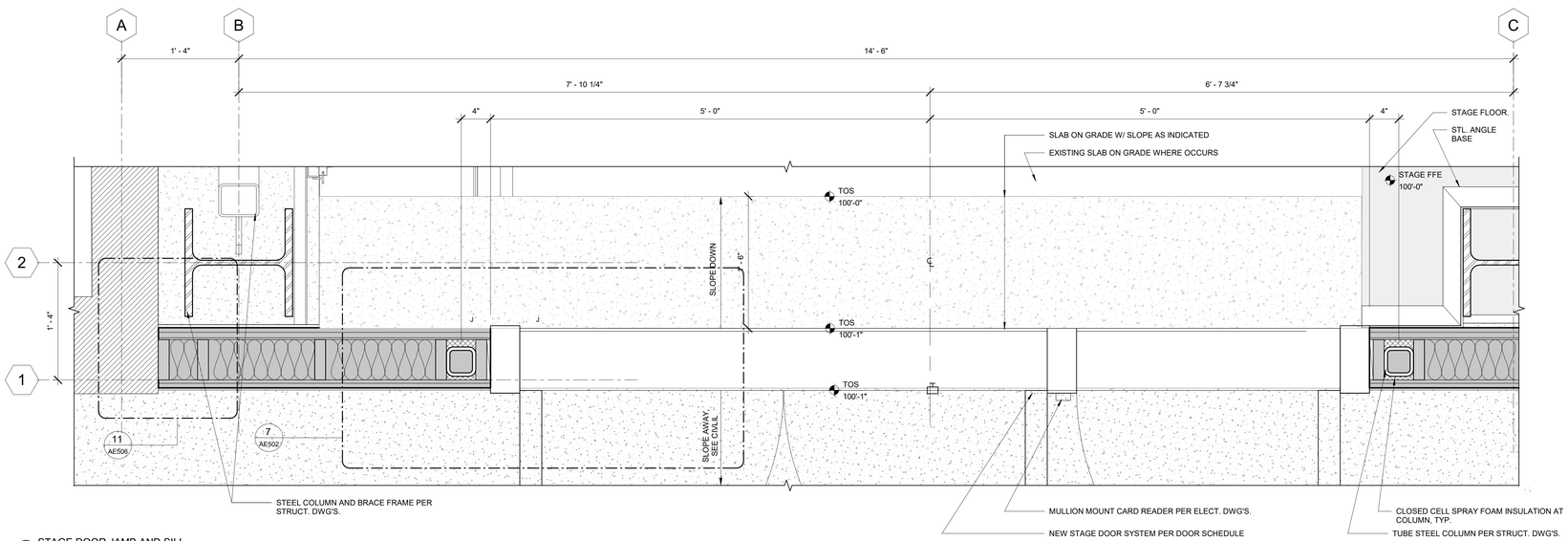
7 EXT. HM DOOR JAMB
1 1/2" = 1'-0"



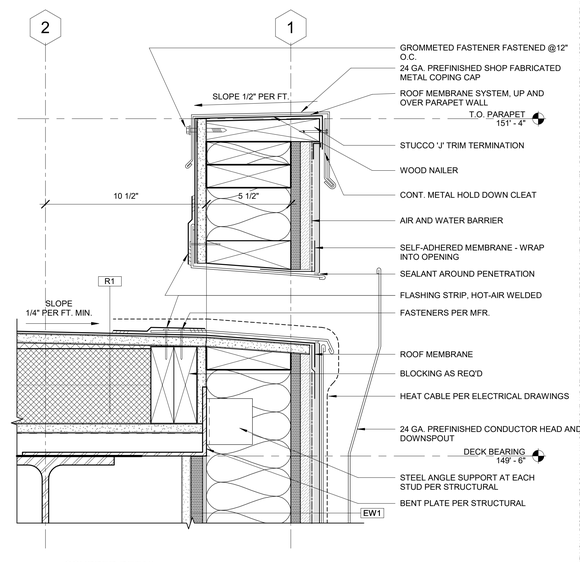
6 NEW TO EXISTING WALL - WEST
1 1/2" = 1'-0"



5 NEW TO EXISTING WALL AT LOW ROOF - SOUTH
1 1/2" = 1'-0"



10 STAGE DOOR JAMB AND SILL
1 1/2" = 1'-0"



9 SCUPPER DETAIL
3" = 1'-0"

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USU PROJECT NO: C001541

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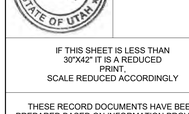

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DETAILS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE502

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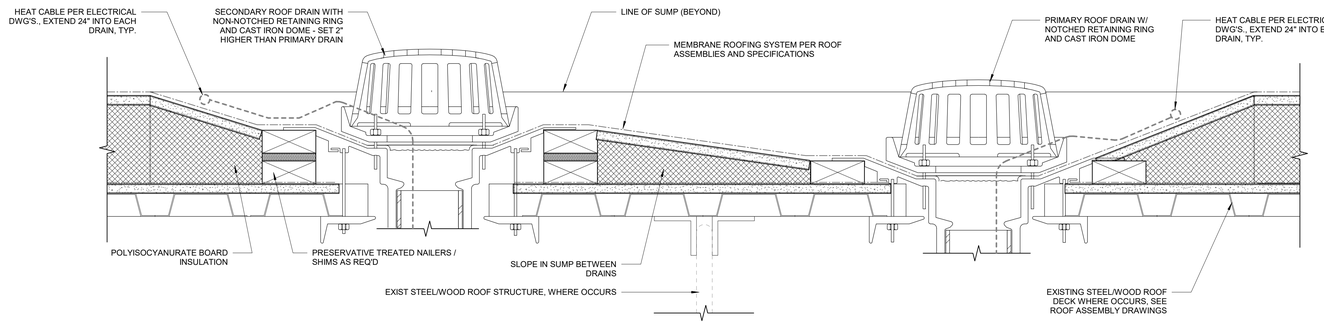
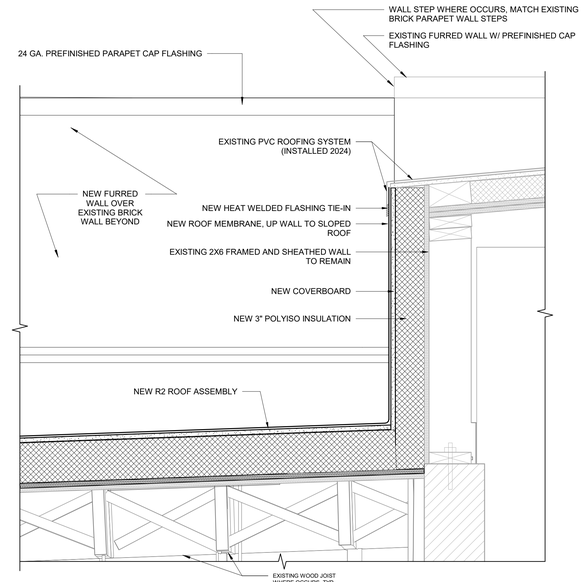
NOTE: LOCATE NEW ROOF SIGNAGE ADJACENT TO EXISTING SIGNAGE AT INSIDE OF EAST SIDE ATTIC ACCESS DOOR.

② ROOF SIGN
6" = 1'-0"

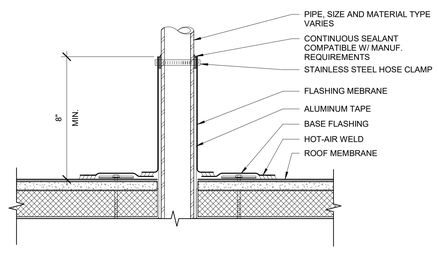


① ROOF DRAIN
3" = 1'-0"

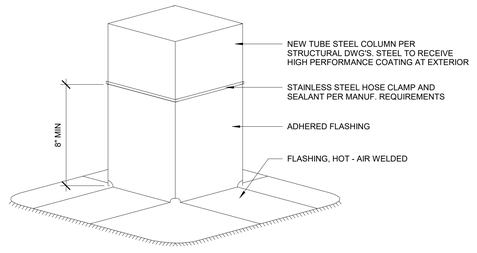


③ ROOFING TRANSITION - EXISTING TO NEW
1 1/2" = 1'-0"

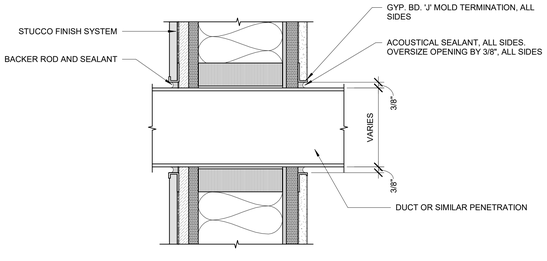
④ FURRED PARAPET WALL
1 1/2" = 1'-0"



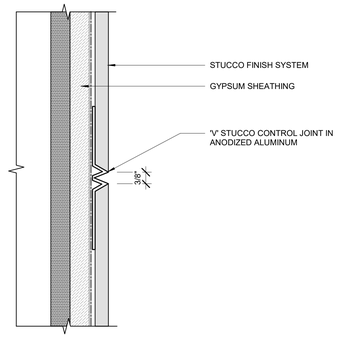
⑥ PIPE PENETRATION FLASHING DETAIL
3" = 1'-0"



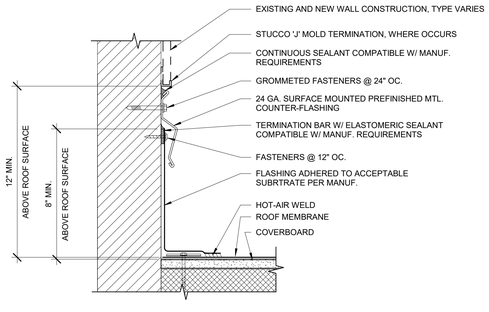
⑤ TUBE STEEL COLUMN FLASHING
3" = 1'-0"



⑩ RECTANGULAR PENETRATION AT EXTERIOR WALL
3" = 1'-0"

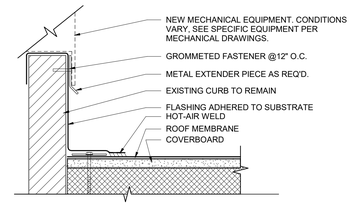


⑨ STUCCO CONTROL JOINT
6" = 1'-0"



NOTE: EXISTING WALL CONDITIONS AND SUBSTRATES VARY. VERIFY ALL CONDITIONS IN FIELD AND INCORPORATE SUBSTRATE ADDITIONS AND MODIFICATIONS AS REQUIRED TO MEET MANUFACTURER REQUIREMENTS.

⑧ SURFACE MOUNTED COUNTERFLASH DETAIL
3" = 1'-0"



⑦ CURB FLASHING DETAIL
3" = 1'-0"

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CONSULTANT

SEAL

LICENSED ARCHITECT JOHN D. SPARANO NO. 6295926 DATE: 3/14/25 STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DETAILS

		SHEET NO.
SCALE	As indicated	AE503
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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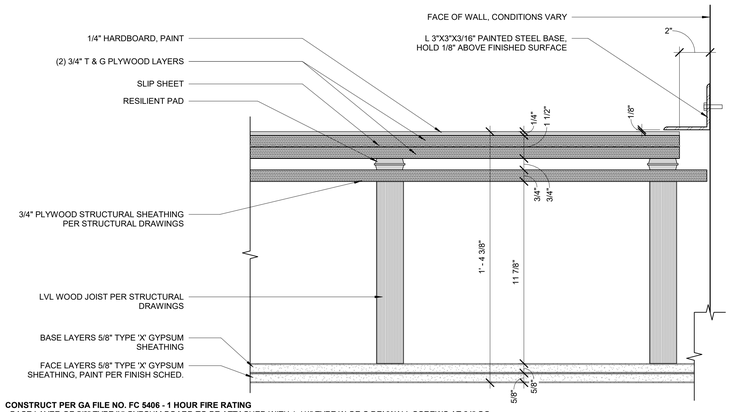
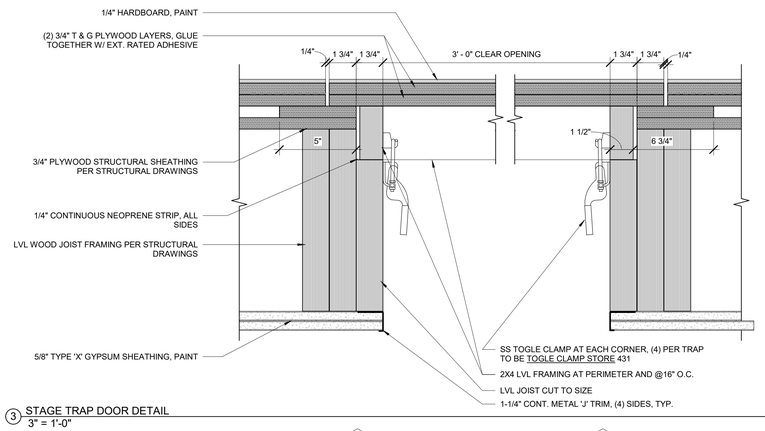
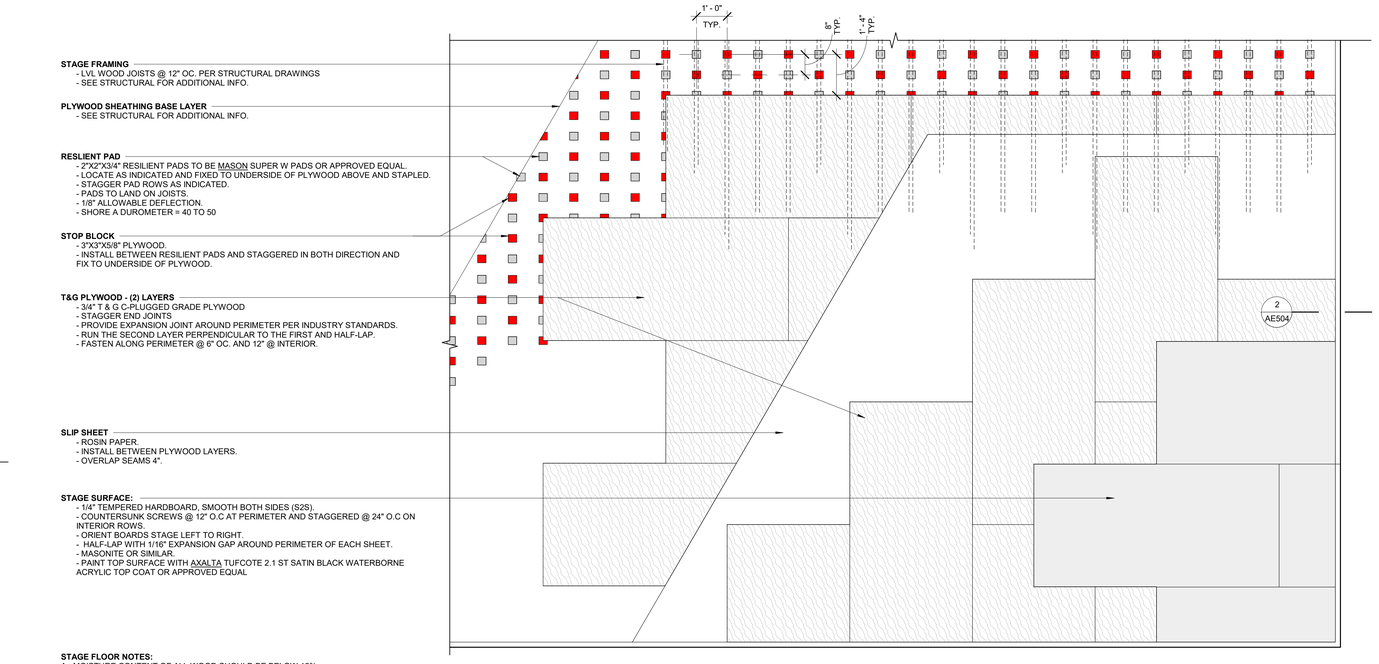


CONSTRUCT PER GA FILE NO. FC 5406 - 1 HOUR FIRE RATING
- BASE LAYER OF 5/8" TYPE 'X' GYPSUM BOARD TO BE ATTACHED WITH 1-1/4" TYPE W OR S DRYWALL SCREWS AT 24" OC.
- FACE LAYER OF 5/8" TYPE 'X' GYPSUM BOARD TO BE ATTACHED WITH 1-7/8" TYPE W OR S DRYWALL SCREWS AT 12" OC. AT JOINTS AND INTERMEDIATE JOISTS AND 1-1/2" TYPE G DRYWALL SCREWS 12" OC. PLACED 2" BACK ON EITHER SIDE OF END JOINTS. JOINTS TO BE OFFSET 24" FROM BASE LAYER JOINTS.
- PLYWOOD STRUCTURAL SHEATHING LAYER TO BE GLUED DIRECTLY TO JOISTS WITH EXTERIOR RATED GLUE AND ATTACHED WITH 8D NAILS. SEE STRUCTURAL DRAWINGS.
- FIRE SEAL ALL PENETRATIONS AND PERIMETER CONDITIONS AS REQUIRED TO MAINTAIN FIRE RATING.

2 STAGE FLOOR ASSEMBLY - SECTION DETAIL
3" = 1'-0"



3 STAGE TRAP DOOR DETAIL
3" = 1'-0"



STAGE FRAMING
- LVL WOOD JOISTS @ 12" OC. PER STRUCTURAL DRAWINGS
- SEE STRUCTURAL FOR ADDITIONAL INFO.

PLYWOOD SHEATHING BASE LAYER
- SEE STRUCTURAL FOR ADDITIONAL INFO.

RESILIENT PAD
- 2"X2"X3/4" RESILIENT PADS TO BE MASON SUPER W PADS OR APPROVED EQUAL.
- LOCATE AS INDICATED AND FIXED TO UNDERSIDE OF PLYWOOD ABOVE AND STAPLED.
- STAGGER PAD ROWS AS INDICATED.
- PADS TO LAND ON JOISTS.
- 1/8" ALLOWABLE DEFLECTION.
- SHORE A DUROMETER = 40 TO 50

STOP BLOCK
- 3"X3"X5/8" PLYWOOD.
- INSTALL BETWEEN RESILIENT PADS AND STAGGERED IN BOTH DIRECTION AND FIX TO UNDERSIDE OF PLYWOOD.

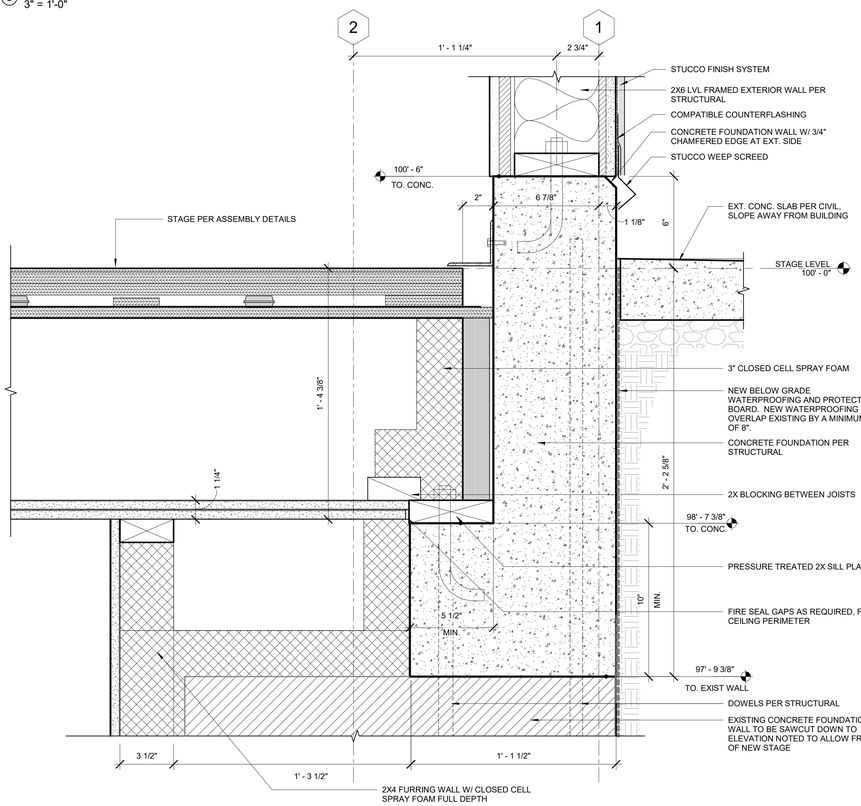
T&G PLYWOOD - (2) LAYERS
- 3/4" T & G C-PLUGGED GRADE PLYWOOD
- STAGGER END JOINTS
- PROVIDE EXPANSION JOINT AROUND PERIMETER PER INDUSTRY STANDARDS.
- RUN THE SECOND LAYER PERPENDICULAR TO THE FIRST AND HALF-LAP.
- FASTEN ALONG PERIMETER @ 6" OC. AND 12" @ INTERIOR.

SLIP SHEET
- ROSIN PAPER.
- INSTALL BETWEEN PLYWOOD LAYERS.
- OVERLAP SEAMS 4".

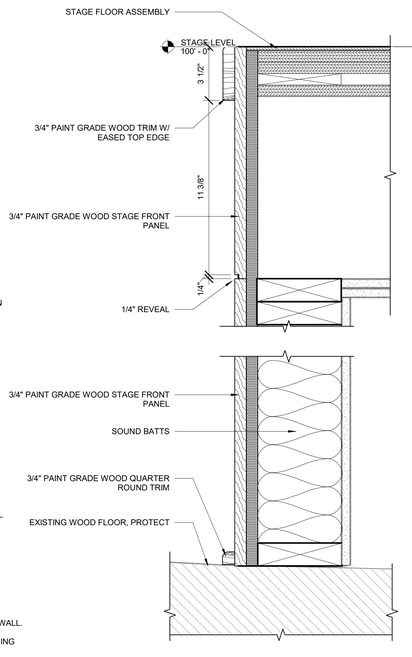
STAGE SURFACE:
- 1/4" TEMPERED HARDBOARD, SMOOTH BOTH SIDES (S2S).
- COUNTERSUNK SCREWS @ 12" O.C AT PERIMETER AND STAGGERED @ 24" O.C ON INTERIOR ROWS.
- ORIENT BOARDS STAGE LEFT TO RIGHT.
- HALF-LAP WITH 1/16" EXPANSION GAP AROUND PERIMETER OF EACH SHEET.
- MASONITE OR SIMILAR.
- PAINT TOP SURFACE WITH AXALTA TUFCOTE 2.1 ST SATIN BLACK WATERBORNE ACRYLIC TOP COAT OR APPROVED EQUAL

STAGE FLOOR NOTES:
A. MOISTURE CONTENT OF ALL WOOD SHOULD BE BELOW 12%.
B. NO MORE THAN A 4% MOISTURE DIFFERENCE IS ALLOWED BETWEEN FINISHED WOOD SURFACE AND SUBFLOOR.
C. MOCK-UP OF STAGE FLOOR ASSEMBLY REQUIRED.
- MINIMUM SIZE OF MOCK UP TO BE 2'-0" X 2'-0".
- MOCK UP TO INCLUDE ALL PRODUCTS NOTED IN ASSEMBLY, PROPOSED FASTENERS, AND FINISHED PAINT AT HARDBOARD.

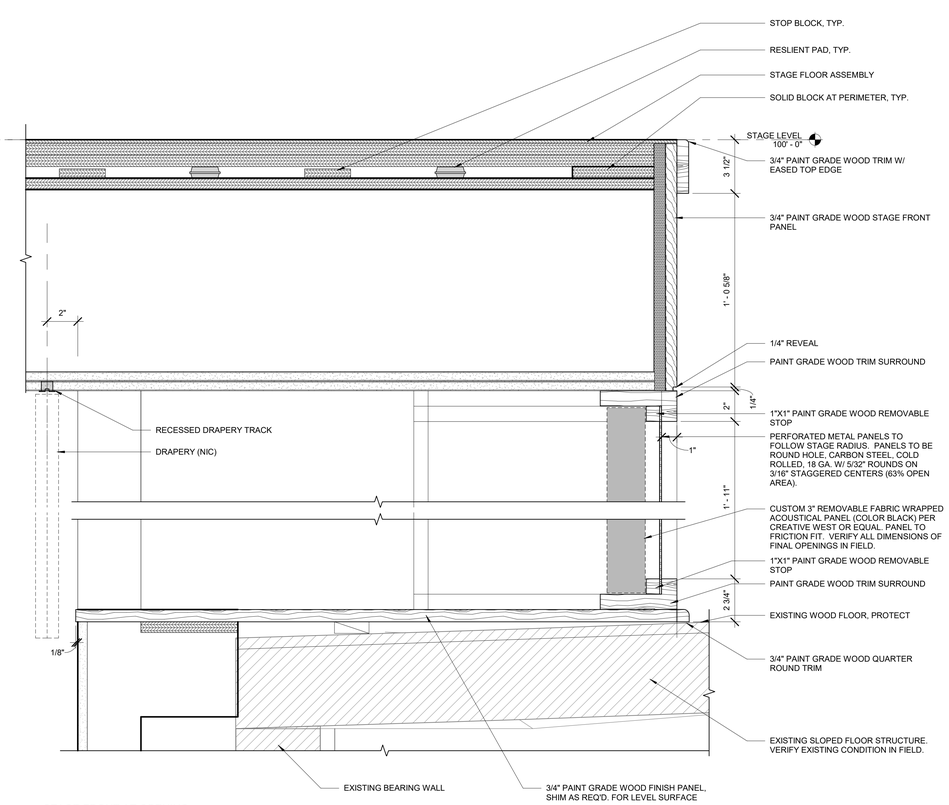
1 STAGE FLOOR ASSEMBLY - PLAN DETAIL
1/2" = 1'-0"



6 STAGE BEARING AND EXT. WALL BASE
3" = 1'-0"



5 STAGE FRONT (SIDES SIM.)
3" = 1'-0"



4 STAGE FRONT AT OPENING
3" = 1'-0"

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USU CAINE LYRIC THEATRE FLY LOFT AND STAGE IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

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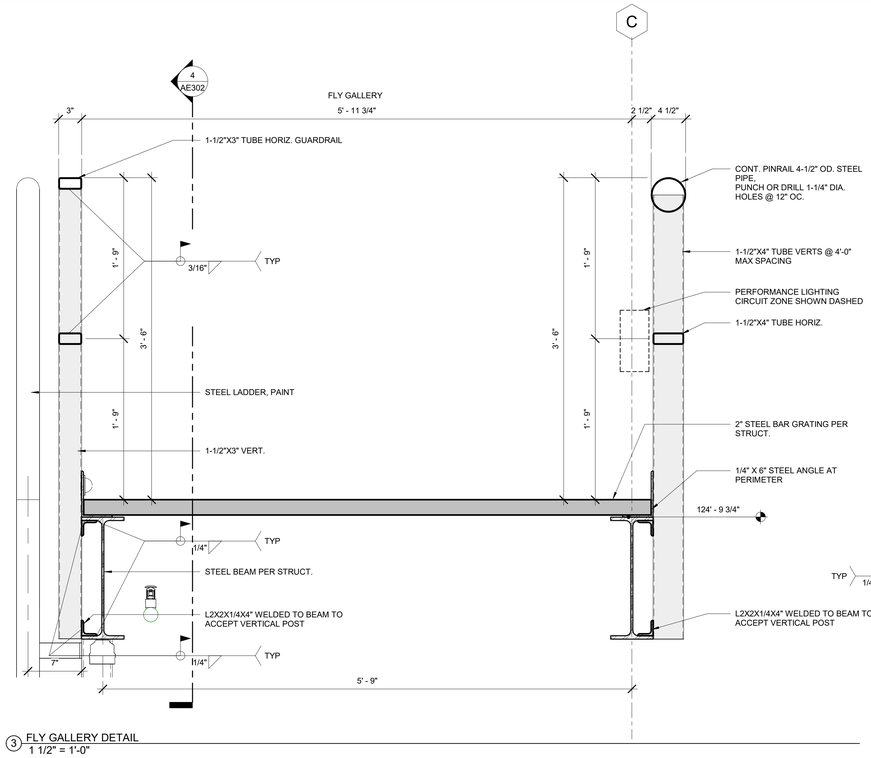
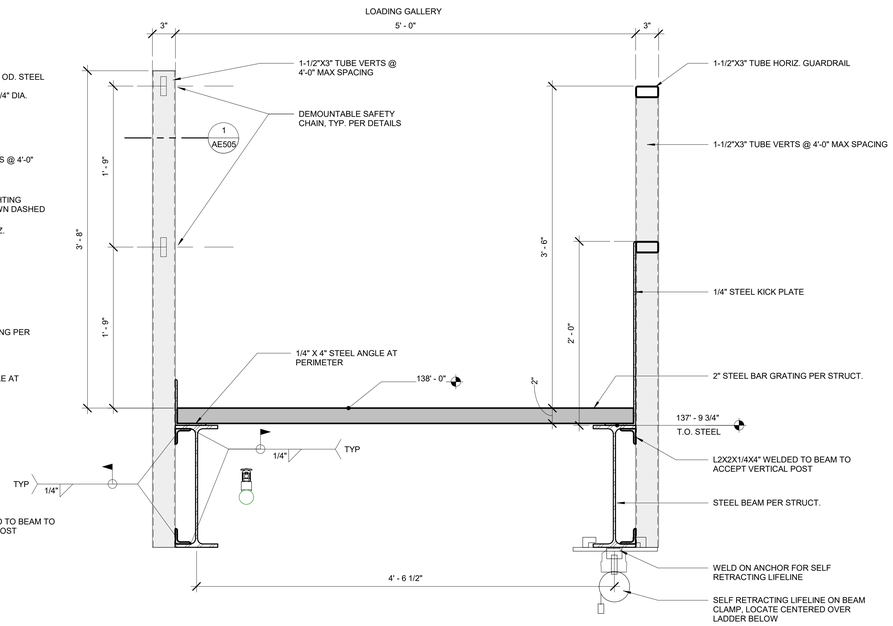
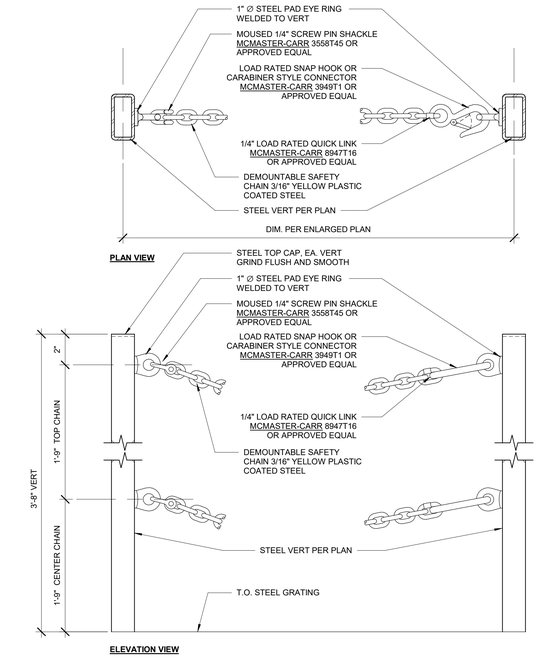


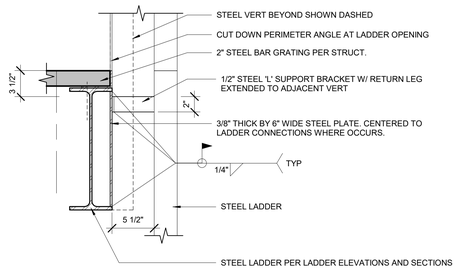
3 FLY GALLERY DETAIL
1 1/2" = 1'-0"



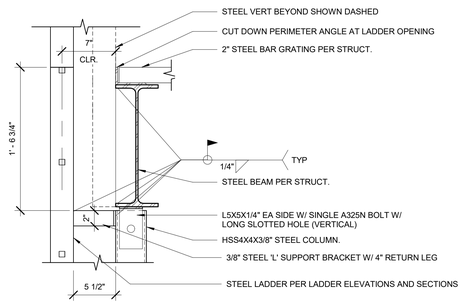
2 LOADING GALLERY DETAIL
1 1/2" = 1'-0"



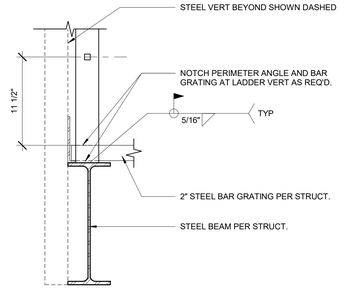
1 LOADING GALLERY CHAIN GUARD DETAILS
3" = 1'-0"



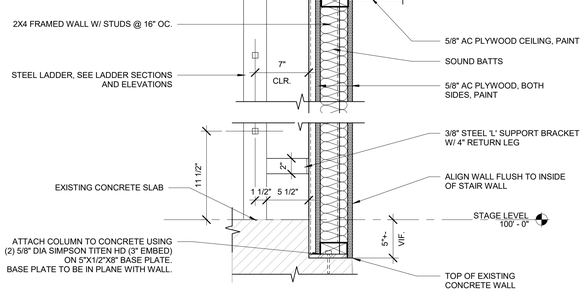
10 LADDER CONNECTION AT STEEL BEAM
1 1/2" = 1'-0"



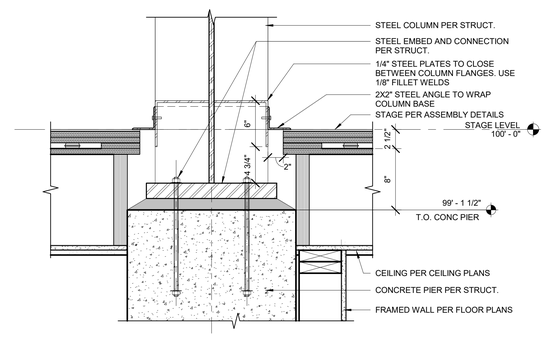
6 LADDER CONNECTION AT STEEL COLUMN
1 1/2" = 1'-0"



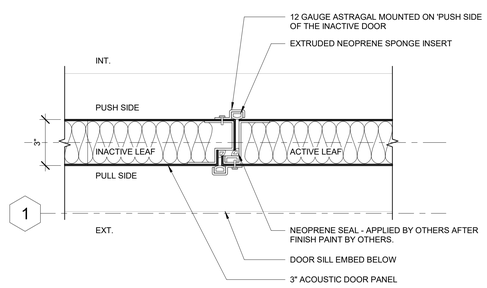
5 LADDER BASE @ STEEL BEAM
1 1/2" = 1'-0"



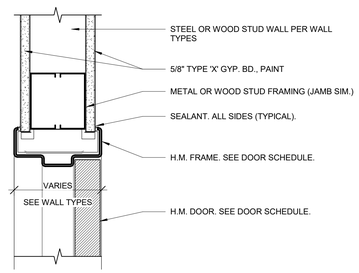
4 LADDER BASE @ SLAB
1 1/2" = 1'-0"



7 STEEL COLUMN BASE AT STAGE
1 1/2" = 1'-0"



9 EXT. HM DOOR ASTRAGAL
3" = 1'-0"



8 INTERIOR HM DOOR HEAD (JAMB SIM.)
3" = 1'-0"

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LICENSED ARCHITECT
JOHN P. SPARANO
NO. 5295926
DATE: 3/14/25
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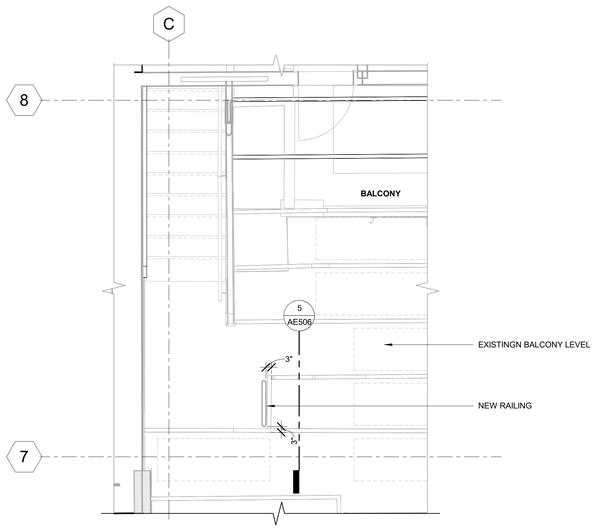
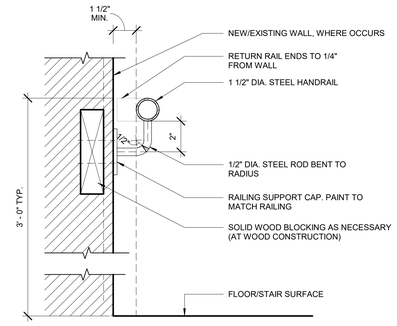
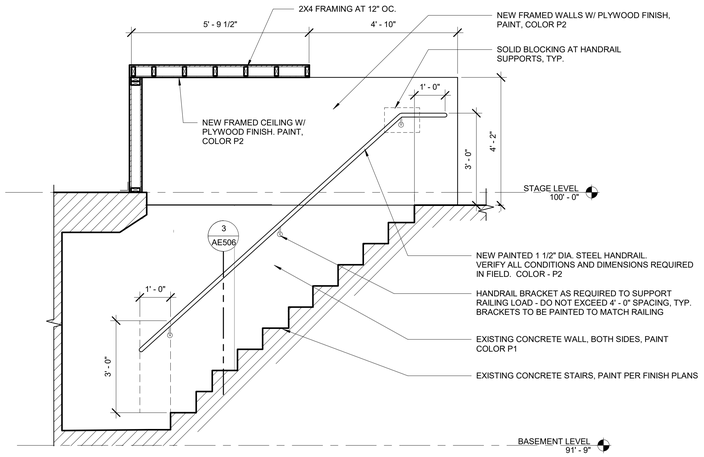


4 ENLARGED PARTIAL BALCONY FLOOR PLAN
3/8" = 1'-0"

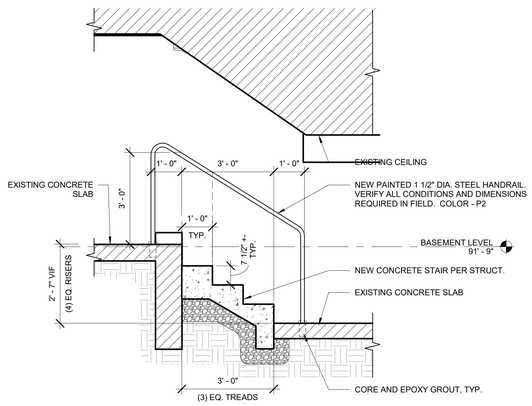


3 STAIR - HANDRAIL DETAIL 1
3" = 1'-0"



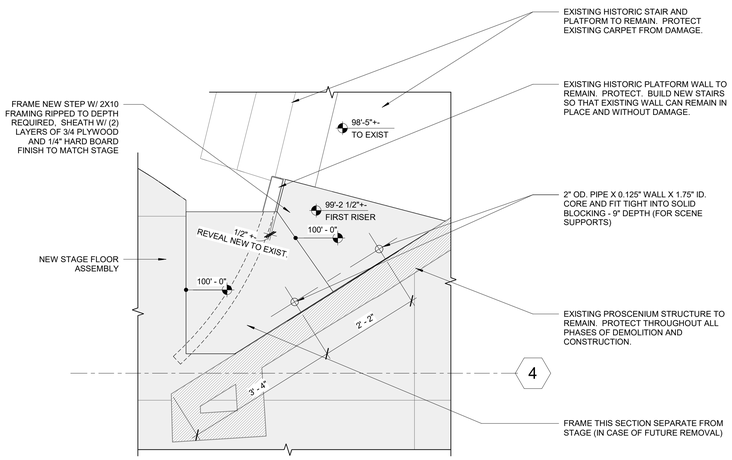
NOTE: ALL RAILING JOINTS AND TERMINATIONS TO BE RADIUSED, TYP.

2 STAIR SECTION - MAIN LEVEL TO BASEMENT LEVEL
1/2" = 1'-0"



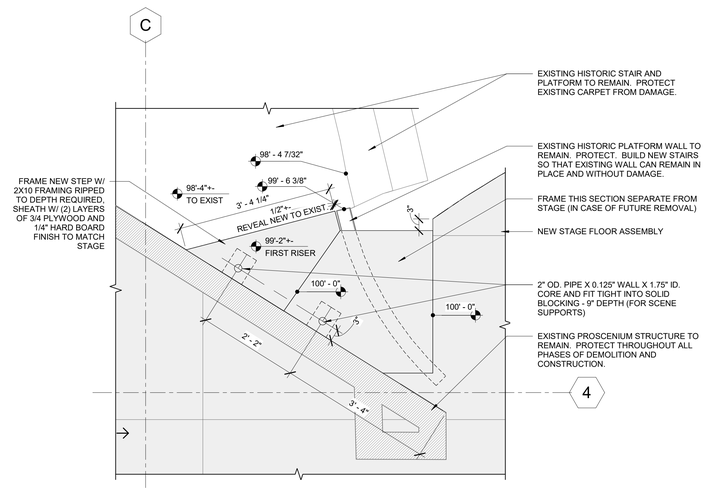
NOTE: ALL RAILING JOINTS AND TERMINATIONS TO BE RADIUSED, TYP.

1 STAIR SECTION - BASEMENT LEVEL TO LOWER BASEMENT LEVEL
1/2" = 1'-0"



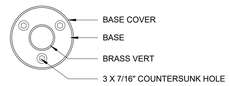
NOTE: DUE TO THE COMPLEXITY OF THE NEW STAIR TO STAGE, VERIFY ALL DIMENSIONS AND ELEVATIONS IN FIELD. PROVIDE LAYOUT IN FIELD FOR OWNER REVIEW AND APPROVAL.

9 STAGE STAIR - EAST
3/4" = 1'-0"

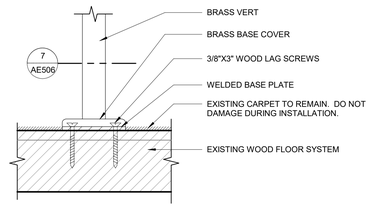


NOTE: DUE TO THE COMPLEXITY OF THE NEW STAIR TO STAGE, VERIFY ALL DIMENSIONS AND ELEVATIONS IN FIELD. PROVIDE LAYOUT IN FIELD FOR OWNER REVIEW AND APPROVAL.

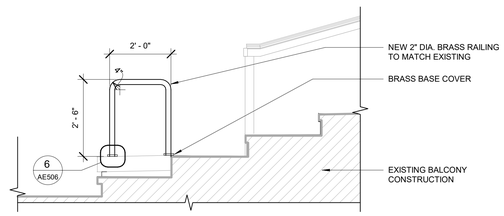
8 STAGE STAIR - WEST
3/4" = 1'-0"



7 BALCONY RAIL VERT BASE
3" = 1'-0"

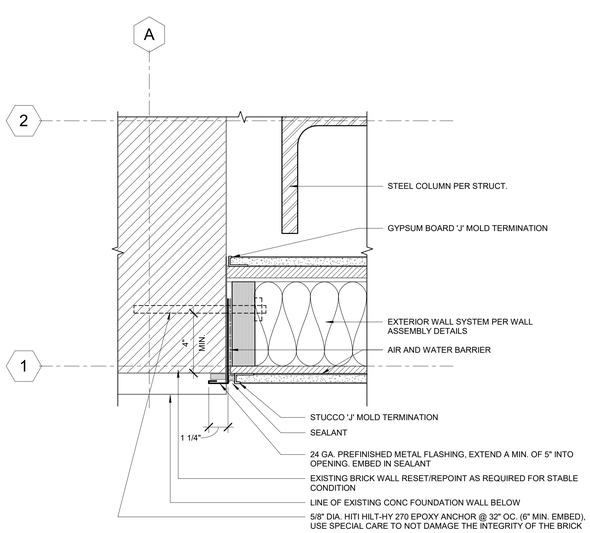


6 BALCONY RAIL VERT
3" = 1'-0"



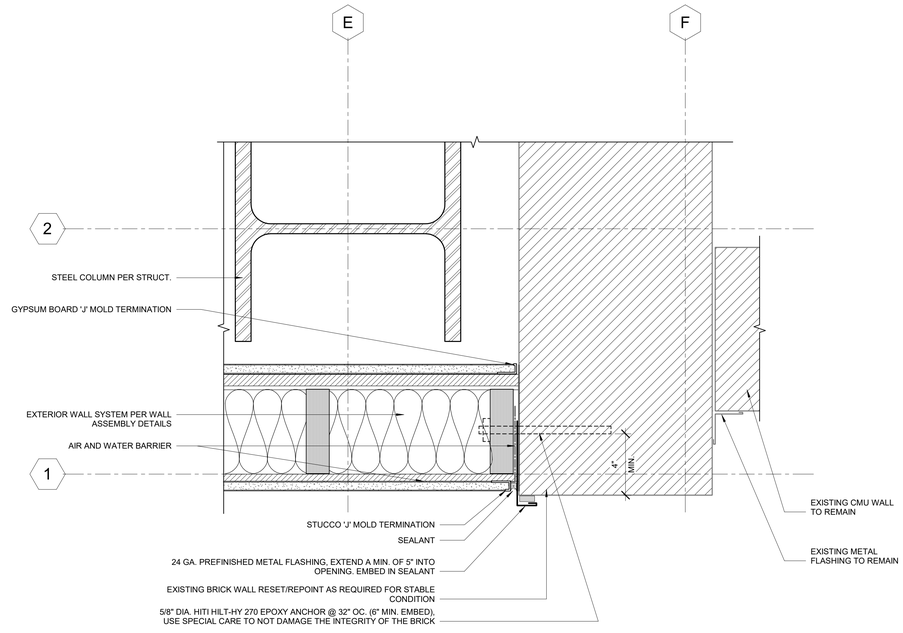
NOTE:
1. PRIOR TO ORDERING RAILING MATERIAL, VERIFY STRUCTURAL INTEGRITY AND SUITABILITY OF EXISTING SUBSTRATE FOR ATTACHMENT.
2. PROTECT EXISTING CARPET FLOORING IN PLACE.
3. DESIGN INTENT IS TO MATCH THE EXISTING BALCONY RAILINGS AS CLOSELY AS POSSIBLE AND DETAILS CAN BE MODIFIED ACCORDINGLY.

5 BALCONY RAILING
1/2" = 1'-0"



NOTE: LOOSE BRICK AT END WALL TO BE RESET AND BRICK REPOINTED AS REQ'D FOR STABLE CONDITION.

11 NEW TO EXISTING - SOUTHWEST CORNER
3" = 1'-0"



NOTE: LOOSE BRICK AT END WALL TO BE RESET AND BRICK REPOINTED AS REQ'D FOR STABLE CONDITION.

10 NEW TO EXISTING - SOUTHEAST CORNER
3" = 1'-0"

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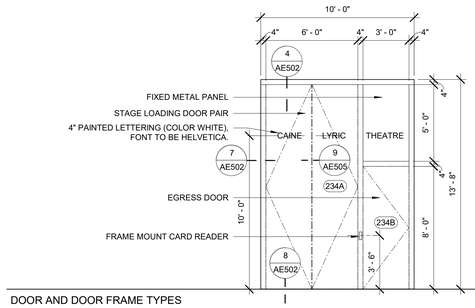
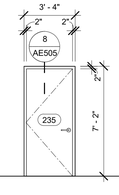


DOOR AND DOOR FRAME TYPES

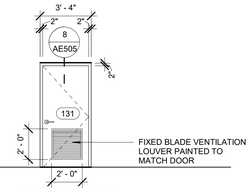
A

1. CUSTOM STC EXTERIOR HM DOOR AND FRAME PER SPECIFICATIONS.
2. STC RATING TO BE A MIN. OF 50.
3. INCLUDES STAGE LOADING DOOR PAIR (234A) AND SEPARATE EGRESS DOOR (234B).
4. DOOR AND FRAME TO BE PAINTED PER FINISH SCHEDULE.
5. INSTALL DOOR PER ALL MANUF. REQUIREMENTS.
6. DETAILS PROVIDED ARE FOR DESIGN INTENT, FINAL DESIGN PER MANUFACTURER BUT MUST UTILIZE OVERALL DIMENSIONAL INFORMATION PROVIDED DUE TO SPACE LIMITATIONS.



B

1. HM DOOR AND FRAME.
2. DOOR AND FRAME TO BE PAINTED PER FINISH SCHEDULE.



C

1. HM DOOR AND FRAME.
2. DOOR AND FRAME TO BE PAINTED PER FINISH SCHEDULE.
3. DOOR TO HAVE 2'X2' VENTILATION LOUVER.

DOOR SCHEDULE

DOOR NO.	ROOM NAME	PANEL DIMENSIONS WIDTH	HEIGHT	THK	PANEL TYPE	PANEL FINISH	FRAME TYPE	FRAME FINISH	RATING	HARDWARE SET	REMARKS
128	GREEN ROOM	2' - 6"	6' - 4"	3/4"	EXISTING	PAINTED	EXISTING	PAINTED		01	EXISTING DOOR TO REMAIN WITH NEW DOOR HOLD OPEN
131	AV	3' - 0"	6' - 8"	1 3/4"	C	PAINTED	C	PAINTED		05	2'X2' VENTILATION LOUVER REQUIRED
234A	WEST SIDE STAGE	6' - 0"	13' - 4"	3"	A	PAINTED	A	PAINTED		02	STC 50
234B	WEST SIDE STAGE	3' - 0"	8' - 0"	3"	A	PAINTED	A	PAINTED		03	STC 50, CARD READER, PANIC HARDWARE
235	MECH.	3' - 0"	7' - 0"	1 3/4"	B	PAINTED	B	PAINTED	60 MIN.	04	60 MINUTE FIRE RATING

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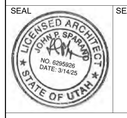

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

DOOR AND DOOR FRAME TYPES AND SCHEDULE

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
AE601

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LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

DUCTWORK/GRILLES

- POSITIVE PRESSURE DUCT - RISE
- POSITIVE PRESSURE DUCT - DROP
- NEGATIVE PRESSURE DUCT - RISE
- NEGATIVE PRESSURE DUCT - DROP
- ROUND DUCT - RISE
- ROUND DUCT - DROP
- UNDER FLOOR DUCT
- TURNING VANES
- FRESH AIR LOUVER
- RELIEF AIR OR EXHAUST AIR LOUVER
- 12X12 / 200 — CEILING SUPPLY DIFFUSER
- 22X22 / 200 — CEILING RETURN REGISTER
- 12X12 / 200 — CEILING EXHAUST REGISTER, (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)
- 24X10 / 200 — SIDEWALL SUPPLY REGISTER
- 24X10 / 200 — SIDEWALL EXHAUST OR RETURN REGISTER
- 12X12 / 200 — CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT
- 12X12 / 200 — CEILING AIR GRILLE WITH FLEXIBLE DUCT

TOP FIGURES INDICATE NECK SIZE. BOTTOM FIGURE INDICATES CFM.

- CEILING RETURN AIR GRILE W/ SOUND BOOT
- 3-1" SLOTS @ 48" 400 — LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT CONNECTION. NO. OF SLOTS & SIZE OF SLOT ON TOP, ACTIVE LENGTH AND CFM ON BOTTOM
- FLEXIBLE DUCT CONNECTION
- FLEXIBLE DUCT
- 12/8 FO — FLAT OVAL DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- 12/8 — RECTANGULAR DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- 12ø — ROUND DUCT WITH FREE AREA DIMENSIONS SHOWN IN INCHES.
- UP / DN — INCLINED RISE / INCLINED DROP — WITH RESPECT TO AIR FLOW 15° NOMINAL INCLINE WITH RADIUS TURNS=DEPTH OF DUCT.
- W R — R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR
- 12/12 8/8 — RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.
- 12/12 12ø — RECTANGULAR TO ROUND DUCT TRANSFORMATION
- R 6 — BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.
- 1.5D 1.25D 45° D D — TAP ENTRY AREA EQUALS 150% OF BRANCH AREA
- 12ø 12/12 — HIGH EFFICIENCY FITTING
- MANUAL VOLUME DAMPER
- FD — FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.
- FSD — COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL
- SD — SMOKE DAMPER W/ ACCESS PANEL
- BDD — BACK DRAFT DAMPER
- ATC OR — ATC DAMPER
- AD — ACCESS PANEL IN DUCT OR PLENUM
- HEATING OR COOLING COIL IN DUCT
- SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.
- 4-WAY BLOW PATTERN
- 3-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 2-WAY BLOW PATTERN
- 1-WAY BLOW PATTERN
- SD — DUCT SMOKE DETECTOR

PIPING

- SHUT OFF VALVE
- BALL VALVE
- BUTTERFLY VALVE
- ANGLE VALVE
- GLOBE VALVE
- PLUG VALVE
- SHUT OFF PLUG VALVE FOR FOR USE WITH PRESSURE GAUGE
- CHECK VALVE
- LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN
- RPBP — REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN
- PRESSURE REDUCING VALVE EXTERNAL PRESSURE
- PRESSURE REDUCING VALVE SELF CONTAINED
- ATC - 2 WAY VALVE
- ATC - 3 WAY VALVE
- SOLENOID VALVE
- 0.0 GPM — CALIBRATED BALANCING VALVE WITH GPM INDICATED
- VENTURI FLOW METER
- GPM H LB/HR. — FLOW METER ORIFICE
- RELIEF VALVE
- AIR VENT-MANUAL
- P S — PRESSURE SWITCH
- TEMPERATURE AND PRESSURE TEST PORT
- THERMOMETER WELL
- THERMOMETER - TEMP RANGE AS INDICATED
- PRESSURE GAUGE WITH SHUT OFF PLUG VALVE
- PRESSURE GAUGE WITH PIGTAIL
- UNION
- FLANGE
- FLEXIBLE EXPANSION JOINT
- REDUCER
- ECCENTRIC REDUCER
- BRANCH - BOTTOM CONNECTION
- BRANCH - TOP CONNECTION
- BRANCH - SIDE CONNECTION
- RISE OR DROP
- RISER - DOWN (ELBOW)
- RISER - UP (ELBOW)
- PIPE CAP
- ARROW INDICATES DIRECTION OF FLOW IN PIPE
- DN — LEADER INDICATES DOWNWORD SLOPE
- VALVE IN RISE
- OR — 90° ELBOW
- 45° ELBOW

PLUMBING

- THERMOSTATIC MIXING VALVE
- HOSE BIBB
- FLOOR SINK
- FLOOR DRAIN
- FCO / COTG — FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
- ROOF DRAIN
- DOWNSPOUT NOZZLE
- VTR — VENT THRU ROOF
- WATER HAMMER ARRESTOR
- CLEAN-OUT
- FILL PORT
- DRAIN PAN AND P-TRAP
- (NAME) — FIXTURE FROM LEVEL ABOVE
- DEMOLITION

FIRE

- HOSE VALVE
- NRS GATE VALVE WITH SUPERVISION
- FLOW SWITCH
- FIRE RISER
- SPRINKLER HEAD
- F — FIRE SPRINKLER WATER

ANNOTATIONS

- P-1 — PLUMBING FIXTURES
- POINT OF CONNECTION
- A / M-101 — SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.
- A / M101 — DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.
- EF / 1 — EQUIPMENT IDENTIFICATION
- 1 — KEYED NOTE IDENTIFICATION
- (S) — SENSOR
- (T) — THERMOSTAT

LINETYPES

- DOMESTIC COLD WATER (DCW)
- DOMESTIC HOT WATER (DHW)
- DOMESTIC HOT WATER RETURN (DHWR)
- E(NAME) — EXISTING PIPING
- (NAME) — EXISTING PIPING TO BE REMOVED
- G — NATURAL GAS
- RD — ROOF DRAIN
- RDO — ROOF DRAIN OVERFLOW
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- SEWER (BELOW GRADE)
- SEWER (ABOVE GRADE)
- VENT (SEWER)

MECHANICAL GENERAL NOTES

1. PROVIDE BALANCING DAMPERS AT EACH BRANCH TAKE OFF TO SERVE DIFFUSER OR GRILLE AS WELL AS WHERE INDICATED.
2. COORDINATE EXACT LOCATION OF DUCTS WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING, CABLE TRAY, PLUMBING, MECHANICAL PIPING, ETC.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK SIZE OF THE DIFFUSER, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE.
4. INSTALL HARD ELBOWS AS SHOWN. HARD ELBOWS ARE REQUIRED FOR SOUND ATTENUATION.
5. INSTALL EQUIPMENT WITH CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN PROPER SPACE FOR COIL PULL, CONTROLS, AND MAINTENANCE ACCESS.
6. INSTALL TURNING VANES IN ALL SQUARE AND RECTANGULAR LOW PRESSURE DUCTWORK.
7. DETAILS REFERENCE ALL SHEETS.
8. ALL FIRE DAMPERS ARE 1-1/2 HR RATED, UNLESS NOTED OTHERWISE.
9. DO NOT ROUTE DUCTS OR PIPES ABOVE ELECTRICAL PANELS. DO NOT ROUTE DUCTS OR PIPES IN ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
10. IF CONTRACTOR ENCOUNTERS MATERIAL WHICH MAY CONTAIN ASBESTOS, IMMEDIATELY STOP WORK IN THIS AREA AND NOTIFY THE OWNER.
11. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE MECHANICAL EQUIPMENT, VALVES, VAV BOXES, FIRE DAMPERS, ETC, ARE LOCATED ABOVE INACCESSIBLE CEILINGS.
12. ALL DUCT DIMENSIONS ARE INSIDE FREE AREA DIMENSIONS. ADJUST SHEET METAL DIMENSION FOR LINED DUCT.

PLUMBING GENERAL NOTES

1. SLOPE PIPING AS FOLLOWS, UNLESS OTHERWISE NOTED. WASTE: BRANCHES 1/4" PER FOOT. WASTE MAINS: 1/8" PER FOOT.
2. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES TO BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S, OR MCC'S.
6. NO FIRE PROTECTION LINE IS TO BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING, AND PLUMBING TAKE PRECEDENCE OVER FIRE PROTECTION PIPING. FAILURE TO COMPLY WILL RESULT IN FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S EXPENSE.
7. SLEEVE/CONFIGURE CMU WALLS FOR EMBEDDED PIPING AND PIPE PENETRATIONS AS REQUIRED.
8. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS, AND OTHER REQUIREMENTS.
9. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY.
10. LOCATE ALL VENTS MINIMUM 25 FT AWAY FROM AIR INTAKES.
11. INSTALL DOMESTIC WATER LINES BELOW DUCTWORK.
12. INSTALL A 24"x24" ACCESS DOOR BELOW ALL ISOLATION VALVES AND CIRCUIT SETTERS WHERE MOUNTED ABOVE HARD CEILINGS.
13. MOUNT ALL CEILING TYPE ISOLATION VALVES, CONTROL VALVES, CIRCUIT SETTERS, ETC. NEAR CEILING FOR ACCESSIBILITY.
14. DETAILS REFERENCE ALL SHEETS.
15. EXISTING PIPING SHOWN HAS BEEN TAKEN FROM INFORMATION PROVIDED BY OTHERS. FIELD VERIFY ALL SYSTEMS, SIZES, LOCATIONS, AND ELEVATIONS PRIOR TO STARTING ANY NEW WORK.

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NO	DATE	DESCRIPTION

MECHANICAL SYMBOLS LEGEND AND GENERAL NOTES

SCALE	12" = 1'-0"
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ISSUE	BID SET
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SHEET NO. M001

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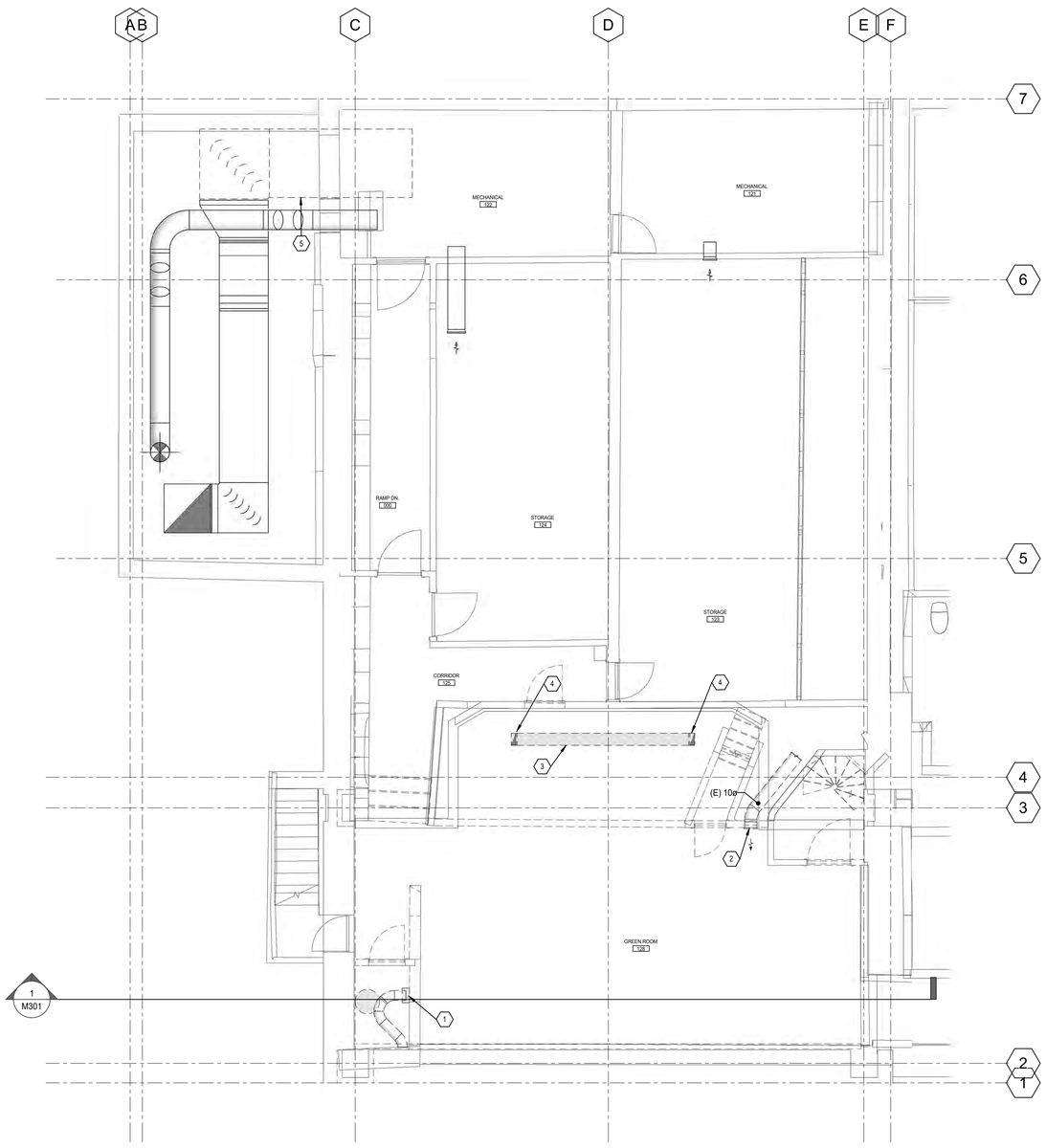
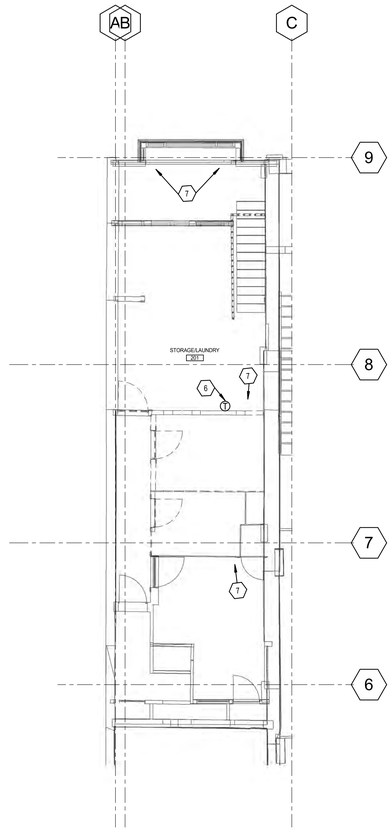
KEYED NOTES

1. DEMOLISH AND REMOVE EXISTING DUCTWORK AND EXHAUST FAN SHOWN DASHED. PREPARE WALL PENETRATION FOR WALL PATCH AND NEW FINISH. CAP PENETRATION WEATHER TIGHT.
2. DEMOLISH AND REMOVE EXISTING GRILLE AND DUCTWORK SHOWN DASHED.
3. DEMOLISH AND REMOVE EXISTING RETURN AIR DUCTWORK SHOWN DASHED AND CAP BELOW NEW FLOOR LEVEL.
4. DEMOLISH AND REMOVE TOP OF EXISTING RETURN AIR DUCT RISER.
5. REMOVE EXISTING RETURN AIR DUCT CAREFULLY TO ALLOW FOR WORK TO BE DONE IN THIS AREA. DUCTWORK SHALL BE REINSTALLED AND SEALED WHEN WORK IS COMPLETED.
6. REMOVE EXISTING THERMOSTAT AND WIRING TO FURNACE BELOW.
7. REMOVE AND REINSTALL EXISTING FLOOR GRILLES.



2 BASEMENT LEVEL MECHANICAL DEMO PLAN
1/4" = 1'-0"



1 APARTMENT MECHANICAL DEMO PLAN
3/16" = 1'-0"

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SCALE	As indicated	SHEET NO.
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ISSUE	BID SET	
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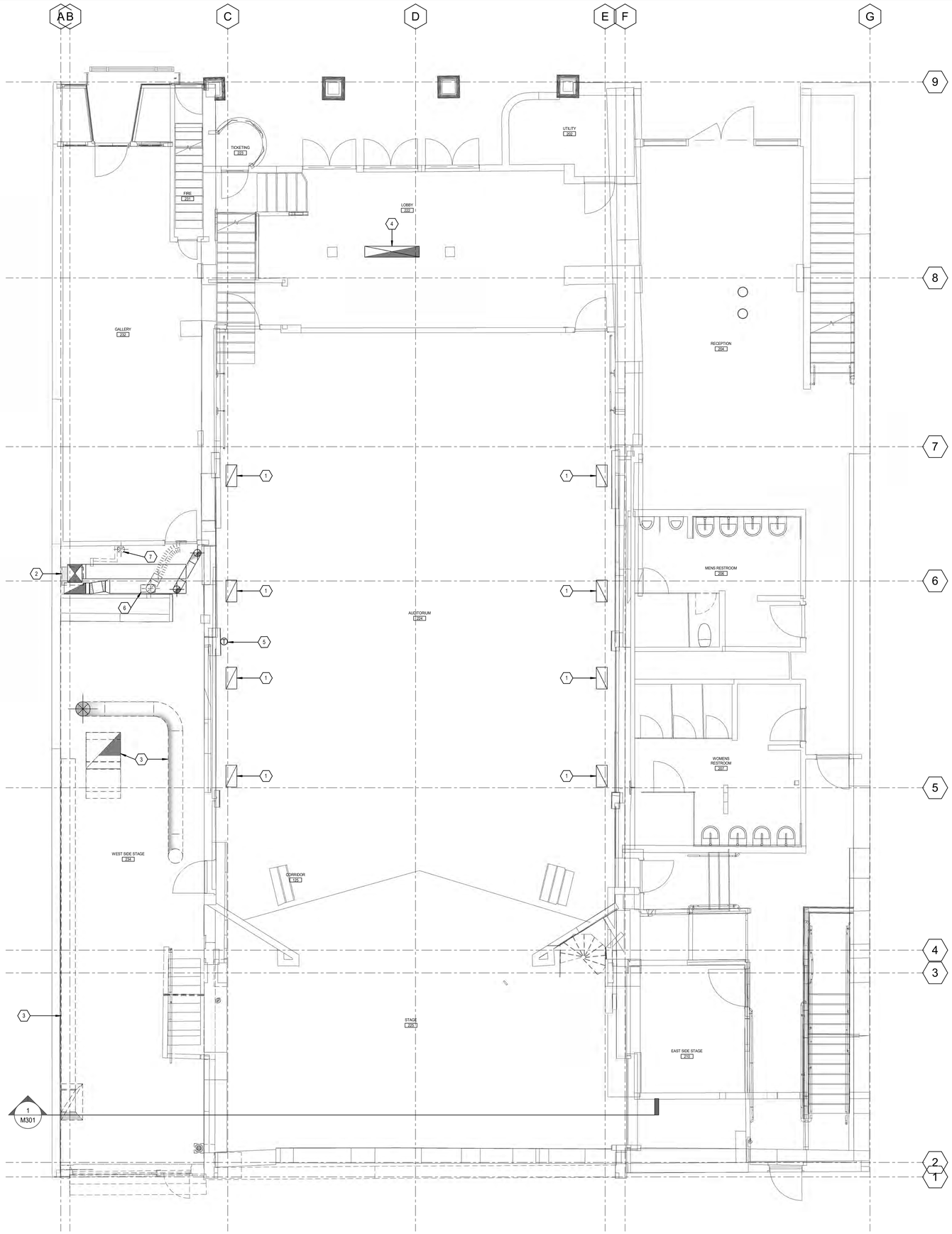

1 STAGE LEVEL MECHANICAL DEMO PLAN
1/4" = 1'-0"

KEYED NOTES

#	
1.	EXISTING FLOOR GRILLES TO REMAIN.
2.	DEMOLISH AND REMOVE EXISTING FURNACE. PREPARE DUCTWORK AND GAS PIPING FOR RECONNECTION.
3.	DEMOLISH AND REMOVE EXISTING DUCTWORK SHOWN DASHED. PREPARE EXISTING DUCTWORK FOR RECONNECTION.
4.	EXISTING GRILLE TO REMAIN.
5.	REMOVE EXISTING THERMOSTAT AND WIRING. PREPARE LOCATION FOR INSTALLATION OF NEW THERMOSTAT.
6.	RELOCATE EXISTING DUCT TAP TO ALLOW FOR INSTALLATION OF NEW WALL.
7.	DEMOLISH AND REMOVE EXISTING EXHAUST FAN AND DUCTWORK THRU ROOF.

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STAGE LEVEL MECHANICAL DEMO PLANS

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
MD102

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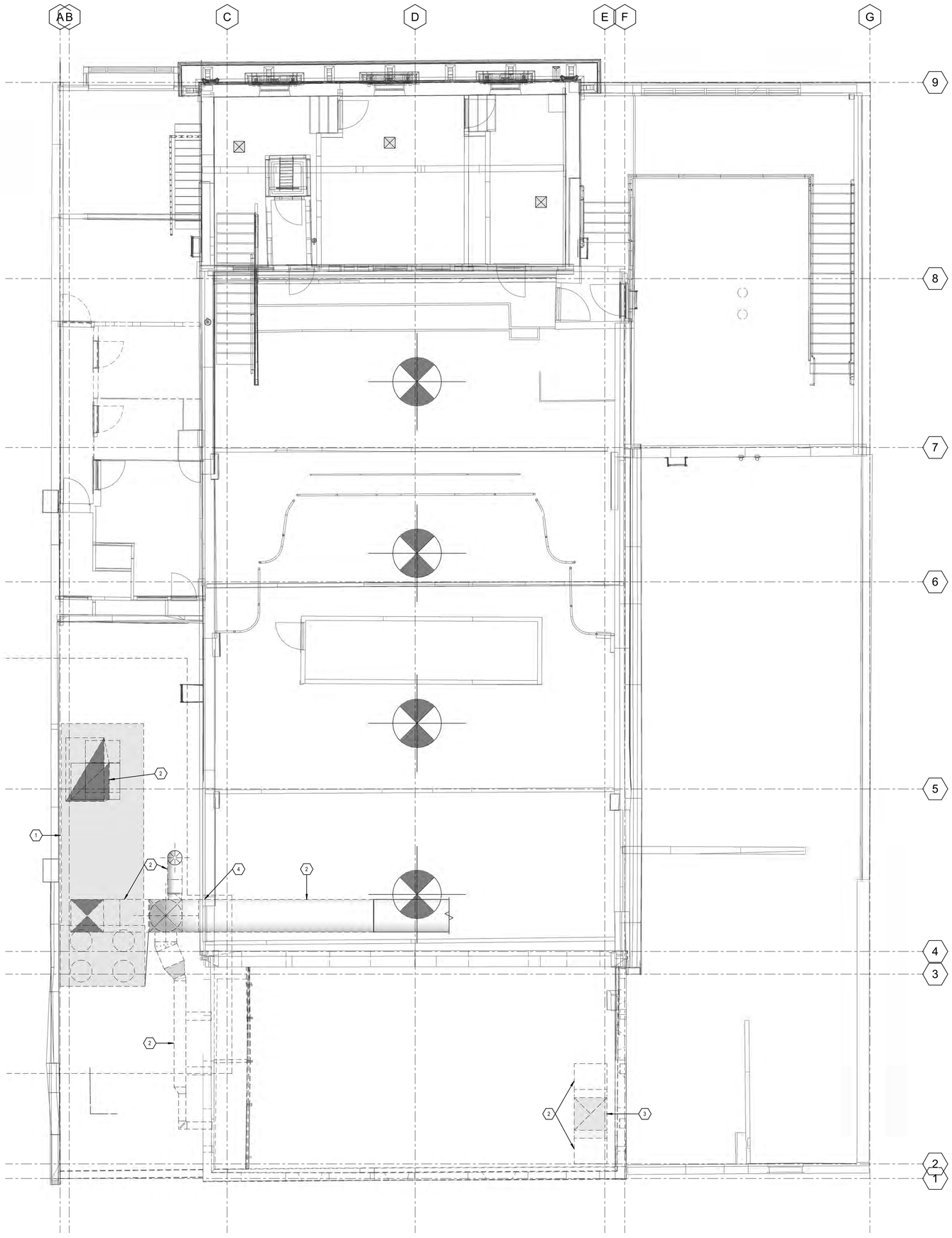

1 ROOF MECHANICAL DEMO PLAN
1/4" = 1'-0"

KEYED NOTES

1. REMOVE AND REINSTALL AIR HANDLER. SEE SHEET M103 FOR NEW LOCATION. RELOCATE EXISTING DUCT SMOKE DETECTORS.
2. DEMOLISH AND REMOVE EXISTING DUCTWORK SHOWN DASHED.
3. DEMOLISH AND REMOVE EXISTING ROOF MOUNTED EXHAUST FAN.
4. PATCH AND REPAIR WALL TO MATCH EXISTING CONDITIONS.

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ROOF MECHANICAL DEMO PLANS

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
MD103

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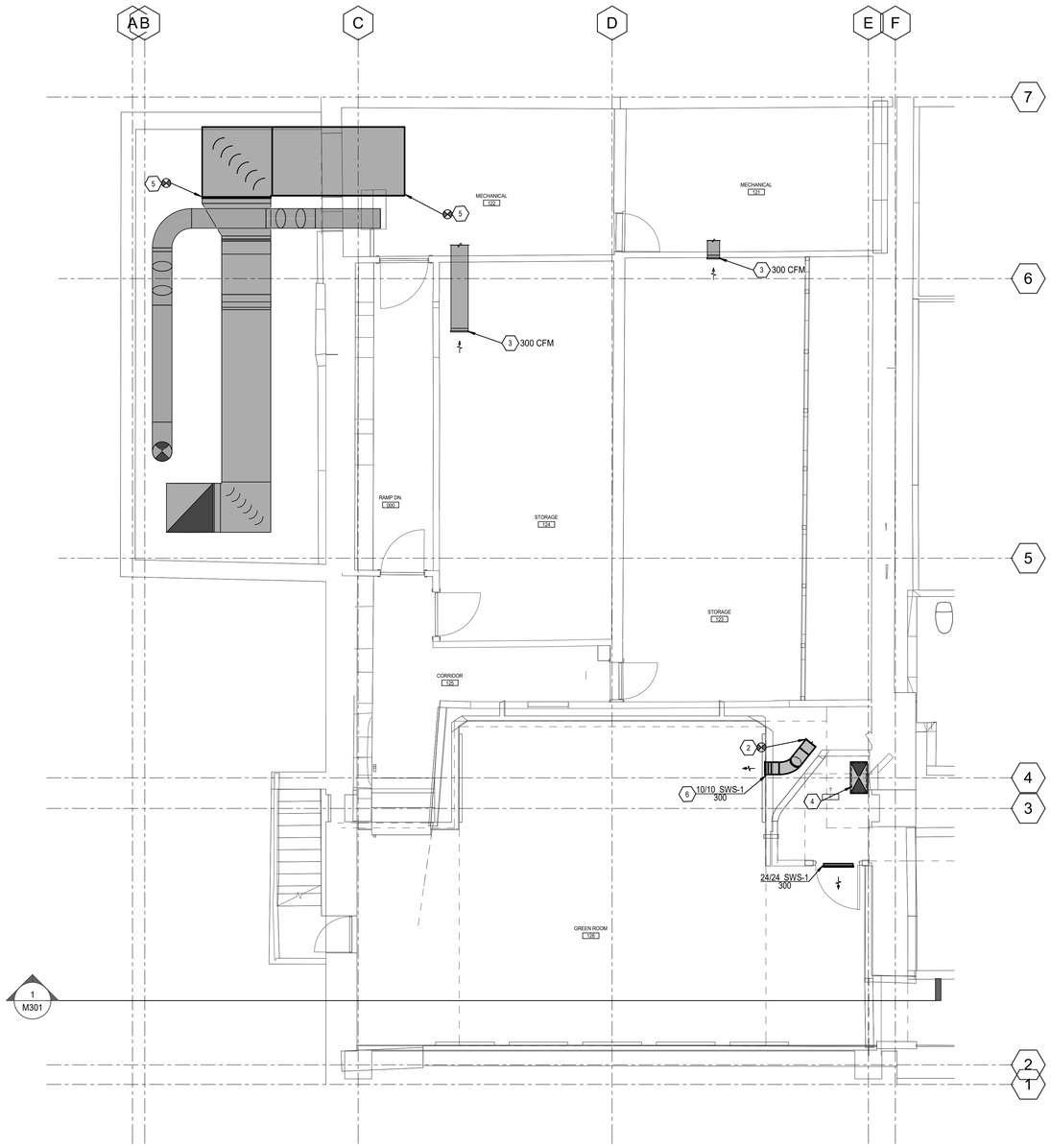
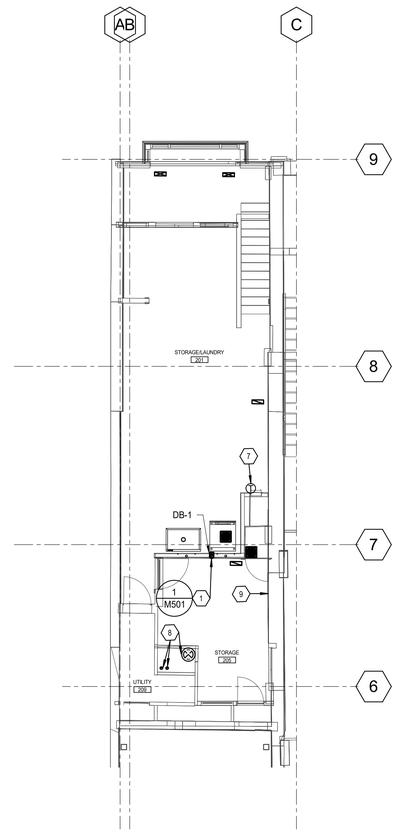
KEYED NOTES

#	
1.	4" DRYER EXHAUST VENT UP THROUGH ROOF. SEAL ROOF PENETRATION . SEE DETAIL.
2.	CONNECT TO EXISTING DUCT.
3.	BALANCE EXISTING GRILLE TO CFM NOTED.
4.	OPEN 24/12 DUCT IN AV ROOM CEILING. FINISH CEILING DUCT PENITRATION WITH ROLLED EDGES.
5.	REINSTALL REMOVED DUCTWORK AND SEAL JOINTS.
6.	COORDINATE ELEVATION WITH ARCHITECTURAL PLANS.
7.	THERMOSTAT FOR NEW FURNACE.
8.	OUTSIDE AIR DUCT AND REFRIGERANT LINES UP AND DOWN.
9.	ADDITIVE ALTERNATE 4: ADD DRYER BOX DB-1 AND 4" DRYER DUCT THRU ROOF.



2 BASEMENT LEVEL MECHANICAL PLAN
1/4" = 1'-0"



1 APARTMENT MECHANICAL PLAN
3/16" = 1'-0"

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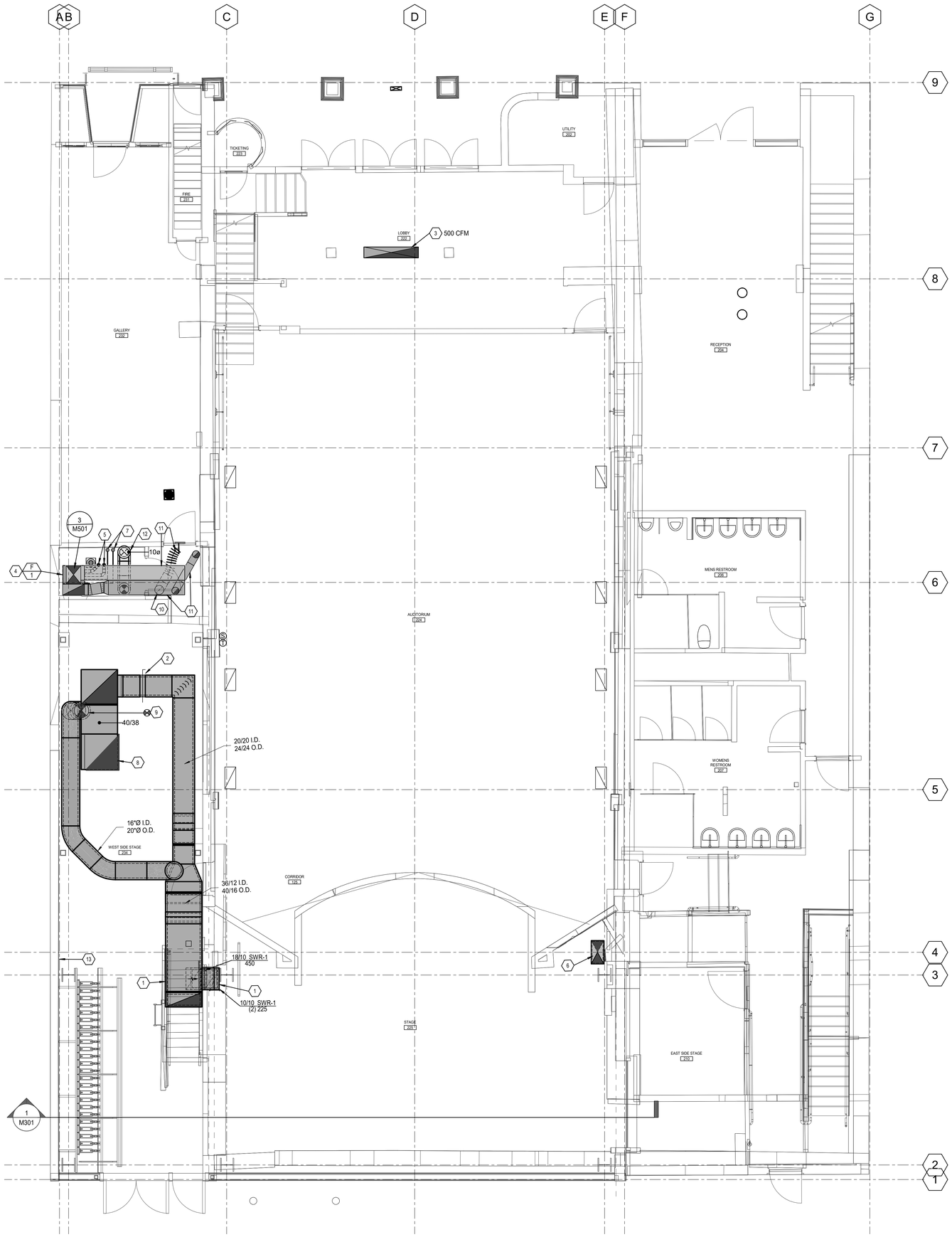

1 STAGE LEVEL MECHANICAL PLAN
1/4" = 1'-0"

KEYED NOTES

#	
1.	RETURN AIR DUCT UP. INSTALL DUCTWORK AS HIGH AS POSSIBLE.
2.	MOTORIZED DAMPER FOR THEATRICAL SMOKE EXHAUST SYSTEM. INTERLOCK WITH EF-1. DAMPER SHALL POWER CLOSE WHEN EF-1 IS ENERGIZED.
3.	BALANCE EXISTING GRILLE TO CFM NOTED.
4.	CONNECT NEW FURNACE TO EXISTING SUPPLY AND RETURN AIR DUCTWORK AND GAS PIPING. REPLACE EXISTING GAS REGULATOR WITH NEW. CONNECT GAS TO FURNACE WITH FLEXIBLE PIPING.
5.	NEW FURNACE FLUES THROUGH ROOF.
6.	26/14 AV ROOM VENT DUCT FROM BELOW. EXTEND DUCT UP 12 FEET ABOVE STAGE AND TERMINATE WITH AN OPEN TOP. DUCT SHALL HAVE 1" ACOUSTIC LINING. INSTALL 1 HR FIRE DAMPER WITH ACCESS PANEL AT STAGE FLOOR LEVEL TO MAINTAIN 1 HR FIRE SEPARATION.
7.	REFRIGERANT PIPING UP.
8.	REWRAP EXISTING DUCT WITH 1" THERMAL INSULATION.
9.	CONNECT TO EXISTING DUCTWORK IN THIS LOCATION.
10.	RELOCATE DUCT TAP EAST TO ALLOW FOR INSTALLATION OF NEW WALL. PATCH AND SEAL DUCTWORK.
11.	PROVIDE AND INSTALL UL LISTED 2 HOUR FIRE WRAP ON EXISTING DUCTWORK IN THIS AREA TO MAINTAIN FIRE RATINGS.
12.	OUTSIDE AIR DUCT FROM ROOF. CONNECT TO RETURN AIR DUCT THRU A MANUAL BALANCING DAMPER.
13.	THEATRICAL SMOKE EXHAUST WALL SWITCH TIMER LOCATION. LABEL WALL SWITCH FOR EF-1.

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STAGE LEVEL MECHANICAL PLAN

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
M102

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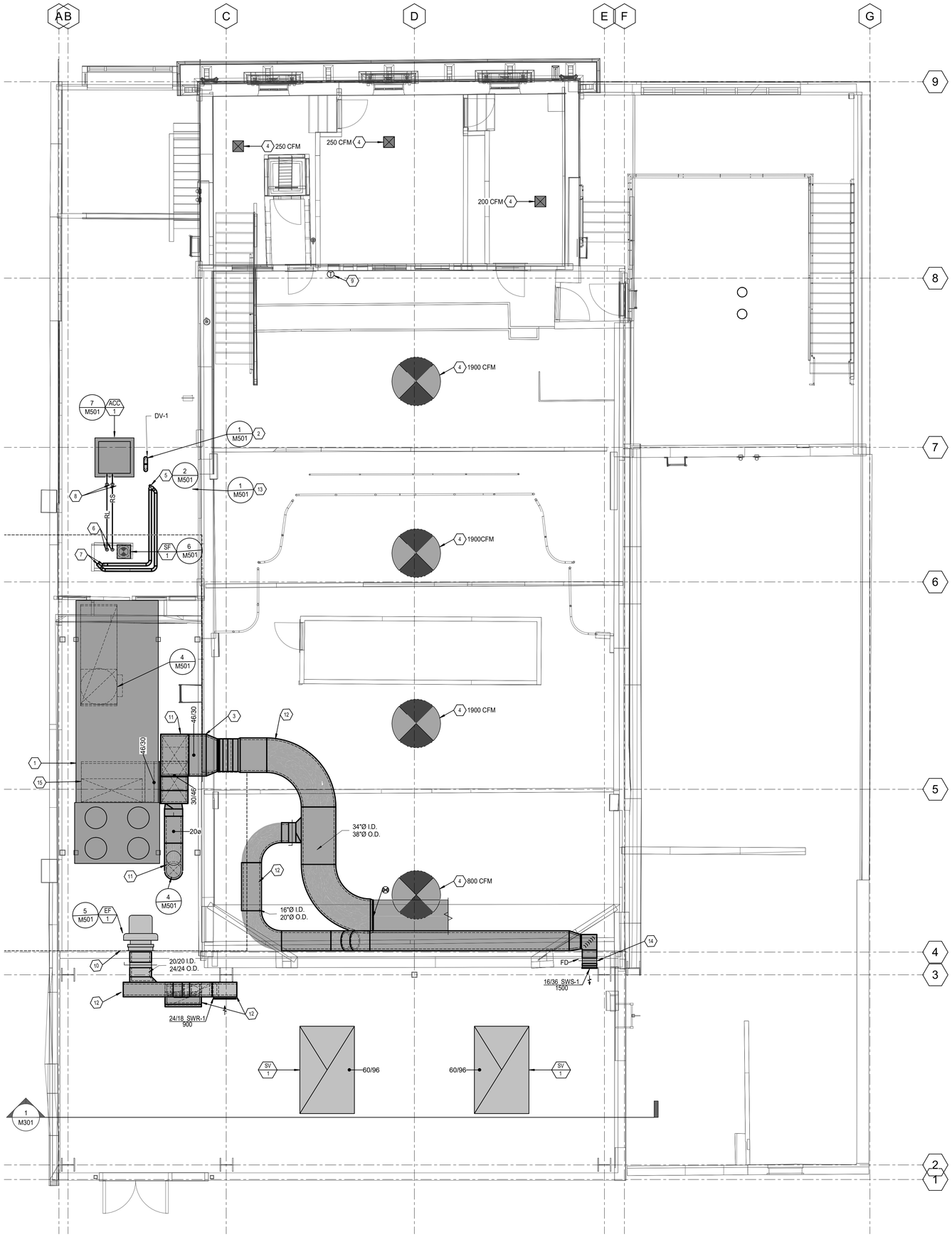

1 ROOF MECHANICAL PLAN
1/4" = 1'-0"

KEYED NOTES

1. LOCATION OF NEW AIR HANDLER. CONNECT TO EXISTING DUCTWORK AND GAS PIPING WITH FLEXIBLE CONNECTIONS. MOUNT AIR HANDLER TO NEW STEEL SUPPORTS WITH NEW SPRING VIBRATION ISOLATORS WITH A MINIMUM OF 1" DEFLECTION.
2. NEW DRYER EXHAUST VENT UP THROUGH ROOF. SEAL ROOF PENETRATION . SEE DETAIL.
3. CUT NEW WALL PENETRATION. SEAL PENETRATION WEATHER TIGHT.
4. BALANCE EXISITNG GRILLE TO CFM SHOWN.
5. CONCENTRIC VENT THRU ROOF.
6. REFRIGERANT PIPING DOWN.
7. NEW FURNACE FLUES FROM BELOW.
8. REFRIGERANT PIPING THRU ROOF. FLASH AND SEAL WEATHER TIGHT.
9. INSTALL NEW WALL THERMOSTAT IN THIS LOCATION.
10. INSTALL WALL MOUNTED EXHAUST FAN WITH NEOPRENE PAD BETWEEN THE FAN HOUSING AND THE WALL CURB CONNECTION FOR VIBRATION ISOLATION.
11. ALL EXTERIOR DUCTWORK SHALL BE DOUBLE WALL DUCTWORK WITH A PERFORATED INNER WALL AND TWO INCHES OF THERMAL INSULATION.
12. ALL INTERIOR DUCTWORK SHALL DOUBLE WALL DUCTWORK WITH A PERFORATED INNER WALL AND TWO INCHES OF THERMAL INSULATION.
13. ADDITIVE ALTERNATE 4: ADD DRYER VENT THRU ROOF.
14. PROVIDE AND INSTALL FIRE DAMPER WITH ACCESS DOOR TO MAINTAIN 1 HOUR FIRE SEPARATION.
15. INSTALL SILENCER SA-1 ON DISCHARGE OF AIR HANDLER.

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ROOF MECHANICAL PLAN

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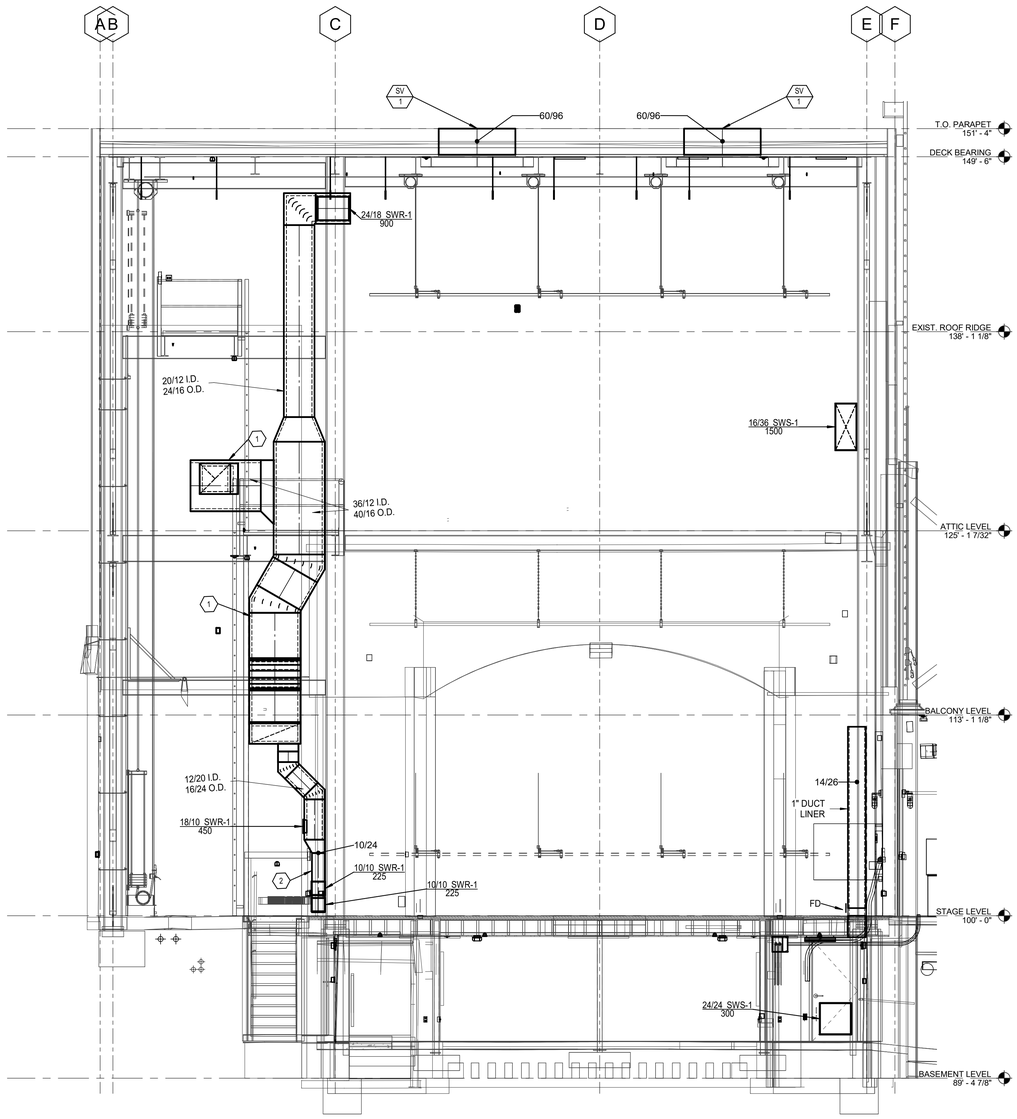
KEYED NOTES

1. ALL INTERIOR DUCTWORK SHALL DOUBLE WALL DUCTWORK WITH A PERFORATED INNER WALL AND TWO INCHES OF THERMAL INSULATION.
2. THIS SECTION OF DUCTWORK SHALL NOT BE LINED.



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

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MECHANICAL SECTIONS

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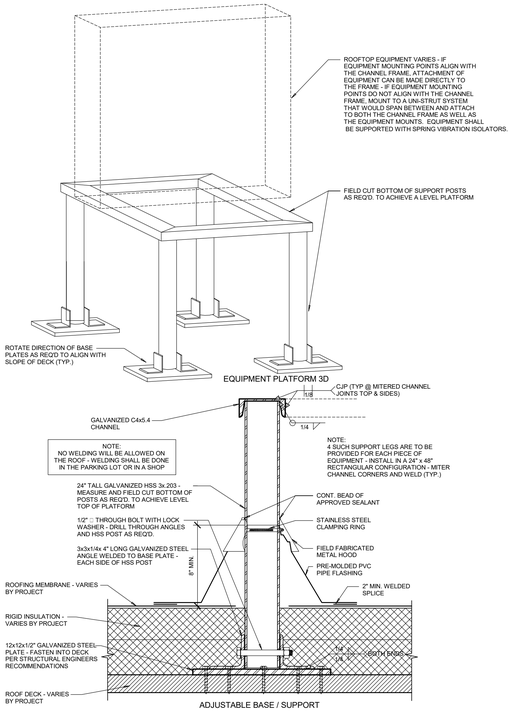
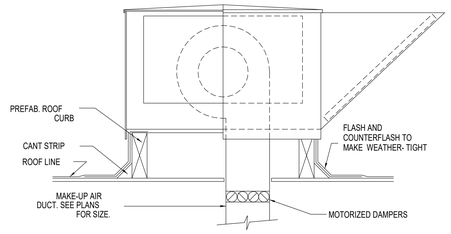


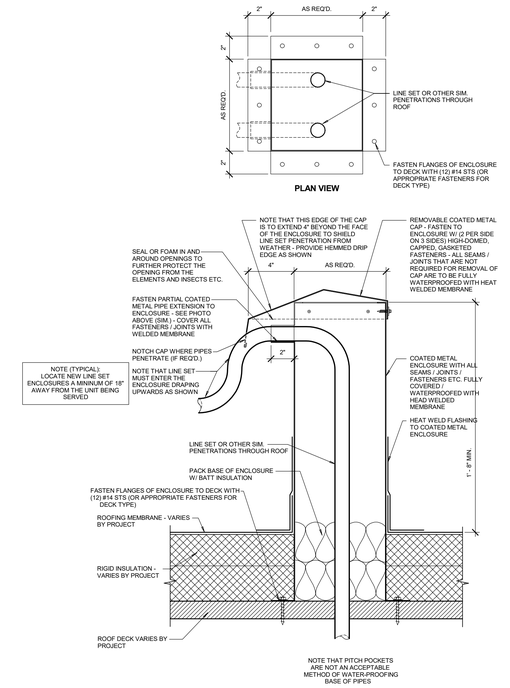
7 M501 ELEVATED EQUIPMENT PLATFORM

NO SCALE



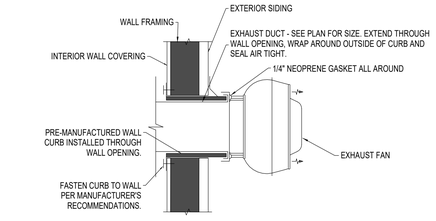
6 M501 SUPPLY FAN DETAIL

NO SCALE



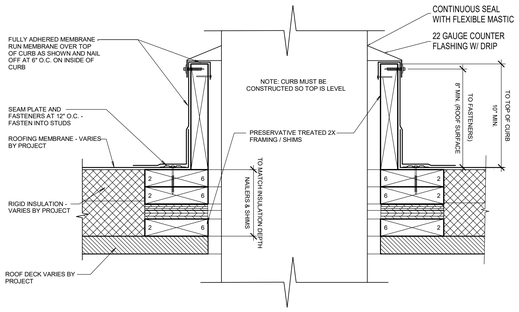
8 M501 LINE SET ENCLOSURE

NO SCALE



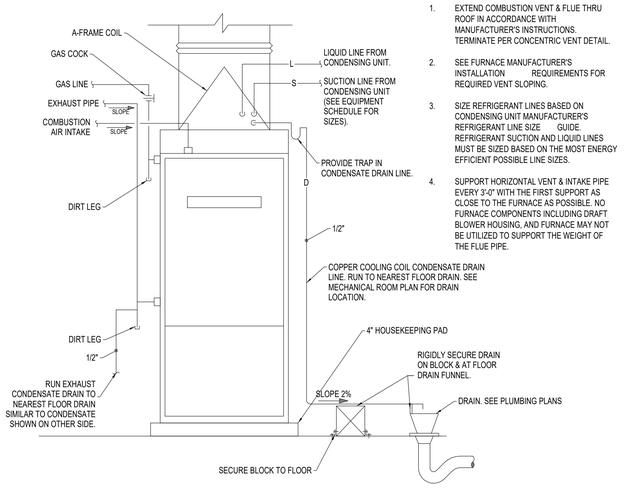
5 M501 EXHAUST FAN DETAIL

NO SCALE



4 M501 DUCT THRU ROOF DETAIL

NO SCALE

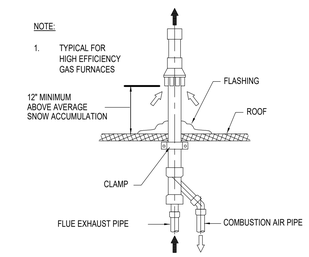


NOTES:

1. EXTEND COMBUSTION VENT & FLUE THRU ROOF IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. TERMINATE PER CONCENTRIC VENT DETAIL.
2. SEE FURNACE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR REQUIRED VENT SLOPING.
3. SIZE REFRIGERANT LINES BASED ON CONDENSING UNIT MANUFACTURER'S REFRIGERANT LINE SIZE GUIDE. REFRIGERANT SUCTION AND LIQUID LINES MUST BE SIZED BASED ON THE MOST ENERGY EFFICIENT POSSIBLE LINE SIZES.
4. SUPPORT HORIZONTAL VENT & INTAKE PIPE EVERY 3'-0" WITH THE FIRST SUPPORT AS CLOSE TO THE FURNACE AS POSSIBLE. NO FURNACE COMPONENTS INCLUDING DRAFT BLOWER HOUSING, AND FURNACE MAY NOT BE UTILIZED TO SUPPORT THE WEIGHT OF THE FLUE PIPE.

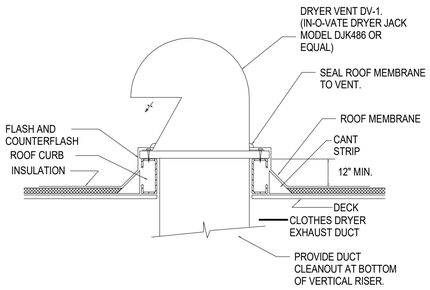
3 M501 FURNACE PIPING

NO SCALE



2 M501 CONCENTRIC FLAT ROOF TERMINATION INSTALLATION

NO SCALE



1 M501 ROOF MOUNTED DRYER EXHAUST VENT DETAIL

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DX COIL SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	AIR: AIRFLOW RATE (CFM)	AIR: NOMINAL CAPACITY (BTU/HR)	AIR: ENTERING TEMP. DB/WB (°F)	AIR: LEAVING TEMP. DB (°F)	AIR: EFFICIENCY SEER	DX: REFRIGERANT	PHYSICAL: WIDTH/ DEPTH/ HEIGHT (IN)	PHYSICAL: WEIGHT (LBS)	NOTES
DX-1	CARRIER CNPVP4821ALA	F-1	1,600	48,000	76.7/61.9	52	16.5	R410A	21/21/22	70	(1)(2)(3)(4)

(1) CAPACITIES BASED ON 4,500 FT. ELEVATION.
(2) COMPLETE WITH FACTORY BOX AND COIL AND TXV KIT.
(3) DX COIL, CONDENSING UNIT, AND FURNACE SHALL BE PROVIDED BY THE SAME MANUFACTURER / SUPPLIER.
(4) SEE CONDENSING UNIT SCHEDULE FOR CORRESPONDING CONDENSING UNIT.

AIR COOLED CONDENSING UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	REFRIGERANT	NOMINAL CAPACITY (BTU/H) (3)	EFFICIENCY SEER	ELECTRICAL: VOLT/PH	ELECTRICAL: MINIMUM CIRCUIT AMPACITY (MCA)	ELECTRICAL: MAXIMUM OVERCURRENT PROTECTION (MOCP)	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	PHYSICAL: WEIGHT (LBS)	NOTES
ACC-1	CARRIER 24VNA636A0030	SEE PLANS	R410A	36,000	16.5	230/1/60	13.8	20	35/35/47	310	(1)(2)(3)(4)

(1) ALL CONDITIONS RATED AT 4,500 FEET ELEVATION.
(2) COOLING CAPACITY RATED AT 95DB/63WB WB AMBIENT TEMPERATURE.
(3) CONDENSING UNIT'S RATED CAPACITY.
(4) SEE COOLING COIL SCHEDULE.

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AIR TYPE	LOCATION	AIR: MAXIMUM AIRFLOW RATE (CFM)	AIR: STATIC PRESSURE (IN. WATER)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: LENGTH/ WIDTH/ HEIGHT (IN)	PHYSICAL: WEIGHT (LBS)	SONES	NOTES
EF-1	GREENHECK CUBE-180	EXHAUST	SIDEWALL	1800	0.5	1/3	115/1/60	37/37/39	140	8	(1)(2)(3)
SF-1	GREENHECK KSQ-7-M1	SUPPLY	ROOF	235	0.25	1/4	115/1/60	33/15/28	90	6.7	(1)(3)

(1) ALL CAPACITIES AT 4,500 FEET ELEVATION.
(2) CONTROL WALL SWITCH TIMER BY DIVISION 23.
(3) PROVIDE AND INSTALL MOTORIZED DAMPERS AND INTER LOCK DAMPERS WITH FAN. RETURN DAMPER SHALL POWER CLOSED WHEN FAN IS ENERGIZED AND OPEN WHEN FAN IS TURNED OFF. EXHAUST DAMPER SHALL POWER OPEN WHEN FAN IS ENERGIZED AND CLOSED WHEN FAN IS TURNED OFF.

GAS FIRED FURNACE SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	ORIENTATION	MAX INPUT LOAD (MBH)	MAX. OUTPUT LOAD (MBH)	AIRFLOW RATE (CFM)	OUTSIDE AIRFLOW RATE (CFM)	EXTERNAL STATIC PRESSURE DROP (IN H2O)	FLUE SIZE (IN)	AFUE EFFICIENCY	ASSOCIATED COOLING COIL	ASSOCIATED CONDENSING UNIT	ELECTRICAL: UNIT AMPACITY	ELECTRICAL: MAX FUSE CKT BKR (AMPS)	ELECTRICAL: MAX INPUT AMPS (AMPS)	ELECTRICAL: MOTOR SIZE (HP)	ELECTRICAL: VOLT/PH/HZ	PHYSICAL: WIDTH/ DEPTH/ HEIGHT (IN)	PHYSICAL: WEIGHT (LBS)	NOTES
F-1	CARRIER 59MN7C060E171116	MECHANICAL	VERTICAL - UPFLOW	60	58.2	1,600	235	0.5	(2)	80	DX-1	ACC-1	11.5	15	8.8	0.5	115/1/60	18/30/35	160	(1)(2)

(1) ALL CONDITIONS RATED AT 4,500 FEET ELEVATION.
(2) POWER VENT. SIZE INTAKE AND EXHAUST PER MANUFACTURER'S REQUIREMENTS.

GRILLES, REGISTERS AND DIFFUSERS

ID	MANUFACTURER	MODEL	SIZE	MAX CFM	MAX NC	DESCRIPTION
DB-1	IN-O-VENT	DRYER BOX 350	4	100		TYPE: DRYER BOX CONSTRUCTION: GALVALUME CONSTRUCTION
DV-1	IN-O-VENT	DRYER JACK DJK486	4	100		TYPE: EXTERNAL DRYER VENT CONSTRUCTION: GALVALUME CONSTRUCTION
SWS-1	EH PRICE	520	10 x 10 16 x 36	300 1100	25	DOUBLE DEFLECTION SIDEWALL SUPPLY REGISTER. VERTICAL FRONT WITH HORIZONTAL REAR DEFLECTION ADJUSTABLE VANES SPACED AT 3/4 INCH O.C. COMPLETE WITH REMOVABLE CORE.
SWR-1	EH PRICE	91	10 x 10 18 x 10 24 x 18	240 480 900	25	HEAVY DUTY SIDE WALL RETURN AIR GRILLE. STATIONARY HORIZONTAL 45 DEG DEFLECTION VANES SPACED AT 1/2 INCH O.C. 1 1/4 INCH FLANGE. FRAME MADE OF 16 GAUGE STEEL. INSTALL INTERMEDIATE SUPPORT CHANNELS AS REQUIRED.

SMOKE VENT

ID	MANUFACTURER	MODEL	QTY	SIZE	WEIGHT (LBS)	HP	V/P/H	AMPS	NOTES
SV-1	BILCO	ACDSV6096	2	5' X 8'	2247	0.5	115/1/60	6	(1)(2)(3)(4)

(1) PROVIDE AND INSTALL ON INSULATED 12" CURB. CURB RAILS SHALL BE 8" THICK AND HAVE 4" RIGID INSULATION.
(2) UNIT COMPLETE WITH MOTORIZED ACTUATION WITH 3 PUSH BUTTON STATION FOR REMOTE OPERATION.
ACTUATOR SHALL COME WITH 24VDC RELAY FOR CONNECTION TO FIRE ALARM SYSTEM.
(3) SMOKE VENT TO BE SHIPPED WITH RED-OXIDE PRIMER. CONTRACTOR SHALL PAINT SMOKE VENT WITH AN ALKYD BASE ENAMEL FINISH COAT. COLOR BY ARCHITECT.
(4) PERFORMANCE RATINGS: STC-50, OTC 46, AND ISO 140-18. UL LISTED.

SILENCER SCHEDULE (VIBRO-ACOUSTICS)

TAG	SYSTEM	TYPE (NOTE 1)	DIMENSIONS: DUCT WIDTH, IN.	DIMENSIONS: DUCT HEIGHT, IN.	DIMENSIONS: LENGTH IN.	AIRFLOW, CFM	VELOCITY, FPM (NOTE 2)	IDEAL DP IN.W.G. (NOTE 3)	MAX.DP W/SYS EFF IN.W.G. (NOTE 4)	MINIMUM DYNAMIC INSERTION LOSS, dB (NOTE 5) OCTAVE BAND CENTER FREQUENCY, HZ: 63	125	250	500	1000	2000	4000	8000	BASIS OF DESIGN VIBRO-ACOUSTICS MODEL NUMBER	NOTES
SA-1	SUPPLY AIR	SRD	67	26	12	10000	<827	0.30	UNKNOWN	3	4	5	8	13	15	12	11	SRD-LV-32405	6

Notes:
1. TYPE SR - SHORT RECTANGULAR D - DISSIPATIVE
2. VELOCITY SHOWN IS + (FORWARD FLOW) OR - (REVERSE FLOW) AS DEFINED BY ASTM E477-20.
3. IDEAL PRESSURE DROP AS DETERMINED PER ASTM E477-20 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY.
4. PRESSURE DROP PER ASTM E477-20 PLUS SYSTEM EFFECTS FOR NEARBY DUCT ELEMENTS.
5. MINIMUM DYNAMIC INSERTION LOSS DETERMINED PER ASTM E477-20 IN A NVLAP-ACCREDITED ACOUSTICAL LABORATORY.
6. FOR NON-BASIS OF DESIGN PRODUCT SUPPLIED, CONTRACTOR IS FINANCIALLY RESPONSIBLE TO ENSURE NOISE CONTROL SOLUTION IS DELIVERED TO ACHIEVE SPECIFIED NC LEVEL IN SPACES.

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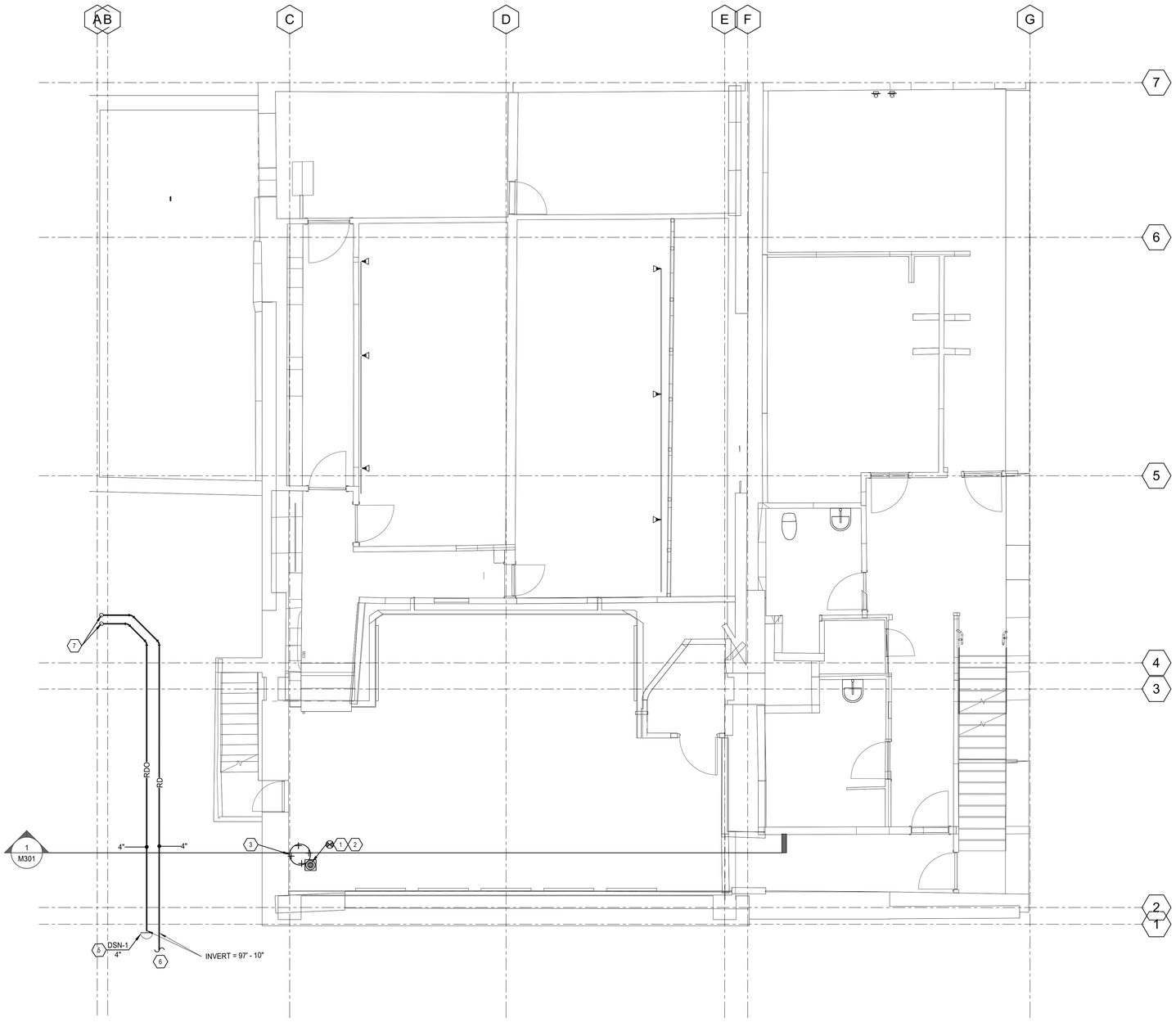
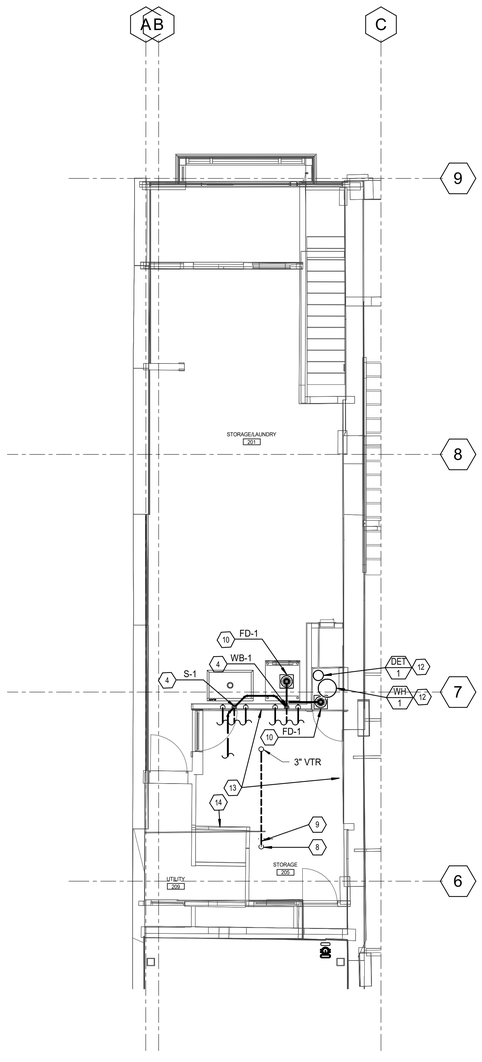


2 BASEMENT LEVEL PLUMBING PLAN
1/4" = 1'-0"



1 APARTMENT PLUMBING PLAN
1/4" = 1'-0"

KEYED NOTES

1. REMOVE EXISTING FLOOR DRAIN. PATCH AND REPAIR FLOOR TO MATCH NEW FLOOR.
2. SAWCUT FLOOR IN THIS AREA FOR REMOVAL OF EXISTNG FLOOR DRAIN. PATCH AND REPAIR TO MATCH EXISTING.
3. DEMOLISH AND REMOVE EXISTING ELECTRIC WATER HEATER. CAP HOT AND COLD WATER PIPING.
4. ADDITIVE ALTERNATIVE #1: CONNECT NEW WASHER BOX DHW, DCW, WASTE AND VENT TO EXISTING COLD WATER LINE AND NEW HOT WATER HEATER. FIELD VERIFY EXACT LOCATIONS AND SIZES.
5. INSTALL DOWNSPOUT NOZZEL IN CATCH BASIN. SEE CIVIL DRAWINGS.
6. SEE CIVIL DRAWINGS FOR CONTINUATION.
7. ROOF DRAIN AND ROOF DRAIN OVERFLOW PIPING FROM ABOVE.
8. RELOCATE PLUMBING VENT 6 FEET TO THE NORTH.
9. CONNECT TO EXISTING 3" PLUMBING VENT AND EXTEND TO NEW LOCATION.
10. ADDITIVE ALTERNATIVE #1: INSTALL NEW FLOOR DRAIN AND CONNECT WASTE AND VENT TO EXISTING WASTE AND VENT LINES. FIELD VERIFY EXACT LOCATIONS AND SIZES.
11. ADDITIVE ALTERNATIVE #1: INSTALL NEW SINK AND CONNECT TO EXISTING WASTE, VENT, COLD WATER LINE AND NEW HOT WATER HEATER. FIELD VERIFY EXACT LOCATIONS AND SIZES.
12. ADDITIVE ALTERNATIVE #1: INSTALL NEW WATER HEATER AND EXPANSION TANK AND CONNECT TO EXISTING COLD WATER LINE AND NEW HOT PIPING FOR NEW FIXTURES. FIELD VERIFY EXACT LOCATIONS AND SIZES.
13. ADDITIVE ALTERNATIVE #2: INSTALL NEW FLOOR MOUNTED TOILET, FLOOR DRAIN, AND WALL MOUNTED SINK IN ROOM 205. CONNECT DHW, DCW, WASTE AND VENT TO EXISTING COLD WATER LINE AND NEW HOT WATER HEATER. FIELD VERIFY EXACT LOCATIONS AND SIZES.
14. ADDITIVE ALTERNATIVE #4: ADD WASHER BOX AND PIPING FOR SECOND WASHING MACHINE.

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BASEMENT PLUMBING PLANS

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ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
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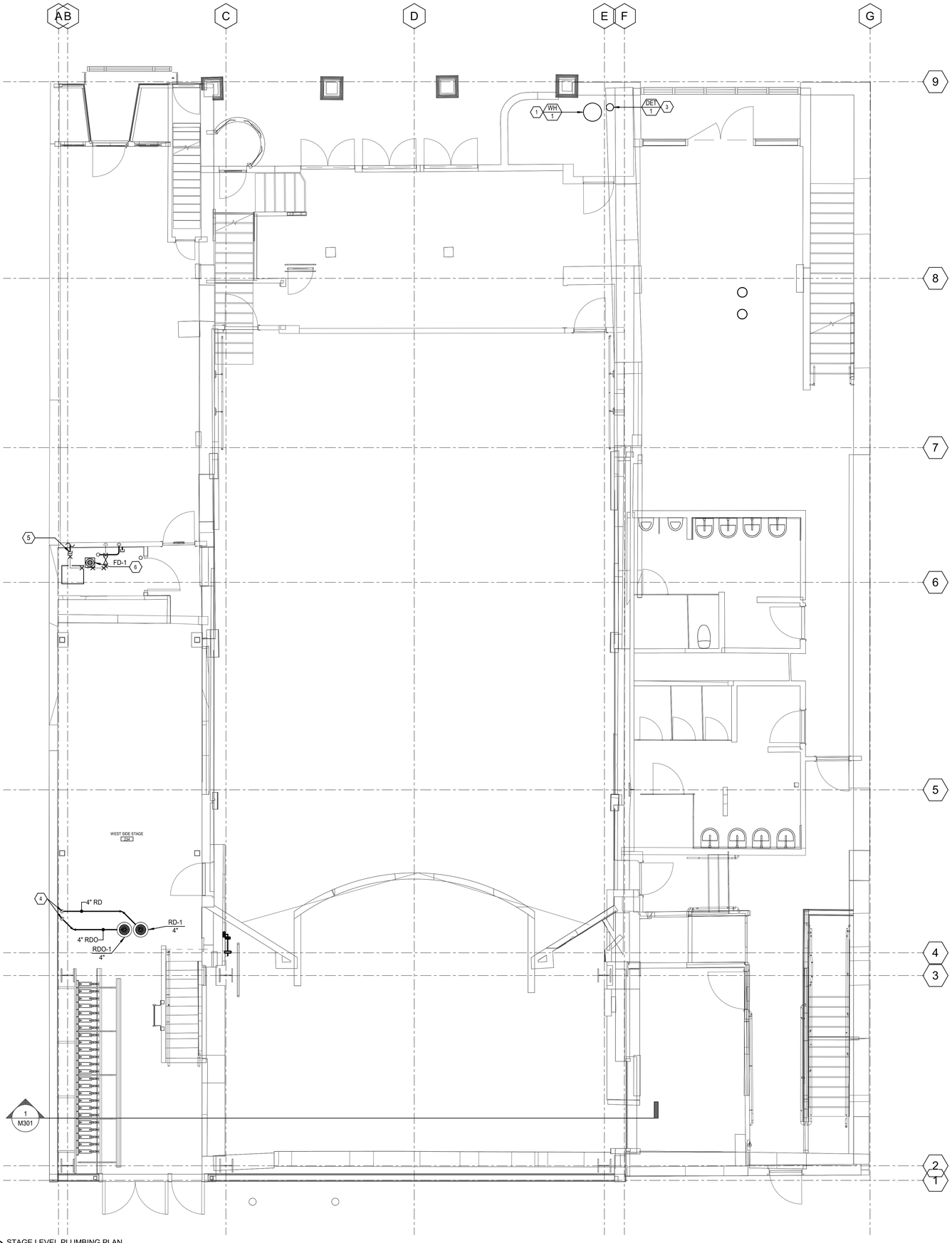

1 STAGE LEVEL PLUMBING PLAN
1/4" = 1'-0"

KEYED NOTES

1. CONNECT TO EXISTING COLD WATER PIPING AND PIPE HOT WATER TO SINK AND SERVICE SINK.
2. DEMOLISH AND REMOVE EXISTING DRAIN AND ASSOCIATED PIPING TO FLOOR LEVEL AND CAP.
3. CONNECT TO COLD WATER INLET OF NEW HOT WATER HEATER. MOUNT TO WALL.
4. ROOFDRAIN AND ROOFDRAIN OVERFLOW PIPING DOWN.
5. DEMO AND CAP EXISTING DOMESTIC COLD WATER LINE. DEMOLISH AND REMOVE ALL EXISTING DOMESTIC WATER PIPING DOWN STREAM OF CAPPED PIPE.
6. INSTALL NEW FLOOR DRAIN IN EXISTING CONCRETE FLOOR. CONNECT TO EXISTNG WASTE PIPING. FIELD VERIFY EXACT LOCATION.

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STAGE LEVEL PLUMBING PLANS

SCALE	1/4" = 1'-0"
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ISSUE	BID SET
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PLUMBING FIXTURE SCHEDULE

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	SPECIFICATION
S-1	TUB SINK	1/2	1/2	2	1 1/2	FLOOR MOUNTED TUB SINK: PROFLO PFLT4024 DOUBLE BASIN LAUNDRY SINK 40" X 24" X 33.75" HIGH WITH 13" DEEP TUB. PFLTDRAIN ASSEMBLY; 2" P-TRAP. CHICAGO NO. 1100-L9-317ABCP, DECK MOUNTED. 2.2 GPM, 4" WRIST BLADE HANDELS. POLISHED CHROME PLATED FINISH.
FD-1	FLOOR DRAIN	--	--	2	1 1/2	FLOOR DRAIN: EPOXY COATED CAST IRON BODY- ANCHOR FLANGE AND WEEPHOLES - NO HUB OUTLET - 5" DIAMETER STRAINER NICKEL BRONZE, FOR WOOD DECK INSTALLATION. PROVIDE DEEP SEAL TRAP AND TRAP GUARD TYPE TRAP SEAL DEVICE.
WB-1	WASHER BOX	3/4	3/4	2	2	WATER OUTLET BOX: WATER-TITE MBS1200HA WASHING MACHINE OUTLET BOX WITH DRAIN, QUARTER-TURN BALL VALVES AND INTEGRAL WATER HAMMER ARRESTERS.

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

ELECTRIC WATER HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATIONS	NOMINAL CAPACITY (GALLONS)	TYPE	DISCHARGE WATER TEMPERATURE (F)	ELECTRICAL STANDARD (KW)	V/PH	PHYSICAL HEIGHT/ WIDTH (IN)	PHYSICAL WEIGHT (LBS)	NOTES
WH-1	AO SMITH EJC-6	SEE PLANS	6	TANK	100	1.65	120/1	15.25/14.25	35	(1)

(1) INSTALL WATER HEATER WITH SERVICE STOPS AND UNIONS.

DOMESTIC EXPANSION TANK SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	FLUID WORKING FLUID	PHYSICAL MIN. TANK/ ACCEPTANCE (GAL)	PHYSICAL TANK SIZE (GAL)	PHYSICAL RELIEF VALVE (PSIG)	PHYSICAL DIA./ HEIGHT (IN)	PHYSICAL NPT FITTING (IN)	NOTES
DET-1	AMTROL ST-5C	SEE PLANS	WATER	0.9	2	75	8/14	3/4	(1)

1. TANK LINER SUITABLE FOR POTABLE WATER, ASME.

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PLUMBING SCHEDULES

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JOB NO.	23-05	P601
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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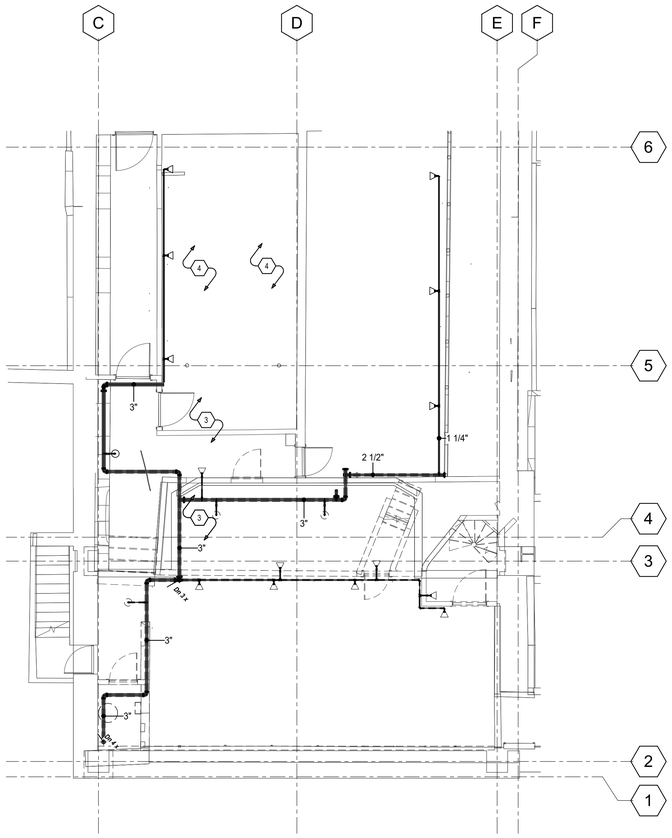
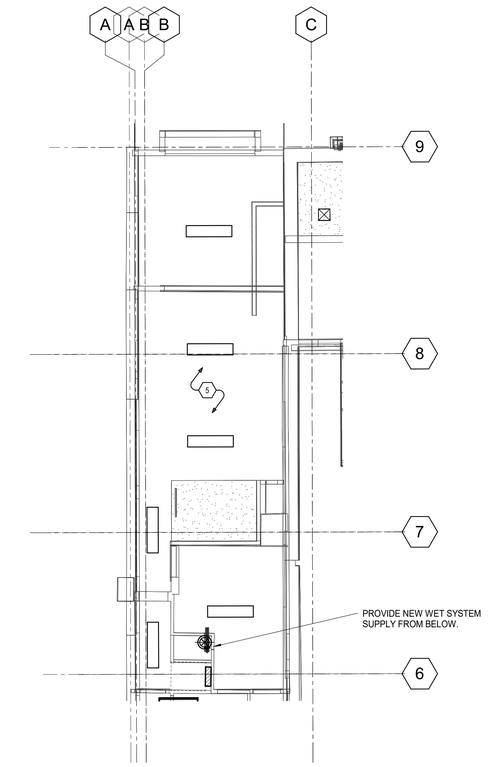
KEYED NOTES

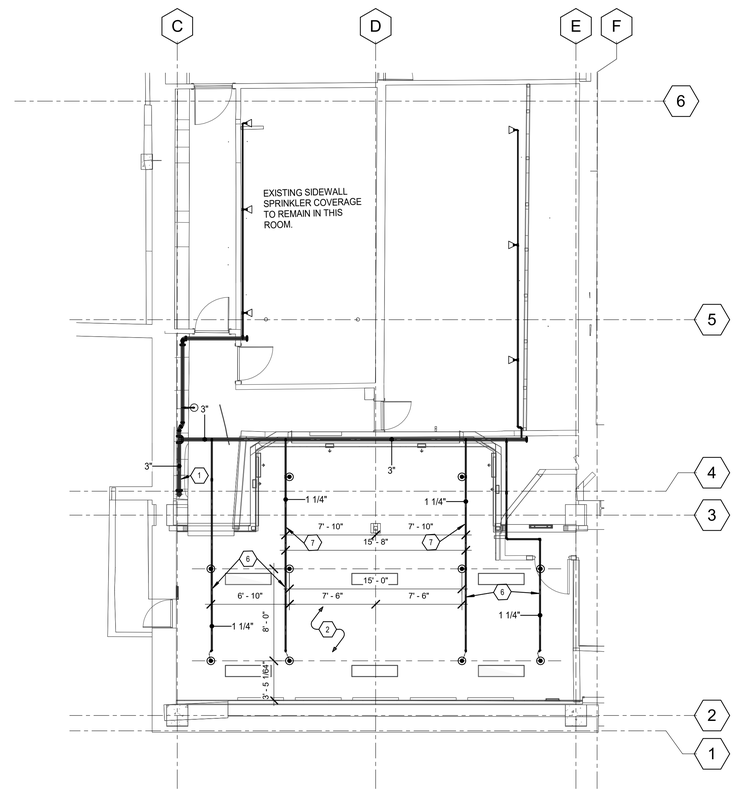
1. NEW POINT OF CONNECTION. 4" FIRE SPRINKLER PIPE FEED FROM ABOVE.
2. REVISE FIRE SPRINKLER SYSTEM LAYOUT IN THIS AREA FOR NEW ROOM CONFIGURATIONS. REMOVE ALL EXISTING FIRE SPRINKLER SYSTEMS AND INSTALL NEW. RECONNECT PIPING SUPPLYING OTHER BUILDING AREAS, TYPICAL.
3. DEMOLISH SPRINKLER SYSTEM IN THIS AREA.
4. SPRINKLER SYSTEM SHALL REMAIN IN THESE AREAS. RECONNECT EXISTING PIPING TO NEW SUPPLY POINTS.
5. PROVIDE NEW WET PIPE SPRINKLER SYSTEM THROUGHOUT UPSTAIRS APARTMENT. DESIGN DENSITIES SHALL BE IN ACCORDANCE WITH NFPA 13 OH-1 HAZARD CLASSIFICATION FOR COSTUME STORAGE THROUGHOUT.
6. FIRE SPRINKLER PIPING TO BE CONCEALED IN JOIST SPACE ABOVE FINISHED CEILING.
7. COORDINATE FIRE SPRINKLER PATHING WITH PENETRATIONS IN STEEL BEAM PROVIDED. SEE STRUCTURAL.



1 BASEMENT FIRE SPRINKLER DEMO PLAN
3/16" = 1'-0"



3 APARTMENT FIRE PROTECTION
3/16" = 1'-0"



2 BASEMENT FIRE SPRINKLER PLAN
3/16" = 1'-0"

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BASEMENT & APARTMENT FIRE SPRINKLER PLAN

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JOB NO.	23-05
ISSUE	BID SET
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F101



EXISTING FIRE RISER WITH ALARM CHECK VALVE, MAIN DRAIN, AND RETARD CHAMBER. FDC IS BEHIND, AND ROUTES BELOW GRADE TO EXTERIOR.

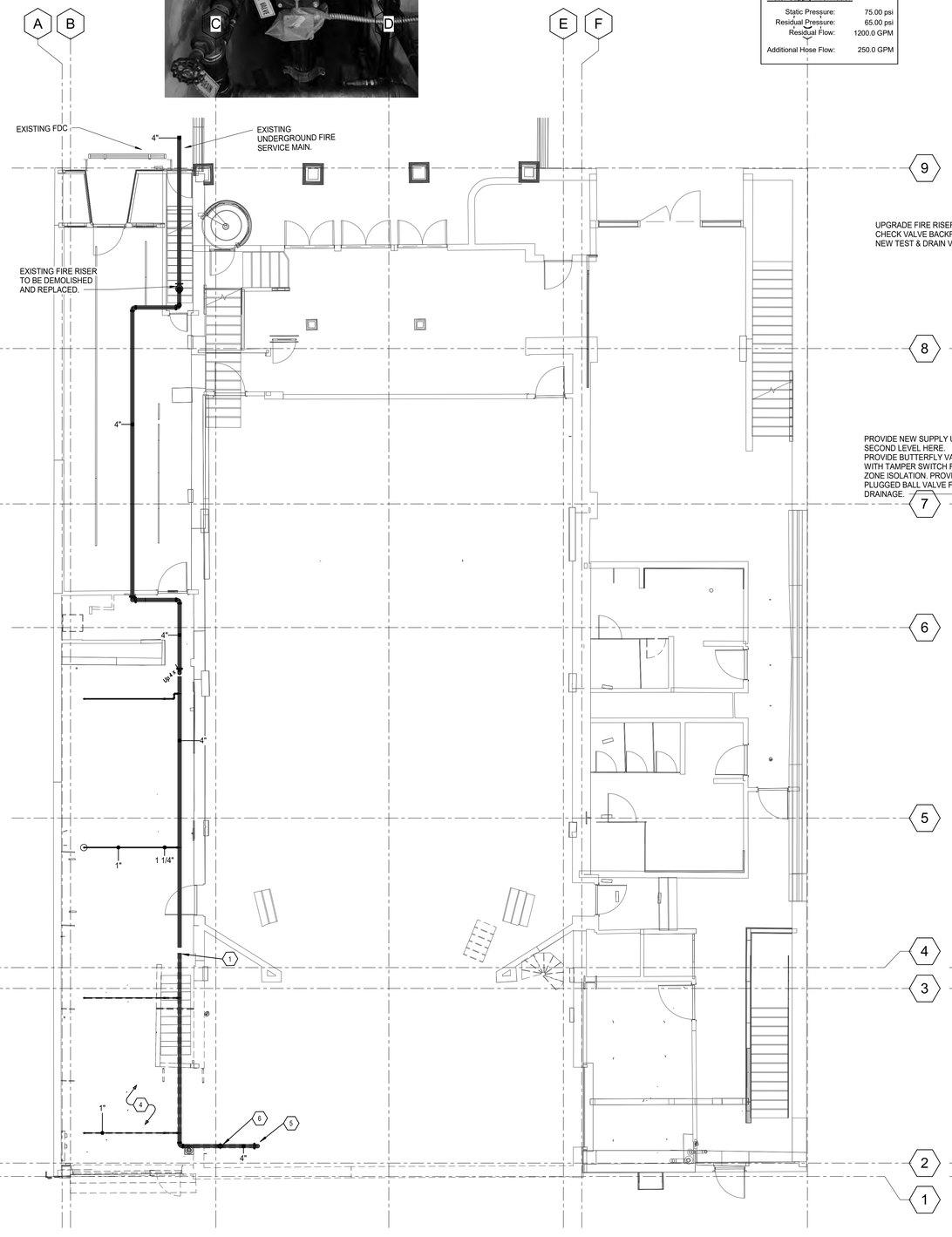
STATIC PRESSURE OBSERVED NEAR 70 PSI.

Water Supply Information

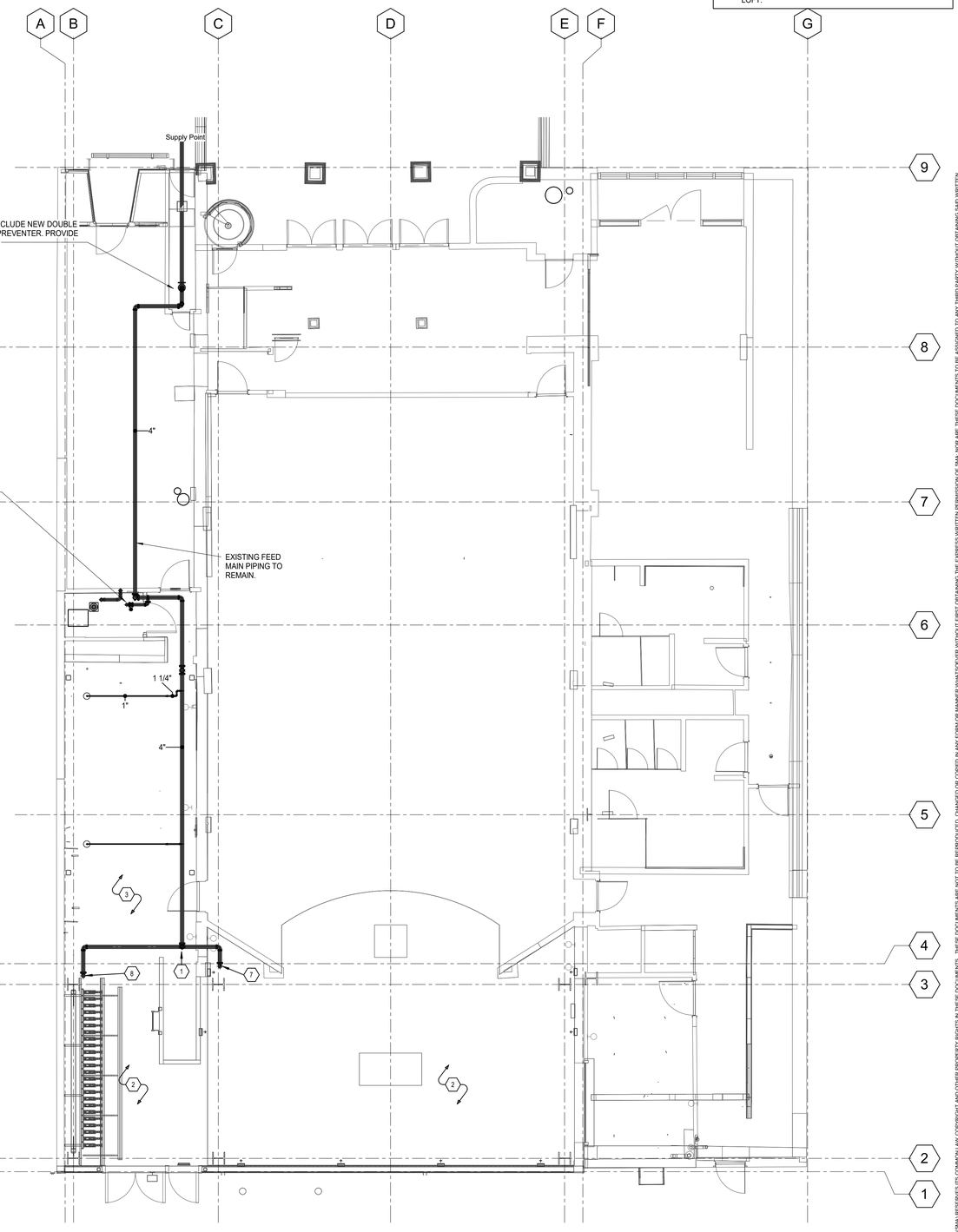
Static Pressure:	75.00 psi
Residual Pressure:	65.00 psi
Residual Flow:	1200.0 GPM
Additional Hose Flow:	250.0 GPM

KEYED NOTES

#	
1.	DEMOLISH FIRE SPRINKLER SYSTEM PIPING BACK TO THIS POINT.
2.	OPEN TO ABOVE. SEE FLY-LOFT PLAN.
3.	REVISE EXISTING SPRINKLER SYSTEM FOR NEW LAYOUT AND TRANSITION TO NEW HIGH CEILING NEAR THIS AREA.
4.	DEMOLISH EXISTING FIRE SPRINKLER SYSTEM IN THIS AREA.
5.	EXISTING 4" SUPPLY UP TO FLY LOFT AND AUDITORIUM SEATING SPRINKLER SYSTEM. DEMOLISH AND REROUTE SUPPLY.
6.	EXISTING 4" SUPPLY DOWN TO BASEMENT LEVEL. DEMOLISH AND REROUTE SUPPLY.
7.	NEW SUPPLY DOWN TO BASEMENT LEVEL.
8.	NEW SUPPLY UP TO UPPER ROOF, PLATFORMS, LOFT.



1 STAGE LEVEL FIRE SPRINKLER DEMO PLAN
3/16" = 1'-0"



2 STAGE LEVEL FIRE SPRINKLER PLAN
3/16" = 1'-0"

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STAGE LEVEL FIRE SPRINKLER PLAN

SCALE	3/16" = 1'-0"
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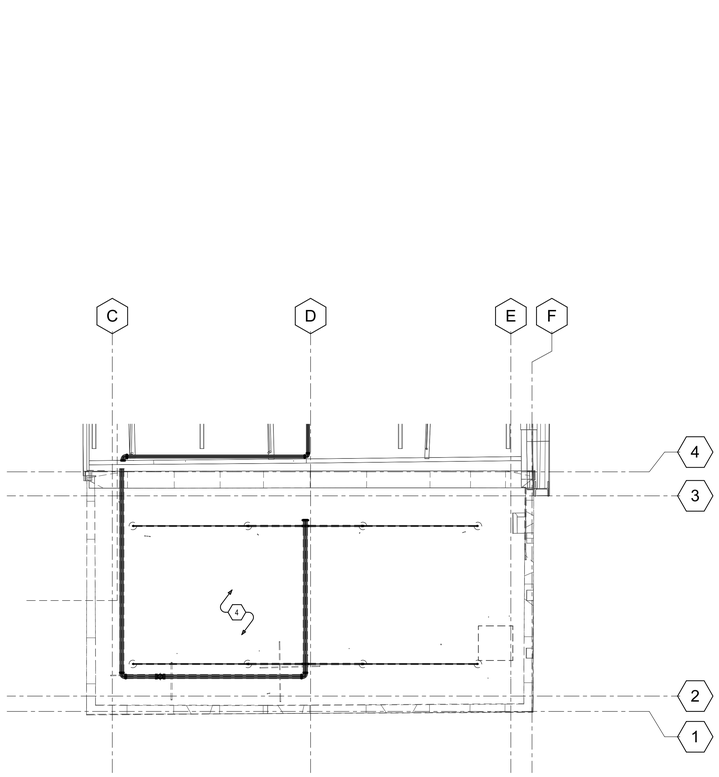
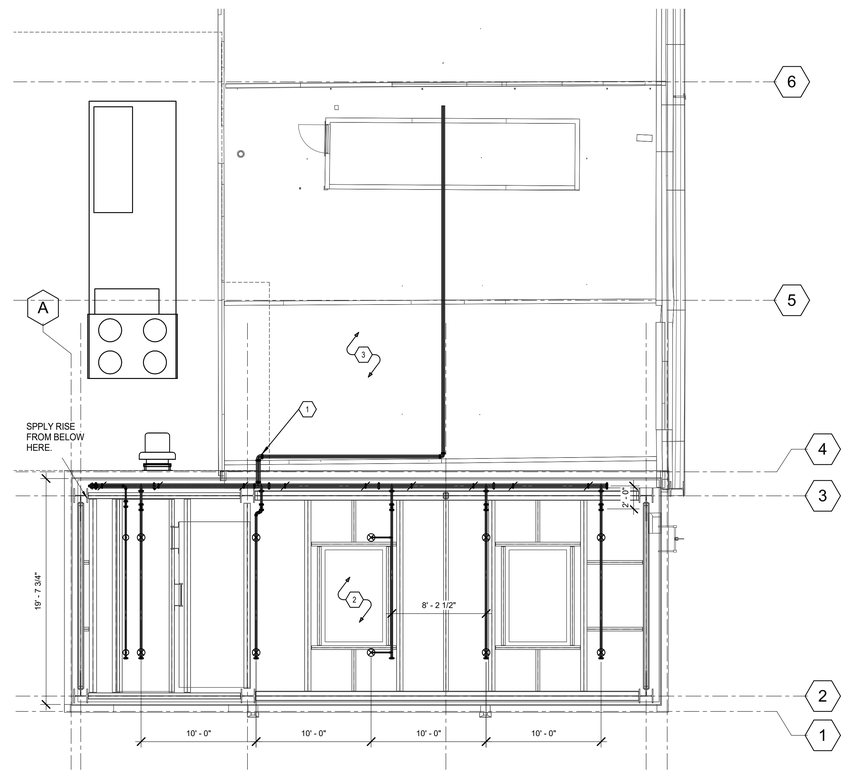
KEYED NOTES

1. EXISTING POINT OF CONNECTION TO AUDITORIUM SEATING SPRINKLER SYSTEM. RECONNECT SUPPLY AT THIS POINT.
2. INSTALL NEW SPRINKLER SYSTEM IN FLY LOFT. DESIGN IN ACCORDANCE TO NFPA 13, OH-2 HAZARD CLASS WITH MINIMUM 8.0 K HEADS. PROVIDE COORDINATION WITH RIGGING, LIGHTING, AND THEATRICAL ELEMENTS.
3. SPRINKLER SYSTEM TO REMAIN IN THIS AREA.
4. DEMOLISH AND REMOVE ALL FIRE SPRINKLER SYSTEM COMPONENTS FROM THIS AREA.



1 FLY LOFT FIRE SPRINKLER DEMO PLAN
3/16" = 1'-0"



2 FLY LOFT FIRE SPRINKLER PLAN
3/16" = 1'-0"

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MEMORANDUM

To: Darren Farrar, City Engineer
Craig Humphries, Fire Marshall
File

From: Joe Hawkes, P.E.
450 N 1000 W
Logan, UT 84321

Date: November 13, 2024

RE: 30 W Center Street – Fire Flow Analysis

Logan City has developed a calibrated water model that is used to evaluate the ability to deliver water in accordance to Utah State Code (R309-105-9. Minimum Water Pressure). In accordance with these rules, we are required to meet the following requirements for new development:

1. Pressures not less than 20 psi during conditions of fire flow and fire demand experienced during peak day demand.
2. Pressures not less than 30 psi during peak instantaneous demand (without fire flows)
3. Pressures not less than 40 psi during peak day demand (without fire flows)
4. The addition of new development cannot reduce the residual pressure at any service connection in the system to below 20 psi under any conditions.

Table 1 summarizes our peaking factors and demands for the referenced project used in the impact evaluation.

Table 1 - Summary of Model Parameters

Description	Value	Source
Peak Day Factor	1.8	Culinary Water System Master Plan (CWSMP), April 2007, pg 2-9.
Peak Hour	2.4	CWSMP, April 2007, pg 2-9.
Instantaneous Peak Factor	3.5	Review of system wide SCADA.
Lowest Water Demand Factor	0.5	Review of system wide SCADA
Fire Flow Required	2,000 gpm	Estimated (Actual per IFC Table B105.1)
Water Demand of Project	(not provided)	Estimated Average Day

The evaluation assumes that all of the flows come directly off of the existing City water system at the given locations. This evaluation does not include any losses in hydrant lines, service lines, fire lines, private lines, or any piping other than the City's distribution system.

Results

Table 2 summarizes the modeled results at the identified fire hydrant.

Table 2 - Results at end of 4" Fire Line at 30 W Center St

Condition (@ J9444)	Flow (gpm)	Pressure (psi)
Peak Day	NA	80 (static)
Fire Flows*	2,000	-20
Maximum Available Flows	~1,535	20

* Fire flows are additive with Peak Day flows for total flow at the farthest point affecting the proposed development. Negative pressures represent a flow that is not possible under the analyzed conditions.

Table 3 summarizes the modeled results available at the waterlines.

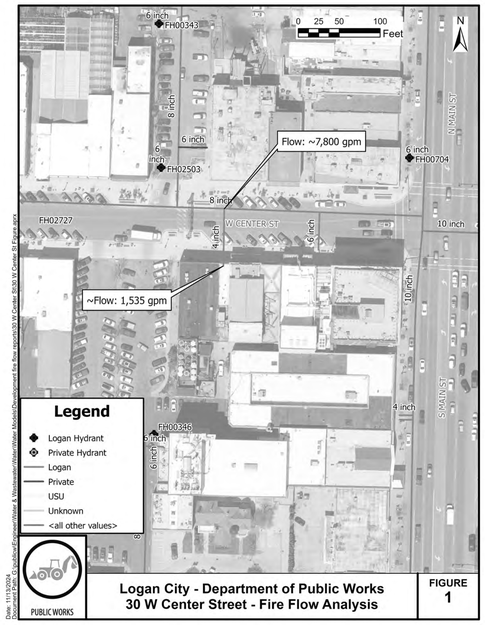
Table 3 - Results at Existing 8" Waterline at Approximately 30 W Center St

Condition (@ J2952)	Flow (gpm)	Pressure (psi)
Peak Day	NA	81 (static)
Fire Flows*	2,000	74
Maximum Available Flows	~7,800	20

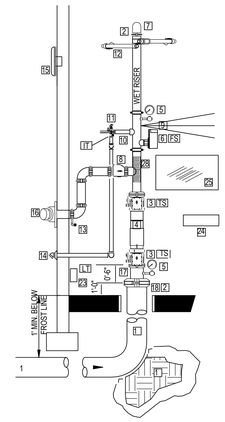
* Fire flows are additive with Peak Day flows for total flow at the farthest point affecting the proposed development. Negative pressures represent a flow that is not possible under the analyzed conditions.

This information provides three points from which the developer's consultant can create a pressure versus flow curve to match the actual values. The actual design fire flow must be obtained from the Fire Marshall prior to completing the hydraulic analysis. Figure 1 shows the locations of this fire flow analysis.

This information is provided as a courtesy to designers to represent typical values seen in the system during peak day demands. However, pressures and available flows vary throughout the year due to operational changes, changes in system demands, and system growth. The City can only strive to provide minimum pressures defined in State Code R309-105. Fire System Designers should account for some of these potential variations by implementing safety factors or performing physical tests in addition to computer model analyses to determine the minimum pressures for the fire suppression system.



Date: 11/13/2024
Drawn By: C:\Public\Engineer\Water & Wastewater\Water Models\Development fire flow reports\30 W Center St\30 W Center St Figure.aprx



WET RISER DETAIL KEYED NOTES:

1. WATER SUPPLY FROM CITY WATER MAIN. EXISTING TO REMAIN.
2. FLEXIBLE GROOVED PIPE COUPLING.
3. GROOVED BUTTERFLY VALVE WITH INTEGRAL SUPERVISORY SWITCH.
4. DOUBLE CHECK BACKFLOW PREVENTER WITH RELATED TRIM AND GAUGES.
5. 3 1/2" DIAMETER WATER GAUGE WITH 1/4" TEST AND ISOLATION VALVE.
6. VANE TYPE WATER FLOW SWITCH.
7. SUPPLY TO WET PIPE FIRE SPRINKLER SYSTEM.
8. SWING CHECK VALVE.
9. RISER MANIFOLD - INCLUDES PRESURE GAUGE, FLOW SWITCH, PRESSURE RELIEF VALVE, AND TEST AND MAIN DRAIN DEVICE.
10. COMBINATION INSPECTOR'S TEST & MAIN DRAIN VALVE. - PIPED TO OUTSIDE.
11. PRESSURE RELIEF VALVE SET AT 175 PSI, WITH DIRECT DRAIN CONNECTION.
12. ~~DESIGNER TO REVIEW AND PROVIDE~~ - DELETED
13. 1/2" AUTOMATIC BALL DRIP VALVE.
14. 2" MAIN DRAIN. GALVANIZED. CONNECT TO EXISTING.
15. WEATHERPROOF VOICE ALARM/STROBE (OUTSIDE). ALARM ON FLOW.
16. CUT TO EXISTING FIRE DEPARTMENT CONNECTION. ~~GALVANIZED SCH 40 PIPING~~ - PROVIDE NEW CHECK VALVE.
17. GALVANIZED SPOOL PIECE WITH PRESSURE GAUGE.
18. REDUCING GROOVED COUPLING OR CONCENTRIC GROOVED REDUCER.
19. AMES STAINLESS STEEL "IN-BUILDING-RISER", MINIMUM 6 INCH.
20. NOT USED.
21. NOT USED.
22. NOT USED.
23. NOT USED.
24. SPARE HEAD CABINET WITH SPARE SPRINKLER HEADS AND WRENCHES.
25. LAMINATED SYSTEM MAP WITH SYSTEM START-UP AND SHUT-DOWN INSTRUCTIONS.
27. NOT USED.
28. HYDRAULIC CALCULATION PLACARDS

1 FIRE RISER DETAIL
NOT TO SCALE

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FIRE PROTECTION DETAILS

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ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
F501

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
A5 / E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
ROOM NAME 100	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
1	KEYNOTE INDICATOR.
1	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
X-X / XMDP	MECHANICAL EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "XMDP" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING
	BREAK, ROUND
MATCH LINE / SEE XxX-xXX	MATCH LINE INDICATOR: CENTER, EXTRA WIDE LINE.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE
	PROPERTY LINE: DASHED, WIDE LINE.
	CONTRACT LIMIT LINE: DASHDOT, WIDE LINE.
XXX / EF-X	ELECTRICAL EQUIPMENT INDICATOR. "XXX" INDICATES TYPE OF EQUIPMENT OR EQUIPMENT ID. "EF-X" IDENTIFIES MECHANICAL EQUIPMENT BEING SERVED. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
X-X / 1LA-3	EQUIPMENT INDICATOR. "X-X" INDICATES EQUIPMENT MARK SHOWN ON EQUIPMENT SCHEDULE. "1LA-3" IDENTIFIES PANEL EQUIPMENT IS CIRCUITED TO. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
WIRING METHODS	
	WIRING.
A-1	SINGLE BRANCH CIRCUIT HOME RUN TO PANELBOARD WITH DEDICATED NEUTRAL CONDUCTOR. LETTER AND NUMBER NOTATION IDENTIFY PANEL AND CIRCUIT NUMBER.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
HC	ADA ACCESS PUSH PLATE
	JUNCTION BOX.
C	JUNCTION BOX, CEILING.
	LADDER RACK.
	CABLE J-HOOKS ABOVE ACCESSIBLE CEILING.
	MECHANICAL EQUIPMENT CONNECTION. REFER TO EQUIPMENT SCHEDULE FOR REQUIREMENTS.
	GROUND BUSBAR. REFER TO GROUNDING RISER DIAGRAM FOR ADDITIONAL INFORMATION.

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
DF	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
IG	RECEPTACLE, DUPLEX, ISOLATED GROUND: NEMA 5-20R.
W	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
FB#	FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
PT#	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN THE ELECTRICAL SPECIFICATIONS FOR CONFIGURATION AND DEVICES.
X $	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
X $3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
	SWITCH, DIMMER.
	RECEPTACLE, DUPLEX, WITH USB OUTLET
STRUCTURED CABLING	
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). REQUIRES (2) DATA DROPS PER DEVICE
W	DATA CONNECTION: WIRELESS ACCESS POINT (WAP). WALL MOUNTED. REQUIRES (2) DATA DROPS PER DEVICE
X	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
ELECTRICAL POWER AND DISTRIBUTION	
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	DISCONNECT WITH FUSE AND MOTOR STARTER COMBINATION (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
MCP	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM).
#AF / #AT	CIRCUIT BREAKER, ADJUSTABLE TRIP. "225AF" REPRESENTS THE RATING AND "150AT" REPRESENTS THE TRIP SETTING. (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
GFP	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
	TRANSFORMER (ONE-LINE DIAGRAM).
"1DPHA"	DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER, PLUG-IN BUSWAY, MEDIUM VOLTAGE SWITCHBOARD (ONE-LINE DIAGRAM).
"1H"	PANELBOARD (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 25/3	PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" 225/3 "1H"	PANELBOARD WITH SUB FEED LUGS (ONE-LINE DIAGRAM).
225/3 "1H" "1H"	PANELBOARD WITH CIRCUIT BREAKER AND SUB FEED LUGS (ONE-LINE DIAGRAM).
DMM	DIGITAL MULTIMETER (ONE-LINE DIAGRAM).
	EARTH GROUND (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
VFC VFD	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE DIAGRAM).
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
LP	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
	TRANSFORMER (SEE ONE-LINE FOR SIZE)
	ARC ENERGY REDUCTION

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
LIGHTING	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
(W-3E)	FIXTURE IDENTIFICATION: EMERGENCY LIGHTING FIXTURE WITH BATTERY PACK AND/ OR GENERATOR AND/ OR CENTRALIZED INVERTER AND/ OR CENTRALIZED UPS CONNECTION AS INDICATED IN PLANS. (W-3E) INDICATES FIXTURE TYPE AS SCHEDULED.
EM	EMERGENCY.
	EGRESS DIRECTION ARROW (EXIT SIGNS).
	EXIT SIGN: SINGLE FACE; CEILING MOUNTED
	EXIT SIGN: SINGLE FACE; WALL MOUNTED
	EXIT SIGN: DOUBLE FACE; CEILING MOUNTED
	EXIT SIGN: DOUBLE FACE; WALL MOUNTED
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
P	PHOTOCELL.
	VACANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
a,b	LOW VOLTAGE DIGITAL LIGHTING CONTROL SWITCH: LETTER "a,b" INDICATES ZONING WHERE SHOWN (REFER TO PLANS, SCHEDULES, AND DETAILS FOR EXACT BUTTON CONFIGURATION AND PROGRAMMING REQUIREMENTS)
RC	DIGITAL LIGHTING ROOM CONTROLLER
DC	DIGITAL LIGHTING DIMMING CONTROLLER
1 X	LIGHTING SPACE CONTROL TYPE. X INDICATES TYPE. SEE SCHEDULE / DIAGRAM.
FIRE ALARM	
FAA	FIRE ALARM ANNUNCIATOR PANEL.
FACP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
FATC	FIRE ALARM TERMINAL CABINET: NAC, SLC, SPEAKER CIRCUITS; AMPLIFIERS, BATTERIES
CM	CONTROL MODULE.
MM	MONITOR MODULE.
F	FIRE ALARM MANUAL PULL STATION.
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	DETECTOR, SMOKE.
E	DETECTOR, SMOKE, ELEVATOR RECALL DESIGNATION.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
SD	SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
FSD	COMBINATION FIRE/SMOKE DAMPER. 120V POWER FROM ELECTRICAL SYSTEM.
75	STROBE, WALL MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	ALARM, HORN/STROBE, WALL MOUNTED, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
75	ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
75	ALARM, STROBE, CEILING MOUNTED. SUBSCRIPT INDICATES CANDELA RATING.
SECURITY	
ACC	ACCESS CONTROL HEADEND EQUIPMENT.
SEC	INTRUSION DETECTION HEADEND EQUIPMENT.
CR	CARD READER.
CR	CARD READER, MULLION MOUNTED.
	SURVEILLANCE CAMERA.

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE
1PH	SINGLE-PHASE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3WAY	THREE-WAY
4OUT	QUADRUPLE RECEPTACLE OUTLET
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
A	ABOVE COUNTER
AC	ARMORED CABLE
ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AMP	AMPERE
ANN	ANNUNCIATOR
AP	ACCESS POINT (WIRELESS DATA)
AR	AS REQUIRED
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BB	BUCK-BOOST TRANSFORMER
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
C	CEILING MOUNTED
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT
CCTV	CLOSED CIRCUIT TELEVISION
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT
CI	CONTACT INDICATOR
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CND	CONDUIT
CO	CONVENIENCE OUTLET
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL PANEL
CR	CARD READER
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
dBA	UNIT OF SOUND LEVEL
DPDT	DOUBLE POLE, DOUBLE THROW
DS	DISCONNECT SWITCH
E	ENHANCED
EA	EACH
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRIC NONMETALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ER	EQUIPMENT ROOM
EX	EXISTING
F	FURNITURE MOUNTED
FA	FIRE ALARM
FCP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METAL CONDUIT
FOB	FREIGHT ON BOARD
FPP	FIBER PATCH PANEL
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GEN	GENERATOR
GFCI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GIG	GIGA HERTZ
GND	GROUND
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HWM	HORIZONTAL WIRE MANAGEMENT
HZ	HERTZ
I/O	INPUT/ OUTPUT
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED/ ISOLATED
IR	INFRARED
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWh	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTS	MANUAL TRANSFER SWITCH
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVER CURRENT PROTECTION
OE	OWNER ELECTRONICS
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFP	OBTAIN FROM PLANS
OH DR	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PNM	PLENUM
PR	PAIR
PS	POWER SUPPLY
PT	POTENTIAL TRANSFORMER
PTZ	PAN/TILT/ZOOM
PV	PHOTO VOLTAIC
QTY	QUANTITY
R	REPLACE / REINSTALL
RCP	REFLECTED CEILING PLAN
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETAL CONDUIT
RO	REMOTE DOOR OPEN
RPM	REVOLUTIONS PER MINUTE
RPP	RISER PATCH PANEL
RR	REMOVE AND RELOCATE
S/S	START/STOP
SCA	SHORT CIRCUIT AMPS
SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
SF	SQUARE FOOT (FEET)
SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPP	STATION PATCH PANEL
SPST	SINGLE POLE, SINGLE THROW
ST	SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TL	TWIST LOCK
TP	TELEPHONE POLE
TP	TWISTED PAIR
TR	TELECOMMUNICATIONS ROOM
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UF	UNDERFLOOR
UGND	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VFC/VF	VARIABLE FREQUENCY MOTOR CONTROLLER
VIC	VIDEO INTERCOM SYSTEM
VSS	VIDEO SURVEILLANCE SYSTEM
VWM	VERTICAL WIRE MANAGEMENT
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WPP	WIRELESS PATCH PANEL
XFMR	TRANSFORMER

GENERAL ELECTRICAL NOTES

1. CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
2. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
   A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
   B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
   C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE.THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
4. SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
6. ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

SITE COORDINATION

THE LOCATION, CAPACITY, AND VOLTAGE OF THE LINES ARE ALL IN ACCORDANCE WITH DATA GIVEN THIS OFFICE BY THE UTILITY COMPANY. COORDINATE WITH THE LOCAL UTILITY COMPANY FOR THE INSTALLATION OF THE ELECTRICAL SERVICE. COMPLY WITH UTILITY REGULATIONS. REPORT DISCREPANCIES TO THE ENGINEER.

ELECTRIC UTILITY

LOGAN LIGHT & POWER
290 N 100 W
LOGAN, UT 84321

PERSON CONTACTED: MATTHEW BOONE
DATE: JUNE 2024
PHONE NUMBER: 435-716-9743
EMAIL: MATTHEW.BOONE@LOGANUTAH.GOV

USU IT UTILITY

USU
LOGAN, UT

PERSON CONTACTED: DAVE TIDWELL
DATE: JUNE 2024
PHONE NUMBER: 435-797-4321
EMAIL: DAVID.TIDWELL@USU.EDU

ADDITIVE ALTERNATES

CONTRACTOR SHALL INCLUDE BREAKOUT PRICING FOR THE FOLLOWING ADDITIVE ALTERNATES IN BID SHEETS:

#2: PROVIDE RECEPTACLES IN APARTMENT STORAGE 205 AS GFCI (PLUS ONE ADDITIONAL GFCI RECEPTACLE AT VANITY).
#3: PROVIDE WASHER/DRYER RECEPTACLES SHOWN IN APARTMENT STORAGE 205. THESE ARE NOT TO BE INCLUDED IN BASE BID.

ELECTRICAL SHEET INDEX

EE001	ELECTRICAL COVER SHEET
EE501	ELECTRICAL DETAILS
EE502	ELECTRICAL DETAILS
EE601	GROUNDING RISER DIAGRAM
EE701	TYPICAL MOUNTING DETAILS
EE702	TYPICAL LABELING DETAILS
ES101	ELECTRICAL SITE PLAN
ES301	ELECTRICAL SITE ISOMETRIC VIEWS
ED100	BASEMENT DEMOLITION PLANS
ED101	STAGE LEVEL DEMOLITION PLANS
ED102	BALCONY LEVEL DEMOLITION PLANS
ED103	ATTIC LEVEL DEMOLITION PLANS
ED104	ROOF DEMOLITION PLANS
ED301	EXISTING SECTION VIEWS
ED601	FIRE ALARM RISER DIAGRAMS - DEMOLITION
EP100	BASEMENT POWER PLAN
EP101	STAGE LEVEL POWER PLAN
EP102	BALCONY LEVEL POWER PLAN
EP103	ROOF LEVEL POWER PLAN
EP301	POWER SECTIONS
EP601	ONE-LINE DIAGRAM
EP602	ELECTRICAL SCHEDULES
EP603	PANEL SCHEDULES
EP651	TELECOM CONDUIT RISER DIAGRAM
EL100	BASEMENT AND APARTMENT LIGHTING PLANS
EL101	STAGE AND BALCONY LEVEL LIGHTING PLANS
EL102	ATTIC AND DECK LEVEL LIGHTING PLANS
EL301	LIGHTING SECTIONS
EL601	LIGHTING SCHEDULES
EY100	BASEMENT AND STAGE AUXILIARY PLANS
EY101	BALCONY AND ATTIC AUXILIARY PLANS
EY102	ROOF AUXILIARY PLANS
EY501	ACCESS CONTROL DETAILS
EY601	FIRE ALARM RISER DIAGRAMS
EY602	AUXILIARY RISER DIAGRAMS

SYSTEM RESPONSIBILITY MATRIX v.0 01/30/25

	Designed By	Furnished By	Installed By	Notes
POWER & LIGHTING				
Medium Voltage Transformer(s)	NIC	Utility	Utility	Existing
Medium Voltage Cabling	NIC	Utility	Utility	
Medium Voltage Raceways/Ductbank	Design Team	Contractor	Contractor	
Emergency/Standy Generator	NIC	NIC	NIC	
Electric Vehicle Charging Stations	NIC	NIC	NIC	
Lightning Protection System	NIC	NIC	NIC	
Power and Distribution	Design Team	Contractor	Contractor	
House Interior Lighting and Controls	Design Team	Contractor	Contractor	
Theatrical Interior Lighting and Controls	TP	See Theater Sheets	See Theater Sheets	
Theatrical Rigging and Equipment	TP	See Theater Sheets	See Theater Sheets	
Exterior Lighting	Design Team	Contractor	Contractor	
COMMUNICATIONS				
Raceways, Cabletrays & Rough-in	Design Team	Contractor	Contractor	
Structured Cabling System	Owner	Owner	Owner	Cat 6A
Building ER/TR Racks & Cable Management	Owner	Owner	Owner	
Data ports, faceplates, boxes	Owner	Owner	Owner	
Active Electronic Equipment and PDUs	Owner	Owner	Owner	
DAS Testing and Systems - Emergency Response and Cell Phone	Owner	Owner	Owner	
SECURITY & LV MISC.				
Fire Alarm System	Design Team	Contractor	Contractor	Complete Demo and Replace. Salvage existing wiring and boxes for reuse.
Security Raceways and Rough-In	Design Team	Contractor	Contractor	
CCTV Security Camera System	Owner	Owner	Owner	
Access Controls System	Design Team	Contractor	Contractor	
Intrusion Detection System	NIC	NIC	NIC	
Wireless Clock System	NIC	NIC	NIC	
A/V				
Raceways/Rough-In	Design Team	Contractor	Contractor	Including AV Monitor Boxes
Audio and Video Systems	TP	See Theater Sheets	See Theater Sheets	
PRODUCTION SYSTEMS				
Raceways/Rough-in	Design Team	Contractor	Contractor	
Production Systems	TP	See Theater Sheets	See Theater Sheets	

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC..

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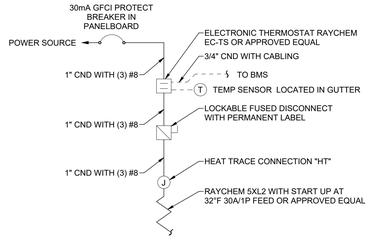
USU PROJECT NO: C001541

MAXIMUM CIRCUIT LENGTH IN FEET (METERS)					
	START-UP TEMPERATURE	CIRCUIT BREAKER SIZE			
		15A	20A	30A	40A
GM-1XT AND GM-1X AT 120 VOLTS	35°F (0°C)	100 (30)	135 (41)	200 (61)	-
	20°F (-7°C)	95 (29)	125 (38)	185 (56)	200 (61)
	0°F (-18°C)	80 (24)	100 (30)	155 (47)	200 (61)

12 TYPICAL HEAT TRACE - MAX. CIRCUIT LENGTH
SCALE: NTS



NOTE:
1. PROVIDE ALL REQUIRED PARTS AND HARDWARE FOR A COMPLETE AND WORKING SYSTEM

10 HEAT TRACE RISER
SCALE: NTS

NOTES:
1. IF THE DOWNSPOUT ENDS UNDERGROUND, THE HEATING CABLE SHOULD EXTEND INTO A HEATED AREA OR BELOW THE FROST LINE.

2. FOR LOW-WATER-FLOW SITUATIONS, TEEING THE HEATING CABLE SO THAT A SINGLE RUN GOES DOWN THE DOWNSPOUT IS USUALLY SUFFICIENT.

3. LEAVE DRIP LOOPS BELOW THE DOWNSPOUT AT BOTTOM.

4. ONLY A SINGLE RUN OF HEATING CABLE SHOULD BE USED UNLESS OTHERWISE DIRECTED BY OWNER. THE END SEAL SHOULD BE LOOPED BACK UP AT LEAST 12 INCHES INSIDE THE DOWNSPOUT.

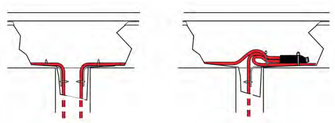


FIGURE 1: HEATING CABLE AT TOP OF DOWNSPOUT

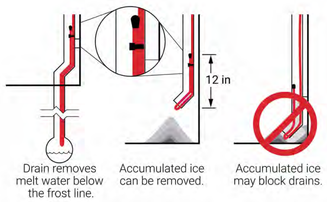
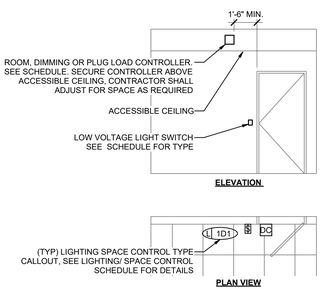
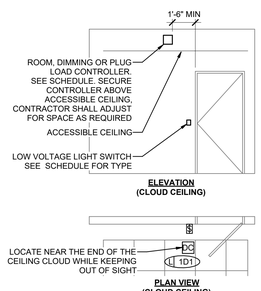


FIGURE 2: HEATING CABLE AT BOTTOM OF DOWNSPOUT

11 TYPICAL HEAT TRACE - DOWNSPOUTS
SCALE: NTS

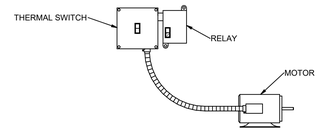




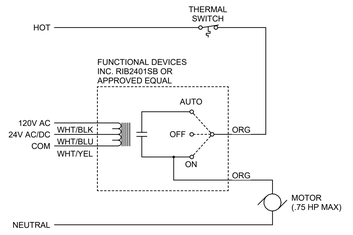
8 TYPICAL ROOM CONTROLLER MOUNTING DETAILS
SCALE: NTS

9 HEAT TAPE DOWNSPOUT DETAIL TYPICAL
SCALE: NTS

NOTE: THERMAL SWITCH AND RELAY MUST BE MOUNTED WITHIN SIGHT OF MOTOR BEING CONTROLLED.



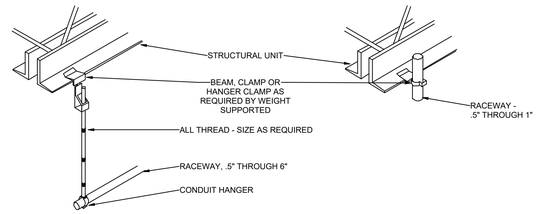
LAYOUT DIAGRAM

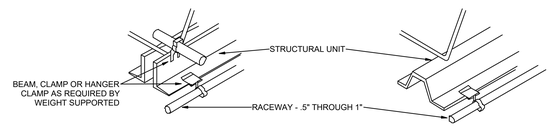


SCHEMATIC DIAGRAM

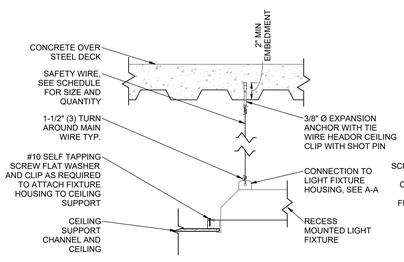
5 120V FRACTIONAL MOTOR CONTROL
SCALE: NTS

NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.

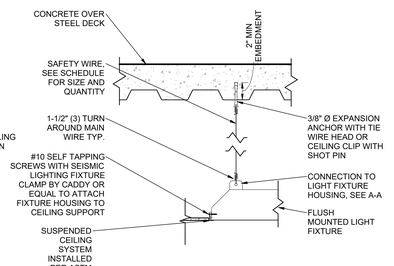




7 TYPICAL RACEWAY SUPPORT METHODS DETAIL
SCALE: NTS

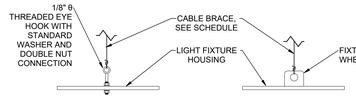


RECESSED MOUNTING



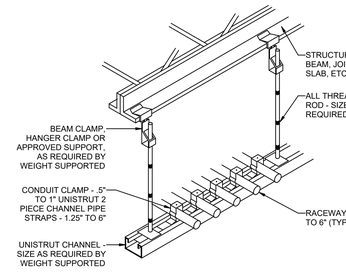
FLUSH MOUNTING

SUSPENDED LIGHT FIXTURE SCHEDULE		
WEIGHT (LBS)	QTY #12 GAUGE WIRES	COMMENTS
0-10	(1)	CONNECT AT CENTER OF GRAVITY OF FIXTURE. NEED NOT BE INSTALLED TAUT
10-56	(2)	INSTALL ON OPPOSITE CORNERS. NEED NOT BE INSTALLED TAUT
<56	(4)	INSTALL ONE EACH CORNER MUST BE INSTALLED TAUT. INDEPENDENTLY BRACED FROM CEILING

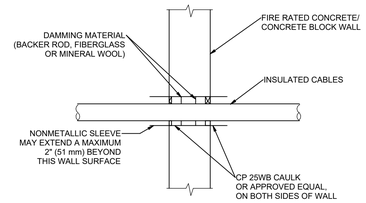


DETAIL A-A

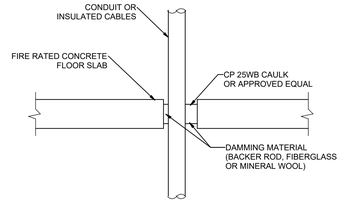
6 LIGHT FIXTURE CONNECTION
SCALE: NTS



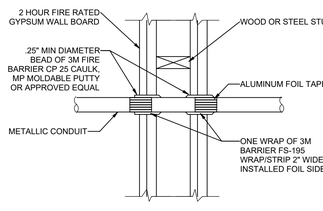
4 TYPICAL CONDUIT RACK DETAIL
SCALE: NTS



3 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS
SCALE: NTS



2 TYPICAL FIRE STOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING
SCALE: NTS



1 FIRE STOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ELECTRICAL DETAILS

		SHEET NO.
SCALE	As indicated	EE501
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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3/12/2025 10:45:36 AM Autodesk Docs://Caine Lyric Theatre - Fly Loft and Stage Improvements Project/23017/4-Elec Central_Phase II.rvt

PULLBOX SCHEDULE

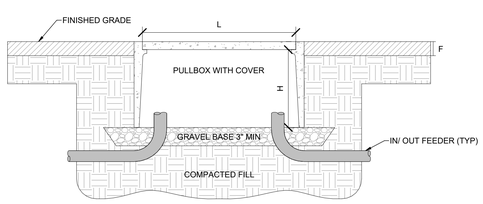
1 PROVIDE BASIS OF DESIGN OR PRE-APPROVED EQUAL.

2 CONTRACTOR SHALL ADJUST SIZE OF BOX AS REQUIRED FOR INSTALLATION.

3 PULLBOXES SHALL BE MARKED FOR THEIR INTENDED USE.

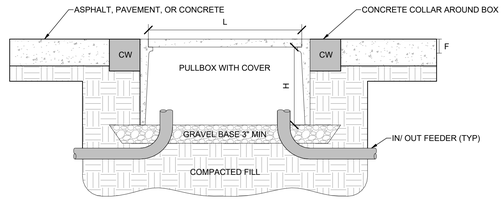
4 IF NOT DIRECTLY CONNECTED TO PANEL, STUB INTO ELECTRICAL OR COMM ROOM AND LABEL INDICATING BOX AND BOX LOCATION.

LABEL	DESCRIPTION	LENGTH (A)	WIDTH (B)	DEPTH (C)	COVER LABEL	MANUFACTURERS
PB1	DESCRIPTION: PRECAST CONCRETE PULLBOX INSTALLATION: FLUSH IN-GRADE BOX OPTIONS: OPEN BOTTOM COVER TYPE: BOLT DOWN COVER TRAFFIC TIER: TRAFFIC RATED (HS20)	36"	30"	24"	"ELECTRICAL"	OLDCASTLE CHRISTY (B2436) HUBBELL QUAZITE SERIES APPROVED EQUAL

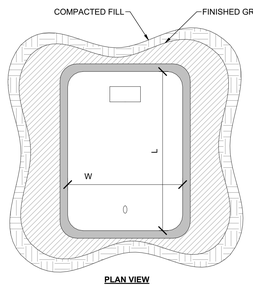


SECTION VIEW

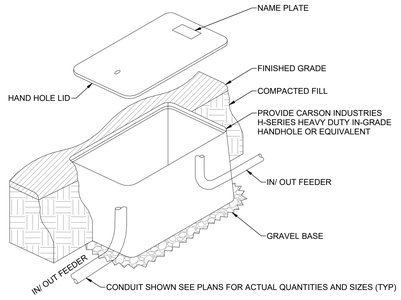
NOTE: REFER TO SCHEDULE FOR DIMENSIONS



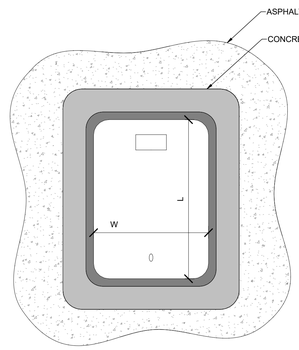
SECTION VIEW



PLAN VIEW

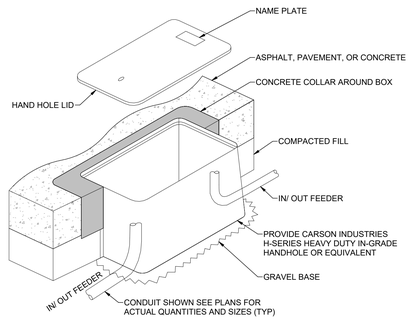


ISO VIEW



PLAN VIEW

NOTE: REFER TO SCHEDULE FOR DIMENSIONS



ISO VIEW

1 IN-GRADE/ABOVE GRADE PULLBOX DETAIL
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ELECTRICAL DETAILS

SCALE	1/8" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EE502

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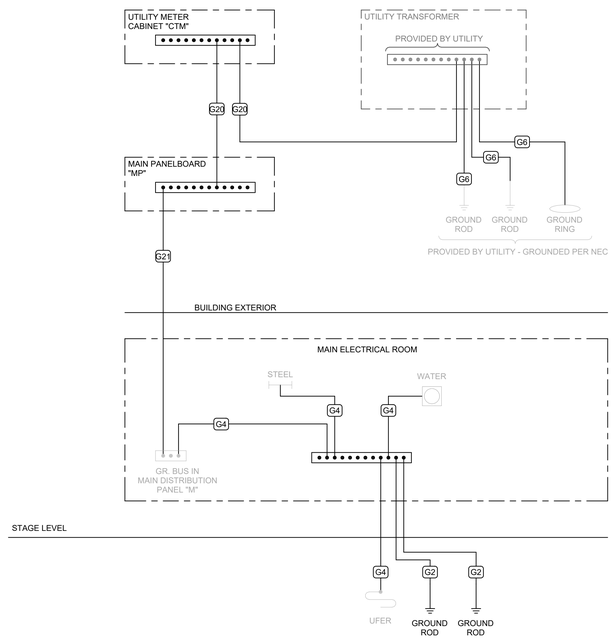
G#	GROUNDING SCHEDULE

NOTES

1. ALL CONDUCTORS ARE INSULATED UNLESS INDICATED OTHERWISE.
2. REFER TO ONE LINE AND ET SHEETS FOR ADDITIONAL GROUNDING REQUIREMENTS. WHERE DISCREPANCIES ARE FOUND, CONTRACTOR SHALL PROVIDE LARGEST GROUND CABLE SIZE.

SYMBOL	SIZE / DESCRIPTION
G2	#4 CU.
G4	#4/0 CU.
G6	BY UTILITY
G20	SUPPLY-SIDE BONDING JUMPER (SEE ONE-LINE FOR SIZING)
G21	EQUIPMENT GROUND (SEE ONE-LINE FOR SIZING)



1 GROUNDING RISER DIAGRAM
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REVISION SCHEDULE

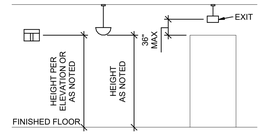
NO	DATE	DESCRIPTION

GROUNDING RISER DIAGRAM

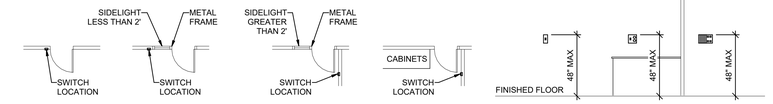
SCALE	1/8" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EE601

3/12/2025 10:45:38 AM Autodesk Docs://Caine Lyric Theatre - Fly Loft and Stage Improvements Project/23017-4-Elec Central_Phase II.rvt



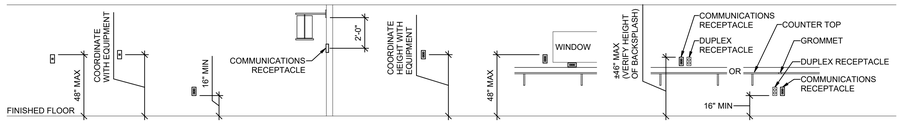
WALL MOUNTED LIGHT FIXTURE | PENDANT LIGHT FIXTURE | PENDANT EXIT SIGNS



STANDARD DOOR | DOOR WITH SIDELIGHT LESS THAN 2' | DOOR WITH SIDELIGHT GREATER THAN 2' | DOOR WITH NO PLACE FOR SWITCH AT LATCH SIDE | GENERAL USE: ADA | COMBINATION 48" MAX PLATE FOR SWITCH AND RECEPTACLE IN RESIDENTIAL BATHROOM | LIGHTING CONTROL STATION

7 LIGHTING MOUNTING DETAILS
SCALE: NTS

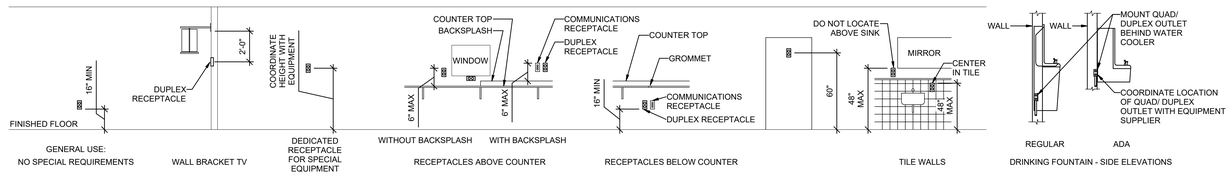
5 SWITCH MOUNTING DETAILS
SCALE: NTS



WALL PHONE | PAY PHONE | GENERAL USE: NO SPECIAL REQUIREMENTS | WALL BRACKET TV | DEDICATED RECEPTACLE FOR SPECIAL EQUIPMENT | ABOVE COUNTER - TYPICAL | RECEPTACLES ABOVE OR BELOW COUNTER

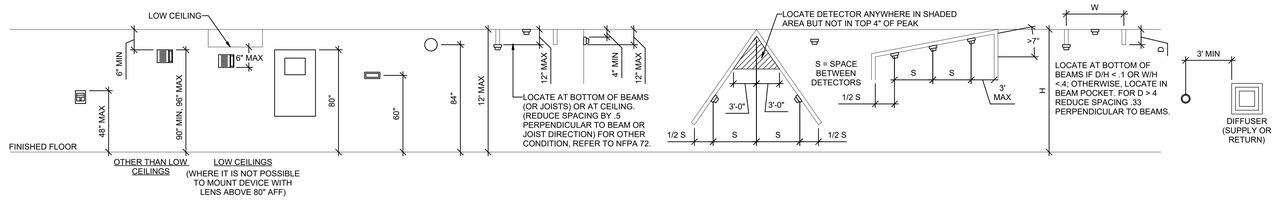
REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS

4 COMMUNICATIONS MOUNTING DETAILS
SCALE: NTS



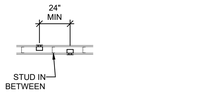
GENERAL USE: NO SPECIAL REQUIREMENTS | WALL BRACKET TV | DEDICATED RECEPTACLE FOR SPECIAL EQUIPMENT | WITHOUT BACKSPLASH | WITH BACKSPLASH | RECEPTACLES ABOVE COUNTER | RECEPTACLES BELOW COUNTER | TILE WALLS | REGULAR | ADA | DRINKING FOUNTAIN - SIDE ELEVATIONS

3 RECEPTACLE MOUNTING DETAILS
SCALE: NTS



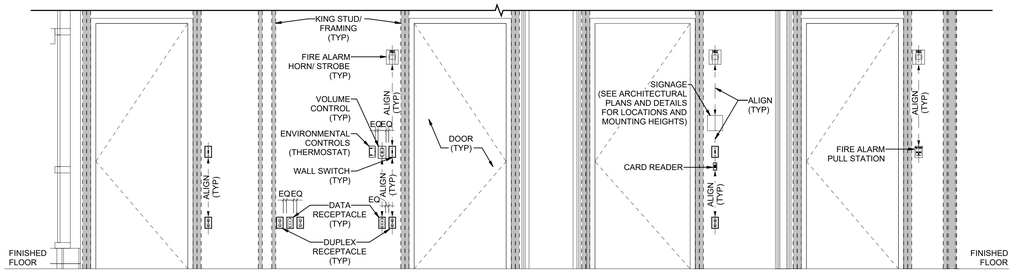
PULL STATION | AUDIBLE, VISIBLE, OR AUDIBLE/VISIBLE DEVICE | FIRE ALARM CONTROL PANEL | FIRE SYSTEM ANNUNCIATOR | BELL | SMOKE DETECTOR BETWEEN BEAMS | WALL MOUNTED SMOKE DETECTOR | SMOKE DETECTOR ON SLOPED CEILING (PEAKED) | SMOKE DETECTOR ON SLOPED CEILING (SHED) | HEAT DETECTOR BETWEEN BEAMS | SMOKE DETECTOR ADJACENT TO SUPPLY AIR

2 FIRE ALARM MOUNTING DETAILS
SCALE: NTS



FOR LESS THAN 24" SEPARATION, PROVIDE LISTED SOUND AND FIRE PUTTY PADS

BOXES ON OPPOSITE SIDES OF WALL



6 BOX MOUNTING DETAILS
SCALE: NTS

1 TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL
SCALE: NTS

GENERAL SHEET NOTES

1 MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:

A - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).

B - EQUIPMENT SHOP DRAWINGS.

C - FIELD INSTRUCTIONS.

2 LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.

3 MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.

4 MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.

5 SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.

6 LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.

7 VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.

8 LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

9 WHERE DEVICES ARE LOCATED IN CLOSE PROXIMITY OF THE SAME VERTICAL PLANE, ALIGN DEVICES VERTICALLY PER THE TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL, UNLESS OTHERWISE INDICATED.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

TYPICAL MOUNTING DETAILS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO. EE701

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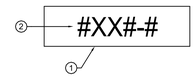
3/12/2025 10:45:39 AM

1. SWITCH AND RECEPTACLE LABEL TO BE PROVIDED AT EACH SWITCH OR RECEPTACLE. LABEL IS TO BE 1.5"W X .5"H. LABEL TO BE CLEAR WITH ADHESIVE ON THE BACK.

2. LETTERING IS TO BE .25" HIGH, CENTERED, AND FORMATTED AS SHOWN. FIRST SET OF SYSMBOLS CORRESPOND TO THE PANEL THE EQUIPMENT IS TIED TO, SEE TYPICAL PANELBOARD LABEL DETAIL. THIRD '#' IS TO IDENTIFY THE CIRCUIT BREAKER THE EQUIPMENT IS TIED TO.



4 TYPICAL SWITCH/ RECEPTACLE LABEL
SCALE: NTS

NOTES:
1. LABEL TO BE PROVIDED THAT IS TO BE 4" X REQUIRED LENGTH X 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER WHITE PLY, EXPOSING BLACK PLY BENEATH

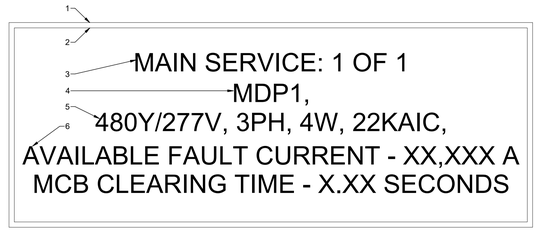
2. LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL

3. FIRST LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATED AS SHOWN. LABEL WITH THE NUMBER OF SERVICES AS SHOWN ON THE ONE-LINE

4. SECOND LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, WITH THE EQUIPMENT ID MATCHIGN PLANS

5. THIRD LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. THE FOLLOWING SHALL BE PROVIDED, VOLTAGE, PHASE, NUMBER OF WIRES, AND AIC RATING OF GEAR

6. FOURTH & FIFTH LINES: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. LABEL WITH ACTUAL AVAILABLE FAULT CURRENT AND ASSOCIATED CLEARING TIME



3 TYPICAL MAIN SERVICE EQUIPMENT/GEAR LABEL
SCALE: NTS

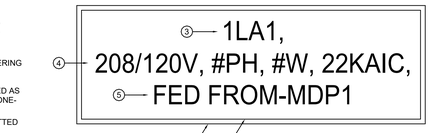
1. LABEL TO BE PROVIDED AT EACH SWITCHBOARD, PANELBOARD, DISCONNECT/STARTER. LABEL IS TO BE 3" X REQUIRED LENGTH X 1/16" LAMINATED 2-PLY PLASTIC LAMACOID. LETTERS SHALL BE FORMED BY ENGRAVING OUTER WHITE PLY, EXPOSING BLACK PLY BENEATH.

2. LABEL IS TO BE MOUNTED USING DOUBLE SIDED ADHESIVE TAPE COVERING THE BACK OF THE LABEL.

3. FIRST LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. REPLACE THE LETTER/NUMBER WITH THOSE FOUND ON THE ONE-LINE DIAGRAM.

4. SECOND LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. THE FOLLOWING SHALL BE PROVIDED, VOLTAGE, PHASE, NUMBER OF WIRES, AND AIC RATING OF DEVICE.

5. THIRD LINE: LETTERING IS TO BE 3/8" HIGH, CENTERED, AND FORMATTED AS SHOWN. PROVIDE "FED FROM-" AND REPLACE MDP1 WITH THE DEVICES NAME THAT FEEDS THE PANELBOARD.



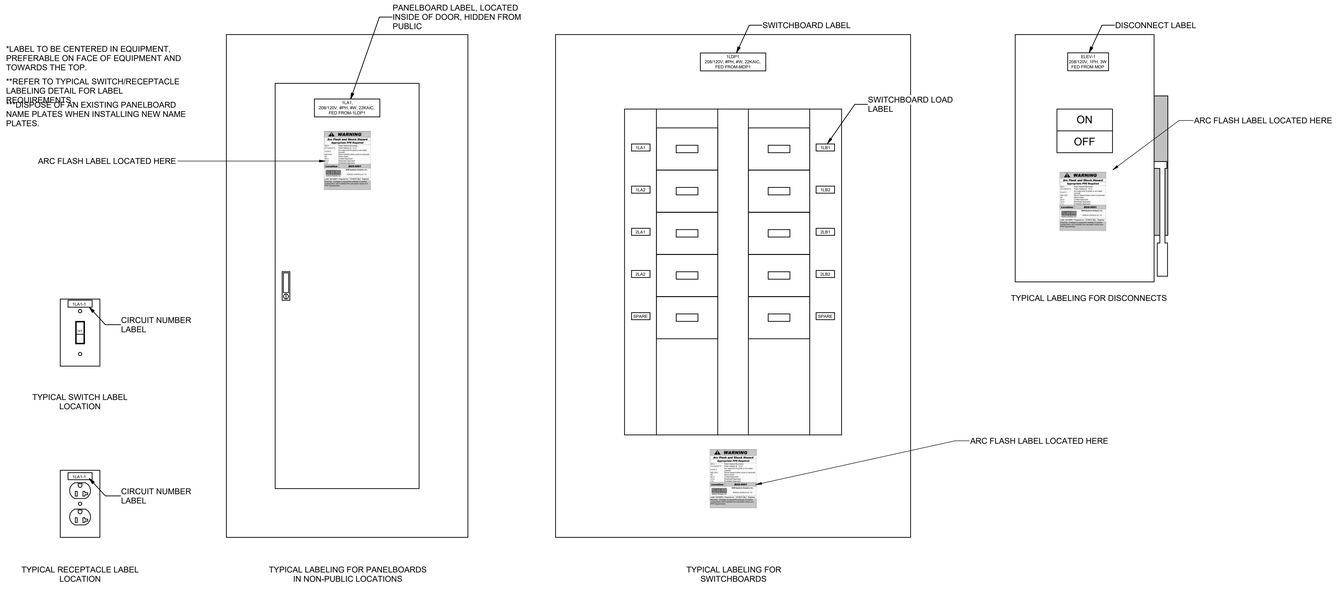
NOTE: EMERGENCY PANELS SHALL USE LAMACOID WITH RED OUTERPLY, EXPOSING WHITE LETTERING BENEATH. CONTRACTOR TO USE SAME LABEL SCHEME EXCEPT FIRST 'X' IS REPLACED WITH 'E' FOR EMERGENCY. SECOND 'X' TO BE 'L' FOR LOW OR 'H' FOR HIGH VOLTAGE (480/277V). LAST '#' TO BE REPLACED WITH LETTER INDICATING LOCATION OF PANEL.

2 TYPICAL PANELBOARD/SWITCHBOARD LABEL
SCALE: NTS

*LABEL TO BE CENTERED IN EQUIPMENT, PREFERABLE ON FACE OF EQUIPMENT AND TOWARDS THE TOP.

**REFER TO TYPICAL SWITCH/RECEPTACLE LABELING DETAIL FOR LABEL REQUIREMENTS.

DISPOSE OF AN EXISTING PANELBOARD NAME PLATES WHEN INSTALLING NEW NAME PLATES.



WARNING

Arc Flash and Shock Risk

Appropriate PPE Required

3 in	Arc Flash Boundary
0.06 cal/cm^2	Incident Energy at 18 in
208 VAC	Shock Risk when cover is removed
42 in	Limited Approach
12 in	Restricted Approach
1 in	Prohibited Approach

Location:	**PNL A**
Device:	**PD-0001**

SKM Systems Analysis, Inc.

SKM Systems Analysis, Inc.
1 Pearl St.
Redondo Beach, CA 90277
(310) 698-4700

Job#:	232874	Prepared on:	05/06/24	By:	Engineer

Warning: Changes in equipment settings or system configuration will invalidate the calculated values and PPE requirements

- SHADED AREAS TO BE ORANGE ALL OTHER TO BE WHITE BACKGROUND
- (TYP) DISTANCES IN INCHES
- COORDINATE VOLTAGE VALUES WITH ONE-LINE
- MATCH NAME OF EQUIPMENT WITH NAMES ON ONE-LINE
- PROVIDE ADDRESS WHERE SKM ANALYSIS IS PERFORMED
- PROVIDE JOB NUMBER "20140543", DATE OF ANALYSIS AND ENGINEER WHO PERFORMED STUDY

*PROVIDE ARC FLASH LABEL WITH VALUES FROM STUDY FOR ALL ELECTRICAL EQUIPMENT, REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

5 TYPICAL ARC FLASH LABEL
SCALE: NTS

1 TYPICAL SWITCH, RECEPTACLE AND PANELBOARD/SWITCHBOARD LABELING LOCATION DETAIL
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

TYPICAL LABELING DETAILS

SCALE	1/8" = 1'-0"	SHEET NO. EE702
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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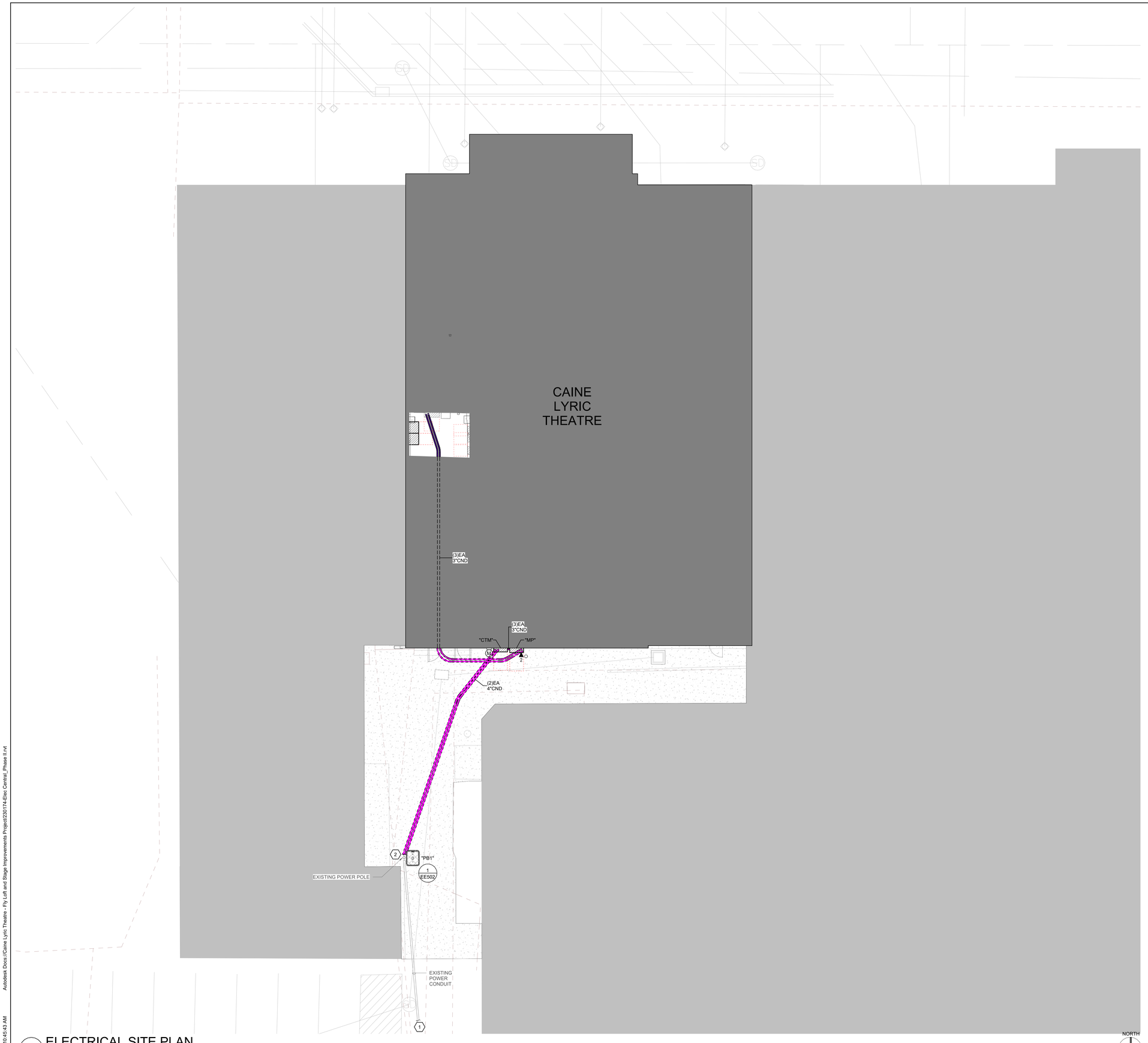

1 ELECTRICAL SITE PLAN

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

GENERAL SHEET NOTES

1. THE ELECTRICAL CONTRACTOR SHALL MEET WITH AND COORDINATE WITH ALL SERVICE PROVIDERS (POWER, COMMUNICATION, CABLE/SATELLITE, ETC.) TO THE FACILITY ON SITE PRIOR TO ANY WORK BEING PREFORMED. CONFIRM WITH EACH SERVICE PROVIDER EXACT LOCATIONS OF EQUIPMENT AND ROUTING. COMPLY WITH ALL SERVICE PROVIDER'S CURRENT STANDARDS AND REQUIREMENTS. PROVIDE THE REQUIRED EQUIPMENT, RACEWAYS, BOXES, CABLE, ETC. AS REQUIRED BY THE SERVICE PROVIDER WHETHER SHOWN ON THE DRAWINGS OR NOT.
2. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, COMPACTION AND CONCRETE/ASPHALT CUTTING AND REPLACEMENT TO MATCH EXISTING SURFACES ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROUND RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH.
3. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
4. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR. PLEASE INCLUDE NOTES IN THE ELECTRICAL DRAWINGS OR SUPPLY CALCULATIONS WHERE APPLICABLE. SEE NEC 110.24. (B)
5. CONTRACTOR SHALL POTHOLE AND FIELD LOCATE ALL EXISTING UTILITY CROSSINGS THAT OCCUR FOR THE UNDERGROUND ELECTRICAL WORK SHOWN PRIOR TO EXCAVATION.
6. ALL UNDERGROUND CONDUIT BENDS SHALL BE LONG SWEEP FACTORY ELBOWS.
7. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. ADJUST THE ROUTING OF THE CONDUIT UP TO 15' HORIZONTALLY OR 3' DEEPER AS REQUIRED TO AVOID OTHER UTILITIES AND OBSTRUCTIONS AS PER CLEARANCE REQUIREMENTS.
8. COORDINATE LOCATIONS, SIZES, DEPTHS, ETC. OF ALL STRUCTURAL FOUNDATIONS, FOOTINGS, WALLS, ETC. WITH STRUCTURAL INSTALLER PRIOR TO ROUGH-IN/TRENCHING.
9. COORDINATE LOCATIONS AND DIMENSIONS OF CONDUIT BLOCKOUTS WITH STRUCTURAL INSTALLER PRIOR TO ROUGH-IN. CONTRACTOR SHALL SLEEVE FOUNDATION WALLS FOR ALL CONDUIT PENETRATIONS THROUGH WALL. REFER TO SPECIFICATIONS FOR SLEEVE DETAILED REQUIREMENTS.

SHEET KEYNOTES

1. EXISTING CONDUIT TO EXISTING BUILDING TRANSFORMER LOCATED IN ALLEYWAY.
2. INTERCEPT EXISTING CONDUITS AT POWER POLE TO BE REMOVED BY UTILITY. CONDUIT SHALL BE EXTENDED TO NEW CTM CABINET.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ELECTRICAL SITE PLAN

SCALE	1/8" = 1'-0"	SHEET NO. ES101
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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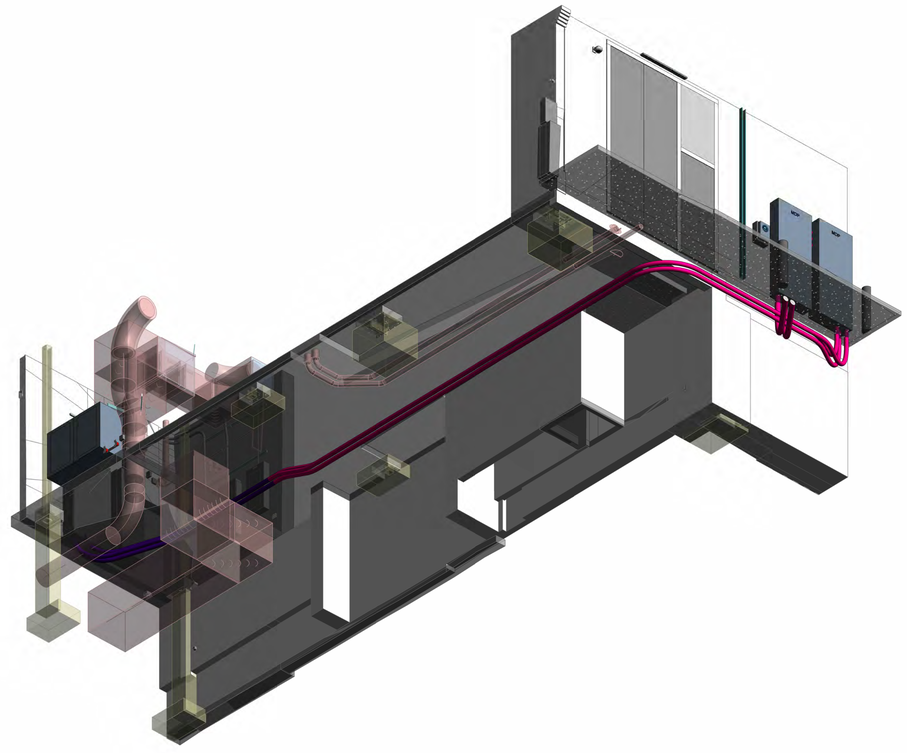

1 UNDERGROUND CONDUIT ISOMETRIC
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ELECTRICAL SITE ISOMETRIC VIEWS

SCALE		SHEET NO.
JOB NO.	23-05	ES301
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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GENERAL SHEET NOTES

1 UNLESS NOTED OTHERWISE REMOVE ALL LIGHTING FIXTURES DEVICES AND EQUIPMENT SHOWN DASHED. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD OF ORIGIN OR TO FIRST ACTIVE DEVICE THAT REMAINS.

2 PRIOR TO SUBMITTING BID, VISIT THE SITE AND FIELD VERIFY THE EXTENT OF ELECTRICAL DEMOLITION WORK TO MEET THE INTENT OF THE BID DOCUMENTS AND INCLUDE ALL COSTS IN BID.

3 PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.

4 PRIOR TO REMOVAL OF ANY ELECTRICAL EQUIPMENT OR WIRING, FIELD VERIFY THAT THE EQUIPMENT OR WIRING IS INACTIVE OR NO LONGER IN USE.

5 REMOVE ALL FIRE ALARM DEVICES WHERE EXISTING WALLS AND CEILINGS ARE BEING REMOVED, WITH ASSOCIATED CONDUIT AND WIRING. EXISTING FIRE ALARM DEVICES AND SYSTEM NOT INDICATED FOR REMOVAL SHALL REMAIN ACTIVE THROUGHOUT DEMOLITION AND CONSTRUCTION UNTIL THE NEW SYSTEM IS TESTED AND OPERATIONAL. MAINTAIN ALL CLASS A FIRE ALARM INITIATING AND INDICATING LOOPS WHERE EXISTING DEVICES ARE REMOVED.

6 REMOVE ALL ABANDONED RACEWAY, CONDUIT, WIRING AND CABLING WHETHER ABANDONED PREVIOUS TO THIS PROJECT OR AS A RESULT OF THIS PROJECT. NOT ALL ABANDONED ITEMS ARE SHOWN ON THESE PLANS AND FIELD VERIFICATION OF DEMOLITION SCOPE EXTENT IS REQUIRED.

7 DEVICES MARKED "RR" ARE TO BE REMOVED AND RELOCATED PER NEW PLANS. EXTEND CIRCUITING AS REQUIRED FOR RELOCATION.

8 REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. BACK TO SOURCE

9 ALL ITEMS INDICATED TO REMAIN SHALL BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.

10 CONTRACTOR TO TRACE AND LABEL ALL EXISTING LOADS TO REMAIN, THAT ARE CURRENTLY FED FROM PANELS THAT ARE BEING DEMOLISHED IN THIS PHASE. THESE LOADS TO BE RE-FED FROM NEW PANELS IN NEXT PHASE.

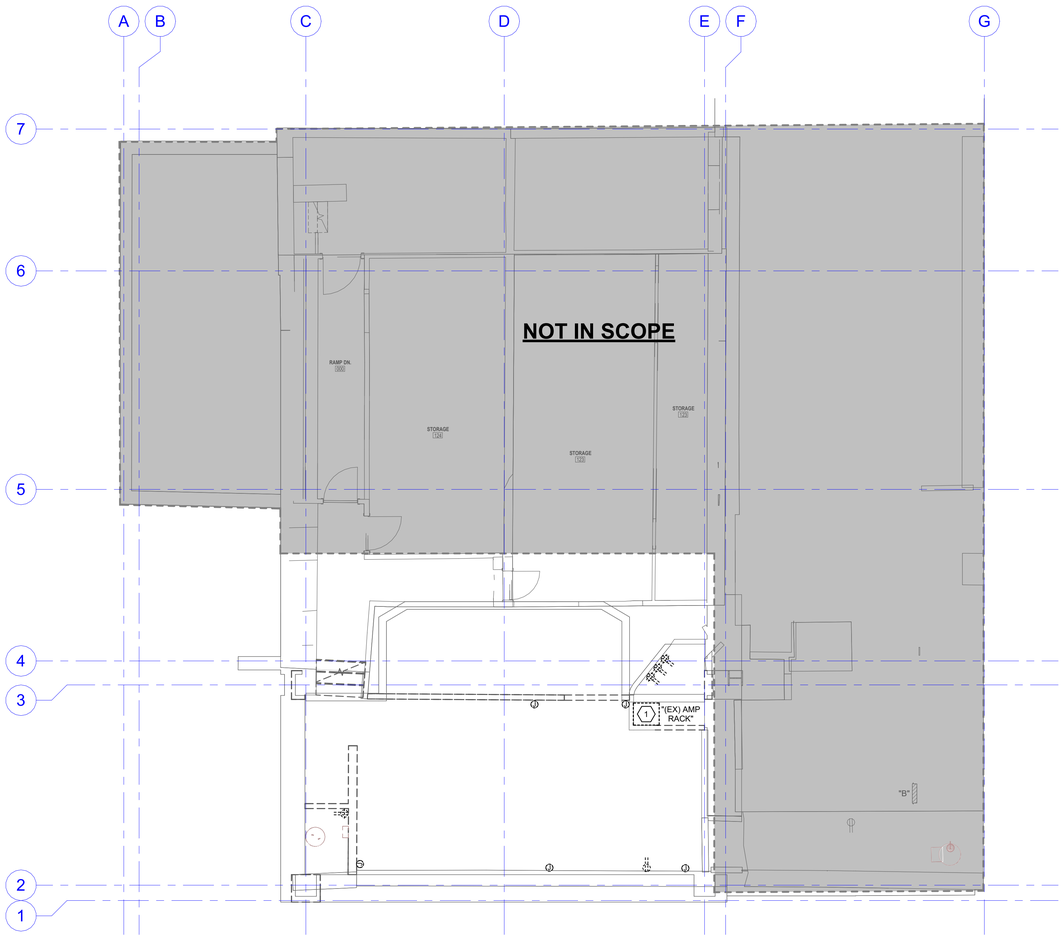
11 ALL HVAC UNITS TO BE REMOVED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE. REMOVE ALL ASSOCIATED RACEWAYS AND CONDUCTORS BACK TO SOURCE.

12 THE EXISTING FIRE ALARM SYSTEM RACEWAYS SHALL REMAIN INTACT FROM FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES AND CLASS A LOOP WIRING SHALL BE DEMOLISHED AND NEW DEVICES AND WIRING INSTALLED TO MAINTAIN A COMPLETE CLASS A LOOP SYSTEM. ALL WORK TO REPLACE EXISTING FIRE ALARM SYSTEM WITH NEW FIRE ALARM SYSTEM TO MAINTAIN COVERAGE PER CODE AND CLASS A LOOP WIRING SYSTEM SHALL BE INCLUDED AS PART OF PROJECT.

13 PATCH AND REPAIR ALL WALLS, CEILINGS AND FLOORS TO REMAIN SUCH AS EXTERIOR BLOCK/BRICK WALLS AND CONCRETE FLOORS.

SHEET KEYNOTES

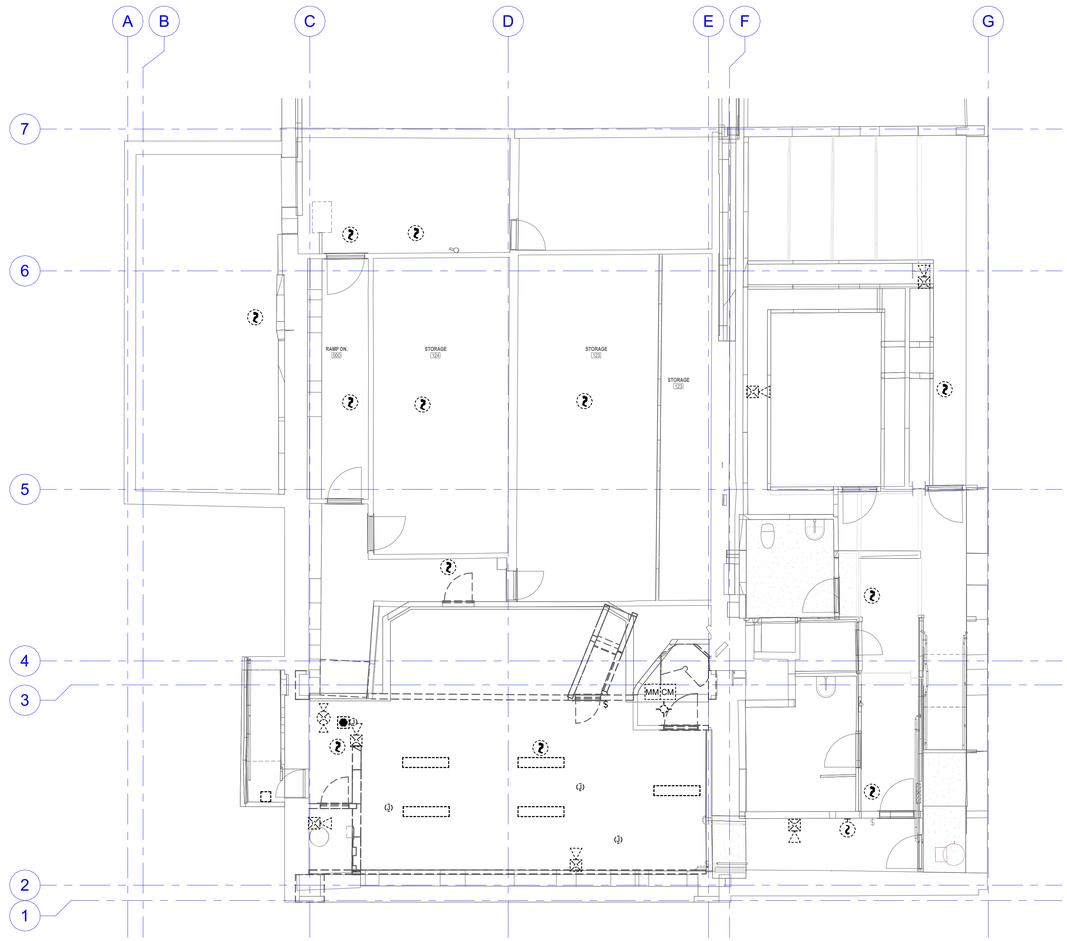
1 EXISTING AMP RACK TO BE REMOVED AND STORED BY OWNER. CONDUIT AND WIRING IN THIS LOCATION SHALL BE PROTECTED AND MAINTAINED DURING DEMOLITION AND CONSTRUCTION FOR REINSTALLATION OF THE AMP RACK AND CABLING BY THE OWNER.



2 BASEMENT ELECTRICAL DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 BASEMENT CEILING DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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Matthew John Heyrana
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02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT DEMOLITION PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
ED100

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8 REMOVE FEEDERS FOR ALL DEMOLISHED PANELS, DISCONNETS, ETC. BACK TO SOURCE

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SHEET KEYNOTES

1 REMOVE ALL EXISTING EMERGENCY LIGHTING CIRCUITS AND REINSTALL AFTER STRUCTURAL COMPLETION. PROTECT AND MAINTAIN ALL EXISTING CIRCUITS FOR REINSTALLATION. CONDUITS AND BRANCH CIRCUITS SHALL BE EXTENDED AS REQUIRED FOR REINSTALLATION.

2 PROVIDE CONDUIT GUTTER ABOVE DEMO EQUIPMENT LOCATION TO INTERCEPT AND EXTEND EXISTING CIRCUITS.

3 DEMO EXISTING FIRE ALARM CONDUITS BACK TO THIS POINT. SALVAGE THESE CONDUITS FOR RE-USE OF RACEWAYS TO EXISTING FIRE ALARM DEVICES IN CONSTRUCTION. THESE CONDUITS WILL BE EXTENDED TO NEW FIRE ALARM CONTROL PANEL LOCATION.

4 CONTRACTOR SHALL DEMOLISHED EXISTING CONDUIT LOCATED ON THE EXTERIOR WALL OF CAINE LYRIC THEATER FLYLOFT. EXISTING CONDUIT IS AN ABANDONED COMMUNICATIONS CONDUIT THAT RUNS FROM THE WEST BUILDING TO THE BUILDING TO THE EAST OF CAINE LYRIC ACROSS THE ALLEY WAY. THE EXISTING TELEPHONE CABLE SHALL BE PROTECTED AND RELOCATED. THE TELEPHONE CABLE SHALL BE TEMPORARILY RELOCATED FROM THE WEST BUILDING ACROSS THE ALLEY WAY TO THE APARTMENT BUILDING EXTERIOR WALL AND ATTACHED. NOTIFY TELEPHONE COMPANY OF RELOCATION. CONTACT USU IT FOR TELEPHONE UTILITY CONTACT INFO.

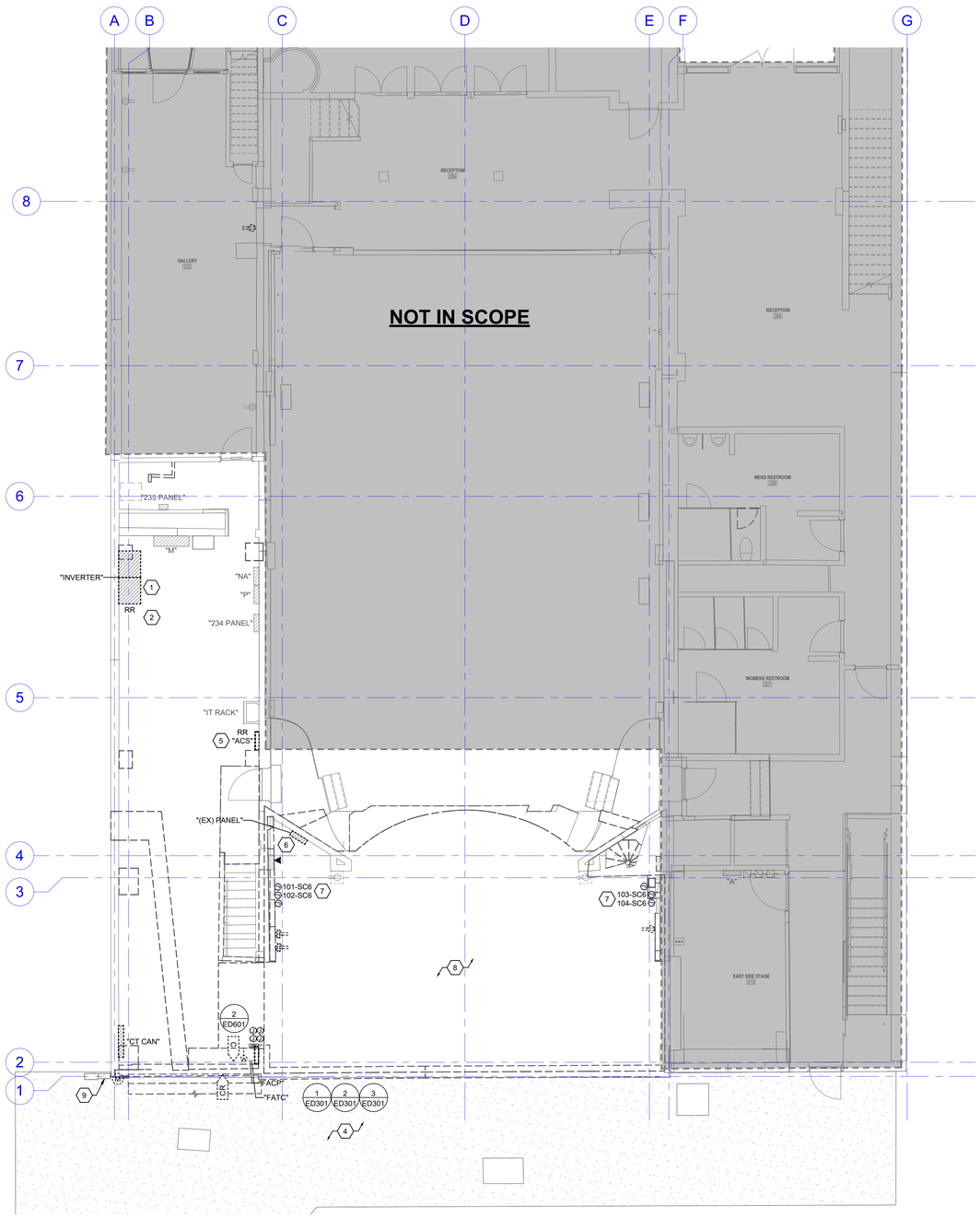
5 CONTRACTOR SHALL PROVIDE A CONDUIT GUTTER TO INTERCEPT EXISTING SECURITY WIRING, SPLICE AND EXTEND TO NEW LOCATION.

6 EXISTING PANEL IS NO LONGER IN USE AND IS BEING USED AS A JUNCTION BOX. ALL ASSOCIATED CONDUIT AND WIRING SHALL BE DEMOLISHED AS PART OF PROJECT. IF AN EXISTING CIRCUIT REMAINS LIVE AFTER DEMOLITION, THESE CIRCUITS SHALL BE REINSTALLED WITH A STANDARD J-BOX IN THE CEILING.

7 EXISTING DIMMER RACK 20A CIRCUITS TO BE PULLED BACK TO THE CABLE TRAY IN THE UTILITY AREA (WEST SIDE STAGE). EXISTING CABLING SHALL BE COILED AND PROTECTED FOR REINSTALLATION AFTER FLY LOFT IS COMPLETED. 6 CKTS PER J-BOX LOCATION.

8 REMOVE AND SALVAGE FOR REINSTALLATION STAGE CIRCUIT BOXES (4 TOTAL) AND MULTICABLE FOR DEMOLITION OF FLYLOFT. PULL BACK CIRCUITS TO EXISTING CABLE TRAY AND COIL AND PROTECT. REINSTALL CIRCUIT BOXES AFTER INSTALLATION OF NEW FLYLOFT. SEE THEATRICAL DRAWINGS FOR EXACT LOCATIONS.

9 CONTRACTOR SHALL COORDINATE WITH EXISTING TELEPHONE UTILITY COMPANY TO HAVE EXISTING TELEPHONE BOX LOCATED AT THIS LOCATION RELOCATED AS PART OF DEMOLITION WORK AS NEEDED. IF BOX DOES NOT IMPACT DEMOLITION, THIS SHOULD BE PROTECTED AND MAINTAINED.

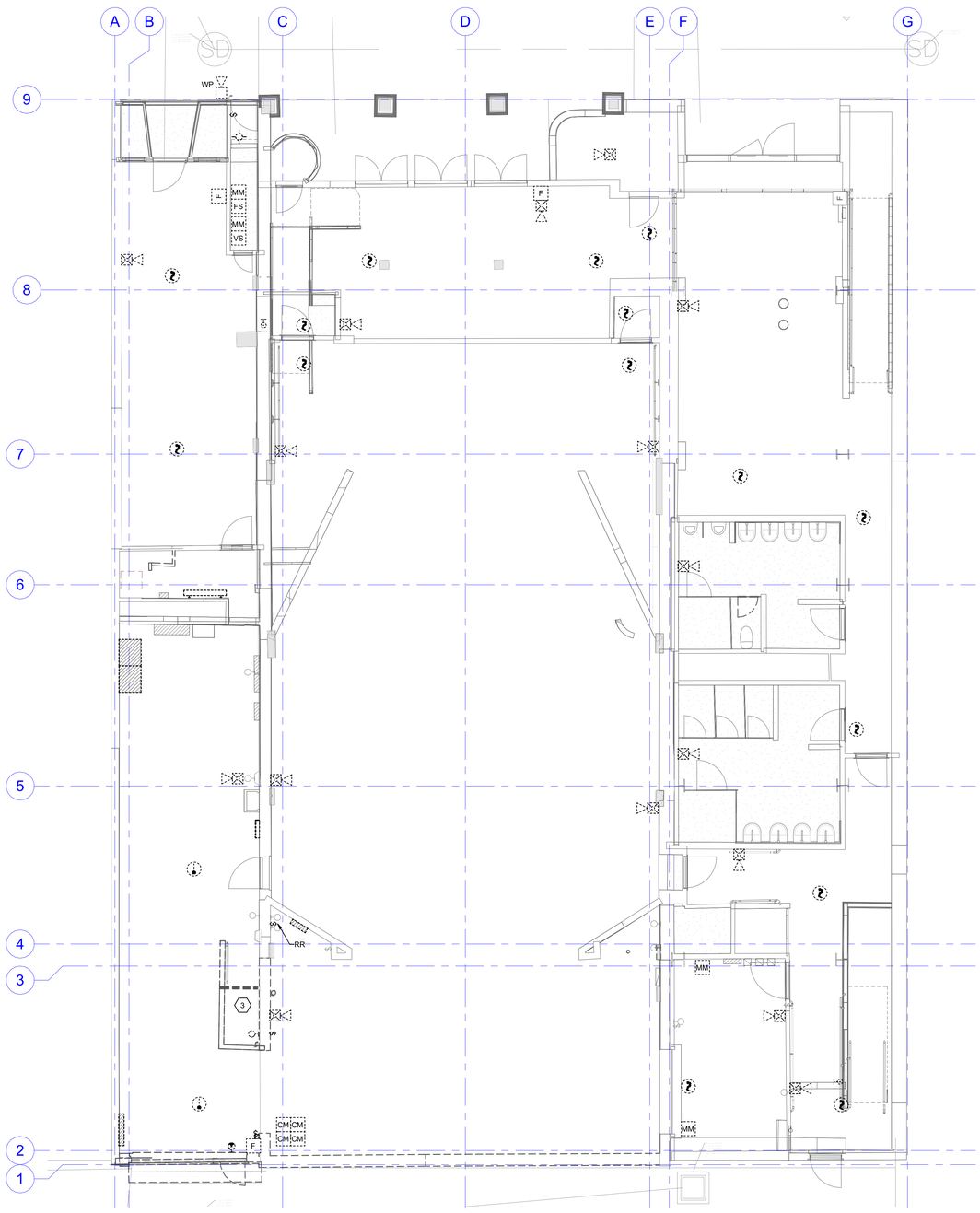


2 STAGE LEVEL ELECTRICAL DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



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REVISION SCHEDULE

NO	DATE	DESCRIPTION

STAGE LEVEL DEMOLITION PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
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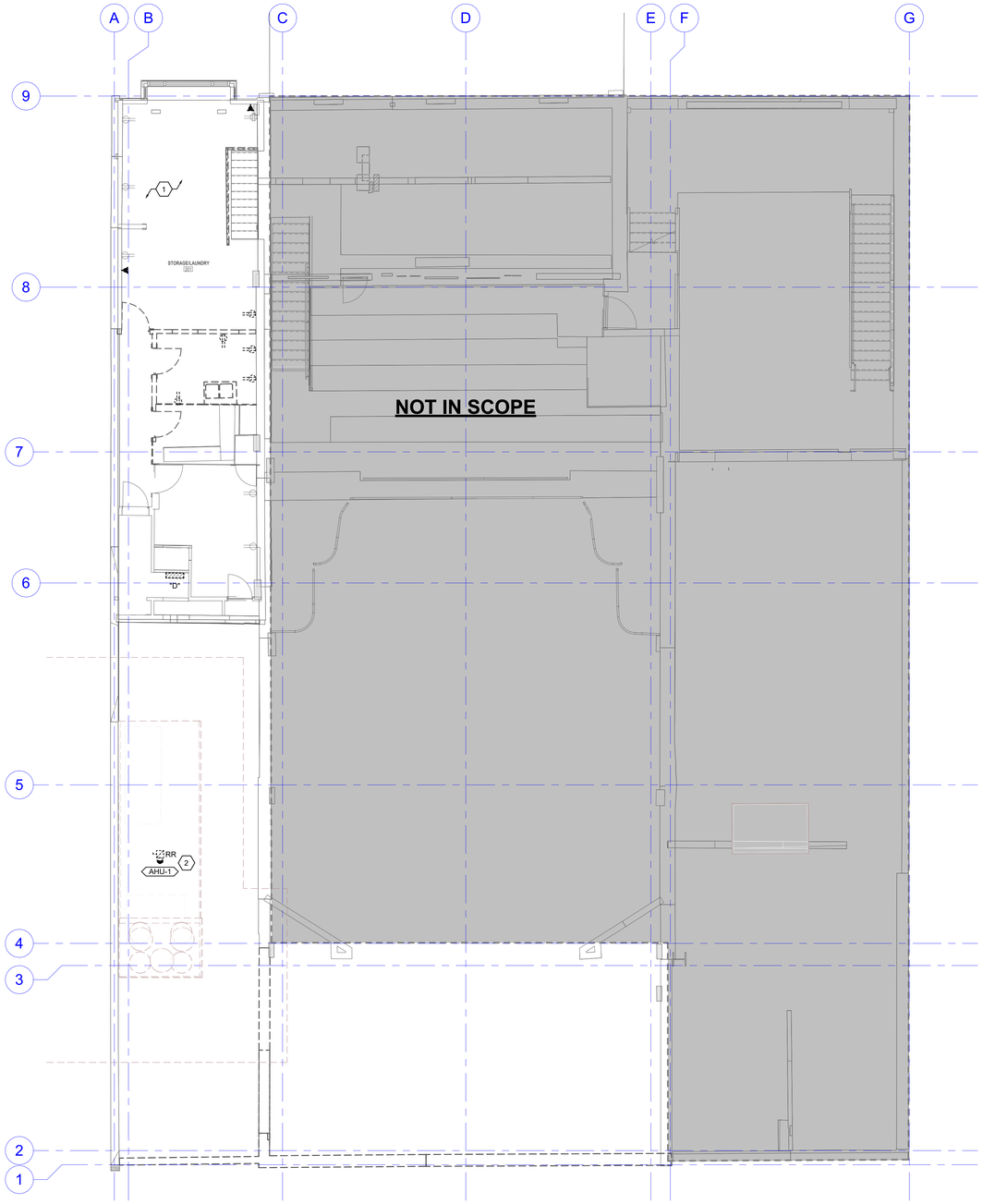
SHEET KEYNOTES

1 REMOVE AND ADJUST ELECTRICAL EXISTING DEVICES SHOWN AS HALFTONE FOR FAUX WOOD REMOVAL AND NEW DRYWALL INSTALL. ALL RECEPTACLES AND WALL PLATES SHALL BE REMOVED AND DEMOLISHED. NEW RECEPTACLES AND WALL PLATES SHALL BE INSTALLED IN EXISTING BOXES AND REUSE EXISTING CABLING.

2 POWER TO AIR HANDLER TO BE REMOVED FOR REMOVAL OF AIR HANDLER. CONDUIT SHALL BE PROTECTED. EXTEND CONDUIT AND PROVIDE NEW FEEDER AS REQUIRED FOR RELOCATION/REINSTALLATION OF AIR HANDLER TO NEW AREA.

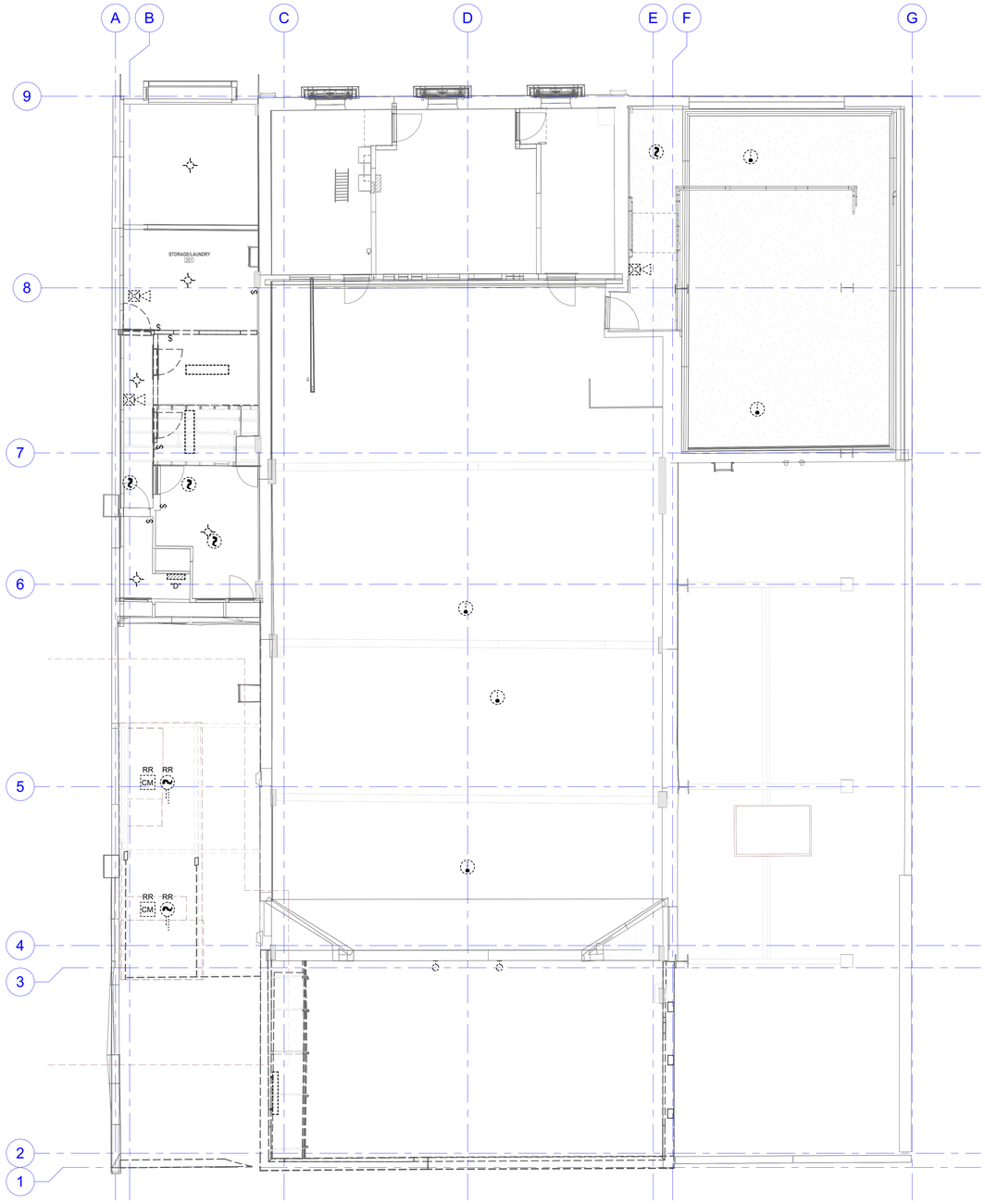


2 BALCONY ELECTRICAL DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 BALCONY CEILING DEMOLITION PLAN

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BALCONY LEVEL DEMOLITION PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
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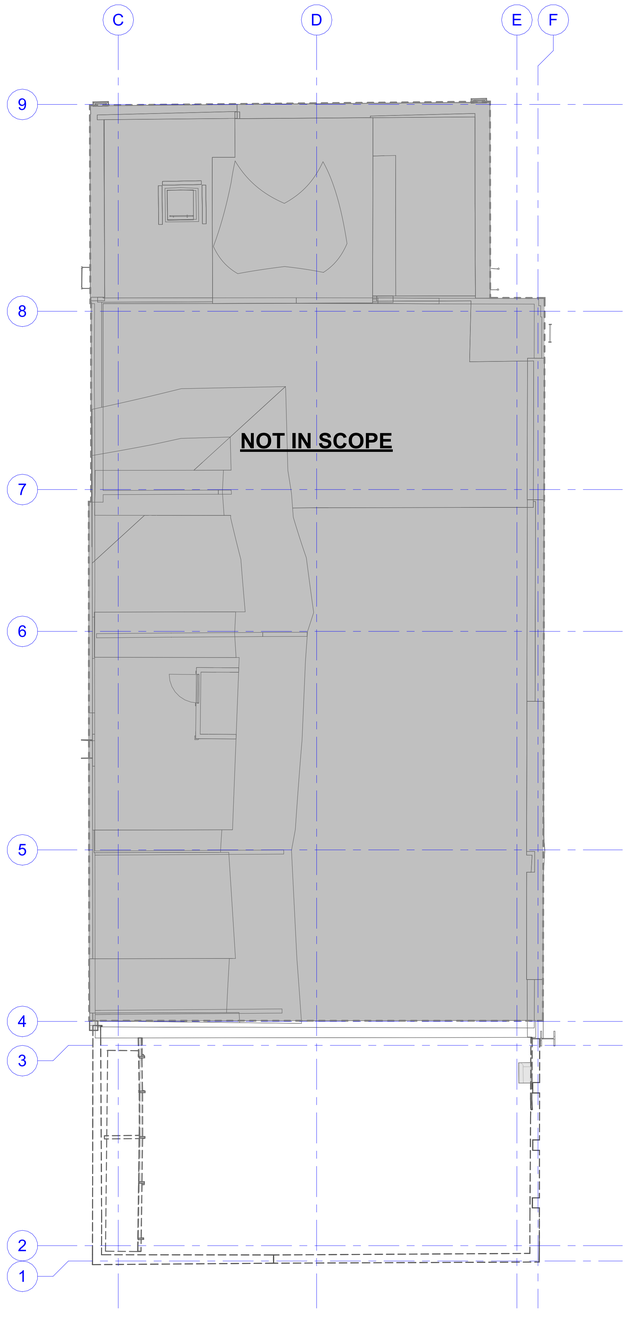

2 ATTIC ELECTRICAL DEMOLITION PLAN
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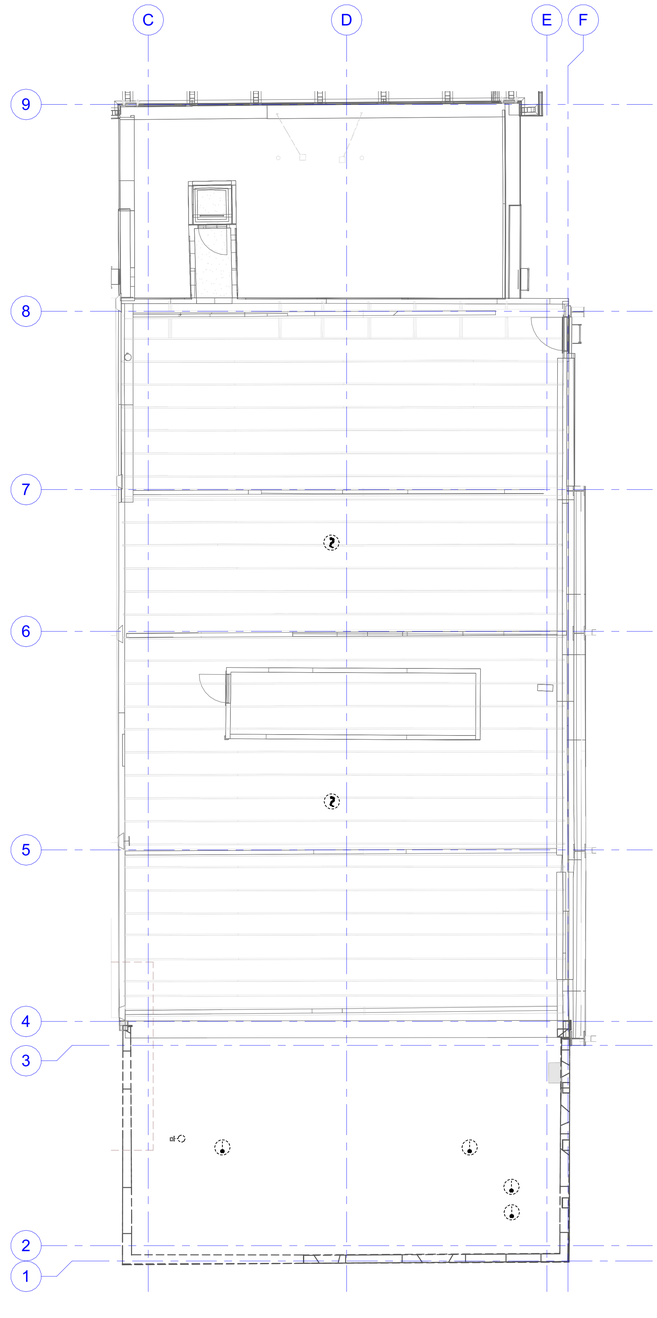

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ATTIC LEVEL DEMOLITION PLANS

		SHEET NO.
SCALE	3/16" = 1'-0"	ED103
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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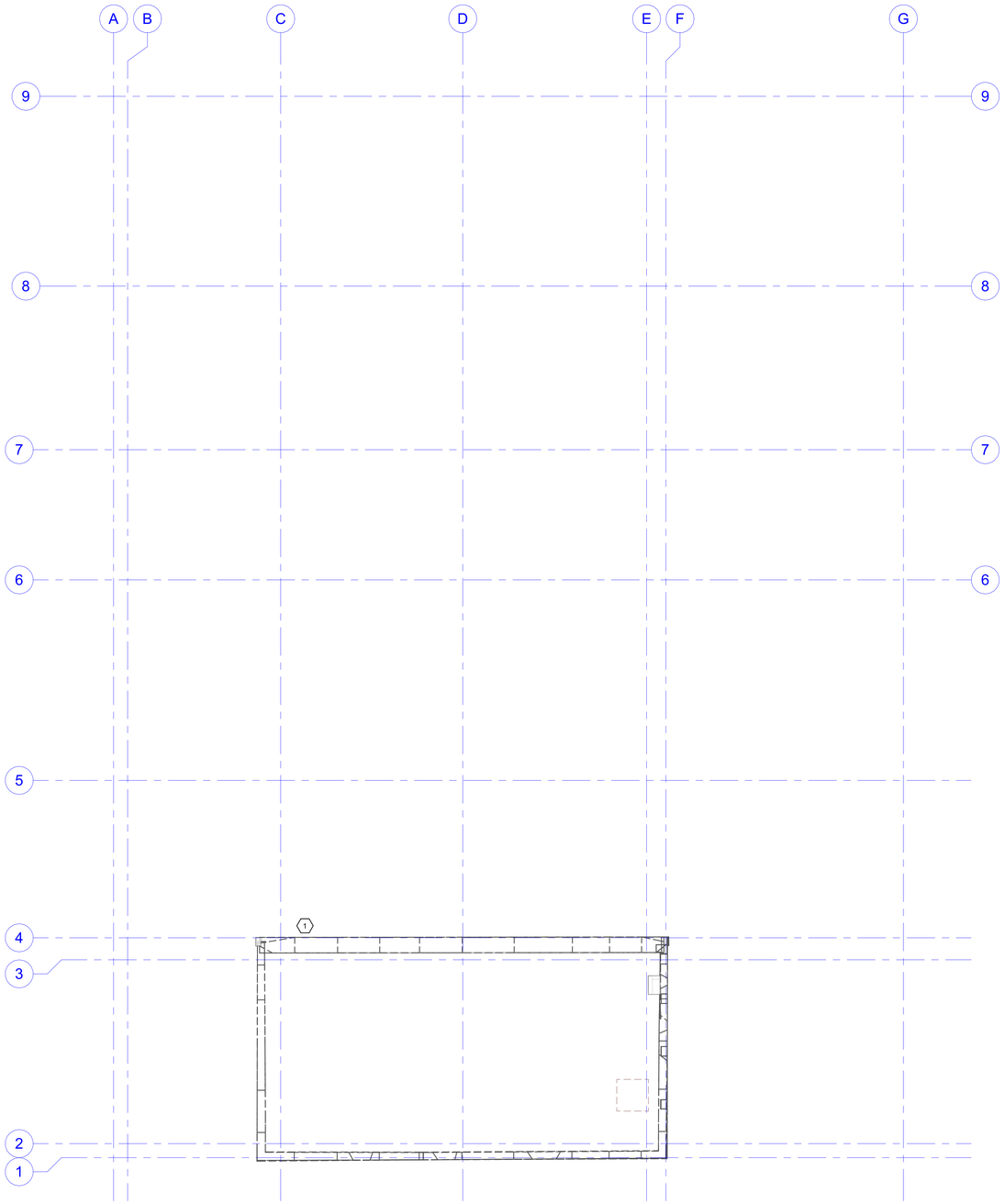
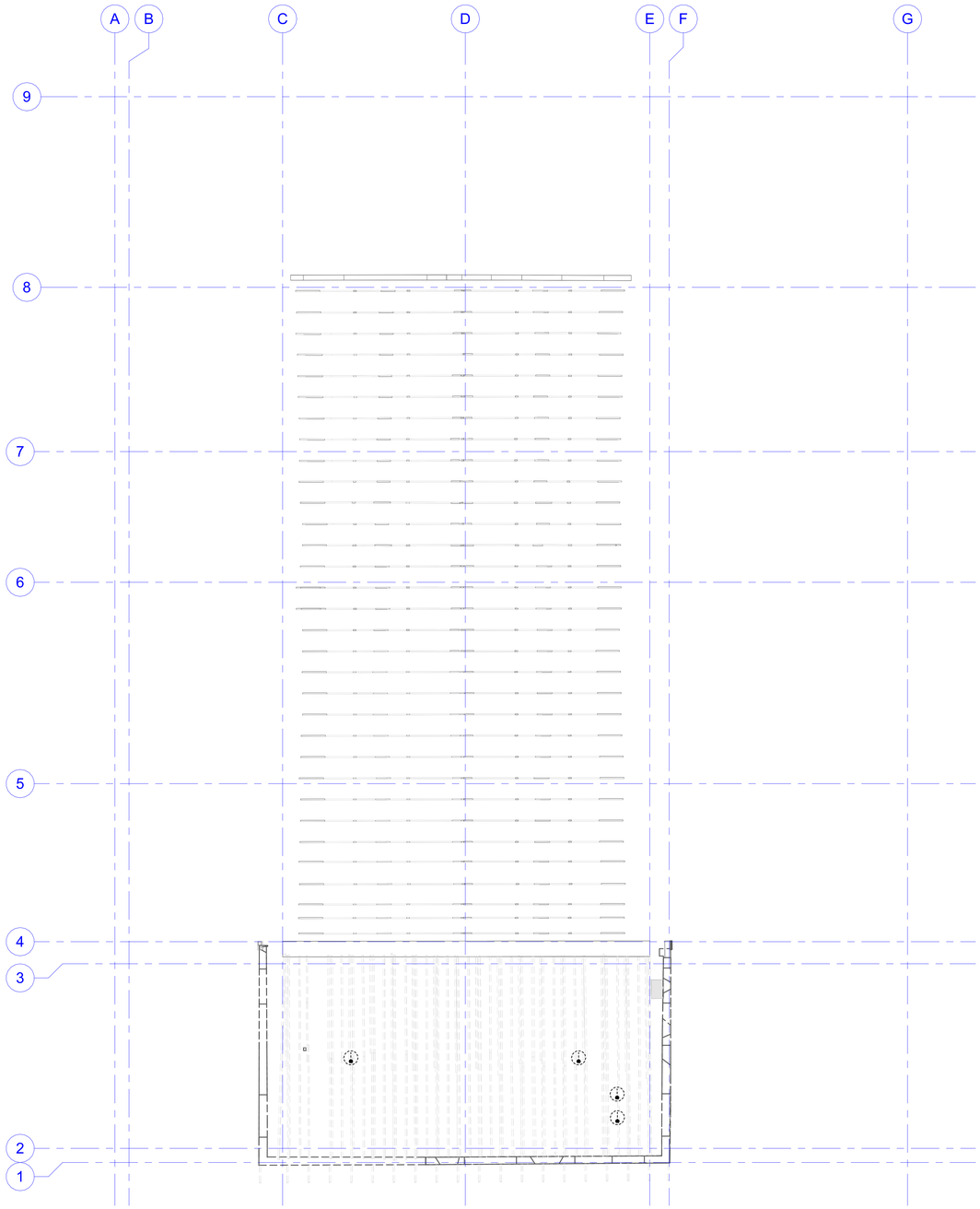


2 ROOF ELECTRICAL DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 ROOF CEILING DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ROOF DEMOLITION PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
ED104

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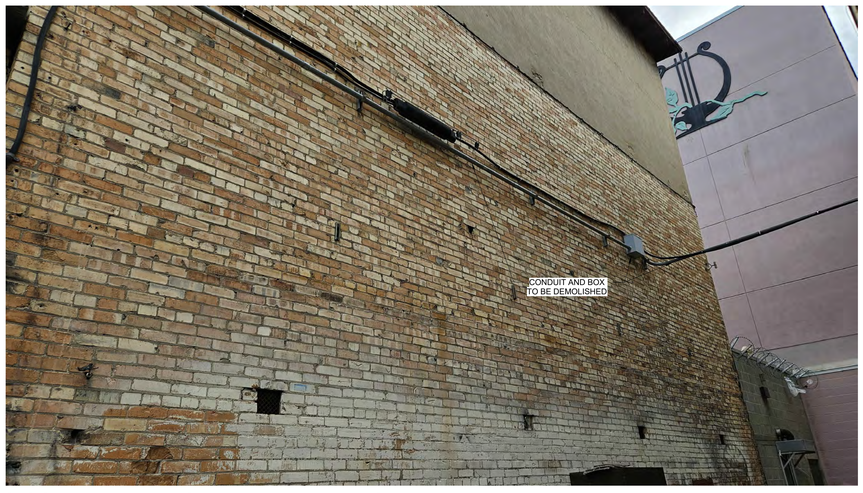
3 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 3
SCALE: NTS



2 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 2
SCALE: NTS



1 EXISTING SOUTH EXTERIOR WALL ELEVATION VIEW 1
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

EXISTING SECTION VIEWS

SCALE	As indicated	SHEET NO.
JOB NO.	23-05	ED301
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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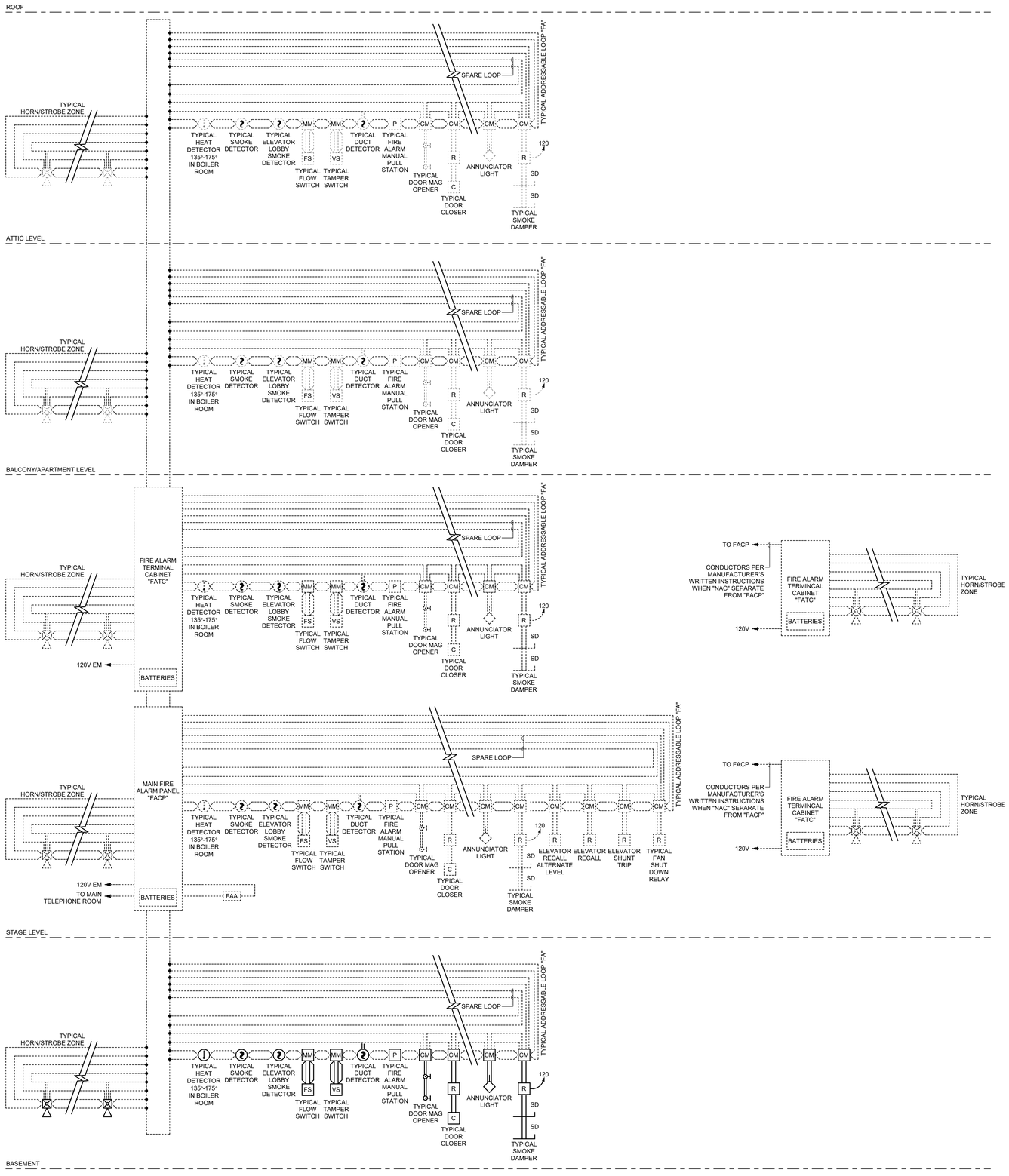

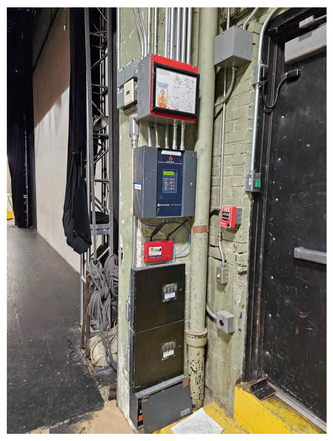

2 EXISTING FACP WALL ELEVATION

SCALE: NTS

1 FIRE ALARM RISER - DEMOLITION

SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

FIRE ALARM RISER DIAGRAMS - DEMOLITION

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
ED601

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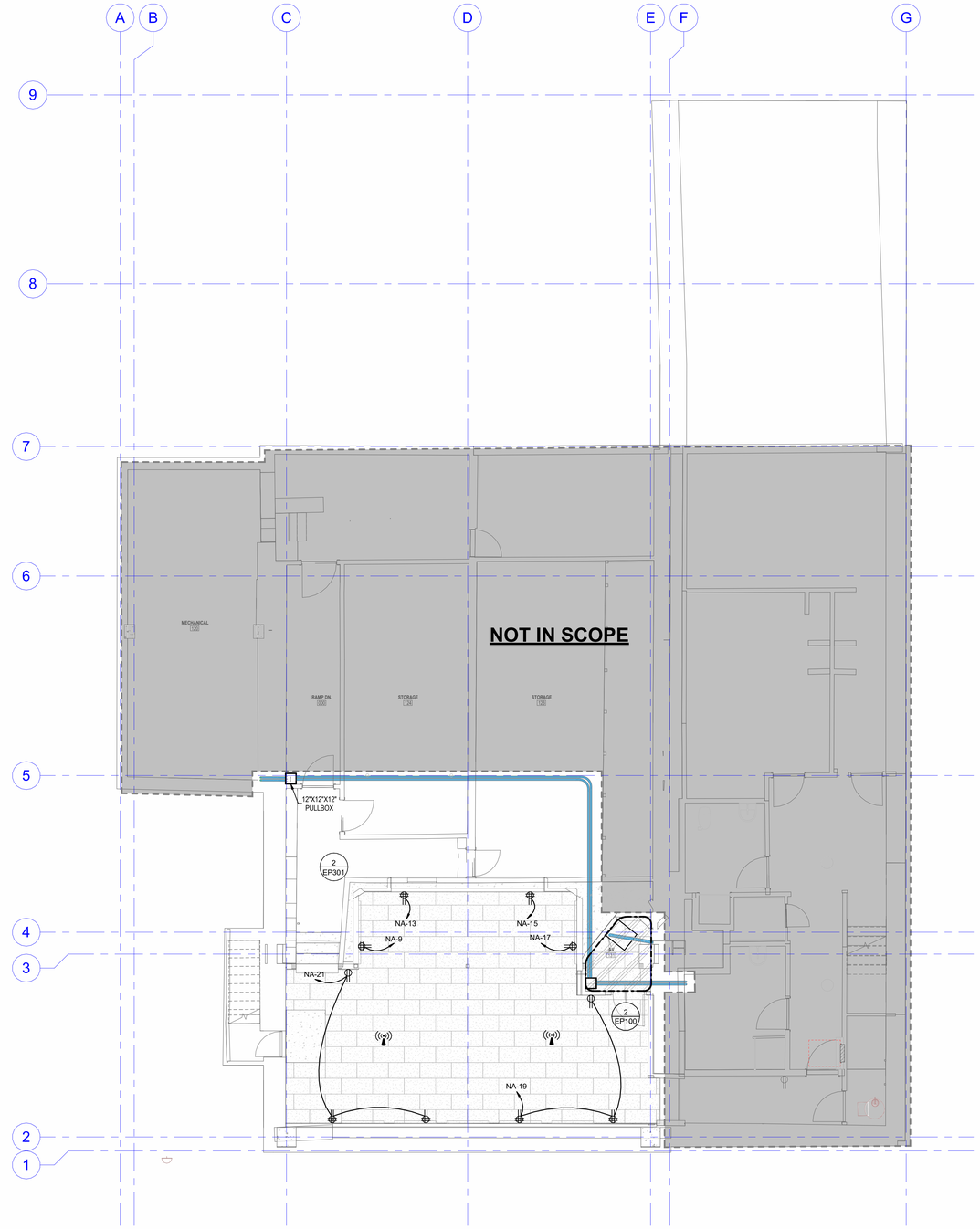
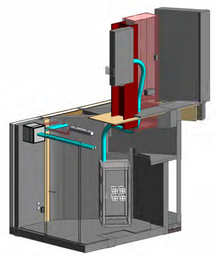


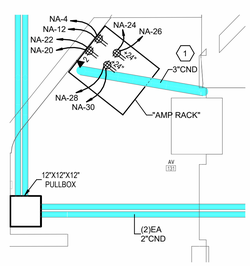
1 BASEMENT POWER PLAN
SCALE: 3/16" = 1'-0"

0 2' 4' 8'

NORTH



3 ENLARGED AV ROOM ISOMETRIC
SCALE: NTS



2 ENLARGED AV ROOM POWER PLAN
SCALE: 1/2" = 1'-0"

0 1' 2' 4'

NORTH

GENERAL SHEET NOTES

1 LOCATION OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE AND PROVIDED BY OTHERS. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.

2 LOCATE ALL DISCONNECTS IN ACCESSIBLE LOCATION ADJACENT TO EQUIPMENT WITH CLEARANCES PER NEC.

3 ALL ELECTRICAL PENETRATIONS IN FIRE RATED WALLS, FLOORS, OR CEILINGS SHALL BE SEALED TO MEET FIRE RATING AND BE LEAK PROOF. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.

4 CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE CONSTRUCTION.

5 ALL ELECTRICAL PENETRATIONS THROUGH CMU, FOUNDATION, CONCRETE OR STRUCTURAL WALLS SHOULD BE CHECKED FOR REBAR AND ALL PENETRATIONS SHALL AVOID CUTTING THROUGH REBAR.

6 ALL WORK SHALL BE DONE ACCORDING TO THE NATIONAL ELECTRICAL CODE (2020 NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.

7 ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.

8 SURFACE MOUNTED CONDUIT ON WALLS AND CEILING, EXCLUDING MECHANICAL/ELECTRICAL SPACES, SHALL NOT BE INSTALLED UNLESS APPROVED BY OWNER.

9 CONTRACTOR SHALL UPSIZE BRANCH CIRCUITS AND FEEDERS FOR VOLTAGE DROP BASED ON ACTUAL INSTALLED LENGTHS. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE BRANCH CIRCUIT CONDUCTOR SIZING TABLE IN THE DRAWINGS AND SPECIFICATIONS.

10 PROVIDE DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS.

11 SOME CONDUIT INSTALLATIONS MAY NEED TO BE ROUTED UNDERGROUND PRIOR TO SLAB ON GRADE. CONTRACTOR SHALL REVIEW THE DRAWINGS FULLY PRIOR TO ANY WORK BEING PERFORMED.

12 TYPICAL FOR ALL OPEN TO STRUCTURE CEILING AREAS - POWER CABLING AND CONTROLS CABLING SHALL BE INSTALLED IN CONDUIT IN A NEAT AND PROFESSIONAL MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WITH CONDUIT UP IN STUCTURE AND PAINTED TO MATCH SURFACE. ALL LOW VOLTAGE CABLING SHALL BE INSTALLED IN TRAY OR CONDUIT.

13 UNLESS NOTED OTHERWISE, ELECTRICAL ITEMS SHOWN IN DARK AND SOLID LINES ARE NEW AND THE CONTRACTOR SHALL PROVIDE THEM. ITEMS SHOWN IN SOLID LIGHT LINES ARE TO REMAIN.

14 CONTRACTOR SHALL UPDATE ALL NEW AND EXISTING PANEL SCHEDULES WITH NEW CIRCUIT DATA. SCHEDULE SHALL BE ON A CARD STOCK TYPE OF MATERIAL AND TYPED WITH THE UPDATED INFORMATION.

15 PROVIDE BLANK FACEPLATES AT ALL LOCATIONS WHERE DEVICES WERE DEMOLISHED BUT RACEWAY WAS LEFT TO REMAIN AND NO NEW DEVICES ARE BEING INSTALLED AT THAT LOCATION.

SHEET KEYNOTES

1 PROVIDE 3" PVC CONDUIT PATHWAY FROM AMP RACK IN BASEMENT AV ROOM TO DMX CONTROL RACK ON STAGE RIGHT AREA.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT POWER PLAN

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EP100

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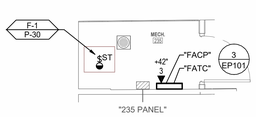
3 ENLARGED MECH 235 ISOMETRIC

SCALE: NTS

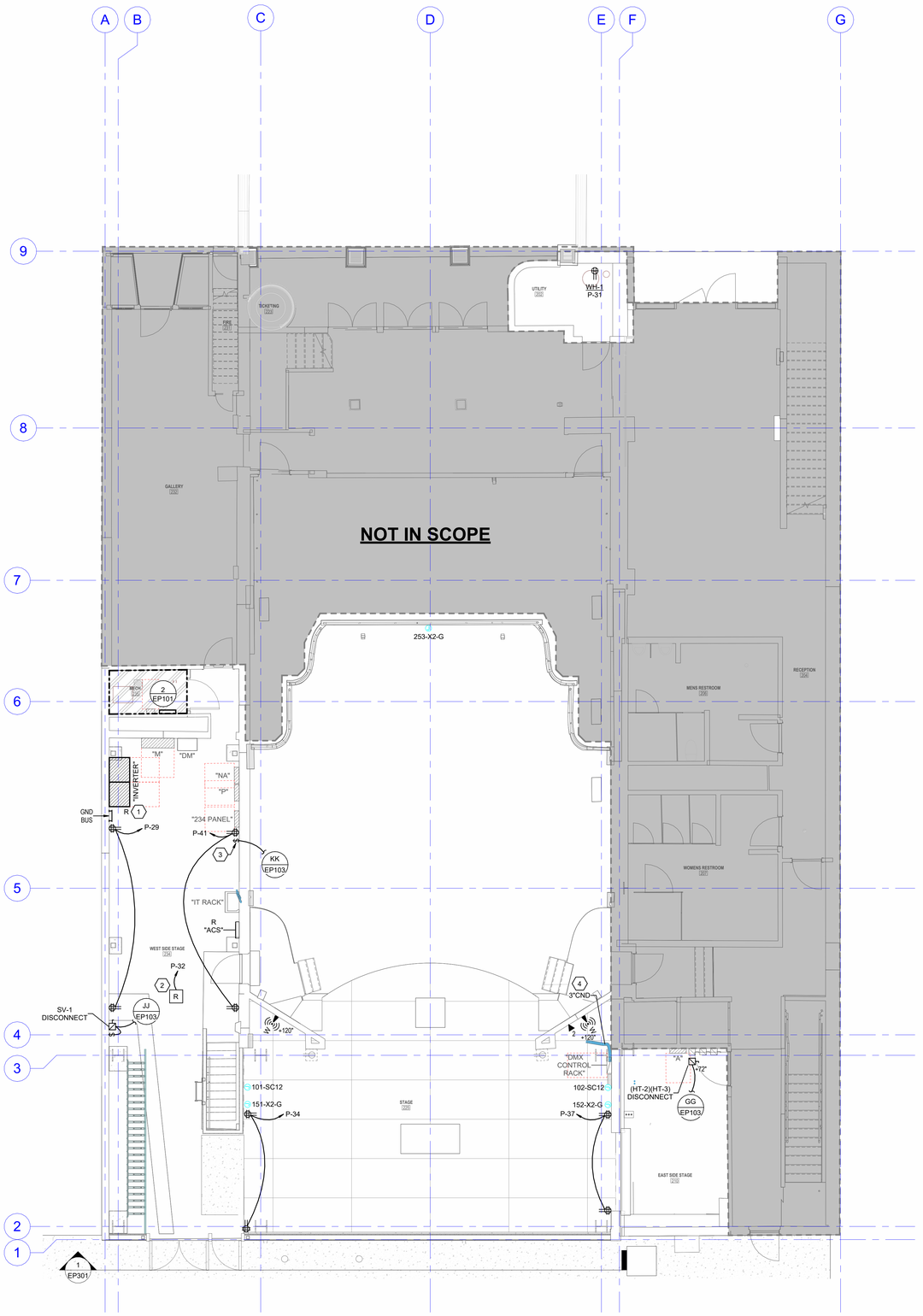


2 ENLARGED MECH 235 POWER PLAN

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

0 2' 4' 8'

NORTH



1 STAGE LEVEL POWER PLAN

SCALE: 3/16" = 1'-0"

0 2' 4' 8'

NORTH

GENERAL SHEET NOTES

1. LOCATION OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE AND PROVIDED BY OTHERS. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
2. LOCATE ALL DISCONNECTS IN ACCESSIBLE LOCATION ADJACENT TO EQUIPMENT WITH CLEARANCES PER NEC.
3. ALL ELECTRICAL PENETRATIONS IN FIRE RATED WALLS, FLOORS, OR CEILINGS SHALL BE SEALED TO MEET FIRE RATING AND BE LEAK PROOF. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.
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10. PROVIDE DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS.
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15. PROVIDE BLANK FACEPLATES AT ALL LOCATIONS WHERE DEVICES WERE DEMOLISHED BUT RACEWAY WAS LEFT TO REMAIN AND NO NEW DEVICES ARE BEING INSTALLED AT THAT LOCATION.

SHEET KEYNOTES

1. EXISTING INVERTER REINSTALLED AT THIS LOCATION.
2. RELAY FOR SMOKE DAMPERS, SEE ASSOCIATED FIRE ALARM PLAN FOR ADDITIONAL INFORMATION.
3. CONTROL WALL SWITCH FOR EF-1 FAN ON ROOF. PROVIDE CONDUIT AND CABLE FROM EQUIPMENT TO SWITCH LOCATION.
4. PROVIDE 3" PVC CONDUIT PATHWAY FROM AMP RACK IN BASEMENT AV ROOM TO DMX CONTROL RACK ON STAGE RIGHT AREA.

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

STAGE LEVEL POWER PLAN

		SHEET NO.
SCALE	As indicated	EP101
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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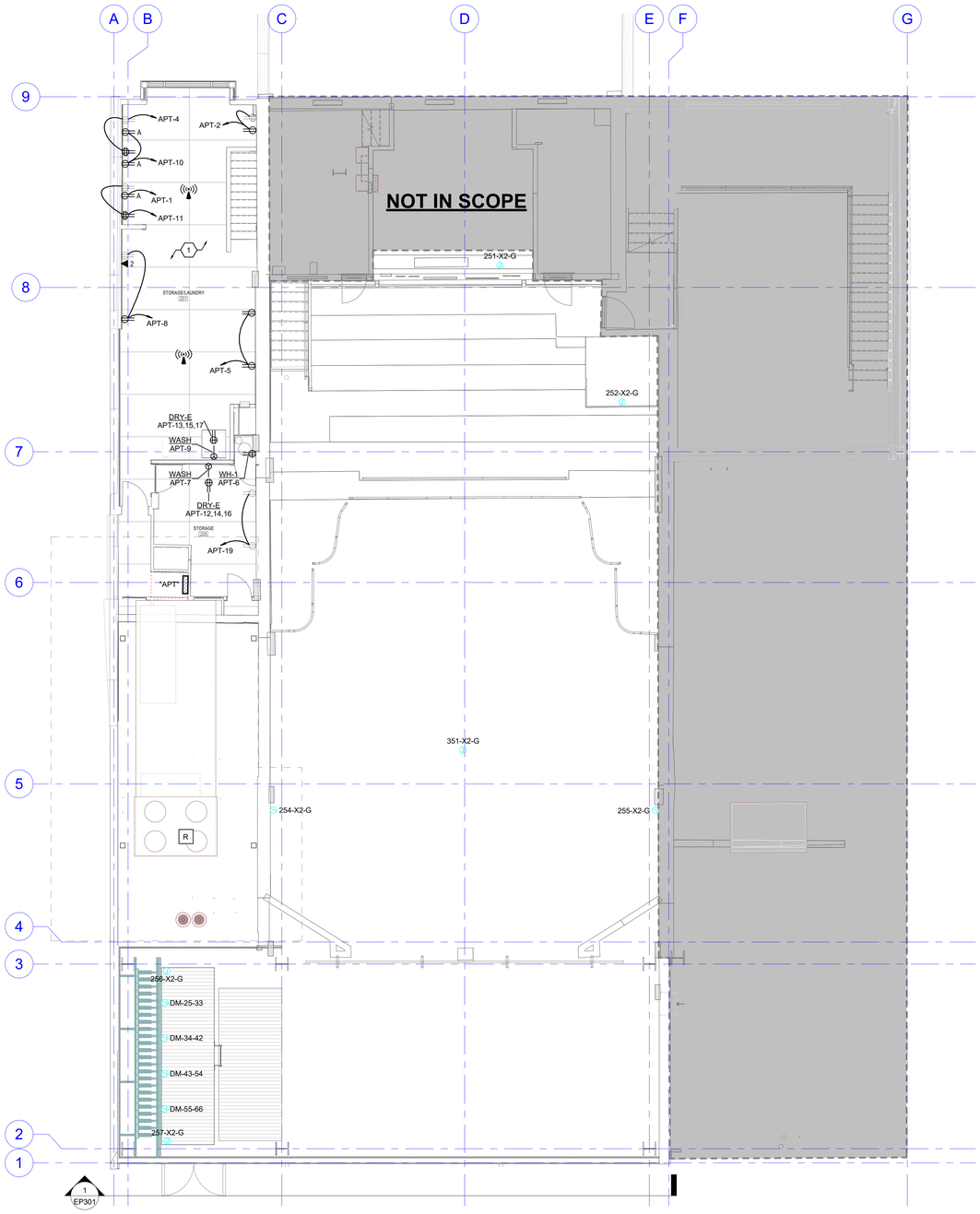

1 BALCONY LEVEL POWER PLAN

SCALE: 3/16" = 1'-0"

0 2' 4' 8'

NORTH

GENERAL SHEET NOTES

1. LOCATION OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE AND PROVIDED BY OTHERS. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
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15. PROVIDE BLANK FACEPLATES AT ALL LOCATIONS WHERE DEVICES WERE DEMOLISHED BUT RACEWAY WAS LEFT TO REMAIN AND NO NEW DEVICES ARE BEING INSTALLED AT THAT LOCATION.

SHEET KEYNOTES

1. REMOVE AND ADJUST ELECTRICAL EXISTING DEVICES SHOWN AS HALFTONE FOR FAUX WOOD REMOVAL AND NEW DRYWALL INSTALL. ALL RECEPTACLES AND WALL PLATES SHALL BE REMOVED AND DEMOLISHED. NEW RECEPTACLES AND WALL PLATES SHALL BE INSTALLED IN EXISTING BOXES AND REUSE EXISTING CABLING.

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Matthew John Hellwinkel
STATE OF UTAH
02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BALCONY LEVEL POWER PLAN

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EP102

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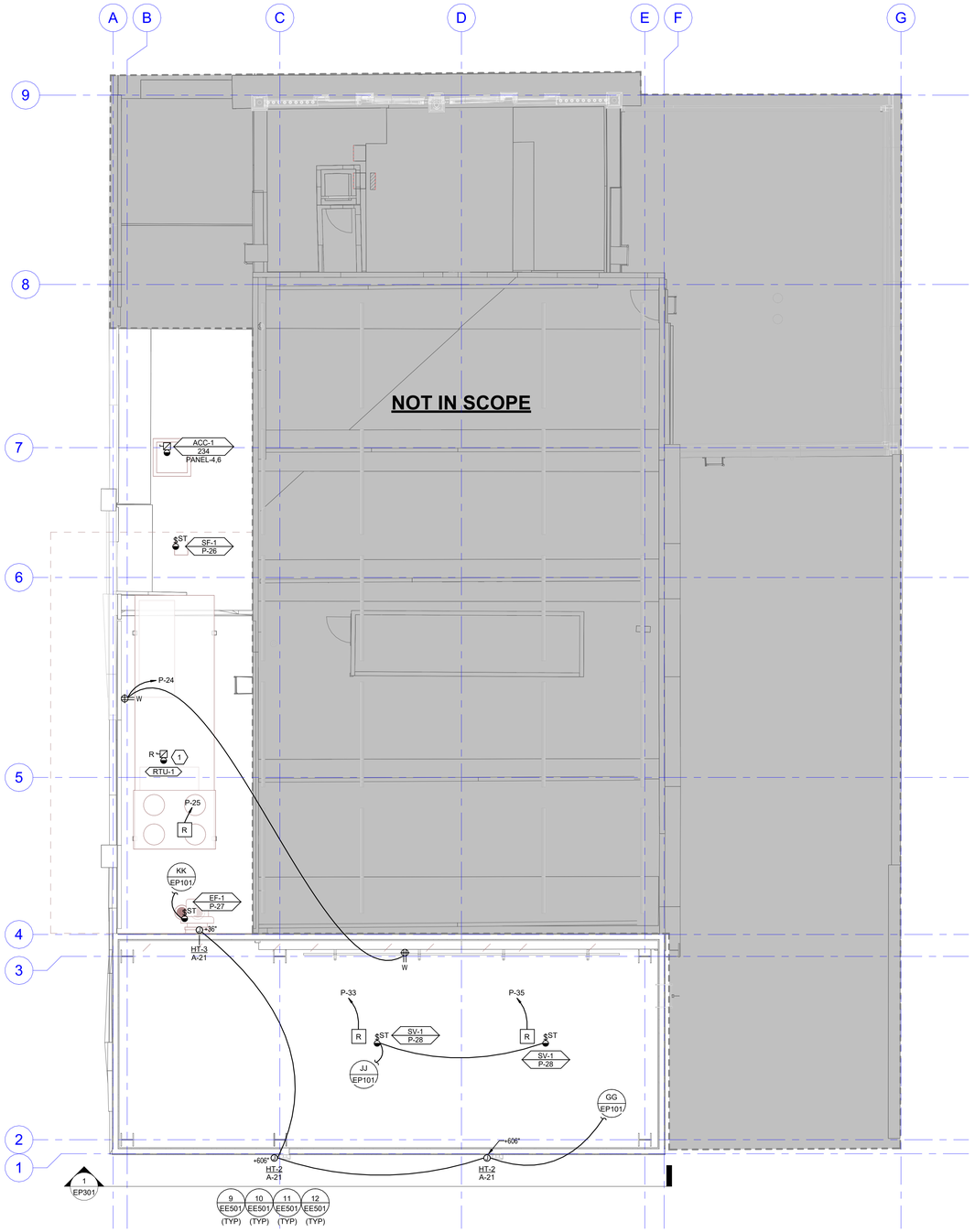

1 ROOF POWER PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1. LOCATION OF MECHANICAL EQUIPMENT SHOWN IS APPROXIMATE AND PROVIDED BY OTHERS. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
2. LOCATE ALL DISCONNECTS IN ACCESSIBLE LOCATION ADJACENT TO EQUIPMENT WITH CLEARANCES PER NEC.
3. ALL ELECTRICAL PENETRATIONS IN FIRE RATED WALLS, FLOORS, OR CEILINGS SHALL BE SEALED TO MEET FIRE RATING AND BE LEAK PROOF. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE CONSTRUCTION.
5. ALL ELECTRICAL PENETRATIONS THROUGH CMU, FOUNDATION, CONCRETE OR STRUCTURAL WALLS SHOULD BE CHECKED FOR REBAR AND ALL PENETRATIONS SHALL AVOID CUTTING THROUGH REBAR.
6. ALL WORK SHALL BE DONE ACCORDING TO THE NATIONAL ELECTRICAL CODE (2020 NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ.
7. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.
8. SURFACE MOUNTED CONDUIT ON WALLS AND CEILING, EXCLUDING MECHANICAL/ELECTRICAL SPACES, SHALL NOT BE INSTALLED UNLESS APPROVED BY OWNER.
9. CONTRACTOR SHALL UPSIZE BRANCH CIRCUITS AND FEEDERS FOR VOLTAGE DROP BASED ON ACTUAL INSTALLED LENGTHS. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE BRANCH CIRCUIT CONDUCTOR SIZING TABLE IN THE DRAWINGS AND SPECIFICATIONS.
10. PROVIDE DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS.
11. SOME CONDUIT INSTALLATIONS MAY NEED TO BE ROUTED UNDERGROUND PRIOR TO SLAB ON GRADE. CONTRACTOR SHALL REVIEW THE DRAWINGS FULLY PRIOR TO ANY WORK BEING PERFORMED.
12. TYPICAL FOR ALL OPEN TO STRUCTURE CEILING AREAS - POWER CABLING AND CONTROLS CABLING SHALL BE INSTALLED IN CONDUIT IN A NEAT AND PROFESSIONAL MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WITH CONDUIT UP IN STUCTURE AND PAINTED TO MATCH SURFACE. ALL LOW VOLTAGE CABLING SHALL BE INSTALLED IN TRAY OR CONDUIT.
13. UNLESS NOTED OTHERWISE, ELECTRICAL ITEMS SHOWN IN DARK AND SOLID LINES ARE NEW AND THE CONTRACTOR SHALL PROVIDE THEM. ITEMS SHOWN IN SOLID LIGHT LINES ARE TO REMAIN.
14. CONTRACTOR SHALL UPDATE ALL NEW AND EXISTING PANEL SCHEDULES WITH NEW CIRCUIT DATA. SCHEDULE SHALL BE ON A CARD STOCK TYPE OF MATERIAL AND TYPED WITH THE UPDATED INFORMATION.
15. PROVIDE BLANK FACEPLATES AT ALL LOCATIONS WHERE DEVICES WERE DEMOLISHED BUT RACEWAY WAS LEFT TO REMAIN AND NO NEW DEVICES ARE BEING INSTALLED AT THAT LOCATION.

SHEET KEYNOTES

1. POWER TO AIR HANDLER TO BE REMOVED FOR REMOVAL OF AIR HANDLER. CONDUIT SHALL BE PROTECTED. EXTEND CONDUIT AND PROVIDE NEW FEEDER AS REQUIRED FOR RELOCATION/REINSTALLATION OF AIR HANDLER TO NEW AREA.

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

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LICENSED PROFESSIONAL ENGINEER
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Matthew John Hellekson
STATE OF UTAH
02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ROOF LEVEL POWER PLAN

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EP103

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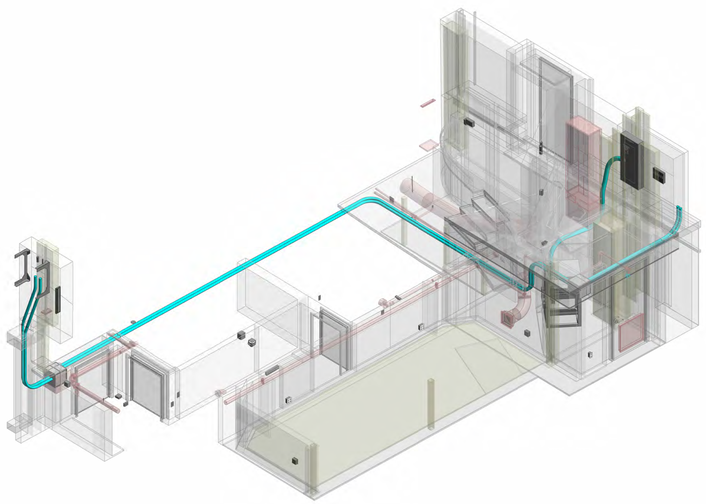
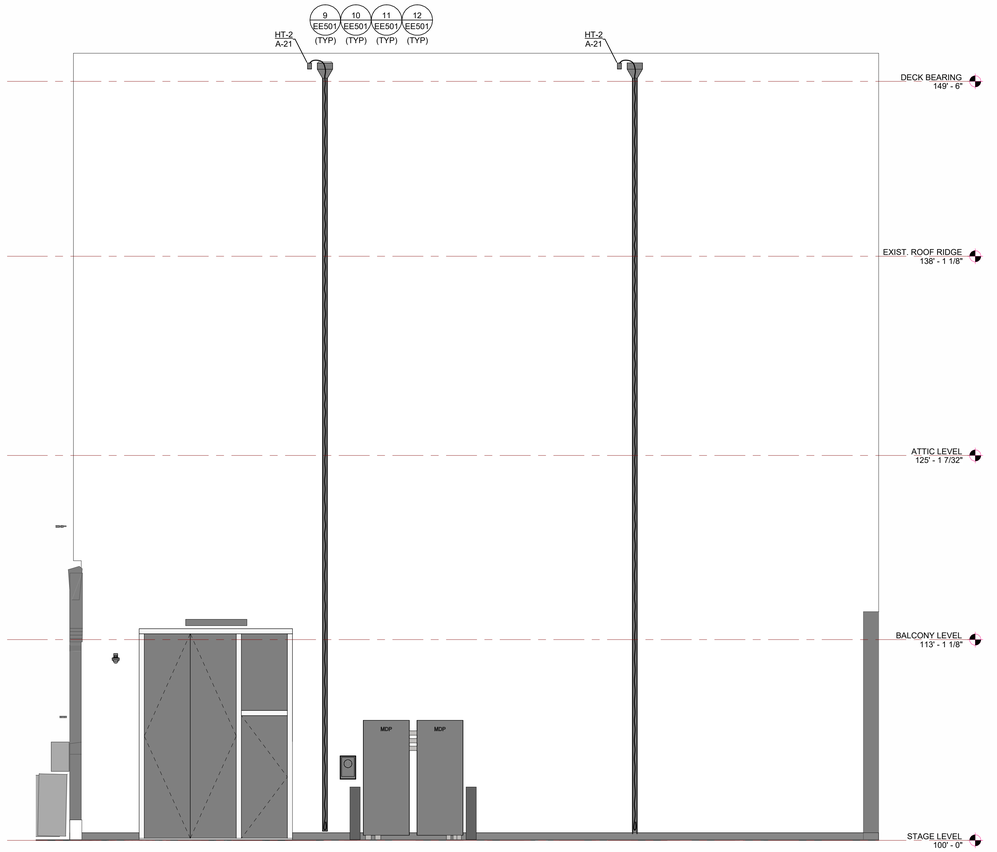


2 TELECOM CONDUIT ROUTING ISOMETRIC
SCALE:



1 ENLARGED SOUTH EXTERIOR WALL POWER ELEVATION
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

SPARANO+MOONEY ARCHITECTURE

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02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

POWER SECTIONS

SCALE	1/4" = 1'-0"	SHEET NO.
JOB NO.	23-05	EP301
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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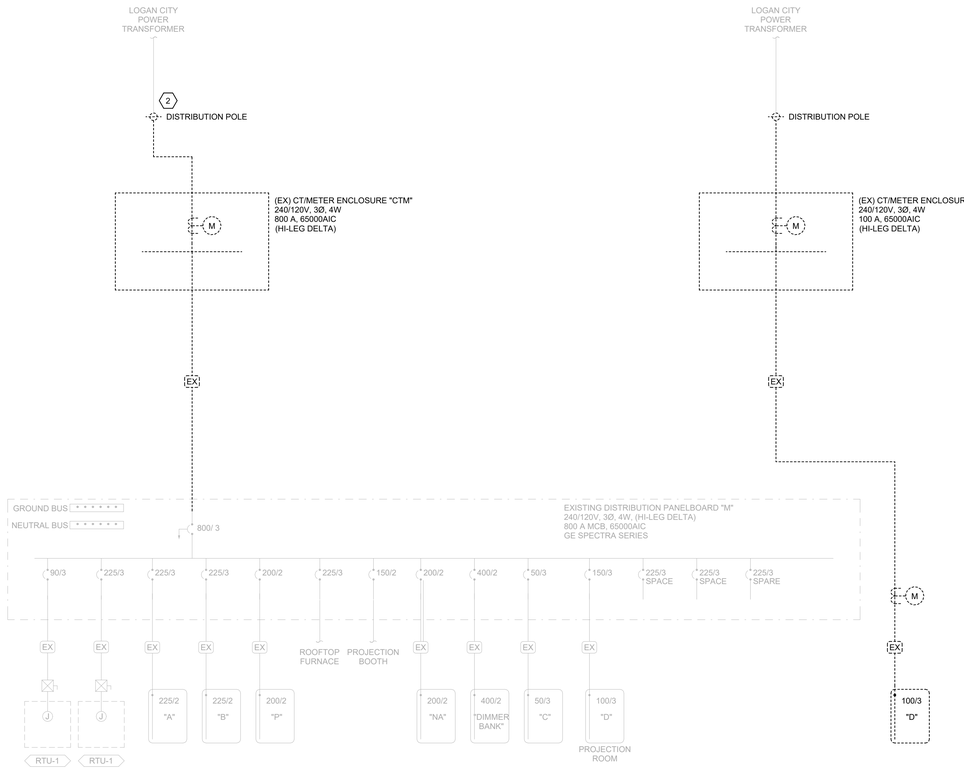
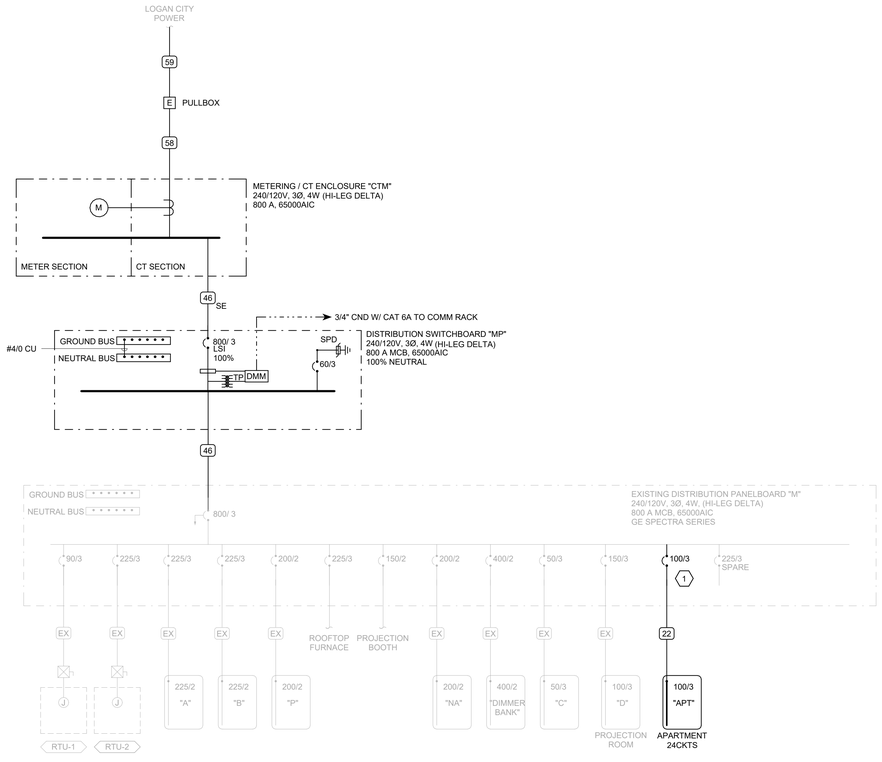


2 PARTIAL ONE-LINE DIAGRAM - DEMOLITION

SCALE: NTS



1 PARTIAL ONE-LINE DIAGRAM

SCALE: NTS

ALUMINUM CONDUCTOR AND CONDUIT SCHEDULE

(4)A — SCHEDULE NUMBER; SUBSCRIPT (NOTE 5) (E.G.) (5)IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1A								
2A								
3A								
4A								
5A								
6A								
7A								
8A								
9A								
10A								
11A								
12A								
13A								
14A								
15A								
16A								
17A								
18A								
19A								
20A								
21A	130	2	3	2/0	4	1/0	4	2,7
22A	130	2	4	2/0	4	1/0	4	2,7
23A	150	2	3	3/0	4	1/0	4	2,7
24A	150	2	4	3/0	4	1/0	4	2,7
25A	175	2	3	4/0	4	1/0	2	2,7
26A	175	2.50	4	4/0	4	1/0	2	2,7
27A	200	2.50	3	250	4	1/0	2	2,7
28A	200	3	4	250	4	1/0	2	2,7
29A	230	2.50	3	300	2	1/0	1/0	2,7
30A	230	3	4	300	2	1/0	1/0	2,7
31A	250	3	3	350	2	2/0	1/0	2,7
32A	250	3	4	350	2	2/0	1/0	2,7
33A	310	3	3	500	1	3/0	1/0	2,7
34A	310	4	4	500	1	3/0	1/0	2,7
35A	380	2 EA 2.50	3	250	1	4/0	3/0	2,7
36A	380	2 EA 3	4	250	1	4/0	3/0	2,7
37A	400	2 EA 2.50	3	250	1/0	4/0	3/0	2,7
38A	400	2 EA 2.50	4	250	1/0	4/0	3/0	2,7
39A	500	2 EA 3	3	350	1/0	300	3/0	2,4,7
40A	500	2 EA 3	4	350	1/0	300	3/0	2,4,7
41A	620	2 EA 3	3	500	3/0	300	3/0	2,4,7
42A	620	2 EA 4	4	500	3/0	300	3/0	2,4,7
43A	750	3 EA 3	3	350	3/0	300	4/0	2,4,7
44A	750	3 EA 3	4	350	3/0	300	4/0	2,4,7
45A	810	3 EA 3	3	400	4/0	300	250	2,4,7
46A	810	3 EA 4	4	400	4/0	300	250	2,4,7
47A	1000	4 EA 3	3	350	4/0	300	250	4,7
48A	1000	4 EA 3	4	350	4/0	300	250	4,7
49A	-	-	-	-	-	-	-	-
50A	1140	4 EA 4	4	500	250	300	250	4,7
51A	1240	4 EA 4	3	500	350	300	250	4,7
52A	1240	4 EA 4	4	500	350	300	250	4,7
53A	1620	6 EA 4	4	400	400	350	250	4,7
54A	2170	7 EA 4	4	500	400	400	500	4,7
55A	2695	7 EA 4	4	750	600	750	750	4,7
56A	3080	8 EA 4	4	750	600	750	750	4,7
57A	4235	11 EA 4	4	750	800	750	750	4,7
58A	1200	5 EA 4	-	-	-	-	-	6
59A	3000	10 EA 6	-	-	-	-	-	6
60A	-	10 EA 4	-	-	-	-	-	6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1 CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2 PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3 PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4 GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5 SYMBOL SUBSCRIPTS:
"2N": INCLUDE TWO NEUTRAL CONDUCTORS SIZED AS SCHEDULED FOR PHASE AND NEUTRAL CONDUCTORS WHERE THE CONDUCTOR IS #1/0 OR LARGER. INCLUDE A SINGLE 200% RATED CONDUCTOR THAT IS TWICE THE AMPACITY OF THE SCHEDULED PHASE AND NEUTRAL CONDUCTOR WHERE THE CONDUCTOR IS BELOW #1/0 IN SIZE.
"CI": PROVIDE CIRCUIT INTEGRITY CABLE; TYPE TWO-HOUR FIRE RESISTIVE CABLES IN CONDUIT OR PROVIDE FEEDER ENCASED IN CONCRETE.
"FG" FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE SAME SIZE AS THE PHASE CONDUCTORS.
"HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.
"IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.
"MC": PROVIDE FEEDER IN METAL-CLAD CABLE; TYPE MC IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
"SER": PROVIDE SERVICE-ENTRANCE CABLE; TYPE SE OR SER IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
6 RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.
7 ALUMINUM CONDUCTORS NOT TO BE USED FOR CONNECTION TO MOTORS OR MOTOR DRIVEN EQUIPMENT.

COPPER CONDUCTOR AND CONDUIT SCHEDULE

(4)A — SCHEDULE NUMBER; SUBSCRIPT (NOTE 5) (E.G.) (5)IG

SYM	AMP	HH AMPS	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG/HH	SE	NOTES
1	20	-	.75	2	12	12	12	8	2
2	20	-	.75	3	12	12	12	8	2,3
3	20	24	.75	4	12	12	12	8	2,3
4	30	-	.75	2	10	10	10	8	2
5	30	-	.75	3	10	10	10	8	2
6	30	32	.75	4	10	10	10	8	2
7	40	-	1	2	8	10	8	6	2
8	40	-	1	3	8	10	8	6	2
9	40	44	1	4	8	10	8	6	2
10	55	-	1	2	6	10	8	4	2
11	55	-	1	3	6	10	8	4	2
12	55	60	1.25	4	6	10	8	4	2
13	70	-	1	2	4	8	4	2	2
14	70	-	1.25	3	4	8	4	2	2
15	70	76	1.25	4	4	8	4	2	2
16	85	-	1.25	2	3	8	3	2	2
17	85	-	1.25	3	3	8	3	2	2
18	85	92	1.25	4	3	8	3	2	2
19	95	-	1.25	3	2	8	2	2	2
20	95	104	1.50	4	2	8	2	2	2
21	130	-	1.50	3	1	6	2	2	2
22	130	116	1.50	4	1	6	2	2	2
23	150	-	2	3	1/0	6	2	1/0	2
24	150	136	2	4	1/0	6	2	1/0	2
25	175	-	2	3	2/0	6	2	2/0	2
26	175	156	2	4	2/0	6	2	2/0	2
27	200	-	2	3	3/0	6	2	2/0	2
28	200	180	2.50	4	3/0	6	2	2/0	2
29	230	-	2.50	3	4/0	4	2	2/0	2
30	230	208	2.50	4	4/0	4	2	2/0	2
31	255	-	2.50	3	250	4	1	2/0	2
32	255	232	2.50	4	250	4	1	2/0	2
33	310	-	3	3	350	3	1/0	3/0	2
34	310	280	3	4	350	3	1/0	3/0	2
35	380	-	3.50	3	500	3	3/0	3/0	2
36	380	344	4	4	500	3	3/0	3/0	2
37	400	-	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	360	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	-	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	464	2 EA 3	4	250	1	4/0	3/0	2
41	620	-	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	560	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	-	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	688	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	-	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	768	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	-	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	912	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	-	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	1032	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	-	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	1120	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	1520	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	1824	6 EA 4	4	400	250	250	250	4
55	2660	2408	7 EA 4	4	500	350	350	350	4
56	3040	2752	8 EA 4	4	500	500	500	500	4
57	4180	3784	11 EA 4	4	500	500	500	500	4
58	760	-	2 EA 4	4	500	500	500	500	-
59	760	-	EX CND	4	500	500	500	500	7
60	-	-	10 EA 4	-	-	-	-	-	6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. SYMBOL SUBSCRIPTS:
"2N": INCLUDE TWO NEUTRAL CONDUCTORS SIZED AS SCHEDULED FOR PHASE AND NEUTRAL CONDUCTORS WHERE THE CONDUCTOR IS #1/0 OR LARGER. INCLUDE A SINGLE 200% RATED CONDUCTOR THAT IS TWICE THE AMPACITY OF THE SCHEDULED PHASE AND NEUTRAL CONDUCTOR WHERE THE CONDUCTOR IS BELOW #1/0 IN SIZE.
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"SER": PROVIDE SERVICE-ENTRANCE CABLE; TYPE SE OR SER IN PLACE OF SINGLE CONDUCTORS IN CONDUIT.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.
7 CONTRACTOR SHALL PULL NEW CONDUCTORS THROUGH EXISTING CONDUIT TO EXISTING TRANSFORMER LOCATION. COORDINATE OUTAGE REQUIREMENTS AND TRANSFORMER ACCESS WITH LCP.

GENERAL SHEET NOTES

1 PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2 REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3 ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.
4 PROVIDE PERFORMANCE TESTING FOR GROUND-FAULT PROTECTION SYSTEMS ON SITE WITH A WRITTEN RECORD OF THIS TEST SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PER NEC 230.95(C).

SHEET KEYNOTES

1 PROVIDE NEW 100A BREAKER IN EXISTING GE SPECTRA SERIES PANELBOARD. PROVIDE BUS ACCESSORIES AS REQUIRED.
2 CABLE SHALL BE DEMOLISHED BACK TO TRANSFORMER. CONDUIT SHALL BE BE PROTECTED AND MAINTAINED. DISTRIBUTION POLE TO BE DEMOLISHED BY LOGAN CITY POWER (LCP). COORDINATE WITH LCP FOR TIE-IN OF EXISTING UNDERGROUND CONDUIT AT THIS LOCATION.

EQUIPMENT NAMEPLATE SCHEDULE

EQUIPMENT ID SCHEME	FIRST DIGIT - BUILDING LEVEL (0, 1, 2, ETC) SECOND DIGIT - PANEL TYPE M - MECHANICAL H - (277/480) L - (120/208) E - EMERGENCY S - STANDBY Q - EQUIPMENT U - UPS K - KITCHEN (120/208) THIRD DIGIT - BUILDING AREA (A, B, C, ETC) FOURTH DIGIT - SEQUENCE # (1,2,3,...)
LABEL FORMAT	[NAME] [SYSTEM] [VOLTAGE] [FED FROM] [SOURCE(S)]
LABEL EXAMPLE	PANEL "4LA1" STANDBY POWER 120/208V FED FROM BUS-A / XFMR 4TA
BUSWAY	LABEL BUSWAY EVERY 6' WHERE EXPOSED TO VIEW AND EVERY 15' WHERE NOT EXPOSED TO VIEW
OTHER	

COLOR SCHEME

SYSTEM	EQUIPMENT	NAMEPLATE COLOR TEXT	BACKGROUND
NORMAL POWER	ALL GEAR NOT INCLUDED BELOW	WHITE	BLACK
STANDBY POWER	MDPS1 AND ALL DOWNSTREAM GEAR, EXCEPT UPS GEAR AS NOTED	WHITE	ORANGE
EMERGENCY POWER	GDP1, GDP2, ATS-E AND ALL DOWNSTREAM GEAR	WHITE	RED
LEGALLY-REQUIRED STANDBY POWER	ATS-S AND ALL DOWNSTREAM GEAR	RED	WHITE
UPS "A" POWER	UPSA AND ALL DOWNSTREAM GEAR	WHITE	BLUE
UPS "B" POWER	UPSB AND ALL DOWNSTREAM GEAR	BLACK	YELLOW

BRANCH CIRCUIT CONDUCTOR AND CONDUIT SIZING TABLE

CIRCUIT AMPACITY/VOLTAGE	CIRCUIT LENGTH	CONDUCTOR SIZE (PHASE, NEUTRAL AND GR)	CONDUIT SIZE
20A/120V	0' - 60'	#12 AWG	0.75" Ø
20A/120V	60' - 95'	#10 AWG	0.75" Ø
20A/120V	95' - 150'	#8 AWG	1" Ø
20A/120V	150' - 240'	#6 AWG	1.25" Ø
20A/277V	0' - 140'	#12 AWG	0.75" Ø
20A/277V	140' - 220'	#10 AWG	0.75" Ø
20A/277V	220' - 350'	#8 AWG	1" Ø
20A/277V	350' - 550'	#6 AWG	1.25" Ø

NOTES:

1. WIRE SIZING IS BASED ON COPPER CONDUCTORS.SUPPLYING A 20A, 120V CIRCUIT AT THE INDICATED VOLTAGE, ASSUMED TO BE 80% LOADED (16A), WITH MAXIMUM VOLTAGE DROP OF 3% AT THE LOAD.
2. DOWN-SIZED WIRE AT DEVICE/LOAD AS REQUIRED AND TERMINATE CONDUCTORS IN A SAFE AND CODE COMPLIANT MANNER.
3. CONDUIT SIZE IS BASED ON A MAXIMUM OF 3 CIRCUITS PER CONDUIT, EACH WITH A SEPARATE NEUTRAL CONDUCTOR.

FAULT CURRENT TABLE

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE NOT PERMITTED. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

BUS	FAULT CURRENT
APT	5000

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IMPROVEMENTS PROJECT

USU PROJECT NO: C001541

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SEAL

SEAL — LICENSED PROFESSIONAL ENGINEER — No. 10221159-2202 — Matthew John Heywood — STATE OF UTAH — 02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ONE-LINE DIAGRAM

SCALE	1/8" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO. EP601

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3/12/2025 10:47:17 AM Autodesk Docs://Caine Lyric Theatre - Fly Loft and Stage Improvements Project/230174-Elec Central_Phase II.rvt

EQUIPMENT SCHEDULE

EQUIPMENT SCHEDULE KEY	NOTES:	GENERAL NOTES:
E - DIVISION 26 Q - FURNISHED WITH EQUIPMENT, INSTALLED BY DIV.26	1. PROVIDE MANUAL STARTER WITH THERMAL OVERLOAD AND RELAY FOR ATC/BAS CONTROL. 2. PROVIDE FUSED DISCONNECT ELEVATOR POWER MODULE WITH SHUNT TRIP. 3. INDOOR UNITS FED FROM OUTDOOR UNIT. PROVIDE DISCONNECTS FOR BOTH. 4. EQUIPMENT TO BE PROVIDED WITH REMOTE SWITCH. PROVIDE CONDUIT/CABLE FROM SWITCH TO EQUIPMENT.	1. LOCATE ELECTRICAL EQUIPMENT IN ACCESSIBLE LOCATION, SUCH THAT IT IS WITHIN SIGHT OF THE EQUIPMENT IT IS SERVING, AND COMPLIES WITH N.E.C. REQUIRED CLEARANCES. 2. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND SIZE FEEDER, STARTER, DISCONNECT AND OVERCURRENT PROTECTION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OF ACTUAL EQUIPMENT SUPPLIED. 3. ELECTRICAL CONTRACTOR SHALL REVIEW OTHER DIVISION DRAWINGS FOR ANY ADDITIONAL REQUIREMENTS PRIOR TO BID. 4. ELECTRICAL CONTRACTOR SHALL REVIEW OTHER DIVISION SUBMITTALS FOR ANY EQUIPMENT REQUIRING CONNECTION BY ELECTRICAL CONTRACTOR AND COORDINATE ALL REQUIREMENTS PRIOR TO ROUGH-IN.

			LOAD DATA							OCPD		DISCONNECT		MOTOR CONTROLLER				
LABEL	QTY	DESCRIPTION	HP	kW	MCA	FLA	V	PH	WIRE AND CONDUIT SIZE	DEVICE	FED FROM	PROVIDED BY	DEVICE	PROVIDED BY	DEVICE	SIZES	NEMA ENCLOSURE RATING	NOTES
ACC-1	1	AIR COOLED CONDENSING UNIT	-	-	13.8	11	208	1	2 #12, #12 GR 0.75" CND	20/2 CB	234 PANEL	E	30A/2P FRS-20	-	-	-	NEMA 3R	
EF-1	1	EXHAUST FAN	1/3	-	-	7.2	120	1	2 #12, #12 GR 0.75" CND	20/1 CB	P	Q	TOGGLE SWITCH	-	-	-	NEMA 3R	(4)
F-1	1	GAS FIRED FURNACE	1/2	-	-	9.8	120	1	2 #12, #12 GR 0.75" CND	20/1 CB	P	E	TOGGLE SWITCH	-	-	-	-	
RTU-1	1	(EX) AIR HANDLER UNIT	-	-	-	0	208	1	EXISTING CABLE/CONDUIT	SEE ONE-LINE	M	E	SEE ONE-LINE	-	-	-	NEMA 3R	
SF-1	1	SUPPLY FAN	1/4	-	-	5.8	120	1	2 #12, #12 GR 0.75" CND	20/1 CB	P	E	TOGGLE SWITCH	-	-	-	NEMA 3R	
SV-1	2	SMOKE VENT	0.5	-	-	6	120	1	2 #12, #12 GR 0.75" CND	20/1 CB	P	E	TOGGLE SWITCH	-	-	-	NEMA 3R	

ELECTRICAL FIXTURE SCHEDULE

EQUIPMENT SCHEDULE KEY
E - DIVISION 26
Q - FURNISHED WITH EQUIPMENT
* - COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
** - AUTOMATIC CONTROL WIRING BY DIVISION 23

NOTES:
1. NEMA 3R
2. TOGGLE SWITCH W/ THERMAL OVERLOAD
3. CONTRACTOR TO PERFORM FINAL CONNECTION TO LINE VOLTAGE THERMOSTATS
4. INDOOR UNITS FED FROM OUTDOOR UNIT. PROVIDE DISCONNECTS FOR BOTH.
5. PROVIDE LABEL ON DISCONNECT "DISCONNECT OUTDOOR UNIT PRIOR TO INDOOR."

			MOUNTING HEIGHT (AFF)	LOAD DATA				LOAD DATA	WIRE AND CONDUIT SIZE	CONNECTION TYPE		ELECTRICAL REMARKS
ITEM NO.	QTY	DESCRIPTION		VOLT	PHASE	AMPS	kW	HP		FURN BY	DEVICE	
DIM	2	WALL DIMMER BOX	+36"	120	1	0	0.0	-	2#12, 10GR 0.75" CND	E	J-BOX	DIV 26 TO TIE IN RAIL STRIP LIGHTING TO JUNCTION BOX. COORDINATE WITH THEATER DRAWINGS.
DRY-E	2	DRYER - ELECTRIC	+18"	208	3	10	2.1	-	3#10, 10GR 0.75" CND	E	NEMA 14-30	
HT-2	2	HEAT TRACE	+606"	120	1	7	0.8	-	2#10, 10GR 0.75" CND	E	J-BOX	
HT-3	1	HEAT TRACE	+36"	120	1	1	0.1	-	2#10, 10GR 0.75" CND	E	J-BOX	
IRL	1	INDEX RAIL LIGHTING J-BOX	+120"	120	1	2	0.2	-	2#12, 10GR 0.75" CND	E	J-BOX	2 CIRCUIT JUNCTION BOX FOR INDEX RAIL STRIPLIGHT. EACH CIRCUIT CONTROLLED BY HIGH CAPACITY WALL BOX DIMMER. COORDINATE WITH THEATER DRAWINGS.
WASH	2	WASHER	+54"	120	1	10	1.2	-	2#12, 12GR 0.75" CND	E	NEMA 5-20	
WH-1	2	WATER HEATER	+18"	120	1	14	1.7	-	2#12, 12GR 0.75" CND	E	NEMA 5-20	

THEATRICAL POWER SCHEDULE

EQUIPMENT SCHEDULE KEY
E - DIVISION 26
Q - FURNISHED WITH EQUIPMENT
* - COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
** - AUTOMATIC CONTROL WIRING BY DIVISION 23

GENERAL NOTES:
1. ALL RACEWAYS SHALL BE PAINTED BLACK. CONFIRM FINISH WITH ARCHITECT PRIOR TO INSTALLATION.
2. REFER TO THEATRICAL SHEETS FOR ADDITIONAL INFORMATION ON DEVICES AND BOXES

			MOUNTING HEIGHT (AFF)	LOAD DATA				LOAD DATA	WIRE AND CONDUIT SIZE	WIRE PROVIDED BY	CONNECTION TYPE		ELECTRICAL REMARKS
ITEM NO.	QTY	DESCRIPTION		VOLT	PHASE	AMPS	kW	HP			FURN BY	DEVICE	
101-SC12	1	DMX DIMMER JUNCTION BOX	+48"	120	1	10	1.2	-	12 EXISTING DIMMER CIRCUITS (2) 1.25" CND	DIV 26	DIV 26	12"X10"X6"	INSTALL 6 CKT CABLE IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 67-78
102-SC12	1	DMX DIMMER JUNCTION BOX	+48"	120	1	10	1.2	-	12 EXISTING DIMMER CIRCUITS (2) 1.25" CND	DIV 26	DIV 26	12"X10"X6"	INSTALL 3 CKTS IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 79-90
151-X2-G	1	DSL	+48"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT.
152-X2-G	1	DSR	+48"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT.
251-X2-G	1	CONTROL ROOM	+18"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE.
252-X2-G	1	SOUND MIX	+18"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE.
253-X2-G	1	BALCONY RAIL	+126"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE. CONDUIT SHALL BE RUN UNDER BALCONY FROM CONTROL ROOM.
254-X2-G	1	HOUSE RIGHT BOX BOOM	+240"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE.
255-X2-G	1	HOUSE LEFT BOX BOOM	+240"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE.
256-X2-G	1	GALLERY DSL	+42"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT.
257-X2-G	1	GALLERY USL	+42"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT.
351-X2-G	1	FOH COVE	+300"	0	1	0	0.0	-	2 ETHERNET CABLES 0.75" CND	DIV 26	DIV 26	J-BOX	CONDUITS SHALL BE INSTALLED FROM DMX CONTROL RACK ON STAGE RIGHT. CONDUIT SHALL BE ROUTED THROUGH ATTIC SPACE.
DM-25-33	1	DM CIRCUIT BOX	+42"	120	1	10	1.2	-	9 EXISTING DIMMER CIRCUITS (1) 1.25" CND	DIV 26	DIV 26	J-BOX	INSTALL 9 CKT CABLE IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 25-33
DM-34-42	1	DM CIRCUIT BOX	+42"	120	1	10	1.2	-	9 EXISTING DIMMER CIRCUITS (1) 1.25" CND	DIV 26	DIV 26	J-BOX	INSTALL 9 CKT CABLE IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 34-42
DM-43-54	1	DM CIRCUIT BOX	+42"	120	1	10	1.2	-	9 EXISTING DIMMER CIRCUITS (1) 1.25" CND	DIV 26	DIV 26	J-BOX	INSTALL 9 CKT CABLE IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 43-54
DM-55-66	1	DM CIRCUIT BOX	+42"	120	1	10	1.2	-	9 EXISTING DIMMER CIRCUITS (1) 1.25" CND	DIV 26	DIV 26	J-BOX	INSTALL 9 CKT CABLE IN EACH CONDUIT FROM EXISTING CABLE TRAY FROM EXISTING DIMMER RACK. REPULL EXISTING CIRCUITS SALVAGED FROM DEMO. CKTS 55-66

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02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ELECTRICAL SCHEDULES

SCALE		SHEET NO.
JOB NO.	23-05	EP602
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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(EXISTING) PANEL: "234 PANEL"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	FED FROM:	CABINET:	LOCATION:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS		SURFACE	WEST SIDE STAGE 234	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR **AIC RATING:** 10,000

CKT	OCP			LOAD (kVA)				PHASE LOAD						OCP			LOAD (kVA)			CKT
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	BKR	POLE	AMP	NO
1	20	3	--	0.0	0.0	0.0	*EX PROP PLUG*	0.0	0.0					*EX LOAD*	0.0	0.0	0.0	--	1	20	2
3	--	--	--	--	--	--	--			0.0	1.1			PWR AC UNIT (ACC-1) ROOF	0.0	2.3	0.0	**NEW**	2	20	4
5	--	--	--	--	--	--						0.0	1.1	--	--	--	--	--	--	--	6
7	--	1	--	0.0	0.0	0.0	-- SPACE --	--	--					-- SPACE --	0.0	0.0	0.0	--	1	--	8
9	--	1	--	0.0	0.0	0.0	-- SPACE --			--	--			-- SPACE --	0.0	0.0	0.0	--	1	--	10
11	--	1	--	0.0	0.0	0.0	-- SPACE --					--	--	-- SPACE --	0.0	0.0	0.0	--	1	--	12
13	--	1	--	0.0	0.0	0.0	-- SPACE --	--	--					-- SPACE --	0.0	0.0	0.0	--	1	--	14
15	--	1	--	0.0	0.0	0.0	-- SPACE --			--	--			-- SPACE --	0.0	0.0	0.0	--	1	--	16
17	--	1	--	0.0	0.0	0.0	-- SPACE --					--	--	-- SPACE --	0.0	0.0	0.0	--	1	--	18
19	--	1	--	0.0	0.0	0.0	-- SPACE --	--	--					-- SPACE --	0.0	0.0	0.0	--	1	--	20
21	--	1	--	0.0	0.0	0.0	-- SPACE --			--	--			-- SPACE --	0.0	0.0	0.0	--	1	--	22
23	--	1	--	0.0	0.0	0.0	-- SPACE --					--	--	-- SPACE --	0.0	0.0	0.0	--	1	--	24
TOTALS:							CONNECTED kVA PER PHASE	**0**		**1**		**1**		CONNECTED TOTAL kVA =		**2**					
							CONNECTED AMPS PER PHASE	**0**		**11**		**11**		AVERAGE CONNECTED AMPS PER PHASE =		**6**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS:
RECEPTACLES:
ALL OTHER LOADS @ 100% : **2.9 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

DIVERSIFIED TOTAL kVA = **3**
AVERAGE AMPS PER PHASE = **8**

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

NOTES:
1. EXISTING SQUARE D PANELBOARD.
2. GRAY ITALIC TEXT = EXISTING CIRCUIT.

(EXISTING) PANEL: "A"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	FED FROM:	CABINET:	LOCATION:	NOTES:
120/240 V, 1 PH 3 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS		SURFACE	EAST SIDE STAGE 210	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR **AIC RATING:** 10,000

CKT	OCP			LOAD (kVA)				PHASE LOAD						OCP			LOAD (kVA)			CKT
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	BKR	POLE	AMP	NO
1	20	1	--	0.0	0.0	0.0	*EX LTG LOBBY*	1.1	0.5					*EX CO UTILITY/JANITOR*	0.0	0.0	0.0	--	1	20	2
3	20	1	--	0.0	0.0	0.0	*EX LTG RECEPTION PENDANTS*			1.4	0.8			*EX CO RECEPTION*	0.0	0.0	0.0	--	1	20	4
5	20	1	--	0.0	0.0	0.0	*EX LTG NORTH ATRIUM COVE*	1.1	0.8					*EX CO RECEPTION*	0.0	0.0	0.0	--	1	20	6
7	20	1	--	0.0	0.0	0.0	*EX LTG SOUTH ATRIUM COVE*			1.0	0.8			*EX CO RESTROOM / HALL*	0.0	0.0	0.0	--	1	20	8
9	20	1	--	0.0	0.0	0.0	*EX PWR CONDENSING FRIDGE*	0.4	0.8					*EX CO RESTROOM / HALL*	0.0	0.0	0.0	--	1	20	10
11	20	1	--	0.0	0.0	0.0	*EX SO JAN/UTIL/STOR/HALL 205*			0.5	0.8			*EX CO SIDE STAGE OUTLETS*	0.0	0.0	0.0	--	1	20	12
13	20	1	--	0.0	0.0	0.0	*EX CO RESTROOMS*	0.6	0.8					*EX CO SIDE STAGE OUTLETS*	0.0	0.0	0.0	--	1	20	14
15	20	1	--	0.0	0.0	0.0	*EX CO STAIR 209 / HALL 208*			1.2	0.8			*EX CO SIDE STAGE OUTLETS*	0.0	0.0	0.0	--	1	20	16
17	20	1	--	0.0	0.0	0.0	*EX LTG SIDE STAGE LIGHTS*	0.3	0.8					*EX PWR HAND DRYERS*	0.0	0.0	0.0	--	1	20	18
19	20	1	--	0.0	0.0	0.0	SPARE			0.0	0.8			*EX PWR HAND DRYERS*	0.0	0.0	0.0	--	1	20	20
21	30	1	(4)	0.0	1.7	0.0	PWR HEAT TRACE (HT-2) (HT-3)	1.7	0.8					*EX PWR HAND DRYERS*	0.0	0.0	0.0	--	1	20	22
23	20	1	--	0.0	0.0	0.0	*EX PWR EWH STORAGE*			0.8	0.8			*EX PWR HAND DRYERS*	0.0	0.0	0.0	--	1	20	24
25	20	1	--	0.0	0.0	0.0	*EX PWR EF-4*	0.8	0.8					*EX CO ATRIUM OUTLETS*	0.0	0.0	0.0	--	1	20	26
27	20	1	--	0.0	0.0	0.0	*EX PWR VAV BOXES*			0.8	1.2			*EX PWR HEAT TRACE (HT-1) W ROOF*	0.0	0.0	0.0	--	1	20	28
29	20	1	--	0.0	0.0	0.0	*EX PWR HEAT TRACE (HT-1) N...*	0.5	1.2					*EX PWR HEAT TRACE (HT-1) E ROOF*	0.0	0.0	0.0	--	1	20	30
31	20	1	--	0.0	0.0	0.0	*EX PWR EF-1*			0.8	0.0			SPARE	0.0	0.0	0.0	--	1	20	32
33	20	1	--	0.0	0.0	0.0	*EX PWR EF-2*	0.8	0.0					SPARE	0.0	0.0	0.0	--	1	20	34
35	20	1	--	0.0	0.0	0.0	SPARE			0.0	--			-- SPACE --	0.0	0.0	0.0	--	1	--	36
37	--	1	--	0.0	0.0	0.0	-- SPACE --	--	--					-- SPACE --	0.0	0.0	0.0	--	1	--	38
39	--	1	--	0.0	0.0	0.0	-- SPACE --			--	--			-- SPACE --	0.0	0.0	0.0	--	1	--	40
41	--	1	--	0.0	0.0	0.0	-- SPACE --	--	--					-- SPACE --	0.0	0.0	0.0	--	1	--	42
TOTALS:							CONNECTED kVA PER PHASE	**14**		**13**				CONNECTED TOTAL kVA =		**26**					
							CONNECTED AMPS PER PHASE	**115**		**104**				AVERAGE CONNECTED AMPS PER PHASE =		**110**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS:
RECEPTACLES:
ALL OTHER LOADS @ 100% : **1.7 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

DIVERSIFIED TOTAL kVA = **26**
AVERAGE AMPS PER PHASE = **110**

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

NOTES:
(1) EXISTING GE A-SERIES PANELBOARD.
(2) GRAY ITALIC TEXT = EXISTING CIRCUIT
(3) ALL EXISTING LOADS ARE ESTIMATED TO THE GREATEST EXTENT POSSIBLE BY THE ENGINEER.
(4) NEW 'GF3' 30mA GFCI BREAKER CAPABLE OF BEING LOCKED OUT IN OPEN POSITION.

PANEL: "APT"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	FED FROM:	CABINET:	LOCATION:	NOTES:
120/208V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN LUGS		SURFACE	UTILITY 209	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR **AIC RATING:** 10,000

CKT	OCP			LOAD (kVA)				PHASE LOAD						OCP			LOAD (kVA)			CKT
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	BKR	POLE	AMP	NO
1	20	1		0.0	0.0	0.2	CO STORAGE/LAUNDRY 201	0.2	0.5					CO STORAGE/LAUNDRY 201	0.5	0.0	0.0		1	20	2
3	20	1		0.2	0.0	0.0	LTG ROOMS 205, 201			0.2	0.5			CO STORAGE/LAUNDRY 201	0.5	0.0	0.0		1	20	4
5	20	1		0.0	0.0	0.4	CO STORAGE/LAUNDRY 201					0.4	1.7	PWR WATER HEATER	0.0	1.7	0.0		1	20	6
7	20	1		0.0	1.2	0.0	POWER STORAGE/LAUNDRY 201	1.2	0.4					CO STORAGE/LAUNDRY 201	0.4	0.0	0.0		1	20	8
9	20	1		0.0	1.2	0.0	PWR WASHER 201			1.2	0.4			CO STORAGE/LAUNDRY 201	0.4	0.0	0.0		1	20	10
11	20	1		0.0	0.0	0.4	CO STORAGE/LAUNDRY 201					0.4	0.7	POWER STORAGE/LAUNDRY 201	0.0	2.1	0.0		3	20	12
13	20	3		0.0	2.1	0.0	PWR DRYER ELECTRIC 201	0.7	0.7					--	--	--	--	--	--	--	14
15	--	--	--	--	--	--	--			0.7	0.7			--	--	--	--	--	--	--	16
17	--	--	--	--	--	--	--					0.7	0.0	EX PWR ELECTRIC STOVE	0.0	0.0	0.0	--	2	40	18
19	20	1		0.0	0.0	0.4	CO STORAGE 205	0.4	0.0					--	--	--	--	--	--	--	20
21	20	1	--	0.0	0.0	0.0	SPARE			0.0	0.0			SPARE	0.0	0.0	0.0	--	1	20	22
23	20	1	--	0.0	0.0	0.0	SPARE					0.0	0.0	SPARE	0.0	0.0	0.0	--	1	20	24
TOTALS:							CONNECTED kVA PER PHASE	**4**		**4**		**4**		CONNECTED TOTAL kVA =		**12**					
							CONNECTED AMPS PER PHASE	**34**		**31**		**32**		AVERAGE CONNECTED AMPS PER PHASE =		**32**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS: **0.2 kVA @ 125% = 0.3 kVA**
RECEPTACLES: **3.1 kVA @ 100% = 3.1 kVA**
ALL OTHER LOADS @ 100% : **8.2 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

DIVERSIFIED TOTAL kVA = **12**
AVERAGE AMPS PER PHASE = **32**

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

NOTES:

(EXISTING) PANEL: "NA"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	FED FROM:	CABINET:	LOCATION:	NOTES:
120/ 240V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS		SURFACE	WEST SIDE STAGE 234	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR **AIC RATING:** 10,000

CKT	OCP			LOAD (kVA)				PHASE LOAD						OCP			LOAD (kVA)			CKT
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	BKR	POLE	AMP	NO
1	15	1	--	0.0	0.0	0.0	*EX REST RM BASEMENT*	0.0	0.0					*EX BASEMENT LIGHTS*	0.0	0.0	0.0	--	1	15	2
3	15	1	--	0.0	0.0	0.0	*EX BELOW STAGE*			0.0	0.4			CO AMP RACK AV 131	0.4	0.0	0.0		1	20	4
5	15	1	--	0.0	0.0	0.0	*EX OUTLET ABOVE DESK*					0.0	0.0	*EX CO ISLE / EM LIGHT BOX*	0.0	0.0	0.0	--	1	15	6
7	15	1	--	0.0	0.0	0.0	*EX OUTLET BELOW DESK*	0.0	0.0					*EX FIRE ALARM*	0.0	0.0	0.0	--	1	15	8
9	20	1		0.0	0.0	0.2	CO GREEN ROOM 128			0.2	0.0			*EX BACK RM LIGHTS*	0.0	0.0	0.0	--	1	15	10
11	15	1	--	0.0	0.0	0.0	*EX OUTLETS*					0.0	0.4	CO AMP RACK AV 131	0.4	0.0	0.0		1	20	12
13	20	1		0.0	0.0	0.2	CO GREEN ROOM 128	0.2	0.0					*EX AMP BALCONY*	0.0	0.0	0.0	--	1	15	14
15	20	1		0.0	0.0	0.2	CO GREEN ROOM 128			0.2	0.0			*EX AMP BALCONY*	0.0	0.0	0.0	--	1	15	16
17	20	1		0.0	0.0	0.2	CO GREEN ROOM 128					0.2	0.0	*EX AMP BALCONY*	0.0	0.0	0.0	--	1	15	18
19	20	1		0.0	0.0	0.5	CO GREEN ROOM 128	0.5	0.4					***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	20
21	20	1		0.0	0.0	0.5	CO GREEN ROOM 128			0.5	0.4			***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	22
23	20	1		0.2	0.0	0.0	LTG GREEN ROOM 128					0.2	0.4	***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	24
25	20	2	--	0.0	0.0	0.0	*EX WATER HEATER*	0.0	0.4					***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	26
27	--	--	--	--	--	--	--			0.0	0.4			***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	28
29	20	1		0.0	0.2	0.0	PWR INDEX RAIL LIGHTING 234					0.2	0.4	***CO AMP RACK AV 131 - R***	0.4	0.0	0.0		1	20	30
31	20	1		0.0	0.2	0.0	PWR INDEX RAIL LIGHTING 234	0.2	0.0					*EX WORK LIGHTS LOFT*	0.0	0.0	0.0	--	1	20	32
33	20	1	--	0.0	0.0	0.0	SPARE			0.0	0.0			*EX WORK LIGHTS STAGE*	0.0	0.0	0.0	--	1	20	34
35	20	1	--	0.0	0.0	0.0	SPARE					0.0	0.0	*EX WORK LIGHTS STAGE*	0.0	0.0	0.0	--	1	20	36
37	20	1	--	0.0	0.0	0.0	*EX CO STAGE*	0.0	0.0					*EX 240V OUTLET STAGE*	0.0	0.0	0.0	--	2	50	38
39	20	1	--	0.0	0.0	0.0	SPARE			0.0	0.0				--	--	--	--	--	--	40
41	--	1	--	0.0	0.0	0.0	-- SPACE --					--	--	-- SPACE --	0.0	0.0	0.0	--	1	--	42
TOTALS:							CONNECTED kVA PER PHASE	**2**		**2**		**2**		CONNECTED TOTAL kVA =		**5**					
							CONNECTED AMPS PER PHASE	**14**		**17**		**14**		AVERAGE CONNECTED AMPS PER PHASE =		**13**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS: **0.2 kVA @ 125% = 0.2 kVA**
RECEPTACLES: **4.7 kVA @ 100% = 4.7 kVA**
ALL OTHER LOADS @ 100% : **0.5 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

DIVERSIFIED TOTAL kVA = **5**
AVERAGE AMPS PER PHASE = **13**

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

NOTES:
1. EXISTING I-T-E PANELBOARD.
2. GRAY ITALIC TEXT = EXISTING CIRCUIT.
3. BLUE ITALIC TEXT ENDING WITH "R" = EXISTING CIRCUIT TO BE REUSED.

(EXISTING) PANEL: "P"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE AND TYPE:	FED FROM:	CABINET:	LOCATION:	NOTES:
120/ 240V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	225 AMPERE MAIN LUGS		SURFACE	WEST SIDE STAGE 234	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR **AIC RATING:** 22,000

CKT	OCP			LOAD (kVA)				PHASE LOAD						OCP			LOAD (kVA)			CKT
NO	AMP	POLE	BKR	LTG	PWR	CO	DESCRIPTION	A		B		C		DESCRIPTION	CO	PWR	LTG	BKR	POLE	AMP	NO
1	20	1	--	0.0	0.0	0.0	*EX ATTIC*	0.0	0.0					*EX JANITORS CLOSET HEATER*	0.0	0.0	0.0	--	2	30	2
3	20	1	--	0.0	0.0	0.0	*EX TELEPHONE CABINET*			0.0	0.0			--	--	--	--	--	--	--	4
5	20	1	--	0.0	0.0	0.0	*EX LOAD*					0.0	0.0	*EX INVERTER*	0.0	0.0	0.0	--	2	50	6
7	100	2	--	0.0	0.0	0.0	*EX WEST ROOF TOP UNIT*	0.0	0.0					--	--	--	--	--	--	--	8
9	--	--	--	--	--	--	--			0.0	0.0			*EX JANITORS CLOSET HEATER*	0.0	0.0	0.0	--	2	20	10
11	20	1	--	0.0	0.0	0.0	*EX FIRE ALARM*					0.0	0.0	--	--	--	--	--	--	--	12
13	40	2	--	0.0	0.0	0.0	*EX GALLERY CUSTODIAN PANEL*	0.0	0.0					*EX SOUTH GALLERY OUTLET*	0.0	0.0	0.0	--	1	20	14
15	--	--	--	--	--	--	--			0.0	0.0			*EX GALLERY OUTLET*	0.0	0.0	0.0	--	1	20	16
17	20	1	--	0.0	0.0	0.0	*EX GALLERY LIGHTS*					0.0	0.0	*EX CUSTODIAN EXHAUST FAN*	0.0	0.0	0.0	--	1	20	18
19	20	1	--	0.0	0.0	0.0	*EX GALLERY TRACK LIGHTS*	0.0	0.0					*EX HEATER TICKET BOOTH*	0.0	0.0	0.0	--	2	30	20
21	20	1	--	0.0	0.0	0.0	*EX CUSTODIAN WATER HEATER*			0.0	0.0			--	--	--	--	--	--	--	22
23	20	1	**NEW**	0.0	0.0	0.0	LTG SOUTH EXTERIOR ENTRY					0.0	0.4	CO ROOF	0.4	0.0	0.0	**NEW**	1	20	24
25	20	1	**NEW**	0.0	0.0	0.0	PWR FAN SHUTOFF ROOF	0.0	0.7					PWR SUPPLY FAN (SF-1) ROOF	0.0	0.7	0.0	**NEW**	1	20	26
27	20	1	**NEW**	0.0	0.9	0.0	PWR EXHAUST FAN (EF-1) ROOF			0.9	1.4			PWR SMOKE VENT (SV-1) ROOF	0.0	1.4	0.0	**NEW**	1	20	28
29	20	1	**NEW**	0.0	0.0	0.7	CO ROOM 234, 120					0.7	1.2	PWR FURNACE (F-1) MECH. 235	0.0	1.2	0.0	**NEW**	1	20	30
31	20	1	**NEW**	0.0	1.7	0.0	PWR WATER HEATER (WH-1) 202	1.7	0.0					PWR FSD 234	0.0	0.0	0.0	**NEW**	1	20	32
33	20	1	**NEW**	0.0	0.0	0.0	PWR SMOKE HOOD RELAY ROOF			0.0	0.7			CO STAGE 225	0.7	0.0	0.0	**NEW**	1	20	34
35	20	1	**NEW**	0.0	0.0	0.0	PWR SMOKE HOOD RELAY ROOF					0.0	--	-- SPACE --	0.0	0.0	0.0	--	1	--	36
37	20	1	**NEW**	0.0	0.0	0.7	CO STAGE 225	0.7	--					-- SPACE --	0.0	0.0	0.0	--	1	--	38
39	--	1	--	0.0	0.0	0.0	-- SPACE --			--	--			-- SPACE --	0.0	0.0	0.0	--	1	--	40
41	20	1	**NEW**	0.0	0.0	0.7	CO WEST SIDE STAGE 234					0.7	--	-- SPACE --	0.0	0.0	0.0	--	1	--	42
TOTALS:							CONNECTED kVA PER PHASE	**3**		**3**		**3**		CONNECTED TOTAL kVA =		**9**					
							CONNECTED AMPS PER PHASE	**26**		**25**		**25**		AVERAGE CONNECTED AMPS PER PHASE =		**22**					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING & CONTINUOUS LOADS: **0.0 kVA @ 125% = 0.0 kVA**
RECEPTACLES: **3.2 kVA @ 100% = 3.2 kVA**
ALL OTHER LOADS @ 100% : **6.2 kVA**

- 100% CONNECTED LOAD PLUS 25%
- FIRST 10kVA @ 100%, REMAINDER @ 50%
- MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED @ 125% PER NEC

DIVERSIFIED TOTAL kVA = **9**
AVERAGE AMPS PER PHASE = **23**

BKR: GF=GFCI, GF3=30mA GFCI CAPABLE OF BEING LOCKED OUT IN OPEN POSITION, IG=ISOLATED GROUND, AF=AFCI, ST=SHUNT TRIP, RED=PROVIDE RED COLORED BREAKER, AF=ARC FAULT CURRENT INTERRUPTER, GA=COMBINATION OF GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTER, GS=COMBINATION OF SHUNT TRIP WITH GFCI

NOTES:
1. EXISTING GE A SERIES PANELBOARD.
2. GRAY ITALIC TEXT = EXISTING CIRCUIT.

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IMPROVEMENTS PROJECT

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

PANEL SCHEDULES

SCALE	
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO. EP603

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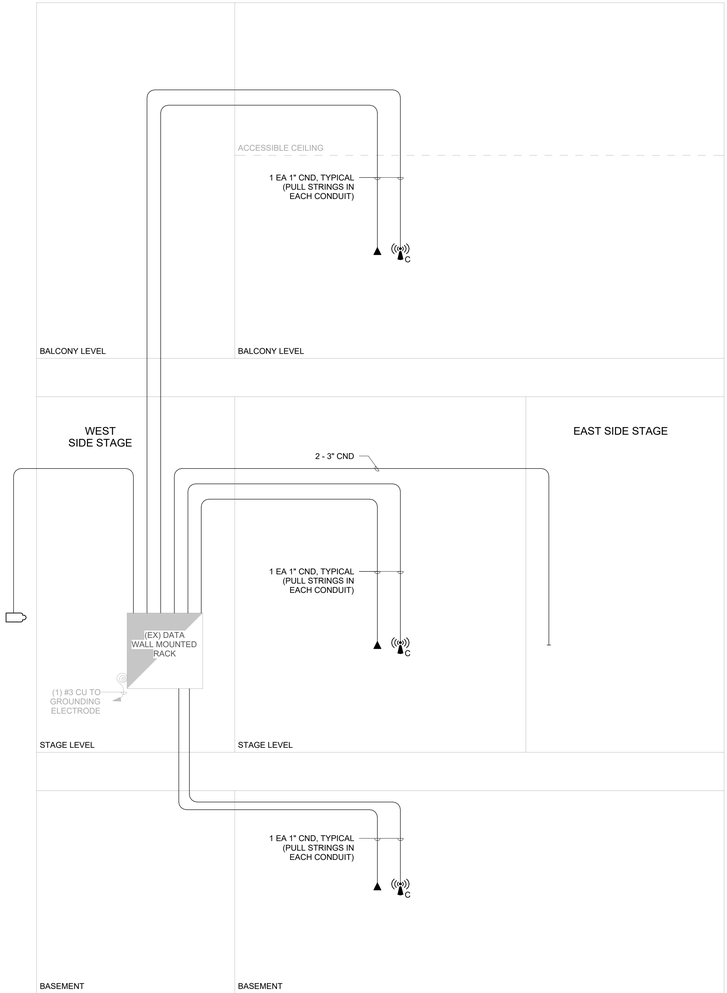

1 TELECOM CONDUIT RISER DIAGRAM
SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

TELECOM CONDUIT RISER DIAGRAM

SCALE	1/8" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EP651

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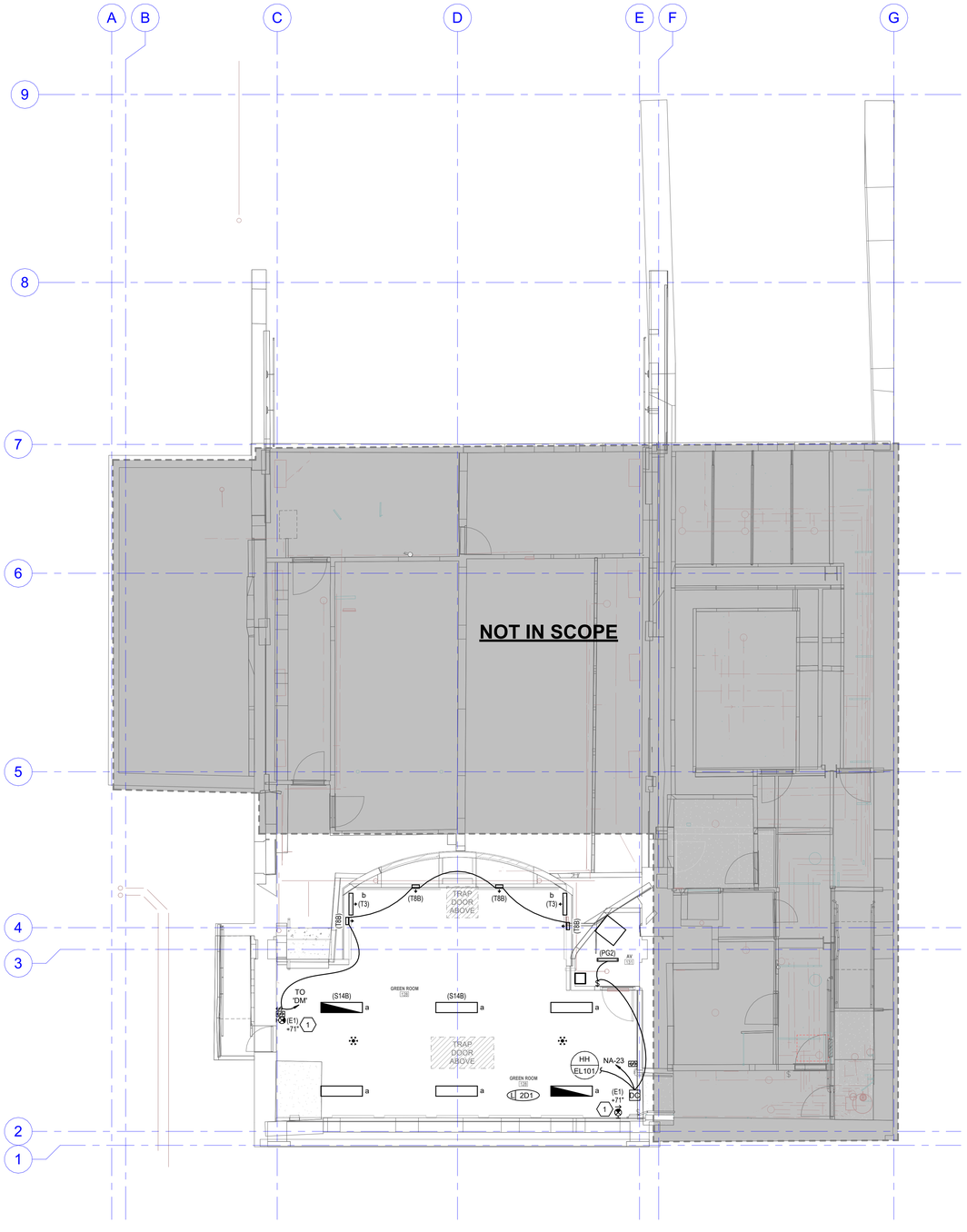
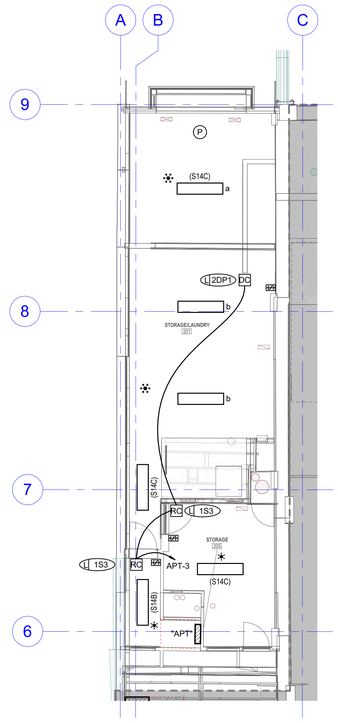


2 BASEMENT LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 APARTMENT LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

GENERAL SHEET NOTES

1 UNLESS NOTED OTHERWISE, ELECTRICAL ITEMS SHOWN IN DARK AND SOLID LINES ARE NEW AND THE CONTRACTOR SHALL PROVIDE THEM. ITEMS SHOWN IN SOLID LIGHT LINES ARE TO REMAIN.

2 CONTRACTOR SHALL UPDATE PANEL SCHEDULES WITH NEW CIRCUIT DATA TYPED ON CARD STOCK TYPE MATERIAL.

3 COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT FIXTURES ON THIS LEVEL WITH MECHANICAL EQUIPMENT, DUCT, PIPE, PLUMBING, ETC. PRIOR TO ROUGH-IN. COORDINATE HEIGHTS OF ALL PENDANT MOUNT LIGHTS WITH ARCHITECTURAL CEILING HEIGHTS AND AV EQUIPMENT HEIGHTS. FIXTURE TAGS IN ROOMS WITH HEIGHTS FOR PENDANTS SHALL BE APPLIED TO ALL FIXTURES IN ROOM UNLESS NOTED OTHERWISE.

4 ALL EXPOSED CONDUITS ROUTED IN CEILING SHALL BE PAINTED TO MATCH CEILING.

5 ALL CEILING MOUNTED DEVICES LOCATED IN LAY-IN GRID CEILINGS SHALL BE INSTALLED CENTERED IN CEILING TILES AND/OR ALIGNED WITH OTHER FIXTURES WITHIN THE SAME PLANE AND CEILING SPACE.

6 LIGHTING CONTROL DIMMING AND ROOM CONTROLLER SHALL BE LOCATED AS FOLLOWS WHERE POSSIBLE UNLESS NOTED OTHERWISE. LOCATE ABOVE ACCESSIBLE CEILING NEAR THE DOOR THAT CONTROLLER SERVES BUT OUT OF THE PATH OF EGRESS. REFER TO DETAIL.

7 REFER TO EE701 FOR TYPICAL MOUNTING AND ALIGNMENT OF ELECTRICAL DEVICES.

8 ALLOW A MINIMUM OF 4" CLEARANCE ABOVE ALL CEILING MOUNTED RECESSED LIGHT FIXTURES. COORDINATE LOCATIONS AND LIGHT FIXTURE DEPTHS WITH ALL OTHER TRADES PRIOR TO ROUGH-IN.

9 REFER TO LIGHTING/SPACE CONTROL TYPE SCHEDULES FOR WIRING DIAGRAMS OF EACH SPACE.

10 PROVIDE UNSWITCHED EMERGENCY HOT CIRCUIT TO ALL LIGHT FIXTURES WITH EMERGENCY TRANSFERS TO ALLOW FOR POWER LOSS SENSING.

11 CONTRACTOR SHALL UPSIZE BRANCH CIRCUITS AND FEEDERS FOR VOLTAGE DROP BASED ON ACTUAL INSTALLED LENGTHS. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE BRANCH CIRCUIT CONDUCTOR SIZING TABLE IN THE DRAWINGS AND SPECIFICATIONS.

12 CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL MOUNTING HARDWARE ALONG WITH REQUIRED SEISMIC BRACING FOR EACH FIXTURE.

SHEET KEYNOTES

1 EXTEND EXISTING 120V BRANCH CIRCUIT FOR EXIT SIGNAGE TO NEW DEVICE(S).

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT AND APARTMENT LIGHTING PLANS

SCALE	3/16" = 1'-0"	SHEET NO. EL100
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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GENERAL SHEET NOTES

1. UNLESS NOTED OTHERWISE, ELECTRICAL ITEMS SHOWN IN DARK AND SOLID LINES ARE NEW AND THE CONTRACTOR SHALL PROVIDE THEM. ITEMS SHOWN IN SOLID LIGHT LINES ARE TO REMAIN.
2. CONTRACTOR SHALL UPDATE PANEL SCHEDULES WITH NEW CIRCUIT DATA TYPED ON CARD STOCK TYPE MATERIAL.
3. COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT FIXTURES ON THIS LEVEL WITH MECHANICAL EQUIPMENT, DUCT, PIPE, PLUMBING, ETC. PRIOR TO ROUGH-IN. COORDINATE HEIGHTS OF ALL PENDANT MOUNT LIGHTS WITH ARCHITECTURAL CEILING HEIGHTS AND AV EQUIPMENT HEIGHTS. FIXTURE TAGS IN ROOMS WITH HEIGHTS FOR PENDANTS SHALL BE APPLIED TO ALL FIXTURES IN ROOM UNLESS NOTED OTHERWISE.
4. ALL EXPOSED CONDUITS ROUTED IN CEILING SHALL BE PAINTED TO MATCH CEILING.
5. ALL CEILING MOUNTED DEVICES LOCATED IN LAY-IN GRID CEILINGS SHALL BE INSTALLED CENTERED IN CEILING TILES AND/OR ALIGNED WITH OTHER FIXTURES WITHIN THE SAME PLANE AND CEILING SPACE.
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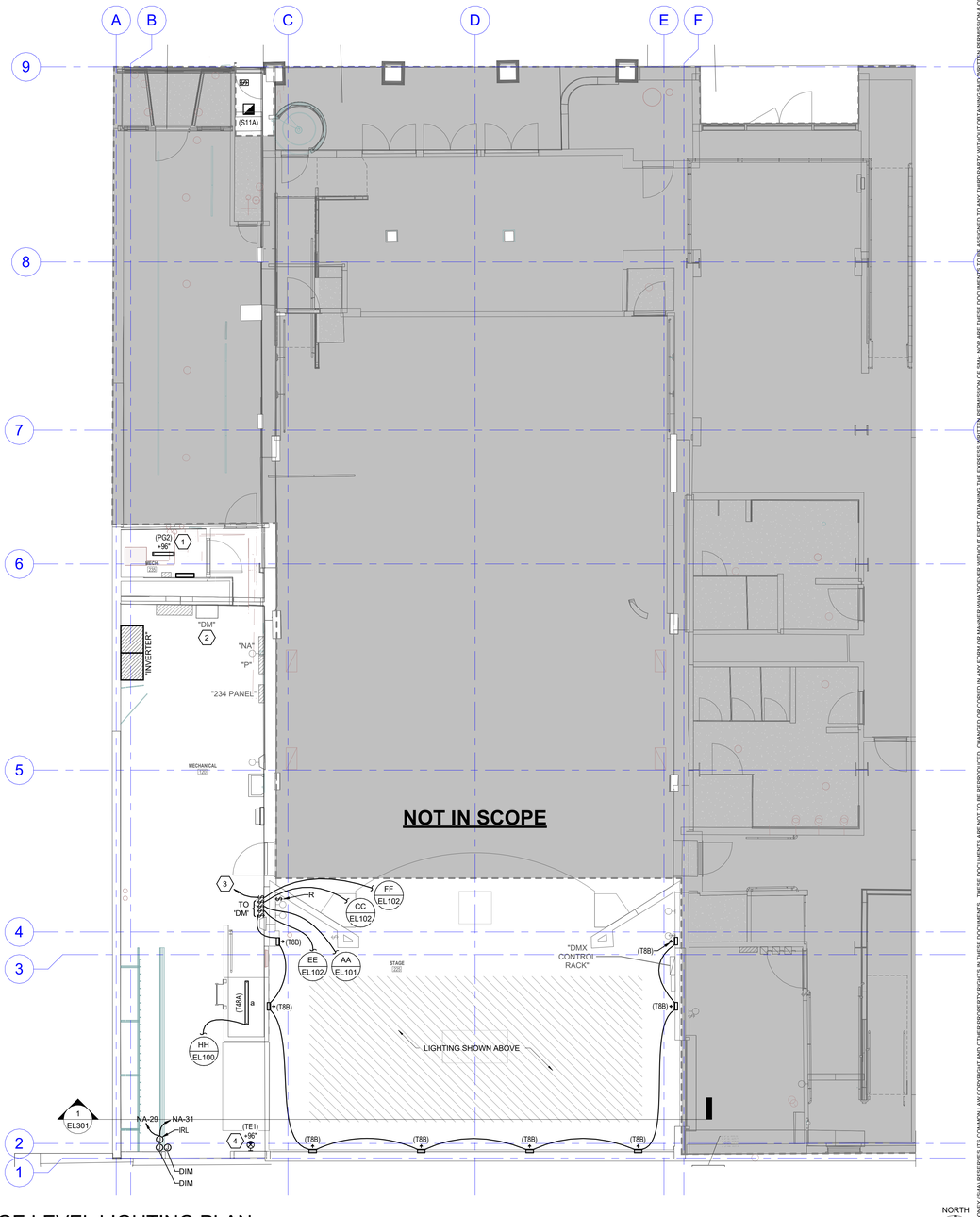
12. CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL MOUNTING HARDWARE ALONG WITH REQUIRED SEISMIC BRACING FOR EACH FIXTURE.

SHEET KEYNOTES

1. TIE NEW LIGHTING FIXTURE TO EXISTING CONTROLS.
2. CIRCUIT ALL DIMMER RACK CIRCUITS TO EXISTING SPARE DIMMER LOCATIONS IN DIMMER RACK.
3. EMERGENCY LIGHTING TO CIRCUIT THROUGH LIGHTING INVERTER THEN TO THE DIMMER RACK.
4. EXTEND EXISTING 120V BRANCH CIRCUIT FOR EXIT SIGNAGE TO NEW DEVICE(S).

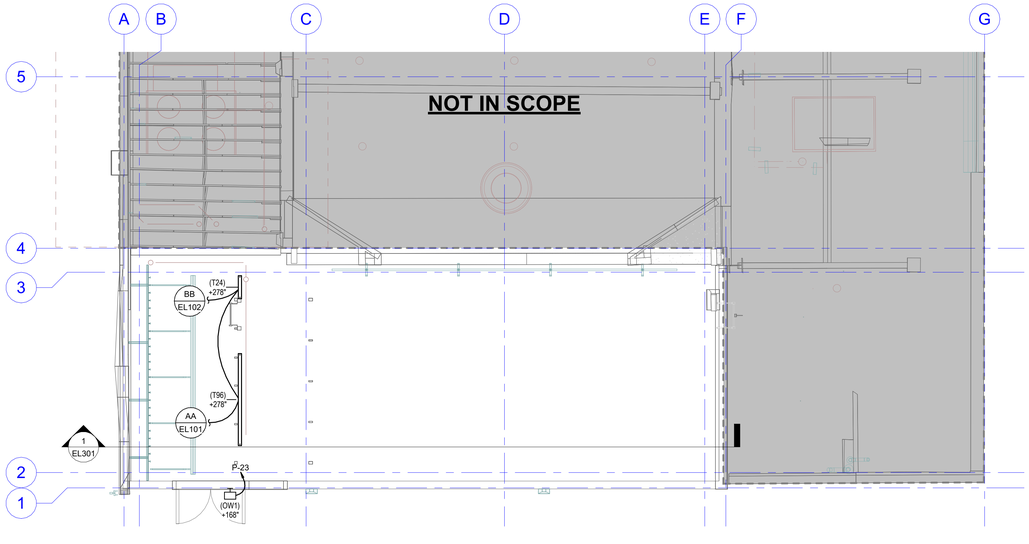


1 STAGE LEVEL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



2 BALCONY LEVEL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

STAGE AND BALCONY LEVEL LIGHTING PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EL101

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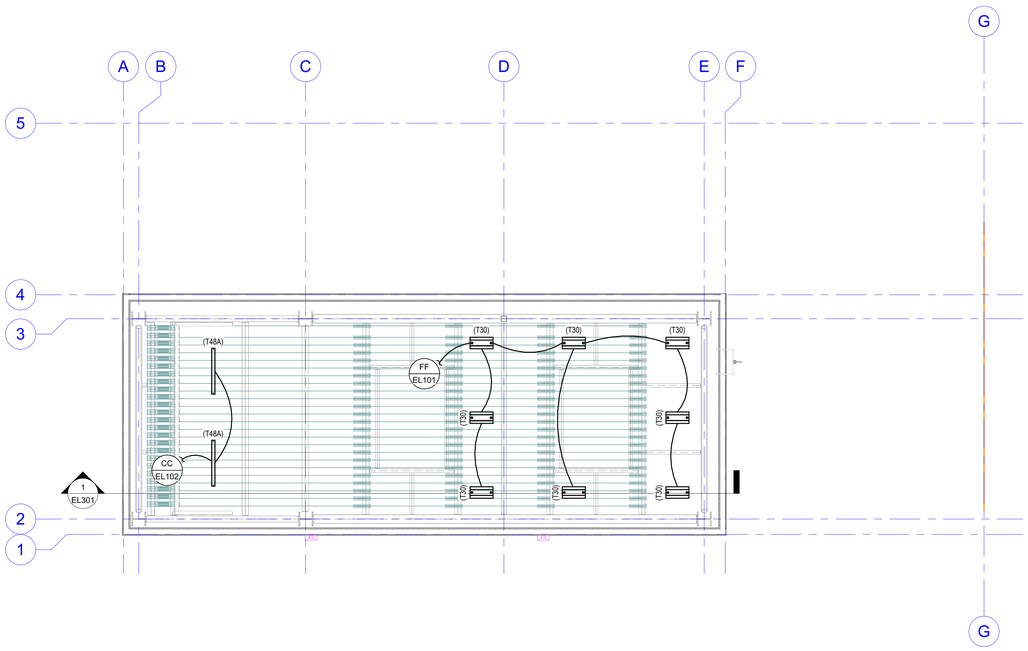
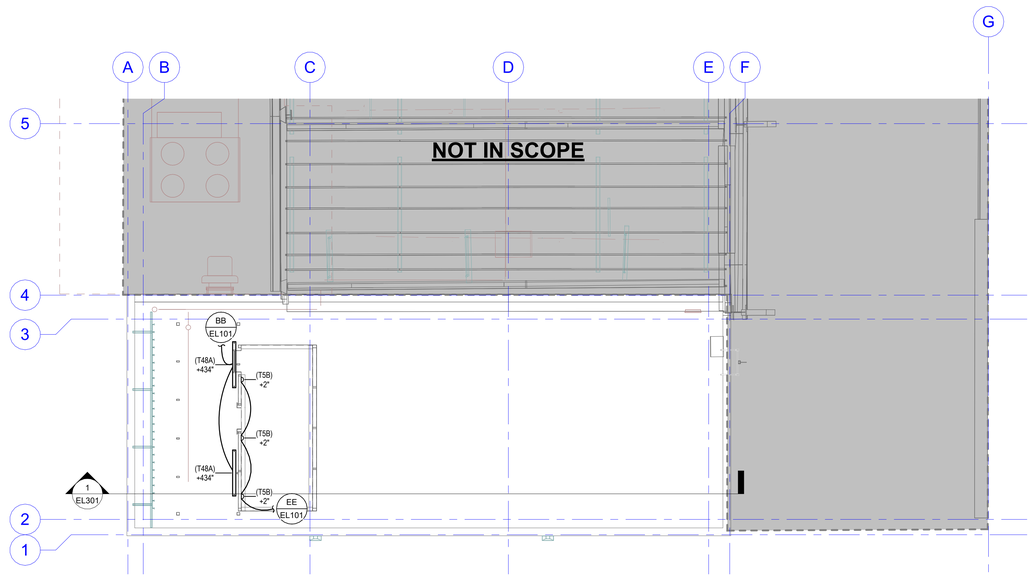


2 DECK LEVEL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 ATTIC LEVEL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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SHEET KEYNOTES

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ATTIC AND DECK LEVEL LIGHTING PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EL102

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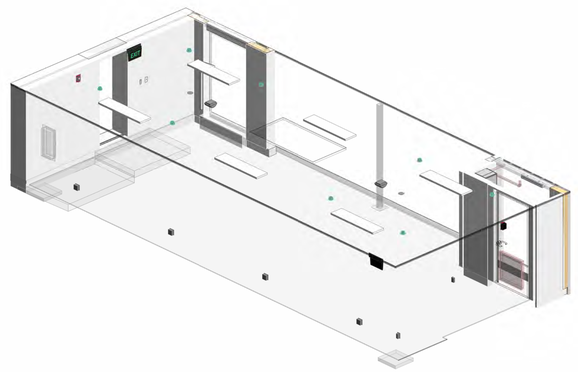
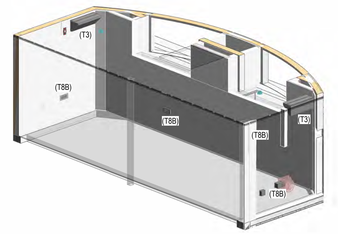
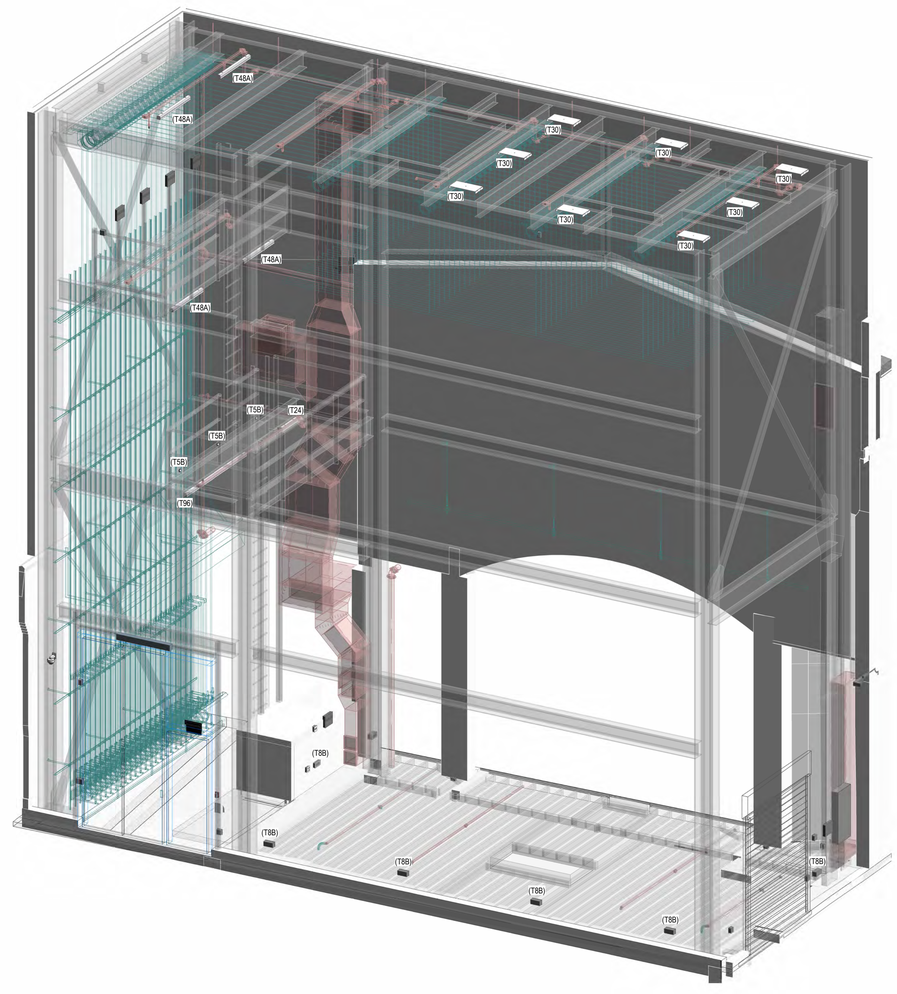


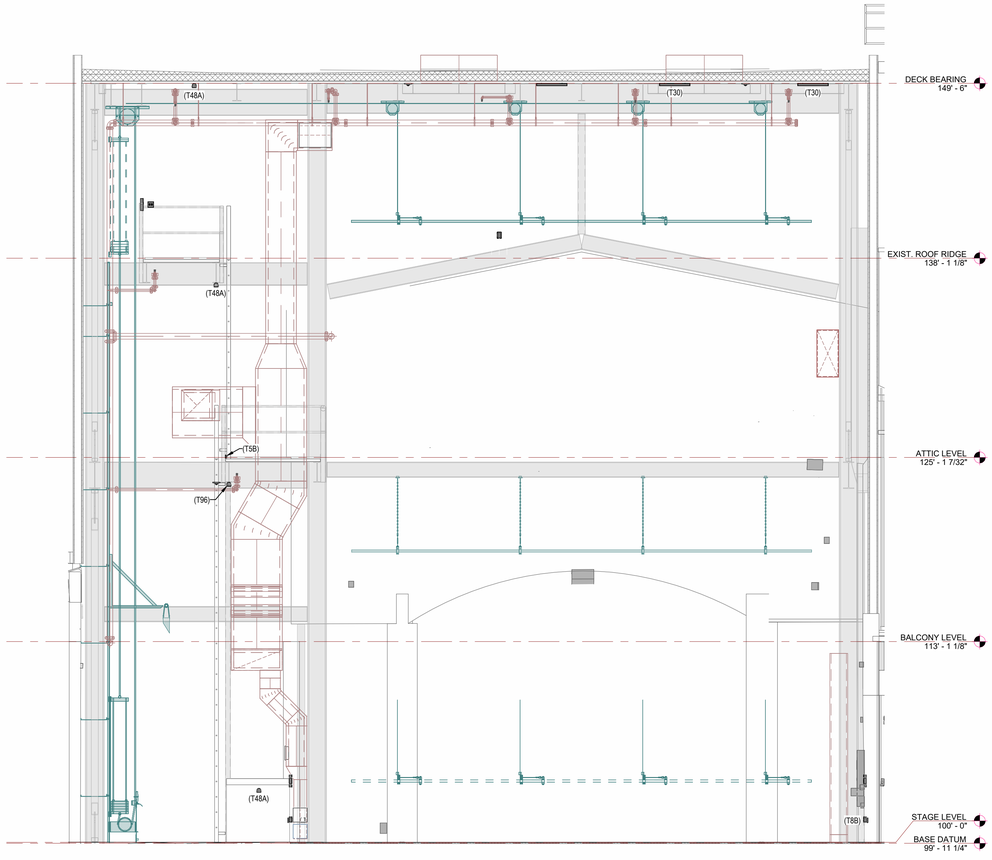
3 GREEN ROOM LIGHTING ISOMETRIC VIEW
SCALE: NTS



2 ORCHESTRA PIT LIGHTING ISOMETRIC VIEW
SCALE: NTS



4 FLY LOFT LIGHTING ISOMETRIC VIEW
SCALE: NTS



1 FLY LOFT LIGHTING SECTION - NORTH
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

LIGHTING SECTIONS

SCALE	1/4" = 1'-0"	SHEET NO.
JOB NO.	23-05	EL301
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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LIGHTING/SPACE CONTROL TYPE SCHEDULE

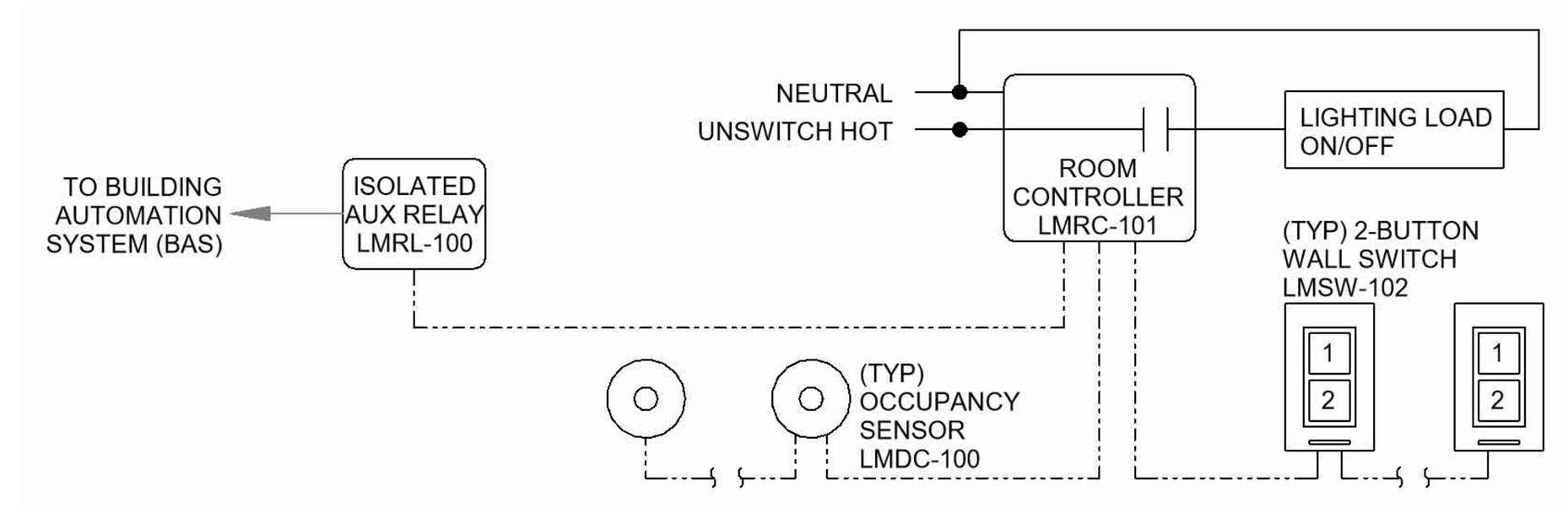
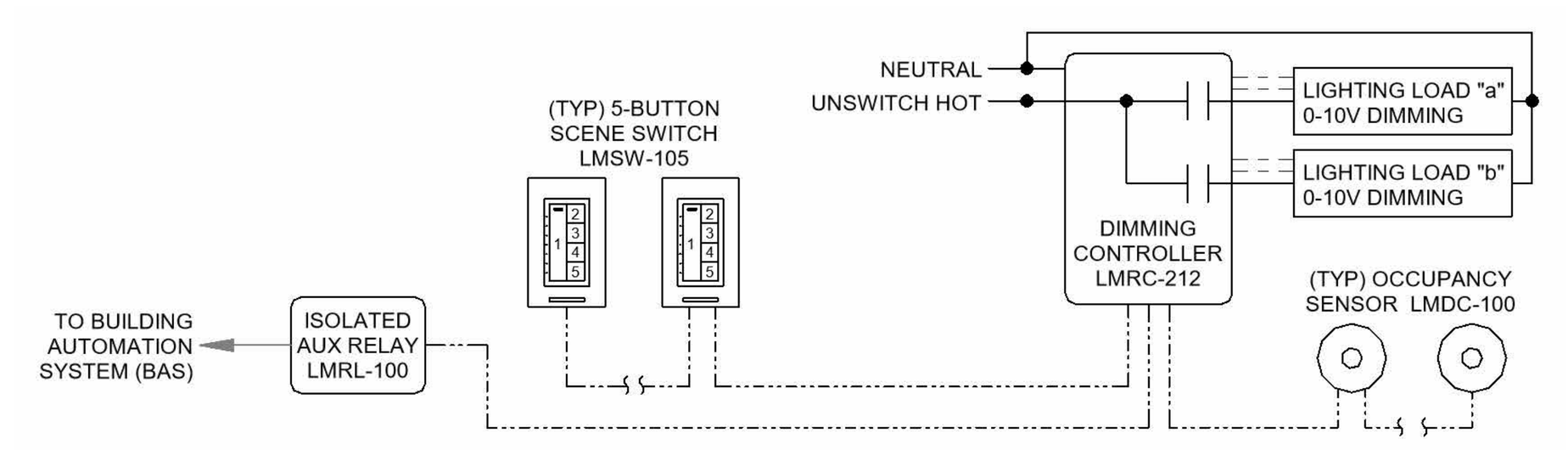
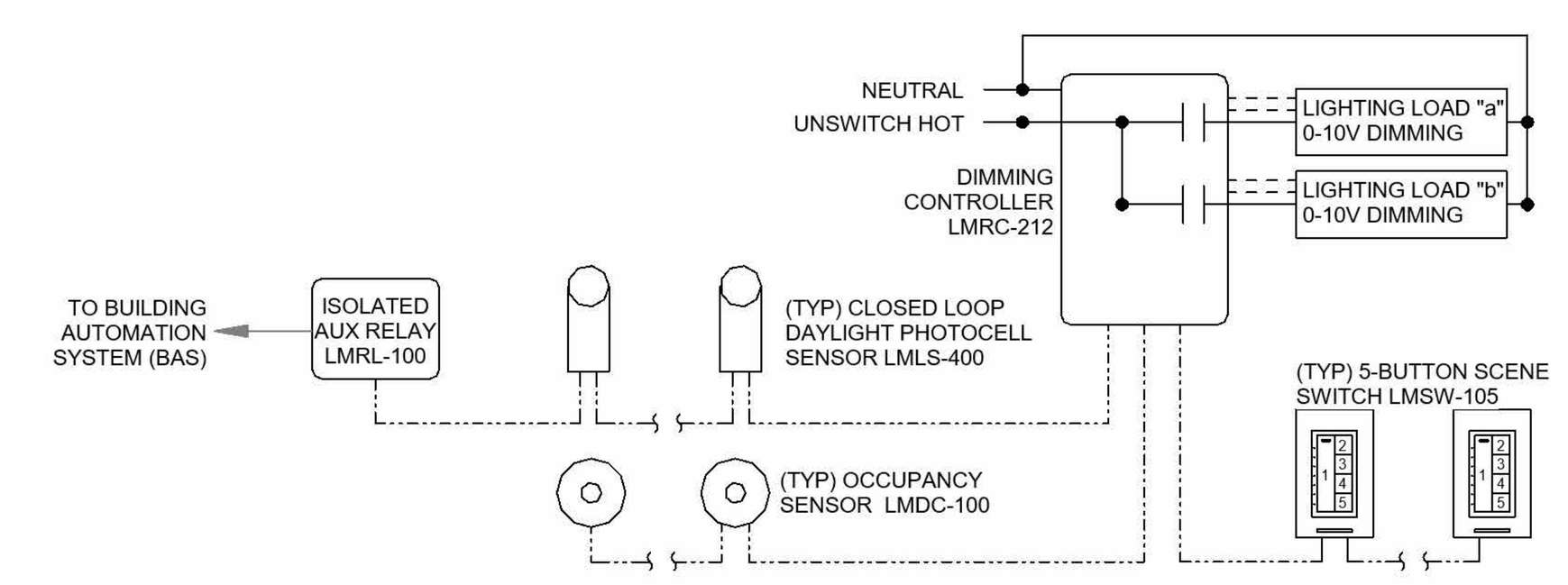
WIRING LEGEND
- LINE VOLTAGE WIRING
- 0-10V WIRING
- CAT5E CABLING
- WIRING BY OTHERS
- TMP SEGMENT NETWORK CABLING

APPROVED MANUFACTURERS
1. WATTSTOPPER (BASIS OF DESIGN)
2. NLIGHT

LIGHTING CONTROL ID
1. # = NUMBER OF ZONES
2. D = DIMMING, S = SWITCHING
3. P = DAYLIGHT PHOTOCELL
4. L = PLUG LOAD CONTROLLER
5. # = INSTANCE

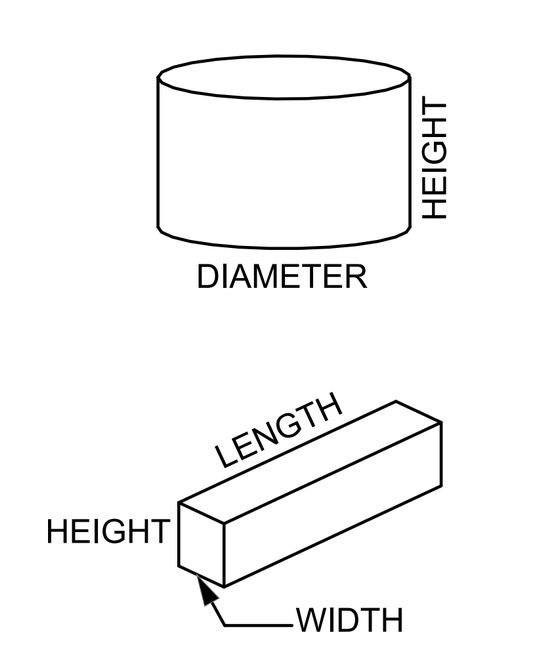
GENERAL NOTES
1. COORDINATE INITIAL PROGRAMMING WITH OWNER AND MODIFY CONTROL TIMES AND OPERATION AS REQUESTED BY OWNER.
2. PROVIDE FINE TUNING PROGRAMMING AND ADJUSTMENTS UPON REQUEST BY OWNER WITHIN FIRST 6 MONTHS AFTER SUBSTANTIAL COMPLETION.
3. PROVIDE CUSTOMIZED ENGRAVED PERMANENT BUTTON LABELS ON EACH SWITCH, LABEL TO MATCH BUTTON LABEL ID OR AS DIRECTED BY OWNER.
4. PART NUMBERS SHOWN ARE BASED ON WATTSTOPPER AS THE BASIS OF DESIGN. ALL APPROVED MANUFACTURERS ARE SUBJECT TO MEETING ALL FUNCTIONS AND CAPABILITIES OF THE BASIS OF DESIGN SYSTEM AND PRODUCTS. FAILURE TO MEET THESE SHALL REQUIRE THE CONTRACTOR TO PROVIDE A SYSTEM THAT DOES AT NOT ADDITIONAL COST.

GENERAL NOTES
5. REFER TO PLANS FOR LOCATIONS AND QUANTITIES OF DEVICES.
6. INSTALL ONE OF EACH CONTROL TYPE WITH PROGRAMMING, ADJUST, AND OBTAIN OWNERS APPROVAL PRIOR TO PROGRAMMING THE REMAINING CONTROLS.
7. WIRING MAY VARY BETWEEN MANUFACTURERS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE REQUIRED WIRING THAT WILL BOTH MEET THE MANUFACTURERS REQUIREMENTS AND MATCH WITH THE SHOWN SYSTEM.
8. PROVIDE COMPLETE SHOP DRAWING SUBMITTALS INCLUDING OCCUPANCY SENSOR LAYOUT AND COVERAGE PATTERNS. PROVIDE ADDITIONAL SENSORS AS REQUIRED FOR 100% COVERAGE OF SPACES WITH OCCUPANCY SENSOR CONTROL.

ID	DETAIL	LIGHTS ON CONTROL	LIGHTS OFF CONTROL	LIGHTING CONTROL TYPE	DAYLIGHT SENSOR SETTING (FC)	TIME DELAY TO OFF (MIN.)	BAS AUX RELAY SIGNAL	PLUG LOAD CONTROLLER	NETWORKED CONTROLS	BUTTON_1	BUTTON_2	BUTTON_3	BUTTON_4	BUTTON_5	BUTTON_6	BUTTON_7	BUTTON_8	BUTTON_9	NOTES
1S3		MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	ON/OFF	-	15	RELAY CLOSED ON OCCUPANCY	-	-	FUNCTION: PRESS-ON LABEL ID: "ON"	FUNCTION: PRESS-OFF LABEL ID: "OFF"	-	-	-	-	-	-	-	
2D1		MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	DIMMING 0-10V	-	15	RELAY CLOSED ON OCCUPANCY	-	-	TOGGLE PRESS TOP-ON, PRESS BOTTOM-OFF, HOLD TOP-RAISE, HOLD BOTTOM-"OFF/ LOWER"	FUNCTION: PRESS-PRESET SCENE #01 ZONE "a" 75% ZONE "b" 75% LABEL ID: "PRE #1"	FUNCTION: PRESS-PRESET SCENE #02 ZONE "a" 0% ZONE "b" 50% LABEL ID: "PRE #2"	FUNCTION: PRESS-SELECT ZONE "a" FOR DIMMING LABEL ID: "ZONE a"	FUNCTION: PRESS-SELECT ZONE "b" FOR DIMMING LABEL ID: "ZONE b"	-	-	-	-	
2DP1		MANUAL & OCCUPANCY	MANUAL OR OCCUPANCY	DIMMING 0-10V	30	15	RELAY CLOSED ON OCCUPANCY	-	-	FUNCTION: PRESS TOP-ON, HOLD TOP-RAISE PRESS BOTTOM-OFF, HOLD BOTTOM-LOWER LABEL ID: TOP-"ON/RAISE" BOTTOM-"OFF/ LOWER"	FUNCTION: PRESS-PRESET SCENE #01 ZONE "a" 75% ZONE "b" 75% LABEL ID: "PRE #1"	FUNCTION: PRESS-PRESET SCENE #02 ZONE "a" 0% ZONE "b" 50% LABEL ID: "PRE #2"	FUNCTION: PRESS-SELECT ZONE "a" FOR DIMMING LABEL ID: "ZONE a"	FUNCTION: PRESS-SELECT ZONE "b" FOR DIMMING LABEL ID: "ZONE b"	-	-	-	-	

EXTERIOR LIGHTING FIXTURE SCHEDULE

GENERAL NOTES

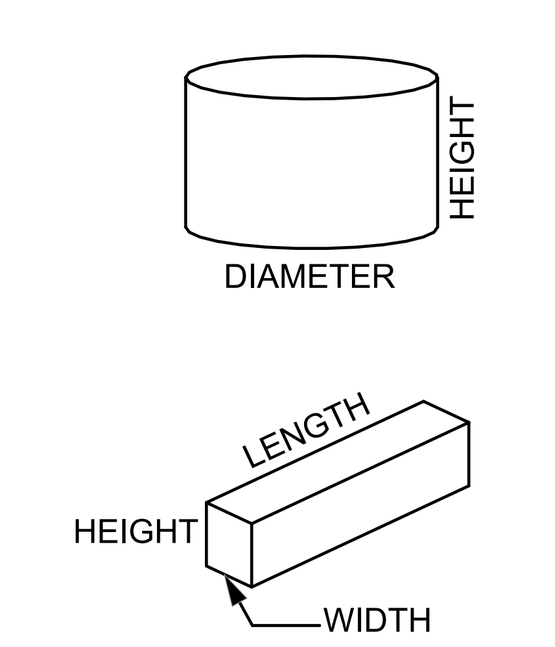


1. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
2. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
3. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
4. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
5. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
6. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER AND OWNER.
7. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.

			LUMINAIRE						DRIVER			
			BUG RATING									
ID	DESCRIPTION	SIZE (NOMINAL)	BACK	UP	GLARE	LUMENS	COLOR TEMP	CRI	TYPE	VOLTAGE	WATTS	MANUFACTURER
(OW1)	DESCRIPTION: LED LINEAR WALL PACK MOUNTING: WALL FINISH: SCBA OPTICS: TYPE II DISTRIBUTION OPTIONS: - WIND RATING: -	LENGTH: 48" WIDTH: 3" DEPTH: 4.75" POLE HEIGHT: -	0	0	1	3,000	4000K	80	LED DRIVER	120/277V	35	PINNACLE (EX3-WET-840HO) PAL LIGHTING MARK ARCH LIGHTING STARTEK (HYDROD) PERFORMANCE IN LIGHTING (QUASAR 60 M EMPK)

INTERIOR LIGHTING FIXTURE SCHEDULE

GENERAL NOTES



1. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
2. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
3. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
4. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
5. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
6. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER AND OWNER.
7. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.

			LUMINAIRE				DRIVER			
ID	DESCRIPTION	SIZE (NOMINAL)	DELIVERED DIRECT LUMENS	DELIVERED INDIRECT LUMENS	COLOR TEMP	CRI	TYPE	VOLTAGE	WATTS	MANUFACTURER (CATALOG SERIES)
(PG2)	DESCRIPTION: STRIPLIGHT W/ROUND ACRYLIC LENS MOUNTING: PENDANT, SURFACE FINISH: SCBA OPTICS: - OPTIONS: - EM: -	LENGTH: 24" WIDTH: 4" DEPTH: 4"	3,000	[redacted]	3000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277	36	LITHONIA (ZL1D-L24-5000LM-FST-MVOLT -30K-80CRI) METALUX (2SNX) NULITE (SA-) COLUMBIA (MPS4) HE WILLIAMS (75R) DAYBRITE (FSS)
(S11A)	DESCRIPTION: FLAT PANEL 1X1 MOUNTING: SURFACE FINISH: SCBA OPTICS: PRISMATIC OPTIONS: - EM: -	LENGTH: 11 11/16" WIDTH: 11 11/16" DEPTH: 1 7/16"	1,000	[redacted]	3000K	80	LED (0-10V DIMMING) 10%	120/277V	9	METALUX (11MMS) GOODLITE
(S14B)	DESCRIPTION: FLAT PANEL 1X4 MOUNTING: SURFACE FINISH: SCBA OPTICS: PRISMATIC OPTIONS: - EM: -	LENGTH: 47 11/16" WIDTH: 47 11/16" DEPTH: 1 7/16"	3,500	[redacted]	3000K	80	LED (0-10V DIMMING) 10%	120/277V	26	METALUX (14MMS) GOODLITE (G-12022)
(S14C)	DESCRIPTION: FLAT PANEL 1X4 MOUNTING: SURFACE FINISH: SCBA OPTICS: PRISMATIC OPTIONS: - EM: -	LENGTH: 47 11/16" WIDTH: 47 11/16" DEPTH: 1 7/16"	5,000	[redacted]	3000K	80	LED (0-10V DIMMING) 10%	120/277V	40	METALUX (14MMS) GOODLITE (G-12022)
(T3)	DESCRIPTION: 24" CORNER MOUNTED LINEAR MOUNTING: SURFACE, WALL FINISH: SCBA OPTICS: PRISMATIC ACRYLIC OPTIONS: - EM: -	LENGTH: 25" WIDTH: 8.88" DEPTH: 8.88"	1,520	[redacted]	3000K	80	DMX 16 BIT DIMMING 0%	120/277V	17	KURTZON LTG (MX-CCS1-20-1-LEDR-830-UNV-125CFP-125PA) FAILSAFE (FCC) CERTOLUX (VRC) HE WILLIAMS (CL) AEL (BAL)
(T5B)	DESCRIPTION: DOME ONSTAGE RUNNING LIGHT MOUNTING: WALL FINISH: SCBA OPTICS: - OPTIONS: - EM: -	DEPTH: 1.42" DIAMETER: 2.62"	6	[redacted]	BLUE	80	DMX 16 BIT DIMMING 0%	120/277V	3	ETC (BS-D-B-O) GRIVEN (GRI130)
(T8B)	DESCRIPTION: STEP/ WALKWAY LIGHT, RECESSED WALL MOUNTED, BLUE LED WITH LOUVERS MOUNTING: RECESSED, SURFACE, WALL FINISH: SCBA OPTICS: - OPTIONS: - EM: -	LENGTH: 8.5" WIDTH: 4" DEPTH: 4"	430	[redacted]	BLUE	80	DMX 16 BIT DIMMING 0%	120/277V	7	COLE LIGHTING (L158W-HO-2-3K) HEALTHCARE LIGHTING (HNL610) KENALL (MSL) LUMUX (SL332) LIGMAN (ULE-40611)
(T24)	DESCRIPTION: STRIPLIGHT W/ROUND ACRYLIC LENS MOUNTING: PENDANT, SURFACE FINISH: SCBA OPTICS: - OPTIONS: - EM: -	LENGTH: 24" WIDTH: 4" DEPTH: 4"	3,000	[redacted]	3000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277	36	LITHONIA (ZL1D-L24-5000LM-FST-MVOLT -30K-80CRI) METALUX (2SNX) NULITE (SA-) COLUMBIA (MPS4) HE WILLIAMS (75R) DAYBRITE (FSS)
(T30)	DESCRIPTION: HIGH BAY FIXTURE MOUNTING: PENDANT, SURFACE FINISH: SCBA OPTICS: WIDE OPTIONS: INTEGRAL OCCUPANCY SENSOR EM: NONE	LENGTH: 24" WIDTH: 12" HEIGHT: 4"	26,364	[redacted]	3000K	80	LED (0-10V DIMMING) 10%	120/277V	191	GE CURRENT (CLB) METALUX (OHB-18SE) LITHONIA (IBG OR CPHB) SLG LIGHTING (HCL G1)
(T48A)	DESCRIPTION: STRIPLIGHT W/ROUND ACRYLIC LENS MOUNTING: PENDANT, SURFACE FINISH: SCBA OPTICS: - OPTIONS: - EM: -	LENGTH: 48" WIDTH: 4" DEPTH: 4"	3,000	[redacted]	3000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277	30	LITHONIA (ZL1D-L48-3000LM-FST-MVOLT -30K-80CRI) METALUX (4SNX) NULITE (SA-) COLUMBIA (MPS4) HE WILLIAMS (75R) DAYBRITE (FSS)
(T96)	DESCRIPTION: STRIPLIGHT W/ROUND ACRYLIC LENS MOUNTING: PENDANT, SURFACE FINISH: SCBA OPTICS: - OPTIONS: - EM: -	LENGTH: 96" WIDTH: 4" DEPTH: 4"	14,000	[redacted]	3000K	80	LED DRIVER (0-10V DIMMING) 10%	120/277V	121	LITHONIA (ZL1D-L96-14000LM-FST-MVOLT-30K-80CRI-WH-HC36) METALUX (8SNX) NULITE (SA-) COLUMBIA (MPS4) DAYBRITE (FSS)
(TE1)	DESCRIPTION: EXIT SIGN, BACKLIT WITH BLACK CASE, NO EDGE LIT, NO DIRECT-VIEW LED MOUNTING: CEILING, WALL FINISH: SCBA OPTICS: OPTIONS: EM: BATTERY	LENGTH: 11" WIDTH: 3" HEIGHT: 10"	[redacted]	[redacted]	GREEN	[redacted]	LED	120/277V	5	ISOLITE (DTH) EVENLITE (SOV) EMERGENSEE (SEEXLRN) EXITRONIX (G400)

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02/07/2025

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

LIGHTING SCHEDULES

SCALE	
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EL601

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GENERAL SECURITY NOTES

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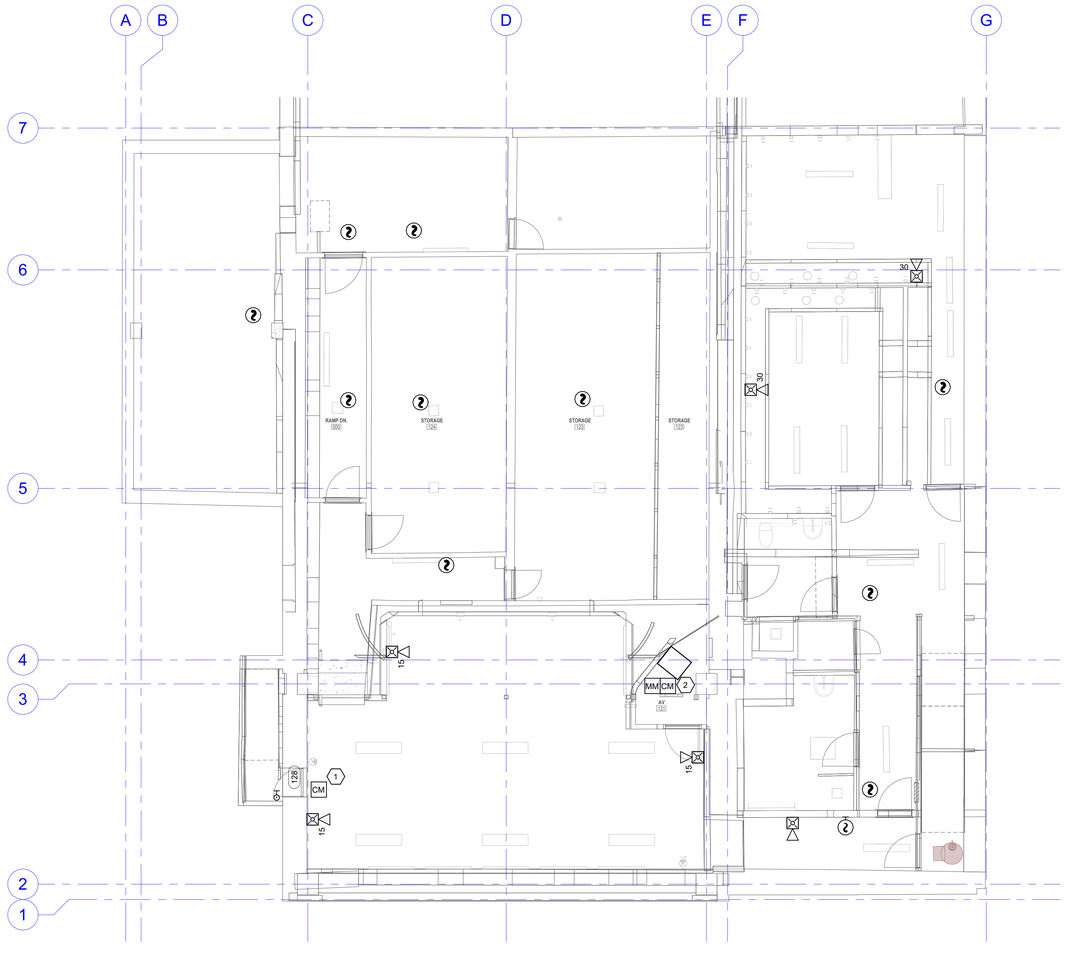
2. PRIOR TO ROUGH-IN COORDINATE ALL CAMERA LOCATIONS WITH OWNER.
3. ALL RACEWAYS SHALL BE CONCEALED IN WALLS AND/OR CEILING UNLESS NOTED OTHERWISE.
4. ALL EXPOSED CONDUITS ROUTED IN CEILING SHALL BE PAINTED TO MATCH CEILING.
5. SECURITY JUNCTION BOX LOCATIONS ARE FOR REFERENCE ONLY. LOCATION OF JUNCTION BOXES ARE TO BE INSTALLED IN AN ACCESSIBLE CEILING SPACE ALLOWING FOR SEVICABILITY.

GENERAL FIRE ALARM NOTES

1. FIRE ALARM NOTIFICATION DEVICES SHALL BE ADJUSTED AS REQUIRED TO PROVIDE PROPER COVERAGE AND SOUND LEVELS.
2. ALL FIRE ALARM DEVICES SHALL BE MOUNTED SUCH THAT THEY ARE VISIBLE FROM THE GROUND AND EASILY ACCESSIBLE FOR MAINTENANCE.
3. CORRIDOR SMOKE DETECTOR SPACING SHALL NOT EXCEED 30FT ON CENTER.
4. ALL CEILING MOUNTED DEVICES SHALL BE LOCATED IN THE CENTER OF CEILING TILES AND ALIGNED WITH ALL OTHER CEILING MOUNTED DEVICES.

SHEET KEYNOTES

1. 24V MAGNETIC DOOR HOLD OPEN. PROVIDED BY DOOR HARDWARE CONTRACTOR, INSTALLED BY FIRE ALARM CONTRACTOR. UNIT IS POWERED DIRECTLY FROM THE FIRE ALARM PANEL AND TO RELEASE UPON GENERAL ALARM.
2. PROVIDE CONTROL MODULE TO TURN OFF SOUND AUDIO OFF IN EVENT OF FIRE ALARM EVENT.
3. PROVIDE POTTER SASH-24 HORN/STROBE AT APPROXIMATE LOCATION OF FDC (FIRE DEPARTMENT CONNECTION PROVIDED BY OTHERS). COORDINATE EXACT LOCATION OF FDC WITH FIRE SPRINKLER INSTALLER/ SHOP DRAWINGS PRIOR TO ROUGH-IN. MOUNTING HEIGHT OF HORN/STROBE SHALL NOT EXCEED +90" AT TOP OF DEVICE. FIELD COORDINATE MOUNTING HEIGHT IN FIELD WITH ARCHITECTURAL DRAWINGS AND ELEVATIONS PRIOR TO ROUGH-IN.
4. INTERCEPT EXISTING FIRE ALARM CONDUITS IN CEILING AT THIS LOCATION. INSTALL NEW JUNCTION BOXES AT THIS LOCATION TO EXTEND THESE CONDUITS TO NEW FIRE ALARM CONTROL PANEL LOCATION. SPLICE ALL EXISTING FIRE ALARM CABLING IN JUNCTION BOXES. J-BOXES SHALL BE MARKED RED FOR FA AND MARKED FOR FA WIRING SPLICE BOX.
5. INSTALL INDICATED DUCT DETECTOR WITHIN 5FT OF FIRE/SMOKE DAMPER OR RETURN AIR SHAFT OPENING AT APPROXIMATE LOCATION INDICATED PER NFPA 72 REQUIREMENTS. COORDINATE INSTALLATION WITH ACTUAL DUCTWORK CONFIGURATION DURING CONSTRUCTION.

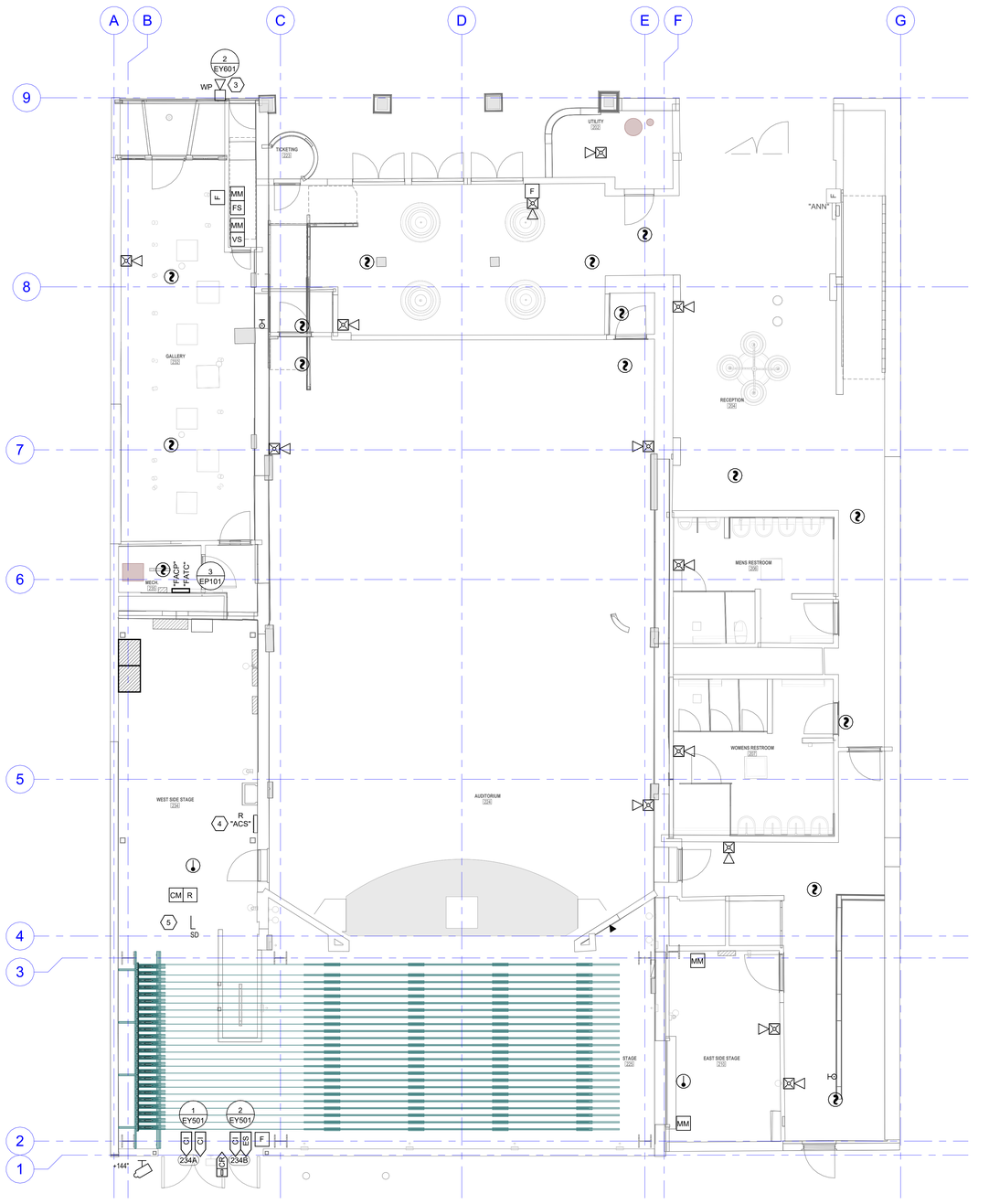


2 BASEMENT AUXILIARY PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 STAGE LEVEL AUXILIARY PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BASEMENT AND STAGE AUXILIARY PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EY100

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GENERAL SECURITY NOTES

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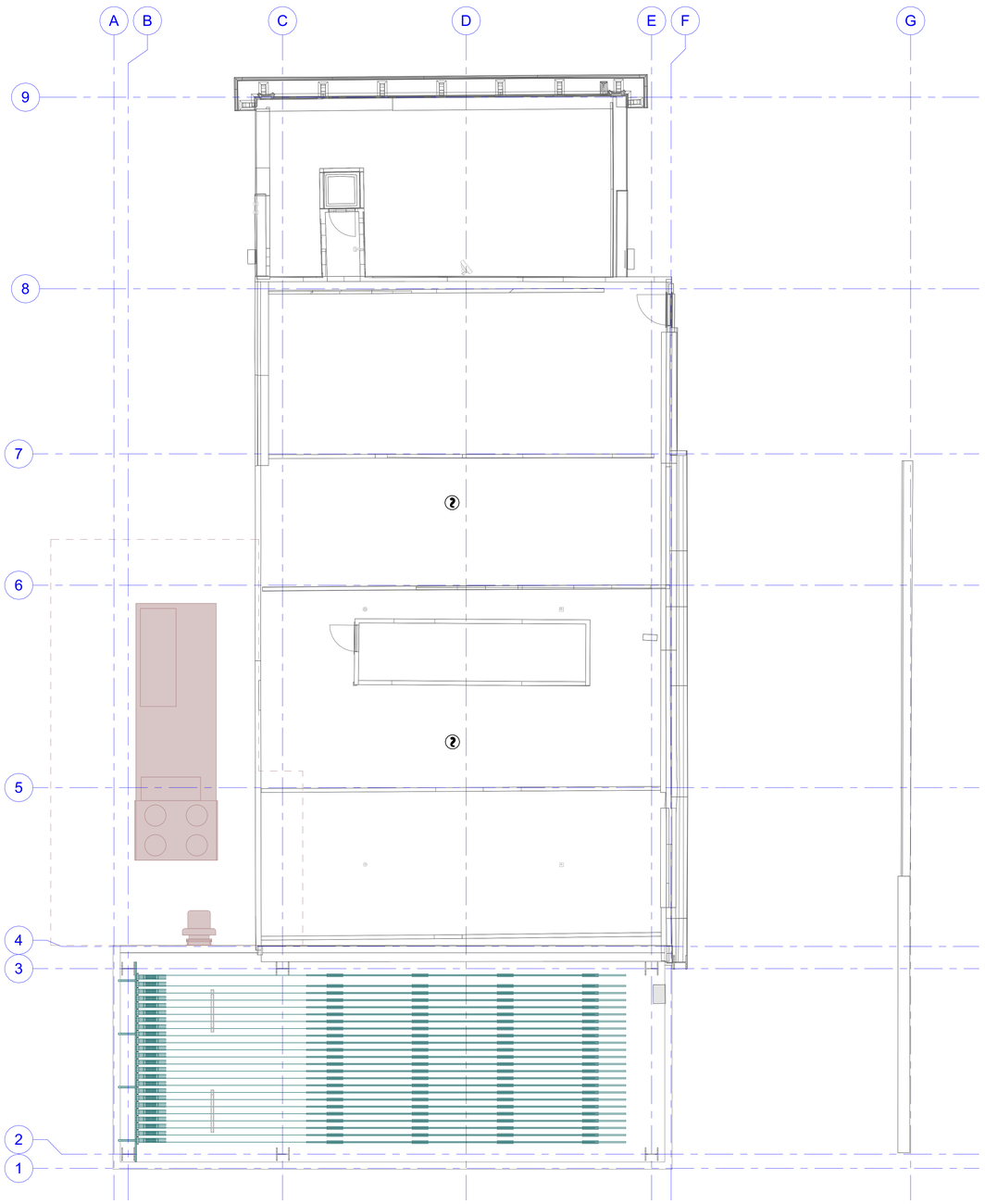
2. ALL FIRE ALARM DEVICES SHALL BE MOUNTED SUCH THAT THEY ARE VISIBLE FROM THE GROUND AND EASILY ACCESSIBLE FOR MAINTENANCE.
3. CORRIDOR SMOKE DETECTOR SPACING SHALL NOT EXCEED 30FT ON CENTER.
4. ALL CEILING MOUNTED DEVICES SHALL BE LOCATED IN THE CENTER OF CEILING TILES AND ALIGNED WITH ALL OTHER CEILING MOUNTED DEVICES.

SHEET KEYNOTES

1. CONTROL MODULE FIRE ALARM SIGNAL FOR FAN SHUTDOWN.
2. CONTROL MODULE FOR CONNECTION OF LIGHTING TRANSFER SWITCHES TO TIE INTO FIRE ALARM SYSTEM. CONTRACTOR SHALL TEST UPON COMPLETION THE TRANSFER OF EXISTING LIGHTING SYSTEM TO THE BATTERY INVERTER SYSTEM DURING FIRE ALARM EVENT FOR FULL LIGHTING. USU FIRE MARSHAL SHALL BE IN ATTENDANCE OF TEST FOR FINAL CONFIRMATION OF SYSTEM.

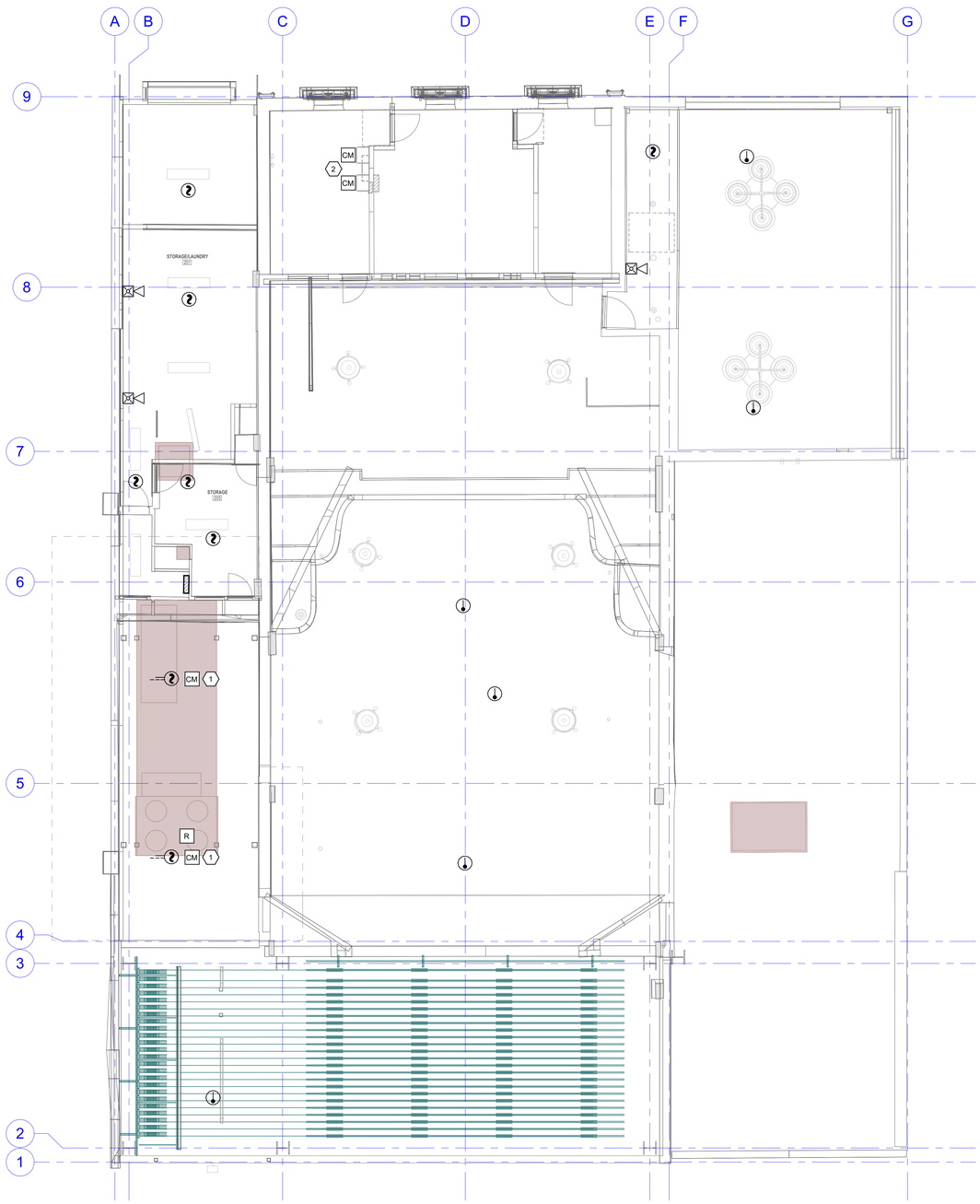


2 ATTIC LEVEL AUXILIARY PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'



1 BALCONY LEVEL AUXILIARY PLAN

SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

BALCONY AND ATTIC AUXILIARY PLANS

SCALE	3/16" = 1'-0"
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ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EY101

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GENERAL SECURITY NOTES

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2 PRIOR TO ROUGH-IN COORDINATE ALL CAMERA LOCATIONS WITH OWNER.

3 ALL RACEWAYS SHALL BE CONCEALED IN WALLS AND/OR CEILING UNLESS NOTED OTHERWISE.

4 ALL EXPOSED CONDUITS ROUTED IN CEILING SHALL BE PAINTED TO MATCH CEILING.

5 SECURITY JUNCTION BOX LOCATIONS ARE FOR REFERENCE ONLY. LOCATION OF JUNCTION BOXES ARE TO BE INSTALLED IN AN ACCESSIBLE CEILING SPACE ALLOWING FOR SEVICABILITY.

GENERAL FIRE ALARM NOTES

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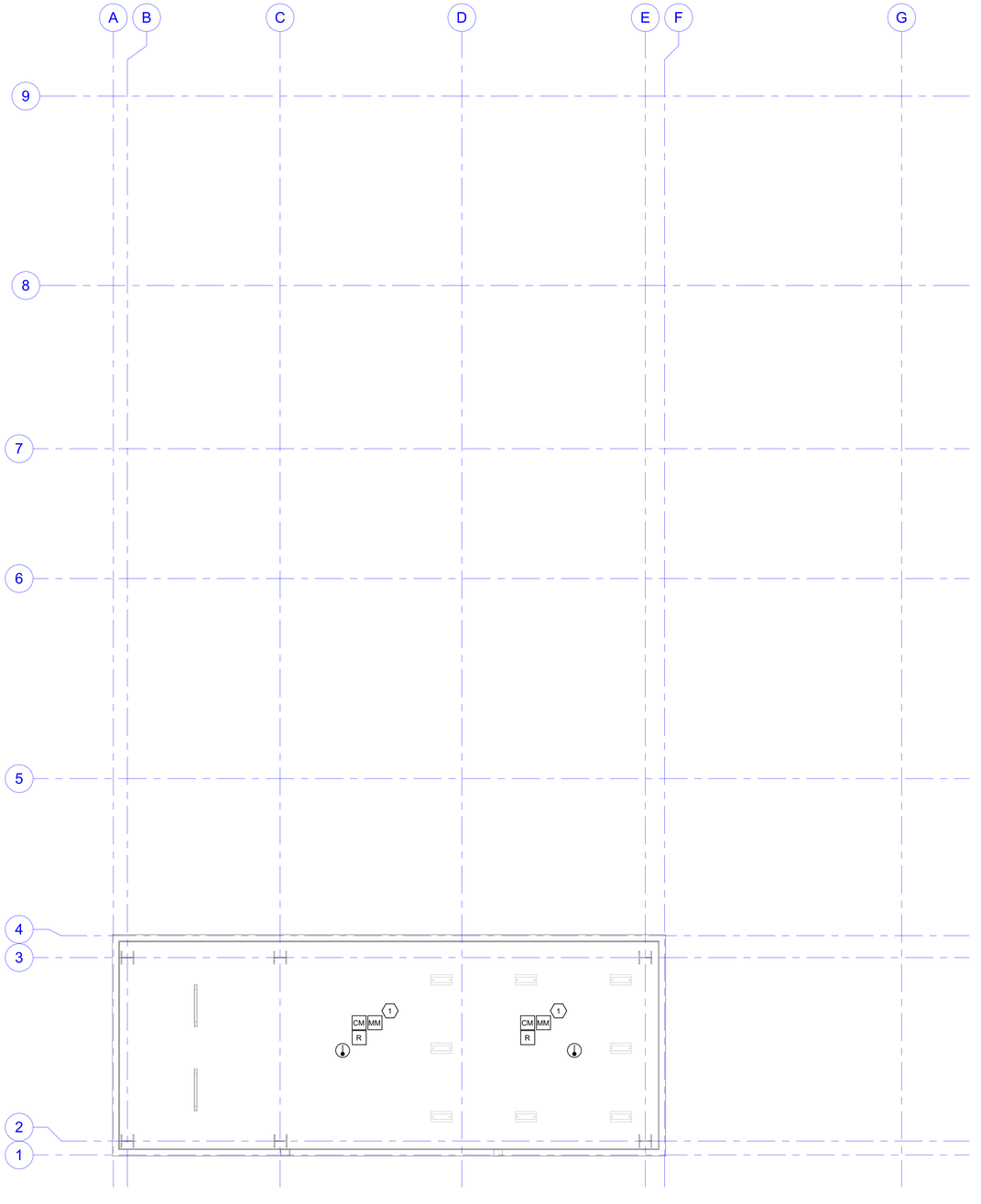
2 ALL FIRE ALARM DEVICES SHALL BE MOUNTED SUCH THAT THEY ARE VISIBLE FROM THE GROUND AND EASILY ACCESSIBLE FOR MAINTENANCE.

3 CORRIDOR SMOKE DETECTOR SPACING SHALL NOT EXCEED 30FT ON CENTER.

4 ALL CEILING MOUNTED DEVICES SHALL BE LOCATED IN THE CENTER OF CEILING TILES AND ALIGNED WITH ALL OTHER CEILING MOUNTED DEVICES.

⬡ SHEET KEYNOTES

1 PROVIDE CONTROL/RELAY MODULE TO RELEASE SMOKE HOODS UPON FIRE ALARM EVENT. PROVIDE MONITOR MODULE FOR VENT HATCH TO MONITOR POSITION SENSOR AND PROVIDE SUPERVISORY ALARM TO FACP WHEN OPENED. LOCATE FA DEVICES IN CEILING OF FLYLOFT.



1 ROOF AUXILIARY PLAN
SCALE: 3/16" = 1'-0"

NORTH

0 2' 4' 8'

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ROOF AUXILIARY PLANS

SCALE	3/16" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
EY102

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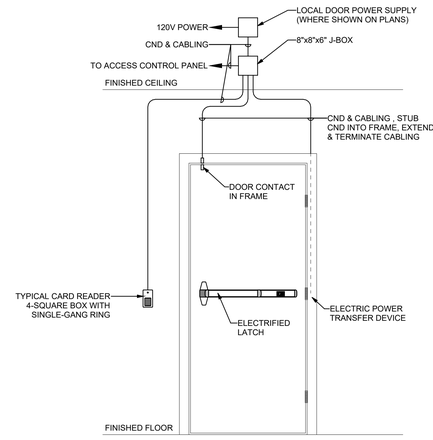
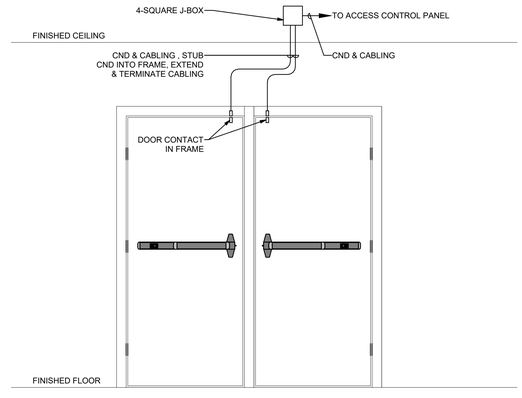


2 SINGLE DOOR ELECTRIFIED LATCH EXIT DEVICE DETAIL

SCALE: NTS



1 DOUBLE DOOR WITH DOOR CONTACT DETAIL

SCALE: NTS

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

ACCESS CONTROL DETAILS

SCALE	1/8" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

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EY501

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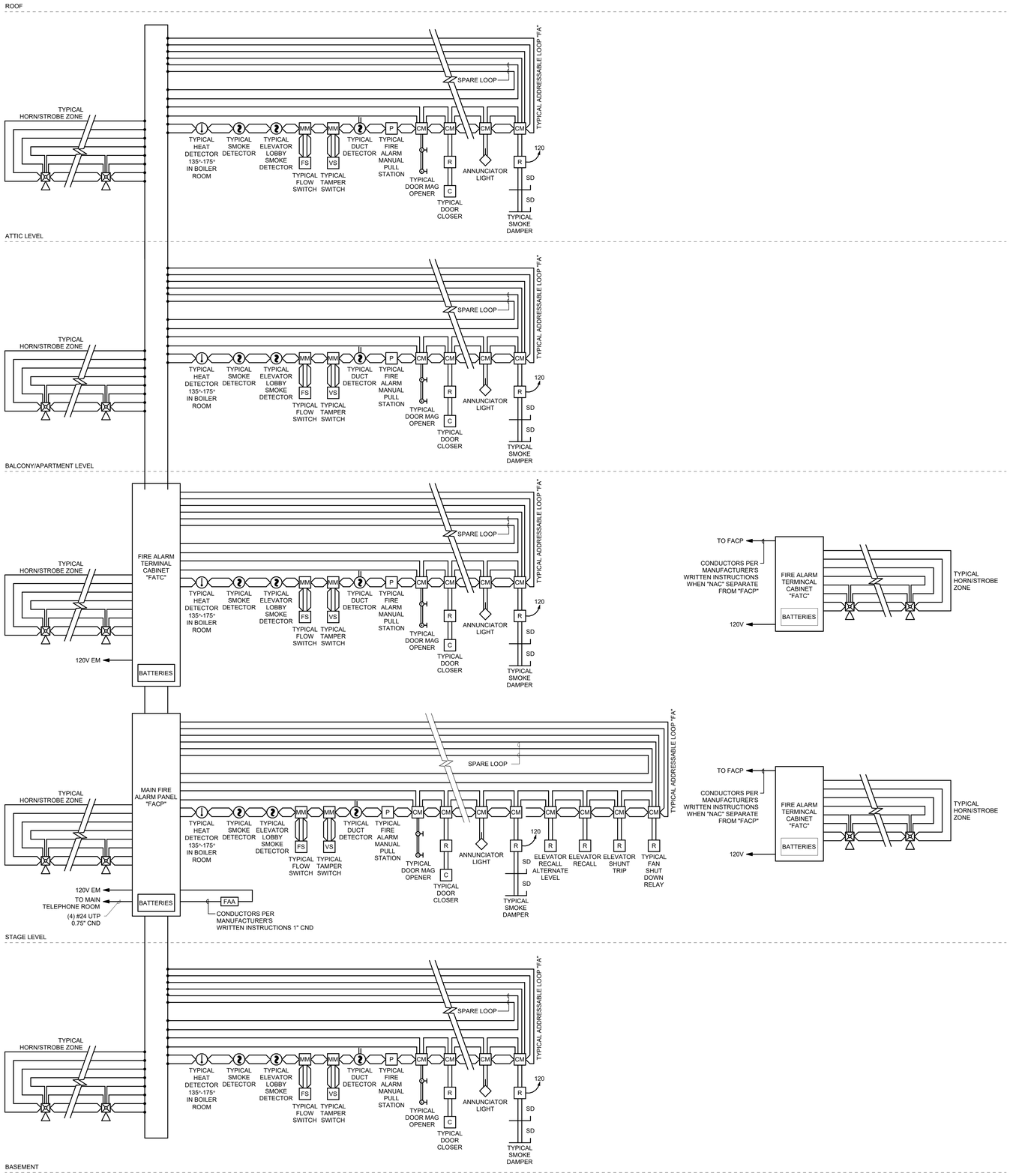

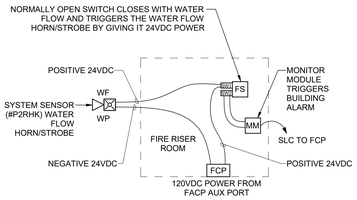

EXTERIOR WATER FLOW NOTIFICATION WIRING DIAGRAM

2 SCALE: NTS

FIRE ALARM RISER

1 SCALE: NTS

GENERAL SHEET NOTES

1. PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
2. PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
3. PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE), POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
4. FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
5. HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.
6. PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
7. BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
8. VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
9. RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
10. PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
11. PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.
12. PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
13. PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
14. LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
15. PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
16. INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
17. ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
18. HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
19. THE EXISTING FIRE ALARM SYSTEM RACEWAYS SHALL REMAIN INTACT FROM FIRE ALARM DEMOLITION. EXISTING FIRE ALARM CLASS A LOOP WIRING SHALL BE DEMOLISHED AND NEW WIRING INSTALLED TO MAINTAIN A COMPLETE CLASS A LOOP SYSTEM. ALL WORK TO REPLACE EXISTING FIRE ALARM SYSTEM WITH NEW FIRE ALARM SYSTEM TO MAINTAIN COVERAGE PER CODE AND CLASS A LOOP WIRING SYSTEM SHALL BE INCLUDED AS PART OF PROJECT.

NOTIFICATION SCHEDULE

SYMBOL	STROBE SIZE	COVERAGE	AVERAGE CURRENT	MAXIMUM PER CIRCUIT ALONE
15	15 CD	20'x20'	.085A	17
30	30 CD	30'x30'	.135A	11
75	75 CD	40'x40'	.200A	7
110	110 CD	50'x50'	.225A	6

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NO	DATE	DESCRIPTION

FIRE ALARM RISER DIAGRAMS

SCALE	1/8" = 1'-0"
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SHEET NO. EY601

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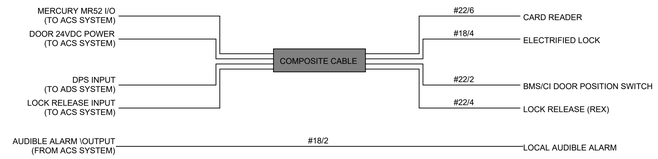
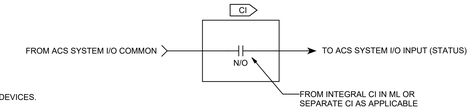


4 TYPICAL SECURITY WIRING DETAIL

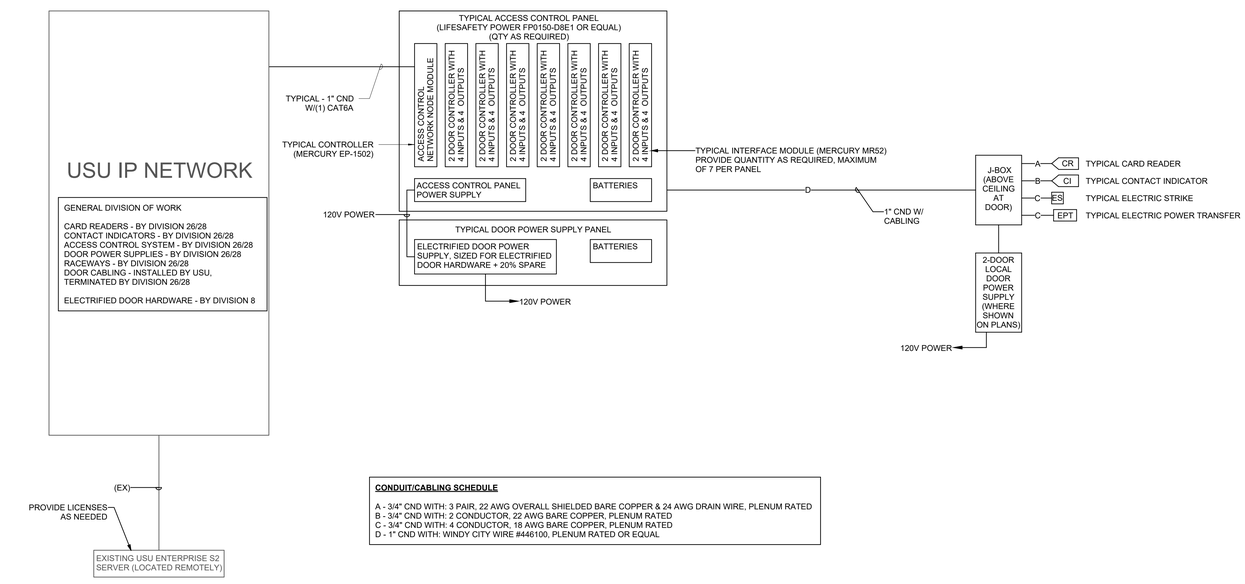
SCALE: NTS



NOTES:
1. PROVIDE DUAL RELAY CI DEVICES.

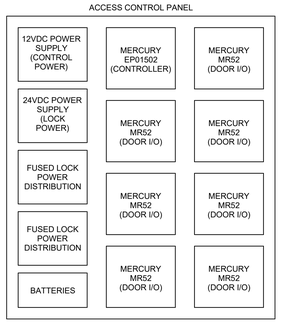
2 DOOR POSITION SWITCH (CI) WIRING DETAIL

SCALE: NTS



CONDUIT/CABLING SCHEDULE

A - 3/4" CND WITH: 3 PAIR, 22 AWG OVERALL SHIELDED BARE COPPER & 24 AWG DRAIN WIRE, PLENUM RATED
B - 3/4" CND WITH: 2 CONDUCTOR, 22 AWG BARE COPPER, PLENUM RATED
C - 3/4" CND WITH: 4 CONDUCTOR, 18 AWG BARE COPPER, PLENUM RATED
D - 1" CND WITH: WINDY CITY WIRE #446100, PLENUM RATED OR EQUAL



6 TYPICAL ACCESS CONTROL PANEL (ACS)

SCALE: NTS

1 ACCESS CONTROL RISER DIAGRAM

SCALE: NTS

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AUXILIARY RISER DIAGRAMS

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DRAWING SYMBOLS

00 00 00	CONSTRUCTION SPECIFICATION INSTITUTE SECTION NUMBER
℄	CENTERLINE
SIM 1 / A101	DETAIL SYMBOL
1 / 1 A101 1 / 1	DETAIL ELEVATION SYMBOL
SIM 1 / A101	DETAIL SECTION SYMBOL
SIM 1 / A101	BUILDING SECTION SYMBOL
1	REVISION SYMBOL
	REVISION CALLOUT
+0'-0"	ELEVATION DATUM SYMBOL

TYPICAL ABBREVIATIONS

@	AT
A	AMPS
AFF	ABOVE FINISHED FLOOR
ALD	ARCHITECTURAL LIGHTING DESIGNER
ARCH	ARCHITECTURAL
AUD	AUDITORIUM
AUX	AUXILIARY
BATS	BRANCH CIRCUIT AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CKT	CIRCUIT
CL	CENTERLINE
CS	COMPANY SWITCH
D	DISCONNECT
DC	DOWN CENTER STAGE
DIA	DIAMETER
DIM	DIMMER
DIV	DIVISION
DMX	DIGITAL MULTIPLEXED LIGHTING CONTROL SIGNAL
DS	DOWNSTAGE
DSL	DOWN STAGE LEFT
DSR	DOWN STAGE RIGHT
DUP	DUPLICATE
DWG	DRAWING
EA	EACH
EE	ELECTRICAL ENGINEER
ELEC	ELECTRICAL
ELEV	ELEVATION
ELTS	EMERGENCY LIGHTING TRANSFER SWITCH
ENET	ETHERNET
EQ	EQUAL
F/S	FOLLOWSPOT
FOH	FRONT OF HOUSE
FRT	FRONT
FS	FORESTAGE
FT	FEET
HL	HOUSE LEFT
HLM	HOUSE LIGHT MASTER
HP	HORSE POWER
HR	HOUSE RIGHT
HVAC	HEATING VENTILATION AND AIR CONDITIONING
I.D.	INSIDE DIAMETER
IFR	INHERENTLY FLAME RETARDANT
IG	ISOLATED GROUND
IMS	INTEGRATED MOTOR STARTER
JB	JUNCTION BOX
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LTG	LIGHTING
MAX	MAXIMUM
MCP	MOTOR CONTROL PANEL
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
m	MICROSECOND
MS	MICROSECOND
MTD	MOUNTED
MTG	MOUNTING
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPP	OPPOSITE
PB	PULL BOX
PCP	PRODUCTION CONTROL PANEL
PERF	PERFORMANCE
PH	PHASE
PL	PERFORMANCE LIGHTING
PNL	PANEL BOARD
PROD	PRODUCTION
PSVC	PERFORMANCE SOUND VIDEO AND COMMUNICATIONS
REF	REFER TO
REQ'D	REQUIRED
RFU	REMOTE FOCUS UNIT
SIM	SIMILAR
SL	STAGE LEFT
SMP	STAGE MANAGERS PANEL
SQ	SQUARE
SR	STAGE RIGHT
STRUCT	STRUCTURAL
TBD	TO BE DETERMINED
TYP	TYPICAL
U/S	UNDERSIDE
U/C	UP CENTER
UON	UNLESS OTHERWISE NOTED
US	UPSTAGE
USL	UP STAGE LEFT
USR	UP STAGE RIGHT
V	VOLT
VAC	VOLTS A.C.
VIF	VERIFY IN FIELD
W/	WITH
WL	WORK LIGHT DEVICE
WLM	WORK LIGHT MASTER

NOTE:
THE ABBREVIATIONS REPRESENTED ARE TYPICAL AND MAY NOT BE USED IN THIS DRAWING SET

GENERAL NOTES

1. ALL CONDUIT, BACK BOXES, PULL BOXES, WIREWAYS, CABLE TRAYS, AND CABLE MANAGEMENT DEVICES ARE SPECIFIED AND PROVIDED UNDER DIVISION 26, UNLESS NOTED OTHERWISE. SIZES OF ALL JUNCTION BOXES AND BACK BOXES FOR DIVISION 11 EQUIPMENT ARE TO BE CONFIRMED BY THE EQUIPMENT MANUFACTURER.
2. ALL ELECTRICAL SERVICES ARE SPECIFIED AND PROVIDED UNDER DIVISION 26, UNLESS OTHERWISE NOTED.
3. THEATRICAL LIGHTING AND CONTROLS ARE SPECIFIED AND PROVIDED UNDER DIVISION 26.
4. MATERIAL AND EQUIPMENT SCHEDULES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. VERIFY ALL QUANTITIES AND PROVIDE ALL REQUIRED MATERIAL, WHETHER SCHEDULED OR NOT.

FALL ARREST NOTE

FALL PROTECTION POTENTIALLY REQUIRED.
FALL PROTECTION SYSTEMS DESIGNED AND PROVIDED BY OTHERS. ARCHITECT AND ENGINEER SHOULD CONSIDER ACCOMMODATION FOR FALL PROTECTION SYSTEMS. COORDINATE REQUIREMENTS WITH OWNER SYSTEMS TO COMPLY WITH RELEVANT CODES AND STANDARDS.

DRAWING INDEX

Sheet Number	SHEET NAME
XE000	THEATRE EQUIPMENT: DRAWING INDEX, TYPICAL ABBREVIATIONS, SYMBOLS, AND KEYS
XE411	THEATRE EQUIPMENT: STAGE LEVEL PLAN
XE412	THEATRE EQUIPMENT: BALCONY LEVEL PLAN
XE413	THEATRE EQUIPMENT: RIGGING STEEL LEVEL RCP
XE511	THEATRE EQUIPMENT: THEATRE SECTIONS
XE512	THEATRE EQUIPMENT: STATIC BATTEN RIGGING AND RIGGING WALL KNEE ELEVATIONS
XE611	THEATRE EQUIPMENT: RIGGING DETAILS AND SCHEDULES
EIS101	EIS: STAGE AND BALCONY LEVEL PLANS
XL101	PERFORMANCE LIGHTING: PERFORMANCE LIGHTING DETAILS

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NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: DRAWING INDEX, TYPICAL ABBREVIATIONS, SYMBOLS, AND KEYS

SCALE	As indicated
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
XE000

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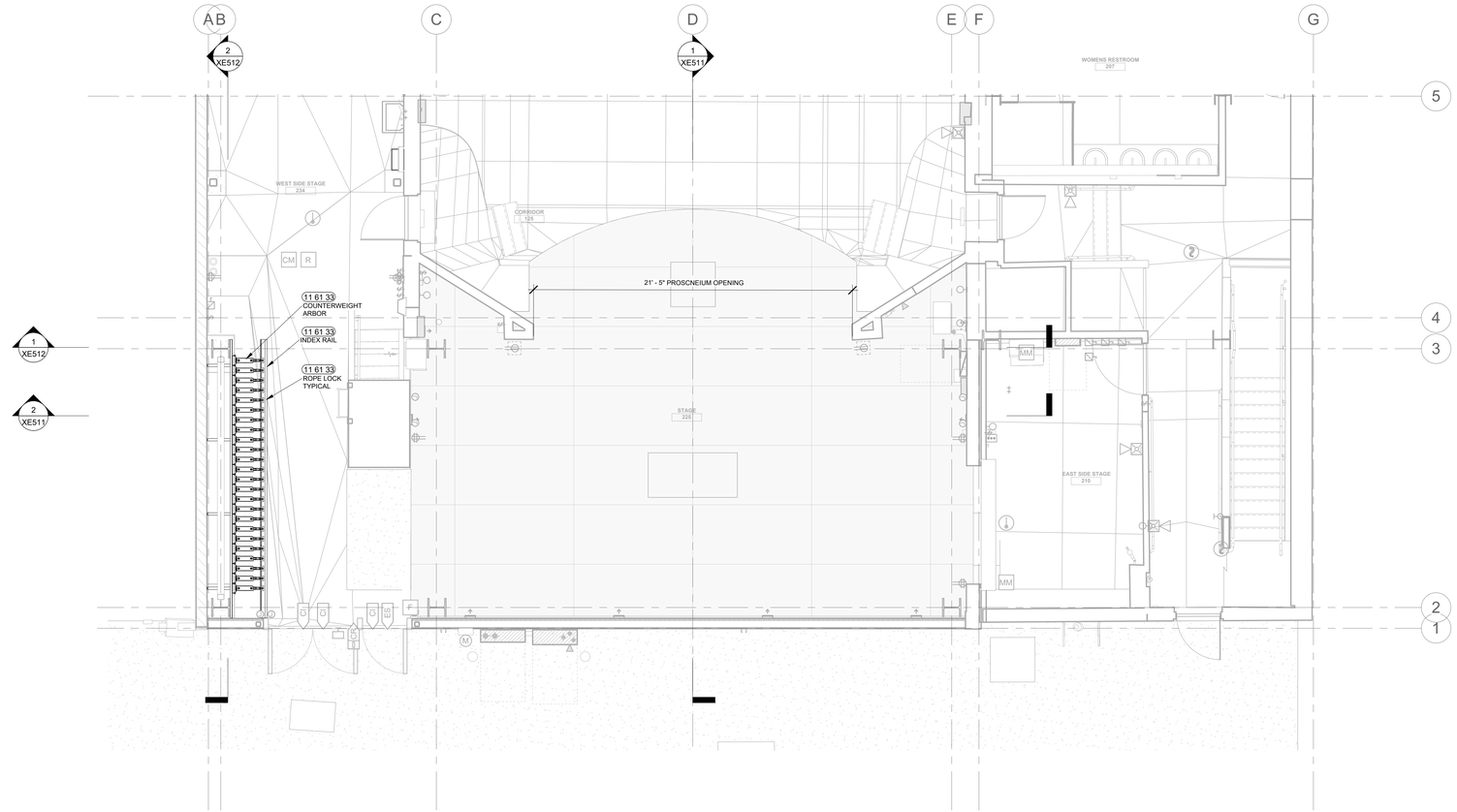

1 RIGGING STAGE LEVEL PLAN
1/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: STAGE LEVEL PLAN

		SHEET NO.
SCALE	1/4" = 1'-0"	XE411
JOB NO.	23-05	
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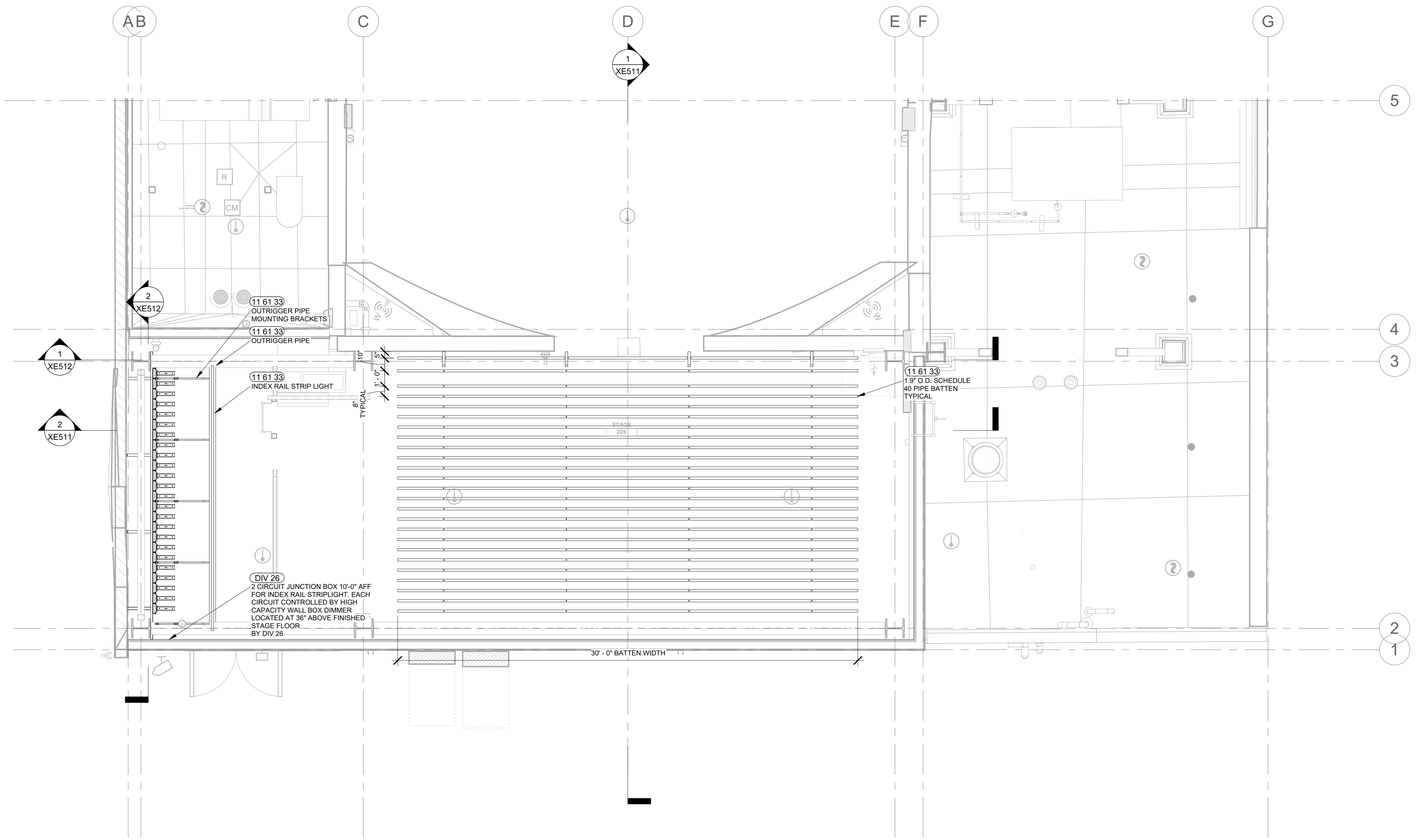

1 RIGGING BALCONY LEVEL PLAN
1/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: BALCONY LEVEL PLAN

		SHEET NO.
SCALE	1/4" = 1'-0"	XE412
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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1 RIGGING ATTIC LEVEL RCP
1/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: RIGGING STEEL LEVEL RCP

SCALE	1/4" = 1'-0"	SHEET NO.
JOB NO.	23-05	XE413
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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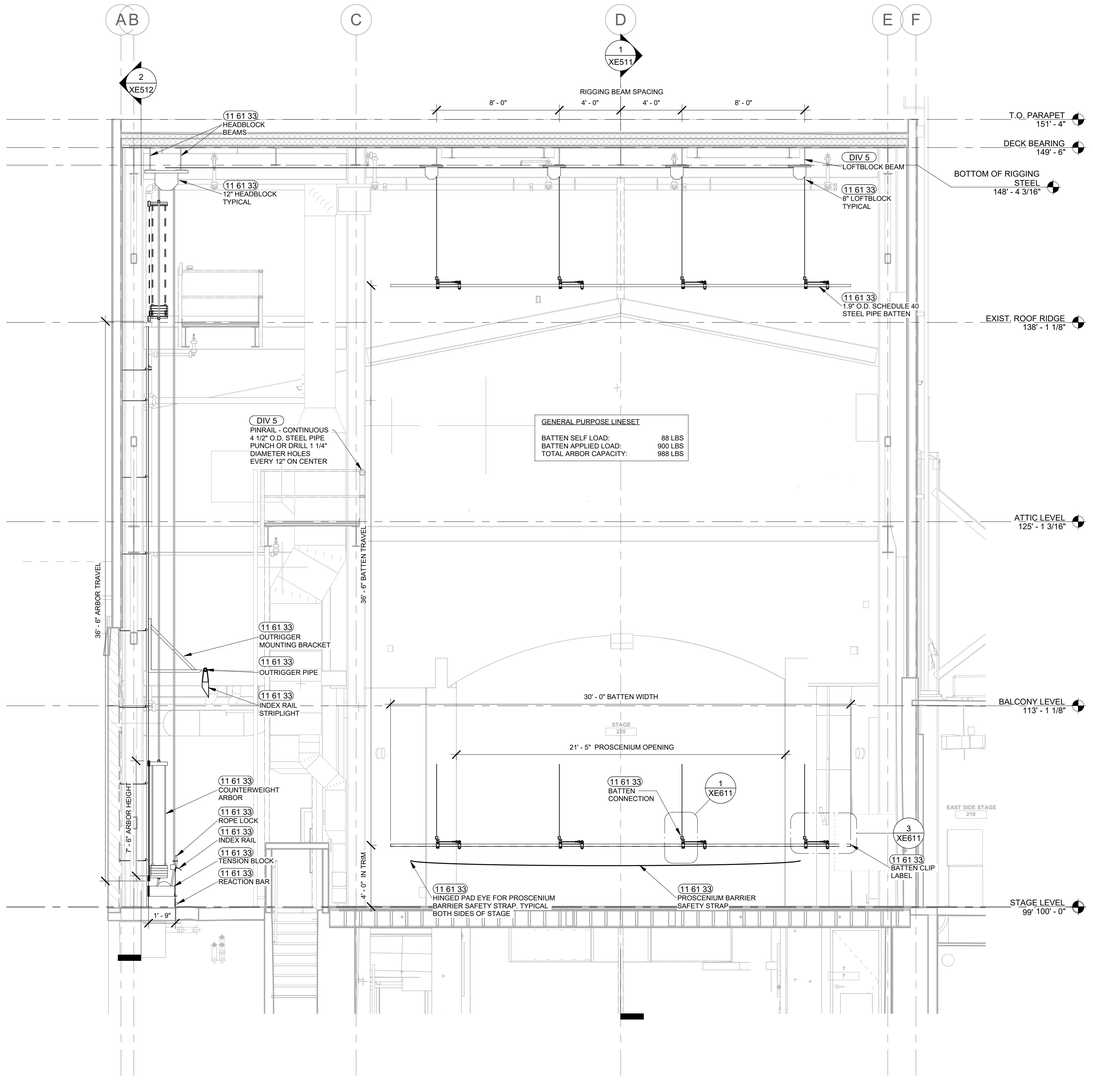
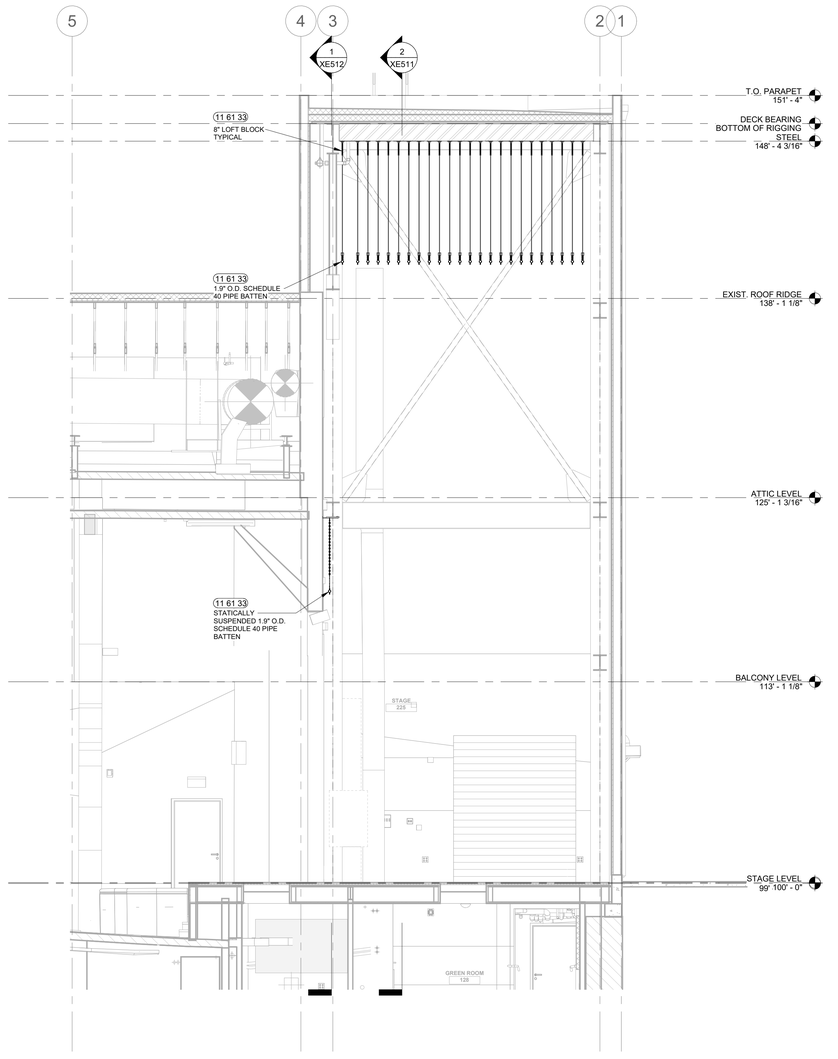


2 TYPICAL RIGGING ELEVATION
1/4" = 1'-0"



1 CENTERLINE SECTION SR
1/4" = 1'-0"

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USU CAINE LYRIC THEATRE
FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

DFCM PROJECT NO: 14385770

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LICENSED ARCHITECT
CHRISTOPHER D. SPARANO
NO. 6352
REGISTERED
DATE 6352
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: THEATRE SECTIONS

SCALE	1/4" = 1'-0"	SHEET NO.
JOB NO.	23-05	XE511
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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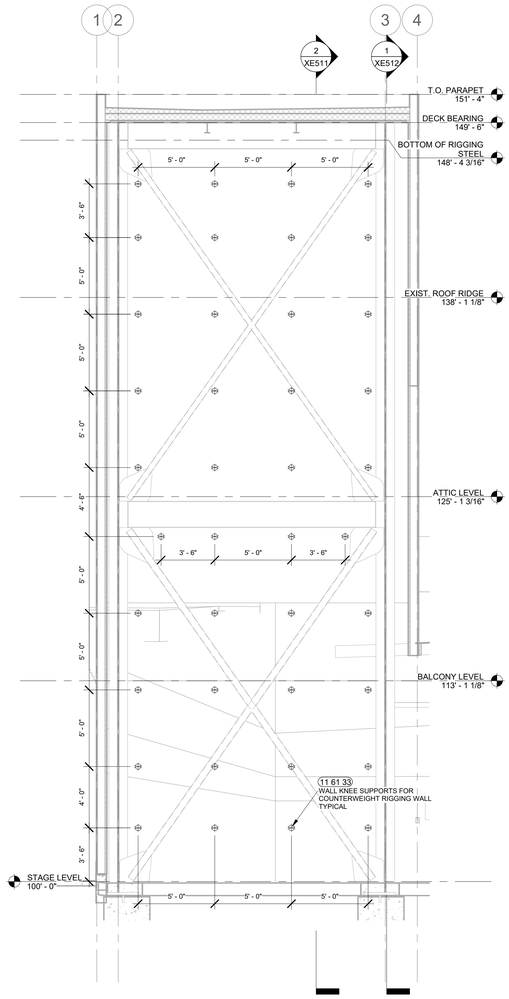
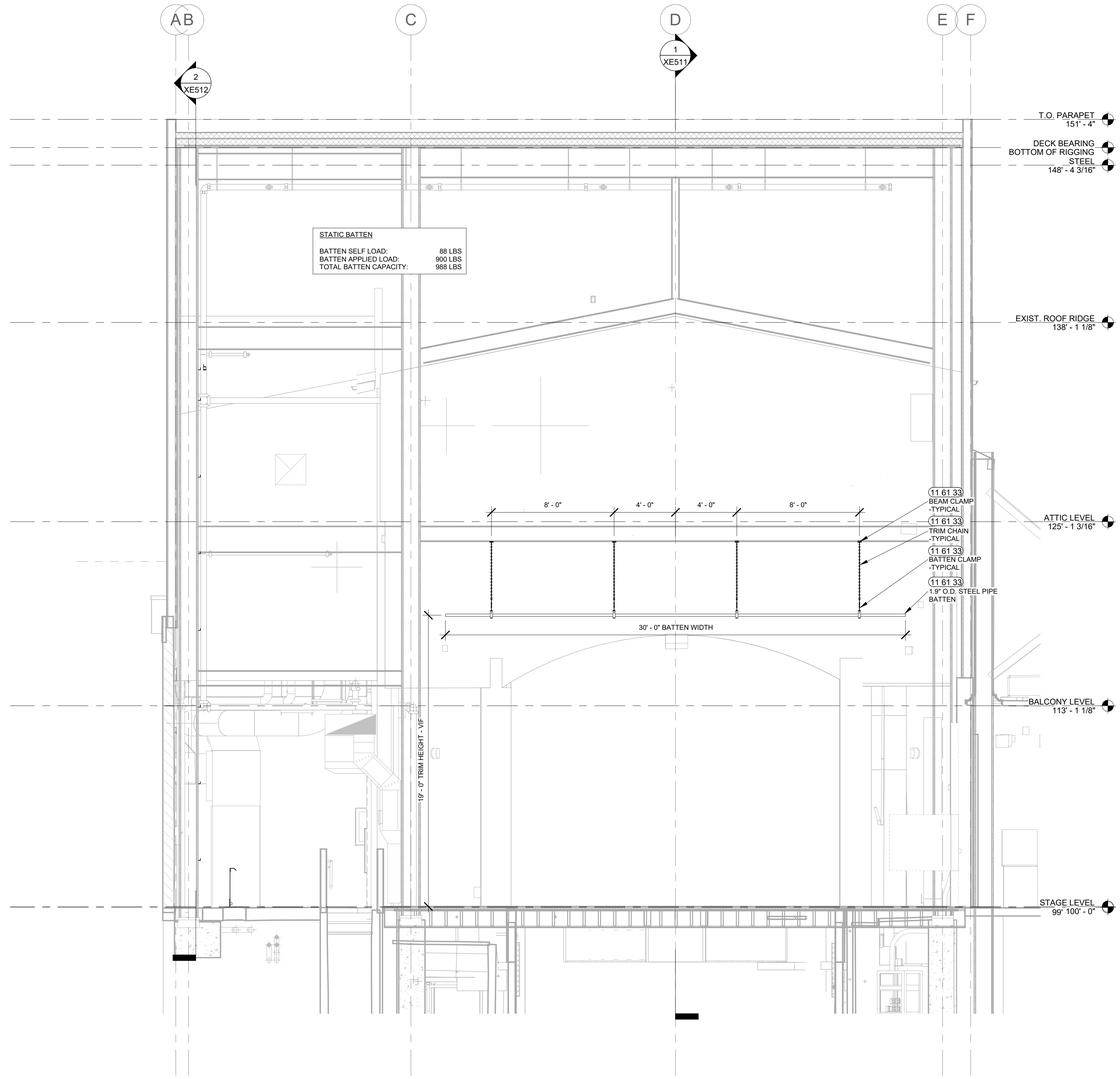


2 COUNTERWEIGHT WALL KNEE LAYOUT
1/4" = 1'-0"



1 STATIC BATTEN RIGGING ELEVATION
1/4" = 1'-0"

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: STATIC BATTEN RIGGING AND RIGGING WALL KNEE ELEVATIONS

SCALE	1/4" = 1'-0"
JOB NO.	23-05
ISSUE	BID SET
DATE	MARCH 14, 2025

SHEET NO.
XE512

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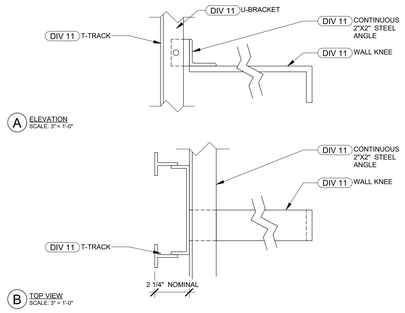


7 U-BRACKET DETAIL
3" = 1'-0"

COUNTERWEIGHT:

1 INCH NOMINAL WEIGHTS = XX.XX POUNDS
2 INCH NOMINAL WEIGHTS = XX.XX POUNDS

ARBORS:

X FOOT X INCH ARBOR
X,XXX LB CAPACITY

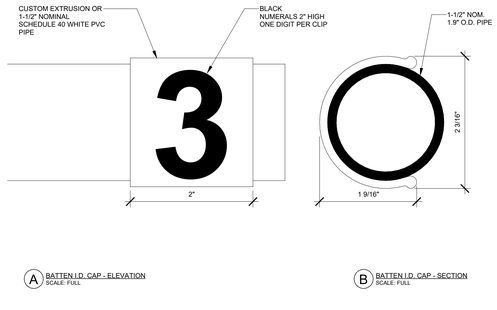
LOADING GALLERY FLOOR LOAD: 600 POUNDS PER SQUARE FOOT
MAXIMUM TOTAL LIVE LOAD ON LOADING GALLERY:XXX,XXX POUNDS
DISTRIBUTE WEIGHT EVENLY OVER GALLERY.
DO NOT STACK WEIGHT OVER 18" HIGH. DO NOT OVERLOAD.

PROVIDE SIGN AT LOADING GALLERY

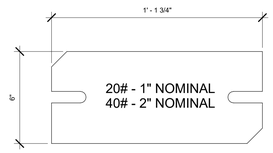
8 LOADING GALLERY SIGNAGE
1/8" = 1'-0"

LINESET SCHEDULE					
LINESET NUMBER	DISTANCE	PURPOSE	USE	CAPACITY	COMMENTS
1	5"	DEDICATED	VALANCE		STATIC HUNG BATTEN
2	1' - 3"	DEDICATED	HOUSE CURTAIN		
3	2' - 3"	GENERAL PURPOSE			
4	2' - 11"	GENERAL PURPOSE			
5	3' - 7"	GENERAL PURPOSE			
6	4' - 3"	GENERAL PURPOSE			
7	4' - 11"	GENERAL PURPOSE			
8	5' - 7"	GENERAL PURPOSE			
9	6' - 3"	GENERAL PURPOSE			
10	6' - 11"	GENERAL PURPOSE			
11	7' - 7"	GENERAL PURPOSE			
12	8' - 3"	GENERAL PURPOSE			
13	8' - 11"	GENERAL PURPOSE			
14	9' - 7"	GENERAL PURPOSE			
15	10' - 3"	GENERAL PURPOSE			
16	10' - 11"	GENERAL PURPOSE			
17	11' - 7"	GENERAL PURPOSE			
18	12' - 3"	GENERAL PURPOSE			
19	12' - 11"	GENERAL PURPOSE			
20	13' - 7"	GENERAL PURPOSE			
21	14' - 3"	GENERAL PURPOSE			
22	14' - 11"	GENERAL PURPOSE			
23	15' - 7"	GENERAL PURPOSE			
24	16' - 3"	GENERAL PURPOSE			
25	16' - 11"	GENERAL PURPOSE			

LINESET TYPE TOTALS
DEDICATED
2
GENERAL PURPOSE
23
TOTAL LINESETS: 25



4 BATTEN CLIP LABEL
12" = 1'-0"



PROVIDE ALL BALANCING PIPE COUNTERWEIGHT AT 2" NOMINAL THICK BRICKS - AS REQ.

IN ADDITION, PROVIDE 14,000 LBS LOOSE COUNTERWEIGHT AT 1" NOMINAL THICK 20# BRICKS.

NOTE: ENDS OF ALL PIPE COUNTERWEIGHT TO BE PAINTED YELLOW. ENDS OF HOUSE CURTAIN COUNTERWEIGHT TO BE PAINTED ORANGE

5 STAGE WEIGHT DETAIL
3" = 1'-0"

RIGGING SYSTEM INFORMATION

ARCHITECT: XXXXXX ARCHITECT, CITY, STATE
STRUCTURAL ENGINEER: XXXXXXX ENGINEERS, CITY, STATE
THEATRE CONSULTANT: THEATRE PROJECTS CONSULTANTS, NORWALK, CT
RIGGING INSTALLER: XXXXXX RIGGING COMPANY, CITY, STATE
INSTALLED: MONTH, YEAR

COUNTERWEIGHT:
1 INCH NOMINAL WEIGHTS = XX.XX POUNDS
2 INCH NOMINAL WEIGHTS = XX.XX POUNDS

ARBORS:
X FOOT X INCH ARBOR X,XXX LB CAPACITY

WIRE ROPE LIFT CABLES:
SAFE WORKING LOAD IS XXX POUNDS PER CABLE.
CABLE IS X/X INCH 7 x 19 STRAND AIRCRAFT CABLE
BREAKING STRENGTH IS X,XXX POUNDS

FLY GALLERY FLOOR LOAD: 150 POUNDS PER SQUARE FOOT
FLY GALLERY PIN RAIL: 250 POUNDS PER LINEAR FOOT

LOADING GALLERY FLOOR LOAD: 600 POUNDS PER SQUARE FOOT
MAXIMUM TOTAL LIVE LOAD LOADING GALLERY IS XXX,XXX POUNDS
DISTRIBUTE WEIGHT EVENLY OVER GALLERIES.
DO NOT STACK WEIGHTS OVER 18" HIGH. DO NOT OVERLOAD.

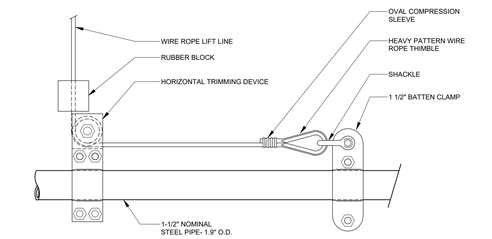
LOFT BEAM STEEL: FOR X,XXX LB COUNTERWEIGHT SETS, SPACED ON 8 INCH CENTERS. MAXIMUM OF 50% OF TOTAL CAPACITY ALLOWED.

GRIDIRON UNIFORM FLOOR LOAD: 75 POUNDS PER SQUARE FOOT

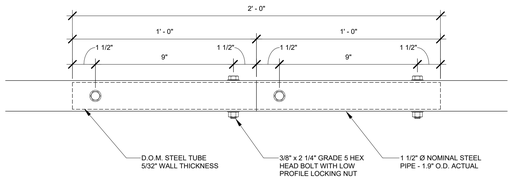
GRIDIRON POINT LOADS: MAX POINT LOAD IS 500 POUNDS PER SQUARE FOOT IN A 4 SF AREA NO CLOSER TOGETHER THAN 4'-0" ON CENTER. MAXIMUM 40% OF GRID FLOOR CAN BE LOADED.

PROVIDE SIGN ADJACENT TO INDEX RAIL AT STAGE LEVEL AND AT OPERATING GALLERY

6 INDEX RAIL & OPERATING GALLERY SIGNAGE
1/8" = 1'-0"



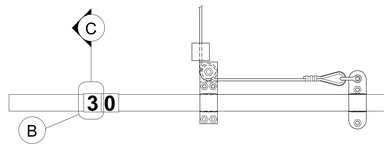
1 BATTEN CONNECTION DETAIL
3" = 1'-0"



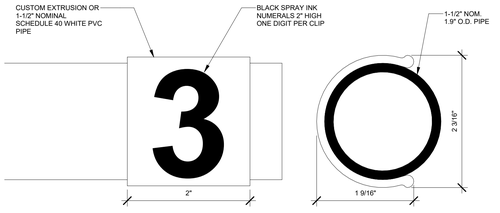


SECTION

2 BATTEN SPLICE DETAIL
3" = 1'-0"



A BATTEN I.D. CAP - TYPICAL BOTH ENDS
SCALE: 3/4" = 1'-0"



3 BATTEN CLIP LABEL - PERPENDICULAR CHAIN
12" = 1'-0"

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FLY LOFT AND STAGE
IMPROVEMENTS PROJECT

DFCM PROJECT NO: 14385770

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SEAL

LICENSED ARCHITECT
CRAIG D. SPARANO
No. 7801251
DATE 5/3/23
STATE OF UTAH

SEAL

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

THEATRE EQUIPMENT: RIGGING DETAILS AND SCHEDULES

		SHEET NO.
SCALE	As indicated	XE611
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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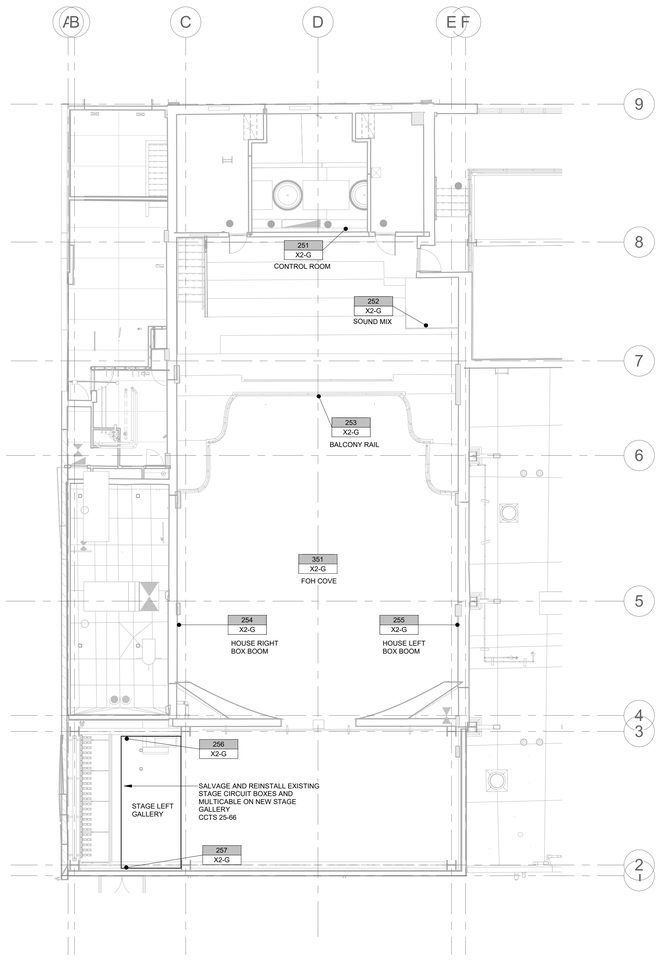
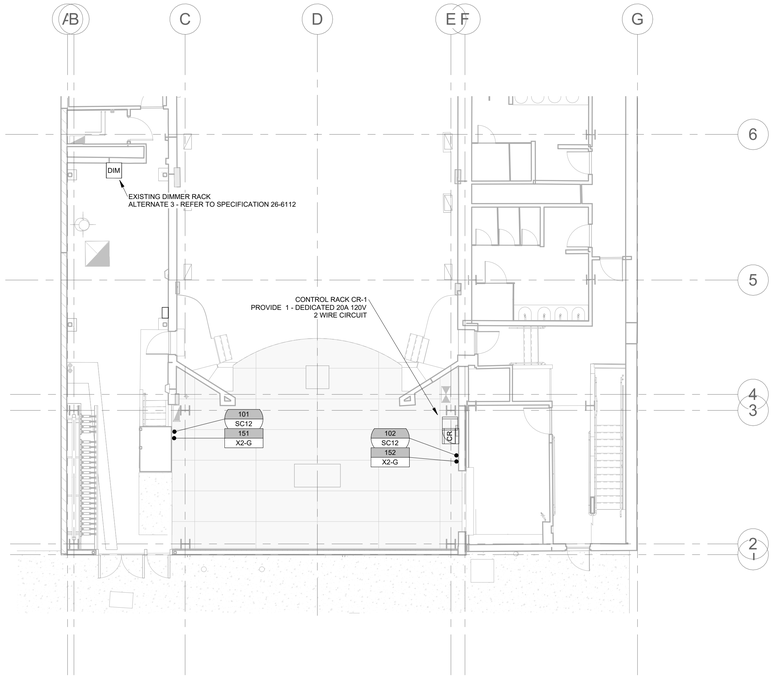
TP PROJECT NUMBER23221



2 FLOOR PLAN - BALCONY LEVEL POWER
1/8" = 1'-0"



1 FLOOR PLAN - STAGE LEVEL POWER
1/8" = 1'-0"

PERFORMANCE DIMMING AND CONTROL SYSTEM KEY

LIGHTING CIRCUIT BOX

E1 — BOX NUMBER / FACEPLATE TYPE (LINE VOLTAGE DEVICE)

LIGHTING CONTROL BOX

X1-A — BOX NUMBER / FACEPLATE TYPE (LOW VOLTAGE DEVICE)

DIM - DIMMER RACK

- RELAY RACK

CR - CONTROL RACK

- WIRELESS ACCESS POINT

DETAILS SHOWN ARE TYPICAL ONLY AND MUST BE ADJUSTED / DEVELOPED TO THE REQUIREMENTS OF THE PROJECT

ELECTRICAL INFRASTRUCTURE SKETCHES NOTES

EIS (ELECTRICAL INFRASTRUCTURE SKETCH) DRAWINGS ARE PREPARED FOR THE USE AND REFERENCE OF THE DESIGN TEAM, OWNER, AND TENANTS. EIS DRAWINGS DO NOT APPEAR IN CONSTRUCTION DOCUMENTS. THE INFORMATION CONTAINED HEREIN WILL BE TRANSFERRED TO ARCHITECTURAL AND ENGINEERING DRAWINGS AS CONSTRUCTION DOCUMENTS ARE DEVELOPED.

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NO. 5388605
DATE: 5/22
STATE OF UTAH

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

EIS: STAGE AND BALCONY LEVEL PLANS

		SHEET NO.
SCALE	1/8" = 1'-0"	EIS101
JOB NO.	23-05	
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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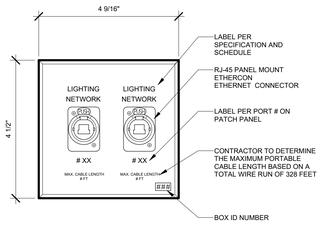
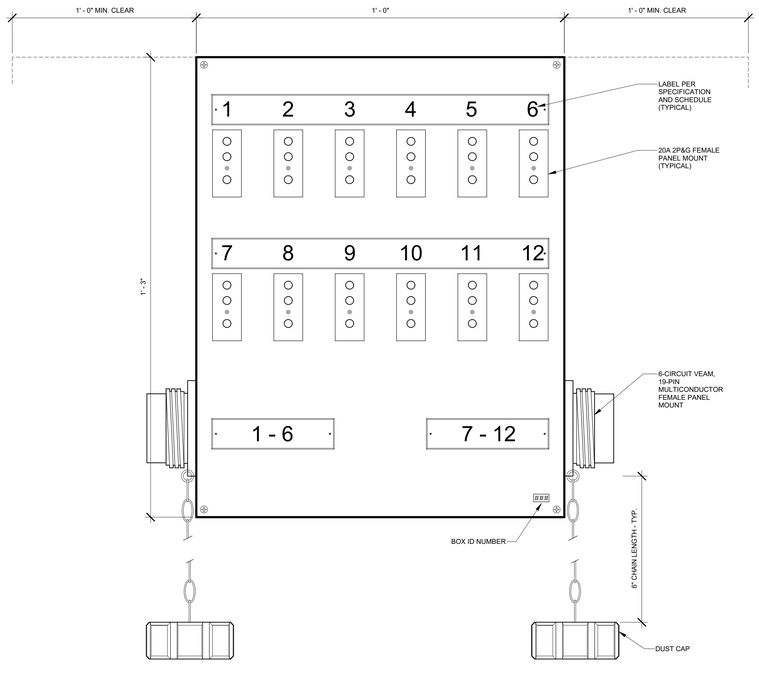


2 X2-G FACEPLATE DETAIL
6" = 1'-0"



3 SC12 FACEPLATE DETAIL
6" = 1'-0"

THEATRICAL LIGHTING DEVICE AND PATHWAY RESPONSIBILITY MATRIX

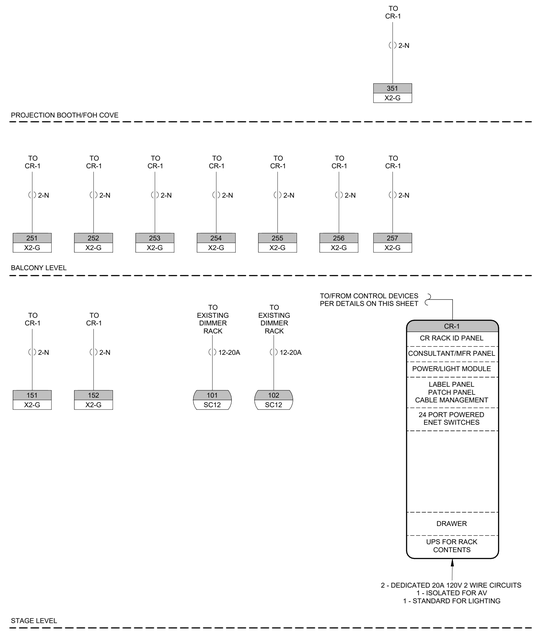
SPECIFICATION SECTION/EQUIPMENT	DEVICE COMPONENTS	FURNISHED BY	INSTALLED BY	LINE VOLTAGE TERMINATIONS BY	LOW VOLTAGE TERMINATIONS BY	SUBMITTALS, SHOP DRAWINGS	TESTING BY	PROGRAMMING	NOTES
ELECTRICAL CONTRACTOR - EC **THEATRE LIGHTING CONTRACTOR - TLC**									
DIVISION 26									
GENERAL POWER RECEPTACLES FOR PERFORMANCE AND SUPPORT SPACES	UTILITY OUTLETS	EC	EC	EC	EC	EC	EC		
	SWITCHBOARDS, DISTRIBUTION PANELS AND FEEDERS	EC	EC	EC	EC	EC	EC		
GENERAL LIGHTING FOR PERFORMANCE AND SUPPORT SPACES	HOUSE LIGHT FIXTURES	EC	EC	EC	EC	EC	EC		
	WORK LIGHT FIXTURES, RUNNING LIGHTS, TRACK LIGHTING, ETC.	EC	EC	EC	EC	EC	EC		
	DEMOUNTABLE WORK LIGHT FIXTURES	EC	EC	EC	EC	EC	EC		
SPECIFICATION SECTION 266111 - LIGHTING CONTROLS									
THEATRICAL DIMMER RACKS	DIMMER RACK	TLC	EC	EC	TLC	TLC		TLC	
	DIMMER MODULES	TLC	TLC		TLC	TLC	TLC		
	BRANCH CIRCUIT LINE VOLTAGE WIRE AND CONDUIT	EC	EC	EC		EC			
	POWER FEED MAINS, WIRE AND CONDUIT	EC	EC	EC		EC			
THEATRICAL LIGHTING CONTROLS	CONTROL RACK	TLC	EC	EC	TLC	TLC	TLC	TLC	
	POWER CIRCUIT AND RECEPTACLES FOR CONTROL RACK	EC	EC	EC		EC			
	LOW VOLTAGE CONTROL WIRING AND CONDUIT	EC	EC		EC	EC	TLC		
	CONTROL RACK DEVICES	TLC	TLC		TLC	TLC	TLC	TLC	
THEATRICAL LIGHTING POWER AND DISTRIBUTION	BACK BOX STANDARD FLUSH	EC	EC			TLC			
	BACK BOX CUSTOM SURFACE AND FLUSH	TLC	EC			TLC			
	FLOOR BOX	EC	EC	EC		TLC			
	WIRING DEVICES AND FACEPLATES	TLC	EC	EC	TLC	TLC	TLC		
THEATRICAL LIGHTING CONTROL AND DATA DISTRIBUTION	BACK BOX STANDARD FLUSH	EC	EC		TLC	TLC			
	BACK BOX CUSTOM SURFACE AND FLUSH	TLC	EC		TLC	TLC			
	FLOOR BOX	TLC	EC			TLC			
	WIRING DEVICES AND FACEPLATES	TLC	EC	EC	TLC	TLC	TLC		

PERFORMANCE LIGHTING BOX SCHEDULE

FACEPLATE #	FACEPLATE TYPE	LOCATION	MOUNTING	BOX SIZE	HEIGHT	DMX ADDRESS	20A DIM	CKT# 20A DIM	DMX OUT	ENET	Finish	TP - Notes
101	SC12	DSL	SURFACE	12"X10"X6"	24" AFF		12	67-78	0	0	BLACK	
102	SC12	DSR	SURFACE	12"X10"X6"	24" AFF		12	79-90	0	0	BLACK	
151	X2-G	DSL	SURFACE	2 GANG	48" AFF		0		0	2	BLACK	
152	X2-G	DSR	SURFACE	2 GANG	48" AFF		0		0	2	BLACK	
251	X2-G	CONTROL ROOM	SURFACE	2 GANG	18" AFF		0		0	2	BLACK	
252	X2-G	SOUND MIX	SURFACE	2 GANG	18" AFF		0		0	2	BLACK	
253	X2-G	BALCONY RAIL	SURFACE	2 GANG	FACE		0		0	2	BLACK	
254	X2-G	BOX BOOM HR	SURFACE	2 GANG	20'-0" AFF		0		0	2	BLACK	
255	X2-G	BOX BOOM HL	SURFACE	2 GANG	20'-0" AFF		0		0	2	BLACK	
256	X2-G	GALLERY DSL	SURFACE	2 GANG	GALLERY +48" AFF		0		0	2	BLACK	
257	X2-G	GALLERY USL	SURFACE	2 GANG	GALLERY +48" AFF		0		0	2	BLACK	
351	X2-G	ABOVE AUDITORIUM CEILING	SURFACE	2 GANG	36" ABOVE CREILING OPENING		0		0	2	BLACK	
TOTALS:							24		0	20		

GENERAL NOTES:

1. BOX SCHEDULES ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND SHALL FURNISH ALL MATERIALS, WHETHER SPECIFIED OR NOT, TO PRODUCE A COMPLETE AND WORKING SYSTEM.
2. CONTRACTOR SHALL CONFIRM LOCATIONS, MOUNTING HEIGHTS, AND MOUNTING CONDITIONS WITH ARCHITECT AND THEATRE CONSULTANT PRIOR TO BOX ROUGH-IN.
3. CONTROL RECEPTACLE BACK BOX SIZES MAY VARY FROM SIZES LISTED ON SCHEDULES, DEPENDING ON MANUFACTURER. CONTRACTOR SHALL PROVIDE BACK BOXES IN ACCORDANCE WITH MANUFACTURER'S SUBMITTALS.
4. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. EMERGENCY LIGHTING SYSTEM DESIGN AND DEVICES SHOWN ON ELECTRICAL DRAWINGS.
6. EXISTING CIRCUITS AT THE ROOF LEVEL TO BE RELOCATED TO THE GALLERY STAGE LEFT.



1 PERFORMANCE LIGHTING CONTROL RISER
NTS

KEY

FOR PERFORMANCE LIGHTING RISER DIAGRAM

D - DMX CONTROL
BELDEN 9729*

N - CATEGORY 6A
BELDEN 2148*
300 FEET MAXIMUM RUN

F - 6 FIBER MULTI-MODE ETHERNET
BELDEN FI3D006R9

A - ARCHITECTURAL CONTROL
BELDEN 8471 PLUS 1 #14 AWG*

K - KEY SWITCH CONTROL
BELDEN 8471 PLUS 1 #14 AWG*

T - ARCHITECTURAL CONTROL
BELDEN 1583A PLUS 1 #14 AWG

LT - LARGE TOUCHSCREEN
TBD

R - TOUCHSCREEN RECEPTACLE
BELDEN 8471 PLUS 3 #16 AWG*

QC - MULTIPLE Q LIGHT CONTROL
BELDEN 8466*

QP - CUE LIGHT POWER
2 #14 AWG*

* ACTUAL WIRE SPECIFICATION AND CONTROL WIRING TOPOLOGY IS DEPENDENT UPON THE DIMMING MANUFACTURER. PROVIDE CONTROL WIRING IN ACCORDANCE WITH MANUFACTURER'S SUBMITTALS. ALL WIRE AND CONTAINMENT BY OTHERS PER CONTRACTOR

GENERAL NOTE:
SEE ELECTRICAL DRAWINGS FOR EMERGENCY LIGHTING SYSTEM.

SYMBOLS KEY

PERFORMANCE LIGHTING

LIGHTING CONTROL CIRCUIT BOX



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SEAL



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REVISION SCHEDULE

NO	DATE	DESCRIPTION

PERFORMANCE LIGHITNG: PERFORMANCE LIGHTING DETAILS

SCALE	As indicated	SHEET NO.
JOB NO.	23-05	XL101
ISSUE	BID SET	
DATE	MARCH 14, 2025	

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